



MORE THAN ARCHITECTS

ADDENDUM

NO. 4

TO THE DRAWINGS AND THE PROJECT MANUAL

PROJECT NAME: Hays High School 2025 Additions and Renovations

CLIENT NAME: Hays CISD

LOCATION: Buda, TX

PROJECT NUMBER: 1954-09-01

PROPOSAL DATE: 27 May, 2025

ADDENDUM DATE: 16 May, 2025

For additional information regarding this project, contact Gigi Morgan at 800.687.1229.



THIS ADDENDUM INCLUDES:

Architectural Items	4 Pages
Mechanical Items	12 Pages

AND ALL ATTACHED REVISED SPECIFICATION & DRAWING REFERENCES IN THE ADDENDUM

Huckabee



ARCHITECTURAL ITEMS FOR ADDENDUM NO. 4

NOTICE TO PROPOSERS:

- A. This Addendum shall be considered part of the contract documents for the above-mentioned project as though it had been issued at the same time and incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original contract documents, this Addendum shall govern and take precedence.
- B. Proposers are hereby notified that they shall make any necessary adjustments in their estimate on account of this Addendum. It will be construed that each Proposer's proposal is submitted with full knowledge of all modifications and supplemental data specified therein. Acknowledge receipt of this addendum in the space provided on the proposal form. Failure to do so may subject Proposer to disqualification.

REFERENCE IS MADE TO THE DRAWINGS AND THE PROJECT MANUAL AS NOTED:

PROJECT MANUAL:

AD No 4, Arch Item 1: To the Project Manual, Section 01-2300, "ALTERNATES,"
Section replaced in its entirety to Project Manual

DRAWINGS:

AD No 4, Arch Item 2: To the Drawings, Sheet G1.02, "GENERAL DATA,"
1) Added alternates to reflect updated alternate scope

END OF ARCHITECTURAL ADDENDUM

Huckabee



B.J. Hendrix
05/16/2025

MECHANICAL ITEMS FOR ADDENDUM NO. 4

NOTICE TO PROPOSERS:

- A. This Addendum shall be considered part of the contract documents for the above-mentioned project as though it had been issued at the same time and incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original contract documents, this Addendum shall govern and take precedence.
- B. Proposers are hereby notified that they shall make any necessary adjustments in their estimate on account of this Addendum. It will be construed that each Proposer's proposal is submitted with full knowledge of all modifications and supplemental data specified therein. Acknowledge receipt of this addendum in the space provided on the proposal form. Failure to do so may subject Proposer to disqualification.

REFERENCE IS MADE TO THE DRAWINGS AND THE PROJECT MANUAL AS NOTED:

PROJECT MANUAL:

AD No 4, Mech Item 1: **To the Project Manual, Section 23 7000, "Mechanical Equipment D-X Systems,"**

To Paragraph 2.01, I: Deleted and replaced with the following:

"I. Manufacturers:

1. Base Bid: Lennox
2. Alternate Bid 1: Trane
3. Alternate Bid 2: Daikin"

To Paragraph 2.02, J: Deleted 1 and 2 and replaced with the following:

"J. Manufacturers:

1. Base Bid: Lennox
2. Alternate Bid 1: Trane
3. Alternate Bid 2: Daikin"

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Project Name: Hays High School 2025 Additions and Renovations
Client: Hays CISD
Buda, TX
Project Number: 1954-09-01

To Paragraph 2.04, M: Deleted and replaced with the following:
“M. Manufacturers:

1. Base Bid: Lennox
2. Alternate Bid 1: Trane
3. Alternate Bid 2: Daikin”

END OF MECHANICAL ADDENDUM

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**SECTION 01 2300
ALTERNATES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Description of Alternates.
- B. Procedures for pricing Alternates.

1.02 RELATED REQUIREMENTS

- A. Document 00 2116 - Instructions to Proposers

1.03 PROCEDURES

- A. Proposers are required to submit alternate proposals to add work or to deduct work from the base proposal as described below. Failure to submit alternate amounts in spaces provided on proposal form is basis for disqualification of proposal.
- B. The successful proposer shall not modify, withdraw or cancel any of the alternate proposals or any part thereof for 45 days after date of receipt of proposals, unless specifically noted otherwise.
- C. Contractor shall be responsible for any changes in the work affected by acceptance of these alternates. Include within the alternative proposal prices all costs, including materials, installations, and fees.
- D. Claims for additional dollars resulting from changes caused by the alternates will not be allowed.
- E. Refer to the drawings and project manual for items of work affected by alternates.
- F. Alternates will be exercised at the option of the Owner.
- G. Coordinate related work and modify surrounding work as required to complete the Work, including changes under each alternate, when acceptance is designated in the Owner - Contractor Agreement.

1.04 ACCEPTANCE OF ALTERNATES

- A. Indicate variation of proposal price for alternates described below and list on the proposal form or any supplement to it, which requests a 'difference' in proposal price by adding to or deducting from the base proposal price or by indicating "No Charge".
- B. Indicating "No Bid" as an alternate is unacceptable and is reason for rejection of the proposal.
- C. Alternates quoted on Bid / Proposal Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.
- D. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

1.05 SCHEDULE OF ALTERNATES

- A. Alternate Number 1:
 - 1. Construction of the Multi-Purpose Athletic Facility as specified and where shown on the drawings.
- B. Alternate Number 2:
 - 1. Add card reader access at classroom, workrooms and other locations as specified and where shown on the drawings. Infrastructure to be in base bid.
- C. Alternate Number 3:
 - 1. Refinish wood stage, facade and floor as specified and where shown on the drawings.

- D. Alternate Number 4A:
 - 1. Provide Control Systems by Climatec Alerton in lieu of Base Bid Automated Logic as specified in Section 23 0900-Controls.
- E. Alternate Number 4B:
 - 1. Provide Control Systems by Johnson Controls in lieu of Base Bid Automated Logic as specified in Section 23 0900-Controls.
- F. Alternate Number 5A:
 - 1. Provide D-X Mechanical Equipment by Trane in lieu of Base Bid Lennox as specified in Section 23 7000-Mechanical Equipment D-X Systems.
- G. Alternate Number 5B:
 - 1. Provide D-X Mechanical Equipment by Daikin in lieu of Base Bid Lennox as specified in Section 23 7000-Mechanical Equipment D-X Systems.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 23 7000 - MECHANICAL EQUIPMENT D - X SYSTEMS

PART 1 – GENERAL

1.01 DESCRIPTION

- A. This section describes specific requirements, products, and methods and execution relating to the D-X mechanical equipment for the project.
- B. Provide complete operating installation for all systems shown and specified. Air handling unit, indoor coil and condensing unit shall be from single manufacturer.
- C. **Reference 20 00 00 for information that must be supplied with submittals for use by Mechanical Contractor and/or Controls Contractor.**
- D. **Reference 20 00 00 for warranty requirements.**
- E. SPECIAL NOTE: All provisions and divisions of these specifications are a part of this section of these specifications. The Contractor shall consult these divisions and provisions in detail for instructions and include all items pertaining to this work. The Contractor shall consult all other divisions of these specifications, determine the extent of impact on the work required to complete the work required by this section of the specifications or portion thereof and related work shown on the drawings.
- F. **Equipment manufacturer/vendor must submit written sequence of operation for all modes of operation for each piece of mechanical equipment with the equipment submittal. Give narrative explaining exactly what control signals are required to activate each mode of a particular unit's operation. Include information about which signals override others internally (when applicable). Submit this information with equipment submittal and provide a copy to the Controls Contractor so it can be integrated into the control scheme and control submittals. Indicate whether 24 VAC, 4-20 MA, 0-10VDC or line voltage is required for controls.**
- G. **Provide HVAC equipment with a controls interface that is suitable for connection to a standard conventional thermostat and/or non-proprietary DDC control systems unless it is SPECIFICALLY scheduled otherwise.**
- H. Commissioning Requirements:
 - a. Equipment manufacture representative required to show compliance with code required and Owner required commissioning scope.
 - b. **Equipment manufacture is required to (related to manufacturer's equipment) provide all information and participate in all meetings required by Equipment Start-Up, Test and Balance, Controls, and Commissioning Specification to ensure HVAC system is function properly, and passes Functional Testing during Commissioning of HVAC System.**
 - c. **Money will be held until ALL CX activities are addressed and completed.**

PART 2 - PRODUCT

2.01 AIR HANDLING UNIT

- A. **Air handler shall be a factory assembled unit, UL listed with fuses or circuit breakers, blower, heaters, steel casing and completely wired. Air handler and coil section may be bolted together in field but must be a mated pair from a single manufacturer.**
- B. Cabinet:
 - 1. At least 22 gauge cold rolled steel with baked enamel finish (galvanized finish not acceptable). Interior of cabinet around electric heating elements shall be lined with 1/2 inch thick 1-1/2 lb. density fiberglass insulation. All access panels to be easily removed and reinstalled for service.
 - 2. Insulated stainless steel internal drain pan (factory installed).
- C. Blower:
 - 1. Centrifugal type, dynamically and statically balanced.
 - 2. High efficiency direct driven multi-speed blower, factory installed with at least three blower speeds. Provide multistage air volume/single zone VAV airflow for all multistage units.
- D. Heaters:
 - 1. Nickel-Chromium Element(s). Element(s) to be sequenced on.
 - 2. Three phase units to have true three phase heating elements or groups of 3-single phase heaters wired to provide a true and inherently balanced three phase electrical load.
 - 3. Each set of heaters shall be equipped with limit control with fixed temperature "OFF" setting and automatic reset with supplemental thermal cut-off safety fuses.
 - 4. Provide air handler with fan time-delay relay, manually reset transformer and complete internal control system.
 - 5. **Provide 208 volt units with fuses or circuit breakers required for overload and short circuit protection.**
 - 6. Stage elements on 1PH units over 8KW.
 - 7. Stage complete banks of elements on 3PH units having 16KW or more. Example, 16KW 3PH heater to have two 8KW 3PH banks of heaters.
- E. Furnace:
 - 1. Furnace shall be a factory assembled unit, UL & AGA listed with blower, steel casing, control transformer and completely wired.
 - 2. Die-formed, heavy gauge, cold-rolled steel or aluminized tubular heat exchanger with minimum ten (10) year warranty.

3. Powered forced draft combustion.
4. Spark ignition pilot.
5. Provide with temperature activated fan and limit control.
6. Provide furnace with fan time delay, manually reset transformer and complete internal control system.
7. Cabinet to be at least 22 gauge cold rolled steel with baked enamel finish. Galvanized cabinet not acceptable.
8. Blower compartment to be lined with 1/2" thick, 1-1/2" lb. density fiberglass insulation.
9. High efficiency direct driven multi-speed blower, factory installed with at least three blower speeds. Provide multistage air volume/single zone VAV airflow for all multistage units.

F. Cooling Coil:

1. Factory leak-tested, dehydrated, sealed and shipped with holding charge.
2. Coil installed in baked on enamel finish insulated casing (unless it is to be installed inside air handlers).
3. Staggered row copper tube, aluminum fins. Aluminum evaporator coils strictly prohibited.
4. Coils to be ARI certified and matched to system.
5. Provide with thermal expansion valve mounted inside AHU cabinet. (Capillary tubes or piston type metering devices are not acceptable).
6. Insulated stainless steel internal drain pan (factory installed).

G. Filter:

1. Provide two inch (2") thick pleated filter equal to Cam Farr Aeropleat II.
2. Provide two inch (2") thick mesh grease filter equal to those manufactured by American Air filter for all return air grilles located in Kitchen areas.
3. Install filters at return air filter grilles if system is equipped with them and at AHU when standard non-filtered return grilles are used.
4. Provide suitable insulated filter rack with hinged access door at base (inlet) of unit to house 2" thick filters when filters are to be installed at AHU.

H. Electrical:

1. **All units to be provided with terminal block type connection point for single electrical connection point. Loose wires and wire nut connection points are not acceptable.**



I. Manufacturers:

1. Base Bid: Lennox
2. Alternate Bid 1: Trane
3. Alternate Bid 2: Daikin

2.02 CONDENSING UNITS/HEAT PUMPS

- A. Condenser coil shall have copper tubes with aluminum plate fins mechanically bonded.
- B. Fans shall be direct driven propeller upflow type.
1. Fan motor thermostatically controlled, permanently lubricated, and designed with permanent protection.
 2. Motors shall be resiliently mounted.
 3. Each fan shall have a safety guard.
- C. Unit shall operate properly in the cooling mode down to a minimum of 55° F, unless otherwise noted on schedule.
- D. Each condensing unit shall have one (1) compressor. Compressor shall be of hermetic design with the following features.
1. Crankcase heater (except on scroll compressor).
 2. Resilient rubber mounts.
 3. Compressor motor overload protection.
- E. Controls:
1. Factory wired and located in separate enclosure.
 2. High and low pressure cutout and condenser fan motor overload devices.
 3. Off-cycle timer to prevent short-cycling of compressor and shall prevent compressor from restarting for 5 minutes if power is interrupted.
 4. **Provide factory hard start kits for all single phase units.**
 5. All interior units provided with low ambient control for operation down to 30°F.
- F. Casing:
1. Fully weatherproof for outdoor installation. Baked-on enamel finish on all exterior surfaces.
 2. Openings shall be provided for power and refrigerant connections.
 3. Panels shall be removable for servicing.



- 4. Coil guards.
- G. Provide externally mounted brass service valves with charging connections.
- H. When AHU's/CU's or HP's come to the job site in sections, or when parts are sent for field installation, all pieces must be clearly marked as to which unit mark system they go with.
- I. Condensing units/heat pump outdoor units to be products of same manufacturer as air handler and coil.
- J. Manufacturers:
 - 1. Base Bid: Lennox
 - 2. Alternate Bid 1: Trane
 - 3. Alternate Bid 2: Daikin

2.03 REFRIGERANT SYSTEM

- A. Furnish and install refrigeration system complete as a system with all refrigerant, oil, valves, dehydrators, gauges, flex connections and controls as required for proper operation.
- B. Refrigerant Piping:
 - 1. Meet requirements of ASTM B 280-83, "Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service," Type "L" or Type "K" only.
 - 2. All refrigerant piping installed outdoors or in accessible spaces shall be hard drawn copper.
 - 3. **Refrigerant piping in inaccessible spaces, such as wall cavities, or in underground sleeves is to be soft drawn copper with no fittings in the inaccessible areas. All bends required are to be made with refrigeration tubing bender.**
 - 4. **Refrigerant piping outdoors to be insulated and be covered with an aluminum jacket with seams located on bottom side of horizontal piping. Jacketing to be neatly installed.**
- C. Refrigerant Fittings:
 - 1. Wrought copper with long radius elbows.
 - 2. Approved Manufacturers:
 - a. Mueller Streamline
 - b. Engineer approved equal.
- D. Suction Line Traps:
 - 1. Manufactured with one (1) 90° short radius elbow and two (2) 45° fittings.

E. Connection Material:

1. For Brazing--
 - a. Sil-Fos (minimum 10% silver content)

F. Expansion Valves:

1. **Provide thermal expansion valve for each system.**
2. Size valves to provide full rated capacity of cooling coil served.

G. Filter-Drier:

1. On lines 3/4" outside diameter and larger, filter-drier shall be replaceable core type with non-ferrous casing and Schraeder type valve.
2. On lines smaller than 3/4" outside diameter, filter-drier shall be a sealed type using sweat copper fittings.
3. Size shall be full line size and rated for tonnage and refrigerant used.
4. **Liquid line filter driers are required for each unit. However, if liquid line filter drier comes as an integral part of the condensing unit or heat pump outdoor unit, additional filter driers shall not be installed.**
5. External liquid line filter driers for heat pumps must be bi-flow type.
6. Manufacturers: Mueller, Alco or Sporlan.

H. Sight Glass:

1. Combination moisture and liquid indicator with protection cap.
2. Sight glass shall be full size of liquid line.
3. Sight glass connections shall be solid copper or brass.
4. **Required for each system utilizing expansion valve.**
5. Manufacturers: Mueller, Alco or Sporlan.

I. Manual Refrigerant Shut-Off Valve:

1. Ball valves designed for refrigeration service and full line size.
2. Valve shall have cap seals.
3. Valves with hand wheels are not acceptable.
4. Provide service valve on each liquid and suction line at compressor.
5. **If reusable service valves come as integral part of condensing unit, additional service valves shall not be installed.**

6. Manufacturers: Mueller, Superior

2.04 ROOFTOP UNITS

- A. General: Single package unit completely factory assembled and tested, including refrigeration, heating, fans, dampers, piping, wiring and control.
- B. Cabinet: Heavy gauge galvanized with baked on acrylic enamel, all exterior parts are fully insulated with heavy density fiberglass (1" 3/4 lb.) permanently fastened to panel. Install heavy gauge painted hail guards equal to RSI Model 50-805-Series Hail Guards. **Entire base pan of unit to be insulated.**
- C. Filters: Provide two inch (2") thick pleated filters equal to Cam Farr Aeropleat II, minimum MERV 7.
- D. Low Ambient Control: Unit shall operate properly in the cooling mode down to a minimum of 25°F, unless otherwise noted on schedule.
- E. Refrigeration System: Complete with protection from short cycling of compressor with automatic timing circuit, evaporator and condenser to be copper tube with aluminum fins, refrigerant metering devices, filter driers, crankcase heaters (except on scroll compressors), thermal and overcurrent protection for compressor(s), high and low pressure cutouts. Provide minimum two (2) stages of fully independent cooling on RTU's 7-1/2 tons and over. Where multiple compressors are used, provide one compressor per refrigerant circuit. Insulated stainless steel internal drain pan (factory installed).
- F. Heating System: (As scheduled): Indirect type fired with automatic spark ignition and power forced draft combustion. Controls to include pilot valve, combination main gas and pressure regulator, high limit thermostats, flame sensor and automatic relight system. Provide minimum two (2) stages of heat on RTUs of over five (5) tons cooling capacity.
- G. Heating System: (As scheduled): UL listed electric resistance heater(s) with open wire Nichrome elements; high temperature limit switch, overcurrent protection; kw, voltage, phase and stages, as specified. Three phase heaters to be true, inherently balanced units.
- H. **Provide down discharge units with factory full perimeter curb to match roof slope. Curb to be a minimum of 18" curb, 14" above finish roof surface. Reference curb specification section.**
- I. Outdoor Air Intake: All RTU's **scheduled to have raw outside air intake** are to have an outside air intake hood with bee screen and an **Automatic**, 2-position outside air damper that is to operate during occupied periods and closed during unoccupied periods. Damper to have manually adjusted maximum set point. This is a minimum requirement. Check schedule for additional requirements. When economizers are scheduled provide with barometric relief unless fan powered exhaust is scheduled. Economizer, in high humidity weather, to be set at 55 degree drybulb for activation.
- J. **Dehumidstat: When unit is equipped with hot gas reheat coil, provide Honeywell Model H600A 1014 dehumidistat. When building has DDC system, unit is to be controlled by DDC sensor with appropriate controllers by Controls Contractor.**
- K. Provide direct drive fans with multi-speed taps or belt drive fans with adjustable sheaves. Motors need to be high efficiency. Provide maximum amount of adjustability to match job conditions. Provide multistage air volume/single zone VAV airflow for all multistage units.



L. Provide with single point electrical power connection.

M. Manufacturers:

1. Base Bid: Lennox
2. Alternate Bid 1: Trane
3. Alternate Bid 2: Daikin

2.05 EQUIPMENT SUPPORTS

A. Factory Support:

1. Welded minimum 16 gauge galvanized steel shell, base plate and counter flashing.
2. Factory installed wolmanized 2 x 4 wood nailer.
3. Internal bulkhead reinforcement.
4. **Constructed to match roof pitch.**
5. Minimum height to be 14" above finished roof.
6. Manufacturer: Thycurb Model TEMS-3 or equal.

B. Coordinate other roof supports with Architectural and Structural Drawings:

1. **Roof supports shall be provided and located by Mechanical Contractor. Roof supports shall be installed, flashed and counterflashed by the Roofing Contractor.**

2.06 ROOF CURBS

A. Factory installed wood nailer.

B. Welded galvanized steel shell and base plate. Minimum 18 gauge for fan or hood or hood curbs with top dimension under 48". Minimum 16 gauge for fan or hood curbs with top dimensions 48" or over. Curbs up to 18" high for RTU's and single wheel ERV's to be minimum gauge as recommended by the Manufacturer. Extended height roof curbs (over 18") and extensions for RTU's to be minimum gauge as recommended by the Manufacturer. Curbs up to 18" high for Make Up Air Units to be minimum 12 gauge.

C. Extended height curbs (over 18" high) are to have a 12" to 14" curb base section and a curb extension section to facilitate height requirements and proper flashing in by the Roofing Contractor. Pad mounted curbs can be single or two piece.

D. **Constructed to match roof pitch.**

E. Curbs shall be as provided by equipment manufacturer. However, at Contractor's option, curbs equal to Thycurb Model TC-35F with internal wolmanized 2 x 4 nailer may be used. **Minimum height to be 18" curb, 14 inches above finished roof surface.**

F. **Curb shall be provided and located by the Mechanical Contractor. Curb shall be installed, flashed and counterflashed by the Roofing Contractor.**

PART 3 - INSTALLATION

- 3.01 Refrigerant piping shall be installed by licensed refrigeration Contractor. Size per Manufacturer's recommendation for length encountered. Size for minimal equipment capacity loss. Submit isometric drawing from the manufacturer indicating routing, sizes and velocity in piping and pressure drop in piping. Provide minimum four inch (4") diameter PVC sleeves as required for each refrigerant line set located under slab and through walls. Use 22-1/2° sleeve fittings for all underslab installation. Seal watertight top of PVC sleeves as they penetrate grade.
- 3.02 LIQUID LINE
- A. **Install moisture indicator/sight glass at each condensing unit.**
 - B. Install properly sized filter-drier "in-line" type at each condensing unit if unit is not supplied with one. If unit is a heat pump, use bi-flow type drier.
 - C. All valves, driers and indicators to be full line size and have sweat fittings.
 - D. Maximum pressure drop in line shall be 10 psig. Size per manufacturer's written instructions.
 - E. **Insulate entire liquid line (indoors and outdoors) on heat pump systems as recommended by the manufacturer.**
- 3.03 SUCTION LINE
- A. Every indoor coil (cooling and heat pump) shall be trapped when vertical rise is more than five feet (5'). When the compressor is below the evaporator, provide a trap in the suction line by coil, raise line to a point above coil and slope suction line down to compressor from that point. The trap shall be made up on one (1) short radius 90° trap and two (2) 45° fittings. For heat pumps, all horizontal vapor lines should be level.
 - B. All rises in suction lines returning to compressor shall be trapped. Use double suction risers where necessary. All risers must maintain a minimum of 1000 fpm and a maximum of 3000 fpm. Line sized for a maximum of 3 psig pressure drop in system. Size per manufacturer's written instructions.
 - C. Insulate all suction lines, including the thermal bulb, from the thermal expansion valve. See insulation section for type and thickness.
- 3.04 The length of refrigerant line runs shall be kept as short as possible. It is preferred that they not exceed seventy feet (70') in running length, but in no one case should they exceed the cooling equipment manufacturer's recommendations.
- 3.05 All condensing units/heat pump units shall have neoprene vibration isolation pads mounted under each corner and sized per manufacturer's recommendations.
- 3.06 Circulate dry nitrogen throughout system during welding or brazing process.
- 3.07 Test all refrigerant piping and repair all leaks. Pressure test with dry nitrogen; use pressure reducing valve to limit pressure to 150 psig. After testing, evacuate and fully charge system with refrigerant per manufacturer's written instructions. Submit manufacturer's evacuation procedures with submittal.
- 3.08 General Contractor to provide level concrete pad for all condensing units/heat pump units. Verify actual size with equipment.

- 3.09 Pack fiberglass insulation and sealing material, such as permagum, around refrigerant lines where they penetrate exterior building envelope.
- 3.10 VIBRATION ISOLATOR
- A. Provide vibration isolation at each air handling unit (AHU) or fan. Vibration isolators are to be rubber in shear type for suspended AHU's and Neoprene pads for floor mounted AHU's up to 5 tons. Isolators are to be sized for actual equipment purchased.
- B. Manufacturers: Amber Booth, Vibration Mounting & Controls, Inc. or equal.
- 3.11 EQUIPMENT SUPPORTS AND ROOF CURBS
- A. Curb shall be manufactured in accordance with the National Roofing Contractors Association guidelines for rooftop equipment support.
- B. Confirm exact roof curb installation requirements with Architectural flashing details. Coordinate installation requirements with roofing, structural and general contractors. Roof curb to extend above finished roof a minimum of 12", or 8" above highest point of cricket.
- C. Roof deck to be cut out only where ducts penetrate roof. Provide 4" of rigid insulation (2 layers of 2" insulation with staggered joints) on roof deck below unit, topped by two layers of 5/8" exterior grade sheathing (densglass) or gypsum roof board (staggered joints) for sound attenuation.
- D. Mechanical equipment to be secured to curb as required by code.
- E. **High Wind Zones: Contractor shall be responsible for delegated design to secure ALL equipment/assemblies, ground or roof, so that they are secured/restrained per code for High Wind/Hurricane zones per the latest code maps.**
- F. In remodel situations, frame out under entire roof curb perimeter and all openings through roof with minimum 3" x 3" x 3/8" angle iron securely welded or bolted to existing structure, prior to cutting roof deck.
- G. Roof curbs on pre-engineered metal building are to be provided, installed and flashed and counter flashed by Pre-Engineered Metal Building Systems. Coordinate all requirements, dimensions, etc. with Pre-Engineered Metal Building Systems.

END OF SECTION

ALTERNATE #1 - CONSTRUCTION OF MPAC BUILDING
ALTERNATE #2 - ADD CARD READERS AT CASINOS/WORKROOMS (INFRASTRUCTURE IN BASE BID)
ALTERNATE #3 - REFINISH EXISTING WOOD STAGE IN CAFETERIA FACADE AND FLOOR
ALTERNATE #4 - MECHANICAL CONTROLS
ALTERNATE #5 - MECHANICAL EQUIPMENT

REF SPECIFICATION AND REMAINDER OF CONSTRUCTION DOCUMENTS FOR ADDITIONAL INFORMATION.

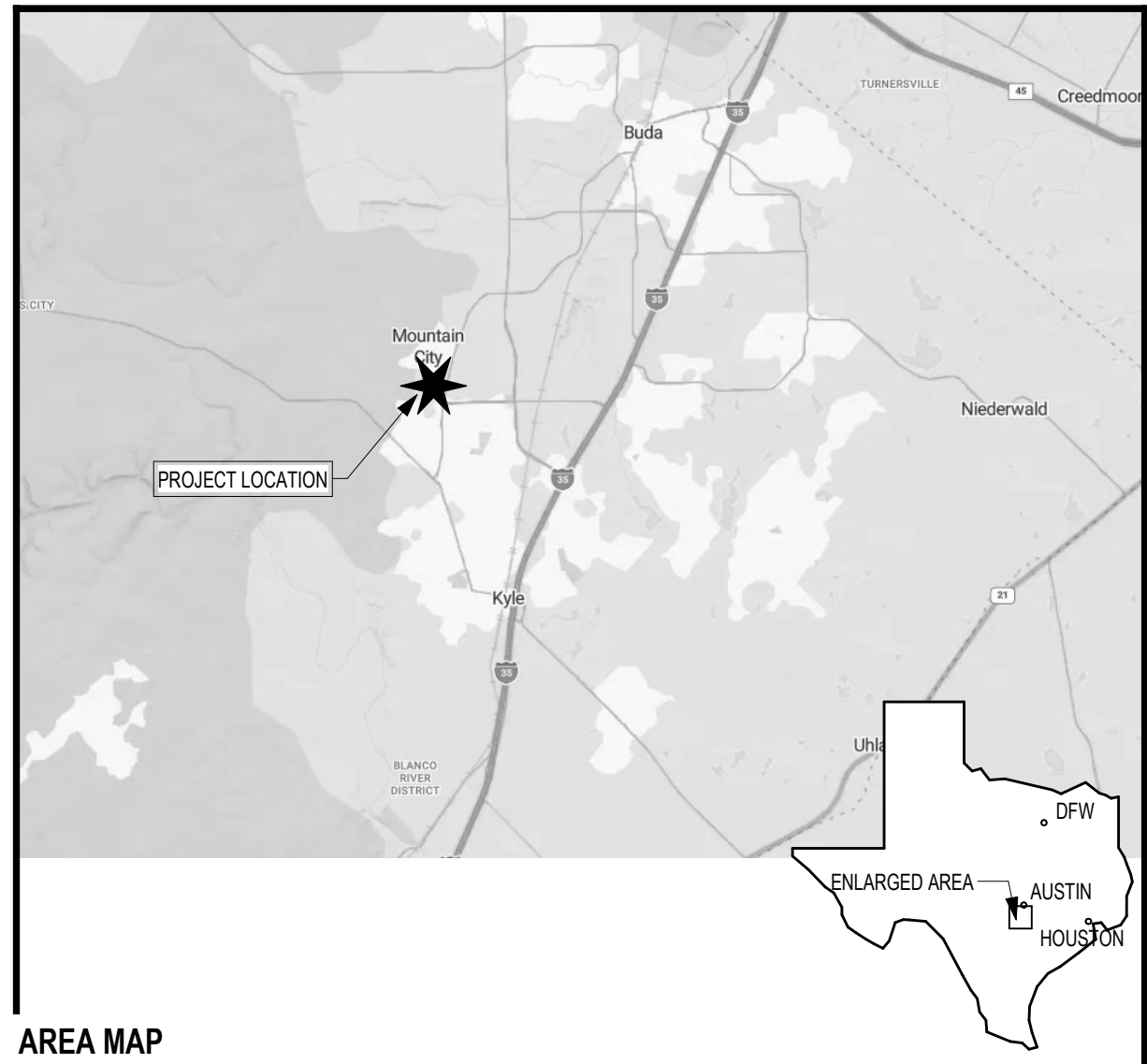
ALTERNATES

AB	ANCHOR BOLT	JT	JOINT
AC	AIR CONDITIONER	JT(S)	JOIST(S)
ACC	ACCESSIBLE	L	ANGLE
ACMU	ARCHITECTURAL CONCRETE MASONRY UNIT	LAB	LABORATORY
ADA	AMERICANS WITH DISABILITIES ACT / ADA	LAV	LAVATORY
	STANDARDS FOR ACCESSIBLE DESIGN	LEPC	LOCAL EMERGENCY PLANNING COMMITTEE
	(LATEST VERSION)	LONG	LONGITUDINAL
ADONL	ADDITIONAL	LVT	LUXURY VINYL TILE
ADJ	ADJUSTABLE	MAS	MASONRY
ADH	ADHESIVE/ADHERE	MATL	MATERIAL
ADMN	ADMINISTRATION	MAX	MAXIMUM
AFF	ABOVE FINISHED FLOOR	MB	MARKER BOARD
AFS	ABOVE FINISHED GRADE	MCM	METAL COMPOSITE MATERIAL
AG	AGRICULTURE	MDF	MAIN DISTRIBUTION FRAME
AHU	AIR HANDLING UNIT	MECH	MECHANICAL
AL	ALUMINUM	MEZZ	MEZZANINE
ALT	ALTERNATE	MFG	MANUFACTURER
ALUM	ALUMINUM	MFR	MANUFACTURER
AP	ACoustical PANELS	MN	MINIMUM
AP	ASSISTANT PRINCIPAL	MISC	MISCELLANEOUS
APPROX	APPROXIMATE	MO	MASONRY OPENING
ARCH	ARCHITECTURAL	MP	METAL WALL PANELS
B	BETON	MPF	MULTI-PURPOSE FACILITY
B8	BACK TO BACK	MSK	MOP SINK
BD	BOARD	MS	METAL SPOFF
BLDG	BUILDING	MSL	MEAN SEA LEVEL
BLKG	BLOCKING	MTL	METAL
BDD	BOTTOM OF DECK	NB	NO BASE
BOM	BOTTOM OF MASONRY	NF	NO FINISH
BOS	BOTTOM OF STEEL	NIC	NOT IN CONTRACT
BOT	BOTTOM	NO	NUMBER
BP	BASE, PORCELAIN TILE	NS	NATURAL STONE
BR	BASE, RUBBER	NTS	NOT TO SCALE
BRES	BASE, RESINIOUS INTEGRAL	OC	ON CENTER
BRG	BEARING	OCC	OCCUPANTS / OCCUPANCY
BRK	BRICK	OCEW	ON CENTER EACH WAY
BRY	BASE, RUBBER VENTED	OD	OVERHEAD COILING DOOR
BTC	BASE, TILE CERAMIC	OCG	OVERHEAD COILING GRILLE
BTPZ	BASE, TERRAZZO PRECAST	OF	OUTSIDE DIAMETER
BS	BOTH SIDES	OF	OUTSIDE FACE
BW	BOTH WAYS	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
BWD	BASE, WOOD	OFF	OFFICE
C	CENTER TO CENTER	OFI	OWNER FURNISHED OWNER INSTALLED
CAB	CABINET	OH	OPPOSITE HAND
CDD	COILING COUNTER DOOR	OH	OVERHEAD
CCFS	CERAMIC CLADDING PANEL SYSTEM	OPRO	OPPOSITE
CDW	CUSTOM DIGITAL WALLCOVERINGS	OS	OVER/LOW SLOPPER
CDMP	CUSTOM DIGITALLY PRINTED ACOUSTIC PANEL	OS	OVERCAST CONCRETE
CMF	CUSTOM FORMED METAL FRAMING	PEMB	PRE-ENGINEERED METAL BUILDING
CH	CHANNEL	PERM	PERIMETER
CI	CONTINUOUS INSULATION	PERP	PERPENDICULAR
CJ	CONTROL JOINT	PLA	PLATE / PLASTER
CL	CENTERLINE	PLP	PLASTIC LAMINATE
CLG	CEILING	PNT	PANT
CLR	CLEAR	PRE	PRACTICE ROOM
CMU	CONCRETE MASONRY UNIT	PREP	PREPARED
CNTRD	CENTERED	PREP	PREPARATION
CO	CLEAN OUT/CASED OPENING	PROJ	PROJECTION
COL	COLUMN	PROJ	PROJECTION SCREEN
CONC	CONCRETE	PT	POINT
CON	CONFIGURATIONS / CONFERENCE	PW	PLYWOOD
CONNS	CONNECTION(S)	QZ	QUARTZ SURFACING
CONT	CONTINUOUS	R	RISER
COORD	COORDINATE	RAD	RADIUS
COP	CONCRETE (POLISHED)	RAF	RESILIENT ATHLETIC FLUID FLOORING
CORR	CORRIDOR	RAPF	RESILIENT ATHLETIC FLOORING POLYURETHANE
COS	CONCRETE SEALED	RAFS	RUBBER FLOORING SHEET
CPT	CARPET SHEET	RAVY	RESILIENT ATHLETIC FLOORING VINYL
CPY	CANOPY	L	ANGLE
CR	CLASSROOM	R	RUBBER TREADS AND RISERS
CS	CAST STONE	REF	REFERENCE
CSM	CONCRETE STONE MASONRY	REIN	REINFORCING
CJ	CONDENSING UNIT	RES	RESINIOUS
CTE	CAREER TRAINING ED	REQD	REQUIRED
CTRL	CONTROL	RM	ROOM
CW	CURTAIN WALL	RO	ROUGH OPENING
CWF	CUSTOM WINDOW FILM	RR	RESTROOM
DBL	DOUBLE	RT	RUBBER TILE
DET	DETAIL	RTU	ROOFTOP UNIT
DH	DOOR-HARDWARE	SB	SPLASH BLOCK
DIA	DIAMETER	SCHED	SCHEDULE
DIAG	DIAGONAL	SEC	SECURITY
DM	DIMENSION	SECT	SECTION
DN	DOWN	SF	STOREFRONT / SQUARE FEET
DN	DOWN	SHT	SHEET
DN	DOWNSPOUT	SM	SIMILAR
DTL	DETAIL	SL	SLOPE
DWG	DRAWING	SP	SPLASH PAN (METAL)
DWR	DRAWER	SPEC	SPECIFICATIONS
EA	EACH	SPP	SPLIT FACE CONCRETE MASONRY UNIT
EBWS	EPOXY BASED WALL SYSTEM	SPS	SOLID POLYMER SURFACE
ED	EDUCATION	SS	STAINLESS STEEL
EF	EACH FACE	SSM	SOLID SURFACE MATERIAL
EJ	EXPANSION JOINT	STD	STANDARD
EL	ELEVATION	STL	STEEL
ELEC	ELECTRICAL	STN	STAIN
ELEV	ELEVATOR	STOR	STORAGE
ENGR	ENGINEER	STRUCT	STRUCTURE
EPNT	EPOXY PAINT	SVT	SOLID VINYL TILE
EQ	EQUAL (EQUALLY)	SYMM	SYMMETRICAL
EQUIP	EQUIPMENT	TB	TOP OF BOTTOM
EW	EACH WAY	TAG	TONGUE & GROOVE
EWC	ELECTRIC WATER COOLER	TAS	TEXAS ACCESSIBILITY STANDARDS (LATEST VERSION)
EXIST	EXISTING	TB	TACK BOARD
EXP	EXPANSION	TC	TILE, CERAMIC
EXT	EXTERIOR	TH	THRESHOLD
EXTNG	EXTINGUISHER	TILT	TILET
FF	FACE TO FACE	TOB	TOP OF BEAM
FC	FURRING CHANNEL	TCC	TOP OF CURB
FD	FLOOR DRAIN	TOL	TOP OF JOIST
FDC	FIRE DEPARTMENT CONNECTION	TOM	TOP OF MASONRY
FEN	FOUNDATION	TOS	TOP OF STEEL
FE	FIRE EXTINGUISHER (SURFACE MOUNT)	TOSF	TOP OF METAL STUD FRAMING
FEC	FIRE EXTINGUISHER CABINET (SEMI-RECESSED)	TOW	TOP OF WALL
FEE	FINISHED FLOOR ELEVATION	TPC	TILE, PORCELAIN
FHC	FIRE HOSE CABINET (SEMI-RECESSED)	TO	TILE, QUARRY
FIN	FINISHED	TR	TREATED
FIN FLR	FINISHED FLOOR	TRN	TRANSVERSE / TRANSPARENT
FL	FLUSH (FLUSHED)	TRM	METAL FLASHINGS AND CORNERS
FLR	FLOOR	TS	TACKABLE SURFACE
FR	FRAME	TZ	TERRAZZO
FRP	FIBERGLASS REINFORCED PLASTIC PANEL	TZP	TERRAZZO, PRECAST STAIR TREADS AND RISERS
SYSTEM FIBERGLASS REINFORCED PANELING		TZT	TERRAZZO, TILE
FRT	FIRE RETARDANT TREATED	U	URNAL
FRTW	FIRE RETARDANT TREATED WOOD	UL	UNDERWRITERS LABORATORIES
FTG	FOOTING	UNO	UNLESS NOTED OTHERWISE
FV	FIELD VERIFY	UP	UPHOLSTERY
GA	GAGE OR GAUGE	VCT	VINYL COMPOSITION TILE
GALV	GALVANIZED	VERT	VERTICAL
GB	GRAB BAR / GRADE BEAM	VEST	VESTIBULE
GEN	GENERAL	VSF	VINYL SHEET FLOORING
GRFC	GLASS FIBER REINFORCED CONCRETE	W	WITH
GRF	GROUND FACE CMU (BURNISHED)	WIN	WITHIN
GUT	GUTTER	WO	WITHOUT
GYN	GYNASIUM	WASH	WASH STATION
GYP	GYPSON	WC	WATER CLOSET
HB	HOSE BIB	WO	WOOD
HOWD	HARD WOOD	WH	WATER HEATER / WALL HYDRANT
HM	HOLLOW METAL	WMP	WOOD (IMPLE) STRIP AND PLANK FLOORING
HO	HOLD OPEN	WMS	MASONRY WOOD FLOORING
HORIZ	HORIZONTAL	WOM	WALK-OFF MAT
HSS	HOLLOW STRUCTURAL SECTION	WOT	WALK-OFF TILE
HT	HEIGHT	WP	WORKPOINT
HVAC	HEATING, VENTILATION, & A/C	WT	WEIGHT
ICF	INSULATED CONCRETE FORMS / INSULATED	WWF	WELDED WIRE MESH (FABRIC)
CONCRETE FORMING		XB	X-BRACING
IDF	INTERMEDIATE DISTRIBUTION FRAME	>	LARGER THAN OR EQUAL TO
INFO	INFORMATION	<	LESS THAN OR EQUAL TO
INSUL	INSULATION		
INT	INTERIOR		

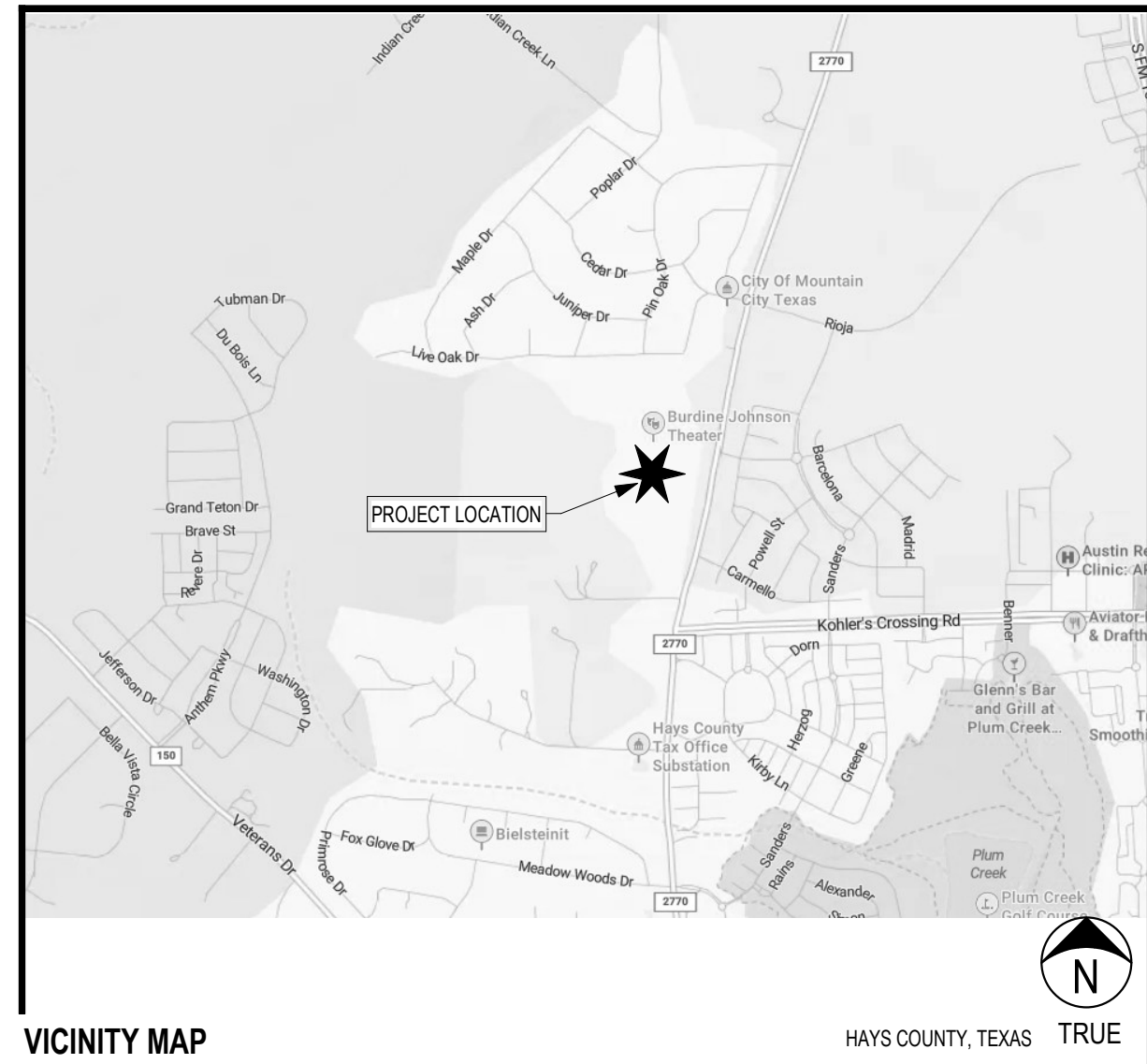
(NOT ALL ABBREVIATIONS MAY BE USED)

ABBREVIATIONS

AREA MAP



VICINITY MAP



GENERAL	S2.1C2	ROOF FRAMING PLAN - AREA C	FS1.5.1	FS PLUMBING PLAN SOUTH	
G1.01	COVER SHEET	S3.1	TYPICAL CONCRETE DETAILS	FS1.6	FS ELECTRICAL PLAN NORTH
G1.02	GENERAL DATA	S3.2	TYPICAL CONCRETE DETAILS	FS1.6.1	FS ELECTRICAL PLAN SOUTH
G2.01	MASTER CODE ANALYSIS PLAN - LEVEL 1	S3.3	CONCRETE DETAILS	FS1.7	FS PLUM/ELEC/SPECIAL DETAILS
G2.02	MASTER CODE ANALYSIS PLAN - LEVEL 2	S3.4	CONCRETE DETAILS	FS1.8	FS EXHAUST HOODS
G2.03	ENLARGED CODE ANALYSIS PLAN - AREA A & B	S3.5	CONCRETE DETAILS	FS1.8.1	FS EXHAUST HOOD
G2.04	ENLARGED CODE ANALYSIS PLAN - AREA C (ALTERNATE)	S4.1	TYPICAL MASONRY DETAILS	FS1.8.2	FS EXHAUST HOOD
G3.01	EXTERIOR WALL, ROOF TYPES & INTERIOR PARTITION TYPES	S4.2	MASONRY DETAILS	FS1.9	FS CONDENSING UNITS
G3.03	TYPICAL INTERIOR PARTITION DETAILS	S4.10	MASONRY WALL ELEVATIONS	FS1.10	FS WALK-INS
G3.04	TYPICAL INTERIOR PARTITION DETAILS	S5.1	TYPICAL STEEL DETAILS	FS1.11	FS SERVING COUNTERS
G3.05	WALL PENETRATIONS - GYP BD	S5.2	TYPICAL STEEL DETAILS	FS1.11.1	FS SERVING COUNTERS
G3.06	WALL PENETRATIONS - ACOUSTICAL	S5.3	TYPICAL STEEL DETAILS	FS1.12	FS ELEVATIONS
G3.07	WALL PENETRATIONS - CMU	S5.4	STEEL DETAILS	FS1.13	FS SECTIONS & DETAILS
G4.01	TEA COMPLIANCE	S5.5	STEEL DETAILS	FS1.14	FS DETAILS
G5.01	SCHEDULE OF MATERIALS AND COLORS	S5.10	BRACE ELEVATIONS AND DETAILS	FS1.15	FS DETAILS
		S5.12	WALL ELEVATIONS		
		S5.13	WALL ELEVATIONS		
CIVIL					
C1.00	GENERAL NOTES				
C2.00	EXISTING CONDITIONS				
C2.01	DEMOLITION PLAN	AD1.00	DEMOLITION MASTER PLAN	P0.01	NOTES AND LEGENDS - PLUMBING
C3.00	EROSION CONTROL PLAN PHASE 1	AD1.01	DEMOLITION FLOOR PLAN	P0.02	NOTES AND LEGENDS - PLUMBING
C3.01	EROSION CONTROL PLAN PHASE 2	A1.00A	MASTER FLOOR PLAN - LEVEL 1	P1.10	SCHEDULES - PLUMBING
C3.02	EROSION CONTROL PLAN DETAIL (1 OF 2)	A1.00B	MASTER FLOOR PLAN - LEVEL 2	P1.10.1	DETAILS - PLUMBING
C4.00	OVERALL SITE PLAN	A1.01	FLOOR PLAN - AREA A - KITCHEN	P2.1A1	FIRST FLOOR PLAN - AREA A - PLUMBING - WASTE
C4.01	DIMENSION CONTROL PLAN (1 OF 2)	A1.1A1	FLOOR PLAN - AREA A - DINING	P2.1B1	FIRST FLOOR PLAN - AREA A - PLUMBING - WASTE
C4.02	DIMENSION CONTROL PLAN (2 OF 2)	A1.1B1	FLOOR PLAN - AREA B - LEVEL 1	P2.1B2	SECOND FLOOR PLAN - AREA B - PLUMBING - WASTE
C5.00	FIRE PROTECTION PLAN	A1.1B2	FLOOR PLAN - AREA B - LEVEL 1	P2.1C1	FIRST FLOOR PLAN - AREA C - PLUMBING
C6.00	OVERALL GRADING PLAN	A1.20	FLOOR PLAN - AREA C	P3.1A1	FIRST FLOOR PLAN - AREA A - PLUMBING - SUPPLY
C6.01	GRADING PLAN (1 OF 2)	A1.21	ENLARGED PLANS - STAIRS, ELEVATOR, VEST	P3.1B1	FIRST FLOOR PLAN - AREA B - PLUMBING - SUPPLY
C6.02	GRADING PLAN (2 OF 2)	A1.30	TOILET ACCESSORIES AND PLUMBING FIXTURES	P3.1B2	SECOND FLOOR PLAN - AREA B - PLUMBING - SUPPLY
C6.03	PRV PLAN (1 OF 2)	A1.31	TOILET ROOMS AND COMPARTMENTS	P4.1A1	ROOF PLAN - AREA A - PLUMBING
C6.04	PRV PLAN (2 OF 2)	A1.40	PLAN DETAILS	P4.1A2	ROOF PLAN - AREA B - PLUMBING
C7.00	OVERALL UTILITY PLAN	A2.1A1	REFLECTED CEILING PLAN - AREA A - LEVEL 1 - KITCHEN	P4.1B1	ROOF PLAN - AREA A - PLUMBING
C7.01	UTILITY PLAN (1 OF 2)	A2.1A1	REFLECTED CEILING PLAN - AREA AA - LEVEL 1 - DINING		
C7.02	UTILITY PLAN (2 OF 2)	A2.1B1	REFLECTED CEILING PLAN - AREA B - LEVEL 1		
C8.00	OVERALL STORM PLAN	A2.1B2	REFLECTED CEILING PLAN - AREA B - LEVEL 2		
C8.01	STORM PLAN (1 OF 2)	A2.1C1	REFLECTED CEILING PLAN - AREA C		
C8.02	STORM PLAN (2 OF 2)				
C8.00	EXISTING DRAINAGE AREA MAP	A3.02	DOOR AND SPECIAL OPENING SCHEDULES AND CONFIGURATIONS		
C9.01	PROPOSED DRAINAGE AREA MAP	A3.01	STOREFRONT AND CURTAINWALL CONFIGURATIONS		
C10.00	NORTH DETENTION POND	A3.03	DOOR AND WINDOW DETAILS		
C10.01	SOUTH DETENTION POND	A4.1A1	FINISH PLAN - AREA A - LEVEL 1 - KITCHEN		
C11.00	CONSTRUCTION AND PAVING DETAILS	A4.1A1A	FINISH PLAN - AREA AA - LEVEL 1 - DINING		
C11.01	UTILITY DETAILS	A4.1B1	FINISH PLAN - AREA B - LEVEL 1		
C11.02	MISCELLANEOUS DETAILS	A4.1B2	FINISH PLAN - AREA B - LEVEL 2		
LANDSCAPE		A4.1C1	FINISH PLAN - AREA C - LEVEL 1		
LT1.00	OVERALL TREE PROTECTION PLAN	A4.10	INTERIOR ELEVATIONS		
LT1.01	TREE PROTECTION PLAN (1 OF 2)	A4.11	INTERIOR ELEVATIONS		
LT1.02	TREE PROTECTION (2 OF 2)	A4.12	INTERIOR ELEVATIONS		
LT2.00	TREE PROTECTION DETAILS AND TREE SUMMARY	A4.13	TYPICAL INTERIOR DETAILS		
LT3.00	TREE PROTECTION SPECIFICATIONS	A5.01	EXTERIOR ELEVATIONS - AREAS A & B		
LP1.00	OVERALL LANDSCAPE PLAN	A5.02	EXTERIOR ELEVATIONS - AREA C		
LP1.01	LANDSCAPE PLAN (1 OF 2)	A6.03	WALL SECTIONS - AREA A		
LP1.02	LANDSCAPE PLAN (2 OF 2)	A6.04	WALL SECTIONS - AREA B		
LP2.00	LANDSCAPE SPECIFICATIONS (1 OF 2)	A6.06	STAIR & ELEVATOR SECTIONS		
LP2.01	LANDSCAPE SPECIFICATIONS (2 OF 2)	A6.07	RAMP SECTIONS		
LP3.00	OVERALL IRRIGATION PLAN	A6.10	WALL SECTION DETAILS		
LP3.01	IRRIGATION PLAN (1 OF 2)	A6.12	WALL SECTIONS - STAIR DETAILS		
LP3.02	IRRIGATION PLAN (2 OF 2)	A6.14	MOCK UP WALL		
LP3.03	IRRIGATION NOTES AND DETAILS	A7.1A	ROOF PLAN - AREA A		
		A7.1B	ROOF - CANOPY PLANS + DETAILS - AREA B		
		A7.1C	ROOF PLAN - AREA C		
		A7.10	TYPICAL ROOFING DETAILS BUILT-UP ROOFING		
		A7.11	TYPICAL ROOFING DETAILS BUILT-UP ROOFING		
		A7.12	TYPICAL COMMON ROOFING DETAILS		
		A7.13	ROOF WALL DETAIL DETAILS		
		A7.202	OVERALL ROOF PLAN - M&O		
		A9.01	RAILING TYPES AND DETAILS		
		A9.02	TYPICAL GLASS & MISCELLANEOUS DETAILS		
		A9.11	BUILDING SIGNAGE ELEVATIONS/DETAILS		
		A9.12	TYPICAL ROOM SIGNS		
		MOA.100	M&O MASTER PLAN		
		MOA.110B	FLOOR PLAN - REFLECTED CEILING PLAN - M&O 1F		
		MOA.201	REFLECTED CEILING PLAN - M&O 10A & 10B		
		MOA.202	REFLECTED CEILING PLAN - M&O 13 & 14A-4B		
		MOA.203	ROOF PLANS - M&O		
		MOA.21	ROOF DETAIL - M&O		
		MOA.22	ROOF DETAILS - M&O		
		MOA.23	ROOF DETAILS - M&O		
		FOOD.23	FOOD DETAILS - M&O		
		FS1	FS GENERAL COORDINATION NOTES		
		FS1.0	FS GENERAL EQUIP. PLAN		
		FS1.01	FS OVERALL EQUIP. PLAN		
		FS1.1	FS EQUIPMENT PLAN NORTH		
		FS1.1.1	FS EQUIPMENT PLAN SOUTH		
		FS1.1.2	FS FACILITY PLAN		
		FS1.3	FS EQUIPMENT MODEL		
		FS1.4	FS SPECIAL CONDITIONS & MECHANICAL PLAN SOUTH		
		FS1.4.1	FS SPECIAL CONDITIONS & MECHANICAL PLAN SOUTH		
		FS1.5	FS PLUMBING PLAN SOUTH		