

GROSSMONT UNION HIGH SCHOOL DISTRICT

MMHS SCIENCE BUILDING MODERNIZATION MULTI-PRIME

**ATTACHMENT E
BID PACKAGE**

CN-4072

HVAC & CONTROLS

TRADE CONTRACTOR SPECIFIC PROVISIONS
BID PACKAGE: CN-4072
HVAC & CONTROLS – VERSION 01

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The following clarifies certain inclusions, exclusions, and other information. This list is not inclusive of all work and is not limiting in any manner. This Exhibit shall supplement all General and Special Conditions in this Contract unless specifically noted herein to supersede them. This exhibit shall supersede all other conditions in the Contract and Contract Documents in the event of specific conflicts between the Documents.

I. GENERAL REQUIREMENTS: The following General Requirements apply to all work included in this Contract:

1. Full compliance and scope coverage with Specification Section(s):

- DIVISION 00 – In its entirety
- DIVISION 01 – In its entirety
- 07 84 13 – Penetration Firestopping
- 07 92 00 – Joint Sealants
- 08 31 13 – Access Doors and Frames (For this Prime Only)
- DIVISION 23 – In its entirety

Full compliance and scope coverage with all other Project Scope and Specification Sections that interface with and require services related to this scope of work.

2. Contractor shall have a current California Contractor's License Classification as listed on the Notice to Bidders and shall keep same current through-out the duration of the project. License required for this work shall be C-20.
3. Schedule of shop drawings, submittals, and dimension verifications: The following groups of shop drawings and submittals are not all-inclusive and are supplemental to requirements found elsewhere in the documents. These submittals shall be delivered to the Project Manager not later than the below listed dates:

a. ALL Contractual Submittals

Due: 30 Calendar Days after Notice to Proceed

These due dates take precedence over other dates found elsewhere in the Contract Documents.

4. Prepare any coordination drawings required to show the interface between work provided by this Contract and others. This includes but is not limited to:
- a. Above Ceiling Coordination Drawings
5. Prime contractor shall attend all overhead coordination meetings hosted by the CM.

6. Procurement of Critical Long Lead Items: Contractor shall be responsible to ensure that critical long lead items are delivered to the project site as required to maintain the Master Project Schedule.
6. Contractor has included the costs for off-site storage of project materials.
7. Schedule: Contractor shall issue to the Construction Manager a detailed Construction Schedule for this trade's work as it pertains to this Project. The work shall proceed in accordance with the Master Construction Schedule (Attachment F) issued with the Construction Documents. This schedule shall be modified from time to time in order to properly coordinate and sequence the work; however, the Contractor is responsible to supply sufficient manpower, equipment and material necessary to ensure the duration of time established for the Contractor's work is maintained as per the Construction. **This is a very tight schedule constrained by the 2025 school year. This building needs to be ready for the school to move into in 2025. Weekend work and overtime will be required by the contract. Please include all weekend work and overtime as needed to meet the schedule durations for this prime contractor's activities.**
8. Provide flagmen as required. It is understood that the work will take place within an operating Campus and that the Contractor is solely responsible to protect the public and maintain uninterrupted access to the campus by the general public. Provide all barricades, etc. to achieve this. Perform during off-hours as required to avoid disruption of campus operations.
9. Contractor will be responsible for collateral damage to areas or finishes not scheduled for demolition as a result of his operations.
10. It is understood that all scope inclusions contained in this bid package shall be provided by this Contractor regardless of similar or identical inclusions found in other bid packages or trade Contracts.
11. It is understood that the Project Specific Provisions contained in the Contract Documents are a material element of this Contract and scope of work. It is specifically noted that the Contractor shall be responsible for all requirements and clauses contained in the Project Specific Provisions.
12. In the event of conflicts not clarified prior to bidding deadline, Prime Contractor shall assume the most stringent, higher quality and greater quantity of work for bidding purposes. If Prime Contractor still requires clarification after awarded project, Prime Contractor shall generate an RFI. If appropriate, a deductive change order shall be issued if the clarification results in a reduced scope of work.
13. Building Dimension Verification: Contractor shall issue a plan and letter to the Construction Manager in the form of a submittal that locates and verifies exact dimensions for the following items:
 - A. Locations and sizes of formed concrete housekeeping pads.

- B. Dimensional size confirmation of all mechanical rooms (located within the building interiors and /or exterior service yard, as applicable); are sufficient in size to accommodate all of the designed HVAC equipment, ductwork and piping. This submittal shall confirm that the dimensions/ configuration of designed areas, the placement/ swing of doors, etc. are adequate for the design of the HVAC systems and will provide proper code required clearances.
 - C. Exact dimensional sizes and locations of all required framed/formed openings in all building elements, i.e., shafts, walls, floors, and decks. Dimensional locations shall be established from grid lines or other appropriate reference points. This information is required so that all required openings (by other trades) can be planned for and constructed accordingly.
- 14. It is understood that all major equipment items shall be delivered to the site in appropriately sized sections as required to allow rigging and installation of the equipment in each mechanical room / area through the physical space and openings allowed by the completed building structure. The Contractor shall place all equipment within these areas at scheduled times as designated by the Construction Manager to avoid delays to the surrounding work.
 - 15. Provide Fire, Smoke, Sound and/or Architectural caulking and sealants at all duct/piping penetrations as required by the contract documents. The intent of this general inclusion is for each Prime Trade Contractor to be responsible for their own penetrations as it relates to their scope of work. Materials shall be furnished and installed per applicable code and Specification requirements.
 - 16. All sleeves and penetrations for ductwork, piping, conduits, equipment, etc. shall be sealed with materials that are either specified or approved by the Architect.
 - 17. Furnish and install all necessary angles, clamps, hangers, channels, Unistrut, supports, wires, cables, threaded rod, misc. steel, isolation devices, seismic anchorage, slack wires, backing, etc.; for all HVAC work, equipment and misc. items included in this Contract. All work shall comply with applicable codes and Contract Document requirements.
 - 18. Contractor shall protect the roofing membrane and/or waterproof deck coating systems with temporary plywood protection during the installation of the HVAC work in such areas.
 - 19. The locations, configuration, sizes and height of roof penetrations shall be fully compatible with the type of roof system and manufacturer's warranty. The Roofing Contractor shall approve all such items prior to installation. The design, proper sequence and installation of jacks/flashings shall be coordinated with the installation of the roofing system. The height of all penetrations shall be a minimum of 8" above the highest point of the finished roof surface. This includes all curbs, platforms, etc. Many of these will need to be custom-sized due to varying roof insulation height. The Contractor must verify the total combined thickness of the roof system and underlying substrate (i.e., concrete fill, rigid insulation, etc. as

- applicable), plus the minimum curb height above the top of the roof membrane.
20. Furnish and install proper support under piping and similar items that run horizontally on the roof membrane.
 21. Include all HVAC and similar related work items as may be referenced throughout the Contract Documents by typical notations such as: by: "Mechanical Contractor" Contractor, "General Contractor," "MC", and similar, etc. that may be noted throughout the entire set of drawings and specifications.
 22. If applicable, all components, equipment and work including installation shall fully comply with current handicap codes (even if contrary to the Contract Documents and submittal approvals by the Mechanical Engineer). Contractor shall request specific written direction from the Construction Manager before proceeding with any work or ordering any materials that are non-compliant.
 23. Include all saw cutting, coring, minor demolition and removal of debris from the site as required to install the HVAC work in areas required by the Contract Documents.
In all cases, Contractor shall properly layout and review the extent of all such work with the Construction Manager prior to start of any work.
 24. Perform all specified labeling, stenciling, tagging and identification of all equipment, piping / ductwork systems, devices, etc., which are included in this Contract.
 25. Furnish and install all access doors that are required for HVAC equipment, components and systems. The Finishes Prime contractor will only provide the access panels specifically identified on the architectural drawings. Coordinate all openings with the respective contractors, i.e.: Wood Framing Contractor, Special Ceilings, etc. The Framing Contractor shall provide the openings in the framing systems.
 26. Properly secure all sleeves, work, and equipment that are cast into concrete work so that movement does not occur during placement. Verify proper location and placement before concrete placement.
 27. All prime / finish painting and factory finishes of HVAC work as specifically required by the Contract Documents.
 28. Contractor shall maintain and record as-built information of his work in a current condition. The Contractor shall transfer all as-built information onto the record set of drawings located at the Construction Manager's Field Office. All transferred information shall be neat, legible and in accordance with the guidelines set forth in the contract documents. Failure to provide as-built information in a timely manner will result in progress payments being withheld.
 29. Provide, erect and dismantle all ladders and scaffolding required to perform work. Provide all required rigging and hoisting necessary to perform this scope of work. All lifts and material handling required to perform this scope of work shall be provided by the HVAC contractor.

30. Daily clean-up of all debris related to the Work of this Contractor is required. All debris generated by this Contractor shall be legally removed daily and disposed of offsite by this Contractor. All Contractors, while on site, will provide a clean-up laborer to be included in the weekly clean-up effort for the duration of the project. For bidding purposes, Prime Contractor shall provide 2 hours of clean-up labor for 33 total weeks.
31. Prime Contractor includes all testing, per the Contract Documents.
32. All Contractors are responsible for covering of roof openings for a weather tight system prior to rain and rain clean-up. Bid Package Contractor to consider the allotted rain days in the project schedule for budgeting purposes.
33. Prime Contractor understands that parking will not be permitted within the limits of work, staff parking, student parking or public parking spaces on campus, unless specifically allowed in the Contract Documents or agreed upon by the District. Prime Contractor acknowledges that food trucks are prohibited from entry to the construction limits of work and Valhalla High School campus. This General Requirement supersedes parking provisions outlined elsewhere in the Contract Documents.
34. Prime Contractor shall include provisions to comply with all delegated-design submittal requirements found within their respective specification sections.
35. Rough carpentry Prime Contractor includes all in-wall and above ceiling structural wood-framed backing. This Prime Contractor shall coordinate accordingly and layout backing where required for this Prime Contractor's scope.
36. The Prime contractor has reviewed the Attachment J – As-Builts and is aware of the existing conditions.

II. HVAC INCLUSIONS: The following items are specifically included in the HVAC scope of this Contract:

1. Furnish and install all HVAC system components as required by the Contract Documents including but not limited to: Roof top air handling equipment, exhaust systems, split systems, FCUs, dust collection systems, piping systems, ductwork systems, VFD's, Pumps, etc. The intent of this Prime Contractor is to provide a complete and functioning HVAC system as intended by the contract documents.
2. The HVAC Contractor shall fully coordinate with the Electrical Contractor(s) with regards to the HVAC energy management/temperature control systems. The HVAC Contractor has reviewed all of the Contract Documents and acknowledges that each specific trade responsibility to furnish and install each of the specified/ shown components, conduit systems, equipment items and low/line voltage wiring are clearly defined between the Division 23 and Division 26 trades so that all items

required by the Contract Documents are installed. **It is specifically understood that all low-voltage conduit, wiring and devices for temperature control and HVAC system shall be provided by the HVAC Contractor unless specifically and solely noted on the Electrical Contract Documents to be provided by Electrical contractor.**

3. The HVAC Contractor shall fully coordinate with the Electrical and Fire Alarm Contractors with regards to the smoke/fire dampers, and duct/mechanical equipment smoke detection systems. The HVAC Contractor has reviewed all of the Contract Documents and acknowledges that each specific trade responsibility to furnish and install each of the specified/ shown components, conduit systems, equipment items, and low/line voltage wiring are clearly defined between the Division 23 and Division 26 trades so that all items required by the Contract Documents are installed.
4. The HVAC Contractor shall survey/inspect existing equipment scheduled for reuse to ensure equipment is in working condition and compatible with design. Contractor shall notify project team in writing of any potential issues/conflicts within 24 hours of inspection.
5. Include all HVAC and similar related work items as may be referenced throughout the Contract Documents by typical notations such as: by: "Mechanical Contractor", "Contractor", "MC", and similar, etc. that may be noted throughout the entire set of drawings and specifications. Included items, but not limited to, shall be all equipment listed on sheet M-002, mechanical piping, controls and control wiring, commissioning, pathways to interconnect building systems, associated sheet metal work, and housekeeping pads.
6. The locations, configuration, sizes, and height of roof penetrations shall be fully compatible with the type of roof system and manufacturer's warranty. The Roofing (Finishes) Prime Contractor shall approve all such items prior to installation. The design, proper sequence and installation of jacks/flashings shall be coordinated with the installation of the roofing system. The height of all penetrations shall be a minimum of 8" above the highest point of the finished roof surface. This Prime Contractor must verify the total combined thickness of the roof system and underlying substrate (i.e., insulating concrete fill system, rigid insulation, etc. as applicable), plus the minimum curb height above the top of the roof membrane.
7. Maintain the designed fire/smoke/sound ratings at all penetrations/ pockets/ shafts/ recesses in the building construction. If required, include proper types of steel sleeves at penetrations. Include fire caulking at rated walls. It is the intent of this clause that the HVAC Contractor be responsible for sealing all the penetrations provided as part of the scope of this Contract.
8. If applicable, all components, equipment and work including installation shall fully comply with current ADA codes (even if contrary to the Contract Documents and submittal approvals by the Mechanical Engineer). Prime Contractor shall request specific written direction from the Construction Manager before proceeding with any work or ordering any materials that are non-compliant.

9. Furnish and install all air louvers that are shown on the Mechanical Plans and/or directly connected to ductwork. Include steel angles, bird screens, and associated flashing/caulking, etc. Coordinate all openings with the respective trades (i.e., concrete, drywall, framing, plaster, etc.).
10. Supply and install Fume Hood with associated Fan, ducting and all associated accessories per Specification 12 36 00 Laboratory Casework. Coordinate electrical connections with electrician. Coordinate backing with the rough carpentry prime contractor. Coordinate with the finishes prime contractor for casework located below the fume hood, coordinate the install heights and clearances during the shop drawings development phase.
11. Supply and install Exhaust Fans per plans and specifications. Include VFD at EF 300S-3 per M-002.
12. Supply and install the gravity vent GR 300S-1 per plans and specifications.
13. Supply and install the new exhaust fans located in the roof Dormers per detail 3/S-551. Coordinate with the rough carpentry contractor for the size of the framed out opening.
14. Coordinate VFD supports with the rough carpentry prime contractor. The rough carpentry prime contractor will provide the supports up to the Unistrut sleeves. Everything above the Unistrut sleeves is to be provided by the mechanical prime contractor. Reference structural detail 2/S-551.
15. Relocate existing indoor FC unit per M-002, M-100, and M-103.
16. Furnish and install all pitch pans, roof jacks, flashings/counter flashings, caulking, etc., as required for penetrations of equipment, ductwork, piping, etc. Penetrations shall have a minimum of 18" horizontal separation between adjacent penetrations. Roof penetrations shall not interfere with the operation or servicing of equipment i.e.: piping / ductwork shall not be located in front of equipment access doors. Provide all supports in roof area. All caulking and flashings shall be completely compatible with the roofing system.
17. Furnish / install all vent pipes, caps, etc., for HVAC equipment.
18. Furnish and install condensate drain lines/piping for all mechanical equipment included in this Contract that is shown on M drawings. Also include condensate and secondary drain pans where shown/specified. The Plumbing Contractor will only provide condensate drain lines and make up water supply lines that are specifically shown on the Plumbing Plans. The HVAC Contractor will provide all condensate lines not shown on the plumbing drawings as required to properly drain all condensate pans, lines etc. to the nearest approved receptacle.
19. Furnish and install condensate pans under all FCU whether specifically shown or not.

20. Furnish and install all miscellaneous sheet metal work associated with and required for the mechanical work including sheet metal equipment pad covers for all rooftop equipment. The Sheet Metal (Finishes) Contractor will not provide any sheet metal items associated with the HVAC scope of work.
21. Furnish and install all fire and fire/smoke dampers as shown on the drawings and as required to maintain rated construction. Include all fire rated caulking and packing materials required to encase ducts and damper assemblies at points of penetration through fire rated and smoke rated construction. Include all steel angles, sleeves, access doors, and accessories required for a complete installation. The Electrical contractor will provide low voltage power and fire alarm control/monitoring for the dampers.
22. Arrange and pay for independent air/water balance testing, adjustments and reports in accordance with the Contract Documents.
23. Furnish and install all vibration isolators, steel support rails and frames for HVAC equipment as required by the Contract Documents.
24. Furnish and install "construction" filters on all air handling equipment during the construction period and initial start-up procedures. Final filters shall be installed at a time as directed by the Construction Manager and just prior to Owner occupancy.
25. Design/Engineer for all supports, hangers, bracing, etc. for ceiling, wall and roof mounted mechanical items. Provide engineered shop drawings for approval by the Architect/Engineer as required.
26. Furnish and install custom prefabricated roof curbs for all rooftop ductwork penetrations, HVAC units, exhaust fans and equipment. Tops of curbs shall be pitched to drain. Rough Carpentry Prime Contractor shall provide all structural blocking on the under-side of the roof deck/sheathing and shall provide any rough-framed platform explicitly shown in the structural/architectural drawings. The Finish Prime Contractor shall fill the void in the pre-fabricated HVAC curb in order to maintain the 8" upturn for the roofing warranty. This Prime Contractor shall coordinate accordingly with the Rough-carpentry Prime Contractor and the Finish Prime Contractor.
27. Furnish and install sheet metal housekeeping pad covers under all equipment provided by this contractor that is not self-flashing or has roofing terminating into it.
28. All exterior bolts installed through sheet metal pad covers, etc. shall be set in mastic and have waterproof seal.
29. Include all HVAC trim and finish including registers, grilles, covers, etc..
30. Provide trapeze hangers for use under/over-sized obstructions.
31. Provide all transition pieces from louvers to duct work.

32. T-Bar ceiling wires for HVAC registers/diffusers will be provided by others with layout provided by the HVAC Contractor. HVAC Contractor will be responsible for all trapeze and other installations where overhang obstructions prohibit/limit the use of ceiling wires. All other ceiling supports for HVAC work will be provided by the HVAC Contractor. Include new and temporary support of HVAC grills to remain in existing print shop.
33. All Contractors are responsible for covering of roof openings for a weather tight system prior to rain and rain clean-up. Bid Package Contractor to consider the allotted rain days in the project schedule for budgeting purposes.
34. Custom pitch all roof curbs to match roof slope.
35. Prime Contractor to include HVAC safe off and demolition coordination per the following: Properly identify and make safe all existing mechanical services as required to facilitate the demolition and/or retrofit work within the scope of the Project. This specifically includes evacuation and removal of refrigerants and hydronic fluids. Clearly identify all equipment and fixtures scheduled to be demolished for removal by the demolition contractor. Lay out the extents and limits of the demolition. If there is equipment or fixtures that should have been demolished and were not properly identified by the HVAC Prime Contractor but are remaining after demolition, this Prime Contractor will be responsible for having them removed. If there are fixtures or equipment scheduled to remain but not properly identified by this Prime Contractor prior to demolition, this Prime Contractor will be required to buy the replacement equipment. Prime Contractor shall account for and participate in on-site job-walks at the beginning of the project specifically for coordinating demolition/safe-off.
36. Prime Contractor includes dimensioned mark out of all roofing demolition required to facilitate this Prime Contractor's new roof top unit work. Prime Contractor shall account for curb/blocking attachments. Any remobilization or extra costs from the demolition Prime Contractor to return to the site or redirect labor to demolish/remove additional roofing to accommodate roof top unit installation is the responsibility of this Prime Contractor.
37. Prime Contractor includes refrigerant piping rough-in and shop drawings for routing of refrigerant piping. Prime Contractor to route refrigerant piping per manufacturer's instructions and per applicable codes for this project.
38. Prime Contractor includes mark out of all utility points of connection from other Prime Contractors as it relates to this Prime Contractor's rooftop equipment.
39. Prime Contractor to carry provisions for re-cutting, re-grinding or preparing any POC's where existing equipment or material was removed by the demolition Prime Contractor. For example, the demolition contractor may cut a pipe with a chop saw leaving a rough end. This contractor is responsible for cutting and grinding that end to properly connect to any new work.
40. Prime Contractor includes all manual and remotely controlled volume dampers, as

indicated on M-501 and associated specifications. Unless a more stringent requirement is noted in the plans or specifications, this detail shall take precedence for manual volume damper requirements and takeoff.

41. Prime Contractor has reviewed details in coordination with structural drawings and architectural drawings. Prime Contractor shall provide approved manufactured curbs information to Finishes Prime Contractor and Rough Carpentry Prime Contractor in order to ensure necessary framing and warrantable roofing system are provided at Prime Contractor's rooftop units.
42. Prime Contractor includes duct supports and bracing, per M-501, M-502 and other applicable plan sheets & Specifications. Prime Contractor to provide a Delegated-Design submittal per specification #230529 & #230548 to specifically address duct supports and bracing. Unless specifically instructed otherwise, all ductwork shall be braced per the Anchorage Notes on M-001.
43. Unless specifically instructed otherwise, all piping associated with this Prime Contractor's scope shall be braced per the Anchorage Notes on M-001.
44. Prime Contractor shall specifically include provisions to comply with ALL General Notes on M-001.
45. Prime Contractor shall furnish and install ALL refrigerant lines. Prime Contractor shall provide coordinated shop drawings for the refrigerant lines, regardless of requirements shown in the specifications.
46. Prime contractor to install galvanized sheet metal around all refrigerant piping penetrations per detail 2/M-502.
47. Prime Contractor shall coordinate ALL thermostat locations with Finishes Prime Contractor prior to rough-in & installation in order to ensure thermostats are not installed within the limits of a tackboard or markerboard.
48. Prime Contractor shall include one hundred and fifty (150) journeyman labor hours for miscellaneous HVAC work. The Construction Manager/District may authorize the use of these hours only.
49. Prime Contractor has included multiple mobilizations to achieve the requirements of the contract. For bidding purposes, include five (5) mobilizations. A mobilization is defined as removal and return of equipment and materials. A crew leaving the site is not a demobilization.
50. Prime Contractor includes provisions to comply with all suspended ceiling system requirements for Prime Contractor's finish applications installed within the ceiling grid system per plans and specification. Prime Contractor shall include any additional requirements found within the Interpretation of Regulations (IF) 25-2.13 if said requirement is more stringent than the requirements found within the drawings/specifications.

51. Prime Contractor includes provisions to accommodate multiple commissioning/functional testing in order to achieve the project milestones and completion dates shown in the project schedule. Prime Contractor shall account for three separate commissioning, TAB and training processes to accommodate the phased schedule and intent of signing-off three separate buildings.

52. Furnish and install the dryer vent system per detail 8/M-502.

III. ALLOWANCES: The following allowances are included in this scope of work. The Construction Manager must agree to the price, type and extent of additional scope before work is started. Field tickets must be signed by Construction Manager's Superintendent on a daily basis to account for the time, material, and equipment used from these allowances. All time, material, and equipment used from these allowances will be billed against these allowances and any portion of the original allowance amount not used will be credited back to the Owner at the end of this Contract's scope of work as a deductive change order. This Article is separate and exclusive from all other Work required by the Contract.

- CN-4072 Allowance #1: Unforeseen HVAC = \$30,000.00

IV. ALTERNATES: N/A

V. EXCLUSIONS: N/A