

## **SECTION 011000 – SUMMARY OF WORK – MULTIPLE PRIME CONTRACTS**

### **GENERAL**

#### **1.1. PROJECT INFORMATION**

- 1. Project: Dutchess County – Department of Public Works, Temporary Emergency Housing Facility**
- 2. Project Location: 150 N. Hamilton Street, Poughkeepsie**
- 3. Owner: Dutchess County**
- 4. Architect: Tinkelman Architecture**
- 5. Construction Manager: Arris Contracting Company, Inc.**
- 6. The overall scope of work includes: Renovation to the existing 1995 DC Jail to allow for Temporary Emergency Housing Facility**
- 7. Contracts:**
  - 1. The project will be construction under a multiple-prime contract arrangement.**
  - 2. Prime contracts are separate contracts between the Owner and separate contractors, representing significant construction activities. Each prime contract is performed concurrently with and closely coordinated with construction activities performed on the Project under prime contracts. Prime contracts for this Project include:**
    - a. General Work Contract (GC or GWC) – Contract #1**
    - b. Mechanical Work Contract (MWC, MC, HVAC, or HC) – Contract #2**
    - c. Electrical Work Contract (EWC, EC) – Contract #3**
    - d. Plumbing Work Contract (EWC, PC) – Contract #4**

#### **1.2. DIVISION OF WORK**

Each contract shall include all labor materials, plans, tools, equipment and supervision which are required for or incidental to the proper completion of the work as indicated on the drawings and described in the following specifications sections.

#### **1.3. GENERAL REQUIREMENTS – ALL CONTRACTS**

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2023014472

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**1.4. CONTRACT #1 – GENERAL WORK CONTRACT (GWC OR GC)**

**In addition to the General Requirements, Division 1, included in this bid package contractor shall provide for proper completion of work as indicated on all drawings and in accordance with the terms and conditions described in the following specifications sections:**

**DIVISION 02 – EXISTING CONDITIONS**

028200	Asbestos Abatement Limited Survey for ACM, LBP and PCBs
024119.16	Selective Interior Demolition

**DIVISION 03 – CONCRETE**

033000	Cast In Place Concrete
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**ATTACHMENTS**

Existing Conditions Reference Photographs

**Special Notes: Contract #1 – General Work Contractor:**

1. Work hours M-F 7:00AM – 4:30PM. Contractor will appropriately man the project to avoid Saturday and Overtime hours which result in Owner, Construction Manager and Architect additional costs
2. General Work Contractor to carry insurance coverages per the “Dutchess County Insurance Requirements” which are located in the DIV O specification.

3. Access doors for MEP trades furnished by trade requiring access; installation by General Work Contractor – Contract # 1. GWC Contractor is to allow for (6) 12x12 Flush Stainless-Steel Access doors with Keyed lock
4. GWC and subcontractors will not be allowed to use existing or new plumbing fixtures to wash out mortar pans, grout, adhesives, etc
5. GWC will utilize lead-safe work practices – when impacting/ removing / disposing of any lead containing items.
6. All existing ceiling removal / replacements necessary to install GWC work will be by GWC Contract #1 including temporary support for all lighting fixtures, smoke detectors, etc
7. All staging area work (signage, parking areas, fence enclosures, etc.) shown in staging drawing (located in spec 015000) is by GWC. Remove all temporary materials and restore all temporary roadways / staging surfaces at conclusion of the project.
8. GWC to provide negative air environments to properly exhaust all work areas of any odors, dust, fumes
9. GWC and their Door Hardware consultant will field measure all existing doors and frames scheduled to remain and receive new doors/hardware for proper hardware placement.
10. GWC will be responsible for the existing door and hardware modifications per the door schedule and hardware specifications
11. GWC to perform all general demolition work not associated with other contracts.
12. GWC Shall remove existing concrete slab and replace with new concrete slab as shown to in new rooms 104D and 104E. Slab removals shall be performed by GWC prior to PWC performing underground work. Slab replacement will be performed once PWC is completed with underground work and backfilled
13. GWC will install floor protections (utilizing heavy duty “Ram-Board” with taped joints, or equivalent) to protect floor surfaces from damage for all room areas and corridor access routes necessary for construction.
14. GWC will be responsible for Deep Cleaning of occupiable areas throughout the entire building, final cleaning of the full project work area and progress cleaning associated with the GWC operations, as per the cleaning notes and specifications
15. In addition to daily general housekeeping, the General Work Contractor (Contract #1) shall provide a weekly broom sweep and damp mop of all areas for the entire duration of the project.
16. GWC will be responsible for Toilet Accessories as noted on the documents. Take note that some of the Toilet accessories are provided by the owner. All Toilet Accessories are installed by the GWC.

17. GWC will be responsible for Masonry lintels at new openings as shown on the documents.
18. GWC to install all Site Signage and Posts as per the sign schedule on drawing C-201
19. Contractor is specifically reminded of their responsibilities for clean up as per Section 017400. Maintaining a clean jobsite is considered a safety issue and will be strictly enforced. In addition to daily cleaning, the contractor is required to hire a professional cleaning company to final clean all areas impacted by the construction. This includes completely cleaning any surfaces/equipment/furniture which has been dusted by the construction work. If the contractor does not properly perform this function when directed by the Owner/CM, within 4 hours of being notified the owner will perform the work with others and deduct the cost from the contractor.

**1.5. CONTRACT #2 – MECHANICAL WORK CONTRACT (MWC, MC, HC or HVAC)**

**In addition to the General Requirements, Division 1, included in this bid package contractor shall provide for proper completion of work as indicated on all drawings and in accordance with the terms and conditions described in the following specification sections:**

**DIVISION 02 – EXISTING CONDITIONS**

028200 Asbestos Abatement Limited Survey for ACM, LBP and PCBs  
024119.16 Selective Interior Demolition

**DIVISION 07 – THERMAL AND MOISTURE PROTECTION**

078413 Firestopping  
078443 Joint Firestopping  
079200 Joint Sealants

**DIVISION 09 – FINISHES**

099123 Interior Painting (as needed for this contract)

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232114	Hydronic Specialties
232123	Hydronic Pumps
233100	HVAC Ducts and Casings
233300	Air Duct Accessories
233700	Air Outlets and Inlets

## ATTACHMENTS

Existing Conditions Reference Photographs

### **Special Notes: Contract #2 – Mechanical Work Contractor (MWC, MC, HC or HVAC):**

1. Work hours M-F 7:00AM – 4:30PM. Contractor will appropriately man the project to avoid Saturday and Overtime hours which result in Owner, Construction Manager and Architect additional costs
2. Mechanical Contractor to carry insurance coverages per the “Dutchess County Insurance Requirements” which are located in the DIV O specification.
3. Access doors are furnished by Mechanical Contract # 2 and installed by GWC Contract #1.
4. All existing ceiling removal / replacements necessary to install new MC work will be by MC Contract #2. Includes temporary supports for light fixtures, smoke detectors, etc. ( e.g. – hydronic piping, valves etc. )
5. Any wood blocking by MC items by Contract #2 MC.
6. All steel supports /angles associated with Mechanical work is by MC Contract # 2.
7. Where GC is removing existing ceilings, the MC will remove any ceiling diffusers, registers, grilles etc. MC to reinstall as new ceilings are being completed.
8. Replacement of chilled water pump in roof/penthouse mechanical room
9. Installation of new clothes dryer exhaust ducts complete including all penetrations and sealants.
10. Modification of existing branch ductwork to accommodate floor plan changes, including new and relocated grilles and diffusers
11. HVAC testing, adjusting, and balancing. Modified grilles and ductwork shall be balanced to maintain existing airflow rates
12. MC will be responsible for Ductwork cleaning as noted on the plans
13. MC will utilize lead-safe work practices– if impacting/ removing / disposing of any lead containing items.
14. MC Contract #2 is responsible for making their own through wall and through floor duct/piping penetrations and associated patching/fire-stopping/Painting.
15. MC Shall be responsible for the Connections of Dryers as noted on the documents.



16. All HVAC control wiring is provided and installed by Mechanical Contract # 2. (Power wiring by EC)
17. Duct detectors supplied and wired by EC (MC installs the duct detector)
18. Contractor is specifically reminded about their responsibilities for clean-up as per section 017400. Maintaining a clean jobsite is considered a safety issue and will be strictly enforced. In addition to daily cleaning, the contractor is required to hire a professional cleaning company to final clean all areas impacted by the construction. This includes completely cleaning any surfaces/equipment/furniture which has been dusted by the construction work. If the contractor does not properly perform this function when directed by the Owner/CM within 4 hours of being notified the owner will perform the work with others and deduct the cost from the contractor.

**1.6. CONTRACT #3 – ELECTRICAL WORK CONTRACT (EWC, EC)**

**In addition to the General Requirements, Division 1, included in this bid package contractor shall provide the proper completion of work as indicated on all drawings and in accordance with the terms and conditions described in the following specifications sections:**

**DIVISION 02 – EXISTING CONDITIONS**

- 028200 Asbestos Abatement Limited Survey for ACM, LBP and PCBs
- 024119.16 Selective Interior Demolition

**DIVISION 07 – THERMAL AND MOISTURE PROTECTION**

- 078413 Firestopping
- 078443 Joint Firestopping
- 079200 Joint Sealants

**DIVISION 09 – FINISHES**

- 099123 Interior Painting (as needed for this contract)

**DIVISION 26 – ELECTRICAL**

- 260000 General Provisions for Electrical Work
- 260505 Selective Demolition for Electrical
- 260519 Low-Voltage Electrical Power Conductors and Cables
- 260526 Grounding and Bonding for Electrical Systems
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- 260533 Conduit for Electrical Systems
- 260534 Boxes for Electrical Systems
- 260553 Identification for Electrical Systems

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**DIVISION 28 – ELECTRONIC SAFETY AND SECURITY**

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**ATTACHMENTS**

Existing Conditions Reference Photographs

**Special Notes: Contract #3 – Electrical Work Contractor (EWC, EC):**

1. Work hours M-F 7:00AM – 4:30PM. Contractor will appropriately man the project to avoid Saturday and Overtime hours which result in Owner, Construction Manager and Architect additional costs.
2. Electrical Contractor to carry insurance coverages per the “Dutchess County Insurance Requirements” which are located in the DIV O specification.
3. Electrical demolition including disconnection and/or removal of equipment, luminaires, devices, wiring, conduit, etc
4. Electrical distribution including a new transformer and panelboard.
5. Interior and exterior lighting.
  - a. Contractor shall clean all existing luminaire lenses after substantial completion prior to Owner occupancy.
  - b. Contractor shall replace all existing non-working luminaire lamps.
6. Any existing ceiling removal/replacement necessary to install new electrical work to be done by Electric Contract #3. (e.g – new conduits for feeders through existing ceilings, etc)

7. VFD's, disconnects, motor starters, etc. which are supplied by MC will be installed by EC, unless noted otherwise.
8. Electrical Contractor will submit for engineer approval, marked plans showing the wiring pathways for all work.
9. EWC Shall be responsible for the Connections of Dryers, Washers and Kitchen equipment as noted on the documents.
10. Any wood blocking or panel backboards for electrical items by EC contract #3
11. Electrical connections to equipment furnished by other prime contracts and Owner.
12. In non-abatement areas where GC is removing existing ceilings, the EC will remove any ceiling mounted electrical items, Light Fixtures, FA devices, Speakers, WAP, exit signs, cameras, etc. EC to reinstall as new ceilings are being completed.
13. After GC ceiling removals for areas scheduled to receive new acoustic grid/tile, the EC will properly tie up any sagging wires at 6' o.c. to be supported above the ceiling grid in accordance with code. Electrical Contract # 3 is responsible to neatly tie up and secure all existing wiring after ceiling removals by others.
14. For Plumbers flushometers: the EC will install the PC provided transformer above the ceiling and install the wire to in-wall box. The EC then makes the wire connection from the electrical in -wall box to the flushometer
15. EC is responsible for making their own through wall, through floor/roof piping penetrations and associated patching/painting/fire-stopping.
16. EC will utilize lead-safe work practices – if impacting/ removing / disposing of any lead containing items
17. Access doors are furnished by Electrical Contract # 3 and installed by GWC Contract # 1.
18. New Fire alarm devices by EC, Existing Head End work completed by the Owner
19. Electrical Contract # 3 to provide and wire Fire Alarm duct detectors and HVAC unit shutdown connections (MC install the duct detector)
20. Electronic Door controls by the Owner
21. Contractor is specifically reminded about their responsibilities for clean-up as per Section 017400. Maintaining a clean jobsite is considered a safety issue and will be strictly enforced. In addition to daily cleaning, the contractor is required to hire a professional cleaning company to final clean all areas impacted by the construction. This includes completely cleaning any surfaces/equipment/furniture which has been dusted by the construction work. If the contractor does not properly perform this function when directed by the Owner/CM within 4 hours of being notified the owner will perform the work with others and deduct the cost from the contractor.

**1.7. CONTACT #4 – PLUMBING WORK CONTRACT (PWC, PC)**

**In addition to the General Requirements, Division 1, included in this bid package contractor shall provide the proper completion of work as indicated on all drawings and in accordance with the terms and conditions described in the following specifications sections:**

**DIVISION 02 – EXISTING CONDITIONS**

028200 Asbestos Abatement Limited Survey for ACM, LBP and PCBs  
024119.16 Selective Interior Demolition

**DIVISION 03 – CONCRETE**

030000 Concrete  
033000 Cast In Place Concrete

**DIVISION 07 – THERMAL AND MOISTURE PROTECTION**

078413 Firestopping  
078443 Joint Firestopping  
079200 Joint Sealants

**DIVISION 09 – FINISHES**

099123 Interior Painting (as needed for this contract)

**DIVISION 21 – FIRE SUPPRESSION**

210500 Common Work Results For Fire Suppression  
210553 Identification For Fire Suppression Piping And Equipment  
211300 Fire-Suppression Sprinkler Systems

**DIVISION 22 – PLUMBING**

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220517 Sleeves And Sleeve Seals For Plumbing Piping  
220523 General-Duty Valves For Plumbing Piping  
220529 Hangers And Supports For Plumbing Piping And Equipment  
220553 Identification For Plumbing Piping And Equipment  
220719 Plumbing Piping Insulation  
221005 Plumbing Piping  
221006 Plumbing Piping Specialties  
224000 Plumbing Fixtures

**DIVISION 31 – EARTHWORK**

312100 Soil Materials

## ATTACHMENTS

Existing Conditions Reference Photographs

### Special Notes: Contract #4 – PLUMBING Work Contractor (PWC, PC):

1. Work hours M-F 7:00AM – 4:30PM. Contractor will appropriately man the project to avoid Saturday and Overtime hours which result in Owner, Construction Manager and Architect additional costs.
2. Plumbing Work Contractor to carry insurance coverages per the “Dutchess County Insurance Requirements” which are located in the DIV O specification.
3. Removal of existing plumbing fixtures and associated piping for new room layouts
4. Removal of existing sprinkler heads and associated piping and heads as required to accommodate new room layouts. All required testing.
5. Provide and install plumbing fixtures and associated piping per new architectural layout and connect to existing plumbing piping systems.
6. Provide and install clothes washer outlet boxes for new laundry areas and connect to existing plumbing piping systems.
7. Provide and install domestic hot water mixing valve on existing domestic hot water system.
8. Plumbing connections to equipment furnished by the Owner
9. Access doors for plumbing items by PC; installation by Contract #1 – General Work Contractor.
10. All sanitary piping and water distribution piping work is by Plumbing contract whether located subslab or exterior. All Demo, Excavation, Backfill (approved materials), Compaction, Concrete and Patchwork work for plumbing piping (interior / exterior / subslab) is by Plumbing Contract # 4.
11. PC provides and installs Flushometers and drills holes for electrical conduit. PC supplies the associated transformer to the EC. All wiring by EC.
12. Any Solenoid valves supplied & installed by PC (wiring and connections by EC)
13. PC is responsible for making their own through wall, through floor/roof piping penetrations and associated patching/painting/fire-stopping.

14. PC will submit for engineer approval, marked plans showing the pathways for all work.
15. Kitchen equipment installation as noted on the documents
16. Contractor is specifically reminded of their responsibilities for clean up as per Section 017400. Maintaining a clean jobsite is considered a safety issue and will be strictly enforced. In addition to daily cleaning, the contractor is required to hire a professional cleaning company to final clean all areas impacted by the construction. This includes completely cleaning any surfaces/equipment/furniture which has been dusted by the construction work. If the contractor does not properly perform this function when directed by the Owner/CM, within 4 hours of being notified the owner will perform the work with others and deduct the cost from the contractor.

#### **1.8. PRIME CONTRACTOR'S USE OF PREMISES**

Use of the Site: Limit use of the premises to work in areas indicated. Confine operations areas within contract limits indicated. Do not disturb portions of the site beyond the areas in which the work is indicated.

Driveways and Entrances: Keep driveways and entrances serving the premises clear and available to the Owner, the Owner employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.

##### **Parking:**

**All Contractors and associated Sub Contractor are hereby notified that “on street” parking along N. Hamilton Street and in the Officer parking area south of the Emergency Shelter project site is not permitted at any time for the entire project duration. No vehicles will be allowed to park within the Emergency Shelter project worksite or in the material staging areas. Contractors and associated Sub Contractor are prohibited from parking within the designated parking lots of the Justice and Transition Center or the Sheriff's Law Enforcement Center north of the Emergency Shelter project site. Each Contractor and Sub Contractor is responsible for their own workforce parking accommodations based on the restrictions outlined above. Parking violation will result in the vehicle being towed at the expense of either the driver or owner of the vehicles.**

**The Beverage Center at 183 N. Hamilton Street Poughkeepsie, offers permit parking accommodations close to the project site. Please contact Jon Urban at (914) 475-3225 for more information.**

Existing building spaces may not be used for storage unless approved by the CM and Owner.

Time Restrictions: Working hours M-F 7:00AM – 4:30PM

Owner's representative(s) will cover the project for the standard Monday – Friday shift. If a contractor requests additional hours to make up schedule time or weekends, he will need to

reimburse Owner for additional coverage or costs (e.g. – Architect, Construction Manager, etc.) at their contractual rate.

General: Limitations on site usage as well as specific requirements that impact utilization are indicated on the drawings and by other contract documents. In addition to these limitations and requirements, the Contractor shall administer allocation of available space equitably among the separate sub-contractors and other entities needing access and space, so as to produce the best overall efficiency in performance of the total work of the project. The Contractor shall schedule deliveries so as to minimize space and time requirements for storage of materials and equipment on site.

After the equipment is no longer required for the work, it shall be promptly removed from the project site. Protection of construction materials and equipment stored at the project site from weather, theft, damage and all other adversity is solely the responsibility of the Contractors.

Do not unreasonably encumber the site with materials or equipment. Confine stockpiling of materials and location of storage sheds to the areas indicated. If additional storage is necessary, obtain and pay for such storage off-site.

The Contractor(s) and any entity for which the Contractor is responsible shall not erect any sign of the Project site without the prior written consent from the Owner, which may be withheld in the sole discretion of the Owner.

The Contractor(s) shall ensure that the work, at all times, is performed in a manner that affords reasonable access, both vehicular and pedestrian, to the site of the work and all adjacent areas. The work shall be performed, to the fullest extent reasonably possible, in such a manner that public areas adjacent to the site of the work shall be free from all debris, building materials, and equipment likely to cause hazardous conditions. Without limitation of any other provision of the Contract Documents, contractor shall use its best efforts to minimize any interference with the occupancy or beneficial use of: Any areas and building adjacent to the site of the work or the building in the event of partial occupancy.

Maintain the building in a safe and weathertight condition throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building during the construction period.

Each Prime Contractor is responsible for maintaining a safe jobsite. This includes actively reviewing their work areas to ensure that they are in compliance with all required OSHA regulations. It is a contract requirement that each contractor conducts weekly tool-box safety meetings to ensure that their employees are properly educated and utilizing safe work practices. (Copies of these weekly meetings and a list of the attendees will be forwarded to the CM Site Superintendent on a weekly basis). Contractors will comply with all requirements outlined in the General Conditions including providing their employees with PPE (personal protective equipment) such as masks, hand sanitizer for COVID, hard hats, proper work boots, safety harness, safety glasses, etc.

Smoking, drinking alcoholic beverages or open fires will not be permitted on the project site.

Utility Outages and Shutdown:

1. Limit the disruption of utility services to hours the building is unoccupied, weekends or holidays at no additional cost.
2. Do not disrupt or shut down line safety systems, including but not limited to fire sprinklers and fire alarm system, without 7 days' notice to **Dutchess County** and authorities having jurisdiction.
3. Prevent accidental disruption of utility services to other facilities.
4. All costs for manning of temporary shutdowns and utility crossovers, including 24-hour fire watch if necessary, are included in the contractor's bid regardless of weekend, holiday, etc.

### **1.9. OCCUPANCY REQUIREMENTS**

Partial Owner Occupancy: The Owner reserves the right to occupy the place and install equipment in completed areas of the work prior to Substantial Completion, provided such occupancy does not interfere with completion of the Work, such placing of equipment and partial occupancy shall not constitute acceptance of the Total Work.

The Architect will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied prior to Owner occupancy.

Obtain a Certificate of Occupancy from local building officials prior to Owner occupancy.

Prior to partial Owner occupancy, mechanical and electrical systems shall be fully operational. Required inspections and tests shall have been successfully completed. Upon occupancy, the Owner will operate and maintain mechanical and electrical systems serving occupied portions of the building.

Upon occupancy, the Owner will assume responsibility for maintenance and custodial service for occupied portions of the building.

### **1.10. NOTE USED**

### **1.11. DEFINITIONS**

Definitions as applied to "Contractors" involved with the work of this Project:

"The Contractor" or "Contractor" meaning that Respective Prime Contractor normally responsible for that work referenced.

"Respective Prime Contractor" meaning either the – General Contractor, Plumbing, HVAC, Electrical, Sitework, Fire Protection Contractors normally responsible for the referenced work.

"Trade Contractor" meaning that Respective Prime Contractor as above; and such other terms relating to Contractors to be taken in context with respect to the referenced work.



Further, wherein said Division 0 and 1 and respective Sections therein, any reference is made to “General Contractor”, same shall be construed to mean “Contractor for the General Construction, or General Work Contractor”.

The Owner cannot guarantee the correctness of the existing conditions shown and assumes no responsibility therefore, it shall be the responsibility of the Contractor to visit the site and verify all existing conditions prior to bid.

The Owner will purchase certain items required for the overall operation of this facility through outside vendors.

The Contractor(s) will cooperate with said vendors as may be necessary to permit the work to be accomplished.

1. The cooperation may extend to the receiving, unloading and placement of said equipment if directed by the Owner.
2. Each Contractor is advised that the Owner may enter into separate contracts as may be in their best interest.
3. Each Contractor is further advised that there will be a full on-site Project Representative / Construction Manager, whose duties will be defined at the pre-construction meeting.

#### **1.12. ADDITIONAL SECURITY PROVISIONS**

All Contractor’s employees shall use a single means of access and egress, except in the case of emergency, to be designated by the Construction Manager.

Each Contractor and each Subcontractor shall require his employees, while on the job site, to wear, in a conspicuous location, a photo I.D. button bearing the name of the employee and the Contractor. The buttons of each Contractor shall be numbered consecutively. An up-to-date list of all I.D. buttons, indicating the name and number for each employee, shall be furnished to the Construction Manager.

#### **1.13. ASBESTOS AND LEAD PAINT AWARENESS REQUIREMENTS**

Contractor agrees not to use or permit the use of any asbestos containing material in or on any property belonging to the Owner.

For purposes of this requirement, asbestos free shall mean free from all forms of asbestos, including actinolite, amosite, anthrophyllite, chrysotile, cricidolite and tremolite, both in friable and non-friable states and without regard to the purposes for which such material is used.

#### **1.14. CONSTRUCTION TIME AND PHASING REQUIREMENTS**

Each Contractor is advised the “time is of the essence” of the Contract as defined in the “General Conditions” for the completion of the construction of the facility. It is understood that the work is to be carried through to completion with the utmost speed consistent with good workmanship.

Time of Completion shall be as established in the Milestone Schedules (Section 011100).

The Contractor shall maintain fences and barricades at all times and shall repair/restore and/or pay for any temporary fence damaged by their work.

Maintain at all times, all exits and walkways.

Where the barricade is removed for work, the Contractor performing such work shall provide adequate safety personnel to prevent unauthorized persons from approaching the work area.

Construction Phasing:

The phasing and/or milestone schedule contained in Section 011100 has been established for the overall construction of the project.

Electrical and mechanical services to the functioning spaces shall be maintained at all times.

Swing-overs to new facilities shall be made so as to cause the least interruption to the facilities' operations.

1. The Contractor shall provide and maintain all required separations between old and new construction to prevent: Unauthorized entrance to construction areas by others than Architect, Construction Manager, or Owner, heat loss from existing building, water (rain or ground) infiltration into existing building.
2. Exterior alteration and restoration, as required, may proceed outside of phasing schedule at the Contractor's option with concurrence from the Architect, Construction Manager and Owner.
3. Site development work shall proceed in such a manner to cause the least amount of disruption to the ongoing operations as possible.

#### **1.15. PROOF OF ORDERS, DELIVERY DATES AND SUPPLY CHAIN TRACKING**

Coordinate with Sections 013216 and 013300.

Within 2 weeks after the approval of shop drawings, samples, product data and the like, the Contractor shall provide copies of purchase orders for all equipment and materials which are not available in local stock. The Contractor shall submit written statements from suppliers confirming the orders and stating promised delivery dates. Failure to provide this critical information will result in Owner holding monthly requisition payments until received.

Due to COVID-19 and its potential to disrupt material supply-chains, the Contractor(s) are required to obtain all materials for the project and store them onsite in their individual Conex boxes. This includes general material items typically readily available (piping, conduits, wire, metal studs, etc.). The Owner will pay for these stored items delivered to the jobsite in accordance with Section 012900.

This information shall be incorporated within the progress schedules so required as part of Section 013216 and 013300 and shall be monitored so as to ensure compliance with promised dates.

**1.16. FIELD MEASUREMENTS**

Each Respective Contractor shall take all necessary field measurements prior to fabrication, release and installation of work and shall assume complete responsibility for accuracy of same.

**1.17. INITIAL SUBMITTAL REQUIREMENTS**

As outlined in Division 01, each Contractor shall provide items noted including – bonds, insurance, emergency telephone numbers, progress scheduling, schedules of submittals, subcontractor listings and the like prior to the start of any work. The Owner will not issue contracts until all bonds and insurance information is received by the Contractor and verified correct.

**1.18. SCHEDULES**

The milestone schedule presented in the documents is for bidding and general purposes. Due to the nature of the work, it is the intention of the Construction Manager to negotiate actual work periods for the project amount various Prime Contractors involved with this bidding process, as well as separate contractors involved with other phases of the work solicited under separate proposals. Each Contractor shall, under terms of the General Conditions, mutually cooperate in the rescheduling of work to permit an uninterrupted use of the facilities by the Owner, without additional cost to the Owner.

General:

1. The objective of this project is to complete the overall work in the shortest period of time and to protect the building and occupants from damages caused by weather and construction during the progress of the work.
2. To meet these objectives, the Contractor shall plan the work, obtain materials, and execute the construction in the most expeditious manner possible in accordance with the requirements listed below.
3. If the Contractor fails to expedite and pursue any part of the work, the Owner may terminate the contract or may carry out the work with others per the General Conditions.
4. The Contractor shall work in coordination with work of other Contractors and Owner.
5. All Contractors are required to comply with proper sequencing of work and provide other Prime Contractors sufficient time to install their work (e.g. – HVAC Contractor to provide preassembled roof curbs on roof in time for the GC roofing work). If Contractor “boxes out” another Prime Contractor, he will be directed to stop work and open if necessary, to enable other trades to complete their work. No compensation for lost time due to stop-work will be provided.

### **1.19. ADDITIONAL REQUIREMENTS**

The following are additional general and special requirements which will govern the work of the projects covered by these documents:

- 1.** If it appears that some of the work cannot be completed by the scheduled date, the Contractor shall increase the work force or increase the hours of work, including evenings and weekends as necessary, and cover any additional costs to the Owner, Architect and Construction Manager.
- 2.** If the work is complete but the area is not cleaned and debris or equipment is not removed, the Owner shall have the right to prepare the area for occupancy with his own forces and deduct costs from the Contract Amount. (if Contractor does not respond within 4 hours' notice).
- 3.** If the Contractor fails to staff the job adequately to meet the completion date, the Owner reserves the right to assume possession of the material and complete installation with the Owner's forces or other Contractors or to require the Contractor to work evenings and weekends at no additional cost.
- 4.** The jobsite may be made available on weekends and evenings to all the Contractor additional time to complete the work before final completion date. Any custodial or Construction Manager costs resulting in this after-hours scheduling will be the Contractor's responsibility at their contractual hourly rate.
- 5.** Work in each work period shall progress at least at a pace in proportion to the Contract time available.
- 6.** The Contractor is responsible for temporary protection of all work until acceptance.
- 7.** All existing conditions must be verified in the field. The Owner takes no responsibility for action conditions found deviating from the drawings. If existing condition interferes with contract work, Contractor is responsible to eliminate this condition.
- 8.** Contractor must plan, provide and maintain his own access, ramping and egress as required into and out of the site, staging of trailer(s), materials, machinery, and equipment in agreement with the Construction Manager's Superintendent. Maintain free and safe access on the jobsite for other related project personnel. Maintain safe pedestrian or vehicular traffic must be regulated by a flagman. Trucking and delivery operation should be coordinated with Construction Manager's Superintendent and all other trades.
- 9.** Contractor is responsible for all work shown on Contract Documents, including drawings of other trade disciplines. For example, the HVAC Contractor will be responsible for HVAC work shown on Architectural Drawings.
- 10.** Contractor is responsible to maintain existing site fencing in its existing condition. Modifications of the fence to better accommodate the contract work can be discussed with the Construction Manager. These changes shall than be handled by this Contractor at his expense and in accordance with the Construction Manager's Superintendent's direction. Any cost incurred as a result of damages shall be changed to this Contractor.

11. Contractor's personnel will not be permitted to use **Dutchess County** facilities (including toilet, telephone, food services, etc.) for their own benefit. Contractor's Superintendent must explain this to all their field forces.
12. Time is of the essence. Contractor's proposed schedule must be approved by the Construction Manager. Contractor shall indicate significant events such as submittals, shop drawings, material ordering, fabrication, delivery, coordination precedents, installation, testing and turnover by area or system as agreed with Construction Manager. Revised progress status shall be required on a weekly basis.
13. Decisions required from the Construction Manager, Architect and/or Engineer, shall be anticipated by the Contractor to provide ample time for inspection, investigation or detailed drawings.
14. Contractor shall limit his operations including storage of materials and prefabrication to areas within the Contract Limit Lines unless otherwise permitted by the Construction Manager at the Owner's option.
15. Contractor shall coordinate the use of premises with the Owner and Construction Manager and shall move at his own expense any stored products under Contractors control, including excavated material, which interfere with operations of the Owner or separate Contractors.
16. Contractor shall obtain and pay for the use of additional storage of work areas needed for operations.
17. Contractor shall assume full responsibility for the protection and safekeeping of products under this Contract stored on the site and shall cooperate with the Construction Manager to ensure security for the Owner's Property.
18. The intention of the work is to follow a logical sequence; however, the Contractor may be required by Construction Manger to temporarily omit or leave out any section of his work or perform his work out of sequence. All such out of sequence work and come back time to these areas shall be performed at no additional cost.
19. Contractor shall submit a three-week (man-loaded work activity and area) to Construction Manager each week. Contractor's representative shall attend a weekly meeting with all contractors, chaired by Construction Manager, for the purpose of job coordination and sequencing. Contractor is responsible to coordinate the job with other trades and Construction Manager, and to cooperate with other trades in pursuit of the overall project's shop drawings and actively participate in resolving discrepancies, conflicts, interferences, etc.
20. Each Prime Contractor shall prepare an overall job schedule for his portion of work upon award of Contract, as per Section 013216 – Construction Progress Schedule.
21. Sufficient manpower shall be provided at all times to maintain progress of the job. A shortage of labor in the industry shall not be accepted as an excuse for not properly manning the job.
22. The Contractor shall take special care in verifying that his equipment matches the characteristics of the power being supplied.

23. Any Contractor personnel including Project Managers, Supervisors, etc. who engage in any personal attacks, belligerent or threatening speech/texts, etc., to the Owner, or any of its agents, will be removed from working on the project.
24. Insubordination, unsafe practices, horseplay, abusive behavior or language, wanton destruction of property, use of drugs or alcohol, possession of firearms, and solicitation shall not be tolerated. There will be no warnings, and Contractor shall designate a responsible on-site Supervisor to handle any situations that may arise, including termination.
25. Each Contractor is responsible to supply and install all wood blocking/bracing necessary to properly secure their work. This responsibility includes coordinating the installation in concealed areas without delaying other trades.
26. Union business shall not be conducted on site. Any Union representative that visit the site must declare what Contractor's personnel they represent, and must be escorted by that Contractor's Union steward at all times. No visitors, sales representatives or non-working personnel shall be permitted on site without prior consent of the Construction Manager. No photographs shall be taken without the Construction Manager's prior approval.
27. Organize daily clean ups as well as participating in a weekly joint clean up involving all Prime Contractors on site. Clean up shall be considered a safety issue. If any Contractor fails to keep site safe and brook clean within 4 hours of being notified by the Construction Manager, either verbally or in writing, the Construction Manager will have the cleanup work performed by others and will back charge accordingly.
28. Contractor shall provide protection from damage to adjacent and adjoining work and/or structures. Contractor shall clean, repair and/or replace any damage for which this Contractor is responsible.
29. Contractor shall submit hourly rate sheets that would apply to time and material work for all pertinent trades upon Award of Contract.
30. Contractor shall examine surfaces and conditions prior to start of work. Report unacceptable conditions to the Construction Manager. Do not proceed until unacceptable conditions are corrected and acceptable. Starting work implies acceptable.
31. Upon removal of exterior walls and window units, the building security and weather protection is the responsibility of the Prime Contractor performing removals.
32. Each Prime Contractor shall include general housekeeping of light debris. All debris from each Prime Contractor will be collected daily and disposed of into their dumpsters. **In addition to daily general housekeeping, the General Work Contractor (Contract #1) shall provide a weekly broom sweep and damp mop of all areas for the entire duration of the project.** The broom sweep shall include debris from all trades working on site.
33. It is the responsibilities of all Prime Contractors to review the entire Summary of Work and remaining documents for additional work items.
34. Sleeves and Sleeve Layout – It is the responsibility of the Prime Contractor requiring a sleeve to provide the sleeve and a layout sketch to the Prime Contractor performing the construction activity that the sleeve goes in.

- 35.** Each Contractor is responsible to review and become familiar with the scope of work included in all Contracts.
- 36.** Limited site space is available in areas as designated by the Construction Manager. Construction trade parking is not permitted in Owner’s employee parking lot.
- 37.** Each Contractor shall provide the engineering layout required to properly complete his work from an established working point. Contractor shall employ only competent engineering personnel skilled in performing layout tasks of similar complexity.
- 38.** Prior to commencing the work, each Contractor shall provide written acceptance of grades, structures, substrates, and/or systems installed by other Contractors as suitable for installation of his work. Failure to provide this verification prior to commencing work shall constitute acceptance of the existing conditions.
- 39.** Each Contractor shall coordinate with the Construction Manager for lay down areas, staging areas, and overall use of project site.
- 40.** All Contractors and their employees, subcontractors and supplier are expressly prohibited from entering the occupied areas of the school building during school hours without prior written permission of the Construction Manager and for using any of its facilities (i.e. restrooms, cafeteria, etc.).
- 41.** Each Contractor is responsible for the timely provision of the information required by other Contractors for the progress of other Contractor’s work.
- 42.** All Contractor Foremen must have working cell phone and number provided to the Construction Manager.
- 43.** No recycled import fill materials are permitted.

PART 2 – PRODUCTS ( NOT USED)

PART 3 – EXECUTION ( NOT USED )

END OF SECTION 01 10 00

SECTION 011100 - MILESTONE SCHEDULE

Part 1 - GENERAL

1.1 MILESTONE

The following milestone schedule serves as a basis for bidding. A Master Schedule will be developed at a general meeting within 21 days of Letter of Intent to Award the Contracts. Contractor will coordinate activities, forward submittals, deliver materials and provide necessary manpower to meet the milestones listed below.

1.2 MILESTONE SCHEDULE

<b>Dutchess County – Temporary Emergency Housing Facility</b>	<b>Start</b>	<b>Finish</b>
• NTP / NOA –	4/05/24	---
• Deep Cleaning	---	4/25/24
• Substantial Completion / Certificate of Occupancy	---	12/06/24
• Punchlist Complete / Move in Complete	---	1/3/25
•		

<b>Work Performed by others (for coordination purposes)</b>	<b>Start</b>	<b>Finish</b>
• Construct Weather Proof Separation Partition North side of 1995 Bldg.	2/5/24	2/9/24
• Abatement Asbestos Caulk	2/12/24	3/1/24
• Adjacent (1984) Building Demolition	3/18/24	5/24/24
• Sitework at 1995 Building East Side	4/1/24	7/26/24
• Rebuild North wall of 1995 Building	5/27/24	8/06/24
• Removal of existing PODS	1/20/25	3/14/25

**Work hours:** Contractors are specifically notified that they will need to work multiple crews simultaneously in order to meet the production rates to complete the work (M-F work week) by the above completion dates.

Contractors are specifically notified that they must properly man the project with a competent field superintendent and a sufficient supply of tradesmen to maintain progress and flow of work as required by schedule and to coordinate/install timely for other trades.

Any additional work/coverage costs required by the owner’s representatives including Construction Manager, Architect and Facility Personnel due to schedule overage beyond the milestone dates, if determined to be caused by the contractor, will result in a deduct change order at the owners/representative’s contractual rate.

All work required by any of the Owner's representatives and consultants, including the Construction Manager, Architect, Architect's consultants, Owner's Attorneys, etc., to execute final the contract beyond Milestone dates, or to execute final closeout after 30 days past substantial completion, if determined to be caused by contractor, shall result in payment(s) to the Owner for additional services



to the Construction Manager, Architect, Architect's consultants, Owner's Attorneys, etc. These costs will then be issued in the form of a deduct change order to the contractor's contract at the Owners consultant's contractual rate.

The objective of this project is to complete the overall work in the shortest period of time. Thus, if access is provided to a work area sooner than originally scheduled, each contractor will likewise mobilize their forces earlier to maintain the reduction in overall schedule time. Each Contractor is advised that "Time is of the essence" as per the General Conditions of the contract and they will work with multiple crews of sufficient size as necessary to carry out the work with the utmost speed with good workmanship. If the contractor fails to expedite and pursue any part of the work, the Owner may order the contractor to take "Extraordinary Measures", or hire others to complete the work and adjust their contract amount accordingly as per the General Conditions.

PRODUCTS (Not Applicable)

EXECUTION (Not Applicable)

END OF SECTION

## SECTION 012100-ALLOWANCES

### PART 1 – GENERAL

#### 1.1. RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this section.

#### 1.2. SUMMARY

- A. This section includes administrative and procedural requirements governing allowances.
- B. Selected materials and equipment are specified in the Contract Documents by allowances. In some cases, these allowances include installation. Allowances have been established in lieu of additional requirements to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements will be issued by Change Order.
- C. Type of allowances include the following:
  - 1. Contingency Allowance
  - 2. Material Quantity Allowance
- D. Related Sections: The following Section contain requirement that relate to this Section:
  - 1. Division 1 Section “Modification Procedures” specifies procedures governing the use of allowances for inspection and testing.
  - 2. Division 1 Section “Quality Control Services” specifies procedures governing the use of allowance for inspection and testing.

#### 1.3. SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise the Architect of the date when the final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the work.
- B. At the Architect’s request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the work.
- C. Purchase products and systems selected by the Architect from the designated supplier.

#### 1.4. SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.
- B. Submit invoices or delivery slips to show the actual quantities of material delivered to the site for use in fulfillment to each allowance.

#### 1.5. CONTINGENCY AND UNIT PRICE ALLOWANCES

- A. Use of allowances are only as directed for the Owner’s purposes and only by Change Orders that indicate amounts to be charged to the allowance.
- B. The Contractor’s overhead and profit, including costs for bonds and insurance, delivery, equipment rental, supervision and similar costs, for these allowances shall be**

**included in the values of the general requirements of contract sum and are not chargeable under allowance disbursement.**

- C. All Unit Price allowances shall be coordinated with the bid Unit Price for the same material and shall reflect the unit price provided with the total quantity allowed
- D. At project substantial completion, any allowance quantities not utilized or below the amount identified will be credited as a deduct change order at the bid unit price

1.6. UNUSED MATERIAL

- A. Return unused materials to the manufacturer or supplier for credit to the Owner, after installation has been completed and accepted.
- B. When requested by the Architect, prepare unused material for storage by Owner where it is not economically practical to return the material for credit. When directed by the Architect, deliver unused material to the Owner's storage space. Otherwise, disposal of unused material is the Contractor's responsibility.

PART 2- PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1. EXECUTION

- A. Examine products covered by an allowance promptly upon delivery for damage or defects.

3.2. PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interface with related work

3.3. SCHEDULE OF ALLOWANCES

**CONTRACT 1- General Work Contractor:**

**Allowance GC-1: Contingency Allowance**- Contractor shall include a contingency allowance of \$ 69,000.00 for use according to the Owner's Instructions.

**Allowance GC-2: VCT Floor Tile**- in addition to the base bid flooring work identified on the drawing the Contractor shall include in their base bid an allowance of 1000 sf for additional installed VCT Floor Tile (Includes substrate prep and 3/8" self-leveler).

**Allowance GC-3: Acoustic Ceiling Grid / Tile**- in addition to the base bid ceiling work identified on the drawings the Contractor shall include in their base bid an allowance of 500 sf for additional installed acoustic ceiling tile grid

**Allowance GC-4: Acoustic Ceiling Tile Replacement**- in addition to the base bid ceiling work identified on the drawings the Contractor shall include in their base bid an allowance of 500 sf for additional acoustic ceiling tile replacement.

**Allowance GC-5: Wall Surface Preparation and Touchup Paint** - in addition to the base bid work identified on the drawings the Contractor shall include in their base bid an allowance of 2500 sf Surface Preparation and Touchup Paint

**CONTRACT 2- Mechanical Contractor:**

**Allowance MC-1: Contingency Allowance:** Contractor shall include a contingency allowance of \$67,000.00 for use according to the Owner's Instructions.

**CONTRACT 3 – Electrical Contractor**

**Allowance EC-1: Contingency Allowance:** – Contractor shall include a contingency allowance of \$ 67,000.00 for use according to the Owner's Instructions.

**Allowance EC-2: ¾" EMT / Cat 6 Voice/Data Cabling and Terminations:** – In addition to the base bid raceway with cabling indicated, Contractor shall include in their base bid an additional allowance of 500 lf of new ¾" EMT / Cat 6 Voice/Data Cabling and Terminations, install & commission as per the specifications.

**CONTRACT 4 – Plumbing Work Contractor:**

**Allowance PC-1: Contingency Allowance:** Contractor shall include a contingency allowance of \$47,000.00 for use according to the Owner's Instructions.

END OF SECTION

## SECTION 012200 – UNIT PRICES

### PART 1 – GENERAL

#### 1.1. DESCRIPTION

- A.** This section specifies the requirement for measurement and records made for payment purpose and describes the item(s) under which payment(s) will be made for the work performed under this contract
- B.** All work shown or specified in the contract documents shall be performed.
- C.** Items not specified to be measured or paid for (for which no specific pay item exists in the price schedule) shall be included in an appropriate unit price item or in lump-sum item.

#### 1.2. MEASUREMENT REQUIREMENTS

- A.** All required measurements shall be made by the contractor with the Architect and Construction Manager
- B.** Any measurements not witnessed by Architect and Construction Manager and which cannot be verified or substantiated will not be made.
- C.** Coordinate measurements monthly, for the preparation of periodic pay estimates.
- D.** Where payments will be made for removing rock and existing materials, notify Architect so that he may witness the measurements
  - 1.** All materials removed without conforming to the above procedures, which Engineer cannot verify or substantiate, will not be paid for.
  - 2.** Maintain complete, neat, clean, and legible field notes for all measured items.
  - 3.** Notes shall contain spaces for Contractor's and Architect's signatures plus additional space for comments.
  - 4.** An original and a carbon copy shall be made for all noted and one copy shall be turned over to Construction Manager daily.
  - 5.** The Construction manager signature shall not be constituted as an acceptance of the work, or the measurement made, but shall mean that he was present when the measurements were made.

#### 1.3. SUBMITTALS

- A.** See Section 013300.
- B.** Field Notes of all measurements for payment purpose delivered to the Construction Manager daily.
- C.** Copies of all invoices required for payments out of cash allowance(s).
- D.** Monthly Applications for PAYMENT
- E.** Record drawings showing the locations and quantities of all items measured for payment purposes.

#### 1.4. SCHEDULING

- A. Notify Construction Manager, as far in advance as possible, of the recording of measurements so that they may observe existing conditions, work being performed, and measurements being made.
- B. Allow for and afford Construction Manager ample time, space, and equipment to observe measurements and to verify measurements and elevations.

## PART 2 – PRODUCTS

### 2.1. GENERAL

- A. Provide all labor, materials, facilities, levels, measuring devices and all other equipment and items necessary to property and accurately all measurements for payment purposes.
- B. Payment for certain items not specifically listed in the bid forms but otherwise required by the technical specifications shall be deemed included as a part of the General Conditions and the individual unit price and lump sum bid items provided for in the proposal. (Bonds, Insurances, material handling, delivery, overhead, profit, etc.)

## PART 3 – EXECUTION

### 3.1. GENERAL

Perform all measuring required under this section

- A. Record all measurements and calculated quantities on the Recording Drawings.
- B. No measurement shall be made for work performed within the limits of Lump Sum Items.

### 3.2. UNIT PRICE SCHEDULE

#### CONTRACT #1 – GENERAL WORK CONTRACTOR

##### **Unit Price GC No. 1: VCT Floor Tile**

- a. Description: Supply & install all material and labor for VCT Floor Tile/ adhesive to be used as a add or deduct from base bid quantities. Including leveling up to 3/8”
- b. Unit of Measurement: per square foot

##### **Unit Price GC No. 2: Acoustic Ceiling Grid/ Tile**

- a. Description: Supply & install all material and labor for Acoustic Ceiling Grid/ Tile to be used as an add or deduct from base bid quantities.
- b. Unit of Measurement: per square foot

##### **Unit Price GC No. 3: Acoustic Tile Replacement**

- a. Description: Remove existing Acoustical Ceiling tile and install new Acoustic Ceiling Tile, to be used as an add or deduct from base bid quantities.
- b. Unit of Measurement: per square foot

**Unit Price GC No. 4: Wall Surface Preparation and Touch up Paint**

- a. Description: Surface Preparation and Touch up Paint
- b. Unit of Measurement: per square foot

CONTRACT # 2 – MECHANICAL CONTRACTOR

NONE

CONTRACT # 3 – ELECTRICAL CONTRACTOR

**Unit Price EC No.1: ¾" EMT CAT 6 Voice/Data Cabling and Terminations**

- a. Description: ¾" EMT Raceway, Voice/Data cabling and terminations supply, install and commission to be used as an add or a deduct from base bid quantities
- b. Unit of Measurement: per linear foot

**Unit Price EC No.2: Luminaire Relamping**

- a. Description: F32T8 Lamp Supply and Install to be used as an add or a deduct from the base bid quantities
- b. Unit of Measurement: Each

CONTRACT # 4 – PLUMBING WORK CONTRACTOR

NONE

**END OF SECTION**

## SECTION 012300 – ALTERNATES

### PART 1 – GENERAL

#### 1.1. SECTION INCLUDES

- a. Submission procedures.
- b. Documentation of changes to Contract Sum/Price and Contract Time.

#### 1.2. RELATED SECTIONS

- a. Proposal Form.
- b. Other sections referencing this section.
- c. All contractual requirements outlined in the documents.

#### 1.3. SUBMISSION REQUIREMENTS

- a. Submit Alternates on Proposal Forms identifying the effect on adjacent or related components.
- b. Alternates will be reviewed and accepted or rejected at the Owner's option.
- c. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

#### 1.4. SELECTION AND AWARD OF ALTERNATES

- a. Indicate variation of Bid Price for Alternates listed on the PROPOSAL FORM. This form requests a "difference" in Bid Price by adding to or deducting from the base Bid Price.
- b. Alternates quoted on PROPOSAL FORM will be reviewed and accepted or rejected at Owner's option.
- c. Accepted alternates will be identified in Owner-Contractor Agreements.
- d. Bids will be evaluated on the base bid price, plus any combination of alternate items.

#### 1.5. WORK FOR ALTERNATES

- a. Work for alternate items selected shall include all related materials, labor, equipment and operations necessary to conduct and complete the alternate work and all other affected work or adjacent areas.
- b. There shall be no change in time or completion date for the selected alternates, unless specified herein or approved in writing by the Architect/Engineer and Owner.
- c. Alternates and associated work shall meet all standards and specifications delineated in the Contract Documents.
- d. Contractor shall coordinate pertinent related Work and modify surrounding Work as required to complete the project under each alternate selected by the Owner.

### PART 2 – PRODUCTS

Not Used

### PART 3 – EXECUTION



- a. Work for each alternate, related items and collateral work shall be completed in their entirety.
- b. If alternate items are not selected, work for the base bid and collateral work shall be completed in their entirety.
- c. Schedule of Alternates

### 3.1 SCHEDULE OF ALTERNATES

#### CONTRACT 1 – General Work Contractor:

**ALTERNATE GC-1: DOOR AND RAILING PAINTING – ADD** – Will include the proper surface preparation, priming and painting of all sides of existing metal doors, metal door frames (not including access panels) and stair handrails, guardrails and rail panels and associated metal components, with a 3-coat water-based primer and urethane coating system in accordance with the interior painting specification, Section 099000, at the following locations:

- Second and Third Floor levels of Men 207, including all B-type sleeping room doors.
- Second and Third Floor levels of Women 201, including all A-type sleeping room doors.
- Suite 104Q, including all sleeping rooms H-P
- Code Blue Suite 116, including all sleeping rooms A-J.

#### Initial Paint Color Schedule:

Metal Frames and Stair Railing Assembly: Sherwin-Williams, Distance, SW 6243

Metal Doors: Sherwin-Williams, Resolute Blue, SW 6507

Submission of 8" x 10" paint samples showing color and sheen will be required for Owner approval and potential reselection.

**ALTERNATE GC-2: FLOOR PAINTING – ADD** – Will include the proper surface preparation and painting of all sleeping room existing concrete floors. Existing floors must be clean, dry, and free of wax and oils. Any residual adhesives or foreign materials must be removed prior to the primer and finish paint application. Concrete floors will be finished with a 2-coat latex, concrete (non-vehicular) painting system in accordance with the interior painting specification, Section 099000, at the following locations:

- Second and Third Floor Men 207, B-type sleeping room floors.
- Second and Third Floor Women 201, A-type sleeping room floors.
- Suite 104Q, sleeping rooms H-P floors.
- Code Blue Suite 116, sleeping rooms A-J floors.

#### Paint Color Schedule:

Concrete Floors: Sherwin-Williams, Sage, SW 2860

Submission of 8" x 10" paint samples showing color and sheen will be required for Owner approval and potential reselection.

**ALTERNATE GC-3: FLOOR PAINTING – ADD** - Will include the proper surface preparation and painting First Floor former holding cell rooms with existing concrete floors. Existing floors must be clean, dry, and free of wax and oils. Any residual adhesives or foreign materials must be removed prior to the primer and finish paint application. Concrete floors will be finished with a 2-coat latex, concrete (non-vehicular) painting system in accordance with the interior painting specification, Section 099000, at the following locations:

- Intake areas: 115, 117, 119, 121.
- Rooms 118, 120, 122, 124
- Rooms 103B through H, and 103A, 103AA

Paint Color Schedule:

Concrete Floors: Sherwin-Williams, Pavestone, SW 7642

Submission of 8" x 10" paint samples showing color and sheen will be required for Owner approval and potential reselection.

CONTRACT 2 – Mechanical Work Contractor:

**(None)**

CONTRACT 3 – Electrical Work Contractor:

**(None)**

CONTRACT 4 – Plumbing Work Contractor:

**(None)**

END OF SECTION

## **SECTION 012600 – CONTRACT MODIFICATION**

### **PROCEDURES PART 1 – GENERAL**

#### **1.1. RELATED DOCUMENTS**

- a. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### **1.2. SUMMARY**

- a. This Section specifies administrative and procedural requirements for handling and processing contract modifications.
  1. Provisions of this Section apply to the work of each prime contractor.
- b. Related Sections: the following Sections contain requirements that relate to this Section:
  1. Division 1 Section “Submittals” for requirements for the Contractor’s Construction Schedule.
  2. Division 1 Section “Applications for Payment” for administrative procedures governing Applications for Payment.
  3. Division 1 Section “Substitutions” for administrative procedures for handling requests for substitutions made after award of the Contract.

#### **1.3 MINOR CHANGES IN THE WORK**

- a. the Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or Contract Time, on AIA Form G710, Architect’s Supplemental Instructions.

#### **1.4 CHANGE ORDER PROPOSAL REQUESTS**

- A. Owner-Initiated Proposal Requests: The Architect will issue a detailed description of proposed changes in the Work that will require adjustment to the Contract Sum or Contract Time. If necessary, the description will include supplemental or reviewed Drawings and Specifications.
  1. Proposal requests issued by the Architect are for information only. Do not consider them as an instruction either to stop work in progress or to execute the proposed change.
  2. Within 7 days of receipt of a proposal request, submit an estimate of cost necessary to execute the change to the Architect for the Owner’s review.
    - a. Include an itemized list of quantities of products required and unit costs, with the total amount of purchases to be

- made. Furnish survey data and backup invoices, quotes paperwork to substantiate.
  - b. Separate labor hours by trade and indicate labor rate. (Submit attached labor rate worksheet notarized for each trade / classification.)
  - c. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
  - d. Include an updated Contractors Construction Schedule that indicates the effect of the change, including but not limited to; changes in activity duration, start and finish times, and activity relationship. Use available float before requesting an extension of contract time.
- B. Contractor-Initiated Proposals: When latent or unforeseen conditions require modifications to the Contract, the Contractor may propose changes by submitting a request for a change to the Architect.
- 1. Include a statement outlining the reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and Contract Time.
  - 2. Include an itemized list of quantities of products required and unit costs, with the total amount if purchases to be made. Furnish survey data to substantiate quantities. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts. Include labor rate breakdown sheets for each trade.
  - 3. Comply with requirements in Section “Product Substitutions” if the proposed change requires substitution of one product or system for a product or system specified.
  - 4. Include an updated Contractors Construction Schedule that indicates the effect of the change, including but not limited; changes in activity duration, start and finish times, and activity relationship. Use available float before requesting an extension of contract time.
- C. Proposal Request Form: Use AIA Document G709 for Change Order Proposal Requests.

### 1.5 ALLOWANCES

- a. Allowance Adjustment: For allowance-cost adjustment, base each Change Order Proposal on the difference between the actual purchase amount and the allowance, multiplied by the final

measurement of work-in-place. Where applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.

1. Include installation costs in the purchase amount only where indicated as part of the allowance.
  2. When requested, prepare explanations and documentation to substantiate the margins claimed.
  3. Submit substantiation of a change in scope of work claimed in the Change Orders related to unit-cost allowances.  
Separate labor hours by trade and indicate labor rate.  
(Submit attached labor rate worksheet notarized for each trade / classification.)
  4. The Owner reserves the right to establish the actual quantity of work-in-place by independent quantity survey, measure, or count.
  5. Contractor's overhead and profit, including all costs for bonds & insurances, for these allowances shall be included in the values of the general requirements of contract sum and are not chargeable under allowance disbursement.
- b. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or the Contractor's handling, labor, installation, overhead, and profit, submit claims within 15 days of receipt of the Change Order or Construction Change Directive authorizing work to proceed. The Owner will reject claims submitted later than 15 days.
1. Do not include the Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of work has changed from that could have been foreseen from information in Contract Documents.
  2. No change to the Contractor's indirect expense is permitted for selection of higher or lower-priced materials or systems of the same scope and nature as originally indicated.

## **1.6 CONSTRUCTION CHANGE DIRECTIVE**

- A. Construction Change Directive: When the Owner and the Contractor disagree on the terms of a Proposal Request, the Architect may issue a Construction Change Directive on AIA Form G714/CMA. The Construction Change Directive instructs the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

## **1.7 CHANGE ORDER PROCEDURES**

- A. Upon the Owner's approval of a Proposal Request, the Architect or Construction Manager will issue a Change Order for signatures of the Owner, Architect, Construction Manager, and the Contractor on AIA Form G701.

- B. Contractor cannot requisition for any allowance or change order work until the paperwork has been fully executed by the Contractor, CM, Architect and Owner.
- C. Requests for changes in bond fees, if any, will be analyzed at the conclusion of the project. Contractors bonding company to submit substantiation letter. (Bond amount based on total adjusted contract value)

**PART 2 – PRODUCTS (Not Applicable)**

**PART 3 – EXECUTION (Not Applicable)**

**END OF SECTION**

## **SECTION 012900 – PAYMENT PROCEDURES**

### **PART 1 – GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### **1.2 SUMMARY**

- A. This section specifies administrative and procedural requirements governing each prime contractor's Applications for Payment.
  - 1. Coordinate the Schedule of Values and Applications for Payment with the Contractor's Construction Schedule, Submittal Schedule, and List of Subcontracts.
- B. Related Sections: The following Sections contain requirements that relate to this Section.
  - 1. Schedules: The Contractor's Construction Schedule and Submittal Schedule are specified in Division 1 Section "Submittals."

#### **1.3 SCHEDULE OF VALUES**

- A. Coordination: Contractor shall coordinate preparation of its Schedule of Values for the Work with preparation of the Contractors' Construction Schedule.
  - 1. Correlate line items in the Schedule of Value with other required administrative schedules and forms, including:
    - a. Contractor's Construction Schedule
    - b. Application for Payment forms, including Continuation Sheets
    - c. List of subcontractors
    - d. Schedule of allowances
    - e. Schedule of alternates
    - f. Schedule of submittals
  - 2. Submit the Schedule of Values to the Construction Manager within 10 days of receipt of Letter of Intent but no later than 10 days before the date scheduled for submittal of the initial Applications for Payment. (SOV's received after the 15<sup>th</sup> of the month, will not be allowed to requisition until the following month, due to input time for CM & Owner into their computer systems).
- B. Format and Content: Use the Project Manual table of contents as a guide to establish the format for the Schedule of Values. Provide at least one line item for each Specification Section.
  - 1. Identification: Include the following Project identification on the Schedule of Values:
    - a. Project name and location.
    - b. Name of the Architect.
    - c. Project SED number.
    - d. Contractor's name and address.
    - e. Date of Submittal
  - 2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
    - a. Related Specification Section or Division.

- b. Description of Work.
  - c. Name of subcontractor.
  - d. Name of manufacturer or fabricator.
  - e. Name of supplier.
  - f. Change Orders (numbers) that affect value.
  - g. Dollar value.
    - 1. Percentage of Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
3. Provide a breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Break principal subcontract amounts down into several line items where requested by Construction Manager. Multiple line items will be provided for amounts in excess of five percent of the contract sum, broken out into sub components equaling not greater than five percent each. Separate all line items by material & labor.
- a. Breakdown shall be separated between additions and sitework with subtotals for each.
  - b. Breakdown will be separated by school (and SED number) each with its own stand-alone front-end sections as outlined in item 4 below. Each will have their own subtotal, so that the owner can easily see the value to date with needing to add columns.
4. In addition to the breakdown of specification sections, separate line items will be required for the following front-end line items:
- a. Bonds & OCP insurances to have separate line items. (Substantiation letters required from bonding & insurance company for any amount higher than industry standard). Only OCP insurance allowed for insurance line item. All other insurance costs must be distributed by contractor evenly throughout the various sections.
  - b. Supervision – include a minimum of one percent of contract sum.
  - c. Project Administration – include a minimum of one percent of contract sum.
  - d. Project meetings (appropriate value for weekly attendance for entire duration of project – see Section 01 31 19 Project Meetings for amount)
  - e. Punchlist – include a minimum of .5 percent of contract sum
  - f. Closeout: separate lines for demobilization, Operation & maintenance manuals, closeout paperwork, demonstration & training (total for closeout minimum two percent of contract value)
  - g. Continuous Clean-up and Final Clean-up values each at minimum of .5%
  - h. General Contractor to add line item for Broom sweep/damp mopping
5. Round amounts to nearest whole dollar; the total shall equal the Contract Sum.
6. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment, purchased or fabricated and stored, but not yet installed.
- a. Differentiate between items stored on-site and items stored off-site. Include requirements for insurance and bonded warehousing.



7. Provide separate line items on the Schedule of Values for initial cost of the materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
8. Unit-Price Allowances: Show the line-item value of unit-cost allowances, as a product of the unit price, multiplied by the measured quantity. Estimate quantities from the best indication in the Contract Documents. Allowances to be listed at the end of the Schedule of Values.
9. Margins of Cost: Show line items for indirect costs and margins on actual costs only when such items are listed individually in Applications for Payment. Each item in the Scheduled of Values and Applications for Payment shall be complete. Include the total cost and proportionate share of general overhead and profit margin for each item.
  - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at the Contractor's option.
10. Schedule Updating: Update and resubmit the Schedule of Values prior to the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

#### **1.4 APPLICATIONS FOR PAYMENT**

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect and paid for by the Owner.
  1. The initial Application for Payment, the Application for Payment at time of Substantial Completion, and the final Application for Payment involve additional requirements.
- B. Payment-Application Times: Each progress-payment date is indicated in the Agreement. The period of construction Work covered by each Application for Payment is the period indicated in the Agreement.
- C. Payment-Application Times: The date for each progress payment is the 21<sup>st</sup> day of each month (or as designated by the Owner). The period covered by each Application for Payment is the previous month.
- D. Payment-Application Forms: Use AIA Document G732/CMA (include line for Construction Manager signature) and Continuation Sheets G703 as the form for Applications for Payment.
  1. Separate Continuation Sheets shall be provided for work which takes place on each building, which will detail that portion of the contract which is attributable to the specific building.
- E. Application Preparation: Complete every entry on the form. Include notarization and execution by a person authorized to sign legal documents on behalf of the Contractor. The Construction Manager will return incomplete applications without action.
  1. Entries shall match data on the Schedule of Values and the Contractor's Construction Schedule. Use updated schedules if revisions were made.
  2. Include amounts of Change Orders and Allowances issued prior to the last day of the construction period covered by the application. (No Change Order or Allowance requisitions can be made or listed on the requisition, unless the formal CO/AD paperwork has been fully executed by Contractor, Construction Manager, Architect, and Owner).

3. Provide digital copies of payrolls which are signed and notarized (Blue Ink) documenting compliance with prevailing wage laws. Payroll for contractors is required from the 25<sup>th</sup> of the previous month to the 24<sup>th</sup> of the current month. Payroll for subcontractors is required from the 15<sup>th</sup> of the previous month to the 14<sup>th</sup> of the current month.
4. Provide copies of lien waivers for the previous payment (or anticipated payment\_ . Include certificate of monthly payment for subcontractors for the previous month.
5. Provide OSHA 10 certificates for all workers on site.
6. Payment for stored materials (whether onsite but not installed, or offsite in a secured warehouse) will require a bill of lading showing the exact value and photographs. IN no case shall more than 90% be approved for uninstalled stored materials. An Insurance certificate must be provided, specific to the materials stored with the appropriate dollar value (for onsite or offsite materials).
- F. Transmittal: Submit 1 signed and notarized digital copy (blue ink signature) of each Application for Payment to the Construction Manager by a method ensuring receipt within 24 hours. The digital copy shall be complete, and attached as a single file to include all waivers of lien, certified payrolls and similar attachments.
  1. Transmit each copy with a transmittal form listing attachments and recording appropriate information related to the application, in a manner acceptable to the Architect and Construction Manager.
- G. Waivers of Mechanics Lien: With each Application for Payment, submit waivers of mechanics liens from subcontractors, sub-subcontractors and suppliers for the construction period covered by the previous application.
  1. Submit partial waivers on each item for the amount requested, prior to deduction for retainage, on each item.
  2. When an application shows completion of an item, submit final or full waivers.
  3. The owner reserves the right to designate which entities involved in the Work must submit waivers.
    - a. Submit final Applications for Payment with or preceded by final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
  4. Waivers Forms: Submit waivers of lien on forms, and executed in a manner, acceptable to the Owner.
- H. Initial Application for Payment: Administrative actions and submittals, that must precede or coincide with submittal of the first Application for Payment include the following. The initial payment application will not be processed until all of these actions and submittals have been received by the Construction Manager. When preliminary submissions are received with the initial application (items 4 and 7), the final submission for these items must be received and approved by the Construction Manager prior to submission of the second application for payment.
  1. List of subcontractors.
  2. List of principal suppliers and fabricators

3. Schedule of Values.
  4. Contractor's Construction Schedule (preliminary if not final).
  5. Schedule of principal products.
  6. Schedule of unit prices.
  7. Submittal Schedule (preliminary if not final).
  8. List of Contractor's staff assignments.
  9. Copies of building permits.
  10. Copies of authorizations and licenses from governing authorities for performance of the Work.
  11. Initial progress report
  12. Report of preconstruction meeting.
  13. Certificates of insurance and insurance policies.
  14. Performance and payment bonds.
  15. Data needed to acquire the Owner's insurance.
  16. Initial settlement survey and damage report, if required.
- I. Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment.
1. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
  2. Administrative actions and submittals that shall precede or coincide with this application include:
    - a. Occupancy permits and similar approvals.
    - b. Warranties (guarantees) and maintenance agreements.
    - c. Test/adjust/balance records.
    - d. Maintenance instructions.
    - e. Meter readings.
    - f. Startup performance reports.
    - g. Changeover information related to Owner's occupancy, use, operation, and maintenance.
    - h. Final cleaning.
    - i. Application for reduction of retainage and consent of surety.
    - j. Advice on shifting insurance coverages.
    - k. Final progress photographs.
    - l. List of incomplete Work, recognized as exceptions to Architect's Certificate of Substantial Completion.
- J. Final Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include the following:
1. Completion of Project closeout requirements.
  2. Completion of items specified for completion after Substantial Completion.
  3. Ensure that unsettled claims will be settled.

4. Ensure that incomplete Work is not accepted and will be completed without undue delay.
5. Transmittal of required Project construction records to the Owner.
6. Certified property survey.
7. Proof that taxes, fees, and similar obligations were paid.
8. Removal of temporary facilities and services.
9. Removal of surplus materials, rubbish, and similar elements.
- 10.** Change of door locks to Owner's access.

### **PART 3 – EXECUTION**

**3.1** No retainage release will be approved by owner until all closeout documents (Closeout paperwork, as-builts, O&M manuals, AIA release forms, warranties, material turnover receipts, etc.) are received and verified complete.

**END OF SECTION**

## **SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION**

### **PART 1 - GENERAL**

#### **I.5 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### **2.5 SUMMARY**

- A. This Section includes administrative and supervisory requirements necessary for coordinating construction operations including, but not necessarily limited to, the following:
  - 1. General project coordination procedures.
  - 2. Conservation.
  - 3. Coordination Drawings.
  - 4. Administrative and supervisory personnel.
  - 5. Cleaning and protection.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1. Division 1 Section "Project Meetings" for progress meetings, coordination meetings, and pre-installation conferences.
  - 2. Division 1 Section " Construction Progress Schedule" for preparing and submitting the Contractor's Construction Schedule.
  - 3. Division 1 Section "Materials and Equipment" for coordinating general installation.
  - 4. Division 1 Section "Execution and Closeout Requirements" for coordinating contract closeout.

#### **3.5 COORDINATION**

- A. Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections that depend on each other for proper installation, connection, and operation.
  - 1. Schedule construction operations in the sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
  - 2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
  - 3. Make provisions to accommodate items scheduled for later installation.
  - 4. Contractor is required to coordinate with their subcontractors, other Prime contractors and the Construction Manager, sufficiently ahead of the work progressing.
- B. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.
  - 1. Prepare similar memoranda for the Owner and separate contractors where coordination of their work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative

procedures with other construction activities to avoid conflicts and assure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of schedules.
  2. Installation and removal of temporary facilities.
  3. Processing of submittals and photocopying/delivery to affected contractors.
  4. Progress meetings.
  5. Project closeout activities.
- D. Conservation: Coordinate construction operations to assure that operations are carried out with consideration given to conservation of energy, water, and materials.
1. Salvage materials and equipment involved in performance of, but not actually incorporated in, the Work.

#### **4.5 SUBMITTALS**

- A. Coordination Drawings: Prepare coordination drawings where careful coordination is needed for installation of products and materials fabricated by separate entities. Prepare coordination drawings where limited space availability necessitates maximum utilization of space for efficient installation of different components. (e.g. – subslab piping, ceiling spaces, etc.)
1. Show the relationship of components shown on separate Shop Drawings.
  2. Indicate required installation sequences.
  3. Comply with requirements contained in Section "Submittals."
  4. HVAC Contractor will begin coordination drawing process within 15 calendar days of award of Contract by providing ¼" scale drawings indicating locations of all ductwork layout, piping layout, Bottom of duct etc. Electronic copies will then submitted to Plumbing Contractor for piping layout, Electrical Contractor for lighting fixtures, main feeders and clearances. Finally, to the General Contractor for ceiling information (Each contractor shall complete their review and mark-ups within 5 days)
  5. A coordination meeting with all Contractors and subcontractors to review completed coordination drawings will be held within 45 days of Contract award.
- B. Coordination Digital Data Files: Prepare coordination digital data files according to the following requirements:
1. Electronic CAD Files of Project Base Plan Drawings: May only be used to expedite production of Shop Drawings for the Project. Use for other Projects or purposes is not allowed.
  2. Electronic CAD files of Project Drawings: Distributed only under the following conditions:
    - a. Use of files is solely at receiver's risk. Architect/Engineer does not warrant accuracy of files. Receiving files in electronic form does not relieve receiver of responsibilities for measurements, dimensions, and quantities set forth in Contract Documents. In the event of ambiguity, discrepancy, or conflict between information on electronic media and that in Contract Documents, notify Architect/Engineer of discrepancy and use information in hard-copy Contract Drawings and Specifications.  
  
CAD Files do not necessarily represent the latest Contract Documents, existing conditions, and as-built conditions. Receiver is responsible for determining and complying with these conditions and for incorporating addenda and modifications.
    - b. User is responsible for removing information not normally provided on Shop Drawings and removing references to Contract Documents. Shop Drawings submitted with information associated with other trades or with references to Contract Documents will not be reviewed and will be immediately returned.
    - c. Receiver shall not hold Architect/Engineer responsible for data or file clean-up required to make

- files usable, nor for error or malfunction in translation, interpretation, or use of this electronic information.
- d. Receiver shall understand that even though Architect/Engineer has computer virus scanning software to detect presence of computer viruses, there is no guarantee that computer viruses are not present in files or in electronic media.
    - 1) Receiver shall not hold Architect/Engineer responsible for such viruses or their consequences, and shall hold Architect/Engineer harmless against costs, losses, or damage caused by presence of computer virus in files or media.
  3. Upon request to the Architect, and at the Architect's sole discretion, Base Plan Drawings only may be provided to the Prime Contractor in electronic format (for example, AutoCAD format) by the Architect at a charge rate to cover the architect's cost for producing.
  4. Prior to the Architect's dispensing of documents in electronic format, the Contractor shall execute and deliver an "Electronic Media Release Agreement," provided upon request by Architect, along with said payment.
- C. Staff Names: Within 15 days of commencement of construction operations, submit a list of the Contractor's principal staff assignments, including the superintendent and other personnel in attendance at the Project Site. Identify individuals and their duties and responsibilities. List their addresses and telephone numbers.
1. Post copies of the list in the Project meeting room, the temporary field office, and each temporary telephone.

## **PART 2 - PRODUCTS (Not Applicable)**

## **PART 3 - EXECUTION**

### **I.5 GENERAL COORDINATION PROVISIONS**

- A. Inspection of Conditions: Require the Installer of each major component to inspect both the substrate and conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. Coordinate temporary enclosures with required inspections and tests to minimize the necessity of uncovering completed construction for that purpose.

### **2.5 CLEANING AND PROTECTION**

- A. Prime Contractor is to clean and protect construction in progress and adjoining materials in place, during handling and installation. Apply protective covering where required to assure protection from damage or deterioration at Substantial Completion.
- B. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to assure operability without damaging effects.
- C. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:
  1. Excessive static or dynamic loading.
  2. Excessive internal or external pressures.

3. Excessively high or low temperatures.
4. Thermal shock.
5. Excessively high or low humidity.
6. Air contamination or pollution.
7. Water or ice.
8. Solvents.
9. Chemicals.
10. Light.
11. Radiation.
12. Puncture.
13. Abrasion.
14. Heavy traffic.
15. Soiling, staining, and corrosion.
16. Bacteria.
17. Rodent and insect infestation.
18. Combustion.
19. High-speed operation.
20. Improper lubrication.
21. Unusual wear or other misuse.
22. Contact between incompatible materials.
23. Destructive testing.
24. Misalignment.
25. Excessive weathering.
26. Unprotected storage.
27. Improper shipping or handling.
28. Theft or vandalism

### **3.3 REQUESTS FOR INTERPRETATION (RFIs)**

- A. Procedure: Immediately on discovery of the need for interpretation of the Contract Documents, and if not possible to request interpretation at Project meeting, prepare and submit an RFI and forward to the Construction Manager via the internet web-based service.
- B. RFIs shall originate with Contractor. RFIs submitted by entities other than Contractor will be returned with no response.
  1. Coordinate and submit RFI's in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- C. Content of the RFI: Include a detailed, legible description of item needing interpretation and the following:
  1. Project Name.
  2. Date.
  3. Name of Contractor.
  4. Name of Architect and Construction Manager.
  5. RFI number, numbered sequentially. Use prefix based on Contract (i.e. MC, EC).
  6. Specification Section number and title and related paragraphs, as appropriate.
  7. Drawing number and detail references, as appropriate.
  8. Field dimensions and conditions, as appropriate.
  9. Contractor's suggested solution(s). If Contractor solution(s) impact the Contract Time or the



- Contract Sum, Contractor shall state impact in the RFI.
10. Contractors Signature.
  11. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings and other information necessary to fully describe items needing interpretation.
    - a. Supplementary drawings prepared by Contractor shall include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies and attachments.
- D. Architect's Action: Architect will review each RFI, determine action required, and return it.
1. The following RFIs will be returned without action:
    - a. Requests for approval of substitutions.
    - b. Requests for coordination information already indicated in the Contract Documents.
    - c. Requests for adjustments in the Contract Time or the Contract Sum.
    - d. Requests for interpretation of Architect's actions on submittals.
    - e. Incomplete RFIs or RFIs with numerous errors.
  2. Architect's action may include a request for additional information.
  3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 1 Section "Contract Modification Procedures."
    - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect and Construction Manager in writing within 10 days of receipt of the RFI response.
- E. On receipt of Architect's and Construction Manager's action, immediately distribute the RFI response to affected parties. Review response and notify Architect and Construction Manager within seven days if Contractor disagrees with response.

### **3.4 DEFICIENCY REPORTS**

- A. If the owner, Architect, or Construction Manager notes a deficiency in an installation, material, etc. they will issue a deficiency report via the internet web-based service to the appropriate contractor. The contractor has the designated time listed to correct the deficiency and upon completion must respond back in Sage. The A/E will then perform a follow-up inspection to confirm that the deficiency was adequately corrected.

### **3.5 Department of Labor Overtime Request**

- A. The DOL overtime request form shall be filled out and forwarded by each contractor to the Construction manager prior to the start of any onsite work. Contractors will not be allowed to work Weekends or after hours unless the DOL has been properly notified.

END OF SECTION

## SECTION 013119 – PROJECT MEETINGS

### PART 1 – GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for project meetings, including, but not limited to, the following:
  - 1. Preconstruction conferences.
  - 2. Preinstallation conferences.
  - 3. Progress meetings.
  - 4. Coordination meetings.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1. Division 1 Section “Coordination” for procedures for coordinating project meetings with other construction activities.
  - 2. Division 1 Section “Submittals” for submitting Contractor’s Construction Schedule.

#### 1.3 PRECONSTRUCTION CONFERENCE

- A. A preconstruction conference will be scheduled before starting construction, at a time convenient to the Owner, Construction Manager and the Architect, but no later than 15 days after issuance of the Letter of Intent. The conference will be held at the Project Site or another convenient location.
- B. Attendees: Authorized representatives of the Construction Manager, Owner, Architect, and their consultants; the Contractor and its superintendent; major subcontractors; manufacturers; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
- C. Agenda: Discuss items of significance that could affect progress, including the following:
  - 1. Tentative construction schedule.
  - 2. Critical work sequencing.

3. Designation of responsible personnel.
4. Procedures for processing field decisions and Change Orders.
5. Procedures for processing Applications for Payment.
6. Distribution of Contract Documents.
7. Submittal of Shop Drawings, Product Data, and Samples.
8. Preparation of record documents.
9. Use of the premises.
10. Parking availability.
11. Office, work, and storage areas.
12. Equipment deliveries and priorities.
13. Safety procedures.
14. First aid.
15. Security.
16. Housekeeping.
17. Working hours.

D. Reporting: CM shall prepare and issue minutes to attendees and interested parties.

#### 1.4 PREINSTALLATION CONFERENCES

- A. Conduct a pre-installation conference at the Project Site before each construction activity that requires coordination with other construction.
- B. Attendees: The Installer and representatives of the Prime Contractor, manufacturers and fabricators involved in or affect by the installation, and its coordination of integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise the Construction Manager and Architect of scheduled meeting dates.
  1. Review the progress of other construction activities and preparations for the particular activity under consideration at each pre-installation conference, including requirements for the following:
    - a. Contract Documents.
    - b. Options.
    - c. Related Change Orders.
    - d. Purchases.
    - e. Deliveries.
    - f. Shop Drawings, Product Data, and quality-control samples.
    - g. Review of markups.
    - h. Possible conflicts.
    - i. Compatibility problems.
    - j. Time schedules.
    - k. Weather limitations.
    - l. Manufacturer's recommendations.
    - m. Warranty requirements.

- n. Compatibility of materials.
  - o. Acceptability of substrates.
  - p. Temporary facilities.
  - q. Space and access limitations.
  - r. Governing regulations.
  - s. Safety.
  - t. Inspecting and testing requirements.
  - u. Required performance results.
  - v. Recording requirements.
  - w. Protection.
2. Record significant discussion and agreements and disagreements of each conference and the approved schedule. Promptly distribute the record of the meeting to everyone concerned, including the Owner and the Architect.
  3. Do not proceed with the installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of Work and reconvene the conference at the earliest feasible date.
  4. Reporting: Prime Contractor or Installer shall issue minutes to attendees, CM, Owner and Architect.

#### 1.5 PROGRESS MEETINGS

- A. Progress meetings will be held at the Project Site at regular intervals (typically weekly) as determined by the Construction Manager.
  - B. Attendees: In addition to representatives of the Owner, Construction Manager, and the Architect, each Prime Contractor shall be represented at these meetings. Attendance is mandatory at meetings and contractor will include in their bid a sum of \$250.00 per meeting (figure 24 meetings) to have an authorized individual in attendance capable of making decisions and providing direction. This amount will be listed as a separate line item on the contractor's Schedule of Values. If the contractor misses a meeting without prior written authorization from the Construction Manager, they will be issued a deduct change order in the amount of \$250.00 per occurrence. Subcontractors, suppliers, or other entities will be invited at the discretion of the Owner, Construction Manager, and the Architect. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
  - C. Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the status of the Project.
1. Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time

or ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

2. Review the present and future needs of each entity present, including the following:
  - a. Interface requirements.
  - b. Time.
  - c. Sequences.
  - d. Status of submittals.
  - e. Deliveries.
  - f. Off-site fabrication problems.
  - g. Access.
  - h. Site utilization.
  - i. Temporary facilities and services.
  - j. Hours of work.
  - k. Hazards and risks.
  - l. Housekeeping.
  - m. Quality and work standards.
  - n. Change Orders.
  - o. Documentation of information for payment requests.

D. Reporting: Approximately 5 days after each meeting, CM will prepare and distribute minutes of the meeting to each party present and to parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.

## 1.6 COORDINATION MEETINGS

- A. Conduct project coordination meeting at regular intervals convenient for all parties involved. Project coordination meetings are in addition to specific meetings held for other purposes, such as regular progress meetings and special pre-installation meetings.
- B. Request representation at each meeting by every party currently involved in coordination or planning for the construction activities involved.
- C. Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.
- D. The CM's Field Manager will conduct daily meetings with the prime contractors and major subcontractors' foremen. The purpose of the meetings is to provide the opportunity for each contractor to communicate to the Field Manager any items relating to their respective construction activity for that day (request for shutdown, deliveries, etc.) The meetings will commence from 7:00 o'clock am until 7:30 o'clock am. These meetings are generally informal. The CM's Field Manager will keep minutes of these meetings when appropriate and will be available upon request.

1.7 SAFETY MEETINGS

- A. Each Contractor will be responsible to conduct their own safety meetings on a regular basis (but not less than four times during any thirty-day period.)
- B. Minutes of the Safety Meeting must be maintained by each contractor onsite and must be made available upon request. Failure to conduct and submit meeting minutes will be grounds to reject the Prime Contractor's progress payment.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

## **SECTION 013200 - CONSTRUCTION PROGRESS SCHEDULE**

### **PART 1 - GENERAL**

#### **1.1 DESCRIPTION**

- a. Each Contractor shall develop a full schedule, in sufficient detail and clarity of form and technique so that the contractor can plan and control his work properly and the Construction Manager/Owner can readily monitor and follow the progress for all portions of the work. The Contractor shall complete the detailed schedule and submit to the CM within 10 days after contract award.
- b. The schedule shall comply with the various limits imposed by the scope of work any by any contractually intermediate milestone and completion dates included in the contract.
- c. The activities identified in the schedule shall be analyzed in detail to determine activity time durations in units of whole working days. All durations shall be the result of definitive manpower and resource planning by the Contractor. The contractor will provide specific manpower loading information/crew size to support the duration proposed. (e.g. - 4-man crew can get 1,000 sf/day project has 11,000 sf; thus, duration was identified as 11 days).
- d. The activity data shall include activity codes to facilitate selection, sorting and preparation of summary reports and graphics. Activity codes shall be developed for:
  - i. Area: Subdivision of the site into logical modules or blocks and levels.
  - ii. Responsibility: contractor or subcontractor responsible for the work.
  - iii. Specifications: 33 Division CSI format.
  - iv. System: Division of the work into building systems for summary purposes.
  - v. Milestone: Work associated with completion of interim completion dates or milestones.
  - vi. Pay Item: Work identified with a pay item on the Schedule of Values.

#### **1.2 REPORTS**

- a. For initial submittal and each update, the contractor shall prepare the following standard report:
  - i. Tabular Schedule Report sorted by Activity code and Early Start.

#### **1.3 GRAPHICS**

- a. For initial submittal the contractor shall prepare the following graphics:
  - i. Pure logic diagram (Precedence Format) of entire data, not time scaled, grouped by Activity code.
  - ii. Detailed bar chart sorted by Activity Code with Early Start and Early Finish.
  - iii. Summary bar chart summarizing by Activity Code with Early Start and Early Finish.
- b. For each update the contractor shall prepare the following graphic:
  - i. Bar Chart showing work activities with Early Start in the next 40 work days sorted by Activity Code and Early Start.
  - ii. Summary Bar Chart summarizing by Activity Code showing progress with Early Start and Early Finish.
- c. For each Change Order involving adjustment in the contract time for performance the contractor shall prepare a pure logic diagram showing the changed work with all predecessor and successor activities (Fragnet).

#### 1.4 SUBMITTALS

- a. In no case shall first application for payment be approved prior to submission of acceptable preliminary schedule, detailed submittal schedule, and schedule of values.
- b. Monthly updates, required schedules and graphics shall be submitted to the Construction Manager/Owner within five working days following the end of the preceding month. Monthly updates, schedules and graphics shall be submitted electronically.
- c. If any of the required submissions are returned to the Contractor for corrections or revisions, they shall be resubmitted within ten (10) calendar days after the return date. Resubmittals shall be in the same quantities as noted above. Review and response by the Construction Manager/Owner will be given within (10) calendar days after resubmission.

#### 1.5 PAYMENT WITHHELD

- a. **If the Contractor fails to submit the required schedule information as indicated in this section within the time prescribed or revision thereof within the requested time, the Construction Manager/Owner may withhold approval of Progress Payment Estimates until such time as the Contractor submits the required information.**

#### 1.6 UPDATES

- a. Updates of the Schedule shall be made every two weeks reflecting actual or reasonably anticipated progress as of the last working day of the month. Monthly updates of the Detailed Schedule will be made each month until all work is substantially complete.
- b. The Contractor will meet with the Construction Manager/Owner at the end of the updated period to review information in draft form before preparation of the required schedules and graphics. The Contractor will present data, prepared in advance, for review and approval of the Construction Manager/Owner including:
  - i. Actual Start Dates.
  - ii. Actual Completion Dates.
  - iii. Activity percent complete and/or Remaining Duration.
  - iv. Revised logic, changes in activity duration's or resource assignments.
  - v. Narrative report discussing progress through the update period; changes, delays or other circumstances affecting progress; status of the project with respect to completion schedule; and any efforts by the Contractor to improve progress.
- c. The update meeting will establish the values to be submitted for payment and will be directly related to the schedule of values in the application for payment.
- d. The Contractor shall prepare a report of the meeting and make all changes, additions or corrections to the data resulting from the review. The contractor shall promptly prepare the monthly submittal following the update meeting.

#### 1.7 CHANGES, DELAYS AND EXTENSIONS OF TIME

- a. When changes or delays are experienced, the Contractor shall submit to the Construction Manager/Owner a Time Impact Analysis illustrating the influence of each change or delay on the current Contract scheduled completion date. Each time analysis shall include a Fragnet (network analysis) demonstrating how the Contractor proposed to incorporate the change or delay into the Detailed Schedule. Additionally, the analysis shall demonstrate the time impact based on the date the change was given to the Contractor, the status of construction at that point in time, and the activity duration of all effected activities. The activity duration used in



- this analysis shall be those included in the latest update of the Detailed Schedule, closest to the time of delay or as adjusted by mutual agreement.
- b. Each Time Impact Analysis shall be submitted within ten (10) calendar days after a delay occurs or a notice of change order is given to the Contractor. In cases where the Contractor does not submit a Time Impact Analysis for a specific change or delay with a specified period of time, it shall be mutually agreed that no time extension is required. Final evaluation of each Time Impact Analysis by the Construction Manager/Owner shall be made within fourteen (14) calendar days after receipt unless subsequent meetings and negotiations are necessary. Adjustments in the Contract time for performance shall be made only by written change order approved by the Owner. Upon approval of the Owner, Fragnets illustrating the influence of changes and delays shall be incorporated into the Detailed Schedule by the contractor during the first update after agreement is reached.
  - c. The time difference between the Early Finish date and the Late Finish date is defined as "float." The "float" belongs to the Project and may be used by the Construction Manager/Owner to benefit the Project. Changes or delays that influence activities in the network with "float" and do not extend the Critical Path (the network of activities with zero days "float") shall not be justification for an adjustment in Contract time for performance.

END OF SECTION

## **SECTION 013300 - ELECTRONIC SUBMITTAL PROCEDURES**

### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submittals required for performance of the Work, including the following:
  - 1. Contractor's construction schedule.
  - 2. Submittal schedule.
  - 3. Daily construction reports.
  - 4. Shop Drawings.
  - 5. Product Data.
  - 6. Samples.
  - 7. Quality assurance submittals.
- B. Administrative Submittals: Refer to other Division 1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:
  - 1. Permits.
  - 2. Applications for Payment.
  - 3. Performance and payment bonds.
  - 4. Insurance certificates.
  - 5. List of subcontractors.
- C. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1. Division 1 Section " Payment Procedures" specifies requirements for submittal of the Schedule of Values.
  - 2. Division 1 Section " Project Management and Coordination" specifies requirements governing preparation and submittal of required Coordination Drawings.
  - 3. Division 1 Section "Project Meetings" specifies requirements for submittal and distribution of meeting and conference minutes.
  - 4. Division 1 Section "Quality Control" specifies requirements for submittal of inspection and test reports.
  - 5. Division 1 Section "Closeout Procedures " specifies requirements for submittal of Project Record Documents and warranties at project closeout.

### 1.3 DEFINITIONS

- A. Coordination Drawings show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or to function as intended.
  - 1. Preparation of Coordination Drawings is specified in Division 1 Section " Project Management and Coordination" and may include components previously shown in detail on Shop Drawings or Product Data.

- B. Field samples are full-size physical examples erected on-site to illustrate finishes, coatings, or finish materials. Field samples are used to establish the standard by which the Work will be judged.
- C. Mockups are full-size assemblies for review of construction, coordination, testing, or operation; they are not Samples.

#### 1.4 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
    - 1. The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
  - 3. Processing: To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for resubmittals.
    - 1. Submittals must be transmitted in accordance with the requirements of Section 1.6.
    - 2. Allow between 8 - 10 business days for initial review of the first round of submittals. See 1.6 for more information. Allow additional time if the Architect must delay processing to permit coordination with subsequent submittals.
    - 3. If an intermediate submittal is necessary, process the same as the initial submittal.
    - 4. Allow an additional 5 business days for reprocessing each resubmittal.
    - 5. No extension of Contract Time will be authorized because of contractor's failure to transmit submittals to the Architect sufficiently in advance of the Work to permit processing.
    - 6. **If the contractor delays on key submittals which can negatively impact the project schedule, the owner and his agent(s) can withhold payments as necessary until the proper submittal paperwork is received.**
- B. Submittal Preparation:
  - 1. Each copy of each submittal will have a "submittal cover sheet" attached identifying all information requested by Architect. ( see copy after this section ) All SCS must be approved by contractor ( see electronic stamp B.5 ) signed, dated and have all fields completely filled-out. Any submittal received without proper use of this Cover Sheet will be returned immediately to the contractor. Cover sheet for contractors use is included at the end of this section.
  - 2. A Submittals Website, an internet (web-based) service shall be used by all contractors to provide an on-line database and repository which shall be used to transmit and track project related documents. The Submittals Website is provided by the Construction Manager. Upon Contract award the successful bidders will be given log on instructions. The intent for using the Submittals Website is to expedite the construction process by reducing paperwork, improving information flow, and decreasing submittal review turnaround time.
  - 3. Project submittals (shop drawing, product data and quality assurance submittals) shall be transmitted by the Contractor in Portable Document Format (PDF) to the Submittals

Website, where it will be tracked and stored for retrieval for review. After the submittal is reviewed it is uploaded back to the Submittals Website for action or use by the Contractor and Owners Representatives.

4. The service also tracks and stores documents related to the project such as RFI's (Request for Information), Contacts, Meeting Minutes, Punchlist, and Non-Compliance Notices.
  5. For each submittal, the Contractor shall review and apply electronic stamp certifying that the submittal complies with the requirements of the Contract Documents, including verification of manufacturer/product, dimensions and coordination of information with other parts of the work. ( contractor sign and date )
  6. It is the Contractor's responsibility to provide the submittals in a PDF format. The contractor may use any of the following options:
    - a. Subcontractors and suppliers provide paper submittals to the Contractor, who electronically scans and converts them to PDF format.
    - b. Contract a Scanning Service, which will allow the Contractor and the Contractor's subcontractors and suppliers to provide paper submittals to the Scanning Service, which electronically scans and converts them to PDF format. It will be the Contractor's responsibility to transmit the scanned submittals to the Submittals Website.
  7. Image Quality:
    - a. Image resolution: The PDF files shall be created at a minimum resolution of 200 dots per inch utilizing the original document size. The Contractor will be responsible to increase the resolution of the scanned file or images being submitted as required to adequately presenting the information.
    - b. Image Color Rendition: When information represented requires color to convey the intent and compliance, provide full color PDF reproduction.
- C. Contractor Internet Service and Equipment Requirements:
1. The Contractor will be required to have an Email address and Internet access at Contractor's main office.
  2. Unless the Contractor will exclusively be using a Scanning Service to create all PDF documents, the Contractor will be required to own a PDF reviewing, creating and editing software, such as Adobe Acrobat ([www.adobe.com](http://www.adobe.com)), Bluebeam PDF Revu ([www.bluebeam.com](http://www.bluebeam.com)), or other similar PDF reviewing, creating and editing software for applying electronic stamps and comments.
  3. The Contractor will be required to have a web browser such as Internet Explorer 11, Firefox 40-60.
  4. The Contractor will be required to have Adobe Reader version 11: Sage uses a pdf creator to generate forms. In order to print / view forms you will need Adobe Reader.
  5. Contractors are required to have network securities in place such as anti-virus that is active and up to date. Do not access Contract Management from unsecured or public network location such as free WI-FI hotspots.
- D. Training and Support:
1. A training manual shall be available, free of charge from the Construction Manager, for all project participants regarding use of the Submittals Website and PDF submittals.
  2. Training if required, will be provided by the Construction Manager at Arris's main office located in Poughkeepsie NY. The appropriate personnel from each contractor office are required to attend this meeting.
- E. Paper Copies:
1. Contractor Copies: The Contractor will be responsible for making copies, for the Contractors own use and for use by its subcontractors and suppliers.

- F. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the CM electronically using a transmittal form. The CM will then transmit to the Architect. The Architect will not accept submittals received from sources other than the Construction Manager.
1. On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.
  2. Transmittal Form: Use AIA Document G810 and submit Sage notification to ACCI that the submittal has been uploaded. The contractor's transmittal must have the subject description properly filled out, so that all parties can see what section/product is being submitted without having to open the actual submittal.
  3. Transmittal Form: Use the sample form at the end of this Section for transmittal of submittals.

## 1.5 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Distribution: It is the contractor's responsibility to coordinate submittals with each subcontracting trade. Each contractor shall be required to provide their subcontractors with a complete list of their submittals in order that other contractors can request required submittal information.
1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.

## 1.6 SUBMITTAL SCHEDULE

- A. Submittals must be prepared and transmitted as follows, unless otherwise approved by the Construction Manager:
1. Within 15 working days after Notice to Proceed:
    1. HVAC Equipment
    2. Entrances and Storefronts
    3. Light Fixtures,
    4. Panelboards
    5. Doors & Hardware
    6. Hot Water Pumps
    7. All other submittals critical to the schedule.
  2. Balance of Submittals – after 15 days but within 30 days after Notice to Proceed.
  3. If the contractor misses the milestone submittal timeframes listed above, the owner / agents can withhold requisition payments until the required paperwork is received. **If there are any open submittals beyond 45 days of contract award, the owner will stop all contractor payments until all missing paperwork is received.**
  4. Upon approval by the Construction Manager, non-critical submittals may be transmitted later.
  5. Prepare submittals including information in paragraph 1.4B above.
- B. Schedule Updating: Revise the submittal schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

## 1.7 DAILY CONSTRUCTION REPORTS

- A. Prepare a daily construction report recording the following information concerning events at the site, and submit one copy to the Architect and one copy to the Construction Manager by 10:00 am the following day. Any contractor not submitting required reports will not receive approval on the subsequent application for payment until such time that all required information is submitted:
1. List of subcontractors at the site.
  2. Count of personnel at the site (substantiates payroll).
  3. High and low temperatures, general weather conditions.
  4. Accidents and unusual events.
  5. Meetings and significant decisions.
  6. Stoppages, delays, shortages, and losses.
  7. Meter readings and similar recordings.
  8. Emergency procedures.
  9. Orders and requests of governing authorities.
  10. Change Orders received, implemented.
  11. Services connected, disconnected.
  12. Equipment or system tests and startups.
  13. Partial Completions, occupancies.
  14. Substantial Completions authorized.

#### 1.8 SHOP DRAWINGS

- A. Submit newly prepared information drawn accurately to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.
- B. Shop Drawings include fabrication and installation Drawings, setting diagrams, schedules, patterns, templates and similar Drawings. Include the following information:
1. Dimensions.
  2. Identification of products and materials included by sheet and detail number.
  3. Compliance with specified standards.
  4. Notation of coordination requirements.
  5. Notation of dimensions established by field measurement.
  6. Sheet Size: Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 36 by 48 inches.
  7. All Technical Submittals :Electronic shop drawing submittal to Construction Manager.
  8. Do not use Shop Drawings without an appropriate final stamp indicating action taken.
  9. Maintain approved copies on site to record "as-built" conditions.
  10. Submit additional copies of as-built, approved drawings as specified in project closeout.

#### 1.9 PRODUCT DATA

- A. Collect Product Data into a single submittal for each element of construction or system. Submit prior to shop drawings or simultaneously when products are specified items or A/E approval is granted. Product Data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.
1. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products that are not required, mark copies to indicate the

applicable information. Include the following that are not required, mark copies to indicate the applicable information. Include the following information:

1. Manufacturer's printed recommendations.
  2. Compliance with trade association standards.
  3. Compliance with recognized testing agency standards.
  4. Application of testing agency labels and seals.
  5. Notation of dimensions verified by field measurement.
  6. Notation of coordination requirements.
2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
  3. Submit digitally through the Submittals Website to CM.
  4. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.
    1. Do not proceed with installation until a copy of Product Data is in the Installer's possession.
    2. Do not permit use of unmarked copies of Product Data in connection with construction.

#### 1.10 SAMPLES

- A. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture, and pattern. Sample are submitted directly to the architects home office and copy Construction Manager with transmittal.
  1. Mount or display Samples in the manner to facilitate review of qualities indicated. Prepare Samples to match the Architect's sample. Include the following:
    1. Specification Section number and reference.
    2. Generic description of the Sample.
    3. Sample source.
    4. Product name or name of the manufacturer.
    5. Compliance with recognized standards.
  2. Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
    1. Where variation in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least 3 multiple units that show approximate limits of the variations.
    2. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
    3. Refer to other Sections for Samples to be returned to the Contractor for incorporation in the Work. Such Samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of Sample submittals.
    4. Samples not incorporated into the Work, or otherwise designated as the Owner's property, are the property of the Contractor and shall be removed from the site prior to Substantial Completion.

3. Preliminary Submittals: Submit a full set of choices where Samples are required for selection of color, pattern, texture, or similar characteristics from a range of standard and premium choices.
    1. The Architect will review and distribute selections made or other action.
  4. Submittals: Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation, and similar characteristics, submit 6 sets to the Architect who will distribute one set to CM and two (2) to the contractor marked with the action taken.
  5. Maintain sets of Samples, as returned, at the Project Site, for quality comparisons throughout the course of construction.
    1. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
    2. Sample sets may be used to obtain final acceptance of the construction associated with each set.
- B. Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.
1. Field samples are full-size examples erected on-site to illustrate finishes, coatings, or finish materials and to establish the Project standard.
    1. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

#### 1.11 QUALITY ASSURANCE SUBMITTALS

- A. Submit quality-control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality-control submittals as required under other Sections of the Specifications.
- B. Certifications: Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.
  1. Signature: Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the company.
- C. Inspection and Test Reports: Requirements for submittal of inspection and test reports from independent testing agencies are specified in Division 1 Section "Quality Control."

#### 1.12 ARCHITECT'S ACTION

- A. Except for submittals for the record or information, where action and return is required, the Architect will review each submittal, mark to indicate action taken, and return promptly.
  1. Compliance with specified characteristics is the Contractor's responsibility, as stated on the approval stamp.
- B. Action Stamp: The Architect will stamp each submittal with a uniform, action stamp. The Architect will mark the stamp appropriately to indicate the action taken, as follows:
  1. Unsolicited Submittals: The Architect will return unsolicited submittals to the sender without action.



2. Final Unrestricted Release: When the Architect marks a submittal "Furnish as Corrected", the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.
3. Final-But-Restricted Release: When the Architect marks a submittal "Make Corrections Noted", the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Final payment depends on that compliance. (No resubmittal is required.)
4. "Revise and Resubmit" When the Architect marks a submittal "Revise and Resubmit", do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay.
5. Returned for Resubmittal: When the Architect marks a submittal "Rejected", do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat if necessary, to obtain different action mark.
  - I. Do not use, or allow others to use, submittals marked "Rejected" at the Project Site or elsewhere where Work is in progress.
6. Other Action: Where a submittal is for information or record purposes only and does not require approval and the contractor is responsible for the conformance of the product, the Architect will return the submittal marked "Reviewed".
7. "Submit specified item": When submittal is marked "Submit Specified Item", the Contractor shall immediately submit the specified item,

EXECUTION (Not Applicable)

END OF SECTION

## SECTION 014500 - QUALITY REQUIREMENTS PART 1 -

### GENERAL

#### 1.1 SECTION INCLUDES

- A. Requirements for monitoring the quality of the constructed project.
- B. Work of this Section also includes services of an independent testing laboratory for quality assurance testing.

#### 1.2 RELATED SECTIONS

- A. The following Sections contain requirements that relate to this Section:
  1. Division 1 Section “Testing Laboratory Services” specifies requirements for coordination and notification of any owner-tested items.
  2. Division 1 Section “Submittals” specifies requirements for development of a schedule of required tests and inspections.
  3. Division 1 Section “Special Inspections & Structural Testing”

#### 1.3 QUALITY ASSURANCE - CONTROL OF INSTALLATION

- A. Each Prime Contractor shall continually monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply with specified standards as a minimum quality for the work except when more stringent tolerances, codes, or specified requirements indicate higher standards or workmanship that is more precise.
- C. Perform work by persons qualified and skilled to produce workmanship of specified quality.
- D. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.
- E. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- F. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum. The actual installation may exceed the minimum within reasonable limits. Indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision.
  1. Contractor Responsibilities:
    - a. Unless otherwise indicated as the responsibility of another identified entity, Contractor shall provide inspections, tests, and other quality-control services specified elsewhere in the Contract Documents and required by authorities having jurisdiction. Costs for these services are included in the Contract Sum unless specifically identified as provided by others.
    - b. Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Contractor’s responsibility, the Contractor shall employ and pay a qualified independent testing agency to perform quality-control services. Costs for these services are included in the Contract Sum.

- c. Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Owner's responsibility, the Owner will employ and pay a qualified independent testing agency to perform those services.
- d. Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Owner's responsibility, the Owner will engage the services of a qualified independent testing agency to perform those services. Payment for these services will be made from the Inspection and Testing Allowance, as authorized by Change Orders.

#### 1.4 MOCK-UP

- A. Tests will be performed under provisions identified in this Section and identified in the respective product specification sections.
- B. Assemble and erect specified mock -ups with specified attachment and anchorage devices, flashing, seals, and finishes.
- C. Accepted mock-ups shall be a comparison standard for the remaining work.
- D. Where a mock-up has been accepted by the Engineer/Architect and is specified to be removed, then the Contractor shall remove the mock-up and the clear area when directed to do so by the Engineer/Architect.

#### 1.5 QUALITY ASSURANCE - TESTING LABORATORY

- A. In order to establish compliance with the Contract Documents, materials shall be tested, examined and evaluated before they are incorporated into the work. During and after installations, additional tests, examinations, and evaluations shall be made to determine continued compliance throughout the course of the work.
- B. Testing laboratory shall be a reputable, experienced firm that is capable of performing all of the required testing and authorized to operate in the state in which the project is located.
- C. Perform all sampling and testing in accordance with specified procedures and use the materials, instruments, apparatus, and equipment required by the codes, regulations and standards. Where specific testing requirements or procedures are not described, perform the testing in accordance with all pertinent codes and regulations and with recognized standards for testing.
- D. In the event that samples and test specimens are not properly taken, handled, stored or delivered or if other requirements of this Section are not complied with, Engineer/Architect reserves the right to delegate any or all of this work to others, or to take whatever action deemed necessary to ensure that sampling and testing are properly accomplished, for which all costs shall be borne by Contractor.
- E. Construction Manager/Architect reserves the right to disapprove the use of a specific testing laboratory, even after prior approval, if the laboratory fails to meet or comply with the requirements of this Section. If this should occur, immediately discharge the testing laboratory and retain the services of a different laboratory acceptable to Engineer/Architect.
- F. The testing laboratory shall meet the following criteria:
  - 1. Be capable of performing all of the required tests.
  - 2. Be regularly engaged in performing the types of services required.
  - 3. Have adequate facilities, materials, equipment, and personnel to perform the services.

4. Have an adequately trained, experienced and qualified staff.
5. Have at least one registered professional engineer licensed in the state in which the project is located who shall be capable of performing field tests, supervising laboratory testing and interpreting test results. The professional engineer shall be thoroughly knowledgeable in materials, soils, asphalt paving and concrete.
6. Shall be able to be on the Project site within two hours after being notified.
7. Testing Equipment: Calibrated at reasonable intervals with devices of an accuracy traceable to either National Bureau of Standards or accepted values of natural physical constants.

#### 1.6 REFERENCE STANDARDS

- A. Conform to reference standards by date that the project was last bid.
- B. Obtain copies of standards when required by Contract Documents.
- C. Should specified reference standards conflict with Contract Documents, request clarification from Engineer/Architect before proceeding.
- D. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

#### 1.7 SUBMITTALS

- A. Within fifteen (15) calendar days from the date of the Notice to Proceed, submit documentation from three (3) testing laboratories that clearly indicates experience, location, qualifications of staff, and descriptions of any limitations or restrictions of the firm.
- B. Certified copies of each test report shall be mailed directly to the Engineer/Architect. The Contractor shall arrange with the laboratory to secure copies.
- C. Each report shall be in writing and shall include the testing method used, the test results, the specified results, the exact location of where the test specimens were taken, the date taken, Project identification, Contractor's name and other pertinent information required for a complete and meaningful test report.
- D. Each report shall be signed and certified by a responsible officer of the testing laboratory.
- E. Mail reports directly to Engineer/Architect within 24 hours after the sample is taken, except in those instances when tests cannot be immediately performed because of required curing, incubation periods, or lengthy testing procedures.
- F. The laboratory shall verbally communicate test results when requested by the Engineer/Architect. This does not eliminate nor replace the requirements for a written report.

#### 1.8 SCHEDULING - LABORATORY SERVICES

- A. Except where otherwise specified, the Architect / Construction Manager will determine the number of samples to be taken, the date and time samples will be taken and tests made, the number and type of tests to be performed, who will collect the samples, how they will be handled and stored and when laboratory personnel are required on site.
- B. Architect / Construction Manager will notify Contractor of his decision to take samples and/or have tests made and provide him with the pertinent information. Contractor is responsible for notifying the testing laboratory and for having the testing performed, on schedule.

- C. In addition to the above, Contractor shall make his own arrangements for the sampling and testing of materials he proposes to incorporate into the work. This shall not be paid for out of the cash allowance.
- D. Notify Architect / Construction Manager at least 48 hours in advance of the times at which scheduled samples or tests will be conducted.
- E. If samples and/or tests cannot be taken or performed when required, delay the work until such time that they can be accomplished. Where possible, any work that has been installed but has not been sampled or tested as required, shall be tested by other means. Upon r Architect / Construction Manager request, uncover any work, which has been buried or covered, and perform special tests designated. If the work cannot be tested by other means, Architect / Construction Manager may declare the work unacceptable. All costs associated with noncompliance and for special testing shall be borne by the Contractor and not be paid for out of the cash allowance.
- F. Should the testing laboratory be scheduled to take or collect samples or to perform tests, and finds that it is unable to do so as a result of delays in construction, inclement weather, or any other reason, reschedule the tasks for a date acceptable to Architect / Construction Manager. Costs associated with times testing laboratory is unable to perform scheduled services shall be borne by the Contractor and will not be paid for under the allowance.
- G. Plan all work and operations to allow for the taking and collection of samples and allow adequate time for the performance of tests. Delay the progress of questionable work until the receipt of the certified test reports.

#### 1.9 TESTING REQUIREMENTS

- A. Dry Paint Thickness Measurement: Perform dry paint thickness using calibrated SSPC Type 2 fixed probe gages.

#### 1.10 TESTING SCHEDULE

- A. Dry Paint Thickness Measurement:
  - 1. Make five (5) separate spot measurements spaced evenly over 100 square feet of area.
  - 2. For structures exceeding 1000 square feet of finished surface, three 100 square foot areas shall be randomly selected by the Engineer/Architect plus one 100 square foot area for each additional 1000 square feet of finished surface. This requirement shall be subject to change as required by the Engineer/Architect.

#### 1.11 FIELD OBSERVATION OF CONTRACTOR'S WORK

- A. The Architect / Construction Manager will provide periodic observation of the Contractor's work in accordance with the General Conditions of the Contract.

### PART 2 - PRODUCTS

Not Used

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent Work.

Beginning new Work means acceptance of existing conditions. Verify that the existing substrate is capable of structural support or attachment of new Work being applied or attached. Examine and verify specific conditions described in individual specification sections. Verify that utility services are available, of the correct characteristics, and in the correct locations.

### 3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance. Seal cracks or openings of substrate prior to applying next material or substance.
- B. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

### 3.3 FIELD QUALITY CONTROL

- A. Allow representatives of the testing laboratory access to the work at all time. Provide all equipment, labor, materials, and facilities required by the laboratory to properly perform its functions. Cooperate with and assist laboratory personnel during the performance of their work.
- B. Test specimens and samples shall be taken by the person(s) designated in other Sections, or as directed by Architect / Construction Manager. Conduct field sampling and testing in the presence of Architect / Construction Manager. Provide all materials, equipment, facilities and labor for securing samples and test specimens and for performing all field-testing.

END OF SECTION

## SECTION 014523 – SPECIAL INSPECTIONS AND STRUCTURAL TESTING

### PART 1.10 – GENERAL

#### 1.1 GENERAL REQUIREMENTS

- A. Special Inspections and Structural Testing shall be in accordance with Chapter 17 of the *Building Code of New York State (BCNYS)*.
- B. Hold a Special Inspections preconstruction meeting at least 7 days prior to the initial planned date for start of construction.
  - 1. Discussions shall include the following:
    - a. Review of specifications and Schedule of Special Inspections for work requiring Special Inspections.
    - b. Responsibilities of Contractor, Owner, Testing Agency, Special Inspector, and Registered Design Professional.
    - c. Notification and reporting procedures.
  - 2. Attendees shall include the Contractor, Construction Manager, Testing Agency, Special Inspector, and Registered Design Professionals for Structural Engineering and for Architectural.

#### 1.2 DEFINITIONS

- A. Registered Design Professional: The licensed Professional Engineer or Registered Architect whose seal appears on the Construction Drawings. Unless noted otherwise, references to the Registered Design Professional in this section refer to the Structural Engineer for the building design.
- B. Code Enforcement Official: The Officer or other designated authority charged with administration and enforcement of the BCNYS. For project under the jurisdiction of New York State agencies such as the Department of Education (SED), State University Construction Fund (SUCF), Office of General Services (OGS), and Dormitory Authority (DASNY), the Code Enforcement Official is an official from the agency having jurisdiction.
- C. Testing/Inspecting Agency: An agent retained by the Special Inspector or by the Owner and coordinated by the Special Inspector, to perform some of the inspection services on behalf of the Special Inspector. (An example of an Inspecting Agent is a Geotechnical Engineer.)
- D. Statement of Special Inspections: A document prepared by the Registered Design Professional and filed with and approved by the Code Enforcement Official that includes the Schedule of Special Inspections listing the materials and work requiring Special Inspections. This document includes the inspections and verifications required for the project and the individuals, agencies, and/or firms who will be retained to perform these services.
- E. Continuous Special Inspection: The full-time observation of work by the Special Inspector or Testing Agency while the work is being performed.
- F. Periodic Special Inspections: The part-time or intermittent observation of work by the Special Inspector or Testing Agency for work that has been or is being performed and at the completion of the work.

1.3 QUALIFICATIONS

- A. The Special Inspector and Testing/Inspecting Agency shall be accepted by the Registered Design Professional (RDP) and the Code Enforcement Official.
- B. Special Inspections shall be performed by agents who have relevant experience for each category of inspections indicated on the drawings.
- C. Minimum qualifications of inspection agents are indicated on the drawings.

1.4 SUBMITTALS

- A. The Special Inspector and Testing/Inspecting Agency shall submit to the Registered Design Professional and Code Enforcement Official for review, a copy of their qualifications including the names and qualifications of each of the individual inspectors and technicians who will be performing inspections or tests.
- B. The Special Inspector and Testing/Inspecting Agency shall disclose any past or present business relationship or potential conflict of interest with the Contractor or any of the Subcontractors whose work will be inspected or tested.

1.5 PAYMENT

- A. The Owner will engage and pay for the services of the Special Inspector and Testing/Inspecting Agency.**
- B. If any materials requiring Special Inspections are fabricated in a plant not located within 200 miles of the project site, the Contractor shall be responsible for the travel expenses of the Special Inspector or Testing/Inspecting Agency.
- C. The Contractor shall be responsible for the cost of any retesting or reinspection of the work failing to comply with the requirements of the Contract Documents.

1.6 OWNER RESPONSIBILITIES

- A. The Owner will provide the Special Inspector with a complete set of Contract Documents sealed by the Registered Design Professional and approved by the Code Enforcement Official.

1.7 CONTRACTOR RESPONSIBILITIES

- A. The Contractor shall cooperate with the Special Inspector and his agents so that Special Inspections and testing may be performed without hindrance.
- B. As indicated in the Schedule of Special Inspections, the Contractor shall notify the Special Inspector and/or Testing/Inspecting Agency at least 48 hours in advance of a required inspection or test.
- C. The Contractor shall provide incidental labor and facilities to provide access to the work to be inspected or tested, to obtain and handle samples at the site or at source of products to be tested, to facilitate tests and inspections, and for storage and curing of test samples.



- D. If Special Inspections or testing require the use of the Contractor's scaffolding to access work areas, the Contractor shall provide a competent person to perform the daily evaluation of the scaffolding to verify that it is safe to use. The Contractor shall notify the Special Inspector and Testing Agent of this review before each use. The Contractor is responsible for the safe assembly and stability of the scaffolding.
- E. The Contractor shall keep the latest set of Construction Drawings, field sketches, accepted shop drawings, and specifications at the project site for field use by the Inspectors and Testing Technicians.
- F. The Contractor shall perform remedial work (if required) and sign non-conformance reports stating that remedial work has been completed. The Contractor shall submit signed reports to the Special Inspector as work proceeds.
- G. The Special Inspection program shall in no way relieve the Contractor of his obligation to perform work in accordance with the requirements of the Contract Documents or from implementing an effective Quality Control program.
- H. The Contractor shall be solely responsible for construction site safety.

#### 1.8 LIMITS ON AUTHORITY

- A. The Special Inspector or Testing/Inspecting Agency shall not release, revoke, alter, or enlarge on the requirements of the Contract Documents.
- B. The Special Inspector or Testing/Inspecting Agency shall not have control over the Contractor's means and methods of construction.
- C. The Special Inspector or Testing/Inspecting Agency shall not be responsible for construction site safety.
- D. The Special Inspector or Testing/Inspecting Agency shall not have the authority to stop the work.

#### PART 1.20 - INSPECTIONS AND TESTING

##### 1.21 STRUCTURAL EXCAVATION, BACKFILL, AND COMPACTION AND DEEP FOUNDATIONS

- A. The Special Inspector shall perform inspections and verifications or coordinate the RDP for Geotechnical Engineering to perform inspections and verifications including the following:
  - 1. Identify soils requiring undercutting and replacing while observing proof rolling and when subgrade is exposed.
  - 2. Verify footing bearing strata.
  - 3. Review and accept materials proposed by Contractor for use as compacted fill based on test data and information submitted by the Testing Agency. Material approval shall be based on the requirements and recommendations stated in the Project Geotechnical and Subsurface Investigation.

4. Observe and accept filling and compaction procedures.
  5. Observe and accept preparation of slab-on-grade subgrade and subbase.
- B. The Testing Agency shall perform field density tests for building subgrades and for fill materials including slab subbase within building area in accordance with ASTM D 1557 or ASTM D 2922 as follows:
1. Footing subgrade and each stratum of soil on which footings will be placed.
  2. Building subgrade including slab subbase and each lift of compacted material.
  3. Field Area and trenches for utilities: Inspect each subgrade and fill layer before further backfill or construction work is performed. Approval shall be based on satisfactory achievement of compaction criteria.
  4. Verify use of fill material and lift thicknesses in field.
- C. The Testing Agency shall perform moisture content testing of the slab subbase in accordance with ASTM D 3017.

#### 1.22 CAST-IN-PLACE CONCRETE

- A. The Special Inspector shall perform the following:
1. Inspect reinforcing steel and placement.
  2. Inspect embedded bolts and anchor rods prior to concrete placement.
  3. Inspect erected precast members.

The Testing Agency shall perform the following:

1. Verify the use of the required design mix.
2. Sample and test concrete during placement as follows (test shall be taken at point of discharge into structure):
  - a. Record specific location(s) where the concrete was placed. Refer to column lines where possible.
  - b. Record time concrete is batched as shown on truck ticket, time placement begins/sample time, and is time truck is emptied.
  - c. Sample fresh concrete in accordance with ASTM C 172, except modified for slump to comply with ASTM C 94.
  - d. Perform slump test in accordance with ASTM C 143.
  - e. Measure air content in accordance with ASTM C 231, pressure method, one for each truckload of ready-mixed concrete (air-entrained or non-air-entrained).
  - f. Record temperature of concrete for each truck. Test in-place concrete temperature hourly when ambient temperature is 40 degrees F and below and when 80 degrees F and above.
  - g. Record air temperature and general weather conditions (cloudy, windy, sunny, etc.).
  - h. Record unit weight of fresh normal-weight concrete in accordance with ASTM C 138.
  - i. Perform concrete compressive tests as follows:
    - I. Prepare compressive test specimens in accordance with ASTM C 31. Store undisturbed in an insulated box during cold weather. Deliver to laboratory between 16 and 32 hours after making. Perform compressive tests in accordance with ASTM C 39: two specimens tested at 7 days, two specimens tested at 28 days, and two specimens retained in reserve for later testing if required.
    - II. In cold weather or whenever steel erection is scheduled to commence less than 14 days after placement of supporting foundation concrete, cast an additional set

- of four cylinders for each 50 cubic yards or fraction thereof of supporting foundation concrete. Field cure cylinders and test two specimens at 7 days, retaining two specimens in reserve for later testing if required. Steel erection may not begin until supporting concrete obtains 75 percent of its design strength.
- III. If concrete will be placed in separate buildings on a given project, individual compressive strength tests cylinder shall be made for each building.
- j. Perform additional testing as follows if required:
- I. Taken an additional set of cylinders for compressive strength testing for each truck in which the total time period between batching and completion of placement has exceeded the ACI recommended 90-minute-maximum time limit and is likely to exceed 120 minutes. Additional cylinders shall be taken within 10 minutes of placement completion.
  - II. Make additional tests of in-place concrete when test results indicate specified concrete strengths and/or other characteristics have not been attained in the structure.
  - III. Perform tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42 or by other methods acceptable to Architect.
  - IV. Contractor shall reimburse Owner for the costs of additional tests.
3. Inspect concrete and shotcrete placement for proper application techniques.
  4. Inspect for maintenance of specified curing temperature and techniques.
  5. Perform Floor Flatness ( $F_F$ ) and Levelness ( $F_L$ ) Testing no later than 48 hours after slab placement in accordance with ASTM E 1155. ( $F_L$ ) testing is not required for slabs on metal deck.
  6. Perform moisture vapor emission and alkalinity testing in accordance with ASTM F 1869 and ASTM F 710 respectively as follows:
    - a. Perform testing after building is enclosed, prior to installation of adhered floor finishes, and once HVAC systems are operational.
    - b. Test results must be reviewed and accepted by the floor finish installer.
  7. Verify in-situ concrete strength prior to stressing of tendons in post-tensioned concrete or removal of shores/forms from beams or structural slabs.
  8. Inspect welding of reinforcing bars.

## 1.23 UNIT MASONRY

### A. The Special Inspector shall perform the following:

1. As masonry construction begins, the following shall be verified to ensure compliance:
  - a. Construction of mortar joints.
  - b. Location of joint reinforcement and connectors.
  - c. Prestressed masonry:
    - I. Location, grade, and size of prestressing tendons and anchorage.
    - II. Prestressing technique.
2. Verify:
  - a. Size and location of structural elements.
  - b. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction.
  - c. Specified size, grade, and type of reinforcement.
  - d. Protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F).
3. Prior to grouting, verify:
  - a. Grout space is clean.
  - b. Placement of reinforcement and connectors.
  - c. Placement of prestressing tendons and anchorages.

- d. Construction of mortar joints.
  4. Verify grout placement to ensure compliance with code and Construction Document Provisions.
    - a. Grouting of CMU cells.
    - b. Grouting of prestressed bonded tendons.
- B. The Testing Agency shall perform the following:
1. Verify for compliance with approved submittals:
    - a. Proportions of site-prepared mortar.
    - b. Proportions of site-prepared grout including prestressing grout for bonded tendons.
  2. Inspect:
    - a. Welding of reinforcing bars.
    - b. Application of measurement of prestressing force.
  3. Observe preparation of any required grout specimens, mortar specimens, and/or prisms in accordance with ASTM C 780, ASTM C 1019, and ASTM C 1314 REV B.
  4. Field Quality Control Testing: Perform tests and evaluations listed below during construction for each 5,000 square foot of wall area or portion thereof.
    - a. Sample and evaluate mortar composition and properties in accordance with ASTM C 780.
    - b. Sample and test grout compressive strength in accordance with ASTM C 1019.
    - c. For each type of wall construction indicated, test masonry prisms in accordance with ASTM C 1314 and as follows:
      - i. Prepare one set of prisms for testing at 7 days and one set for testing at 28 days.

#### 1.24 STRUCTURAL STEEL (INCLUDING STEEL JOISTS, AND METAL DECK)

- A. The Special Inspector shall perform the following:
1. Verify that the Fabricator maintains detailed fabrication and Quality Control procedures:
    - a. Review procedures for completeness and adequacy relative to code requirements.
    - b. If Fabricator is designated as an AISC Certified Fabricator, Special Inspection for shop-fabricated members and assemblies is not required.
    - c. If Fabricator is not designated as an AISC Certified Fabricator, the Contractor shall reimburse the Owner via execution of a credit change order for the cost of Special Inspections and Testing in the Fabricator's shop.
  2. Review Manufacturer's Certificates of Compliance for high strength bolts and weld filler material.
  3. Review certified mill test reports.
  4. Inspect steel frame joint details for compliance with the approved Construction Documents.
- B. The Testing Agency shall perform the following:
1. Material verification of high-strength bolts, nuts, and washers (including review of identification markings and Manufacturer's Certificate of Compliance).
    - a. Test high-strength bolt assemblies in a tension measuring device to verify material conformance prior to installation. Assemble bolt, nut, and washer on a loose plate and tension by tightening the nut to develop the required tension in Table 4 of the "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
  2. Verification that copies of accepted field welding procedure specifications are available on site for reference by the erector's welders.

3. Verification that the erector's welder's qualifications are current and are appropriate for the joint type, welding position and welding process to be used.
4. Verification that joint fit up for partial and complete penetration groove welds are in compliance with AWS tolerances as follows:
  - a. Visually inspect 50% of all joints scheduled for partial and complete penetration groove welds.
  - b. Visually inspect 50% of all column splices scheduled for partial and complete penetration groove welds.
  - c. Visually inspect 100% of all tension member splices, column splices and moment connections that are part of the lateral force resisting system.
5. Inspect high-strength bolting.
  - a. Joints designated as snug-tight require only visual inspection.
  - b. Joints designated as slip-critical require visual inspection during installation.
  - c. Checking after installation using calibrated wrenches will not be permitted.
6. Material verification of structural steel and metal deck, including review of identification markings.
7. Perform pull-out tests on adhesive, expansion, and sleeve anchors.
8. Material verification of weld filler materials, including review of identification markings.
9. Inspect welding of structural steel and metal deck.
  - a. Visually inspect all welds according to AWS.
  - b. Schedule inspection of field welding in a timely manner utilizing vertical access means and methods utilized by the Contractor to perform the welding.
  - c. Ultrasonic inspection (UT) according to ASTM E 587 is required for partial and complete penetration field groove welds as follows:
    1. UT inspect 50% of all joints scheduled for partial and complete penetration groove welds.
    2. UT inspect 50% of all column splices scheduled for partial and complete penetration groove welds.
    3. UT inspect 100% of all tension member splices, column splices and moment connections that are part of the lateral force resisting system.
    4. UT inspect 50% or a minimum of six of the joints scheduled for partial or complete penetration groove welds completed by each welder. Increase inspection percentage to 100% for each welder with more than one rejected weld.
  - d. Magnetic particle inspection according to ASTM E 709 is required for Fabricators not certified by the AISC Quality Certification Program for 10 percent of shop fillet welds.
  - e. Magnetic particle inspection according to ASTM E 709 is required for 10 percent of field fillet welds.
  - f. Ultrasonic inspection according to ASTM E 587 is required for 10 percent of shop partial or complete penetration welds and 100% of shop partial or complete penetration groove welds in tension members.
  - g. Inspect shear connectors in accordance with AWS D1.1, Section 7. Observe bend tests performed by Contractor.
  - h. Inspect every shear connector by striking once with 10-pound hammer. Direction of hammer swing shall be parallel with member containing connector. Inspection by striking with hammer does not replace bend tests in accordance with AWS.
10. Inspect welding of reinforcing steel.
11. Inspect condition of erected materials.
  - a. Visually inspect erected steel for damage.
  - b. Visually inspect connections and framing to verify compliance with the Contract Documents and accepted shop drawings.
12. Inspect column plumbness and splices:
  - a. Inspect erected columns for plumbness within tolerances specified Section 05100, Part 3: Execution.

- b. Inspect columns for fit-up within tolerances specified in the *AISC Manual of Steel Construction*, Specification Section M4.
- 13. Inspect mechanical fasteners for metal deck including connections to supporting structure and side lap fastening.
- 14. Additional testing shall be performed as follows if required:
  - a. Testing Agency shall perform additional tests of connections and framing members that have been field modified by the Contractor to correct errors in shop drawings, fabrication, or erection.
  - b. Anchor rods and embedded structural supports incorrectly located or damaged after installation shall be field modified by the Contractor as indicated in Section 03300, Paragraph 3.4 and shall be tested by the Testing Agency.
  - c. Testing and reporting of field modifications shall be in accordance with this section, Special Inspections, and shall have the following additional requirements:
    - I. Magnetic particle inspection according to ASTM E 709 is required for 100 percent of fillet welds.
    - II. Ultrasonic inspection according to ASTM E 587 is required for all full-penetration welds.
    - III. Perform pull-out tests on 100 percent of each type of adhesive, expansion, or sleeve anchor used by applying a load equal to 125 percent of the allowable pull-out strength listed in the manufacturer's literature.
  - d. The Contractor shall reimburse the Owner for the costs of additional tests performed and any other additional testing required.

#### 1.25 COLD-FORMED METAL FRAMING

A. The Special Inspector shall perform the following:

- 1. Verify that the Fabricator maintains detailed fabrication and Quality Control procedures:
  - a. For Fabricators not previously registered and approved to perform such work without Special Inspection, review the Quality Control procedures for completeness and adequacy relative to the code requirements for the Fabricator's scope of work.
- 2. Visually inspect installation of clips, hangers, hurricane ties, and miscellaneous other connectors.
- 3. Visually inspect framing and details.
- 4. Visually inspect installation of truss bracing.

B. The Testing Agent shall perform the following:

- 1. Verify member sizes and thickness.
- 2. Verify weight of galvanized coating according to ASTM A 90.
- 3. Visually inspect framing for damage, including trusses and bracing.
- 4. Visually inspect welds according to AWS.
- 5. Perform pull-out tests on adhesive, expansion, and sleeve anchors.

#### 1.26 MASONRY VENEERS AND ARCHITECTURAL WALL PANELS

A. The Special Inspector shall perform the following:

- 1. As masonry construction begins, the following shall be verified to ensure compliance:
  - a. Construction of mortar joints.
  - b. Location of joint reinforcement and connectors.
  - c. Prestressed masonry:

- I. Location, grade, and size of prestressing tendons and anchorage.
  - II. Prestressing technique.
  2. Verify:
    - a. Size and location of structural elements.
    - b. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction.
    - c. Specified size, grade, and type of reinforcement.
    - d. Protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F).
  3. Prior to grouting, verify:
    - a. Grout space is clean.
    - b. Placement of reinforcement and connectors.
    - c. Placement of prestressing tendons and anchorages.
    - d. Construction of mortar joints.
  4. Verify grout placement to ensure compliance with code and Construction Document Provisions.
    - a. Grout of CMU cells.
    - b. Grouting of prestressed bonded tendons.
- B. The Testing Agency shall perform the following:
1. Verify for compliance with approved submittals:
    - a. Proportions of site-prepared mortar.
    - b. Proportions of site-prepared grout including prestressing grout for bonded tendons.
  2. Inspect:
    - a. Welding of reinforcing bars.
    - b. Application of measurement of prestressing force.
  3. Observe preparation of any required grout specimens, mortar specimens, and/or prisms in accordance with ASTM C 780, ASTM C 1019, and ASTM C 1314 REV B.
  4. Field Quality Control Testing: Perform tests and evaluations listed below during construction for each 5,000 sq. ft. of wall area or portion thereof.
    - a. Sample and evaluate mortar composition and properties in accordance with ASTM C 780.
    - b. Sample and test grout compressive strength in accordance with ASTM C 1019.
    - c. For each type of wall construction indicated, test masonry prisms in accordance with ASTM C 1314 and as follows:
      - I. Prepare one set of prisms for testing at 7 days and one set for testing at 28 days.

#### 1.27 SPRAY FIRE-RESISTANT MATERIALS

- A. The Special Inspector/Testing Agency shall perform the following:
1. Verify surface preparation in accordance with the manufacturer's written instructions.
  2. Verify temperature and area ventilation before and after application in accordance with manufacturer's written instructions.
  3. Verify thickness of sprayed fire-resistant materials.
  4. Verify density of sprayed fire-resistant materials.
  5. Verify cohesive/adhesive bond strength of sprayed fire-resistant materials.

#### 1.28 SMOKE CONTROL

- A. Smoke control systems shall be tested by the Special Inspector. The Special Inspector/Testing Agency shall perform the following:
  - 1. Perform leakage testing and verify recording device location during erection of ductwork and prior to concealment
  - 2. Perform pressure difference testing, flow measurements and detection, and verify control operations prior to occupancy and after sufficient completion.

## PART 1.30 – DOCUMENTATION

### 1.31 RECORDS AND REPORTS

- A. Detailed reports shall be prepared of each test or inspection. The reports shall include the following general information:
  - 1. Project name and number.
  - 2. Date of test or inspection.
  - 3. Name of Testing Agency or Inspecting Agency.
  - 4. Name of technician or inspector.
  - 5. Weather conditions.
  - 6. Locations and elevations of specific areas tested or inspected referenced to gridlines.
  - 7. Description of test or inspection.
  - 8. Reference to applicable ASTM standard.
  - 9. Summary of observations, results, and recommendations.
  - 10. Description of any areas or materials requiring retesting or reinspection.
- B. Concrete compressive strength test reports shall contain the following information:
  - 1. Name of Contractor and concrete supplier.
  - 2. Name of concrete testing service.
  - 3. Name of technician making and testing specimens.
  - 4. Truck number and delivery ticket number.
  - 5. Date and location within the structure of concrete placement.
  - 6. Concrete type, class, mix proportions of materials, and design compressive strength at 28 days.
  - 7. Slump, air content, unit weight, and concrete temperature.
  - 8. Total time period between batching and completion of placement for each truck.
  - 9. Compressive strength and type of break for all tests.
- C. Field reports for concrete inspection shall contain the general information noted above, plus ambient temperature and cylinder numbers.
- D. Test reports for masonry materials shall include proportions, composition, and compressive strength.

### 1.32 COMMUNICATION

- A. The Testing/Inspecting Agency shall immediately notify the Contractor, Special Inspector, and Registered Design Professional by telephone, fax, or email of any test results failing to comply with the requirements of the Contract Documents.



- B. The Special Inspector shall immediately notify the Contractor of any work found to be in nonconformance with the Contract Documents during inspections. If the nonconforming work is not corrected while the Special Inspector is on-site, the Special Inspector shall notify the Registered Design Professional within 24 hours (one business day) and issue a nonconformance report. The Special Inspector may use the Special Inspection Non-Conformance Report form at the end of this section or other similar form.
- C. If the nonconforming work is not corrected at the time of substantial completion of the structure or other appropriate time, the Special Inspector shall notify the Code Enforcement Official.

### 1.33 DISTRIBUTION OF REPORTS

- A. The Testing/Inspecting Agency shall submit reports to the Special Inspector and the Registered Design Professional within 7 days of the inspection or test. Legible handwritten reports may be submitted if final typed copies are not available.
- B. The Special Inspector shall submit reports to the Registered Design Professional within 7 days of the inspections. Legible handwritten reports may be submitted if final typed copies are not available.
- C. If requested by the Code Enforcement Official, the Special Inspector shall submit interim reports which include all inspections and tests performed since the beginning of construction or since the previous interim report. Interim reports shall be addressed to the Code Enforcement Official with copies sent to the Registered Design Professionals (Structural Engineer and Architect) and Contractor. Interim reports shall be signed by the agent performing inspections.

### 1.34 FINAL REPORT OF SPECIAL INSPECTIONS

- A. At the completion of work, each Testing/Inspecting Agency shall submit an Agent's Final Report of Special Inspections to the Special Inspector stating that work was completed in substantial conformance with the Contract Documents and that appropriate inspections and tests were performed. The Testing/Inspecting Agency may use the Agent's Final Report of Special Inspections form provided at the end of this section or other similar form.
- B. At the completion of work, the Special Inspector shall compile all inspection and test reports generated by each Agent into a Final Report of Special Inspections. The Final Report of Special Inspections shall state that required inspections have been performed and shall itemize any nonconforming work not corrected or resolved.
- C. The Special Inspector may use the Final Report of Special Inspections form based on CASE Form 102-2001 or other similar form.
- D. The Special Inspector shall submit The Final Report of Special Inspections to the Registered Design Professional and Code Enforcement Official prior to issuance of a Certificate of Use and Occupancy

1.35 NYS Education Department – Statement of Inspections and Special and Tests attached to the end of this section is part of the contract.

END OF SECTION 01 45 33

## SECTION 014529 - TESTING LABORATORY SERVICES PART

### 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.2 DESCRIPTION

- A. From time to time during the progress of the Work, the Construction Manager or Owner may require that testing be performed to determine that the Work complies with the specified requirements.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1. Section 01 33 00 - Electronic Submittal Procedures specifies requirements for development of a schedule of required tests and inspections.
  - 2. Section 01 45 00 – Quality Requirements specifies the administrative and procedural requirements for quality control services.
  - 3. Section 01 45 33 – Special Inspections & Structural Procedures identifies the areas which must be tested.

### PART 2 - PRODUCTS

#### 2.1 TESTING LABORATORY

- A. The New York State Certified testing laboratory will be selected by the Owner.

### PART 3 - EXECUTION

#### 3.1 PAYMENT FOR TESTING SERVICES

- A. Except where specifically indicated as being the Contractor's responsibility, tests and inspections required by the Owner, Construction Manager and/or Architect will be paid for by the Owner.
- B. Retesting: When initial tests indicate non-compliance with Contract Documents, the responsible Prime Contractor is required to pay for all subsequent re-testing until compliance is accomplished.
- C. Contractor's Convenience Testing: Testing requested by the contractor for his information or convenience shall be paid for by Contractor.

- D. Code Compliance Testing Where indicated in the Documents, tests required by Building Code or Ordinances or by an approval authority shall be paid for by the Owner.

### 3.2 COOPERATION WITH TESTING LABORATORY

#### A. Access:

1. Provide representatives of the testing laboratory access to the work at all times.
2. Provide facilities for such access in order that the laboratory may properly perform its function.

#### B. Schedule and Notification:

1. When tests are required by the Contract Documents or by the Construction Manager, Architect or Owner, contractor will notify Construction Manager within 48 hours prior to expected time for operations requiring testing services.
2. If, after such notification, the testing laboratory is prevented from performing its work due to incompleteness of the project work, all extra costs for testing attributable to the delay shall be paid by the Contractor.

### 3.3 SPECIMENS

#### A. All sampling equipment and personnel shall be provided by the testing laboratory.

#### B. All deliveries of specimens and samples to the testing laboratory shall be performed by the testing laboratory.

END OF SECTION 01 45 29

## SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

### General

#### 1.1 SUMMARY

This Section includes requirements for temporary facilities and controls, including temporary utilities, support facilities, and security and protection facilities.

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

1. Sewers and drainage.
2. Water Service and distribution.
3. Stormwater control within building
4. Sanitary facilities, including toilets, wash facilities, and drinking-water facilities.
5. Ventilation.
6. Electric power service.
7. Lighting.

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

1. Environmental protection.
2. Tree and plant protection.
3. Site enclosure fence.
4. Security enclosure and lockup.
5. Barricades, warning signs, and lights.
6. Temporary enclosures.
7. Site road access and traffic control
8. Temporary partitions.
9. Fire protection.

Unless work of this section is indicated to be provided under a specific contract, each Prime Contractor must provide, maintain and remove required temporary facilities necessary to perform his own construction activities.

Accessible Temporary Egress: Comply with applicable provisions in ICC/ANSI A117.1.

#### 1.2 QUALITY ASSURANCE

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

1. Building code requirements.

2. Health and safety regulations.
3. Utility company regulations.
4. SED 155.5 Regulations
5. Police, fire department, and rescue squad rules.
6. Environmental protection regulations.

Standards: Comply with NFPA 241 “Standard for Safeguarding Construction, Alterations, and Demolition Operations,” ANSI A10 Series standards for “Safety Requirements for Construction and Demolition,” and NECA Electrical Design Library “Temporary Electrical Facilities.”

7. 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.

### 1.3 PROJECT CONDITIONS

Temporary Utilities: Each contractor will prepare a schedule indicating dates for implementation and termination of each temporary utility. At the earliest feasible time, when acceptable to the Owner, 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-preventive measures. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist onsite.

### 1.4 DIVISION OF RESPONSIBILITIES

General: These Specifications assign the Contractor responsibilities. Each

Prime Contractor is responsible for the following:

1. Installation, operation, maintenance and removal of each temporary facility considered as its own normal construction activity, as well as the costs and use charges except as listed below.
2. Plug-in electric power cords and extension cords, supplementary plug-in task lighting, and special lighting necessary exclusively for its own activities.
3. Generator power for their own work.
4. Its own storage, lockable Conex boxes and fabrication sheds. (Locate/Move as directed by CM)
5. Hoisting requirements, including hoisting loads in excess of 2 tons, hoisting material or equipment into spaces below grade, and hoisting requirements outside the building enclosure. (Rigging insurance must be provided when contractor hoisting equipment)

6. Collection and disposal of its own waste material.
7. Secure lock-up of its own tools, materials and equipment.
8. Construction aids PPE and miscellaneous services and facilities necessary exclusively for its own construction activities.
9. Maintaining temporary facilities provided by Contractor.
10. Containers for non-hazardous waste and debris generated by their own removals and construction operations.

## 1.5 USE CHARGES

General: Cost or use charges for temporary facilities are not chargeable to Owner, Architect or Construction Manager and shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, the following:

1. The Architect and Construction Manager
2. Other Contractors.
3. Owners construction forces, including testing agencies
4. Personnel of authorities having jurisdiction.

Water Service: Each contractor needs to provide their own water connections to existing services.

Electric Power Service: Temporary electric power including set-up and maintenance is the responsibility of the **Electrical Contractor**. Use charges by owner.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

General: Provide new materials. If acceptable to the Architect / CM, the Contractor may use undamaged, previously used materials in good condition. Provide materials suitable for use intended.

Lumber and Plywood:

1. For signs and directory boards, provide exterior-type, Grade B-B high density concrete form overlay plywood of sizes and thicknesses indicated.
2. For safety barriers, sidewalk bridges, and similar uses, provide minimum 5/8- inch-thick exterior plywood.

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.

### 2.2 EQUIPMENT

Water Hoses: Provide 3/4-inch, heavy-duty, abrasion-resistant, flexible rubber hoses 100 feet

long, with pressure rating greater than the maximum pressure of the water distribution system. Provide adjustable shutoff nozzles at hose discharge.

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.

### PART 3 - EXECUTION

#### 3.1 TEMPORARY UTILITY INSTALLATION

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

Contractor shall 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.

1. Arrange with utility company CM and Owner to make connections for temporary services.

#### 3.2 CONTRACTOR FIELD OFFICES

Contractors may with permission from the Construction Manager/Owner establish a field office for their own use. Said offices for the individual prime contractor, sub-contractors, specialty contractors and the like shall be of such size and design as approved by the CM and shall be located in the Construction Managers designated area. Each representative contractor will arrange for telephone service and electric service, if required, directly with the utility company.

Maintain onsite, all articles for First Aid treatment. The contractor shall also establish standing arrangements for the immediate removal and hospital treatment of any employees and other persons on the job site who may be injured or who may become ill during the course work.

#### 3.3 TEMPORARY AND PERMANENT SERVICES, GENERAL

The Contractor's use of any permanent system or service of the building or portions thereof shall be subject to the Owners approval.

The Contractor shall be responsible for any and all damage to permanent services used, and shall make good any and all damage to the satisfaction of the owner, prior to final completion and acceptance.

NOTE - In accordance with OSHA and other applicable regulations, the representative Contractors performing erection of structural "skeleton" type work are solely responsible for the netting, guard rail protection and such other safety devices as deemed necessary to protect the workers and public from harm.

#### 3.4 TEMPORARY LIGHT AND POWER

Temporary Electric Power Service: **Electrical Contractor** shall provide and pay all costs to provide a weatherproof, grounded electric power service and distribution system of sufficient



size, capacity, and power characteristics to accommodate performance of work during the construction period.

1. Responsibility: All work under this section to be provided by the **Electrical Contractor**.
2. Temporary services for temporarily or permanently installed building equipment such as sump pumps, boilers, cabinet heating and/ or cooling units and fans shall be furnished, installed, operated and maintained so that the said equipment may be operated for drainage and temporary heat when required and/ or when so ordered by the Architect/ Construction Manager.
3. Electrical Contractor shall maintain all parts of the electrical system (temporary and permanent power) active and in-service at all times throughout the contract duration as governed by the Construction Manager. All temporary lighting to be controlled by standard switches per code (outside of power panels).
4. Electrical Contractor shall maintain power during the hours established by Construction Manager.
5. Temporary Service: Install service and grounding in compliance with the National Electric Code (NFPA 70). Include necessary meters, transformers, overload protected disconnect and main distribution switch gear. Comply with all NECA, NEMA and UL Standards.
6. Provide temporary service with an automatic ground-fault interrupter feature, activated from the circuits of the system.
7. Power Distribution System: Provide circuits of adequate size and proper characteristics for each use. In general run wiring overhead. Rise vertically where wiring will be least exposed to damage from construction operations.
8. Provide metal conduit, tubing or armored cable for protection of temporary power wiring where exposed to possible damage during construction operations. Where permitted by code, wiring of circuits not exceeding 110-120 Volt 20 Amp rating and wiring of lighting circuits may be non-metallic sheathed cable in areas where located overhead and exposed. Do not wire temporary lighting with plain, exposed (insulated) electrical conductors. Provide metal enclosures or boxes for wiring devices.
9. Provide overload-protected disconnect switch as required by code.

#### TEMPORARY ELECTRICAL AND TELEPHONE SERVICES

1. Temporary Power Source: At each building / renovation area, use the existing electrical power distribution system for temporary power source.
2. Owner's Requirements: Do not disrupt the Owner's needs for continuous power at each building.
3. Electrical Contractor shall provide temporary power and lighting facilities for use of all trades. All temporary light and power shall be in accordance with the required Codes and Safety Standards.
4. All other contractor trailer use / connection charges for power and telephone to be paid for by the respective contractor.

#### TEMPORARY POWER DISTRIBUTION

1. General Requirements: Electrical Contractor shall provide feeders and branch circuits of adequate size and proper characteristics as required to supply temporary receptacle and lighting loads. Size service and feeder conductors to restrict voltage drop to maximum 5 percent at 80 percent power factor. Provide properly sized overcurrent protection for each

temporary electrical circuit.

#### RECEPTACLE REQUIREMENTS

1. General Requirements: Provide temporary receptacle outlets as required Minimum Requirements: Provide a minimum of one quad 120-volt receptacle per 250 square feet of building floor area, with maximum spacing of 50 feet on center for operation of portable tools and appliances during the construction period.
2. Branch Circuits: All temporary receptacle branch circuits to be rated 20 amps with a maximum of (3) duplex receptacles per circuit. Temporary receptacle branch circuits shall be independent of temporary lighting circuits.

#### LIGHTING REQUIREMENTS

1. General Requirements: Electrical Contractor shall provide both interior and exterior lighting at areas as required to provide adequate illumination for safe and proper construction operations and Project Site security.
2. Minimum Requirements: Provide illumination levels adequate for construction operations and safe traffic conditions. As a minimum provide one 200-watt lamp per 400 square feet of building floor area, with maximum spacing of 20 feet. Any rooms in excess of 500 sf will receive one 400-watt metal halide fixture for each 1000 sf of area. (or LED equivalents).
3. Supplemental Lighting: If required, supplemental lighting beyond minimum requirements shall be provided via suitable portable lighting units with cord and plugs, and shall be paid for by the Contractor or Sub- Contractor requiring such additional lighting.
4. Branch Circuits: All temporary lighting branch circuits to be loaded to a maximum of 1400 watts per 20 amp circuit. Temporary lighting branch circuits shall be independent of temporary receptacle circuits.
5. Restrictions: Do not use permanent lighting systems for temporary construction lighting purposes.

#### MAXIMUM LOADS

1. General: Lighting and power loads connected to the temporary power distribution system shall be limited to the following maximum individual loads:

a.	Load Type	Maximum
b.	120 volt, 1-phase	1.5 KVA
c.	208 volt, 1-phase	2.5 KVA
d.	208 volt, 3-phase	5.0KVA
2. General: The temporary power distribution system shall be sufficiently sized to provide temporary power as required within this section. Meter and Meter connections to be part of electrical contractors base bid.

#### ELECTRICAL WELDERS

1. Separate Power Sources Required: Power for electric welders and for other loads larger than the maximum allowable sizes shall be taken from portable power sources provided, paid for and operated by the Contractor or Sub- Contractor requiring the use

of such equipment. Remove such power sources when no longer needed.

#### ELECTRICAL ENERGY COSTS

1. Paid By Owner: Charges for electrical energy usage for temporary power and lighting will be paid by the Owner, when taken from the Owner's electrical services. Contractor and Sub-Contractors shall exercise measures to conserve energy usage. Use of owner electric for items not specific to project (e.g. heating construction shanties, etc.) will not be permitted

### 3.2 TEMPORARY TOILET & SANITARY FACILITIES

Sanitary Facilities: Sanitary facilities include temporary toilets, wash facilities and drinking water fixtures. Comply with governing regulations including safety and health codes for the type, number, location, operation and maintenance of fixtures and facilities; provide not less than specified requirements. Install in locations which will best serve the project's needs. Existing facilities should not be used.

The **General Contractor** is responsible for sanitary facilities. These responsibilities include: maintenance, cleaning and supplies for use by all trades for the entire duration of the project. Sufficient quantity/locations to properly handle the amount of workers onsite. Provide separate toilet facilities for male and female construction personnel.

Supply and maintain toilet tissue, paper towels, paper cups and other disposable materials as appropriate for each facility, including Owner's Representative's temporary offices for full contract duration. Provide covered waste containers for used material. Provide separate toilet facilities for male and female construction personnel.

### 3.7 TEMPORARY WATER

Each Contractor shall handle their own temporary water services:

1. Provide and pay for all connections
2. Protect temporary and permanent lines against any damage.
3. Provide all hose and other extensions from connections installed by the Plumbing Contractor and all labor, materials and supplies required to supply water to the work.
4. Prevent water damage to the work.

### 3.8 STORAGE FACILITIES

Each Contractor shall provide temporary storage and other facilities as required for their own use. Temporary structures shall be located at the Construction Manager's designated staging area, and shall be removed upon completion of the work or when directed.

Materials delivered to the site shall be safely stored and adequately protected against loss or damage in watertight, environmentally controlled, lockable, Conex boxes. Particular care shall be taken to protect humidity/temperature sensitive materials (e.g. – wood doors, casework, ceiling tile, etc) in the proper climate controlled environment. All costs for properly storing materials is paid for by applicable contractor in their base bid.

Due to limited on site storage space, each Contractor shall coordinate delivery of his materials with the Construction Manager who will determine when large deliveries shall be made and shall

be designate storage locations on site for delivered materials. **All stored materials must be stored in locked, watertight trailers, paid for by applicable contractor.**

### 3.9 SCAFFOLDING AND STAGING

All scaffold, staging and appurtenances thereto shall comply in total to the requirements of Safety and Health Regulations for Construction Chapter XVII of OSHA, Part 1926 and all related amendments.

### 3.10 RUBBISH CONTAINER

Each Contractor shall provide suitable rubbish container device(s) for his own use, properly maintained and serviced, replaced as required and protected from access by the public fencing as may be specified herein or approved by the Architect or Construction Manager.

Each Prime Contractor and Subcontractor shall sweep up and gather together daily all his own rubbish and removed materials and place same in containers.

### 3.11 CONSTRUCTION FENCING

Temporary construction fencing shall be of good quality and neat in appearance; 6' high chain link fencing, 9 ga fabric. Open-Mesh Chain Link Fencing: Provide 0.120-inch-thick, galvanized steel posts, (on stanchions at paved areas) and 2.875" dia. Gate posts. Provide lockable gates. (Keys to owner, architect and CM).

Site access gates shall be provided as required, complete with all operating hardware and security devices.

Should fencing be required to be relocated or modified during the course of the project due to additional access needed by the contractor, same shall be done at the total expense of the contractor.

**General Work Contractor shall provide fencing and gates as designated by the owner and the Construction Manager.**

#### **a) Staging area enclosures and 20' gate as per Staging Plan attached**

### 3.12 DAILY CLEANUP

Each Contractor shall furnish daily janitorial services for the project and perform any required maintenance of facilities as deemed necessary by the Construction Manager during the entire life of the contract. If any contractor fails to keep the site safe and broom clean within 4 hours of being notified by CM, either verbally or in writing, the construction manager will have the cleanup work performed by others and the contractors will be back charged accordingly.

1. In addition to the above, the **General Contractor** shall provide a daily sweep and a weekly damp mop of all work areas.

### 3.13 BURNING

Burning will not be permitted.

### 3.14 FIRE PREVENTION CONTROL

Each Contractor shall comply with the safety provisions of the National Fire Protection Association's "National Fire Codes" pertaining to the work and, particularly, in connection with any cutting or welding performed as part of the work.

### 3.15 TEMPORARY FIRE PROTECTION

Each Contractor shall take all possible precautions for the prevention of fires.

1. Where flame cutting torches, blow torches, or welding tools are required to be used, their use shall be as approved by the Construction Manager at the site.
2. When welding tools or torches of any type are in use, have available in the immediate vicinity of the work a fire extinguisher of the dry chemical 20 lbs. Type. The fire extinguisher(s) shall be provided and maintained by the Contractor doing such work.

Fuel for cutting and heating torches shall be gas only and shall be contained in Underwriters laboratory approved containers.

No volatile liquids shall be used for cleaning agents or as fuels for motorized equipment or tools within a building except with the express approval of the Owner and/or Architect and in accordance with local codes. On-site bulk storage of volatile liquids shall be outside the buildings at locations directed by the Owner, who shall determine the extent of volatile liquid allowed within the building at any given time.

Each Contractor shall comply with the following requirements relating to compressed gas:

3. Where compressed gas of any type is used for any purpose at the site, it shall be contained in cylinders complying with ICC regulations. Gases of different types shall not be stored together except when in use and when such proximity is required.
4. All persons required to handle gas cylinders or to act as temporary firemen (Fire Watchers) shall be able to read, write and understand the English language; they shall also be required by the Contractor to read Part 3 of Pamphlet P-1 "Safe Handling of Compressed Gases" published by the Compressed Gas Association, 500 Fifth Avenue, New York, NY 10036.

Each Contractor shall comply with the following requirements relating to welding and cutting:

5. All cutting and/or welding (electric or gas) must be done only by skilled, certified and licensed personnel.
6. During welding or cutting operations, a contractor's man shall act as a fire watcher. The fire watcher shall have proper eye protection and suitable firefighting equipment including fire extinguisher (bearing current inspection Certificate), protective gloves and any other equipment deemed necessary.
7. Tanks supplying gases for welding or cutting are to be placed in an upright position securely fastened, and close as practical to the operation. Tanks, actives or spares, shall be protected from excess heat and shall not be placed in stairways, hallways or exits. When not in use, protective valve cap shall be screwed on the cylinder.
8. Adequate fire extinguishing equipment shall be maintained at all welding or cutting operations.

### 3.16 VENTILATION AND HUMIDITY CONTROL FOR CONSTRUCTION:

**General Contractor** will provide temporary ventilation as required for protecting the building from any adverse effects of high humidity during construction activities. Select dehumidification and ventilating equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements and have sufficient quantity of units to produce necessary ambient conditions.

1. Each Contractor shall be responsible for his own temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity.
2. Ventilate enclosed area to dissipate humidity, and to prevent accumulation of dust, fumes, vapors or gases.
3. Provide equipment as necessary for air and fresh exchange for the work area per OSHA standards.
4. If Contractor fails to adequately ventilate the building during the construction process, thereby causing humidity and possible mold issues, the owner will hire others to properly address and deduct costs from the Contractor accordingly.
5. General Contractor will provide negative air environment of sufficient size/qty to fully ventilate the square footage of work areas and exhaust any dust/fumes through flexible duct hose to exterior top eliminate any odors / smoke.
6. Any contractor allowing water infiltration to building is responsible for cleanup and commercial dehumidifiers of sufficient size/qty to prevent mold growth. Failure to immediately address (4 hours' notice) will result in the owners hiring others and back-charging in order to insure a safe environment.

3.17 TEMPORARY ROADS, TRACKING PADS, PARKING AREA AND CONCRETE WASHOUT PITS: ( **all work by GC** )

1. Road Cleaning: Maintain roads and walkways in an acceptably clean condition. This includes the removal of debris daily, if required, and/or a minimum of once a week due to all project traffic. Road cleaning equipment to be wet/vacuum type. The General Contractor will clean any construction-related dirt/debris from Town and State roadways as well as district access drives and parking lots throughout the duration of the project. Temporary parking by construction personnel shall be allowed only in areas so designated.
2. General Work Contractor is responsible for all snow and ice removal for access to their work locations. This includes, temporary roadways, CM trailer and access to staging areas. Stockpile snow in areas as designated by Construction Manager.

3.18 DE-WATERING FACILITIES AND DRAINS

Each Prime Contractor is directly responsible for de-watering of their excavations. The responsibility of de-watering of the site as to facilitate the work will be the responsibility of the Sitework Contractor, coordinate with CM.

Comply with requirements in applicable Division 31 Sections for temporary drainage and de-watering facilities and operations not directly associated with construction activities included in individual Sections. Where feasible, use same facilities. Maintain Project site, excavations, and construction free of water.

Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining property nor endanger permanent drainage piping system, provide temporary drainage where roofing or similar waterproof deck construction is completed.

### 3.19 ROOF PROTECTIONS

- A. All Contractors shall provide temporary protection on the roof surface when it is necessary for work to take place on completed sections. ( Minimum 2” polyiso insulation and plywood )
- B. Upon such notification as required in subparagraph A, the Contractor shall assume responsibility for damages, if any, to the roofing system caused by the work of other trades, except that financial liability for any and all damages rests with the offending trade.

### 3.20 TEMPORARY SITE SAFETY AND DIRECTIONAL SIGNS

- A. The **General Contractor** shall provide signs as required below. Install signs where required or indicated to inform public and persons seeking entrance to project. All signage and posts become the property of the owner at the conclusion of the project.
- B. Construct signs in accordance with section 619 of the NYS DOT standard specifications (MUTCD overall sign size, letter size, metal signage). Support on breakaway metal posts or attach to fencing; do not attach signs to buildings or permanent construction.
- C. Include relocating temporary site safety and directional signs as many times as required or directed.
- D. For construction traffic control/flow at entrances/exits, as designated by the Owner (2 required) Large sign 4' x4' Orange with Black Letters ( “Construction Entrance Only”)
- E. For “No Smoking” safe work site at multiple locations (6 required)
- F. Construction Area – Do Not Enter (2) mount on fence
- G. No Trespassing (2) mount on fence
- H. Per OSHA standards as necessary
- I. A premobilization meeting to establish location and quantities of all signage will be held with contractor, Construction Manager, and owner. Prior to the start of any actual work the signage must be reviewed / approved by the Construction Manager.

### 3.21 STORMWATER CONTROL

The General Work Contractor shall provide earthen embankments, silt fence, haybales, and similar barriers in and around excavations and subgrade construction, sufficient to prevent flooding by runoff of storm water from heavy rains during sitework activities.

### 3.22 BARRICADES, WARNING SIGNS AND LIGHTS:

Comply with standards and code requirements for erecting structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and public of possible hazard.

### 3.23 TEMPORARY DUST PARTITIONS and FLOOR PROTECTIONS

- A. **General Contractor** shall erect and maintain dustproof partitions and temporary enclosures to limit dust and dirt migration and to separate work areas from fumes.
1. Construct dustproof, floor to ceiling partitions of not less than 3-5/8" – 20 ga. studs , 2 layers of 6 mil poly sheets inside / outside, sound batt insulation, exterior sheathing 5/8" plywood , interior sheathing 5/8" gypsum taped/painted where owner occupied. Caulk seal joints and perimeter to prevent dust migrations. Equip partitions with dustproof doors and security locks.
  2. **In addition to any temporary partition locations shown on drawings, General Contractor will include in his base bid 6 ea. 9' x12' temporary partitions meeting the above criteria for use where directed.**
  3. Temporary Floor Protections – Shall be "Ram-Board" **Heavy Duty** with taped joints or equivalent. Finish Flooring (new) will be fully covered by GC. Areas of isolated MEP work will be protected with Ram- Board by the individual prime contractor

### 3.24 OPERATION, TERMINATION, AND REMOVAL

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

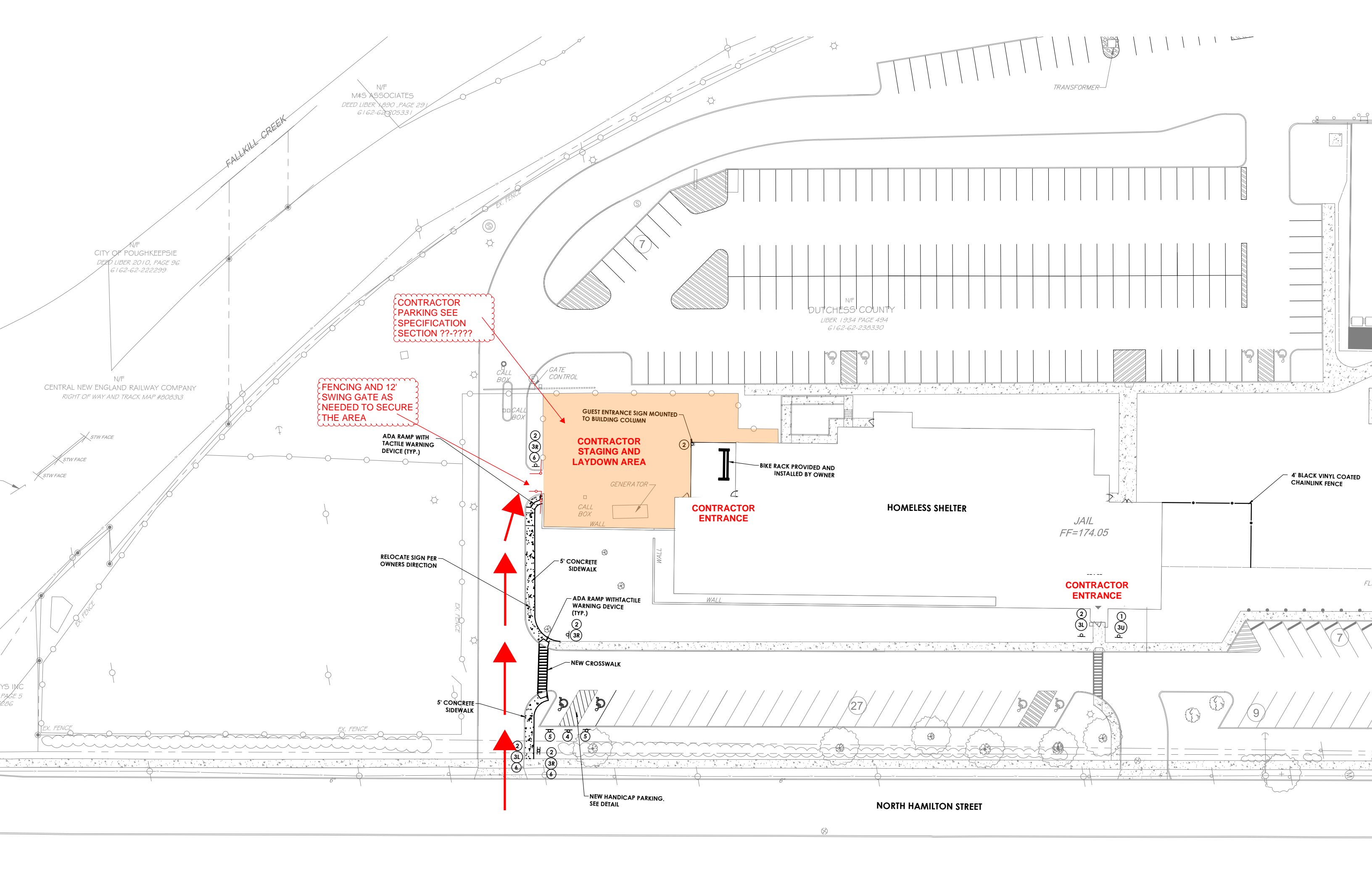
Termination and Removal: Unless the Architect/ CM requests that it be maintained longer, remove each temporary facility when the need has ended or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been affected because of interference with the temporary facility.

Repair damaged work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are the Contractors property.
2. At Substantial Completion, clean and renovate permanent facilities used during the construction period including.

END OF SECTION





## SECTION 01 70 00 - CLOSEOUT PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout including, but not limited to, the following:
  - 1. Substantial Completion & Inspection procedures.
  - 2. Project record documents.
  - 3. Operation and maintenance manual submittal.
  - 4. Start-Up and adjustments
  - 5. Spare Parts.
  - 6. Demonstration & Training.
- B. Closeout requirements for specific construction activities are included in the appropriate Sections.
- C. Multiple Prime Contracts: Provisions of this Section apply to the construction activities of all prime contractors.

#### 1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for certification of Substantial Completion, complete the following. List exceptions in the request.
  - 1. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete.
    - a. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.
    - b. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.
  - 2. Advise the Owner of pending insurance changeover requirements.
  - 3. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents.
  - 4. Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  - 5. Submit record drawings, maintenance manuals, final project photographs, damage or settlement surveys, property surveys, and similar final record information.
  - 6. Deliver tools, spare parts, extra stock, and similar items.
  - 7. Make final changeover of permanent locks and transmit keys to the Owner. Advise the Owner's personnel of changeover in security provisions.
  - 8. Complete startup testing of systems and instruction of the Owner's operation and maintenance personnel. Discontinue and remove temporary facilities from the site, along with mockups, construction tools, and similar elements. Start-up of existing removed/replaced rooftop HVAC units will include written confirmation from

contractor's mechanical subcontractor that all systems are adjusted and functioning properly.

9. Complete final cleanup requirements, including touchup painting.
  10. Touch up and otherwise repair and restore marred, exposed finishes.
- B. Initial Inspection: Conducted between Construction Manager and Contractor, once all incomplete items identified are completed, a request for review by the Architect shall be made.
- C. Inspection Procedures: On receipt of a request for inspection, the Architect will either proceed with inspection or advise the Contractor of unfilled requirements. The Architect will prepare the Certificate of Substantial Completion following inspection or advise the Contractor of construction that must be completed or corrected before the certificate will be issued.
1. The Architect will repeat inspection when requested and assured that the Work is substantially complete. Note that multiple inspections due to contractor not being complete will result in a charge to the Owner in which the amount shall be deducted from said contractor via change order.
  2. Results of the completed inspection will form the basis of requirements for final acceptance.

#### 1.4 FINAL ACCEPTANCE

- A. Preliminary Procedures: Before requesting final inspection for certification of final acceptance and final payment, complete the following. List exceptions in the request.
1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include insurance certificates for products and completed operations where required.
  2. Submit an updated final statement, accounting for final additional changes to the Contract Sum.
  3. Submit a certified copy of the Architect's final inspection list of items to be completed or corrected, endorsed and dated by the Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance and shall be endorsed and dated by the Architect.
  4. Submit final meter readings for utilities, a measured record of stored fuel, and similar data as of the date of Substantial Completion or when the Owner took possession of and assumed responsibility for corresponding elements of the Work.
  5. Submit consent of surety to final payment.
  6. Submit a final liquidated damages settlement statement.
  7. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  8. All items in the Construction Checklist must be received and approved prior to any retainage reduction.
- B. Re-inspection Procedure: The Architect will re-inspect the Work upon receipt of notice that the Work, including inspection list items from earlier inspections, has been completed, except for items whose completion is delayed under circumstances acceptable to the Architect.
1. Upon completion of re-inspection, the Architect will prepare a certificate of final acceptance. If the Work is incomplete, the Architect will advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance. Note that multiple inspections due to contractor not being complete will result in a charge to the Owner in which the amount shall be deducted from said contractor via change order.
  2. If necessary, re-inspection will be repeated, but may be chargeable to the Owner and back-chargeable to the Contractor in conditions within his control.

## 1.5 RECORD DOCUMENT SUBMITTALS

- A. General: Do not use record documents for construction purposes. Protect record documents from deterioration and loss in a secure, fire-resistant location. Provide access to record documents for the Construction Manager and Architect's reference during normal working hours.
- B. Record Drawings: Maintain a clean, undamaged set of blue or black line white-prints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark which drawing is most capable of showing conditions fully and accurately. Where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.
  - 1. Mark record sets with red erasable pencil. Use other colors to distinguish between variations in separate categories of the Work.
  - 2. Mark new information that is important to the Owner but was not shown on Contract Drawings or Shop Drawings.
  - 3. Note related change-order numbers where applicable.
  - 4. Organize record drawing sheets into manageable sets. Bind sets with durable- paper cover sheets; print suitable titles, dates, and other identification on the cover of each set.
- C. Record Specifications: Maintain one complete copy of the Project Manual, including addenda. Include with the Project Manual one copy of other written construction documents, such as Change Orders and modifications issued in printed form during construction.
  - 1. Mark these documents to show substantial variations in actual Work performed in comparison with the text of the Specifications and modifications.
  - 2. Give particular attention to substitutions and selection of options and information on concealed construction that cannot otherwise be readily discerned later by direct observation.
  - 3. Note related record drawing information and Product Data.
  - 4. Upon completion of the Work, submit record Specifications to the Architect for the Owner's records.
- D. Record Product Data: Maintain one copy of each Product Data submittal. Note related Change Orders and markup of record drawings and Specifications.
  - 1. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site and from the manufacturer's installation instructions and recommendations.
  - 2. Give particular attention to concealed products and portions of the Work that cannot otherwise be readily discerned later by direct observation.
  - 3. Upon completion of markup, submit complete set of record Product Data to the Architect for the Owner's records.
- E. Record Sample Submitted: Immediately prior to Substantial Completion, the Contractor shall meet with the Architect and the Owner's personnel at the Project Site to determine which Samples are to be transmitted to the Owner for record purposes. Comply with the Owner's instructions regarding delivery to the Owner's Sample storage area.
- F. Miscellaneous Record Submittals: Refer to other Specification Sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order. Identify miscellaneous records properly and

bind or file, ready for continued use and reference. Submit to the Architect for the Owner's records.

- G. Maintenance Manuals: Organize operation and maintenance data into suitable sets of manageable size. Bind properly indexed data in individual, heavy-duty, 2-3 inch, 3- ring, vinyl-covered binders, with pocket folders for folded sheet information. Mark appropriate identification on front and spine of each binder. Include the following types of information:
  - 1. Emergency instructions.
  - 2. Spare parts list.
  - 3. Copies of warranties.
  - 4. Wiring diagrams.
  - 5. Recommended "turn-around" cycles.
  - 6. Inspection procedures.
  - 7. Shop Drawings and Product Data.
  - 8. Fixture lamping schedule.
- H. Waivers, guarantees, certification letters, AIA documents, etc.: See checklist attachment at the end of this section.

## 1.6 OPERATION AND MAINTENANCE DATA

### A. CLOSEOUT SUBMITTALS

- 1. Manual Content: Submit manual content formatted and organized as required by this Section.
- 2. Format: Submit operations and maintenance manuals in the following format:
  - a. Three paper copies. Include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves.
- 3. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 days before commencing demonstration and training. Architect will return copy with comments.
  - a. Correct or revise each manual to comply with Architect's comments. Submit 3 copies of each corrected manual prior to commencing demonstration and training.
  - b. Submit 3 copies of final manuals in electronic USB stick DVD format, as well.

- B. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information as described below.

- a. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- b. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
  - 1. Standard maintenance instructions and bulletins.
  - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
  - 3. Identification and nomenclature of parts and components.

4. List of items recommended to be stocked as spare parts.
  - c. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
    1. Test and inspection instructions.
    2. Troubleshooting guide.
    3. Precautions against improper maintenance.
    4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
    5. Aligning, adjusting, and checking instructions.
    6. Service and lubrication requirements.
    7. Demonstration and training video recording, if available.
  - d. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
  - e. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
  - f. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
- A. Include procedures to follow and required notifications for warranty claims.

#### 1.7 STARTING AND ADJUSTING

- A. Work of this Section also includes any contract document stipulated man-hours that shall be provided by the prime contractors for startup participation of equipment and systems.
- B. STARTING SYSTEMS
1. The Contractor shall coordinate, schedule, and sequence the start-up of various equipment and systems.
  2. Where the start-up of a system or piece of equipment is dependent upon the start-up of other system(s) or equipment, then the Contractor shall schedule and sequence the start-ups to coincide.
  3. Notify the Architect at least 14 calendar days prior to the start-up of each item or system so that he can schedule the startup with the Owner and utilities.
- C. Where applicable, verify that each piece of equipment or system has been checked for proper:
1. lubrication
  2. drive rotation
  3. belt tension
  4. motor starter heater size
  5. fuse size
  6. water pressures
  7. terminal connections
  8. control sequence
  9. for conditions which may cause damage or delay the start-up procedure
- D. Verify that the equipment has been installed in accordance with the manufacturer's

requirements.

- E. Complete all pre-startup checklists that may be required by the system vendor.
  - 1. In the event that start-up activities are delayed as a result of the Contractor's failure to properly check the completed installation and a manufacturer's representative is on the job site waiting for corrections to be made, then the Architect may, at his/her sole discretion, postpone start-up until such time as the corrections have been made without any extra costs.
  - 2. The Owner may deduct from money due the Contractor the excess cost of engineering associated with having the Architect present during the start-up.
  - 3. The deduction shall be equal to the Architect's effective billing rate times the total number of hours delayed during the start-up activities.
- F. Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- G. Verify that wiring and support components for equipment are complete and tested.
- H. Execute start-up under supervision of applicable Contractor's personnel in accordance with manufacturer's instructions.
- I. The Contractor shall have the job site superintendent present during all start-up activities.
- J. Provide manufacturer's authorized technician at the site when specified and in accordance with the requirements contained in Section 014500 – Quality Control.

## 1.8 SPARE PARTS

### A. QUALITY ASSURANCE

- 1. Spare parts shall be delivered as complete assemblies direct from the manufacturer such that the part is fully functional and ready to be installed.

### B. DELIVERY, STORAGE AND HANDLING OF SPARE PARTS

- 1. Comply with the requirements of Section 016500 for packing, delivery, storage and handling requirements for all parts delivered to the site of the work.
- 2. All spare parts required to be furnished under a Section of the Specifications shall be packaged in one separate box, crate, or container with the words "SPARE PARTS" lettered on all sides of the container.
- 3. The equipment name or system name for which the spare parts are being provided shall also be lettered on the container.
- 4. A separate packing list for the spare parts shall be included in the container.
- 5. The Contractor shall store all spare parts indoors immediately upon delivery of the spare parts to the site. Spare parts will not be accepted by the Owner/Architect if the spare parts have been stored outdoors for more than 8 hours upon delivery to the site.
- 6. The storage location shall be secure.

### C. TURN OVER OF SPARE PARTS

- 1. Spare parts shall be turned over to the Owner/Engineer approximately two (2) weeks prior to the Architect's preparation of the Final Punch List.
  - 1. Spare parts will not be accepted until this time.
  - 2. The Certificate of Substantial Completion will not be issued until all spare parts are delivered.

2. The following procedure shall be followed:
  1. The Contractor shall provide a formal letter of transmittal listing the name or description of the part, part number, model number, manufacturer (or supplier), and system component name and the Section where it was specified to be provided.

#### 1.9 CLOSEOUT PROCEDURES

- A. Operation and Maintenance Instructions: Arrange for each Installer of equipment that requires regular maintenance to meet with the Owner's personnel to provide instruction in proper operation and maintenance. Provide instruction by manufacturer's representatives if installers are not experienced in operation and maintenance procedures. Include a detailed review of the following items:
  1. Maintenance manuals.
  2. Record documents.
  3. Spare parts and materials.
  4. Tools.
  5. Lubricants.
  6. Fuels.
  7. Identification systems.
  8. Control sequences.
  9. Hazards.
  10. Cleaning.
  11. Warranties and bonds.
  12. Maintenance agreements and similar continuing commitments.
- B. As part of instruction for operating equipment, demonstrate the following procedures:
  1. Startup.
  2. Shutdown.
  3. Emergency operations.
  4. Noise and vibration adjustments.
  5. Safety procedures.
  6. Economy and efficiency adjustments.
  7. Effective energy utilization.
- C. Record "As-Built" Drawings
  1. Upon completion of the work, and review of the record drawings by the Architect, prepare a final set of record drawings using reproducible mylar or vellum. Submit final set of transparencies to Construction Manager and Architect. Contractor will also provide 3 ea. electronic copies of all as-builts on disk.
  2. The cost of furnishing above prints and preparing these record drawings shall be included in the contract price.

#### 1.10 CLOSEOUT SUBMITTALS

- A. See attached checklist for required wage & supplements, lien releases, guarantee/warranties, etc.

#### 1.11 DEMONSTRATION AND TRAINING

- A. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system. Include a detailed review of the



following:

1. Include instruction for basis of system design and operational requirements, review of documentation, emergency procedures, operations, adjustments, troubleshooting, maintenance, and repairs.
2. The entire training session will be video – recorded by the contractor and the owner provided with 3 copies of the training USB.

1.12 CLOSEOUT CHECKLIST

- A. See attached checklist for required wage & supplements, lien release, guarantee / warranties, etc. No retainage reductions will be considered by the owner until receipt and approval of all closeout paperwork.

END OF SECTION

## SECTION 017329 – CUTTING AND PATCHING

### Part 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. Related Sections include the following:
  - 1. Division 02 through 28 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.
    - a. Requirements in this Section also apply to mechanical and electrical installations associated with this project.
- C. Division of Responsibilities for Cutting and Patching Work: **Each Prime Contractor shall perform cutting and patching required for its portion of the Work.**

#### 1.2 DEFINITIONS

- A. Cutting: Removal of existing construction necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

#### 1.3 SUBMITTALS

- A. Cutting and Patching Plan: Where approval of procedures for cutting and patching is required before proceeding (see Article 1.4 below), submit a proposed plan describing procedures at least 14 days before the time cutting and patching will be performed requesting approval to proceed. Include the following information, as applicable, in the proposal:
  - 1. Extent: Describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
  - 2. Changes to Existing Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
  - 3. Products: List products to be used and firms or entities that will perform the Work.
  - 4. Dates: Indicate when cutting and patching will be performed.
  - 5. Utilities: List utilities that cutting and patching procedures will disturb or affect. List utilities that will be relocated and those that will be temporarily out of service. Indicate how long service will be disrupted.
  - 6. Structural Elements: Where cutting and patching involved adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.
  - 7. Architect's Approval: Obtain approval of cutting and patching proposal before cutting and patching. Approval does not waive right to later require removal and replacement of unsatisfactory work.

#### 1.4 QUALITY ASSURANCE

- A. Minimize cutting and patching of work by properly coordinating construction sequences with Architect.
- B. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.

1. Obtain Architect's approval before cutting and patching any structural work that is not indicated on drawings.
- C. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
  1. Obtain Architect's approval before cutting and patching any operational element that is not indicated on drawings.
- D. Miscellaneous Elements: Do not cut and patch the following elements or related components, that are not indicated on drawings, in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operation life or safety.
  1. Water, moisture, or vapor barriers.
  2. Membranes and flashings.
  3. Equipment supports.
  4. Piping, ductwork, vessels, and equipment.
  5. Noise and vibration-control elements and systems.
- E. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

## PART 2 – PRODUCTS

### 2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections of these Specifications.
- B. OSHA Approved systems ,equipment , scaffolding, PPE, lanyards, rigging, etc.
- C. Existing Materials: Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
  1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of existing materials.

## PART 3 - EXECUTION

### 3.1 EXAMINATION & SAFETY

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
  1. Compatibility: Before patching, verify compatibility with and suitability of substrates including compatibility with existing finishes or primers.
  2. Proceed with installation only after unsafe or unsatisfactory conditions are corrected.

### 3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Roof Watertightness – Contractor must ensure that proper weather, protections, and manpower are present prior to cutting existing roof areas. Contractor is responsible for**

**any interior damages and any direct/indirect costs which accrue if they fail to maintain watertightness.**

- C. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection for any portions of Project that might be damaged / soiled during cutting and patching operations.

### 3.3 PERFORMANCE

- A. General: Each trade shall employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
  - 1. Cut existing construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
  - 2. Related Electrical and Mechanical work will be performed by licensed subcontractors
- B. Cutting: Cut existing construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
  - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  - 2. Existing Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
  - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
  - 4. Mechanical and Electrical Services: By-pass utility services such as pipe or conduit, before cutting, where services are shown or required to be removed, relocated or abandoned. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
  - 5. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Each trade shall patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections of these Specifications. Utilize workers who are authorized / skilled in the discipline to be patched ( e.g. – mason , carpenter, painter, etc. )
  - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
  - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
  - 3. Floors and Walls: Where portions of walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.

- a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch, from wall-to-wall or corner-to-corner. Provide additional coats until patch blends with adjacent surfaces.
4. Ceilings: Patch, repair, or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance.
5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.

### 3.4 CLEANING

- A. Thoroughly clean areas and spaces where cutting and patching is performed or used as access. Remove completely paint, mortar, oils, putty and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged pipe covering to its original condition.

END OF SECTION

## SECTION 017423 - CLEANING UP

### PART 1 - GENERAL

#### 1.1 DESCRIPTION OF THE WORK:

##### A. The work of this section relates to the following:

1. Maintain all premises and public properties/roadways free from accumulations of waste, debris, dirt, mud and rubbish caused by operations on a daily basis.
2. At completion of work, remove waste materials, rubbish tools, equipment, machinery and surplus materials, and clean all sight exposed surfaces; leave project clean and ready for occupancy.
3. Remove all overspray caused by construction operations from adjacent construction, surfaces and vehicles.

##### B. Related Requirements Specified Elsewhere

1. Summary of work: Section 011000
2. Cleaning for Specific Products or Work: the respective sections of the specifications:

#### 1.2 SAFETY REQUIREMENTS

##### A. Standards: Maintain project in accord with safety and insurance standards.

##### B. Hazard Control/Cleaning Products

1. Store volatile waste in covered metal containers and remove from premises daily.
2. Provide adequate ventilation during use of volatile or noxious substances.

##### C. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.

1. Do not burn or bury rubbish and waste materials on project site.
2. Do not dispose of volatile waste such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
3. Do not dispose of waste into streams or waterways.

### PART 2 - PRODUCTS

- 2.1 Materials: Use only cleaning materials recommended by manufacturer of surface to be cleaned.

### PART 3 - EXECUTION

#### 3.1 REQUIREMENTS DURING CONSTRUCTION:

- ##### A. Execute daily cleaning to ensure that building, grounds, and public properties and roadways

are maintained free from accumulations of waste materials, rubbish, dirt, mud and dust.

- B. Wet down dry materials and rubbish to lay dust and prevent blowing dust.
- C. Each day, all contractors shall adhere to the following:
  - 1. Areas of intense activity, such as cutting and sawing must be swept clean and reorganized at the end of each day. Utilize dust control methods such as plastic containment, containment hut and/or wetting of surfaces.
  - 2. Areas of moderate activity such as installation of plumbing, ductwork, electrical work must be returned to good order at the end of each day.
  - 3. Debris below scaffolds (and shoring/re-shoring) must at all time, be kept sufficiently consolidated to keep walkways free of tripping hazards. These work areas must also be swept clean immediately upon removal of scaffolds.
  - 4. All swept up debris, waste materials, and packing must be removed and placed in the dumpster by the end of the workday.
  - 5. All stored material must be protected and kept in good order.
  - 6. As portions of the work are completed, all used and excess materials must be removed promptly.
  - 7. Daily Clean-up and good housekeeping is the responsibility of each contractor individually and will be monitored by the Construction Manager. If any contractor fails to perform cleaning when directed or does not properly clean within 4 hours of being notified by Construction Manager, the owner will hire others and charge contractor(s) accordingly.
  - 8. Contractors shall promptly comply with requests to organize scattered materials.
- D. Each Contractor is responsible for furnishing all dumpsters or other such containers as required for collection, storage and legal disposal of all debris and rubbish resultant from their construction operations. The Construction Manager shall locate and request to move such containers as necessary and legally dispose of waste as containers are filled. Separate and recycle as required authorities and regulations.
- E. Vacuum clean areas when ready to receive finish painting, and continue vacuum cleaning on an as needed basis until building is ready for Substantial Completion or occupancy.
- F. Handle materials in a controlled manner with as few handlings as possible; do not drop or throw materials from heights.
- G. Schedule cleaning operations so that dust and other containment resulting from cleaning process will not fall on wet, newly painted surfaces.

### 3.2 FINAL CLEANING

- A. Each Contractor Shall:
  - 1. Employ professional cleaners for final cleaning.
  - 2. In preparation for substantial completion or occupancy, conduct final inspection of sight exposed interior and exterior surfaces, and of concealed spaces.
  - 3. Remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials form

sight-exposed interior and exterior finished surfaces; polish surface so designated to shine finish.

4. Maintain cleaning until project, or portion thereof, is occupied by owner.
5. Repair, patch and touch up marred surfaces to specified finish, to match adjacent surfaces.
6. If the contractor fails to perform final cleaning when directed or does not properly clean within 4 hours of being notified by Construction Manager, the owner will hire others and charge contractor accordingly.

B. **General Contractor:** shall complete the following restoration operations before requesting inspection for certification of Substantial Completion for entire Project or portion of Project:

1. Restoration of any lawn and walk/curb areas disturbed by construction operations. This includes repairs of any ruts / damage created by Heavy equipment, Lulls, cranes, etc.
2. Hire professional cleaning company (not construction tradesmen) to thoroughly clean all (EXISTING AND NEW) surfaces, including glass, floors, carpeting, ceramic tile, doors, windows, casework, etc.
3. Clean and wax Resilient floors using the exact same products / coats as the owner's custodial staff for compatibility purposes. Vacuum all carpet areas
4. Power sweep all asphalt areas using a commercial street sweeper (water method)
5. Remove any stickers, protective coverings, etc.
6. Clean all materials & equipment etc. inside and out.

C. **Mechanical Contractor:** shall complete the following cleaning operations before requesting final inspection for certification of Substantial Completion for entire project or portion of project.

1. Clean all Mechanical units, including removal of any stickers, protective covering. Wipe down of all surfaces
2. Vacuum out all ductwork, grills / louvers to insure there is no construction debris or dust
3. Replace all air filters at no additional cost immediately prior to owner occupancy

D. **Electrical Contractor:** shall complete the following cleaning operations before requesting final inspection for certification of Substantial Completion for entire project or portion of project.

1. Clean surfaces of all electrical equipment from any dust. Remove any labels or protective films
2. Replace any burned out or non-functioning bulbs.

E. **Plumbing Contractor:** shall complete the following cleaning operations before requesting final inspection for certification of Substantial Completion for entire project or portion of project.

1. Remove any stickers, labels and protective coverings
2. Clean all Plumbing fixtures and faucets inside and out.

### 3.3 RUBBISH REMOVAL

A. Contractors shall comply with all Local, State and Federal Laws, Codes and Requirements



regarding recycling and trash or rubbish removal.

END OF SECTION

## **SECTION 017701 – CHECKLIST FOR PROJECT CLOSEOUT AND PROCESSING OF FINAL PAYMENT**

### **PART 1 - GENERAL**

#### **1.1. FINAL PAYMENT**

Final payment will not be processed until all items indicated are received in accordance with Section 017701 – Checklist for Project Closeout.

#### **1.2. CLOSE-OUT SUBMITTALS**

- Three (3) bound, hard cover, 3-ring binder brochures of Operation and Maintenance Manuals for all equipment installed on the project (1 additional electronic copy).
- Typed or printed instructions covering the care and operations of equipment and systems furnished and installed.
- Manufacturers instruction books, diagrams, spare parts lists covering all equipment.
- Instruction of Owner’s Representative in care and maintenance of new equipment.
- All approved shop drawings.
- Certificates of compliance and inspection (where applicable – electrical, elevator, etc.).
- Spare parts and Maintenance Materials (receipt signed by ACCI & Owner).
- Evidence of compliance with requirements of governing authorities (Certificates of Inspection, Waste Manifests).
- Certificates of insurance for products and completed operations.
- Notarized statement that only non-asbestos materials were installed on this project.
- Fully executed certificate of substantial completion: AIA G704.
- Contractor’s written two-year warranty and extended warranties (if any required).
- Two-year maintenance bond.
- Project Record Documents.
- As-Built Drawings (1 full-size hard copy and 1 electronic copy).

#### **1.3. EVIDENCE OF PAYMENTS AND RELEASE OF LIENS:**

- Contractor’s Affidavit of Payment of Debts and Claims: AIA G706.
- Contractor’s Affidavit of Release of Liens: AIA G706A with:
- Separate AIA G706A for subcontractors, suppliers, and others with lien rights against the property of owner, together with a list of those parties.
- Consent of Surety to Final Payment: AIA G707.

Retainage reduction will not be considered until all items indicated on the above checklist are received in accordance with Section 017700 – Closeout Procedures.

END OF SECTION 017700

## **SECTION 017719 – PROJECT RECORD DOCUMENTS**

### **PART 1 - GENERAL**

#### **1.1. SUMMARY**

- A.** Requirements set forth herein are in addition to and shall be considered as complementary to the General Conditions of the Contract and project specifications.
- B.** All Contractors, Subcontractors, Sub-Subcontractors, Vendors and the like shall be required to familiarize themselves with said provisions.

#### **1.2. REQUIREMENTS**

- A.** Project Record Drawings
- B.** Record Drawing Certification

#### **1.3. PROJECT RECORD DRAWINGS**

- A.** The purpose of the project drawings is to record the actual location of the work in place including but not limited to underground lines, concealed piping within buildings, concealed valves and control equipment, and to record changes in the work.
- B.** In addition to the above, these drawings shall be “color-coded”, by each trade, on a daily basis to indicate progress of the work. Color legend will be assigned by the Architect.
- C.** In addition to the sets of contract drawings that are required by the Contractor on the site to perform the work, the Contractor shall maintain, at the site, one (1) copy of all drawings, specifications and addenda that are part of the Contract as awarded.
- D.** Each of these documents should be clearly marked “Project Record Copy”, maintained in a clean and neat condition available at all times for inspections by the Owner, Construction Manager or the Architect, and shall not be used for any other purpose during the progress of the work.
- E.** The Construction Manager will be the custodian on the project record documents until the end of the Project.
- F.** Project Record Requirements
  - 1.** The Contractor shall mark-up the “Project Record Copy” to show:
    - a.** Approved changes in the work.
    - b.** Location of underground work and completed work.
    - c.** Details not shown in the original Contract Documents.
    - d.** Any relocation of work including piping, conduits, ducts and the like.
    - e.** All changes in dimensions.
    - f.** All access doors and “tack” locations access points in accessible ceilings.
    - g.** Location of all plumbing, heating, ventilating, air conditioning or electrical assemblies, whether existing to remain or newly installed.
    - h.** Revisions to any electrical circuitry.

2. Such information shall include, but shall not be limited to:
  - a. Footing depth in relation to finished grade elevations.
  - b. Any change in floor elevations.
  - c. Any structural changes.
  - d. Any substitutions
  - e. Elevations and locations of all underground utilities, services, or structures referenced to permanent above ground structures and monuments.
  - f. Designation of all utilities as to the size and use of such utilities.
  - g. All invert elevations of manholes.
  - h. The location of all utilities, services and appurtenances concealed in building structures that have been installed differently from that required by the Contract.
  - i. Any approved change orders.
  - j. Other such data as required by the Architect and/or Owner so as to establish a complete record of “As-Constructed” conditions.
- G. The Contractor shall keep the project record documents up-to-date from day to day as the work progresses. Appropriate documents are to be updated promptly and accurately; no work is to be permanently concealed until all required information has been recorded.
- H. The project record drawings are to be submitted by the Contractor to the Architect through the Construction Manager when all the work is completed and is approved by the Owner and the Architect before the Contractor may request final payment.
- I. If the project record drawings as submitted are found to be unacceptable due to incompleteness or inaccurate information, the drawings shall be returned to the offending Contractor for corrective action and resubmitted for approval prior to the release of final payment.

FINAL PAYMENT IS CONTINGENT UPON DELIVERY OF FINAL PROJECT RECORD DRAWINGS TO THE OWNER AND ARCHITECT ON A SET OF FULL-SIZE PLANS AND ELECTRONIC FILES IN .DWG AND .PDF FORMATS.

- J. In addition to the drawings required as mentioned above, the Contractor shall submit a list of all approved Shop Drawings of the Work as installed.
- K. From this list the Architect will select the drawings desired for the permanent records. The Contractor shall furnish these in a bound set to the Owner as part of the closeout requirements.

#### **1.4. RECORD DRAWING CERTIFICATION**

- A. The record drawings required under the terms and conditions of this Section shall be reviewed and processed by each of the Prime Contractors as part of their overall contractual responsibility.
- B. This certification may be issued for individual trades as a collective document to cover the entire record drawing requirements of the project.

The format of this certification shall be as follows:

The record drawings prepared by:

\_\_\_\_\_

for \_\_\_\_\_ have been reviewed by  
the undersigned and:

Appears to be an accurate representation of the work incorporated within the project and  
are accepted as submitted in accordance with the technical documents.

This record document review made by this office is for determination of compliance to the  
requirements of the Contract Documents.

Firm Name: \_\_\_\_\_

Review Date: \_\_\_\_\_ By: \_\_\_\_\_

END OF SECTION 017719

## **SECTION 017836 – WARRANTIES**

### **1.1. SUMMARY**

- A.** This section includes administrative and procedural requirements for warranties required by the Contract Documents, including manufacturer’s standard warranties on products and special warranties.
  - 1.** Refer to the General Conditions for terms of the Contractor’s period for correction of the Work.
- B.** Related Sections: The following sections contain requirements related to this section:
  - 1.** Division 1 Section “Submittals” specifies procedures for submitting warranties.
  - 2.** Division 1 Section “Closeout Procedures” specifies contract closeout procedures.
  - 3.** Divisions 3 through 33 Sections for specific requirements for warranties on products and installations specified to be warranted.
  - 4.** Certifications and other commitments and agreements in the Contract Documents.
- C.** Disclaimers and Limitations: Manufacturer’s disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products. Manufacturer’s disclaimer and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.
- D.** Separate Prime Contracts: Each Prime Contractor is responsible for warranties related to its own contract.

### **1.2. DEFINITIONS**

- A.** Standard product warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.
- B.** Special warranties are written warranties by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the owner.

### **1.3. WARRANTY REQUIREMENTS**

- A.** Related Damages and Losses: When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as a result of such failure or must be removed and replaced to provide access for correction of warranted construction.
- B.** Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with equitable adjustment for depreciation.
- C.** Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of the Contract

Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.

- D. Owner's Recourse:** Expressed warranties made to the Owner are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights or remedies.
  - 1. Rejection of Warranties:** The Owner reserves the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
- E.** Where the Contract Documents require a special warranty, or similar commitment on the Work or part of the Work, the Owner reserves the right to refuse to accept the Work, until the Contractor presents evidence that entities required to countersign such commitments are willing to do so.

#### **1.4. SUBMITTALS**

- A.** Submit written warranties to the Architect and Construction Manager prior to the date certified for Substantial Completion. If the Architect's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion of Work, or a designated portion of the Work, submit written warranties upon request of the Architect.
  - 1.** When a designated portion of the Work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Architect and Construction Manager within 15 days of completion of that designated portion of the Work.
- B.** When the Contract Documents require the Contractor, or the Contractor and a Subcontractor, supplier or manufacturer to execute a special warranty, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner, through the Architect and Construction Manager, for approval prior to final execution.
  - 1.** Refer to Divisions 3 through 33 Sections for specific content requirements and particular requirements for submitting special warranties.
- C.** Form of Submittal: At Final Completion compile 2 copies of each required warranty properly executed by the Contractor, or by the Contractor, Subcontractor, supplier, or manufacturer. Warranties must be job-specific from the manufacturer and reference this project. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
- D.** Bid warranties in heavy-duty, commercial-quality, durable 3-ring, vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8.5-by-11-inch (115-by-280-mm) paper.

- 1.** Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a type description of the product or installation, including the name of the product, and the name, address, and telephone number of the Installer.
- 2.** Identify each binder on the front and spine with the typed or printed title “WARRANTIES”, Project title or name, and name of the Contractor. Three hardcopy binders required, and 2 electronic copies in Owner preferred format.
- 3.** When warranted construction requires operation and maintenance manuals, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION 017836