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January 26, 2024
IDEA Weslaco Mechanical Upgrades

ADDENDUM NO. 1

A. PURPOSE AND INTENT

This addendum is issued for the purpose of modifying the plans for the project referenced above. This addendum shall become part of the contract and all contractors shall be bound by its content. All aspects of the specifications and drawings not covered herein shall remain the same. The General Conditions and the Special Conditions of the specifications shall govern all parts of the work and apply in full force to this addendum.

B. SCOPE

I. Clarifications

1. Sealed proposals are due on February 8, 2024 at 3:00 PM. Not 3:30pm.
2. Credentials to access Microsoft Teams Pre-Proposal Conference meeting:

Join on your computer, mobile app or room device

[Click here to join the meeting](#)

Meeting ID: 235 934 840 058

Passcode: jdPZcs

[Download Teams](#) | [Join on the web](#)

II. Specifications

1. Section 000400 Bid Proposal Form.
 - a. Use the attached bid form.
 - b. Added line-item cost for structural joist reinforcement at kitchen. This cost shall be included in the base bid number. This cost shall reflect the necessary work to reinforce the steel joists (24K-1) as per detail 01/S3.2 of the structural drawings. If during construction, it is found that structural reinforcement of the steel joist is not required, this cost shall be credited back to the Owner. The costs of roofing and structural support work (framing roof openings, leveling angles, support frames, etc.) associated with the installation and attachment of hvac equipment curbs on these steel joists shall be included in the base bid but they shall not be part of this line-item cost. See attached bid form.

2. Revised Table of Contents page 4 to include structural plans has been added.
See attached sheet.

III. Drawings

1. Sheet COVER:
 - a) Revised List of drawings. See attached sheet.
 - b) Revised Executive Committee. See attached sheet.
2. Sheet ME1.0:
 - a) Revised Mechanical and Electrical General Notes. See attached sheet.
3. Sheet ME2.1:
 - a) Revised Mechanical Demolition Keynotes. See attached sheet.
 - b) Revised Mechanical and electrical Demolition plan. See attached sheet.
4. Sheet ME3.1:
 - a) Revised Mechanical Keynotes. See attached sheet.
 - b) Revised Mechanical and Electrical Renovation Plan. See attached sheet.
5. Sheet ME5.1:
 - a) Revised Equipment Schedules notes. See attached sheet.
 - b) Revised Equipment Connection Schedule. See attached sheet.
6. Sheet S1.1:
 - a) New Structural General Notes plan. See attached sheet.
7. Sheet S3.1:
 - a) New Structural Renovation Framing plan. See attached sheet.
8. Sheet S3.2:
 - a) New Structural Details plan. See attached sheet.



01/26/2024

000400 – BID PROPOSAL FORM

PROJECT TITLE: IDEA Weslaco Mechanical Upgrades

PROPOSAL NO: RFP# 20-WCTX-0224

DUE DATE, TIME & PLACE: Thursday, February 8, 2024 at 3:00 pm
Idea Public Schools Head Quarters
2115 W. Pike Blvd., Weslaco, TX 78596

ESTIMATED COST: \$184,950.00

1. The undersigned OFFEROR proposes and agrees, if this proposal is accepted, to enter into an Agreement with OWNER to provide and install Equipment and Materials as specified or indicated in the Contract Documents for the Contract Price and within the Contract, Time indicated in this Proposal and in accordance with the Contract Documents.
2. OFFEROR accepts all of the terms and conditions of the Instructions to Bidders and Supplementary Instructions to Bidders. This Proposal shall remain in effect for a period of no less than sixty (60) days after the date of Proposal opening.
3. In submitting this Bid, OFFEROR certifies that:

- (a) OFFEROR has examined copies of all the Contact Documents and the following Addenda:

<u>Date</u>	<u>Number</u>
_____	_____
_____	_____
_____	_____

(receipt of all of which is hereby acknowledged) and also copies of the Advertisement or Invitation to Submit Proposal and the Instructions to BIDDERS; and

- (b) This Proposal is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; OFFEROR has not directly or indirectly induced or solicited any other OFFEROR to submit a false or sham Bid; OFFEROR has not solicited or induced any person, firm or a corporation to refrain from proposing; and OFFEROR has not sought by collusion to obtain for himself any advantage over any other OFFEROR or over OWNER.
4. Project Deadlines and Penalties: This provision shall be enforced, except in the event of inclement weather, unnecessary delay caused by OWNER or his agent, or other natural disaster or Act of God beyond Contractor's control.
 - (a) For penalties, refer to AIA Contract between Owner and Contractor, along with all applicable amendments.
5. Communications concerning this Proposal shall be addressed to:

000400 – BID PROPOSAL FORM

Cesar Gonzalez, PE
1126 South Commerce
Harlingen, Texas 78550
Phone: (956) 230-3435; Fax: (956) 720-0830
Email: cgonzalez@ethoseng.net

NOTICE:

In determining the best value for the district, the district is not restricted to considering price alone but may consider any other factor stated in the selection criteria.

It is the intent of the OWNER to award a Contract to the OFFEROR that offers the best value for the OWNER, according to the following weighted selection criteria established by the OWNER.

The OWNER reserves the right to accept or reject any and/or all Bids, to accept the Proposal that, in the OWNER’S judgment, is in the OWNER’S best interest, and to waive informalities or irregularities in a Proposal received.

The OWNER will document the basis of its selection and will make the evaluations public not later than the seventh day after the date the contract is awarded.

Bids received from nonresident Offerors will be evaluated by the Owner as required by House Bill 620, 69th Legislature, 1985.

OFFEROR will supply and install on-site mechanical/electrical equipment and services as specified in the Project Manual dated [January 22, 2024](#), for the following price:

<p><u>BASE PROPOSAL:</u> [Proposal amount includes Allowances as per specifications section 012100].</p> <p>\$ _____ (number)</p> <p>_____ (words)</p> <p><u>LINE-ITEM COST FOR STRUCTURAL REINFORCEMENT AT KITCHEN (This cost is included in Base Proposal Item)</u></p> <p>\$ _____ (number)</p> <p>_____ (words)</p>

<p><u>PROPOSED SUBSTANTIAL COMPLETION DATE of the project in its entirety.</u> <u>(Recommended date of substantial completion: January 3, 2025)</u></p> <p>_____</p>

Our Proposal proposes to use the following Contractors, Subcontractors, Manufacturers, Products, Material Suppliers and Equipment Suppliers for the principal portions of the work.

NAME(S) OF SUB-CONTRACTORS:

000400 – BID PROPOSAL FORM

NAME(S) OF EQUIPMENT SUPPLIERS:

Chiller:

Pumps:

Kitchen Ventilation Systems:

Through the wall, DX Packaged Systems:

OTHER:

Name and Address of OFFEROR:

Signature

Name and Title

Telephone _____

Sworn to and subscribed before me this ____ day of _____, 2024.

SEAL

Notary Public in and for the State of Texas

SEAL (If Proposal is By a Corporation)

DRAWINGS

COVER	COVER SHEET
ME1.0	MECHANICAL GENERAL NOTES & LEGEND
ME2.1	MECHANICAL & ELECTRICAL DEMOLITION PLAN (SERVICE YARD)
ME2.2	MECHANICAL & ELECTRICAL DEMOLITION AND RENOVATION PLAN (KITCHEN)
ME2.3	MECHANICAL & ELECTRICAL DEMOLITION AND RENOVATION PLAN (PORTABLES)
ME3.1	MECHANICAL RENOVATION PLAN (SERVICE YARD)
ME4.1	CHILLER RISER DIAGRAMS
ME5.1	MECHANICAL & ELECTRICAL SCHEDULES
ME6.1	MECHANICAL & ELECTRICAL DETAILS
S1.1	STRUCTURAL GENERAL NOTES
S3.1	STRUCTURAL RENOVATION FRAMING PLAN
S3.2	STRUCTURAL DETAILS

ADD #1



January 22, 2024

IDEA PUBLIC SCHOOLS

IDEA WESLACO - MECHANICAL UPGRADES

WESLACO, TEXAS



DATE OF ISSUE

JANUARY 19, 2024

LIST OF DRAWINGS

COVER	COVER SHEET	
ME1.0	MECHANICAL & ELECTRICAL GENERAL NOTES & LEGEND	
ME2.1	MECHANICAL & ELECTRICAL DEMOLITION PLAN (SERVICE YARD)	
ME2.2	MECHANICAL & ELECTRICAL DEMOLITION AND RENOVATION PLAN (KITCHEN)	
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ME3.1	MECHANICAL RENOVATION PLAN (SERVICE YARD)	
ME4.1	CHILLER RISER DIAGRAMS	
ME5.1	MECHANICAL & ELECTRICAL SCHEDULES	
		ST.1 STRUCTURAL GENERAL NOTES S3.1 STRUCTURAL RENOVATION FRAMING PLAN S3.2 STRUCTURAL DETAILS

EXECUTIVE COMMITTEE

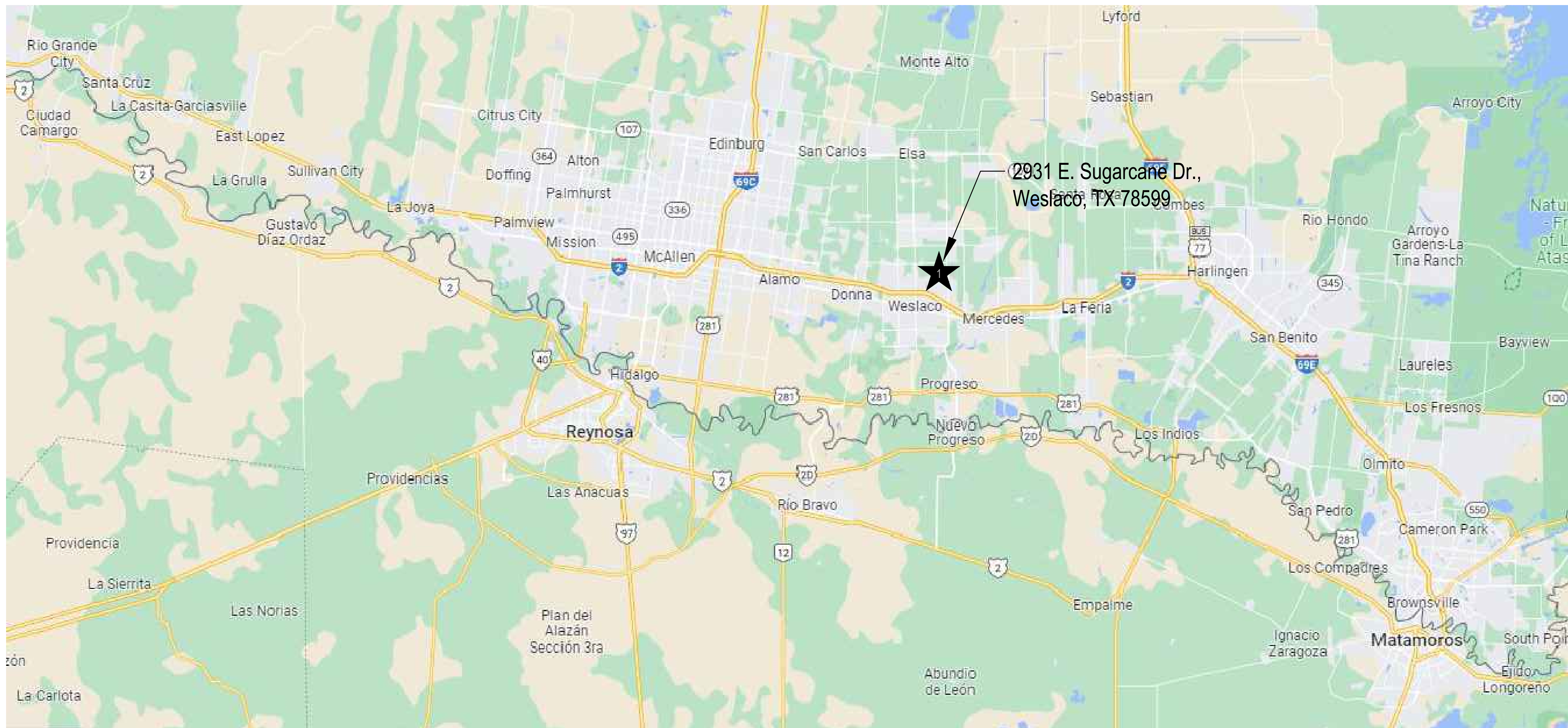
COLLIN SEWELL	CHAIR
ED RIVERA	VICE-CHAIR
ERICH HOLMSTEN	TREASURER
RYAN VAUGHAN	SECRETARY

BOARD OF DIRECTORS

MICHAEL ADAMS	MEMBER
GARY LINDGREN	MEMBER
THERESA BARRERA -SHAW	MEMBER
NANETTE COCERO	MEMBER
DR. JEFF COTTRILL	CEO AND SUPERINTENDENT
CODY GRINDLE	PRESIDENT
DR. ERNIE CANTU	CHIEF SCHOOLS OFFICER

RIO GRANDE VALLEY REGIONAL BOARD

MARIA ANTONIA CHAPA
CERISE R. DE GARDUNO
SARAH GARZA
ZULIEDA LOPEZ-HABBOUCHE
ANDREA RODRIGUEZ
ALYSSA L. ROMERO, BOARD CHAIR
BOBBY SAENZ
CJ SANCHEZ
JESUS (JESSE) ZEPEDA



VICINITY MAP - RIO GRANDE VALLEY



EXISTING CONDITIONS & COORDINATION/RENOVATION:

- COORDINATE SUMMER SCHOOL SCHEDULES AND PROJECT COMPLETION DATES WITH OWNER. PERFORM WORK IN CLOSE COORDINATION WITH OWNER. MAJORITY OF WORK SHALL BE PERFORMED WHEN SCHOOLS ARE UNOCCUPIED, SUCH AS WEEKENDS, AFTER HOURS, SPRING AND SUMMER BREAK OR AT OWNER APPROVED TIME.
- COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE (PRIME) CONTRACTOR.
- PROVIDE LIGHTED SAFETY BARRIERS AROUND WORK AREAS AT ALL TIMES.
- WORK TO BE DONE UNDER ALLOWANCES BECOMES AN INTEGRAL PART OF THE WORK AND THE RESPONSIBILITY OF THE CONTRACTOR ONCE THE ALLOWANCE IS APPROVED.
- COORDINATE WITH OWNER AND ENGINEER FOR ANY DISRUPTION IN UTILITY SERVICES, PARTICULARLY THOSE THAT MIGHT AFFECT OTHER BUILDINGS ON CAMPUS.
- CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL IN WRITING. UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED; CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.
- OWNER'S EQUIPMENT, MATERIALS, FURNISHINGS, CARPETS, AND INTERIOR SURFACES ARE TO BE PROTECTED FROM DUST ACCUMULATION AND DAMAGE, AND MUST BE THOROUGHLY CLEANED PRIOR TO SUBSTANTIAL COMPLETION. CARPETS ARE TO BE PROTECTED WITH HEAVY DUTY PLASTIC SHEETING. REFER TO SPECIFICATIONS SECTION 01700 EXECUTION REQUIREMENTS FOR FURTHER DETAIL.
- MAINTAIN PROJECT SITE FREE OF WASTE MATERIALS AND DEBRIS, AND CLEAN SITE AT END OF EACH WORK DAY TO GREATEST EXTENT POSSIBLE.
- SUBMISSION OF PROPOSAL IS CONSIDERED AN ACKNOWLEDGEMENT THAT CONTRACTOR VISITED SITE, VERIFIED ALL EXISTING CONDITIONS, AND INCLUDED ANY MODIFICATIONS TO EXISTING AND NEW WORK REQUIRED FOR INSTALLATION OF A COMPLETE AND OPERATIONAL SYSTEM.
- TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE CONDITIONS THAT COULD HAVE BEEN VERIFIED PRIOR TO SUBMITTING PROPOSAL.
- DRAWINGS SHOWING ALL EQUIPMENT LOCATIONS, DUCT AND PIPE SIZES, ELEVATIONS, AND ELECTRICAL INFORMATION HAVE BEEN RECREATED USING DRAWINGS AND SITE SURVEYS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SITE CONDITIONS IN ORDER TO MAKE ANY NECESSARY ADJUSTMENTS, PRIOR TO ORDERING MATERIALS OR COMMENCING INSTALLATION. CHANGE ORDERS WILL NOT BE APPROVED FOR DIMENSIONAL VERIFICATIONS REQUIRING MINOR ADJUSTMENTS NEEDED TO COMPLETE INSTALLATION.
- PROVIDE SHOP DRAWINGS TO COORDINATE EXISTING AND NEW WORK.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE AND DISPOSE OF ALL ITEMS INDICATED TO BE REMOVED. ONLY EXPRESSLY DESIGNATED ITEMS SHALL BE TURNED OVER TO OWNER.
- OWNER SHALL HAVE FIRST RIGHT OF REFUSAL OF ALL MATERIAL REMOVED. CONTRACTOR SHALL DISPOSE OF ALL MATERIALS WHICH THE OWNER DOES NOT WANT.
- REMOVE ALL EQUIPMENT, MATERIALS, CONTROL DEVICES, BOXES, POWER AND CONTROL WIRING, SAFETY SWITCHES, TUBING, ELECTRICAL CONDUIT, PIPING, SENSORS, ELECTRICAL DISCONNECTS, SUPPORTING DEVICES AND STRUCTURES, AND ALL RELATED AUXILIARY ITEMS ASSOCIATED WITH EQUIPMENT AND MATERIALS WHICH WILL NO LONGER BE USED AFTER THE PROJECT IS COMPLETE.
- CONTRACTOR IS RESPONSIBLE FOR RESTORING ANY DISTURBED SURFACE TO ITS ORIGINAL CONDITION. ANY ROAD, TRAFFIC, OR OTHER PAINTED OR ERECTED SIGNS DAMAGED AS A RESULT OF WORK PERFORMED IN THOSE AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
- CUTTING AND PATCHING OF WALLS DAMAGED IN THE REMOVAL OF ITEMS SHALL BE DONE, WHETHER OR NOT DRAWINGS SPECIFICALLY CALL FOR SUCH REPAIRS.
- ABOVE CEILING WORK: FIELD VERIFY LOCATIONS OF EXISTING LIGHTING FIXTURES, SPEAKERS, HORN STROBES, SMOKE DETECTORS ETC. THAT WILL BE RETAINED. ENSURE THAT THESE ARE IN WORKING CONDITION PRIOR TO DEMOLITION. IF ANY OF THE ABOVE ITEMS ARE IN NON-WORKING CONDITION, SUBMIT A WRITTEN REPORT TO OWNER/ENGINEER.
- PRIOR TO DEMOLITION WORK, SUBMIT A DETAILED DEMOLITION AND CONSTRUCTION SCHEDULE TO OWNER AND ENGINEER. DO NOT PROCEED WITH WORK UNTIL PROPOSED SCHEDULE IS APPROVED BY ALL PARTIES. PROVIDE OWNER WITH MINIMUM 10 DAYS ADVANCE NOTICE OF INTENT TO PERFORM ANY WORK WHICH WILL REQUIRE CHILLER, BOILER PLANT OR ELECTRICAL SERVICE TO BE SHUT DOWN.
- PROVIDE DUCTWORK MODIFICATION AND TRANSITION PIECES PER SMACNA RECOMMENDATION, AND AS REQUIRED TO ACCOMMODATE NEW UNITS. IF APPLICABLE, SEAL DUCT-LINER ON EXISTING DUCTWORK SUCH THAT LOOSE INSULATION IS NOT IN THE AIR STREAM. EXTEND EXTERNAL INSULATION ON NEW DUCT 12" PAST THE CONNECTION POINT OF NEW AND OLD DUCTWORK.

ABBREVIATIONS

A	AMPS	ENT.	ENTERING	NO	NORMALLY OPEN
ACCU	AIR COOLED CONDENSING UNIT	EXT.	EXTERNAL OR EXTERIOR	NTS	NOT TO SCALE
ACT	ACTUATOR	FCU	FAN COIL UNIT	OA	OUTSIDE AIR
AFF	ABOVE FINISHED FLOOR	FD	FIRE DAMPER	PH	PHASE
AHU	AIR HANDLING UNIT	FM	FLOW METER	RA	RETURN AIR
B.	BOTTOM	FS	FLOW SWITCH	RAG/RG	RETURN AIR GRILLE
BAS	BUILDING AUTOMATION SYSTEM	FPI	FINS PER INCH	RD	ROOF DRAIN
BOP	BOTTOM OF PIPE	G.	GROUND	RM.	ROOM
BOTT.	BOTTOM	GA.	GAGE	RPZ	REDUCED PRESSURE ZONE
C.	CONDUIT OR COMMON	GALV.	GALVANIZED	SA	SUPPLY AIR
CHR	CHILLED WATER RETURN	GPM	GALLONS PER MINUTE	SD	SUPPLY AIR DIFFUSER
CHS	CHILLED WATER SUPPLY	GRND.	GROUND	SS	STAINLESS STEEL
CHW	CHILLED WATER	HB	HOSE BIBB	SZ	SINGLE ZONE
CHWP	CHILLED WATER PUMP	HP	HORSEPOWER	TAB	TESTING & BALANCING
CR	CONDENSER WATER RETURN	HS	HUMIDITY SENSOR	T.O.L.	TOP OF LOUVER
CS	CONDENSER WATER SUPPLY	HVAC	HEATING, VENTILATION, & AIR CONDITIONING	TS	TEMPERATURE SENSOR
CLG.	CEILING OR COOLING			TSTAT	THERMOSTAT
COMB.	COMBINATION	LVG.	LEAVING	UG	UNDERGROUND
CONC.	CONCRETE	MECH	MECHANICAL	UNO	UNLESS OTHERWISE NOTED
COND.	CONDUIT	MOT. STRTR.	MOTOR STARTER	V	VOLTS
CT	COOLING TOWER	MS	MOTOR STARTER	VAV	VARIABLE AIR VOLUME
CU	COPPER	MZ	MULTI-ZONE	VFD	VARIABLE FREQUENCY DRIVE
CW	CITY WATER	NC	NORMALLY CLOSED	W	WIRE
DDC	DIRECT DIGITAL CONTROLS				
DMPR.	DAMPER				
DISC.	DISCONNECT				
EAG/EG	EXHAUST AIR GRILLE				
EMS	ENERGY MANAGEMENT SYSTEM				



EQUIPMENT:

- EQUIPMENT INSPECTION:
 - FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
 - ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY EQUIPMENT CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.
 - EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.
- EQUIPMENT INSTALLATION:
 - AFFIX ID TAGS TO ALL MECHANICAL EQUIPMENT PER SPECIFICATIONS.
- EQUIPMENT INSULATION:
 - INSULATE ALL SURFACES OF THAT ARE CAPABLE OF BECOMING COLD AND COLLECTING CONDENSATE. THIS INCLUDES SUPPLY DIFFUSERS AND CONNECTING DUCTWORK / TRANSITION PIECES.
- MECHANICAL:
 - MECHANICAL CONTRACTOR IS TO COORDINATE WITH TESTING, ADJUSTING, AND BALANCING (TAB) FIRM TO PROVIDE REPLACEMENT SHEAVES / PULLEYS FOR MOTORS IF / AS REQUIRED BY TAB TO ACHIEVE SPECIFIED FLOW RATES FOR EQUIPMENT.
- ELECTRICAL:
 - CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ELECTRICAL CONTRACTOR REGARDING EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
 - DUE TO VARIATIONS IN EQUIPMENT CHARACTERISTICS BY DIFFERENT EQUIPMENT SUPPLIERS, MECHANICAL EQUIPMENT ULTIMATELY PROVIDED MAY DIFFER IN HORSEPOWER OR AMPERAGE REQUIREMENTS FROM THAT SPECIFIED IN THESE DRAWINGS. COORDINATE WITH GENERAL CONTRACTOR PRIOR TO BIDDING, AND PRIOR TO SUBMITTALS AND ORDERING EQUIPMENT, TO ENSURE THAT EQUIPMENT ELECTRICAL REQUIREMENTS ARE CONVEYED TO ELECTRICAL CONTRACTOR. IT IS SOLELY CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPATIBILITY ISSUES ARE COORDINATED.
- PLUMBING:
 - COORDINATE LOCATIONS WITH PLUMBING CONTRACTOR.
 - PROVIDE INSULATED AND TRAPPED CONDENSATE DRAIN LINES FROM ALL AIR CONDITIONING EQUIPMENT AND TERMINATE TO NEAREST CONDENSATE DRAIN RECEPTORS OR OTHER APPROVED RECEPTACLES. COORDINATE WITH PLUMBING.

CODES & ORDINANCES:

- GENERAL:
 - UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS, PERFORM ALL WORK PER APPLICABLE VERSION OF INTERNATIONAL BUILDING CODES, AND LOCAL CODES AND ORDINANCES.
 - PRIOR TO SUBMITTING PROPOSAL, NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.
- WIND STORM CERTIFICATION:
 - CONTRACTOR SHALL DESIGN, CONSTRUCT AND INSTALL EXTERIOR AND ROOF MOUNTED EQUIPMENT TO MEET GOVERNING BUILDING CODES.
- PERMITS:
 - CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
 - CONTRACTOR WHO WILL ACTUALLY PERFORM WORK MUST APPLY FOR ALL REQUIRED PERMITS.
- APPROVALS AND INSPECTIONS:
 - OBTAIN APPROVAL FROM CITY FIRE DEPARTMENT AND BUILDING AND SAFETY DEPARTMENT PRIOR TO INSTALLATION OF ANY FIRE RELATED ITEMS.
 - COORDINATE PRESSURE TESTS, INSPECTIONS AND APPROVAL FOR ALL SYSTEMS WITH PERMITTING OFFICER, OWNER AND ENGINEER.



INSULATION:

- FIBERGLASS INSULATION MAY NOT BE USED ON ANY COLD SURFACES; ONLY CLOSED CELL INSULATION IS ACCEPTABLE.
- PROVIDE INSULATION ON ALL SURFACES CAPABLE OF CREATING CONDENSATION.

CONTROLS:

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL HARDWARE, SOFTWARE, CONTROL AND MONITORING DEVICES, AUXILIARY DEVICES, CABLES AND WIRE, PROGRAMMING AND INSTALLATION SERVICES TO RESULT IN A FULLY FUNCTIONAL SYSTEM WHICH PERFORMS IN MANNER EXPECTED BY OWNER AND ENGINEER.
- COOPERATE AND COORDINATE FULLY WITH PROVIDER AND INSTALLER OF NEW HVAC UNITS TO ENSURE COMPLETE AND EFFECTIVE CONTROL OF UNITS IS ACHIEVED.
- CONTRACTOR SHALL COOPERATE AND COORDINATE WORK ACTIVITIES EQUIPMENT SUPPLIER TO ENSURE SMOOTH TROUBLE-FREE INSTALLATION.
- WHERE NOT SPECIFICALLY INDICATED ON PLANS, CONTRACTOR IS RESPONSIBLE FOR ALL CONTROL RELAYS AND CONTACTORS, POWER TO PANELS, AND OTHER CONTROL ELEMENTS. ALTHOUGH CONTRACTOR MAY COORDINATE WITH OTHER TRADES TO PROVIDE MISCELLANEOUS ELECTRICAL WORK, THE FINAL RESPONSIBILITY FOR ACHIEVEMENT OF CONTROL SEQUENCES LIES WITH CONTRACTOR.
- REFER TO OPERATING SEQUENCE IN SPECIFICATIONS FOR ALARMS AND SEQUENCES REQUIRED.
- ALL REFERENCES TO CONTROLLED / MONITORED POINTS AND / OR GRAPHICS WHICH ARE ON A CURRENT CONTROL SYSTEM, AND WHICH WILL BE REMOVED DURING COURSE OF CONSTRUCTION OF THIS PROJECT, MUST BE COMPLETELY REMOVED FROM CONTROL SYSTEM SOFTWARE, CONTROL SYSTEM WIRING AND CONTROLLERS TO SUCH POINTS MUST BE REMOVED AS WELL.
- RECOMMENDED DIVISION OF RESPONSIBILITIES BETWEEN SUB-CONTRACTORS IS AS FOLLOWS:
 - WITH OWNER COORDINATE ETHERNET CONNECTION AND EXTEND IT FROM OWNER DESIGNATED LOCATION TO NEW DDC PANELS AS APPLICABLE.
 - CONTRACTOR SHALL COORDINATE CONTROL WIRING BETWEEN CONTROL PANELS AND UNITARY CONTROLLERS. PROVIDE MEANS TO SUPPORT WIRING (J-HOOKS). DO NOT SUPPORT WIRING FROM EXISTING DATA OR FIRE ALARM WIRING SUPPORTS.
 - WITH ELECTRICAL SUB CONTRACTOR, CONTRACTOR COORDINATES 120V POWER WIRING AND CONDUIT TO NEW CONTROLLERS (AND CIRCUIT BREAKERS, IF NO SPARES EXIST).
 - CONTRACTOR IS RESPONSIBLE FOR:
 - VALVES AND ACTUATORS
 - GATEWAY INTERFACES AND ALL RELATED ACCESSORIES FOR FULL COMMUNICATION
 - SOFTWARE PROGRAMMING.
 - ALL NETWORK CONTROL PANELS, CONTROLLERS, SOFTWARE AND PROGRAMMING.
 - WIRING CONDUIT FOR CONTROL AND MONITORING DEVICES
 - CONTROL RELAYS
 - SHOP DRAWINGS PER SPECIFICATIONS.

ELECTRICAL:

- ALL ELECTRICAL WORK SHALL BE UNDER THE MASTER ELECTRICIAN WHO PULLED THE PERMIT AND ITS JOURNEYMAN ELECTRICIANS.
- PERFORM ALL WORK PER ADOPTED N.E.C. AND APPLICABLE STATE STANDARDS, UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS.
- UNLESS NOTED OTHERWISE, MINIMUM POWER CIRCUIT IS TO BE #12 THWN WITH #12 GROUND IN 3/4" CONDUIT, WITH THE EXCEPTION THAT ANY CIRCUIT LONGER THAN 100 FEET SHALL BE MINIMUM #10 AWG WITH #10 GROUND WIRE. CIRCUIT LONGER THAN 200 FEET SHALL BE MINIMUM #8 AWG WITH #10 GROUND WIRE MINIMUM.
- ALL EXISTING ID NAMETAGS AND CIRCUIT IDENTIFICATION WHICH BE REVISED TO REFLECT CURRENT CONDITIONS FOR ALL EQUIPMENT WHICH IS NEW, REPLACED, OR DEMOLISHED. REMOVE ID NAMETAGS FOR DEMOLISHED EQUIPMENT. REPLACE EXISTING NAMETAGS WITH NEW FOR REPLACED EQUIPMENT, IF REPLACEMENT EQUIPMENT HAS DIFFERENT NAME. PROVIDE NEW NAMETAGS FOR ALL NEW EQUIPMENT. ALL CIRCUIT BREAKER DIRECTORIES FOR PANELS IN WHICH NEW WORK TAKES PLACE ARE TO BE REPLACED WITH NEW DIRECTORIES WHICH LIST EXISTING CIRCUITS AND NEW. ALL UNUSED CIRCUITS ARE TO BE MARKED AS "SPARE" IN THE DIRECTORIES. DIRECTORIES ARE TO BE COMPUTER GENERATED; NO HAND WRITTEN DIRECTORIES ARE ACCEPTABLE.
- HAND-WRITTEN CIRCUIT BREAKER DIRECTORIES WILL NOT BE ACCEPTED. DIRECTORIES MUST BE COMPUTER GENERATED AND PRINTED TO REFLECT FINAL INSTALLED CONDITIONS.
- MARK ALL J-BOXES WITH INDELIBLE INK, INDICATING POWER CIRCUITRY INFORMATION. LABEL ALL EQUIPMENT ITEMS PER SPECIFICATIONS.
- ALL EXTERIOR RACEWAYS ABOVE GROUND SHALL BE RIGID GALVANIZED.
- UNDER NO CIRCUMSTANCES SHALL MORE THAN THREE CIRCUITS SHARE THE SAME NEUTRAL, AND SUCH CIRCUITS MUST BE SEPARATE PHASE.
- SINCE ELECTRICAL CHARACTERISTIC OF EQUIPMENT (SUCH AS HORSEPOWER, KW, AMPERAGE, VOLTAGE, ETC.) SUBMITTED MAY DIFFER FROM THOSE SPECIFIED IN DRAWINGS, CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH MECHANICAL AND OTHER CONTRACTORS TO ENSURE COMPATIBILITY BETWEEN ELECTRICAL AND MECHANICAL EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
- USE LONG-SWEEPS FOR ALL CHANGES IN DIRECTION ON CONDUIT RUNS.
- ALL INTERIOR RACEWAYS SHALL BE EMT.
- FIELD VERIFY PROJECT SITE EXISTING CONDITIONS AND ELEVATIONS PRIOR TO BEGINNING ANY WORK.
- PHASING AND SEQUENCE OF CONSTRUCTION SHALL BE PER DRAWINGS AND SPECIFICATIONS.
- ALL MATERIALS AND LABOR, WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT, WHICH ARE NECESSARY FOR THE PROPER INSTALLATION AND FUNCTION OF THE SYSTEM SHALL BE FURNISHED BY THIS CONTRACTOR. INCLUDE ALL COSTS OF CHANGES, IF/AS REQUIRED IN BID PROPOSAL.
- ELECTRICAL WIRING SHALL NOT BE SPLICED BELOW GRADE.
- CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
- CONTRACTOR WHO WILL ACTUALLY PERFORM WORK MUST APPLY FOR ALL REQUIRED PERMITS.
- NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.
- COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
- SEAL AROUND ELECTRICAL RACEWAYS AT ALL WALLS AND WALL LOUVER PENETRATIONS WITH FIREPROOF CAULKING. RE: SPECS. PROVIDE FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE, TO PROVIDE FINISHED LOOK.
- CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND ELECTRICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
- MAINTAIN MANUFACTURER RECOMMENDED CLEARANCE AROUND ALL EQUIPMENT.
- AFFIX ID TAGS TO ALL DIVISION 26 EQUIPMENT.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH MECHANICAL AND PLUMBING CONTRACTOR REGARDING EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
- FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
- ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY THEIR CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.
- EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.
- SLEEVE ALL EXTERIOR WALL PENETRATIONS.
- PRIOR TO ANY DEMOLITION, CONTRACTOR SHALL CONDUCT A DETAILED INSPECTION OF EXISTING CONDITIONS AND COMPARE AGAINST DEMOLITION DRAWINGS. CONTRACTOR SHALL REQUEST CLARIFICATION AS TO THE REMOVAL OF ANY ELECTRICAL COMPONENTS FOUND IN THE FIELD THAT ARE NOT SPECIFICALLY NOTED TO BE DEMOLISHED.
- THE DESIGN INTENT IS TO REUSE TO EXTENT POSSIBLE EXISTING ELECTRICAL AND SAFETY SYSTEMS INCLUDING CIRCUIT BREAKERS, WIRING AND CONDUITS, SAFETY AND OTHER HARD WIRED INTERLOCKS, ETC. EXISTING SYSTEMS TO BE REUSED SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. SEE PLANS
- PROVIDE ADDITIONAL SPARE MATERIALS DESCRIBED BELOW. PROVIDE PROTECTIVE COVERING FOR STORAGE & IDENTIFIED WITH LABELS DESCRIBING THE CONTENTS. INCLUDE THE INSTALLATION COST, FITTINGS AND SUPPORTS IN THE BASE BID PROPOSAL:
 - 100 LINEAR FEET - 1/2" - 3#12 & #12G
 - 100 LINEAR FEET - 3/4" - 3#10 & #10G
 - 50 LINEAR FEET - 3" - 3#50CKMIL & #4G

MECHANICAL SYMBOLS LEGEND

	DUCT SIZE: FIRST FIGURE IS SIDE SHOWN		THERMOSTAT
	BELOW DUCT SIZE: FIRST FIGURE IS SIDE SHOWN		SPACE HUMIDITY SENSOR
	DIRECTION OF FLOW-RETURN		DUCT HUMIDITY SENSOR
	DIRECTION OF FLOW-SUPPLY		SPACE CARBON DIOXIDE SENSOR
	FIRE DAMPER		STATIC PRESSURE SENSOR
	FLEXIBLE DUCT		DUCT CARBON DIOXIDE SENSOR
	EXHAUST AIR GRILLE		CHILLED WATER RETURN
	RETURN AIR/TRANSFER AIR GRILLE		CHILLED WATER SUPPLY
	SUPPLY AIR DIFFUSER		CONDENSATE PIPING
	SIDE TAP WITH DAMPER		BUTTERFLY VALVE
	BACKDRAFT DAMPER		MANUAL VALVE
	AUTO-FLOW REGULATOR		AUTOMATIC VALVE
	DRAIN VALVE		CHECK VALVE
	BALL VALVE		PRESSURE GAUGE & COCK
			TEMPERATURE SENSOR
			THERMOMETER WELL

NO. REVISION: BY:

ADD 1/26/2024 ETHOS

RFP # 20-WCTX-0224

TEXAS

IDEA WESLACO MECHANICAL UPGRADES

WESLACO

ethos
engineering

1126 SOUTH COMMERCE ST.
HARLINGEN, TX
PHONE: 361-230-3425
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

DATE: JAN 19, 2024.

CHECKED BY: R.K.

DRAWN BY: M.O.V.

PROJECT NO.: 23v74

CAD FILE:

SHEET:

ME1.0

DEMOLITION GENERAL NOTES:

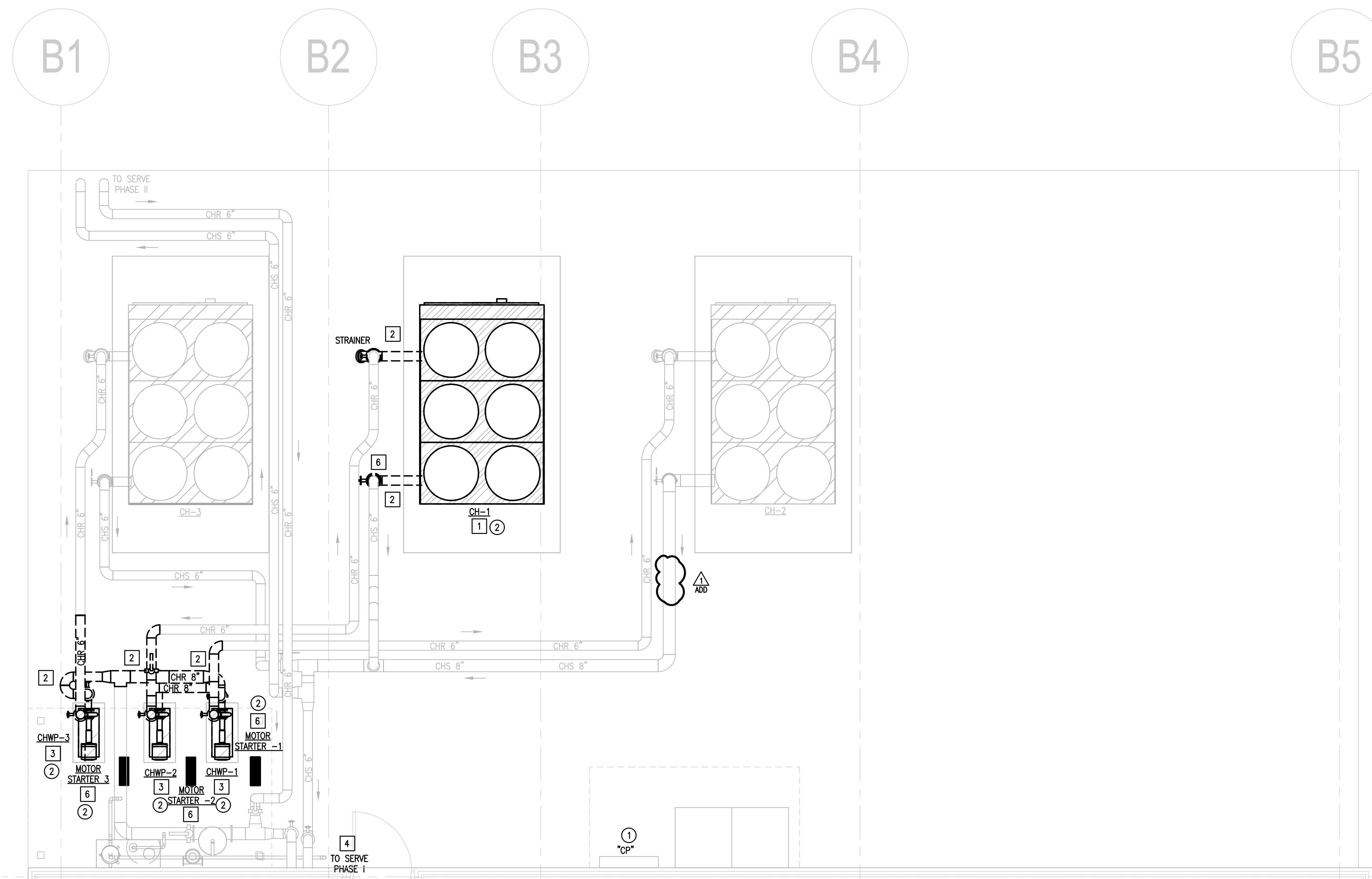
1. ALL DEMOLITION WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES INCLUDING THOSE PUBLISHED BY OSHA.
2. PROVIDE ALL DEMOLITION WORK REQUIRED FOR THE REMOVAL OF EQUIPMENT AND ASSOCIATED DEVICES. PROVIDE A COMPLETE AND OPERABLE SYSTEM UPON COMPLETION OF THE PROJECT.
3. COORDINATE DEMOLITION OF DIVISION 23 & 26 SYSTEMS AS REQUIRED WITH ALL OTHER TRADES.
4. ALL EXISTING EQUIPMENT REMOVED DURING CONSTRUCTION, THAT IS NOT TO BE REUSED, SHALL BE REMOVED FROM THE JOB SITE AND PROPERLY RETURNED TO THE OWNER, IF DESIRED BY OWNER.
5. OWNER MAY WISH TO KEEP DEMOLISHED EQUIPMENT AND MATERIALS. COORDINATE WITH OWNER, AND DISPOSE OF EQUIPMENT AND MATERIALS THAT OWNER DOES NOT RETAIN.

MECHANICAL DEMOLITION KEYED NOTES:

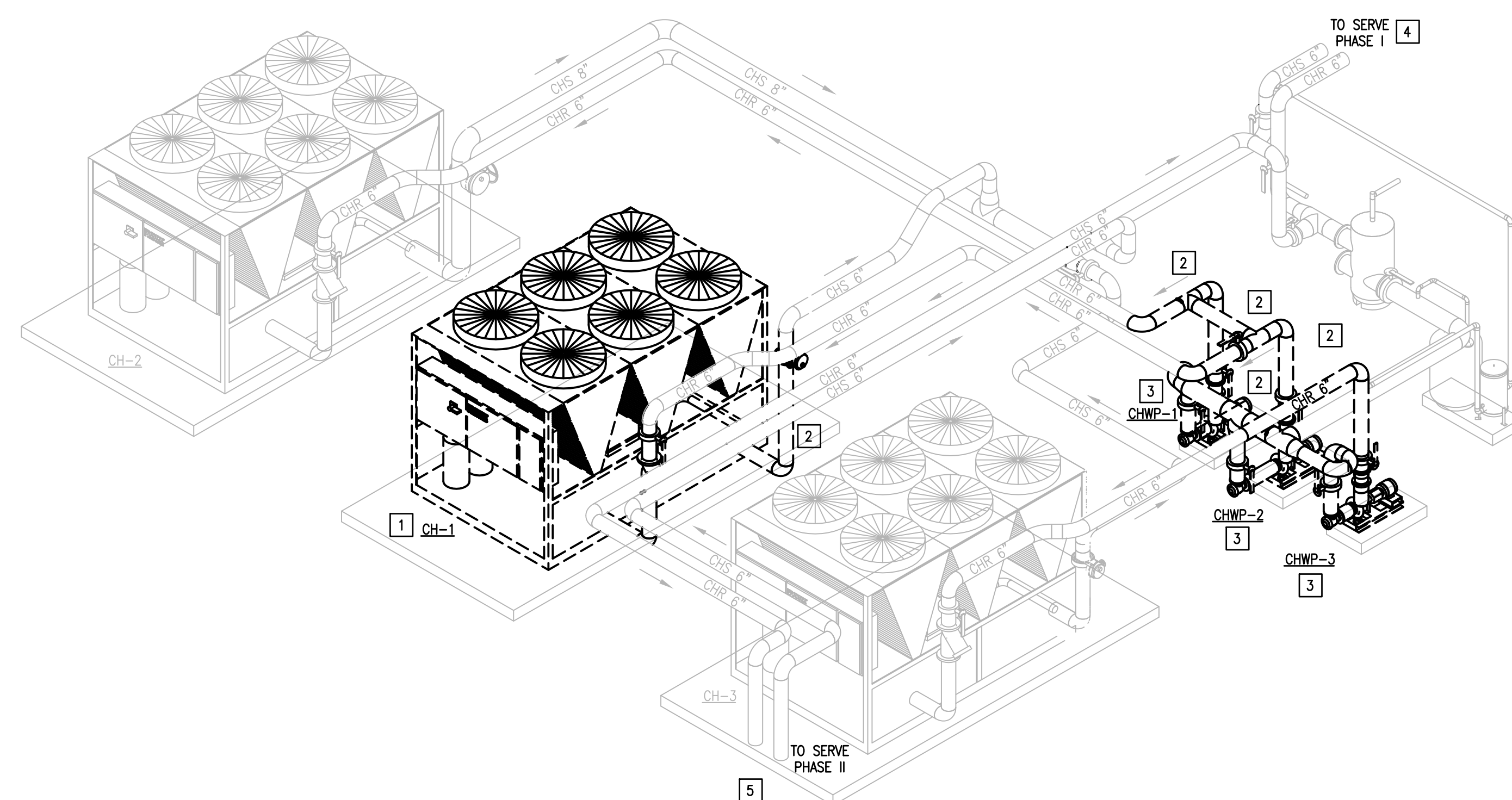
- 1 DEMOLISH EXISTING AIR COOLED CHILLER AND ASSOCIATED CHW PIPING CONNECTIONS, ISOLATION VALVES, SPECIALTIES, AND ACCESSORIES IN THE MECHANICAL YARD AS INDICATED.
- 2 DEMOLISH EXISTING CHW PIPING AS SHOWN.
- 3 DEMOLISH EXISTING PUMPS AND ASSOCIATED CHW PIPING AS SHOWN ON PLANS. DEMOLISH AND REPLACE EXISTING FLEXIBLE CONNECTORS AND ACCESSORIES. RETAIN AND REUSE THE EXISTING PUMP CONCRETE HOUSEKEEPING PAD. PREPARE AREA FOR INSTALLATION OF NEW PUMPS.
- 4 REFER TO EXISTING MECHANICAL PLAN FOR CONTINUATION INSIDE THE BUILDING.
- 5 DEMOLISH EXISTING MOTOR STARTER ASSOCIATED WITH CHILLER PUMP. RETAIN AND REUSE EXISTING MOUNTING RACK FOR NEW VFD. REFER TO NEW PLANS FOR MORE INFORMATION.
- 6 DEMOLISH EXISTING AUTOMATIC ISOLATION VALVE.

ELECTRICAL DEMOLITION KEYED NOTES:

- 1 APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING EXISTING HVAC EQUIPMENT TO BE REPLACED.
- 2 DISCONNECT EXISTING HVAC EQUIPMENT FOR INSTALLATION OF NEW HVAC EQUIPMENT. REFER TO EQUIPMENT CONNECTION SCHEDULE.

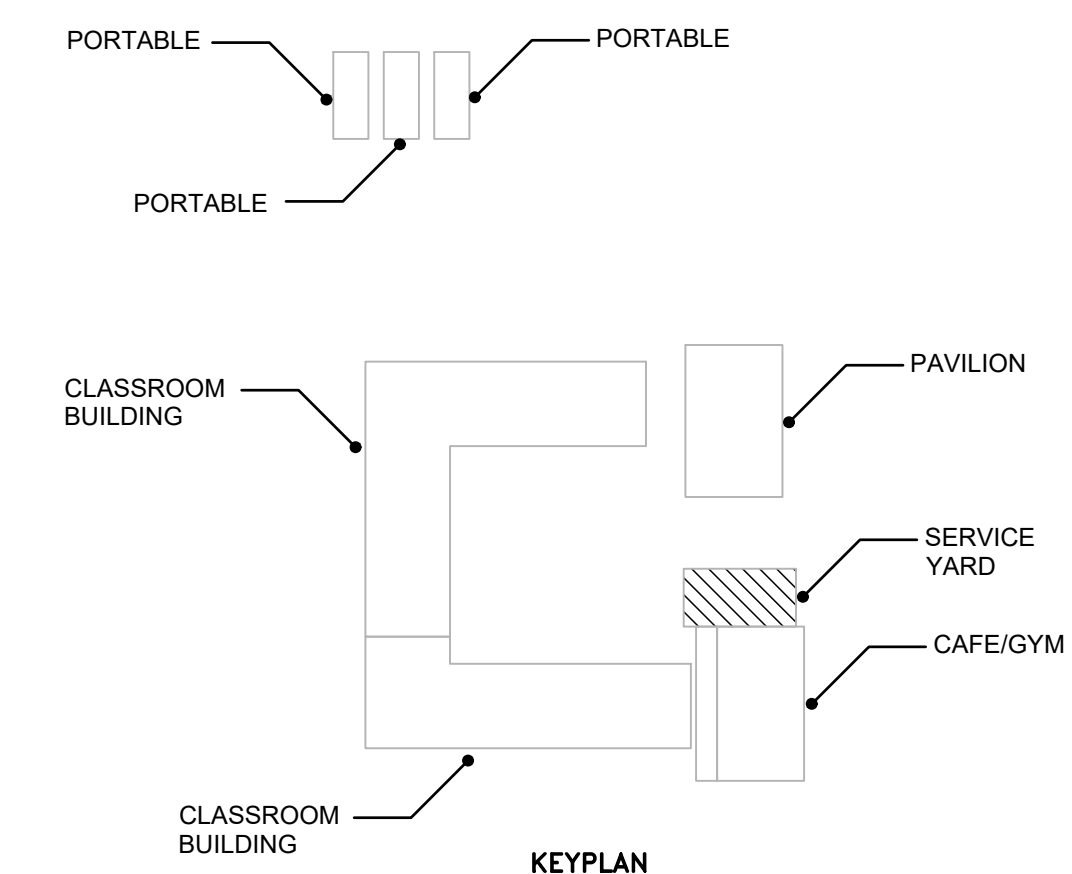


IDEA WESLACO
 01 MECHANICAL & ELECTRICAL DEMOLITION PLAN (SERVICE YARD)
 SCALE: 1/4" = 1'-0"



IDEA WESLACO
 02 MECHANICAL DEMOLITION ISOMETRIC VIEW (SERVICE YARD)
 SCALE: NOT TO SCALE

MECHANICAL LEGEND	
	EXISTING CHILLED WATER PIPING TO REMAIN
	EXISTING CHILLED WATER PIPING TO BE DEMOLISHED
	EX. EQUIPMENT TO REMAIN
	EX. EQUIPMENT TO BE DEMOLISHED



KEYPLAN

MECHANICAL KEYED NOTES:

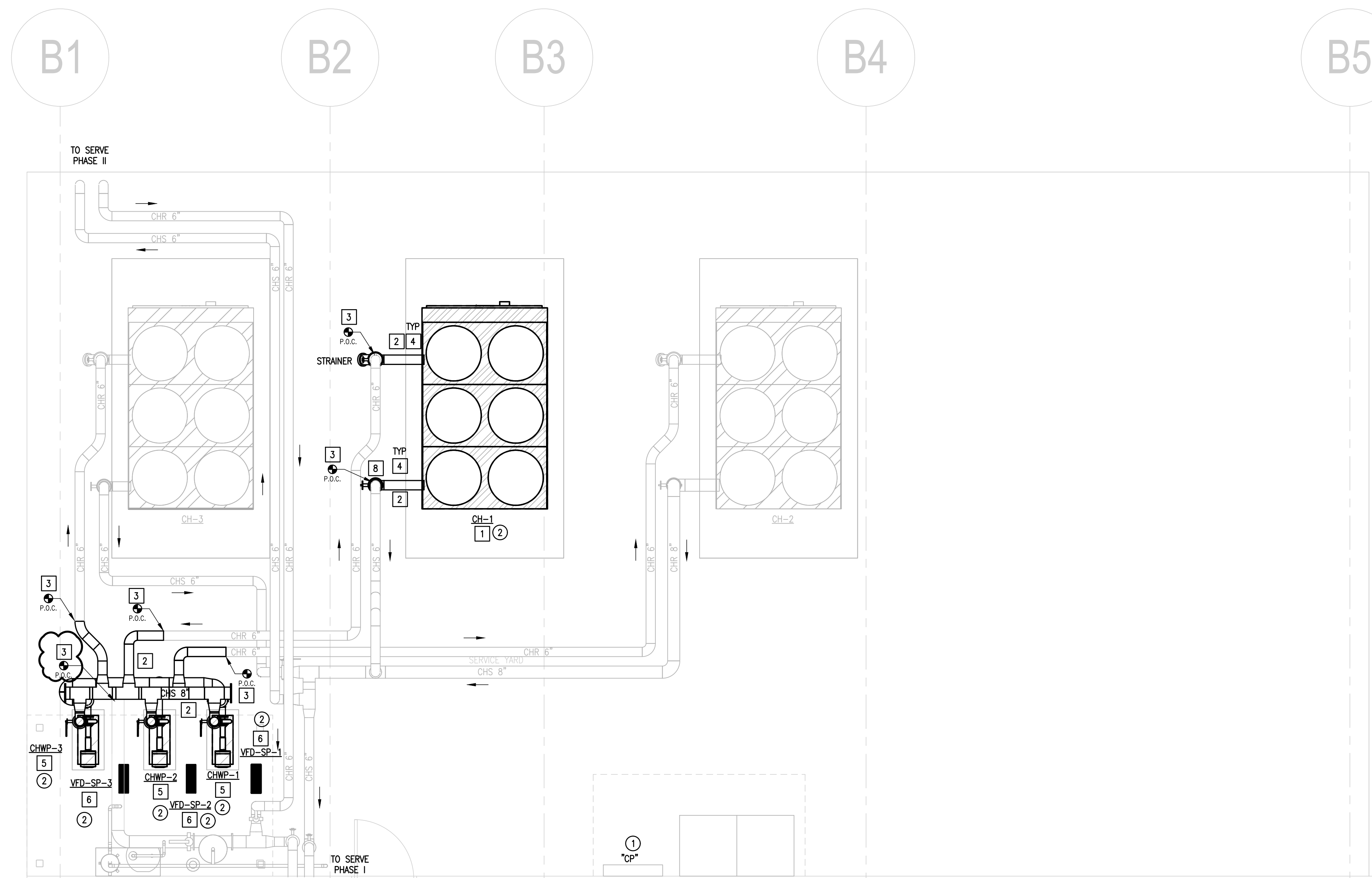
- 1 PROVIDE NEW AIR COOLED CHILLER AS SCHEDULED. INSTALL ON EXISTING CONCRETE HOUSEKEEPING PAD. SECURE CHILLER TO CONCRETE PAD BY BOLTING IT DOWN.
- 2 PROVIDE NEW SCHEDULE 40 STEEL PIPING AS SHOWN ON PLANS. PROVIDE EPOXY COATING ON PIPING PRIOR TO NEW INSULATION AS PER SPECIFICATIONS. PROVIDE THERMOWELLS, PRESSURE GAGES, THERMOMETERS, FLOW SWITCHES, MANUAL VALVES, ANCHORS, ETC. REFER TO MECHANICAL DETAILS AND SPECIFICATIONS.
- 3 CONNECT NEW CHILLED WATER PIPING INTO EXISTING CHILLED WATER PIPING AT THIS APPROXIMATE LOCATION.
- 4 PROVIDE INSULATION AND ALUMINUM METAL JACKETING FOR ALL CHW PIPING EXPOSED OUTDOORS.
- 5 PROVIDE NEW CHW PUMP AS SCHEDULED. REUSE EXISTING CONCRETE PAD. SECURE CHW PUMP TO CONCRETE PAD BY BOLTING IT DOWN.
- 6 PROVIDE VFD PER SCHEDULE WITH NEMA-3R ENCLOSURE FOR MOUNTING OUTDOORS. MAINTAIN MINIMUM 3'-0" CLEARANCE IN FRONT OF VFD. MOUNT VFD ON EXISTING RACK.
- 7 NOT USED.
- 8 PROVIDE NEW AUTOMATIC ISOLATION VALVE.

MECHANICAL LEGEND

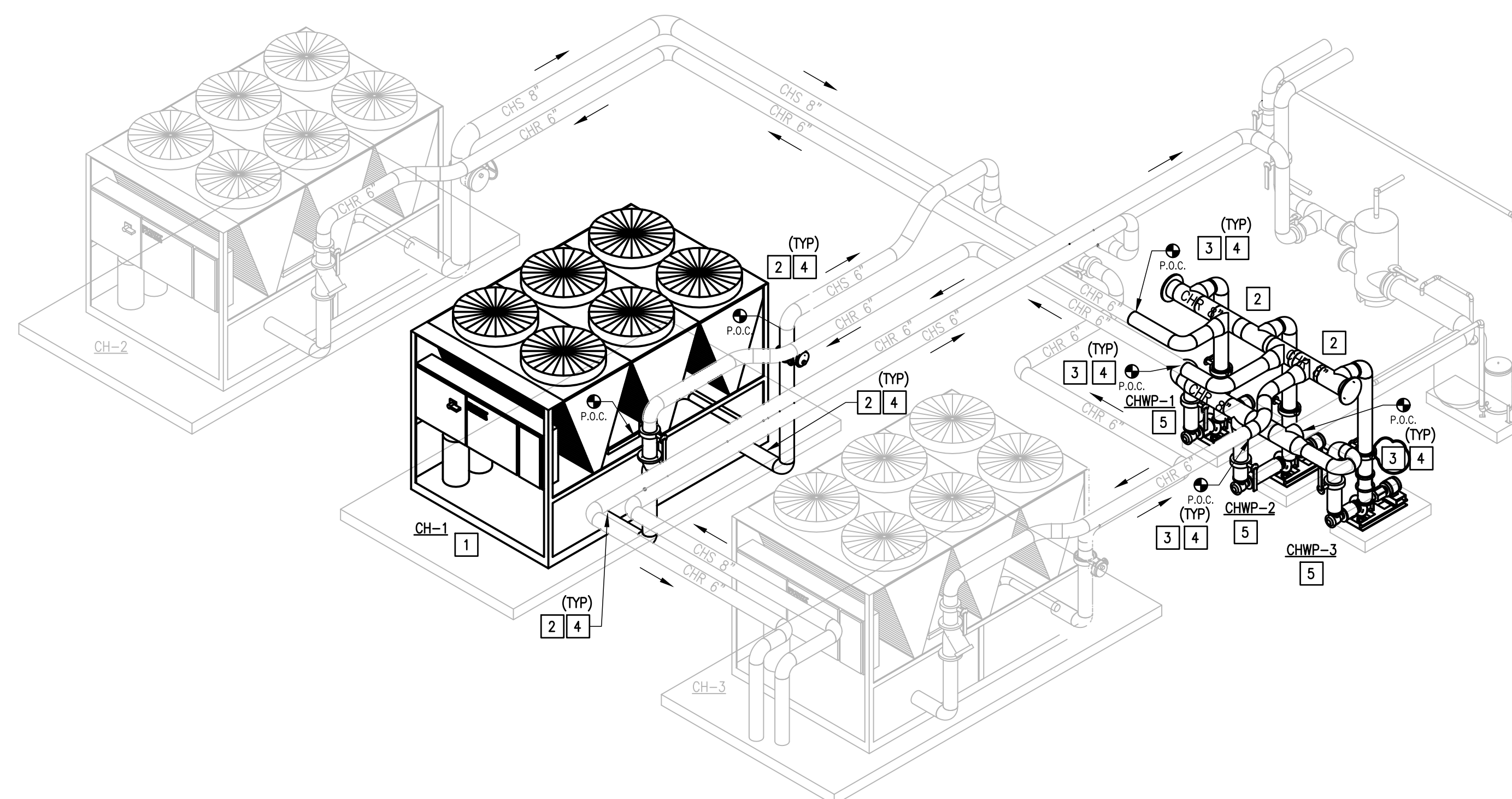
	EXISTING CHILLED WATER PIPING TO REMAIN
	NEW PIPING
	EX. EQUIPMENT TO REMAIN
	NEW EQUIPMENT

ELECTRICAL KEYED NOTES

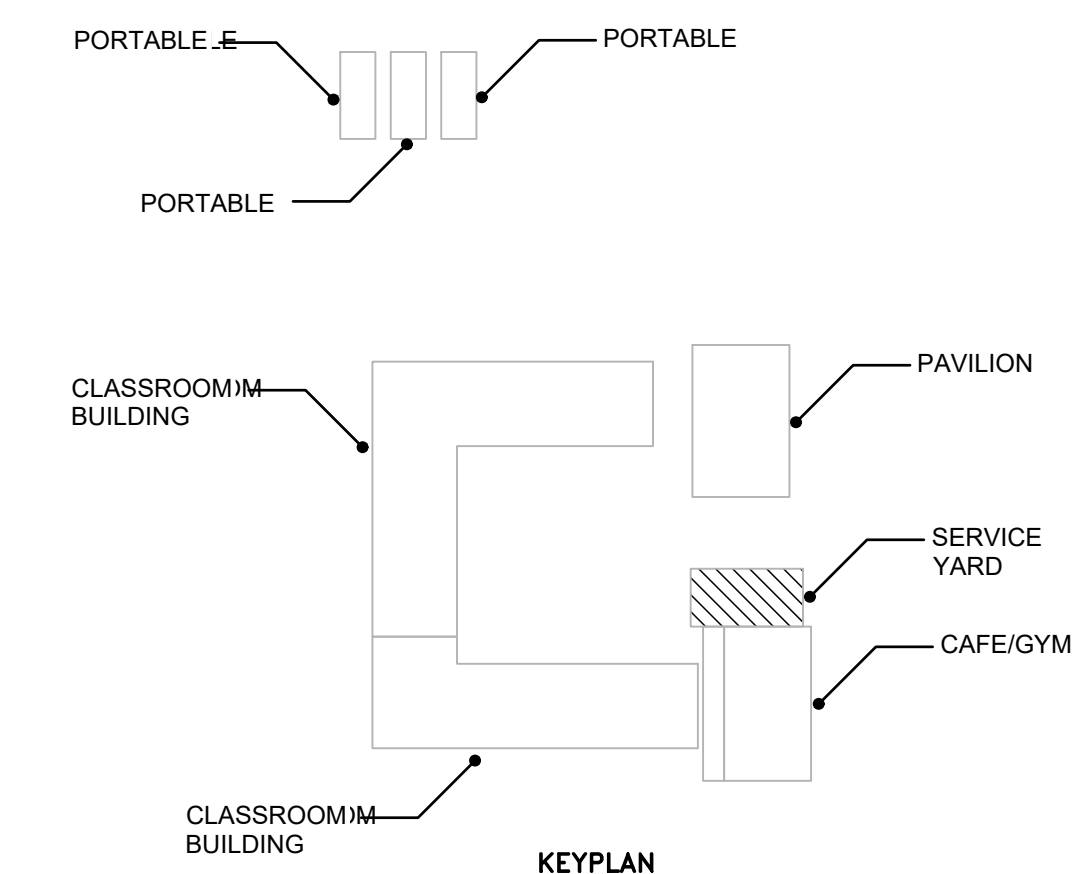
- 1 APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING NEW HVAC EQUIPMENT.
- 2 CONNECT NEW HVAC EQUIPMENT. REFER TO EQUIPMENT CONNECTION SCHEDULE.



IDEA WESLACO
 01 MECHANICAL & ELECTRICAL RENOVATION PLAN (SERVICE YARD)
 SCALE: 1/4" = 1'-0"



IDEA WESLACO
 02 MECHANICAL RENOVATION ISOMETRIC VIEW (SERVICE YARD)
 SCALE: NOT TO SCALE



KEYPLAN

KITCHEN HOOD FAN SCHEDULE

MARK	SERVES HOOD	PERFORMANCE											POWER V/PH	NOTES	
		EXHAUST					SUPPLY								
		CFM	SP IN (WC)	FAN MTR. HP	MANUF. MODEL #	SONES	WT. (LBS)	CFM	SP IN (WC)	FAN MTR. HP(W)	MANUF. MODEL #	SONES			WT. (LBS)
KEF-1, KSF-1	KH-1, KH-2, KH-3	6,660	1	3	COOK 270VH10B	21	505	5,325	0.625	1.5	COOK 200KSP-B	12	1,492	208/3/60	ALL

- NOTES:
- INTERLOCK FANS WITH EXISTING KITCHEN HOOD FIRE PROTECTION SYSTEM. UPON ACTIVATION, SUPPLY FAN SHALL TURN-OFF, EXHAUST FAN REMAINS ON.
 - EXHAUST FAN: NEMA 3 PRE-WIRED DISCONNECT, HINGED BASE ASSEMBLY, VENTED EXTENSION, BELT TENSIONER, AND KEYWAY GREASE TROUGH.
 - SUPPLY FAN: NEMA 3 PRE-WIRED DISCONNECT, BELT TENSIONER, INTAKE EXTENSION, AND HINGED BASE ASSEMBLY.
 - Mount supply and exhaust fan on common curb cap and install fans per NFPA 96 requirements.
 - COORDINATE INSTALLATION WITH ELECTRICAL CONTRACTOR.

CHILLER SCHEDULE

MARK	CHILLER OPTIONS	QTY.	NOMINAL (TONS)	CAPACITY (TONS)	AMBIENT TEMP (F)	FLOW (GPM)	MAX PD (FT WG)	EWT (F)	LWT (F)	# OF COMPRESSORS TYPE	MIN % CAPACITY	ELEC. V-PH-HZ	MCA	MCCP	IPLV AT ARI	FULL LOAD EER AT ARI	SOUND POWER OVERALL dBA	DIMENSIONS (LxWxH) IN	OPERATING WEIGHT (LB)	JCI/YORK MODEL NUMBER
CH-1	High Efficiency Scrolls	1	120	114.6	100	228.1	10	56	44	4 SCROLL TYPE	25%	480-3-60	254.0	300.0	17.09	10.01	95	143 X 89 X 95	5,999	YLA0120S46FB

- NOTES:
- CONTRACTOR IS RESPONSIBLE FOR CHANGES TO DESIGN RESULTING FROM SELECTION OF OTHER MANUFACTURERS EQUIPMENT.
 - LISTED CAPACITY BASED ON ACTUAL CONDITIONS LISTED ABOVE. EFFICIENCIES LISTED AT ARI CONDITIONS.
 - PROVIDE CHILLER WITH FACTORY INSTALLED HAIL GUARDS, LOW SOUND ACOUSTICAL PACKAGE, CONDENSER COIL COATING (E-COAT)
 - PROVIDE UNIT WITH LOW AMBIENT CONTROL TO 40°F, ACROSS THE LINE STARTER, AND SUCTION SERVICE VALVES.
 - CONDENSER COILS SHALL HAVE MICROCHANNEL WITH FACTORY E-COATING. FIELD APPLIED COATINGS ARE NOT ALLOWED.
 - PROVIDE CHILLER WITH SINGLE POINT POWER CIRCUIT BREAKER CONNECTION, INCLUDING POWER FOR CONTROLS. CHILLER SHALL HAVE A 65,000 AMP SCWR RATING.
 - NOT USED.
 - PROVIDE DEMAND LIMITING VIA 4-20MA INPUT FEATURE TO LIMIT MACHINE CAPACITY.
 - PROVIDE FACTORY INSTALLED HOT GAS BYPASS AS NEEDED, TO ALLOW CHILLER TO UNLOAD TO THE SCHEDULED MINIMUM CAPACITY.

PUMP SCHEDULE

MARK	LOCATION	QTY	TYPE	MANUFACTURER & MODEL NUMBER	GPM	HEAD (FT)	MIN. HP	MIN. EFF.	RPM	ELECTRICAL	NOTES
CHWP-1, 2, 3	PUMP ROOM	3	HORZ END SUCTION	BELL&GOSSET E-1510 2.5BB	228	80	10	70.3%	1,800	460V/3PH/60HZ	ALL

- NOTES:
- PROVIDE NON-OVERLOADING, PREMIUM EFFICIENCY, TEFC MOTORS, RATED FOR VFD DUTY.
 - PROVIDE COUPLINGS RATED FOR VFD DUTY. FALK T31 SPACER TYPE.
 - FACTORY REPRESENTATIVE SHALL FIELD-VERIFY PUMP ALIGNMENT WITH LASER ALIGNMENT TOOLS.
 - PROVIDE SUCTION DIFFUSERS AND SHAFT GROUNDING ON MOTORS.
 - PROVIDE ONE SET OF SPARE SEALS FOR EACH PUMP. COORDINATE DELIVERY WITH OWNER.

VFD SCHEDULE

MARK	EQUIPMENT SERVED	MOTOR HP	FL AMPS	ELECTRICAL V/PH/Hz	MANUFACTURER & MODEL NUMBER	NOTES
VFD-P1	CHWP-1	10	14	480/3/60	DANFOSS VLT-HVAC	1-3
VFD-P2	CHWP-2	10	14	480/3/60	DANFOSS VLT-HVAC	1-3
VFD-P3	CHWP-3	10	14	480/3/60	DANFOSS VLT-HVAC	1-3

- NOTES:
- PROVIDE NEMA 3R ENCLOSURE FOR VFD LOCATED OUTDOORS.
 - PROVIDE INTEGRAL DISCONNECT.
 - PROVIDE BYPASS WITH VFDs.

WALL MOUNTED AC UNIT SCHEDULE

MARK	NOMINAL TONNAGE	COOLING CFM	VENT. CFM	ESP (IN.)	MIN. HP	MCA	MCCP	ELECTRICAL V/PH	AIR IN COND. TEMP (F)	COOLING				HEATING ELEC. HEATER (KW)	MINIMUM EER/IPLV	WEIGHT LBS.	NOTES	BARD MODEL NUMBER (EXISTING)	BARD MODEL NUMBER (NEW)
										TOTAL BTU/H	SENSIBLE BTU/H	EAT DB/WB	LAT DB/WB						
WPU-1	3	1,275	125	0.15	0.5	59	60	208/1/60	95	35,965	27,729	80/67	59.9/58.3	10.0	11.0	425	ALL	BARD W06A2-A10	BARD W06AY-A10VXXX2J
WPU-2	3	1,275	125	0.15	0.5	59	60	208/1/60	95	35,965	27,729	80/67	59.9/58.3	10.0	11.0	425	ALL	BARD W06A2-A10	BARD W06AY-A10VXXX2J

- NOTES:
- ELECTRICAL DISCONNECT BY DIV. 26. COORDINATE WITH ELECTRICAL CONTRACTOR.
 - PROVIDE FACTORY DIPPED E-COATED CONDENSER COIL.
 - PROVIDE 2 STEP COMPRESSOR
 - PROVIDE HOT GAS REHEAT FOR DEHUMIDIFICATION OPERATION.
 - PROVIDE MOTORIZED OUTSIDE AIR DAMPER.
 - PROVIDE PROGRAMMABLE THERMOSTAT WITH BACNET INTERFACE.
 - PROVIDE 2" MERV 13 FILTER

EQUIPMENT CONNECTION SCHEDULE:

DESIGN	NEW HP	NEW FLA	NEW MCA	EXISTING MCCP	NEW MCCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	EXISTING BRANCH CIRCUIT (75° COPPER)	NEW BRANCH CIRCUIT (75° COPPER)	EXISTING POWER SOURCE
SERVICE YARD											
CH-1	-	-	254	300	1) 300	480V/3PHASE	INTEGRAL DISCONNECT	INTEGRAL DISCONNECT	3" - 3#350KCMIL & #4G	RETAIN EXISTING	CP
CHWP-1	10 HP	14	17.5	30	2) 35	480V/3PHASE	REMOVE EXISTING COMBINATION MOTOR STARTER.	3) VARIABLE FREQUENCY DRIVE	3/4" - 3#10 & #10G	RETAIN EXISTING	CP
CHWP-2	10 HP	14	17.5	30	2) 35	480V/3PHASE	REMOVE EXISTING COMBINATION MOTOR STARTER.	3) VARIABLE FREQUENCY DRIVE	3/4" - 3#10 & #10G	RETAIN EXISTING	CP
CHWP-3	10 HP	14	17.5	30	2) 35	480V/3PHASE	REMOVE EXISTING COMBINATION MOTOR STARTER.	3) VARIABLE FREQUENCY DRIVE	3/4" - 3#10 & #10G	RETAIN EXISTING	CP
KITCHEN											
KEF-1	3 HP	10.6	13.2	30	30	208V/3PHASE	INTEGRAL DISCONNECT	INTEGRAL DISCONNECT	3/4" - 3#10 & #10G	RETAIN EXISTING	K2
KSF-1	1.5 HP	6.6	8.2	20	20	208V/3PHASE	INTEGRAL DISCONNECT	INTEGRAL DISCONNECT	3/4" - 3#12 & #12G	RETAIN EXISTING	K2
PORTABLES											
WPU-1	10 KW	-	59.0	60	1) 60	208V/1PHASE	A/C DISCONNECT	60A, 2PNF, 240V, NEMA 3R	3/4" - 2#6 & #10G	RETAIN EXISTING	4A
WPU-2	10 KW	-	59.0	60	1) 60	208V/1PHASE	A/C DISCONNECT	60A, 2PNF, 240V, NEMA 3R	3/4" - 2#4 & #8G	RETAIN EXISTING	4A

- GENERAL NOTES:
- LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES.
 - PROVIDE NEW BRANCH CONNECTION FROM MOTOR STARTER/DISCONNECT/J-BOX TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

- NOTES:
- RETAIN AND REUSE EXISTING CIRCUIT BREAKER.
 - REMOVE EXISTING CIRCUIT BREAKER AND PROVIDE NEW TO MATCH NEW MCCP. PROVIDE UL LISTED UNIT FROM EXISTING MANUFACTURER (SIEMENS). MATCH EXISTING KAIC.
 - FURNISHED BY DIV. 23. INSTALLED AND CONNECTED BY DIV. 26.

PANELBOARD "CP" (EXISTING): SIEMENS, TYPE P4, 800A, 277/480V, 3Ø, 4W, CAT NO. P4E75ML800EBS, SO. 3003237202, ITEM NO. 034020, DATE 04/06/2011
 PANELBOARD "K2" (EXISTING): SIEMENS, TYPE P1, 100A, 277/480V, 3Ø, 4W

GENERAL STRUCTURAL NOTES

THESE GENERAL NOTES SHALL APPLY UNLESS OTHERWISE SPECIFICALLY NOTED ON PLANS OR DETAILS. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SHALL COORDINATE ALL STRUCTURAL PLANS AND DETAILS WITH ARCHITECTURAL & MECHANICAL DRAWINGS BEFORE STARTING WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR CONTRACTOR MEANS AND METHODS OF CONSTRUCTION OR SITE SAFETY. DESIGN, CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE CONTROLLING PROVISIONS OF THE 2018 EDITION OF THE **INTERNATIONAL BUILDING CODE (IBC)**.

DESIGN CRITERIA

1. BASIS FOR DESIGN AND CODE COMPLIANCE

A. GOVERNING BUILDING CODE.....IBC 2018 EDITION

2. GRAVITY DESIGN

ROOF:
DEAD LOAD.....SELF-WEIGHT OF STRUCTURE & ROOFING SYSTEM
LIVE LOAD.....20 PSF (REDUCIBLE)

3. WIND DESIGN BASED ON:

A. ASCE 7-16 REQUIREMENTS

DESIGN WIND SPEED144 MPH
RISK CATEGORY III
WIND EXPOSURE CATEGORY C
INTERNAL PRESSURE COEFFICIENT (Gcp) +/--0.18
Kzt 1.0
Kd 0.85

4. THESE BUILDINGS ARE DESIGNED TO MEET ASCE 7-16 WIND PRESSURES. ALL COMPONENTS AND CLADDINGS (E.G. WINDOWS, DOORS, ARCHITECTURAL SIDINGS AND ROOFING); MUST MEET MINIMUM WIND CODE REQUIREMENTS.

HAZARDOUS MATERIALS ABATEMENT/ MANAGEMENT

1. THE ENGINEER HAS NO RESPONSIBILITY OR LIABILITY FOR DESIGN, REMOVAL OF, OR TESTING FOR ASBESTOS/LEAD, OR FOR ABATEMENT /MANAGERIAL TREATMENTS, MONITORING, AND LEGAL DISPOSAL OF MATERIALS. CONTRACTOR SHALL DETERMINE IF ANY HAZARDOUS MATERIAL ABATEMENT/ MANAGEMENT IS REQUIRED AND SHALL INCLUDE COSTS THEREOF IN THE BID.

CONSTRUCTION NOTES ON THE REPAIR WORKS ON EXISTING STRUCTURE

1. BEFORE PROCEEDING WITH ANY WORK WITHIN THE EXISTING FACILITY, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH EXISTING STRUCTURAL AND OTHER CONDITIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY BRACING, SHORING AND OTHER SAFEGUARDS TO MAINTAIN ALL PARTS OF THE EXISTING WORK IN A SAFE CONDITION DURING THE PROCESS OF DEMOLITION AND CONSTRUCTION AND TO PROTECT FROM DAMAGE THOSE PORTIONS OF THE EXISTING WORK WHICH ARE TO REMAIN.

2. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, ELEVATIONS, ETC. NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW PORTIONS OF THE WORK TO THE EXISTING WORK. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS NECESSARY FOR FABRICATION AND ERECTION OF STRUCTURAL MEMBERS. ANY DISCREPANCY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.

3. WELDING TO AND WITHIN AN EXISTING FACILITY PRESENTS POTENTIAL HAZARDS INCLUDING:

A. FIRE HAZARD - DUE TO THE EXISTING CONSTRUCTION AND BUILDING CONTENTS.
B. STRUCTURAL LIQUEFACTION - DUE TO WELDING ACROSS THE FULL SECTION OF STRUCTURAL STEEL MEMBERS.

RECOMMENDATIONS TO PREVENT THESE HAZARDS INCLUDE:

A. FIRE HAZARD - PROTECT EXISTING COMBUSTIBLES PRIOR TO WELDING. KEEP A SEPARATE WATCHMAN AND SEVERAL FIRE EXTINGUISHERS ON HAND.
B. STRUCTURAL LIQUEFACTION - WELD IN SMALL INCREMENTS. ALLOW WELDS TO HARDEN BEFORE CONTINUING TO THE NEXT INCREMENT.
C. DO NOT LEAVE THE SITE UNTIL SATISFIED THAT NO FIRE HAZARD EXISTS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND ERECTION OF ALL SHORING NECESSARY TO SAFEGUARD THE EXISTING STRUCTURE.

EXISTING CONDITIONS

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS. DIMENSIONS SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL OBTAIN ALL FIELD MEASUREMENTS AS NECESSARY TO COORDINATE NEW CONSTRUCTION TO EXISTING CONDITIONS.

2. IF EXISTING CONDITIONS DIFFER FROM THE DRAWINGS, INFORM THE ENGINEER AND ADDITIONAL DETAILS OR INTERPRETATION WILL BE PROVIDED. DO NOT PROCEED WITHOUT VERIFICATION.

3. THE CONTRACTOR SHALL VISIT THE SITE OF THE PROPOSED WORK AND FULLY ACQUAINT THEMSELVES WITH THE EXISTING CONDITIONS.

DEMOLITION NOTES

1. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING STRUCTURE AND SURROUNDING BUILDINGS DURING CONSTRUCTION.

2. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY WATERTIGHTNESS OF THE BUILDING DURING DEMOLITION AND RECONSTRUCTION.

3. GENERAL CONTRACTOR SHALL COORDINATE WITH ENGINEER ITEMS THAT ARE UNCLEAR PRIOR TO ANY DEMOLITION.

4. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE PROJECT SITE TO DETERMINE DEMOLITION REQUIREMENTS AT THIS PROJECT. CONTRACTOR SHALL INCLUDE IN THEIR BID ALL THE DEMOLITION REQUIREMENTS TO COMPLETE THIS PROJECT.

5. GENERAL CONTRACTOR SHALL LOCATE AND LABEL ALL UTILITIES BEFORE COMMENCEMENT OF DEMOLITION & CONSTRUCTION ACTIVITIES. UTILITIES SHALL BE CLEARLY MARKED SO THAT ANY SUBCONTRACTOR VISITING THIS SITE CAN EASILY IDENTIFY UTILITIES. ANY COSTS TO REPAIR DAMAGES IF UTILITIES ARE NOT PROPERLY IDENTIFIED, ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

6. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING DEBRIS & MATERIAL AWAY FROM SITE ACCORDING TO GOVERNING LOCAL, STATE OR FEDERAL REGULATIONS.

7. ANY AREA DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.

PENETRATIONS

1. PENETRATIONS THROUGH EXISTING ELEMENTS SHALL COMPLY WITH THE DRAWINGS AND SPECIFICATIONS.

2. DO NOT CUT JOISTS, BEAMS OR COLUMNS WITHOUT PRIOR APPROVAL.

3. PENETRATIONS THROUGH LOAD-BEARING ELEMENTS SHALL BE TEMPORARILY SHORED TO PREVENT COLLAPSE, AS SPECIFIED BELOW.

TEMPORARY BRACING, FALSEWORK AND FORMWORK

1. CONTRACTOR SHALL PROVIDE ENGINEERED SHORING PLAN PRIOR TO START OF ROOF COLUMN DEMOLITION. SHORING PLAN SHALL BE SIGNED AND SEALED BY A STATE OF TEXAS PROFESSIONAL ENGINEER.

2. THE DESIGN, ENGINEERING, FABRICATION, CONSTRUCTION, ERECTION, REMOVAL AND OVERALL SAFETY OF ALL TEMPORARY SUPPORTS SUCH AS FALSEWORK, FORMWORK, SHORES AND BRACING REQUIRED FOR THE EXECUTION OF THE CONTRACT ARE NOT INCLUDED IN THE DRAWINGS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

TEMPORARY BRACING, FALSEWORK AND FORMWORK CONTINUED:

3. THE ENGINEER'S EFFORTS ARE AIMED AT DESIGNING A PROJECT WHICH WILL BE SAFE AFTER FULL COMPLETION. THE ENGINEER HAS NO EXPERIENCE IN, AND TAKES NO RESPONSIBILITY FOR, CONSTRUCTION MEANS AND METHODS OR JOB SITE SAFETY DURING CONSTRUCTION. SAFETY IS EXCLUSIVELY THE CONTRACTOR'S RESPONSIBILITY. PROCESSING AND/OR APPROVING SUBMITTALS MADE BY CONTRACTOR WHICH MAY CONTAIN INFORMATION RELATED TO SHORING, CONSTRUCTION METHODS OR SAFETY ISSUES, OR PARTICIPATION IN MEETINGS WHERE SUCH ISSUES MIGHT BE DISCUSSED, MUST NOT BE CONSTRUED AS VOLUNTARY ASSUMPTION BY ENGINEER OF ANY RESPONSIBILITY FOR THESE SAFETY PROCEDURES.

SAFETY

1. PERFORM ALL WORK IN A SAFE AND CONSCIENTIOUS MANNER TO PREVENT INJURIES.
2. CONTRACTOR SHALL MAINTAIN OSHA STANDARDS FOR JOB SAFETY AND WORKER PROTECTION, INCLUDING, BUT NOT LIMITED TO ADEQUATE PROTECTION, BARRICADES, SIGNS, ETC.
3. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR SAFETY. THE ENGINEER EXPRESSLY EXCLUDES ANY RESPONSIBILITY FOR CONTRACTOR SAFETY OR SAFETY OF JOBSITE.

STRUCTURAL STEEL

1. TOP OF BEAM/PLATE (TOB OR TOP) IS USED INTERCHANGEABLY ON PLANS. REFERENCE APPLICABLE SECTION FOR CLARIFICATION.

2. STRUCTURAL STEEL WIDE FLANGE MEMBERS SHALL CONFORM TO ASTM SPECIFICATION A 572 AND/OR ASTM A 992 (Fy = 50 KSI) UNLESS OTHERWISE SHOWN OR NOTED. PLATE AND ANGLES MAY BE A36 (Fy = 36 KSI).

3. ALL STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM SPECIFICATION A-500, GRADE B (Fy=46 KSI). STEEL PIPE SHALL COMPLY WITH ASTM A53 TYPE E OR S (Fy=35 KSI).

4. ALL STRUCTURAL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.

5. ALL BOLTS SHALL BE 3/4 DIAMETER ASTM A325. WASHERS SHALL BE PROVIDED AT OVERSIZED HOLES AND AT SLOTTED CONNECTIONS AT EXPANSION JOINTS. A325 CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS UNLESS NOTED OTHERWISE. ANCHOR BOLTS MAY BE ASTM A307 UNLESS NOTED OTHERWISE.

6. REFER TO MANUFACTURER & MECHANICAL PLANS FOR VERIFICATION OF ALL BOLTS, BLOCKING ANCHORS, ETC., FOR THE ANCHORAGE OF THEIR RESPECTIVE ITEMS.

7. ALL BEAMS SHALL BE FULL LENGTH WITHOUT SPLICES UNLESS INDICATED ON PLANS OR APPROVED BY THE ENGINEER IN WRITING.

8. ALL SHOP AND FIELD WELDS SHALL BE MADE BY WELDERS WHO HAVE BEEN QUALIFIED AND CERTIFIED TO MAKE THE REQUIRED WELDS IN ACCORDANCE WITH THE LATEST AMERICAN WELDING SOCIETY SPECIFICATIONS (A.W.S. D-1.1).

9. WELDS SHALL BE MADE WITH COVERED MILD STEEL ELECTRODES COMPLYING WITH AWS D1 72 CODE AND SERIES E 70XX.

10. ERECTION CONNECTORS SHALL BE PROVIDED IN ORDER TO PROPERLY ALIGN AND BE TRUE AND PLUMB WHEN WELDS ARE MADE.

11. ALL COMPLETE PENETRATION WELDS, BOTH SHOP AND FIELD, SHALL BE TESTED BY A QUALIFIED TESTING LABORATORY UTILIZING ULTRA SONIC TESTING PROCEDURES IN ACCORDANCE WITH A.W.S. D-1.1. ANY WELDS FOUND DEFECTIVE SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER. ALL X-RAYED WELDS SHALL BE GROUND SMOOTH.

12. THE FABRICATOR SHALL SUPPLY BACK-UP PLATES AND EXTENSION TABS FOR ALL COMPLETE PENETRATION WELDS.

13. ALL STEEL MEMBERS, UNLESS NOTED OTHERWISE, SHALL BE HOT DIPPED GALVANIZED. DO NOT PRIME ITEMS TO BE EMBEDDED IN CONCRETE OR FIRE PROOFED W/ SPRAY ON MATERIAL WITHOUT COORDINATION W/ MECHANICAL ENGINEER.

14. WELDED HEADED STUDS (WHS) SHALL BE "NELSON ANCHORS", OR EQUAL, Fy = 60 KSI, DIAMETER AND LENGTH AS SHOWN ON PLANS. STUDS TO BE WELDED& SHOP TESTED IN ACCORDANCE W/ THE MANUFACTURER'S RECOMMENDATIONS.

15. AFTER ERECTION, PRIME WELDS, ABRASIONS AND SURFACES NOT PRIMED. USE PRIMER CONSISTENT WITH SHOP COAT. GALVANIZED SURFACES (HOT DIPPED OR COLD) SHALL BE CLEANED AND PAINTED WITH "ZRC".

16. FIELD WELDS AND BOLTED CONNECTIONS SHALL BE VISUALLY INSPECTED BY A QUALIFIED INDEPENDENT INSPECTOR. THE INSPECTOR SHALL PROVIDE A WRITTEN REPORT TO THE STRUCTURAL ENGINEER.

17. A SINGLE ELECTRONIC FILE (PDF FORMAT) SHOP DRAWINGS SHALL BE PREPARED FOR ALL STRUCTURAL STEEL COMPONENTS AND SUBMITTED FOR REVIEW BY ENGINEER. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.

18. THE CONTRACTOR SHALL REVIEW AND ANNOTATE SHOP DRAWINGS BEFORE SUBMITTING THEM TO THE ARCHITECT/ENGINEER FOR REVIEW. THE CONTRACTOR SHALL ALLOW ARCHITECT/ENGINEER 10 WORKING DAYS FOR REVIEW OF SHOP DRAWINGS.

19. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED FOR A FRAMING OBSERVATION IMMEDIATELY AFTER ROOF PANELS ARE INSTALLED AND BEFORE INSTALLATION OF THE CEILING.

FASTENERS

1. CAST-IN-PLACE AND POST-INSTALLED ANCHORS SHALL BE PER ANCHOR DIAMETER AND EMBEDMENT DEPTH NOTED ON THE DRAWINGS. POST-INSTALLED ANCHORS SHALL BE UTILIZED ONLY WHERE SPECIFIED. ALL ANCHORS SHALL BE HOT-DIPPED GALVANIZED PER ASTM A153.

2. ALL ANCHORS NOTED BELOW SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL CONTACT MANUFACTURER'S REPRESENTATIVE FOR THE INITIAL TRAINING AND INSTALLATION OF ANCHORS, AND FOR PRODUCT RELATED QUESTIONS AND AVAILABILITY.

3. SPECIAL INSPECTIONS SHALL BE PROVIDED FOR ALL MECHANICAL AND ADHESIVE ANCHORS PER THE APPLICABLE EVALUATION REPORT NOTED BELOW. SPECIAL INSPECTIONS SHALL BE PERFORMED BY INDEPENDENT TESTING LABORATORY PERFORMING QA/QC SERVICES ON PROJECT.

4. EXPANSION BOLTS (EB) IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:

- A. KWK BOLT III (ICC-ES ESR-2302) BY HILTI (CONCRETE)
- B. KWK BOLT III (ICC-ES-ESR-1385) BY HILTI (MASONRY)
- C. STRONG-BOLT 2 (ICC-ES ESR-3037) BY SIMPSON STRONG-TIE (CONCRETE)
- D. WEDGE-ALL ANCHOR (ICC-ES ESR-1396) BY SIMPSON STRONG-TIE (MASONRY)

5. HEAVY DUTY SLEEVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED OR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. EXPANSION BOLTS (EB) SHALL NOT BE SUBSTITUTED FOR SLEEVE ANCHORS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER. ACCEPTABLE PRODUCTS:

- A. HSL-3 (ICC-ES ESR-1545) BY HILTI (CONCRETE)
- B. HSL-3 (ICC-ES ESR-1545) BY HILTI (CONCRETE)
- C. HSL-3 (ICC-ES ESR-1545) BY HILTI (CONCRETE)
- D. HSL-3 (ICC-ES ESR-1545) BY HILTI (CONCRETE)
- E. HSL-3 (ICC-ES ESR-1545) BY HILTI (CONCRETE)

6. SCREW ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:

- A. KWK HUS-EZ (ICC-ES ESR-3027) BY HILTI (CONCRETE)
- B. KWK HUS-EZ (ICC-ES ESR-3056) BY HILTI (MASONRY)
- C. TITEN HD (ICC-ES ESR-2713) BY SIMPSON STRONG-TIE (CONCRETE)
- D. TAPCON ANCHORS (ICC-ES ESR-1671) (MASONRY)
- E. POWERS WEDGE BOLT (ICC-ES ESR-1678) (MASONRY)

FASTENERS CONTINUED:

7. UNDERCUT ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:

- A. HDA (ICC-ES ESR-1546) BY HILTI (CONCRETE)
- B. TORQ-CUT (ICC-ES ESR-2705) BY SIMPSON STRONG-TIE (CONCRETE)

8. POWDER ACTUATED FASTENERS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:

- A. X-U (ICC-ES ESR-2269) BY HILTI (CONCRETE/MASONRY/STEEL)
- B. POWDER ACTUATED FASTENERS (ICC-ES ESR-2138) BY SIMPSON STRONG TIE CONCRETE/MASONRY)

9. ADHESIVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308. ACCEPTABLE PRODUCTS:

- A. HIT-RE 500-V3 (ICC-ES ESR-3814) BY HILTI (CONCRETE)
- B. HIT-HY 270 (ICC-ES ESR-4143) BY HILTI (MASONRY)
- C. SET-XP (ICC-ES ESR-2508) BY SIMPSON STRONG-TIE (CONCRETE)
- D. SET (ICC-ES ESR-1772) BY SIMPSON STRONG-TIE (MASONRY)

10. J-BOLTS SHALL BE FABRICATED FROM ASTM A36/A307 ROD. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. EXPANSION BOLTS/SLEEVE ANCHORS SHALL NOT BE SUBSTITUTED FOR J-BOLTS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER.

11. HEADED ANCHOR RODS SHALL BE FABRICATED FROM ASTM F1554 MATERIAL, Fy=36 KSI.

12. SUBSTITUTION REQUESTS FOR PRODUCTS LISTED ABOVE SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARDS. SUBSTITUTED ANCHORS SHALL HAVE A VALID CURRENT EVALUATION (ICC-ES OR IAPMO-ES) REPORT.

13. REFERENCE STRUCTURAL STEEL NOTES FOR BOLTS CONNECTING STRUCTURAL STEEL COMPONENTS.

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS INDEPENDENT OF THE CONTRACTOR, THE ARCHITECT, OR THE ENGINEER, SHALL BE PROVIDED BY A SPECIAL INSPECTOR EMPLOYED BY THE OWNER ACCORDING TO CHAPTER 17 OF THE IBC 2018. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SEND WRITTEN REPORTS TO THE OWNER, THE ARCHITECT, THE ENGINEER AND THE CONTRACTOR. THE REPORTS SHALL INDICATE IF WORK INSPECTED WAS DONE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE SPECIAL INSPECTOR SHALL BRING THE DISCREPANCIES TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THAT THE SPECIAL INSPECTION WORK WAS, TO THE BEST OF THEIR KNOWLEDGE, IN OR NOT IN CONFORMANCE WITH THE DRAWINGS, SPECIFICATIONS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC 2018.

CONTINUOUS OR PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK:

REQUIRED VERIFICATION AND INSPECTION OF ANCHORS

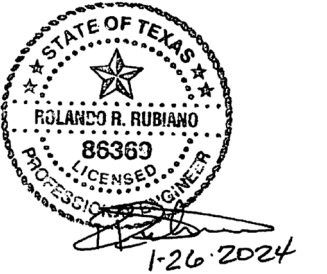
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
CAST-IN-PLACE, POST-INSTALLED, MECHANICAL AND EPOXY SET ANCHORS:		
AS APPLICABLE, THE INSPECTION PROGRAM SHALL VERIFY THE ANCHOR TYPE, EMBEDMENT, TIGHTENING TORQUE, DIMENSIONS, HOLE DEPTH & DIAMETER AND CLEANOUT, EPOXY MIXING AND PLACEMENT PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE CURRENT ICC-ES EVALUATION REPORT		FREQUENCY OF INSPECTION SHALL BE IN ACCORDANCE WITH THE CURRENT ICC-ES EVALUATION REPORT, OR PER THE SPECIAL INSPECTION REQUIREMENTS OF THE ANCHOR SUBSTRATE, WHICHEVER IS MORE STRINGENT

REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS		X
INSPECTION OF HIGH STRENGTH BOLTING		X
INSPECTION OF WELDING:		
COMPLETE AND PARTIAL PENETRATION GROOVE WELDS	X	
MULTIPASS FILLET WELDS	X	
SINGLE-PASS FILLET WELDS		X
FLOOR AND ROOF DECK WELDS		X
INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS		X

NO: REVISION: BY:

RFP # 20-WCTX-0224



TEXAS

IDEA WESLACO MECHANICAL UPGRADES

WESLACO



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HARLINGEN, TX
PHONE: 361-230-3425
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

DATE: JANUARY 26, 2024

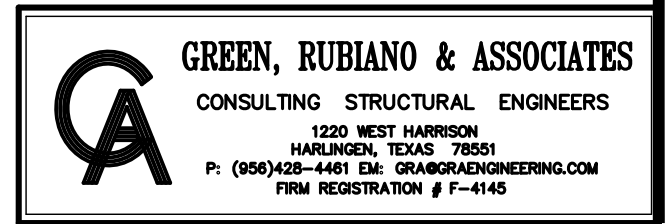
CHECKED BY: B.D.

DRAWN BY: J.L.R.

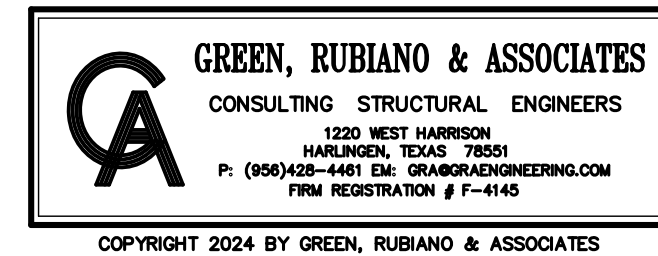
PROJECT NO.: 1178-39

CAD FILE:
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S1.1



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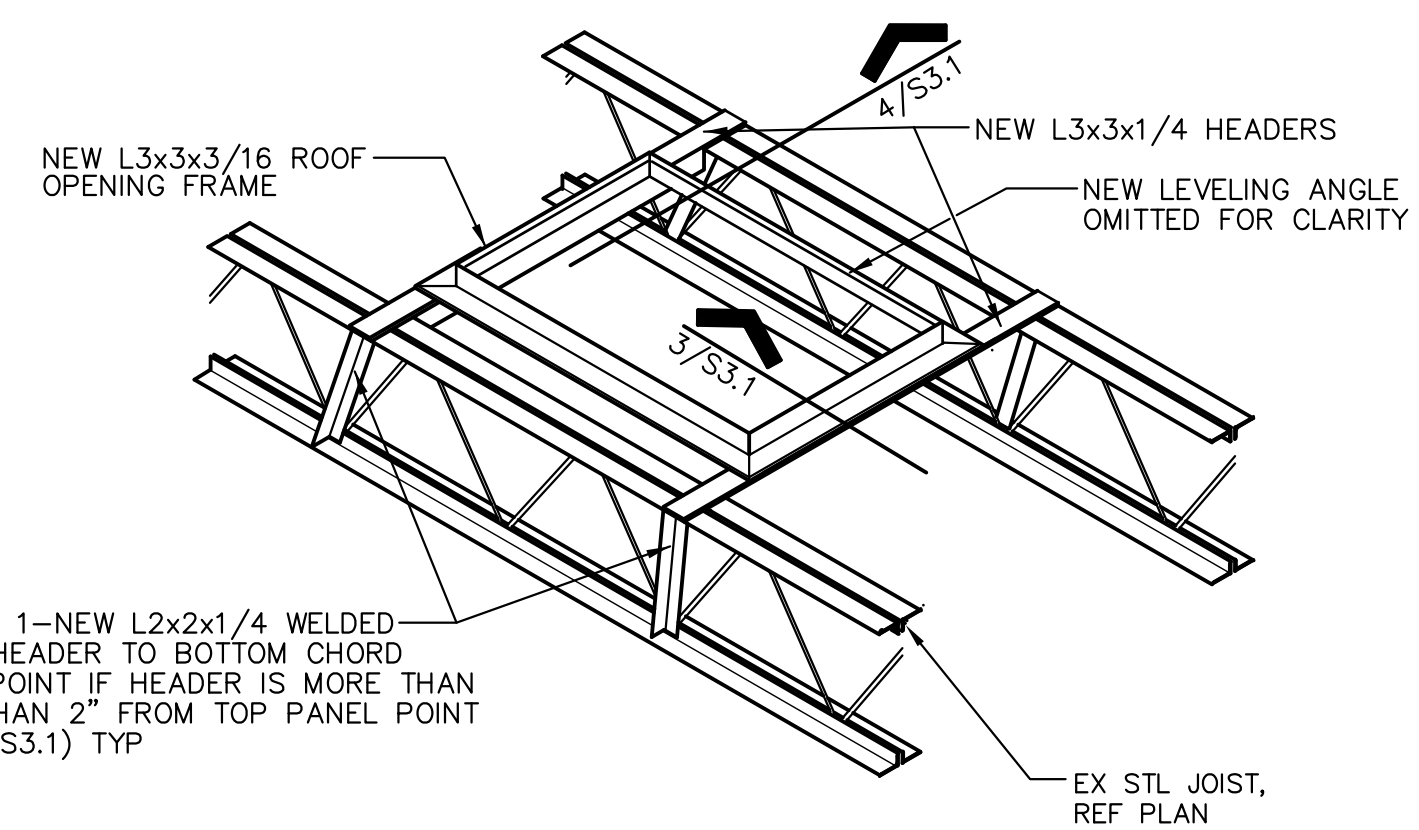
1 STRUCTURAL RENOVATION FRAMING PLAN

1/4" = 1'-0"

NOTES:

- SCOPE OF WORK:
 - A - MODIFY EXISTING ROOF OPENING FRAME AS REQUIRED TO INSTALL NEW FRAME FOR NEW OPENING SIZE.
 - B - INSTALL NEW ROOF OPENING FRAME PER DETAIL 2/S3.1.
 - C - INSTALL NEW METAL ROOF DECK AS REQUIRED TO CLOSE-OFF AREAS BETWEEN NEW AND EXISTING ROOF OPENINGS.
 - D - INSTALL NEW ROOFING INTEGRATED WITH EXISTING ROOF AND ONTO NEW RTU CURBS AS REQUIRED FOR A COMPLETE WATERPROOF INSTALLATION (BY OTHERS).
- NEW ROOF DECK SHALL BE 1.5B 22GA GALV DECK BY VULCRAFT OR APPROVED EQUAL. (p=0.155 IN²/FT; Sp=0.186 IN²/FT; In=0.183 IN²/FT; Sn=0.192 IN²/FT; Fy=33KSI). ATTACH DECK TO SUPPORTS USING 5/8" PUDDLE WELDS ON A 36/7 PATTERN AND 7-#10 TEK SCREW SIDE LAP FASTENERS.
- PRIOR TO INSTALLATION OF MECHANICAL EQUIPMENT, NOTIFY ENGINEER IF EQUIPMENT WEIGHTS OR LOCATIONS VARY FROM THAT SHOWN ON PLAN TO ALLOW VERIFICATION OF STRUCTURAL CAPACITY OF FRAMING MEMBERS.
- REFER TO MECHANICAL AND MANUFACTURER'S DRAWINGS FOR FASTENING OF THE ROOF CURB AND HVAC UNITS TO RTU SUPPORT FRAMES.
- EXISTING FRAMING PLANS WERE DEVELOPED BASED ON STRUCTURAL RECORD DRAWINGS TITLED WESLACO ACADEMY K-12TH GRADE PHASE-1 SHEET S301 DATED 09/17/2010 BY HINOJOSA ENGINEERING INC. CONTRACTOR SHALL REFER TO RECORD DRAWINGS FOR ADDITIONAL INFORMATION REQUIRED.
- ALL STRUCTURAL STEEL NOTED ON FRAMING PLAN IS EXISTING UNLESS NOTED OTHERWISE.

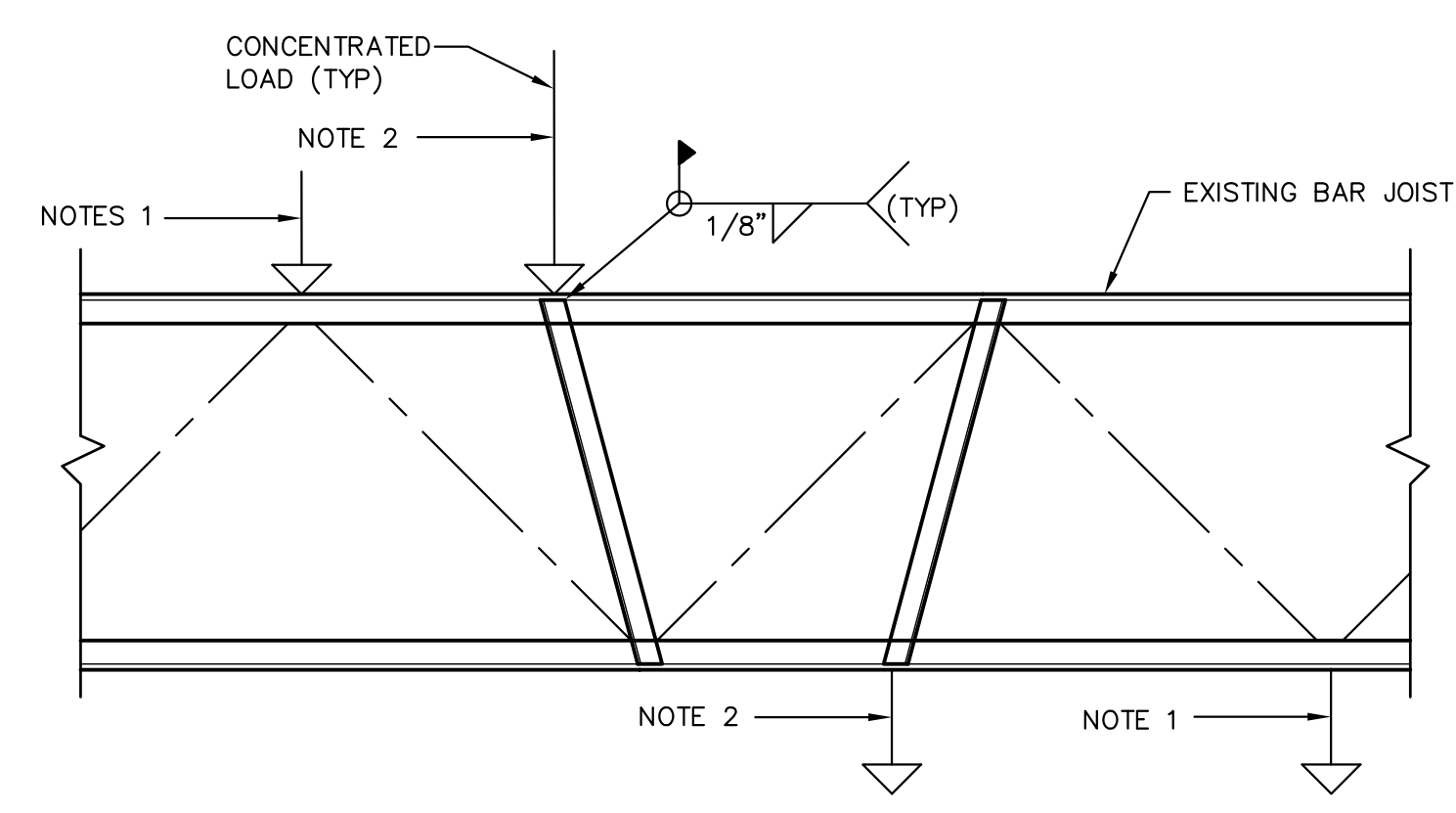
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS & EXISTING CONDITIONS IN THE FIELD. CONTACT ENGINEER IF CONDITIONS VARY FROM THOSE SHOWN ON THE DRAWINGS.



PROVIDE 1-NEW L2x2x1/4 WELDED BELOW HEADER TO BOTTOM CHORD PANEL POINT IF HEADER IS MORE THAN MORE THAN 2" FROM TOP PANEL POINT (REF 5/S3.1) TYP

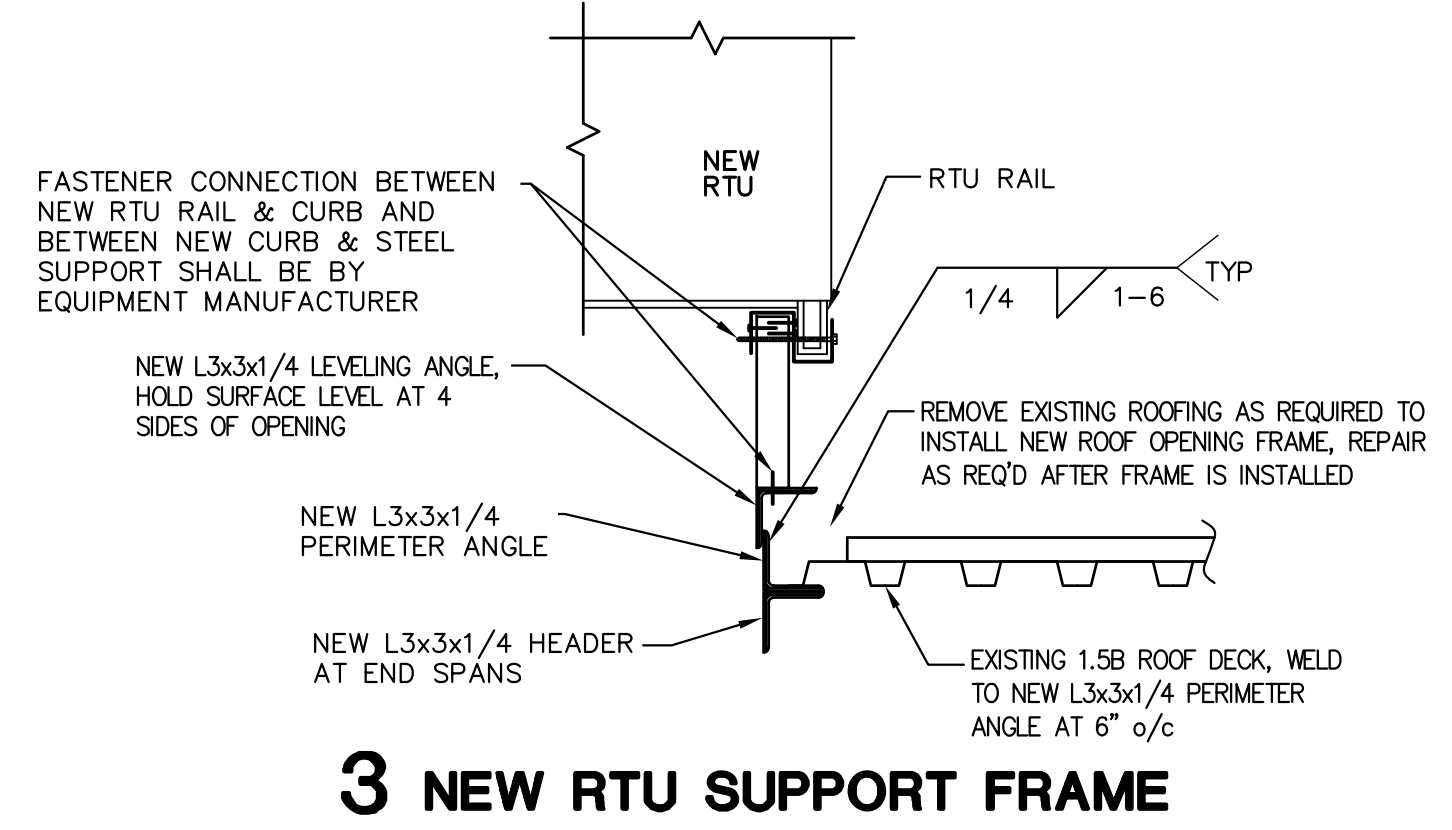
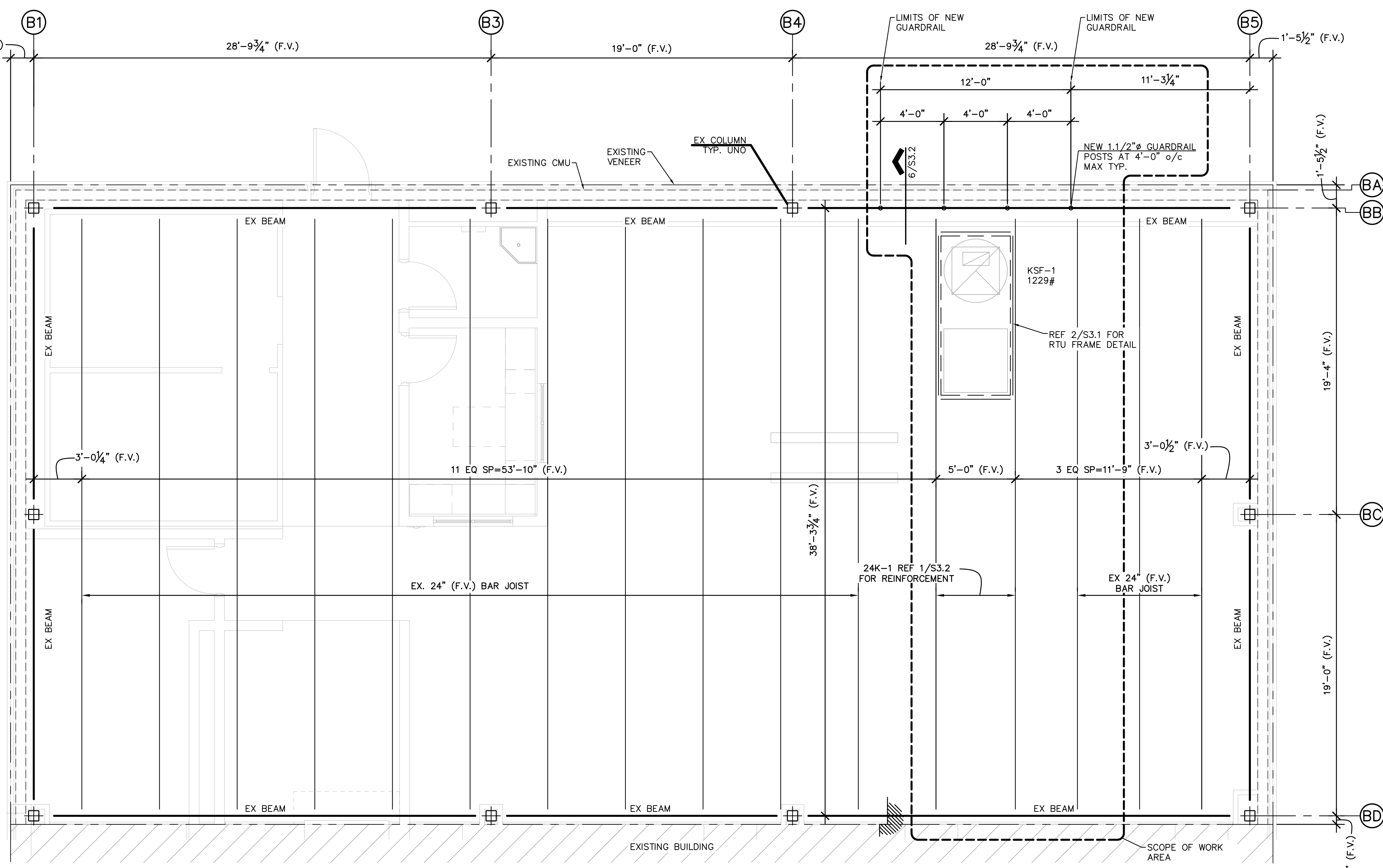
REF MECH'L OR ARCH'L FOR OPENING SIZE & LOCATION

2 RTU OPENING FRAME DETAIL

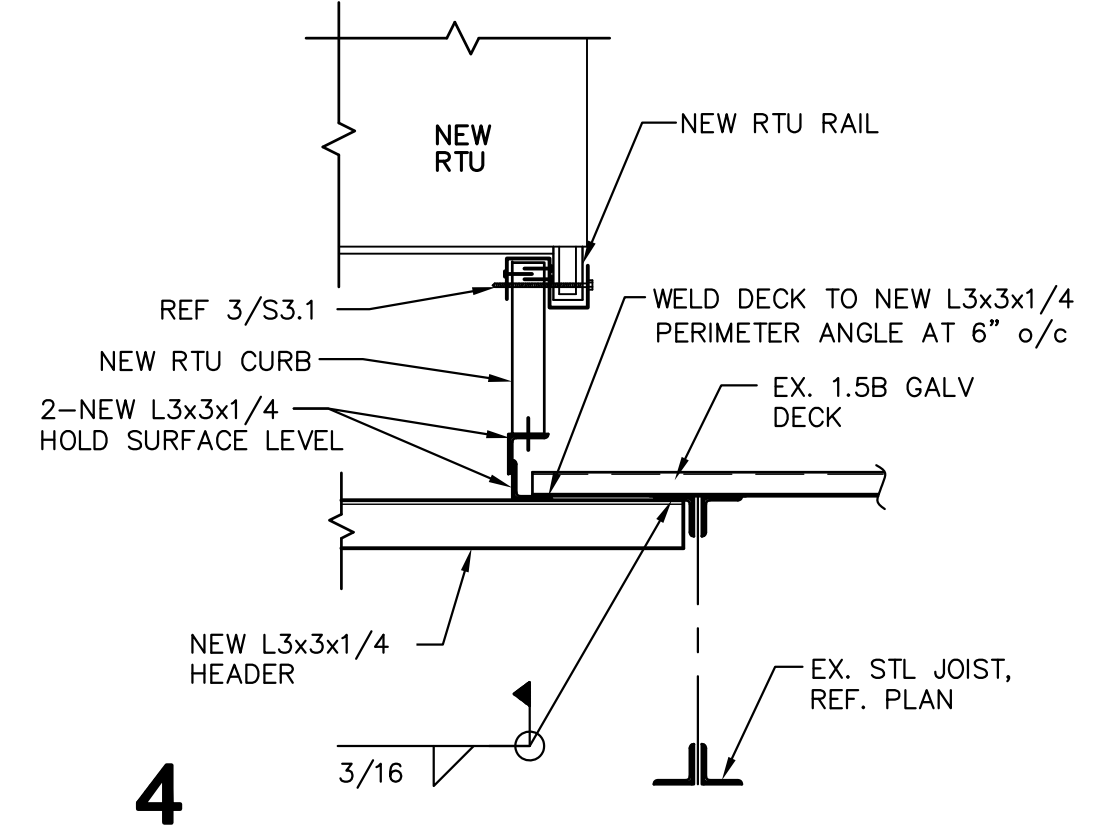


5 TYP. CONCENTRATED LOAD DETAIL

- NOTES:
- CONCENTRATED LOAD LOCATED AT JOIST PANEL POINT LOCATION - NO ADDITIONAL ANGLES REQUIRED.
 - CONCENTRATED LOAD (100 LBS. OR HEAVIER) NOT LOCATED AT JOIST PANEL POINT LOCATION - PROVIDE L2x2x1/4 TO PANEL POINT AS SHOWN.



3 NEW RTU SUPPORT FRAME



4



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DATE: JANUARY 26, 2024

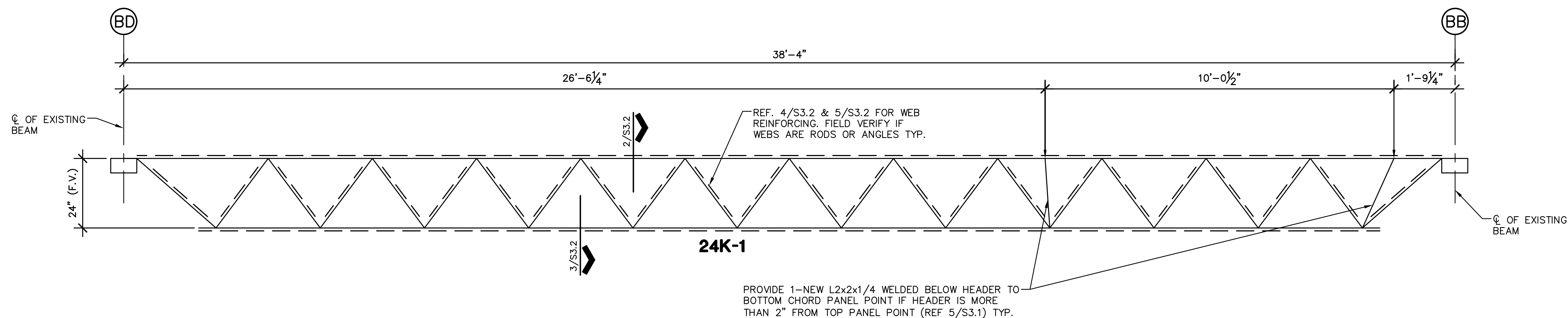
CHECKED BY: B.D.

DRAWN BY: J.L.R.

PROJECT NO.: 1178-39

CAD FILE:
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S3.2

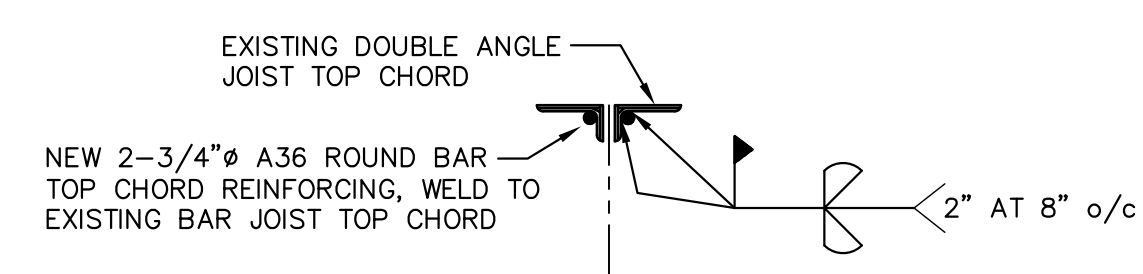


1 EXISTING JOIST REINFORCING PROFILES

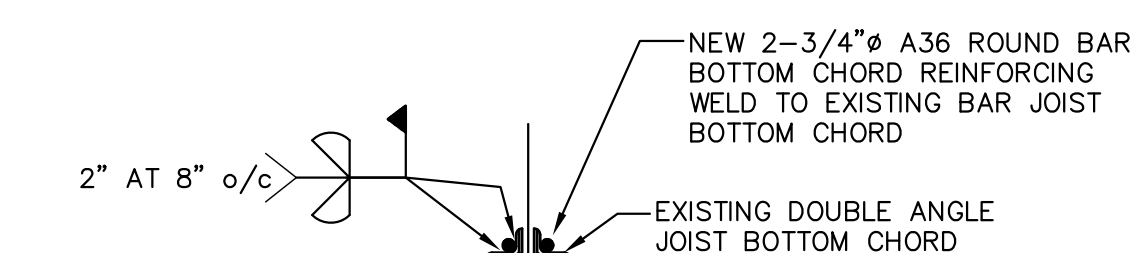
1/2" = 1'-0"

NOTES:

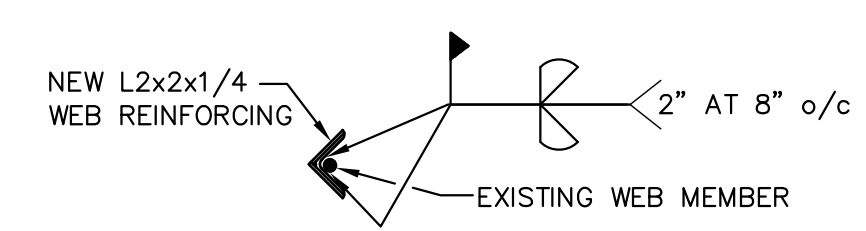
- ALL EXISTING JOIST REINFORCEMENT PROFILES ARE SCHEMATIC AND PROVIDED FOR PRICING PURPOSES. ALL DIMENSIONS AND JOIST WEB LAYOUTS WILL NEED TO BE FIELD VERIFIED AFTER EXISTING JOIST ARE EXPOSED IN THE FIELD.
- GENERAL CONTRACTOR WILL NEED TO CONTACT GRA TO SCHEDULE FIELD OBSERVATIONS TO OBSERVE EXISTING BAR JOIST AT NEW RTU LOCATIONS. CONTRACTOR WILL NEED TO PROVIDE A LIFT OR LADDERS ON SITE TO BE USED AS DIRECTED BY GRA PERSONNEL TO GAIN ACCESS TO EXISTING BAR JOIST.
- ONCE GRA HAS ANALYZED THE EXISTING BAR JOIST, THE JOIST REINFORCEMENT JOIST PROFILE ON 1/S3.2 WILL BE REVISED AS REQUIRED, INCORPORATING REPAIR DETAILS 2-5/S3.2.



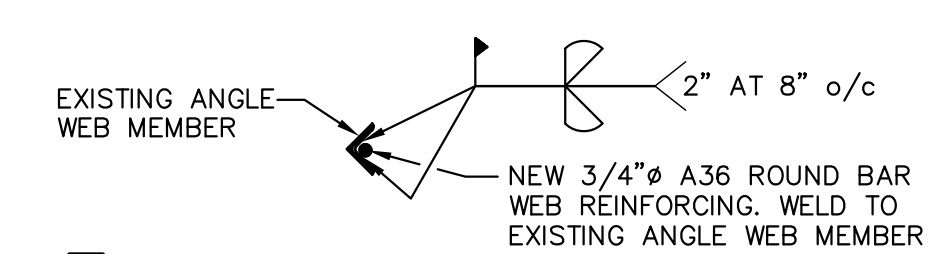
2 TYPICAL TOP CHORD REINFORCEMENT



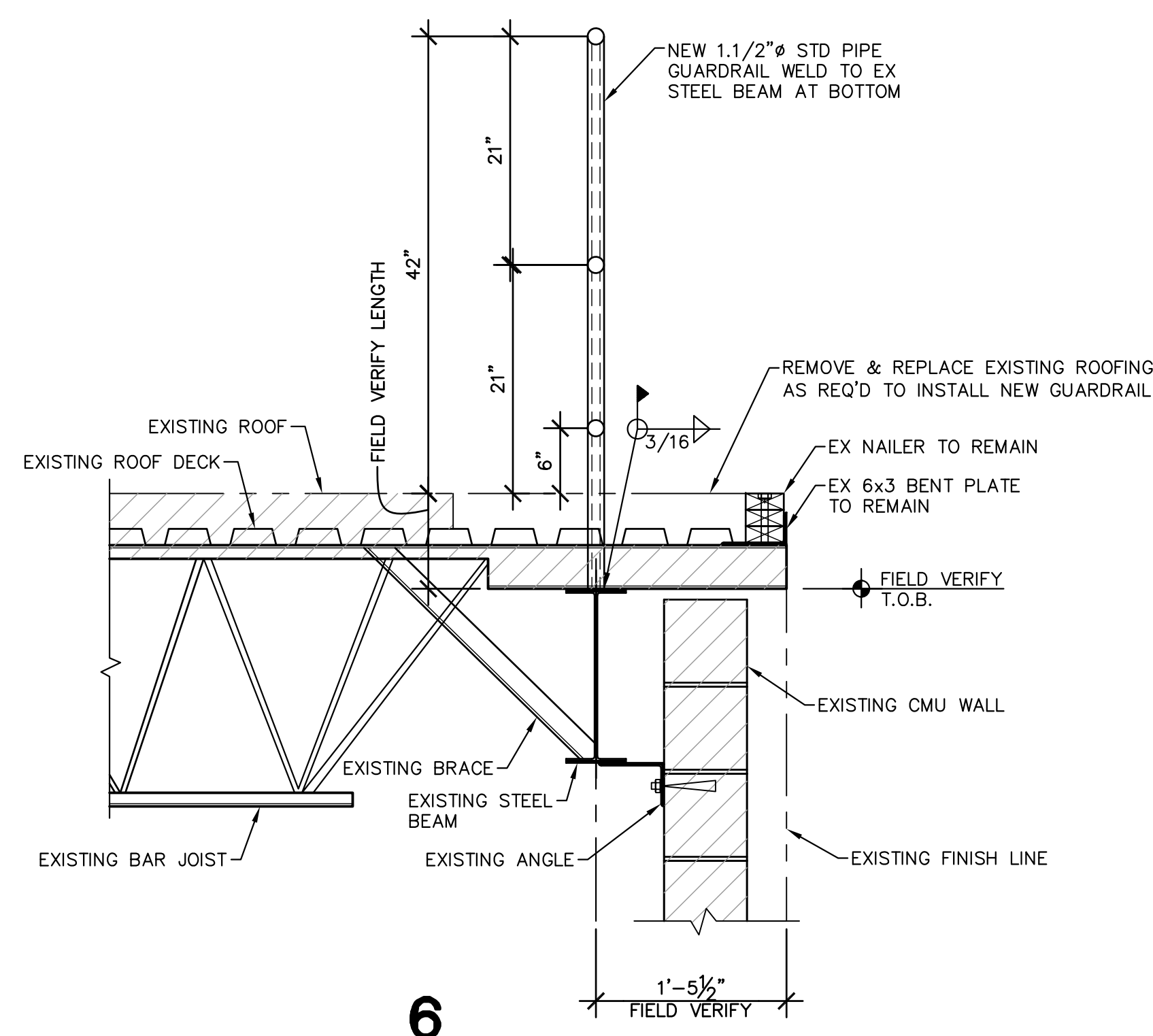
3 TYPICAL BOTTOM CHORD REINFORCEMENT



4 TYPICAL ROD WEB MEMBER REINFORCEMENT



5 TYPICAL ANGLE WEB MEMBER REINFORCEMENT



6

NOTES:

- CONTRACTOR SHALL FABRICATE AND INSTALL NEW 12'-0" SECTION OF GUARDRAIL ALONG EDGE OF ROOF.
- GUARDRAIL POSTS SHALL BE WELDED TO TOP FLANGE OF EXISTING BEAM.
- REMOVE AND REPAIR ROOF DECK TO PROVIDE NECESSARY ACCESS FOR GUARDRAIL POST INSTALLATION.