



119 W. Van Buren Ave. Ste. 101
Harlingen, TX 78550
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July 10, 2019
Brownsville ISD
Margaret M. Clark Aquatic Center HVAC & Control Replacement

ADDENDUM NO. 1

A. PURPOSE AND INTENT

This addendum is issued for the purpose of modifying the plans and specifications 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. CLARIFICATIONS

- a) Pre-Bid Conference Meeting Sign in Sheet. See attached.
- b) Plan-holders List as of July 10, 2019. See attached.
- c) A job site walkthrough has been scheduled for Friday, July 12, 2019 at 8:00 a.m. Contractor shall sign-in in the front office of Aquatic Center located at 2901 Ruben Torres Sr. Blvd., Brownsville, TX.
- d) Bid submission deadline is on Thursday, July 18, 2019 at 4:00pm (CST). Bid opening is on Thursday, July 18, 2019 at 4:30 pm (CST).

C. DRAWINGS

- a) Add structural drawings to the scope of work. See attached full size sheets:
 - i) S1.1 – General Structural Notes.
 - ii) S3.1 – New Roof Top Equipment Support Framing Plan.
 - iii) S4.1 – Structural Details.

b) COVER

- i) Scope of Work, item 2/j – revise as follows: “Provide all necessary roofing work, including but not limited to the flashing and sealing of the roof penetrations associated with the installation of new HVAC equipment on new curbs (pool dehumidifiers) and elevated structural support frames (Condenser Units and Exhaust Fan). An experienced roofing contractor who is a member of the National Roofing Contractors Association shall provide roofing work. All work shall be performed as per the NRCA and SMACNA guidelines.”



**BISD Margaret M. Clark
 Aquatic Center HVAC & Control Replacement
 10:30 AM, Tuesday, July 9, 2019
 PRE-BID SIGN IN SHEET**

<u>NAME EMAIL</u>	<u>COMPANY</u>	<u>PHONE</u>	<u>FAX</u>
Cesar Gonzalez cgonzalez@ethoseng.net	Ethos Engineering	956-564-2827	956-720-0830
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Julian Guerrero Abraham Figueroa	Fox Mechanical	956 641-3838 956 455-8980	956-831-6554
Anastacio Salmeron	Fox Mechanical	956 621-7200	
Ruben Morales	Aquatic Center	956-698-0064	
Jeremy Garcia	Aquatic Center		
R. Penin	BISD		
FRANK WILCOX FRANK@WILCOX.COM	WILCOX	516-771-9781	
Martin Espinosa	BISD	598-8081	
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Project: BISD Margaret M. Clark- Aquatic Center HVAC & Controls Replacements
Bid Date: Thursday, 07-18-19 @ 4:00 pm
Bid Conference: Tuesday, 07-09-19 @ 10:30 am – Aquatic Center, 2901 FM 802 Ruben Torres Blvd

Contractor Name:	<u>Automated Logic</u>	Addendum#	_____	Date:	_____
Address:	<u>200 N. McColl St B</u>	Addendum#	_____	Date:	_____
City,State,Zip:	<u>McAllen, Tx 78501</u>	Addendum#	_____	Date:	_____
Phone & Fax#:	<u>956-929-0533</u>				
Email:	<u>Brice-Chandler@automated</u>	Plan#	<u>#1</u>		
Check #	<u>2331</u>				

Contractor Name:	<u>Central Air & Heating Service</u>	Addendum#	_____	Date:	_____
Address:	<u>3008 Spur 54</u>	Addendum#	_____	Date:	_____
City,State,Zip:	<u>Harlingen, Tx 78552</u>	Addendum#	_____	Date:	_____
Phone & Fax#:	<u>956-428-4509</u>				
Email:	<u>e.banda@CAHSinc.com</u>	Plan#	<u>#2</u>		
Check #	<u>68997</u>				

Contractor Name:	<u>Fox Mechanical</u>	Addendum#	_____	Date:	_____
Address:	<u>4202 FM 802 Ste D</u>	Addendum#	_____	Date:	_____
City,State,Zip:	<u>Brownsville, Tx 78526</u>	Addendum#	_____	Date:	_____
Phone & Fax#:	<u>956-831-6553</u>				
Email:	<u>Abraham@foxmec.com</u>	Plan#	<u>#3</u>		
Check #	<u>5871</u>				

Contractor Name:	<u>Tex. Air</u>	Addendum#	_____	Date:	_____
Address:	<u>2201 W. Exprwy</u>	Addendum#	_____	Date:	_____
City,State,Zip:	<u>McAllen, Tx 78503</u>	Addendum#	_____	Date:	_____
Phone & Fax#:	<u>956-682-2822</u>				
Email:	_____	Plan#	<u>#4</u>		
Check #	<u>052755</u>				

Contractor Name:	<u>BISD</u>	Addendum#	_____	Date:	_____
Address:	<u>1900 E. Price</u>	Addendum#	_____	Date:	_____
City,State,Zip:	<u>Brownsville, Tx</u>	Addendum#	_____	Date:	_____
Phone & Fax#:	<u>956-548-8361</u>				
Email:	_____	Plan#	<u>#5</u>		
Check #	<u>N/A</u>				

Contractor Name:	_____	Addendum#	_____	Date:	_____
Address:	_____	Addendum#	_____	Date:	_____
City,State,Zip:	_____	Addendum#	_____	Date:	_____
Phone & Fax#:	_____				
Email:	_____	Plan#	_____		
Check #	_____				

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 2012 EDITION OF THE **INTERNATIONAL BUILDING CODE (IBC)**.

DESIGN CRITERIA

- BASIS FOR DESIGN AND CODE COMPLIANCE
 - GOVERNING BUILDING CODE.....IBC 2012
- WIND DESIGN BASED ON THE GREATER OF:
 - ASCE 7-10 REQUIREMENTS

ULTIMATE DESIGN WIND SPEED.....143 MPH
RISK CATEGORY.....II
WIND EXPOSURE CATEGORY.....B
INTERNAL PRESSURE COEFFICIENT (Gcpi).....+/-0.18
Kzt.....1.0
Kd.....0.85
 - ASCE 7-05 REQUIREMENTS

DESIGN WIND SPEED.....120 MPH
IMPORTANCE FACTOR.....1.0
WIND EXPOSURE CATEGORY.....B
INTERNAL PRESSURE COEFFICIENT (Gcpi).....+/-0.18
Kzt.....1.0
Kd.....0.85

- GRAVITY DESIGN

ROOF:
DEAD LOAD.....SELF-WEIGHT OF STRUCTURE & ROOFING SYSTEM
LIVE LOAD.....20 PSF
MECHANICAL.....AS NOTED ON DRAWINGS.

- BUILDING UPGRADES SHALL MEET ASCE 7-05 & ASCE 7-10 WIND PRESSURES. ALL COMPONENTS AND CLADDINGS (E.G. MECHANICAL EQUIPMENT AND ROOFING); MUST MEET MINIMUM WIND CODE REQUIREMENTS.

CONSTRUCTION NOTES FOR THE REPAIR WORKS ON EXISTING STRUCTURE

- 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.
- 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.
- WELDING TO AND WITHIN AN EXISTING FACILITY PRESENTS POTENTIAL HAZARDS INCLUDING:
 - FIRE HAZARD - DUE TO THE EXISTING CONSTRUCTION AND BUILDING CONTENTS.
 - STRUCTURAL LIQUEFACTION - DUE TO WELDING ACROSS THE FULL SECTION OF STRUCTURAL STEEL MEMBERS.

RECOMMENDATIONS TO PREVENT THESE HAZARDS INCLUDE:

 - FIRE HAZARD - PROTECT EXISTING COMBUSTIBLES PRIOR TO WELDING. KEEP A SEPARATE WATCHMAN AND SEVERAL FIRE EXTINGUISHERS ON HAND.
 - STRUCTURAL LIQUEFACTION - WELD IN SMALL INCREMENTS. ALLOW WELDS TO HARDEN BEFORE CONTINUING TO THE NEXT INCREMENT.
 - DO NOT LEAVE THE SITE UNTIL SATISFIED THAT NO FIRE HAZARD EXISTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND ERECTION OF ALL SHORING NECESSARY TO SAFEGUARD THE EXISTING STRUCTURE.

EXISTING CONDITIONS

- 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.
- IF EXISTING CONDITIONS DIFFER FROM THE DRAWINGS, INFORM THE ENGINEER AND ADDITIONAL DETAILS OR INTERPRETATION WILL BE PROVIDED. DO NOT PROCEED WITHOUT VERIFICATION.
- THE CONTRACTOR SHALL VISIT THE SITE OF THE PROPOSED WORK AND FULLY ACQUAINT THEMSELVES WITH THE EXISTING CONDITIONS.

DEMOLITION NOTES

- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING STRUCTURE AND SURROUNDING BUILDINGS DURING CONSTRUCTION.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY WATERTIGHTNESS OF THE BUILDING DURING DEMOLITION AND RECONSTRUCTION.
- GENERAL CONTRACTOR SHALL COORDINATE WITH ENGINEER ITEMS THAT ARE UNCLEAR PRIOR TO ANY DEMOLITION.
- 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.
- 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.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING DEBRIS & MATERIAL AWAY FROM SITE ACCORDING TO GOVERNING LOCAL, STATE OR FEDERAL REGULATIONS.
- ANY AREA DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.

PENETRATIONS

- PENETRATIONS THROUGH EXISTING ELEMENTS SHALL COMPLY WITH THE DRAWINGS AND SPECIFICATIONS.
- DO NOT CUT JOISTS, BEAMS OR COLUMNS WITHOUT PRIOR APPROVAL.
- PENETRATIONS THROUGH LOAD-BEARING ELEMENTS SHALL BE TEMPORARILY SHORED TO PREVENT COLLAPSE, AS SPECIFIED BELOW.

TEMPORARY BRACING, FALSEWORK AND FORMWORK

- 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.
- 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 REVIEWING 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.

STRUCTURAL STEEL

- TOP OF BEAM/PLATE (TOB OR TOP) IS USED INTERCHANGEABLY ON PLANS. REFERENCE APPLICABLE SECTION FOR CLARIFICATION.
- 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).
- 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).
- ALL STRUCTURAL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
- 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.
- REFER TO MECHANICAL PLANS FOR VERIFICATION OF ALL BOLTS, BLOCKING ANCHORS, ETC., FOR THE ANCHORAGE OF THEIR RESPECTIVE ITEMS.
- ALL BEAMS AND COLUMNS SHALL BE FULL LENGTH WITHOUT SPLICES UNLESS INDICATED ON PLANS OR APPROVED BY THE ENGINEER IN WRITING.
- 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).
- WELDS SHALL BE MADE WITH COVERED MILD STEEL ELECTRODES COMPLYING WITH AWS D1-72 CODE AND SERIES E 70XX.
- ERECTION CONNECTORS SHALL BE PROVIDED IN ORDER TO PROPERLY ALIGN AND BE TRUE AND PLUMB WHEN WELDS ARE MADE.
- 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.
- THE FABRICATOR SHALL SUPPLY BACK-UP PLATES AND EXTENSION TABS FOR ALL COMPLETE PENETRATION WELDS.
- ALL STEEL MEMBERS, UNLESS NOTED OTHERWISE, SHALL BE PAINTED W/ ONE COAT OF SHOP PRIMER. ALL EXPOSED STEEL MEMBERS INCLUDING SECONDARY COMPONENTS, FASTENERS AND ASSOCIATED ACCESSORIES, SHALL BE HOT-DIPPED GALVANIZED. GALVANIZED DECK SHALL CONFORM TO ASTM A525, G60 (MINIMUM).
- 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".
- 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.
- 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.
- 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.
- THE STRUCTURAL ENGINEER SHALL BE NOTIFIED FOR A FRAMING OBSERVATION IMMEDIATELY AFTER FRAMING IS INSTALLED AND BEFORE INSTALLATION OF THE ROOFING.

FASTENERS

- 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.
- 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.
- 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.
- 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:
 - KWIK BOLT III (ICC-ES ESR-2302) BY HILTI (CONCRETE)
 - KWIK BOLT III (ICC-ES-ESR-1385) BY HILTI (MASONRY)
 - STRONG-BOLT 2 (ICC-ES ESR-3037) BY SIMPSON STRONG-TIE (CONCRETE)
 - WEDGE-ALL ANCHOR (ICC-ES ESR-1396) BY SIMPSON STRONG-TIE (MASONRY)
- 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:
 - HSL-3 (ICC-ES ESR-1545) BY HILTI (CONCRETE)
- SCREW ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
 - KWIK HUS-EZ (ICC-ES ESR-3027) BY HILTI (CONCRETE)
 - KWIK HUS-EZ (ICC-ES ESR-3056) BY HILTI (MASONRY)
 - TITEN HD (ICC-ES ESR-2713) BY SIMPSON STRONG-TIE (CONCRETE)
 - TAPCON ANCHORS (ICC-ES ESR-1671) (MASONRY)
 - POWERS WEDGE BOLT (ICC-ES ESR-1678) (MASONRY)

FASTENERS CONTINUED:

- UNDERCUT ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:
 - HDA (ICC-ES ESR-1546) BY HILTI (CONCRETE)
 - TORQ-CUT (ICC-ES ESR-2705) BY SIMPSON STRONG-TIE (CONCRETE)
- 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:
 - X-U (ICC-ES ESR-2269) BY HILTI (CONCRETE/MASONRY/STEEL)
 - POWDER ACTUATED FASTENERS (ICC-ES ESR-2138) BY SIMPSON STRONG TIE (CONCRETE/MASONRY)
- ADHESIVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308. ACCEPTABLE PRODUCTS:
 - HIT-RE 500-V3 (ICC-ES ESR-3814) BY HILTI (CONCRETE)
 - HIT-HY 270 (ICC-ES ESR-4143) BY HILTI (MASONRY)
 - SET-XP (ICC-ES ESR-2508) BY SIMPSON STRONG-TIE (CONCRETE)
 - SET (ICC-ES ESR-1772) BY SIMPSON STRONG-TIE (MASONRY)
- 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.
- HEADED ANCHOR RODS SHALL BE FABRICATED FROM ASTM F1554 MATERIAL, Fy=36 KSI.
- 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.
- 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 2012. 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 2012.

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:

COPY NO:



H/6/6 7/9/19

BROWNSVILLE I.S.D.
 MARGARET M. CLARK - AQUATIC CENTER
 HVAC & CONTROLS REPLACEMENT

CSP# 20-114



DATE: JULY 09, 2019

CHECKED BY: HC_JS

DRAWN BY: IG

PROJECT NO.: 1178-17

SHEET:

S1.1



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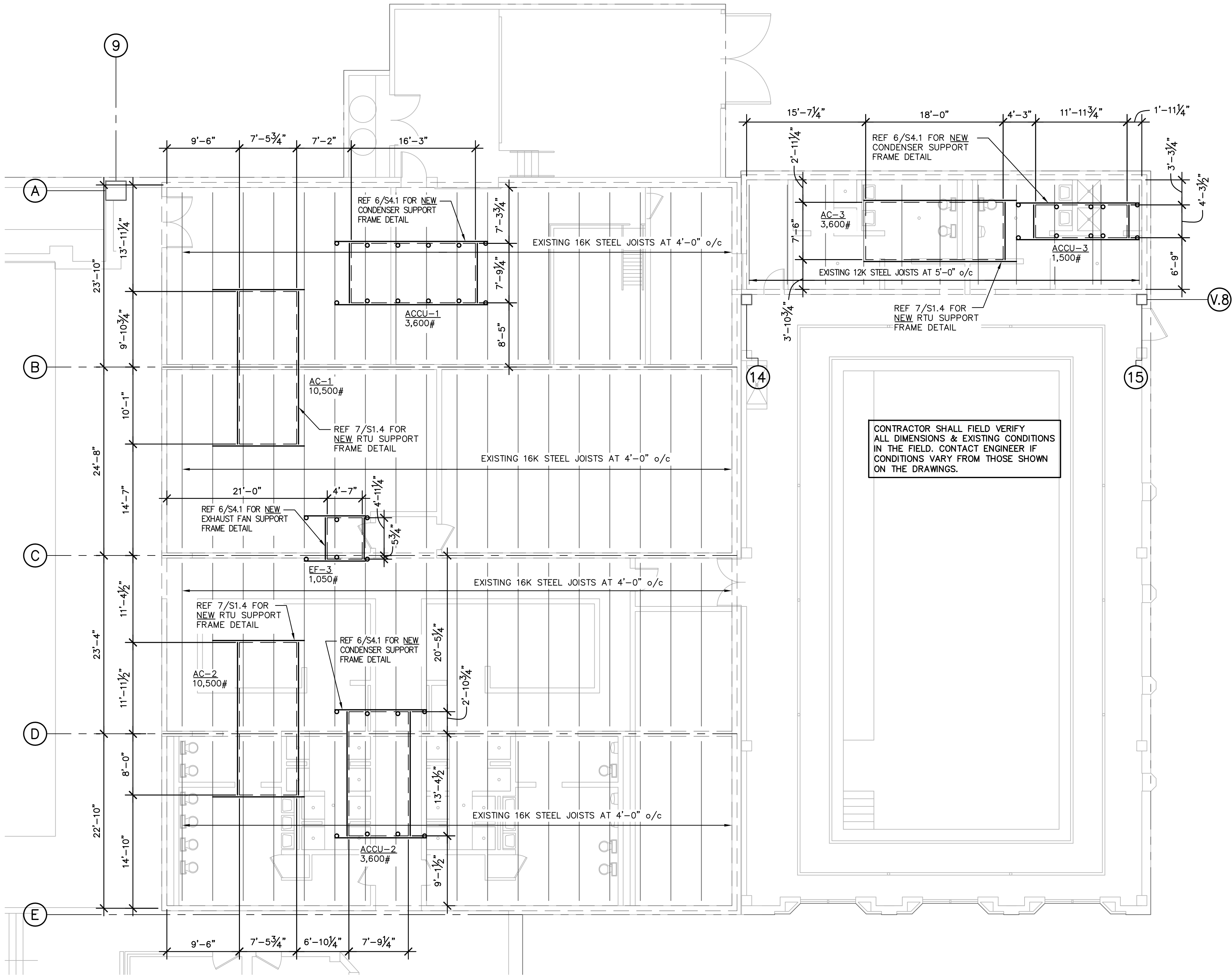
1 NEW ROOF TOP EQUIPMENT SUPPORT FRAMING PLAN

1/8" = 1'-0"

NOTES:

- GENERAL CONTRACTOR SHALL CONTACT GRA TO SCHEDULE FIELD OBSERVATIONS & MEASUREMENTS OF EXISTING STEEL JOISTS AT NEW ROOF TOP EQUIPMENT LOCATIONS. CONTRACTOR SHALL PROVIDE A LIFT ON SITE TO BE USED AS DIRECTED BY GRA PERSONNEL TO GAIN ACCESS TO EXISTING STEEL JOISTS. CONTRACTOR SHALL REMOVE CEILING AND OTHER TRADES WORK TO GAIN CLEAR ACCESS TO JOISTS.
- ONCE GRA HAS ANALYZED THE EXISTING JOISTS, REVISED JOIST REINFORCEMENT PROFILES WILL BE PROVIDED AS REQUIRED, INCORPORATING REPAIR DETAILS 2 THRU 5/S4.1.
- SCOPE OF WORK:
 - A - REINFORCE EXISTING STEEL JOIST TO SUPPORT NEW RTU'S PER REVISED JOIST REINFORCEMENT PROFILES.
 - B - INSTALL NEW ROOF OPENING FRAME PER DETAIL 7/S4.1.
 - C - INSTALL NEW CONDENSER & EXHAUST FAN SUPPORT FRAME PER DETAIL 6/S4.1.
 - D - INSTALL NEW ROOFING INTEGRATED WITH EXISTING ROOF AND ONTO NEW RTU CURBS AS REQUIRED FOR A COMPLETE WATERPROOF INSTALLATION (BY CONTRACTOR).
- 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 CURBS AND MECHANICAL EQUIPMENT TO NEW SUPPORT FRAMES.
- FRAMING PLANS WERE DEVELOPED BASED ON RECORD DRAWINGS TITLED "BISD BROWNSVILLE NATATORIUM" SHEETS S100 THROUGH S602 DATED 9-23-99 BY HINOJOSA ENGINEERING, INC. (MISSION, TX) AND RECORD DRAWINGS TITLED "BISD MARGARET M. CLARK ADAPTIVE AQUATICS POOL ADDITION" SHEETS S100 THROUGH S500 DATED 5-24-05 BY HINOJOSA ENGINEERING, INC. (MISSION, TX). CONTRACTOR SHALL REFER TO RECORD DRAWINGS FOR ADDITIONAL INFORMATION REQUIRED.

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



BROWNSVILLE I.S.D.
 MARGARET M. CLARK - AQUATIC CENTER
 HVAC & CONTROLS REPLACEMENT

CSP# 20-114



DATE: JULY 09, 2019

CHECKED BY: HC_JS

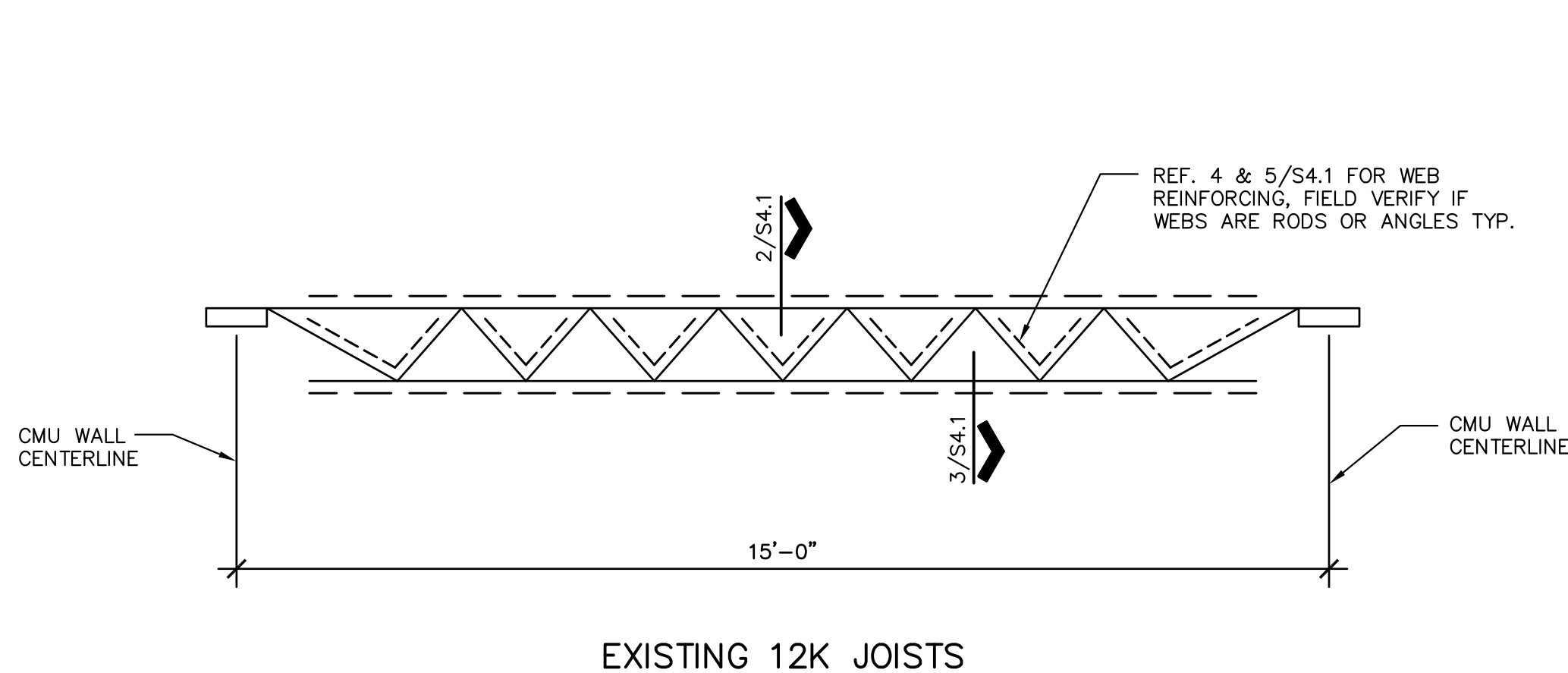
DRAWN BY: IG

PROJECT NO.: 1178-17

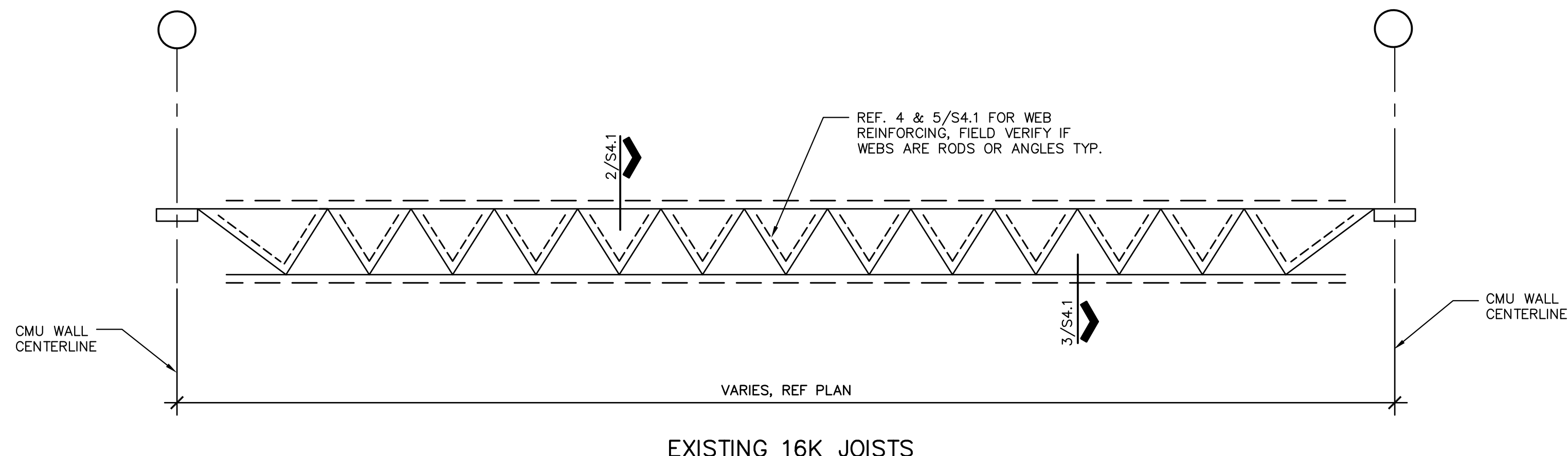
SHEET:

S3.1





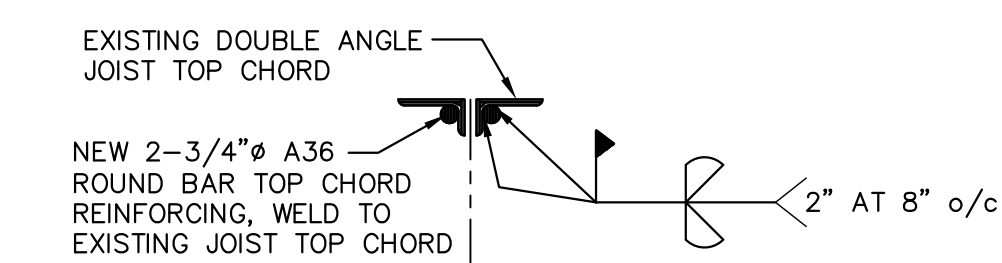
EXISTING 12K JOISTS



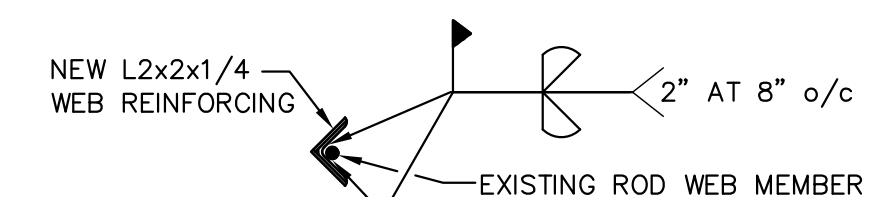
EXISTING 16K JOISTS

1 EXISTING JOIST REINFORCING PROFILES

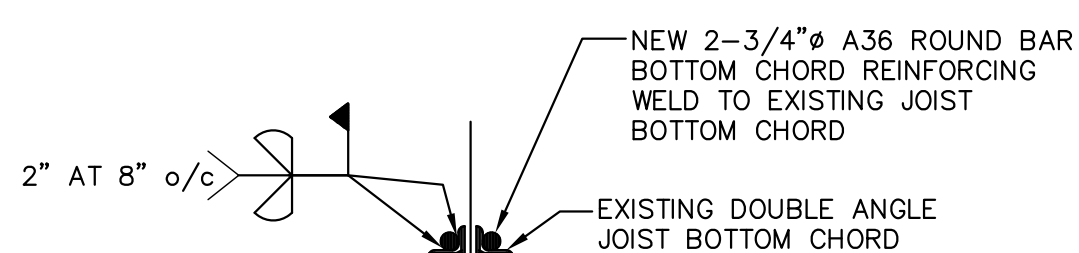
1/2" = 1'-0"



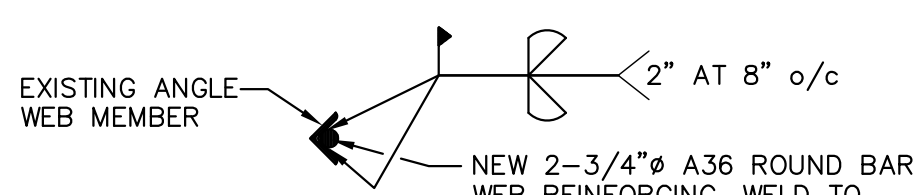
2 TYPICAL TOP CHORD REINFORCEMENT



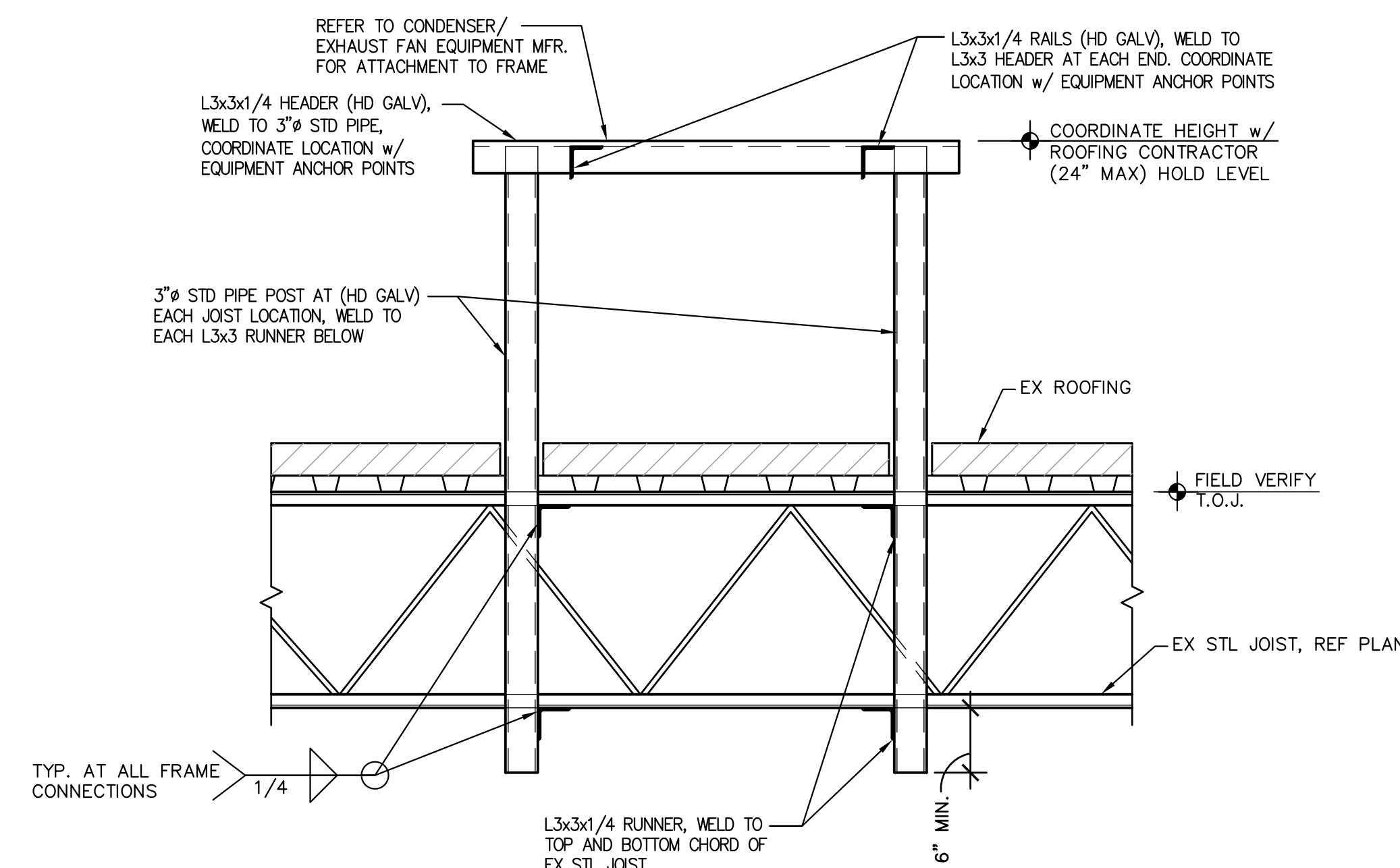
4 TYPICAL ROD WEB MEMBER REINFORCEMENT



3 TYPICAL BOTTOM CHORD REINFORCEMENT



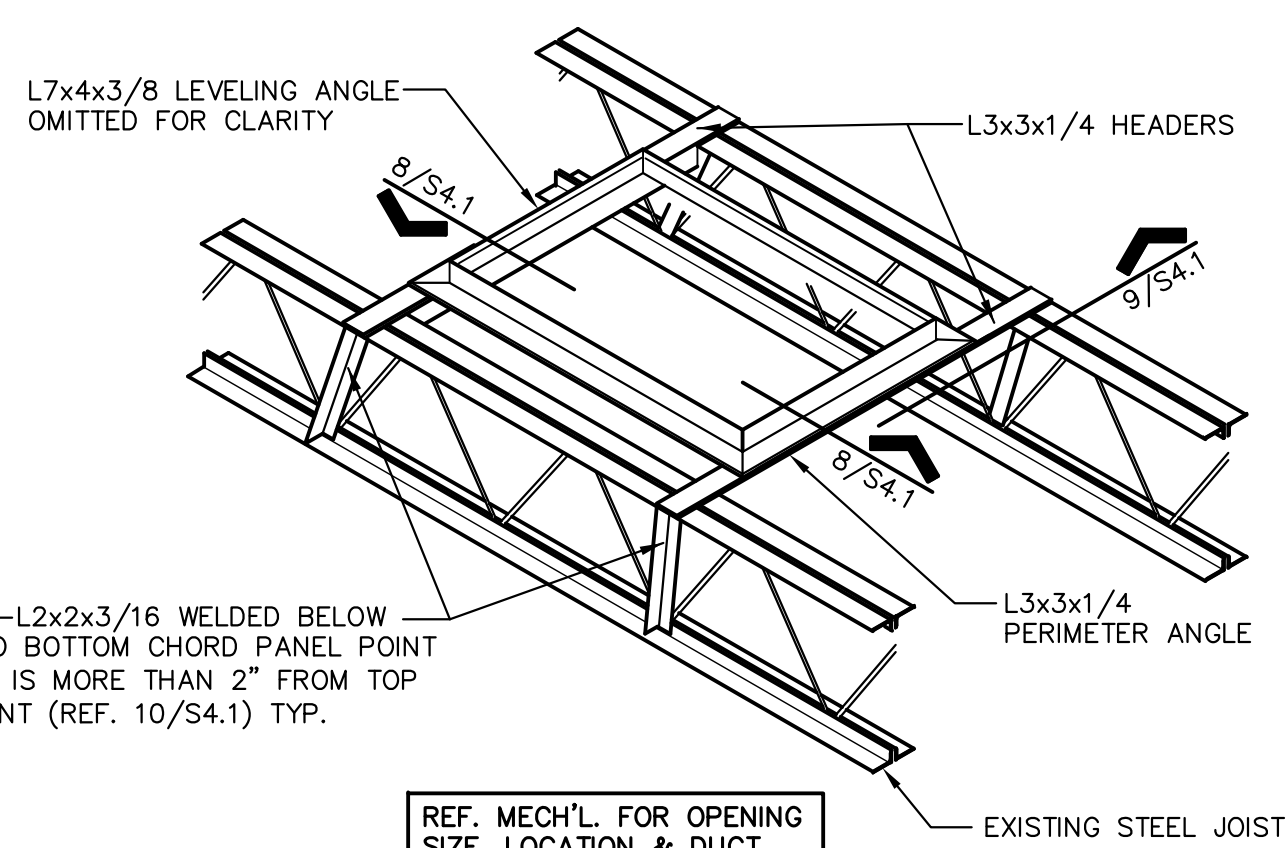
5 TYPICAL ANGLE WEB MEMBER REINFORCEMENT



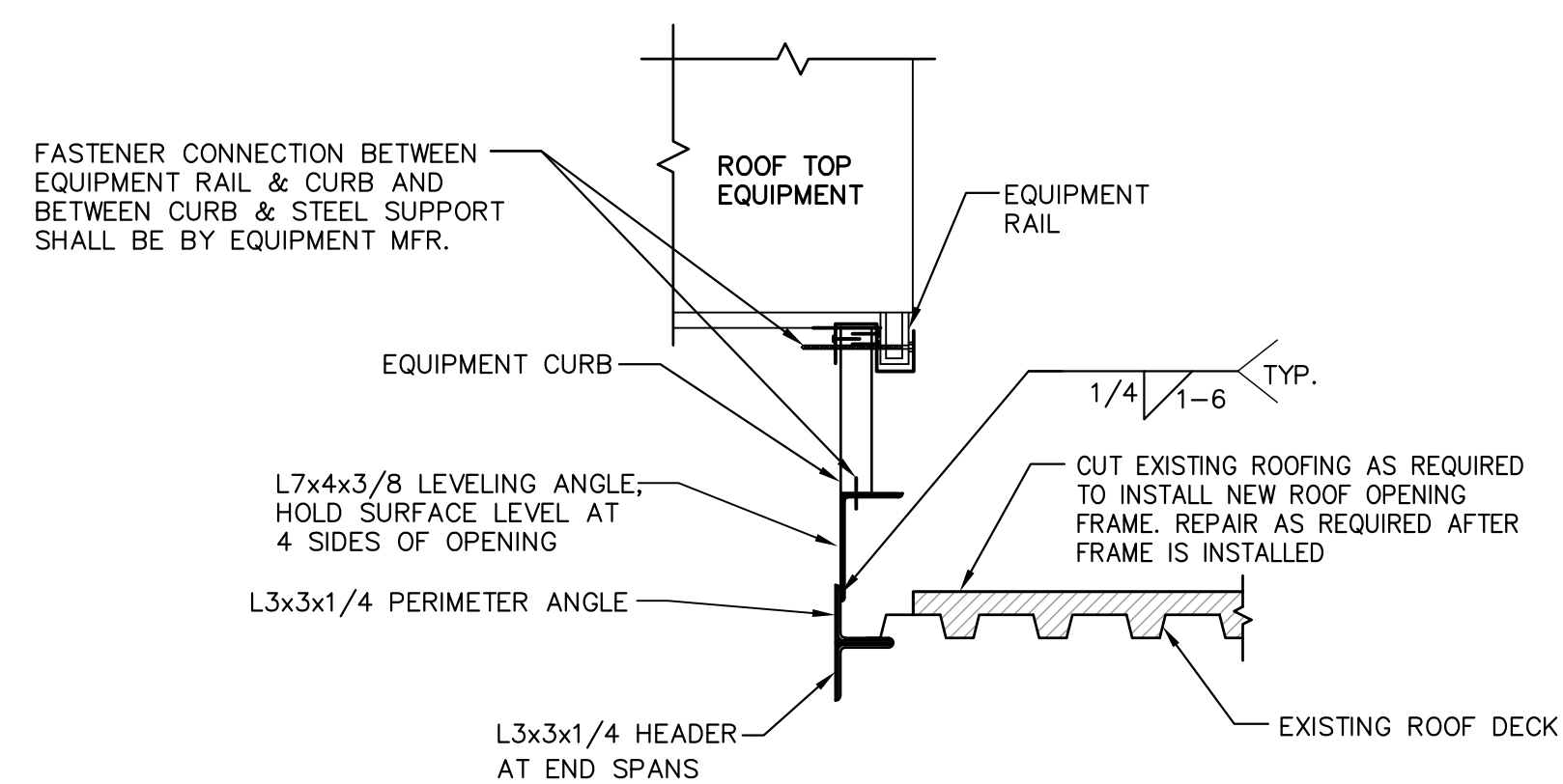
6 TYPICAL CONDENSER UNIT/ EXHAUST FAN SUPPORT FRAMING

NOTE:

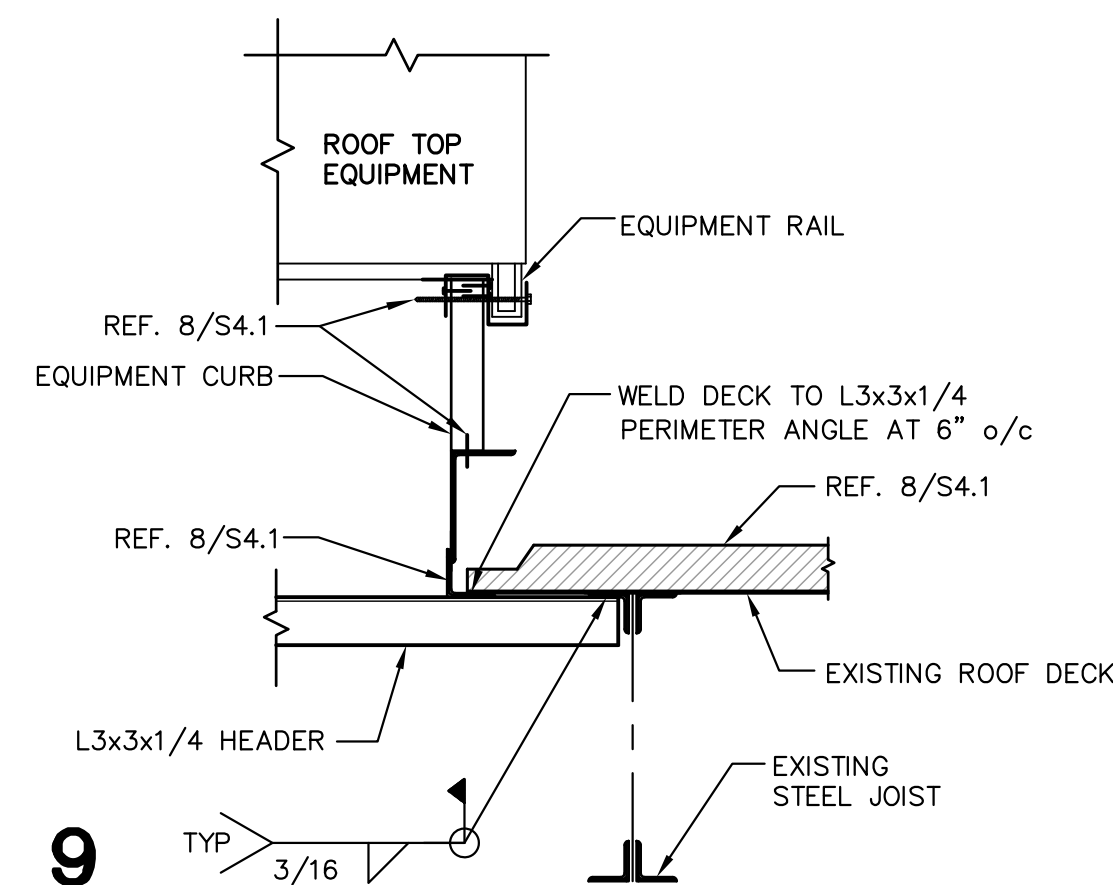
1. COORDINATE LOCATION OF SUPPORT FRAME WITH MEP & EQUIPMENT MANUFACTURER.



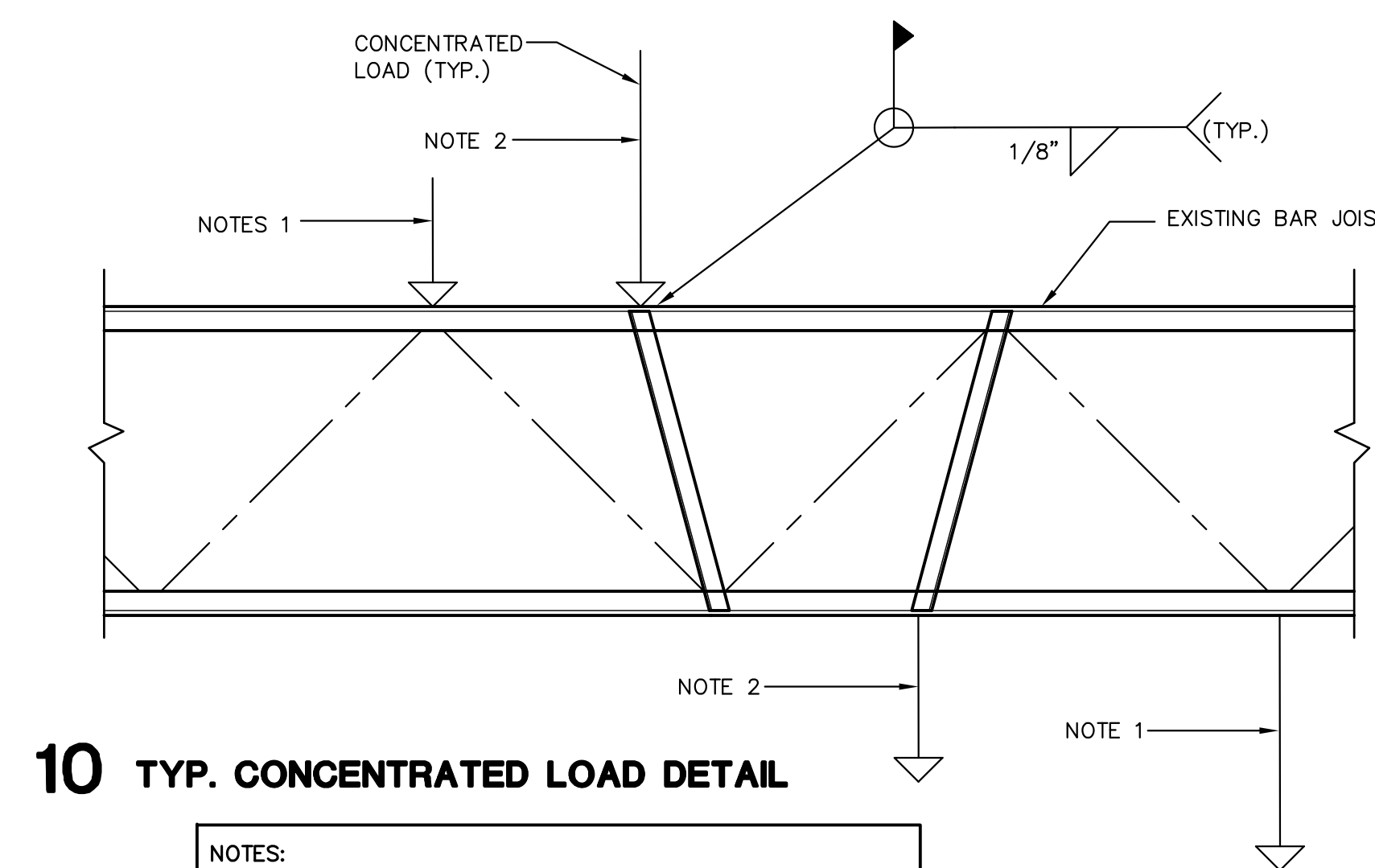
7 ROOF OPENING FRAME DETAIL



8 EQUIPMENT SUPPORT FRAME



9



10 TYP. CONCENTRATED LOAD DETAIL

NOTES:

1. CONCENTRATED LOAD LOCATED AT JOIST PANEL POINT LOCATION - NO ADDITIONAL ANGLES REQUIRED.
2. CONCENTRATED LOAD (100 LBS. OR HEAVIER) NOT LOCATED AT JOIST PANEL POINT LOCATION - PROVIDE L2x2x3/16 TO PANEL POINT AS SHOWN.

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SHEET:

S4.1

