EXHIBIT E

CONSTRUCTION DRAWINGS

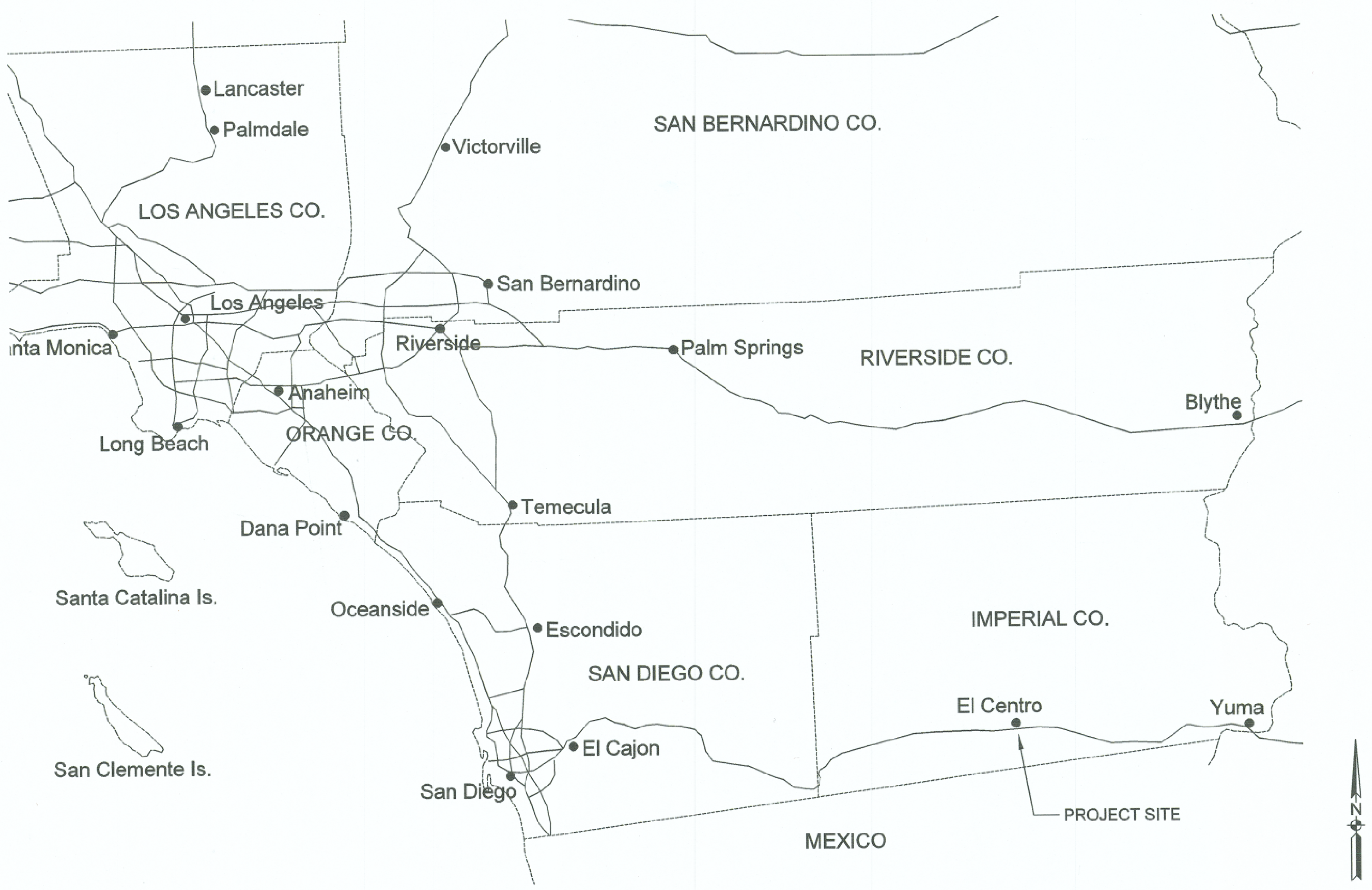
COUNTY OF IMPERIAL PUBLIC HEALTH LAB
OSA AIR CONDITIONER REPLACEMENT PROJECT
LOCATED AT
935 BROADWAY, EL CENTRO, CA 92243

COUNTY PROJECT NO. SR6983HTH

IMPERIAL COUNTY HEALTH CLINIC
AC UNIT REPLACEMENT

935 BROADWAY STREET
EL CENTRO, CA

VICINITY MAP



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REGISTERED PROFESSIONAL ENGINEER JOHN A. CAY C 62026 EXP. CIVIL STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER BENEDICK BALTAZ E21213 STATE OF CALIFORNIA

Approved for construction
Imperial County Public Works

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EPI PROJECT #: 120-486E

IMPERIAL COUNTY HEALTH CLINIC
AC UNIT REPLACEMENT
935 BROADWAY STREET
EL CENTRO, CA

CITY OF EL CENTRO
BUILDING AND SAFETY DEPARTMENT
REVIEWED FOR CODE COMPLIANCE

JOB NO. -
DATE: -

ISSUED

No.	Description	Date
1	FINAL SUBMITTAL	5/28/25
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REVISIONS

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FILE NAME: -
DRAWN BY: JRE
DESIGNED BY: JRE
CHECKED BY: MR
DATE: -

DRAWING TITLE

COVER SHEET

SHEET NO.

G001

MECHANICAL LEGEND (SYMBOLS) AND ABBREVIATIONS

VALVES AND FITTINGS

- BALL VALVE
- CHECK VALVE
- BACKFLOW PREVENTOR
- GATE VALE
- PRESSURE REDUCING VALVE
- CONTROL VALVE
- CALIBRATED BALANCING VALVE
- BUTTERFLY VALVE
- PLUG VALVE
- GLOBE VALVE
- AUTOMATIC FLOW CONTROL VALVE
- TRIPLE DUTY VALVE
- SOLENOID VALVE
- STEAM TRAP
- SMOKE DUCT DETECTOR
- BLIND FLANGE
- TRICLAMP
- PIPE CAP (THREADED)
- PIPE CAP (WELDED)
- UNION
- REDUCER
- STRAINER
- THERMOMETER
- PRESSURE GAUGE
- RELIEF VALVE
- AUTOMATIC AIR VENT
- FLEXIBLE PIPE CONNECTION

PIPING

- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION
- RG — REFRIGERANT GAS
- HWS — HEATING HOT WATER SUPPLY
- HWR — HEATING HOT WATER RETURN
- CHWS — CHILLED WATER SUPPLY
- CWSR — CHILLED WATER RETURN
- CWS — CONDENSER WATER SUPPLY
- CWR — CONDENSER WATER RETURN
- STM — PLANT STEAM
- CN — CONDENSATE RETURN
- FW — FEEDWATER (STEAM)
- SW — SOFTWATER
- D — DRAIN
- CSTM — CLEAN STEAM
- CCA — CLEAN COMPRESSED AIR
- PIPE DOWN
- PIPE UP
- PIPE DOWN
- CD — CONDENSATE DRAIN

SYMBOLS

- SQUARE DIFFUSER / REGISTER (A = DESIGNATION; B = TOTOL DESIGN (FUTURE) AIRFLOW; C = TOTAL CURRENT AIRFLOW)
- EQUIPMENT TAG (A = TYPE; B = EQUIPMENT NUMBER / UNIQUE IDENTIFIER)
- SUPPLY DIFFUSER THROW DIRECTION AS INDICTED ON PLANS (4-WAY IF NONE INDICATED)
- RETURN GRILLE
- EXHAUST GRILLE
- DETAIL/SHEET REFERENCE (DETAIL "A" ON DRAWING "B")
- SECTION OR ELEVATION REFERENCE (SECTION "A" ON DRAWING "B")
- SUPPLY DUCT SECTION
- RETURN DUCT SECTION
- EXHAUST DUCT SECTION
- REMOVE EXIST. EQUIP. OR PIPES SHOWN HATCHED
- DUCT RISE (IN DIRECTION OF ARROW/FLOW)
- DUCT DROP (IN DIRECTION OF ARROW/FLOW)
- DUCT WITH SOUND INSULATION/LINING
- CONNECT TO EXISTING EQUIPMENT, DUCTWORK, PIPING
- LIMITS OF DUCTWORK, PIPING DISCONNECTION
- FIRE SMOKE DAMPER (FSD)
- ROOM SENSOR (ASSOCIATED MECHANICAL UNIT) (XX-X)

ABBREVIATIONS

A/C	AIR CONDITIONING	FA	FREE AREA IN SQUARE FEET	OBD	OPPOSED BLADE DAMPER
ABS	ABSOLUTE	FC	FAIL CLOSED; FLEXIBLE CONNECTION	OED	OPEN END DUCT
AFF	ABOVE FINISHED FLOOR	FLA	FULL LOAD AMPS	OFCI	OWNER FURNISHED/CONTRACTOR INSTALLED
AFG	ABOVE FINISHED GRADE	FLX	FLEXIBLE CONNECTION	OSA	OUTSIDE AIR
ALUM.	ALUMINUM	FPM	FEET PER MINUTE	PH	PHASE
AMPS	AMPERES	FPS	FEET PER SECOND	PLBG	PLUMBING
AP	ACCESS PANEL	FSD	FIRE SMOKE DAMPER	PSIG	POUNDS PER SQUARE INCH GAUGE
ATM.	ATMOSPHERE	GAL.	GALLON	QTY	QUANTITY
AUTO.	AUTOMATIC	GALV	GALVANIZED	RA	RETURN AIR
BAS	BUILDING AUTOMATION SYSTEM	GE	GENERAL EXHAUST	S.S.	STAINLESS STEEL
BHP	BRAKE HORSE POWER	GPH	GALLON PER HOUR	SA	SUPPLY AIR
B/G	BELOW GRADE	GPM	GALLON PER MINUTE	SEC	SECOND
BTU	BRITISH THERMAL UNIT	HP	HORSE POWER	SP	STATIC PRESSURE
CFM	CUBIC FEET PER MINUTE	HVAC	HEATING VENTILATING AND AIR-CONDITIONING	SQ.FT.	SQUARE FEET OR SQUAR FOOT
COND OR CD	CONDENSATE DRAIN	HZ	HERTZ	STD	STANDARD
DB	DRY BULB	IN	INCHES	TBR	TO BE REMOVED
DDC	DIRECT DIGITAL CONTROL	IN WG	INCHES OF WATER GAUGE	TEMP.	TEMPERATURE
DIA	DIAMETER	K.W.	KILOWATTS	TF	TRANSFER
DN	DOWN	LAT	LEAVING AIR TEMPERATURE	TJW	THROUGH JOIST WEB
DTR	DOWN THROUGH ROOF	LDB	LEAVING DRY BULB TEMPERATURE	TSP	TOTAL STATIC PRESSURE
E OR (E)	EXISTING	LWB	LEAVING WET BULB TEMPERATURE	TYP	TYPICAL
EA	EXHAUST AIR	LWT	LEAVING WATER TEMPERATURE	U.N.O.	UNLESS NOTED OTHERWISE
EAT	ENTERING AIR TEMPERATURE	LPG	LOW PRESSURE GAS (NATURAL GAS)	UTR	UP THROUGH ROOF
EDB	ENTERING DRY BULB TEMPERATURE	MA	MAKEUP AIR	W/	WITH
ETR	EXISTING TO REMAIN	NC	NORMALLY CLOSED	W/O	WITHOUT
ESP	EXTERNAL STATIC PRESSURE	NO	NORMALLY OPEN	WB	WET BULB
EWB	ENTERING WET BULB TEMPERATURE	N.I.C.	NOT IN CONTRACT	WMS	WIRE MESH SCREEN
EWT	ENTERING WATER TEMPERATURE	NTS	NOT TO SCALE	VFD	VARIABLE FREQUENCY DRIVE

MECHANICAL PLAN CHECK NOTES

1. CALIFORNIA MECHANICAL CODE (CMC) 2022, CALIFORNIA PLUMBING CODE (CPC) 2022 AND 2022 TITLE 24 ENERGY STANDARDS ARE THE CODES/STANDARDS THAT ARE APPLICABLE TO THIS PROJECT.
2. SEE TITLE 24 CALCULATION FORMS NRCC-ENV-E FOR INSULATION AND MATERIAL ASSEMBLY OF WALL, ROOF AND FLOOR. SEE ARCHITECTURAL DRAWINGS FOR MATERIAL ASSEMBLY SECTIONS ON PLANS.
3. ALL INSULATION MATERIAL SHALL COMPLY WITH THE CMC SECTION 602.2. FLAME SPREAD-RATING OR 25 OR LESS AND A SMOKE DEVELOPED RATING OF 50 OR LESS.
4. HVAC PIPING AND DUCTWORK SYSTEMS SHALL BE INSULATED WITH MATERIALS CONSISTENT WITH THE REQUIREMENTS OF SECTIONS 110.8, 120.3, AND 120.4 OF THE CALIFORNIA ENERGY EFFICIENCY STANDARDS, AND 2022 CALIFORNIA MECHANICAL CODE (CMC) CHAPTER 6, TABLE 6-D. FLAME SPREAD-RATING OR 25 OR LESS AND A SMOKE DEVELOPED RATING OF 50 OR LESS.
5. ALL HVAC EQUIPMENT AND APPLIANCES SHALL MEET THE REQUIREMENTS PER SECTIONS 110.1-110.3, 110.5 AND 120.1-120.9 OF THE CALIFORNIA ENERGY EFFICIENCY STANDARDS.
6. HVAC SYSTEMS AUTOMATIC CONTROLS SHALL COMPLY WITH THE CONTROL REQUIREMENTS PER SECTIONS 110.2 AND 120.2 OF THE CALIFORNIA ENERGY EFFICIENCY STANDARDS.
7. ALL MATERIALS EXPOSED WITHIN DUCTS OR PLENUMS, FLEXIBLE DUCTS AND DUCT INSULATION SHALL COMPLY WITH CMC SECTION 602.2 AND SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE DEVELOPED RATING OF NOT MORE THAN 50.
8. ALL DOORS AND WINDOWS SHALL MEET THE MINIMUM INFILTRATION REQUIREMENTS PER SECTION 110.6 AND 110.7 OF THE CALIFORNIA ENERGY EFFICIENCY STANDARDS.
9. AT THE TIME OF PERMIT ISSUANCE, THE PERMITEE WILL PROVIDE AN APPROVED COPY OF THE CERTIFICATE OF COMPLIANCE (MECH-1) TO THE JURISDICTION FOR FILING.
10. PROVIDE SMOKE DETECTORS ON AIR MOVING SYSTEMS EXCEEDING 2000 CFM AT SUPPLY AIR DUCTS. (2022 CMC 608.1)
11. FIRE AND/OR SMOKE DAMPER ASSEMBLIES, INCLUDING SLEEVES, AND INSTALLATION PROCEDURES SHALL BE APPROVED BY THE BUILDING INSPECTOR PRIOR TO INSTALLATION.
12. ALL WATER HEATERS/ BOILERS SHALL BE STRAPPED OR ANCHORED PER SEC. 510.5 OF THE CPC TO RESIST HORIZONTAL DISPLACEMENT DUE TO EARTHQUAKE MOTION.
13. AIR FILTERS SHALL BE A STATE FIRE MARSHALL APPROVED AND LISTED TYPE. PRE-FORMED FILTERS HAVING COMBUSTIBLE FRAMING SHALL BE TESTED AS A COMPLETE ASSEMBLY. AIR FILTERS IN ALL OCCUPANCIES SHALL BE CLASS 1 OR 2 (AS SHOWN IN THE STATE FIRE MARSHALL LISTING). AIR FILTERS SHALL BE ACCESSIBLE FOR CLEANING OR REPLACEMENT. (305.0 CMC)
14. CERTIFICATE OF ACCEPTANCE AND ALL RELATED ACCEPTANCE DOCUMENTS SHALL BE SUBMITTED TO THE FIELD INSPECTOR DURING CONSTRUCTION. CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL THESE FORMS ARE REVIEWED AND APPROVED.
15. PENETRATIONS IN FIRE-RESISTIVE WALLS, PARTITIONS AND FLOORS WHERE PROTECTED OPENINGS ARE REQUIRED SHALL BE FIRE STOPPED USING APPROVED MATERIALS, SECURELY INSTALLED AND CAPABLE OF MAINTAINING THEIR INTEGRITY AND PREVENTING THE MOVEMENT OF HOT FLAMES OR GASES THROUGH THE VOID SPACES BETWEEN PENETRATING MATERIALS AND WALLS, PARTITIONS AND FLOORS WHEN TESTED IN ACCORDANCE WITH ASTM STANDARD E-814 OR UL STANDARD 1479. PROVIDE DESIGN DETAILS ON DRAWINGS DEPICTING APPROVED (LISTED) METHODS AND MATERIALS USED TO PROTECT PENETRATIONS IN WALLS, PARTITIONS AND FLOORS.
16. FACTORY-MADE FLEXIBLE AIR DUCTS AND CONNECTORS SHALL NOT BE MORE THAN 5 FEET IN LENGTH PER SECTION 603.4.1 CMC.
17. ROOF ACCESS LADDER SHALL COMPLY WITH SECTION 304 CMC.

MECHANICAL CAL GREEN NOTES

1. THE PERMANENT HVAC SYSTEM SHALL ONLY BE USED DURING CONSTRUCTION IF NECESSARY TO CONDITION THE BUILDING OR AREAS OF ADDITION OR ALTERATION WITHIN THE REQUIRED TEMPERATURE RANGE FOR MATERIAL AND EQUIPMENT INSTALLATION. IF THE HVAC SYSTEM IS USED DURING CONSTRUCTION, RETURN AIR FILTERS WITH A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 8, BASED ON ASHRAE 52.2-1999, OR AN AVERAGE EFFICIENCY OF 30% BASED ON ASHRAE 52.1-1992 SHALL BE USED. ALL FILTERS SHALL BE REPLACED IMMEDIATELY PRIOR TO OCCUPANCY OR AT THE CONCLUSION OF CONSTRUCTION. (CAL GREEN SEC: 5.504.1.3)
2. AT TIME OF ROUGH INSTALLATION AND DURING STORAGE ON THE CONSTRUCTION SITE UNTIL FINAL STARTUP OF HEATING, COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEETMETAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST, WATER AND DEBRIS WHICH MAY ENTER THE SYSTEM. (CAL GREEN SEC: 5.504.3)
3. IN MECHANICALLY VENTILATED BUILDINGS, REGULARLY OCCUPIED AREAS OF THE BUILDING SHALL BE PROVIDED WITH AIR FILTRATION MEDIA FOR OUTSIDE AND RETURN AIR THAT PROVIDES AT LEAST A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 13. MERV 13 FILTERS SHALL BE INSTALLED PRIOR TO OCCUPANCY, AND RECOMMENDATIONS FOR MAINTENANCE WITH FILTERS OF THE SAME VALUE SHALL BE INCLUDED IN THE OPERATION AND MAINTENANCE MANUAL. (CAL GREEN SEC: 5.504.5.3)
4. FOR ALL BUILDINGS EQUIPED WITH DEMAND CONTROL VENTILATION, CO2 SENSORS AND VENTILATION CONTROLS SHALL BE SPECIFIED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF 2022 CALIFORNIA ENERGY CODE, SECTION 120(C)(4). (CAL GREEN SEC: 5.506.2)
5. WALL AND ROOF-CEILING ASSEMBLIES EXPOSED TO THE NOISE SOURCE MAKING UP THE BUILDING OR ADDITION ENVELOPE OR ALTERED ENVELOPE SHALL MEET A COMPOSITE STC RATING OF AT LEAST 50 OR A COMPOSITE OITC RATING OF NOT LESS THAN 40, WITH EXTERIOR WINDOWS OF A MINIMUM STC OF 40 OR OITC OF 30 IF LOCATED WITHIN THE 65 CNEL NOISE CONTOUR OF AN AIRPORT OR WITHIN 65 CNEL OR L DN NOISE CONTOUR OF A FREEWAY OR EXPRESSWAY, RAILROAD, INDUSTRIAL SOURCE OR FIXED-GUIDEWAY SOURCE AS DETERMINED BY THE NOISE ELEMENT OF THE GENERAL PLAN. (SEC: 5.507.4.1 CGBSC, SEE EXCEPTIONS 1 & 2 ON SEC: 5.507.4.1.
6. INSTALLATIONS OF HVAC, REFRIGERATION AND FIRE SUPPRESSION EQUIPMENT SHALL COMPLY WITH SECTIONS 5.508.1.1 AND 5.508.1.2. HVAC, REFRIGERATION, AND FIRE SUPPRESSION EQUIPMENT SHALL NOT CONTAIN CHLOROFLUOROCARBONS (CFCs) AND SHALL NOT CONTAIN HALONS. (SEC: 5.508.1)
7. PROVIDE THE BUILDING OWNER OR REPRESENTATIVE WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND COPIES OF GUARANTIES/WARRANTIES FOR EACH SYSTEM. O&M INSTRUCTIONS SHALL BE CONSISTENT WITH OSHA REQUIREMENTS IN CCR, TITLE 8, SECTION 5142 AND OTHER RELATED REGULATIONS.
8. PERFORM TESTING AND ADJUSTING PROCEDURES IN ACCORDANCE WITH INDUSTRY BEST PRACTICES AND APPLICABLE NATIONAL STANDARDS ON EACH SYSTEM. (CG 5.410.3).BEFORE A NEW SPACE-CONDITIONING SYSTEM SERVING A BUILDING OR SPACE IS OPERATED FOR NORMAL USE, THE SYSTEM SHALL BE BALANCED IN ACCORDANCE WITH THE PROCEDURES DEFINED BY THE TESTING, ADJUSTING AND BALANCING BUREAU NATIONAL STANDARDS; THE NATIONAL ENVIRONMENTAL BALANCING BUREAU PROCEDURAL STANDARDS; OR ASSOCIATED AIR BALANCE COUNCIL NATIONAL STANDARDS. (CG 5.410.4.3.1) AFTER COMPLETION OF TESTING, ADJUSTING AND BALANCING (TAB), PROVIDE A FINAL REPORT OF TESTING SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES. (CG 5.410.4.4)

HVAC GENERAL NOTES

1. CONTRACTOR SHALL CAREFULLY REVIEW THESE PLANS AND SPECIFICATIONS PRIOR TO BID. CONTRACTOR SHALL ALSO REVIEW PLANS AND SPECIFICATIONS OF OTHER RELATED TRADES (INCLUDING CIVIL, STRUCTURAL, AND ELECTRICAL) PRIOR TO BID TO ENSURE AN ACCURATE UNDERSTANDING OF EXACT SCOPE OF WORK. ANY ITEMS REQUIRING CLARIFICATION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN SUFFICIENT TIME TO BE INCORPORATED INTO THE BID.
2. CONTRACTOR SHALL VERIFY ALL EQUIPMENT MODEL NUMBERS, CAPACITIES, SIZES, VOLTAGES, AND ALL OTHER SCHEDULED INFORMATION WITH ALL OTHER APPLICABLE TRADES AND WITH THE MANUFACTURER PRIOR TO INSTALLATION.
3. CONTRACTOR SHALL VERIFY ALL LOCATIONS, SIZES, POCs, AND AVAILABILITY OF ALL EXISTING ITEMS (I.E.: OUTSIDE AIR, CWS & CWR, EXHAUST ETC.) PRIOR TO INSTALLATION OF ANY MATERIAL OR EQUIPMENT.
4. THESE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ARE NOT INTENDED TO INDICATE ALL NECESSARY OFFSETS OF DUCTWORK AND PIPING. THE CONTRACTOR SHALL INSTALL MATERIAL AND EQUIPMENT IN A MANNER AS TO CONFORM TO STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE HEADROOM, AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. ALL INSTALLATIONS SHALL BE CONSISTENT WITH NORMALLY ACCEPTABLE INDUSTRY STANDARDS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES OR CONFLICTS THAT WOULD AFFECT THE SYSTEM PERFORMANCE OR WHICH WOULD INCUR ADDITIONAL COSTS. THIS NOTIFICATION SHALL BE MADE PRIOR TO THE INSTALLATION OF THE ITEMS CONCERNED.
5. NEW AND/OR EXISTING EQUIPMENT INDICATED ON THIS DRAWING IS SHOWN IN APPROXIMATE POSITION(S). CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING EQUIPMENT LOCATIONS, POCs AND STRUCTURAL MEMBERS PRIOR TO INSTALLATION. IN ALL CASES, ADEQUATE ACCESS (PER MANUFACTURER'S RECOMMENDATIONS AND CODE COMPLIANCE) FOR MAINTENANCE AND REPLACEMENT OF EQUIPMENT SHALL BE PROVIDED.
6. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES. NOTHING SHOWN IN THE PLANS OR STATED IN THE SPECIFICATIONS IS INTENDED TO INDICATE THAT THE INSTALLATION OF CONNECTIONS OF ANY ITEM OR DEVICE SHOULD BE DONE CONTRARY TO THE MANUFACTURER'S INSTRUCTIONS AND ALL APPLICABLE CODES AND REGULATIONS. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE INSTALLATION AND CONNECTIONS OF ALL ITEMS AND DEVICES CONFORM TO MANUFACTURER'S INSTRUCTIONS AND TO ALL APPLICABLE CODES AND REGULATIONS.
7. ALL HVAC EQUIPMENT, MATERIAL, AND ALL CONNECTION THERETO SHALL BE INSTALLED COMPLETE PER MANUFACTURER'S INSTRUCTIONS TO PROVIDE A COMPLETE AND FULLY OPERATIONAL SYSTEM.
8. DUCT SIZES INDICATED ON DRAWINGS ARE INSIDE NET CLEARANCE DIMENSIONS.
9. CONTRACTOR MAY, AT HIS OPTION, REVISE DUCTWORK SIZING AND ROUTING TO ALLOW FOR INSTALLATION IN THE AVAILABLE SPACE. DUCTWORK THAT IS RESIZED MUST MAINTAIN THE SAME CROSS-SECTIONAL AREA. FLEX DUCT IS LIMITED TO A MAXIMUM OF 5' AT EACH REGISTER.
10. ALL NEW SUPPLY, RETURN, AND EXHAUST (AIR DISTRIBUTION) GRILLES, REGISTERS, AND DIFFUSERS SHALL MATCH (IF APPLICABLE) EXISTING, AND BE APPROVED BY ARCHITECT. THE MAXIMUM NOISE NC LEVEL SHALL BE 35.
11. ALL SUPPLY, RETURN, AND EXHAUST REGISTER CONNECTIONS TO DUCTWORK SHALL BE PROVIDED WITH ACCESSIBLE MANUAL VOLUME DAMPERS. ALTERNATIVELY, ACCESSIBLE MANUAL VOLUME DAMPERS MAY BE PROVIDED IN DUCT WORK FEEDER LINES SERVING INDIVIDUAL REGISTERS.
12. SUBSTITUTION OF HVAC EQUIPMENT WITH EFFICIENCIES LOWER THAT THOSE INDICATED ON THE PLANS MAY REQUIRE RECALCULATION OF TITLE 24 DOCUMENTS. IF THE CONTRACTOR CHOOSES TO UTILIZE SUCH EQUIPMENT, HE ASSUMES FULL RESPONSIBILITY FOR THE RECALCULATION AND JURISDICTIONAL APPROVAL OF TITLE 24 DOCUMENTS.
13. IF THE CONTRACTOR'S USE OF SUBSTITUTE MATERIALS, EQUIPMENT, OR METHODS OF INSTALLATION REQUIRES ANY CHANGES IN OTHER TRADES' WORK FROM THAT SHOWN ON THE DRAWINGS, THE EXTRA COST OF THE OTHER TRADES WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR INITIATING THE SUBSTITUTION.
14. SUBMITTALS: APPROVAL OF SUBMITTALS DOES NOT RELEASE THE CONTRACTOR FROM OBLIGATIONS TO COMPLY WITH ALL REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS OR APPLICABLE CODE REGULATIONS.
15. WHERE NONMETALLIC PIPING PENETRATES AREA SEPARATION WALLS, THE PIPE SECTION PASSING THROUGH THE WALLS AND THE FIXTURE CONNECTIONS THERETO SHALL BE OF METAL ONLY.
16. NO RANGE HOODS, DRYER VENTS, COMBUSTION VENTS, OR HEATING DUCTS ARE PERMITTED IN AREA SEPARATION WALLS.
17. A. CONTRACTOR TO VERIFY LOCATION OF FIRE AND FIRE/SMOKE BARRIER WALLS WITH ARCHITECT PRIOR TO FIRE AND/OR SMOKE DAMPER, DETECTOR AND ACTUATOR INSTALLATION.

    B. ALL CEILING FIRE DAMPERS TO BE ONE (1) HOUR U.L. AND C.S.F.M. APPROVED.

    C. ALL FIRE RATED WALLS SHALL BE PROVIDED WITH U.L. AND C.S.F.M. APPROVED SMOKE/FIRE DAMPERS (EQUAL TO WALL RATING), MOTOR, ACTUATOR, AND SMOKE DETECTOR.

    D. ALL SMOKE BARRIER WALLS SHALL BE PROVIDED WITH U.L. AND C.S.F.M. APPROVED SMOKE/FIRE DAMPERS (EQUAL TO WALL RATING), MOTOR, ACTUATOR, AND SMOKE DETECTOR.

    E. ALL PENETRATIONS OF ONE (1) HOUR CORRIDOR WALLS AND CEILINGS THAT WOULD REQUIRE THE INSTALLATION OF A FIRE DAMPER SHALL BE APPROVED WITH A U.L. AND C.S.F.M. APPROVED COMBINATION SMOKE/FIRE DAMPER, (EQUAL TO WALL RATING), MOTOR, ACTUATOR, AND SMOKE DETECTOR.

    F. PROVIDE ALL FIRE & SMOKE DAMPERS WITH ACCESS DOORS AS NECESSARY.

DESIGN CRITERIA FOR TB LAB

OUTDOOR DESIGN CONDITIONS
SUMMER DRY BULB: 115°F
SUMMER WET BULB: 75°F
WINTER DRY BULB: 20°F

INDOOR DESIGN CONDITIONS
INDOOR DESIGN TEMPERATURE: 72°F +/- 2°F
RELATIVE HUMIDITY: NOT CONTROLLED

PRESSURIZATION
NEGATIVE TO ADJACENT SPACES

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	MINIMUM PIPE CONNECTION (INCHES)				MANUFACTURER / MODEL NUMBER	REMARKS
		CW	HW	WASTE	VENT		
(RH-1)	ROOF HYDRANT	3/4	-	-	-	ZURN MODEL Z1388 EXPOSED HEAD, NON-FREEZE ROOF HYDRANT WITH VACUUM BREAKER, ANCHORING FLANGE AND CLAMP COLLAR	

PACKAGED GAS/ DX 100% OSA UNIT SCHEDULE

PLAN MARK	MANUFACTURER & MODEL NO.	LOCATION	SERVICE	NOMINAL CAPACITY (TONS)	SUPPLY FAN		DX COOLING COIL						SYSTEM EFFICIENCY SEER (EER)	COMPRESSOR		GAS HEATING						ELECTRICAL DATA			OPER. WT. (LBS.)	REMARKS
					AIRFLOW (CFM)	ESP (IN WG)	COOLING CAPACITY		ENTERING AIR		LEAVING AIR			TYPE	QUANTITY	AFUE (%)	INPUT (MBH)	OUPUT (MBH)	ENTERING AIR DB (DEG F)	LEAVING AIR DB (DEG F)	MINIMUM TURNDOWN	MCA	MOCP	V/PH/HZ		
							TOTAL (MBH)	SENSIBLE (MBH)	DB (DEG F)	WB (DEG F)	DB (DEG F)	WB (DEG F)														
AC-8	TRANE OADG015	ROOF	LAB 101	15	2,600	1.5	165.5	159.6	115	75	54	54	(8.8)	SCROLL	1	81	250	202.5	20	90	10:1	70.7	90	208/3/60	3,100	(1)(2)(3)

REMARKS:
(1) PROVIDE SMOKE DUCT DETECTOR IN SUPPLY AIR STREAM AND INTERLOCK WITH FIRE ALARM SYSTEM AND UNIT FOR SHUTDOWN PER 609 OF THE CALIFORNIA MECHANICAL CODE.
(2) PROVIDE WITH VFD, HOT GAS REHEAT AND MERV-13 FILTERS.
(3) MOUNT ON NEW ROOF PLATFORM. SEE STRUCTURAL PLANS FOR DETAILS.

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EPI PROJECT #: 120-486E

REGISTERED PROFESSIONAL ENGINEER SCOTT H. JOHNSON No. M32413 Exp. 6/30/25 MECHANICAL STATE OF CALIFORNIA

IMPERIAL COUNTY HEALTH CLINIC
AC UNIT REPLACEMENT
935 BROADWAY STREET
EL CENTRO, CA

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No.	Description	Date
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△		

FILE NAME:	-
DRAWN BY:	JRE
DESIGNED BY:	JRE
CHECKED BY:	MR
DATE:	-

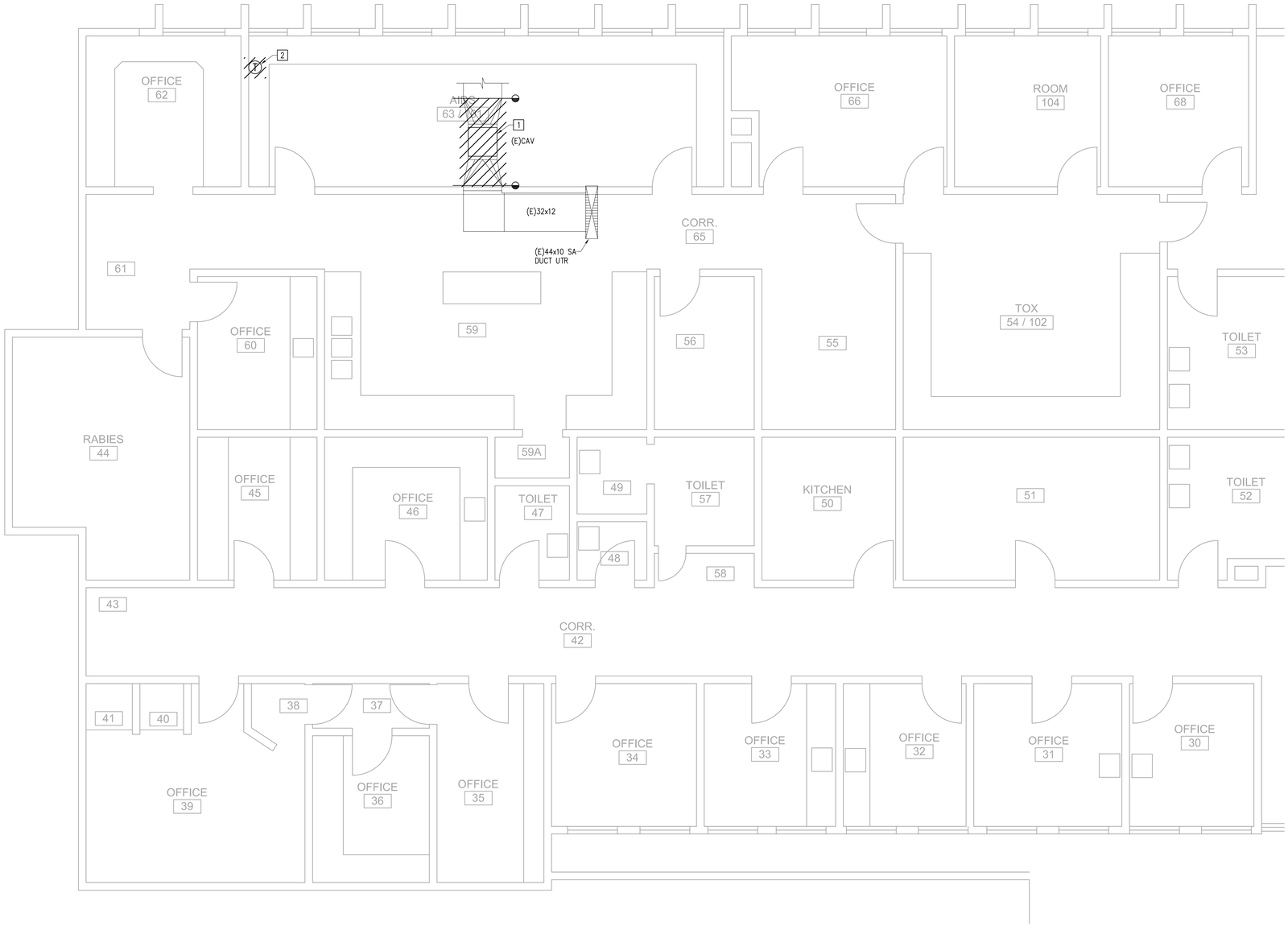
DRAWING TITLE
MECHANICAL
LEGEND, NOTES
& SCHEDULES

SHEET NO.
M001

KEY NOTES

1 DISCONNECT AND REMOVE EXISTING CAV BOX, SUPPORTS, AND CONTROLS SHOWN HATCHED.

2 DISCONNECT AND REMOVE EXISTING WALL MOUNTED THERMOSTAT.

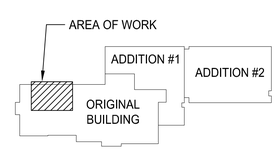


MECHANICAL FLOOR PLAN - DEMOLITION

N

SCALE: 1/4" = 1'-0" 1

KEY PLAN



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16769 Bernardo Drive, Suite 1 #768
San Diego, CA 92128

EPI THE ENGINEERING PARTNERS, INC.
CONSULTING ENGINEERS
10150 MEANLEY DRIVE, SUITE 200
SAN DIEGO, CA 92131
(858) 824-1761 FAX (858) 824-1768

EPI PROJECT #: 120-486E

REGISTERED PROFESSIONAL ENGINEER
SCOTT H. JOHNSON
No. M32413
Exp. 6/30/25
MECHANICAL
STATE OF CALIFORNIA

IMPERIAL COUNTY HEALTH CLINIC
AC UNIT REPLACEMENT
935 BROADWAY STREET
EL CENTRO, CA

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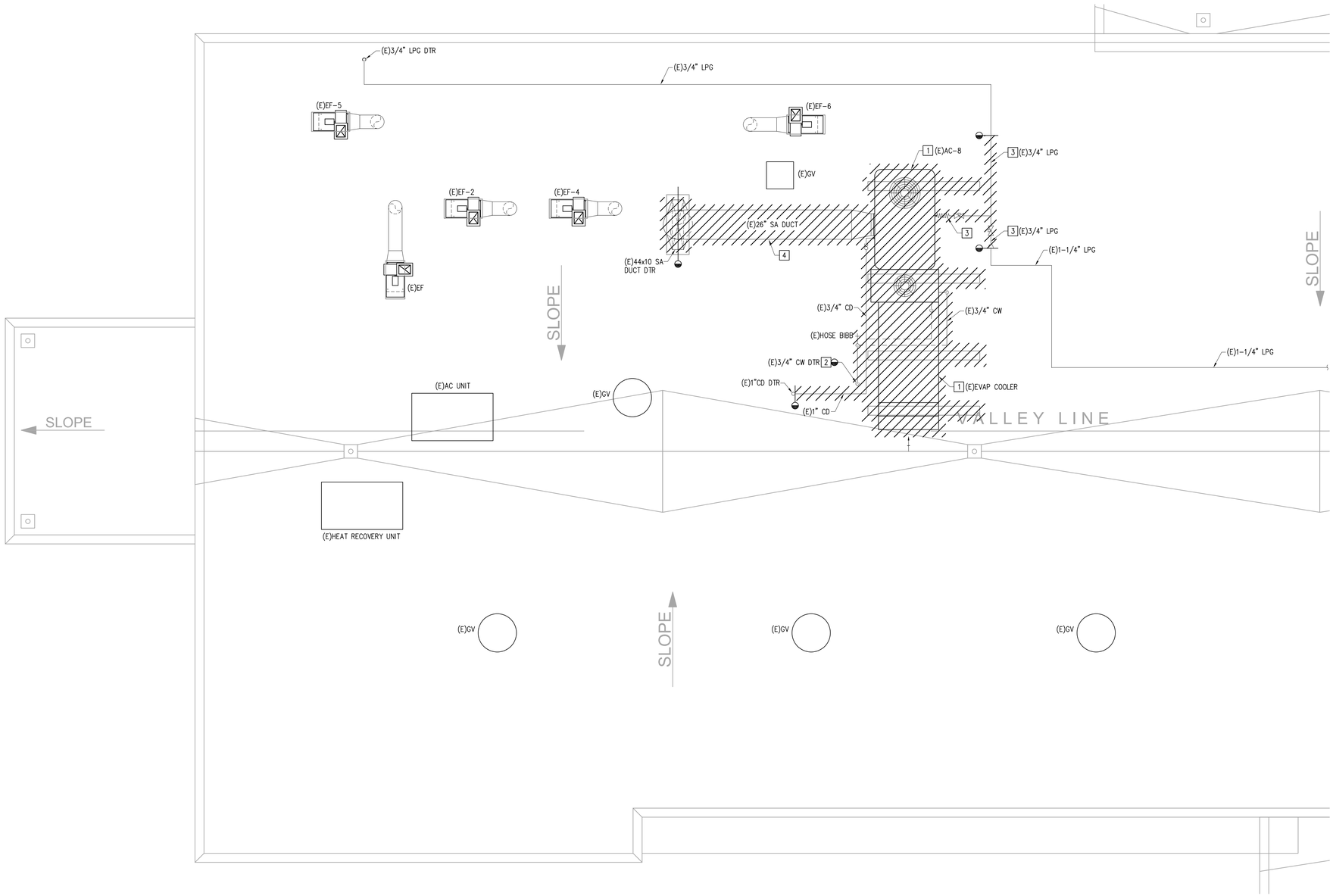
FILE NAME:	-
DRAWN BY:	JRE
DESIGNED BY:	JRE
CHECKED BY:	MR
DATE:	-

DRAWING TITLE
MECHANICAL FLOOR PLAN DEMOLITION

SHEET NO.
M101

KEY NOTES

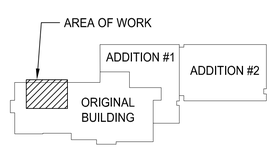
1. DISCONNECT AND REMOVE EXISTING AC UNIT, EVAP COOLER AND ROOF PLATFORMS.
2. DISCONNECT AND REMOVE EXISTING COLD WATER MAKE-UP PIPING SHOWN HATCHED. POINT OF DISCONNECTION AT VERTICAL DROP ABOVE ROOF.
3. DISCONNECT AND REMOVE EXISTING LOW PRESSURE GAS PIPING SHOWN HATCHED.
4. DISCONNECT AND REMOVE EXISTING SUPPLY AIR DUCT SHOWN HATCHED. POINT OF DISCONNECTION AT VERTICAL DROP ABOVE ROOF.



MECHANICAL ROOF PLAN - DEMOLITION

SCALE: 1/4" = 1'-0"

KEY PLAN



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EPI PROJECT #: 120-486E

REGISTERED PROFESSIONAL ENGINEER SCOTT H. JOHNSON No. M32413 Exp. 6/30/25 MECHANICAL STATE OF CALIFORNIA

IMPERIAL COUNTY HEALTH CLINIC
AC UNIT REPLACEMENT
935 BROADWAY STREET
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FILE NAME:	-
DRAWN BY:	JRE
DESIGNED BY:	JRE
CHECKED BY:	MR
DATE:	-

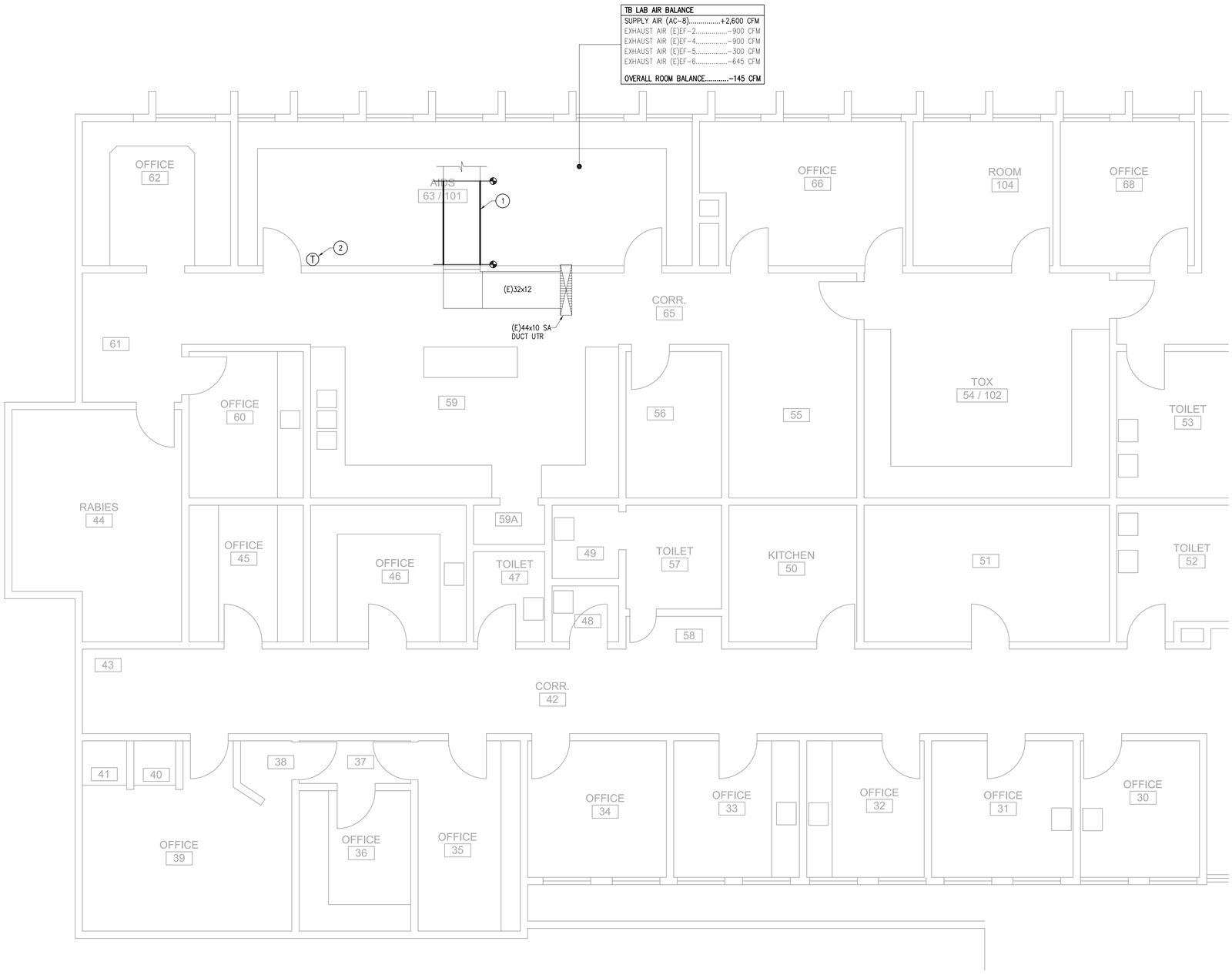
DRAWING TITLE
MECHANICAL
ROOF PLAN
DEMOLITION

SHEET NO.
M102

J&R Engineering & Consulting, Inc.
16769 Bernardo Drive, Suite 1 #768
San Diego, CA 92128

KEY NOTES

1. NEW SUPPLY AIR DUCT, SIZED TO MATCH EXISTING. CONTRACTOR TO VERIFY EXISTING DUCT SIZE IN FIELD.
2. PROVIDE NEW WALL MOUNTED THERMOSTAT.

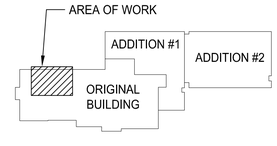


MECHANICAL FLOOR PLAN - NEW WORK

N

SCALE: 1/4" = 1'-0" (1)

KEY PLAN



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EPI PROJECT #: 120-486E

REGISTERED PROFESSIONAL ENGINEER SCOTT H. JOHNSON No. M32413 Exp. 6/30/25 MECHANICAL STATE OF CALIFORNIA

IMPERIAL COUNTY HEALTH CLINIC

AC UNIT REPLACEMENT

935 BROADWAY STREET
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FILE NAME:	-
DRAWN BY:	JRE
DESIGNED BY:	JRE
CHECKED BY:	MR
DATE:	-

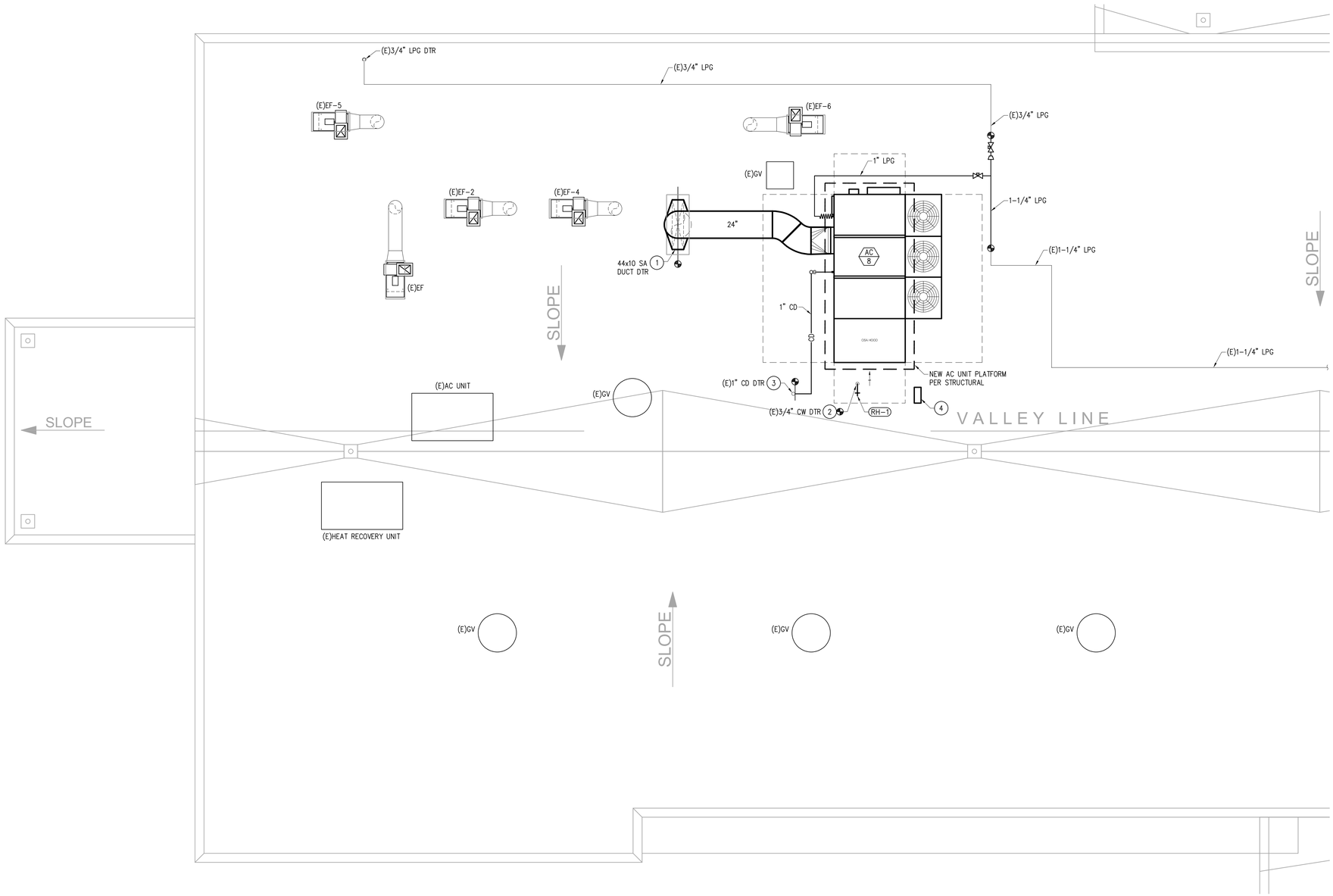
DRAWING TITLE
MECHANICAL
FLOOR PLAN
NEW WORK

SHEET NO.
M201

J&R Engineering & Consulting, Inc.
16769 Bernardo Drive, Suite 1 #768
San Diego, CA 92128

KEY NOTES

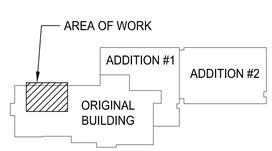
1. PROVIDE NEW SUPPLY AIR DUCT ON ROOF AND CONNECT TO EXISTING. POINT OF CONNECTION AT VERTICAL DROP ABOVE ROOF.
2. PROVIDE NEW ROOF HYDRANT AND 3/4" CW PIPING AND CONNECT TO EXISTING. POINT OF CONNECTION AT VERTICAL DROP ABOVE ROOF.
3. PROVIDE NEW 1" CD PIPING AND CONNECT TO EXISTING. POINT OF CONNECTION AT VERTICAL DROP ABOVE ROOF.
4. PROVIDE TRANE SUPERVISORY CONTROLLER IN NEMA-4 ENCLOSURE ON UNISTRUT ROOF SUPPORTS PER STRUCTURAL. PROVIDE 120V POWER AND ETHERNET CABLE TO CONTROLLER PER ELECTRICAL PLANS.



MECHANICAL ROOF PLAN - NEW WORK

SCALE: 1/4" = 1'-0" (1)

KEY PLAN



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DRAWING TITLE
MECHANICAL
ROOF PLAN
NEW WORK

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M202

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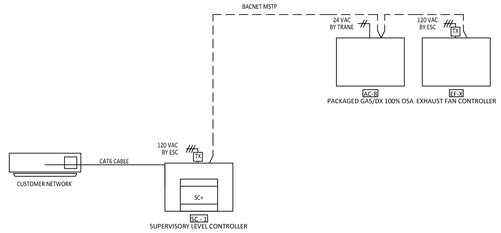
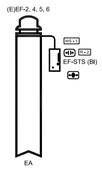


DDC CONTROLS ARCHITECTURE DIAGRAM

SCALE: NONE (1)

Flow Diagram: (E)EXHAUST FAN (TYP.)



Sequence of Operation: (E)EXHAUST FAN (TYP.)

Operation:

The exhaust fans serving the TB lab are existing and operate continuously. Exhaust fan status will be monitored and alarm generated if status is not detected.

Points List: EXHAUST FAN

System Point Description	POINTS										ALARMS					
	GRAPHIC	ANALOG HARDWARE INPUT (AI)	BINARY HARDWARE INPUT (BI)	ANALOG HARDWARE OUTPUT (AO)	BINARY HARDWARE OUTPUT (BO)	SOFTWARE POINT (SFT)	HARDWARE INTERLOCK (HDW)	WIRELESS (WLS)	NETWORK (NET)	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSTIC	SENSOR FAIL	COMMUNICATION FAIL
EXHAUST FAN STATUS EF-STS	X		X												

EXHAUST FAN CONTROLS

SCALE: NONE (2)

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FILE NAME: -

DRAWN BY: JRE

DESIGNED BY: JRE

CHECKED BY: MR

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DRAWING TITLE
MECHANICAL
CONTROLS

SHEET NO.
M301

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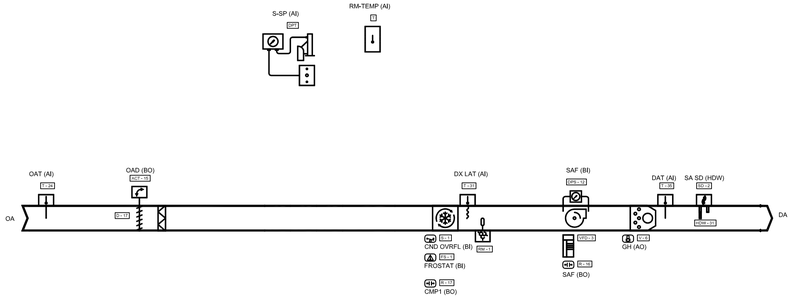
Flow Diagram: PACKAGED RTU (AC-8)



Sequence of Operation: PACKAGED RTU (AC-8)

Building Automation System Interface:
The Building Automation System (BAS) shall send the controller Occupied Bypass, Morning Warm-up/Pre-Cool, Occupied/Unoccupied and Heat/Cool modes. The BAS shall also send the discharge air temperature setpoint and the duct static pressure setpoint. If a BAS is not present, or communication is lost with the BAS the controller shall operate using default modes and setpoints.

Occupied:
The unit controller shall modulate the supply fan speed to maintain negative space pressure.

Unoccupied:
Space conditions shall be communicated via BAS or a hardwire space/temperature humidity sensor. Space conditions shall be communicated via BAS or a hardwire space/temperature humidity sensor. The outdoor air damper shall be commanded to close, and the return air damper shall open. If the unit is under Economizer conditions, the Outdoor Air Damper Position Command shall open to the Outdoor Air Damper Maximum Position Setpoint. Unoccupied Heating Mode shall be enabled when the Space Temperature falls below the Unoccupied Heating Enable Setpoint. During Unoccupied Heating Mode the unit shall run the heat to maintain 90°F for the discharge air temperature. Unoccupied Heating Mode shall be disabled when the Space Temperature rises 2 deg, F above the Unoccupied Heating Setpoint. When there is no call for Unoccupied Heating Mode or Unoccupied Dehumid Mode, Unoccupied Cooling Mode shall be enabled when the Space Temperature rises above the Unoccupied Cooling Enable Setpoint. During Unoccupied Cooling Mode the unit shall run the cooling to maintain 50 deg. F for the discharge air temperature. Unoccupied Cooling Mode shall be disabled when the Space Temperature rises 2 deg. F above the Unoccupied Cooling Enable Setpoint.

Pre-Cool Mode:
During optimal start, if the space temperature is above the occupied cooling setpoint, pre-cool mode shall be activated. During optimal start, if the average space temperature is above the occupied cooling setpoint, pre-cool mode shall be activated. When pre-cool is initiated the unit shall enable the fan and cooling. When the space temperature reaches occupied cooling setpoint (adj.), the unit shall transition to the occupied mode.

Occupied Bypass:
The BAS shall monitor the status of the ON and CANCEL buttons of the space temperature sensor. When an occupied bypass request is received from a space sensor, the unit shall transition from its current occupancy mode to occupied bypass mode and the unit shall maintain the space temperature to the occupied setpoints (adj.).

Heat/Cool Mode:
When the space temperature rises above the occupied cooling setpoint the mode shall transition to cooling. When the space temperature falls below the occupied heating setpoint the mode shall transition to heating. When the space temperature is above the occupied cooling setpoint or below the occupied heating setpoint the mode shall remain in its last state. If the space temperature sensor fails the mode shall remain in its last state and an alarm shall annunciate at the BAS. If the local and communicated setpoints fail the controller shall disable the supply fan and an alarm shall annunciate at the BAS.

Cooling:
Cooling Mode shall be enabled whenever the Outdoor Air Temperature rises above the Outdoor Air Cooling Enable Setpoint. When this occurs, heating shall not be allowed, regardless of space conditions. On units without head pressure control, the compressors shall be locked out if the Outdoor Air Temperature falls below the Compressor Low Ambient Lockout Setpoint and there is a demand for cooling. When this occurs, the unit shall display Compressor Low Ambient Lockout Active as an informational diagnostic. Circuit 1 refrigeration pressure shall be monitored, and Cooling Capacity shall be limited to prevent the indoor coil from freezing. If the unit has digital scroll on the second circuit, then both circuits shall be monitored.

(CONTINUED)
Primary Heating:
Heating Mode shall be enabled whenever the Outdoor Air Temperature falls below the Outdoor Air Heating Enable Setpoint. When this occurs, cooling and dehumidification shall not be allowed, regardless of space conditions. During Heating Mode, Heat Capacity shall be adjusted to maintain the Discharge Air Temperature to Discharge Air Temperature Setpoint. The unit controller shall monitor the status of the heater using Heat On Off Status Local. In the event of ignition failure, the unit shall make three ignition attempts before displaying Diagnostic: Heat Failure. The unit shall shut down when a heat failure occurs and shall a reset four hours later to re-attempt ignition.

Ventilation:
Ventilation Mode shall be enabled when the Outdoor Air Temperature and the Space Temperature is within two degrees of the Space Temperature Setpoint. During Ventilation Mode, heating and cooling shall be locked out and the unit shall supply un-conditioned air. Ventilation Mode shall be locked out whenever the unit is in Dehumidification Mode.

Supply Fan Operation:
When the unit becomes occupied, the outdoor air damper shall open. When the outdoor air damper is completely open the damper end switch shall close indicating the damper is fully open and the supply fan sequence can begin. When the fan start sequence has begun, the unit controller shall command the variable speed drive for the supply fan to 50%. A supply fan status switch shall prove fan status. If after 2 minutes (adj.) the fan does not have a proven signal, the Supply Fan Failure alarm shall be displayed and the unit shall shutdown requiring a manual reset. After the startup sequence, the unit controller shall control the of the supply fan to maintain Supply Fan Speed Setpoint of 100% (field adjustable). After the startup sequence, the unit controller shall control the speed of the supply fan shall vary to maintain the Supply Fan Air Flow Setpoint (adjustable, set from the factory to meet equipment submittal). After the startup sequence, the unit controller shall control the speed of the supply fan to maintain the Space Temperature Setpoint. Supply and relief fans are interlocked via software; a failure of either shall disable both.

Filter Timer:
The fan-run time (hrs) shall be compared to the filter maintenance timer setpoint. Once the setpoint is reached a filter timer alarm diagnostic shall annunciate at the BAS. When the diagnostic is cleared, the filter-maintenance timer is reset to zero, and the timer begins accumulating fan-run time again.

Smoke Detector Shutdown:
The unit shall shut down in response to a signal from the smoke detector indicating the presence of smoke. The smoke detector shall be interlocked to the unit through the dry contacts of the smoke detector. A manual reset of the smoke detector shall be required to restart the unit.

Refrigerant Mitigation Mode:
The unit controller will monitor the leak detection system, when a leak is detected, an alarm will promptly alert the BAS via BACnet Change-of-Value (COV) and mitigation will be activated.

In occupied mode, the supply fan will remain operational, and the compressor(s), electric heating, fuel-fired heating, electrostatic devices, and any other ignition device starters shall be disabled, and activate mechanical ventilation (if it's required by Section 7.6.4 of the ASRAE standard). for the duration of the mitigation process plus an additional 5 minutes.

In unoccupied mode, the supply fan will remain operational, and the compressor(s), electric heating, fuel-fired heating, electrostatic devices, and any other ignition device starters shall be disabled, and activate mechanical ventilation (if it's required by Section 7.6.4 of the ASRAE standard). for the duration of the mitigation process plus an additional 5 minutes.

Points List: PACKAGED RTU (AC-8)

System Point Description	POINTS										ALARMS					
	GRAPHIC	ANALOG HARDWARE INPUT (AI)	BINARY HARDWARE INPUT (BI)	ANALOG HARDWARE OUTPUT (AO)	BINARY HARDWARE OUTPUT (BO)	SOFTWARE POINT (SFT)	HARDWARE INTERLOCK (HDW)	WIRELESS (WLS)	NETWORK (NET)	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSTIC	SENSOR FAIL	COMMUNICATION FAIL
ROOM TEMPERATURE RM-TEMP	X	X								X	X			X	
SPACE PRESSURE S-SP	X	X								X	X			X	
COMPRESSOR 1 COMMAND CMP1	X				X										
CONDENSATE OVERFLOW DETECTION LOCAL CND OVRFL	X		X									X			
DISCHARGE AIR TEMPERATURE DAT	X	X												X	
DX COIL FROST STAT FROSTAT	X		X									X			
DX COIL LEAVING AIR TEMPERATURE LOCAL DX LAT	X	X								X	X			X	
GAS HEATING ENABLE GH	X				X										
GAS HEAT OUTPUT COMMAND GH	X			X											
OUTDOOR AIR DAMPER COMMAND OAD	X				X										
OUTDOOR AIR DAMPER END SWITCH OAD	X		X												
OUTSIDE AIR HUMIDITY LOCAL OAH	X	X												X	
OUTSIDE AIR TEMPERATURE LOCAL OAT	X	X												X	
REFRIGERANT LFL CONCENTRATION ALARM THRESHOLD SENSOR A R ALM A		X													
REFRIGERANT LFL CONCENTRATION ALARM THRESHOLD SENSOR B R ALM B		X													
REFRIGERANT LFL CONCENTRATION ALARM THRESHOLD SENSOR C R ALM C		X													
REFRIGERANT LFL CONCENTRATION ALARM THRESHOLD SENSOR D R ALM D		X													
REFRIGERANT CONCENTRATION BAS R PPM				X											
REFRIGERANT HIGH SIDE PRESSURE (63HS1) R HI		X													
REFRIGERANT LOW SIDE PRESSURE (63LS) R LO		X													
DUCT REFRIGERANT MONITOR R PPM		X													
REFRIGERANT LEAK DETECTION SYSTEM INPUT R IN			X												
REFRIGERANT LEAK SENSOR COMMUNICATION STATUS SENSOR A R STS A						X									
REFRIGERANT LFL CONCENTRATION SENSOR A R PPM A		X													
REFRIGERANT LFL CONCENTRATION SENSOR B R PPM B		X													
REFRIGERANT LFL CONCENTRATION SENSOR C R PPM C		X													
REFRIGERANT LFL CONCENTRATION SENSOR D R PPM D		X													
REFRIGERANT MITIGATION ACTIVE R MGT			X												
REFRIGERANT TYPE R TYPE						X									
RELIEF AIR DAMPER END SWITCH RLF DPR	X		X												
RELIEF AIR DAMPER OPEN/CLOSE RLF DPR	X				X										
RETURN AIR TEMPERATURE LOCAL RAT	X	X											X		
SUPPLY AIR SMOKE DETECTION LOCAL SA SD						X									
SUPPLY FAN START/STOP SAF	X				X										
SUPPLY FAN STATUS LOCAL SAF	X		X												
COMPRESSOR ENABLE CMP ENA	X					X									
COMPRESSOR LOCKOUT STATUS CMP LCK						X									
COOL OUTPUT CLG						X									
OCCUPANCY OCC	X					X									
OCCUPIED COOLING SETPOINT OCC CLG SP	X					X									
UNOCCUPIED COOLING SETPOINT UNOCC CLG SP	X					X									
UNOCCUPIED HEATING SETPOINT UNOCC HTG SP	X					X									
SUPPLY FAN SPEED SETPOINT SAF STPT						X									

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FILE NAME: -
DRAWN BY: JRE
DESIGNED BY: JRE
CHECKED BY: MR
DATE: -

DRAWING TITLE
MECHANICAL CONTROLS

SHEET NO.
M302

PACKAGED GAS/ DX 100% OSA UNIT CONTROLS

SCALE: NONE

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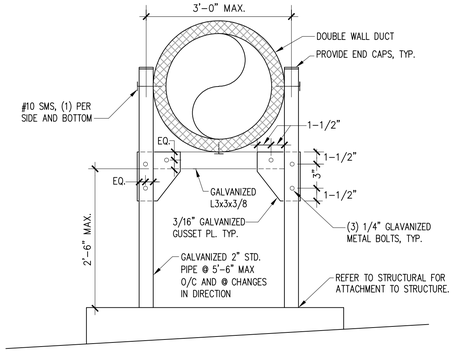
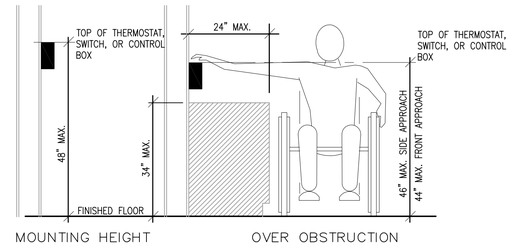
San Diego, CA 92128



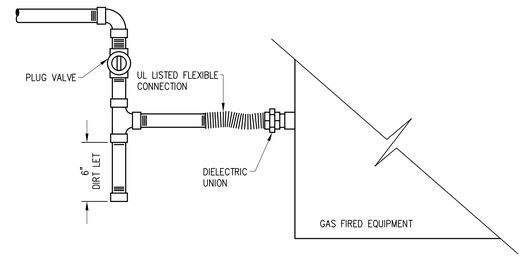
ROOF MOUNTED DUCT SUPPORT

SCALE: NONE (4)



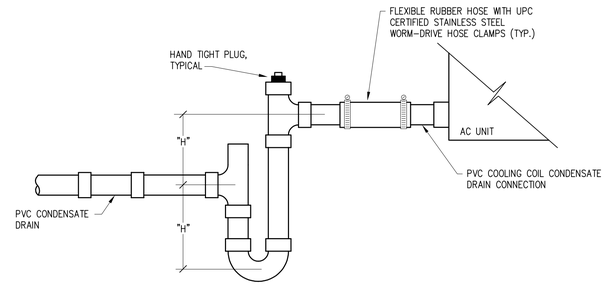
THERMOSTAT MOUNTING DETAIL

SCALE: NONE (1)



GAS PIPE CONNECTION DETAIL

SCALE: NONE (2)



FOR 5 TON UNITS AND UNDER, H = 1-1/2"
FOR ALL OTHER UNITS, SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

CONDENSATE TRAP (DRAW THROUGH)

SCALE: NONE (3)

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FILE NAME:	-
DRAWN BY:	JRE
DESIGNED BY:	JRE
CHECKED BY:	MR
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DRAWING TITLE
MECHANICAL DETAILS

SHEET NO.
M401

J&R Engineering & Consulting, Inc.
16769 Bernardo Drive, Suite 1 #768
San Diego, CA 92128

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name: Imperial County Health Clinic	**Report Page:**	(Page 3 of 10)
	Date Prepared:	4/13/2025

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Equipment Category per Tables 110.2, 140.4(a)2 and 170.2(c)3aii	Equipment Type per Tables 110.2 and Title 20	Smallest Size Available[1] 140.4(a) and 170.2(c)1	Equipment Sizing per Mechanical Schedule (kBtu/h) 140.4(a&b), 170.2(c)1 & 170.2(c)2						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
				Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
AC-8	Unitary AC/ Condensers	AC, air-cooled pkg (3 phase)	Yes	202.5	202.5	0	165.78	159.6	187.54	167.57

[1]*FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per 140.4(a) and 170.2(c)1. Healthcare facilities are excepted.*
[2]*It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.*
[3] *If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.*
[4] *Authority Having Jurisdiction may ask for load calculations used for compliance per 140.4(b) and 170.2(c).*

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP), DX-DOAS and Dual Fuel Heat Pumps)

01	02	03	04	05	06	07	08	09
Name or Item Tag	Size Category (Btu/h)	Heating Mode				Cooling Mode		
		Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
AC-8	>=135,000 and <240,000		AFUE	0.8	0.81	EER IEER	10.8 14	10.8 14

G. PUMPS

This section does not apply to this project.

STATE OF CALIFORNIA
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CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D., or the table indicated as not compliant for guidance.

01		02		03		04		05		06		07		08	09
System Summary 110.1, 110.2, 140.4, 170.2(c)	AND	Pumps 140.4(k), 170.2(c)4I	AND	Fans/ Economizers 140.4(c), 140.4(e), 170.2(c)	AND	System Controls 110.2, 120.2, 140.4(f), 170.2(c)	AND	Ventilation 120.1, 160.2	AND	Terminal Box Controls 140.4(d), 170.2(c)4B	AND	Distribution 120.3, 140.4(l), 160.2, 160.3	AND	Cooling Towers 110.2(e)2	Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)	
Yes	AND		AND	Yes	AND	Yes	AND	Yes	AND		AND	Yes	AND		COMPLIES
Mandatory Measures Compliance (See Table Q for Details)										COMPLIES					

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

M0.2

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
AC-8	1	Single zone	New/ Addition		☐

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, or 141.0(b)2 for alterations.		
Project Name: Imperial County Health Clinic	**Report Page:**	(Page 1 of 10)
Project Address: 935 Broadway Street	**Date Prepared:**	4/13/2025

A. GENERAL INFORMATION

01	Project Location (city)	El Centro	04	Total Conditioned Floor Area	350
02	Climate Zone	15	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1
• All Other Occupancies					

B. PROJECT SCOPE

This table includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, 170.2(b, or 141.0(b)2 and 180.2(b)2 for alterations.

01	02		03	
Air System(s)	Wet System Components		Dry System Components	
☒	Heating Air System	☐	Water Economizer	☐	Air Economizer
☒	Cooling Air System	☐	Pumps	☐	Electric Resistance Heat
	Mechanical Controls	☐	System Piping	☒	Fan Systems
☒	Mechanical Controls (existing to remain, altered or new)	☐	Cooling Towers	☒	Ductwork (existing to remain, altered or new)
		☐	Chillers	☒	Ventilation
		☐	Boilers	☐	Zonal Systems/ Terminal Boxes

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EPI PROJECT #: 120-486E

REGISTERED PROFESSIONAL ENGINEER
SCOTT H. JOHNSON
No. M32413
Exp. 8/30/25
MECHANICAL
STATE OF CALIFORNIA

IMPERIAL COUNTY HEALTH CLINIC
AC UNIT REPLACEMENT
935 BROADWAY STREET
EL CENTRO, CA

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name: Imperial County Health Clinic	**Report Page:**	(Page 6 of 10)
	Date Prepared:	4/13/2025

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:t24ref\nolink{160.2, 160.3(a)3D, 170.2(a)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☐	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☒	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/mote spaces to meet required ventilation rates per 120.1(c)2.

Nonresidential and Hotel/ Motel Multifamily Common Use Ventilation Systems

04		05			06			07
System Name	AC-8	System Design OA CFM Airflow[1]		2600	System Design Transfer Air CFM		0	Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)21[2] Provided
08	09	10	11	12	13	14	15	16
Space Name or Item Tag	Mechanical Ventilation Required per 120.1(c)3[3] & 160.2(c)3				Exh. Vent per 120.1(c)4 & 160.2(c)4			DCV or Sensor Controls per 120.1(d)3, 120.1(d)5, and 120.1(e)3[4] 160.2(c)5D 160.2(c)5E 160.2(c)5D
	Occupancy Type[4]	Conditioned Floor Area (ft²)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM	DCV / NA: Not required per §120.1(d)3
TB Lab	All others	350			52.5	0	0	Occ Sensor / NA: Not required space type
17	Total System Required Min OA CFM				52	18	Ventilation for this System Complies?	Yes

[1] *FOOTNOTES: System CFM should include both mechanical and natural ventilation for the zone/system*
[2] *Air filtration requirements apply to the following three system types per 120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.*
[3] *Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.*
[4] *See Standards Tables 120.1-A and 120.1-B.*

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Project Name: Imperial County Health Clinic	**Report Page:**	(Page 5 of 10)
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H. FAN SYSTEMS & AIR ECONOMIZERS

[6] *Computer room economizers must meet requirements of 140.9(a) and will be documented on the NRCC-PRC-E document..*

H. EXHAUST AIR HEAT RECOVERY 140.4(q), 170.2(c)4O

01	02	03	04	05	06	07	08	09	10	11
Fan System Name	Qty	Hours of Operation per Year	Design Supply Airflow Rate	Outdoor Airflow	% Outdoor Air at Full Design Airflow	Exemptions to Exhaust Air Heat Recovery Requirement per 140.4(q) & 170.2(c)4O	Exhaust Air Heat Recovery 140.4(q) & 170.2(c)4O	Type Of Heat Recovery Rating	Required Recovery Ratio	Energy Recovery Bypass

Fan Energy Index (FEI)

01	02	03
Name or Item Tag	FEI Exception	FEI

I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft²)	Thermostats 110.2(b) & (c)[1], 120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2	Shut-Off Controls 120.2(e) & 160.3(a)2D	Isolation Zone Controls 120.2(g) & 160.3(a)2F	Demand Response 110.12 120.2(b) & 160.3(a)2B	Supply Air Temp. Reset 140.4(f) & 170.2(c)4D	Window Interlocks per 140.4(n) & 170.2(c)4D
AC-8	Single zone	<= 25,000 ft²	EMCS	EMCS	NA: Single Zone	EMCS	Included	NA: No operable windows

[1]*FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.*

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Project Name: Imperial County Health Clinic	**Report Page:**	(Page 4 of 10)
	Date Prepared:	4/13/2025

H. FAN SYSTEMS & AIR ECONOMIZERS

This table is used to demonstrate compliance with prescriptive requirements found in 140.4(c), 140.4(e), 140.4(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	AC-8	Quantity	1	Fan System Status	New	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	2,600	Site Elevation	-59	Economizer	Differential Temperature
01	02	03	04			05		06	07	08	09			10	11
Fan Name or Item Tag	Fan Type	Qty	Component			Airflow through Component (%)		Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method		Design: Motor Nameplate Horsepower		Design: Design Electrical Input Power (kW)
SF	Supply	1	Base Allowance for system serving spaces <=6 floors away			2,600			603		Manufacturer provided				0.94
			MERV 13-16 Filter upstream of thermal conditioning equipment			2,600			361						
			Gas heat			2,600			151						
			Hydronic/DX cooling coil or heat pump coil			2,600			361						
			100% outdoor air system			2,600			182						
Supply Fan Base Allowance (kW)			Exhaust/Return/Relief/Transfer Fan Base Allowance(kW)						Fan System Allowance (kW)[3]				Fan System Electrical Ouput (kW)		

[1] *FOOTNOTES: Fans serving spaces with design background noise goals below NC35*
[2] *Low-turndown single-zone VAV fan system must be capable of and configured to reduce airflow to 50 percent of design airflow and use no more than 30 percent of the design wattage at that airflow. No more than 10 percent of the design load served by the equipment shall have fixed loads.*
[3] *Fan system allowance includes fan system base allowance.*
[4] *Filter pressure loss can only be counted once per fan system.*
[5] *Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust fans, or both.*

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JOB NO. -
DATE: -

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No.	Description	Date
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REVISIONS

No.	Description	Date
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FILE NAME: -
DRAWN BY: JRE
DESIGNED BY: JRE
CHECKED BY: MR
DATE: -

DRAWING TITLE
TITLE 24

SHEET NO.
M501

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Form/Title
NRCI-MCH-01-E - Must be submitted for all buildings

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Form/Title	Systems/Spaces To Be Field Verified
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	Trane OADG015;
NRCA-MCH-03-A - Constant Volume Single Zone HVAC NOTE: This form does not automatically move to 'Yes'. If Constan: Volume Single Zone HVAC Systems are included in the scope, permit applicant should move this form to "Yes".	Trane OADG015;
NRCA-MCH-11-A Automatic Demand Shed Controls	Trane OADG015;
NRCA-MCH-18-A Energy Management Control Systems	Trane OADG015;

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	Yes	Plan sheet or construction document location: M-Sheets

L. DISTRIBUTION (DUCTWORK and PIPING)

		Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems?	No
		Duct leakage testing per CMC Section 603.10.1 required for these systems?	Yes

11	No	The scope of the project includes only duct systems serving healthcare facilities
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.
13	Yes	The space conditioning system serves less than 5,000 ft² of conditioned floor area.
14	No	The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system:
15		The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.
17		All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A
18		All ductwork is an extension of an existing duct system
19		Ductwork serving individual dwelling unit
20		< 25 ft of new or replacement space conditioning ducts installed
21	R-8	Duct Insulation R-value
22		
23		

M. COOLING TOWERS

This section does not apply to this project.

J. VENTILATION AND INDOOR AIR QUALITY

[5] For lecture halls with fixed seating, the expected number of occupants shall be determined in accordance with the California Building Code.

[6] 120.2(e)3 requires systems serving rooms that are required by 130.1(c) to have lighting occupancy sensing controls to also have occupancy sensing zone controls for ventilation. Examples of spaces which require lighting occupancy sensors include offices 250ft² or smaller, multipurpose rooms less than 1,000 ft², classrooms, conference rooms, restrooms, aisles and open areas in warehouses, library book stack aisles, corridors, stairwells, parking garages, and loading and unloading zones, unless excepted by 130.1(c).

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

L. DISTRIBUTION (DUCTWORK and PIPING)

This table is used to show compliance with mandatory pipe insulation requirements found in 120.3 and mandatory requirements found in 120.4(g) for duct sealing.

01	☐	Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather shall be installed with a cover suitable for outdoor service. Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space shall have a Class I or Class II vapor retarder. All penetrations and joints of which shall be sealed.

Duct Leakage Testing

The answers to the questions below apply to the following duct systems:	AC-8	**NR/ Common Use:** Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Scott Johnson	Documentation Author Signature:
Company: J&R Engineering & Consulting, Inc.	Signature Date: 2025-04-13
Address: 16769 Bernardo Center Dr. Suite 1#768	CEA/ HERS Certification Identification (If applicable): M32413
City/State/Zip: San Diego CA 92128	Phone: 858-395-6810

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Scott Johnson	Responsible Designer Signature:
Company: J&R Engineering & Consulting, Inc.	Date Signed: 2025-04-13
Address: 16769 Bernardo Center Drive, Suite 1 #768	License: M32413
City/State/Zip: San Diego CA 92128	Phone: 858-395-6810

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EPI PROJECT #: 120-486E

REGISTERED PROFESSIONAL ENGINEER SCOTT H. JOHNSON No. M32413 Exp. 6/30/25 MECHANICAL STATE OF CALIFORNIA

IMPERIAL COUNTY HEALTH CLINIC
AC UNIT REPLACEMENT
935 BROADWAY STREET
EL CENTRO, CA

JOB NO. -
DATE: -

ISSUED

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REVISIONS

No.	Description	Date
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FILE NAME: -
DRAWN BY: JRE
DESIGNED BY: JRE
CHECKED BY: MR
DATE: -

DRAWING TITLE
TITLE 24

SHEET NO.
M502

ELECTRICAL SYMBOLS & LEGEND

GENERAL

③	NOTE REFERENCE

POWER

+48"	INDICATES MOUNTING HEIGHT ABOVE FINISHED FLOOR
PH OR ø	PHASE
HP	MOTOR CONNECTION WITH HP NOTED
	NON-FUSED SAFETY DISCONNECT SWITCH. SHALL NOT BE MTD. MORE THAN 48" AFF UON
F	FUSED SAFETY DISCONNECT SWITCH. FUSES PER EQUIPMENT MANUFACTURER RECOMMENDATION OR AS OTHERWISE NOTED. SHALL NOT BE MTD. MORE THAN 48" AFF UON
J	JUNCTION OF OUTLET BOX CEILING OR WALL MOUNTED AS INDICATED. LOCATE ABOVE ACCESSIBLE CEILING UON.
	DUPLEX RECEPTACLE, FLUSH MOUNTED, THE CENTER SHALL BE INSTALL NOT LESS THAN 15" AFF UNLESS NOTED OTHERWISE.
	SURFACE MOUNTED PANELBOARD
W	WALL PHONE OUTLET
	DATA OUTLET
	NEMA L6-30R RECEPTACLE
	EMERGENCY DUPLEX RECEPTACLE, FLUSH MOUNTED, THE BOTTOM OF THE BOX SHALL BE INSTALLED NOT LESS THAN 15" AFF UNO.
	DUPLEX RECEPTACLE, SURFACE MOUNTED, THE BOTTOM OF THE BOX SHALL BE INSTALLED NOT LESS THAN 15" AFF UNO.
	EMERGENCY DUPLEX RECEPTACLE, SURFACE MOUNTED, THE BOTTOM OF THE BOX SHALL BE INSTALLED NOT LESS THAN 15" AFF UNO.
	QUADRUPLEX RECEPTACLE, FLUSH MOUNTED, THE BOTTOM OF THE BOX SHALL BE INSTALLED NOT LESS THAN 15" AFF UNO.
D	DEDICATED DUPLEX RECEPTACLE, SURFACE MOUNTED, THE BOTTOM OF THE BOX SHALL BE INSTALLED NOT LESS THAN 15" AFF UNO.

ABBREVIATIONS

A	AMPERE
ADA	AMERICAN DISABILITIES ACT
AC	ALTERNATING CURRENT
AF	AMP FRAME
AFF	ABOVE FINISHED FLOOR
AIC	AMPERE INTERRUPTING CAPACITY
AS	AMP SWITCH
C	CONDUCTOR, CONDUIT
CKT	CIRCUIT
CSFM	CALIF. STATE FIRE MARSHALL
CU	COPPER
DWG	DRAWING
E (E)	EXISTING TO REMAIN
ELEC	ELECTRICAL
FA	FIRE ALARM
FLUOR	FLUORESCENT
GALV	GALVANIZED
GFI, GF	GROUND FAULT INTERRUPTER
GND, G	GROUND
HP	HORSEPOWER
HT	HEIGHT
K	THOUSAND
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLTS
KVA	KILOVOLT-AMPERE
KW	KILOWATT
LTG	LIGHTING
LV	LOW VOLTAGE
MTD	MOUNTED
MCA	MINIMUM CIRCUIT AMPS
MOCP	MAXIMUM OVERCURRENT PROTECTION DEVICE
NC	NORMALLY CLOSED
(N)	(N) NEW
NO	NORMALLY OPEN
NFPA	NATIONAL FIRE PROTECTION
NEC	NATIONAL ELECTRIC CODE
NTS	NOT TO SCALE
PNL	PANEL
PROVIDE	FURNISH, INSTALL, CONNECT AND TEST.
SFD	SMOKE FIRE DAMPER
SHT	SHEET
SWT	SWITCH
SWBD	SWITCHBOARD
T	TRANSFORMER
TYP	TYPICAL
UL	UNDERWRITER'S LABORATORY
UNO	UNLESS NOTED OTHERWISE
V	VOLTAGE
W	WIRE
WP	WEATHERPROOF
W/	WITH
XFMR	TRANSFORMER
(XN)	EXISTING NEW LOCATION
(XR)	EXISTING TO BE REMOVE

3P 225AF 225AT 22KAIC $M5	CIRCUIT BREAKER NUMBER OF POLES AMPS FRAME AMPS TRIP KAIC RATING
	20 AMP RATED TOGGLE SWITCH NUMBER INDICATES THE BRANCH CIRCUIT
EAV 225-5	MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS
GF 29 GF 29	MULTI-OUTLET SURFACE MOUNTED RACEWAY (WIREMOLD ISO DUCT AL3000) NUMBER OF BOXES (HATCHED) INDICATES NUMBER OF DUPLEX RACEWAY. PREFIX DENOTES THE FOLLOWING: GF – GROUND FAULT CIRCUIT INTERRUPTER PROTECTION 29 – CIRCUIT NUMBER

DEMOLITION

2	DEMOLITION NOTE REFERENCE
X X X $	SYMBOL INDICATES FIXTURE, DEVICE, OUTLET OR EQUIPMENT TO BE REMOVED.
R	DASHED SYMBOL WITH "R" INDICATES FIXTURE, DEVICE, OUTLET OR EQUIPMENT TO BE RELOCATED.
NR NR NR $	SYMBOL WITH "NR" INDICATES NEW LOCATION OR RELOCATED FIXTURE, DEVICE, OUTLET OR EQUIPMENT.
E E E $	SYMBOL WITH "E" INDICATES EXISTING FIXTURE, DEVICE, OUTLET OR EQUIPMENT TO REMAIN.
A	EXISTING WIRING TO BE REMOVED, ABANDON CONDUIT.
X	EXISTING WIRING TO BE REMOVED (SINGLE LINE).
XN	NEW WIRE INSTALLED IN EXISTING CONDUIT.
XR	REMOVE EXISTING WIRE, EXISTING CONDUIT TO REMAIN.

RACEWAYS

	CONDUIT TERMINATED AND CAPPED
	WIRING OR CONDUIT CONCEALED IN WALL OR CEILING
	FLEXIBLE CONDUIT
1ELA-1,3,5	CONDUIT OR MC CABLE HOMERUN TO PNL BRD. TEXT INDICATES ELECTRICAL PNL DESIGNATION AND CIRCUIT NUMBERS.
	HASH MARKS ON CONDUIT INDICATE # OF #12 CURRENT CARRYING CONDUCTORS CONTAINED THEREIN. TWO #12 AND ONE #12 GROUND WIRE ARE INDICATED WHEN HASH MARKS ARE NOT SHOWN. NUMERALS ADJACENT TO HASH MARKS ON CONDUIT RUNS INDICATE SIZE OF CONDUCTORS IN LIEU OF #12.
	2#12, 5#12, 3#12, 6#12, 4#12, 7#12,

GENERAL NOTES

1. THE SEISMIC BRACING AND ANCHORAGE OF ELECTRICAL CONDUITS, WIREWAY AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE "GUIDELINE FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS AND PLUMBING PIPING SYSTEMS," PUBLISHED BY SMACNA AND PPIC.
2. ALL ELECTRICAL EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST A HORIZONTAL FORCE ACTING IN ANY DIRECTION USING THE FOLLOWING CRITERIA:

   FIXED EQUIPMENT ON STRUCTURE 30% OF OPERATING WEIGHT
3. ALL ELECTRICAL PREFABRICATED EQUIPMENT SHALL BE DESIGNED AND CONSTRUCTED IN SUCH A MANNER THAT ALL PORTIONS, ELEMENTS, SUB-ASSEMBLIES AND/OR PARTS OF SAID EQUIPMENT AND THE EQUIPMENT AS A WHOLE INCLUDING ITS ATTACHMENTS, WILL RESIST A LOAD WHICH EXCEEDS THE FORCE LEVEL USED TO RESTRAIN AND ANCHOR THE EQUIPMENT TO THE SUPPORTING STRUCTURE.
4. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED BY UNDERWRITER'S LABORATORIES (UL) AND BEAR THEIR LABEL, OR LISTED AND CERTIFIED BY A NATIONALLY RECOGNIZED TESTING AUTHORITY WHERE UL DOES NOT HAVE A LISTING. CUSTOM MADE EQUIPMENT SHALL HAVE COMPLETE TEST DATA SUBMITTED BY THE MANUFACTURER ATTESTING TO ITS SAFETY.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COMPLETE SET OF DRAWINGS AND SPECIFICATIONS. HE/SHE SHALL CHECK THE DRAWINGS OF THE OTHER TRADES AND SHALL CAREFULLY READ THE ENTIRE SPECIFICATIONS AND DETERMINE HIS/HER RESPONSIBILITIES. FAILURE TO DO SO SHALL NOT RELEASE THE CONTRACTOR FROM DOING THE WORK IN COMPLETE ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.
6. PROVIDE A SEPARATE NEUTRAL WIRE FOR EACH BRANCH CIRCUIT. SEE SPECIFICATIONS FOR COLOR CODING REQUIREMENTS..
7. DRAWINGS ARE DIAGRAMMATIC ONLY. ROUTING OF RACEWAYS AND CONDUCTORS SHALL BE AT THE OPTION OF THE CONTRACTOR UNLESS OTHERWISE NOTED AND SHALL BE COORDINATED WITH OTHER SECTIONS. DO NOT SCALE THE ELECTRICAL DRAWINGS FOR LOCATIONS OF ANY ELECTRICAL, ARCHITECTURAL, STRUCTURAL, CIVIL, OR MECHANICAL ITEMS OR FEATURES.
8. THE EQUIPMENT GROUNDING CONDUCTOR SHOWN ON CONDUIT RUNS SHALL RUN CONTINUOUS FROM PANEL TO LAST OUTLET. THIS WIRE SHALL BE PIGTAILED IN EACH OUTLET FOR CONNECTION TO BOX AND DEVICE SO THAT IF DEVICE IS REMOVED, GROUND WILL NOT BE INTERRUPTED. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSULATED GREEN CONDUCTORS – ALTERNATE METHODS OF IDENTIFICATION SHALL NOT BE USED.
9. COORDINATE WITH OTHER TRADES AS TO THE EXACT LOCATION OF THEIR RESPECTIVE EQUIPMENT. SUPPLY POWER AND MAKE CONNECTION TO MOTORS AND EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS AS INDICATED ON THE SINGLE LINE DIAGRAM, ELECTRICAL DRAWINGS, AND DRAWINGS OF OTHER TRADES. REVIEW THE DRAWINGS OF OTHER TRADES FOR CONTROL DIAGRAMS, SIZE AND LOCATION OF EQUIPMENT. DISCONNECT SWITCHES, STARTERS, WIRING, CONTROLS, AND CONDUIT FOR MECHANICAL AND PLUMBING OPERATIONS SHALL BE PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING MANUFACTURER'S SHOP DRAWINGS PRIOR TO ROUGHING IN ALL CONDUIT TO THIS EQUIPMENT.
10. CONNECTIONS TO VIBRATING EQUIPMENT AND SEISMIC SEPARATIONS: LIQUIDTIGHT FLEXIBLE STEEL CONDUIT IN DRY INTERIOR LOCATIONS. LIQUIDTIGHT FLEXIBLE STEEL CONDUIT IN AREAS EXPOSED TO WEATHER, DAMP LOCATIONS, CONNECTIONS TO TRANSFORMER ENCLOSURES, AND FINAL CONNECTIONS TO MOTORS. PROVIDE A SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR IN FLEXIBLE CONDUIT RUNS.
11. WHENEVER A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT DEVICES, CIRCUIT BREAKERS, GROUND FAULT PROTECTION SYSTEMS, ETC. (ALL MATERIALS), ARISES ON THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIAL AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS TO ENSURE COMPLETE AND OPERABLE SYSTEMS.
12. REFER TO SINGLE LINE DIAGRAM AND FEEDER SCHEDULES FOR CONDUIT AND CONDUCTOR SIZE TO PANELS, TRANSFORMERS, MECHANICAL AND PLUMBING EQUIPMENT, ETC. CONDUIT RUNS MAY NOT BE SHOWN ON DRAWINGS, BUT ARE PART OF THIS CONTRACT.
13. STRAIGHT FEEDER, BRANCH CIRCUIT, AND CONDUIT RUNS SHALL BE PROVIDED WITH SUFFICIENT PULL BOXES OR JUNCTION BOXES TO LIMIT THE MAXIMUM LENGTH OF ANY SINGLE CABLE PULL TO 100 FEET. PULL BOXES SHALL BE SIZED PER CODE OR AS INDICATED ON DRAWINGS. LOCATIONS SHALL BE DETERMINED IN THE FIELD OR AS INDICATED ON THE DRAWINGS.
14. WHERE MULTI-HOMERUNS ARE INDICATED ON DRAWINGS INDICATING THE SAME PANELBOARD CIRCUIT NUMBER, PROVIDE JUNCTION BOX ABOVE ACCESSIBLE CEILING AND ROUTE ONE SET OF WIRES TO CIRCUIT BREAKERS.

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09-30-25
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(858) 824-1761 FAX (858) 824-1768
EPI PROJECT #: 120-486E

IMPERIAL COUNTY HEALTH CLINIC
AC UNIT REPLACEMENT
935 BROADWAY STREET
EL CENTRO, CA

JOB NO. -
DATE: -

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DESIGNED BY: JRE
CHECKED BY: MR
DATE: -

DRAWING TITLE

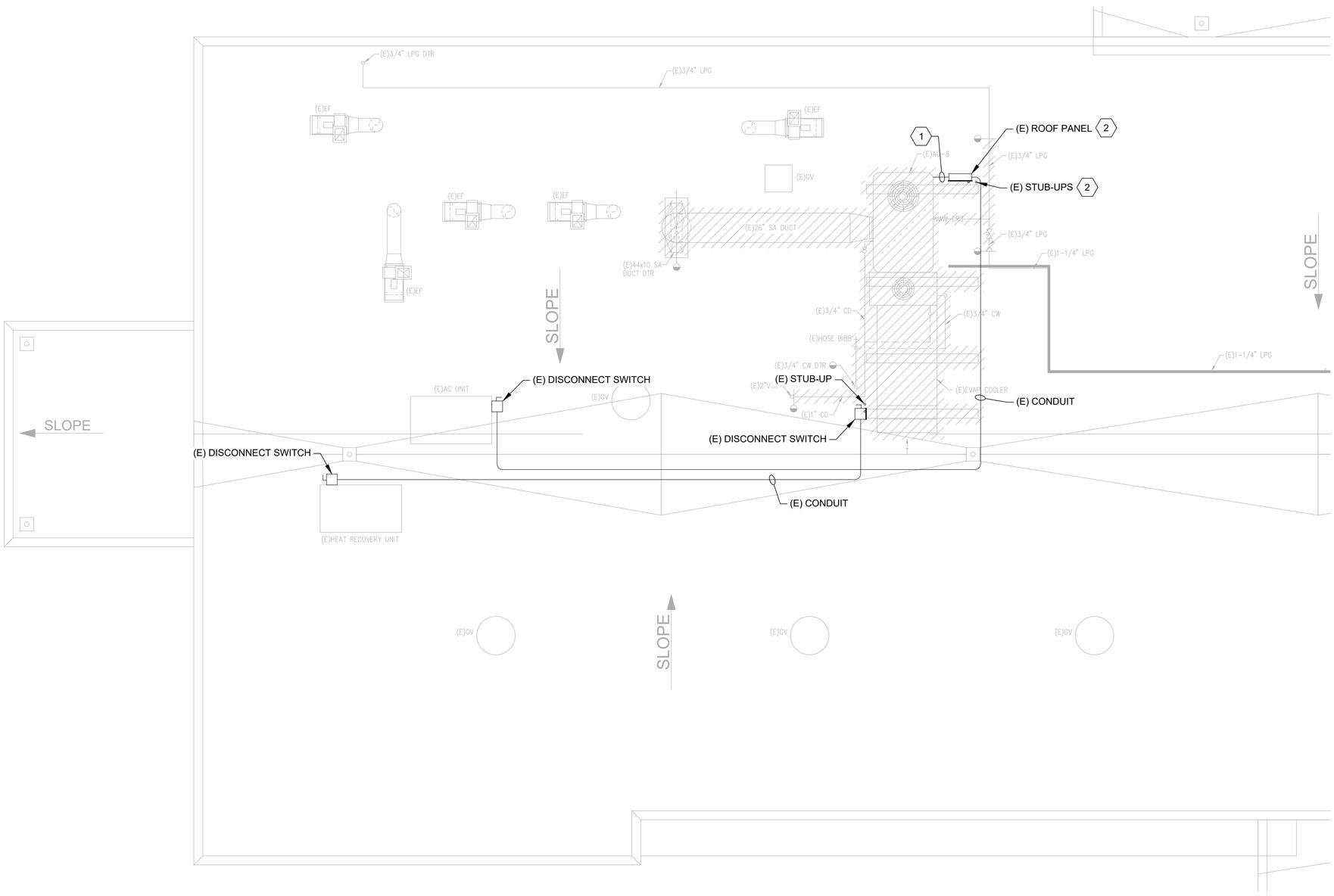
ELECTRICAL LEGEND, SYMBOLS AND GENERAL NOTES

SHEET NO.

E001

DEMOLITION KEYNOTES

1. DISCONNECT AND REMOVE EXISTING CONDUIT FROM ROOF PANEL TO AC-8.
2. EXISTING TO REMAIN.



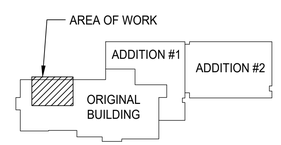
ELECTRICAL ROOF PLAN - DEMOLITION

SCALE: 1/4"=1'-0"

Project North

0 1' 2' 4' 8' 12'

KEY PLAN



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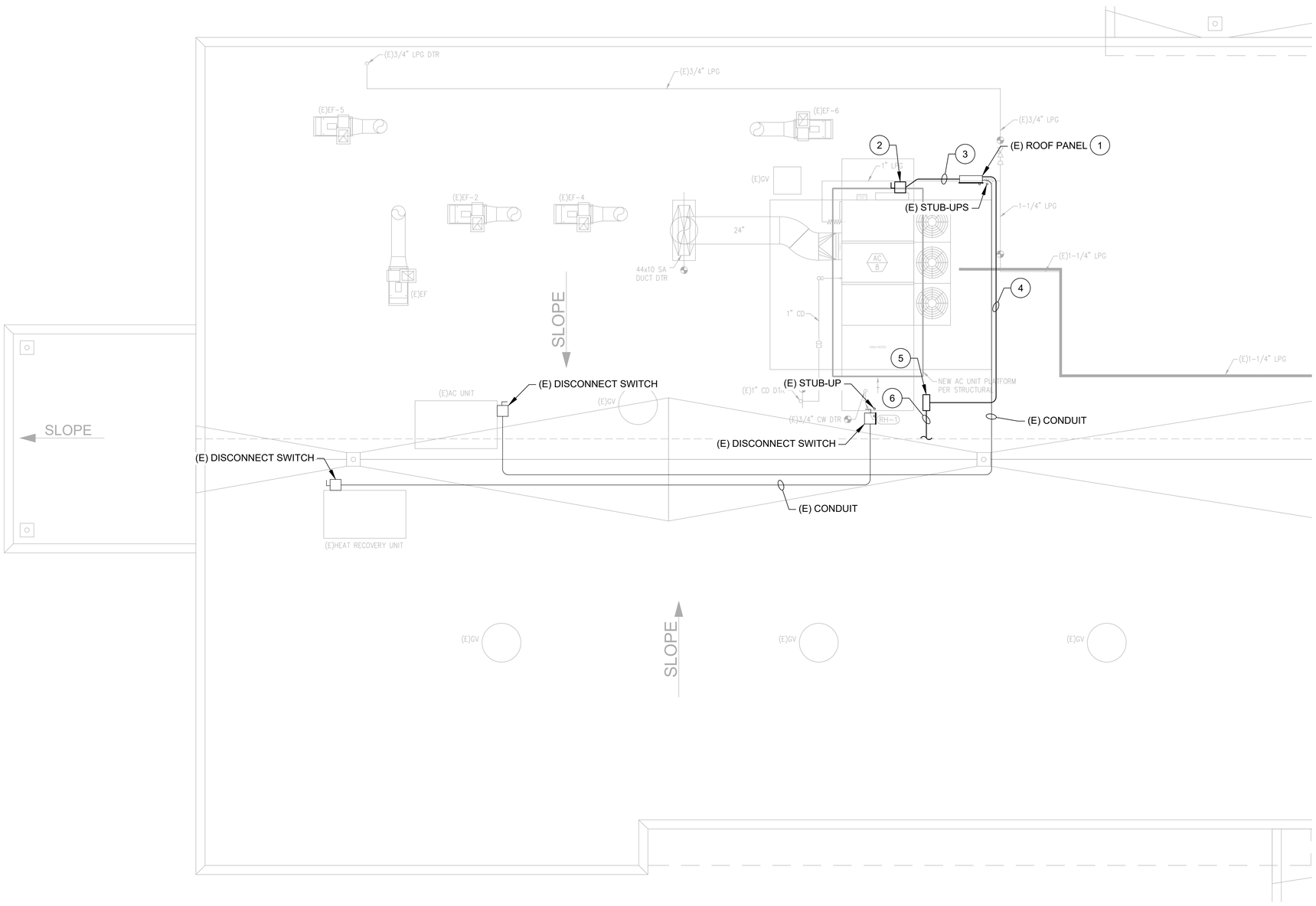
ELECTRICAL ROOF PLAN - DEMOLITION

SHEET NO.

E101

NEW WORK KEYNOTES

1. SEE SINGLE LINE FOR NEW WORK AT ROOF PANEL.
2. PROVIDE DISCONNECT SWITCH IN NEMA 3R ENCLOSURE FOR AC-8.
3. PROVIDE 1-1/2" CONDUIT, 3#2, 1#8 GND.
4. PROVIDE 3/4"C., 2#12, 1#12 GND FROM HVAC CONTROLLER TO PANEL 'ROOF'. MOUNT CONDUIT ON ROOF SLEEPERS.
5. HVAC CONTROLLER, SEE MECHANICAL PLANS.
6. PROVIDE 1"C., 1 CAT 6 CABLE FROM HVAC CONTROLLER TO ELECTRICAL ROOM.



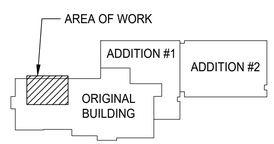
ELECTRICAL ROOF PLAN - NEW WORK

SCALE: 1/4"=1'-0"

Project North

0 1' 2' 4' 8' 12'

KEY PLAN



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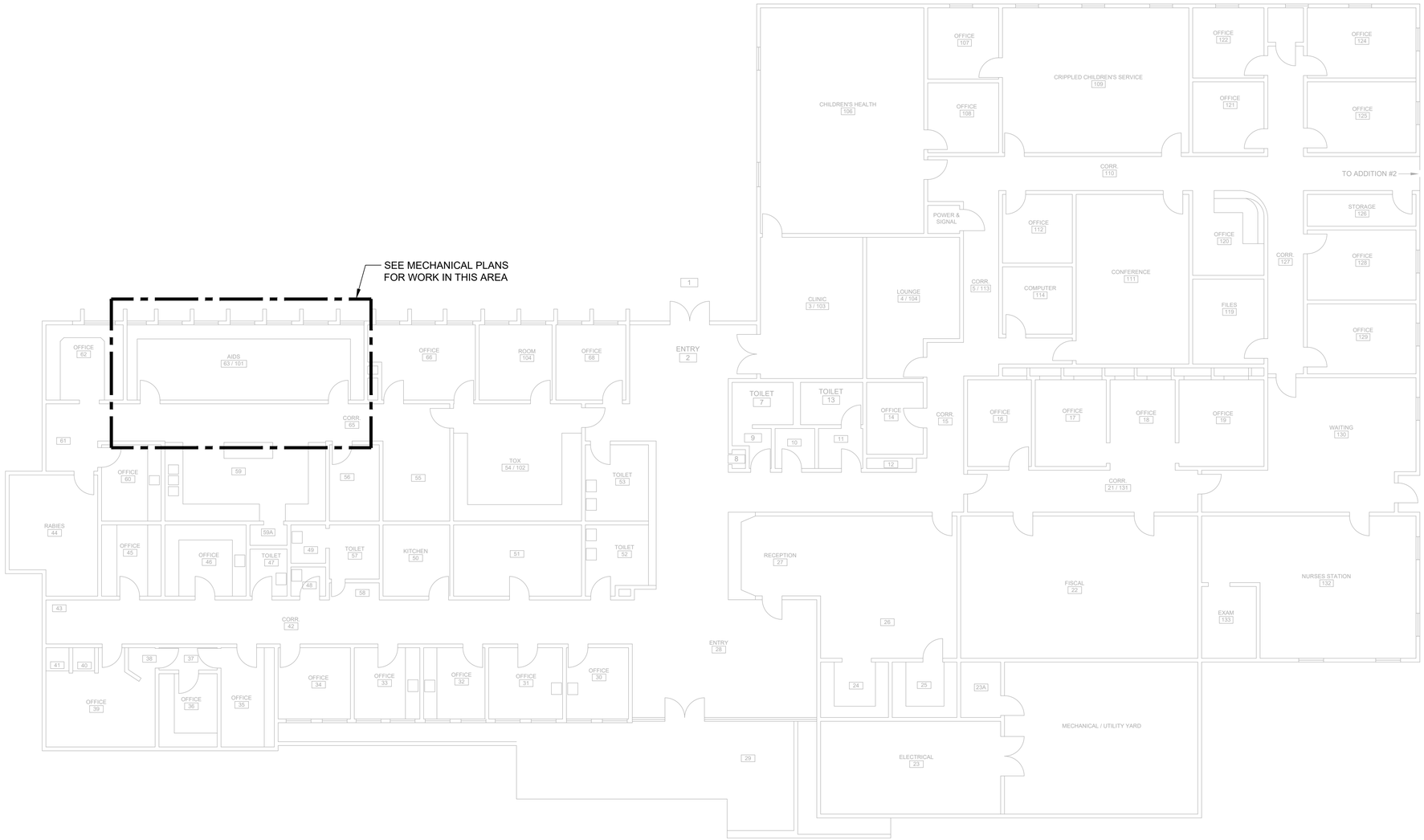
ELECTRICAL ROOF PLAN - NEW WORK

SHEET NO.

E102

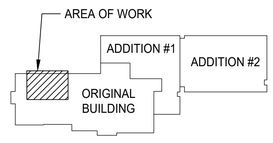


ELECTRICAL OVERALL PLAN
SCALE: 1/8"=1'-0"

Project North

0 4' 8' 16' 24'

KEY PLAN



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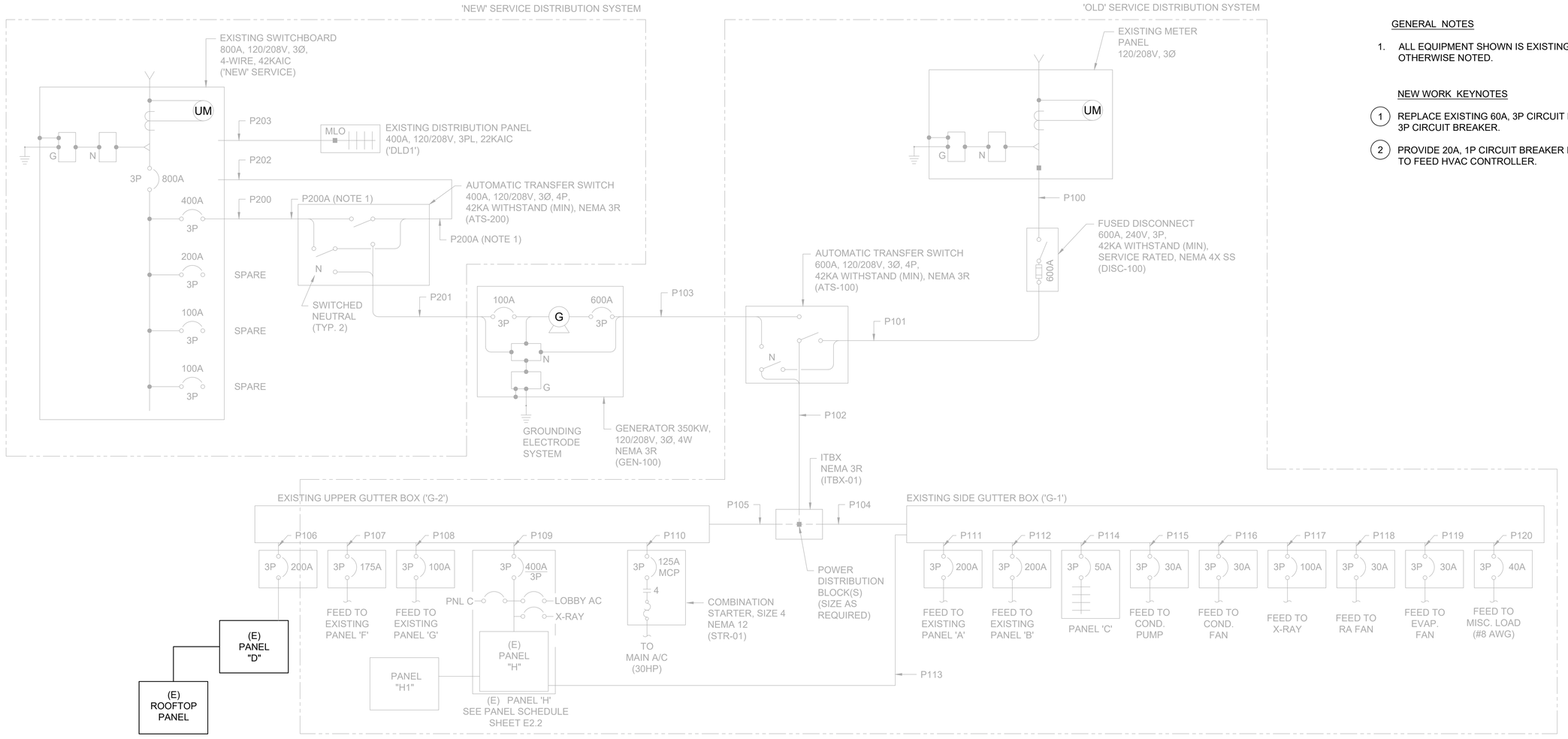
ELECTRICAL
OVERALL PLAN

SHEET NO.

E201



1 E301 SINGLE LINE DIAGRAM
SCALE: NOT TO SCALE

(E) ROOF PANEL	LOCATION: ROOF									Bus			208/120V, 3ø, 4W	
	MAIN: MLO									Rating: **100A**			MOUNTING: SURFACE	
	PANEL DEVICE MIN A.I.C 10,000													
LOCATION	VOLTAMPS			CIR	BRK	A	B	C	BRK	CIR	VOLTAMPS			LOCATION
	øA	øB	øC								øA	øB	øC	
SPACE				1		*			**20**	2	500			**(N) HVAC CONTROLLER**
SPACE				3			*			4				SPACE
SPACE				5				*		6				SPACE
(E) RTU	1800			7	30	*				8				SPACE
-		1800		9			*			10				SPACE
-			1800	11	3P			*		12				SPACE
SPACE				13		*			90	14	8400			**(N) AC-8**
SPACE				15			*			16		8400		-
SPACE				17				*	3P	18			8400	-
SPACE				19		*				20				SPACE
	øA = 10700					øB = 10200					øC = 10200			

TOTAL CONNECTED VA =	31.1	KVA
+ 25% LCL =		KVA
TOTAL	31.1	KVA
CONNECTED LOAD =	86.4	A

GENERAL NOTES

1. ALL EQUIPMENT SHOWN IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.

NEW WORK KEYNOTES

1. REPLACE EXISTING 60A, 3P CIRCUIT BREAKER WITH 90A, 3P CIRCUIT BREAKER.
2. PROVIDE 20A, 1P CIRCUIT BREAKER IN AVAILABLE SPACE TO FEED HVAC CONTROLLER.

IMPERIAL COUNTY HEALTH CLINIC
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ELECTRICAL SINGLE LINE DIAGRAM

REGISTERED PROFESSIONAL ENGINEER BENEDICK BALOT E21213 09-30-25 STATE OF CALIFORNIA

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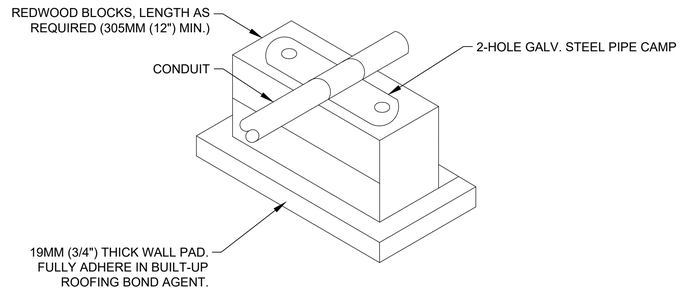
E301



1 / E401 ROOF MOUNTED CONDUIT SUPPORT

SCALE: NOT TO SCALE

IMPERIAL COUNTY HEALTH CLINIC

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ELECTRICAL DETAILS

REGISTERED PROFESSIONAL ENGINEER BENEDICK BALDO E21213 09-30-25 ELECTRICAL STATE OF CALIFORNIA

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EPI PROJECT #: 120-486E

SHEET NO.

E401

NAILING SCHEDULE

061000-0001

(UNLESS OTHERWISE NOTED ON PLANS)

COMMON NAILS SHALL BE USED FOR NAILING AT TYPICAL CONNECTIONS NOTED BELOW (UNO).

CONNECTION, NAIL TYPE	NAILING
JOISTS TO SILL OR GIRDER, TOENAIL	(3) 8d
JOISTS TO RIM JOIST, FACE NAIL	(3) 16d
BRIDGING TO JOIST, TOENAIL EACH END	(2) 8d
BLOCKING BETWEEN JOISTS/RAFTERS TO TOP PLATE, TOENAIL	(3) 8d
1" x 6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	(2) 8d
WIDER THAN 1" x 6" SUBFLOOR TO EACH JOIST, BLIND & FACE NAIL	(3) 8d
2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	(2) 16d
SILL PLATE TO JOIST OR BLOCKING, FACE NAIL	16d @ 16" OC
TOP PLATE TO STUD, END NAIL	(2) 16d, TYP, UNO (4) 16d @ 2x10 STUDS
STUD TO SILL PLATE	(4) 8d TOENAIL OR (2) 16d END NAIL, TYP, UNO (7) 8d TOENAIL OR (4) 16d END NAIL @ 2x10 STUDS (2) 20 END NAIL @ 3x SILL PLATE
DOUBLE STUDS, FACE NAIL	16d @ 24" OC
DOUBLE TOP PLATES, FACE NAIL	16d @ 16"OC
TOP PLATES, LAPS, FACE NAIL	(8) 16d, UNO (18) 16d @ SHEARWALL LOCATIONS, UNO
TOP PLATES AT INTERSECTIONS, FACE NAIL	(2) 16d
CONTINUOUS HEADER, TWO PIECES	16d @ 16"OC ALONG EA EDGE
CEILING JOISTS TO PLATE, TOENAIL	(3) 8d
CONTINUOUS HEADER TO STUD, TOENAIL	(4) 8d
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	(3) 16d
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	(3) 16d
RAFTER TO PLATE, TOENAIL	(3) 8d
RIM JOIST TO TOP PLATE, TOENAIL	8d @ 6" OC
JACK RAFTER TO HIP, FACE NAIL	(2) 16d
1" BRACE TO EACH STUD & PLATE, FACE NAIL	(2) 8d
ROOF RAFTER TO 2x RIDGE BEAM, FACE NAIL	(2) 16d
1"x8" SHEATHING OR LESS TO EACH BEARING, FACE NAIL	(3) 8d
WIDER THAN 1"x8" SHEATHING TO EACH BEARING, FACE NAIL	(3) 8d
2" PLANKS	16d @ EA BEARING
BUILT-UP CORNER STUDS	16d @ 24" OC
BUILT-UP GIRDERS AND BEAMS	20d @ 32"OC @ TOP & BOTT & STGRD (2) 20d @ ENDS & @ EA SPLICE (2) 16 @ EA BEARING

NAIL SCHEDULE (COMMON NAILS)

SIZE	DIAMETER (IN)	LENGTH (IN)
8d	0.131	2 1/2
10d	0.148	3
12d	0.148	3 1/4
16d	0.162	3 1/2
20d	0.192	4

ROUGH CARPENTRY / WOOD

061000-0000

1. ALL GRADES SPECIFIED ARE MINIMUM GRADES REQUIRED. DOUGLAS FIR-LARCH SHALL BE GRADED BY A GRADING AGENCY CERTIFIED BY THE ALSC TO THE WCLIB OR WWPA GRADING RULES, CONFORMING TO DOC PS 20. REDWOOD SHALL BE GRADED BY THE CALIFORNIA REDWOOD ASSOCIATION, REDWOOD INSPECTION SERVICE.

2. WOOD SPECIES SPECIFICATIONS ("DF" INDICATES DOUGLAS FIR-LARCH CONFORMING TO DOC PS20):

NON-LOAD-BEARING STUDS, TOP PLATES, BLOCKING, FURRING AND BRACING	DF #2
JOISTS, RAFTERS, PURLINS, BEAMS & POSTS	DF #1 (UNO)
LOAD-BEARING STUDS (UNO)	
HEIGHT NOT EXCEEDING 15	DF #2
HEIGHT EXCEEDING 15'	DF #1

3. MOISTURE CONTENT OF SAWN LUMBER SHALL NOT EXCEED 19% WHEN FRAMING STARTS OR SHEATHING IS APPLIED. ANY NONCOMPLIANT WORK SHALL BE REJECTED AND REFRAMED WITH ACCEPTABLE LUMBER.

4. ARCHITECTURALLY EXPOSED TIMBERS 4" NOMINAL IN THE LEAST DIMENSION SHALL NOT CONTAIN BOXED HEART.

5. PROVIDE FIRE-RETARDANT-TREATED (FRT) LUMBER AND WOOD STRUCTURAL PANELS PER CBC SECTION 2303.2 WHERE INDICATED BY ARCHITECT.

6. WOOD MEMBERS SHALL BE PRESERVATIVE-TREATED (PT) OR NATURALLY DURABLE (WITH APPROVAL OF EOR) WHERE EXPOSED TO WEATHER AND IN ACCORDANCE WITH CBC SECTION 2304.12. SILL PLATES SHALL BE PRESERVATIVE-TREATED DOUGLAS FIR #2. END CUTS AND HOLES IN PT SILL PLATES SHALL BE TREATED.

7. FASTENERS, INCLUDING NUTS AND WASHERS, FOR PRESERVATIVE-TREATED WOOD: WOOD EXPOSED TO WEATHER, AND FIRE- RETARDANT-TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER. THE COATING WEIGHTS FOR ZINC-COATED FASTENERS SHALL BE IN ACCORDANCE WITH ASTM A153. EXCEPTIONS: FASTENERS OTHER THAN NAILS, TIMBER RIVETS, WOOD SCREWS AND LAG SCREWS SHALL BE PERMITTED TO BE OF MECHANICALLY DEPOSITED ZINC-COATED STEEL WITH COATING WEIGHTS IN ACCORDANCE WITH ASTM B695, CLASS 55 MINIMUM, AND PLAIN CARBON STEEL FASTENERS, INCLUDING NUTS AND WASHERS, IN SBX/DOT AND ZINC-BORATE PRESERVATIVE-TREATED WOOD IN AN INTERIOR, DRY ENVIRONMENT SHALL BE PERMITTED.

8. UNLESS NOTED OTHERWISE, SILL FASTENERS FOR INTERIOR NON-STRUCTURAL WALLS MAY BE 0.157" DIAMETER x 1 1/4" EMBED PDF's AT 16"OC.

9. SILL PLATES SHALL BE BOLTED TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS AT 48" OC MAX, UNO, WITH A BOLT BETWEEN 7 x BOLT DIAMETER (4 3/8" MIN) AND 12" FROM THE END OF EACH PIECE OF SILL (2 BOLTS MIN EACH PIECE). PIECE OF SILL SHALL BE CONSIDERED ENDED WHERE PLATE IS CUT OVER ONE-THIRD OF CROSS-SECTION.

10. ANCHOR BOLTS FOR BEARING WALLS SHALL HAVE 9" EMBEDMENT (UNO) MEASURED FROM TOP OF SLAB.

11. ALL BOLTS IN WOOD SHALL BE ASTM A307 STANDARD BOLTS, UNO. BOLTS AND SCREWS SHALL BE TIGHTENED AT TIME OF ERECTION AND RETIGHTENED BEFORE CLOSING IN OR AT THE COMPLETION OF THE JOB. HOLES IN WOOD AND STEEL MEMBERS FOR BOLTS SHALL BE THE NOMINAL BOLT DIAMETER PLUS 1/16".

12. NAIL SPACING SHALL NOT BE LESS THAN THE REQUIRED PENETRATION. EDGE DISTANCES AND END DISTANCES SHALL NOT BE LESS THAN HALF OF THE REQUIRED PENETRATION. ALL NAIL SPACING, EDGE DISTANCES, AND END DISTANCES SHALL BE SUCH AS TO AVOID SPLITTING OF THE WOOD. HOLES FOR NAILS, WHERE NECESSARY TO PREVENT SPLITTING, SHALL BE BORED OF A DIAMETER SMALLER THAN THAT OF THE NAILS.

13. HOLES IN WOOD FOR LAG SCREWS SHALL BE FIRST BORED TO THE SAME DIAMETER AND DEPTH AS THE SHANK. HOLES FOR THE THREADED PORTION SHALL BE BORED WITH A BIT DIAMETER EQUAL TO 40% TO 70% OF THE SHANK DIAMETER IN DOUGLAS FIR. FOR OTHER WOOD SPECIES, REFER TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS).

14. LAG SCREWS AND SCREWS SHALL BE SCREWED AND NOT DRIVEN INTO PLACE.

15. STANDARD CUT STEEL WASHERS SHALL BE PROVIDED UNDER HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS WHICH BEAR ON WOOD. SEE SHEAR WALL SCHEDULE FOR WASHER REQUIREMENTS AT SHEAR WALL SILL BOLTS WHERE OCCUR.

16. STUD BEARING WALLS AND PARTITIONS SHALL HAVE DOUBLE TOP PLATES LAPPED AT INTERSECTIONS. JOINTS IN UPPER AND LOWER MEMBERS OF DOUBLE TOP PLATES SHALL BE STAGGERED AT LEAST 4'-0".

17. NOTCHING AND HOLES SHALL NOT BE ALLOWED EXCEPT AS DETAILED ON THESE PLANS OR AS APPROVED BY THE EOR.

18. INSTALL WINDOWS AND DOORS IN STUD WALLS AFTER DEAD LOADS ARE APPLIED, AND PROVIDE A 1/2" SHIM SPACE AT THE HEAD CONDITION.

19. STRUCTURAL FLOOR, ROOF AND WALL SHEATHING SHALL BE APA-RATED AND SHALL CONFORM TO DOC PS1 OR PS2.

20. EXTERIOR STUD WALLS SHALL BE COMPLETELY SHEATHED WITH 15/32" SHEATHING, EXPOSURE-1 (32/16), TYPICAL, UNO.

21. INTERIOR BEARING WALLS SHALL BE SHEATHED WITH 1/2" GYP BOARD EACH SIDE, FULL HEIGHT, UNO.

22. ALL STRUCTURAL WALL SHEATHING SHALL BE SPLICED ON 2" NOMINAL BLOCKING AT HORIZONTAL JOINTS, UNO.

23. AT FLOOR FRAMING, PROVIDE BRIDGING OR FULL-HEIGHT BLOCKING AS REQUIRED BY THE BUILDING CODE.

24. STRUCTURAL FLOOR AND ROOF SHEATHING SHALL BE APA-RATED EXPOSURE-1. 1/8" GAP SHALL BE PROVIDED BETWEEN ADJACENT SHEATHING PANELS. PANELS WITH GRADE STAMP INDICATION "SIZED FOR SPACING" MAY BE USED TO FACILITATE THIS REQUIREMENT. SHEATHING AT EXTERIOR DECKS SHALL BE EXTERIOR RATED PLYWOOD.

STATEMENT OF SPECIAL INSPECTIONS

010000-0003

1. THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTIONS DURING CONSTRUCTION. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

2. AT A MINIMUM, ALL SPECIAL INSPECTIONS REQUIRED BY THE BUILDING CODE SHALL BE PROVIDED.

3. SPECIAL INSPECTIONS ARE NOT REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. APPROVED FABRICATORS MUST SUBMIT A CERTIFICATE OF COMPLIANCE FOR OFFSITE FABRICATIONS SUCH AS STRUCTURAL STEEL, PRECAST CONCRETE, GLUED LAMINATED TIMBER, ETC.

4. ALL INSPECTIONS SHALL BE PERFORMED BY INDEPENDENT SPECIAL INSPECTORS. JOB SITE VISITS BY THE STRUCTURAL ENGINEER OR BUILDING OFFICIAL DO NOT CONSTITUTE AND ARE NOT A SUBSTITUTE FOR INSPECTIONS BY A SPECIAL INSPECTOR.

5. ALL INSPECTION REPORTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AND EOR. THE FINAL REPORTS BY THE SPECIAL INSPECTOR(S) MUST CERTIFY THAT THE STRUCTURAL SYSTEM COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS.

6. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT THESE INSPECTIONS ARE PERFORMED.

7. WORK REQUIRING SPECIAL INSPECTION SHALL BE INSPECTED BY THE SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS PERFORMED AND AT THE COMPLETION OF WORK. CONTINUOUS (CONT.) INSPECTION CONSISTS OF FULL-TIME INSPECTION; PERIODIC INSPECTION CONSISTS OF PART-TIME OR INTERMITTENT INSPECTION.

8. THE FOLLOWING SPECIAL INSPECTIONS ARE IN ADDITION TO INSPECTIONS BY THE BUILDING OFFICIAL. THIS LIST IS NOT INTENDED TO BE ALL INCLUSIVE.

STRUCTURAL CONCRETE

PERIODIC: POST-INSTALLED AND ADHESIVE ANCHORS

EXCLUDED ITEMS (DESIGN BUILD) MEP SUPPORTS

XX0000X-0000

THE SUPPORT AND BRACING OF MEP SYSTEM IS DESIGN BUILD BY CONTRACTOR. ALL BLOCKING / SISTERING / ETC. TO SUPPORT THE SYSTEM IS BY SUBCONTRACTOR. LOADS FROM SUPPORTS AS DETERMINED BY CONTRACTOR WILL REQUIRE STRENGTHENING OF THE ROOF IF THEY EXCEED 2 PSF OVER THE AREA SUPPORTED BY THE ROOF MEMBER UNDER CONSIDERATION. SEE --/S--- FOR HANGER FROM TYPICAL BLOCKING.

GENERAL

010000-0000

1. REFER TO THE TYPICAL DETAIL SHEETS FOR TYPICAL DETAILS OF CONSTRUCTION. TYPICAL DETAILS APPLY TO ALL CONSTRUCTION UNLESS SPECIFICALLY NOTED OR SHOWN OTHERWISE. WHERE CONDITIONS REQUIRE MODIFICATIONS OF A TYPICAL DETAIL, THE CONTRACTOR SHALL SUBMIT MODIFIED DETAIL FOR APPROVAL BY THE ENGINEER OF RECORD PRIOR TO FABRICATION AND INSTALLATION. DETAILS OF CONSTRUCTION NOT SHOWN SHALL BE OF SAME NATURE AS THOSE SHOWN FOR SIMILAR CONSTRUCTION.

2. CONTRACTOR SHALL CONSIDER THE PROJECT SPECIFICATIONS AS PART OF THE CONTRACT DOCUMENTS. WHERE INFORMATION IS CONFLICTING, SPECIFIC DETAILS SHALL GOVERN OVER TYPICAL DETAILS WHICH SHALL GOVERN OVER GENERAL NOTES WHICH SHALL GOVERN OVER SPECIFICATIONS.

3. ALL DIMENSIONS ON STRUCTURAL DRAWINGS SHALL BE CHECKED AGAINST ARCHITECTURAL DIMENSIONS. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE OMITTED OR NOT CLEAR, CONTACT THE ARCHITECT OF RECORD OR SEOR. ALL DIMENSIONS RELATIVE TO EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR. DIMENSIONS ARE TO THE FACE OF STUDS, AND TO THE CENTERLINE OF COLUMNS UNO.

4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMMEDIATELY NOTIFY THE EOR OF ANY CONFLICTS BETWEEN THE STRUCTURAL DRAWINGS AND OTHER DRAWINGS, OR EXISTING CONDITIONS NOT SHOWN OR DIFFERENT FROM THOSE SHOWN ON DRAWINGS, PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL NOT ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE SCOPE THAT IS IN CONFLICT UNTIL THE CONFLICT IS RESOLVED WITH THE AFFECTED PARTIES.

5. THE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE SHOWN THEY DO NOT INDICATE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE CONSTRUCTION AND ALL ADJACENT PROPERTIES DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE BUT ARE NOT LIMITED TO BRACING, SHORING OF LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT OR EOR SHALL NOT INCLUDE OBSERVATION OF THE ABOVE ITEMS.

6. SUBSTITUTION REQUESTS FOR MATERIALS AND PRODUCTS SPECIFIED ON THE STRUCTURAL DRAWINGS MAY BE CONSIDERED WITH MATERIALS AND PRODUCTS HAVING EQUIVALENT OR GREATER CAPACITY AND PERFORMANCE. CURRENT EVALUATION REPORTS AND PRODUCT INFORMATION SHALL BE PROVIDED TO THE SEOR DEMONSTRATING THE REQUIRED CAPACITY AND PERFORMANCE OF THE MATERIAL TO BE SUBSTITUTED. WRITTEN APPROVAL FROM THE EOR SHALL BE OBTAINED PRIOR TO THE SUBSTITUTION OF ANY MATERIAL OR PRODUCT SPECIFIED IN THE CONSTRUCTION DOCUMENTS.

7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE "CONSTRUCTION SAFETY ORDERS" ISSUED BY THE STATE OF CALIFORNIA, LATEST EDITION, AND ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT. THE ARCHITECT, SEOR, AND THE OWNER DO NOT ACCEPT ANY RESPONSIBILITY FOR THE CONTRACTOR'S FAILURE TO COMPLY WITH THESE REQUIREMENTS.

8. ALL WORK IS NEW (N) UNLESS INDICATED AS EXISTING (E).

9. CONSTRUCTION MATERIALS SHALL BE DISTRIBUTED WHEN PLACED ON THE STRUCTURE SUCH THAT LOADS DO NOT EXCEED DESIGN LIVE LOADS OR RESULT IN AN UNBALANCED CONDITION.

10. SHOP DRAWINGS SHALL BE SUBMITTED TO THE SEOR FOR REVIEW PRIOR TO FABRICATION. REFER TO THE PROJECT SPECIFICATIONS FOR SHOP DRAWING REQUIREMENTS AND SUBMITTALS. REVIEW OF SHOP DRAWINGS AND SUBMITTALS BY THE SEOR IS FOR GENERAL CONFORMANCE TO THE CONTRACT DOCUMENTS. THE CONTRACTOR WILL REMAIN RESPONSIBLE FOR ALL ERRORS OF DETAILING AND FABRICATION, AND FOR CORRECT FITTING OF ALL STRUCTURAL MEMBERS, INCLUDING COORDINATION WITH OTHER TRADES. SHOP DRAWINGS AND SUBMITTALS DO NOT CONSTITUTE CHANGE ORDERS. ANY PROPOSED CHANGES TO THE STRUCTURAL DOCUMENTS MUST BE SUBMITTED IN WRITING AS A REQUEST FOR SUBSTITUTION TO THE ARCHITECT AND EOR FOR APPROVAL.

11. CORE DRILLS SHALL NOT CUT ANY REINFORCING. THE CONTRACTOR IS TO COORDINATE WORK OF ALL TRADES TO ENSURE COMPLIANCE. ALL CORE DRILLS ARE TO BE PRESENTED TO THE INSPECTOR OF RECORD (IOR) FOR VERIFICATION. THE IOR IS TO DOCUMENT CORES EXAMINED INDICATING AN ABSENCE OF REINFORCING.

12. STRUCTURAL JOINT DIMENSIONS SHOWN ON PLANS (EXPANSION, SEISMIC, SEPARATION, ETC (WHERE OCCURS) INDICATE THE MINIMUM CLEAR DISTANCE REQUIRED. SEE PLANS, DETAILS, AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.

STRUCTURAL DESIGN CRITERIA

010000-0001 (03/02/17)

1. CODES:
   ALL NEW WORK SHALL BE IN CONFORMANCE WITH THE CALIFORNIA BUILDING CODE (CBC) 2022 EDITION (TITLE 24, PART 2), INCLUDING ALL AMENDMENTS. ALL STANDARDS USED SHALL BE THE LATEST VERSION APPROVED BY THE CODE ENFORCEMENT AGENCY ON THE DATE OF THE PERMIT ISSUANCE UNLESS SPECIFICALLY NOTED OTHERWISE. THE PURPOSE OF THIS CODE IS TO, IN PART, ESTABLISH THE MINIMUM REQUIREMENTS TO SAFEGUARD THE PUBLIC HEALTH, SAFETY AND GENERAL WELFARE THROUGH STRUCTURAL STRENGTH AND STABILITY. STRUCTURES DESIGNED IN ACCORDANCE WITH THE CODE ARE LIKELY TO HAVE A LOW PROBABILITY OF COLLAPSE BUT MAY SUFFER SERIOUS STRUCTURAL AND NON-STRUCTURAL DAMAGE IF SUBJECTED TO THE DESIGN EARTHQUAKE.

2. GRAVITY DESIGN LOADS:

AREA	DEAD LOADS	LIVE LOADS (REDUCIBLE, UNO)
a. ROOF, UNIFORM	18 PSF	20 PSF

3. SEISMIC DESIGN INFORMATION:
   RISK CATEGORY II — DESIGN CAT. D — SITE CLASS D-DEFAULT
   S_S = 1.543 S_1 = 0.600 F_a = 1.200 Fv=1.700 S_{DS}=1.234 S_{D1}=0.680
   ap = 1.0 Rp = 2.5 I_e = 1.0

4. WIND DESIGN INFORMATION:
   RISK CATEGORY II EXPOSURE C
   BASIC WIND SPEED (3 SEC GUST), V_{ult} = 98 MPH

EXISTING CONDITIONS

020000-0000

1. SEE "AS BUILT" DRAWINGS FOR EXISTING BUILDING ITEMS NOT SHOWN OR NOTED.
2. FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO SHOP DRAWING PRODUCTION AND FABRICATION OF STRUCTURAL ELEMENTS.

3. WHERE EXISTING CONDITIONS VARY FROM THOSE SHOWN ON THESE DRAWINGS, THE STRUCTURAL ENGINEER SHALL BE NOTIFIED PRIOR TO CONTINUED CONSTRUCTION RELATED TO SUBJECT CONDITIONS.

4. SHORE ALL EXISTING CONSTRUCTION AS REQUIRED, INCLUDING WHERE WELDING TO EXISTING STEEL FRAMING. SHORING DESIGN IS BY OTHERS.

5. ALL EXISTING CONCRETE SURFACES TO BE IN CONTACT WITH NEW CONCRETE SHALL BE CLEANED AND ROUGHENED TO 1/4" MINIMUM AMPLITUDE. USE THIRD PARTY EVALUATION APPROVED BONDING AGENT ON EXISTING CONCRETE PRIOR TO PLACING NEW CONCRETE.

6. VERIFY LOCATION OF EXISTING REBAR BEFORE FABRICATION USING NON-DESTRUCTIVE TESTING.

7. THE GENERAL CONTRACTOR SHALL COORDINATE THE WEIGHT AND SPECIFIC LOCATION OF ALL EQUIPMENT WITH THE STRUCTURAL FRAMING. IF THE EQUIPMENT DEVIATES IN WEIGHT OR LOCATION FROM THOSE INDICATED IN THE DRAWINGS, THE STRUCTURAL ENGINEER'S APPROVAL MUST BE OBTAINED PRIOR TO INSTALLATION OF THE UNITS.

8. ALL EXISTING WOOD FRAMING MEMBERS SUPPORTING NEW MECHANICAL UNITS SHALL BE INSPECTED FOR DAMAGE AND DETERIORATION PRIOR TO INSTALLATION OF THE UNITS. NOTIFY THE STRUCTURAL ENGINEER IF DAMAGE OR DETERIORATION IS DISCOVERED.

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OMAR ALIVER GONZALEZ
No. 6659
Exp. 9-30-25
STRUCTURAL
STATE OF CALIFORNIA

IMPERIAL COUNTY HEALTH CLINIC
NEGATIVE PRESSURE ROOM CONVERSION
935 BROADWAY STREET
EL CENTRO, CA

JOB NO.	4205
DATE:	-

ISSUED

No.	Description	Date
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REVISIONS

No.	Description	Date
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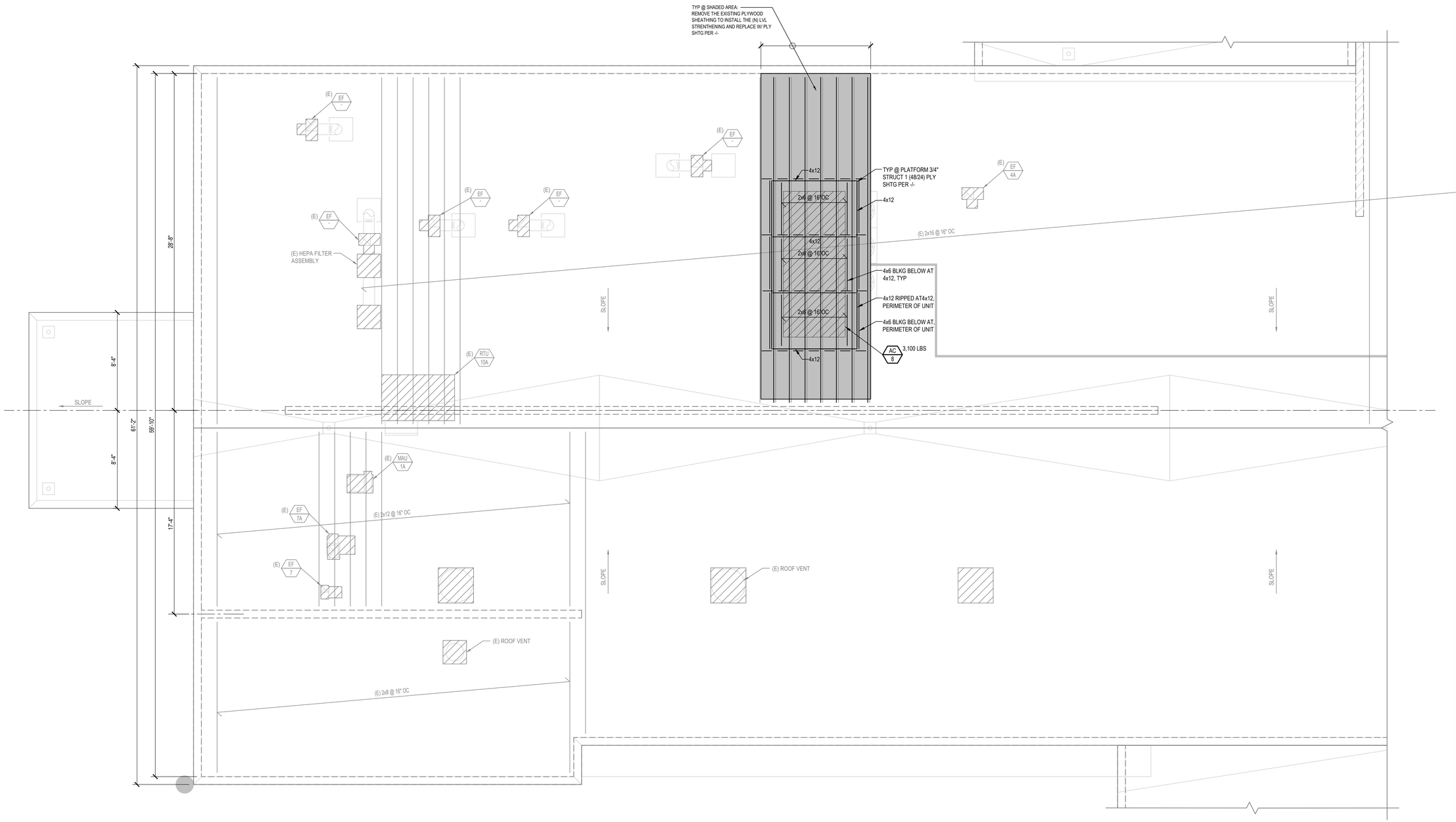
FILE NAME:	-
DRAWN BY:	JM
DESIGNED BY:	OG
CHECKED BY:	OG
DATE:	-

DRAWING TITLE

GENERAL NOTES

SHEET NO.

S001

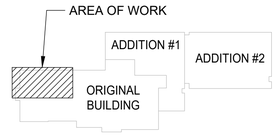


PARTIAL ROOF FRAMING PLAN

1/4" = 1'-0"

north

KEY PLAN



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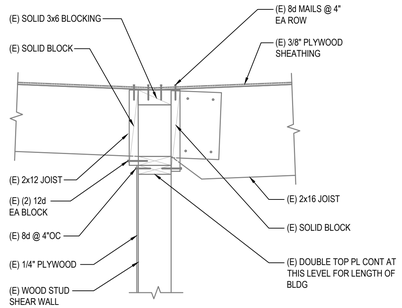
DRAWN BY:	JM
DESIGNED BY:	OG
CHECKED BY:	OG
DATE:	-

DRAWING TITLE

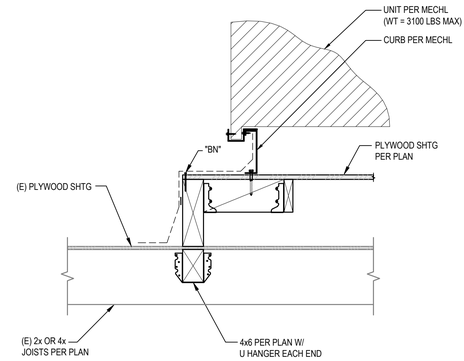
PARTIAL ROOF FRAMING PLAN

SHEET NO.

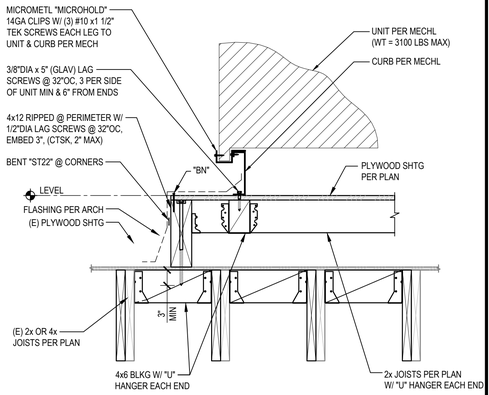
S101



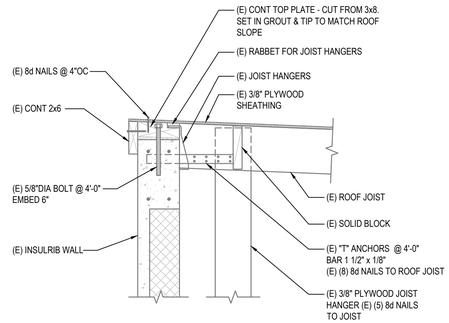
4 DETAIL
1"=1'-0"



1 UNIT ANCHORAGE AT
NEW WOOD PLATFORM
1"=1'-0"



2 UNIT ANCHORAGE AT
NEW WOOD PLATFORM
1"=1'-0"



3 DETAIL
1"=1'-0"

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REVISIONS

No.	Description	Date
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FILE NAME:	-
DRAWN BY:	JM
DESIGNED BY:	OG
CHECKED BY:	OG
DATE:	-

DRAWING TITLE

DETAILS

SHEET NO.

S501