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Addendum

Cornwall Central School District
Cornwall, New York

SED NOS. 44-03-01-06-0-006-015
44-03-01-06-0-002-017
44-03-01-06-0-001-030
44-03-01-06-0-001-031

Reconstruction to
Cornwall-On-Hudson Elementary School
Cornwall Elementary School
Cornwall Central Middle School

Tt Project No. 363579-22001.3 – Phase 3

BID Addendum No. 1
to
Drawings and Project Manual

September 9, 2024

To: ALL BIDDERS

This ADDENDUM forms a part of the BIDDING AND CONTRACT DOCUMENTS and modifies the following documents:

Original DRAWINGS, dated June 28, 2024.

PROJECT MANUAL, dated June 28, 2024.

Acknowledge receipt of the ADDENDUM in the space provided on the BID FORMS.

This ADDENDUM consists of (2) pages and the following:

NEW PROJECT MANUAL SECTIONS

SECTION 01 12 00 – MULTIPLE CONTRACT SUMMARY

SECTION 01 12 00.01 – MILESTONE SCHEDULE

SECTION 01 50 00 – TEMPORARY FACILITIES & CONTROLS

PROJECT MANUAL MODIFICATIONS

ITEM 1-C-1: Refer to PROJECT MANUAL COVER SHEET

1. Upper right corner, ADD SED No. to read as follows:

“44-03-01-06-0-001-031”

ITEM 1-C-2: Refer to SECTION 00 01 10 – TABLE OF CONTENTS

1. Division 01, ADD the following:

- “01 12 00 Multiple Contract Summary
- 01 12 00.01 Milestone Schedule
- 01 50 00 Temporary Facilities & Controls”

ITEM 1-C-3: Refer to SECTION 01 21 00 – ALLOWANCES

(Please Note: The following verbiage is to clarify these numbers are in dollars.)

1. Paragraph 3.2, A., Allowance No. GC-3, AMEND to read as follows:

“...Include the sum of **\$30,000.00** for...”

2. Paragraph 3.3., A., Allowance No. MPC-3, AMEND to read as follows:

“...Include the sum of **\$20,000.00** for...”

3. Paragraph 3.4, A., Allowance No. EC-3, AMEND to read as follows:

“...Include the sum of **\$15,000.00** for...”

4. Paragraph 3.5, A., Allowance No. WC/AA-3, AMEND to read as follows:

“...Include the sum of **\$30,000.00** for...”

5. Paragraph 3.5, B., Allowance No. WC/AA-4, AMEND to read as follows:

“...Include the sum of **\$75,000.00** for...”

6. Paragraph 3.6, A., Allowance No. SC-3, AMEND to read as follows:

“...Include the sum of **\$15,000.00** for...”

END OF ADDENDUM

SECTION 01 12 00 MULTIPLE CONTRACT SUMMARY

PART 1 GENERAL

01. RELATED DOCUMENTS

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

02. SUMMARY

A. Section includes:

1. Project information.
2. Work covered by Contract Documents.
3. Construction schedule.
4. Requirements and assignments for each Contract.
5. Owner-furnished products.
6. Access to site.
7. Coordination with occupants.
8. Work restrictions.

B. This Section includes a summary of each contract, including responsibilities for coordination and temporary facilities and controls.

C. Each Contractor is responsible for reviewing all Drawings and Specifications for every contract to gain a complete understanding and knowledge of the entire Project, to determine how the work of each contract is to interface with every other contract.

D. Each trade will have a night shift to perform the renovations of the bathrooms (one Gang bathroom at each school at a time) during the school year. Work will be coordinated and scheduled with the CM. Summer of 2025, all areas of work will be available and complete by August 22nd, 2025. Abatement will take place in two mobilizations, 1. Winter break, 2. Summer 2025.

E. Window Trade will perform work on night shift until summer 2025, when all remaining work associated with this contract will become available. Abatements will take place on the night shift while school is in session. After window caulk is abated, window trade will install temp caulk until window is replaced. Any window needing a lintel replacement will be replaced over the summer 2025.

03. DEFINITIONS

A. Project Identification: Project consists of all labor, materials, equipment, appliances, services, and incidentals necessary for layout, installing, and performing Additions and Alterations at the Cornwall Central School District (CCSD) as shown on the Contract Drawings and described in the Specifications. The Work on this Contract will be performed at multiple schools within the School District.

1. Phase 3 - The work consists of but not limited to the following:
 - Window replacement and abatement
 - Bathroom renovations (Mechanical, Electrical, plumbing, architectural)
 - Sitework
2. The Work will be performed at
 - a. Cornwall Elementary School

- b. Cornwall Central Middle School
 - c. Cornwall on Hudson
3. Architect Identification: The Contract Documents were prepared for the Project by Architect of Record, Tetra Tech Architect & Engineers
 4. Construction Manager: The Palombo Group (TPG) has been engaged as Construction Manager for this Project to serve as an advisor to Owner and to aid in administering the Contract for Construction between Owner and Contractor, according to a separate contract between Owner and Construction Manager.
 5. Building Code in Effect for Project: 2020 Building Code of New York State as adopted and the Energy Conservation Construction Code of New York State unless noted otherwise in the contract drawings.
 6. Comply with the following: New York State Energy Conservation Code and the building rules and regulations of the New York State Education Department.

04. THE CONTRACT

- A. The Project will be constructed under a multiple prime contracting arrangement with the Owner awarding and holding separate Contracts. Each contractor shall provide all labor, material, tools, equipment, supervision, layout, delivery, trucking, shop drawings, submittals, closeout etc. necessary to complete the work described in the Division of Work of their respective Contracts and based upon a complete set of Contract Documents for complete and functional systems.

- B. Each Contractor has been given the opportunity prior to bid to inspect the entire Project site for interferences to their Contract work and agrees to accept the site as it exists on the date of the bid opening.
 1. It is the Owner's intention to continue to occupy the existing buildings and site for normal operations/maintenance during the Construction process. The Contractors all agree to:
 - a. Cooperate with the Owner's personnel in maintaining and facilitating access to the school buildings and its facilities by the school staff, Students, Owner's agents, service consultants and the public, throughout the construction process.
 - b. Keep driveways and entrances serving the occupied buildings clear and available to the Owner, the Owner's employees/agents, and to emergency vehicles always. Do not obstruct access to, or use these areas for parking, staging of equipment or materials. All access through these existing areas must be coordinated in advance and in accordance with the Owner.
 - c. Schedule construction operations to minimize any conflicts or interruptions to the daily Owner functions/operations. Coordinate any necessary interruptions with the designated project representative. Contractor to include in their Bid required rates for second shift tasks to coordinate with such required operations.
 - d. All existing Owner-occupied areas of buildings (not turned over to the Project Contractors) need to always remain operational. The contractors are responsible for maintaining all systems, such as but not limited to, fire

alarm, electric, public address system, gas service, heat, egress points etc.

- e. The Cornwall Central School District currently under Contract for their Phase 2 Capital Project Scope. This work includes scope of work at all three buildings and shall be coordinated with. Phase 2 schedule/logistics shall not be affected without coordinating prior to.
- f. In the case that there is no GC contract, each trade will be responsible for such (all) work of their own trade and anything stating that the GC will provide will be void).

C. Each Prime Contractor shall:

- 1) Provide field-engineering services, in addition to those provided by the Site Work Prime Contract, to install site utilities included in the applicable Prime Contract.
- 2) Coordinate construction schedule information to formulate one ~~master~~ schedule for the entire Project. Contractor to organize, publish and update said schedule as direct by the CM, but no less than bi-monthly (Once per month).
- 3) Coordinate weekly construction schedules and activities. Every week Prime submits to the CM and other Primes a detailed plan of activities in the field to include, but not be limited work planned, crew size, hours of work, deliveries, coordinated activities with others, Owner requested coordination needs. Prime Contractor to take responsibility for submitting this on account for all their vendors and subcontractors. 2-week lookahead provided every week.
- 4) Provide reflective vests/clothing and PPE to be always worn by all on-site personnel. Parties that do not abide by this requirement will be escorted off the premises.
- 5) Provide erosion and Sediment Control and dewatering as it relates to any excavation associated with its own Prime Contract.
- 6) Provide potable drinking water for its own employees.
- 7) Provide access to all concealed systems as required for system maintenance and repair for items installed in their Prime Contract. This specifically talks to access panels needed for future maintenance by the district.
- 8) Provide and maintain material lifting equipment required for the completion of their Contract requirements, and complying with NYS Labor Laws, OSHA Regulations, and other Federal, State, and local laws.
- 9) Provide and maintain additional temporary stairs, ladders, ramps, scaffolding, and platforms required specifically for completion of work of their own Contract, and as further detailed in this section. All work needs to comply with the NYS Labor Laws, OSHA regulation, and other Federal, State, and local laws.
- 10) Provide Fire Prevention materials and equipment for fire protection related to the work of their own Prime Contract. Provide fire extinguishers, fire blankets, and fire watch during all cutting and welding operations.
- 11) Provide any supplemental lighting required to install the work of its own Contract, beyond the minimum OSHA levels provided under the Electrical

Work Prime Contract.

- 12) Provide any supplemental heat required to install the work of its own Contract,
- 13) Provide traffic control for deliveries, and equipment needed to perform the work of their own Prime Contract.
- 14) Provide protection of its own finished Work, after installation, until accepted by the Owner.
- 15) Provide fire caulking for any fire-resistance-rated penetration related to the work for its own Prime Contract.
- 16) Provide any temporary office and storage trailers required to complete the work of their own Prime Contract.
- 17) GC to Provide final cleaning of all surfaces and areas within the work areas to the satisfaction of the CM. Daily cleaning by each trade. Each trade to center pile garbage each day and the GC to remove and dispose into the dumpster.
- 18) Project closeout requirements including As-Builts, Owner's Manual, Training, Commissioning etc.
- 19) Each Contractor shall review each facility's asbestos report to become familiar with any materials that may contain asbestos. If the contractor encounters materials that have not been tested for asbestos, or finds suspicious materials, the contractor shall temporarily cease work and contact the Construction Manager. The Contractor will be held responsible for clean-up costs if they continue to remove materials that have not been tested for Hazardous Materials.
- 20) Included within each Prime scope shall be any/all manufacturer's instructions, installations practices.
- 21) Provide for a thorough final cleaning of the site, building, and equipment provided under their Prime Contract immediately before the final inspection. Each Prime Contractor is responsible for daily cleaning and dust and debris generated from the work of their own Contract. Final cleaning with a professional cleaning company by the GC.
 - a) Maintain areas in a clean condition until the Owner occupies the space.
 - b) Personnel: Experienced workman or professional cleaners approved by the Construction Manager.
 - c) Sitework contractor to coordinate with other primes/trades for any scheduled work to be performed

01. SUMMARY OF WORK

- A. The work will be constructed under multiple prime contracts. One set of contract documents is issued covering multiple contracts. Each Prime Contract is defined as:
- Contract 1 GC/AA – General Construction Work/Interior Abatement
 - Contract 2 MC/PC – Mechanical & Plumbing Construction Work
 - Contract 3 EC – Electrical Construction Work
 - Contract 4 WC/AA – Window & Exterior Abatement
 - Contract 5 SC – Site Construction Work

02. WORK UNDER SEPARATE CONTRACTS

- A. The project will be constructed under a multiple-prime contracting arrangement.
- B. One set of documents is issued covering all prime contracts scope of work. Each prime contractor is to review ALL drawings and specifications for complete understanding and knowledge of the work to be performed. Each prime contractor shall acknowledge and include scope called out on adjacent drawings and specifications.
- C. The following Contract Documents are specifically included and defined as integral to each Prime Contract.
 - 1. Bidding Requirements
 - 2. Performance and Payment Bonds
 - 3. Conditions of the Contract, including
 - a. General Conditions & Supplementary Conditions
 - b. Insurance Requirements
 - c. NYS Prevailing Wage Rates
- D. Extent of Contract: Unless the Contract Documents contain a more specific description of the Work, names, and terminology on Drawings and in Specification Sections determine which contract includes a specific element of Project.
 - 1) Unless otherwise indicated, the Work described in this Section for each contract shall be complete systems and assemblies, including products, components, accessories, and installation required by the Contract Documents.
 - 2) Local customs and trade-union jurisdictional settlements do not control the scope of the Work of each contract. When a potential jurisdictional dispute or similar interruption of work is first identified or threatened, affected contractors shall negotiate a reasonable settlement to avoid or minimize interruption and delays.
 - 3) It is implied, unless otherwise noted, that any new work that has existing work in its place, the removal of the existing work is included in the scope of new work installer.
 - 4) All contractors are responsible for the removal and reinstallation of the ceiling where work must be installed above a ceiling not scheduled for removal.
 - 5) Site Contractor shall provide excavation, SOE, backfilling material, restoration etc. for all scope within the Contract, unless otherwise noted.
 - 6) Concrete Work of each contract shall be provided by the GC (General Contractor) unless a GC does not have a contractor, then the concrete work would be provided by the trade needing concrete for his own work.
 - 7) The General Construction Work Contract shall provide all cutting and patching associated with its own Contract and the contract of the other trades, (MEP). All patching is to be performed by mechanics qualified and experienced with the materials and finishes being patched. New openings requiring structural reinforcing will be the responsibility of the General construction contract. Core drilling, fireproofing etc. shall be by each Prime Contractor. In the case that there is no GC contract, each trade will be responsible for such work of their own trade.
 - 8) Firestopping for the Work of each contract shall be provided by each contract for its own Work. Firestopping shall comply with Division 7 Section "Through Penetration Firestop Systems".
 - 9) Access doors not shown on Architectural drawings and required for access

to junction boxes, valves and similar equipment for the Work of each contract shall be furnished by each contract for its own Work and given to the General Construction Contractor for installation. In the case that there is no GC contract, each trade will be responsible for such work of their own trade. Unless noted otherwise, final coordination of access doors is the General Contractor's responsibility.

- 10) Lead Based Paint precautions for the Work of each contract shall be provided by each contract for its own Work. Each Prime Contractor shall provide procedures for OSHA Lead precautions.
- 11) Each Prime Contractor shall designate a full-time superintendent to supervise the work of the Prime Contractor, who shall always be present on the job site when work is being performed; this person shall be familiar with Project and authorized to conclude matters relating to progress. This person shall also represent their company at weekly contractor meetings.
- 12) Termination and removal of its temporary facilities shall be provided by each contract for its own Work.
- 13) The Electrical Contractor shall provide temporary power and lighting at the areas of work for all trades within the building.
- 14) The Window Contractor to provide their own light required for installation of their own work.

E. Temporary Facilities and Controls: In addition to specific responsibilities for temporary facilities and controls indicated in this Section and in Division 1. "Temporary Facilities and Controls," each Contract is responsible for the following:

- 1) Installation, operation, maintenance, and removal of each temporary facility usually considered as its own normal construction activity, and costs and use charges associated with each facility.
- 2) Generators, plug-in electric power cords and extension cords, supplementary plug- in task lighting, and special lighting necessary exclusively for its own activities.
- 3) Its own field office, complete with necessary furniture, and telephone service.
- 4) Its own storage and fabrication sheds.
- 5) Temporary heat for construction at isolated work areas. It is assumed temp heat is sensitive to weather conditions and scope of work being performed (finish work). In the case of a disagreement, The CM will determine when temp heat is needed and by which prime contractor and at what time.
- 6) Its own dust protection to control dust where dust partition is not scheduled or shown on the drawings but are necessary to protect the building from dust contamination. Barriers such as "zip walls" plastic may need to be required in classrooms, hallways, office, to protect unmoved equipment, furniture, finishes, as required and as directed.
- 7) Temporary enclosures for its own construction activities.
- 8) Hoisting requirements for its own construction activities.
- 9) Staging and scaffolding for its own construction activities.
- 10) Collection and disposal of its own hazardous, dangerous, unsanitary, or other harmful waste material.

- 11) Daily clean-up and disposal is required by each Contractor for the periods in which that Contractor is performing work on site. Dumpsters will be provided by the General Construction contract for use by all prime contractors, recycling of materials will be instituted daily. Each trade will assign at least one person to the weekly clean-up. Any Contractor not providing personnel will be “back charged” for labor provided by the Construction Manager. Progress cleaning of its own areas daily. Window contractor to provide their own dumpster and be responsible for cleaning and disposing into its dumpster daily.
 - 12) Secure lockup of its own tools, materials, and equipment.
 - 13) Mechanical contractor to supply (3) brand new Bosch Electric Mini-Tank Water Heater Tronic 3000 T 4-Gallon (ES4), to be turned over to the CM for use at the site.
 - 14) Construction aids and miscellaneous services and facilities necessary exclusively for its own construction activities.
 - 15) Temporary heat to protect installed work where scheduled temporary heat is not in place or not called for in the contract documents will be provided by the mechanical contractor.
 - 16) Safety procedures as dictated by the district, OSHA, and the NYS Department of Labor
 - 17) Snow removal shall be by the Site Contractor as required for work, site safety or as directed by the CM.
- F. Temporary Heating, Cooling, and Ventilation: The Mechanical Contractor is responsible for temporary heating, cooling, and ventilation before permanent enclosure of building is complete and/or when a system is removed or otherwise disabled. The Mechanical Construction Contract is responsible for temporary heating, cooling, and ventilation after permanent enclosure of building is complete and Owner will pay utility-use charges once energized.
- G. Temporary ventilation: Each Contractor to control fumes from their own construction operations including interior painting and “off gassing” of new finish materials.
- H. Use Charges: Comply with the following:
- a. Water Service: Water service is available at no charge.
 1. Electric Power Service: Electric Power service is available at no charge. Except when power shut down to the building occurs, the EC to provide temp power to facilitate the ongoing work of other trades.
- I. Storage: Each Contractor shall coordinate with the Construction Manager for locations of on-site storage for material, employee parking, material loading/loading etc. It is the intent of the Project to store approved delivered material on site. Any storage required for material, tools, and equipment outside the summer schedule is the responsibility of the Contractor. Example locations are proposed in a Project Staging Plan. Material available and not on site will not be a basis for delay.

03. SITE CONSTRUCTION CONTRACT

- A. Work in the Site Construction Contract includes, but is not limited to, the following:
1. Includes Structural, Civil, Drainage, Utility plus other construction operations traditionally recognized as Site Work Construction. This includes, but is not limited to, work shown on the following:
 - a. Drawings:
 1. All "title sheets, general notes, code compliance, life safety and Phasing Drawings" (General)
 2. All "AC" "DC" and "ZC" series Drawings (Civil)
 3. Applicable "E" series Drawings (Electrical) for their support related needs
 4. Applicable "ES" series Drawings (Structural) for their foundation related requirements
 5. All Prefix Letter Above Drawings and any applicable information shown on the "EA" "EM" "EP", drawings, unless noted otherwise. It also includes administrative and coordination responsibilities.
 6. All reference to other drawings from all other drawing listed above.
 - b. Coordination:
 1. Coordination of their scope of work with all other contractors, third parties, Owner activities/agents
 2. (if applicable) Contractor shall become familiar with scope of all State Contractors and their support/scope coordination and interface responsibilities.
 3. (if applicable) Site Work Contractor to provide a coordinated schedule between SW, EC, MC and all state contractors.
 - c. Temporary Facilities
 1. Provide and maintain dust protection and temporary fencing around the entirety of the work areas. The site shall be protected from any open excavations in accordance with OSHA guidelines. Provide water for dust control as directed by the CM.
 2. Provide temporary roads/ access and continuous exits as necessary to accommodate construction activities. Reference Logistics and Phasing Plan that will be provided after award.
 3. Provide all erosion control measures as indicated. Provide all necessary sediment and waste-water control measures specific to the delineated Site Construction Work area per the SPDES General Permit, terms of the SWPPP and contract documents.
 4. Provide wash out area for concrete & construction vehicles as needed.
 5. Provide proper protection to existing sidewalks / curbs to remain.
 6. Un-piped temporary toilet fixtures, wash facilities, and drinking water facilities, including disposable supplies at the athletic field for the duration of the project.
 7. Special or unusual hoisting requirements for construction activities, including hoisting loads more than two tons, hoisting material or equipment into spaces below grade, and hoisting requirements outside building enclosure.
 8. Project identification and temporary signs for construction

9. Pest control.
 10. Barricades, warning signs, and lights.
 11. Security enclosure and lockup. Temporary walls/fence/partitions to separate construction to Owner-occupied areas as directed by the CM
 12. Environmental protection.
 13. Dust mitigation/containment and control measures Equipment sweeping of access roads required weekly, coordinated around facility parking times, to be carried out not less than weekly, daily if required and as directed by the CM and to maintain the requirements of the SWPPP plans.
 14. Restoration of Owner's existing facilities used as temporary facilities.
 15. Furnish and maintain temporary erosion control measures as indicated on contract documents.
 16. Provide temporary tree protection where shown and/or as directed
 17. Provide proper dust control and pavement sweeping in and around active site. Contractor to understand limits of work are outside active administration offices.
 18. Provide temporary measures to properly manage surface water runoff.
 19. Provide Temporary Facilities indicated as Work of this Contract in Section 01 50 00 "Construction Facilities and Temporary Controls."
 20. Provide separate handicap temp toilet to be locked and used separately for construction manager. Site work Contractor to include the rental and associated costs for the CM office trailer from April 1, 2025, until substantial completion of the project. Water (if applicable) and Electrical connections by this contractor. Office Trailer to be no less than 500 sq. ft. in size and will include the following: Exact location will be determined after award.
 - Security bars on window
 - Security Bars on doors lockable with a padlock
 - Two desks and chairs
 - Two 6' foldable tables and 10 foldable chairs
 - Heat and A/C unit
 - Stairs at each door
 - Trailer skirt
 - Internet service (could be MIFI)
 - New 11x17 Color printer - paper and ink
 - Water cooler and water supply
- d. Demolition:
1. All sitework prep, existing facility protection, any all sitework runoff/stabilization for the site within the work area
 2. Removal and relocation of trees, shrubs and ground cover. Store/stockpile topsoil for the use within the project or relocation onsite as directed by the Owner/CM.
 3. Removal of any existing curbing, stairs, paving, and sidewalks as shown or described as it relates to the scope shown. Removal to the limits called out whether it be milling, full depth excavation down to the requirements as called out for the new installation details. Sawcut adjacent areas to the limits shown

- and tie-in as per the details specified.
4. Excavate for access to remove all underground utilities and/or equipment as shown or described as it relates to the scope shown. Infill as required. Protect otherwise as required to maintain usage. OSHA regulation shall be maintained during construction. No open trenches shall be left without coordinated protection measures or as directed by the CM.
 5. Removal and disposal of miscellaneous equipment, including equipment not shown if impacting work to be demolished.
 6. Salvage, Storage and Protection of work as needed as shown or described within the documents.
 7. Responsible for shoring, demolition and protection of areas associated with all excavation.
 8. Provide protection to all installed materials.
 9. Removal and disposal of miscellaneous equipment including all existing wall mounted specialty items and/or equipment not shown if impacting work to be demolished. Coordinate shutdown of water and/or electric with trades associated with the area of demolition. See demolition plans for additional demolition notes.
 10. Removal and disposal of equipment and materials as indicated on the drawings.
 11. Provide and install shoring bracing and underpinning related to the Site Construction work; excavation and structural backfill for footing, foundations, trenches, and ground openings.
 12. Provide Dewatering at excavation, manholes, catch basins etc. for the progression of work during weather events or water table issue. Discharge water as per regulatory means.
 13. Removal of curbing, roadways, bituminous paving, and concrete walks
 14. Removal of all underground utilities and/or equipment as shown or described.
 15. Removal of all shown existing athletic surfacing and fencing.
 16. Removal of existing associated structures and/or unused structures.
 17. (if applicable) Removal of existing light pole bases and associated conduit. Fill in with suitable soil.
 18. Removal and disposal of miscellaneous material and equipment including equipment/materials not shown on the drawings and if it is impacting work to be demolished.
 19. Removal and disposal of unsuitable fill including rock to suitable depth.
 20. Provide an allowance in base bid to remove and dispose of an additional 40 cubic yards of rock removal above and beyond contract requirements.
 21. Demo and dispose all underground structures as shown on the contract drawings.

2.

- a. New Construction:
1. This Contractor shall be responsible for the construction of all exterior site work, including but not limited to all concrete/asphalt sidewalks, precast/stone/cast curbs, stairs/steps/landings/ramps, retaining walls, prep, finish, reinforcement/pins, railing, subgrade/base, drainage systems etc. asphalt, striping, fencing, guardrails, foundations, slabs, as per details shown
 2. The Site Construction Work Contract shall perform all necessary trenching and excavation, backfilling, and compaction. This Contractor shall be responsible for providing and setting light pole bases (if applicable).
 3. Repair road edges back to its original state, topsoil, seed and hay.
 4. Provide and install flagpoles as indicated on the drawings and or specifications (if applicable).
 5. Earthwork
 - a. GENERAL: All earthworks shall be confined to the construction area as shown on the plans and shall be done in an approved manner with proper equipment. Earthwork shall be suspended during rain and inclement weather, or when unsatisfactory field conditions are encountered, unless otherwise directed by the AE and CM. At all times during construction, the CONTRACTOR shall maintain proper drainage in the construction area and shall take all measures necessary for erosion and sediment control.
 - b. Existing Utilities: Contractor shall take every precaution to protect existing utility services from damage during construction operations. Contractor shall contact "Dig Safe NY" and provide private utility locating service as necessary to avoid damage to existing utilities. If damage occurs, the owner of the utility and construction manager shall be notified immediately. Repairs shall be made promptly at the contractor's expense. All repair work shall be satisfactory to the Architect, Construction Manager and the Owner of the utility. When interruptions of existing utilities occur, temporary service shall be provided as approved by the Architect, Construction Manager and Owner of the utility. A minimum 48-hour notification to the utility owner is required prior to working in and around utilities.
 6. Dressing Off: All cuts, fills and slopes shall be neatly dressed off to the required grade or subgrade, as indicated on the plans.
 - a. Cleanup: Cleanup of the site shall be made upon completion of grading work or any major part thereof. Unless otherwise noted, excess or surplus material shall be wasted and dressed off on the site, or adjacent thereto, to the AE and CM'S satisfaction. Excess or surplus material wasted in off- site spoil areas shall be spread and leveled as directed.
 - b. Topsoil Placement: Topsoil shall consist of a natural friable loam, occurring usually in a surface layer 6 to 18 inches thick,

and free of roots, grass, weeds, stone and other foreign matter. Topsoil may be obtained from the graded area, if available, and stockpiled for future use. Otherwise, the CONTRACTOR shall provide topsoil from other sources at his own expense. All topsoil shall be acceptable to the AE and CM. Topsoil shall be placed on the entire graded area as shown on the plans, or as directed by the AE and CM. Topsoil shall be distributed to a depth of 4 inches, measured loose, and dressed off neatly to finish grade, with all debris removed. Topsoil shall receive final dressing of seed and mulch or straw and watered until germination.

7. Provide all access i.e. temporary driveway, parking lot paving and drainage as required.
8. Provide interior equipment and housekeeping pads for all Prime Contracts, coordinate as necessary for size and locations.
9. Areas modified for construction/staging/etc. to be placed back to their natural state once construction is complete by this trade.
10. Provide all catch basins, storm drains, underdrains, pipe, fabric, stone, tie-in to adjacent structures and patching, etc. as shown.
11. Provide concrete pads as shown or called out.
12. Provide asphalt parking, seal coating, striping as shown or called out.
13. Provide all site signage and pavement markings as shown or called out.
14. Provide all site lines, stripes, arrows, handicap parking, etc. as shown or called out.
15. Site contractor to provide their own survey and layout by a NYS licensed surveyor. Coordinate and conform one all-inclusive survey including the survey from the bleacher and other contractors.
16. Site Contractor to provide and install light pole bases, coordinate with EC for anchor bolts and pattern.
17. Provide excavation, bedding and backfill for underground electric for site electrical. Installation of electrical conduit, light poles and wiring will be by the Electrical Contractor. Assist EC in setting light poles bases.
18. Contractor shall obtain and pay for any permits, inspections, or certifications from governing authorities having jurisdiction over the work to be performed, or over the finished product to be installed by this Contractor. Project Building Permit is by others.
19. Provide all labor, material, and equipment necessary for removal and disposal off site of rock. The Contractor shall include the following quantities rock removal in the Base Bid. Cost shall include removal and appropriate disposal per the Contract Documents. Measurement shall be taken unexcavated.
20. Provide and install all underground structures/piping as shown on the contract drawings.

21. Provide all site work related to State Contractors including but not limited to the following Section “STATE CONTRACTORS SCOPE (various Contracts)”

The Work of the Site Construction Contract includes but is not limited to the Work that is specified in the Project Manual(s) and as shown on the drawings that form the contract plans. The Contractor is directed to examine all drawings since certain details and/or notes may appear anywhere therein that apply to his/her work. This prime contract is defined as, and includes, all Sections in the Divisions indicated by reference, and specific Sections noted:

- 1) Division 0 – Procurement and Contracting Requirements, All Sections
- 2) Division 1 – General Requirements, All Sections, including Temporary Facilities
- 3) Division 2 – Existing Conditions - As applicable to work of this contract
- 4) Division 3 – “Concrete” All Sections
- 5) Division 11 – “EQUIPMENT” All Sections
- 6) Division 13 – “SPECIAL CONSTRUCTION”
- 7) Division 31 – “Earth Work” - All Sections
- 8) Division 32 – “Exterior Improvements” - All Sections
- 9) Division 33 – “Utilities” - All Sections

04. GENERAL CONSTRUCTION CONTRACT

A. Work in the General Construction Contract includes, but is not limited to, the following:

1. Includes Architectural, Structural, Masonry, Hazardous Materials, Finishes, Blocking for Equipment, plus other construction operations traditionally recognized as General Work Construction. This contract will include all interior abatement within the bathroom renovation scope. This includes, but is not limited to, work shown on the following:

a. Drawings:

1. All "title sheets, general notes, code compliance, life safety and Phasing Drawings" (General)
2. All “AG” series Drawings
3. All "BA" “DA” “AA” series Drawings (Architectural)
4. All "AAA" “DA” series Drawings (Hazardous Material) coordinate
5. Applicable “AC” “DC” “ZC” series Drawings (Civil) as it applies to the scope of work.
6. Applicable “AP”, “BP”, “DP” series Drawings (Plumbing) for their support related needs
7. Applicable “AE” “BE” “DE” series Drawings (Electrical) for their support related needs.
8. Applicable “AM” “DM” “BM” series Drawings (Mechanical) for their support related needs.
9. All Prefix Letter Above Drawings and any applicable information shown on the “Electrical” “Mechanical” “Plumbing”, drawings, unless noted otherwise. It also includes administrative and coordination responsibilities.

10. All reference to other drawings from all other drawing listed above.

b. Coordination:

1. Coordination of their scope of work with all other contractors, third parties, Owner activities/agents
2. Contractor shall obtain and pay for any permits, inspections, or certifications from governing authorities having jurisdiction over the work to be performed, or over the finished product to be installed by this Contractor.
3. Contractor to create a coordinated schedule with all other primes for an all-inclusive construction schedule. Update once a month unless additional updates requested by the CM.

c. Demolition:

1. Removal and disposal of miscellaneous equipment, including equipment not, shown if impacting work to be demolished.
2. The owner has the first right of refusal on all items designated to be thrown away.
3. Salvage, Storage and Protection of work as needed as shown or described within the documents.
4. Removal of masonry walls, doors, and interior partitions as required for new work. The General Work Contractor is responsible for shoring, demolition and protection of areas associated with new work.
5. Provide protection to all materials to remain intact.
6. Removal of finishes noted on plans including but not limited to flooring, ceilings, and misc. items attached to existing walls to be removed. Review and patch to match conditions. Hazardous Material to be removed by submitted and approved Certified Abatement Contractor.
7. Removal and disposal of miscellaneous equipment including all existing wall mounted specialty items and/or equipment not shown if impacting work. Coordinate shutdown of water and/or electric with trades associated with the area of demolition. See demolition plans for additional demolition notes.
8. Removal and disposal of equipment and materials as indicated on the drawings.
9. All cutting and patching necessary for work of this contract, including layout, sleeves, coring, debris removal, excavation, saw cuts of existing slabs, patch/pinning or dowels, lintels, drywall work, plaster work, grouting, painting, ceiling removal and replacement, etc.
10. Provide all excavation, saw cuts of existing slabs, patch/pinning or dowels, lintels, for MEP trades by this contractor. Layout by each trade. Window lintels by Window trade.
11. Some work may be required to be performed during nighttime / daytime hours during school days and weekends.

- d. Temporary Facilities
- a. Temporary facilities and controls that are not otherwise specifically assigned to the Mechanical Contract or Electrical Contract.
 - b. Un-piped temporary toilet fixtures, wash facilities, and drinking water facilities, including disposable supplies at each facility for the duration of the project.
 - c. Provide all site signage as requested by the CM. Example; Gates, Hard hat area, no smoking, Construction personnel only, Exit signs, Etc.
 - d. Special or unusual hoisting requirements for construction activities, including hoisting loads more than 2 tons, hoisting material or equipment into spaces below grade, and hoisting requirements outside building enclosure.
 - e. Project identification and temporary signs for construction
 - f. General waste disposal facilities including dumpsters for the project duration at each school for all trades. Specific Contracts to also carry general waste of their specific removed/demolished articles of work.
 - g. Pest control.
 - h. Temporary stairs.
 - i. Temporary fire-protection equipment. Provide Fire Extinguishers within code requirements.
 - j. Barricades, warning signs, and lights.
 - k. Security enclosure and lockup. Temporary walls to separate construction to Owner-occupied areas as directed by the CM.
 - l. Environmental protection. With the exception of the Site work contract.
 - m. Dust mitigation/containment and control measures i.e. “zip walls”, plastic may need to be required in classrooms, hallways, office, to protect unmoved equipment, furniture, finishes, as required and as directed.
 - n. Restoration of Owner's existing facilities used as temporary facilities.
 - o. Protect exterior wall and interior spaces when performing tie in work for new addition and any type of window wall replacements.
 - p. Provide all temporary partitions, egress doors, and temporary egress parameters indicated by the CM inside and outside the building. Restore all areas to original condition upon completion.
 - q. Provide Temporary Facilities indicated as Work of this Contract in Division 1 Section 01 5000, “Temporary Facilities and Controls.”
 - r. General Contractor is responsible for all temporary weather tight protection of openings and new work until final roofing waterproofing has been established.
 - s. Provide all temporary fall protection, guardrails, handrails, slab and roof openings protection, temporary stairs and ramps as

- required. Include maintaining these items throughout the project as well as removal when no longer needed.
- t. Provide Temporary storage for salvaged materials as indicated on the drawings until reinstallation of such materials.
 - u. Provide separate handicap temp toilet to be locked and used separately for construction manager.
- e. New Construction:
- a. (Elementary) (COH School) (Middle School)– General Contractor, Plumbing Contractor, Mechanical Contractor and Electrical Contractor to provide all elements for a finished scope of work.
 - b. Provide interior equipment and housekeeping pads for all Prime Contracts, coordinate as necessary for size and locations.
 - c. General including but not limited to survey, drainage, compaction, insulation, moisture protection, reinforcement, hardware, welding as necessary, concrete, masonry, carpentry, steel, finishes, etc. Coordinate with PC and EC on utility stub.
 - d. Contractor to provide rough opening in walls, floors, and roofs both inside and outside including lintels and any required structural framing for penetrations as part of this and MEP Contract only if openings in MEP contract require structural support. All lintels and/or framing are to be sized per the Architect.
 - e. Provide all associated lintels at new and old openings as required for the project. Coordinate with mechanical trades. Removal and replacement of ceilings as required to perform work by this trade. Exclude lintels at windows where being replaced by window contractor
 - f. Provide and install interior construction, including partitions, doors, frames, hardware, sills, interior glazed openings, and fittings and all work required to install select work. Provide all steel required at new openings, coordinate with all prime contracts. Power for electrified hardware to be provided by the Electrical Contractor.
 - g. Provide and install interior finishes such as rough carpentry finish carpentry, ceilings, architectural woodwork, filler panels and built-in casework. Salvage and re-install work as applicable.
 - h. Provide masonry walls including reinforcement, inserts, expansion joints, infills, veneer, anchors, drainage, weeps, insulation, flashing, lintels etc. for a complete system as detailed.
 - i. Provide repairs to masonry and concrete structures and openings. Patch to match exterior and interior finishes including work from other trades. Provide and install sitework restoration on disturbed areas.
 - j. Provide and install thermal and moisture protection as required.
 - k. Provide and install purple (moisture resistant) gypsum wallboard in all wet areas and finishing for same.
 - l. Provide and install all finishes and prep requirements including but not limited to polished concrete, terrazzo, floor tile, resilient vinyl tile, carpeting-padding, base cove, painting, grout, caulk, setting material, expansion material, suspended

- acoustical and gypsum ceilings, chase ways, grid/track and ceramic tile. Provide self-leveling underlayment where required to allow for acceptable flooring installation.
- m. Include surface prep as required by the product manufacturer. Remove and re-install obstructions as needed to finish work installation. Provide high performance coatings.
 - n. Provide all building signage, fire-protection specialties (enclosures), visual display boards, as indicated or directed by CM.
 - o. Provide and install Roof modifications required for the installation of mechanical equipment. General Contractor shall remove roof up to and including the deck. The contractor shall replace the roof and flash for watertight system after the Mechanical Contractor finalized the equipment, support curbs.
 - p. Install new mechanical roof curbs and rails. installation shall be coordinated for location and building tie-in. Curb, rails, duct supports and all other material to support/mount the mechanical material off the roof will be provided by the Mechanical Contractor. The roofing and curb cut in shall be by the General Contractor's Roofing Contractor, along with all necessary, waterproofing, etc. Any structural support modifications and building envelope penetrations will be by General Contractor.
 - q. Provide temporary hard protection over finished products. Include maintenance and removal of protection. Contractor shall anticipate that all existing areas to receive new flooring shall require both light grinding and self-leveling underlayment. Provide additional flash-patching where old walls were removed.
 - r. Contractor shall obtain and pay for any permits, inspections, or certifications from governing authorities having jurisdiction over the work to be performed, or over the finished product to be installed by this Contractor. Project Building Permit is by others.
 - s. Provide an allowance in base bade to include 7 boxes of additional ceiling tile installed at the direction of the CM.
 - t. Installation of the mechanical curbs/dunnage will take place after hours or on weekends when school is in session.
 - u. Install all curbs for the mechanical contractor with a certified roofer.
- f. Misc. Inclusions
- 1. Contractor shall include prime, paint, stone, brick, ceiling tile, gypsum, plaster, insulation, framing, chalk, grout, floor tile etc. Paint entire patched wall, corner to corner. Color/Finish to be coordinated with Owner prior to commencing. "Patch" to match existing at the following conditions.
 - i. At all removed existing walls.
 - ii. At all new door openings cut through existing walls.
 - iii. At all new walls in existing construction.

- g. Include (furnish, and install, unless noted otherwise):
 - 1. As indicated on the plans.
 - 2. Provide exterior and interior equipment and housekeeping pads, structural slabs etc. including but not limited to including formwork, rebar, pins, sleeves, finishing, etc. for completion of work.
 - 3. Provide and install Bathroom finishes and accessories.
 - 4. Provide within the Base Bid, furnish and install additional to the contract documents, 1,000 square feet of finished sheetrock and support, paint etc. at the direction of the CM. This work shall be used for Owner requested items, bulk heads, chase-ways and excessive patch areas.
 - 5. Provide Professional cleaning prior to substantial completion including but not limited to, window washing, vacuuming of carpeting, and waxing of flooring. This shall be done with all trades complete. A Third-Party vendor is required and must be submitted for approval. This work shall start in each area prior to turnover to the Owner.
 - 6. Install all Access doors in hard ceilings that are provided by the MEP trades \
 - 7. Schedule:
Provide a second shift for all work associated with the bathroom renovations. Second shift will be weekdays only and manpower must be adequate to perform the work.

05. ABATEMENT CONSTRUCTION (included within Window Contractor and

General Construction Scope)

Work in the Window Construction Contract includes, but is not limited to, the following:

- A. Includes Hazardous Materials abatement/removal plus other construction operations traditionally recognized as Hazardous Materials Construction. This includes, but is not limited to, following:
 - 1. Drawings:
 - a. All "title sheets, general notes, code compliance, life safety and Phasing Drawings" (General)
 - b. All "AAA" "BAA" "DAA" series drawings (Hazardous Abatement)
 - c. All references to other drawings from drawings listed above.
 - 2. Coordination:
 - a. Coordination with the work of all the other contractors. Review with adjacent Contractors and ensure that the work and facilities are always protected.
 - b. Contractor shall obtain and pay for any permits, inspections, or certifications, including variances, from

governing authorities having jurisdiction over the work to be performed, or over the finished product to be installed by this Contractor.

3. Demolition:
 - a. Asbestos containing material removal as shown in the contract documents and disposal per Code Rule 56.
 - b. Construction of hard barriers separating abatement areas from all other areas.
4. Temporary Facilities
 - a. Provide Temporary Facilities indicated as Work of this Contract in Division 1 Section 01 50 00, "Temporary Facilities and Controls."
5. Construction:
 - a. Contractors have made themselves aware of the documenting within this bid, including the Hazardous Material Survey. Activity mentioned within this report not found within the drawings has either been asked via the RFI process or included within this proposal.
 - b. Provide the removal of asbestos containing material as shown.
 - c. Asbestos containing material removal as shown in the contract documents and disposal per Code Rule 56.
 - d. Pipe fitting insulation removal as shown.
 - e. Remove, relocate, and reinstall floor mounted equipment, casework, or anything else necessary to access the work.
 - f. If not otherwise being replaced, re-install/repair anything removed for protection and or access to the work regardless of trade correlation.
 - g. Seal all ends of open ACM not called to be removed.
 - h. Provide an additional (included in base bid) allowance of 40LF of pipe insulation and 10 elbows removal and disposal, including tents, deacons, and associated devices/materials to complete the work.
 - i. Plumbing hook ups by this contractor
 - j. Electrical hook ups by this contractor
 - k. Include afterhours work to keep the durations on the schedule even if additional work is added.
 - l. Work at multiple locations will take place simultaneously.
 - m. There could be more than one mobilization for this abatement contract.
 - n. When caulk is removed, reinstall temp caulk until window is replaced.

B. The Work of the Window Construction Contract includes but is not limited to the Work that is

specified in the Project Manual(s) and as shown on the drawings that form the contract plans.

The Contractor is directed to examine all drawings since certain details and/or notes may appear

anywhere therein that apply to his/her work. This prime contract is defined as, and includes, all

Sections in the Divisions indicated by reference, and specific Sections noted:

- 10) Division 0 – Procurement and Contracting Requirements. All Sections
- 11) Division 1 – General Requirements, All Sections, including Temporary Facilities
- 12) Division 2 – Existing Conditions - All Sections
- 13) Division 3 – “Concrete” All Sections
- 14) Division 4 – “Masonry” All Sections
- 15) Division 5 - “Metals” All Sections
- 16) Division 6 - “WOOD, PLASTICS, AND COMPOSITES” All Sections
- 17) Division 7 – “THERMAL AND MOISTURE PROTECTION” All Sections
- 18) Division 8 – “OPENINGS” All Sections
- 19) Division 9 – “FINISHES” All Sections
- 20) Division 10 – “SPECIALTIES” All Sections
- 21) Division 12 – “FURNISHINGS” – All Sections

06 ELECTRICAL CONTRACT

A. Work of the Electrical Contract includes, but is not limited to, the following:

2. Includes a complete working system or tie-in for system such as Electrical Distribution Service, Lighting, CATV systems, Communications, Fire Alarm, Intercom Systems, electrical door hardware, Security Systems, Emergency Lighting, and other systems traditionally recognized as Electrical work. This includes, but is not limited to, work shown on the following:

a. Drawings:

1. All "title sheets, general notes, code compliance, life safety and Phasing Drawings" (General)
2. All “AE”, “DE”, “BE” series Drawings (Electrical)
3. All "G" series Drawings, as it pertains to Work of this Contract
4. Applicable “M” series Drawings (Mechanical) for their support related needs
5. Applicable “D” series Drawings as it applies to the series above.
6. Applicable “AAA” “BAA” “DAA”, series drawings (Hazardous Abatement) for their support related needs.

7. All Prefix Letter Above Drawings and any applicable information shown on the “A” “C” “P” “M”, drawings, unless noted otherwise. It also includes administrative and coordination responsibilities.
 8. All reference to other drawings from all other drawing listed above.
3. Coordination:
 - a. Coordination of their scope of work with all other contractors, third parties, Owner activities/agents
 - b. Contractor shall obtain and pay for any permits, inspections, or certifications from governing authorities having jurisdiction over the work to be performed, or over the finished product to be installed by this Contractor.
 - c. Coordinate with GC contractor to produce a master work schedule for the projects.
 4. Demolition
 - a. Provide demolition of all electrical equipment and conduit as shown and as required at the existing building. Include removal of any work found abandoned in place or unused adjacent to work scope. Salvage, Store, Protection of equipment for reinstallation as indicated on the drawings.
 - b. Coordinate with General Contractor for all cutting and patching necessary for the work of this contract, however the Electrical Contract to include layout, sleeves, coring, debris removal, etc. for scope associated with the Electrical system installation.
 - c. Removal and disposal of miscellaneous equipment, including equipment not, shown if impacting work to be demolished.
 - d. Provide protection to all materials to remain intact.
 - e. Coordinate with the other Primes for necessary shutdowns and disconnects.
 - f. Removal and disconnections of electrical devices in walls, ceilings and floors scheduled to be removed. Conduit to be labeled and capped, with wires pulled out to source.
 5. Temporary Facilities
 - a. Provide Temporary Facilities indicated as Work of this Contract in Division 1 Section 01 5000, “Temporary Facilities and Controls.”
 - b. Provide and install temporary power to abatement contractor’s equipment as required up to the Abatement Contractor provided sub/supply panel.
 - c. Provide temp power panels
 - d. Fire alarm devices shall be surveyed and protected prior to work. All devices shall be returned to their existing location or adjusted to a code compliant location as required due to the scope on the ceilings/walls due to them being removed/relocated/new.
 - e. The Electrical Contractor is aware that the district has emergency lights

on the ceilings and walls. Upon the end of the panel installation, all emergency fixtures shall be tested. Any devices not functioning shall be restored/repaired/replaced in kind prior to the return of the building to the district for operational use or as directed.

- f. Provide Power to site trailer for the owner and CM.

6. Construction:

- a. Selective demolition in a safe and approved manner
- b. Salvage all required equipment and re-install as applicable
- c. Provide and install panels, equipment, disconnects, conduit, wire, grounding, terminations, tagging/labeling of new work
- d. Provide and install electrical equipment such as transformers, junction boxes, panels, breakers, enclosures, switch gear, pull boxes, supports, etc.
- e. Remove, salvage and re-install applicable speakers, cameras, sensors, devices, and other such existing electrical devices within the work areas. Coordinate with Owner on temp relocation, re-installation, and calibration.
- f. Provide and install Interior and Exterior Lighting, including poles, supports, bases, junction boxes, manholes, pull boxes, fixtures, conduit, wire, sensors, controls for a complete system.
- g. Provide and install Interior and Exterior Power, including supports, bases, junction boxes, manholes, pull boxes, fixtures, conduit, wire, sensors, controls for a complete system.
- h. Provide and install Interior and Exterior Communication, including supports, bases, junction boxes, manholes, pull boxes, fixtures, conduit, wire, sensors, controls for a complete system.
- i. Provided in wall cores, openings, etc. for system/equipment penetrations, firestopping.
- j. Pumps, controls, motor starters, VFDs shall be furnished by the Mechanical Contractor. Disconnects to be provided by Electrical Contractor. Coordinate installation of main power from disconnect/breaker/panel to be performed by Electrical Contractor. Electrical equipment/components, for example VFDs and Motor Starters, shall be installed by the Electrical Contractor. The programming of such equipment and installation of all other items for the working system shall be by the Mechanical Contractor.
- k. Provide power to all ADA / magnetic hardware and electric hardware shown in the door hardware schedule. Provide control wiring and connection for electrified door hardware. Hardware to be provided by the GC.
- l. Provide all phone, CAT, and communication/networking work/systems as shown.
- m. Provide all fees required for inspections and permits.
- n. The Building Management System requires several 120v power feeds for panels, dampers etc. For the purposes of this bid, include six such locations at various points of the building. Locations to be coordinated with the Mechanical Contractor.
- o. Provide and install a complete Fire Alarm System including FACP, batteries, smoke, strobes, horns, CO2, annunciator panels, and ancillary devices

coordinated with the HVAC equipment. Remove old devices and wires. Coordinate with GC on schedule, elevations etc.

B. The Work of the Electrical Work Contract includes but is not limited to the Work that is specified in the Project Manual(s) and as shown on the drawings that form the contract plans. The Contractor is directed to examine all drawings since certain details and/or notes may appear anywhere therein that apply to his/her work. This prime contract is defined as, and includes, all Sections in the Divisions indicated by reference, and specific Sections noted:

- 1) Division 0 – Procurement and Contracting Requirement, All Sections.
- 2) Division 1 – General Requirements All Sections, including Temporary Facilities indicated.
- 3) Division 2 – Existing Conditions - As applicable to work of this contract
- 4) Division 3 – “Concrete” - As applicable to work of this contract
- 5) Division 7 – “THERMAL AND MOISTURE PROTECTION” - As applicable to work of this contract
- 6) Division 22 – “Plumbing” - As applicable to work of this contract
- 7) Division 23 – “Heating Ventilating and Air Conditioning” - As applicable to work of this contract
- 8) Division 26 – “Electrical” - All Sections
- 9) Division 27 – “Communications” - All Sections
- 10) Division 28 – “Electronic Safety and Security” - All Sections

07. MECHANICAL CONTRACT

Work of the HVAC Contract includes, but is not limited to, the following: Includes HVAC as a complete working finish system such as Equipment, Piping, ductwork, control systems, housekeeping pads, plus other construction operations traditionally recognized as heating, ventilating and cooling work. This includes, but is not limited to, work shown on the following:

- A. Drawings:
 - a. All "title sheets, general notes, code compliance, life safety and Phasing Drawings" (General)
 - b. All "AM", "DM", "BM" series Drawings (Mechanical)
 - c. All "G" series Drawings, as it pertains to Work of this Contract.
 - d. Applicable "M" series Drawings as it applies to the series above
 - e. All Prefix Letter Above Drawings and any applicable information shown on the "E" "S" "C" "A", drawings, unless noted otherwise. It also includes administrative and coordination responsibilities.
 - f. All reference to other drawings from all other drawing listed above
- B. Coordination:
 - a. Coordination of their scope of work with all other contractors, third

- parties, Owner activities/agents
- b. Contractor shall obtain and pay for any permits, inspections, or certifications from governing authorities having jurisdiction over the work to be performed, or over the finished product to be installed by this Contractor.
- d. Coordinate with GC contractor to produce a master work schedule for the project.

C. Demolition

- a. Provide demolition of all equipment and piping as shown and as required at the existing building. Included any work found abandoned in place or unused adjacent to work scope. Salvage, Store, Protection of equipment for reinstallation as indicated on the drawings.
- b. Coordinate with General Contractor for all cutting and patching necessary for work of this contract, however the Mechanical Contract to include layout, sleeves, coring, debris removal, etc. for scope associated with the Mechanical system installation.
- c. Removal and disposal of miscellaneous equipment, including equipment not shown if impacting work to be demolished.
- d. Provide protection to all materials to remain intact.

D. Temporary Facilities

- A. Provide Temporary Facilities indicated as Work of this Contract in

“Temporary Facilities and Controls.”

- a. Provide temp heat during the winter conditions of all new and renovated spaces for all trades at the direction of the CM. interior of the building only

E. Construction:

- a. Selective demolition.
- b. Remove and dispose of all unused equipment, fuel lines, piping, etc. adjacent to the new work and/or as or as not shown on the Drawings.
- c. Curb material will be provided by the Mechanical Contractor. The roofing and curb cut in shall be by the General Contractor, along with all necessary, waterproofing, etc. Any structural support modifications and building envelope penetrations will be by General Contractor.
- d. Provide and install Ductwork, supports, grilles, louvers, valves, dampers hatches, insulation, and applicable accessories
- e. Adjust (add or remove) necessary duct extensions to make up the difference in height/locations or other necessary adjustments for grills/louvers etc. in the ceilings.
- f. Provide and install Exhaust fans, hoods, motors, fan, equipment, penetrations, pitch pockets, and applicable accessories for a complete system. Curbs to be provided by the Mechanical Contractor for the General Contractor to install.
- g. Pumps, controls, motor starters, VFDs shall be furnished by the Mechanical Contractor. Disconnects to be provided by Electrical Contractor. Coordinate installation of main power from disconnect/breaker/panel to be performed by Electrical Contractor.

Division 1

Electrical equipment/components, for example VFDs and Motor Starters shall be installed by the Electrical Contractor. Programming of such equipment and installation of all other items for a working system shall be by the Mechanical Contractor.

- h. Provide and install mechanical piping, hangers, joints and applicable accessories including insulation, labels, tags, expansions joints,
- i. Clean existing ductwork prior to system startup, replace filters as needed.
- j. Mechanical Contractor to included construction filters and change them out with permanent ones prior to startup/turnover on all equipment.
- k. Provided in wall cores, openings, etc. for system/equipment penetrations. Penetrations for exterior louvers to be laid out be the Mechanical Contractor to be cut out by the General Contractor. General Contractor to provide all required lintels and wall finish repair.
- l. Provide and install all labeling, startup, cleaning, disinfection, chemicals, testing, inspection, permits, balancing, commissioning etc.
- m. Salvage and re-install work as applicable.
- n. Provide Training on new systems and equipment
- o. Provide and install all required low voltage for HVAC equipment.
- p. Provide and install all controls components into air and hydronic systems such as, but not limited to;
 - 1. Install motor actuated dampers.
 - 2. Install airflow measuring stations.
 - 3. Install airside temperature and pressure sensors.
- u. Provide TAB and participate in commissioning work as required for controls of the work of this contract.
- v. Provide all ductwork as indicated on the drawings outside of the Window scope of work.
- q. Provide all equipment shown on all equipment schedules.
- r. Furnish access doors for HVAC access (to be installed by GC)
- s. Provide the necessary layout for all equipment and penetrations with other Contracts.
- t. Provide Owner training / commissioning of equipment.
- u. Installation of the mechanical curbs/dunnage/RTU's will take place after hours or on weekends.
- v. Supply access doors for all new dampers installed for access in hard ceilings. Turn access doors over to GC for installation.
- bb. Schedule:
Provide a second shift for all work associated with the bathrooms to assure work will be completed. shift will be weekdays only and manpower must be adequate to perform the work.

F. The Work of the HVAC Work Contract includes but is not limited to the Work that is specified in the Project Manual(s) and as shown on the drawings that form the contract plans. The Contractor is directed to examine all drawings since certain details and/or notes may appear anywhere therein that apply to his/her work. This prime contract is defined as, and includes, all Sections in the Divisions indicated by reference, and specific Sections noted:

- 1) Division 0 – Procurement and Contracting Requirement, All Sections.
- 2) Division 1 – General Requirements All Sections, including Temporary Facilities indicated
- 3) Division 2 – Existing Conditions - as applicable to work of this contract
- 4) Division 7 – “THERMAL AND MOISTURE PROTECTION” as applicable to work of this contract
- 5) Division 23 – “Heating Ventilating and Air Conditioning”, All Sections.
- 6) Division 27 – “Communications” as applicable to work of this contract

10. PLUMBING CONTRACT

Work of the Plumbing Contract includes, but is not limited to, the following: Includes Plumbing as a working finish system such as supply, venting drainage ductwork, housekeeping pads, plus other construction operations traditionally recognized as plumbing work. This includes, but is not limited to, work shown on the following:

A. Drawings:

- a. All "title sheets, general notes, code compliance, life safety and Phasing Drawings" (General)
- b. All "AP", "BP" "DP" series Drawings (Plumbing)
- c. All "G" series Drawings, as it pertains to Work of this Contract.
- d. Applicable "D" series Drawings as it applies to the series above.
- e. All Prefix Letter Above Drawings and any applicable information shown on the "E" "S" "C" "A" "M", drawings, unless noted otherwise. It also includes administrative and coordination responsibilities.
- f. All reference to other drawings from all other drawing listed above

B. Coordination:

- a. Coordination of their scope of work with all other contractors, third parties, Owner activities/agents
- b. Contractor shall obtain and pay for any permits, inspections, or certifications from governing authorities having jurisdiction over the work to be performed, or over the finished product to be installed by this Contractor.
- c. Coordinate with GC contractor to produce a master work schedule for the projects.

C. Demolition

- a. Provide demolition of all plumbing equipment and piping as shown or not shown as required at the existing building. Included any work found abandoned in place or unused adjacent to work scope. Salvage, Store, Protection of equipment for reinstallation as indicated on the drawings.
- b. Coordinate with General Contractor for all cutting and patching necessary for work of this contract, however the Plumbing Contract to include layout, sleeves, coring, debris removal,

- trenching, etc. for scope associated with the Plumbing system installation. Trenching and excavation by this trade.
- c. Removal and disposal of miscellaneous equipment, including equipment not, shown if impacting work to be demolished.
 - d. Provide protection to all materials to remain intact.
- D. Temporary Facilities
- a. Provide Temporary Facilities indicated as Work of this Contract in Division 1 “Temporary Facilities and Controls.”
 - b. Provide a hose bib on site for construction use. Provide as directed by the CM
- E. Construction:
- a. Selective demolition.
 - b. Coordinate with EC and GC on utility stub ups.
 - c. Provide and install potable water supply and distribution including valves, hoses, support, insulation, and applicable accessories.
 - d. Provide and install Bathroom fixtures sinks, supports, shutoffs, and applicable accessories.
 - e. Provide and install all-natural gas and propane lines for a complete system
 - f. Provide and install Drains, cleanouts, vents etc. as required.
 - g. Provide and install Hot Water Heater and accessories for a complete system.
 - h. Provide and install Water Fountains for a complete system if applicable.
 - i. Provide and install Water Service testing, connections, and commissioning.
 - j. Provided inwall cores, openings, etc. for system/equipment penetrations, firestopping.
 - k. Salvage and re-install work as applicable.
 - l. Provide and install insulation on all new work. Tie into existing lines and insulate up to existing work for a unified insulation performance.
 - m. Provide all testing, inspection, permits.
 - n. Provide and install all cleaning, startup, chemicals, testing, inspection, permits, balancing, commissioning
 - o. Contractor to provide and install new additional valves above and beyond what is shown on the drawings – (5) five ½”, (5) five 1”, (2) two 1 ½”, (2) two 2”, (1) one 3” for pricing purposes. Exact sizes and location to be determined in the field, at the direction of the construction manager.
 - p. Schedule:
Provide a second shift for all work associated with the bathrooms to assure the work is complete. Second shift will be weekdays only and manpower must be adequate to perform the work.

The Work of the Plumbing Work Contract includes but is not limited to the Work that is specified in the Project Manual(s) and as shown on the drawings that form the contract plans. The Contractor is directed to examine all drawings since certain details and/or notes may appear anywhere therein that apply to his/her work. This prime contract is defined as, and includes, all Sections in the Divisions indicated by

reference, and specific Sections noted:

1. Division 0 – Procurement and Contracting Requirement, All Sections.
2. Division 1 – General Requirements All Sections, including Temporary Facilities indicated
3. Division 2 – Existing Conditions - All Sections
4. Division 7 – “THERMAL AND MOISTURE PROTECTION” - As applicable to work of this contract
5. Division 22 – “Plumbing” All Sections
6. Division 23 – “Heating Ventilation and Air Conditioning” - As applicable to work of this contract

13. WINDOW/ CURTAIN WALL CONSTRUCTION WORK

- A. The Work of the Window Construction Work Contract includes but is not limited to, the following descriptions:
 1. Includes Architectural, Structural, Masonry, plus other construction operations traditionally recognized as Window Construction Work. This includes, but is not limited to, **window/ curtain wall / new louvers / Doors Replacement work shown** on the following:
 - a. Drawings:
 1. All “AG” series Drawings (Site Code Compliance)
 2. All “AA & BA” series Drawings (Architectural)
 3. All “AAA” “BAA” “DAA” series Drawings (Hazardous Material)
 2. Coordination:
 - a. Window / Curtain Wall / Exterior Door Work Contractor are to pay particular attention to coordination of work at all existing and new openings.
 - b. Coordination with the work of all the other contractors.
 - c. Window Contractor is responsible to disconnect and reconnect all ductwork attached to the window system. Coordinate new window layout to include the existing duct to new louver locations and reconnections. Any modifications required to make the duct and window/louver connections will be the responsibility of the window contractor.
 - d. For the purpose of coordination, “window” and “curtain wall” will mean the same thing for the purpose of coordination.
 - e. Window Contractor to provide internal passageways and pull string for the electrician for electric door hardware wiring before the window/door frame is installed to avoid surface mount wiring. Window Contractor to receive confirmation from electrician prior to install. If no separate prime for electrical is contracted by the owner, the electrical components, scope will be by the window contractor.
 2. Demolition:
 - a. Abatement required to perform transite panel and window / curtain wall removal. Removal of asbestos caulk and glazing materials. Asbestos containing material removal as shown in the contract documents and disposal per Code Rule 56. **INCLUDES all exterior abatement associated with the window / curtain wall / replacement work.**
 - b. Construction of necessary barriers separating abatement areas from all other areas.
 - c. Demolition and replacement of existing curtain wall system shall commence after abatement has been completed. The work shall consist of erecting temporary partitions walls as necessary where

removal of the existing window /curtain wall cannot be replaced in the same night/day. The new window /curtain wall installation is to follow the demolition work as soon as possible to minimize the exposure of inclement weather. The work of this phase is to be completed according to the milestone schedule.

- d. Removal and replacement of finishes noted on plans **associated with Window / Curtain Wall / replacements (includes windowsills/stools and ceilings that are connected to the Window / Curtain Wall scheduled to be replaced on Architectural Drawings.**
 - e. Removal and disposal of miscellaneous equipment including all existing wall mounted specialty items and/or equipment not shown if impacting work to be restored / demolished.
 - f. Provide protection to all finishes, casework, doors, and woodwork to remain.
 - g. Provide protection to new unit ventilators and existing unit ventilators to remain.
 - h. All cutting and patching necessary for work of this contract, including layout, providing lintels, drywall work, plaster work, grouting, painting, ceiling removal and replacement, etc.
4. Temporary Facilities
- a. In the case that the windows were removed and cannot be replaced in the same day/night, Provide temporary plywood at all existing windows / openings to be replaced. Assure the interior of the building is not exposed to the outside elements.
 - b. Protect exterior wall and interior spaces when performing window replacement.
 - c. Provide all temporary protection at areas where window replacement is to occur. Provide Temporary Facilities indicated as Work of this Contract in Division 1 Section 01 50 00, “Temporary Facilities and Controls”
5. New Construction:
- a. Removal and replacement of existing windows / curtain wall and installation of new windows / curtain wall where shown. Includes the supply and installation of:
 1. Glazed aluminum curtain wall system – (Refer to Elevations and Details for locations).
 2. Aluminum Windows - (Refer to Elevations and Details for locations).
 3. Include the supply and installation of all related products (i.e. flashings, caulking, attachments, accessories, etc.) to replace existing as specified in this Section.
 - b. Provide new windows to be installed at existing openings.
 - c. Cleaning and adjustment:
 1. All surfaces of window work shall be cleaned of all mortar, plaster, paint and other foreign matter on both inside and outside to present a neat appearance and prevent damage of surfaces. In addition, system shall be washed off with a stiff fiber brush, soap and water, and thoroughly rinsed with clear water. Where aluminum work has become stained, or discolored, it shall be cleaned, or finish restored in accordance with the specifications. Stained, discolored, or abraded items that cannot be satisfactorily repaired shall be replaced with new items at no additional cost to the Owner. Prior to substantial completion and final payment of the project, the Contractor shall promptly replace any damaged material without additional cost to the Owner.
 2. Remove all excess glazing or joint sealing materials from exposed surfaces. Clean and polish glass.
 3. Adjust hardware for smooth operation as per the manufacturer’s recommendations.
 - d. **New exterior louvers at curtain wall / window to be furnished and installed by this contract.** Coordination will be required to assure proper seal to unit ventilator from louver opening.
 - e. Protection: Protect installed product’s finish surfaces from damage during construction.

- f. Personnel: Experienced workman or professional cleaners approved by the Construction Manager.
 - g. Provide your own lifts, machinery and equipment to perform the work of this trade.
6. General Requirements, including but not limited to, additional items specifically indicated as the Work of this Contract.
7. Provide multiple shifts work as needed to complete work as shown on milestone schedule.
- B. The Work of the Window / Curtain Wall Construction Work Contract includes but is not limited to the Work that is specified in the Project Manual(s) and as shown on the drawings that form the contract plans. The Contractor is directed to examine all drawings since certain details and/or notes may appear anywhere therein that apply to his/her work. This prime contract is defined as, and includes, all Sections in the Divisions indicated by reference, and specific Sections noted:
- 1. Division 0 –Procurement and Contracting Requirement, all Sections.
 - 2. Division 1 – General Requirements, all Sections, including Temporary Facilities indicated.
 - 3. Division 2 – Existing Conditions, all Sections as it pertains to your scope of work.
 - 4. Division 5 – Metals, all Sections as it relates to the window replacement.
 - 5. **Division 6 – Woods and Plastics, Section 06 61 16, Solid Surface Fabrications as it pertains to Work of this Contract.**
 - 6. Division 7 –Thermal and Moisture Protection, all Sections as required for the completion of this contract.
 - 7. Division 8 – Openings, *all Sections that pertain to New Windows / Curtain Wall installation.*
 - 8. Division 9 – Finishes, *all Sections that pertain to New Windows / Curtain Wall installation.*
 - 9. Division 12 – Furnishings, all sections

13. SCHEDULE

- a. Schedule will be night shift when school is in session. One classroom of windows a night is expected to be removed and replaced in its entirety.

14. ADDITIONAL SCOPING

- A. Definition of Extent of Prime Contract Work; Additional Prime Contract Work not previously described.
 - a. All Prime Contractors are responsible for reviewing plans and specs in their entirety. As it pertains to their scope of work, scopes of work referenced may be found in multiple locations throughout the plans and specifications.
 - b. Local custom and trade union jurisdictional settlements do not control the scope of work included in each prime contract. When a potential jurisdictional dispute or similar interruption of work is first identified or threatened, the affected prime contracts shall promptly negotiate a reasonable settlement to avoid or minimize the pending interruption and delays.
 - c. All OSHA safety and hazardous materials regulations will be enforced on this project. All Contractors must submit a safety program, a hazardous materials program, (all required data must be maintained at the job site) and attend safety meetings. Toolbox talks will be required from each prime contractor weekly when any work is performed that calendar week.
 - d. All Contractors are responsible for any debris caused by their work. A daily clean-up and disposal is required by each Contractor for the periods during

which that Contractor is performing work on site, on a day selected by the Construction Manager. Each trade will assign at least one person to the weekly clean-up; the name of this person is to be submitted to the Construction Manager. Any Contractor not providing personnel will be “back charged” for labor provided by the Construction Manager.

- e. Multiple Crews: To maintain the project schedule, each Prime Contractor is to provide multiple crews. Each crew is to be furnished with its own supervision, equipment, access and other means necessary to maintain the Project Schedule.
- f. Supervision: The proposed project manager and field superintendent for the project is to have at least five years’ experience in the proposed position. Each successful bidder shall submit resumes to the Construction Manager for the proposed project manager and field superintendent for the project. This information will be reviewed with the Owner, Architect and Construction Manager for approval. Should the Project Manager and/or Superintendent/Supervisor prove unqualified for the position at any point in the project, the Construction Manager shall issue a letter stating that the person is to be removed from involvement in the project. Action by the Contractor must be made within seven working days of receipt of such letter.
- g. Each prime contractor shall return areas disturbed by their work activities to condition prior to start of work.
- h. Each prime contractor shall maintain within its field office a complete and current set of Contract Documents (including any Addenda, Change Orders, and Modifications thereto), approved shop drawings, samples, color schedules and other data pertinent to the Project.
- i. Each prime contractor is to survey existing work and submit to the Construction Manager a list of damaged areas (i.e. plaster walls, woodwork) prior to commencing work. Any damaged areas not identified prior to the work shall be the responsibility of the Contractor/ Contractors working in that area. Construction Manager shall be provided of photos of existing conditions on file for reference.
- j. Each Contract is required to submit a construction and submittal schedule based on the milestone dates to the Construction Manager for review and comment no later than 2 weeks after a Notice to Proceed for the work is issued.
- k. Unless a specific item or material is noted as to remain the Owner's property or to become the Contractor's property (or similar words), any material having salvage or reuse value shall be inspected by the Owner. If the Owner wishes to retain this material, it shall be turned over to him on the site where directed. If the Owner designates the material as scrap, it shall become the Construction Manager’s property and removed from the site. Material having salvage value shall be carefully removed. If the Construction Manager designates the material as scrap/waste, it shall become the Contractor’s property and removed from the site by the contractor. Material having salvage value shall be carefully removed.
- l. When the building is occupied and fire alarm and safety system work is in progress, the Electrical Contractor shall continuously maintain the existing building's fire alarm and detection system and exit, and emergency lighting

system or provisions must be made by the Electrical Contractor to provide equivalent safety. Electrical Contractor must notify the CM of any non-operating systems or areas.

- m. All personnel required to be on site shall always have all required personnel protective equipment on at all times.
- n. All personnel on site should always have a photo ID displayed where visible. Those without will be removed from site at once. If the same individual fails to have the ID a second time they will be removed from site and not be allowed back on site.

15. TESTING

- A. Required testing and test procedures are indicated under each Division of the Technical Specifications. Other testing shall be performed per generally accepted standards.
- B. The Architect shall reserve the right to require additional information as is deemed necessary to fully evaluate testing results.
- C. The Owner shall employ and pay for an independent testing and inspection agency for testing requirements of their work as assigned by this scope of work. All testing shall be per technical specification requirements The Prime Contractor requiring testing will notify the Construction Manager 48 hours in advance of the required testing to allow for coordination and scheduling. Failure to give sufficient notice will require the prime contractor to pay for alternate testing to satisfy the specification.

16. WORK SEQUENCE

- A. The Work will be conducted to provide the least possible interference to the activities of the Owner's activities and personnel.
- B. All contract scopes of work in unoccupied areas of work can be performed weekdays from 7:00 AM to 3:30 PM unless otherwise noted. Work cannot be performed in occupied areas or adjacent to. Work shall be scheduled off-hours, vacations and weekends for occupied areas. A Construction Manager Superintendent must be always on site that work is being performed. Second shift is considered after 4:00PM after school is out. For the purpose of the bid, the scopes of work below are assumed to be second, shift, weekends or off shift times and are included with the bid proposal.
 - a. System shutdowns (water, fire alarm, security, power, HVAC) during occupied days
 - b. Continuation of BMS replacement. Maintain a full-time continuous working system
 - c. Installation of fire alarm and PA-Clock systems for an August Commissioning. Removal of old systems post commissioning.
 - d. Any work **not** completed during the summer months
 - e. Punchlist
- C. For the purpose of this Bid, Contractor shall include within their schedule, work to be performed on Saturdays with ample crews to maintain schedule.

- D. If a contractor fails to maintain the progress as indicated by the milestone schedule by no other fault but their own and requires overtime to complete the work; the contractor shall make arrangements with the Construction Manager 24 hours in advance and pay for a Construction Manager's superintendent at \$150.00 per hour. If the cause for delay is multi-contract, then the costs shall be distributed evenly among contracts. Advise the Construction Manager 48 hours prior to commencing work inside the building.
- E. Coordination of any utility and/or power interruption must be done with the Construction Manager. Shutdowns must occur during off-hours and on days when the building is not occupied by the owner.
- F. Construction access to the site shall be limited to those designated for contractor's personnel, equipment, and deliveries by the Owner. Contractors' staging, parking and storage shall be coordinated by the Construction Manager.
- G. Each Contractor shall inspect the site and review the AHERA report on file for the presence of asbestos. Unless otherwise noted, there will be asbestos containing material in place that will require work to take place in the vicinity of, around and/or next to. Each prime contractor that will be working above ceilings, demolishing, in crawl spaces, boiler rooms and all other areas that may contain asbestos per the AHERA report, shall employ "Allied Trades: certified/licensed tradesman as part of the onsite workforce".

17. OCCUPANCY REQUIREMENTS

- A. The General Work Contractor shall provide indoor air quality management as specified by the Department of Labor and OSHA for the building, when the building is enclosed, as determined by the Construction Manager.
 - o. Provide an exhaust air system for the project indoor areas that could produce fumes, VOC's off-gases, gasses, dusts, mists, or other emissions.
 - p. Exhaust air system for the project areas that could produce emissions listed in Paragraph 1 shall be utilized.
 - q. Provide temporary partitions and air seals to prevent the migration of airborne contaminants from unoccupied areas to occupied areas when applicable.
- B. Quality assurance:
 - 1) Maintain a negative pressure between the work area and the space surrounding the
 - 2) Before the start of work, submit a design for the exhaust air system. Do not begin work until approval of the Owner is obtained.
 - a) The number of machines required.
 - 3) Location of the machines in the workspace.
 - 4) Description of the methods used to test air flow and pressure differential.
- C. System operation:
 - 1) Enough exhaust fans in existing window openings or other approved locations shall be operated in accordance with the following applicable standards.

- 2) The exhaust air system shall operate for a minimum of 72 hours after work is completed, or until all materials have cured sufficiently as to stop out gassing of fumes or odors and area has been ventilated to remove all detectable traces of odors and fumes.
- 3) Maintain twenty-five (25) feet clearance from all temporary exhaust outlets to all active building outdoor air intakes.

18. PROJECT MILESTONE SCHEDULE

See the milestone schedule to be provided in Addendum.

1. All Prime Contractors are required to submit a schedule based on the milestone dates to the Construction Manager for review and comment no later than 10 days after a Notice to Proceed for the work is issued.

19. ALLOWANCES

See Specification Section 012100. Allowances are to be included in the base bid.

20. ALTERNATES

The Contractor shall state where requested on the Bid Form the amount to be added to or deducted from the base bid for the alternates described in Section 012300 - Alternates.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF
SECTION

Cornwall Phase 3 Milestone schedule

Project Lead: TPG

WBS	Task Name	Start	Finish	Duration	RESPONSIBILITY	LOCATION	2024		2025					2026					2027					2028					2029																					
							Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
							10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
1	Award on or about	Thu 17-Oct-24	Fri 18-Oct-24	2			Award on or about																																											
2	NTP	Mon 21-Oct-24	Mon 21-Oct-24	1			NTP																																											
3	Front End / Submittals	Tue 22-Oct-24	Mon 16-Dec-24	40			Front End / Submittals																																											
4	WINDOWS C.O.H.Night Shift	Mon 21-Oct-24	Tue 22-Oct-24	2			WINDOWS C.O.H.Night Shift																																											
5	Abatement Caulk Removal	Tue 03-Dec-24	Mon 27-Jan-25	40			Abatement Caulk Removal																																											
6	Window replacement	Tue 28-Jan-25	Mon 24-Mar-25	40			Window replacement																																											
7	CIVIL	Sat 28-Jun-25	Fri 22-Aug-25	40			CIVIL																																											
8	Cornwall Elementary School	Sat 28-Jun-25	Fri 22-Aug-25	40			Cornwall Elementary School																																											
9	Cornwall Middle School	Sat 28-Jun-25	Fri 22-Aug-25	40			Cornwall Middle School																																											
10	COH Bathrooms	Sat 28-Jun-25	Fri 22-Aug-25	40			COH Bathrooms																																											
11	COH Bathrooms Alternate 2nd & 3rd floor	Sat 28-Jun-25	Fri 22-Aug-25	40			COH Bathrooms Alternate 2nd & 3rd floor																																											
12	COH Alternate Demo	Sat 28-Jun-25	Mon 07-Jul-25	6			COH Alternate Demo																																											
13	COH Alternate Abatement	Tue 08-Jul-25	Thu 17-Jul-25	8			COH Alternate Abatement																																											
14	COH Alternate finishes	Fri 18-Jul-25	Thu 28-Aug-25	30			COH Alternate finishes																																											
15	COH Bath Demo Base Bid Night shift	Tue 05-Nov-24	Tue 05-Nov-24	1			COH Bath Demo Base Bid Night shift																																											
16	COH Abate Grd Floor Base Bid Night Shift	Sat 21-Dec-24	Tue 31-Dec-24	7			COH Abate Grd Floor Base Bid Night Shift																																											
17	COH Bath Grd Floor base finishes night Shift	Wed 01-Jan-25	Tue 11-Feb-25	30			COH Bath Grd Floor base finishes night S																																											
18	CMS Bathrooms	Sat 28-Jun-25	Fri 29-Aug-25	45			CMS Bathrooms																																											
19	CMS Demo	Sat 28-Jun-25	Mon 07-Jul-25	6			CMS Demo																																											
20	CMS Abatment	Tue 08-Jul-25	Thu 17-Jul-25	8			CMS Abatment																																											
21	CMS Finishes	Fri 18-Jul-25	Thu 28-Aug-25	30			CMS Finishes																																											
22	CES Bathrooms	Sat 28-Jun-25	Thu 28-Aug-25	44			CES Bathrooms																																											
23	CES Bathroom Demo	Sat 28-Jun-25	Mon 07-Jul-25	6			CES Bathroom Demo																																											
24	CES Bathroom Abate	Tue 08-Jul-25	Thu 17-Jul-25	8			CES Bathroom Abate																																											
25	CES Finishes	Fri 18-Jul-25	Thu 28-Aug-25	30			CES Finishes																																											
26	<i>Grd = Ground</i>						Grd = Ground																																											

Type here to add a new task

SECTION 01 50 00 - TEMPORARY FACILITIES & CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes requirements for temporary facilities and controls, including temporary utilities, support facilities, and security and protection.
- B. Temporary utilities include, but are not limited to, the following:
1. Water service and distribution.
 2. Temporary electric power and light.
 3. Temporary heat.
 4. Ventilation.
 5. Telephone service.
 6. Sanitary facilities, including drinking water.
 7. Storm and sanitary sewer.
- C. Support facilities include, but are not limited to, the following:
1. Field offices and storage sheds.
 2. Architects/Engineers field office.
 3. Temporary roads and paving.
 4. Dewatering facilities and drains.
 5. Temporary enclosures.
 6. Hoists and temporary elevator use.
 7. Temporary project identification signs and bulletin boards.
 8. Waste disposal services.
 9. Rodent and pest control.
 10. Construction aids and miscellaneous services and facilities.
- D. Security and protection facilities include, but are not limited to, the following:
1. Temporary fire protection.
 2. Barricades, warning signs, and lights.
 3. Environmental protection.
 4. Tree and plant protection.
 5. Pest control.
 6. Security enclosure and lockup.
 7. Temporary enclosures.
 8. Temporary partitions.

1.2 DIVISION OF RESPONSIBILITIES

- A. General: Each Prime Contractor is specifically assigned certain responsibilities for temporary services and facilities to be used by other Prime Contractors, and other nonprime contractors and separate entities at the site, Owner's workforces, Construction Manager, Architect, testing agencies, personnel of governing authorities, and personnel authorized to be at project site during contract time. The General Construction Work Contractor is responsible for providing temporary facilities and controls that are not normal construction activities of other Prime Contractors prime contractors and are not specifically assigned otherwise by the Contract Documents.

1.3 USE CHARGES

- A. General: Cost or use charges for temporary facilities are not chargeable to the Owner or the Architect. The Architect will not accept a Prime Contractor's cost or use charges for temporary services or facilities as a basis of claim for an adjustment in the Contract Sum or the Contract Time.
- B. Water Service: Use water from the Owner's existing water system without metering and without payment of use charges if available. If not available, the contractor needing water must supply water required for the performance of their work.
- C. Electric Power Service: Temporary electric power including set-up, maintenance and potential use charges is the responsibility of the Electrical Work Contractor.
 - 1. Use of electric power from the Owner's permanent power system (when operational) will be granted to all Prime Contractors without payment of use charges.
 - 2. Electrical Work Contractor is to supply power to all job trailers including the Construction Manager's job trailer as directed.
 - 3. Subpanels and sub-feeds to ancillary panels will be provided by and connected to permanent panels by Electrical Contractor. Follow all OSHA and NFPA requirements for temporary connections. All panel penetrations shall be patched per approved NFPA regulations.

1.4 SUBMITTALS

- A. Temporary Utilities: The Prime Contractor shall submit reports of tests, inspections, meter readings, and similar procedures performed on temporary utilities.
- B. Implementation and Termination Schedule: Within 15 days of the date established for submittal of the Contractor's Construction Schedule, each Prime Contractor shall submit a schedule indicating implementation and termination of each temporary utility for which the Contractor is responsible.
- C. Temporary Signage: Provide shop drawings indicating the size and layout of the signs, color choices for Owner selection and installation details. Temporary site signage is by the General Contractor (interior) and Site Work Contractor (exterior) if included within the bidding documents, otherwise shall be the responsibility of the General Contractor. In the absence of the Site Work Contractor, General Contractor shall own.

1.5 QUALITY ASSURANCE

- A. Regulations: The Prime Contractor shall comply with industry standards and with 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. Police, fire department and rescue squad rules.
 - 5. Environmental protection regulations.
- B. Standards: The Prime Contractor shall 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."
 - 1. Trade Jurisdictions: Assigned responsibilities for installation and operation of temporary utilities are not intended to interfere with the normal application of trade regulations and union jurisdictions.
 - 2. Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

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

1.6 PROJECT CONDITIONS

- A. Temporary Utilities: The Prime Contractor shall prepare a schedule indicating dates for implementation and termination of each temporary utility for which the Contractor is responsible. At the earliest feasible time, when acceptable to the Owner, change over from use of temporary service to use of permanent service.
 - 1. Temporary Use of Permanent Facilities: The Installer of each permanent service shall assume responsibility for its operation, maintenance, and protection during use as a construction facility prior to the Owner's acceptance, regardless of previously assigned responsibilities.
- B. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Relocate temporary services and facilities as the Work progresses. Do not overload facilities or permit them to interfere with progress. Take necessary fire-prevention measures. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on-site.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: The Prime Contractor shall provide new materials. If acceptable to the Architect, undamaged, previously used materials in serviceable condition may be used. Provide materials suitable for use intended.
- B. Lumber and Plywood: Comply with requirements in Division 6 Section "Rough Carpentry."
 - 1. For job-built temporary offices, shops, and sheds within the construction area, provide UL-labeled, fire-treated lumber and plywood for framing, sheathing, and siding.
 - 2. For signs and directory boards, provide exterior-type, Grade B-B high-density concrete form overlay plywood of sizes and thicknesses indicated.
 - 3. For fences and vision barriers, provide minimum 3/8-inch- thick exterior plywood.
 - 4. For safety barriers, sidewalk bridges, and similar uses, provide minimum 5/8-inch- thick exterior plywood.
- C. Pavement: Comply with Division 2 Pavement Sections
- D. Insulation: Unfaced mineral-fiber blanket manufactured from glass, slag wool, or rock wool; with maximum flame spread and smoke developed indices of 25 and 50, respectively.
- E. Gypsum Wallboard: Provide gypsum wallboard on interior walls of temporary offices.
- F. Roofing Materials: Provide UL Class A standard-weight asphalt shingles or UL Class C mineral-surfaced roll roofing on roofs of job-built temporary offices, shops, and sheds.
- G. Paint: Comply with requirements of Division 9 Section "Painting."
 - 1. For job-built temporary offices, shops, sheds, fences, and other exposed lumber and plywood, provide exterior-grade acrylic-latex emulsion over exterior primer.
 - 2. For sign panels and applied graphics, provide exterior-grade alkyd gloss enamel over exterior primer.
 - 3. For interior walls of temporary offices, provide 2 coats interior latex-flat wall paint.

- H. 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.
- I. Water: Provide potable water approved by local health authorities.
- J. Open-Mesh Fencing: Provide 0.12-inch- thick, galvanized 2-inch chainlink fabric fencing 6 feet high with galvanized barbed-wire top strand and galvanized steel pipe posts, 1-1/2 inches I.D. for line posts and 2-1/2 inches I.D. for corner posts.

2.2 EQUIPMENT (Each Prime Contractor)

- A. General: Prime Contractor shall provide new equipment. If acceptable to the Architect, undamaged, previously used equipment in serviceable condition may be used. Provide equipment suitable for use intended.
- B. 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.
- C. Electrical Outlets: Provide properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-V plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button, and pilot light for connection of power tools and equipment.
- D. Electrical Power Cords: Provide grounded extension cords. Use hard-service cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.
- E. Lamps and Light Fixtures: Provide general service led or incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered-glass enclosures, where exposed to breakage. Provide exterior fixtures where exposed to moisture.
- F. Heating Units: Provide temporary heating units that have been tested and labeled by UL, FM, or another recognized trade association related to the type of fuel being consumed.
- G. Temporary Offices: Each Prime Contractor shall provide its own prefabricated or mobile units or similar job-built construction with lockable entrances, operable windows, and serviceable finishes. Provide heated and air-conditioned units on foundations adequate for normal loading.
- H. Temporary Toilet Units: Provide self-contained, single-occupant toilet units of the chemical, aerated recirculation, or combustion type. Provide units properly vented and fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.
- I. Fire Extinguishers: Provide hand-carried, portable, UL-rated, Class A fire extinguishers for temporary offices and similar spaces. In other locations, provide hand-carried, portable, UL-rated, Class ABC, dry-chemical extinguishers, or a combination of extinguishers of NFPA-recommended classes for the exposures.
 - 1. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.

PART 3 - EXECUTION

3.1 TEMPORARY UTILITY INSTALLATION

- A. General: Engage the appropriate local utility company to install temporary service or connect to existing service. Where the company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with company recommendations.
1. Arrange with the company and existing users for a time when service can be interrupted, if necessary, to make connections for temporary services.
 2. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, provide trucked-in services.
 3. Obtain easements to bring temporary utilities to the site where the Owner's easements cannot be used for that purpose.
- B. Water Service: All Prime Contractors shall provide and maintain temporary water service and distribution for the scope of their work. Piping of sizes and pressures adequate for construction and hose bibs on site as to provide service to all areas of construction activities as directed by the Architect, as required throughout the construction period.
1. The water service shall be potable and modified as required or as directed by the Architect, as Work progressed.
 - a. Sterilization: Sterilize temporary water piping prior to use.
 2. Wash Facilities: Install wash facilities supplied with potable water at convenient locations for personnel who handle materials that require wash up. Dispose of drainage properly. Supply cleaning compounds appropriate for each type of material handled.
 3. Drinking Water Facilities: Provide bottled water to employees.
 - a. The Prime Contractors shall provide containerized, tap-dispenser, bottled-water drinking-water units, including paper cup supply.
 4. Provide safety showers, eyewash fountains, and similar facilities for convenience, safety, and sanitation of personnel where applicable by OSHA.
 5. Users shall provide their own hoses to points of need but shall practice prudent conservation.
- C. Temporary Electric Power Service: The Electrical Work Contractor shall provide and maintain temporary electric service consisting of main power hook-up and panel board and temporary lighting for site and existing building. Temporary service shall be maintained during all hours in case of emergency after hour response and shall comply with all codes and regulations. The system shall be modified as required or as directed by the Architect/Construction Manager as work progresses. Each Prime shall provide power distribution for its own use from EC's panel.
- Electrical service:
1. Obtain temporary service from existing building service or local power pole. If practical, power to each location shall be tapped at transformer vault or main distribution panel, ahead of main breakers to minimize demand on service equipment from operations. Over-current protection shall be installed as required.
 2. Provide 4 ring cameras with complete service for the life of the project to be mounted on the CM trailer and monitored by the CM.
 3. Provide disconnect at connection to service.
 4. Provide service conductors and equipment.
 5. Minimum power characteristics: 240/120 volt, single phase.
 6. Provide distribution equipment, feeders, and branch circuit panelboards to serve:
 - a. Temporary lighting.
 - b. Temporary convenience receptacles. (4 gang outlet boxes to allow for 50' extension cord; enough to accommodate requirements of the entire building)

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- c. To accommodate construction operations requiring power, use of power tools, electric heating and start up testing of permanent electric powered equipment prior to its permanent connection to electrical system.
 7. Each Contractor shall provide his own extension lines, and other special equipment; welding equipment shall run from generator trucks.
 8. The Electrical Work Contract shall be responsible for initial connections and final demolition of all temporary fixtures and wiring at direction of the Architect/Construction Manager.
 9. The Electrical Work Contract Contractor shall maintain OSHA standards for power and foot candle levels in all areas while workers occupy the space. The temporary lighting shall be energized daily at 6:30 A.M. to 9:00 P.M. as a minimum duration until permanent fixtures are installed. This shall be adjusted pending off shift work or at direction of the Architect/Construction Manager.
 10. Not unlike other equipment in this contract, upon installation, the temporary electric system becomes the property of the Owner and shall not be controlled by any one contractor.
 11. Temporary Site Lighting: Electrical Work Contract to maintain existing exterior Lighting to adequately light the entrances and exits of project site. Temporary lighting shall be controlled by time clocks and lighting contactors; settings to be coordinated by the Architect/Construction Manager.
 12. Each Prime Contractor will be responsible for coordinating hookup of their own project trailers to temporary electric pedestal. If abused, power from temporary service will be disconnected. The Electric Contractor shall erect poles safely sufficient for site power and telephone service. All installations shall conform to strictest standards. The Electric Contractor shall disconnect all items upon project completion.
 13. Provide and install temporary power to abatement contractor's equipment as required up to the Abatement Contractor provided sub/supply panel
- D. Temporary Telephones: Each Prime Contractor shall provide temporary telephone service throughout the construction period for all personnel engaged in construction activities.
1. Contractors are required to lease or purchase a cellular telephone – to be used by their site superintendents for communication with the other primes and the Architect.
 2. Provide telephone lines for the following:
 - a. At each telephone, post a list of important telephone numbers.
- E. The General Contractor to provide internet service to both CM trailers for a time period of one year from the date of Notice to proceed. Could be a mifi.
- F. Sanitary Facilities: The General Work Contractor shall provide temporary portable chemical toilet facilities for all construction personnel at the Elementary and middle school only. Comply with regulations and health codes for the type, number, location, operation, and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs. The Site Work Contractor shall provide temporary portable chemical toilet facilities for all construction personnel at the High-school site/field project.
1. Provide toilet tissue, paper towels, paper cups, and similar disposable materials for each facility. Provide covered waste containers for used material.
 2. Toilets: Install self-contained toilet units. Shield toilets to ensure privacy. Use of pit-type privies will not be permitted.
 - a. Provide separate facilities for male and female personnel.
- G. Temporary Construction:
1. Temporary bridging, decks, hoists, lifts, scaffolding, and cranes shall be the responsibility of Contractor requiring same.

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2. Provide temporary partitions to separate construction area from adjacent occupied areas. Construct partitions with non-combustible materials or fire-retardant plywood and seal seams and gaps to control transmission of dust to occupied areas. After completion of work, remove partitions and restore surfaces damaged by temporary provisions. This work is the responsibility of the General Work Contractor where applicable. Install temporary walls, zip walls, partition walls to separate Construction activities as directed from the Construction Manager
 3. Temporary entrances and exits to the building shall be furnished, installed and maintained under the General Work Contractor as directed by the Architect/Construction Manager. Exits shall be maintained for exiting in emergency conditions until permanent structures are in place.
 4. Temporary entrances and exits to the site, shall be furnished, installed and maintained under the General Contractor as directed by the Construction Manager. Barrels, cones and other visual devices shall be used at all elevation changes subject to vehicle traffic. Fences, snow fences and NOT caution tape will be used to separate public from equipment, elevation hazards
- H. Daily cleanup
1. Dumpsters are to be provided by the General Contractor at the Elementary and middle schools work projects for all primes and the site Contractor will provide dumpsters for all trades at the High School field project. Dumpsters will be inspected to assure they are not misused and removed and hauled to a recycling center off site for processing. THE OWNER NOR THE ARCHITECT/CONSTRUCTION MANAGER will not be responsible for the removal of any hazardous materials, this will be the responsibility of the Prime Contractor performing this scope.
 2. The maintenance of a clean work site shall be the responsibility of each Contractor.
 3. Each Contractor shall remove own debris daily from work area to waste disposal containers (dumpsters), time lapse not acceptable.
 4. The condition of cleanliness in which an area is found is the condition each Contractor shall leave.
 5. Each and every Contractor working on site shall submit manpower on Friday at 8 A.M. to work as a team to remove debris to dumpsters until complete. At discretion of Architect/Construction Manager, a Contractor not complying may be backcharged for work performed by others. The responsibility of broom cleaning and debris disposal remains with each trade for their work and shall include use of sweeping compound.
 6. Final cleaning shall be the responsibility of each Prime Contractor for his/her own work.
 7. The Site Contractor shall handle all construction site snow removal as needed for work area safety or as directed by the Construction Manager.
 8. Protection of Work: Each Prime Contractor is reminded to temporarily protect work in place until accepted by the Owner per Article 10 of the General Conditions of the Contract.
 9. Collection and Disposal of Waste: Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than 3 days during normal weather or 1 day when the temperature is expected to rise above 80°F (27°C). Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material lawfully. First aid requirements are the responsibility of each Contractor. Retain paragraph above where potable water is accessible from permanent or temporary lines. Where potable water is not available, retain paragraph below.
 10. The General work Contractor will clean the CM's trailer once a week as directed by the CM.

3.2 INSTALLATION

- A. Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.
- B. The Prime 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.
- C. The Prime Contractor will be responsible for hookup of their own project trailers. Use of energy, including heat (shall be set back at night) if a practical electric service will be available. If abused, power from temporary service will be disconnected. All installations shall conform to strictest standards. The Electrical Contractor shall be responsible for hooking up Construction Managers Trailers. Coordinate this installation and assume trailer to remain for a multiple phase/year construction project.

3.3 SUPPORT FACILITIES INSTALLATION

- A. Each Prime Contractor is to have a field office. Locate field offices, storage sheds, sanitary facilities, and other temporary construction and support facilities for easy access as directed by the Architect /Construction Manager.
 - 1. Maintain support facilities until near Substantial Completion. Remove prior to Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to the Owner.
- B. Provide incombustible construction for offices, shops, and sheds located within the construction area or within 30 feet of building lines. Comply with requirements of NFPA 241.
- C. Field Offices: Each Prime Contractor shall provide an insulated, weathertight temporary office of sufficient size to accommodate required office personnel at the Project Site. Keep the office clean and orderly for use for small meetings. Furnish and equip offices as follows:
 - 1. Furniture: Furnish with a desk and chairs, a 2-drawer file cabinet, plan table, plan rack, and a bookcase.
 - 2. Equip with a water cooler and private toilet complete with water closet, lavatory, and medicine cabinet unit with a mirror.
- D. Storage and Fabrication Sheds: Install storage and fabrication sheds sized, furnished, and equipped to accommodate materials and equipment involved, including temporary utility service. Sheds may be open shelters or fully enclosed spaces within the building or elsewhere on-site.
- E. Temporary Parking/Staging and Access Roads
 - 1. Temporary roads are installed and/or maintained by the Site Work Contractor where designated on site logistics plans.
 - 2. Contractors will be permitted to utilize existing roads, as designated (as segregated by the Owner - if required).
 - 3. 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 Site Work Contractor will clean the roads affected by all contract work and wet as necessary for dust mitigation/control. The Site Work Contractor will maintain roads until project completion.

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4. Snow and ice removal: Site Work Contractor shall maintain access for all suitable parking areas, driving areas, work scope areas. Other primes shall provide the Site Work Contractor support as required to relocate tools, supplies, and equipment for the removal of snow by the Site Work Contractor. As directed by the Architect/Construction Manager, snow shall be transported off site, as required to maintain a safe and productive work area.
 5. Contractor Parking/ Staging Area: Site Work Contractor shall maintain access for suitable parking areas as indicated on Logistics plans. Re-grade, re-seed and restore any areas disturbed by parking/ staging.
 - a. Parking Areas: Includes contractors' employees and construction vehicle parking. Minimum of 6" reference Item. #304.3 course.
 - b. Access Roads: Includes access roads for delivery through staging area to building work areas, and to equipment and storage areas and sheds. Minimum of 9" reference Item. #304.3 course.
 6. Temporary parking by construction personnel shall be allowed only in areas so designated.
 7. Traffic Regulations:
 - a. Utilize only entrances/temporary roads as designated.
 - b. Construction parking will not be allowed adjacent to residential buildings, additions, or monuments.
 8. Traffic Controls: The Site Work Contractor provides temporary traffic controls at junction of temporary roads with public roads. Include warning signs for public traffic and "STOP" signs for entrance onto public roads. Comply with requirements of authorities having jurisdiction. A site traffic plan and protection will be submitted and approved to the Construction Manager prior to the start of construction. Plans shall include but not limited to vehicle division and protection, pedestrian division and protection, weekend plans, inclement weather plan, signage.
 9. General Construction Contract shall provide temporary enclosure of the building's roof windows and doors prior to "Permanent Enclosure".
 10. Temporary heat, ventilation, humidity control, and enclosure of the building prior to "Permanent Enclosure" where these facilities are necessary for its construction activity but have not yet been completed by the responsible prime contractor. Temp heat is not provided for the window replacement.
 11. Temporary ventilation to control temperature and humidity is required by the Contractor responsible for installing the specified finish and equipment as these finishes may be damaged by excessive humidity or promote the growth of mold. The permanent HVAC system shall not be relied upon to provide the necessary ventilation or conditioning of the humidity in the building. Each Contractor is required to protect their work in place and provide the necessary ventilation and or humidity control.
- F. De-watering Facilities and Drains:
1. For temporary drainage and dewatering facilities and operations not directly associated with construction activities included under individual Sections, comply with dewatering requirements of applicable Division 2 Sections. Where feasible, use the same facilities. Maintain the site, excavations, and construction free of water.
 2. For temporary drainage and de-watering facilities and operations directly associated with the building and other construction activities, comply with Division 2; Site Work Contractor is directly responsible for de-watering of all excavations and general site as required .
- G. Temporary Enclosures: The General Construction Work contractor shall provide temporary enclosure for protection of construction in progress and completed, from exposure, foul weather, other construction operations, and similar activities as follows unless otherwise noted:

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1. Install tarpaulins securely, with incombustible wood framing and other materials. Close openings of 25 sq. ft. (2.3 sq. m) or less with plywood of similar materials.
 2. Close openings through floor decks and horizontal surfaces with load-bearing, wood-framed construction.
 3. Where temporary wood or plywood enclosure exceeds 100 sq. ft. (9.2 sq. m) in area, use UL-labeled, fire-retardant treated material for framing and main sheathing.
 4. Generally, temporary closures for specific openings for a Prime Contractor to perform their work openings are the responsibility of Contractor creating the opening and shall be installed to protect building from exterior elements.
 5. Temporary partitions shall be installed at all openings where additions connect to existing buildings, and where required to protect areas, spaces, property, personnel, students, and faculty; to separate and control dust, debris, noise, access, sight, fire areas, safety and security and to separate phased construction areas per the phasing plan. Temporary partitions shall be installed and maintained. Construction material and methods to suit need as determined by Architect/Construction Manager.
 6. Temporary Lifts and Hoists: Provide facilities for hoisting materials and employees. Truck cranes and similar devices used for hoisting materials are considered “tools and equipment” and not temporary facilities.
- H. Temporary Signs: Prepare signs to provide directional information to construction personnel and visitors as follows (per site): The General Construction Work Contractor shall furnish and install construction signage as required:
- a. Engage an experienced sign painter to apply graphics. Comply with details indicated.
 - b. For construction traffic control/flow at entrances/exits, as designated by the Owner (3 required)
 - c. To direct visitors (2 required)
 - d. For construction parking (2 required)
 - e. To direct deliveries (2 required)
 - f. For warning signs as required
 - g. Per OSHA standards as necessary
 - h. For trailer identification
 - i. Temporary exit signs
 - j. Each gate to be labeled with a sign designating each by alphabetical order.
 - k. Provide one 4’x8’ project sign with the rendering of the finished project provided by the architect. Mount sign on plywood attached to two 4”x4” wooden posts. Remove when project is complete. Location TBD by the CM
 - l. Provide all signs needed to complete the logistics plan.
- I. Collection and Disposal of Waste: Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than 7 days during normal weather or 3 days when the temperature is expected to rise above 80 deg F. Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material lawfully.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. The operations of the Contractor may not block, hinder, impede, or otherwise inhibit the safe and expeditious exiting of the building’s occupants during an emergency.

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- B. The Site Work Contractor will maintain site access for emergency personnel. In the event of an emergency, (designated by the sounding of the fire alarm system) all construction activities must immediately cease. Contractor's work force will evacuate themselves from work areas and remain outside of work areas until the "all clear" is given. No work operations will be tolerated during the evacuation of the building or during an emergency.
- C. Temporary Facility Changeover: Except for using permanent fire protection as soon as available, do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion, or longer, as requested by the Architect.
- D. Temporary Fire Protection: General Work Contractor shall provide, until fire-protection needs are supplied by permanent facilities, install and maintain temporary fire-protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10, "Standard for Portable Fire Extinguishers," and NFPA 241, "Standard for Safeguarding Construction, Alterations, and Demolition Operations."
1. Locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.
 2. Store combustible materials in containers in fire-safe locations.
 3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire-protection facilities, stairways, and other access routes for fighting fires. Prohibit smoking in hazardous fire-exposure areas.
 4. Provide supervision of welding operations, combustion-type temporary heating units, and similar sources of fire ignition.
 5. Permanent Fire Protection: At the earliest feasible date in each area of the Project, complete installation of the permanent fire-protection facility, including connected services, and place into operation and use. Instruct key personnel on use of facilities.
- E. Fall Protection:
1. The General Construction Work Contractor shall provide temporary cable/railing top & mid railings per OSHA regulations around floor openings. Most of the exterior can be done by running cables from column to column, but some areas may require you to install posts as well. Include toe boards around perimeter and openings where required. The Prime Contractor must provide his own means for providing OSHA approved fall protection for his work persons. Temporary railings removed by a Prime Contractor for some reason other than constructing the permanent wall, must be immediately replaced by that Prime Contractor.
 2. The General Construction Work Contractor shall rope off all roof openings in an OSHA approved manner. Include fluorescent ribbons or flags to accent the ropes
- F. 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 the public of the hazard being protected against. Where appropriate and needed, provide lighting, including flashing red or amber lights.
- G. Enclosure Fence: The Site Work Contractor shall before, excavation begins, install an enclosure fence with lockable entrance gates. Locate where indicated or enclose the entire site or the portion determined sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs, and other animals from easily entering the site, except by the entrance gates.
1. Provide open-mesh, 8-foot high chain-link fencing with posts at 8-feet on center, set in a compacted mixture of gravel and earth. Snow fence shall not be used to protect pedestrians from the workspace, unless agreed by the owners and its consultants
 2. Provide min. 4 double swing access gates and man gates. Each gate is to have a chain and padlock.

- a. Provide (2) keys for each lock to the Architect/Construction Manager.
 3. Remove fence upon completion of all exterior activities or sooner if directed by Architect.
- H. Security Enclosure and Lockup: The Site Work Contractor shall install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft and similar violations of security.
1. Storage: Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.
- I. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways, and subsoil might be contaminated or polluted or that other undesirable effects might result. Avoid using tools and equipment that produce harmful noise. Restrict use of noise-making tools and equipment to hours that will minimize complaints from persons or firms near the site.

3.5 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
- B. Maintenance: Maintain facilities and good operating condition until removal. Protect from damage by freezing temperatures and similar elements.
1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
 2. Protection: Prevent water-filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.
- C. Termination and Removal: Unless the Architect/Construction Manager requests that it be maintained longer, remove each temporary facility when the need has ended, when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
1. Materials and facilities that constitute temporary facilities are the property of each prime contractor. The Owner reserves the right to take possession of project identification signs.
 2. Remove temporary paving not intended for or acceptable for integration into permanent paving. Where the area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil in the area. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at the temporary entrances, as required by the governing authority.
 3. At Substantial Completion, clean and renovate permanent facilities used during the construction period including, but not limited to, the following:
 - a. Replace air filters and clean inside of ductwork and housings.
 - b. Replace significantly worn parts and parts subject to unusual operating conditions.
 - c. Replace lamps burned out or noticeably dimmed by hours of use.

END OF SECTION 01 50 00