



Ventura County Community College District
761 East Daily Drive, Camarillo, CA 93010
Purchasing Department

TO: All Bidders May 19, 2020
FROM: Janice Kisch, Purchasing Specialist
SUBJECT: Bid 537 Ventura College Learning Resource Center Chiller Replacement

Bid 537 Ventura College LRC Chiller Replacement – ADDENDUM 1

This addendum is hereby made a part of the contract documents to the same extent as though it was originally included therein and takes precedence over the original documents.

Note that the Bid Proposal Form requires acknowledgement of receipt of all addenda.

It is the responsibility of the Bidder to verify that their Bid Proposal and all addenda has been **received and delivered to the VCCCD Purchasing Department prior to the bid opening date and time.** Verification of receipt can be obtained through the listed Purchasing Specialist.

New Information:

1. Demo existing bird netting and install new ¾” Polyethylene bird netting with cable system. Existing hooks may be re-used. Provide zippered opening for roof access ladder.

2. Add Alternate to the Bid Proposal. This Alternate is not to be included in the Base Bid Amount for the bid and is a Alternate if the College chooses to add these units:
Provide and install at two new VFD’s at AHU-1’s control enclosure. AHU 1 is located on the roof near the chillers.

Schedule

1. ABB Model ACH580-BCR-023A-4+B056+J429. 6 pulse drive package with NEMA 12 enclosure and E-Clipse Bypass. 15 HP.

2. ABB Model ACH580-BCR-023A-4+B056+J429. 6 pulse drive package with NEMA 12 enclosure and E-Clipse Bypass. 40 HP.

Installation shall include factory start-up and connection to existing power, motor, controls, programming and all necessary wire, conduit, and connections. Included is demolition and disposal of existing VFD’s.

3. Bid Proposal Form Section 00210 is Revised as Rev 05/19/20. This form section follows here and should be used as your final bid proposal.

4. All submittals shall be provided for review within 21 days of contract award.

Clarifying Information: (Revised Plan Drawings Follow)

- A. Replace M1.0 with M1.0 Addendum 1 dated 5-14-20
Added Factory Supplied Circuit Breaker
- B. Replace M2.0 with M2.0 Addendum 1 dated 5-14-20
Revised piping and electrical notes
- C. Replace M2.1 with M2.1 Addendum 1 dated 5-14-20
Added detail 5
- Replace M3.0 with M3.0 Addendum 1 dated 5-14-20
Revised butterfly valve style

Response to Questions from Bidders

Question #1. Are we proposing a bid for a Trane option or a York option? Both options are stated in the drawings.

Answer. Provide bid for Trane chiller only. As stated at the job walk Microchannel condenser is not acceptable.

Question #2. Prints state an entire flush of the chilled water loop. Is it only from the POC and new piping and new chiller evaporator? Is there a specific vendor the college would like us to use for this task along with water treatment?

Answer – Entire building chilled water system shall be cleaned, flushed, and new chemical treatment added to appropriate levels. Contractor may use any qualified vendor for this task.

Question #3 Pipe arrangement on prints doesn't match what's on site.

On chiller #1 it shows CHWS going through the back of chiller when in reality it goes under the chiller. What's the actual POC?

The prints show CHW pump discharge on both are piped to chiller #1?

Answer – The new piping connections are at the back of the Trane chiller. There is a common supply that branches to each chiller that shall be adapted to the new arrangement. Each chiller has dedicated supply piping to their respective primary pumps. New piping is required from chiller to point of connection to the existing piping. See P2.1 Addendum 1 (delta 2)

Question #4 Electrical disconnect for each chiller (480 volt 300 amp) is more than 20 lbs. That being said, would you still like us to mount the disconnect on the chiller?

Answer - Delete disconnect. Add high fault circuit breaker option on Trane chiller. See M1.0 Addendum 1 (delta2)

Question #5 Prints state to use Waffer Butterfly valve. Currently there is lug style valve. Which type of valve would you like us to provide and install?

Answer – Provide and install lug style.

Question #6 If grove fittings are used, what is the preferred brand?

Answer - Victaulic or equal

Question #7 - Per Spec section 15545.3.01 F Entire building hydronic system shall be flushed, cleaned, and re-treated. All equipment, including VAV, strainers shall be cleaned and re-installed. Please provide the total count of strainers on this system.

Answer - Deleted strainer cleaning requirement.

Question #8 Dwg Ref: E2.2 & E4.5 Current drawings state to remove existing electrical equipment and to reinstall once chillers have been replaced. Can you confirm that the only electrical equipment being replaced is the 300 amp fuses in the existing to remain disconnects. Can you confirm no new disconnect supports (Unistrut) is needed for install?

Answer. Demo any disconnects on existing chiller. New chillers shall have factory installed circuit breakers. Add permanent tag "LOCKOUT CHILLER AT MCC PRIOR TO WORKING ON ANY POWER ELEMENTS" Some strut may be required for conduit installation.

Question #9 - Can you confirm all work including shutdowns can take place during normal working hours?

Answer - Work can take place during normal working hours, any shutdowns that impact service to the building systems can occur during normal working hours if contractor submits request for shutdown 3 working days (Mon. – Fri.) prior to activity and upon approval by Owner; Saturday and Sunday will not count within the 3 day count. The same timeframe of request and approval will apply to the actual removal and installation of the Chillers. The actual work of lifting existing chillers off and lifting new chillers on must occur on a Friday. In general, Fridays will be the least impactful days to the building occupants when it comes to shutdowns."

Question #10 - Can you confirm that there is no temp chiller aspect to this project that would require a new electrical install that is not currently detailed in the drawings

Answer - No temporary chiller is required for this project.

Question #10 What is the Engineer's estimate for this project?

Answer – Estimate is \$355,000

BID PROPOSAL

Section 00210

TO: **VENTURA COUNTY COMMUNITY COLLEGE DISTRICT**, a California Community College District, acting by and through its Board of Trustees ("District") 761 East Daily Drive, Suite 200, Camarillo, CA 93010.

FROM:

(Name of Bidder - as listed on license)

(Address)

(City, State, Zip Code)

(Telephone)

(Fax)

(E-Mail Address)

(Name(s) of Bidder's Authorized Representative(s) and Title)

(Date)

1.01 Bid Proposal

A. Bid Proposal Amount

Pursuant to and in compliance with the Notice to Contractors Calling for Bids, the Instructions for Bidders and the other documents relating thereto, the undersigned Bidder, having reviewed the Instructions for Bidders and all other Contract Documents and upon compliance with all requirements therein with reference to the submittal of this Bid Proposal, hereby proposes and agrees to perform the Contract including, without limitation, all of its component parts; to perform everything required to be performed; to provide and furnish any and all of the labor, materials, tools, equipment, applicable taxes, and services necessary to perform the work of the Contract in strict compliance with the Contract Documents and complete in a workmanlike manner all of the Work required for the Project described as:

Bid 537 Ventura College Learning Resource Center Chiller Replacement

Base Bid Amount: \$

(Total bid amount in figures)

(Total bid amount in words)

Add Alternate 1: Two New VFD Units:
(Per Addendum 1, not included in Base Bid Amount)

\$

(Alternate amount in figures)

(Alternate amount in words)

C. Acknowledgment of Bid Addenda

In submitting this Bid Proposal, the undersigned Bidder acknowledges receipt of all Bid Addenda issued by or on behalf of the District, as set forth below. The Bidder confirms that this Bid Proposal incorporates and is inclusive of, all items or other matters contained in Bid Addenda.

(initial) **No Addenda Issued**

(initial) **Addenda Nos. _____ received, acknowledged and incorporated into this Bid Proposal.**

1.02 Rejection of Bid; Holding Open of Bid

It is understood that the District reserves the right to reject this Bid Proposal and that this Bid Proposal shall remain open and not be withdrawn for the period of time specified in the Call for Bids, except as provided by law.

1.03 Documents Comprising Bid Proposal

The undersigned Bidder has submitted as its Bid Proposal the following: Bid Proposal (00210), List of Subcontractors (00215), Non-Collusion Affidavit (00220), Statement of Bidder's Qualifications (00240), Bid Security (Cash, Cashier's Check, Certified Check or Bid Bond (00260) and Verification of DIR Registration.

The Bidder acknowledges that if this Bid Proposal and the foregoing documents are not fully in compliance with applicable requirements set forth in the Call for Bids, the Instructions for Bidders and in each of the foregoing documents, the Bid Proposal may be rejected as non-responsive.

1.04 Award of Contract

It is understood and agreed that if written notice of the acceptance of this Bid Proposal and award of the Contract thereon is mailed or delivered by the District to the undersigned after the opening of Bid Proposals and within the time this Bid Proposal is required to remain open or at any time thereafter before this Bid Proposal is withdrawn, the undersigned will execute and deliver to the District the Agreement in the form attached hereto in accordance with the Bid Proposal as accepted within seven (7) calendar days after notification of acceptance and award. Concurrently with delivery of the executed Agreement to the District, the Bidder awarded the Contract shall deliver to the District: (1) the Labor and Material Payment Bond; (2) the Performance Bond; (3) the Drug-Free Workplace Certificate; (4) Certificates of Insurance evidencing all insurance coverages required to be provided under the Contract Documents; and (5) the Certificate of Workers' Compensation Insurance. The Work under the Contract Documents shall be commenced by the undersigned Bidder, if awarded the Contract, on the date stated in the District's Notice to Proceed issued pursuant to the Contract Documents.

Completion of the Work and all Interim Milestones shall be achieved within the Contract Time and Interim Milestones specified in the Contract Documents.

1.05 Notices

All notices or other correspondence shall be addressed to the District and the Bidder at their respective addresses set forth herein. Notices shall be effective only if in writing and in conformity with the requirements for service of notices set forth in the Contract Documents.

1.06 Contractor's License

The undersigned Bidder is currently and duly licensed in accordance with the California Contractors License Law, California Business & Professions Code §§7000 et seq., under the following:

License Number: _____

Class	_____	Expiration Date	_____	Class	_____	Expiration Date	_____
Class	_____	Expiration Date	_____	Class	_____	Expiration Date	_____

DIR Registration Number: _____ Expiration Date: _____

By executing this Bid Proposal, the Bidder hereby certifies that: (a) it is duly licensed, in the necessary class(es), for performing the Work of the Contract Documents; (b) that such license shall be in full force and effect throughout the duration of the performance of the Work under the Contract Documents; and (c) that all Subcontractors providing or performing any portion of the Work of the Contract Documents shall be so similarly and appropriately licensed to perform or provide such portion of the Work.

1.07 Designation of Subcontractors

In compliance with the Subletting and Subcontracting Fair Practices Act (California Public Contract Code §§4100, et seq.) and amendments thereof, each Bidder shall set forth in the Subcontractors List: (a) the name and location of the place of business of each Subcontractor who will perform work or labor or render services to the Bidder in or about the construction of the Work to be performed under the Contract Documents in an amount in excess of one-half of one percent (0.5%) of the Bidder's Bid Proposal; and (b) the trade and/or portion of the Work which will be performed by each listed Subcontractor. The Bidder shall list only one Subcontractor for each trade and/or portion of the Work as is defined by the Bidder in its Bid Proposal. If a Bidder fails to list a Subcontractor for a portion of the work in excess of one-half of one percent (0.5%) of the Bidder's Bid Proposal or if the Bidder specifies more than one Subcontractor for the same portion of Work to be performed under the Contract Documents valued in excess of one-half of one percent (0.5%) of the Bidder's Bid Proposal amount, the Bidder shall be deemed to have agreed that it is fully qualified to perform that portion of the Work itself and that it shall perform that portion of the Work.

1.08 Confirmation of Figures

By submitting this Bid Proposal, the Bidder confirms that it has checked all of the above figures and understands that neither the District nor any of its agents, employees or representatives shall be responsible for any errors or omissions on the part of the undersigned Bidder in preparing and submitting this Bid Proposal.

1.09 Acknowledgment and Confirmation

The undersigned Bidder acknowledges its receipt, review and understanding of the Drawings, the Specifications and other Contract Documents pertaining to the proposed Work. The undersigned Bidder certifies that the Contract Documents are, in its opinion, adequate, feasible and complete for providing, performing and constructing the Work in a sound and suitable manner for the use specified and intended by the Contract Documents. The undersigned Bidder certifies that it has, or has available, all necessary equipment, personnel, materials, facilities and technical and financial ability to complete the Work for the amount bid herein within the Contract Time and in accordance with the Contract Documents. The undersigned Bidder certifies that its bid amount includes funds sufficient to allow the Bidder to comply with all applicable local, state and federal laws and regulations governing the labor and services to be provided for the performance of the Work of the Contract and shall indemnify, defend and hold District harmless from and against any and all claims, demands, losses, liabilities and damages arising out of or relating to Bidder's failure to comply with applicable law in this regard.

By: _____
(Signature & Date)

(Corporate Seal)

(Typed or Printed Name of Bidder's Authorized Representative)

Title: _____

Date: _____

[End Of Section]

MECHANICAL NOTES

1. SCOPE OF WORK: WORK INCLUDES THE FOLLOWING: FURNISH AND INSTALL ALL EQUIPMENT AND CONTROLS SHOWN ON THE ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS AND DESCRIBED IN THESE NOTES, THE BOOK SPECIFICATIONS AND THE CONTRACT DOCUMENTS. WORK INCLUDES BUT IS NOT LIMITED TO: DEMOLITION OF TWO CHILLERS AND INSTALLATION OF TWO NEW CHILLERS, INCLUDED ARE ALL DEVICES NEEDED TO MAKE COMPLETE AND FUNCTIONAL SPACE CONDITIONING SYSTEMS AND CONTROLS. CONTRACTOR SHALL FURNISH AND INSTALL, MAKE OPERABLE, AND TEST ALL SYSTEMS AND MECHANICAL EQUIPMENT SHOWN ON THE PLANS AND DESCRIBED IN THE SPECIFICATIONS AND CONTRACT DOCUMENTS, IN CONNECTION THEREWITH, CONTRACTOR SHALL ALSO FURNISH AND INSTALL ALL NECESSARY DEVICES, HARDWARE, AND SYSTEMS REQUIRED TO MAKE SAID EQUIPMENT PROPERLY AND SAFELY OPERABLE, INCLUDING BUT NOT LIMITED TO, MOUNTING HARDWARE, VIBRATION CONTROL DEVICES, AND CONTROL SYSTEMS.

2. INTERPRETATION OF DRAWINGS, SPECIFICATIONS OR CONTRACT DOCUMENTS, IF ANY BIDDER IS IN DOUBT AS TO THE TRUE MEANING OF ANY PART OF THE DRAWINGS, THE SPECIFICATIONS OR OTHER PORTIONS OF THE CONTRACT DOCUMENTS; FINDS DISCREPANCIES, ERRORS OR OMISSIONS THEREIN; OR FINDS VARIANCES IN ANY OF THE CONTRACT DOCUMENTS WITH APPLICABLE RULES, REGULATIONS, ORDINANCES AND/OR LAWS, A WRITTEN REQUEST FOR AN INTERPRETATION OR CORRECTION THEREOF MAY BE SUBMITTED TO THE ENGINEER. IT IS THE SOLE AND EXCLUSIVE RESPONSIBILITY OF THE BIDDER TO SUBMIT SUCH REQUEST IN SUFFICIENT TIME FOR THE PREPARATION OF A RESPONSE THERETO AND DELIVERY OF SUCH RESPONSE TO ALL BIDDERS PRIOR TO THE SCHEDULED CLOSING FOR RECEIPT OF BID PROPOSALS. ANY REQUEST OF ANY BIDDER, PURSUANT TO THE FOREGOING SENTENCE THAT IS MADE LESS THAN SEVEN DAYS PRIOR TO THE SCHEDULED CLOSING DATE FOR THE RECEIPT OF BID PROPOSALS SHALL BE DEEMED UNTIMELY. ANY INTERPRETATION OR CORRECTION OF THE CONTRACT DOCUMENTS WILL BE MADE ONLY BY WRITTEN ADDENDUM DULY ISSUED BY THE OWNER OR THE ENGINEER. A COPY OF ANY SUCH ADDENDUM WILL BE MAILED OR OTHERWISE DELIVERED TO EACH BIDDER RECEIVING A SET OF THE CONTRACT DOCUMENTS. NO PERSON IS AUTHORIZED TO RENDER AN ORAL INTERPRETATION OR CORRECTION OF ANY PORTION OF THE CONTRACT DOCUMENTS TO ANY BIDDER, AND NO BIDDER IS AUTHORIZED TO RELY ON ANY SUCH ORAL INTERPRETATION OR CORRECTION. FAILURE TO REQUEST INTERPRETATION OR CLARIFICATION OF THE DRAWINGS, THE SPECIFICATIONS OR OTHER PORTIONS OF THE CONTRACT DOCUMENTS PURSUANT TO THE FOREGOING SHALL BE DEEMED TO BE A WAIVER OF ANY DISCREPANCY, DEFECT, OR CONFLICT THEREIN.

3. DIMENSIONS. ALL DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE. ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD. ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN ARCHITECTURAL AND ENGINEERING DRAWINGS BEFORE PROCEEDING WITH WORK. IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON WORKING DRAWINGS. ALL SIZES OF EQUIPMENT AND MATERIALS SHALL BE VERIFIED WITH EQUIPMENT MANUFACTURER.

4. CODES AND STANDARDS: ALL WORK SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA), 2013 CALIFORNIA BUILDING CODE, THE 2013 CALIFORNIA MECHANICAL CODE, THE 2013 CALIFORNIA PLUMBING CODE, THE NATIONAL ELECTRIC CODE, THE STATE OF CALIFORNIA, EQUIPMENT MANUFACTURER'S RECOMMENDED PROCEDURES, AND STANDARD CONSTRUCTION PRACTICES. NOTE: WHERE TWO OR MORE CODES CONFLICT, THE MOST RESTRICTIVE SHALL APPLY. NOTHING IN THESE PLANS AND SPECIFICATIONS SHALL BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO APPLICABLE CODES.

5. SUBMITTALS REQUIRED: PRIOR TO ORDERING EQUIPMENT AND MATERIALS, CONTRACTOR SHALL FURNISH TO ENGINEER / OWNER SUBMITTALS AND SHOP DRAWINGS OF ALL EQUIPMENT AND MATERIALS PROPOSED FOR USE IN THIS PROJECT. ORDERING OF EQUIPMENT AND MATERIALS SHALL ONLY PROCEED AFTER SATISFACTORY REVIEW OF ALL SUBMITTALS BY CONTRACTOR / ENGINEER / OWNER. COPIES OF ALL OWNER'S MANUALS, WARRANTIES AND OTHER WRITTEN INFORMATION REGARDING SYSTEMS SHALL BE PRESENTED TO OWNER PRIOR TO THE COMPLETION OF THE PROJECT.

6. CONSTRUCTION OBSERVATION: IN ADDITION TO THE REQUIREMENT FOR OBTAINING INSPECTIONS BY THE LOCAL JURISDICTION, CONTRACTOR SHALL NOTIFY ENGINEER AT APPROPRIATE TIMES DURING THE CONSTRUCTION PROCESS SO THAT ENGINEER CAN VISIT SITE TO BECOME GENERALLY FAMILIAR WITH THE PROGRESS AND QUALITY OF CONTRACTOR'S WORK AND TO DETERMINE IF THE WORK IS PROCEEDING IN GENERAL ACCORDANCE WITH THE CONTRACT DOCUMENTS.

7. UNIT LOCATIONS: EQUIPMENT AND SYSTEM LOCATIONS SHOWN ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL STRUCTURAL MEMBERS AND EXISTING CONDITIONS IN THE FIELD, AND LOCATE UNITS AND DUCTWORK TO AVOID INTERFERENCE. ANY SIGNIFICANT DEVIATIONS FROM THE PLANS SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER. ALLOW CLEARANCE FOR DUCTWORK AND PIPING. ALL CLEARANCES REQUIRED BY UNIT MANUFACTURER SHALL BE MAINTAINED. ENTIRE INSTALLATION SHALL BE IN ACCORDANCE WITH CODES AND THE RECOMMENDED INSTALLATION PROCEDURES PUBLISHED BY THE MANUFACTURER.

8. VIBRATION ISOLATION: INSTALL FLEXIBLE CONNECTIONS BETWEEN MECHANICAL EQUIPMENT AND PIPING. INSTALL NEW VIBRATION ISOLATION AT CHILLERS. SEE MECHANICAL DETAILS & SPECIFICATIONS FOR SPECIFIC TYPE.

9. WIRING: ALL WIRING SHALL BE PERFORMED IN ACCORDANCE WITH NEC REQTS. ALL WIRING SHALL BE IN CONDUIT. ALL INTERIOR LOW VOLTAGE AND CONTROL WIRING SHALL BE IN WIREMOLD AND IN FAN ROOMS SHALL BE IN CONDUIT. EXPOSED CONDUIT SHALL BE INSTALLED IN A SQUARE, PLUMB, AND LEVEL MANNER WITH THOUGHT GIVEN TO THE FINAL APPEARANCES. PROVIDE TO ENGINEER SHOP DRAWING FOR CONTROL TRANSFORMER CONFIGURATIONS DETAILING CIRCUITS TO BE USED, LOAD CALCULATIONS, WIRE SIZES, AND LOCATIONS. WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT NATIONAL ELECTRICAL CODE AND ELECTRICAL SPECIFICATIONS. ALL TRANSFORMERS SHALL BE PROTECTED BY PROPERLY SIZED CIRCUIT BREAKER OR FUSE(S). ALL TRANSFORMERS SHALL HAVE RESETTABLE BREAKER ON THE LOAD SIDE. ALL LOW VOLTAGE CONTROL & COMMUNICATIONS WIRING SHALL BE DONE ACCORDING TO MANUFACTURERS INSTALLATION MANUAL. PROVIDE SUBMITTALS ON WIRE AND ENCLOSURES.

10. COORDINATION DURING CONSTRUCTION: THE CONTRACTOR SHALL COORDINATE ANY NECESSARY CHANGES IN WORK SCHEDULING WITH THE SCHOOL TO MINIMIZE THE DISRUPTION. THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY HIS WORK TO BUILDING(S) AND EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER.

11. CORRECTION OF WORK: THE CONTRACTOR SHALL PROMPTLY CORRECT ALL WORK THE OWNER FINDS DEFECTIVE OR FAILING TO CONFORM TO THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BEAR ALL COSTS REQUIRED BY THE CONTRACT DOCUMENTS, IF ANY OF THE WORK IS FOUND TO BE DEFECTIVE OR NOT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL CORRECT IT PROMPTLY AFTER RECEIPT OF A WRITTEN NOTICE FROM THE OWNER TO DO SO.

12. CHILLED & HYDRONIC WATER PIPING SHALL BE U.S. MANUFACTURED SCHEDULE 40 STEEL PIPE WITH WELDED OR GROOVED STYLE CONNECTIONS OR U.S. MANUFACTURED TYPE 'L' COPPER WITH WROT SOLDER TYPE FITTINGS. ALL PIPE SHALL BE COVERED WITH 2" FIBERGLASS INSULATION. ALL EXTERIOR PIPING SHALL HAVE ALUMINUM JACKET WITH FORMED ALUMINUM ELBOWS WITH JOINTS CAULKED TO PREVENT WATER INTRUSION.

13. CONTROLS - DISCONNECT EXISTING CONTROLS. INSTALL NEW BACNET CONNECTION TO NEW CHILLERS AND INTEGRATE INTO EXISTING BUILDING AND CAMPUS AUTOMATED LOGIC GRAPHICS AND PROGRAMMING. ALL WIRE SHALL BE IN CONDUIT. PROVIDE ALL NEEDED WIRE, ROUTERS, CONTROLLERS FOR A COMPLETE SYSTEM.

14. SEE ELECTRIC PLANS FOR RECONNECTION TO POWER.

GENERAL NOTES

CUTTING, BORING SAWCUTTING OR DRILLING THROUGH THE NEW OR EXISTING STRUCTURAL ELEMENTS TO BE DONE ONLY WHEN SO DETAILED ON THE DRAWINGS OR ACCEPTED BY THE MECHANICAL AND STRUCTURAL ENGINEER WITH THE APPROVAL OF A DSA REPRESENTATIVE.

2. ALL WELDING SHALL BE SPECIALLY INSPECTED BY AN AWS-CWI QUALIFIED INSPECTOR APPROVED BY DSA/ORS.

3. ALL BRACING OF DUCTS AND PIPINGS SHALL BE INSTALLED IN ACCORDANCE WITH SMACNA GUIDELINES AS APPROVED BY DSA/ORS.

WHERE BRACING DETAILS ARE NOT SHOWN ON THE DRAWINGS OR IN THE GUIDELINES, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT, MECHANICAL ENGINEER AND DSA FIELD ENGINEER.

A COPY OF THE GUIDELINES PUBLISHED BY SMACNA AND APPROVED BY DSA SHALL BE PROVIDED BY THE CONTRACTOR AND KEPT ON THE JOB AT ALL TIMES.

4. THE PROVISIONS OF CFC & CBC 33 SHALL BE ENFORCED ON THIS PROJECT.

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2013 CBC, SECTION 1616A.18 THROUGH 1616A.126 AND ASCE 7-10 CHAPTER 13, 29, AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVEABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
3. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT BE DETAILED ON THESE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

- A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
- B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

7-10 SECTION 13.6.8, 13.6.7, 13.6.5.6, AND 2013 CBC SECTIONS 1616A.1.23, 1616A.1.24, 1616A.1.25.
AND 1616A.1.26.

THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL BE DETAILED ON THE APPROVED DRAWINGS OR THEY SHALL COMPLY WITH ONE OF THE OSHPD PRE-APPROVALS (OPM #)

COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING AND BRACING OF THE PIPE, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS.

THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

ABBREVIATIONS


ABBRV	ABBREVIATIONS	DWN	DOWN	MIN	MINIMUM
ABV	ABOVE	(E)	EXISTING	(N)	NEW
AFF	ABOVE FINISHED FLOOR	EA	EACH	OC	ON CENTER
APPROX	APPROXIMATELY	EL	ELEVATION	POC	POINT OF CONNECTION
BLDG	BUILDING	ELEC	ELECTRIC	PSI	POUNDS PER SQUARE INCH
BLW	BELOW	ELEV	ELEVATION	RAG	RETURN AIR GRILLE
BOT	BOTTOM	EQ	EQUIPMENT	RAR	RETURN AIR REGISTER
CD	CEILING DIFFUSER	EQUIP	EQUIPMENT	SD	SMOKE DETECTOR
CFM	CUBIC FEET PER MINUTE	EXH	EXHAUST	SHT	SHEET
CL	CENTERLINE	FIN	FINISHED	SOV	SHUT-OFF VALVE
CLG	CEILING	FRM	FROM	SPEC	SPECIFICATIONS
COND	CONDENSATE	FLR	FLOOR	SR	SIDEWALL REGISTER
CONT	CONTINUED	G	GAS	(TYP)	TYPICAL
DIA	DIAMETER	GPM	GALLONS PER MINUTE	UGND	UNDERGROUND
DWG	DRAWING	MAX	MAXIMUM	VTR	VENT TO ROOF

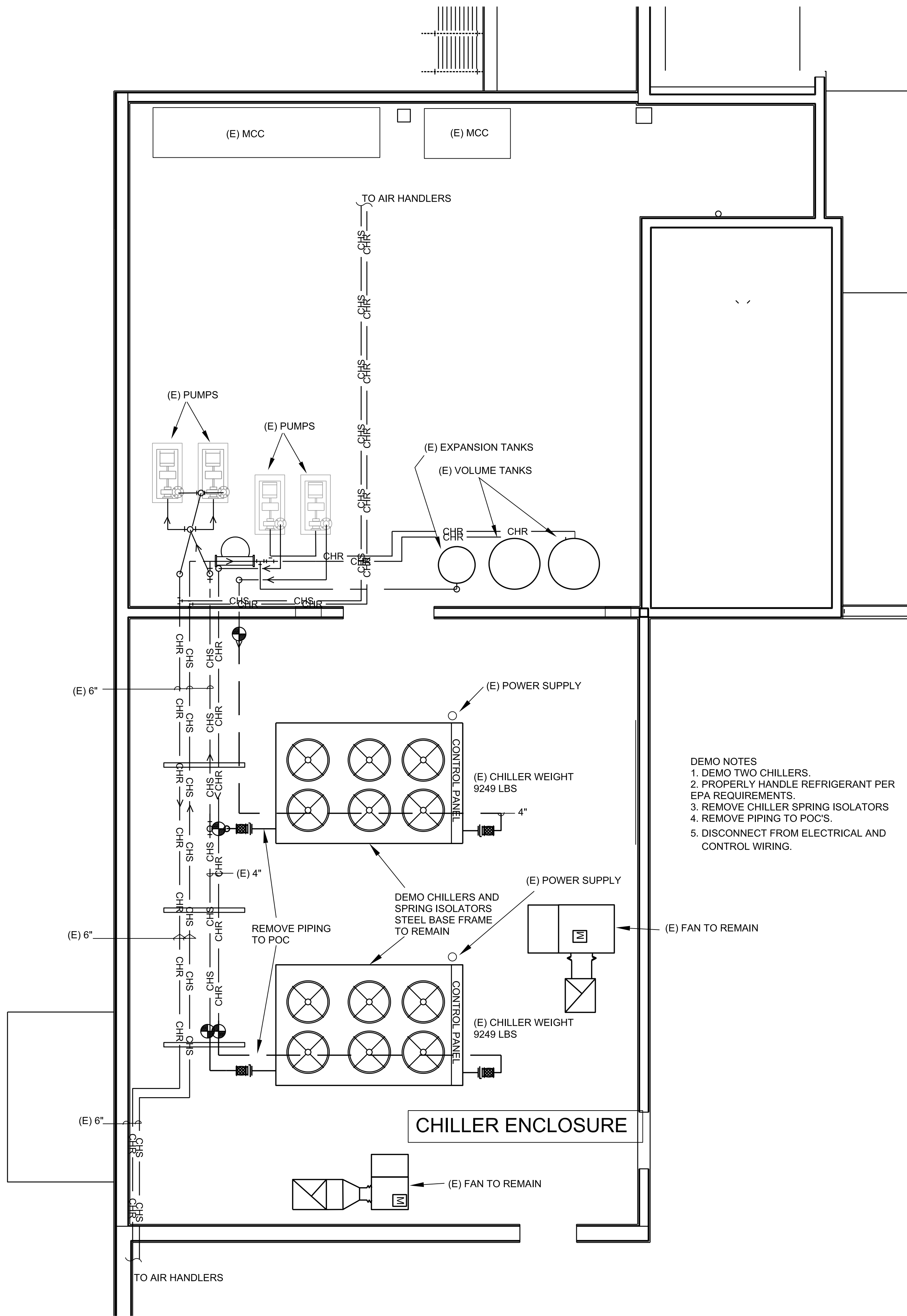
EXISTING UNIT	NEW UNIT	LOCATION
132"Lx89"Wx86"H 8249 LBS	166"Lx88"Wx90"H 6940 LBS	ROOF

CHILLER SCHEDULE

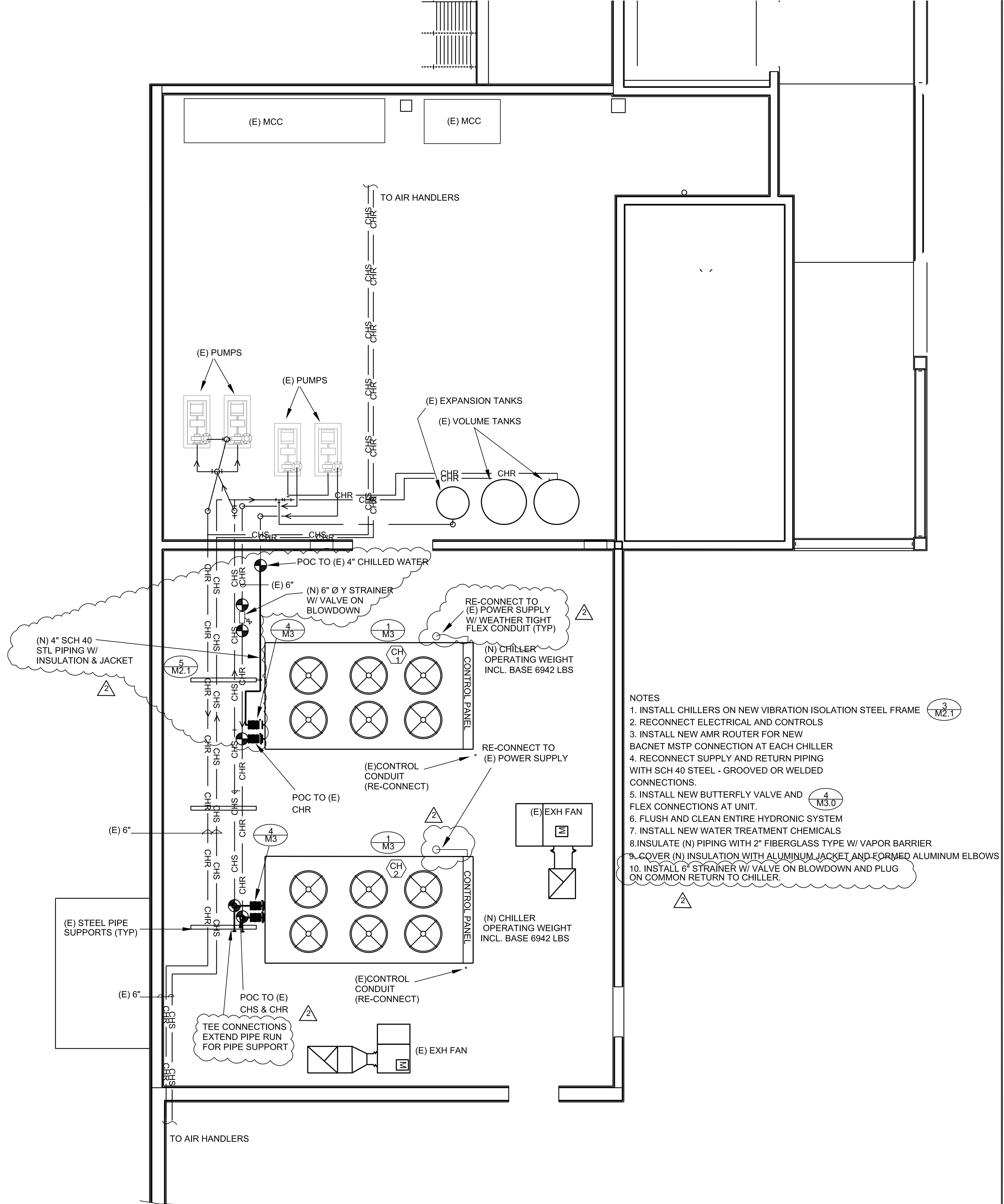
TAG	MANF. & MODEL	EER (ARI)	IPLV (ARI)	CAPACITY @ 105° F	ENT. WATER	LVG WATER	ELECTRICAL DATA				FLOWRATE	PD	(N) UNIT OPER.	(E) UNIT OPER.	VIBRATION ISOLATION	OPTIONS
							VOLTAGE	PHASE	MCA	MOCp			WEIGHT (INCLUDES ISO BASE)	WEIGHT (INCLUDES ISO BASE)		
CH	TRANE CGAM120	10.4	15.3	118 TONS	57 F	45 F	480	3	249	300	235	10.5	7940	9249	MW SAUSSE ISOLATION BASE WEIGHT 1000 LBS	FACTORY START AND TUNE, R-410A, AIR-COOLED SCROLL COMPRESSORS, LOW SOUND FAN SYSTEM, SERVICE ISO VALVES, AND ELECTRONIC THERMAL-DISPERSION FLOW SWITCH. COPPER TUBES W/ COATED ALUMINUM FINS, COMPRESSOR BLANKET, SINGLE POINT POWER SUPPLY, CONTROL TRANSFORMER, BACNET MSTP BUILDING AUTOMATION INTERFACE NEMA 3R ENCLOSURE, (FACTORY CIRCUIT BREAKER)
CH	TRANE CGAM120	10.4	15.3	118 TONS	57 F	45 F	480	3	249	300	235	10.5	7940	9249	MW SAUSSE ISOLATION BASE WEIGHT 1000 LBS	

2

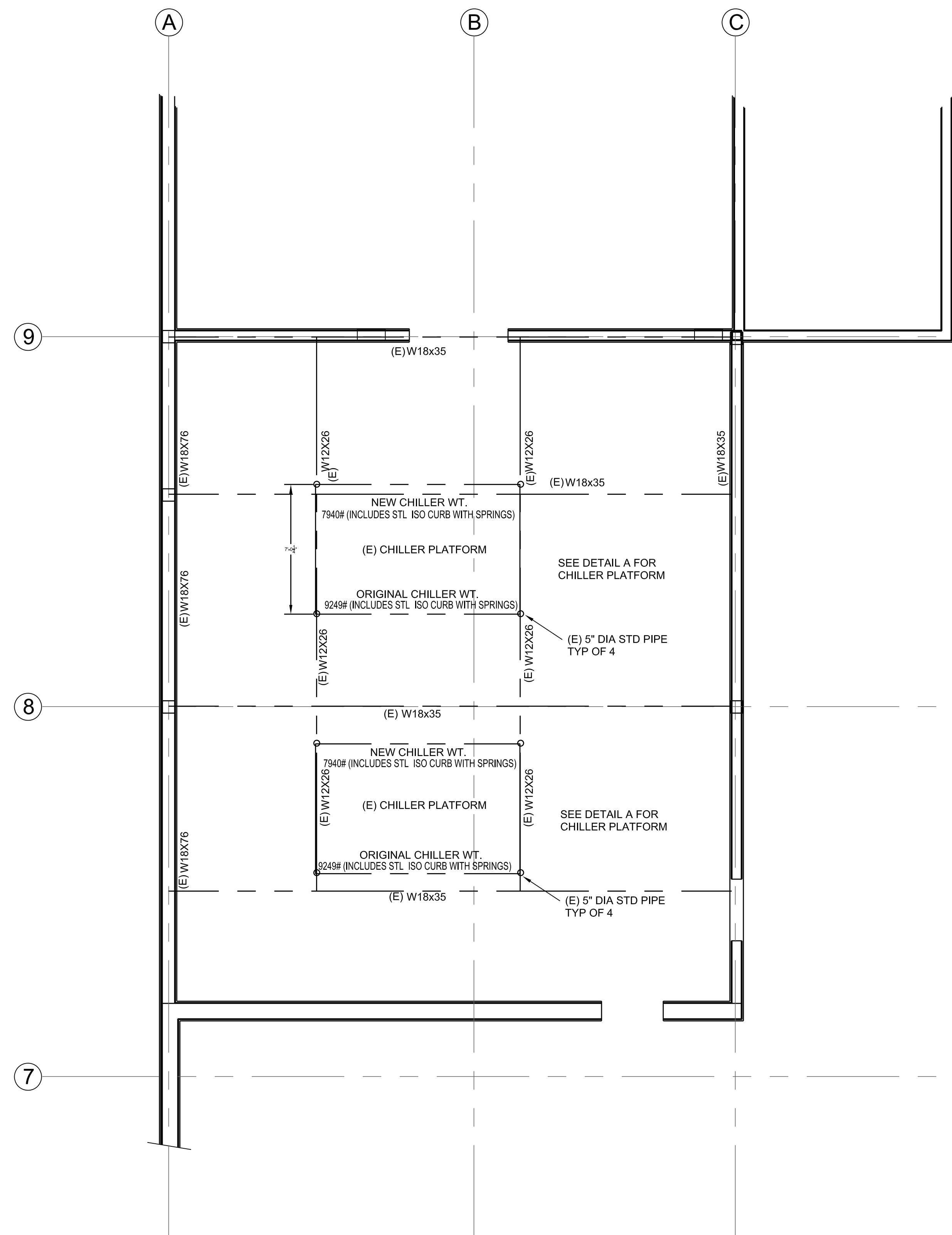
DRAWN BY TP/HAM		DATE	REVISIONS		<div>V E N T U R A C O L L E G E</div> <div>4 6 6 7 T E L E G R A P H R O A D , V E N T U R A , C A L I F O R N I A 9 3 0 0 3</div> <div>V E N T U R A C O U N T Y C O M M U N I T Y C O L L E G E D I S T R I C T</div>	<div>DEPARTMENT OF MAINTENANCE AND OPERATIONS</div> <div>71 DAY ROAD VENTURA, CALIFORNIA 93003 PHONE: (805) 654-6340 FAX: (805) 648-8953</div>	SCALE: AS SHOWN	LEARNING RESOURCE CENTER		SHEET NO. M1.0
CHECKED BY PW/HAM		10-21-18 A TRANE CHILLER	DATE: 5/6/17				HVAC REPLACEMENT PROJECT NOTES & SCHEDULE			
DIRECTOR OF MAINTENANCE PLAN REVIEWED AND APPROVED		5-14-20 A ADDENDUM 1	BLDG. NO.							
DATE										



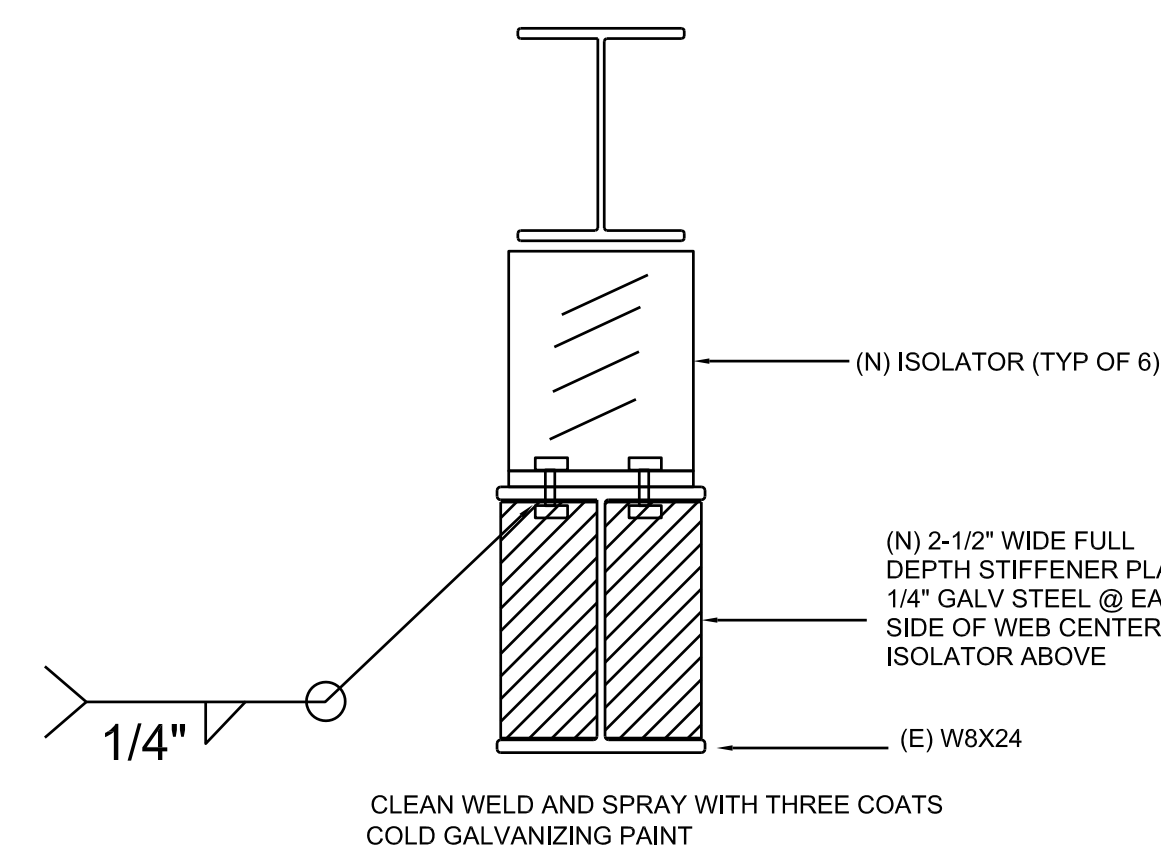
1
M2.0
MECHANICAL DEMO ROOF PLAN
SCALE: 1/4"=1'0"



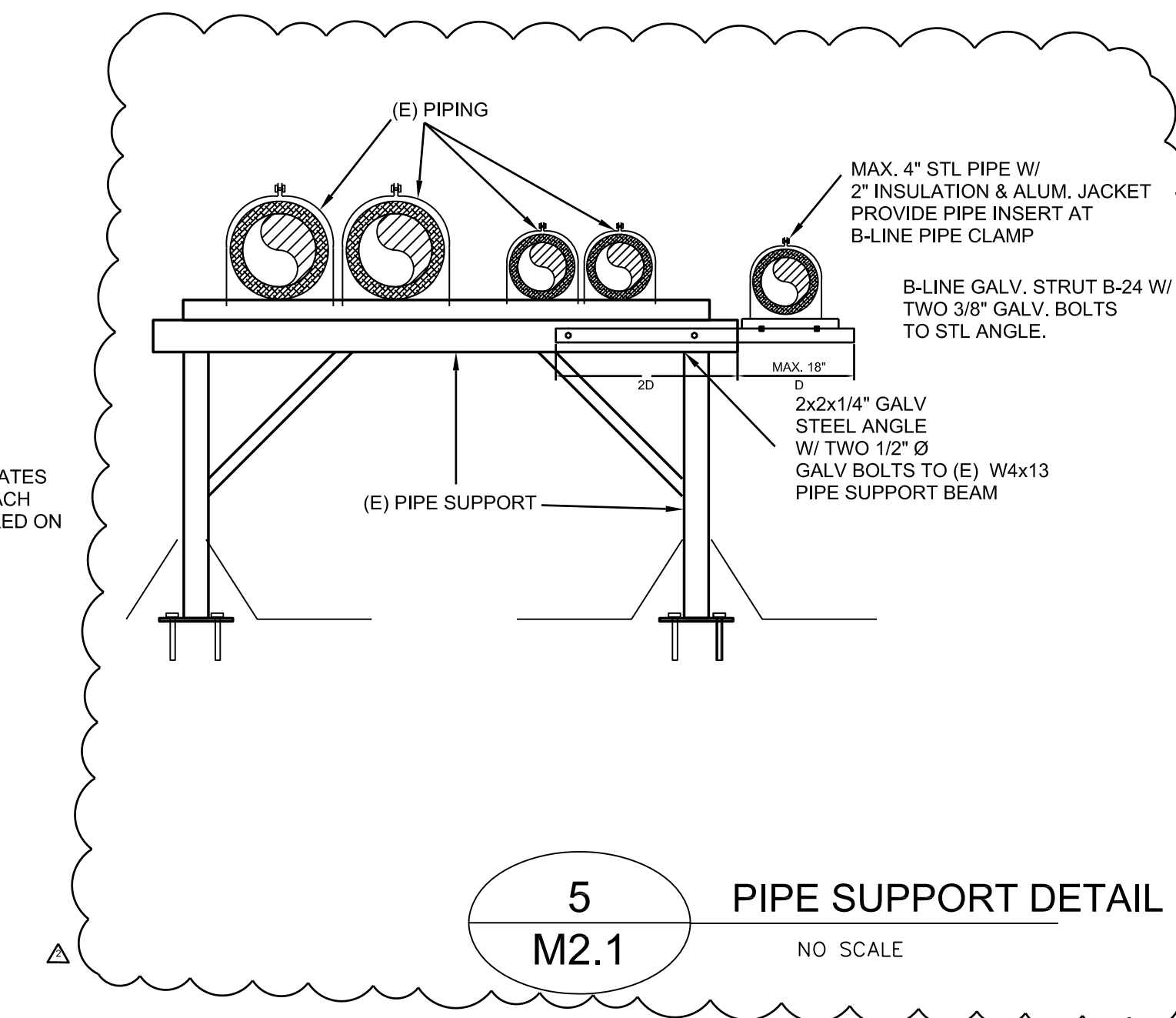
2
M2.0
MECHANICAL ROOF PLAN
SCALE: 1/4"=1'0"



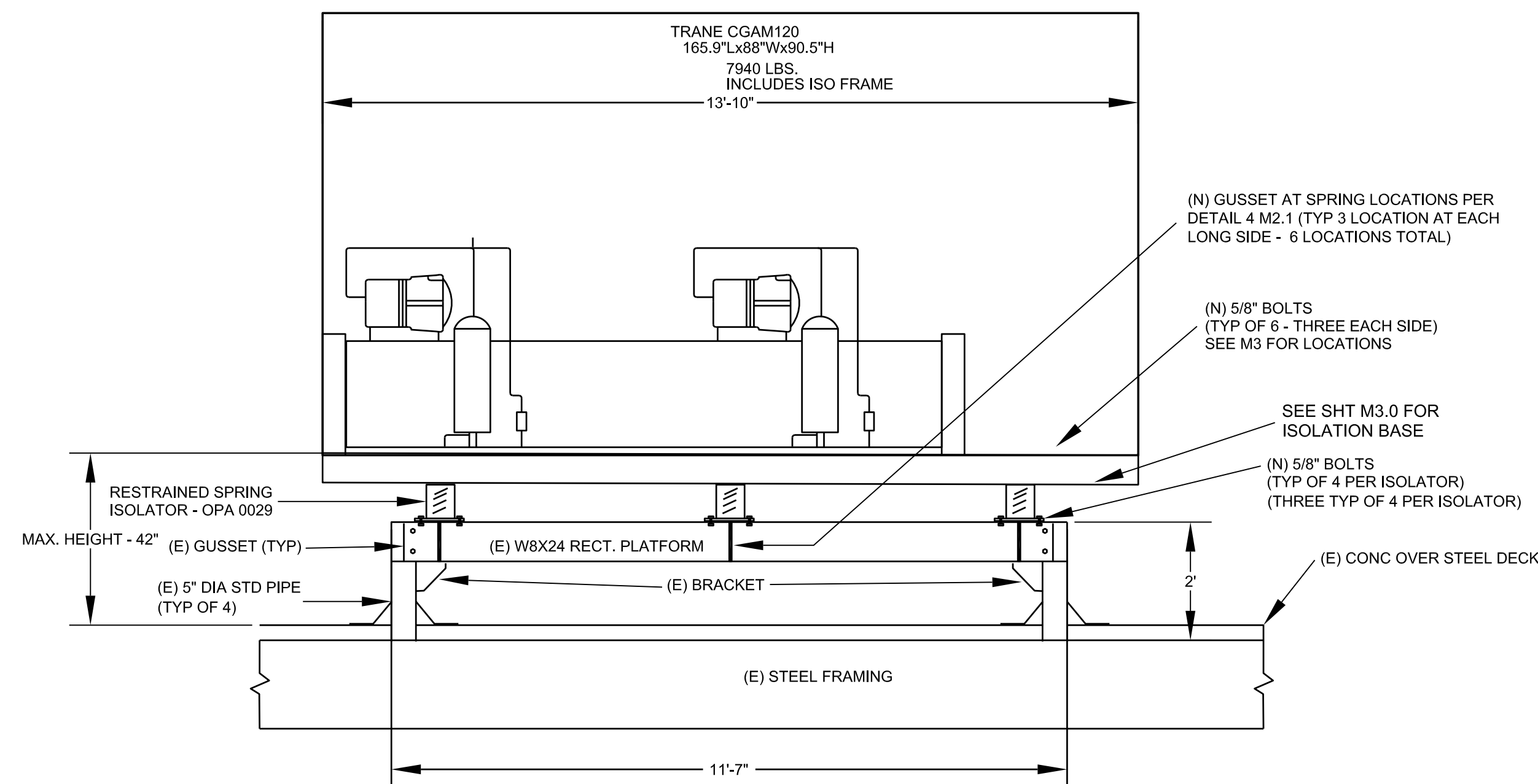
1
M2.1
EXISTING STEEL FRAMING @# CHILLERS
SCALE: 1/4"=1'0"



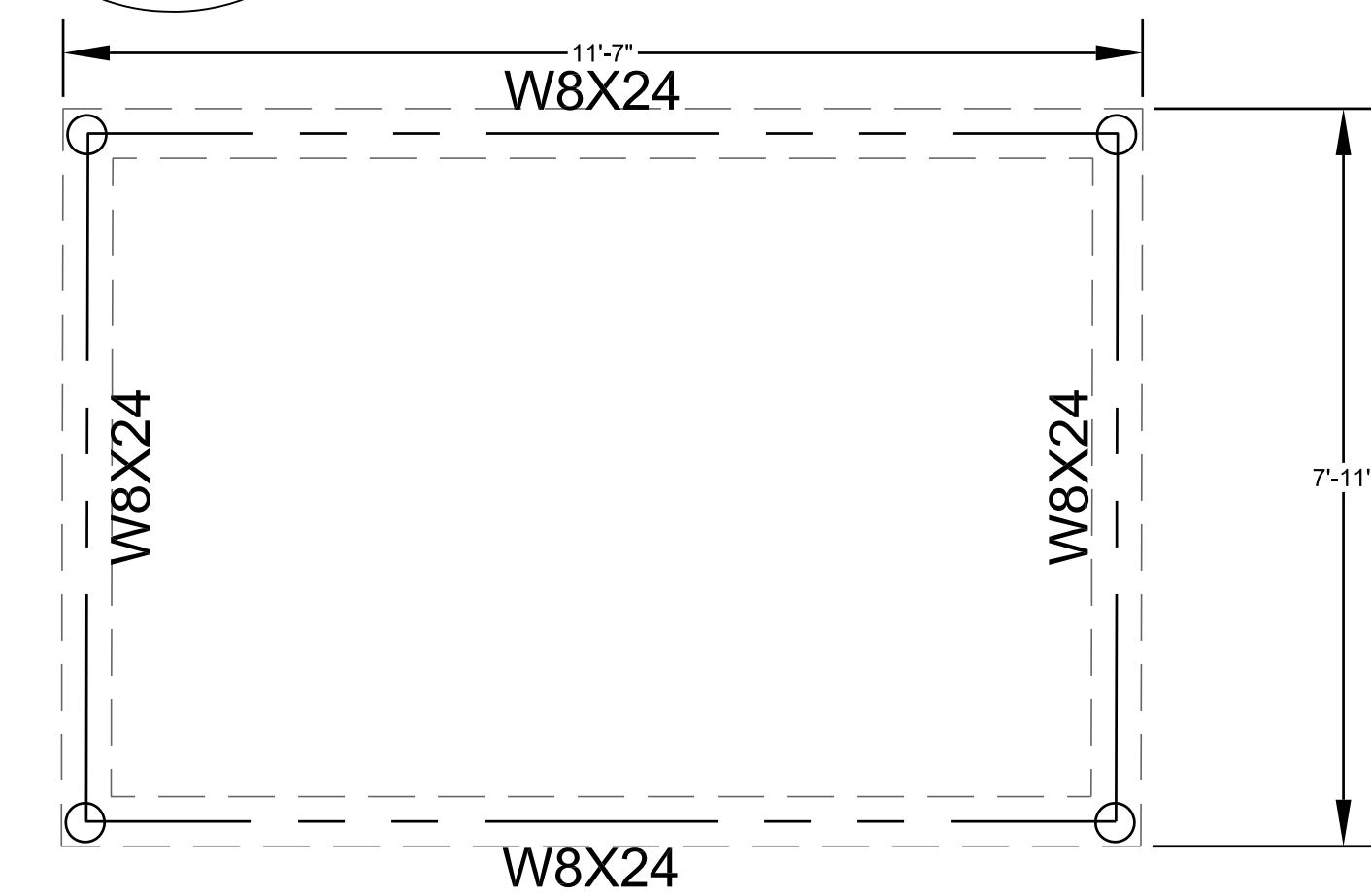
4
M2.1
WEB STIFFENER DETAIL
NO SCALE



5
M2.1
PIPE SUPPORT DETAIL
NO SCALE



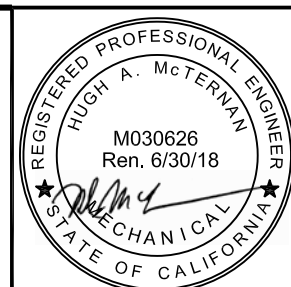
3
M2.1
CHILLER PLATFORM SIDE ELEVATION
SCALE: 1/2"=1'0"



2
M2.1
EXISTING CHILLER PLATFORM (TYP OF 2)
SCALE: 1/4"=1'0"

DRAWN BY	TP/HAM
CHECKED BY	PW/HAM
DIRECTOR OF MAINTENANCE	
PLAN REVIEWED AND APPROVED	
DATE	

AE Group
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VENTURA COLLEGE
4 6 6 7 TELEGRAPH ROAD, VENTURA, CALIFORNIA 93003
VENTURA COUNTY COMMUNITY COLLEGE DISTRICT

DEPARTMENT OF
MAINTENANCE AND OPERATIONS
71 DAY ROAD
VENTURA, CALIFORNIA 93003
PHONE: (805) 654-6340 FAX: (805) 648-8953

SCALE:	AS SHOWN
DATE:	5/6/17
BLDG. NO.	

LEARNING RESOURCE CENTER
HVAC REPLACEMENT PROJECT
EXISTING FRAMING AND CHILLER
ANCHORAGE

SHEET NO.
M2.1

