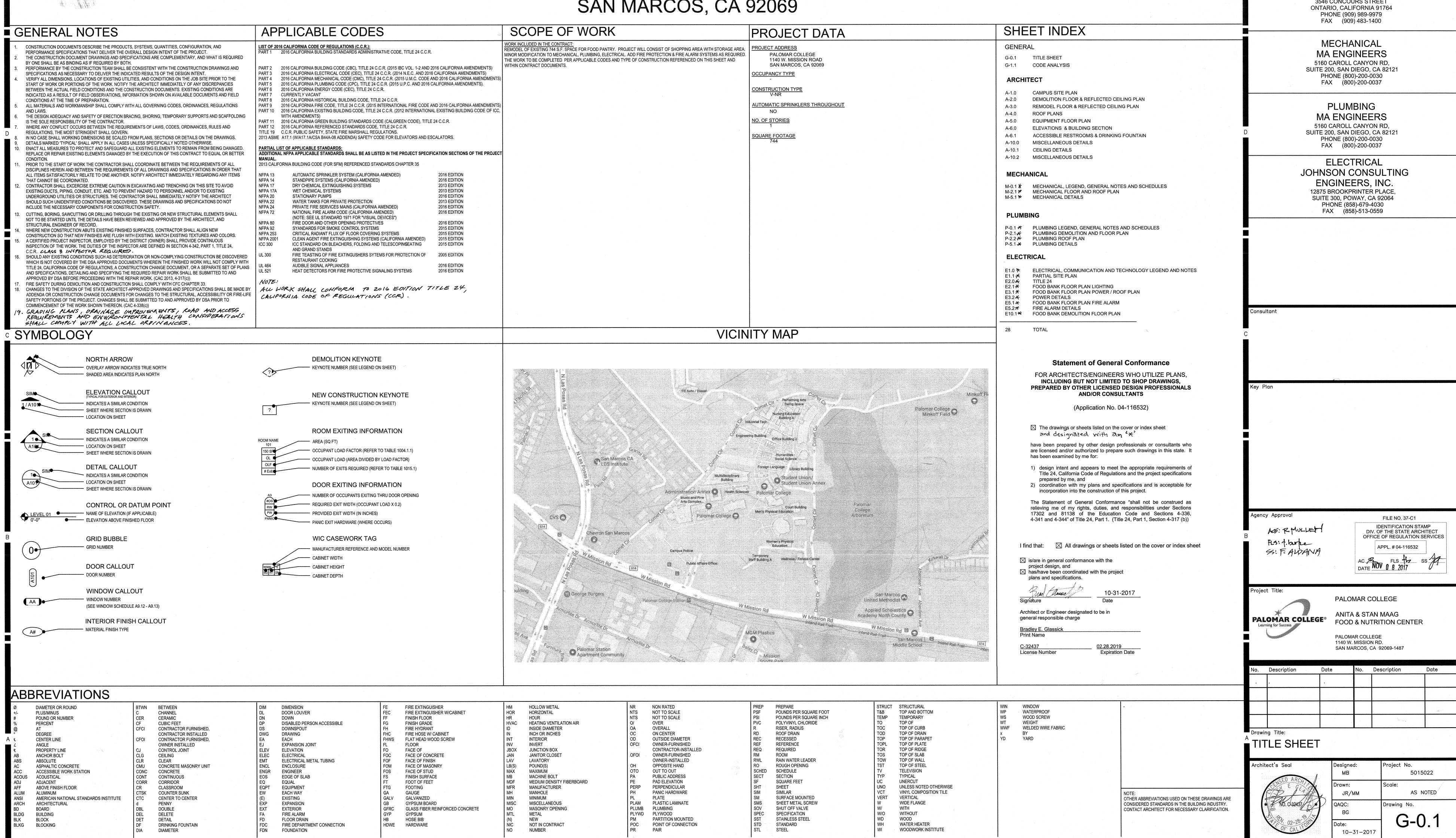
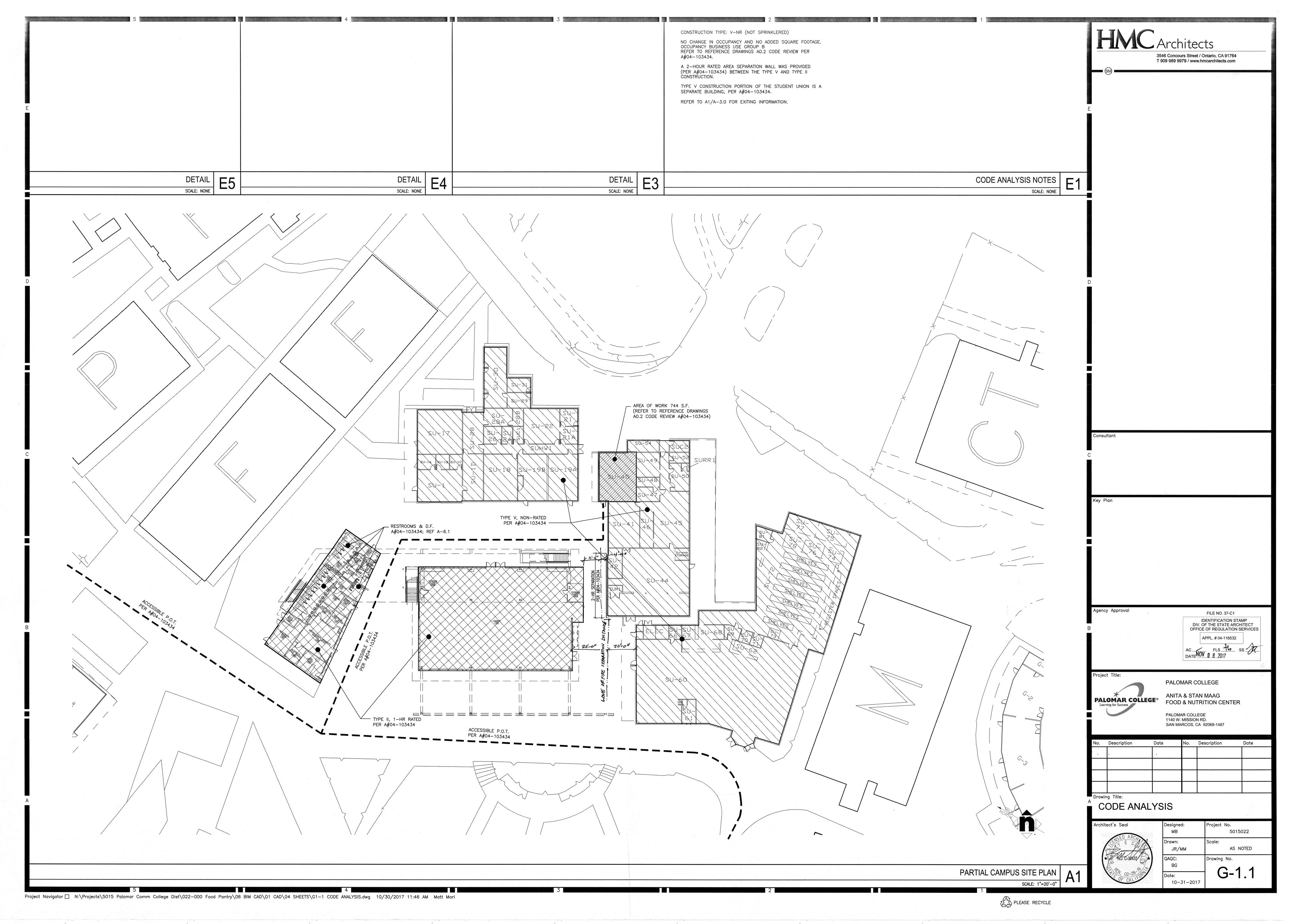
PALOMAR COLLEGE

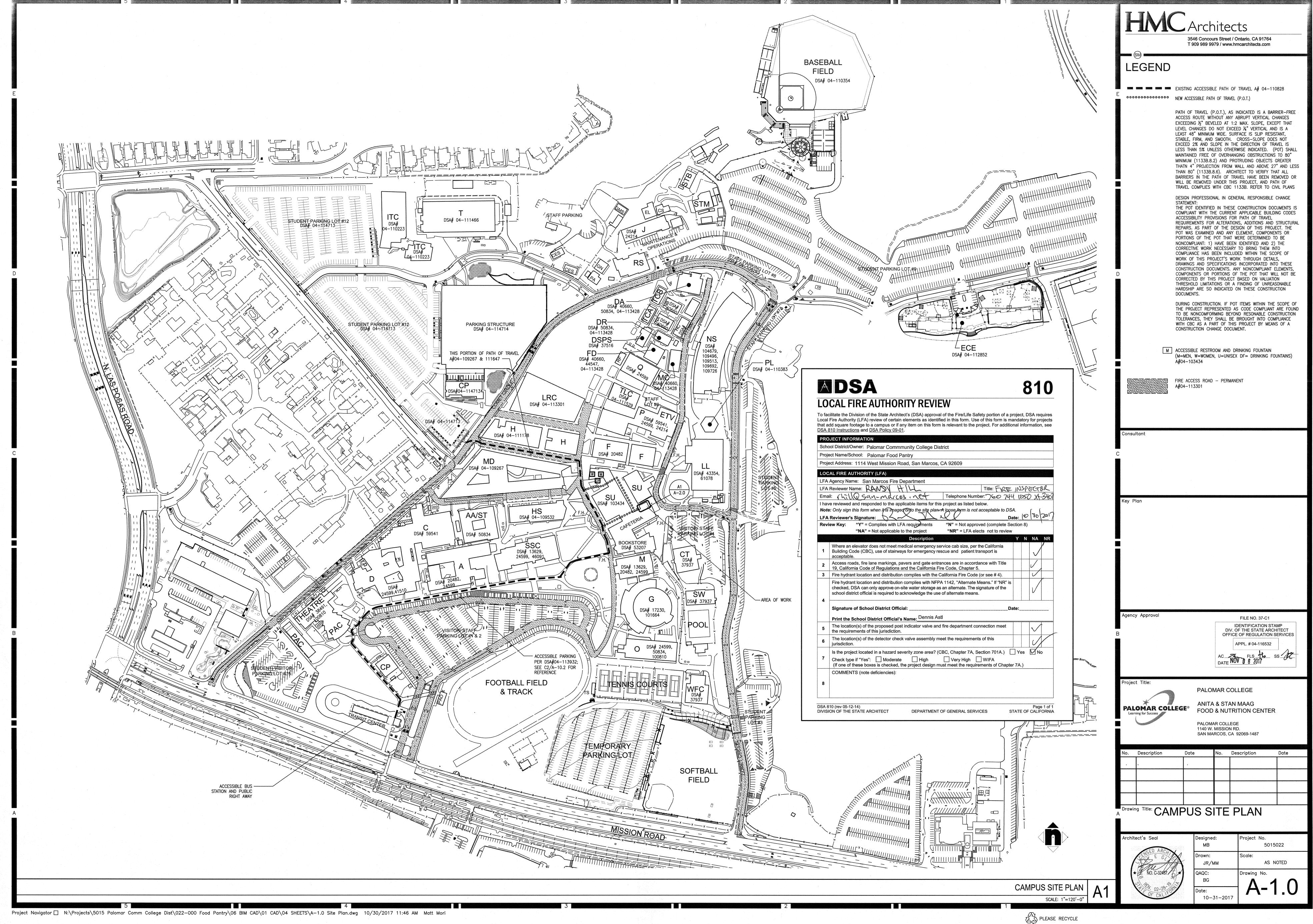
ANITA & STAN MAAG FOOD & NUTRITION CENTER

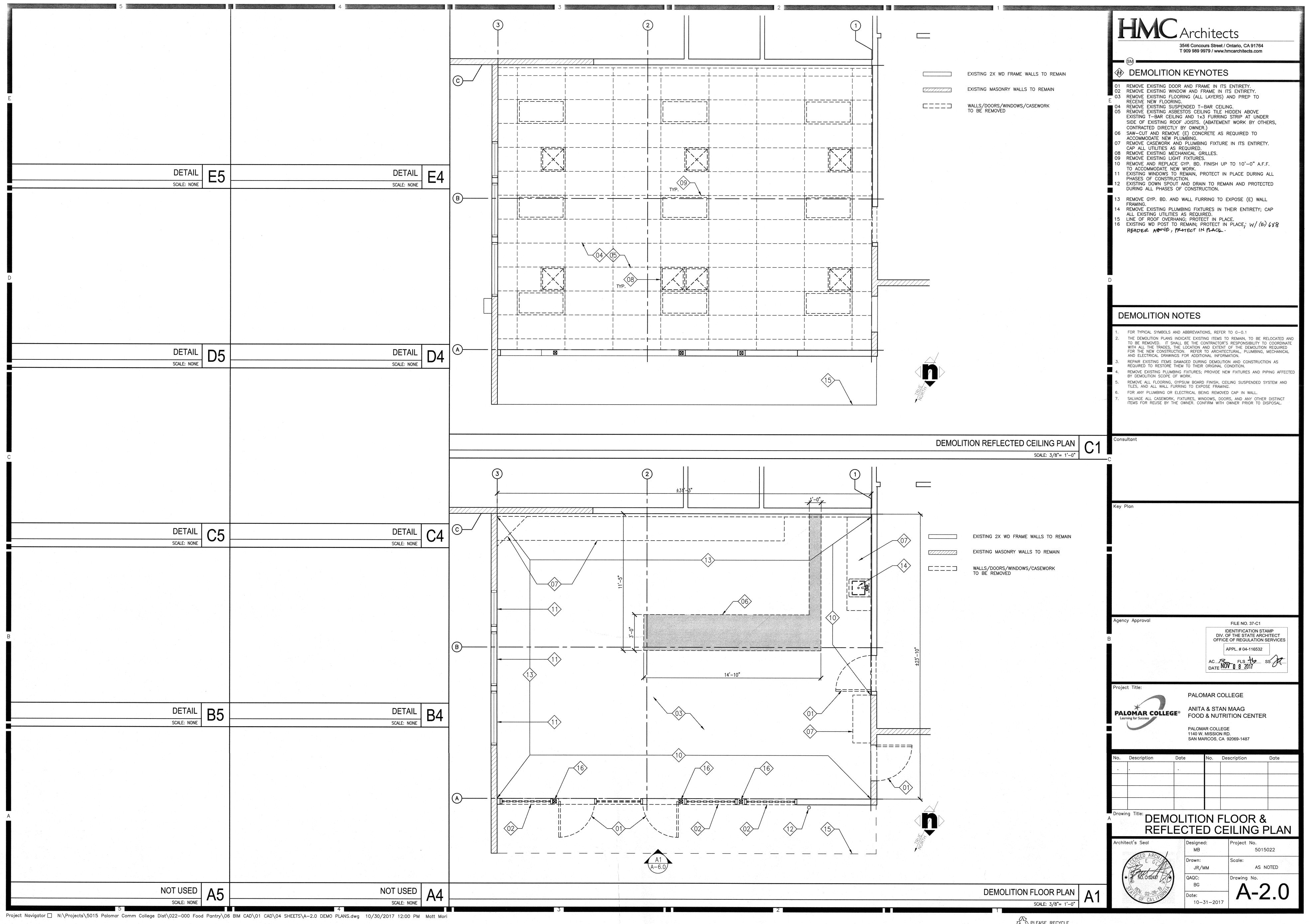
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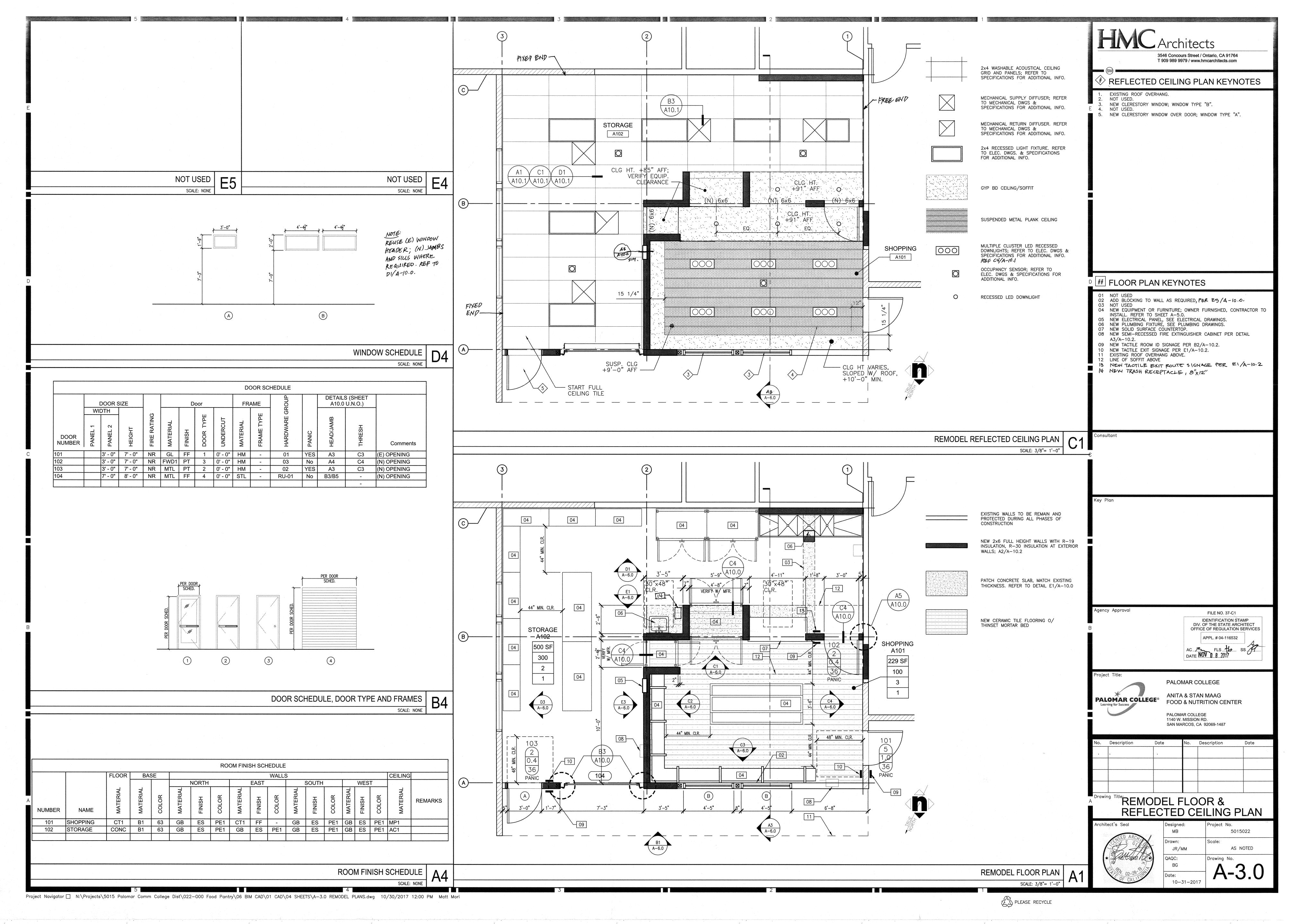


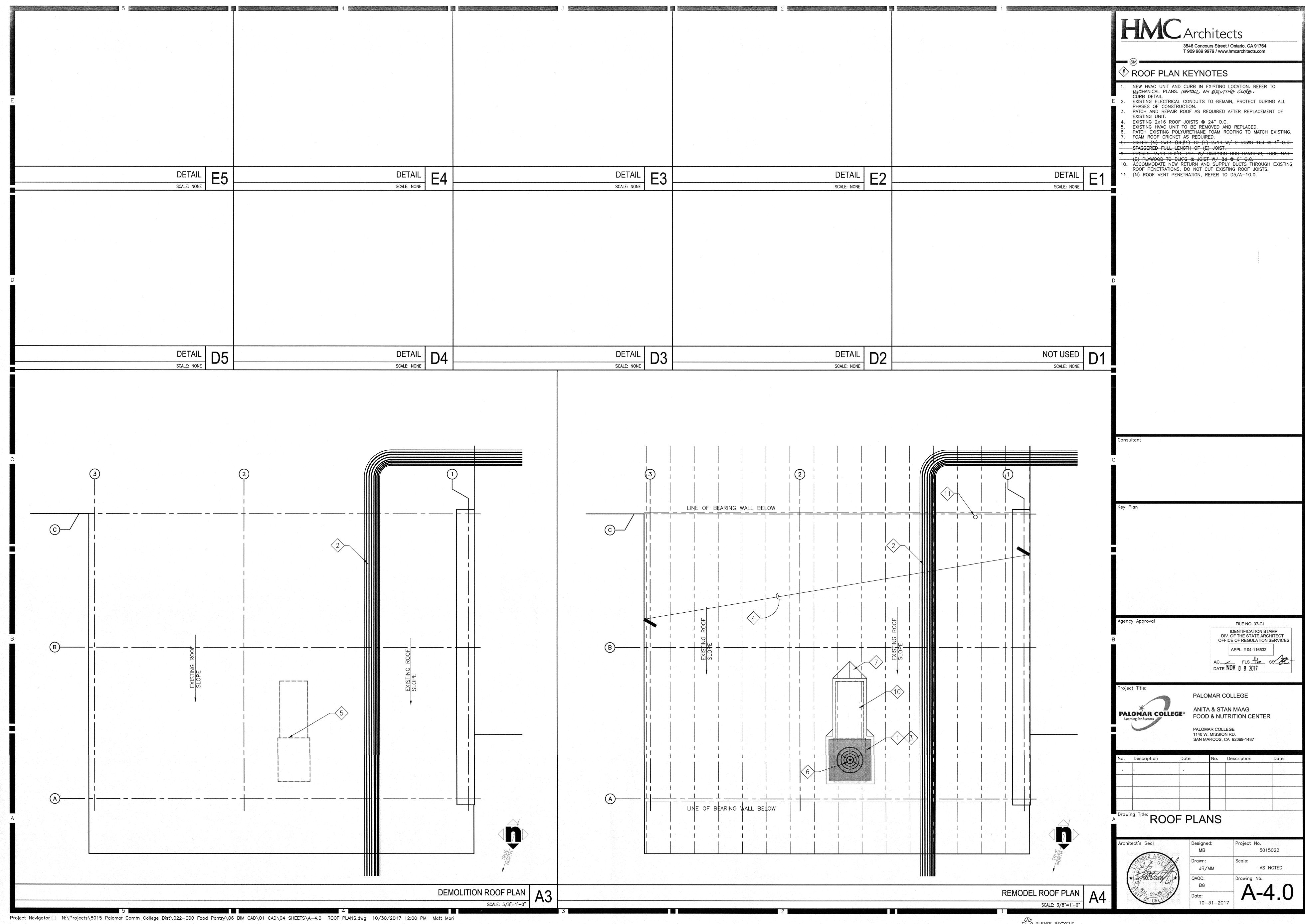
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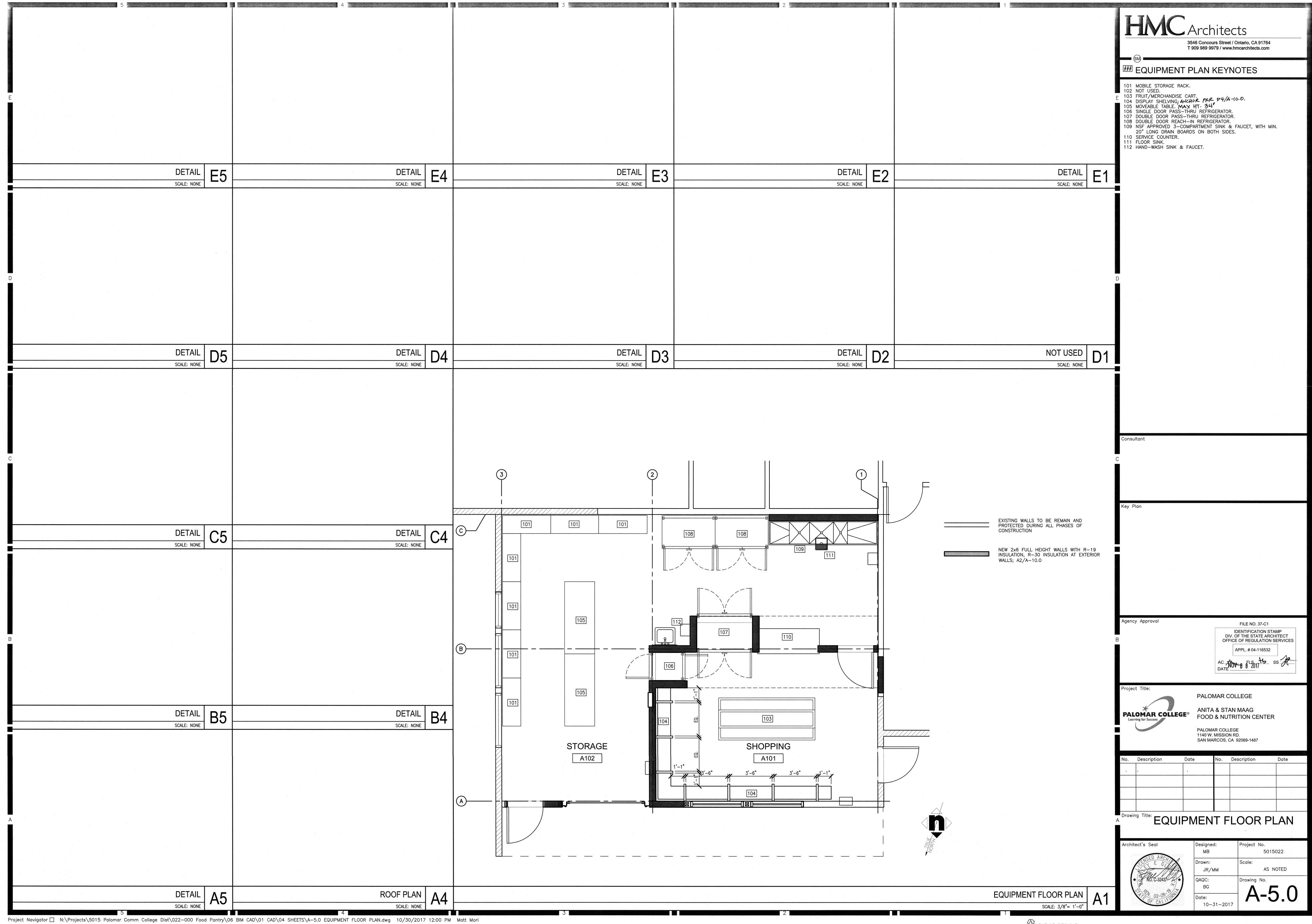


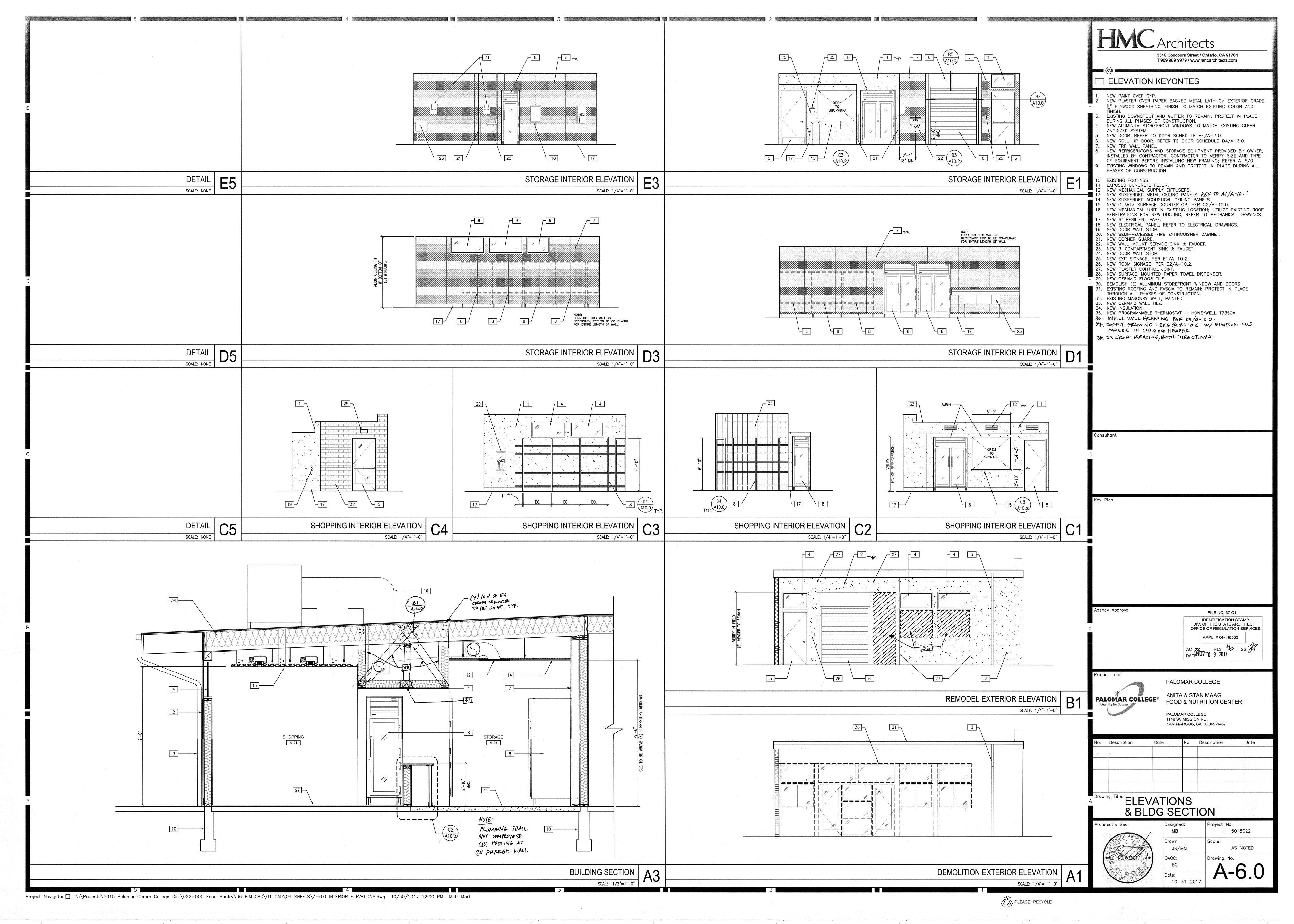


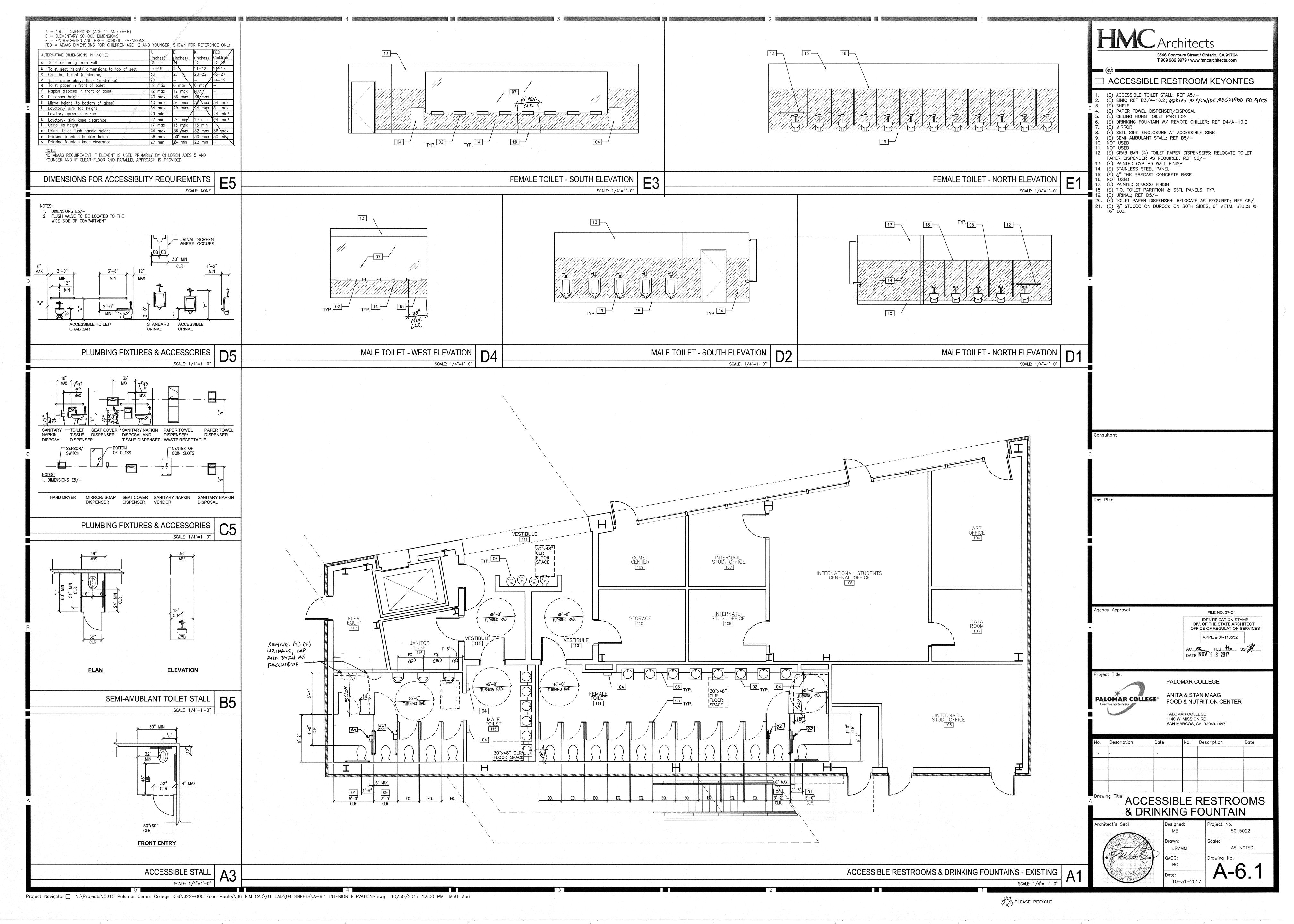


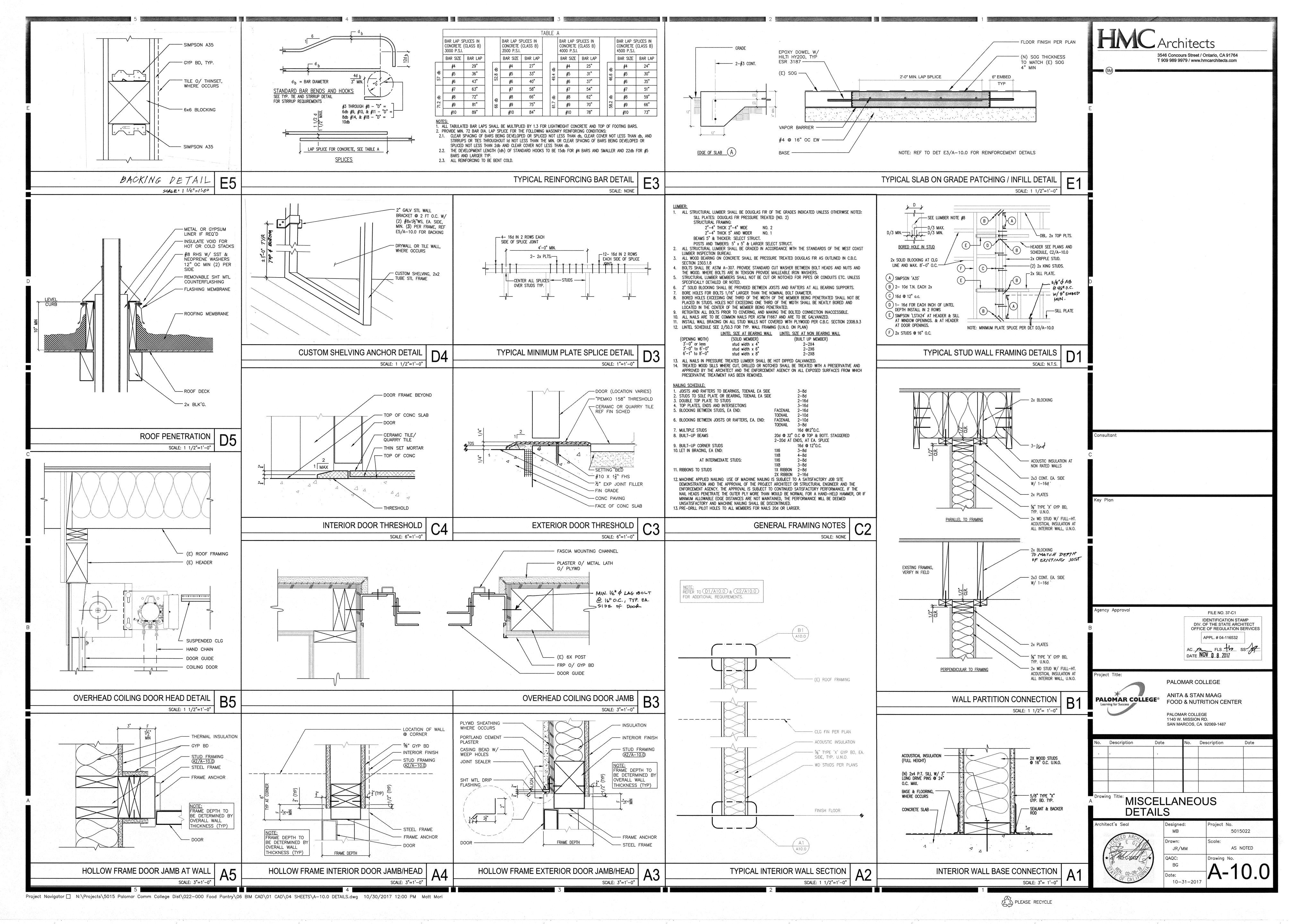


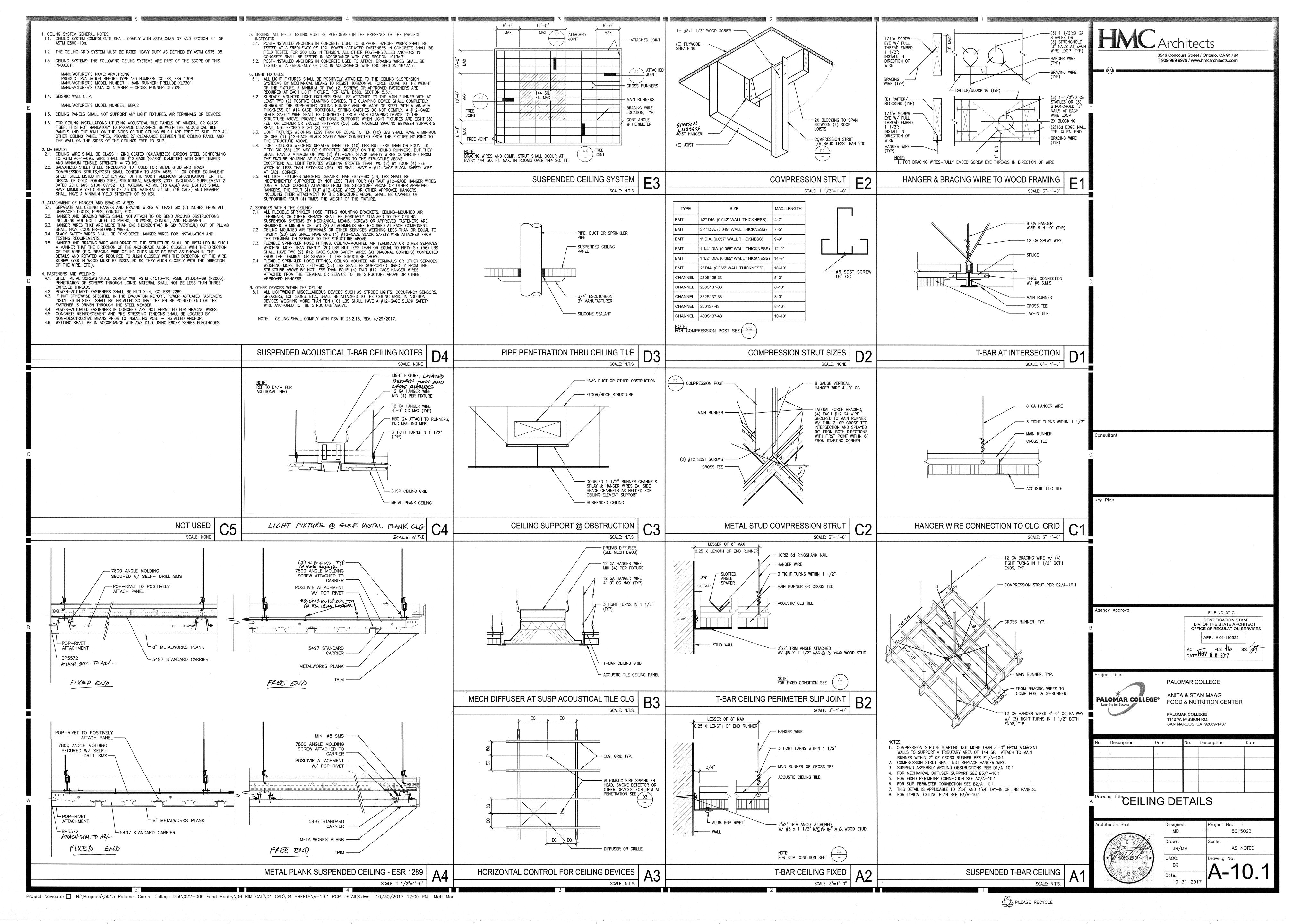


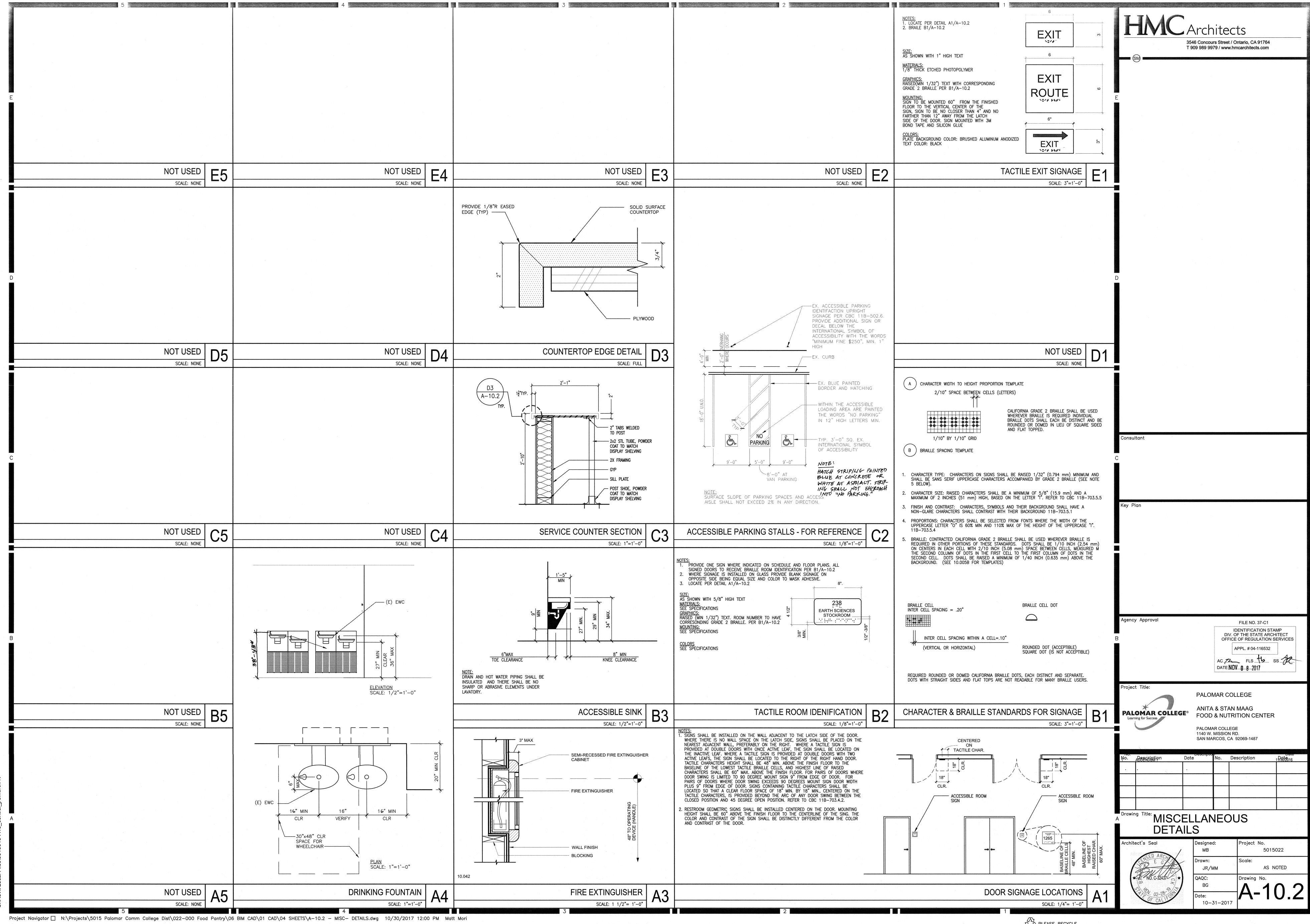




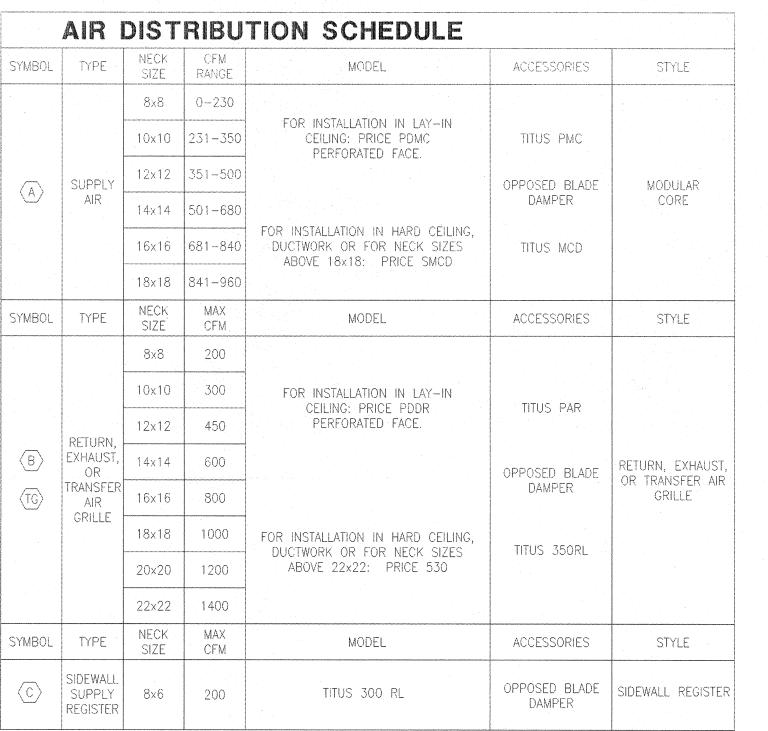








PLEASE RECYCLE



MEP Component Anchorage Note

- All mechanical, plumbing, and electrical components shall be anchored and installed per the details on the DSA approved construction documents. Where no detail is indicated, the following components shall be anchored or braced to meet the force and displacement of requirements prescribed in the 2016 CBC, Sections 1616A.1.18 through 1616A1.26 and ASCE 7-10 Chapter 13, 26 and 30.
- All permanent equipment and components.
 Temporary or movable equipment that is permanently attached (e.g. hard wired) to the
- Temporary or movable equipment that is permanently attached (e.g. hard wired) to the building utility services such as electricity gas or water.
 Movable equipment which is stationed in one place for more than 8 hours and heavier than

400 pounds or has a center of mass located 4 feet or more above adjacent floor or roof level that directly support the component are required to be anchored with temporary attachments.

The following mechanical and electrical components shall be positively attached to the structure, but the attachment need not be detailed on the plans. These components shall have flexible connections

A. Components weighing less than 400 pounds and have a center of mass located 4 feet or less above the adjacent floor or roof level that directly support the component.

B. Components weighing less than 20 pounds, or in the case of distributed systems, less than 5

pounds per foot, which are suspended from a roof or floor or hung from a wall.

For those elements that do not required details on the approved drawings, the installation shall be subject to the approval of the design professional in general responsible charge or structural engineer delegated responsibility and the DSA District Structural Engineer. The project inspector will verify that all components and equipment have been anchored in accordance with above requirements.

Piping, Ductwork, and Electrical Distribution System Bracing Note

Piping, ductwork, and electrical distribution systems shall be braced to comply with the forces and displacements prescribed in ASCE 7-10 Section 13.3 as defined in ASCE 7-10 Section 13.6.5.6, 13.6.7, 13.6.8, and 2016 CBC, Sections 1616A.1.24, 1616A.1.25, and 1616A.1.26.

The method of showing bracing attachments to the structure for the identified distribution systems are as noted below. When bracing and attachments are based on a preapproved installation guide (e.g., SMACNA or OSHPD OPM), copies of the bracing system installation guide or manual shall be available on the jobsite prior the start of and during the hanging and bracing of distribution systems. The Structural Engineer of Record shall verify the adequacy of the structure to support the hanger and brace loads.

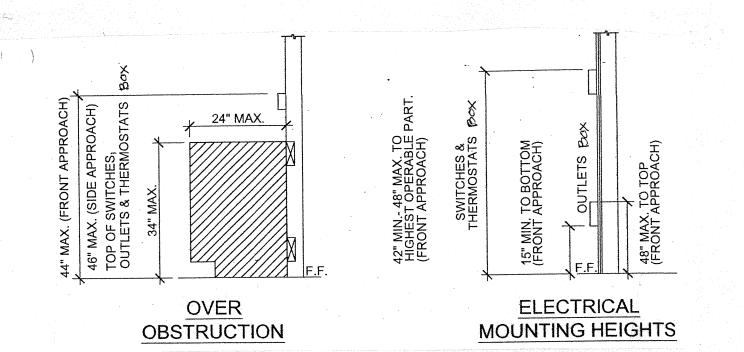
Mechanical Piping (MP), Mechanical Ducts (MD), Plumbing Piping (PP), Electrical Distribution

(MP), (MD), (PP) Shall comply with the SMACNA Seismic Restraint Manual, OSHPD Edition (2009), including any addenda. Fasteners and other attachments not specifically identified in the SMACNA Seismic Restraint Manual, OSHPD Edition, are detailed on the approved drawings with project specific notes and details. The details shall account for the applicable Seismic Hazard Level D and Connection Level 1 for the project and conditions.

MECHANICAL DUCT INSTALLATION SHALL COMPLY WITH 1616A.1.25 2016 CBC.

	***************************************		MECHANICA	- CIE 4608000			
	SYMBOL	ABBREV.	DESCRIPTION		SYMBOL	ABBREV.	DESCRIPTION
	tronefog Lainshafagi		REMOVE EXISTING EQUIPMENT OR PIPING SHOWN HATCHED			***************************************	DUCT TRANSITION
			REMOVE AND RELOCATE EXISTING EQUIPMENT			CD	CEILING DIFFUSER
	The state of the s		OR PIPING SHOWN HATCHED			RR	RETURN REGISTER
		POC	POINT OF CONNECTION			ER	EXHAUST REGISTER
	(E)	POD	POINT OF DISCONNECT COORDINATE WITH ELECTRICAL		DAC-3	T'STAT	THERMOSTAT OR TEMPERATURE SENSOR (NU INDICATES EQUIPMENT ZONE SERVED)
	HHWS —	HHWS	HEATING HOT WATER SUPPLY		(<u>()</u>)	H'STAT	HUMIDISTAT
	——HHWR——	HHWR	HEATING HOT WATER RETURN			11) (CARBON DIOXIDE SENSOR
	CHW	CHW	CHILLED WATER		•	CFM	CUBIC FEET PER MINUTE
	CHWR	CHWR	CHILLED WATER RETURN		\bigcirc OR $\left(\overline{-} \right)$	ereconomics.	SYMBOL, SEE EQUIPMENT SCHEDULE
	CHWS	CHWS	CHILLED WATER SUPPLY			AD/AP	ACCESS DOOR / ACCESS PANEL
		CD	CONDENSATE DRAIN (A.C)	Parameter and the second secon		AFF	ABOVE FINISHED FLOOR
	CWR	CWR	CONDENSER WATER RETURN			BDD	BACK DRAFT DAMPER
	—— CWS ——	CWS	CONDENSER WATER SUPPLY			BOD	BOTTOM OF DUCT
	D	D	DRAIN			BOP	BOTTOM OF PIPE (ABOVE FIN. FLR.)
	ST -	ST	STEAM			CLC	CEILING DIFFUSER
	—— LPS ——	LPS	LOW PRESSURE STEAM MEDIUM PRESSURE STEAM			CLG.	CEILING CUBIC FEET PER MINUTE
	—— HPS ——	HPS	HIGH PRESSURE STEAM			CONC.	CONCRETE
-	— CR —	CR	STEAM CONDENSATE RETURN			CONT.	CONTINUATION
		RD	REFRIGERANT DISCHARGE			* -	DEGREES FAHRENHEIT
		RL .	REFRIGERANT LIQUID			DIA. Ø	DIAMETER
	RS	RS	REFRIGERANT SUCTION			DN.	DOWN
			PIPE DOWN			DWGS.	DRAWINGS
			PIPE UP			DB	DRY BULB
***************************************	EII—•UPII?		PIPE RISE (OR DN. FOR DROP)			DTR	DUCT THRU ROOF
			DIRECTION OF FLOW IN PIPE			(E)	EXISTING
		AV	AIR VENT (VALVE)			EA	EXHAUST AIR
		CHV SD	CHECK VALVE SUCTION DIFFUSER			ER	EXHAUST REGISTER
Jensey.		CV (2W)	CONTROL VALVE (2-WAY)			EFF.	EFFICIENCY ELEVATION
		CV (2W)	CONTROL VALVE (3-WAY)			ENT.	ENTERING
	学	FCD	AUTOMATIC FLOW CONTROL DEVICE			EWT	ENTERING WATER TEMPERATURE
-	·	SOV	SHUT OFF VALVE			EXH.	EXHAUST
		BV	COMBINATION BALANCING & SHUT-OFF VALVE			EXIST.	EXISTING
-		FEV	FLOW ELEMENT VENTURI			FF	FINISHED FLOOR
	*		VALVE ON RISE OR DROP	-		FIN.	FINISH
		STR.	STRAINER			FLR.	FLOOR
		CL	CAPPED LINE			GPM	GALLONS PER MINUTE
	C	DN.	DOWN OR DROP			IN.	INCH CONTRACTOR OF THE CONTRAC
	0—————————————————————————————————————	UP	RISE OR RISER			HD.	HEAD
		RV	PRESSURE RELIEF VALVE			HOA	HAND-OFF-AUTOMATIC
	<u> </u>	PG R.	PRESSURE GAUGE WITH BALL VALVE ECCENTRIC REDUCER			HP LD	HORSEPOWER LINEAR DIFFUSER
		R.	CONCENTRIC REDUCER			LVG.	LEAVING
-		FC	FLEXIBLE CONNECTION (PIPE)			LWT	LEAVING WATER TEMPERATURE
			TEST WELL (PETE'S PLUG) – PRESSURE			MAX.	MAXIMUM
-	T	TW	AND/OR TEMPERATURE			MBH	ONE THOUSAND B.T.U.'s PER HOUR
			THERMOMETER			MECH.	MECHANICAL
		PA	PIPE ANCHOR			MIN.	MINIMUM
			UNION			MTD.	MOUNTED
	10x6		DUCTWORK (1ST NUMBER INDICATES WIDTH SHOWN), NET INSIDE DIMENSION			MTG.	MOUNTING
						NC	NORMALLY CLOSED
		TV 1	SQUARE ELBOW WITH TURNING VANES			NO	NORMALLY OPEN
		MVD	RADIUS ELBOW WITH 3 SPLITTER VANES MANUAL VOLUME DAMPER			OBD	OPPOSED BLADE DAMPER OUTSIDE AIR
		MOD	MOTOR OPERATED DAMPER			OA PD	PRESSURE DROP
		BDD	BACKDRAFT DAMPER			PSIG	POUNDS PER SQUARE INCH GAUGE
	FD	FD	FIRE DAMPER			RA	RETURN AIR
		SD	DUCT MOUNTED SMOKE DETECTOR			REG.	REGISTER
	SD SFD						
	Xmm I	SFD FLEX	AUTOMATIC SMOKE AND FIRE DAMPER FLEXIBLE CONNECTION (DUCTWORK)			RR	RETURN REGISTER
	FAIMME I	FLEX	FLEXIBLE CONNECTION OR SEISMIC JOINT			SA SF	SUPPLY AIR SOUARE FEET
1		I have been I have	LINED DUCTWORK (OR PLENUM)			SS	STAINLESS STEEL
	- UPI +	***************************************	DUCT RISE IN DIRECTION OF FLOW			ST	STEAM
	DN	nearest state of the state of t	DUCT DROP IN DIRECTION OF FLOW			TYP.	TYPICAL
		CONTRACTOR AND A	ROUND DUCT UP			UNO:	UNLESS NOTED OTHERWISE
			ROUND DUCT DOWN			, UOS,	UNLESS OTHERWISE SPECIFIED
			SUPPLY DUCT UP			UTR	UP THRU ROOF
	X	· ·	SUPPLY DUCT DOWN			VAV	VARIABLE AIR VOLUME
		RA/OA	RETURN AIR DUCT/OUTSIDE AIR DUCT UP			VFD	VARIABLE FREQUENCY DRIVE
		подоложения под	RETURN AIR DUCT/OUTSIDE AIR DUCT DOWN			VTR	VENT THRU ROOF
		naturational	EXHAUST AIR DUCT UP			WG	WATER GAUGE
. 1 -		- Industrial Confession Confessio	EXHAUST AIR DUCT DOWN			WB w/	WET BULB
		. 1				W/	WITH

MECHANICAL LEGEND



GENERAL NOTES:

- THESE DRAWINGS ARE A GENERAL GRAPHIC PRESENTATION OF THE WORK.

 DUCTWORK, PIPING, AND EQUIPMENT, AS SHOWN, ARE SCHEMATIC. FABRICATE AND INSTALL BASED ON ACTUAL FIELD MEASUREMENT. COORDINATE WITH OTHER TRADES. PROVIDE A COMPLETE SET OF SHOP DRAWINGS REFLECTING ACTUAL DIMENSIONS, ACCESS REQUIREMENTS, AND DETAILS BASED UPON THE ACTUAL EQUIPMENT PROCURED. MAINTAIN AN UP TO DATE SET OF AS-BUILT DRAWINGS AT THE JOB SITE.
- 2. COMPLY WITH CALIFORNIA MECHANICAL CODE (CMC), CALIFORNIA PLUMBING CODE (CPC), AND NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), AND GOVERNING CODES. THERE SHALL BE NO EXCEPTION. REPORT DEFICIENCIES WITHIN THIRTY (30) DAYS UPON AUTHORIZATION TO PROCEED.
- 3. REVIEW ALL DRAWINGS AND SPECIFICATIONS INCLUDING ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL. ANY QUESTIONS SHALL BE BROUGHT UP, IN WRITING, TO THE ATTENTION OF THE ENGINEER BEFORE THE START OF CONSTRUCTION.
- 4. PROVIDE ACCESS AND CLEARANCE FOR MAINTENANCE FOR MECHANICAL EQUIPMENT AND COMPONENTS AS RECOMMENDED BY EQUIPMENT MANUFACTURER AND APPLICABLE
- 5. HANDLE, STORE AND INSTALL EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS.
- 6. INSTALL VALVES WITH UNIONS OR FLANGES AT EACH PIECE OF EQUIPMENT ARRANGED TO ALLOW SERVICE MAINTENANCE, AND EQUIPMENT REMOVAL WITHOUT SYSTEM SHUT-DOWN.
- 7. BRACE AND SUPPORT PIPES, CONDUIT, AND DUCTWORK IN ACCORDANCE WITH SMACNA GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL AND PLUMBING PIPING SYSTEM.
- 8. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF DIFFUSERS, REGISTERS, GRILLES, AND ACCESS PANELS.
- 9. ALL DUCT DIMENSIONS, AS SHOWN ON MECHANICAL DRAWINGS ARE CLEAR INSIDE DIMENSIONS.
- 10. INSULATION AND FLEXIBLE DUCT SHALL COMPLY WITH STATE FIRE MARSHALL CRITERIA AND SHALL NOT EXCEED FLAME SPREAD OF 25 AND SMOKE DEVELOPED OF 50 PER ASTM-84, NFPA-223, AND UL 723.
- 11. INSULATE PIPING AND DUCTWORK IN ACCORDANCE WITH THE GOVERNING CODES.

 12. COMMISSION AND START-UP THE MECHANICAL SYSTEMS TO ASSURE A COMPLETE AND

OPERATIONAL HVAC SYSTEM IN ACCORDANCE WITH ASHRAE AND NEBB.

- 13. ALL SQUARE ELBOWS IN DUCTWORK SHALL HAVE DOUBLE THICKNESS TURNING VANES. ALL RADIUS ELBOWS IN DUCTWORK SHALL BE MINIMUM 1.5W (1.5xWIDTH) AND HAVE 3 SPLITTER VANES. PROVIDE MANUAL VOLUME DAMPER AT EACH BRANCH DUCT TAKE—OFF SERVING EACH AIR TERMINAL DEVICE. PROVIDE BALANCING DAMPERS FOR EACH MAIN DUCT TAKE—OFF IN ACCORDANCE WITH SMACNA IN ORDER TO ASSURE A COMPLETELY BALANCED SYSTEM.
- 14. FIRE DAMPER ASSEMBLIES, INCLUDING LOCATION, SLEEVES, AND INSTALLATION PROCEDURES SHALL BE APPROVED BY THE BUILDING INSPECTOR PRIOR TO PROCUREMENT AND INSTALLATION. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF FIRE RATED WALLS AND SMOKE SEPARATIONS.
- 15. COORDINATE WITH ELECTRICAL AND CONTROL CONTRACTORS FOR ALL POWER REQUIREMENTS PRIOR TO BID.
- 16. COORDINATE WITH ELECTRICAL AND CONTROL CONTRACTORS FOR ALL POWER REQUIREMENTS PRIOR TO ORDERING ANY EQUIPMENT.
- 17. UPON INSTALLATION OF ALL EQUIPMENT, DEVICES, VIBRATION ISOLATION, ETC., PROVIDE WRITTEN CONFIRMATION BY EQUIPMENT MANUFACTURER'S REPRESENTATIVES TO ENSURE COMPLIANCE WITH MANUFACTURER'S REQUIREMENTS.
- 8. PROVIDE DETAILS AND SEISMIC CALCULATIONS FOR ALL EQUIPMENT ON VIBRATION ISOLATION. ALL DETAILS SHALL BE STAMPED BY A STRUCTURE ENGINEER FROM VIBRATION ISOLATION MANUFACTURER.
- 19. THE CONTRACTOR SHALL SELECT ALL CIRCUIT SETTERS/BALANCING VALVES FOR ACTUAL FLOW THROUGH THE PIPE AND THE PROPER PRESSURE DROP TO ENSURE PROPER OPERATION AND NOT BASED ON PIPE SIZES.

PROJECT NOTES

- 1. CONTRACTOR SHALL COORDINATE ARCHITECTURAL REFLECTED CEILINGS PLANS WITH ALL DISCIPLINES TO VERIFY CLEARANCES BETWEEN HVAC DUCTS, HVAC PIPING, LIGHT FIXTURES, ELECTRICAL DATA CONDUITS, PLUMBING LINES, FIRE PROTECTION LINES, STRUCTURAL MEMBERS, ETC. SPECIAL ATTENTION IS REQUIRED ALONG THE LENGTH OF MAIN MECHANICAL SUPPLY AND RETURN AIR DUCTS WHERE THERE IS LIMITED CLEARANCE FOR PASSAGE OR ROUTING OF UTILITIES.
- 2. THE SPACE FOR DUCT WORK & MECHANICAL EQUIPMENT FOR THIS PROJECT IS LIMITED. COORDINATION WITH OTHER TRADES IS CRITICAL. PROCEED WITH PREPARATION OF SHOP DRAWINGS IMMEDIATELY UPON RECEIVING AN AUTHORIZATION TO PROCEED FOR THE PROJECT. COMPLETE SHOP DRAWINGS PRIOR TO MATERIAL FABRICATION AND INSTALLATION. SHOP DRAWINGS SHALL BE REVIEWED BY COMMISSIONING AGENT PRIOR TO SUBMITTAL.
- 3. PROVIDE ORIGINALLY PREPARED CONTRACTOR'S SHOP DRAWINGS IN ELECTRONIC FORMAT. IN ADDITION TO THE REQUIREMENTS SPECIFIED ELSEWHERE, THE SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING:
- a. DUCT, PIPE AND PLUMBING ELEVATIONS.
- b. DOUBLE LINE DUCTWORK AND PIPING (6" AND LARGER).
- c. ACTUAL SIZE OF PURCHASED EQUIPMENT, PER APPROVED CONTRACTOR'S SHOP DRAWINGS.
- d. ACCESS PANELS INCLUDING CEILING PANELS.
- e. ACCESS CLEARANCES FOR EQUIPMENT.
- f. ACTUAL LOCATIONS OF CEILING DIFFUSERS, REGISTERS, AND RETURN REGISTERS.
- g. LOCATIONS OF STRUCTURAL MEMBERS SUCH AS BEAMS.
- h. ACTUAL LOCATIONS OF CONTROL PANELS AND POWER CONNECTIONS TO
- i. COLOR CODED DUCT AND PIPING BASED ON MATERIAL USED.
- T. COLOR CODED DUCT AND PIPING BASED ON MATERIAL (
- j. MINIMUM 1/4"=1"0" SCALE DRAWINGS.k. LABEL AND TAG SCHEDULE FOR EQUIPMENT.
- I. DUCT TRANSITIONS TO CLEAR BEAMS OR TIGHT AREAS.
- m. ROOM TEMPERATURE SENSOR LOCATIONS.
- n. POINT OF CONNECTION TO UTILITIES OUTSIDE THE BUILDING.
- o. SECTIONS OR 3-D DRAWINGS OF CONGESTED AREAS.
- p. GRID LINES.

 q. UTILITY PROFILES FOR UNDERGROUND PIPING.
- 4. DO NOT COMMENCE WITH ANY INSTALLATION, DEMOLITION OR ORDERING OF ANY EQUIPMENT OR MATERIAL FABRICATION WITHOUT AN APPROVED SHOP DRAWING SUBMITTAL
- FOR EACH SUBMITTAL, THE CONTRACTOR SHALL PROVIDE A LETTER (ON COMPANY LETTERHEAD) AND SIGNED BY THE PROJECT MANAGER INDICATING THE SUBMITTAL HAS BEEN FULLY IN HOUSE REVIEWED TO ENSURE FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS AND COORDINATION WITH OTHER TRADES. ANY EXCEPTIONS TO THE CONTRACT DOCUMENTS SHALL BE CLEARLY INDICATED ON THIS LETTER. ANY DISCREPANCIES/EXCEPTIONS NOT IDENTIFIED IN WRITING SHALL BE CORRECTED AT THE SOLE EXPENSE OF THE CONTRACTOR AND AT NO EXPENSE TO THE OWNER AND





5160 Carroll Canyon Rd,
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San Diego, California 92121
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①858 200-0030
②858 200-0037
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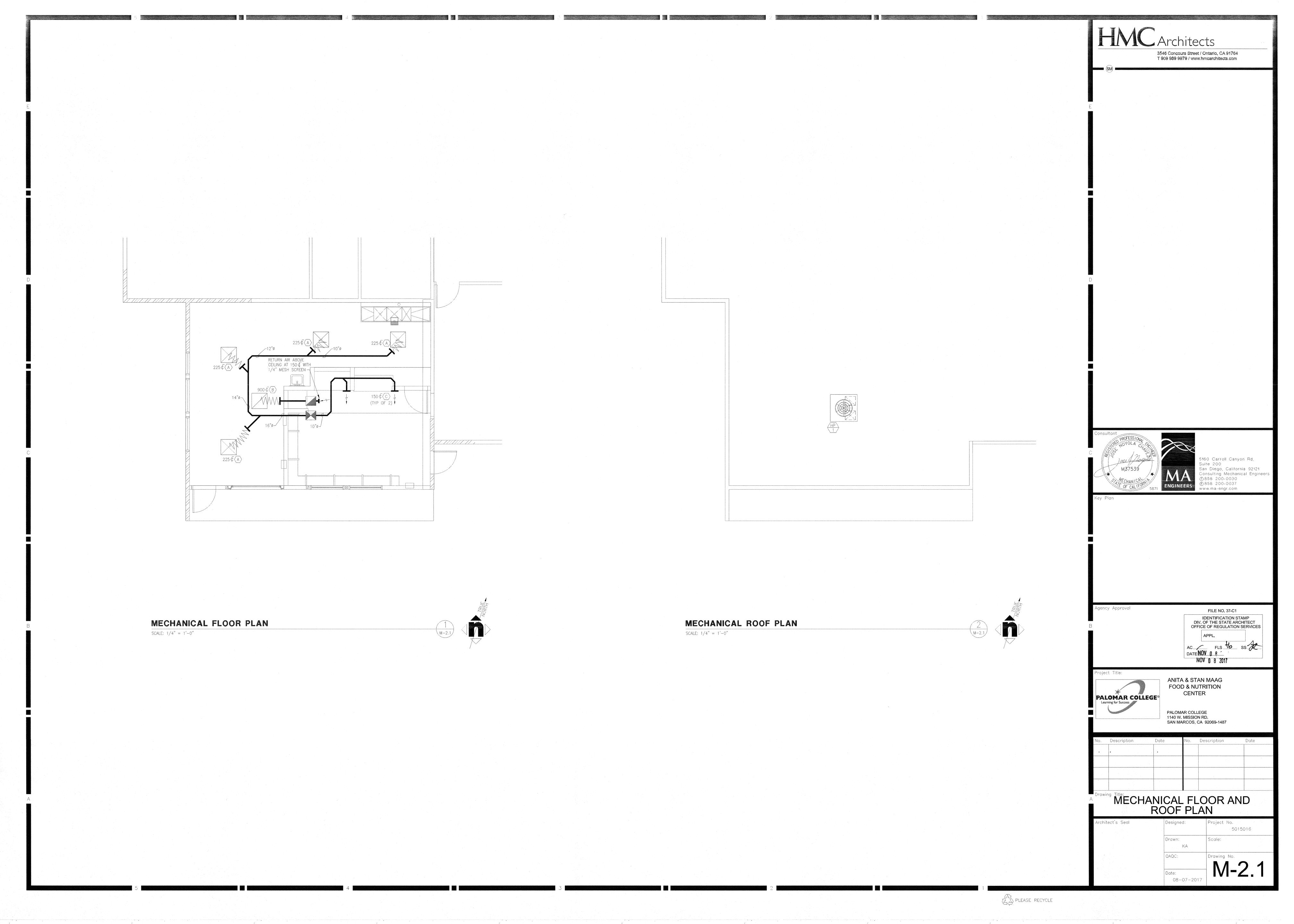
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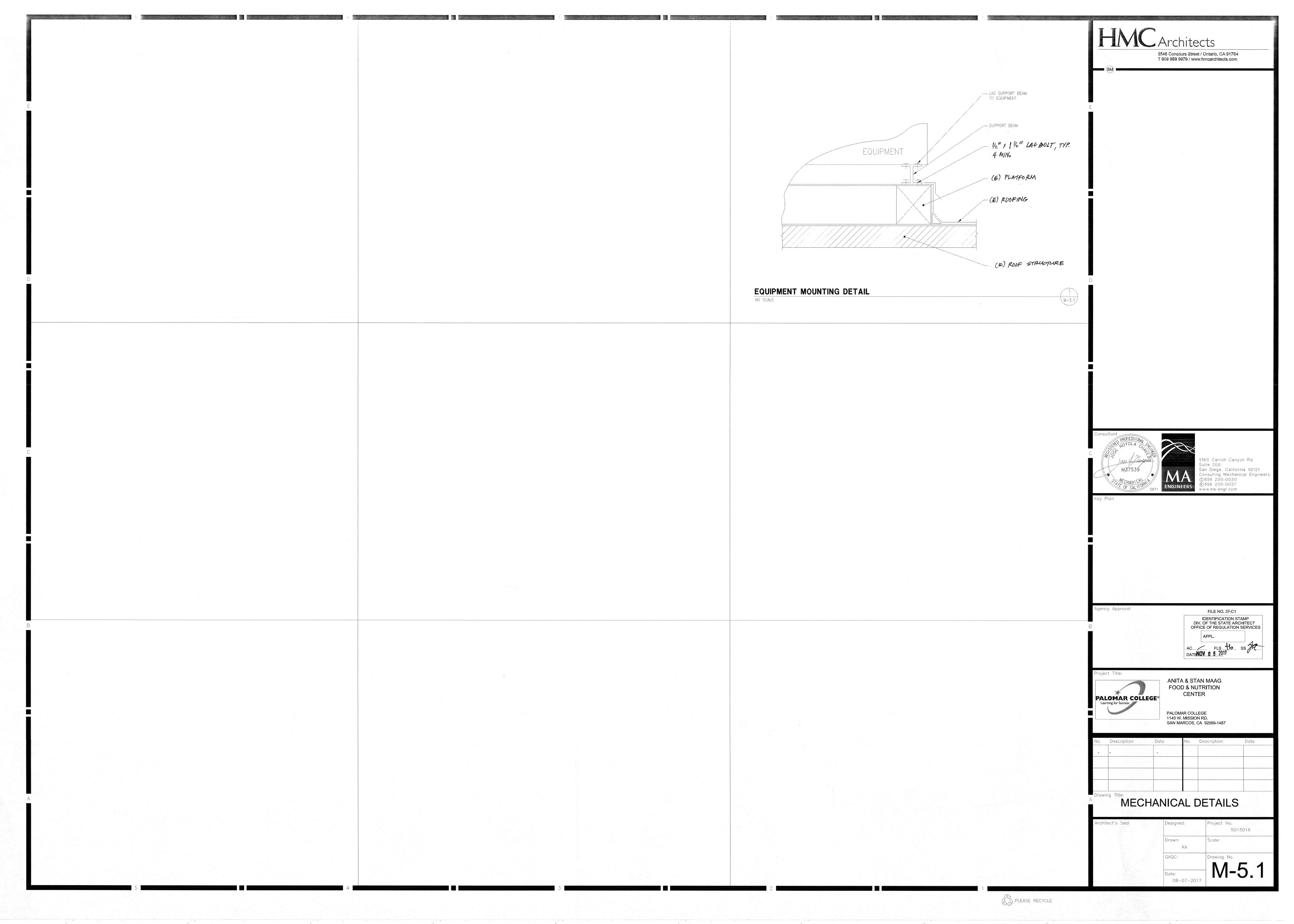
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A MECHANICAL LEGEND, GENERAL NOTES AND SCHEDULES







		PLUMBING LEGEND	AND ABBREVI	ATIONS	
SYMBOL	ABBREV.	DESCRIPTION	SYMBOL	ABBREV.	DESCRIPTION
9	POC	POINT OF CONNECTION		ABV	ABOVE
		WASTE OR SEWER BELOW SLAB		A/C	ABOVE CEILING
				A.F.F.	ABOVE FINISH FLOOR
	4	WASTE OR SEWER ABOVE SLAB		A.F.G.	ABOVE FINISH GRADE
	V V	SANITARY VENT		A/G 1	ABOVE GRADE
	CW	COLD WATER		A.P.	ACCESS PANEL
	d H₩ a	HOT WATER		B/F	BELOW FLOOR
	HWR	HOT WATER RETURN		B/G	BELOW GRADE
				CFH	CUBIC FEET PER HOUR
	FS	FLOOR SINK		DWGS.	DRAWINGS
	FCO	FLOOR CLEAN-OUT		EA.	EACH
	WCO	WALL CLEAN-OUT		EXIST.	EXISTING
				(E)	EXISTING
	DN	DOWN OR DROP		FT,	FEET OR FOOT
	UP	RISE OR RISER		L C	FLOOR
CD	CD .	CONDENSATE DRAIN PIPING		FLR.	FLOOR
	***************************************			G.P.M.	GALLONS PER MINUTE
	and the second s			LB	POUNDS
				V.T.R.	VENT THROUGH ROOF
	And the second s			Manual Control of the	
	and the second s	•		The state of the s	
				An and an	
	uanasarasarasaras			Quality and the second	
)	
	TO THE PROPERTY OF THE PROPERT			**************************************	

			PLU	IMBIN	G FIX	TURE	SCHEDULE
		-		ROUGH-IN	1		
SYMBÖL	FIXTURE	HW	CW ¹	W	TRAP	V ***	REMARKS
	HAND SINK	1/2"	1/2"	2"	1 1/2"	1 1/2"	JUST MODEL HCL-23520-S, WALL HUNG, STAINLESS STEEL, CHICAGO MODEL # 116.213.AB.1 DECK MOUNTED BATTERY SENSOR FAUCET, JTM-47 THERMOSTATIC MIXING VALVE, J-15-FS DRAIN, PROVIDE P-TRAP, INTEGRAL WALL BRACKETS, STEEL WALL CLIF BATTERY HOLDER. ACCESSIBLE
$\left\langle \begin{array}{c} S \\ 2 \end{array} \right\rangle$	SINK	1/2"	1/2"	2,53			ADVANCE TABCO 94-63-54-18RL, STAINLESS STEEL, THREE COMPARTMENT SINK, DRAIN INDIRECT TO FLOOR SINK, CHICAGO MODEL # 510-GC613ALABCP PRE-RINSE FAUCET.
FS 1	FLOOR SINK			2,1	2"	2"	J. R. SMITH FIG. 3100, DUCO-CAST IRON BODY, SEEPAGE FLANGE, ACID RESISTING.
				Andrew College			

GENERAL NOTES

- 1. NO PLUMBING SHALL BE INSTALLED UNTIL ALL REQUIRED PLUMBING PLAN CHECK PERMITS AND APPROVALS HAVE BEEN OBTAINED FROM ALL REQUIRED AGENCIES.
- 2. LAVATORY FAUCETS, SINK FAUCETS (NOT INCLUDING SERVICE SINK FAUCETS OR FAUCETS DESIGNATED AS INSTITUTIONAL) SHALL MEET THE FLOW REQUIREMENTS OUTLINED IN THE APPLIANCE EFFICIENCY STANDARDS.
- 3. COORDINATE WITH THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF PLUMBING FIXTURES AND DRAINS.
- PROVIDE ALL TAILPIECES, TRAPS, STOPS, SUPPLY PIPES TO LAVATORIES DESIGNED AS
 ACCESSIBLE, WITH PRE FORMED INSULATION JACKET.
 COORDINATE AND VERIFY SIZES, LOCATIONS, DEPTHS AND PRESSURIZED PIPING PRESSURES
- OF ALL BUILDING UTILITIES WITH CIVIL.

 6. COORDINATE AND SCHEDULE TIMING FOR UTILITY SERVICE CONNECTION.
- 7. ALL LINES BELOW SLAB ON GRADE TO BE LOCATED AWAY FROM ALL LOAD BEARING
- 8. ALL LINES RUNNING BELOW GRADE BEAMS OR PENETRATING, SEE STRUCTURAL DRAWINGS FOR CONSTRUCTION.9. ALL VENTS THRU ROOF SHALL BE MINIMUM OF 18 INCHES VERTICAL AND TEN FEET
- HORIZONTAL AWAY FROM ALL AIR CONDITIONING FRESH AIR INTAKES AND PROVIDED WITH VANDAL PROOF HOODS.

 10. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF WALLS, ROOFS, FOOTINGS ELOOPS INCLUDING ALL SAW CUTTING AND CORE DRILLING COORDINATE ALL
- FOOTINGS, FLOORS, INCLUDING ALL SAW CUTTING AND CORE DRILLING. COORDINATE ALL SAW CUTTING AND CORE DRILLING WITH STRUCTURAL DRAWINGS. ANY CUTTING AND DRILLING REQUIRED OF STRUCTURAL ELEMENTS THAT IS NOT SPECIFICALLY SHOWN ON THE PLANS SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION PRIOR TO CUTTING AND DRILLING. CONTRACTOR SHALL SUBMIT PROPOSED LOCATION AND SIZES OF SUCH CUTTING AND DRILLING FOR THE ARCHITECTS AND STRUCTURAL ENGINEERS APPROVAL.
- LOCATIONS WITH STRUCTURAL DRAWINGS PRIOR TO WORK.

 12. COORDINATE INSTALLATION OF ALL EQUIPMENT AND PIPING WITH OTHER TRADES PRIOR
 TO INSTALLATION. ENSURE THAT ALL CONTROL DEVICES, SHUT-OFF VALVES, ETC. ARE
 ACCESSIBLE FOR MAINTENANCE. WHEN ACCESS PANELS ARE REQUIRED IN FINISHED
 SPACES, OTHER THAN THAT SHOWN, CONTRACTOR SHALL PROVIDE AND COORDINATE

1. COORDINATE ALL EQUIPMENT LOCATIONS, PIPE PENETRATIONS AND EQUIPMENT PAD

- EXACT LOCATION OF PANELS WITH ARCHITECT PRIOR TO INSTALLATION.

 13. INSTALL VALVES WITH UNIONS OR FLANGES AT EACH PIECE OF EQUIPMENT ARRANGED TO ALLOW SERVICE, MAINTENANCE, AND EQUIPMENT REMOVAL WITHOUT SYSTEM SHUT—DOWN.
- 14. ANY STRUCTURAL FIREPROOFING DAMAGED DURING INSTALLATION OF PLUMBING EQUIPMENT, PIPING, ETC. SHALL BE REPAIRED AT NO COST TO THE OWNER. REPAIRS SHALL BE AS DIRECTED BY THE ARCHITECT.

17. CROSS CONNECTION PROTECTION SHALL BE PROVIDED AT ALL POTABLE WATER SUPPLIED

- 15. PROVIDE VACUUM BREAKERS AT HOSE BIBBS.
- 16. FAUCETS TO BE 2. 2 G.P.M. (0.14 L/S) MAXIMUM.
- APPLIANCES AND EQUIPMENT.

 18. COORDINATE WITH ELECTRICAL AND CONTROL CONTRACTORS FOR ALL POWER
- REQUIREMENTS PRIOR TO BID.

 19. COORDINATE WITH ELECTRICAL AND CONTROL CONTRACTORS FOR ALL POWER
- REQUIREMENTS PRIOR TO ORDERING ANY EQUIPMENT.

 20. UPON INSTALLATION OF ALL EQUIPMENT, DEVICES, VIBRATION ISOLATION, ETC., PROVIDE WRITTEN CONFIRMATION BY EQUIPMENT MANUFACTURER'S REPRESENTATIVES TO ENSURE
- COMPLIANCE WITH MANUFACTURER'S REQUIREMENTS.

 21. PROVIDE DETAILS AND SEISMIC CALCULATIONS FOR ALL EQUIPMENT ON VIBRATION ISOLATION.
 ALL DETAILS SHALL BE STAMPED BY A STRUCTURAL ENGINEER FROM VIBRATION ISOLATION
- 22. FOR EACH SUBMITTAL, THE CONTRACTOR SHALL PROVIDE A LETTER (ON COMPANY LETTERHEAD) AND SIGNED BY THE PROJECT MANAGER INDICATING THE SUBMITTAL HAS BEEN FULLY IN HOUSE REVIEWED TO ENSURE FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS AND COORDINATION WITH OTHER TRADES. ANY EXCEPTIONS TO THE CONTRACT DOCUMENTS SHALL BE CLEARLY INDICATED ON THIS LETTER. ANY DISCREPANCIES/EXCEPTIONS NOT IDENTIFIED IN WRITING SHALL BE CORRECTED AT THE SOLE EXPENSE OF THE CONTRACTOR AND AT NO EXPENSE TO THE OWNER AND ENGINEER.

MEP Component Anchorage Note

MANUFACTURER.

All mechanical, plumbing, and electrical components shall be anchored and installed per the details on the DSA approved construction documents. Where no detail is indicated, the following components shall be anchored or braced to meet the force and displacement of requirements prescribed in the 2016 CBC, Sections 1616A.1.18 through 1616A1.26 and ASCE 7-10 Chapter 13, 26 and 30.

- All permanent equipment and components.
- Temporary or movable equipment that is permanently attached (e.g. hard wired) to the building utility services such as electricity gas or water.
- 3. Movable equipment which is stationed in one place for more than 8 hours and heavier than 400 pounds or has a center of mass located 4 feet or more above adjacent floor or roof level that directly support the component are required to be anchored with temporary attachments.
- The following mechanical and electrical components shall be positively attached to the structure, but the attachment need not be detailed on the plans. These components shall have flexible connections provided between the component and associated ductwork, piping, and conduit.
- A. Components weighing less than 400 pounds and have a center of mass located 4 feet or less above the adjacent floor or roof level that directly support the component.
 B. Components weighing less than 20 pounds, or in the case of distributed systems, less than 5
- For those elements that do not required details on the approved drawings, the installation shall be subject to the approval of the design professional in general responsible charge or structural engineer delegated responsibility and the DSA District Structural Engineer. The project inspector will verify that all components and equipment have been anchored in accordance with above requirements.

pounds per foot, which are suspended from a roof or floor or hung from a wall.

Piping, Ductwork, and Electrical Distribution System Bracing Note

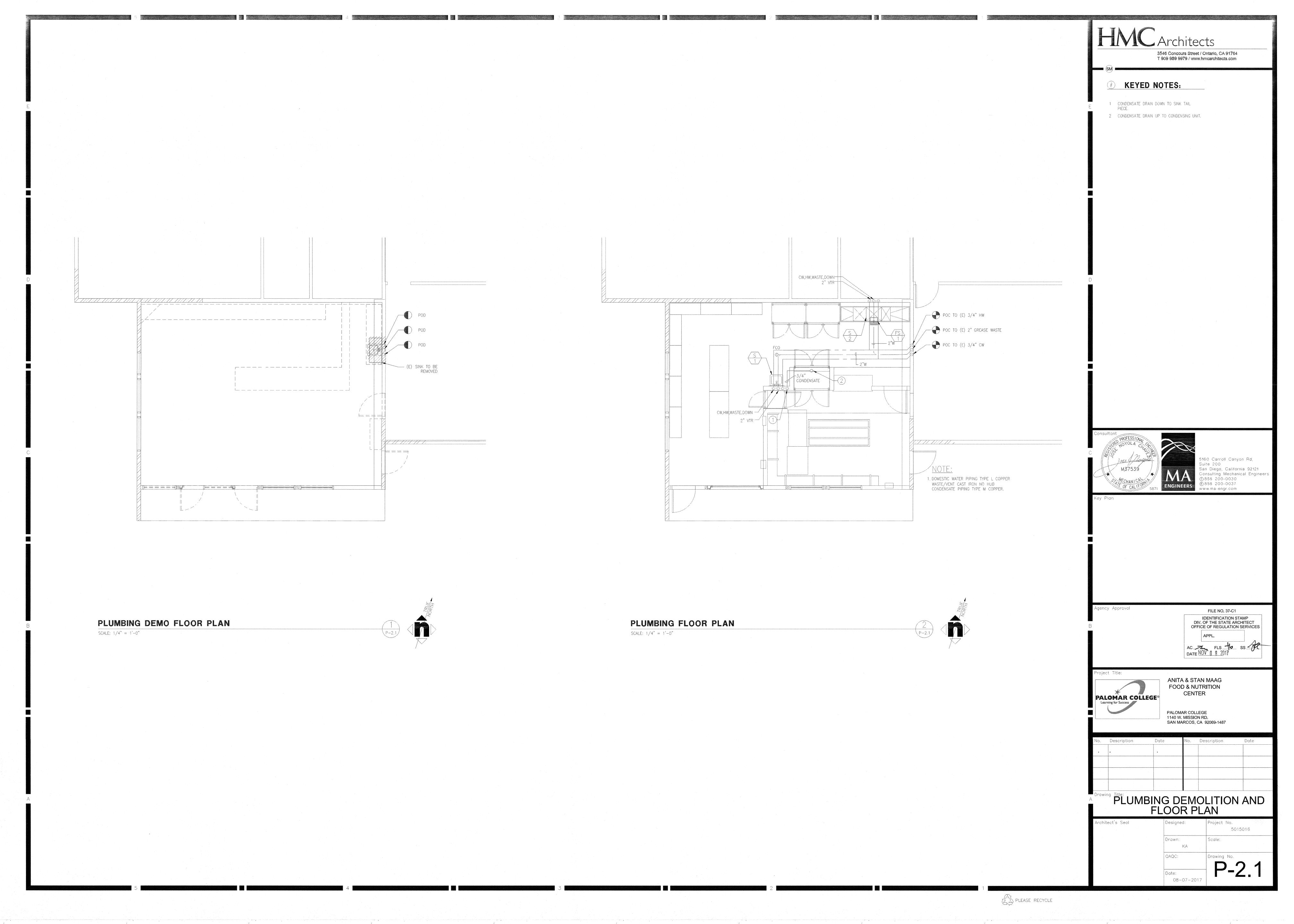
Piping, ductwork, and electrical distribution systems shall be braced to comply with the forces and displacements prescribed in ASCE 7-10 Section 13.3 as defined in ASCE 7-10 Section 13.6.5.6, 13.6.7, 13.6.8, and 2016 CBC, Sections 1616A.1.24, 1616A.1.25, and 1616A.1.26.

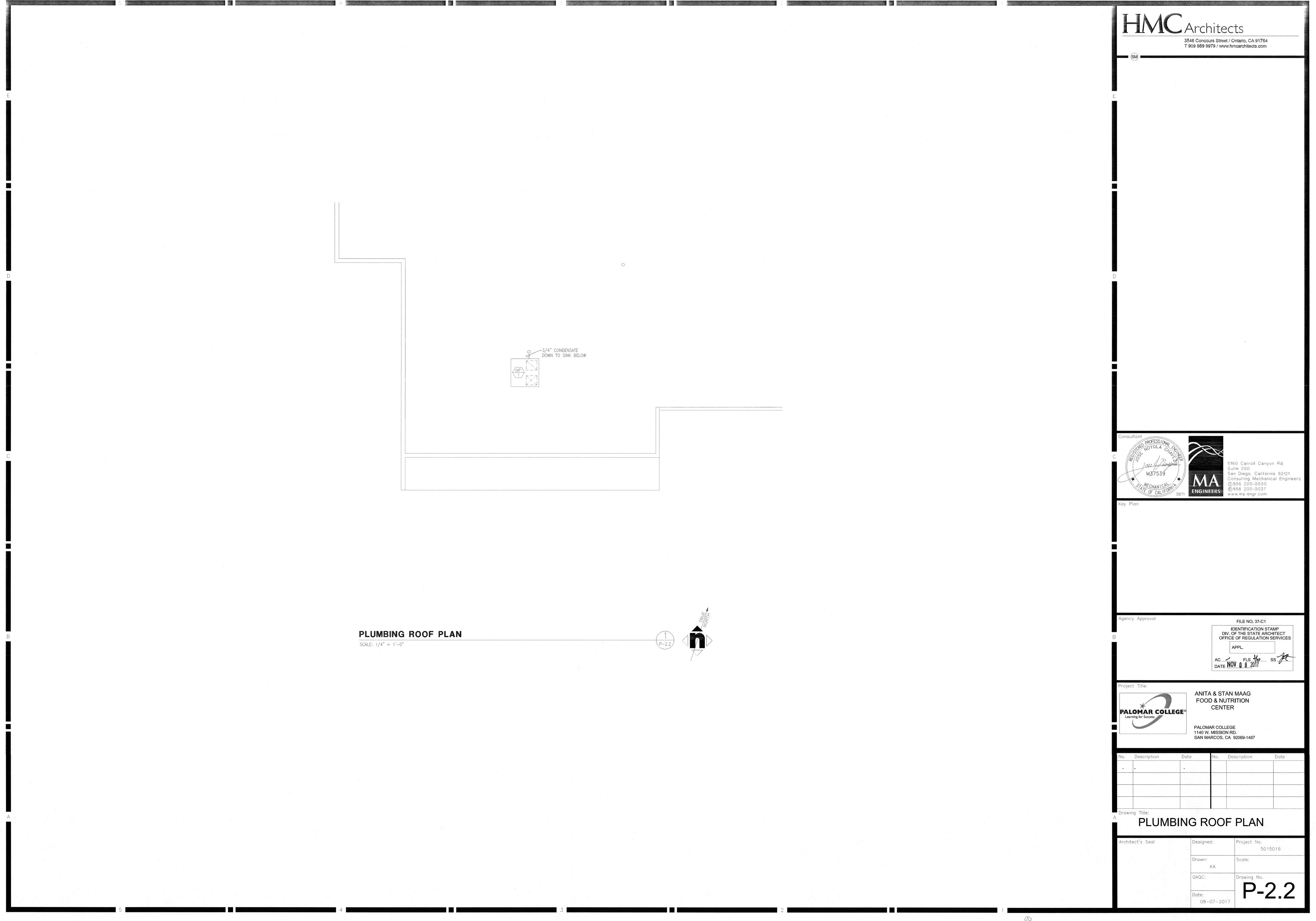
The method of showing bracing attachments to the structure for the identified distribution systems are as noted below. When bracing and attachments are based on a preapproved installation guide (e.g., SMACNA or OSHPD OPM), copies of the bracing system installation guide or manual shall be available on the jobsite prior the start of and during the hanging and bracing of distribution systems. The Structural Engineer of Record shall verify the adequacy of the structure to support the hanger and brace loads.

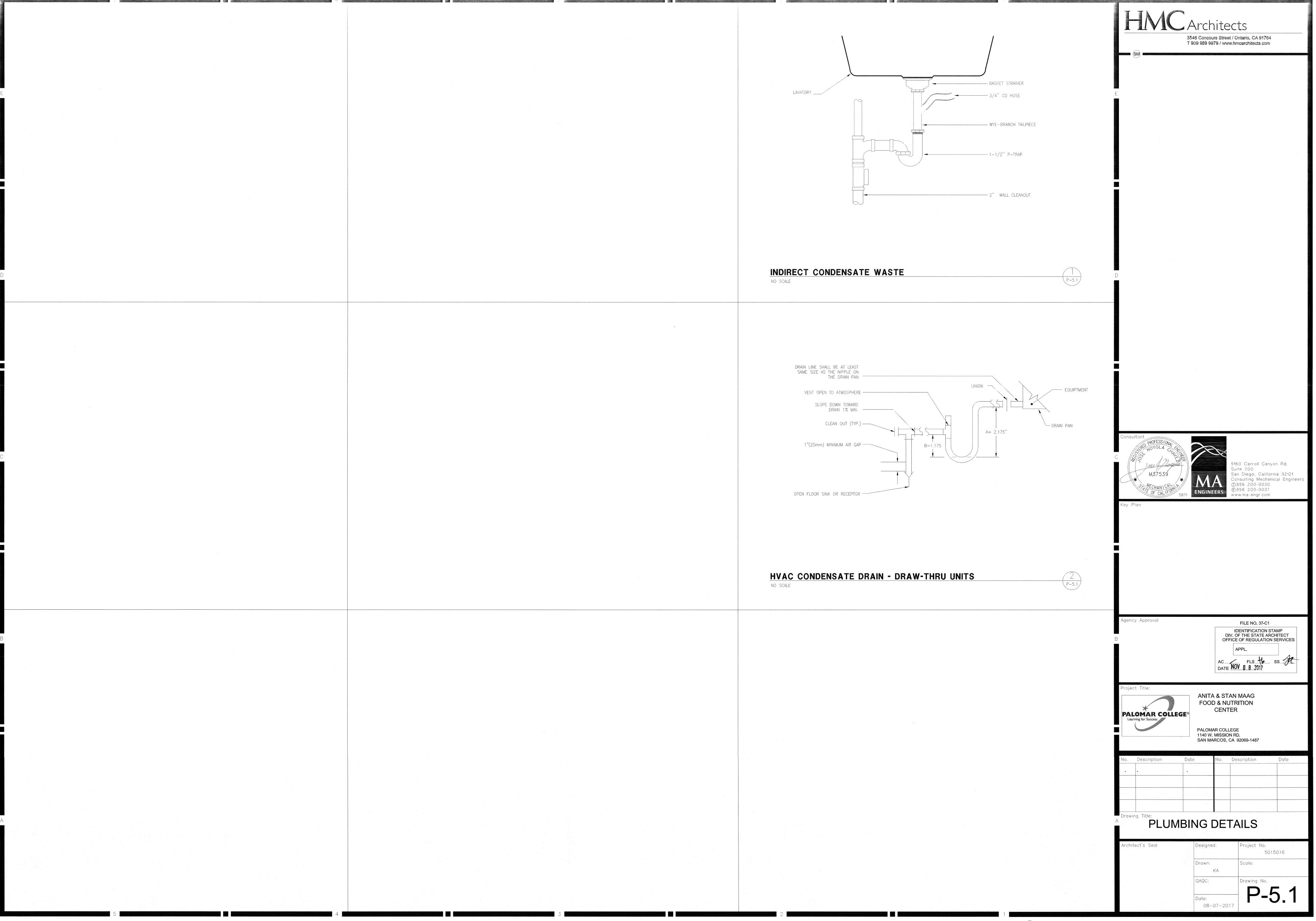
Mechanical Piping (MP), Mechanical Ducts (MD), Plumbing Piping (PP), Electrical Distribution Systems (E):

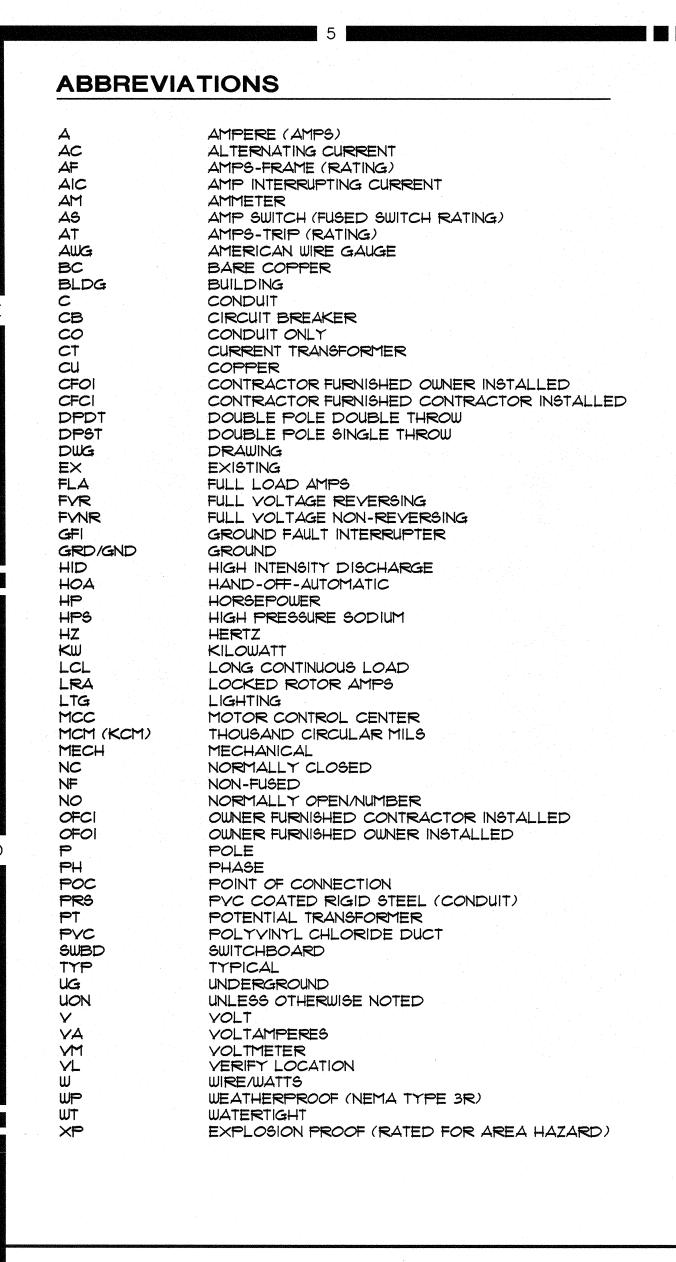
(MP), (MD), (PP) Shall comply with the SMACNA Seismic Restraint Manual, OSHPD Edition (2009), including any addenda. Fasteners and other attachments not specifically identified in the SMACNA Seismic Restraint Manual, OSHPD Edition, are detailed on the approved drawings with project specific notes and details. The details shall account for the applicable Seismic Hazard Level D and Connection Level 1 for the project and conditions.











BACKBOX AND RING LEGEND

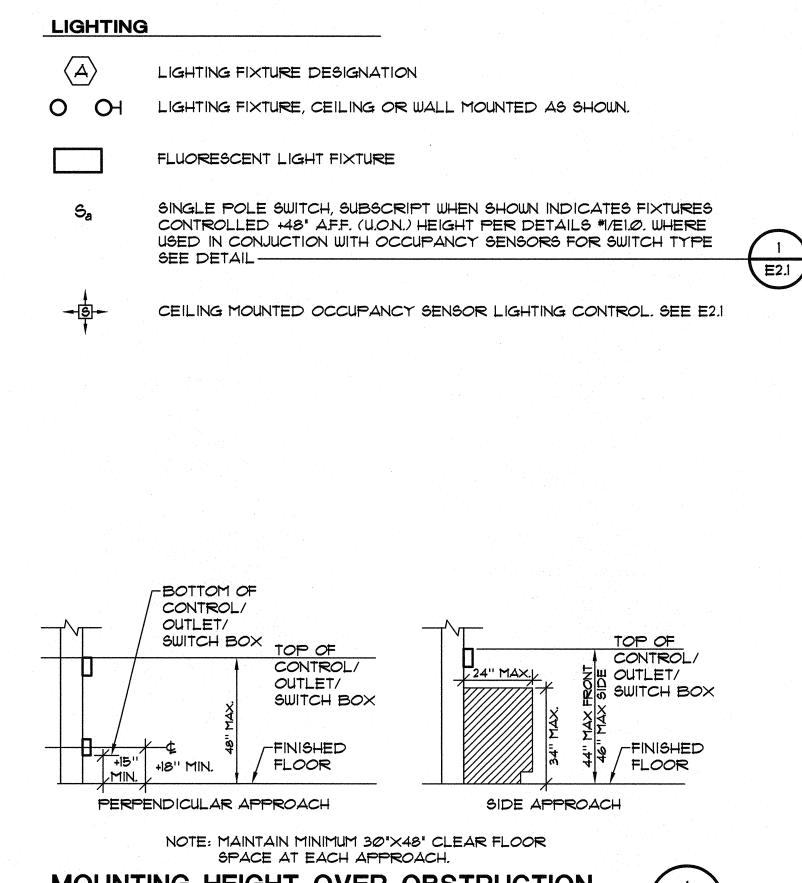
FACEPLATE LEGEND

As required to accommodate the number of ports designated.

4 11/16" square 2 1/8" deep box with single gang ring.

DESCRIPTION

DESCRIPTION



ELECTRICAL SYMBOL LEGEND

DOTTOM OF CONTROL/ OUTLET/ SWITCH BOX TOP OF CONTROL/ OUTLET/ SWITCH BOX FINISHED FLOOR PERPENDICULAR APPROACH	TOP OF CONTROL ZA" MAX ZA" MAX ZA" MAX ZAT E TOP OF CONTROL XAT E TOP OF CONTROL AND CONTROL AND CONTROL AND FINISHED FLOOR SIDE APPROACH
NOTE: MAINTAIN MINIMUM 30'X48 SPACE AT EACH APPROA MOUNTING HEIGHT OVER O	ACH.
NO SCALE	EIL

		TECHNOLOGY SYMBOL LEGEND											
	SYMBOL	DESCRIPTION	BACKBOX & RING	FACE PLATE	COND								
_		Single port data outlet, +18" A.F.F. (U.O.N.)	Type 'B1'	Type 'AR'	Type '1-8								
	☆ 2₽	Dual port data outlet above counter	Type 'B1'	Type 'AR'	Type '1-8								

Type 'C1'

Type 'BI'

Not required in

accessible

ceiling.

Dual port data outlet at wireless

access point location mounted in

accessible ceiling (U.O.N.)

POWER

DUPLEX RECEPTACLE, WALL MOUNTED, +18" A.F.F. (U.O.N.)

RECEPTACLE MOUNTED +6" ABOVE COUNTER BACKSPLASH

PRIOR TO ROUGH-IN.

OR UNDER FINISHED GRADE.

CEILING

JUNCTION BOX, FLOOR MOUNTED

FLEXIBLE CONDUIT CONNECTION

PANELBOARD, RECESSED

JUNCTION BOX, CEILING OR WALL MOUNTED

FOURPLEX RECEPTACLE, WALL MOUNTED, +18" A.F.F. (U.O.N.)

SEE ARCHITECTURAL PLANS FOR REQUIRED MOUNTING HEIGHT

DUPLEX RECEPTACLE IN WEATHERPROOF ENCLOSURE +18" A.F.F. (U.O.N.)

FUSED DISCONNECT SWITCH, WHERE SHOWN NF = NON-FUSED.

CONDUIT AND WIRE, CONCEALED IN CEILING OR WALL

CONDUIT AND WIRE, CONCEALED IN OR UNDER FINISHED FLOOR

CONDUCTORS, EQUIPMENT GROUND WIRE NOT INDICATED U.O.N.

3/4" CONDUIT STUBBED FROM DEVICE TO ABOVE ACCESSIBLE

BRANCH CIRCUIT HOMERUN, NUMBER INDICATES INCREASED

FOR SIZE THROUGHOUT THE ENTIRE CIRCUIT.

CONDUCTOR SIZE, CONDUCTORS SHALL REMAIN AS INDICATED

SINGLE SECTION SERIES, NON METALLIC (WHITE) VERIFY COLOR

#12 CONDUCTORS ARE MINIMUM, NO HASH MARKS = MIN (2) #12

BRANCH CIRCUIT HOMERUN TO PANEL. SLASHES INDICATE NUMBER OF

MECHANICAL EQUIPMENT TAG (SEE MECHANICAL DRAWINGS FOR DESCRIPTION)

'C1'	Provided by 27 10 00 contractor.						
		_	COM	MUNICATION / SEC	CURITY S	YMBOL I	EGEND
	CONDUIT / RACEWAY LEGEND		SYMBOL	DESCRIPTION	BACKBOX & RING	FACE PLATE	CONDUIT / RACEWAY
ГҮРЕ	DESCRIPTION		E	Conduit stubbed above accessible ceiling.	Not required.	Not required.	Conduit for open low voltage wiring.
'1-8'	1" conduit stubbed from box into accessible ceiling space, unless detailed otherwise on drawings.						Refer to legend for size.

GENERAL PROJECT NOTES:

1. UNLESS WHERE OTHERWISE NOTED, ALL WORK INDICATED ON THESE DRAWINGS SHALL BE CONSIDERED NEW WORK.

2. UNLESS WHERE OTHERWISE NOTED, ALL DIMENSIONS ARE TO BE CENTERLINE OF THE DEVICE.

3. "GENERAL NOTES" SHOWN ON AN INDIVIDUAL DRAWING APPLY TO ALL WORK SHOWN ON THAT SHEET. "KEY NOTES" ONLY APPLY TO SPECIFIC ITEMS WHERE ANNOTATED AT SPECIFIC LOCATIONS. SOME KEY NOTES MAY NOT APPLY TO ANY SPECIFIC ITEMS.

4. UNLESS SPECIFICALLY SHOWN ON THESE PLANS, NO STRUCTURAL MEMBER SHALL BE CUT, NEITHER DRILLED NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND THE DIVISION OF THE STATE ARCHITECT.

GENERAL DEMOLITION NOTES:

- 1. ALL ELECTRICAL EQUIPMENT, EXPOSED RACEWAY AND CONDUIT, OUTLET BOXES AND RINGS, AND DEVICES ARE TO BE REMOVED, EXCEPT WHERE SHOWN TO REMAIN, EXISTING WIRING, WHETHER EXPOSED. IN CONDUIT OR RACEWAY IS TO BE REMOVED TO THE GREATEST EXTENT POSSIBLE.
- 2. THE ELECTRICAL CONTRACTOR IS TO DIRECT THE REMOVAL OF THE ABOVE LISTED WORK

MEP COMPONENT ANCHORAGE NOTE:

ALL ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.126 AND ASCE T-10 CHAPTER 13, 26 AND 30.

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

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

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

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

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.5.6, 13.6.7, 13.6.8, AND 2016 CBC, SECTIONS 1616.A.1.23, 1616.A.1.24 AND 1616.A.1.25 AND

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., SMACNA OR OSHPD OPM), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF 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 SYSTEM (E):

MP MD PP E OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND

MP MD PP E - OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVED (OPM*) *

MP MD PP EA- OPTION 3: SHALL COMPLY WITH THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2009). INCLUDING ANY ADDENDA, FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IDENTIFIED IN THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS

WITH PROJECT SPACIFIC NOTES AND DETAILS. THE DETAILS SHALL ACCOUNT FOR THE APPLICABLE SEISMIC HAZARD LEVEL_P AND CONNECTION LEVEL___ FOR THE PROJECT AND CONDITIONS.

FIRE RATED ASSEMBLIES NOTE:

REFER TO ARCHITECTURAL DRAWINGS FOR EXACT DESCRIPTION AND DETAIL OF ALL FIRE RATED ASSEMBLIES.



Agency Approval

JOHNSON CONSULTING ENGINEERS, INC

3546 Concours Street / Ontario, CA 91764

T 909 989 9979 / www.hmcarchitects.com

Power | Lighting | Multimedia Communications | Data Networking Consultant Logo

www.jce-inc.com

12875 Brookprinter Place, Suite 300 Poway, CA 92064 P 858.679.4030 F 858.513.0559

10/28/2017

FILE NO. 37-C1 IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES APPL. # 04-116532

Project Title: FOOD PANTRY PALOMAR COLLEGE®

PALOMAR COLLEGE

PALOMAR COLLEGE 1140 W. MISSION RD.

SAN MARCOS, CA 92069-1487

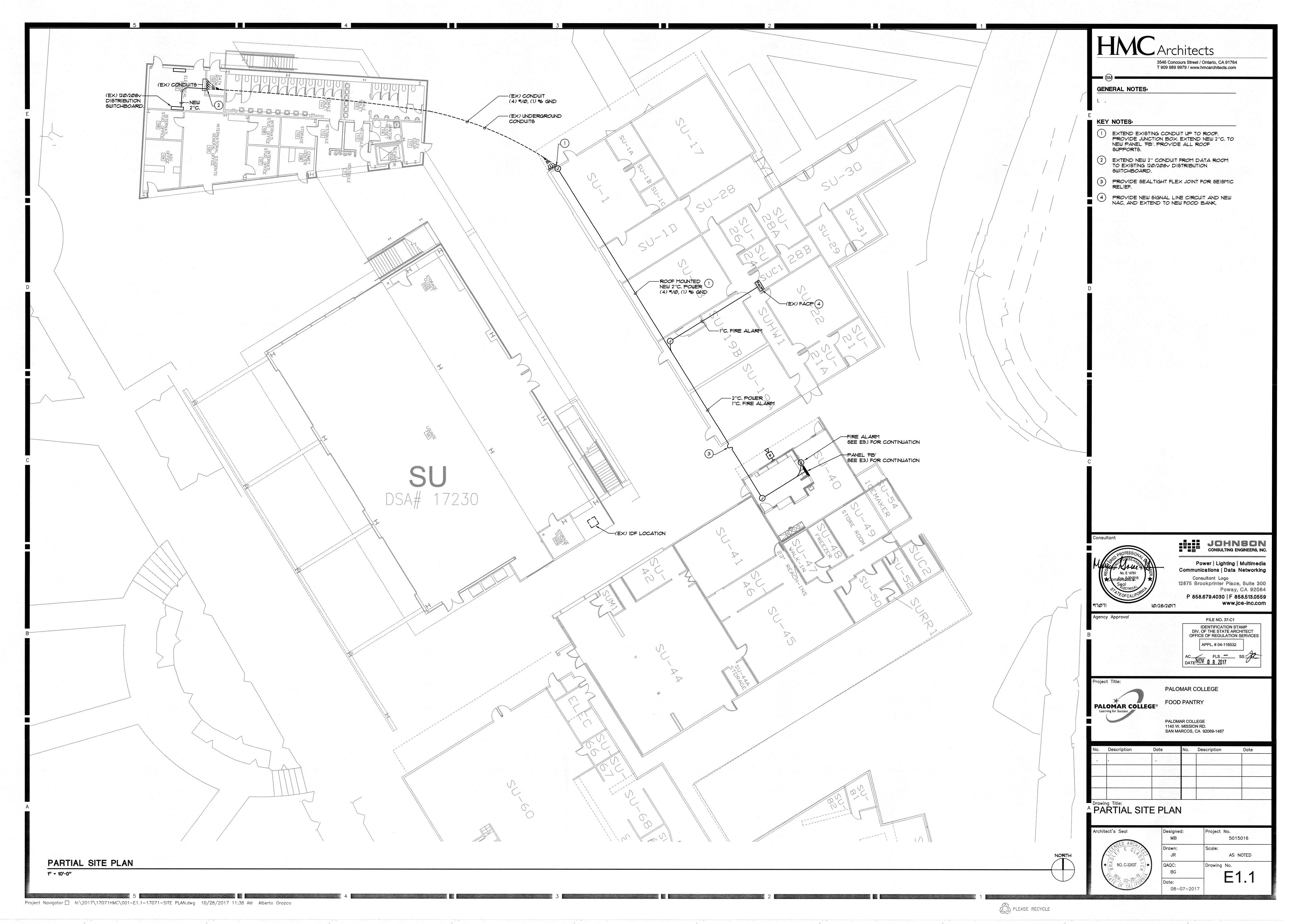
Description Date No. Description

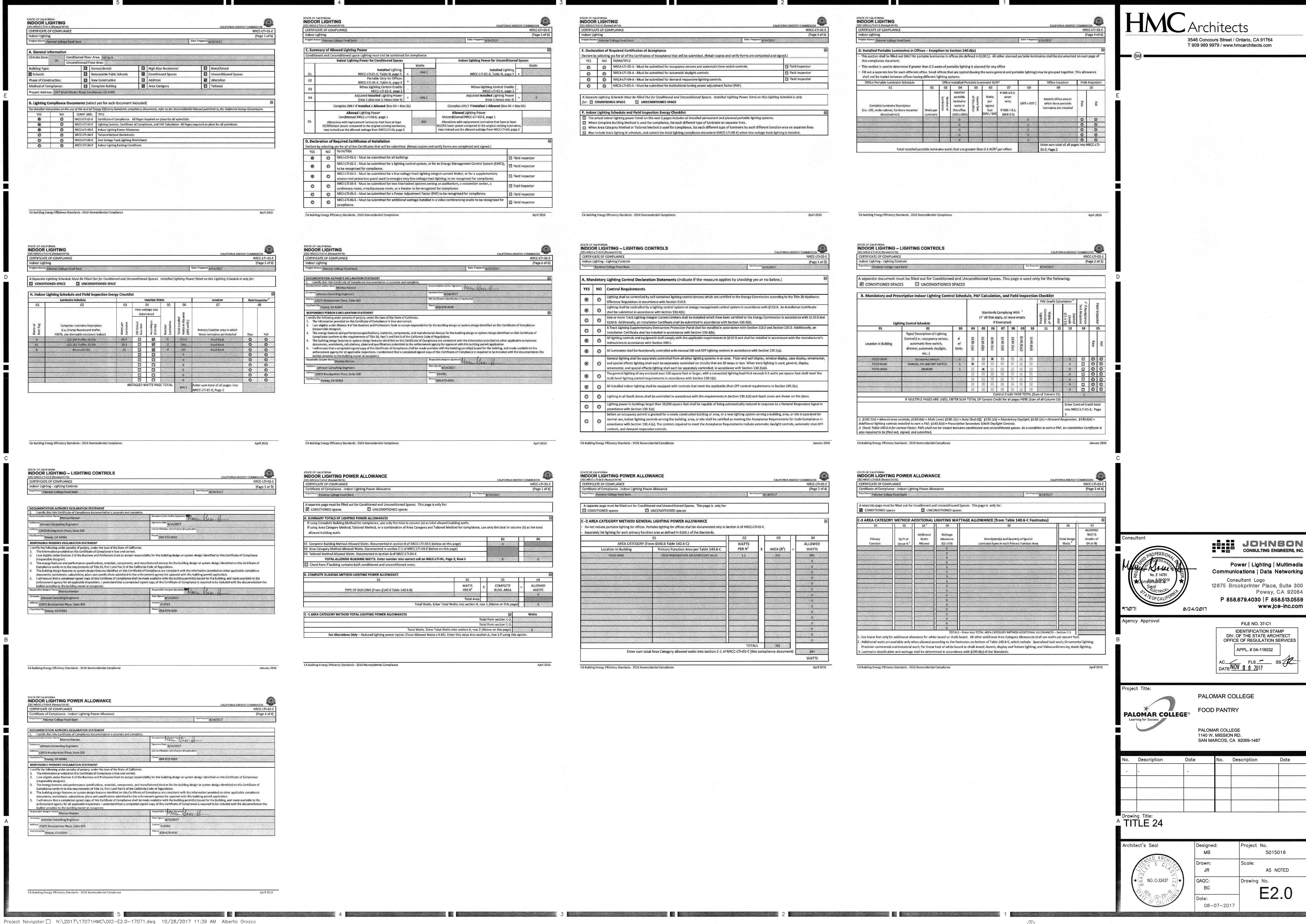
A ELECTRICAL, COMMUNICATION AND TECHNOLOGY LEGENDS AND NOTES

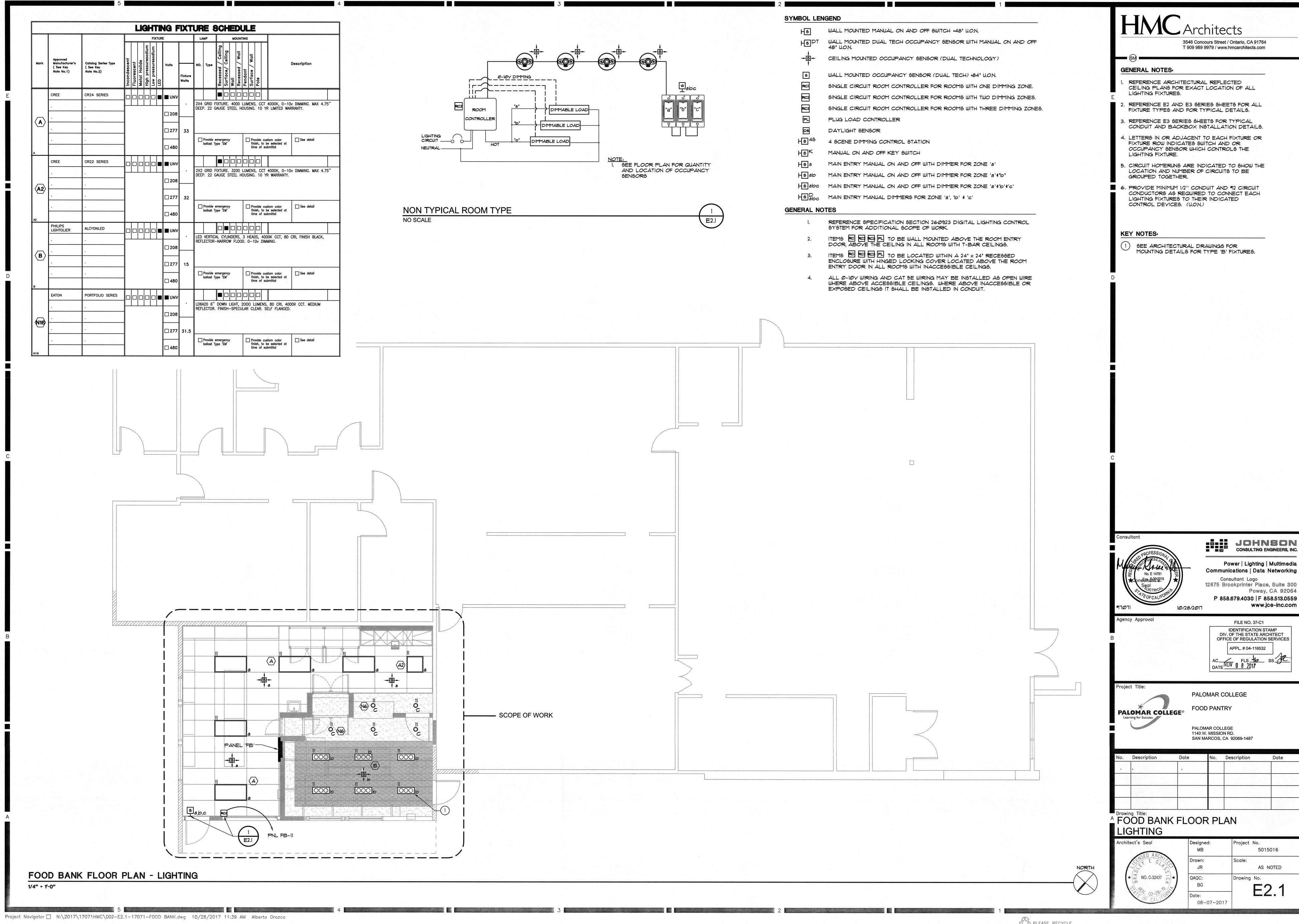
5015016 AS NOTED 08-07-2017

Project Navigator ☐ N:\2017\17071HMC\001-E1.0-17071.dwg 10/28/2017 11:42 AM Alberto Orozco

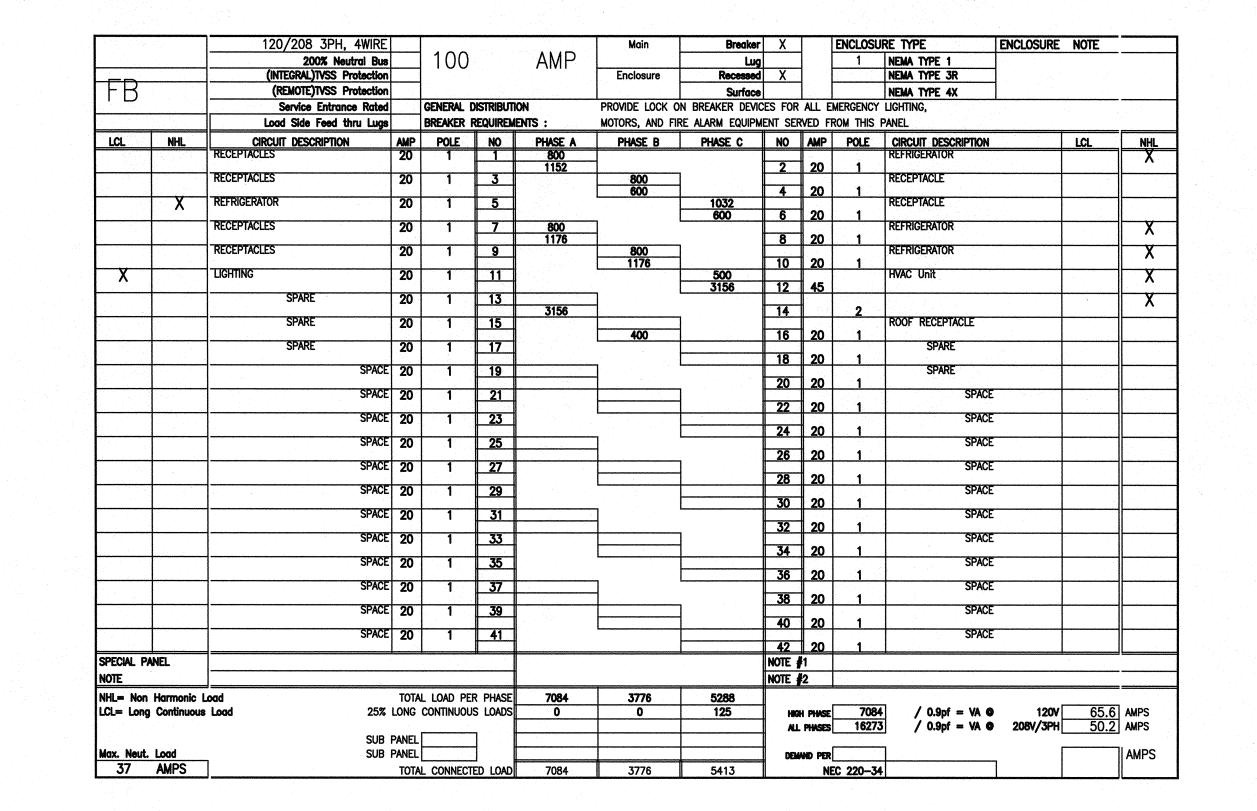
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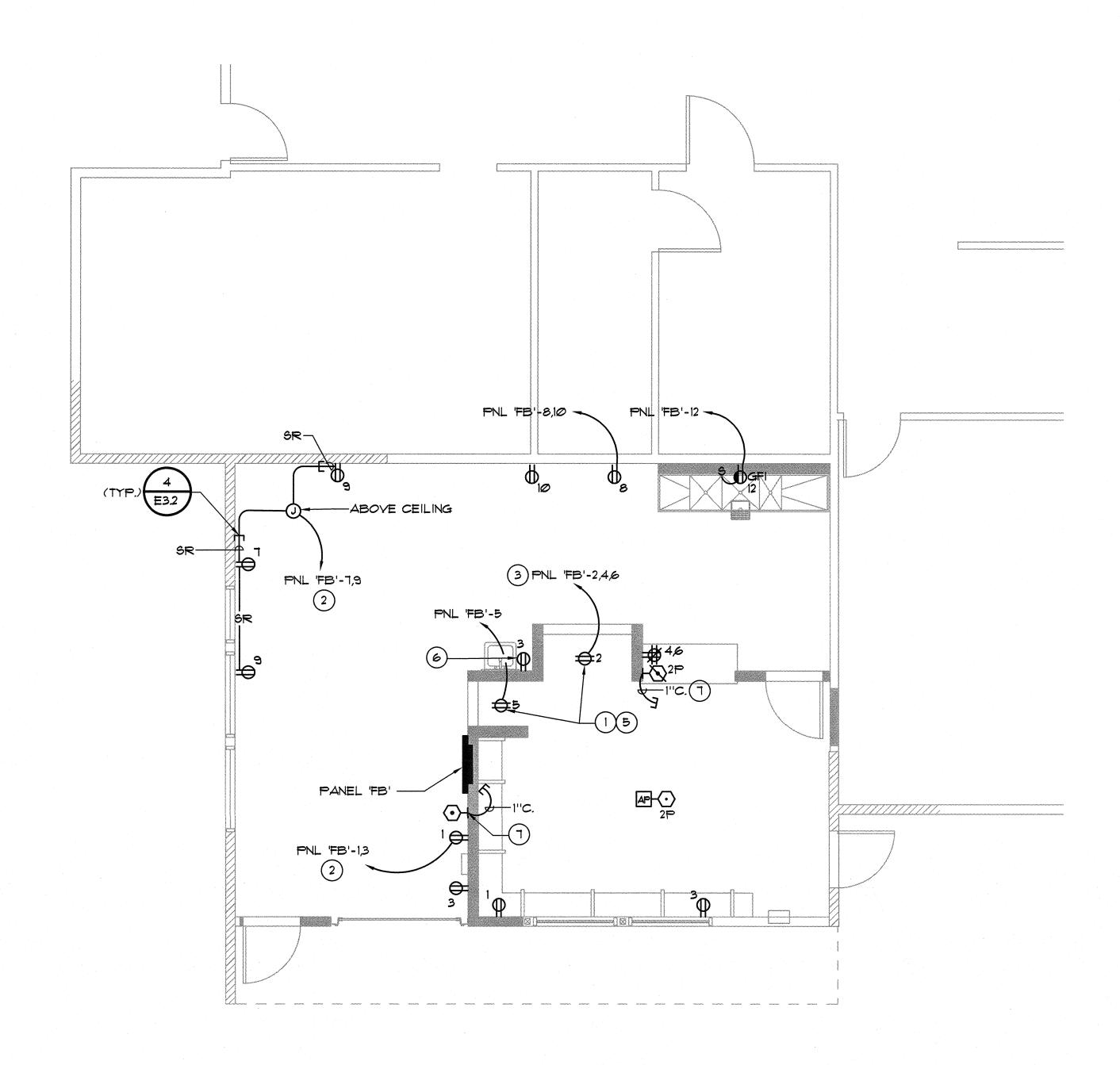






PLEASE RECYCLE





PNL-FB

I''C., (3) *8,

(1) *10 GND

(2084, 1PH)

NEMA 3R

NEMA 3R

FOOD BANK ROOF PLAN 1/4" = 1'-0"



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GENERAL NOTES

- REFERENCE ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT LOCATION OF ALL WALL MOUNTED POWER DEVICES WHERE INDICATED AT MOUNTING HEIGHTS OTHER THAN +18".
- . REFERENCE SHEET EG SERIES SHEETS FOR MECHANICAL EQUIPMENT SCHEDULE.
- . REFERENCE E3 AND E8 SERIES SHEETS FOR TYPICAL CONDUIT AND BACKBOX INSTALLATION DETAILS.
- . NUMBERS ADJACENT TO EACH POWER DEVICE INDICATES THE CIRCUIT NUMBER TO WHICH THE DEVICE IS TO BE CONNECTED.
- . CIRCUIT HOMERUNS ARE INDICATED TO SHOW THE LOCATION AND NUMBER OF CIRCUITS TO BE GROUPED TOGETHER.
- 6. PROVIDE MINIMUM 1/2" CONDUIT AND #12 CIRCUIT CONDUCTORS AS REQUIRED TO CONNECT EACH POWER DEVICE TO THEIR INDICATED CIRCUIT
- . FIELD VERIFY EXACT ROUTING LOCATION FOR CONCEALED CONDUITS AND RECEPTACLES PRIOR TO ROUGH-IN.

KEY NOTES

- 1) FIELD VERIFY EXACT LOCATION PRIOR TO ROUGH-IN.
- 2 2 #12 (HOT), 1 #10 (NEUTRAL), 1 #12 (GND), 1/2"C.
- (3) 3 #12 (HOT), 1 #10 (NEUTRAL), 1 #12 (GND), 1/2"C.
- (4) 4 #12 (HOT), 2 #10 (NEUTRAL), 1 #12 (GND), 3/4"C. 5 MOUNT RECEPTACLE IN CEILING TILE ABOVE
- REFRIGERATOR. 6 SINK SENSOR POWER. COORDINATE WITH PLUMBING CONTRACTOR FOR EXACT
- RE-LOCATE EXISTING DATA CABLES TO THESE LOCATIONS. PROVIDE NEW FACE PLATES AND INSERTS. MATCH EXISTING TYPE.

Agency Approval

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Power | Lighting | Multimedia Communications | Data Networking

www.jce-inc.com

Consultant Logo
12875 Brookprinter Place, Suite 300
Poway, CA 92064 P 858.679.4030 | F 858.513.0559

FILE NO. 37-C1 IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES

PALOMAR COLLEGE®

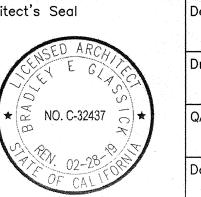
PALOMAR COLLEGE

FOOD PANTRY

PALOMAR COLLEGE 1140 W. MISSION RD. SAN MARCOS, CA 92069-1487

Prawing Title:

A FOOD BANK FLOOR PLAN POWER / ROOF PLAN



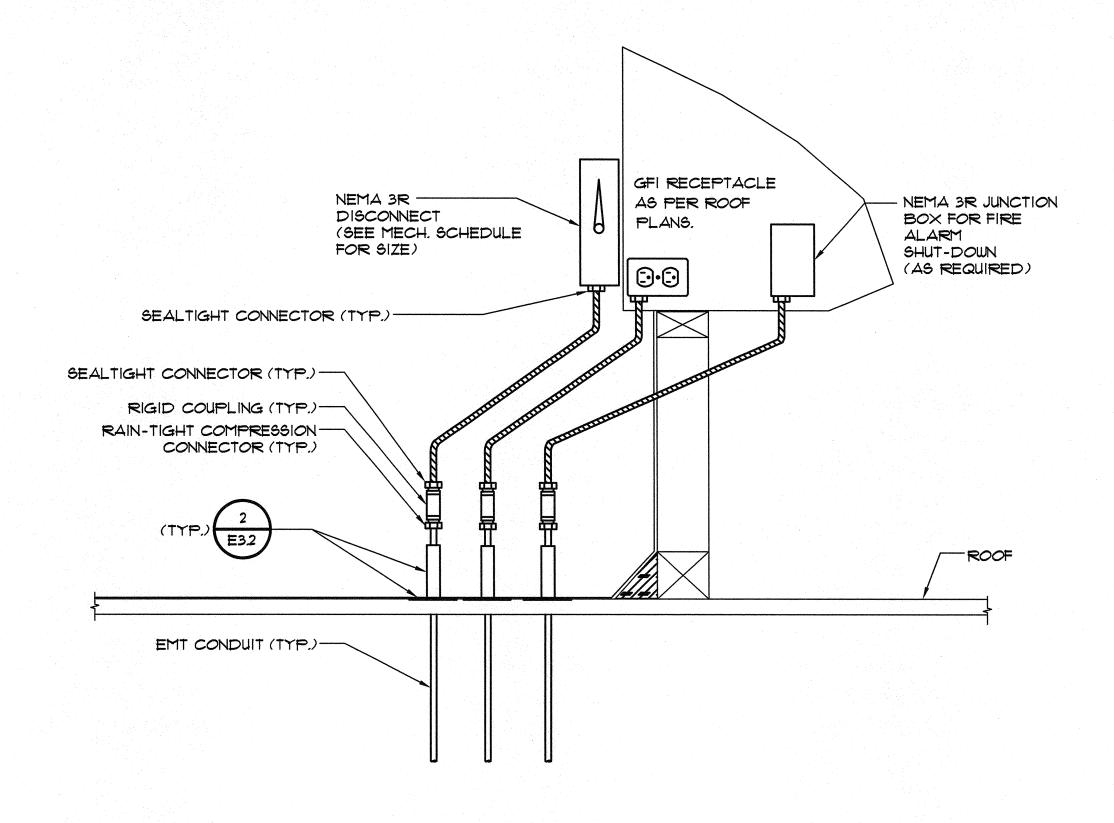
08-07-2017

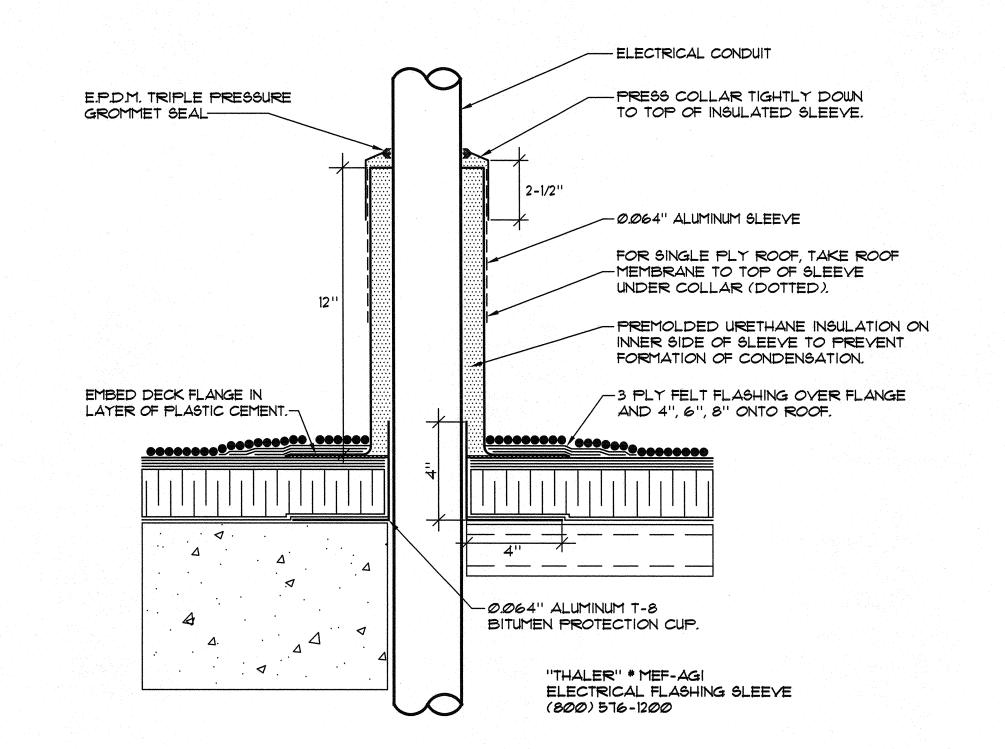
AS NOTED E3.1

5015016

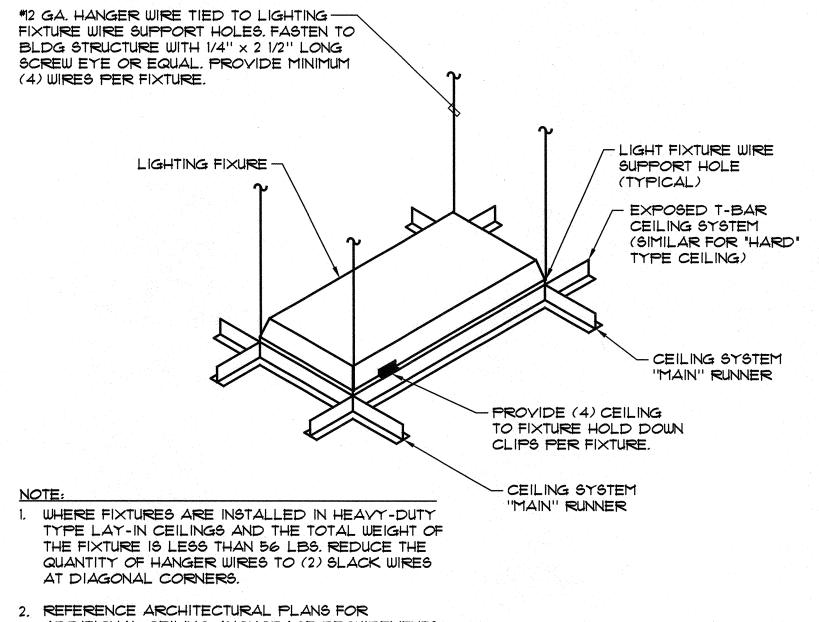
FOOD BANK FLOOR PLAN - POWER AND DATA

1/4" - 1'-0"





CONDUIT ROOF PENETRATION DETAIL



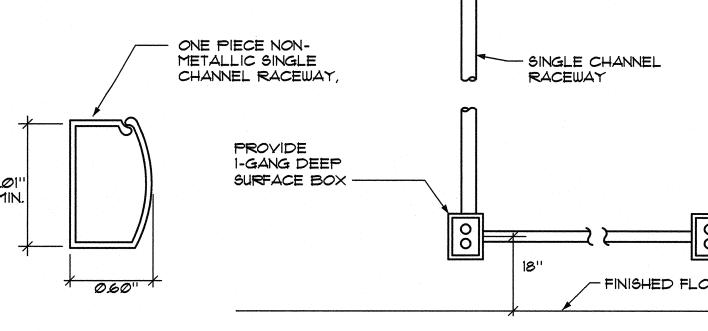
BRID LAY-IN FIXTURE SEISMIC RESTRAINT DETAIL NO SCALE

E3.2

A/C UNIT CONNECTION DETAIL NO SCALE

E3.2

NO SCALE



SURFACE RACEWAY SECTION

SINGLE CHANNEL RACEWAY ELEVATION

GENERAL NOTES:

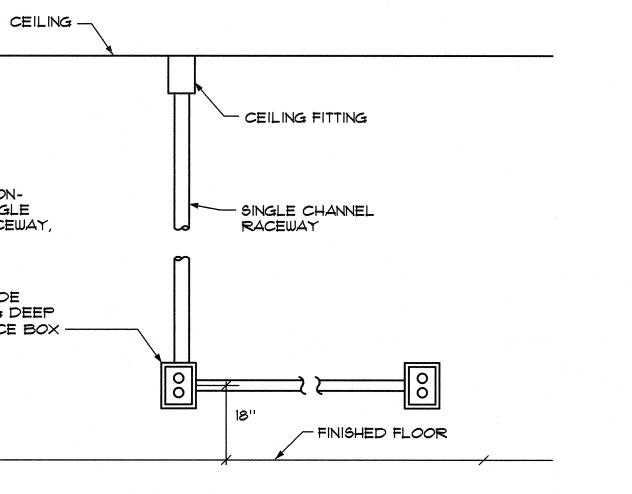
THE CONTRACTOR WHO INSTALLS SURFACE RACEWAY SHALL PROVIDE PULL STRING IN RACEWAY.

2. SEE SPECIFICATIONS FOR ACCEPTABLE MANUFACTURERS.

TYPICAL SURFACE RACEWAY SYSTEM DETAIL SINGLE CHANNEL RACEWAY

NO SCALE

E3.2



ADDITIONAL CEILING ANCHORAGE REQUIREMENTS.

No. E 14781

E3.2

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3546 Concours Street / Ontario, CA 91764

T 909 989 9979 / www.hmcarchitects.com

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Poway, CA 92064

www.jce-inc.com

P 858.679.4030 F 858.513.0559 10/28/2017

Agency Approval

FILE NO. 37-C1 IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES APPL. # 04-116532

PALOMAR COLLEGE®

PALOMAR COLLEGE FOOD PANTRY

PALOMAR COLLEGE 1140 W. MISSION RD. SAN MARCOS, CA 92069-1487

Description Date No. Description

Drawing Title:

A POWER DETAILS

Architect's Seal MB

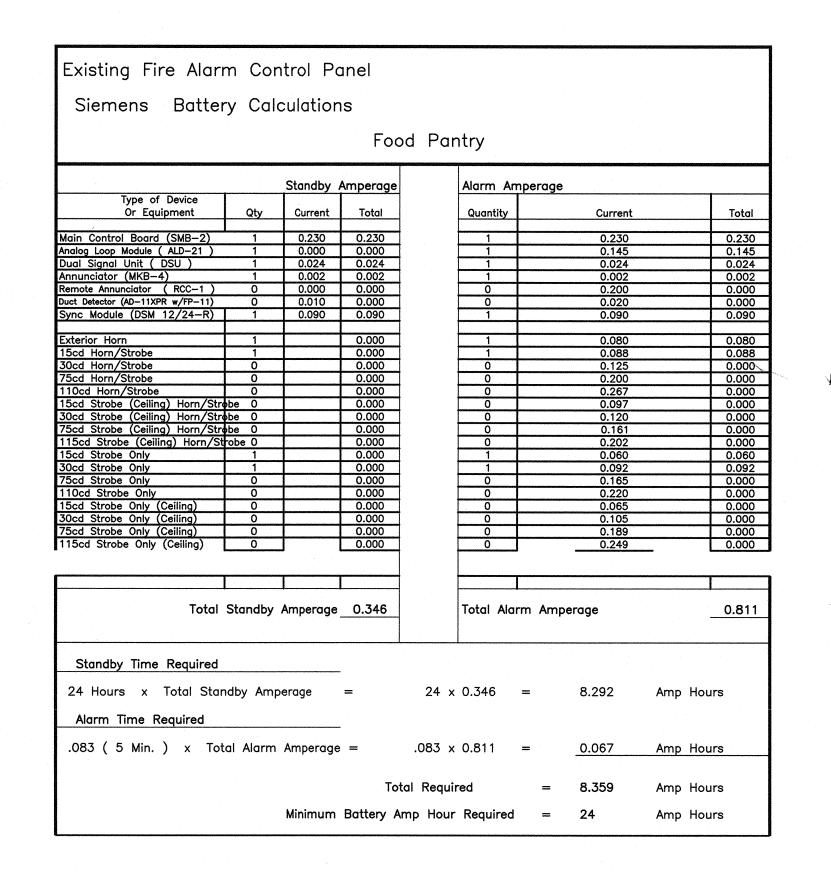
5015016 AS NOTED 08-07-2017

		<u>(EX)</u>	SIEMENS MODEL FIREFINDER	MXL	
	SYM	MODEL NO.	<u>DESCRIPTION</u>	C.S.F.M. LISTING	MFG.
001	FACP	MXL	FIRE ALARM CONTROL PANEL	7165-0067:0222	SIEMENS
002	(8)	HFP-11	INTELLIGENT SMOKE DETECTOR	7272-0067:0203	SIEMENS
		DB-11	SENSOR BASE	7300-0067:0134	SIEMENS
003	Œ	HFPT	INTELLIGENT HEAT DETECTOR (ABOVE CEILING)	7270-0067:0224	SIEMENS
		DB-11	SENSOR BASE	7300-0067:0134	SIEMENS
004	雪	AH	EXTERIOR HORN	7125-0785:0131	COOPER WHEELOCK
			EXTERIOR FLUSH PLATE (PART OF ABOVE)		
005	L □	LHS	HDRN/STRDBE (15/30/75/110) cd	7125-0785:0169	COOPER WHEELOCK
006		LSTC	STROBE (15/30/75/110) cd (CEIL MNT)	7125-0785:0180	COOPER WHEELOCK
007	\sim	TYPE FPL	SIGNAL LINE CIRCUIT CONDUCTORS ('M')	7161-0859':0101	WEST PENN
800	\sim	TYPE THHN	AUDIO VISUAL AND POWER CONDUCTORS (AV,P)	N/A	SOUTHWIRE

	<u>WI</u>	RING SCHEDULE	
DES	CONDUCTOR TYPE	WIRE COLOR	CIRCUIT TYPE
М	(1) 1 PR #14 TWISTED SHIELDED	RED/BLACK/SHIELD	SIGNAL LINE CIRCUIT
AV	(2) #12 THHN (UDN DN CALCS)	BLUE/WHITE	NOTIFICATION APP. CIRCUIT (NAC
Р	(2) #12 THHN	RED/BLACK	POWER

* IF OTHER MANUFACTURER IS USED IT IS TO BE UL. AND CSFM LISTED.

	Total Current Circular Mills		Circular Mils Using #10 wire =10380 Circular Mils Using #12 wire = 6530 Circular Mils Using #14 wire = 4110 Circular Mils Using #18 wire = 1620								
	Food Bank	/ 24 Volts	x 100 Pero	cent = Pero	centage voi	tage Drop					
Circuit I.D.	Device Type	Devices x Cur	rent	Total Current	Distance In Feet	Circular Mils	_	Total Vo Volts Dropped	•		
S 1	Exterior Horn	1	0.080	0.080							
· ·	Sync Module	l ö	0.09	0.000				No. 2 Page 1989			
	15cd Strobe	1	0.088	0.088							
	30cd Strobe	Ö	0.125	0.000							
	75cd Strobe	ō	0.200	0.000							
	110cd Strobe	0	0.267	0.000							
	15cd Ceiling	1	0.097	0.097		1					
	30cd Ceiling	0	0.120	0.000]					
	75cd Ceiling	0	0.161	0.000							
	115cd Ceiling	0	0.202	0.000							
	15cd Strobe	0	0.060	0.000							
	30cd Strobe	0	0.092	0.000							
	75cd Strobe	0	0.165	0.000							
	110cd Strobe	0	0.220	0.000							
	15cd Ceiling	1	0.065	0.065				-			
	30cd Ceiling	1	0.105	0.105		-					
	75cd Ceiling	0	0.189	0.000							
	115cd Ceiling	0	0.249	0.000							
			Total	0.435	250	4110	-	0.572	-	9 7	38%



FIRE ALARM MONITORING NOTE

1. AUTOMATIC FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION AS REQUIRED BY NFPA 12 AS AMENDED BY CFC SECTION 907. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UUFX OR UUJS BY UNDERWRITERS LABORATORY OR SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011. SUPERVISION OF SYSTEM AND LEASED TELEPHONE LINES SHALL BE ARRANGED BY OWNER.

FIRE ALARM GENERAL REQUIREMENTS:

- 1. THE COMPLETE INSTALLATION SHALL BE REVIEWED AND APPROVED BY THE ABOVE LOCAL MANUFACTURERS REPRESENTATIVE. SEE SPECIFICATIONS (28 30 00), FOR ADDITIONAL CONTRACTOR QUALIFICATIONS AND REQUIREMENTS.
- 2. UNLESS OTHERWISE NOTED SOLID LINES BETWEEN DEVICES SHALL BE 3/4" E.M.T. ROUTED CONCEALED ABOVE CEILINGS OR IN WALLS. DASHED LINES INDICATE 3/4" P.Y.C. UNDERGROUND CONDUIT. ALL WIRING TYPES AND QUANITITES SHOWN ARE FOR INFORMATION ONLY. THE CONTRACTOR SHALL PROVIDE ALL WIRING AS REQUIRED TO MAKE A FULLY OPERATIONAL SYSTEM. SHOP DRAWINGS AND OR AS-BUILT DOCUMENTS SHALL INDICATE ALL WIRING PROVIDED.
- 3. THE AUDIBILITY OF FIRE ALARM WARNING DEVICES SHALL BE AUDIBLE THROUGH THE OCCUPANCY WITH A MINIMAL SOUND LEVEL 15 db's OVER THE AMBIENT NOISE LEVEL. ADD ADDITIONAL DEVICES AS REQUIRED.
- 4. UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A REACCEPTANCE TEST OF THE ENTIRE SYSTEM SHALL BE PERFORMED IN THE PRESENCE OF THE ENFORCING AGENCY AND IN ACCORDANCE WITH SPECIFICATIONS (28 30 00). THE CONTRACTOR SHALL FURNISH OF METERS AND ALL OTHER EQUIPMENT TO PERFORM THESE TESTS.
- 5. ALL CONDUIT PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL PREVENT THE PASSAGE OF HEAT, SMOKE AND FIRE GASES. ALL PENETRATIONS SHALL COMPLY WITH U.L. ASSEMBLY WL-1001. REFER TO THROUGH-PENETRATION FIRESTOP DETAIL ON THE DETAIL SHEET.
- 6. ALL OPERATING HARDWARE AT INITIATING DEVICES SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST, AND THE FORCE REQUIRED TO OPERATE SHALL BE LESS THAN 5 POUNDS.

APPLICABLE CODES

2016 BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24 C.C.R.).
2016 CALIFORNIA BUILDING CODE (PART 2, TITLE 24 C.C.R.).
(2012 INTERNATIONAL BUILDING CODE WITH 2013 CALIFORNIA AMENDMENTS)

2016 CALIFORNIA ELECTRICAL CODE (PART 3, TITLE 24 CCR)
(2011 NATIONAL ELECTRICAL CODE AND 2013 CALIFORNIA AMENDMENTS)

2016 CALIFORNIA MECHANICAL CODE (PART 4, TITLE 24, CCR)
(2012 UNIFORM MECHANICAL CODE WITH 2013 CALIFORNIA AMENDMENTS)

2016 CALIFORNIA PLUMBING CODE (PART 5, TITLE 24, CCR)
(2012 UNIFORM PLUMBING CODE AND 2013 CALIFORNIA AMENDMENTS)

2016 CALIFORNIA ENERGY CODE (PART 6, TITLE 24, CCR)

2016 CALIFORNIA FIRE CODE (PART 9, TITLE 24, CCR)

(2015 INTERNATIONAL FIRE CODE AND 2015 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN),

PART 11, TITLE 24 C.C.R.

2016 CALIFORNIA REFERENCED STANDARDS (PART 12, TITLE 24, CCR)

TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

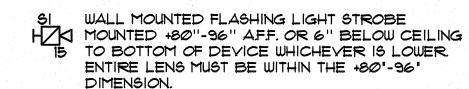
APPLICABLE STANDARDS

APPLIC	ABLE STANDARDS	
NFPA 13	AUTOMATIC SPRINKLER SYSTEMS	2016 EDITION
NFPA 14	STANDPIPE SYSTEMS (CA AMENDED)	2016 EDITION
NFPA 17A	WEST CHEMICAL SYSTEMS	2016 EDITION
NFPA 20	STATIONARY PUMPS	2016 EDITION
NFPA 24	PRIVATE FIRE MAINS (CA AMENDED)	2016 EDITION
NFPA 72	NATIONAL FIRE ALARM CODE (CA AMENDED)	2016 EDITION
NFPA 80	FIRE DOOR AND OTHER OPENING PROTECTIVES	2016 EDITION
NFPA 2001	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS	2016 EDITION
REFERENCE	CODE SECTION FOR NFPA STANDARDS - 2016 CBC	(SFM) CHAPTER
SEE CHAPT	ER FOR STATE OF CALIFORNIA AMENDMENTS TO NEPA	STANDARDS.

			COND	UIT OR	TUBI		MINIMUM ROJECT			ZE FOR	THIS	•		
CONDUIT TRADE SIZE (INCHES)			1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	
TYPE LETTI	RS	CONDUC SIZE AWG, k											-	
THWN		14 12		13 10	24 18	39 29	69 51	94 70	154 114	164				
THHN		10 8		6 3	11 5	18 9	32 16	44 22	73 36	104 51	160 79	106	136	
							•	AREA-	-SQUARE	NCHES				
						PERCE	NT REDUCTI	ON PER NU	JMBER OF	18AWG TWIS	STED SHI	ELD PAIRS		
TRADE SIZE	DIAM INCH	ETER	100% INCHES	OVER 2 COND. 40%	1		2	3	4	5	6	7		8
1/2	.62	2	.30	.12	38	3%	66%	99%	х	X	х	Х		X
3/4	.82	4	.53	.21	19	%	38%	57%	76%	95%	X	X		X
1	1.049	9	.86	.34	12	2%	24%	36%	48%	60%	72%	84%		96%
1 1/4	1.38)	1.50	.60	79	8	14%	21%	28%	35%	42%	49%		56%
1 1/2	1.610)	2.04	.82	59	8	10%	15%	20%	25%	30%	35%		40%
2	2.06	7	3.36	1.34	1 3	%	6%	9%	12%	15%	18%	21%		24%

FIRE ALARM SEQUENCE OF OPERATION											
ACTION	MANUAL PULL STATION	PULL SMOKE/HEAT		SPRINKLER ACTIVATION TAMPER SW.	SPRINKLER ACTIVATION FLOW SW						
SOUND ALARM TROUGHOUT BLDG.	N/A	YES	NO	N/A	N/A						
ACTIVATE RELAY FOR MONITORING	N/A	YES	YES	N/A	N/A						
ANNUNCIATE AT PANEL AND ANNUNCIATOR	N/A	YES	YES	N/A	N/A						
SOUND TROUBLE BUZZER	N/A	ON WIRING FAULT	YES	N/A	N/A						
SOUND SPRINKLER BELL	N/A	NO	NO.	N/A	N/A						
REPORT TO MONITORING STATION	N/A	YES	YES	YES	N/A						
NITIATE SHUTDOWN OF HYAC UNITS	N/A	YES	NO	N/A	N/A						

FIRE ALARM SYMBOL LEGENDS



(15 = STROBE CANDELA RATING)
(SI = SIGNAL CIRCUIT IDENTIFICATION)



(5) CEILING MOUNTED SMOKE DETECTOR

EOL END OF LINE RESISTOR

FIRE ALARM NOTE:
THIS FIRE ALARM DESIGN IS A COMPLETE PLAN
SUBMITTAL IN ACCORDANCE WITH 2010 CBC 907.1.

FULLY AUTOMATIC FIRE ALARM DESIGN:
THIS PROJECT IS DESIGNED TO COMPLY WITH ALL
REQUIREMENTS FOR A FULLY PROTECTED
AUTOMATIC FIRE ALARM SYSTEM.

EXPANSION OF EXISTING SYSTEM:

THIS PROJECT ADDS TO AND OR MODIFIES AN EXISTING SYSTEM, PREVIOUSLY APPROVED BY DSA. ALL NEW COMPONENTS ARE COMPATIBLE WITH THE EXISTING SYSTEM EQUIPMENT.

UP TO ROCE SEE SITE PLAN FOR CONTINUATION FOR CONTINUATION

SPECIAL NOTE

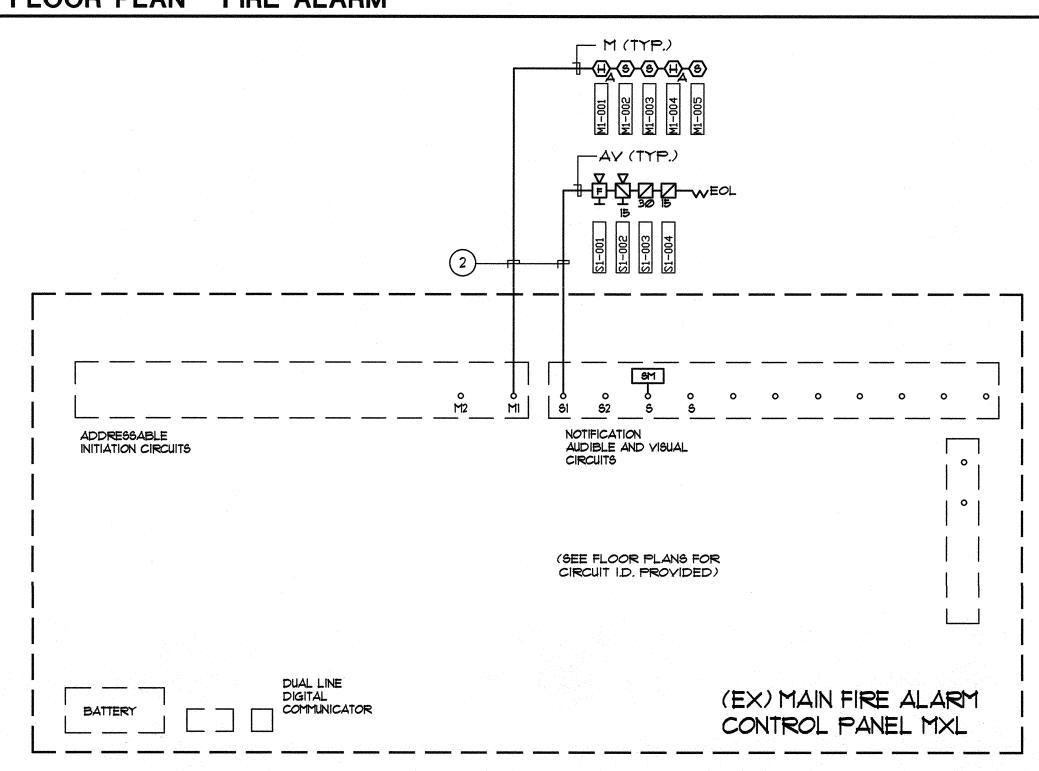
FIRE ALARM SYSTEM.

THIS IS THE EXTENSION OF THE EXISTING SIEMENS

FOOD BANK FLOOR PLAN - FIRE ALARM

NO SCALE

1/8" = 1'-0"



FIRE ALARM RISER DIAGRAM

GENDS

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GENERAL NOTES

IDENTIFICATIONS.

1. REFERENCE ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT LOCATION OF ALL WALL MOUNTED DEVICES.

2. REFERENCE E5 AND ES SERIES SHEETS FOR TYPICAL CONDUIT AND BACKBOX INSTALLATION DETAILS.

3. REFERENCE RISER DIAGRAMS FOR TYPICAL CONDUIT SIZES AND INITIATION ZONE CIRCUIT

4. REFERENCE MECHANICAL PLANS FOR EXACT LOCTION OF ALL DUCT DETECTORS AND SMOKE DAMPER LOCATIONS.

5. UNLESS OTHERWISE NOTED SOLID LINES BETWEEN DEVICES SHALL BE 3/4" EM.T. ROUTED CONCEALED ABOVE CEILINGS OR IN WALLS. DASHED LINES INDICATE 3/4" P.V.C. UNDERGROUND CONDUIT. ALL WIRING TO BE PROVIDED PER

6. CONTRACTOR SHALL PROVIDE CEILING ACCESS PANEL AT ALL NON-LAYIN TYPE CEILINGS, WHERE HEAT DETECTOR ABOVE CEILING IS INDICATED.

MANUFACTURER SHOP DRAWINGS.

T. PROVIDE WIRE PROTECTIVE GUARD OVER ALL FIRE ALARM DEVICES LOCATED IN THE FOLLOWING AREAS: GYMNASIUM, LOCKER ROOMS, SHOP AREAS, AND ANY OTHER AREA WHERE DEVICES MAY BE SUBJECT TO CONTACT.

KEY NOTES

PROVIDE CONNECTION TO "FACP", REFER TO SITE PLAN. SEE KEYNOTE #4 ON SHEET EI.I FOR MORE INFORMATION.

2 PROVIDE ADDITIONAL NAC AND SLC TO EXISTING FIRE ALARM PANEL, PROVIDE ALL SOFTWARE, PROGRAMMING AND HARDWARE.



JOHNSON CONSULTING ENGINEERS, INC.

Power | Lighting | Multimedia
Communications | Data Networking
Consultant Logo
12875 Brookprinter Place, Suite 300
Power CA 92064

Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com

Agency Approval

Project Title:

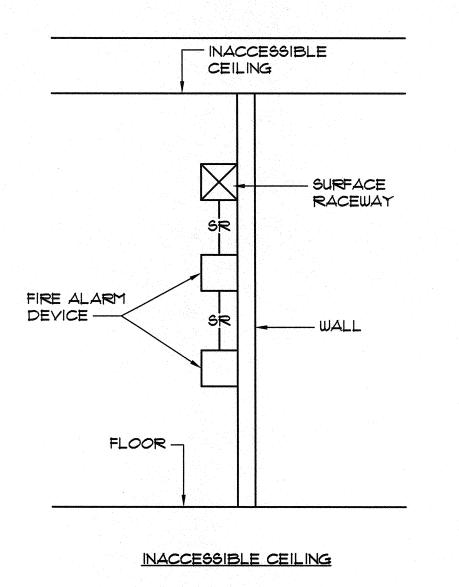


PALOMAR COLLEGE
FOOD PANTRY

PALOMAR COLLEGE 1140 W. MISSION RD. SAN MARCOS, CA 92069-1487

Description Date No. Description Date

A FOOD BANK FLOOR PLAN
FIRE ALARM

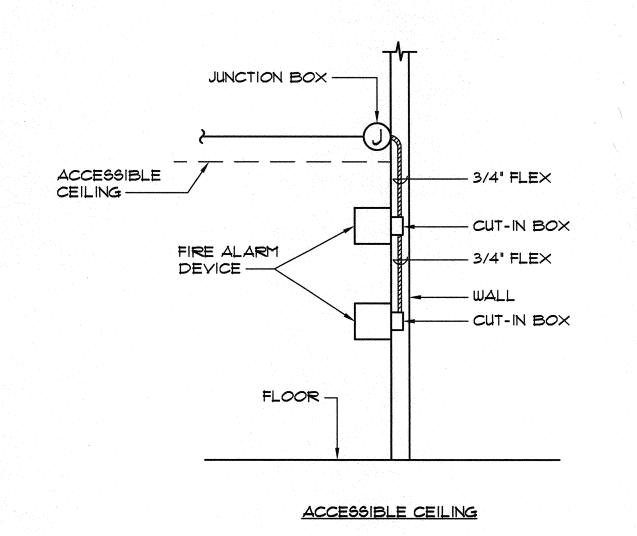


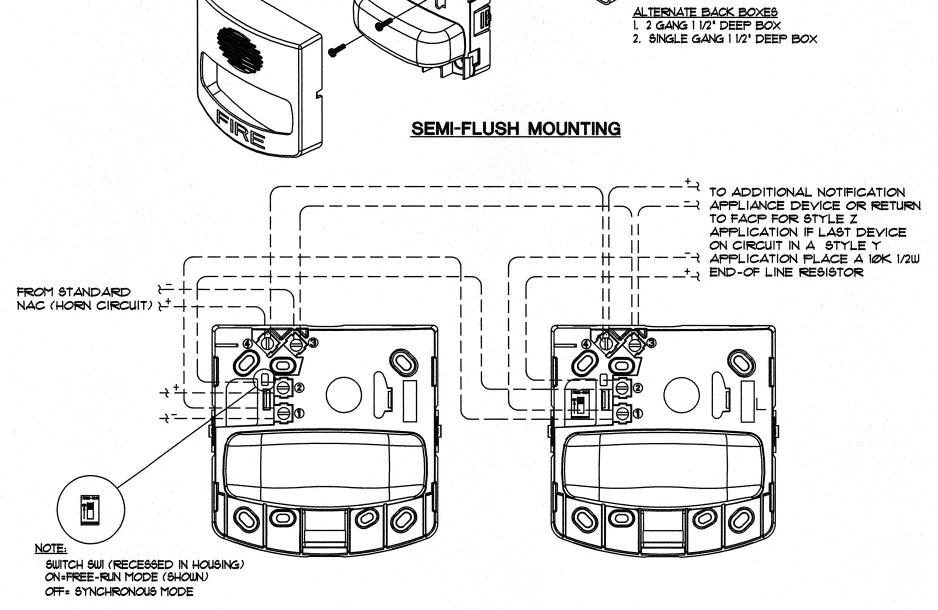
TYPICAL SURFACE RACEWAY DETAIL

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INACCESSIBLE CEILING

NO SCALE





- 4" SQUARE × 1 1/2" DEEP BOX (RACO NO. 231 OR 232)

SUPPLIED BY CONTRACTOR

E5.2

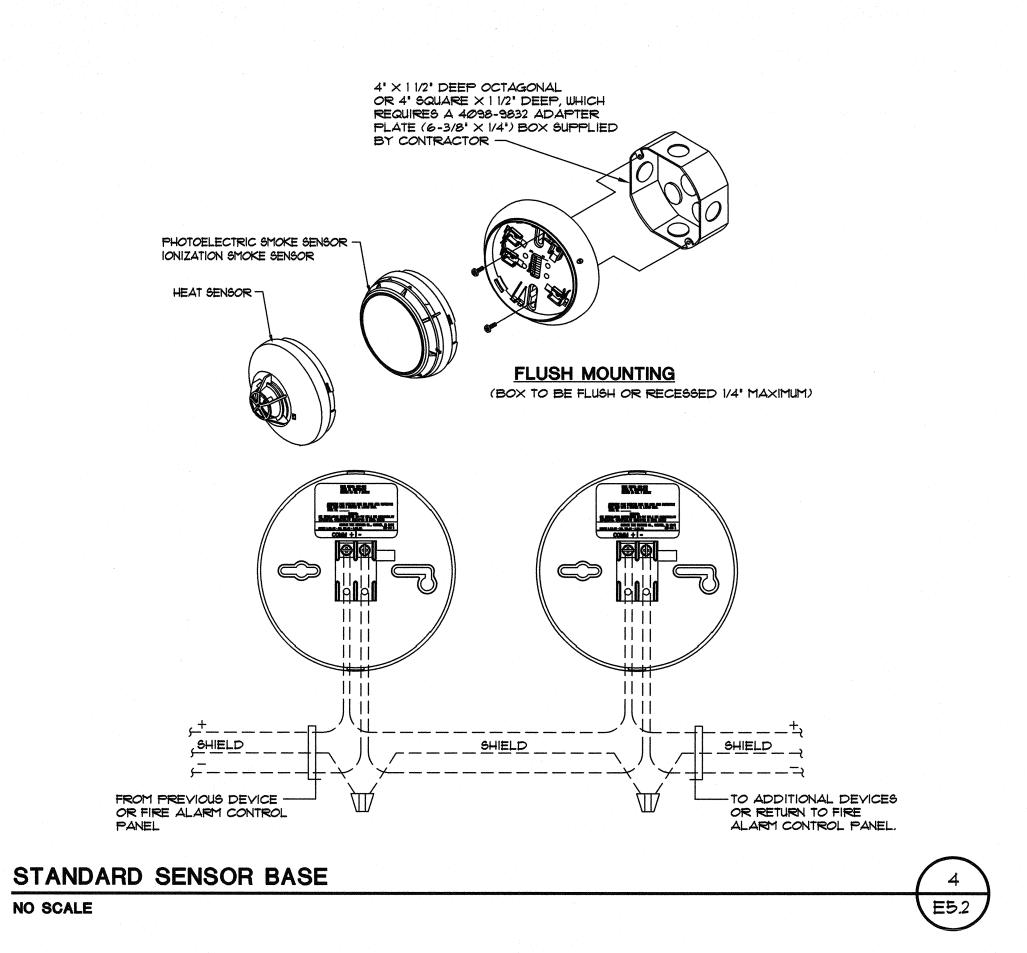
TYPICAL CUT-IN BOX DETAIL
ACCESSIBLE CEILING
NO SCALE

NON-ADDRESSABLE AUDIO/VISIBLE NOTIFICATION APPLIANCES
NO SCALE

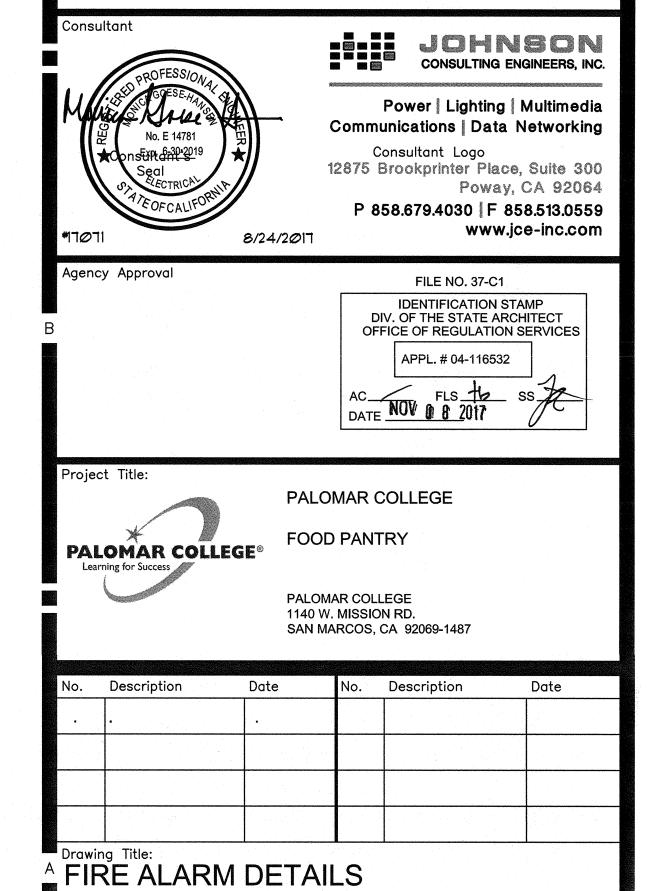
E5.2

WHEN SURFACE MOUNTING USE RED SKIRT NO. 4905-9937





E5.2



Designed: MB

08-07-2017

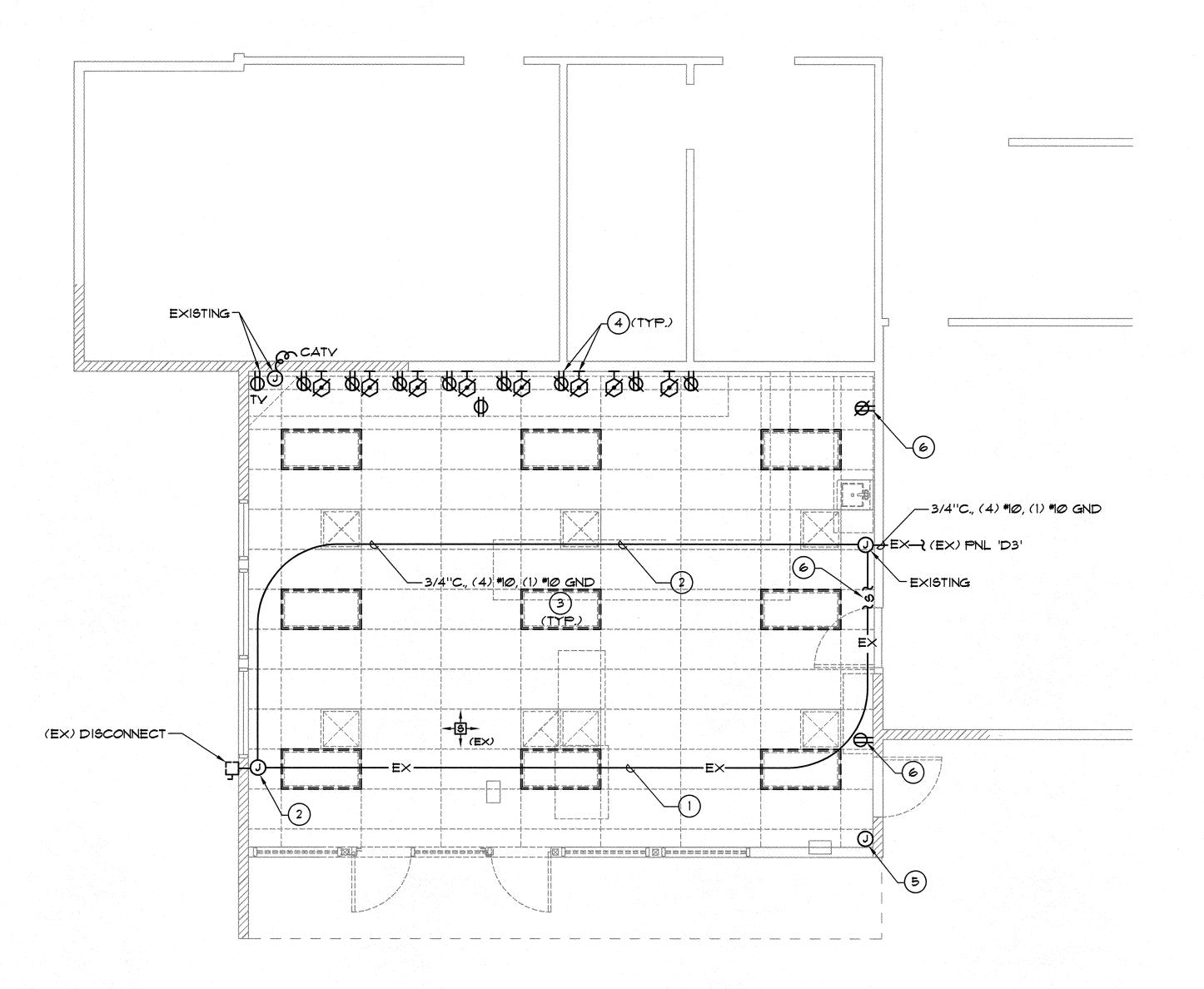
5015016

AS NOTED

E5.2

Architect's Seal

★ ☑ NO. C-32437 ☐ ★



FOOD BANK DEMOLITION FLOOR PLAN

1/4" = 1'-0"

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DEMOLITION GENERAL NOTES

I. ALL ITEMS SHOWN ON THIS DRAWING ARE EXISTING TO BE REMOVED UNLESS OTHERWISE NOTED. SEE REQUIREMENTS BELOW FOR SCOPE OF WORK, ALL OTHER ELECTRICAL ITEMS IN THIS BUILDING ARE EXISTING TO REMAIN, MAINTAIN POWER CIRCUIT CONTINUITY UNTIL NEW SOURCE IS ENERGIZED AND READY FOR TRANSFER, REFER TO POWER AND LIGHTING

2. ALL ELECTRICAL DEMOLITION WORK SHALL BE DIRECTED BY THE ELECTRICAL CONTRACTOR.

GENERAL DEMOLITION REQUIREMENTS

EQUIPMENT AS REQUIRED.

- 1. <u>LIGHTING FIXTURES</u>
 WHERE EXISTING LIGHTING FIXTURES ARE TO BE
 REMOVED, AND ARE <u>NOT</u> RELOCATED, CONTRACTOR
 SHALL DISPOSE OF ALL FIXTURES INCLUDING LAMPS
 AND BALLAST.
- 2. <u>WIRING DEVICES</u>
 WHERE EXISTING SWITCHES OR RECEPTACLES ARE TO BE REMOVED, THE CONTRACTOR SHALL DISPOSE OF ALL DEVICES AS REQUIRED.
- 3. COMMUNICATION DEVICES
 WHERE EXISTING TELEPHONE/INTERCOM AND CLOCK
 HEAD END EQUIPMENT, PHONES, SPEAKERS AND OTHER
 ASSOCIATED EQUIPMENT ARE TO BE REMOVED, THE
 CONTRACTOR SHALL DISPOSED OF ALL DEVICES AND
- 4. ALL BOXES, EXPOSED CONDUIT, WIRE, AND OTHER ITEMS ASSOCIATED WITH ELECTRICAL EQUIPMENT TO BE REMOVED, SHALL BE DISCONNECTED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AS REQUIRED, UNLESS SPECIFICALLY NOTED OTHERWISE. CUT AND CAP CONCEALED CONDUITS. PATCH, SEAL AND REPAIR SURFACE TO MATCH ADJACENT AREA WHERE BOXES ARE REMOVED.

KEY NOTES

- (EX) 3/4"C. AND FEEDER. DISCONNECT AND REMOVE.
- PROVIDE NEW ROUTING OF FEEDER IN KEY NOTE *1.
 PROVIDE ALL WIRE, CONDUIT, CONDUIT HANGERS AND JUNCTION BOXES.
- 3 DISCONNECT AND REMOVE ALL LIGHT FIXTURES.
 DISCONNECT AND REMOVE ALL CONDUIT, WIRING AND
 JUNCTION BOXES. TYPICAL OF 9 FIXTURES.
- DISCONNECT AND REMOVE ALL DATA AND POWER RECEPTACLES FROM THIS WALL. DISCONNECT AND REMOVE ALL CONDUIT AND WIRING BACK TO SOURCE. KEEP SAFE FOR RE-USE (3) THREE DATA DROPS FOR RELOCATION. SEE SHEET E3.1 FOR RELOCATED DATA DROPS. SEE SHEET E1.1 FOR DATA IDF LOCATION.
- 5 DISCONNECT AND REMOVE EXISTING SURFACE BOX AND ALL WIRING.
- DISCONNECT AND REMOVE EXISTING RECEPTACLE, SWITCH AND PLATES. SAFE OFF CIRCUIT WIRING. PROVIDE BLANK

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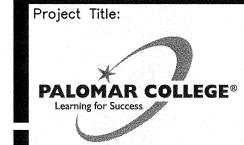
Consultant Logo
12875 Brookprinter Place, Suite 300
Poway, CA 92064

P 858.679.4030 | F 858.513.0559

www.jce-inc.com

10/28/20

Agency Approval



PALOMAR COLLEGE
FOOD PANTRY

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No.	Description	Date	No.	Description	Date
•					

Prawing Title: A FOOD BANK DEMOLITION FLOOR PLAN

Architect's Seal



Designed: MB	Project No. 5015016		
Drawn: JR	Scale: AS NOTED		
QAQC: BG	Drawing No.		
Date: 08-07-2017	LIU.I		

