ADDENDUM NO. 2

Texas A&M University – Corpus Christi
Chaparral Building Renovations

TAMU-CC Project #157191FY21
TAMU-CC Proposal #CSP3-003

PROJECT # 2021-11
223 N. Chaparral St.
Corpus Christi, TX 78401

Issue Date: 09/07/2023
The following additions, deletions, modifications, or clarifications shall be made to the appropriate sections of the plans and specifications and shall become a part of the Contract Documents. Bidders shall acknowledge receipt of this Addendum in the space provided on the Bid form.

MAKE THE FOLLOWING ADDITIONS, MODIFICATIONS OR DELETIONS TO THE DRAWINGS AND SPECIFICATIONS

ADDITIONAL DOCUMENTATION

ITEM No.01 - Pre-Proposal Meeting Minutes & Attendee Sign-In
DOCUMENTATION: Refer to attached.

ITEM No.02 - Requests for additional site visits must be coordinated through:
Roger Padon, Project Manager, TAMU-CC
Roger.Padon@tamucc.edu

CLARIFICATIONS

ITEM No.01 - The entire new roof has been removed from this scope of work and will be addressed under future separate contract.

ITEM No.02 - Emergency generator has been removed from this scope of work and will be addressed under future separate contract.

ITEM No.03 - Refer to Detail S201 for typical slab-on-grade infill detail.

ITEM No.04 - Refer to Detail S202 and S203 for typical elevated slab infill details.

ITEM No.05 - Window Coverings are indicated in keynotes found on Sheets A1.401 and A1.404. Additionally, these locations have been added to the first and fourth floor plans.

ITEM No.06 - Refer to MEP schedule for base rail in lieu of housekeeping pad.

ITEM No.07 - CL04 (Baffle Ceilings) are shown in four (4) locations on the first floor. All locations are to be included in Alternate 2. (Reference Sheet A1.201 LEVEL 1 RCP.)

ITEM No.08 - CL04 (Baffle Ceilings) are shown in three (3) locations on the fourth floor. All locations are to be included in Alternate 3. (Reference Sheet A1.204 LEVEL 4 RCP.)

MODIFICATIONS TO THE CONTRACT SPECIFICATIONS

COMPETITIVE SEALED PROPOSAL (CSP) FORMS

ITEM No.01 - Form C-3C CSP SUPPLEMENTAL INSTRUCTIONS FOR COMPETITIVE SEALED PROPOSALS
Bid Date Extension: Competitive Sealed Proposals (CSP) will be received until 2:00p.m, Tuesday, September 19, 2023.
DOCUMENTATION: REPLACE Form C-3C entirely with attached.

ITEM No.02 - Form C-4 CSP, Part 1 Technical Sealed Proposal, Competitive Sealed Proposal
DOCUMENTATION: Replace Form C-4 CSP entirely with attached.
DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS

ITEM No.01 - 00 01 10 TABLE OF CONTENTS
REPLACE 09 51 26 WOOD CEILINGS (CL03) – Wood Ceilings are Not Used. Refer to Sheet A9.100 for CL03 Suspended Acoustic Panel Ceiling.
REPLACE 09 77 56 INTERIOR SURFACING ARCHITECTURAL FILM – Not Used.

DIVISION 01 – GENERAL REQUIREMENTS

ITEM No.01 - 01 11 00 SUMMARY OF WORK (TAMU-CC)
REPLACE Paragraph 1.02 WORK COVERED BY CONTRACT DOCUMENTS, Section A. with the following:

The Work of this Contract comprises the general construction of Texas A&M University - Corpus Christi’s downtown building, a five-story high 70+ year old facility approximately 79,000 square feet. The project scope consists of general and MEP demolition, installation of two new elevators, renovations to the ground level and fourth floor, leaving remaining floors as shell space, replacement of mechanical, electrical, and plumbing systems to accommodate the new proposed functions located at 223 N. Chaparral St., Corpus Christi, Texas 78401 (a Texas A&M University - Corpus Christi owned facility) for the Board of Regents of The Texas A&M University System.

ITEM No.02 - 01 23 00 ALTERNATES
REPLACE Section 01 23 00 with the attached.

ITEM No.03 - 01 41 19 WINDSTORM CONSTRUCTION REQUIREMENTS
REPLACE 01 41 19.1 TAMU-CC Re-Roof WPI-1 from specifications entirely.

DIVISION 02 – EXISTING CONDITIONS

ITEM No.01 - 02 41 19 SELECTIVE DEMOLITION
REPLACE Paragraph E, page 02 41 19 – 5/5 in its entirety.

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

ITEM No.01 - REMOVE Section 07 01 50.19 PREPARATION FOR REROOFING in its entirety.

ITEM No.02 - REMOVE Section 07 52 16 STYRENE-BUTADIENE-STYRENE (SBS) MODIFIED BITUMINOUS MEMBRANE ROOFING entirely.

ITEM No.03 - REMOVE Section 07 72 00 ROOF ACCESSORIES entirely.

DIVISION 09 – FINISHES

ITEM No.02 - 09 51 13 ACOUSTICAL PANEL CEILINGS (TYPE CL02)
REPLACE Paragraph 2.2 ACOUSTICAL PANELS – Type CL02, Section A, D, H with the following:

2.2 ACOUSTICAL PANEL CEILINGS (TYPE CL02 & CL03)
A. Basis of Design Product: Subject to compliance with requirements, provide Armstrong, Cirrus, Product #556 or comparable product by one of the following.

D. Color: White Tile and Grid (CL02), Black Tile and Grid (CL03)

H. Edge / Joint Detail: Angled Tegular

DIVISION 23 – HEATING VENTILATING AND AIR CONDITIONING (HVAC)

ITEM No.01 - ADD Specification Section 23 55 40 HYDRONIC PUMPS attached to Project Manual.

ITEM No.02 - ADD Specification Section 23 55 46 HYDRONIC WATER TREATMENT SYSTEMS attached to Project Manual.

DIVISION 26 – ELECTRICAL

ITEM No.01 - REMOVE Section 26 32 00 NATURAL GAS ENGINE GENERATOR in its entirety.

ITEM No.02 - REMOVE Section 26 33 00 AUTOMATIC TRANSFER SWITCH in its entirety.

MODIFICATIONS TO THE CONTRACT DRAWINGS

00 FRONT END

ITEM No.01 - REPLACE Sheet A0.0 COVER [Dated 08/04/2023] with revised & attached Sheet A0.0 COVER [Dated 09/07/2023].

ITEM No.02 - REPLACE Sheet A0.1 INDEX OF DRAWINGS [Dated 08/04/2023] with revised & attached Sheet A0.1 INDEX OF DRAWINGS [Dated 09/07/2023].

ITEM No.01 - Sheet A0.7
REMOVE “GENERAL NOTES – ROOFING” from sheet entirely.

01 ARCHITECTURAL DEMOLITION

ITEM No.01 - REMOVE Sheet AD1.6 DEMOLITION ROOF PLAN entirely from contract documents.

02 CIVIL

N/A

03 STRUCTURAL

ITEM No.03 - REPLACE Sheet S2 GENERAL NOTES [Dated 06/02/2023] with revised & attached Sheet S2 GENERAL NOTES [Dated 09/06/23].

ITEM No.04 - REPLACE Sheet S3 PLATFORM DETAILS [Dated 06/02/2023] with revised & attached Sheet S3 PLATFORM DETAILS [Dated 09/06/23].

ITEM No.05 - ADD Sheet S4 PLATFORM FRAMING PLAN attached.
04 ARCHITECTURAL

ITEM No.01 - REMOVE Sheet A1.106 ROOF PLAN – LEVEL 06 entirely from contract documents.

ITEM No.02 - REMOVE Sheet A1.107 ROOF DETAILS entirely from contract documents.

ITEM No.06 - REPLACE Sheet A1.01 FLOOR PLAN – LEVEL 01 [Dated 08/04/2023] with revised & attached Sheet A1.01 FLOOR PLAN – LEVEL 01 [Dated 09/07/2023].


ITEM No.08 - REPLACE Sheet A2.101 BUILDING ELEVATIONS [Dated 08/04/2023] with revised & attached Sheet A2.101 BUILDING ELEVATIONS [Dated 09/07/2023].

ITEM No.09 - REPLACE Sheet A2.102 BUILDING ELEVATIONS [Dated 08/04/2023] with revised & attached Sheet A2.102 BUILDING ELEVATIONS [Dated 09/07/2023].


ITEM No.11 - REPLACE Sheet A7.100 EXTERIOR & INTERIOR ALUMINIUM GLAZING SYSTEMS [Dated 08/04/2023] with revised & attached Sheet A7.100 EXTERIOR & INTERIOR ALUMINIUM GLAZING SYSTEMS [Dated 09/07/2023].

05 MECHANICAL

ITEM No.01 - REPLACE Sheet M1.400 MECHANICAL FLOOR PLAN – LEVEL 4 [Dated 08/04/2023] with revised & attached Sheet M1.400 MECHANICAL FLOOR PLAN – LEVEL 4 [Dated 09-07-23].

ITEM No.02 - REPLACE Sheet M1.600 MECHANICAL FLOOR PLAN – ROOF DECK [Dated 08/04/2023] with revised & attached Sheet M1.600 MECHANICAL FLOOR PLAN – ROOF DECK [Dated 09-07-23].

ITEM No.03 - REPLACE Sheet M3.100 MECHANICAL SCHEDULES [Dated 08/04/2023] with revised & attached Sheet M3.100 MECHANICAL SCHEDULES [Dated 09-07-23].

ITEM No.04 - REPLACE Sheet M3.101 MECHANICAL SCHEDULES [Dated 08/04/2023] with revised & attached Sheet M3.101 MECHANICAL SCHEDULES [Dated 09-07-23].

ITEM No.05 - REPLACE Sheet M3.102 MECHANICAL SCHEDULES [Dated 08/04/2023] with revised & attached Sheet M3.102 MECHANICAL SCHEDULES [Dated 09-07-23].

ITEM No.06 - REPLACE Sheet M4.100 MECHANICAL DETAILS [Dated 08/04/2023] with revised & attached Sheet M4.100 MECHANICAL DETAILS [Dated 09-07-23].
06 ELECTRICAL

ITEM No.01 - REPLACE Sheet E1.100 ELECTRICAL LIGHTING PLAN – LEVEL 1 [Dated 08/04/2023] with revised & attached Sheet E1.100 ELECTRICAL LIGHTING PLAN- LEVEL 1 [Dated 09-07-23].

ITEM No.02 - REPLACE Sheet E1.400 ELECTRICAL LIGHTING PLAN – LEVEL 4 [Dated 08/04/2023] with revised & attached Sheet E3.100 E1.400 ELECTRICAL LIGHTING PLAN – LEVEL 4 [Dated 09-07-23].

ITEM No.03 - REPLACE Sheet E2.100 ELECTRICAL POWER PLAN – LEVEL 1 [Dated 08/04/2023] with revised & attached Sheet E2.100 ELECTRICAL POWER PLAN- LEVEL 1 [Dated 09-07-23].

ITEM No.04 - REPLACE Sheet E2.600 ELECTRICAL POWER PLAN – ROOF DECK [Dated 08/04/2023] with revised & attached Sheet E2.600 ELECTRICAL POWER PLAN – ROOF DECK [Dated 09-07-23].

ITEM No.05 - REPLACE Sheet E3.100 SPEICAL SYSTEMS PLAN – LEVEL 1 [Dated 08/04/2023] with revised & attached Sheet E3.100 SPECIAL SYSTEMS PLAN- LEVEL 1 [Dated 09-07-23].

ITEM No.06 - REPLACE Sheet E4.100 ONE-LINE DIAGRAM [Dated 08/04/2023] with revised & attached Sheet E4.100 ONE-LINE DIAGRAM [Dated 09-07-23].

ITEM No.07 - REPLACE Sheet E5.100 PANELS AND SCHEDULES [Dated 08/04/2023] with revised & attached Sheet E5.100 PANELS AND SCHEDULES [Dated 09-07-23].

07 PLUMBING

ITEM No.01 - REPLACE Sheet P1.100 PLUMBING DWV FLOOR PLAN – LEVEL 1 [Dated 08/04/2023] with revised & attached Sheet P1.100 PLUMBING DWV FLOOR PLAN – LEVEL 1 [Dated 09-07-23].

ITEM No.02 - REPLACE Sheet P1.200 PLUMBING DWV FLOOR PLAN – LEVEL 2 [Dated 08/04/2023] with revised & attached Sheet P1.200 PLUMBING DWV FLOOR PLAN – LEVEL 2 [Dated 09-07-23].

ITEM No.03 - REPLACE Sheet P1.300 PLUMBING DWV FLOOR PLAN – LEVEL 3 [Dated 08/04/2023] with revised & attached Sheet P1.300 PLUMBING DWV FLOOR PLAN – LEVEL 3 [Dated 09-07-23].

ITEM No.04 - REPLACE Sheet P1.400 PLUMBING DWV FLOOR PLAN – LEVEL 4 [Dated 08/04/2023] with revised & attached Sheet P1.400 PLUMBING DWV FLOOR PLAN – LEVEL 4 [Dated 09-07-23].

ITEM No.05 - REPLACE Sheet P1.500 PLUMBING DWV FLOOR PLAN – LEVEL 5 [Dated 08/04/2023] with revised & attached Sheet P1.500 PLUMBING DWV FLOOR PLAN – LEVEL 5 [Dated 09-07-23].
ITEM No.06 - REPLACE Sheet P1.600 PLUMBING DWV FLOOR PLAN – ROOF DECK [Dated 08/04/2023] with revised & attached Sheet P1.600 PLUMBING DWV FLOOR PLAN – ROOF DECK [Dated 09-07-23].

ITEM No.07 - REPLACE Sheet P2.100 PLUMBING WATER AND GAS FLOOR PLAN – LEVEL 1 [Dated 08/04/2023] with revised & attached Sheet P2.100 PLUMBING WATER AND GAS FLOOR PLAN – LEVEL 1 [Dated 09-07-23].

ITEM No.08 - REPLACE Sheet P2.200 PLUMBING WATER AND GAS FLOOR PLAN – LEVEL 2 [Dated 08/04/2023] with revised & attached Sheet P2.200 PLUMBING WATER AND GAS FLOOR PLAN – LEVEL 2 [Dated 09-07-23].

ITEM No.09 - REPLACE Sheet P2.300 PLUMBING WATER AND GAS FLOOR PLAN – LEVEL 3 [Dated 08/04/2023] with revised & attached Sheet P2.300 PLUMBING WATER AND GAS FLOOR PLAN – LEVEL 3 [Dated 09-07-23].

ITEM No.10 - REPLACE Sheet P2.400 PLUMBING WATER AND GAS FLOOR PLAN – LEVEL 4 [Dated 08/04/2023] with revised & attached Sheet P2.400 PLUMBING WATER AND GAS FLOOR PLAN – LEVEL 4 [Dated 09-07-23].

ITEM No.11 - REPLACE Sheet P2.500 PLUMBING WATER AND GAS FLOOR PLAN – LEVEL 5 [Dated 08/04/2023] with revised & attached Sheet P2.500 PLUMBING WATER AND GAS FLOOR PLAN – LEVEL 5 [Dated 09-07-23].

ITEM No.12 - REPLACE Sheet P2.600 PLUMBING WATER AND GAS FLOOR PLAN – ROOF DECK [Dated 08/04/2023] with revised & attached Sheet P2.600 PLUMBING WATER AND GAS FLOOR PLAN – ROOF DECK [Dated 09-07-23].

ITEM No.13 - REPLACE Sheet P5.100 DWV RISER DIAGRAM [Dated 08/04/2023] with revised & attached Sheet P5.100 DWV RISER DIAGRAM [Dated 09-07-23].

ITEM No.14 - REPLACE Sheet P5.200 WATER AND GAS RISER DIAGRAM [Dated 08/04/2023] with revised & attached Sheet P5.200 WATER AND GAS RISER DIAGRAM [Dated 09-07-23].

REQUEST FOR INFORMATION (BID QUESTIONS)

ITEM No.01 - Note 4 on Sheet M1.600 states "Install condensing unit on platform curb. Secure unit to the curb on all four sides." Please provide a detail for securing condensing units to the structural platform shown on Structural Sheet S3. As the structural mechanical platform is listed as Alternate No.1 please provide a detail for mounting the condensing units if this alternate is not elected.

RESPONSE: Per Plan Note on updated steel platform plan provided: Weld galvanized L4x4x3/8 to existing beams/ new angles at unit bearing locations. Coordinate bearing locations with unit Manufacturer's shop drawings. Unless noted otherwise on unit anchorage details, connect unit/ curb to angle/ beam below with minimum of 3/4" diameter thru-bolts at each end of unit and at 48-inch centers max.

ITEM No.02 - Section 23 29 00, Page 4, Paragraph 3.03-H details the requirements for internal duct liner. The specification requires Supply and Return air to be lined up to a point 15 ft from the connection to an "HVAC Unit." Is the term "HVAC Unit" to include air terminal units? If so, is round duct serving individual air devices to be lined if it falls within 15 ft of an air terminal unit?
RESPONSE: If the duct after the terminal unit is exposed to view it shall be internally. If the duct after the terminal unit is concealed above a non-visible ceiling (lay-in tile or gypsum) it shall be externally insulated.

ITEM No.03 - Hydronic Piping Section 23 55 10 does not give a specification for hot water piping. Please confirm specification for chilled water piping shall be applicable for hot water hydronic piping.
RESPONSE: Specification 23 55 10 applies to both hot and chill water piping.

ITEM No.04 - Will Copper, Type L be acceptable for hydronic piping applications where pipe is 2-inches or smaller?
RESPONSE: Type L Copper will be acceptable in lieu of type K. See amended specifications.

ITEM No.05 - EMCS Specification Section 23 95 00, Page 10, Paragraph 2.1 states each EMCS vendor shall be submitted as an alternate. The Alternates specification and proposal form do not show a EMCS alternate. Please clarify.
RESPONSE: The contractor shall provide a separate line item price for each manufacturer listed so the owner can determine best value. Refer to updated CSP Proposal Form and Alternates Specification Section 01 23 00.

ITEM No.06 - The Air Handling Unit Schedule on Sheet M3.100 lists Daikin as the Basis of Design with Note 15 listing Thermal, Temptrol and Trane as equivalent approved manufacturers. Applied Air Handling Unit Specification Section 23 58 55 lists Trane as Basis of Design with Temptrol, Daikin and JCI as equivalent approved manufacturers. Please clarify which manufacturers will be acceptable for Air Handling Units.
RESPONSE: Acceptable manufacturers are Daikin, Trane, Thermal, and Temptrol.

ITEM No.07 - Note 10 of the DX Split Air Handling Schedule on Sheet M3.102 lists Trane and Daikin as equivalent approved manufacturers. DX Fan Coil Unit Specification Section 23 58 54 lists fan coil unit equivalent approved manufacturers as Trane, Carrier, York or McQuay. Please clarify which manufacturers will be acceptable for DX Fan Coil Units.
RESPONSE: For the DX AHU Schedule and related condensing unit schedule, the equivalent acceptable manufacturers are Vertin, Stulz, and Liebert.

ITEM No.08 - Please provide a specification for hydronic pumps BHWP 1 & 2.
RESPONSE: See Addendum Specification Section 23 55 40 attached.

ITEM No.09 - VAV-110 appears to be scheduled twice on Sheet M3.101.
RESPONSE: See the updated schedule on revised Sheet M3.101 of this addendum.

ITEM No.10 - It appears that there might be some mislabeled equipment between the mechanical schedules and the plan sheets. Please clarify equipment marking and mechanical schedules.
   a. The following equipment is shown on mechanical plans but listed on mechanical schedules:
      i. CU-8 (Sheet M1.600)
      ii. CU-11 (Sheet M1.600)
      iii. CU-15 (Sheet M1.600)
      iv. CU-4B (Sheet M1.600)
      v. AHU-8 (Sheet M1.200)
      vi. AHU-11 (Sheet M1.400)
   b. The following equipment is listed on the mechanical schedules Sheet M3.102 but not shown on plans:
i. CU-1
ii. CU-2
iii. CU-4
iv. DX-AHU-1
v. DX-AHU-4

RESPONSE: See the updated schedule on revised sheets of this addendum.

ITEM No.11 - Please confirm the owner will provide builders risk on the existing structure throughout construction. If we are to carry we will need to know the replacement value.
RESPONSE: The owner will not provide builders risk on the existing structure through construction. The replacement value is $2,600,000.

ITEM No.12 - Can you clarify raco frame or storefronts for the interior glazing systems? Details and specifications are conflicting.
RESPONSE: Raco interior aluminum framing system.

ITEM No.13 - 097756 is listed in the specs index, but there is no spec. Can you clarify?
RESPONSE: Not used. Remove from Project Manual.

ITEM No.14 - Note 22 general roofing note on A0.7 states to conduct flood and leak tests. Can you clarify if this needs to be a third-party test?
RESPONSE: Delete GENERAL NOTES – ROOFING from A0.7. The entire new roof has been removed from this phase and will be addressed under separate contract.

ITEM No.15 - There are notes to paint all exposed concrete. Can you clarify on levels 2, 3, and 5 where there is no finish out work that we do not need to paint any exposed concrete?
RESPONSE: All existing concrete is to be left exposed and unpainted on all floors.

ITEM No.16 - Can you clarify general note 8 of interior elevations on A0.7?
RESPONSE: Exposed ceilings are to be left unpainted on all levels. Existing exposed concrete floors on Level 1 & 4 are to receive sealer.

ITEM No.17 - Note 20 on A1.00 does not match civil plans on chaparral street. Please clarify.
RESPONSE: Delete Note 20 on Sheet A1.00.

ITEM No.18 - C.201 States sanitary to be replaced by pipe bursting and to see MEP. There is nothing shown on the MEP drawings for pipe bursting. Please clarify.
RESPONSE: Pipe bursting shown on Note 3: Sheet DP1.100.

ITEM No.19 - C.201 states to adjust water and gas line as needed for new sanitary. Please provide elevations of existing utilities. If these lines do need to be adjusted, please clarify to what extent.
RESPONSE: Existing water and gas elevations are unknown, and locations are approximate based on available records. Contractor shall field verify prior to start of construction and coordinate with engineer.

ITEM No.20 - Can you clarify if detail 3 on A1.107 will require new wood blocking or if that is existing to remain?
RESPONSE: This sheet has been removed from the contract documents entirely per this addendum.

ITEM No.21 - Can you provide a detail for patching any holes with reinforced concrete? See note 11 on A1.201.
RESPONSE: Refer to Detail S201 for typical slab-on-grade infill detail. Refer to Details S202 and S203 for typical elevated slab infill details.
ITEM No.22 - Can you clarify what the yellow circles are at restroom vestibule A415 on A1.204?
RESPONSE: Disregard yellow circles on Sheet A1.204.

ITEM No.23 - A4.000 wall sections have details referring to A4.101. There is no drawing A4.101. Please clarify.
RESPONSE: Sheet A4.101 is included in this addendum.

ITEM No.24 - I believe note 13 on A1.202, A1.203, and A1.205 is a typo. Can you clarify?

ITEM No.25 - Can you clarify with the structural engineer that we do not need a detail for the 2 exterior louvers we are cutting into the exterior tilt wall?
RESPONSE: Louver openings through typical 6-inch-thick perimeter wall do not require additional reinforcement. Louvers MUST NOT be cut through thickened pilaster section of wall.

ITEM No.26 - Wall finish legend on A6.101 has TL04 at reception wall, but I cannot find it on the elevations or finish plan. Can you clarify there is no TL03 or TL04?
RESPONSE: Correct. TL03 and TL04 are not used.

ITEM No.27 - Floor plan at A413 does not show a quartz countertop. Room finish schedule A9.100 schedules a quartz top. Please clarify.
RESPONSE: Yes, women’s’ restrooms shall have a quartz countertop as indicated on elevation 4/A5.104.

ITEM No.28 - Can you clarify elevation 15 of the interior glazing systems on A7.100 is to be a mirror door and window per note 3 on A1.404? Can you provide a specification for this? Can you also clarify that door #431 to OPS will be the same type of door? Note 3 on A1.404 only points to conference room door #428.

ITEM No.29 - Can you provide a structural detail for the new reinforced concrete infill at the penthouse sheet A5.300?
RESPONSE: Refer to Details S202 and S203 for typical elevated slab infill details.

ITEM No.30 - Structural plans, roof plan A1.106, and M1.600 for the mechanical platform are all conflicting. The mechanical platform on M1.600 looks to be a new structure and states to reference structural drawings. The structural drawings do not show this platform. Please clarify.
RESPONSE: Refer to updated plan showing extents of steel platform.

ITEM No.31 - Can you provide structural details for the reinforcement and attachment of the generator at the roof?
RESPONSE: The (future) generator will not bear on the roof. The (future) generator must be supported by elevated steel platform, not the roof.

ITEM No.32 - Architectural and electrical demolition and new lighting scope is conflicting. Architectural shows some ceilings to remain on floors 2, 3, and 5. However the demo plans also state to remove all lighting, conduit, etc. Electrical plans also show new lighting and conduit. How do we accomplish the full electrical scope without demolition of all ceilings on all floors?
ITEM No.33 - Can the temporary AC’s remain throughout construction? If not there will be additional costs for us to provide temp AC’s to control temperature and humidity.

RESPONSE: Yes, temporary AC’s can remain throughout the construction.

ITEM No.34 - Can you please clarify specification section 014500? Is this only if retesting is required?

RESPONSE: Testing (and retesting as required) is the responsibility of the general contractor.

ITEM No.35 - Can you clarify if that exterior frame for the louver detail on A4.000 is to be aluminum or galvanized?

RESPONSE: The frame shall be 6” (152) deep, 6063T6 extruded aluminum with .095” (2.4) nominal wall thickness.

ITEM No.36 - Is a chemical feeder required for the hot water system? There is not one shown or noted on the plans and hydronic specifications don't specify a shot feeder or chemicals.

RESPONSE: Yes. Refer to Specification Section 23 55 46.

ITEM No.37 - Please provide details for hydronic pump, boiler and make up water connections.

RESPONSE: See the updated details included in this addendum.

ITEM No.38 - Please provide a specification for boilers.

RESPONSE: See the updated specifications included in this addendum.

ITEM No.39 - There is not a specification for indoor exposed rectangular duct. Please confirm indoor exposed rectangular duct may be single wall, internally lined duct with an R-Value of 6.

RESPONSE: Ductwork shall be a double wall with a thermal R-value of 6.

ITEM No.40 - Plumbing Sheet P1.100 shows below grade and below slab 6” SS (Sanitary Sewer) beneath existing slab. Who is responsible for saw cutting and patching of the existing slab for this system?

RESPONSE: Reference structural drawings and coordinate with GC.

END OF ADDENDUM #1
1. INTRODUCTIONS – Will Hobart

2. BID DUE & OPENING – Will Hobart
   a. Bids are due Friday, September 8, 2023 @ 2:00 PM and shall be delivered to: Texas A&M University – Corpus Christi Procurement Office
      6300 Ocean Dr. Unit 5731 Corpus Christi, TX 78421-5731
   b. Proposals will be publicly opened and read aloud in Room 110 at that time.
   c. Note: Discussion took place on extending bid date. Any change to bid schedule will be issued by addenda.

3. BID FORM – Will Hobart
   a. Project Offer
   b. Addenda
   c. Contract Time

4. HUB SUBCONTRACTING PLAN – Ruben Gonzalez

5. QUESTIONS DURING BIDDING – Will Hobart
   a. Direct questions in writing to Will Hobart via email to will.hobart@tamucc.edu.
      Deadline for submission of questions is August 25th, by 5:00 pm.
      All inquiries will result in written responses, via Addendum to this CSP, on August 30th, with copies to the TAMU-CC purchasing website.

6. PROJECT DESCRIPTION / SCOPE OF WORK – Jodi Smith Goings, TRA
   a. Project Identification: TAMU-CC Project #157191FY21 / Proposal #CSP3-0003
      i. Project Location: 223 North Chaparral St., Texas, 78401
   b. Owner: Texas A&M University-Corpus Christi, 6300 Ocean Drive, Corpus Christi, TX 78412
      i. Owner's Representative: Roger Padon, Project Manager Admin. Operations
   c. Architect: Turner | Ramiez Architects, 3751 S. Alameda St., Corpus Christi, TX 78411
      i. Architect's Representative: Jodi Smith Goings, Project Manager
   d. The Work of Project is defined by the Contract Documents and includes, but is not limited to, the following:
i. Renovations and general construction of the TAMU-CC Chaparral St. Downtown building, a five-story, high, 70+ year old facility approximately 79,000 square feet. The project consists of build out of the first and fourth floor, shell space, new roof and includes four (4) alternates.

e. Type of Contract:
   i. Project will be constructed under a single prime contract.

7. CODE INFORMATION – Jodi Smith Goings
   a. 5 Story Building
   b. Type II-A Construction
   c. Sprinkled Building

8. ALTERNATE-COST SAVINGS & ALLOWANCES – Jodi Smith Goings
   a. General Contractors and Sub-Contractors are encouraged to provide a list of alternates and/or cost savings.
   b. Schedule of Alternates:
      i. Roof top mechanical platform. (Additive Alternate)
      ii. First floor baffle ceiling system where identified. (Additive Alternate)
      iii. Fourth floor baffle ceiling system where identified. (Additive Alternate)

9. ADDENDUM – Will Hobart / Jodi Smith Goings

10. PERMITS, LICENSES, CERTIFICATES, AND FEES – Jodi Smith Goings
    a. General Contractor Bonds
    b. Builder's Risk Insurance
    c. Liability and Worker's Compensation Insurance
    d. Licenses
    e. This is state owned property, meaning a building permit is not required. Other permits may still be required for connecting to public utilities (water, sewer, gas) and working in the ROW.

11. QUESTIONS – Will Hobart / Jodi Smith Goings

12. SITE TOUR
    a. A site visit took place immediately following the Pre-Proposal Conference at 223 N. Chaparral St., Corpus Christi, TX 78401

ATTACHMENTS: Pre-Proposal Conference Sign-In Sheet
# SIGN-IN SHEET

## TAMU-CC Chaparral Building Renovations

**Pre-Proposal Conference**  
**August 23, 2023**  
**TAMU-CC Purchasing Building**  
6300 Ocean Drive, Unit 5731, Corpus Christi, Texas 78412  
10:00 AM

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THE TEXAS A&M UNIVERSITY SYSTEM
SUPPLEMENTAL INSTRUCTIONS FOR COMPETITIVE SEALED PROPOSALS

These "Supplemental Instructions for Competitive Sealed Proposals," amend and supplement the "Instructions for Competitive Sealed Proposals" and shall govern in the event of any conflict with the "Instructions for Competitive Sealed Proposals."

1.0 PROPOSAL DOCUMENTS:

1.1. Drawings and Specifications have been prepared by the architectural/engineering (A/E) firm of Turner | Ramirez. Documents include Drawings and Specifications dated 08/04/2023.

1.2. Information inquiries regarding the Competitive Sealed Proposals (CSP) method of procurement should be directed to Will Hobart, Director of Procurement & Disbursements, Texas A&M University-Corpus Christi, 361-825-2616.

1.3. Inquiries regarding the technical aspects of the Drawings, Specifications and other CSP documents should be directed to Will Hobart, Director of Procurement & Disbursements, Texas A&M University-Corpus Christi, 361-825-2616.

2.0 PROPOSAL DEADLINE AND REQUIRED SUBMITTALS:

2.1. Proposals will be received by the Director of Procurement & Disbursements, Texas A&M University-Corpus Christi, 6300 Ocean Dr, Unit 5731, Corpus Christi, TX 78412-5731, in parts, at times and dates as follows:

2.2. PART 1 – BASE BID PRICING ONLY COMPETITIVE SEALED PROPOSAL, will be received by the Director of Procurement & Disbursements at the aforementioned location until 2:00 pm CST, Tuesday, September 19, 2023, then publicly opened and read aloud after review of Part 3.

2.2.1. Part 1 Proposals must include the following:

2.2.1.1. One (1) executed original Competitive Sealed Proposal, PART 1 (A&M SYSTEM Form C-4 CSP), sealed and labeled in separate envelope.

2.2.1.2. Certified or Cashier's Check or One (1) executed original Bid/Proposal Bond (A&M SYSTEM Form C-2), sealed in the small envelope affixed to the outside of the envelope.

2.2.2. FAILURE TO SUBMIT A COMPLETE PROPOSAL WILL BE VIEWED BY THE OWNER AS A NON-RESPONSIVE PROPOSAL WHICH WILL BE SUBJECT TO REJECTION.

2.3. Six (6) copies of PART 2, TECHNICAL PROPOSAL, PROPOSER'S QUALIFICATIONS, will be received until 2:00 pm CST, Tuesday, September 19, 2023, by the Director of Procurement & Disbursements at the aforementioned location. Include a copy of information on an electronic formatted media device.
2.4. One (1) copy of **PART 3, TECHNICAL PROPOSAL, HISTORICALLY UNDERUTILIZED BUSINESS SUBCONTRACTING PLAN**, will be received **2:00 pm CST, Tuesday, September 19, 2023**, by the Director of Procurement & Disbursements at the aforementioned location. The HUB Subcontracting Plan shall be clearly labeled “HUB Subcontracting Plan, Chaparral Building Renovations, Project No. CSP3-003”. Sections shall be appropriately tabbed for easy reference.

2.4.1. **FAILURE TO SUBMIT A COMPLETE AND ACCEPTABLE HUB SUBCONTRACTING PLAN WILL BE VIEWED BY THE OWNER AS A NON-RESPONSIVE PROPOSAL WHICH WILL BE REJECTED.**

2.4.1.1. **NOTE TO GENERAL CONTRACTOR:**
THE HUB SUBCONTRACTING PLAN (HSP), SUBMITTED AS PART 3 OF THE CSP PROCESS, WILL BECOME A PART OF ANY CONSTRUCTION CONTRACT RESULTING FROM THIS SOLICITATION.

2.5. Proposals submitted by U.S. Mail shall be addressed to:

Will Hobart, Director of Procurement & Disbursements,
Texas A&M University-Corpus Christi
6300 Ocean Drive, Unit 5731
Corpus Christi, TX 78412-5731

****NOTE*** Proposals sent via U.S. Mail must allow sufficient time for internal delivery to the physical office described below.

Proposals submitted by commercial courier or hand delivery shall be addressed to

Will Hobart, Director of Procurement & Disbursements,
Texas A&M University-Corpus Christi
6300 Ocean Drive, Unit 5731
Corpus Christi, TX 78412-5731

Delivery of all proposal parts to the physical location above prior to the submittal deadlines set forth above is the responsibility of the proposer.

2.6. Proposals will be publicly opened, and the names of the respondents and the monetary proposals publicly read aloud at **2:00 pm CST, Tuesday, September 19, 2023**, in the Texas A&M University- Corpus Christi Procurement office at 6300 Ocean Drive, Unit 5731 (Purchasing Bldg), Room 110, Corpus Christi, TX 78412-5731

3.0 **PRE-PROPOSAL MEETING:**

3.1. **August 23rd, in the Purchasing Bldg, 6300 Ocean Drive, Unit 5731, Corpus Christi, TX 78412, at 10:00 am. (Site walkthrough will follow meeting)**
3.2. An Additional site walk through has been scheduled for Tuesday, August 28, 2023. The building will be open from 2:00 – 4:00 pm.

4.0 EVALUATION AND CONTRACT AWARD PROCESS: 58’

4.1. The A&M System reserves the right not to award the Base Bid or any or all of the Alternates.

5.0 BUILDING SITE LOCATION:

5.1. The building site is located at the following address;

223 NORTH CHAPARRAL STREET
CORPUS CHRISTI, TEXAS 78401
PART 1

TECHNICAL PROPOSAL

COMPETITIVE SEALED PROPOSAL

(Firm Name)

(Address)

(City/State/Zip Code)

(Phone)                      (Fax)

For

Chaparral Building Renovations

Texas A&M University-Corpus Christi

Corpus Christi, Texas

TAMU-CC Project No. 157191FY21
The Texas A&M University System
Form C-4 CSP
112019 Corpus Christi, Texas

Project No. 157191FY21
Proposal Of:

______________________________
(Legal Firm Name)

COMPETITIVE SEALED PROPOSAL

to
THE BOARD OF REGENTS
of
THE TEXAS A&M UNIVERSITY SYSTEM
FOR THE FOLLOWING WORK

Chaparral Building Renovations
Texas A&M University-Corpus Christi
Corpus Christi, Texas

The undersigned, as a designated representative of the proposer, declares such firm is the only entity, as principal, with any interest in this Proposal and the Proposal is made without collusion with any other entity. The proposer affirms that the form of Contract, Instructions for Competitive Sealed Proposals, Supplemental Instructions for Competitive Sealed Proposal, Addenda, selection criteria, estimated budget, Specifications and the Drawings pertaining to this Proposal have been examined and the firm has also examined the locations, conditions and classes of materials for the proposed Work and agrees to provide all necessary machinery, tools, apparatus and construction means to accomplish the Work described in the Contract Documents in the manner prescribed.

The proposer agrees the quantities of Work to be performed and materials to be furnished may be increased or decreased as may be considered necessary, in the sole opinion of the Owner's Representative, to complete the Work as planned and contemplated. Adjustment for changes in Work will be in accordance with the Owner's current Uniform General and Supplementary Conditions.

Proposal amounts must be shown in both words and figures. In case of discrepancy, the amount shown in words will govern.

The proposer acknowledges receipt and incorporation of the following addenda into this Proposal:

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<th>No.</th>
<th>Dated</th>
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Is proposer a corporation? Check One: Yes ☐ No ☐.

If proposer is subject to the Texas Franchise Tax, a "Certificate of Good Standing" issued by the Texas Comptroller of Public Accounts must be submitted with the Proposal.

A "nonresident proposer" is equivalent to a "nonresident bidder," and a "Texas Resident Proposer" is equivalent to a "Texas Resident Bidder," as defined hereafter and may be awarded a Contract in accordance with Chapter 2252, Texas Government Code, as partially quoted below:

"...(3) "Nonresident bidder" refers to a person who is not a resident.

CSP 1.2
(4) "Resident bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state."

In the space below, enter the address of the proposer's place of business and, if applicable, the name and address of the proposer's ultimate parent company or majority owner.

Proposer's name and address of principal place of business:

________________________________________________________________________

Ultimate parent company or majority owner's name and the address of its principal place of business:

________________________________________________________________________

BASE PROPOSAL AMOUNT

Total amount for the furnishing of all labor, materials, services, equipment and appliances required in conjunction with and properly incidental to all Work (demolition, site work, general construction, mechanical, plumbing, electrical and data/telecommunications work not including Work listed as alternates) for construction of the Chaparral Building Renovations Project in Corpus Christi, Texas, in conformance with Drawings and Specifications prepared by Turner Ramirez Architects, Corpus Christi, Texas.

(Amount In Words) DOLLARS ($________) (Amount In Figures)

ALTERNATES

A. The undersigned Bidder proposes the amount below be added to or deducted from the Base Bid if particular alternates as described in Section 01 23 00 “Alternates” are accepted by Owner. Amounts listed for each alternate include costs of related coordination, modification, or adjustment.

B. If the alternate does not affect the Contract Sum, the Bidder shall indicate "NO CHANGE."

C. If the alternate does not affect the Work of this Contract, the Bidder shall indicate "NOT APPLICABLE."

D. The Bidder shall be responsible for determining from the Contract Documents the affects of each alternate on the Contract Time and the Contract Sum.

E. Owner reserves the right to accept or reject any alternate, in any order, and to award or amend the Contract accordingly within 180 days of the Notice of Award unless otherwise indicated in the Contract Documents.

F. Acceptance or non-acceptance of any alternates by the Owner shall have no affect on the Contract Time unless the "Schedule of Alternates" Article below provides a formatted space for the adjustment of the Contract Time.
SCHEDULE OF ALTERNATES

Alternate No. 1: Add alternate roof top mechanical platform, refer to structural drawing S3.
ADD____ DEDUCT____ NO CHANGE____ NOT APPLICABLE____.
___________________________________________________________ Dollars ($______________).
(Amount In Words) (Amount In Figures)
ADD____ DEDUCT____ calendar days to adjust the Contract Time for this alternate.

Alternate No. 2: Add alternate to provide and install CL04 baffle ceiling system at Corridor A101 and Gallery A135.
ADD____ DEDUCT____ NO CHANGE____ NOT APPLICABLE____.
___________________________________________________________ Dollars ($______________).
(Amount In Words) (Amount In Figures)
ADD____ DEDUCT____ calendar days to adjust the Contract Time for this alternate.

Alternate No. 3: Add alternate to provide and install CL04 baffle ceiling system at fourth floor A402 Lounge, A427 Elevator Lobby, and A429 Reception:
ADD____ DEDUCT____ NO CHANGE____ NOT APPLICABLE____.
___________________________________________________________ Dollars ($______________).
(Amount In Words) (Amount In Figures)
ADD____ DEDUCT____ calendar days to adjust the Contract Time for this alternate.

Alternate No. 4: Alternate to provide and install RWB-1 millwork rubber wall base in lieu of traditional vinyl wall base at locations identified on room finish schedule.
ADD____ DEDUCT____ NO CHANGE____ NOT APPLICABLE____.
___________________________________________________________ Dollars ($______________).
(Amount In Words) (Amount In Figures)
ADD____ DEDUCT____ calendar days to adjust the Contract Time for this alternate.

Alternate No. 5: Building Energy Management System: Contractor shall provide Base bid pricing for Schneider Electric. Provide an alternate price for each of the BMS controls manufacturers as follows:
Alternate No. 5A: Siemens
ADD____ DEDUCT____ NO CHANGE____ NOT APPLICABLE____.
___________________________________________________________ Dollars ($______________).
(Amount In Words) (Amount In Figures)
ADD____ DEDUCT____ calendar days to adjust the Contract Time for this alternate.
Alternate No. 5B: Johnson Controls Metasys

ADD____ DEDUCT____ NO CHANGE____ NOT APPLICABLE____.

_______________________________________________ Dollars ($______________).

(Amount In Words) (Amount In Figures)

ADD____ DEDUCT____ calendar days to adjust the Contract Time for this alternate.

CONSTRUCTION TIME:

The undersigned agree to complete all Work in the following number of calendar days from the Notice to Proceed:

________________________________________________________________________

(Words) (Proposer to complete) (Numerals)

ITEM NUMBER ONE—PRICE PER PHASE.
The price per individual phase of the project including installation, complete as described in the specifications will be:

a. Please provide a pricing break out by schedule of values, for each phase of the work.

Accompanying this Proposal is a cashier’s check or a Bid or Proposal Bond (TAMUS Form C-2) in the amount of not less than five percent (5%) of the greatest total amount of this Proposal payable without recourse to the order of the Board of Regents of The Texas A&M University System. Use of a surety company bid bond form is NOT acceptable and will constitute an irregular proposal which will be rejected.

The proposer agrees that this Proposal will not be withdrawn for a period of ninety (90) days from the date of the Proposal opening.

The proposer further agrees to pay Liquidated Damages per calendar day for failure to complete the work within the contracted time in accordance with Section 9.11 of the Uniform General and Supplementary Conditions and as established in the Contract.

The proposer’s attention is called to Items 10.1 and 10.2 in the Instructions for Competitive Sealed Proposals regarding delinquent child support payments under Chapter 231, Texas Family Code.

Failure to complete all portions of this Proposal form may cause the entire Proposal to be rejected.

Proposer:

Federal Tax I. D. No. __________________________

(Legal Firm Name)

By: __________________________

CSP 1.5
(Signature)

(Print or Type Name)

Title: ____________________________

Address: ____________________________

Phone No.: ____________________________

FAX No.: ____________________________

E-mail Address: ____________________________

Name(s) of individual(s), proprietor(s), partner(s), shareholder(s), or owner(s) with an ownership interest of at least 25% of the business entity executing this Proposal.

Name: ____________________________

Name: ____________________________

Name: ____________________________

Name: ____________________________
PART 1 - GENERAL

1.01 SECTION INCLUDES:

A. Identification of Alternates.
B. Description of Alternates.

1.02 RELATED SECTIONS:

A. Section 01 11 00 - Summary of Work.
B. Divisions 2 through 35: Specific sections could be affected by any Alternate.

1.03 IDENTIFICATION OF ALTERNATES:

A. Alternates will be selected at the option of Owner. Alternates accepted by Owner for incorporation into the Work are identified in the Contract.

B. Coordinate related Work and modify surrounding Work as required to complete the Work, including changes required by each Alternate, designated in the Contract.

1.04 DESCRIPTION OF ALTERNATES:

A. Alternate No. 1: Roof top mechanical platform; refer to structural drawing S3.

B. Alternate No. 2: Add alternate to provide and install CL04 baffle ceiling system at Corridor A101 and Gallery A135.

C. Alternate No. 3: Add alternate to provide and install CL04 baffle ceiling system at fourth floor A402 Lounge, A427 Elevator Lobby, and A429 Reception.

D. Alternate No. 4: Alternate to provide and install RWB-1 millwork rubber wall base in lieu of traditional vinyl wall base at locations identified on room finish schedule.

E. Alternate No. 5: Building Energy Management System: Contractor shall provide Base bid pricing for Schneider Electric. Provide an alternate price for each of the BMS controls manufacturers as follows:

Alternate 5A: Siemens BMS Controls
Alternate 5B: Johnson Controls Metasys BMS Controls
PART 2 - PRODUCTS
NOT USED

PART 3 - EXECUTION
NOT USED

END OF SECTION
SECTION 23 55 40  HVAC PUMPS

PART 1 - GENERAL

1.01 WORK INCLUDED
   A. Vertical In-line pumps.
   B. Close coupled pumps.
   C. Base mounted pumps.

1.02 RELATED WORK
   A. Section 231700 – Motors and Motor Controllers
   B. Section 232400 – Sound & Vibration Control.
   C. Section 232600 - Piping Insulation.
   D. Section 235510 - Hydronic Piping Above Grade

1.03 REFERENCES
   A. ANSI/UL 778 - Motor Operated Water Pumps.

1.04 QUALITY ASSURANCE
   A. Manufacturer: Company specializing in manufacture, assembly, and field performance of pumps with minimum five years experience.
   B. Alignment: Base mounted pumps shall be aligned by qualified millwright and alignment certified.
   C. Impellers: All impellers shall be dynamically balanced.
   D. The mechanical contractor shall be responsible for accurately checking all pumping heads, based upon the actual piping and equipment installation. The contractor shall be responsible for furnishing pumps and motors of proper sizes suitable for the actual installation. Do not provide pumps with capacities less than the amount indicated on the drawings.

1.05 SUBMITTALS
   A. Submit shop drawings and product data under provisions of Division 1.
B. Submit certified pump curves showing performance characteristics with pump and system operating point plotted. Include NPSH curve when applicable.

C. Submit manufacturer’s installation instructions under provisions of Division 1.

1.06 OPERATION AND MAINTENANCE DATA

A. Submit operation and maintenance data under provisions of Division 1.

B. Include installation instructions, assembly views, lubrication instructions, and replacement parts list.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to site under provisions of Division 1.

B. Store and protect products under provisions of Division 1.

1.08 EXTRA PARTS

A. Provide one set of replacement mechanical seals for each size of pump. After the pumps are in operation for ninety days, the Contractor shall check the seals and replace any that are defective. If the replacement seals are not used during the 90 day operational period, they shall be delivered to the Owner.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Taco.

B. Aurora.

C. Bell and Gossett.

D. Armstrong.

E. Substitutions: Under provisions of Division 1.

2.02 GENERAL CONSTRUCTION REQUIREMENTS

A. Balance: Rotating parts, statically and dynamically.
B. Construction: To permit servicing without breaking piping or motor connections.

C. Pump Motors: Operate at 1750 rpm unless specified otherwise. Provide totally enclosed motors when mounted outdoors. Refer to Section 231700.

D. Pump Connections: Flanged, for pipe size two inches and larger. Provide union for pipe sizes less than two inches.

E. Critical speed of each pump shall be at least 115% of the running speed listed in the schedule.

2.03 CLOSE COUPLED PUMPS

A. Type: Horizontal shaft, single stage, close coupled, radially split casing, for 125 psig maximum working pressure.

B. Casing: Cast iron, with suction and discharge gage ports, renewable bronze casing wearing rings, seal flush connection, drain plug, flanged suction and discharge.

C. Impeller: Bronze, fully enclosed, keyed to motor shaft extension.

D. Shaft: Stainless steel.

E. Seal: Packing gland with minimum four rings graphite impregnated packing and bronze lantern rings, 230 degrees F (110 degrees C) maximum continuous operating temperature.

2.04 VERTICAL IN-LINE PUMPS

A. Type: Vertical, single stage, close coupled, radially or horizontally split casing, for in-line mounting, for 175 psig working pressure.

B. Casing: Cast iron, with suction and discharge gage port, casing wear ring, seal flush connection, drain plug, flanged suction and discharge.

C. Impeller: Bronze, fully enclosed, keyed directly to motor shaft or extension.

D. Shaft: Stainless steel with shaft grounding rings.

E. Seal: Carbon rotating against a stationary ceramic seat viton fitted, 225 degrees F maximum continuous operating temperature.

2.05 BASE MOUNTED PUMPS

A. Type: Horizontal shaft, single stage, direct connected, radially split casing, for 125
psig maximum working pressure.

B. Motors: Indoor applications shall have open drip proof motors. Outdoor applications shall have TEFC motors.

C. Casing: Cast iron, with suction and discharge gage ports, renewable bronze casing wearing rings, seal flush connection, drain plug, flanged suction and discharge.

D. Impeller: Bronze, fully enclosed, keyed to shaft.

E. Bearings: Grease or Permanently lubricated roller or ball bearings, 40,000 hour minimum life.

F. Shaft: Alloy steel with stainless steel shaft sleeve.

G. Seal: Carbon rotating against a stationary ceramic seat, 225 degrees F maximum continuous operating temperature.

H. Drive: Flexible coupling with coupling guard.

I. Baseplate: Cast iron or fabricated steel with integral drain rim. Galvanized when located outdoors.

J. For pumps driven by motors 25 horsepower and larger, the steel base shall be fabricated of structural shapes and formed steel sections. The main structural member and formed steel section shall have a depth of at least 1/12 the overall length of the base but not less than 4 inches. The base shall be filled with concrete or grout after installation.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install pumps in accordance with manufacturer's instructions.

B. Provide access space around pumps for service. Provide no less than minimum as recommended by manufacturer.

C. Ensure pumps operate at specified system fluid temperatures without vapor binding and cavitation, are non-overloading in parallel or individual operation, and operate within 25 percent of midpoint of published maximum efficiency curve.

D. Pumps shall be free of flashing and cavitation at all flow rates from 25% to 125% of design flow under the suction conditions of the pump installation.
E. The impeller selected for compliance with design requirements shall not exceed 85% of cutwater diameter for the selected pump casing size. This shall be clearly certified on the Shop Drawing submittal.

F. Decrease from line size with long radius reducing elbows or reducers. Support piping adjacent to pump such that no weight is carried on pump casings. For close coupled or base mounted pumps, provide supports under elbows on pump suction and discharge lines.

G. Provide line sized shut-off valve and strainer on pump suction, and line sized soft seat check valve and balancing valve on pump discharge.

H. Provide air cock and drain connection on horizontal pump casings.

I. Provide drains for bases and seals, piped to and discharging into floor drains.

J. Lubricate pumps before start-up.

K. Install close coupled and base mounted pumps on concrete base, with anchor bolts, set and level, and grout in place.

L. Qualified millwright shall check, align, and certify base mounted pumps prior to start-up.

END OF SECTION 23 55 40
SECTION 23 55 46 HYDRONIC WATER TREATMENT SYSTEMS

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

A. The requirements of the General Conditions and Supplementary Conditions apply to all work herein.

B. The Basic Materials and Methods, Section 230500, are included as a part of this Section as though written in full in this document.

1.02 SCOPE

Scope of the Work shall include the furnishing and complete installation of the equipment covered by this Section, with all auxiliaries, ready for owner's use. There is an existing chemical treatment system in place for the chill water system. The contractor shall be responsible for coordinating the existing system including flushing and maintaining the system during construction. The hot water treatment system is a new system to be installed under this contract.

1.03 DESCRIPTION OF WORK

A. Work Included: Perform water analysis and provide all water treatment products, holding reservoirs, equipment and labor for testing, cleaning, flushing and dispensing products to control water quality for each system specified hereinafter as follows:

1. Chilled water system.
2. Hot water system

B. Chemicals: Provide, at no additional cost to the Owner, all chemicals required for operating and testing all water treatment systems prior to and for three months after acceptance by the Owner.

C. Instructions: Provide operating and maintenance instructions for each water treatment system; include one set in each Owner's Manual and deliver one set to Owner's operating personnel.

D. Testing Equipment and Reagents: Furnish suitable water treatment testing equipment for each system, complete with apparatus and reagents necessary for operation prior to and for three months after acceptance by the Owner.

E. Service Representative: Furnish the services of a qualified service representative to instruct Owner's operating personnel in proper operation and maintenance of water treatment equipment, systems and tests required. Service representative shall return to the site bi-weekly during first 2 months of operation and monthly during the remainder of the guarantee period. At such time, service representative shall check and adjust
water treatment system operation, check efficiency of chemicals and chemical applications, and instruct and advise operating personnel.

F. Replacement and Rework: Replace defective or nonconforming materials and equipment with new materials and equipment at no additional cost to the Owner for 1 year after successful start-up of the system. All warranty work shall be FOB as installed at the project site.

1. Guarantee: Provide system produced by manufacturer who is willing to execute the required guarantee.
2. Agreement to Maintain: Provide system produced by manufacturer who is willing to execute (with the Owner) the required agreement for continued maintenance of the system.

1.04 QUALITY ASSURANCE

A. Qualifications: The Contractor for work under this Section shall have:

1. Research and development facilities.
2. Regional laboratories capable of making water analysis.
3. A service department and qualified technical service representative located within a reasonable distance of the project site.
4. Service representatives who are Registered Engineers or factory-certified technicians with not less than 5 years of water treatment experience with the water treatment system manufacturer.

B. Packaging and Labeling: Supply water treatment chemicals in metal drums, fiber drums with plastic liners, or plastic lined "liqui-paks" as best suited to the materials. Paper bags or unlined cardboard cartons will not be acceptable. Use only chemicals in domestic water systems, and all coincides regardless of where used, which are registered with the U.S. Department of Agriculture (USDA) or the U.S. Environmental Protection Agency (EPA) and which are labeled as required by law.

C. Electrical Standards: Provide electrical products which have been tested, listed and labeled by Underwriters Laboratories (UL) and which comply with National Electrical Manufacturers' Association (NEMA) standards.

D. Chemical Standards: Provide chemical products acceptable under state and local pollution control or other governing regulations.

1.05 SUBMITTALS

A. Test reports: Submit test reports certified by an officer of the firm, on water treatment company letterheads, of samples of each treated water system specified. Comply with ASTM D 596 for reporting. Indicate the ASTM best methods for each test.

B. Shop Drawings: Submit shop drawings for each water treatment system. Show wiring,
piping and tubing sizes, fittings, accessories, valves and connections.

C. Guarantee: Submit written guarantee signed by the Manufacturer and countersigned by the Installer and Contractor, agreeing to adjust or replace the chemicals in the systems as required to achieve the required performance, during a 1-year period following the final start-up or the continued operation of the chillers.

D. Agreement to Maintain: Prior to the time of final acceptance, the Manufacturer of the chilled water treating system shall submit four copies of an "Agreement for Continued Service and the Owner's possible acceptance." Offer terms and conditions for furnishing chemicals and providing continued testing and equipment for a 1-year period with option for renewal of the Agreement by Owner.

PART 2 - PRODUCTS

2.01 GENERAL

A. Water Analysis: Determine which chemicals to use from the results of a water sample analysis taken from the building site by the system manufacturer. Provide ingredients necessary to achieve the desired water conditions.

B. Pre-Treatment: Treat water piping systems with chemicals to remove and permit flushing of mill scale, oil, grease and other foreign matter. Chemicals shall be equal to Nalco 2578 prepping compound.

C. FDA and USDA Approval: Use only FDA and USDA-approved products in system with direct connection to domestic water systems.

D. Governing Laws: Ensure that neither products, waste, blow-down nor other effluents violate local, state, EPA, or other agency regulations in effect in the project area.

2.02 CHILLED AND HOT WATER SYSTEMS

A. Chemicals: Provide water treatment products which contain inhibitors that perform the following:

1. Form a protective film to prevent corrosion and scale formation;
2. Scavenge oxygen and protect against scale;
3. Remain stable throughout operating temperature range, and;
4. Are compatible with pump seals and other elements in the system.
5. The inhibitor shall be a boron-nitrate corrosion inhibitor compound, equal to Nalco 2534.

B. Equipment: For each system, provide a 5-gallon filter feeder constructed of materials which are impervious to the products dispensed. Feeder shall be designed for not less than 200-psig operating pressure. Filter feeder shall be as manufactured by efficiency Dynamics Model FF-50 or approved equal.
C. Test Kit: Provide test kit and reagents for determining proper water conditions.

PART 3 - EXECUTION

3.01 PIPING SYSTEMS PREPARATION

A. General: After piping systems are erected and proven free of leaks, administer chemicals required for preparation treatment and flushing. Apply chemicals for the time period and in the concentration recommended by the water treatment manufacturer for this portion of the work.

B. Testing: Perform test procedures and submit a written report of test conditions and results to the Engineer. If test results are unsatisfactory, repeat preparation treatment as necessary to achieve test results approved by the Owner's insurance carrier and the Engineer.

3.02 FLUSHING

A. Drain preparation and boil out products from the systems. Flush with clean water until system tests prove systems are free of preparation and boil out products and other contaminants prior to administering system water treatment as specified hereinbefore.

3.03 CHILLED WATER SYSTEMS

A. Treatment: Treat initial water charge to water system, after system has been flushed and prepped, to achieve a water quality as specified.

B. Start-up Procedures: During water system start-up, operate water treating system (after charging with specified chemicals) to maintain the required steady-state characteristics of water. Demonstrate system operation to Owner's operating personnel.

C. Reports: Prepare certified test report for each required water performance characteristic. Comply with the following ASTM standard, where applicable:

2. D1067 - Tests for Acidity or Alkalinity of Water.

D. Water Chemistry: Where water chemistry substantiates that pH control is not necessary, chemical fee shall be based on water makeup qualities. Water analysis shall be based on the full parameters of operation, and all possible water supplies. Total hardness and "M" alkalinity of the makeup water will be the determining factor along
3.04 PERSONNEL TRAINING

A. Operator Training: Train Owner's personnel in use and operation of chilled water treating systems including preparation of chemical solution reservoir. A Program Administration Manual shall be furnished encompassing all systems in this section of the Specifications.

END OF SECTION
The contract structural documents represent the final modifications to the structural plans in the contract documents. The Contractor shall supervise and direct the work of all subcontractors, and shall complete the work by the date specified in the contract documents. The Contractor shall not have control or charge of, and shall not be responsible for, the work of the subcontractors. The contract structural documents represent the finished modifications to the structure, and any work performed by the Contractor shall be in accordance with the contract documents.

All structural steel shall conform to ASTM Specifications A36 except wide flange steel. Connections shall be bolted or welded - See details. Field connections shall be equivalent to standard bolted steel welds.

A. Live loads:
- Ground Snow Load: 0 PSF (IBC Figure 1608.2)
- Design Wind Speed (MPH): 144 (Vult) (IBC Table 1609.3.1)

B. Dead load:
- Dead Load: 50 PSF (IBC Table 1608.1.1)

C. Structural steel shall conform to ASTM Specifications A36.

MISCELLANEOUS

R-1   The use of reproductions of these contract drawings by any contractor, subcontractor, erector, fabricator, or material supplier in lieu of preparation of new working drawings signifies an acceptance of all modification thereof herein as correct, and obligates him to any expense, record, or supervisory labor which may ensue therefrom.

EL-1   General Contractor shall be responsible for the failure of any of them to carry out the work in accordance with the drawings and specifications.

General Contractor must coordinate all platform dimensions with the shop drawings.

EL-3   General Contractor must coordinate all existing elevator pit dimensions with the shop drawings.

TDI-1   Submit TDI compliant roofing documentation on proposed re-roof materials. The Contractor must provide temporary bracing to brace the structure in all directions before proceeding with any phase of the work as he will be responsible for all work fitting as intended by the drawings.

TX DEPARTMENT OF INSURANCE WINDSTORM INSPECTION REQUIREMENTS

The Structural Engineer must be allowed to inspect the installation of all door and window fasteners prior to the installation of the glazing. All windows shall conform to ACI 318-14.

ACI 301. Welded wire shall conform to ASTM Specification A185 (flat sheets only).

ACI 318-14

- Ground Snow Load: 0 PSF (IBC Figure 1608.2)
- Design Wind Speed (MPH): 144 (Vult) (IBC Table 1609.3.1)

ACI 318-14 Standards and shall have the following properties:
- $f_{y} = 60$ K.S.I.
- $f_{u} = 80$ K.S.I.
- $f_{y} = 60$ K.S.I.
- $f_{u} = 80$ K.S.I.

Each deck sheet shall span over at least 4 supports. Deck shall conform to SDI Standards and shall have the following properties:
- $f_{y} = 60$ K.S.I.
- $f_{u} = 80$ K.S.I.
- $f_{y} = 60$ K.S.I.
- $f_{u} = 80$ K.S.I.

SDI Standards and shall have the following properties:
- $f_{y} = 60$ K.S.I.
- $f_{u} = 80$ K.S.I.
- $f_{y} = 60$ K.S.I.
- $f_{u} = 80$ K.S.I.

Each expansion bolt shall be installed showing completion with ACI 301 and ACI 318. The installation methods must have accompanying SDI approved documentation.

Structural Engineer must submit all shop drawings for review a minimum of ten (10) days prior to the placement of any concrete. The Contractor shall notify the Engineer and Testing Lab a minimum of 48 hours in advance of any concrete placement. The Contractor shall not place any concrete until all reinforcing steel placement has been reviewed by the Testing Lab and advancement of any concrete placement. The Contractor shall not place any concrete until all reinforcing steel placement has been reviewed by the Testing Lab and the Owner must be obtained by the Contractor and submitted to the Engineer. The Contractor shall notify the Engineer and Testing Lab a minimum of 48 hours in advance of any concrete placement. The Contractor shall not place any concrete until all reinforcing steel placement has been reviewed by the Testing Lab and the Owner must be obtained by the Contractor and submitted to the Engineer.

ENGINEERING

The Structural Engineer shall not have control or charge of, and shall not be responsible for, any of the work performed by the Contractor. The Structural Engineer shall coordinate all platform dimensions with the drawings and specifications. The Contractor shall provide temporary bracing to brace the structure in all directions before proceeding with any phase of the work. The Contractor shall be responsible for all work fitting as intended by the drawings. The Structural Engineer shall supervise and direct the work of all subcontractors, and shall complete the work by the date specified in the contract documents. The Structural Engineer shall not have control or charge of, and shall not be responsible for, any of the work performed by the Contractor. The Structural Engineer shall coordinate all platform dimensions with the drawings and specifications. The Contractor shall provide temporary bracing to brace the structure in all directions before proceeding with any phase of the work. The Contractor shall be responsible for all work fitting as intended by the drawings.

SITE OBSERVATION BY THE STRUCTURAL ENGINEER

Periodic site observations by field representatives of the Structural Engineer are solely for the purpose of determining if the work of the Contractor is proceeding in accordance with the drawings and specifications. These limited site observations should be considered an evaluation or inspections to place the Employer under no liability for any excess or defects in the work of the Contractor.

The Contractor shall report any discrepancies to the Engineer before proceeding with any phase of the work. The Contractor shall be responsible for all work fitting as intended by the drawings. The Structural Engineer shall coordinate all platform dimensions with the drawings and specifications. The Contractor shall provide temporary bracing to brace the structure in all directions before proceeding with any phase of the work. The Contractor shall be responsible for all work fitting as intended by the drawings.
PLATEFORM FRAMING PLAN (ADD ALTERNATE)
2 1/2" SIGHTLINE
1 5/16" GLAZING
2"
(E) Mechanical Keynotes
1 ROUTE 3" HOT WATER SUPPLY AND RETURN PIPING DOWN TO FLOORS BELOW.
2 PROVIDE STRANIER TO 3" HOT WATER SUPPLY AND RETURN PIPING FOR LOCATIONS.
3 PROVIDE VALVES AND RECESSED VALVE BOXES TO 4" CWS/6" CWR FOR LOCATIONS.
4 PROVIDE 6" CWS/6" CWS FOR LOCATIONS.
5 PIPE CURB AND SEAL WATER TIGHT 6 MINI SPLIT LOCATED IN ELEVATOR SHAFT SEE SHEET M2.500 FOR DETAILS.

2 BOILER ROOM 3D VIEW
Addendum #2 09-07-23
## AIR HANDLING UNIT SCHEDULE

### MOTOR VOLTS / PH

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### SAMPLER NOTE FOR AHU-4:

- (51/49.9)/(51.6/51.4)
- (75/62.5)/(83.4/80.4)
- (8270)/(1430)

### SIDE LOAD

- MERV-13A
- 8330.0
- 1,750

### AIR HANDLING UNIT SCHEDULE

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**NOTES:**
1. PROVIDE WITH GRAVITY BACKDRAFT DAMPER (EXHAUST LOUVERS ONLY).
2. PROVIDE WITH VIBRATION ISOLATORS.
3. PROVIDE WITH SUBMITTAL SHEETS AND 2 COAT ENAMEL FINISH - REF. ARCHITECTURAL SPEC.
4. PROVIDE WITH 3/8" X 2" REINFORCEMENT, W/B - SPRAY CONCRETE IN WALL.
5. PROVIDE WITH VAV TERMINAL UNIT SCHEDULE, LOUVER SCHEDULE, AND FDC.
6. PROVIDE WITH PUMP HP ESCUTCHEON WITH AIR PRESSURE GAGE.
7. PROVIDE WITH APPROPRIATE VAV TERMINAL UNIT SCHEDULE, LOUVER SCHEDULE, AND FDC.
8. PROVIDE WITH (1) INCH SPIGOT AND ELBOW.
9. PROVIDE WITH VAV TERMINAL UNIT SCHEDULE, LOUVER SCHEDULE, AND FDC.
10. PROVIDE WITH VAV TERMINAL UNIT SCHEDULE, LOUVER SCHEDULE, AND FDC.

**ELECTRIC UNIT HEATER SCHEDULE**

**NOTES:**
1. PROVIDE UNIT WITH DUAL POINT POWER CONNECTION AND SEPARATE PUMP POWER CONNECTION.
2. PROVIDE WITH PUMP HP ESCUTCHEON, W/ SPIGOT AND ELBOW.
3. PROVIDE WITH VAV TERMINAL UNIT SCHEDULE, LOUVER SCHEDULE, AND FDC.
4. PROVIDE WITH VIBRATION ISOLATORS.
5. PROVIDE WITH SUBMITTAL SHEETS.
6. PROVIDE WITH VACUUM SUMPING AND POINT TO MASTER.
7. PROVIDE WITH PUMP HP ESCUTCHEON WITH AIR PRESSURE GAGE.
8. PROVIDE WITH (1) INCH SPIGOT AND ELBOW.
9. PROVIDE WITH VAV TERMINAL UNIT SCHEDULE, LOUVER SCHEDULE, AND FDC.

**LOUVER SCHEDULE**

**NOTES:**
1. PROVIDE WITH VAV TERMINAL UNIT SCHEDULE, LOUVER SCHEDULE, AND FDC.
2. PROVIDE WITH PUMP HP ESCUTCHEON, W/ SPIGOT AND ELBOW.
3. PROVIDE WITH VIBRATION ISOLATORS.
4. PROVIDE WITH SUBMITTAL SHEETS.
5. PROVIDE WITH VACUUM SUMPING AND POINT TO MASTER.
6. PROVIDE WITH PUMP HP ESCUTCHEON WITH AIR PRESSURE GAGE.
7. PROVIDE WITH (1) INCH SPIGOT AND ELBOW.
8. PROVIDE WITH VAV TERMINAL UNIT SCHEDULE, LOUVER SCHEDULE, AND FDC.

**Vav TERMINAL UNIT SCHEDULE**

**NOTES:**
1. PROVIDE WITH VAV TERMINAL UNIT SCHEDULE, LOUVER SCHEDULE, AND FDC.
2. PROVIDE WITH PUMP HP ESCUTCHEON, W/ SPIGOT AND ELBOW.
3. PROVIDE WITH VIBRATION ISOLATORS.
4. PROVIDE WITH SUBMITTAL SHEETS.
5. PROVIDE WITH VACUUM SUMPING AND POINT TO MASTER.
6. PROVIDE WITH PUMP HP ESCUTCHEON WITH AIR PRESSURE GAGE.
7. PROVIDE WITH (1) INCH SPIGOT AND ELBOW.
8. PROVIDE WITH VAV TERMINAL UNIT SCHEDULE, LOUVER SCHEDULE, AND FDC.

**ELECTRIC UNIT HEATER SCHEDULE**

**NOTES:**
1. PROVIDE UNIT WITH DUAL POINT POWER CONNECTION AND SEPARATE PUMP POWER CONNECTION.
2. PROVIDE WITH PUMP HP ESCUTCHEON, W/ SPIGOT AND ELBOW.
3. PROVIDE WITH VAV TERMINAL UNIT SCHEDULE, LOUVER SCHEDULE, AND FDC.
4. PROVIDE WITH VIBRATION ISOLATORS.
5. PROVIDE WITH SUBMITTAL SHEETS.
6. PROVIDE WITH VACUUM SUMPING AND POINT TO MASTER.
7. PROVIDE WITH PUMP HP ESCUTCHEON WITH AIR PRESSURE GAGE.
8. PROVIDE WITH (1) INCH SPIGOT AND ELBOW.
9. PROVIDE WITH VAV TERMINAL UNIT SCHEDULE, LOUVER SCHEDULE, AND FDC.
1. UNIT SHALL BE EPOXY COATED AND FULLY INSULATED.

2. PROVIDE UNIT WITH 6" THICK HOUSEKEEPING PAD THAT EXTENDS 6" PAST THE UNIT ON ALL SIDES.

3. INSTALL THE UNIT AS PER THE MANUFACTURER'S INSTRUCTIONS.

4. PROVIDE WIRED THERMOSTAT.

5. PROVIDE ALL REQUIRED ISOLATION VALVES, DRAIN VALVES, AND PIPE CONNNECTIONS. PROVIDE END SUCTION DIFFUSERS ON THE SUCTION SIDE OF THE PUMP.

6. PROVIDE BATTERY ACCUMULATORS ON ALL UNITS.

7. INSTALL ALL UNITS AS PER THE MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS. PROVIDE THE UNIT WITH ALL OTHER DISCIPLINES, DUCTWORK, STRUCTURE, ELECTRICAL, AND ALL OTHER OBSTRUCTION PRIOR TO INSTALLATION OF THE UNIT. TO BUFFER SPACE AND ALL ACCESSORIES.

8. PROVIDE MILITARY HOT GAS BYPASS CONTROL DEVICE TO PROVIDE MODULATING.

9. PROVIDE LIQUID LINE SIGHT GLASS AND PRESSURE TAPS ON INLET AND OUTLET OF INDOOR COILS.

10. PUMPS SHALL INITIALLY BE SET UP AS 100% REDUNDANT AND OPERATE ON A BI WEEKLY SWITCH OVER SEQUENCES AND SPECIFICATIONS. ALL CONTROLS SHALL BE COMPATIBLE WITH THE DISTRICT STANDARDS.

11. PROVIDE PRESSURE TAPS ON INLET AND OUTLET OF INDOOR COILS.

12. PROVIDE BATTERY ACCUMULATORS ON ALL UNITS.

13. PROVIDE SHAFT GROUNDING ON ALL VFD RATED MOTORS.

14. PROVIDE SINGLE POINT OF ELECTRICAL CONNECTION FOR EACH UNIT. THE UNITS SHALL BE CONSTANT VOLUME. STARTERS CONTROLLERS OF THE UNIT WITH ALL OTHER DISCIPLINES, DUCTWORK, STRUCTURE, ELECTRICAL, AND ALL OTHER OBSTRUCTION PRIOR TO INSTALLATION OF THE UNIT. TO BUFFER SPACE AND ALL ACCESSORIES.

15. PROVIDE RUBBER IN SHEAR ISOLATORS FOR SUSPENDED AIR HANDLER.

16. PROVIDE PRESSURE TAPS ON INLET AND OUTLET OF INDOOR COILS.

17. PROVIDE BATTERY ACCUMULATORS ON ALL UNITS.

18. PROVIDE THE UNIT WITH ALL OTHER DISCIPLINES, DUCTWORK, STRUCTURE, ELECTRICAL, AND ALL OTHER OBSTRUCTION PRIOR TO INSTALLATION OF THE UNIT. TO BUFFER SPACE AND ALL ACCESSORIES.

19. PROVIDE RUBBER IN SHEAR ISOLATORS FOR SUSPENDED AIR HANDLER.

20. PROVIDE THE UNIT WITH ALL OTHER DISCIPLINES, DUCTWORK, STRUCTURE, ELECTRICAL, AND ALL OTHER OBSTRUCTION PRIOR TO INSTALLATION OF THE UNIT. TO BUFFER SPACE AND ALL ACCESSORIES.

21. PROVIDE BATTERY ACCUMULATORS ON ALL UNITS.

22. PROVIDE SHAFT GROUNDING ON ALL VFD RATED MOTORS.

23. PROVIDE SINGLE POINT OF ELECTRICAL CONNECTION FOR EACH UNIT. THE UNITS SHALL BE CONSTANT VOLUME. STARTERS CONTROLLERS OF THE UNIT WITH ALL OTHER DISCIPLINES, DUCTWORK, STRUCTURE, ELECTRICAL, AND ALL OTHER OBSTRUCTION PRIOR TO INSTALLATION OF THE UNIT. TO BUFFER SPACE AND ALL ACCESSORIES.

24. PROVIDE RUBBER IN SHEAR ISOLATORS FOR SUSPENDED AIR HANDLER.
ELECTRICAL GENERAL NOTES:
1. REVIEW ALL ARCHITECTURAL, COG, MECHANICAL & ELECTRICAL BLUEPRINTS AND SPECIFICATIONS FOR ANY ADDITIONAL REQUIREMENTS.
2. CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL, MECHANICAL & ELECTRICAL BLUEPRINTS AND SPECIFICATIONS FOR ANY ADDITIONAL REQUIREMENTS.
3. CONTRACTOR SHALL COORDINATE AND WORK WITH OTHER TRADES.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR FORMS AND PARAPET OR TRIM REPAIRS.
5. ALL WORK SHALL COMPLY WITH CURRENTLY ADOPTED VERSIONS OF NATIONAL ELECTRICAL CODE.
6. SEAL ALL WALL, ROOF, AND FLOOR PENETRATIONS WITH LI-LITE TRIP SEALANT.
7. ALL CONCEALS SHALL BE ROUTED CONCEALED WITHIN WALLS AND/OR ABOVE CEILINGS, WHERE APPLICABLE.
8. REFER TO SHEET PLAN FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL FIXTURES PRIOR TO REINSTALLATION.

ELECTRICAL KEYNOTES:
1. TYPICAL 1/8" = 1'-0" ALUMINUM PROPORTIONAL SCALE SHOWN FOR PLAN ONLY.
2. SENSOR SITE LOCATION/SIZE/OUTPUT/INPUT LIMITS SHEET PLAN TO SUBMITTAL.

Sensors shall be line voltage, with reverence for neutral and ground. Conduit shall be routed concealed within walls and/or above ceilings, where applicable.

All conduit shall be 1-1/2" corrugated and/or 1-1/2" or larger flexible conduit. All conduit shall be run within the walls and/or above ceilings, where applicable.

传感器应为单线电压，且应符合中性线和接地的要求。所有管道应被隐蔽在墙壁内或上方天花板内，适用于管道。

所有管道应为1-1/2英寸的波纹管或1-1/2英寸或更大的柔性管道。所有管道应在墙壁内或上方天花板内走线，适用于管道。
ELECTRICAL GENERAL NOTES:

A. CONTRACTOR SHALL VERIFY ALL ARCHITECTURAL, CIVIL, MACHINICAL, & ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ANY ADDITIONAL FORMS OF SUPPORT.

B. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE BEFORE COMMENCING ANY PHASE OF THE WORK. ALL WORK SHALL COMPLY WITH CURRENTLY ADOPTED VERSION OF NATIONAL ELECTRICAL CODE, LIGHTING AND MANUFACTURER SPECIFICATIONS.

C. CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL, CIVIL, MECHANICAL & ELECTRICAL DRAWINGS.

D. ALL CONDUIT SHALL BE Routed AS STRAIGHT AS POSSIBLE AND PARALLEL OR PERPENDICULAR TO BUILDING LINES.

E. ALL CONSULTS SHALL BE RUN UP AGAINST THE CEILING DECK OR AS HIGH AS POSSIBLE.

F. DRAWN BY:

G. COORDINATE LOCATION OF A/V CABINET. COORDINATE WITH OWNER.

H. PAPER TO BE USED FOR ELECTRICAL PLANS FOR EXACT LOCATIONS AND EQUIPPING WEIGHTS OF ALL FIXTURES PER A/R.

I. BRING A COPY OF THE BUILDING PERMIT TO THE JOB SITE.

J. PROVIDE (1) 4" CONDUIT SLEEVE FROM 1ST FLOOR TO A/V CABINET.

K. ALL WORK SHALL COMPLY WITH CURRENTLY ADOPTED VERSIONS OF NATIONAL ELECTRICAL CODE, LIGHTING AND MANUFACTURER SPECIFICATIONS.

L. ALL CONSULTS SHALL BE RUN UP AGAINST THE CEILING DECK OR AS HIGH AS POSSIBLE.

M. ALL CONDUIT SHALL BE PROCURED BY CONTRACTOR. ALL EQUIPMENT AND CABLES SHALL BE PROVIDED BY OWNER.

N. ALL CONDUIT SHALL BE RUN UP AGAINST THE CEILING DECK OR AS HIGH AS POSSIBLE.

O. PROVIDE ALL ARCHITECTURAL, CIVIL, MECHANICAL & ELECTRICAL DRAWINGS.

P. REQUIRE ALL COMMISSIONING AS AGreed.

Q. RESPONSIBLE FOR ALL COMMISSIONING AS AGREED.

R. PROVIDE ALL ARCHITECTURAL, CIVIL, MECHANICAL & ELECTRICAL DRAWINGS.
ONE-LINE KEY NOTES

CONTRACTOR SHALL PROVIDE ENERGY-REDUCING MAINTENANCE SWITCH WITH
LOCATIONS SCHEMATIC IN SECTION TO SHOW APPROPRIATE
MARKINGS TO DISTINGUISH PERFORMANCE THAT COMPLIES WITH NEC.

PROVIDE TRANSFER SWITCH WITH

PROVIDE #3/0 AWG

TRANSFER SWITCH ACCESSORY ITEMS.

PROVIDE 120/208V, 3Φ, 4W

FEEDER FROM ATS TOWARDS 'EDP'.

• LIGHTING LOAD

PANEL

PROVIDE 

EMERGENCY GROUND PER NEC

CONSULT WITH ELECTRICAL PROFESSIONAL ON LIGHTING SYSTEM

PROVIDE PRYSMIAN 2-HOUR FIRE RESISTIVE 3P (4) #2AWG (1) #6G 3P (1) #4G 4000 2 2 2 (4) 3"C

PROVIDE WARNING LABELS PER NEC 2017-110.16.

PROVIDE PRYSMIAN 2-HOUR FIRE RESISTIVE 3P (4) #1/0 'R2' (4) #350KCMIL

PROVIDE PROVISION MAINTENANCE SWITCH WITH

PROVIDE ENERGY-REDUCING MAINTENANCE SWITCH WITH

EXISTING TO REMAIN 12003P

MISCELLANEOUS LOAD "LIGHTING LOAD"

PANEL

PROVIDE 

PROVIDE #3/0 AWG
### Panel "MDP1"

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**Cost Estimation Schedule**

- **Description**: Included all necessary equipment and labor.
- **Cost**: Varies depending on materials and labor.
- **Date**: 09/07/23

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**Notes**:
- All specified items are for the project.
- Additional items may be required for proper installation.
- All materials provided by the contractor.

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**Contact Information**

- www.trarch.com
- 5656 S. STAPLES, SUITE 360, 005318
- (512) 485-2400

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**Additional Information**

- Built for the Texas A&M University - Corpus Christi.
- Designed by CONSTRUCTION CHEMICALS / TURNER | RAMIREZ ARCHITECTS.
- Contract No. 20/TX/4.
- Project No. 08/1.
CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL, MECHANICAL & SEALANT REQUIREMENTS.

PLUMBING CONTRACTOR TO FIELD COORDINATE WITH STRUCTURAL. ROUTE PIPING 1 1/2" SS LV1 6" OF THE BUILDING UR1 2 A117 ELEV 1 ELEVATOR LOBBY 6" PIPE BURST

PLUMBING GENERAL NOTES:
1. PRIOR TO COMMENCEMENT OF THE CONTRACT WORK, OWNER SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE BEFORE COMMENCING ANY PHASE OF THE WORK. ADJUSTMENTS WHERE PLUMBING FIXTURES ARE TO BE REMOVED AND RELOCATED OR REPLACED, THE CONTRACTOR SHALL CUT AND REPAIR EXISTING WALLS, FLOORS, AND CEILINGS AS NECESSARY TO MATCH NEW CONDITIONS.
2. STRUCTURAL PENETRATIONS SHALL NOT BE MADE WITHIN 5' OF BEAMS WHERE POSSIBLE.
3. STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR ANY ADDITIONAL WORK, OWNER, FOR FIT AND COORDINATION SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER. NOTIFY ENGINEER OF ANY CONFLICTS, DISCREPANCIES OR OMISSIONS PRIOR TO COMMENCEMENT OF THE CONTRACT WORK.
4. OWNER SHALL REVIEW ALL ARCHITECTURAL, MECHANICAL, ELECTRICAL AND EXISTING CONDITIONS AND SPECIFICATIONS FOR ANY ADDITIONAL WORK.
5. CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES.
6. PLUMBING CONTRACTOR TO FIELD COORDINATE WITH STRUCTURAL, MECHANICAL AND ELECTRICAL TRADES. PROVIDE 1/2" CW LINE TO FLOOR DRAIN FOR TRAP PRIMER CONNECTION FROM WC1 TO WC2. PROVIDE 2" DRAIN FROM WC1 TO WCO AND CONNECT EXISTING WDV. ROUTE CONDENSATE DRAIN INDIRECT TO FLOOR DRAIN. COORDINATE LOCATION OF EXISTING PIPE WITH MECHANICAL LOCATION.
7. WHERE PIPING PENETRATES SHELL SPACE AND EXISTING PENETRATIONS ARE TO BE REPAIRED OR REPLACED, THE CONTRACTOR SHALL CUT AND REPAIR EXISTING WALLS, FLOORS, AND CEILINGS AS NECESSARY TO MATCH NEW CONDITIONS. PROVIDE REMOVE AND CAP ABOVE CEILING LEVEL ALL DOMESTIC WATER AND VENT LOCATED IN WALLS THAT ARE TO BE DEMOLISHED.

PLUMBING DWV KEY NOTES:
- PROVIDE 1/2" CW LINE TO FLOOR DRAIN FOR TRAP PRIMER CONNECTION FROM WC1 TO WC2.
- PROVIDE 2" DRAIN FROM WC1 TO WCO AND CONNECT EXISTING WDV.
- ROUTE CONDENSATE DRAIN INDIRECT TO FLOOR DRAIN.
- COORDINATE LOCATION OF EXISTING PIPE WITH MECHANICAL LOCATION.
- WHERE PIPING PENETRATES SHELL SPACE AND EXISTING PENETRATIONS ARE TO BE REPAIRED OR REPLACED, THE CONTRACTOR SHALL CUT AND REPAIR EXISTING WALLS, FLOORS, AND CEILINGS AS NECESSARY TO MATCH NEW CONDITIONS.
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- PROVIDE REMOVE AND CAP ABOVE CEILING LEVEL ALL DOMESTIC WATER AND VENT LOCATED IN WALLS THAT ARE TO BE DEMOLISHED.
1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE BEFORE COMMENCING ANY PHASE OF THE WORK. ADJUSTMENTS FOR FIT AND COORDINATION SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER. NOTIFY ENGINEER OF ANY CONFLICTS, DISCREPANCIES OR OMISSIONS PRIOR TO COMMENCEMENT OF THE CONTRACT WORK.

2. CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL, MECHANICAL & STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR ANY ADDITIONAL REQUIREMENTS.

3. CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES.

4. SEAL ALL WALL, ROOF, AND FLOOR PENETRATIONS WITH UL LISTED FIRE SEALANT.

5. PLUMBING CONTRACTOR TO FIELD COORDINATE WITH STRUCTURAL. ROUTE SANITARY LINES OUT AND AWAY FROM BEAMS WHERE POSSIBLE AND CROSS BEAMS PERPENDICULAR WITH SLEEVES AS REQUIRED.

6. REMOVE AND CAP ABOVE CEILING LEVEL ALL DOMESTIC WATER AND VENT PIPING LOCATED IN WALLS THAT ARE TO BE DEMOLISHED.

Where plumbing fixtures are to be removed and relocated or replaced, the contractor shall cut and repair existing walls, floors, and ceilings as necessary to match new conditions.

8. STRUCTURAL PENETRATIONS SHALL NOT BE MADE WITHIN 5'-0" - 6'0" OF THE BUILDING PERIMETER OR 6'-0" AROUND COLUMNS. USE EXISTING PENETRATIONS IN THESE AREAS.

PLUMBING DWV KEY NOTES:

- REFER TO CIVIL PLANS FOR CONTINUATION.
- PROVIDE 1/2" CW LINE TO FLOOR DRAIN FOR TRAP PRIMER CONNECTION FROM WATER CLOSET. SEE DETAIL SHEET.
- FLOOR DRAIN TO TIE IN ABOVE TRAP ON MOP SINK (SS1) AS INDIRECT WASTE, SEE DETAIL SHEET.
- NEW 6" STORM DRAIN. DROP FROM FLOOR ABOVE TO BELOW FLOOR IN EXISTING FLOOR PENETRATION.
- ROUTE CONDENSATE DRAIN INDIRECT TO FLOOR DRAIN. COORDINATE LOCATION WITH MECHANICAL LOCATION.
- ROUTE DRAIN PIPING FROM LAVATORY ON EXTERIOR WALL IN WALL TO WASTE STACK. NO FLOOR PENETRATIONS WITHIN 5'-6" OF PERIMETER WALL. INSULATE PIPE FOR SOUND ATTENUATION.
- REPLACE EXISTING PIPE WITH NEW IN EXISTING SLAB PENETRATIONS.

PLUMBING DWV FLOOR PLAN - LEVEL 2

TEXAS A&M UNIVERSITY - CORPUS CHRISTI CHAPARRAL BUILDING RENOVATIONS

PROJECT #: RFQ1-0001 CONTRACT #: 20172914

08/04/2023 PROJECT #: RFQ1-0001 SMR KMS 100% CONSTRUCTION DOCUMENTS

09/07/2023

P1.200

PLUMBING DWV FLOOR PLAN - LEVEL 2

22042

0.5" = 1'-0" SCALE

1 Addendum #1 09-07-23

2 Addendum #2 09-07-23
1. Contractor shall verify all dimensions and existing conditions at the job site before commencing any phase of the work. Adjustments for fit and coordination shall be made at no additional cost to the owner. Notify engineer of any conflicts, discrepancies or omissions prior to commencement of the contract work.

2. Contractor shall review all architectural, mechanical & structural drawings and specifications for any additional requirements.

3. Contractor shall coordinate his work with other trades.

4. Seal all wall, roof, and floor penetrations with UL listed fire sealant.

5. Plumbing contractor to field coordinate with structural. Route sanitary lines out and away from beams where possible and cross beams perpendicular with sleeves as required.

6. Remove and cap above ceiling level all domestic water and vent piping located in walls that are to be demolished.

7. Where plumbing fixtures are to be removed and relocated or replaced, the contractor shall cut and repair existing walls, floors, and ceilings as necessary to match new conditions.

8. Structural penetrations shall not be made within 5' - 6" of the building perimeter or 6' - 0" around columns. Use existing penetrations in these areas.
PRIOR TO COMMENCEMENT OF THE CONTRACT WORK.

1. CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ANY ADDITIONAL REQUIREMENTS.
2. CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE BEFORE COMMENCING ANY PHASE OF THE WORK. ADJUSTMENTS TO CONTRACTUAL DRAWINGS AND SPECIFICATIONS MUST BE MADE PRIOR TO COMMENCEMENT OF THE CONTRACT WORK.
4. OWNER, NOTIFY ENGINEER OF ANY CONFLICTS, DISCREPANCIES OR OMISSIONS ON CONTRACTUAL DRAWINGS AND SPECIFICATIONS.
5. CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ANY ADDITIONAL REQUIREMENTS.
6. OWNER SHALL NOTIFY CONTRACTOR OF ANY ADDITIONAL REQUIREMENTS.
7. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE BEFORE COMMENCING ANY PHASE OF THE WORK. ADJUSTMENTS TO CONTRACTUAL DRAWINGS AND SPECIFICATIONS MUST BE MADE PRIOR TO COMMENCEMENT OF THE CONTRACT WORK.
8. OWNER SHALL NOTIFY CONTRACTOR OF ANY ADDITIONAL REQUIREMENTS.

PLUMBING GENERAL NOTES:

1. PROVIDE 1/2" CF WATER LINE TO FLOOR DRAIN FOR TRAP PRIMER CONNECTION FROM WASTE LINE TO FLOOR DRAIN.
2. PROVIDE 1/2" CF WATER LINE TO FLOOR DRAIN FOR TRAP PRIMER CONNECTION FROM WASTE LINE TO FLOOR DRAIN.
3. PROVIDE 1/2" CF WATER LINE TO FLOOR DRAIN FOR TRAP PRIMER CONNECTION FROM WASTE LINE TO FLOOR DRAIN.
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7. PROVIDE 1/2" CF WATER LINE TO FLOOR DRAIN FOR TRAP PRIMER CONNECTION FROM WASTE LINE TO FLOOR DRAIN.
8. PROVIDE 1/2" CF WATER LINE TO FLOOR DRAIN FOR TRAP PRIMER CONNECTION FROM WASTE LINE TO FLOOR DRAIN.

PLUMBING DWV KEY NOTES:

1. PROVIDE 1/2" CF WATER LINE TO FLOOR DRAIN FOR TRAP PRIMER CONNECTION FROM WASTE LINE TO FLOOR DRAIN.
2. PROVIDE 1/2" CF WATER LINE TO FLOOR DRAIN FOR TRAP PRIMER CONNECTION FROM WASTE LINE TO FLOOR DRAIN.
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2. Contractor shall review all architectural, mechanical & structural drawings and specifications for any additional requirements.

3. Contractor shall coordinate his work with other trades.

4. Seal all wall, roof, and floor penetrations with UL listed fire sealant.

5. Plumbing contractor to field coordinate with structural. Route sanitary lines out and away from beams where possible and cross beams perpendicular with sleeves as required.

6. Remove and cap above ceiling level all domestic water and vent piping located in walls that are to be demolished.

7. Where plumbing fixtures are to be removed and relocated or replaced, the contractor shall cut and repair existing walls, floors, and ceilings as necessary to match new conditions.

8. Structural penetrations shall not be made within 5' - 6" of the building perimeter or 6' - 0" around columns. Use existing penetrations in these areas.

PLUMBING DWV KEY NOTES:
- Refer to civil plans for continuation.
- Provide 1/2" cw line to floor drain for trap primer connection from water closet. See detail sheet.
- Floor drain to tie in above trap on mop sink (SS1) as indirect waste, see detail sheet.
- New 6" storm drain. Drop from floor above to below floor in existing floor penetration.
- Condensate drain indirect to floor drain. Coordinate location with mechanical location.
- Route drain piping from lavatory on exterior wall in wall to waste stack. No floor penetrations within 5'6" of perimeter wall. Insulate pipe for sound attenuation.
- Replace existing pipe with new in existing slab penetration.
PLUMBING GENERAL NOTES:

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE BEFORE COMMENCING ANY PHASE OF THE WORK. ADJUSTMENTS FOR FIT AND COORDINATION SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER. NOTIFY ENGINEER OF ANY CONFLICTS, DISCREPANCIES OR OMISSIONS PRIOR TO COMMENCEMENT OF THE CONTRACT WORK.

2. CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL, MECHANICAL & STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR ANY ADDITIONAL REQUIREMENTS.

3. CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRades.

4. SEAL ALL WALL, ROOF, AND FLOOR PENETRATIONS WITH UL LISTED FIRE SEALANT.

5. PLUMBING CONTRACTOR TO FIELD COORDINATE WITH STRUCTURAL. ROUTE SANITARY LINES OUT AND AWAY FROM BEAMS WHERE POSSIBLE AND CROSS BEAMS PERPENDICULAR WITH SLEEVES AS REQUIRED.

6. REMOVE AND CAP ABOVE CEILING LEVEL ALL DOMESTIC WATER AND VENT PIPING LOCATED IN WALLS THAT ARE TO BE DEMOLISHED.

7. WHERE PLUMBING FIXTURES ARE TO BE REMOVED AND RELOCATED OR REPLACED, THE CONTRACTOR SHALL CUT AND REPAIR EXISTING WALLS, FLOORS, AND CEILINGS AS NECESSARY TO MATCH NEW CONDITIONS.

8. STRUCTURAL PENETRATIONS SHALL NOT BE MADE WITHIN 5' - 6" OF THE BUILDING PERIMETER OR 6" - 0" AROUND COLUMNS. USE EXISTING PENETRATIONS IN THESE AREAS.

PLUMBING DWV KEY NOTES:

- PROVIDE 1/2" CW LINE TO FLOOR DRAIN FOR TRAP PRIMER CONNECTION FROM WATER CLOSET (SEE DETAIL SHEET).

- NEW STORM DRAIN. DROP FROM FLOOR ABOVE TO BELOW FLOOR IN EXISTING FLOOR PENETRATION.

- PROVIDE 1/2" CW LINE TO FLOOR DRAIN FOR TRAP PRIMER CONNECTION FROM WATER CLOSET (SEE DETAIL SHEET).

- REPLACED WITH NEW IN EXISTING SLAB PENETRATIONS.
1. Contractor shall verify all dimensions and existing conditions at the job site before commencing any phase of the work. Adjustments for fit and coordination shall be made at no additional cost to the owner. Notify engineer of any conflicts, discrepancies or omissions prior to commencement of the contract work.

2. Contractor shall review all architectural, mechanical & structural drawings and specifications for any additional requirements.

3. Contractor shall coordinate his work with other trades.

4. Seal all wall, roof, and floor penetrations with UL listed fire sealant.

5. Plumbing contractor to field coordinate with structural. Route sanitary lines out and away from beams where possible and cross beams perpendicular with sleeves as required.

6. Remove and cap above ceiling level all domestic water and vent piping located in walls that are to be demolished.

7. Where plumbing fixtures are to be removed and relocated or replaced, the contractor shall cut and repair existing walls, floors, and ceilings as necessary to match new conditions.

8. Structural penetrations shall not be made within 5'-6" of the building perimeter or 6'-0" around columns. Use existing penetrations in these areas.
1. Contractor shall verify all dimensions and existing conditions at the job site before commencing any phase of the work. Adjustments for fit and coordination shall be made at no additional cost to the owner. Notify engineer of any conflicts, discrepancies or omissions prior to commencement of the contract work.

2. Contractor shall review all architectural, mechanical & structural drawings and specifications for any additional requirements.

3. Contractor shall coordinate his work with other trades.

4. Seal all wall, roof, and floor penetrations with UL listed fire sealant.

5. Plumbing contractor to field coordinate with structural. Route sanitary lines out and away from beams where possible and cross beams perpendicular with sleeves as required.

6. Structural penetrations shall not be made within 5'-6" of the building perimeter or 6'-0" around columns. Use existing penetrations in these areas.

7. Where plumbing fixtures are to be removed and relocated or replaced, the contractor shall cut and repair existing walls, floors, and ceilings as necessary to match new conditions.

8. General Notes:
   - All commercial, water and vent piping located in walls that are to be demolished.
   - Plumbing fixtures and/or to be removed and relocated on construction site.
   - Seals between floors, roofs and walls shall be completely removed and replaced with UL listed fire sealant to prevent the spread of fire.
   - All commercial, water and vent piping located in walls that are to be demolished.
   - Plumbing fixtures and/or to be removed and relocated on construction site.
   - Seals between floors, roofs and walls shall be completely removed and replaced with UL listed fire sealant to prevent the spread of fire.

PLUMBING GENERAL NOTES:
1. Contractor shall verify all dimensions and existing conditions at the job site before commencing any phase of the work. Adjustments for fit and coordination shall be made at no additional cost to the owner. Notify engineer of any conflicts, discrepancies or omissions prior to commencement of the contract work.

2. Contractor shall review all architectural, mechanical & structural drawings and specifications for any additional requirements.

3. Contractor shall coordinate his work with other trades.

4. Seal all wall, roof, and floor penetrations with UL Listed fire sealant.

5. Plumbing contractor to field coordinate with structural route sanitary lines out and away from beams where possible and cross beams perpendicular with sleeves as required.

6. Remove and cap above ceiling level all domestic water and vent piping located in walls that are to be demolished.

7. Where plumbing fixtures are to be removed and relocated or replaced, the contractor shall cut and repair existing walls, floors, and ceilings as necessary to match new conditions.

8. Structural penetrations shall not be made within 5'-6" of the building perimeter or 6'-0" around columns. Use existing penetrations in these areas.

PLUMBING GENERAL NOTES:

- [Footnotes or additional notes related to plumbing specifications]

- [Signature and approval details]

- [Scale and instrument information]

- [Revision history and issue dates]
PLUMBING GENERAL NOTES:

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE JOB SITE BEFORE COMMENCING ANY PHASE OF THE WORK. ADJUSTMENTS FOR FIT AND COORDINATION SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER. NOTIFY ENGINEER OF ANY CONFLICTS, DISCREPANCIES OR OMISSIONS PRIOR TO COMMENCEMENT OF THE CONTRACT WORK.

2. CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL, MECHANICAL & STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR ANY ADDITIONAL REQUIREMENTS.

3. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES.

4. SEAL ALL WALL, ROOF, AND FLOOR PENETRATIONS WITH UL LISTED FIRE SEALANT.

5. PLUMBING CONTRACTOR TO FIELD COORDINATE WITH STRUCTURAL. ROUTE SANITARY LINES OUT AND AWAY FROM BEAMS WHERE POSSIBLE AND CROSS BEAMS PERPENDICULAR WITH SLEEVES AS REQUIRED.

6. REMOVE AND CAP ABOVE CEILING LEVEL ALL DOMESTIC WATER AND VENT PIPING LOCATED IN WALLS THAT ARE TO BE DEMOLISHED.

7. WHERE PLUMBING FIXTURES ARE TO BE REMOVED AND RELOCATED OR REPLACED, THE CONTRACTOR SHALL CUT AND REPAIR EXISTING WALLS, FLOORS, AND CEILINGS AS NECESSARY TO MATCH NEW CONDITIONS.

8. STRUCTURAL PENETRATIONS SHALL NOT BE MADE WITHIN 5'-0" - 6" OF THE BUILDING PERIMETER OR 6'-0" AROUND COLUMNS. USE EXISTING PENETRATIONS IN THESE AREAS.

PLUMBING WATER AND GAS FLOOR PLAN - LEVEL 4

SCALE 1/8" = 1'-0"
1. Contractor shall verify all dimensions and existing conditions at the job site before commencing any phase of the work. Adjustments for fit and coordination shall be made at no additional cost to the owner. Notify engineer of any conflicts, discrepancies or omissions prior to commencement of the contract work.

2. Contractor shall review all architectural, mechanical, structural drawings and specifications for any additional requirements.

3. Contractor shall coordinate his work with other trades.

4. Seal all wall, roof, and floor penetrations with UL listed fire sealant.

5. Plumbing contractor to field coordinate with structural. Route sanitary lines out and away from beams where possible and cross beams perpendicular with sleeves as required.

6. Remove and cap above ceiling level all domestic water and vent piping located in walls that are to be demolished.

7. Where plumbing fixtures are to be removed and relocated or replaced, the contractor shall cut and repair existing walls, floors, and ceilings as necessary to match new conditions.

8. Structural penetrations shall not be made within 5' - 6" of the building perimeter or 6' - 0" around columns. Use existing penetrations in those areas.

PLUMBING GENERAL NOTES:
Contractor shall verify all dimensions and existing conditions at the job site before commencing any phase of the work. Adjustments for fit and coordination shall be made at no additional cost to the owner. Notify engineer of any conflicts, discrepancies or omissions prior to commencement of the contract work.

Contractor shall review all architectural, mechanical & structural drawings and specifications for any additional requirements.

Contractor shall coordinate his work with other trades.

Seal all wall, roof, and floor penetrations with UL listed fire sealant.

Plumbing contractor to field coordinate with structural. Route sanitary lines out and away from beams where possible and cross beams perpendicular with sleeves as required.

Remove and cap above ceiling level all domestic water and vent piping located in walls that are to be demolished.

Where plumbing fixtures are to be removed and relocated or replaced, the contractor shall cut and repair existing walls, floors, and ceilings as necessary to match new conditions.

Structural penetrations shall not be made within 5'-6" of the building perimeter or 6'-0" around columns. Use existing penetrations in these areas.

Plumbing general notes: