	ABV AFF ACC	ABOVE ABOVE FINISH FLOOR ACCESSIBI F	L LV MB	LONG/LENGTH LOUVER VENT MACHINE BOI T	
Δ	ACOUS	ACOUSTICAL	MH	MACHINE BOET	
A	ADJ A/C	ADJUSTABLE AIR CONDITIONING	MANUF MAS	MANUFACTURER MASONRY	
	ALT	ALTERNATE	MAX		
	ALOW	ANCHOR BOLT	MTL	METAL	
	ANOD ARCH	ANODIZED ARCHITECT(URAL)	MIN MISC	MINIMUM MISCELLANEOUS	
	AC	ASPHALT CONCRETE	MTD	MOUNTED	
	AUTO BM	AUTOMATIC BEAM	(N) NRC	NEW NOISE REDUCTION COEFF.	
В	BET	BETWEEN	NOM	NOMINAL	
	BLKG	BLOCKING	NIC	NOT IN CONTRACT	7
	BD BOT	BOARD BOTTOM	NTS NO/#	NOT TO SCALE NUMBER	
	BOB	BOTTOM OF BEAM	OC	ON CENTER	
	BLDG CIP	BUILDING CAST IN PLACE	OPNG OD	OPENING OUTSIDE DIAMETER	
	CB	CATCH BASIN	0/		
C	CLKG CLG	CAULKING CEILING	OFOI	INSTALLED	
Ŭ	CJ CEM	CEILING JOIST / CONTROL JOINT	OFCI	OWNER FURSHINED CONTRACTOR INSTALLED	
	CL	CHAIN LINK	PR PTD	PAIR PAPER TOWEL DISPENSER	
	CO CLR	CLEAN OUT CLEAR(ENCE)	d	PENNY	
	COL		PERF PLAS	PERFORATED PLASTER	
	COMB	CONCRETE	PLYWD	PLYWOOD	GENERAL NOTES
	CMU CONST	CONCRETE MASONRY UNIT	PT POC	POINT OF CONNECTION	DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN
D	CONT	CONTINUOUS	PVC	POLYVINYL CHLORIDE	CHANGE DOCUMENT, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, A REVISIO
	CTSK DP	COUNTER SINK DEEP	PSF	POUNDS PER SQ. INCH POUNDS PER SQ.FT.	ALL CHANGES IN THE APPROVED PLANS AND SPECIFICATIONS SHALL BE MADE BY
	D	DEEP (DEPTH)	PREFAB P T	PREFABRICATED PRESSURE TREATED	CHANGE DOCUMENT AND REQUIRE WRITTEN APPROVAL BY THE OWNER AND THE THE LOCATION AND STORAGE OF CONSTRUCTION MATERIALS AND THE FEFECTS OF
	DEP I DTL	DEPARIMENT DETAIL	PTDF	PRESSURE TREATED DOUG. FIR	BUILDINGS SHALL BE APPROVED BY THE SCHOOL DISTRICT.
	DIAG		PROJ P.L.	PROJECT PROPERTY LINE	FACILITIES.
	DIM	DIMENSION	RAD	RADIUS	TESTING OF MATERIALS SHALL BE CONDUCTED BY A TESTING LAB SELECTED BY T BY THE ARCHITECT & DSA. THE OWNER SHALL PAY FOR TESTING OF MATERIALS IN
F	DISP DR	DISPENSER	REF REFL	REFERENCE REFLECTED	SECTION 01410.
_	DBL	DOUBLE	REFR	REFRIDGERATOR	A COPY OF TITLE 24 PART ONE AND TWO SHALL BE KEPT AVAILABLE IN THE FIELD
	DF DN	DOUGLAS FIR DOWN	REQ	REQUIRED	ALL ITEMS ARE TO BE CONSIDERED NEW UNLESS IDENTIFIED AS (E) OR EXISTING
	DS	DOWN SPOUT	RA REV	RETURN AIR REVISION(S)/REVISED	IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE TO BECOME FA
	DWG DF	DRAWING DRINKING FOUNTAIN	ROW	RIGHT OF WAY	THE CONTRACTOR SHALL ADVISE THE OWNER AND ARCHITECT OF THE SCHEDULE
	EA FW	EACH FACH WAY	R RD	RISER/RADIUS ROOF DRAIN	EXISTING IMPROVEMENTS AND UTILITIES DAMAGED DURING THE COURSE OF THE
	E	EAST	RM		PROMPTLY REPAIRED. EXISTING IMPROVEMENTS AND UTILITIES DAMAGED, FOR W UNKNOWN, SHALL BE IMMEDIATELY BROUGHT TO THE ARCHITECT'S ATTENTION AND
F	EWC ELEC	ELECT. WATER COOLER ELECTRIC(AL)	RB	RUBBER BASE	AT HIS DIRECTION. THE WORK REQUIRED TO REPAIR DAMAGED EXISTING WILL BE UNDER CONSIDERATION AS EXTRA WORK
	ELEV	ELEVATION	SECT SHTG	SECTION SHEATHING	THE CONTRACTOR WILL VERIFY EXACT CONDITIONS AND DIMENSIONS IN THE FIEL
	ENCL	ENCLOSURE	SHT	SHEET	THIS PROJECT, BY THE ERECTION OF PROPER BARRICADES, SIGNAGE AND LIGHT
	EQ EXH	EQUAL	SM SIM	SHEET METAL SIMILAR	OF THIS PROJECT FROM DAMAGE
	(E)	EXISTING	SD	SOAP DISPENSER	NO INTERFERENCE OF THE USE OF FIRE LANES OR PUBLIC EGRESS AT ANY TIME S UNLESS OTHERWISE AUTHORIZED IN THESE DOCUMENTS OR IN WRITING
	EJ EXP	EXPANSION JOINT EXPOSED/EXPANSION	STC	SOUND TRANSMISSION COEFF.	ALL RUBBISH AND DEBRIS SHALL BE LEGALLY DISPOSED OF OFF THE SITE BY THE CONTRACTOR SHALL MAINTAIN THE PREMISES FREE OF ACCUMULATED WASTE AN
G	EXT	EXTERIOR	S SPEC	SOUTH SPECIFICATION	BY CONTRACTORS, EMPLOYEES OR WORK, OR THE EMPLOYEES OR WORK OF THE
	FOC	FACE OF FINISH	SQ	SQUARE	IN ACCORDANCE WITH THE GENERAL CONDITIONS OF THE CONTRACT, A FULL-TIM
	FOM FOS	FACE OF MASONRY	SF SS	SQUARE FOOT STAINLESS STEEL	SHALL BE EMPLOYED BY THE CONTRACTOR AND SHALL BE PRESENT AT THE JOB S BEING PERFORMED
	FIN	FINISH	STD	STANDARD	THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR EXISTING CONCRETE WALK
	FF FA	FINISH FLOOR FIRE ALARM	STOR	STORAGE	OCCURS, CONTRACTOR MUST REPAIR
	FE		STRUCT S4S	STRUCTURE SURFACE FOUR SIDES	GENERAL DEMOLITION NOTES
1. Z	FEC FH	FIRE EXTINGUISHER CABINET FIRE HYDRANT	SUSP	SUSPENDED	THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. AN BETWEEN DRAWINGS AND ACTUAL CONDITIONS SHALL BE BROUGHT TO THE ATTE
> <sub>H</sub> ⇔	FLASH FLR	FLASHING FLOOR	SAT SYM	SUSPENDED ACOUSTICAL TILE SYMBOL/SYMMETRICAL	ARCHITECT FOR CORRECTION / CLARIFICATION PRIOR TO EXECUTION OF THE WOL
VA(	FT	FOOT / FEET	TB		THE INTENT OF THE DEMOLITION PLANS IS TO DESCRIBE THE GENERAL SCOPE OF
Ы Н	FTG FDN	FOOTING FOUNDATION	TV	TELEVISION	BUT DOES NOT NECESSARILY DEPICT ALL ITEMS / CONDITIONS REQUIRED TO COM WORK AS INDICATED IN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR AND
N −	GA	GAGE / GAUGE	THK THRES	THICK THRESHOLD	SUB-CONTRACTOR SHALL PERFORM A THOROUGH SITE INVESTIGATION PRIOR TO COMMENCING WITH THE WORK.
30	GI GL	GALVANIZED IRON GLASS / GLAZING	T&G	TONGUE & GROOVE	THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING ALL RELA
SHT	GALV	GLAVANIZED GLUE LAMINATED BEAM	I OB TOC	TOP OF BEAM	REQUIREMENTS AND NOTIFICATIONS.
02	GB	GRAB BAR	TOP	ΤΟΡ ΟΓ ΡΙ ΔΤΕ/ΡΔΡΔΡΕΤ/ΡΔ\/EMENT	COMPLY WITH CEC CH 33 - FIRE SAFETY DURING CONSTRUCTION AND DEMOLIT
S\25	GND GYP	ground Gypsum	TOS	TOP OF SHEATHING STEEL/SLAB	
Ϋ́Η	GYPBD		TOW	TREAD	
nts\	HDR	HEADER	TYP		
iulta	HVAC	HEATING/VENTILATING/AIR CONDITION	UR	URINAL	
suo:	HT	HEIGHT	VERT VCT	VERTICAL VINYI COMPOSITION THE	CENEDAL NOTES
nt\C	н HC	ні <del>с</del> н HOLLOW CORE	WSTC	WAINSCOT	GLINERAL NUTES
, me	НМ нее		WC WH	WATER CLOSET WATER HEATER	
lace	HORIZ	HORIZONTAL	WP	WATER PROOFING	APPLICABLE COMPET WITT AFFEICABLE CODES AND STANDARDS
Rep	HB HR	HOSE BIB HOUR	WR	WEIGHT	TITLE 19 CCR         PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS           TITLE 24 CCR         PART 1 - 2022 BUILDING STANDARDS ADMINISTRATIVE CODE
- AC	IN		WWF W	WELDED WIRE FABRIC WEST/WIDTH/WIDF	TITLE 24 CCR PART 2 - 2022 CALIFORNIA BUILDING CODE, VOL. 1 & 2 (CBC (2021 IBC, AS AMENDED BY CA)
Η<	ID INSUL	INSIDE DIAMETER INSULATION	WDW	WINDOW	TITLE 24 CCR PART 3 - 2022 CALIFORNIA ELECTRICAL CODE (CEC)
Ving		INTERIOR	W/ W/O	WITH WITHOUT	( 2020 NEC, AS AMENDED BY CA) TITLE 24 CCR PART 4 - 2022 CALIFORNIA MECHANICAL CODE (CMC )
≤ 0 <sup>K</sup>	LAB	LADURATURT LAMINATE(D)	WD		(2021 IAPMO UMC, AS AMENDED BY CA)
02 3	LAV LT	LAVATORY LIGHT	vv vvivi WI	WROUGHT IRON	(2021 IAPMO UPC, AS AMENDED BY CA)
\25(	LTWT	LIGHT WEIGHT			IIILE 24 CCR     PART 6 - 2022 CALIFORNIA ENERGY CODE       TITLE 24 CCR     PART 9 - 2022 CALIFORNIA FIRE CODE (CFC)
NO N					(2021 IFC, AS AMENDED BY CA)
SH0					TITLE 24 CCR     PART 12 - 2022 REFERENCED STANDARDS
ŇН					
ST'					
PRO					
N:/F	ARF	DREVIATION	<b>)</b>		APPLICABLE CODES
		15	1.4	12	12 11

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# **HUGHSON HIGH SCHOOL 30 WING HVAC REPLACEMENT** 419 E. WHITMORE AVE, HUGHSON, CA. 95326 **HUGHSON UNIFIED SCHOOL DISTRICT**



CLIENT
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ARCHITECT
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MECHANICAL ENGINEER:
NEXUS ENGINEERING ALLEN LAYMAN, M.E. 1400 LONE PALM, SUITE A
MODESTO, CA 95351 PH: (209) 572 7399

FAX: (209) 236 1597 **ELECTRICAL ENGINEER: ICS ENGINEERING, INC.** RICHARD SMITH, PE 4512 FEATHER RIVER DRIVE #F STOCKTON, CA 95219 H: (209) 478 8270 AX: (209) 478 2169

## **PROJECT TEAM**

THE SCOPE OF WORK OF THIS PROJECT:

30 WING BUILDING A: REPLACE (6) HVAC UNITS







	15         14         13         12         11         10         9         8
	PACKAGED ROOFTOP AC UNIT SCHEDULE
A	MK. NO.       MANUFACTURER & MODEL #       DESCRIPTION       NOM. TONS       CFM       OSA CFM       COOLING MBH       HEATING MBH       E.S.P. IN W.G.       MOTOR       ELECTRICAL       OP. WT.       (E)OP. WT.       AFUE       SEER       NOTES
	AC-31       CARRIER #48GEGM06A2M5       ROOFTOP PACKAGE UNIT       5.0       2000       58.19       44.57       60.0       49.0       0.75"       0.96       208       3       60       30       40       84.3       780       81.0       17.20       1, 2, 3, 4         AC-33       CARRIER #48GEGM06A2M5       ROOFTOP PACKAGE UNIT       5.0       2000       500       58.19       44.57       60.0       49.0       0.75"       0.96       208       3       60       30       40       84.3       780       81.0       17.20       1, 2, 3, 4         AC-34       CARRIER #48GEGM06A2M5       ROOFTOP PACKAGE UNIT       5.0       2000       58.19       44.57       60.0       49.0       0.75"       0.96       208       3       60       30       40       84.3       780       81.0       17.20       1, 2, 3, 4         AC-34       CARRIER #48GEGM06A2M5       ROOFTOP PACKAGE UNIT       5.0       2000       58.19       44.57       60.0       49.0       0.75"       0.96       208       3       60       30       40       84.3       780       81.0       17.20       1, 2, 3, 4         AC-34       CARRIER #48GEGM06A2M5       ROOFTOP PACKAGE UNIT       5.0 <th< th=""></th<>
	AC-35       CARRIER #48GEGM06A2M5       ROOFTOP PACKAGE UNIT       5.0       2000       58.19       44.57       60.0       49.0       0.75"       0.96       208       3       60       30       40       843       780       81.0       17.20       1, 2, 3, 4         AC-38       CARRIER #48GEGM06A2M5       ROOFTOP PACKAGE UNIT       5.0       2000       500       58.19       44.57       60.0       49.0       0.75"       0.96       208       3       60       30       40       843       780       81.0       17.20       1, 2, 3, 4         AC-38       CARRIER #48GEGM06A2M5       ROOFTOP PACKAGE UNIT       5.0       2000       58.19       44.57       60.0       49.0       0.75"       0.96       208       3       60       30       40       843       780       81.0       17.20       1, 2, 3, 4         AC-38A       CARRIER #48GEGM06A2M5       ROOFTOP PACKAGE UNIT       5.0       2000       58.19       44.57       60.0       49.0       0.75"       0.96       208       3       60       30       40       843       780       81.0       17.20       1, 2, 3, 4         AC-38A       CARRIER #48GEGM06A2M5       ROOFTOP PACKAGE UNIT       5.0       2
В	NOTES: 1. PROVIDED WITH ECONOMIZER WITH POWER EXHAUST, MICROMETL #PECD-SRT12CB-D2DH-2L1. 1.0 HP, 6.4 FLA, 8.0 MCA, 14.4 MOCP. (REQUIRES SEPARATE DISCONNECT). OP.WT. = 191#. 2. REPLACE (E) THERMOSTAT WITH VENSTAR #4800SCH. T-STAT SHALL BE ACCESSIBLE & MOUNT TOP @, 48" A.F.F.
	<ol> <li>MOUNT TO (É) ROOF CURB.</li> <li>PROVIDE WITH DOWN-FLOW CONFIGURATION, FREEZE PROTECTION T-STAT, HIGH-LO PRESSURE SWITCHES, CRANKCASE HEATER, HIGH-TEMP LIMIT SWITCHES, MERV 13 FILTERS, COOLING CAPACITY RATED AT 95°F AMBIENT, 80°F EDB, 67°F EWB. (DISCONNECT AND CONVIENCE OUTLET BY ELECTRICAL.)</li> </ol>
	MEP Component Anchorage Note All mechanical, plumbing, and electrical components shall be anchored and installed per the details on the
С	DSA approved construction documents. The following components shall be anchored or braced to meet the force and displacement requirements prescribed in the 2022 CBC, Sections 1617A.1.18 through 1617.A.1.26
	and ASCE 7-16 Chapter 13, 26 and 30. 1. All permanent equipment and components.
	2. Temporary, movable or mobile equipment that is permanently attached (e.g. hard wired) to the building utility services such as electricity, gas or water. "Permanently attached" shall include all electrical utility contributes for 110/120 welt recented as having a flexible code.
D	3. temporary, movable or mobile equipment which is heavier than 400 pounds or has a center of mass located 4 feet or more above the adjacent floor or roof level that directly support the component
U	is required to be restrained in a manner approved by DSA. The following mechanical and electrical components shall be positively attached to the structure, but need not
	demonstrate design compliance with the references noted above. These components shall have flexible connections provided between the component and associated ductwork, piping, and conduit.
	Flexible connections must allow movement in both transverse and longitudinal directions: A. Components weighing less than 400 pounds and have a center of mass located 4 feet or less
E	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 well
	The anchorage of all mechanical, electrical and plumbing components shall be subject to the approval of the design professional in general responsible charge or structural engineer delegated responsibility and acceptance
	by DSA. 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
F	Piping, ductwork, and electrical distribution systems shall be braced to comply wth the forces and displacements prescribed in ASCE 7-16 Section 13.3 as defined in ASCE 7-16 Section 13.6.5, 13.6.6, 13.6.7, 13.6.8 and 2022 CPC. Sections 1617A 1.24, 1617A 1.25 and 1617A 1.26
	The method of showing bracing and attachments to the structure for the identified distribution system are as
	noted below. When bracing and attachments are based on a preapproved installation guide (e.g., HCAi OPM for 2013 CBC or later), copies of the bracing system installation guide or manual shall be available on the jobsite
G	Record shall verify the adequacy of the structure to support the hanger and brace loads.
	Mechanical Piping (MP), Mechanical Ducts (MD), Plumbing Piping (PP), Electrical Distribution Systems (E):
	$MP \boxtimes MD \boxtimes PP \square E \square$ - Option 1: Detailed on the approved drawings with project specific notes and details.
	MP MD PP E - Option 2: Shall comply with the applicable HCAi Pre-Approval (OPM #) #
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	15 14 13 12 11 10 9 8

## MECHANICAL GENERAL NOTES

A UNIT REPLACEMENT FOR BUILDING 30, INCLUDING MECHANICAL EQUIPMENT & DUCTWORK AS GENERALLY DELINEATED ON THE DRAWINGS. EQUIPMENT SHALL COMPLY WITH TITLE 24 CALIFORNIA CODE OF REGULATIONS.

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2. CODES: ALL WORK MATERIAL AND EQUIPMENT SHALL BE FURNISHED AND INSTALLED IN COMPLIANCE WITH THE FOLLOWING CODES AS ADOPTED AND AMENDED BY THE INSPECTING AUTHORITY HAVING JURISDICTION. NOTHING IN THESE PLANS SHALL BE CONSTRUED TO PERMIT THE INSTALLATION OF WORK, MATERIAL OR EQUIPMENT NOT CONFORMING TO THESE OR OTHER CODES APPLICABLE TO THIS PROJECT:

- A. 2022 CALIFORNIA ADMINISTRATIVE CODE (CAC) PART 1, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR) B. 2022 CALIFORNIA BUILDING CODE (CBC) PART 2, TITLE 24, CCR BASED ON THE 2021
- INTERNATIONAL BUILDING CODE (IBC) C. 2022 CALIFORNIA ELECTRICAL CODE (CEC) PART 3, TITLE 24, CCR BASED ON THE 2020
- NATIONAL ELECTRICAL CODE (NEC) D. 2022 CALIFORNIA MECHANICAL CODE (CMC) PART 4, TITLE 24, CCR BASED ON THE 2021
- UNIFORM MECHANICAL CODE (UMC) E. 2022 CALIFORNIA PLUMBING CODE (CPC) PART 5, TITLE 24, CCR BASED ON THE 2021
- UNIFORM PLUMBING CODE (UPC) F. 2022 CALIFORNIA ENERGY CODE (CEC) PART 6, TITLE 24 CCR.
- G. 2022 CALIFORNIA FIRE CODE (CFC) PART 9, TITLE 24, CCR BASED ON THE 2021 INTERNATIONAL FIRE CODE (IFC) H. 2022 CALIFORNIA GREEN BUILDING STANDARDS (CGBSC) PART 11, TITLE 24, CCR
- WORKMANSHIP:

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1. SCOPE:

ALL WORKMANSHIP SHALL BE DONE IN A NEAT AND ORDERLY MANNER ACCORDING TO THE BEST TRADE PRACTICE BY THOSE SKILLED IN THE PARTICULAR TRADE, EQUIPMENT, DUCTS, GRILLES, ETC., SHALL BE PLUMB, LEVEL, SQUARE OR CENTERED ETC., TO GIVE A NEAT AND PLEASING APPEARANCE. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS.

- 4. AVAILABLE POWER:
- THE MECHANICAL CONTRACTOR SHALL CONFIRM ALL SYSTEMS VOLTAGES BEFORE BIDDING OR ORDERING EQUIPMENT, AND SHALL ALLOW FOR BUCK & BOOST TRANSFORMERS IF REQUIRED. AIR BALANCE: 5
- THE AIR DISTRIBUTION SYSTEM SHALL BE BALANCED TO DELIVER SPECIFIED AIR QUANTITIES FOLLOWING THE PROCEDURES OF THE LATEST EDITION OF THE SMACNA PUBLICATION PROCEDURAL STANDARDS FOR TESTING ADJUSTING & BALANCING OF ENVIRONMENTAL SYSTEMS. CONTRACTOR SHALL PROVIDE ACCESSIBLE & ADJUSTABLE VOLUME DAMPERS AS REQUIRED TO BALANCE THE SYSTEMS AND MAINTAIN A NOISE CRITERIA LEVEL NOT TO EXCEED

THE AIR BALANCE TECHNICIAN SHALL BE RESPONSIBLE TO MODIFY ALL SUPPLY, RETURN, AND EXHAUST FAN SHEAVES & VFD OUTPUT FREQUENCY LIMITS AS APPLICABLE SUCH THAT THE DESIGN AIR FLOWS ARE MET. ALL SUPPLY FANS CONTROLLED FOR FILTER LOADING SHALL SIMILARLY BE MODIFIED TO ENSURE THE FULL RANGE OF MOTOR POWER IS AVAILABLE TO THE CONTROL SYSTEM. RATED MAXIMUM FAN SPEED SHALL NOT BE EXCEEDED. PERMITS AND UTILITY SERVICE FEES:

- CONTRACTOR TO ARRANGE AND PAY FOR ALL PERMITS, INSPECTIONS AND SERVICE CHARGES REQUIRED IN THE INSTALLATION OF THE WORK. EXISTING INFORMATION:
- LOCATION, SIZE, MATERIAL, ETC. OF EXISTING SYSTEMS, ETC., IS PROVIDED FROM SOURCES DEEMED TO BE RELIABLE BUT IS NOT GUARANTEED. CONTRACTOR SHALL FIELD VERIFY ALL DATA BEFORE PROCEEDING WITH ANY WORK. NO EXTRA COST WILL BE ALLOWED FOR CONDITIONS NOT AS SHOWN.
- 8. ACCURACY: PLANS ARE DIAGRAMMATIC. CONTRACTOR SHALL CONFIRM ALL DIMENSIONS AND LOCATIONS OF AC UNITS, EXHAUST FANS, WALLS, PARTITIONS ETC., AGAINST ARCHITECTURAL AND STRUCTURAL DESIGN PLANS FOR LOCATION CONSISTENCY & ACCURACY PRIOR TO COMMENCING WITH ANY WORK.
- 9. PAINTING: PAINT ALL VISIBLE INTERIOR PORTIONS OF TERMINAL DEVICES & CANS WITH FLAT BLACK ENAMEL PAINT.
- 10. SIZES: DUCTWORK SIZES ON PLANS ARE INSIDE NET FREE AREA.
- 11. MECHANICAL EQUIPMENT: ALL EQUIPMENT SHALL BE LISTED BY AN APPROVED TESTING AGENCY AND INSTALLED IN ACCORDANCE WITH ITS INSTALLATION INSTRUCTIONS AND LISTING.

#### DUCTWORK NOTES

- 1. ALL WORK TO BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE APPLICABLE SMACNA STANDARDS AND FABRICATION GUIDELINES. ALL METAL DUCTS SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL PER CALIFORNIA MECHANICAL CODE STANDARDS, UNLESS NOTED OTHERWISE.
- 2. DUCT PRESSURE CLASS SHALL BE MINIMUM 2" W.C. AND SHALL EXCEED THE FAN SYSTEM DESIGN EXTERNAL STATIC PRESSURE WHERE APPLICABLE. 3. PROVIDE TURNING VANES ON ALL SQUARE THROAT ELBOWS. RADIUS ELBOWS SHALL
- HAVE A THROAT RADIUS EQUAL TO OR GREATER THAN THE DUCT WIDTH. (USE SMACNA ELBOW TYPES RE 1 OR RE 2 ONLY, UNLESS NOTED OTHERWISE.)
- 4. DIVIDED FLOW BRANCHES SHALL SPLIT WITH ELBOWS PER NOTE 3. (USE SMACNA TYPE 1, 2, OR 4A/4B UNLESS NOTED OTHERWISE.)
- 5. BRANCH FITTING TAKEOFFS SHALL BE WYES, 45° LEAD IN, OR CONICAL/BELLMOUTH TAPS UNLESS NOTED OTHERWISE. DO NOT USE STRAIGHT TAPS. 6. ALL SUPPLY AND RETURN DUCT SHALL BE INSULATED PER T24 THICKNESS AND R-VALUE
- REQUIREMENTS (CEC 120.4(a)): 6.1. SUPPLY DUCT: MIN. R-4.2, BUT R-8 WHERE EXPOSED TO EXTERIOR OR
- UNCONDITIONED SPACE. 6.2. RETURN DUCT: MIN. R-4.2, BUT R-8 WHERE EXPOSED TO EXTERIOR OR
- UNCONDITIONED SPACE. 6.3. EXHAUST DUCT: NO INSULATION EXCEPT AS SHOWN.
- 7. EXTERNAL INSULATION EXPOSED TO WEATHER SHALL BE WEATHERPROOFED AND SHALL
- BE PAINTED TO MATCH ADJACENT SURFACE. 8. PROVIDE DUCT LEAKAGE TEST PER CMC 603.10.1.

### DEMOLITION NOTES

- 1. THE CONTRACTOR SHALL VISIT THE PROJECT SITE AND MAKE HIMSELF AWARE OF ALL EXISTING CONDITIONS WHICH CAN BE OBSERVED. ADDITIONAL COSTS WILL NOT BE ALLOWED FOR CORRECTION OF ITEMS WHICH CAN BE OBSERVED AND THEREFORE SHOULD BE INCLUDED IN HIS BID. THE CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION WORK REQUIRED TO
- COMPLETE THIS PROPOSED PROJECT. 2. THE NOTES AND DRAWINGS CONTAINED ON THIS SHEET DESCRIBE IN A GENERAL SENSE THE EXTENT OF ITEMS TO BE MODIFIED, REMOVED OR INSTALLED. THIS DESCRIPTION DOES NOT NECESSARILY INCLUDE A DESCRIPTION OF ITEMS TO BE REPAIRED OR REFINISHED AS A RESULT OF THIS REMOVAL OR MODIFICATION. IN THE ABSENCE OF ANY SPECIFIC DIRECTION, THE CONTRACTOR SHALL REPAIR THE AFFECTED AREA(S) TO A CONDITION EQUAL TO THE ADJACENT AREA(S) AND/OR SIMILAR EXISTING CONDITIONS ON PROJECT.
- 3. THE CONTRACTOR SHALL PROVIDE DUST AND DEBRIS CONTROL THROUGHOUT THE PROJECT'S CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE BUILDING OWNER TO PROVIDE THE LEAST INTERRUPTION OF EXISTING BUILDING OPERATIONS. COORDINATE WITH THE OWNER THE LOCATION OF ON-SITE STORAGE AND STAGING.
- 4. NOT ALL REQUIRED PATCHING AND/OR REPAIRS ARE SPECIFICALLY NOTED ON THIS PLAN. 5. COORDINATE DEMOLITION WORK WITH NEW PROPOSED FLOOR PLANS.
- 6. CONTRACTOR SHALL DISCARD AND DISPOSE OF ALL DEMOLISHED ITEMS. EXISTING PIPING AND ELECTRICAL OR COMMUNICATION CONDUITS WHICH INTERFERE WITH THE WORK SHALL BE RE-ROUTED BY THE CONTRACTOR.

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MECH	ANICA	L LEGE	ND	
DESCRIPTION			SYMBOL	
SUPPLY AIR DUCT CROSS SECTION			🖂 s	A
RETURN AIR DUCT CROSS SECTION			R	A
EXHAUST AIR DUCT CROSS SECTION			E	A
SUPPLY AIR DUCT - SINGLE LINE				
RETURN AIR DUCT - SINGLE LINE				
				12"x8"
DUCT DROP/RISE				
VOLUME DAMPER W/ LOCKING QUADE	RANT			VD
AUTO MOTORIZED CONTROLLED DAM	PER		MD	MD
FIRE DAMPER / CEILING FIRE DAMPER	R		FD FD	FD/CFD
MOTORIZED FIRE / SMOKE DAMPER			FSD	FSD
_	AIR REGIS	TER TAGS	L L L L L L L L L L L L L L L L L L L	
	C-CEILIN	G	f	MMM
1ST DIGIT - LOCATION	W-WALL		- X ·	-     -
	F-FLOOR	F		CS-2
		~	300 CFI	M 300 CFM
2ND DIGIT - DUCT SYSTEM	R-RETUR	N	12x12	
	E-EXHAU	ST		
	-1, -2, ET(	D.	{	WS-1
	SEE SCH	EDULE		14x8
300 CFM = CUBIC FEET PER MINU	TE		EXA	<b>MPLES</b>
12"x12" = NECK/COLLAR SIZE				
SMOKE DETECTOR			SD	
DUCT WITH ACOUSTICAL LINING			<u> </u>	
TO BE REMOVED		<del>-X</del>	<u> </u>	<del>- X - X -</del>
CONDENSATE DRAIN LINE	-F			
EQUIPMENT TAG			$\langle \mathbf{X} \rangle$	
ABOVE FINISHED FLOOR			A.F.F.	
ACCESS DOOR / ACCESS PANEL			A.D. / A.P.	
ANALOG INPUT / ANALOG OUTPUT AI / AO				
AUTOMATIC AIR VENT			AAV	
CUBIC FEET PER HOUR			CFH	
CUBIC FEET PER MINUTE			CFM	
			(F)	
			(=)	
			GMN	
THUUSANDS OF BIUS PER HOUR				
			(IN)	
NEW				I
NEW NOT IN MECHANICAL CONTRACT			N.I.M.C.	
NEW NOT IN MECHANICAL CONTRACT OUTSIDE AIR			N.I.M.C. OSA	
NEW NOT IN MECHANICAL CONTRACT OUTSIDE AIR POINT OF CONNECTION			N.I.M.C. OSA POC	Ð
NEW NOT IN MECHANICAL CONTRACT OUTSIDE AIR POINT OF CONNECTION REFRIGERANT LIQUID / REFRIGERANT			N.I.M.C. OSA POC RL / RS	Ð
NEW NOT IN MECHANICAL CONTRACT OUTSIDE AIR POINT OF CONNECTION REFRIGERANT LIQUID / REFRIGERANT	T SUCTION		N.I.M.C. OSA POC RL / RS	Ð

#### SHEET INDEX SHEET NO. DESCRIPTION MECHANICAL - LEGEND, NOTES & SCHEDULES M-100 M-101 MECHANICAL - FLOOR PLAN

arc TIMO ASSO Timothy 519 McHenry Ph: (209) 571	THY P. HU CLATES P. Huff, AIA Ave., Modes 2232 Fax: ( ASED ARC, SED ARC, SED ARC, No. C 15527 REN. 5/25	ECTS UFF & IUFF & INC. Architect sto, CA 953 (209) 571-1	ociates		
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HUGHSON HIGH SCHOOL 30 WING HVAC AND REROOF	7419 E. WHITMORE AVENUE HUGHSON, CA. 95326	MECHANICAL - LEGEND, NOTES & SCHEDULES			
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Consulting 1400 L M Tel: 209.57 W W W . n e HVAC . Plut Process/Pla	Copyright 2025 - Timothy P. Huff & Associates			
HUGHSON HIGH SCHOOL 30 WING HVAC AND REROOF	7419 E. WHITMORE AVENUE HUGHSON, CA. 95326 HUGHSON UNIFIED SCHOOL DISTRICT	MECHANICAL - DETAILS		
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