

۱. (. GENERAL INFORMATION								
01	Project Location (city)	Santa Rosa	05	# of	Stories (Habitable Above Grade)	1			
02	Zipcode	95401	06	Tota	l Conditioned Floor Area (ft²)	4179			
03	Climate Zone	2	07	Tota	l Unconditioned Floor Area (ft²)	0			
Occupancy Types Within Project: (select all that apply): If one occupancy constitutes >= 80% of the conditioned floor area, the entire building envelope may be designed to comply with the provisions of that occupancy per 100.0(f).			08	ш	Project includes unconditioned enclosed space(s) > 5,0 height of at least 15 ft. ¹	000 ft ² under a roof with a ceiling			
Office ● Support Areas ● All Other Occupancies									
	FOOTNOTE, Francisco C. 5000 ft ² disease, and a section in the cities to be a linear to the control of the con								

FOOTNOTE: Enclosed spaces > 5,000 ft² directly under roof with ceiling height > 15 ft in climate zones 2 through 15 are required to meet the minimum daylighting requirements defined in 140.3(c)/ 170.2(b). Compliance with 140.3(c)/ 170.2(b) is documented in Table L. This is the only prescriptive requirement which applies to unconditioned spaces.

B. F	ROJE	ECT SCOPE							
		e specifies project envelope components within the permit application demonstrating com O(b)1 and 2/ 180.2 for additions and alterations.	npliar	nce using the preso	riptiv	e paths outlined i	n 140	.3/ 170.2 and 141.0(a)1/ 180.1	
		My project consists of (check all that apply)				Component	t Type	es	
		01				02			
	New	Construction or Newly Conditioned Space	П	1 Book		Walls		Exterior Opaque Doors	
		One or more enclosed spaces > 5,000 ft ² directly under roof with ceiling height > 15ft	1"	Roof		Floors		Fenestration/ Glazed Doors ¹	
	Addition of conditioned space					Walls		Exterior Operus Deers	
		One or more enclosed spaces > 5,000 ft ² directly under roof with ceiling height > 15ft]_	Roof	$ \Box $	vvalis	ᅵᆸ	Exterior Opaque Doors	
		Addition is <=700 ft ²	1"			Floors		5tti/Glass-I Dass-1	
		Addition is >700 ft ²	1					Fenestration/ Glazed Doors ¹	
⊠	☐ Alteration of conditioned space			Roof Assembly	☒	Walls			
		One or more enclosed spaces $>$ 5,000 ft ² directly under roof with ceiling height $>$ 15ft and lighting system installed for the first time	⊠	Roofing Material ²		Floors	⊠	Fenestration	

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Envelope Component Approach CALIFORNIA ENERGY COMM						
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07	08	09	10	11	12	13	14	1:	5	16
Tag/Plan Detail ID	How Design U-factor was determined	Roof Type & Frame Material	Frame Spacing Depth	Cavity Insulation per Design ²	Continuous Insulation per Design ²	Thermal Performance Unit	Required			Net Area ⁴ ft ²
								per JA4		
R-24 TPO Roof	JA4 Tables	Wood		0	24	U-factor	0.055	per Software/ Other	0.037	461
								per JA4		
R-24 TPO Roof	JA4 Tables	Wood		0	24	U-factor	0.055	per Software/ Other	0.037	255
	JA4 Tables	s Wood		0	24	U-factor	0.055	per JA4		
R-24 TPO Roof								per Software/ Other	0.037	78
	JA4 Tables	Wood				U-factor		per JA4		
R-30 Roof				30	0		0.055	per Software/ Other	0.036	404
								per JA4		
R-24 TPO Roof	JA4 Tables	Wood		0	24	U-factor	0.055	per Software/ Other	0.037	846
								per JA4		93
R-24 TPO Roof	JA4 Tables	Wood		0	24	U-factor	0.055	per Software/ Other	0.037	
								per JA4		1034
R-24 TPO Roof	JA4 Tables	Wood	I	0	24	U-factor	or 0.055	per Software/ Other	0.037	
							per JA4			
R-24 TPO Roof	JA4 Tables	Wood		0	24	U-factor	0.055	per Software/ Other	0.037	449

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STATE OF CALIFORN	NIA						
Envelope Component Approach CALIFORNIA ENERGY COMMI							
CERTIFICATE OF	CERTIFICATE OF COMPLIANCE NRCC-						
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	H. WALL ASSEN	IBLY SCHEDULE										
Ī	02	03	04	05	06	07	08	09	10	11		12
	Tag/Plan Detail		How Design U-factor was determined		Mass Information		Additional Insulation Information		Maximum			Net
	ID	Occupancy Type		Mass Material	Fill Options	Thickness (in)	Frame Material & Thickness	Cavity Insulation per Design	U-factor Allowed ²	U-factor per Design		Area ³ ft ²
		Nonresidential/		CMU medium	Dortiol					per JA4		
	Bottom Wall	Relocatable 1 CZ		weight			8 in Wood- 3.5 in		0.53	per Software/ Other	0.081	832

¹FOOTNOTES: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Mass walls are combined with concrete sandwich panel, log and ICF wall types. Mass walls must meet mandatory requirements in 120.7(b), but may area-weight to comply with prescriptive requirements in Table 140.3 for new

² Mass walls are defined as "light" or "heavy" depending on their Heat Capacity. Heat Capacity is determined in Tables 4.3.5 and 4.3.6 in Joint Appendix 4. Walls with Heat Capacity of 15 or greater are "heavy" while walls with Heat Capacity from 7 to less than 15 are "light". Walls with heat capacity less than 7 would be categorized as "Wood framed and Other" for compliance purposes. ³ Wall area minus any fenestration area

Are	-Weighted Average U-factor Compliance Calculation for Mass/ Concrete Sandwich Panel/ Log/ ICF Walls

Area Weighted Average of factor compliance calculation for massy contricte sandwich funcify 20g/ fer Walls								
01	02	03	04 05		06			
Wall Type	Total Area of Wall Type (ft²)	Mandatory U-factor Required	Area-weighted U-factor fo U-factor fo	Compliance Results Using Area-Weighted Calculation Option				
		Required	Required	Designed	Area-weighted Calculation Option			
Light Mass	1820	0.44	0.53	0.081	COMPLIES			
Heavy Mass	0	0.69	0	0	COMPLIES			

I. FLOOR ASSEMBLY SCHEDULE
I. FLOOR ASSEMBLE SCHEDOLE

This section does not apply to this project.

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B. PROJECT SCOPE

¹FOOTNOTE: Doors that are more than 25% glass in area are considered Glazed Doors and should be documented on table K with fenestration. ²Roof recovers and replacements must also check "Roof Assembly" box and document compliance with insulation requirements in Table F. Roof recoats may document compliance with roof material only in Table G.

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through L. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see the applicable table referenced below.

	Opaque Env	elope Components			Fenestration	Daylighting Spaces >	Compliance Results
Roof Assembly	Roofing Materials	Walls	Floors	Doors	renestration	5,000ft ²	compliance results
01	02	03	04	05	06	07	08
(See Table F)	(See Table G)	(See Table H)	(See Table I)	(See Table J)	(See Table K)	(See Table L)	COMPLIES
Yes	Yes	Yes			Yes		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.

F. ROOF ASSEMBLY SCHEDULE

This table demonstrates compliance for prescriptive roof assembly requirements in 140.3(a)1B/170.2(a)1B for new construction, 141.0(a)/180.1 for additions, or 141.0(b)2Biii/180.2

for alterations,	craces compliance for presemp	ive rooj assembi	yrequiremen	113 111 140.5(4)15)	170.2(4)15)01	new construction, 141.0(an 100.1 for additions,	01 141.0(5)25111/ 100	_
01	Indicate roof types included in	the project:	Framed	Framed- Multifamily	SIPS	☐ Span Deck & Concr	ete	☐ Metal Building	
Framed Roof Asse	Framed Roof Assemblies								
01		Include Framed	Roof Assemb	olies in Area-Weigh	ited Average U	-factor Calculation ¹			
02	0.2	04		-		OE.	·	06	

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TATE OF CALIFORNIA	
Envelope Component Approach	

This section does not apply to this project.

Window E8C Glazed door

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F. ROOF ASSEM	BLY SCHEDULE									
07	08	09	10	11	12	13	14	1	5	16
Tag/Plan Detail ID	How Design U-factor was determined	Roof Type & Frame Material	Frame Spacing Depth	Cavity Insulation per Design ²	Continuous Insulation per Design ²	Thermal Performance Unit	Required Thermal Performance ³	U-factor բ	oer Design	Net Area ⁴ ft ²
R-24 TPO Roof	JA4 Tables	Wood		0	24	U-factor	0.055	per JA4 per Software/ Other	0.037	216

¹FOOTNOTES: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Metal building roofs may not be combined with other roof types. The area-weighted compliance option is not available for alterations demonstrating compliance with R-values in Table 141.0-C. $|^{2}$ For alterations using U-factor as the Thermal Performance Unit, at least R-10 insulation must be above deck.

 $|^3$ If "R-value" is shown in cell 13 as the Thermal Performance Unit, the R-value shown here is for continuous insulation per Table 141.0-C. ⁴ Roof area minus any fenestration/ skylight area

Area-Weighted Average U-factor Compliance Calculation for Framed/ SIPs/ Span Deck & Concrete/ Metal Panel Roofs							
01	02	03	04	05			
Roof Type	Total Area of Roof Type (ft ²)	Area-weighted U-fa	actor for Roof Type	Compliance Results Using Area-Weighted			
Root Type	lotal Area of Roof Type (It-)	Required	Designed	Calculation Option			
Framed	4123	0.055	0.037				
Total for all Roof Types:	4123	0.055	0.037	COMPLIES			

G. RATED ROOFING MATERIAL (COOL ROOF)

Relocatable 1 CZ: : New Table 140.3-B/C/D

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This table demonstrates compliance with prescriptive roof material requirements in 140.3(a)1A/ 170.2(a)1A for new construction, 141.0(a)/ 180.1 for additions, and 141.0(b)2B/ 180.2 for alterations. Roof recovers and replacements must also document compliance with insulation requirements in Table F. Roof recoats may document compliance with roof material only

in Table G.									
01	02	03	04	05	06	07	08	09	10
Tag/Plan Detail ID	Name/ Description/ Location	Status	Occupancy Type	Roof Slope	Roof Material	Compliance Method	Required Minimum Material Performance	Designed Material Performance	U-factor / R-value of Assembly

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	ii ee	

K. FENESTRA	TION AND GL	AZED DOOR SCHEDUL	Ē							
		pliance with prescriptive at are more than 25% gla							41.0(b)2A/ 180).2 for
01	Indicate fer	nestration types included	in the project:1 🛛 V	ertical (alteration	s)	☐ Vertical (new)	Skylights	□GI	azed Doors (ne	w only)
		ypes indicated above as ' compliance demonstrated		ie Title 24, Part 6	requi	rements for alterations.	New construction and a	additions do ha	ve requiremen	ts and
Vertical Fenes	tration And Gl	azed Doors- U-factor, Sol	ar Heat Gain Coefficie	nt (RSHGC/ SHGC	C), Vis	sible Transmittance (VT)				
01	×	Calculate Area-W	eighted Average U-fact	or for Vertical Fer	nestra	ation and Glazed Doors ¹				
02	×	Calculate Area-W	eighted Average (R)SH	GC for Vertical Fe	nestra	ation and Glazed Doors ¹				
03		Calculate Area-W	eighted Average VT for	Vertical Fenestra	tion	and Glazed Doors ¹				
Vertical Fenes	tration And Gl	azed Doors- U-factor, Sol	ar Heat Gain Coefficie	nt (RSHGC/ SHGC), Vis	sible Transmittance (VT)				
04	05	06	07	08		09	10	11	12	13
Tag/Plan Detail ID	Fenestration Type	Occupancy & Status	U-factor/ (R)SHGC Compliance Method	VT Compliance Method	Per	Calculation Method for formance Values per Des	Product Performance Unit	Required Product Performance	Product Performance per Design	Area ft²
2	74.60	Maria di Jangali	Part of the	Table	§110.6 Defaults		U-factor (max)	0.77	0.77	1/2
Window E8A	Glazed door	Nonresidential/ Relocatable 1 CZ: : New	Table 140.3-B/C/D	Table 140.3-B/C/D		Overhang/ Slats used for	or (R)SHGC (max)	0.73	0.73	19.5
					ш	RSHGC	VT (min)	0.88	0.6	
		Newscrideneral		Table		§110.6 Defaults	U-factor (max)	0.77	0.77	1, ,
Window E8B	Glazed door	Nonresidential/ Relocatable 1 CZ: : New	Table 140.3-B/C/D	Table 140.3-B/C/D	п	Overhang/ Slats used for	or (R)SHGC (max)	0.73	0.73	19.5
					ш	RSHGC	VT (min)	0.88	0.6	
-						§110.6 Defaults	U-factor (max)	0.77	0.77	

140.3-B/C/D

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Overhang/ Slats used for

(R)SHGC (max) 0.73 0.73

VT (min) 0.88

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ramed Roof Asse	emblie	es									
Tag/Plan Detail	ID	Name/D	Description	Status	Exception	on to Roof Insula	tion Requiremen	its in §141.0(b)2B	Biii (Alts. Only)	Occ	upancy Type
R-24 Roof TPO Sure-Weld Wh	1	R-24 T	TPO Roof	Altered						5.5	nresidential/ ocatable 1 CZ
R-24 Roof TPO Sure-Weld Wh	40	R-24 T	PO Roof	Altered							nresidential/ ocatable 1 CZ
R-24 Roof TPO Sure-Weld White R-24 TPO Roof		PO Roof	Altered							nresidential/ ocatable 1 CZ	
R-24 Roof TP0 Sure-Weld Wh		R-24 T	TPO Roof	Altered							nresidential/ ocatable 1 CZ
R-30 Roof	Ц	R-3	0 Roof	Altered						0.00	nresidential/ ocatable 1 CZ
R-24 Roof TPO Sure-Weld Wh		R-24 T	PO Roof	Altered							nresidential/ ocatable 1 CZ
R-24 Roof TPO Sure-Weld Wh		R-24 T	TPO Roof	Altered							nresidential/ ocatable 1 CZ
R-24 Roof TPO Sure-Weld Whi		R-24 T	PO Roof	Altered							nresidential/ ocatable 1 CZ
R-24 Roof TP0 Sure-Weld Wh	3.79	R-24 T	PO Roof	Altered							nresidential/ ocatable 1 CZ
R-24 Roof TP0 Sure-Weld Wh		R-24 T	FPO Roof	Altered							nresidential/ ocatable 1 CZ
07		08	09	10	11	12	13	14	15		16
Tag/Plan Detail ID	U-fa	w Design actor was ermined	Roof Type & Frame Material	Frame Spacing Depth	Cavity Insulation per Design ²	Continuous Insulation per Design ²	Thermal Performance Unit	Required Thermal Performance ³	U-factor po	er Design	Net Area ⁴ f
					1				per JA4		
R-24 TPO Roof	JA	4 Tables	Wood		0	24	U-factor	0.055	per Software/ Other	0.037	287

STATE OF CALIFORNIA		
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G. RATED ROOFING MATERIAL (COOL ROOF)											
R-24 Roof				Low slope		Aged solar	Reflectance	0.63	Reflectance ¹	0.79	
TPO Sure-Weld	R-24 TPO Roof	Altered	Nonresidential		To Be Determined		Emittance	0.75	Emittance	0.9	
White				siope			SRI		SRI		
				Chaan		Aged solar	Reflectance	0.1	Reflectance ¹	0.3	
R-30 Roof	R-30 Roof	Altered	Nonresidential	Steep slope	To Be Determined	reflectance and	Emittance	0.75	Emittance	0.85	
				3.040		thermal emittance	SRI		SRI		

H. WALL AS	SEMBLY SCHEDU	ILE											
This table dei alterations.	monstrates compl	ance with prescr	iptive wall	assembly requir	ements in 140.3	3(a)/ 170	0.2(a) f	or new construct	ons, 141.0(a)/ 1	180.1 for additi	ons and :	141.0(b)1B/	180.2 for
01 Ir	adiaataall toosaa	in almala dia dha a		Framed		only)	Con	crete Sandwich P	anel (new only)	SIPS		ICF (new on	ly)
01	Indicate wall types included in the project:¹ ☐ Metal Panels ☐ Metal B						ng Spandrel/ Curtain Wall			☐ Straw Ba	le 🗆	Log Home (new only)
	new walls only)	lemonstrated wit	thin this ta	ble.									
01	\boxtimes	Calculate A	rea-Weigh	ted Average U-fa	ctor for Mass V	Valls ¹							
02	03	04	0	5	06	07	'	08	09	10		11	12
T /D D		How Design		Mass Ir	nformation			Additional Inform		Maximum			Net

02	03	04	05	05 06 07		08	09	10	11		12
Tag/Plan Detail		How Design	Mass Information			Additional Insulation Information		Maximum			Net Area ³
ID	Occupancy Type	U-factor was determined	Mass Material	Fill Options	Thickness (in)	Frame Material & Thickness	Cavity Insulation per Design	U-factor Allowed ²	U-factor per	ctor per Design	
Top Wall	Nonresidential/ Relocatable 1 CZ	JA4 Tables	CMU medium weight	Partial Grout-uninsulated	8 in	Wood- 3.5 in	13	0.53	per JA4 per Software/ Other	0.081	988

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04	05	azed Doors- U-factor, Sol	07	08		09	10	11	12	13
Tag/Plan Detail ID	Fenestration Type	Occupancy & Status	U-factor/ (R)SHGC Compliance Method	VT Compliance Method			Product Performance Unit	Required Product Performance	Product Performance per Design	
		Nonresidential/		Table		NFRC Certified	U-factor (max)	0.47	0.46	TI
Window 7A	Fixed window	ACRES AND SEASON OF THE SEASON OF THE SEASON	Table141.0-A	Table 140.3-B/C/D		Overhang/ Slats used for	(R)SHGC (max)	0.31	0.3	19.5
		(Replacement > 150ft2)			RSHGC		VT (min)	0.42	0.6	
		Nonresidential/	779.794	Table		NFRC Certified	U-factor (max)	0.47	0.46	
Window 7B Fixed window		Table141.0-A	140.3-B/C/D		Overhang/ Slats used for	(R)SHGC (max)	0.31	0.3	19.5	
	(Replacement > 150ft2)				RSHGC	VT (min)	0.42	0.6		
iedramia.	Nonresidential/		Table	§110.6 Defaults		U-factor (max)	0.77	0.77		
Existing Windows (E)	Glazed door	Relocatable 1 CZ: : New	Table 140.3-B/C/D	140.3-B/C/D		Overhang/ Slats used for	(R)SHGC (max)	0.73	0.73	125
2713000255		100220000 2 2200000				RSHGC	VT (min)	0.88	0.876	1111
Existing Glz		Nonresidential/	Table 140.3-B/C/D	Table		§110.6 Defaults	U-factor (max)	0.77	0.77	21
Door (E)	Glazed door	Relocatable 1 CZ: : New		140.3-B/C/D		Overhang/ Slats used for	(R)SHGC (max)	0.73	0.73	
X-X		0.00		1000][RSHGC	VT (min)	0.88	0.876	
	-	Nonresidential/		Table		NFRC Certified	U-factor (max)	0.47	0.46	V
Window 2	Fixed window		Table141.0-A	140.3-B/C/D		Overhang/ Slats used for	(R)SHGC (max)	0.31	0.3	10.5
		(Replacement > 150ft2)		34244	1	RSHGC	VT (min)	0.42	0.6	
		Nonresidential/		Table		NFRC Certified	U-factor (max)	0.47	0.46	10.5
Window 16	Fixed window	d window Relocatable 1 CZ: : Alt.	Table141.0-A	Table 140.3-B/C/D		Overhang/ Slats used for	(R)SHGC (max)	0.31	0.3	
		(Replacement > 150ft2)		100000000000000000000000000000000000000	RSHGC		VT (min)	0.42	0.6	

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REV # DATE: ISSUED FOR:

JOB NUMBER:

TITLE 24 - ENVELOPE

ORIGINAL DATE: © AXIA ARCHITECTS

Vertical Fenes	tration And Gl	azed Doors- U-factor, Sol	ar Heat Gain Coefficie	nt (RSHGC/ SHGC	C), Vis	sible Transmittance (VT)				
04	05	06	07	08		09	10	11	12	13
Tag/Plan Detail ID	Fenestration Type	Occupancy & Status	U-factor/ (R)SHGC Compliance Method	VT Compliance Method	Per	Calculation Method for formance Values per Design ²	Product Performance Unit	Required Product Performance	Product Performance per Design	Area ft
		Nonresidential/	-016	Table 140.3-B/C/D		NFRC Certified	U-factor (max)	0.47	0.46	1917
Window 14A	Fixed window	Relocatable 1 CZ: : Alt.	Table141.0-A			D [Overhang/ Slats used for	(R)SHGC (max)	0.31	0.3
	(Replacement > 150ft2)	RSHGC	VT (min)	0.42	0.6					
		Nonresidential/		Table		NFRC Certified	U-factor (max)	0.47	0.46	
Window 14B	Fixed window	Relocatable 1 CZ: : Alt.	Table141.0-A	140.3-B/C/D		Overhang/ Slats used for	(R)SHGC (max)	0.31	0.3	10.5
- 4		(Replacement > 150ft2)			ш	RSHGC	VT (min)	0.42	0.6	
Existing		Nonresidential/		Table 140.3-B/C/D		§110.6 Defaults	U-factor (max)	0.77	0.77	1-1
Windows (E)	Glazed door	Relocatable 1 CZ: : New	Table 140.3-B/C/D			Overhang/ Slats used for	(R)SHGC (max)	0.73	0.73	32
221 120 00 2 00 2				59475 C693024	RSHGC	VT (min)	0.88	0.876		
Existing Glz		Nonresidential/	T-81.70	Table		§110.6 Defaults	U-factor (max)	0.77	0.77	134
Door (E)	Glazed door	Relocatable 1 CZ: : New	Table 140.3-B/C/D	140.3-B/C/D		Overhang/ Slats used for	(R)SHGC (max)	0.73	0.73	21
- C - A-W	(A-A)			The second second second		DOLLOG	1 - 1			1

FOOTNOTES: If any individual fenestration product is non-compliant, products may show compliance using an area-weighted calculation. Chromogenic glazing is not included in area-weighted calculations. Area-weighted calculation shown in separate area-weighted table below.

²The NA6 Default Calculation can only be used for alterations or dwelling units in buildings with <= 3 habitable stories. Alterations are limited to 200ft² of site built glazing and dwelling units are limited to 250ft² or 5% of conditioned floor area. If the fenestration does not meet these conditions, the only options for determining fenestration values are NFRC Certification or the Default Tables in 110.6.

VT (min) 0.88

0.876

Documentation Software: EnergyPro

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3 Overhangs must extend past the left and right window the same distance as the depth of the overhang or greater to show an affect on the RSHGC. If an overhang does not meet this requirement, the affect of the overhang will be ignored.

⁴Projecting includes casement and awning windows.

Project Name: 421 E Street Tenant Improvement

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Compliance ID: EnergyPro-1004-0525-4749 Report Version: 2022.0.000 Schema Version: rev 20220101 Report Generated: 2025-05-28 10:33:22 STATE OF CALIFORNIA **Envelope Component Approach** CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCC-ENV-E

Generated Date/Time:

Report Page:

N. 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, form user must provide an explanation 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/. Individuals who perform the field testing and verification work, and provide the information required for completion of the fenestration Certificate of Acceptance documentation are not required to be licensed professionals. However, the person who signs the Certificate of Acceptance document to certify compliance with the acceptance requirements shall be licensed as specified in Standards Section 10-103(a)4 and NA7.3.1 Systems/Spaces To Be Field Verified NRCA-ENV-02-F must be submitted for all new, added or altered site built fenestration. enestration:

O. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no forms required for this project

Documentation Software: EnergyPro Generated Date/Time:

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Report Version: 2022.0.000

Compliance ID: EnergyPro-1004-0525-4749 Report Generated: 2025-05-28 10:33:22

STATE OF CALIFORNIA Indoor Lighting CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE This document is used to demonstrate compliance with requirements in 110.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)2 for indoor lighting scopes using the prescriptive path for presidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e) and 180.2(b)4 for indoor lighting scopes using the prescriptive path for multifamily occupancies. Multifamily includes dormitory and senior living facilities. Project Name: 421 E Street Tenant Improvement (Page 1 of 8)

A. GEN	ERAL INFORMATION				
01 Proj	ect Location (city)	Santa Rosa	04	Total Conditioned Floor Area (ft²)	4,179
02 Clim	nate Zone	2	05	Total Unconditioned Floor Area (ft²)	0
ЭЗ Оссі	Occupancy Types Within Project (select all that apply):			# of Stories (Habitable Above Grade)	1

B. PROJECT SCOPE				
This table includes any lighting systems that are within the scope of the permit $141.0(b)2/180.2(b)4$ for alterations.	application and are demonstrating co	mpliance using the p	rescriptive path outlined in 140.	6 / 170.2(e) or
Scope of Work	Conditioned Spaces		Unconditioned Spa	ices
01	02	03	04	05

Project Address:

141.0(b)2 / 180.2(b)4 for diterations.				
Scope of Work	Conditioned Space	Unconditioned Spaces		
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft ²
☐ New Lighting System				
☐ New Lighting System - Parking Garage				
☐ Altered Lighting System	Area Category Method	4179	Area Category Method	0
Total Area of Work (ft²)	4179		0	

Documentation Software: EnergyPro

STATE OF CALIFORNIA **Envelope Component Approach** CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCC-ENV-E Project Name: 421 E Street Tenant Improvement (Page 11 of 14) Report Page: Date Prepared: 5/28/2025

K. FENESTRATION AND GLAZED DOOR SCHEDULE Skylights- Total Area Building has Atria > 55ft? Gross Exterior Roof Area (ft²) Maximum Allowed Skylight Area¹ (ft²) Total Skylight Area per Design (ft²) 4,179 FOOTNOTES: 5% of total roof area allowed for areas other than atria > 55 ft. 10% allowed for atria > 55 ft. Skylights- U-factor, Solar Heat Gain Coefficient (SHGC), Visible Transmittance (VT) ☐ Calculate Area-Weighted Average U-factor for Skylights¹ Calculate Area-Weighted Average SHGC for Skylights¹ 02 Calculate Area-Weighted Average VT for Skylights¹ 04 05 Compliance Calculation Metho Tag/Plan Detail enestration ze/ Diffuser with Haze Method for for Performance Occupancy & Status Required Product Performance Value > 90%? Multifamily ce per Values per Design²

Alterations I-factor (max) 0.88 0.65 Relocatable 1 CZ: 0.83 SHGC (max) 0.5 Plastic, curb NFRC Certified 4070 Skylight 1 mounted (Add/Replacement > 0.64 0.64 VT (min) 50ft2) Nonresidential/ 0.88 0.65 J-factor (max) Relocatable 1 CZ: : SHGC (max) 0.83 Plastic, curb NFRC Certified 4070 Skylight 2 Alt. mounted (Add/Replacement 0.64 0.64 50ft2)

¹FOOTNOTES: If any individual skylight product is non-compliant, products may show compliance using an area-weighted calculation. Chromogenic glazing is not included in area-weighted calculations. Area-weighted calculation shown in separate area-weighted table below.

²The NA6 Default Calculation can only be used for alterations or dwelling units in buildings with <= 3 habitable stories. Alterations are limited to 200ft² of site built glazing and dwelling units are limited to 250ft² or 5% of conditioned floor area. If the fenestration does not meet these conditions, the only options for determining fenestration values are NFRC Certification or the Default Tables in 110.6.

Generated Date/Time: Documentation Software: EnergyPro Compliance ID: EnergyPro-1004-0525-4749 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220101 Report Generated: 2025-05-28 10:33:22

STATE OF CALIFORNIA **Envelope Component Approach** CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE Project Name: 421 E Street Tenant Improvement (Page 14 of 14) Report Page: Project Address: 421 E Street Date Prepared: 5/28/2025

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT I certify that this Certificate of Compliance documentation is accurate and complete. ocumentation Author Name: mentation Author Signature: Emilie Meisinger SOLDATA Energy Consulting 2025-05-28 EA/ HERS Certification Identification (if applicable): 1201-4562-9757-7EE6-E49F-98A8-02C7-B778-D67F-B106-1A7B-5EA4-C249-1D34-CF68-PO Box 8579 Santa Rosa CA 95407 (707)545-4440 RESPONSIBLE PERSON'S DECLARATION STATEMENT certify the following under penalty of perjury, under the laws of the State of California:

The information provided on this Certificate of Compliance is true and correct. 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) 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

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.

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. 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

onsible Designer Name: Douglas Hilberman **AXIA Architects** 2025-05-28 C29543 540 Mendocino Ave. Santa Rosa CA 95401 707) 542-4652

Generated Date/Time: Documentation Software: EnergyPro CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: EnergyPro-1004-0525-4749

Schema Version: rev 20220101

STATE OF CALIFORNIA Indoor Lighting CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCC-LTI-E Project Name: 421 E Street Tenant Improvement (Page 2 of 8) Report Page: Date Prepared: 5/28/2025

C. COMPLIANCE RESULTS If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance. Adjusted Lighting Power per 140.6(a) / 170.2(e) | **Compliance Results** Allowed Lighting Power per 140.6(b) / 170.2(e) (Watts) 03 l 04 07 08 09 conditioned and unconditioned Category PAF Lighting paces must not be Complete Category Additional 140.6(c)3 / Control Credits combined for Building Designed (Watts) 05 must be >= 08 140.6(c)2 / 140.6(c)2G / 170.2(e)4B 140.6(a)2/ compliance per 140.6(c)1 (Watts) *Includes 140.6 / 170.2(e) 170.2(e)4 170.2(e)4Av (Watts) 170.2(e)1B 140.6(b)1 / 170.2(e) Adjustments (See Table I) (See Table J) (See Table K (See Table F) (See Table P) Conditioned 2,488.6 2,489 1706 COMPLIES 1,706 Controls Compliance (See Table H 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.

Generated Date/Time: Documentation Software: EnergyPro

Rated Power Reduction Compliance (See Table Q for Details)

STATE OF CALIFORNIA Envelope Component Approach CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCC-ENV-E (Page 12 of 14) Project Name: 421 E Street Tenant Improvement Report Page: Date Prepared: 5/28/2025

K. FENESTRATION AND GLAZED DOOR SCHEDULE Area-Weighted Average U-factor, SHGC, VT Compliance Calculation for Vertical Fenestration And Glazed Doors Area-weighted Calculation for Fenestration Compliance Results Using Area-Weighted Product Performance Unit Total Area of Fenestration (ft²) Calculation Option Designed COMPLIES 338.5 COMPLIES 0.31 0.3 (R)SHGC 338.5 COMPLIES Area-Weighted Average U-factor, SHGC, VT Compliance Calculation for Skylights Area-weighted Calculation for Fenestration Compliance Results Using Area-Weighted **Product Performance Unit** Total Area of Fenestration (ft²) Calculation Option Required Designed COMPLIES U-Factor 0.88 0.65 0.83 COMPLIES (R)SHGC 0.5

L. DAYLIGHT IN LARGE ENCLOSED SPACES This section does not apply to this project.

M. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION Selections have been made based on information provided in this document. If any selection have been changed by the permit applicant, an explanation should be included in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online Form/Title

Generated Date/Time:

NRCI-ENV-01-E - Must be submitted for all buildings

Documentation Software: EnergyPro

COMPLIES

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220101

Compliance ID: EnergyPro-1004-0525-4749 Report Generated: 2025-05-28 10:33:22

Indoor Lighting CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCC-LTI-E

Report Page:

Date Prepared:

F. INDOOR	LIGHTING FIX	KTURE SCHEDU	JLE

Project Name: 421 E Street Tenant Improvement

STATE OF CALIFORNIA

This table includes all planned permanent and portable lighting other than dwelling unit/hotel/motel room lighting. Multifamily dwelling unit and hotel/motel room lighting is documented in Table T. If using Table T to document lighting in multifamily common use areas providing shared provisions for living, eating, cooking or sanitation, those luminaires are not included here.

This section does not apply to this project.

01	02	03	04	05	06	07	08	09	1	0
Name or Item Tag		Modular (Track) Fixture	Small Aperture & Color Change ¹	Watts per luminaire ²	How is Wattage determined	Total Number of Luminaires	Excluded per 140.6(a)3 / 170.2(e)2C	Design Watts	Field In: Pass	spector Fail
F1	2x4 Flat Panel LED 35.9w F1	No	NA	35.9	Mfr. Spec	23	No	825.7		
F2	2x2 Flat Panel LED 27.7w F2	No	NA	27.7	Mfr. Spec	17	No	470.9		
F3	1x4 Flat Panel LED 24.1w F3	No	NA	24.1	Mfr. Spec	2	No	48.2		
F4	1x4 Linear Strip LED 31.8w F4	No	NA	31.8	Mfr. Spec	2	No	63.6		
F5	6" Recessed LED 17.5w F5	No	NA	17.5	Mfr. Spec	17	No	297.5		
	Total Designed Watts: CONDITIONED SPACE							1,706		

¹FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per 140.6(a)4B / 170.2(e)2D is adjusted to be 75% /80% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.

²Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) / 160.5(b). Wattage used must be the maximum rated for the

G. MODULAR LIGHTING SYSTEMS

H. INDOOR LIGHTING CONTROLS (Not including PAFs)						
This table includes lighting controls for conditioned and unconditioned spaces.						
Building Level Controls						
01	02 03					
Mandatory Demand Response 110.12(c)	Shut-off controls 130.1(c) / 160.5(b)4C	Field Inspe				
ivialidatory Definanti Response 110.12(c)	311dt-011 Collitols 130.1(c) / 100.3(b)4C	Pass	Fail			
	mentation Softwar	e: EnergyPro				

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5/28/2025

SHEET LOG REV # DATE: ISSUED FOR:

JOB NUMBER: **G4**

TITLE 24 - ENVELOPE -LIGHTING

ORIGINAL DATE:

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Report Version: 2022.0.000 Schema Version: rev 20220101

Generated Date/Time:

Compliance ID: EnergyPro-1004-0525-4749 Report Generated: 2025-05-28 10:33:23

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

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Compliance ID: EnergyPro-1004-0525-4749

Report Generated: 2025-05-28 10:33:22

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Report Version: 2022.0.000 Schema Version: rev 20220101 Compliance ID: EnergyPro-1004-0525-4749 Report Generated: 2025-05-28 10:33:23

NA < 4	,000W subject to multilevel			See Area/Spac	e Level Contro	ols			
ea Level Controls			•						
04	05	06	07	08	09	10	11	1	2
Area Description	Complete Building or Area Category Primary Function Area	Manual Area Controls 130.1(a) / 160.5(b)4A	Multi-Level Controls 130.1(b) / 160.5(b)4B	Shut-Off Controls 130.1(c) // 160.5(b)4C	Primary/Sky lit Daylighting 130.1(d) / 160.5(b)4D	Secondary Daylighting 130.1(d) / 160.5(b)4D	Interlocked Systems 140.6(a)1/ 170.2(e)2A	Field In	spector
		255.5(2)					(-,	Pass	Fail
Office	Office (<=250 square feet)	Readily Accessible	Dimmer	Occupancy Sensor	NA: General Ltg < 120W	NA: General Ltg < 120W	No		
Corridor	Corridor	Readily Accessible	NA: General Ltg <= 0.5W/SF	Occupancy Sensor	NA: Rm < 24sf Glazing	NA: Rm < 24sf Glazing	No		
Restroom	Restroom	Readily Accessible	NA: Restrooms	Occupancy Sensor	NA: Rm < 24sf Glazing	NA: Rm < 24sf Glazing	No		
							13		
						Plan Shee	t Showing Da	ylit Zones:	

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS	
---	--

Each area complying using the Complete Building or Area Category Methods per 140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per

140.0(c) of adjustments per 140.0(d) are being used.								
Conditioned Spaces								
01	02	03	04	05	0	6		
Area Description	Complete Building or Area Category Primary		Area (ft²)	Allowed Wattage	Additional Allowance / Adjustment			
Area Description	Function Area	(W/ft ²)	Area (IL-)	(Watts)	Area Category	PAF		
Restrooms 1-2	Restroom	0.65	287	186.6	No	No		
Office 9-11	Office (<=250 square feet)	0.65	461	299.7	No	No		
Breakroom	Lounge	0.55	255	140.2	No	No		

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Documentation Software: EnergyPro

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000
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state of californ		CALIFORNIA ENERGY COMMISSION						
CERTIFICATE OF C	CERTIFICATE OF COMPLIANCE							
Project Name:	421 E Street Tenant Improvement	Report Page:	(Page 7 of 8)					
		Date Prenared:	5/28/2025					

V. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E.
Additional Remarks. These documents must be provided to the building inspector during construction and any with "-A" in the form name must be completed through an Acceptance
Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

lest Technician Certification Provider (ALTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html		
Form/Title	Systems/Spaces To Be Field Verified	
NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	Office; Corridor; Restroom;	

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

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Compliance ID: EnergyPro-1004-0525-4749 Report Generated: 2025-05-28 10:33:23

Out

ect Name: 421 E Street Tenant Improvement	Report Page: (Page 2 of 7
TIFICATE OF COMPLIANCE	NRCC-LTO-E
tdoor Lighting	CALIFORNIA ENERGY COMMISSION
E OF CALIFORNIA	

Date Prepared:

C. COMPLIANCE RESULTS

	Results in this table are automatically calculated from data input and calculations in Tables F through N. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.															
Calculations of Total Allowed Lighting Power (Watts) 140.7 / 170.2(e)6 or 141.0(b)2L / 180.2(b)4Bv Compliance Results																
	01		02		03		04		05		06		07		08	09
1	General Hardscape Allowance	+	Per Application 140.7(d)2 /	+	Sales Frontage	+	Ornamental 140.7(d)2 /	+	Per Specific Area 140.7(d)2 /	OR	Existing Power Allowance	=	Total Allowed	≥	Total Actual	07 must be >= 08

170.2(e)6 180.2(b)4Bv (See Table J) (See Table M) (See Table I) (See Table N) 272 COMPLIES Shielding Compliance (See Table G for Details)

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

170.2(e)6

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

STATE OF CALIFORNIA Indoor Lighting CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCC-LTI-E **Project Name:** 421 E Street Tenant Improvement (Page 5 of 8) Report Page: Date Prepared: 5/28/2025

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS										
Electrical Room	Electrical Mechancial Telephone Room	0.4	78	31.2	No	No				
Office 7-8	Office (<=250 square feet)	0.65	404	262.6	No	No				
Open Office	Office (>250 square feet)	0.6	846	507.6	No	No				
Entry Area	Main Entry Lobby	0.7	93	65.1	No	No				
Open Office	Office (>250 square feet)	0.6	1,090	654	No	No				
Storage Areas	All Other Space Types	0.4	449	179.6	No	No				
Conference	Convention, Conference, Multipurpose and Meeting Center	0.75	216	162	No	No				
		TOTALS:	4,179	2,488.6	See Tables J,	or P for detail				

J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM

This section does not apply to this project.

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE

This section does not apply to this project.

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY

This section does not apply to this project.

This section does not apply to this project.

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED DECORATIVE /SPECIAL EFFECTS This section does not apply to this project.

	Generated Date/Time:	Documentation Software: EnergyPro
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		CALIFORNIA ENERGY COMMISSION			
CERTIFICATE OF COMPLIANCE					
	Report Page:	(Page 8 of 8			
421 E Street	Date Prepared:	5/28/2029			
		Report Page: 421 E Street Date Prepared:			

DOCUMENTATION AUTHOR'S DECLARATION STATEM	IENT
I certify that this Certificate of Compliance documen	ntation is accurate and complete.
Documentation Author Name; Emilie Meisinger	Documentation Author Signature:
Company: SOLDATA Energy Consulting	Signature Date: 2025-05-28
Address: PO Box 8579	CEA/ HERS Certification Identification (if applicable): 1201-4562-9757-7EE6-E49F-98A8-02C7-B778-D67F-B106-1A7B-5EA4-C249-1D34-CF68-E29D
City/State/Zip: Santa Rosa CA 95407	Phone: (707)545-4440

RESPONSIBLE PERSON'S DECLARATION STATEMENT

- ertify the following under penalty of perjury, under the laws of the State of California: The information provided on this Certificate of Compliance is true and correct.
- 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) 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

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

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

707) 544-7775

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: Mike Johnston	Responsible Designer Signature:					
Company: Engineering Enterprises	Date Signed: 2025-05-28					
Address: 613 Fourth St. Ste 2068	License: F15586					

Generated Date/Time: Documentation Software: EnergyPro

STATE OF CALIFORNIA **Outdoor Lighting**

Santa Rosa CA 95404

Outdoor Lighting		CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: 421 E Street Tenant Improvement	Report Page:	(Page 3 of 7)
	Date Prepared:	5/28/2025

Report Version: 2022.0.000

Schema Version: rev 20220101

F. OUTDOOR LIGHTING FIXTURE SCHEDULE

For new or altered lighting systems demonstrating compliance with 140.7 / 170.2(e)6 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per 141.0(b)2L only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included). Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

Designed Watt	lage:										
01	02		03	04	05	06	07	08	09	10	0
Name or Item	ame or Item Tag Complete Luminaire Description		Watts per	' I Wattago I		Luminaire Status ³	Excluded per 140.7(a) / 170.2(e)6A	Design Watts	Cutoff Req. > 6,200 initial lumen output	Field Inspector	
Tag			luminaire ^{1, 2} determined		Luminaires ²	Status³			130.2(b) / 160.5(c)1 ⁴	Pass	Fail
F7	Outdoor Sconce LED 35w F7	Linear	35	Mfr. Spec	2	New		70	NA: < 6200 lumens		
		Design Watts:	70								

* NOTES: Selections with a * require a note in the space below explaining how compliance is achieved. EX: Luminaire is lighting a statue; EXCEPTION 2 to 130.2(b)

 1 FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) / 160.5(b)

² For linear luminaires, wattage should be indicated as W/lf instead of Watts/luminaire. Total linear feet should be indicated in column 05 instead of number of luminaires.

³ Select "New" for new luminaires in a new outdoor lighting project, or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of

⁴ Compliance with mandatory shielding requirements is required for luminaires with initial lumen output >= 6,200 unless exempted by 130.2(b)/ 160.5(c)

G. SHIELDING REQUIREMENTS (BUG)

This section does not apply to this project.

Generated Date/Time:

Documentation Software: EnergyPro

Compliance ID: EnergyPro-1004-0525-4749

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Indoor Lighting CALIFORNIA ENERGY COMMISSION **CERTIFICATE OF COMPLIANCE Project Name:** 421 E Street Tenant Improvement (Page 6 of 8) Report Page: Date Prepared: 5/28/2025

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE

This section does not apply to this project.

STATE OF CALIFORNIA

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))

This section does not apply to this project.

Q. RATED POWER REDUCTION COMPLIANCE FOR ONE-FOR-ONE ALTERATIONS

This section does not apply to this project.

R. 80% LIGHTING POWER FOR ALL ALTERATIONS - CONTROLS EXCEPTIONS

This section does not apply to this project.

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)

This section does not apply to this project.

T. DWELLING UNIT LIGHTING

This section does not apply to this project.

STATE OF CALIFORNIA **Outdoor Lighting**

CERTIFICATE OF COMPLIANCE

U. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Selections have been made based on information provided in this document. If any selections have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online Form/Title

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NRCI-LTI-E - Must be submitted for all buildings

Documentation Software: EnergyPro

Compliance ID: EnergyPro-1004-0525-4749

Report Version: 2022.0.000 Schema Version: rev 20220101

Report Generated: 2025-05-28 10:33:23

CALIFORNIA ENERGY COMMISSION This document is used to demonstrate compliance with requirements in 110.9, 130.0, 130.2, 140.7, and 141.0(b)2L for outdoor lighting scopes using the prescriptive path for

nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e)6, 180.1(a) and 180.2(b)4Bv for outdoor lighting scopes using the prescriptive path for multifamily and mixed-use occupancies. Multifamily includes dormitory and senior living facilities. Project Name: 421 E Street Tenant Improvement Report Page: (Page 1 of 7) Project Address: 421 E Street Date Prepared:

. GENERAL INFORMATION	1		-	¥-	1
01 Project Location (city)	Santa Rosa		04	Total Illuminated Hardscape Area (ft ²)	144
02 Climate Zone				lotal muminated Hardscape Area (10-)	144
O3 Outdoor Lighting Zone per Title 24 Part	1 10.1	14 or as designated by Authority Hav	ing Juris	diction (AHJ):	-
☐ LZ-0: Very Low - Undeveloped Parkland		LZ-2: Moderate - Urban Clusters		LZ-4: High - Must be reviewed by CA Er	ergy Commission for Approva
☐ LZ-1: Low - Rural Areas	×	LZ-3: Moderately High - Urban Areas			
05 Occupancy Types within Project					

This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.7/ 170.2(e)6 or 141.0(b)2L / 180.2(b)4Bv for alterations.

My Project Consists of:								
01	02							
☐ New Lighting System	Must Comply with Allowances from 140.7 / 170.2(e)6							
☑ Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)?	• Yes 🔘 No						
03	04	04 05						
% of Existing Luminaires Being Altered ¹	Sum Total of Luminaires Being Added or Altered		Calculat	ion Method				
□ < 10% □ >= 10% and < 50% □ >= 50%	0							

Please proceed to Table F. Outdoor Lighting Fixture Schedule to define the project's luminaires. ¹ FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Generated Date/Time: Report Version: 2022.0.000 Schema Version: rev 20220101

Documentation Software: EnergyPro Compliance ID: EnergyPro-1004-0525-4748 Report Generated: 2025-05-28 10:33:22

STATE OF CALIFORNIA Outdoor Lighting CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE (Page 4 of 7) Project Name: 421 E Street Tenant Improvement Report Page: 5/28/2025 Date Prepared:

H. OUTDOOR LIGHTING CONTROLS

This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application. Outdoor lighting for nonresidential buildings, parking garages and common service areas in multifamily buildings must be documented separately from outdoor lighting attached to

multifamily buildings and controlled from the inside of a dwelling unit Mandatory Controls for Nonresidential Occupancies, Parking Garages & Common Areas in Multifamily Buildings

01 02		03	04	05	
Area Description	Shut-Off 130.2(c)1 / 160.5(c)	Auto-Schedule 130.2(c)2 / 160.5(c)	Motion Sensor 130.2(c)3 / 160.5(c)	Field In	spector
				Pass	Fail
Outdoor	Astronomical Time Clock	Provided	NA: Each Luminaire <= 40 Watts		

²Authority having jurisdiction may ask for cutsheets or other documentation to confirm compliance of light source.

³Recessed luminaires marked for use in fire-rated installations, and recessed luminaires installed in non-insulated ceilings are excepted from ii and iii.

SHEET LOG REV # DATE: ISSUED FOR:

JOB NUMBER:

TITLE 24 - LIGHTING

Documentation Software: EnergyPro ORIGINAL DATE: © AXIA ARCHITECTS

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Report Version: 2022.0.000

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Compliance ID: EnergyPro-1004-0525-4748 Report Generated: 2025-05-28 10:33:22

COMPLIES

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

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Controls Compliance (See Table H for Details)

Schema Version: rev 20220101

Documentation Software: EnergyPro

Schema Version: rev 20220101

Report Version: 2022.0.000 Schema Version: rev 20220101

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Report Generated: 2025-05-28 10:33:22

J. LIGHTING ALLOWANCE: PER APPLICATION This section does not apply to this project.

K. LIGHTING ALLOWANCE: SALES FRONTAGE This section does not apply to this project.

L. LIGHTING ALLOWANCE: ORNAMENTAL This section does not apply to this project.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Generated Date/Time: Documentation Software: EnergyPro Report Version: 2022.0.000 Compliance ID: EnergyPro-1004-0525-4748

Report Generated: 2025-05-28 10:33:22

STATE OF CALIFORNIA Mechanical Systems CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE 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 oath outlined in 140.4, or 141.0(b)2 for alterations **Project Name:** 421 E Street Tenant Improvement (Page 1 of 10) Report Page: Project Address: 421 E Street Date Prepared: 6/4/2025

Schema Version: rev 20220101

Α.	A. GENERAL INFORMATION									
01	01 Project Location (city) Santa Rosa			Total Conditioned Floor Area	4179					
02	Climate Zone	2	05	Total Unconditioned Floor Area	0					
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1					
• (• Office									

B. PROJECT SCOPE		
This table Includes mechanical systems or components the 140.4, 170.2(b) or 141.0(b)2 and 180.2(b)2 for alterations	t are within the scope of the permit application and are demonstra	ating compliance using the prescriptive path outlined in
01	02	03
Air System(s)	Wet System Components	Dry System Components
	☐ Water Economizer	☐ Air Economizer
☐ Cooling Air System	☐ Pumps	☐ Electric Resistance Heat
Mechanical Controls	☐ System Piping	
Mechanical Controls (existing to remain, alter or new)	Cooling Towers	☐ Ductwork (existing to remain, altered or new)
	☐ Chillers	✓ Ventilation
	Boilers	☐ Zonal Systems/ Terminal Boxes

Documentation Software: EnergyPro Generated Date/Time: CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: EnergyPro-1004-0625-4758 Report Generated: 2025-06-04 10:09:37 Schema Version: rev 20220101

STATE OF CALIFORNIA Mechanical Systems CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCC-MCH-E **Project Name:** 421 E Street Tenant Improvement (Page 4 of 10) Report Page:

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				liance with pres quirements and		-	-		140.4(e), 14	0.4(m), 170.	.2(c)3, and 1	70.2(c)4A for	fan systems	. Fan systems s	erving only
System Name	RTU-1	Quantit y	1	Fan System Status	New		all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,750	Site Elevation	167	Economizer	NA: Efficiency per Table 140.4-F
01	02	03	04 05		06	07	08		09			11			
									Allow	vance			Design		
Fan Name or Item Tag	Fan Type	Qty		Component			through nent (%)	Water Gauge (w.g)	Compone nt Allowance	Fan Allowance (watt/cfm	Design E	lectrical Inpu Method	ut Power	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
VRF	Supply	1					1 = 1						Mar	nufacturer prov	ided
	Fan Base ince (kW)		Ex	huast/Return/F Allov	Relief/Trans wance(kW)	fer Fan Ba	ase			ystem ce (kW) ³				n System Electrical Output (kW) 0.53	
System Name	RTU-2	Quantit y	1	Fan System Status	New		all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,750	Site Elevation	167	Economizer	NA: Efficiency per Table 140.4-F
01	02	03		04		0)5	06	07	08		09		10	11
									Allow	vance		Design			
Fan Name or Item Tag	Fan Type	Qty		Component			Airflow through Component (%)		Compone nt Allowance	Fan Allowance (watt/cfm) ³	Design E	lectrical Inpu Method	ut Power	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
VRF	Supply	1											Mar	nufacturer prov	
Supply	Fan Base		Ex	huast/Return/R	Relief/Trans	fer Fan Ba	ase		Fan S	ystem			Manufacturer provide Fan System Electrical Output (kW)		0.53

STATE OF CALIFORNIA Outdoor Lighting CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCC-LTO-E Project Name: 421 E Street Tenant Improvement (Page 6 of 7) Report Page: Date Prepared 5/28/2025

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA This section does not apply to this project. N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only) This section does not apply to this project. O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online Form/Title

NRCI-LTO-E - Must be submitted for all buildings

Project Name: 421 E Street Tenant Improvement

⁴ Filter pressure loss can only be counted once per fan system.

HP-1

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Systems/Spaces To Be Field Form/Title Verified NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires. Outdoor:

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Report Page:

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 auidance 09 System Terminal Box Summary Pumps Controls 110.1, Ventilation Controls 120.3, 140.4(k), 140.4(c), 110.2, 120.2, 110.2, 120.1, 160.2 140.4(d), 140.4(I), 110.2(e)2 Compliance Results 170.2(c)4I 140.4(e) 140.4(f), 140.4, 170.2(c)4B 160.2, 160.3 170.2(c) 170.2(c) 170.2(c) (See Table F) (See Table ((See Table H) (See Table I) (See Table J) (See Table K) (See Table M) (See Table L) Yes AND Yes AND Yes AND Yes AND COMPLIES Yes 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.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS) Space Conditioning System Information 03 04 06 System Status System Name Quantity System Serving Space Type **Utilizing Recovered Heat** HP-1 Multi-zone New/ Addition

Documentation Software: EnergyPro Generated Date/Time: CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: EnergyPro-1004-0625-4758 Schema Version: rev 20220101 Report Generated: 2025-06-04 10:09:37

STATE OF CALIFORNIA Mechanical Systems CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCC-MCH-E Project Name: 421 E Street Tenant Improvement (Page 5 of 10) Report Page: Date Prepared: 6/4/202

H. FAN SYSTEMS & AIR ECONOMIZERS 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.

⁵ Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust

fans, or both. 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)40 06 Exhaust Air Exhaust Air

% Outdoor Air Heat Recovery | Heat Recovery | Type Of Heat | Fan System Design Supply Operation per at Full Design 140.4(q) & Recovery Rating Recovery Ratio Name Airflow Rate Airflow Requirement Airflow Year per 140.4(q) & 170.2(c)4O 170.2(c)4O Fan Energy Index (FEI) FEI Exception Name or Item Tag

Altered Fan System

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STATE OF CALIFORNIA **Outdoor Lighting** CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE Project Name: 421 E Street Tenant Improvement (Page 7 of 7) Report Page: 5/28/2025 Project Address: 421 E Street Date Prepared

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT I certify that this Certificate of Compliance documentation is accurate and complete. Documentation Author Name mentation Author Signature: Emilie Meisinger SOLDATA Energy Consulting 2025-05-28 A/ HERS Certification Identification (if applicable): PO Box 8579 1201-4562-9757-7EE6-E49F-98A8-02C7-B778-D67F-B106-1A7B-5EA4-C249-1D34-CF68-Santa Rosa CA 95407 (707)545-4440 RESPONSIBLE PERSON'S DECLARATION STATEMENT certify the following under penalty of perjury, under the laws of the State of California: The information provided on this Certificate of Compliance is true and correct. 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) 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 requirem 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: Mike Johnston 2025-05-28 Engineering Enterprises 613 Fourth St. Ste 206B E15586

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(707) 544-7775

STATE OF CALIFORNIA Mechanical Systems CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE Project Name: 421 E Street Tenant Improvement Report Page: (Page 3 of 10) 6/4/2025 Date Prepared

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 06 07 | 08 | 09 | 10 | Equipment Sizing per Mechanical Schedule (kBtu/h) 140.4(a&b), 170.2(c)1 & 170.2(c)2 **Smallest Size** Heating Output^{2,3} Cooling Output^{2,3} Load Calculations³ Equipment Category per Equipment Type per Tables 110.2 and Name or Item Available¹ Tables 110.2, 140.4(a)2 and 140.4(a) and 170.2(c)3aii r Design Rated Heating Rated Per Design (kBtu/h) Load Heating 170.2(c)1 (kBtu/h) (kBtu/h) Output (kBtu/h) (kBtu/h) (kBtu/h) HP-1 Variable Refrigerant Flow VRF heat pump, air cooled Yes 94.57 108 0 84.86 67.2 133.73 149.26

¹FOOTNOTES: 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.

²It 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) 04 05 06 07 08 Heating Mode Cooling Mode Minimum Name or Item Size Category Efficiency Efficiency Tag (Btu/h) Condition Required per sign Efficiency | Efficiency Unit Required per Efficiency Unit (°F) Tables 110.2 / Tables 110.2 / Title 20 Title 20 47 °Fdb/ 43 11.0 >=65,000 and <135,000 COP 3.3 3.8

°Fwb OSA IEER 14.6 14.6 G. PUMPS This section does not apply to this project.

Generated Date/Time: Documentation Software: EnergyPro Compliance ID: EnergyPro-1004-0625-4758 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Report Generated: 2025-06-04 10:09:37

Mechanical Systems CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCC-MCH-E Project Name: 421 E Street Tenant Improvement Report Page: (Page 6 of 10) Date Prepared: 6/4/2025

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. 05 06 Shut-Off Zone Demand Response Floor Area 110.2(b) & (c)¹, 120.2(a) Controls Temp. Reset | Window Interlocks per System Name Controls 110.12 120.2(b) & Zoning Being Served 160.3(a)2A or 141.0(b)2E & 120.2(e) & 140.4(f) & | 140.4(n) & 170.2(c)4D 120.2(g) & 160.3(a)2B 160.3(a)2D 170.2(c)4D (ft²) 180.2(b)2 160.3(a)2F Multi-zone Auto Timer NA: Serves < Included NA: No operable windows HP-1 w/ DDC to DR Tstat per 110.12 <= 25,000 ft² Setback 25k ft²

¹FOOTNOTES: 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.

J. VENTILATION AND INDOOR AIR QUALITY

STATE OF CALIFORNIA

Santa Rosa CA 95404

(Page 2 of 10)

6/4/2025

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:t24refnolink/]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 pro	heck 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 pro	ject included Nonresidential, Hotel/M	otel Spaces or Multifamily Common Use Space	s					
02										
03		Check the box if the pro	heck the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.							
Nonresident	Nonresidential and Hotel/ Motel Multifamily Common Use Ventilation Systems									
	04		05	06	07					

		04	05					06	07		
	System Name	HP-1	System Design OA CFM Airflow ¹		1256	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		

Generated Date/Time: Documentation Software: EnergyPro Report Version: 2022.0.000



SHEET LOG REV # DATE: ISSUED FOR:

JOB NUMBER: G6

> TITLE 24 - LIGHTING -**MECHANICAL**

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

¹ FOOTNOTES: Fans serving spaces with design background noise goals below NC35

Report Version: 2022.0.000 Schema Version: rev 20220101

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Compliance ID: EnergyPro-1004-0625-4758 Report Generated: 2025-06-04 10:09:37

Documentation Software: EnergyPro

6/4/2025

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Schema Version: rev 20220101

Compliance ID: EnergyPro-1004-0625-4758 Report Generated: 2025-06-04 10:09:37

ORIGINAL DATE:

TATE OF CALIFORNIA		
Mechanical Systems	CALIFORNIA ENERGY COMMISSION	
CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name: 421 E Street Tenant Improvement	Report Page:	(Page 7 of 10)
	Date Prepared:	6/4/2025

Space Name or Item Tag	Mechanical Ventilat	ion Required per 1	20.1(c)3 ³ & 1	60.2(c)3		Exh. V	ent 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 ⁶ 160.2(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 CFM	Provided per Design CFM			
RTU-1	Office spare	2381	2		357.2	140	150	DCV	NA: Not required per §120.1(d)3	
KIU-1	Office space	2381	2		357.2	140	150	Occ Sensor	NA: Not required space type	
DTII 2	Office chase	1700			250.7	Ó	0	DCV	NA: Not required per §120.1(d)3	
RTU-2	Office space	1798	1798		269.7	0	U.	Occ Sensor	NA: Not required space type	
17	Total System Required Min OA CF	M			627	18	Ventilation for this S	stem 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.

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.	

Mechanical Systems CERTIFICATE OF COMPLIANCE		CALIFORNIA ENERGY COMMISS
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version; 2022.0.000 Schema Version: rev 20220101	Compliance ID: EnergyPro-1004-0625-47 Report Generated: 2025-06-04 10:09
	Generated Date/Time:	Documentation Software: Energyl

I certify that this Certificate of Compliance documentation	n is accurate and complete
Documentation Author Name: Emilie Meisinger	Documentation Author Signature:
Company: SOLDATA Energy Consulting	Signature Date:
Address: PO Box 8579	CEA/ HERS Certification (dentification (if applicable): 1201-4562-9757-7EE6-E49F-98A8-02C7-B778-D67F-B106-1A7B-5EA4-C249-1D34-CF68-E29D
City/State/Zip: Santa Rosa CA 95407	Phone: (707)545-4440
The energy features and performance specifications, materials, compositive 24, Part 1 and Part 6 of the California Code of Regulations. The building design features or system design features identified on plans and specifications submitted to the enforcement agency for ap 1 will ensure that a completed signed copy of this Certificate of Comp	o accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer) ponents, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations,
Responsible Designer Name:	Responsible Designer Signature:
Company: TEP Engineering, Inc.	Date Signed: (Mdy Sourga
Address: 575 W. College Ave Ste 101	License: M37587
City/State/Zip: Santa Rosa CA 95401	Phone: (707) 538-0400

Generated Date/Time:	Documentation Software: EnergyPro
ntial Compliance Report Version: 2022.0.000	Compliance ID: EnergyPro-1004-0625-4758
Schema Version: rev 20220101	Report Generated: 2025-06-04 10:09:37
	Report Generated: 2025-06

STATE OF CALIFORI	NIA		
Mechanical Systems CALIFORNIA ENERGY COMM			CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF	COMPLIANCE		NRCC-MCH-E
Project Name:	421 E Street Tenant Improvement	Report Page:	(Page 8 of 10)
		Date Prepared:	6/4/2025

L. DISTRIBUTION	I (DUCTWORE	(and PIPING)			
This table is used	to show compli	ance with mandatory pipe insulation requ	irements fou	nd 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 Test	ing				
The answers to the questions below apply to the following duct systems:		HP-1	NR/ Common Use: Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No	
			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	No	Duct system provides conditioned air to	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 ft ² of conditioned floor area.			
14	No	The combined surface area of the duct	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 exter	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 pressu	re class ratin	gs shall be constructed to Seal Class A	
18		All ductwork is an extension of an exist	ing duct syst	em	
19		Ductwork serving individual dwelling u	Ductwork serving individual dwelling unit		
20		< 25 ft of new or replacement space co	nditioning d	ucts installed	
21	R-4.2	Duct Insulation R-value			
22					
23					

	Generated Date/Time:	Documentation Software: EnergyPro
Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000 Schema Version: rev 20220101	Compliance ID: EnergyPro-1004-0625-4758 Report Generated: 2025-06-04 10:09:37

STATE OF CALIFORNIA		
Mechanical Systems		CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name: 421 E Street Tenant Improvement	Report Page:	(Page 9 of 10)
	Date Prepared:	6/4/2025

M. COOLING TOWERS

This section does not apply to this project.	
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 wh 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/	y in Table E Additional Rema
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 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/	Table E Additional Remark
Form/Title	Systems/Spaces To Be Fie 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.	HP-1;

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 t	the plan set or construction documentation.	
01		02
Compliance with Mandatory Measures documented through MCH	Yes	Plan sheet or construction document location
Mandatory Measures Note Block	les	M-Sheets

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: EnergyPro-1004-0625-4758 Schema Version: rev 20220101 Report Generated: 2025-06-04 10:09:37

Generated Date/Time:



Documentation Software: EnergyPro

E STREET TENANT IM

	42
SEAL:	
COLO	DARONO NO

SHEET LOG

REV#	DATE:	ISSUED FOR:
		ı
		100

B NUMBER:

TITLE 24 - MECHANICAL

IAL DATE: 6.05.2
© AXIA ARCHITECTS

City of SANTA ROSA
Planning & Economic Development - Building Division

Development - Building Division PAGE 1 of 15 EFFECTIVE: 01 JANUARY 2023

2022 CALGreen CHECKLIST -

FREE ACCESS TO CALIFORNIA CODES: https://www.dgs.ca.gov/BSC/Codes#@ViewBagJumpTo

improvements) to nonresidential buildings that meet the following criteria:

NONRESIDENTIAL - ADDITIONS & ALTERATIONS

Applies to building permit applications received on or after January 1, 2023, for additions and alterations (including tenant

COLUMN 1: FEATURE OR MEASURE		ROJECT DESIGN EMENTS	COLUMN 3: FIELD VERIFICATION
PAGE 2 of 15 EFFECTIVE: 01 JANUARY 2023	REQUIRED (SPECIFY SHEET # & DESCRIPTION)	NOT REQUIRED (PROVIDE A DESCRIPTION OF WHY)	
CALGreen DIVISION 5.1: PLANNI	NG AND DESIG	SN .	
Site Developmen	t		
5.106.1 Storm water pollution prevention plan (< 1 acre). Additions which disturb less than one acre of land, and are not part of a larger common plan of development or sale, shall prevent the pollution of storm water runoff from the construction activities by complying with lawfully enacted storm water management and/or erosion control ordinances. See Santa Rosa City Code Chapter 17-12 (5.106.1.1). Implement BMPs (5.106.1.2)	RQD	N/A	
Sheet number and description of proposed measure(s) or explanation of why it is N/A: no soil disturbance anticipated	not applicable (N/A):	
5.106.2 Storm Water Pollution Plan (>1 acre). For projects that disturb one acre or more of land, or disturb less than one acre of land, but are part of a larger common plan of development or sale, comply with Santa Rosa City Code Chapter 17-12, NCRWQCB construction permit and NPDES permit.	RQ'D	N/A	
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A):	
N/A: no soil disturbance anticipated			
5.106.4.1.1 Short-term bicycle parking. If the project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack. Consult the local zoning code for additional requirements (CALGreen 5.106.4.1).	RQ'D	N/A	
Sheet number and description of proposed measure(s) or explanation of why it is N/A: no new parking	not applicable (N/A):	
5.106.4.1.3 Long-term bicycle parking. For additions or alterations with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces, with a minimum of one bicycle parking facility. Consult the local zoning code for additional requirements (CALGreen 5.106.4.1).	RQD	N/A	
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A):	
N/A: long than /10\ topont position appear			
N/A: less than (10) tenant parking spaces 5.106.4.1.5 Acceptable parking facilities for Sections 5.106.4.1.2, 5.106.4.1.3, and 5.106.4.1.4 shall be convenient from the street, and shall meet one of the following:	RQ'D	N/A	
Covered, lockable enclosures with permanently anchored racks for bicycles Lockable bicycle rooms with permanently anchored racks			
 Covered, lockable enclosures with permanently anchored racks for bicycles 			
Covered, lockable enclosures with permanently anchored racks for bicycles Lockable bicycle rooms with permanently anchored racks	not applicable (N/A	 }:	

COLUMN 1: FEATURE OR MEASURE		ROJECT DESIGN EMENTS	VERIFICATION
PAGE 3 of 15 EFFECTIVE: 01 JANUARY 2023	REQUIRED (SPECIFY SHEET # & DESCRIPTION)	NOT REQUIRED (PROVIDE A DESCRIPTION OF WHY)	
5.106.10 Grading and Paving. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include swales, water collection and disposal systems, French drains, water retention gardens, and other measures which keep surface water away from buildings and aid in groundwater recharge.	RQ'D	N/A	
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A):	
N/A: existing site grading & drainage			
Innovative Concepts	(5.1)		
Proposed Innovative Concept 1:	RQ'D	□ N/A	
Sheet number and description of proposed measure(s) or explanation of why it is	mot applicable (iv)	,	
CALGreen DIVISION 5.2: ENER	GY EFFICIENCY		
Performance Require	ments	. 1	
5.201.1 Scope. Building meets or exceeds the requirements of the 2019	RQ'D	□N/A	
California Building Energy Code. (Tier 1 not adopted locally.) Sheet number and description of proposed measure(s) or explanation of why it is			
	not applicable (N/A);	
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A);	
CALGreen DIVISION 5.3: WATER EFFICIEN Indoor Water Use 5.303.1.1 Additions in excess of 50,000 square feet. Separate	not applicable (N/A);	
Sheet number and description of proposed measure(s) or explanation of why it is CALGreen <u>DIVISION 5.3:</u> WATER EFFICIEN Indoor Water Use	not applicable (N/A	SERVATION	
CALGreen DIVISION 5.3: WATER EFFICIEN Indoor Water Use 5.303.1.1 Additions in excess of 50,000 square feet. Separate submeters shall be installed as follows: 1. For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gal/day. 2. Where separate submeters for individual building tenants are	not applicable (N/A	SERVATION	
CALGreen DIVISION 5.3: WATER EFFICIEN Indoor Water Use 5.303.1.1 Additions in excess of 50,000 square feet. Separate submeters shall be installed as follows: 1. For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gal/day.	not applicable (N/A	SERVATION	
CALGreen DIVISION 5.3: WATER EFFICIEN Indoor Water Use 5.303.1.1 Additions in excess of 50,000 square feet. Separate submeters shall be installed as follows: 1. For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gal/day. 2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems: a. Makeup water for cooling towers where flow through is greater than 500gpm. b. Makeup water for evaporative coolers greater than 6 gpm.	not applicable (N/A	SERVATION	
CALGreen DIVISION 5.3: WATER EFFICIENT Indoor Water Use S.303.1.1 Additions in excess of 50,000 square feet. Separate submeters shall be installed as follows: 1. For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gal/day. 2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems: a. Makeup water for cooling towers where flow through is greater than 500gpm.	not applicable (N/A	SERVATION	
CALGreen DIVISION 5.3: WATER EFFICIEN Indoor Water Use 5.303.1.1 Additions in excess of 50,000 square feet. Separate submeters shall be installed as follows: 1. For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gal/day. 2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems: a. Makeup water for cooling towers where flow through is greater than 500gpm. b. Makeup water for evaporative coolers greater than 6 gpm. c. Steam and hot-water boilers with energy input more than 500,000	not applicable (N/A	SERVATION	
CALGreen DIVISION 5.3: WATER EFFICIENT Indoor Water Use Indoor Water Use S.303.1.1 Additions in excess of 50,000 square feet. Separate submeters shall be installed as follows: 1. For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gal/day. 2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems: a. Makeup water for cooling towers where flow through is greater than 500gpm. b. Makeup water for evaporative coolers greater than 6 gpm. c. Steam and hot-water boilers with energy input more than 500,000 Btu/hr.	not applicable (N/A	SERVATION	
CALGreen DIVISION 5.3: WATER EFFICIENT Indoor Water Use S.303.1.1 Additions in excess of 50,000 square feet. Separate submeters shall be installed as follows: 1. For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gal/day. 2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems: a. Makeup water for cooling towers where flow through is greater than 500gpm. b. Makeup water for evaporative coolers greater than 6 gpm. c. Steam and hot-water boilers with energy input more than 500,000 Btu/hr. Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A	SERVATION	
CALGreen DIVISION 5.3: WATER EFFICIENT Indoor Water Use S.303.1.1 Additions in excess of 50,000 square feet. Separate submeters shall be installed as follows: 1. For each individual leased, rented, or other tenant space within the building projected to consume more than 100 gal/day. 2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems: a. Makeup water for cooling towers where flow through is greater than 500gpm. b. Makeup water for evaporative coolers greater than 6 gpm. c. Steam and hot-water boilers with energy input more than 500,000 Btu/hr. Sheet number and description of proposed measure(s) or explanation of why it is N/A: addition/alteration < 50,000 SF 5.303.1.2 Excess consumption. A separate submeter or metering device shall be installed for any building within a project or space within a building that is	not applicable (N/A	SERVATION N/A	

COLUMN 1: FEATURE OR MEASURE	REQUIREMENTS		VERIFICATIO	
PAGE 4 of 15 EFFECTIVE: 01 JANUARY 2023	REQUIRED (SPECIFY SHEET # 8: DESCRIPTION)	NOT REQUIRED (PROVIDE A DESCRIPTION OF WHY)		
5.303.3 Water conserving plumbing fixtures and fittings. New (or replacement) plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:	RQ'D	□ N/A		
5.303.1 Water closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shlal be certified to the performance criteria of the US EPA WaterSense Specification for Tank-Type Toilets. Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.				
5.303.3.2 Urinals. The effective flush volume of urinals shall not exceed 0.125 gallons per flush for wall-mounted, or 0.5 gallons per flush for floor mounted.				
5.303.3.3 Showerheads.				
5.303.3.3.3.1 Single showerheads. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.				
5.303.3.3.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time. Note: A hand-held shower shall be considered a showerhead.				
5.303.4 Faucets and Fountains.				
5.303.3.4.1 Nonresidential lavatory faucets. Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.				
5.303.3.4.2 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.				
5.303.3.4.3 Wash fountains. Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute/20 [rim space (inches) at 60 psi].				
5.303.3.4.4 Metering faucets. Metering faucets shall not deliver more than 0.20 gallons per cycle.				
5.303.3.4.5 Metering faucets for wash fountains. Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per cycle/20 [rim space (inches) at 60 psi]. Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.				
5.303.3.4.6 Pre-rinse spray valve. When installed, shall meet the requirements in the California Code of Regulations, Title 20 (Appliance Efficiency Regulations), Section 1605.1(h)(4) Table H-2, Section 1605.3(h)(4)(A), and Section 1607(d)(7), and shall be equipped with an integral automatic shutoff,				
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A);		
PO.1: Water Closets = 1.28gpf; Urinals</td <td><!--= 0.5; s</td--><td>ingle showe</td><td>erheads</td></td>	= 0.5; s</td <td>ingle showe</td> <td>erheads</td>	ingle showe	erheads	
= 1.8; multiple showerheads = 1.8; wa</td <td>all-mounted</td> <td>d urinals</td> <td><!--= 0.1</td--></td>	all-mounted	d urinals	= 0.1</td	

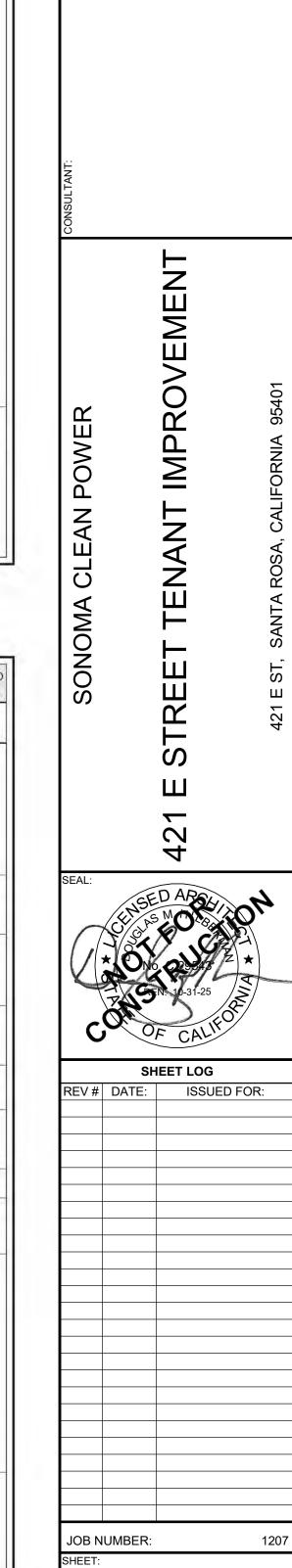
COLUMN 1: FEATURE OR MEASURE	REQUIREMENTS		COLUMN 3: FIEL VERIFICATION
PAGE 5 of 15 EFFECTIVE: 01 JANUARY 2023	REQUIRED (SPECIFY SHEET # & DESCRIPTION)	NOT REQUIRED (PROVIDE A DESCRIPTION OF WHY)	
5.303.4 Food Waste Disposers. Not allowed (See Wastewater discharge permit)	_		
5.303.6 Standards for plumbing fixtures and fitting. Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1701.1 of the California Plumbing Code and in CALGreen Chapter 6.	RQ'D	□ N/A	
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A);	1
PO.1: Plumber signoff needed declaring all fixtures	s were instal	led per CA P	lumbing Cod
Outdoor Water Us	se		
5.304.1 Outdoor potable water use in landscape areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. (See Santa Rosa City Code Chapter 14.30 (Water Efficient Landscape), California Code of Regulations (CCR) Title 23, Division 2, Chapter 2.7, and the requirements below.	RQ'D	N/A	
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A):	
N/A: no new landscaping			
Innovative Concepts	(5.3)		
Proposed Innovative Concept 1:		*,	1
	RQ'D		
	0.00		
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A):	
Sheet number and description of proposed measure(s) or explanation of why it is CALGreen DIVISION 5.4: MATERIAL CONSERVAT			NCY
CALGreen DIVISION 5.4: MATERIAL CONSERVAT	ION AND RESC		NCY
	ION AND RESC		NCY
CALGreen DIVISION 5.4: MATERIAL CONSERVAT Water Resistance and Moisture 5.407.1 Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 and California Energy Code Section 150, manufacturer's installation instructions, or	ION AND RESC Management	DURCE EFFICIEN	NCY
CALGreen <u>DIVISION 5.4:</u> MATERIAL CONSERVAT Water Resistance and Moisture 5.407.1 Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 and California Energy Code Section 150, manufacturer's installation instructions, or local ordinance, whichever is more stringent.	ION AND RESC Management	DURCE EFFICIEN	NCY
CALGreen <u>DIVISION 5.4:</u> MATERIAL CONSERVAT Water Resistance and Moisture 5.407.1 Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 and California Energy Code Section 150, manufacturer's installation instructions, or local ordinance, whichever is more stringent. Sheet number and description of proposed measure(s) or explanation of why it is	ION AND RESC Management	DURCE EFFICIEN	NCY
CALGreen DIVISION 5.4: MATERIAL CONSERVAT Water Resistance and Moisture 5.407.1 Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 and California Energy Code Section 150, manufacturer's installation instructions, or local ordinance, whichever is more stringent. Sheet number and description of proposed measure(s) or explanation of why it is N/A: no exterior wall alteration	ION AND RESC Management RQD not applicable (N/A)	DURCE EFFICIEN N/A N/A	
CALGreen DIVISION 5.4: MATERIAL CONSERVAT Water Resistance and Moisture 5.407.1 Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 and California Energy Code Section 150, manufacturer's installation instructions, or local ordinance, whichever is more stringent. Sheet number and description of proposed measure(s) or explanation of why it is N/A: no exterior wall alteration 5.407.2.1 Sprinklers. Prevent irrigation system spray on structures.	ION AND RESC Management RQD not applicable (N/A)	DURCE EFFICIEN N/A N/A	
CALGreen DIVISION 5.4: MATERIAL CONSERVAT Water Resistance and Moisture 5.407.1 Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 and California Energy Code Section 150, manufacturer's installation instructions, or local ordinance, whichever is more stringent. Sheet number and description of proposed measure(s) or explanation of why it is N/A: no exterior wall alteration 5.407.2.1 Sprinklers. Prevent irrigation system spray on structures. Sheet number and description of proposed measure(s) or explanation of why it is	ION AND RESC Management RQD not applicable (N/A)	DURCE EFFICIEN N/A N/A	
Water Resistance and Moisture 5.407.1 Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 and California Energy Code Section 150, manufacturer's installation instructions, or local ordinance, whichever is more stringent. Sheet number and description of proposed measure(s) or explanation of why it is N/A: no exterior wall alteration 5.407.2.1 Sprinklers. Prevent irrigation system spray on structures. Sheet number and description of proposed measure(s) or explanation of why it is N/A: no new irrigation 5.407.2.2.1 Exterior door protection. Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings, plus at least one of	ION AND RESC Management RQD not applicable (N/A) not applicable (N/A)	N/A N/A	
Water Resistance and Moisture 5.407.1 Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 and California Energy Code Section 150, manufacturer's installation instructions, or local ordinance, whichever is more stringent. Sheet number and description of proposed measure(s) or explanation of why it is N/A: no exterior wall alteration 5.407.2.1 Sprinklers. Prevent irrigation system spray on structures. Sheet number and description of proposed measure(s) or explanation of why it is N/A: no new irrigation 5.407.2.2.1 Exterior door protection. Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings, plus at least one of the following: 1. An installed awning at least 4 feet in depth. 2. The door is protected by a roof overhang at least 4 feet in depth.	ION AND RESC Management RQD not applicable (N/A) not applicable (N/A)	N/A N/A	
Water Resistance and Moisture 5.407.1 Weather protection. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 and California Energy Code Section 150, manufacturer's installation instructions, or local ordinance, whichever is more stringent. Sheet number and description of proposed measure(s) or explanation of why it is N/A: no exterior wall alteration 5.407.2.1 Sprinklers. Prevent irrigation system spray on structures. Sheet number and description of proposed measure(s) or explanation of why it is N/A: no new irrigation 5.407.2.2.1 Exterior door protection. Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings, plus at least one of the following: 1. An installed awning at least 4 feet in depth.	ION AND RESC Management RQD not applicable (N/A) not applicable (N/A)	N/A N/A	

N/A: existing exterior doors

COLUMN 1: FEATURE OR MEASURE	COLUMN 2: PROJECT DESIGN REQUIREMENTS		VERIFICATION	
PAGE 6 of 15 EFFECTIVE: 01 JANUARY 2023	REQUIRED (SPECIFY SHEET # & DESCRIPTION)	NOT REQUIRED (PROVIDE A DESCRIPTION OF WHY)		
5.407.2.2.2 Flashing. Install flashings (at exterior entries and/or openings subject to foot traffic or wind-driven rain) integrated with a drainage plane.	RQ'D	N/A		
Sheet number and description of proposed measure(s) or explanation of why it is A8.2	not applicable (N/A):		
Construction Waste Reduction, Disp	oosal and Recyc	ling		
5.408.1 Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance Section 5.408.1.1 (Construction waste management plan), 5.408.1.2 (Waste management company), or 5.408.1.3 (Waste stream reduction alternative); or meet a local construction and demolition waste management ordinance, whichever is more stringent. Documentation is required per CALGreen Section 5.408.1.4.	RQ'D	□N/A		
Exception to 5.408.1: Excavated soil and land-clearing debris - See 5.408.3 for additional requirements.				
Sheet number and description of proposed measure(s) or explanation of why it is Project to recycle and/or salvage minimum of 65% o	f non-hazardo	ous construct	ion waste;	
must submit either waste management plan or use wa	ste managemer	it company.		
5.408.2 Universal waste. Additions and alteration to a building or tenant space that meet the scoping provisions in Section 301.3 for nonresidential additions and alterations, shall require verification that Universal Waste items such as fluorescent lamps and ballas and mercury containing thermostats as well as other California prohibited Universal Waste materials are disposed of properly and are diverted from landfills. A list of prohibited Universal Waste materials shall be included in the construction document. Note: Refer to the Universal Waste Rule link at: https://dtsc.ca.gov/universalwaste/	RO'D	N/A		
Sheet number and description of proposed measure(s) or explanation of why it is GC to document that Universal waste (such as batter tubes/glass, aerosol cans) were disposed of properl	ries, e-waste		hode ray	
	- Y		r	
5.408.3 Excavated soil and land clearing debris. 100% of trees, stumps, rocks, associated vegetation, and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed.	RQ'D	N/A		
Exception: Vegetation or soil contaminated by disease or pest infestation.	ant annihable (NIA	\		
Sheet number and description of proposed measure(s) or explanation of why it is N/A: no land clearing debris anticipated	not applicable (IV/A)).		
Building Maintenance and	Operation	,		
5.410.1 Recycling by occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of nonhazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals.	RQ'D	□ N/A		
5.410.1.1 Additions. All additions conducted within a 12-month period under single or multiple permits, resulting in an increase of 30% or more in floor area, shall provide recycling areas on site.				
Exception: Additions within a tenant space resulting in less than a 30% increase in the tenant space floor area.				

COLUMN 1: FEATURE OR MEASURE	COLUMN 2: PROJECT DESIGN REQUIREMENTS		COLUMN 3: FIELD VERIFICATION
PAGE 7 of 15 EFFECTIVE: 01 JANUARY 2023	REQUIRED (SPECIFY SHEET # & DESCRIPTION)	NOT REQUIRED (PROVIDE A DESCRIPTION OF WHY)	
Note: 5.410.2 and 5.410.4 are for new buildings and initial shell build-outs - See s	I see separate handou	t.	
Innovative Concepts and Local Environ			
Proposed Innovative Concept 1:		, , , ,	
	BQ'D		
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A):	1
CALGreen DIVISION 5.5: ENVIRON	NMENTAL QUA	LITY	
Fireplaces			
5.503.1 Fireplaces. Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. Woodstoves shall comply with US EPA New Source Performance Standards emission limits. (5.503.1.1)	RQ'O	N/A	
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A):	
N/A: no fireplace planned			
Pollutant Contro	ot		
5.504.1 Temporary ventilation. If the HVAC system is used during construction, use return air filters with a MERV of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1 -1992. Replace all filters immediately prior to occupancy.	RQ'D	□ N/A	
Sheet number and description of proposed measure(s) or explanation of why it is If temporary ventilation is needed during construc			be installe
5.504.3 Covering of duct openings and protection of mechanical equipment during construction. At the time of rough installation, or during storage on the construction site and until final startup of the heating, cooling and ventilation equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may enter the system.	RQ/D	□ N/A	
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A	λ:	
M7.1: HVAC Installer to cover ducts at installation			of registe
installation	Achie Selber The School		
5.504.4.1 Adhesives, sealants, caulks. Adhesives and sealants used on the	- Inor	1	
project shall meet the requirements of the following standards:	RQ'D	N/A	
 Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables 5.504.4.1 and 5.504.4.2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or 			
caulking compounds (in units of product, less packaging, which do not			

COLUMN 1: FEATURE OR MEASURE		ROJECT DESIGN EMENTS	COLUMN 3: FIEL VERIFICATION
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5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with Table 5.504.4.3 .	RQ'D	N/A	
5.504.4.3.1 Aerosol Paints and Coatings. Aerosol paints and coatings shall meet the Product-Weighted MIR Limits for ROC in section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances (CCR, Title 17, Section 94522 (c)(2) and (d)(2) et seq) and BAAQUD Regulation 8 Rule 49.			
5.504.4.3.2 Verification. Verification of compliance with this section shall be provided to the enforcing agency.			
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A):	
See subs docs; Project Manual; Section 01-6116 & 0	01-6116.01; V	OC Content R	estrictions
5.504.4.4 Carpet systems. All carpet installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350).	RQ'D	□ N/A	
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A);	
See subs docs; Project Manual; Section 01-6116 &	01-6116.01;	VOC Content H	Restrictions
5.504.4.4.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program.	RQ'D	□ N/A	
Sheet number and description of proposed measure(s) or explanation of why it is See subs docs; Project Manual; Section 01-6116 & 5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 504.4.1.			Restrictions
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A):	-
and the second s			estrictions
See subs docs; Project Manual; Section 01-6116 & 0	1-0110.01; V		
See subs docs; Project Manual; Section 01-6116 & 0 5.504.4.5 Composite wood products. Hardwood plywood, particleboard, and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in Table 5.504.4.5. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following (5.504.4.5.3):	RQ'D	N/A N/A	
 5.504.4.5 Composite wood products. Hardwood plywood, particleboard, and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in Table 5.504.4.5. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following (5.504.4.5.3): 1. Product certifications and specifications. 		□ N/A	
 5.504.4.5 Composite wood products. Hardwood plywood, particleboard, and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in Table 5.504.4.5. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following (5.504.4.5.3): 1. Product certifications and specifications. 2. Chain of custody certifications. 		N/A	
 5.504.4.5 Composite wood products. Hardwood plywood, particleboard, and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in Table 5.504.4.5. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following (5.504.4.5.3): 1. Product certifications and specifications. 		N/A	
 5.504.4.5 Composite wood products. Hardwood plywood, particleboard, and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in Table 5.504.4.5. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following (5.504.4.5.3): Product certifications and specifications. Chain of custody certifications. Product labeled and invoiced as meeting Composite Wood Products. 		□ N/A	
 5.504.4.5 Composite wood products. Hardwood plywood, particleboard, and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in Table 5.504.4.5. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following (5.504.4.5.3): Product certifications and specifications. Chain of custody certifications. Product labeled and invoiced as meeting Composite Wood Products regulations. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or 		N/A	
 5.504.4.5 Composite wood products. Hardwood plywood, particleboard, and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in Table 5.504.4.5. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following (5.504.4.5.3): Product certifications and specifications. Chain of custody certifications. Product labeled and invoiced as meeting Composite Wood Products regulations. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S standards. 	RQ'D		
 5.504.4.5 Composite wood products. Hardwood plywood, particleboard, and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in Table 5.504.4.5. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following (5.504.4.5.3): Product certifications and specifications. Chain of custody certifications. Product labeled and invoiced as meeting Composite Wood Products regulations. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S standards. Other methods acceptable to the enforcing agency. 	RQ'D		



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CALGREEN CHECKLIST

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5.504.4.6 Resilient flooring systems. Where resilient flooring is installed, at east 80 percent of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing abs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.asp (#material Documentation required per CALGreen Section 5.504.4.6.1.	RQ'D	□ N/A	
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A);	
See subs docs; Project Manual; Section 01-6116 & 0	1-6116.01; VC	C Content Re	strictions
5.504.4.7 Thermal Insulation. Comply with the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's Website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspix#material Documentation required per CALGreen Section 5.504.4.7.1.	RQ'D	N/A	
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A):	
See subs docs; Project Manual; Section 01-6116 & 0	1-6116.01; VC	C Content Re	strictions
5.504.4.8 Acoustical ceilings and wall panels. Comply with the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.asp.c#material Documentation required per CALGreen Section 5.504.4.8.1.	RQ'D	□ N/A	
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A):	
See subs docs; Project Manual; Section 01-6116 & 0	1-6116.01; VC	C Content Re	strictions
5.504.5.3 Filters. In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air prior to occupancy that provides at least a MERV of 13. Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating. (5.504.5.3.1)	RQ'D	□ N/A	
Exception: Existing Mechanical Equipment. Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A	1.	
		/-	
M7.1: MERV 13 filters or higher to be confirmed at	inspection		
5.504.7 Environmental tobacco smoke (ETS) control. Where outdoor areas are provided for smoking, prohibit smoking within 25 feet of building entries, butdoor air intakes, and operable windows. Also prohibit smoking within buildings (as already prohibited by other laws or regulations, or as enforced by ordinances, regulations, or policies of the City or County.) When ordinances, regulations or policies are not in place, post signage to inform building occupants of prohibitions.	RQ'D	N/A_	
Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A):	

COLUMN 1: FEATURE OR MEASURE	COLUMN 2: PR	OJECT DESIGN EMENTS	COLUMN 3: FIEL VERIFICATION
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Interior Moisture Cor	ntrol		
5.505.1 Indoor moisture control. Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1202 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures, see CALGreen Section 5.407.2.	RQ'D	□ N/A	
Sheet number and description of proposed measure(s) or explanation of why it is slab floor & durable wall exterior	not applicable (N/A):	
Interior Air Quality	vi -		
5.506.1 Outside air delivery. For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements for Ventilation) of the latest edition of the California Energy Code, CCR, Title 24, Part 6 and Chapter 4 of CCR, Title 8.	RQ'D	□ N/A	
Sheet number and description of proposed measure(s) or explanation of why it is):	
M7.1: See Mechanical Plans for minimum cfm per space. 5.506.2 Carbon dioxide (CO2) monitoring. For buildings equipped with demand control ventilation, CO2 sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, CCR, Title 24, Part 6, Section 120(c)(4).	RQTD	□ N/A	
Environmental Com	fort		ų.
5.507.4 Acoustical control. Employ building assemblies and components with STC values determined in accordance with ASTM E90 and ASTM E413 or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E1332, using either prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2. (Support documentation required prior to permit issuance)	RQ'D	Ñ/A	
Exception: Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.			
5.507.4.1 Exterior noise transmission, Prescriptive Method. Wall and roof-ceiling assemblies exposed to the noise source (making up the building envelope) shall have exterior wall and roof-ceiling assemblies meeting a composite STC rating of at least 50 or a composite OITC rating of no less than 40 with exterior windows of a minimum STC of 40 or OITC of 30 in the locations described in Items 1 (airports) and 2 (freeway, railroad, industrial source, etc.)			
5.507.4.1.1 Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB $L_{\rm eq}$ 1Hr during any hour of operation shall have exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC or rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30).			
5.507.4.2 Exterior noise transmission, Performance Method. For buildings located as defined in Sections 5.507.4.1 or 5.507.4.1.1 , wall and roof-ceiling assemblies making up the building envelope shall be			

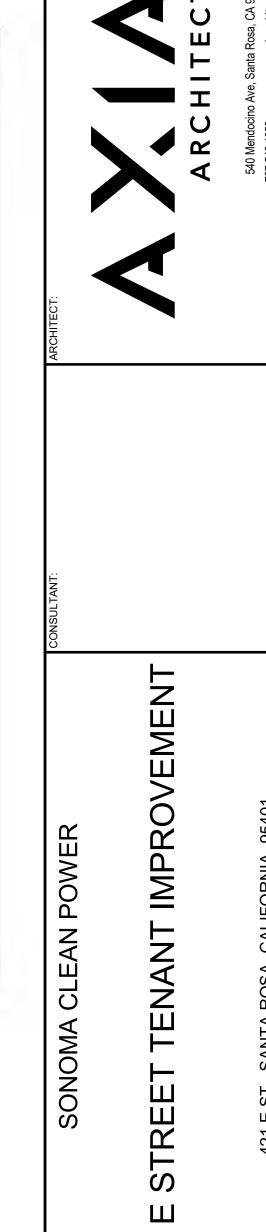
COLUMN 1: FEATURE OR MEASURE	COLUMN 2: PROJECT DESIGN REQUIREMENTS		COLUMN 3: FIELD VERIFICATION	COLUMN 1: FE
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5.507.4.2.1 Site features. Exterior features such as sound walls or earth berms may be utilized, as appropriate, to mitigate sound migration to the interior.				5.508.2.1.3 Flared tubing connections may be used foil. Exception: Single-flared tubing
5.507.4.2.2 Documentation of compliance. An acoustical analysis documenting complying interior sound levels shall be prepared by personnel approved by the architect or engineer of record.				multi-ring seal coated with refrigerants and tightened recommendations.
Sheet number and description of proposed measure(s) or explanation of why it is N/A: project not located within significant noise Airport Noise Contour Map			onoma County	5.508.2.1.4 Elbows. Short space limitations prohibit t
5.507.4.3 Interior noise transmission, Performance Method. Wall and floor ceiling assemblies separating tenant spaces and tenant spaces and public places	RQ'D	N/A		5.508.2.2 Valves. Valves and fit Mechanical Code and Sections 5 5.508.2.2.1 Pressure relie
shall have an STC of at least 40. Sheet number and description of proposed measure(s) or explanation of why it is	not applicable (N/A);		refrigerant, a rupture disc s vessel and the inlet of the 5.508.2.2.1.1 Pressu
N/A: single-tenant Outdoor Air Qualit	tv			transducer, or other o between the rupture o disc rupture or discha
5.508.1 Ozone depletion and greenhouse gas reductions. Installations of	cy			5.508.2.2.2 Access Valves
HVAC, refrigeration, and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2. 5.508.1.1 Chlorofluorocarbons (CFCs). Install HVAC and refrigeration equipment that does not contain CFCs.	RQ'D	□ N/A		or steel body are permitted 5.508.2.2.2.1 Valve of of 5 pounds or more, plastic.
5 508 1 2 Halons Install fire suppression equipment that does not contain				5.508.2.2.2 Seal ca
5.508.1.2 Halons. Install fire suppression equipment that does not contain Halons. Sheet number and description of proposed measure(s) or explanation of why it is verified as not containing CFCs or Halons; See MO.	1 & M7.1 for		A CONTRACT OF THE PARTY OF THE	5.508.2.2.2.2 Seal ca neoprene O-ring in pl required for valves de Exception to 5.508.2 removed from the val
Halons. Sheet number and description of proposed measure(s) or explanation of why it is verified as not containing CFCs or Halons; See M0. Section 21-1313 for water-based wet-pipe based systems. 5.508.2 Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the provisions of Sections 5.508.2.1 through 5.508.2.6.3 when installed in retail food stores with 8,000 square feet (or more) of conditioned area, and that utilize either refrigerated display cases,	1 & M7.1 for		A CONTRACT OF THE PARTY OF THE	neoprene O-ring in pl required for valves de Exception to 5.508.2
Halons. Sheet number and description of proposed measure(s) or explanation of why it is verified as not containing CFCs or Halons; See M0. Section 21-1313 for water-based wet-pipe based systems. 5.508.2 Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the provisions of Sections 5.508.2.1 through 5.508.2.6.3 when installed in retail food stores with 8,000 square feet (or more) of conditioned area, and that utilize either refrigerated display cases, walk-in coolers, or walk-in freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (High-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the	1 & M7.1 for		A CONTRACT OF THE PARTY OF THE	neoprene O-ring in place required for valves de Exception to 5.508.2 removed from the values food products containing vinegal corrosion-resistant material, succorrosion from these substances 5.508.2.3.1 Coil Coating transfer efficiency of coil costs of the coating of the coat
Halons. Sheet number and description of proposed measure(s) or explanation of why it is verified as not containing CFCs or Halons; See Mo. Section 21-1313 for water-based wet-pipe based systems. See Mo. Section 21-1313 for water-based wet-pipe based systems. See Mo. Section 21-1313 for water-based wet-pipe based systems. See Mo. Section 21-1313 for water-based wet-pipe based systems. See Mo. Section 21-1313 for water-based wet-pipe based systems. The systems shall comply with the provisions of Sections 5.508.2.1 through 5.508.2.6.3 when installed in retail food stores with 8,000 square feet (or more) of conditioned area, and that utilize either refrigerated display cases, walk-in coolers, or walk-in freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities. Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include	1 & M7.1 for		A CONTRACT OF THE PARTY OF THE	neoprene O-ring in place required for valves de Exception to 5.508.2 removed from the val 5.508.2.3 Refrigerated service food products containing vinegal corrosion-resistant material, succorrosion from these substances 5.508.2.3.1 Coil Coating. transfer efficiency of coil co 5.508.2.4 Refrigerant receivers greater than 200 pounds shall be level of refrigerant in the receiver 5.508.2.5 Pressure testing. The installation, prior to evacuation in 5.508.2.5.1 Minimum pre
Halons. Sheet number and description of proposed measure(s) or explanation of why it is verified as not containing CFCs or Halons; See Mo. Section 21-1313 for water-based wet-pipe based systems shall comply with the provisions of Sections 5.508.2.1 through 5.508.2.6.3 when installed in retail food stores with 8,000 square feet (or more) of conditioned area, and that utilize either refrigerated display cases, walk-in coolers, or walk-in freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (High-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities. Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO2), and potentially other refrigerants. 5.508.2.1 Refrigerant piping. Piping compliant with the California	1 & M7.1 for		A CONTRACT OF THE PARTY OF THE	neoprene O-ring in place required for valves de Exception to 5.508.2. removed from the val 5.508.2.3 Refrigerated service food products containing vinega corrosion-resistant material, suc corrosion from these substances 5.508.2.3.1 Coil Coating. transfer efficiency of coil co 5.508.2.4 Refrigerant receivers greater than 200 pounds shall be level of refrigerant in the receiver 5.508.2.5 Pressure testing. The installation, prior to evacuation a 5.508.2.5.1 Minimum pre regulated dry nitrogen and pressure up to 300 psig mi 5.508.2.5.2 Leaks. Check
Halons. Sheet number and description of proposed measure(s) or explanation of why it is verified as not containing CFCs or Halons; See Mo. Section 21-1313 for water-based wet-pipe based systems of Section 21-1313 for water-based wet-pipe based systems. 5.508.2 Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the provisions of Sections 5.508.2.1 through 5.508.2.6.3 when installed in retail food stores with 8,000 square feet (or more) of conditioned area, and that utilize either refrigerated display cases, walk-in coolers, or walk-in freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (High-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities. Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO2), and potentially other refrigerants. 5.508.2.1 Refrigerant piping. Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than \(\frac{1}{4}\), flared tubing connections, and short radius elbows shall not be used in refrigerant systems except as noted in Sections	1 & M7.1 for		A CONTRACT OF THE PARTY OF THE	neoprene O-ring in place required for valves de Exception to 5.508.2 removed from the val 5.508.2.3 Refrigerated service food products containing vinegal corrosion-resistant material, succorrosion from these substances 5.508.2.3.1 Coil Coating. transfer efficiency of coil co 5.508.2.4 Refrigerant receivers greater than 200 pounds shall be level of refrigerant in the receiver 5.508.2.5 Pressure testing. The installation, prior to evacuation a 5.508.2.5.1 Minimum pre regulated dry nitrogen and pressure up to 300 psig mi 5.508.2.5.2 Leaks. Check retest for pressure using the 5.508.2.5.3 Allowable pre unaltered, for 24 hours with change from 300 psig, meaning the supplementation of the content of the conte
Halons. Sheet number and description of proposed measure(s) or explanation of why it is verified as not containing CFCs or Halons; See Mo. Section 21-1313 for water-based wet-pipe based systems of the systems shall comply with the provisions of Sections 5.508.2.1 through 5.508.2.6.3 when installed in retail food stores with 8,000 square feet (or more) of conditioned area, and that utilize either refrigerated display cases, walk-in coolers, or walk-in freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (High-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems in existing facilities. Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO2), and potentially other refrigerants. 5.508.2.1 Refrigerant piping. Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than ¼, flared tubing connections, and short radius elbows shall not be used in refrigerant systems except as noted in Sections 5.508.2.1.1 through 5.508.2.1.4. 5.508.2.1.1 Threaded pipe. Threaded connections are permitted at	1 & M7.1 for		A CONTRACT OF THE PARTY OF THE	neoprene O-ring in place required for valves de Exception to 5.508.2. removed from the val 5.508.2.3 Refrigerated service food products containing vinega corrosion-resistant material, suc corrosion from these substances 5.508.2.3.1 Coil Coating. transfer efficiency of coil co 5.508.2.4 Refrigerant receivers greater than 200 pounds shall be level of refrigerant in the receiver 5.508.2.5 Pressure testing. The installation, prior to evacuation a 5.508.2.5.1 Minimum pre regulated dry nitrogen and pressure up to 300 psig mi 5.508.2.5.2 Leaks. Check retest for pressure using the 5.508.2.5.3 Allowable pre unaltered, for 24 hours with change from 300 psig, mea 5.508.2.6 Evacuation. The systetesting and prior to charging.
Halons. Sheet number and description of proposed measure(s) or explanation of why it is verified as not containing CFCs or Halons; See Mo. Section 21-1313 for water-based wet-pipe based systems. Shee Mo. Section 21-1313 for water-based wet-pipe based systems. Shall comply with the provisions of Sections 5.508.2.1 through 5.508.2.6.3 when installed in retail food stores with 8,000 square feet (or more) of conditioned area, and that utilize either refrigerated display cases, walk-in coolers, or walk-in freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (High-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities. Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO2), and potentially other refrigerants. 5.508.2.1 Refrigerant piping. Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than \(\frac{1}{4}\), flared tubing connections, and short radius elbows shall not be used in refrigerant systems except as noted in Sections 5.508.2.1.1 through 5.508.2.1.4.	1 & M7.1 for		A CONTRACT OF THE PARTY OF THE	neoprene O-ring in place required for valves de Exception to 5.508.2 removed from the val 5.508.2.3 Refrigerated service food products containing vinegal corrosion-resistant material, succorrosion from these substances 5.508.2.3.1 Coil Coating. transfer efficiency of coil co 5.508.2.4 Refrigerant receivers greater than 200 pounds shall be level of refrigerant in the receiver 5.508.2.5 Pressure testing. The installation, prior to evacuation a 5.508.2.5.1 Minimum pre regulated dry nitrogen and pressure up to 300 psig mi 5.508.2.5.2 Leaks. Check retest for pressure using the 5.508.2.5.3 Allowable pre unaltered, for 24 hours with change from 300 psig, mea 5.508.2.6 Evacuation. The system 5.508.2.6 Evacuation.

COLUMN 1: FEATURE OR MEASURE	COLUMN 2: PF	COLUMN 3: FIEL VERIFICATION	
PAGE 13 of 15 EFFECTIVE: 01 JANUARY 2023	REQUIRED (SPECIFY SHEET # & DESCRIPTION)	NOT REQUIRED (PROVIDE A DESCRIPTION OF WHY)	
Sheet number and description of proposed measure(s) or explanation of why it is N/A: not a supermarket			
Innovative Concepts	s (5.5)		
Proposed Innovative Concept 1:			
	RQ'D		
Qualifications 702.1 HVAC system installers are trained and certified in the proper installation			
702.1 HVAC system installers are trained and certified in the proper installation of HVAC systems.	RQ'D	N/A	
Sheet number and description of proposed measure(s) or explanation of why it is Provide name and/or license # of HVAC installer	s not applicable (N/A);	
702.2 The CALGreen Inspector <u>is listed by the City of Santa Rosa</u> as an approved CALGreen Inspector and is qualified and able to demonstrate competence in the discipline they inspect and verify.		N/A.	
Sheet number and description of proposed measure(s) or explanation of why it is	s not applicable (N/A):	
SOLDATA Energy Consulting ICC #8728491			
Verifications			
703.1 Verification of compliance with this code shall include, but not be limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial conformance.	RQ'D	□ N/A	
Sheet number and description of proposed measure(s) or explanation of why it is Verification of CALGreen measures shall be obtained product research and specification sheets submitted	ed thru planch	neck, site in	spections,
Sheet number and description of proposed measure(s) or explanation of why it is Verification of CALGreen measures shall be obtained	ed thru planch	neck, site in	spections,

BROWNFIELD SITE: REAL PROPERTY, THE EXPANSION, REDEVELOPMENT OR REUSE OF WHICH MAY BE COMPLICATED BY THE OR POTENTIAL PRESENCE) OF A HAZARDOUS SUBSTANCE, POLLUTANT, OR CONTAMINANT WITH CERTAIN LEGAL EXCLUSION ADDITIONS. ELECTRIC VEHICLE (EV): AN AUTOMOTIVE-TYPE VEHICLE FOR ON-ROAD USE, SUCH AS PASSENGER AUTOMOBILES, BUSES, TRIVANS, NEIGHBORHOOD ELECTRIC VEHICLES, ELECTRIC MOTORCYCLES, AND THE LIKE, PRIMARILY POWERED BY AN ELECTRIC MOTORCYCLES, AND THE LIKE, PRIMARILY POWERED BY AN ELECTRIC MOTORCYCLES, AND THE LIKE, PRIMARILY POWERED BY AN ELECTRIC MOTORCYCLES, AND THE LIKE, PRIMARILY POWERED BY AN ELECTRIC MOTORCYCLES, AND THE LIKE, PROPOSES OF CALIFORNIA ELECTRICAL CODE, OFF-ROAD, SELF-PROPELLED ELECTRIC VEHICLES, SUCH AS INDUSTRIAL TRUCKS, HOISTS, LIFTS TRANSPORTS, GOLF CARTS, AIRLINE GROUND SUPPORT EQUIPMENT, TRACTORS, BOATS, AND THE LIKE, ARE NOT INCLUDED. ELECTRIC VEHICLE (EV) CAPABLE SPACE: A VEHICLE SPACE WITH ELECTRICAL PANEL SPACE AND LOAD CAPACITY TO SUPPORT BRANCH CIRCUIT AND NECESSARY RACEWAYS, BOTH UNDERGROUND AND/OR SURFACE MOUNTED, TO SUPPORT EV CHARGISELECTRIC VEHICLE (EV) READY SPACE: A VEHICLE SPACE WHICH IS PROVIDED WITH A BRANCH CIRCUIT (ANY NECESSARY RA	UCKS, NOTOR
OR POTENTIAL PRESENCE) OF A HAZARDOUS SUBSTANCE, POLLUTANT, OR CONTAMINANT WITH CERTAIN LEGAL EXCLUSION ADDITIONS. ELECTRIC VEHICLE (EV): AN AUTOMOTIVE-TYPE VEHICLE FOR ON-ROAD USE, SUCH AS PASSENGER AUTOMOBILES, BUSES, TRIVANS, NEIGHBORHOOD ELECTRIC VEHICLES, ELECTRIC MOTORCYCLES, AND THE LIKE, PRIMARILY POWERED BY AN ELECTRIC MOTORCYCLES, AND THE LIKE, PRIMARILY POWERED BY AN ELECTRIC MOTORCYCLES, AND THE LIKE, PRIMARILY POWERED BY AN ELECTRIC MOTORCYCLES, AND THE LIKE, PRIMARILY POWERED BY AN ELECTRIC MAINT DRAWS CURRENT FROM A RECHARGEABLE STORAGE BATTERY, FUEL CELL, PHOTOVOLTAIC ARRAY, OR OTHER SOURCE OF ELECTRIC CURRENT. PLUG-IN HYBRID ELECTRIC VEHICLES, PHEV) ARE CONSIDERED ELECTRIC VEHICLES. FOR PURPOSES OF CALIFORNIA ELECTRICAL CODE, OFF-ROAD, SELF-PROPELLED ELECTRIC VEHICLES, SUCH AS INDUSTRIAL TRUCKS, HOISTS, LIFTS TRANSPORTS, GOLF CARTS, AIRLINE GROUND SUPPORT EQUIPMENT, TRACTORS, BOATS, AND THE LIKE, ARE NOT INCLUDED. ELECTRIC VEHICLE (EV) CAPABLE SPACE: A VEHICLE SPACE WITH ELECTRICAL PANEL SPACE AND LOAD CAPACITY TO SUPPORT BRANCH CIRCUIT AND NECESSARY RACEWAYS, BOTH UNDERGROUND AND/OR SURFACE MOUNTED, TO SUPPORT EV CHARGI	UCKS, MOTOR
VANS, NEIGHBORHOOD ELECTRIC VEHICLES, ELECTRIC MOTORCYCLES, AND THE LIKE, PRIMARILY POWERED BY AN ELECTRIC METHAT DRAWS CURRENT FROM A RECHARGEABLE STORAGE BATTERY, FUEL CELL, PHOTOVOLTAIC ARRAY, OR OTHER SOURCE OF ELECTRIC CURRENT. PLUG-IN HYBRID ELECTRIC VEHICLES (PHEV) ARE CONSIDERED ELECTRIC VEHICLES. FOR PURPOSES OF CALIFORNIA ELECTRICAL CODE, OFF-ROAD, SELF-PROPELLED ELECTRIC VEHICLES, SUCH AS INDUSTRIAL TRUCKS, HOISTS, LIFTS TRANSPORTS, GOLF CARTS, AIRLINE GROUND SUPPORT EQUIPMENT, TRACTORS, BOATS, AND THE LIKE, ARE NOT INCLUDED. ELECTRIC VEHICLE (EV) CAPABLE SPACE: A VEHICLE SPACE WITH ELECTRICAL PANEL SPACE AND LOAD CAPACITY TO SUPPORT BRANCH CIRCUIT AND NECESSARY RACEWAYS, BOTH UNDERGROUND AND/OR SURFACE MOUNTED, TO SUPPORT EV CHARGI	OTOR F
BRANCH CIRCUIT AND NECESSARY RACEWAYS, BOTH UNDERGROUND AND/OR SURFACE MOUNTED, TO SUPPORT EV CHARGI	
ELECTRIC VEHICLE (EV) READY SPACE: A VEHICLE SPACE WHICH IS PROVIDED WITH A BRANCH CIRCUIT (ANY NECESSARY RA	
BOTH UNDERGROUND AND/OR SURFACE MOUNTED) TO ACCOMMODATE EV CHARGING, TERMINATING IN A RECEPTACLE OR CHARGER.	
ELECTRIC VEHICLE CHARGING SPACE (EV SPACE) DEFINITION: A SPACE INTENDED FOR FUTURE INSTALLATION OF EV CHAR EQUIPMENT AND CHARGING OF ELECTRIC VEHICLES.	GING
ELECTRIC VEHICLE CHARGING STATION (EVCS): ONE OR MORE ELECTRIC VEHICLE CHARGING SPACES SERVED BY ELECTRIC VEHICLE CHARGING SPACES SERVED BY ELECTRIC VEHICLES. ELECTRIC VEHICLE CHARGING ARE NOT CONSIDERED PARKING SPACES.	
ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE): THE CONDUCTORS, INCLUDING THE UNGROUNDED, GROUNDED, AND EQUI GROUNDING CONDUCTORS, THE ELECTRIC VEHICLE CONNECTORS, ATTACHMENT PLUGS, AND ALL OTHER FITTINGS, DEVICES, DUTLETS, OR APPARATUS INSTALLED SPECIFICALLY FOR THE PURPOSE OF TRANSFERRING ENERGY BETWEEN THE PREMISES W AND THE ELECTRIC VEHICLE.	POWER
GREYFIELD SITE: ANY SITE PREVIOUSLY DEVELOPED WITH AT LEAST 50% OF THE SURFACE AREA COVERED WITH IMPERVIOUS	MATERIAL.
NFILL SITE: A SITE IN AN URBANIZED AREA THAT MEETS EITHER OF THE FOLLOWING CRITERIA:	
 THE SITE IS IMMEDIATELY ADJACENT TO PARCELS THAT ARE DEVELOPED WITH QUALIFIED URBAN USES, OR AT LEAST 7 THE PERIMETER OF THE SITE ADJOINS PARCELS THAT ARE DEVELOPED WITH QUALIFIED URBAN USES, AND THE REMAIL OF THE SITE ADJOINS PARCELS THAT HAVE PREVIOUSLY BEEN DEVELOPED FOR QUALIFIED URBAN USES. 	
2. NO PARCEL WITHIN THE SITE HAS BEEN CREATED WITHIN THE PAST 10 YEARS UNLESS THE PARCEL WAS CREATED AS A OF THE PLAN OF A REDEVELOPMENT AGENCY	RESULT

CALGreen BUILDING ACKNOWLEDGMENTS	PAGE 15
PROJECT ADDRESS: 421 E. Street, Santa Rosa CA	
PROJECT DESCRIPTION: Tenant improvement of existing space	
SECTION 1 - DESIGN VERIFICATION INSTRUCTIONS:	
Prior to building permit application, complete <u>all</u> lines of Section 1- "Design Verified and 2) with the plans and building permit application to the City of Santa Rosa Bu	
The signatures below certify that the owner, design professional, and the CALGree and 2 of this checklist, and certify that the items checked above are hereby incorp the requirements set forth in the 2022 Californ	porated into the project plans and will be implemented
Rebeccasimonia	6/3/2025
Owner's Signature	Date
Rebecca Simonson, PE, Director of Capital Projects & Engineering	
Owner's Name (Please Print)	
0 0 61	
() laff	June 3, 2025
Design Professional's signature	Date
Douglas Hilberman, C29543	
Design Professional's Name (Please Print)	
Adomitanez	3000000
CALCuston Instructional Scientific	4/30/2025
CALGreen Inspector's Signature	Date
Adam Turrey	707-545-4440
CALGreen Inspector's Name (Please Print)	CALGreen Inspector's Phone Number
Adam@soldata.com	8728491
CALGreen E-mail Address	ICC Certification Number
SECTION 2 - IMPLEMENTATION VERIFICA	ATION
Complete, sign, and submit the completed checklist, including Column 3, togethe, "Implementation Verification" to the Building Department prior to Building Department	r with all original signatures in this Section 2 -
The owner, design professional, and the CALGreen inspector have reviewed the pinereby incorporated into the project plans and will be implemented into the project California Green Building Standards Code.	
CALGreen Inspector's Signature	Date
CALGreen Inspector's Name (Please Print)	CALGreen Inspector's Phone Number (If Different Than Above)
CALGreen E-mail Address (If Different Than Above)	ICC Certification Number (If Different Than Above)

COLUMN 1: FEATURE OR MEASURE		ROJECT DESIGN EMENTS	COLUMN 3: FIELD VERIFICATION
PAGE 12 of 15 EFFECTIVE: 01 JANUARY 2023	REQUIRED (SPECIFY SHEET # & DESCRIPTION)	NOT REQUIRED (PROVIDE A DESCRIPTION OF WHY)	
5.508.2.1.3 Flared tubing connections. Double-flared tubing connections may be used for pressure controls, valve pilot lines, and oil.			
Exception: Single-flared tubing connections may be used with a multi-ring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's recommendations.			
5.508.2.1.4 Elbows. Short radius elbows are only permitted where space limitations prohibit the use of long radius elbows.			
5.508.2.2 Valves. Valves and fittings shall comply with the California Mechanical Code and Sections 5.508.2.2.1 through 5.508.2.2.2.2.1.			
5.508.2.2.1 Pressure relief valves. For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.			
5.508.2.2.1.1 Pressure detection. A pressure gauge, pressure transducer, or other devices shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.			
5.508.2.2.2 Access Valves. Only Schrader access valves with a brass or steel body are permitted for use.			
5.508.2.2.2.1 Valve caps. For systems with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.			
5.508.2.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place. Chain tethers to fit over the stem are required for valves designed to have seal caps (5.508.2.2.2.2.1). Exception to 5.508.2.2.2.2.1: Valves with seal caps that are not removed from the valve during stem operation.			
5.508.2.3 Refrigerated service cases. Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel, or be coated to prevent corrosion from these substances.			
5.508.2.3.1 Coil Coating. Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.			
5.508.2.4 Refrigerant receivers. Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device that indicates the level of refrigerant in the receiver.			
5.508.2.5 Pressure testing. The system shall be pressure tested during installation, prior to evacuation and charging.			
5.508.2.5.1 Minimum pressure. The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum.			
5.508.2.5.2 Leaks. Check the system for leaks, repair any leaks, and retest for pressure using the same gauge.			
5.508.2.5.3 Allowable pressure change. The system shall stand, unaltered, for 24 hours with no more than a +/- one pound pressure change from 300 psig, measured with the same gauge.			
5.508.2.6 Evacuation. The system shall be evacuated after pressure testing and prior to charging.			
5.508.2.6.1 First vacuum. Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and hold for 30 minutes.			
5.508.2.6.2 Second vacuum. Pull a second system vacuum to a minimum of 500 microns, and hold for 30 minutes.			
5.508.2.6.3 Third vacuum. Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100			



(⊏	DATE:	ISSUED FUR:

JOB NUMBER:

CALGREEN CHECKLIST

ORIGINAL DATE:

Improvement Plans Sonoma Clean Power Authority

421 E Street

Santa Rosa, California

Abbreviations List

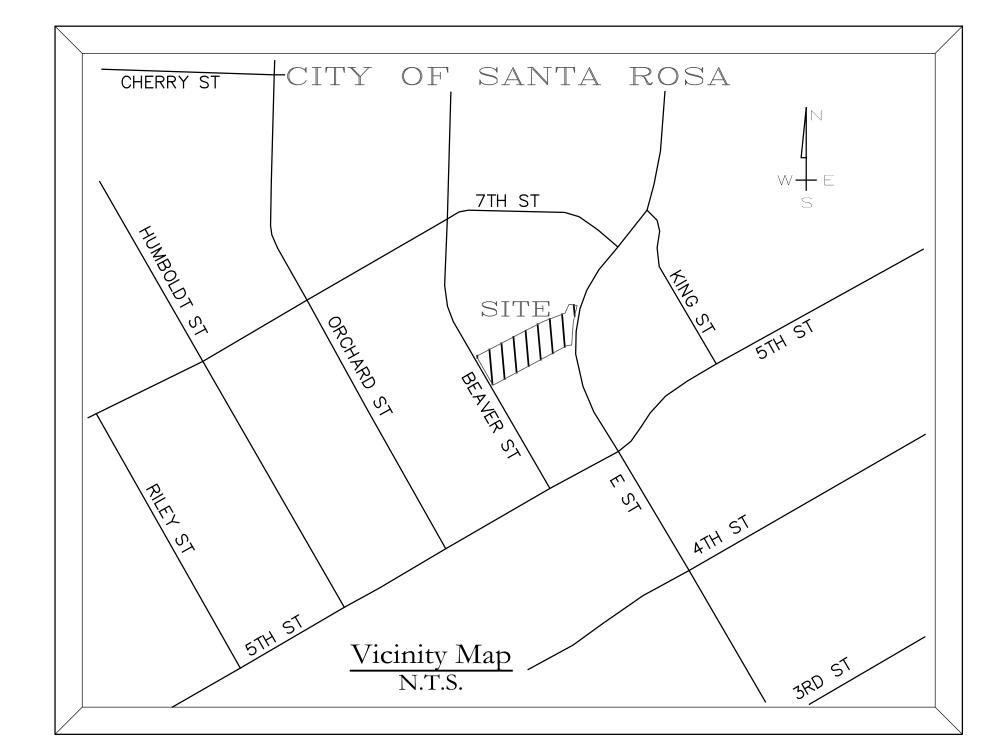
A	ACRES	L	LINE
A/E	ALARM/ELECTRIC	LDS	LANDSCAPE TREE
BLDG	BUILDING	LF	LINEAR FEET
BM	BENCHMARK	MAX	MAXIMUM
ВО	BLOWOFF	MIN	MINIMUM
BSW	BACK OF SIDEWALK	N	NEW
BW	BOTTOM OF WALL	N.T.S	NOT TO SCALE
CI	CURB INLET	O.C.	ON CENTER
CL	CENTERLINE	O/H	OVERHEAD
CMP	CORRUGATED METAL PIPE	P	PACIFIC GAS AND ELECTRIC COMPANY
CO	CLEANOUT	PERC	PERCOLATION
COSR	CITY OF SANTA ROSA	PG&E	PACIFIC GAS AND ELECTRIC COMPANY
CONC	CONCRETE	PL	PROPERTY LINE
CP	CONTROL POINT	PRIM	PRIMARY
DI	DROP INLET	PUE	PUBLIC UTILITY EASEMENT
DIA	DIAMETER	PVC	POLYVINYL CHLORIDE PIPE
DL	DAYLIGHT	RC	RELATIVE COMPACTION
DWG	DRAWING	RCE	REGISTERED CIVIL ENGINEER
D/W	DRIVEWAY	RCP	REINFORCED CONCRETE PIPE
DS	DOWNSPOUT	RE	REGISTERED ENGINEER
E	EXISTING	R/W	RIGHT OF WAY
EG	EXISTING GRADE	S.A.D.	SEE ARCHITECTS DRAWINGS
ELEV	ELEVATION	S.A.R.	SONOMA COUNTY RECORDS
ELEC	ELECTRIC	SD	STORM DRAIN
EM	ELECTRIC METER	S	SLOPE
ESMT	EASEMENT	STA.	STATION
EXP	EXPANSION	STD	STANDARD
FF	FINISH FLOOR	T/B	TOP OF BANK
FG	FINISH GRADE	TOE	TOE OF BANK
FL	FLOWLINE	TR	TRAFFIC SIGNAL
FND	FOUND	TS	TOP OF SLAB (OR SIDEWALK)
GB	GRADE BREAK	TV	TELEVISION/CABLE
GM	GAS METER	TW	TOP OF WALL
GV	GAS VALVE	TYP.	TYPICAL
HP	HIGH POINT	SBC	SOUTHWESTERN BELL CORPORATION
H/C	HANDICAP	SD	STORM DRAIN
HV	HIGH VOLTAGE	SDMH	STORM DRAIN MANHOLE
IG	INVERT GRADE	SL	STREET LIGHT
INV	INVERT	SSMH	SANITARY SEWER MANHOLE
IP	IRON PIPE	UK	UNKNOWN
JP	JOINT POLE	USP	UNDER SEPARATE PERMIT
JI	JOHNI I OLL	WM	WATER METER
		VV IVI	WATER WE TER

Project Description

APN: 009-055-005

The purpose of this improvement plan is for the construction of new storm water lines from downspouts and daylighting through street curbs on Beaver Street and E Street. This plan will outline the necessary earthworks and drainage systems to direct water away from structures, prevent erosion, and comply with local regulations.

> DISTURBED AREA 0.02 ACRES



OWNER:

421 E Street LLC

421 E St Santa Rosa, California 95404 T: 707-486-4592

CIVIL ENGINEER:

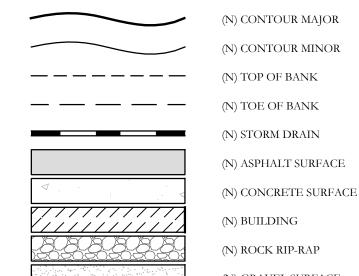
Huffman Engineering & Surveying Rob Huffman, P.E.

537 College Ave. Suite A Santa Rosa, CA 95404 T: 707.542.6559 F: 707.521.0411

E: rob@huffmanengineering.net

LEGEND

WATER VALVE



(N) GRAVEL SURFACE

Sheet Index

=	
SHEET#	DESCRIPTION
1	TITLE SHEET
2	NOTES
3	SITE
4	IMPROVEMENT PLAN
5	IMPROVEMENT PLAN 2
6	PROFILES
7	DETAILS
8	DETAILS 2
9	EROSION CONTROL PLAN
10	TRAFFIC CONTROL PLAN

THE IMPROVEMENT PLANS SHOW THE DETAILS OF THE OTHER SITE WORK BEYOND THE WORK IN THE PUBLIC STREET **Huffman Engineering** & Surveying Santa Rosa, Ca. 95404 P:(707) 542-6559



Scale: N.T.S.

Fil 25-001-IMP.0 25-001

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- 2. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL CONSTRUCTION PERMITS REQUIRED BY THE CITY OF SANTA ROSA (SUCH AS ENCROACHMENT, GRADING, BUILDING, DEMOLITION ETC.) PRIOR TO COMMENCEMENT OF WORK.
- 3. AN ENCROACHMENT PERMIT MUST BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS PRIOR TO BEGINNING ANY WORK WITHIN THE PUBLIC RIGHT-OF- WAY. A TRAFFIC CONTROL PLAN MUST BE SUBMITTED FOR APPROVAL PRIOR TO BEGINNING ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- 4. THE CONTRACTOR SHALL OBTAIN A DE—WATERING PERMIT FROM THE NORTH COAST REGIONAL WATER QUALITY CONTROL BOARD FOR DE-WATERING OPERATIONS THAT ARE USED TO MANAGE THE REMOVAL OF GROUND WATER FROM EXCAVATIONS AND THEIR DISCHARGE TO THE WATERS OF THE STATE OR THE STORM DRAIN SYSTEM. APPROVAL MUST BE OBTAINED FROM THE CITY OF SANTA ROSA ENVIRONMENTAL COMPLIANCE DIVISION PRIOR TO DISCHARGING GROUNDWATER TO THE SEWER.
- TEMPORARY STOCKPILES SHALL NOT BE LOCATED WITHIN CREEK SETBACK AREAS, PROTECTED VEGETATION/TREE AREAS OR WITHIN 10 FEET OF AN ADJACENT RESIDENTIAL PROPERTY LINE. STOCKPILES TALLER THAN 2.5 FEET SHALL NOT BE WITHIN 50 FEET OF AN ADJACENT RESIDENTIAL PROPERTY LINE.
- 6. TEMPORARY STOCKPILES MUST BE REMOVED BY COMPLETION OF GRADING ACTIVITIES UNLESS A SEPARATE TEMPORARY USE PERMIT AND GRADING PERMIT IS OBTAINED FOR THE STOCKPILE.
- 7. RAIN WATER LEADERS AND ROOF DRAINS ARE TO BE CONNECTED BY DEVELOPER TO STORM DRAIN SYSTEM OR SPLASH BLOCK. SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND SIZES. NO CONCENTRATED LOT DRAINAGE SHALL FLOW ACROSS SIDEWALKS.
- 8. CONTRACTOR SHALL SECURE A TRENCH PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO EXCAVATION OF ANY TRENCH OVER FIVE FEET IN DEPTH.
- 9. IF CONTAMINATED MATERIAL IS ENCOUNTERED DURING CONSTRUCTION, WORK MUST STOP UNTIL A WORK PLAN HAS BEEN APPROVED IN WRITING BY THE CITY FIRE DEPARTMENT AND THE STATE REGIONAL WATER QUALITY CONTROL BOARD (NCRWQCB). HAZARDOUS MATERIAL SHALL BE REMOVED AND DISPOSED OF ACCORDING TO THE REQUIREMENTS OF THE CITY'S FIRE DEPARTMENT. THE APPLICANT IS REQUIRED TO DEMONSTRATE COMPLIANCE WITH STATE AND LOCAL CODES FOR REMOVAL OF ASBESTOS CONTAINING MATERIALS DURING DEMOLITION OF THE STRUCTURES ON THE PROJECT SITE.
- 10. ALL TRENCH SPOILS SHALL BE REMOVED AS THEY ARE GENERATED OR DISPOSED OF ON SITE AS REQUIRED BY THE GRADING PERMIT. EXCESS/UNSUITABLE MATERIAL DISPOSED OF OFFSITE AT AN APPROVED LOCATION BY ENGINEERING DEVELOPMENT SERVICES. CONTAIN AND SECURELY PROTECT STOCKPILED TRENCH BACKFILL AND WASTE MATERIAL FROM WIND AND RAN AT ALL TIMES UNLESS ACTIVELY BEING USED. DO NOT BLOCK STORM WATER FLOWS.
- 11. ALL UNDERGROUND IMPROVEMENTS INCLUDING SEWER LINES, WATER LINES, STORM DRAINS, PUBLIC UTILITY FACILITIES, AND SERVICES SHALL BE INSTALLED, TESTED, AND ACCEPTED BY THE UTILITIES AND PUBLIC WORKS DEPARTMENTS PRIOR TO PAVING. TRENCH PAVING FOR ALL UTILITIES SHALL BE COORDINATED AND INSTALLED AT THE SAME TIME.
- 12. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONSTRUCTION CONTRACTOR FURTHER AGREES TO HOLD HARMLESS, INDEMNIFY AND DEFEND THE DESIGN PROFESSIONAL, THE OWNER AND THEIR CONSULTANTS, AND THE CITY OF SANTA ROSA, AND EACH OF THEIR OFFICERS, EMPLOYEES, AND AGENTS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.
- 13. THE LOCATIONS OF UNDERGROUND OBSTRUCTIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY AND SHOULD NOT BE TAKEN AS FINAL OR ALL INCLUSIVE. THE CONTRACTOR IS CAUTIONED THAT THE DRAWINGS MAY NOT INCLUDE ALL EXISTING UTILITIES INCLUDING SEWERS AND STORM DRAINS PRIOR TO ANY TRENCHING TO ALLOW THE ENGINEER TO VERIFY THE GRADE AND ALIGNMENT OF THE UTILITIES, AND VERIFY DESIGN ASSUMPTIONS AND EXACT FIELD LOCATION. EXISTING UTILITIES MAY REQUIRE RELOCATION AND /OR PROPOSED IMPROVEMENTS MAY REQUIRE GRADE OR ALIGNMENT REVISION DUE TO FIELD CONDITIONS.
- 14. THE CONTRACTOR SHALL EXPOSE ALL EXISTING UTILITIES INCLUDING SEWERS AND STORM DRAINS PRIOR TO ANY TRENCHING TO ALLOW THE ENGINEER TO VERIFY THE GRADE AND ALIGNMENT OF THE UTILITIES, AND TO VERIFY DESIGN ASSUMPTIONS AND EXACT FIELD LOCATION. EXISTING UTILITIES MAY REQUIRE RELOCATION AND/OR PROPOSED IMPROVEMENTS MAY REQUIRE GRADE OR ALIGNMENT REVISION DUE TO FIELD CONDITIONS.
- 15. UNDERGROUND FACILITIES NOT SHOWN ON THESE DRAWINGS SUCH AS PG&E, TELEPHONE, TV, IRRIGATION, ETC. SHALL BE COORDINATED AND CONSTRUCTED PRIOR TO PLACEMENT OF BASE ROCK AND PAVING.
- 16. CONTRACTOR IS RESPONSIBLE FOR PRESERVATION AND/OR PERPETUATION OF ALL EXISTING SURVEY MONUMENTS (CURB TAGS, IRON PIPES, CENTERLINE WELL DISKS, ETC). IF THE CONTRACTOR SUSPECTS THAT WORK WILL BE CONDUCTED IN AN AREA WHICH MAY RESULT IN THE DISTURBANCE OF SURVEY MONUMENTS, THE CONTRACTOR SHALL RETAIN THE SERVICES OF A LICENSED PROFESSIONAL AUTHORIZED TO PRACTICE LAND SURVEYING TO LOCATE SAID MONUMENTS PRIOR TO DISTURBANCE, RE-ESTABLISH MONUMENTS WHICH HAVE BEEN DISTURBED AS A RESULT OF CONSTRUCTION AND FILE THE APPROPRIATE DOCUMENTATION WITH THE COUNTY ONCE THE MONUMENTS ARE RESET. CONTRACTOR SHALL PROVIDE A MINIMUM OF 10 (TEN) WORKING DAYS NOTICE TO THE ENGINEER/SURVEYOR PRIOR TO DISTURBANCE OR REMOVAL OF EXISTING MONUMENTS. CONTRACTOR SHALL PROVIDE THE CITY WITH A MONUMENT CERTIFICATION LETTER FROM THE ENGINEER/SURVEYOR STATING THAT THE EXISTING MONUMENTS HAVE BEEN IDENTIFIED AND LOCATED PRIOR TO REMOVAL.

GENERAL NOTES CONTINUE:

- 17. CONSTRUCTION HOURS SHALL BE LIMITED FROM 7 AM TO 7 PM MONDAY THROUGH SATURDAY, EXCLUDING HOLIDAYS. THIS RESTRICTION INCLUDES THE START UP OF ANY MOTORIZED EQUIPMENT, ALL CONTRACTORS' EQUIPMENT SHALL BE PROPERLY MUFFLED AND SHALL BE SHUT DOWN WHEN NOT IN USE. (HOURS ARE SUBJECT TO THE CONDITIONS OF APPROVAL)
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING DAMAGE OR DETERIORATION OCCURRING TO EXISTING PUBLIC IMPROVEMENTS AS A DIRECT RESULT OF CONSTRUCTION ACTIVITY (GRADING, ROAD CONSTRUCTION, UTILITY INSTALLATION, ETC.). REPAIR MAY REQUIRE PATCHING, SEALING OR OVERLAYING AFFECTED AREAS AS APPROPRIATE TO RETURN THE ROADS TO AT LEAST AS GOOD A CONDITION AS THEY WERE PRIOR TO CONSTRUCTION. IF THE CONTRACTOR DOES NOT ACT IN A TIMELY MANNER, THE CITY MAY, AT ITS DISCRETION PERFORM THE CORRECTION AND CHARGE THE CONTRACTOR FOR ALL COSTS AND OVERHEAD INCURRED.
- 19. RECORD DRAWINGS SHALL BE PROVIDED TO THE CITY UPON COMPLETION OF PROJECT AND PRIOR TO FINAL ACCEPTANCE.
- 20. THE CONTRACTOR SHALL KEEP THE WORK SITE, STAGING AREAS AND OTHER AREAS USED BY IT IN A NEAT AND CLEAN CONDITION, AND FREE FROM ANY ACCUMULATION OF TRASH. THE CONTRACTOR SHALL DISPOSE OF ALL TRASH, RUBBISH AND WASTE MATERIALS OF ANY KIND GENERATED BY THE CONTRACTOR, SUBCONTRACTOR OR ANY COMPANY HIRED BY THE CONTRACTOR ON A DAILY BASIS. THE CONTRACTOR SHALL ALSO KEEP HAUL ROADS FREE FROM DIRT. RUBBISH. AND UNNECESSARY OBSTRUCTIONS RESULTING FROM SITE OPERATION. DISPOSAL OF ALL TRASH, RUBBISH AND DEBRIS MATERIALS SHALL BE IN A COVERED WASTE RECEPTACLE OR HAULED OFF SITE. IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES GOVERNING LOCATIONS AND METHODS OF DISPOSAL. AND IN CONFORMANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. WASTE RECEPTACLES SHALL BE COVERED AT THE END OF EVERY DAY AND DURING RAIN
- 21. ENSURE THE CONTAINMENT OF SANITATION FACILITIES (E.G., PORTABLE TOILETS) TO PREVENT DISCHARGES OF POLLUTANTS TO THE STORM WATER DRAINAGE SYSTEM. ROADS OR RECEIVING WATERS. SANITATION FACILITIES MUST BE MAINTAINED PERIODICALLY BY A LICENSED SERVICE COMPANY TO KEEP THEM IN GOOD WORKING ORDER AND PREVENT OVERFLOWS. PORTABLE TOILETS ARE REQUIRED TO HAVE SECONDARY CONTAINMENT.
- 22. EQUIPMENT AND MATERIALS NECESSARY FOR CONTROL OF SPILLS SHALL BE AVAILABLE ON SITE AT ALL TIMES. SPILLS AND LEAKS SHALL BE STOPPED AND THE MATERIAL CLEANED UP IMMEDIATELY AND DISPOSED OF PROPERLY. USE PROPER BEST MANAGEMENT PRACTICES (BMPS) TO PREVENT OIL, GREASE, OR FUEL FROM LEAKING ON THE GROUND, INTO THE STORM DRAINS OR SURFACE WATERS.
- 23. CONTAIN CONCRETE WASHOUT AREAS AND SIMILAR AREAS THAT MAY CONTAIN POLLUTANTS TO PREVENT DISCHARGE INTO THE UNDERLYING SOIL OR ONTO THE SURROUNDING AREAS.
- 24. ESTABLISH AND MAINTAIN EFFECTIVE SITE PERIMETER CONTROLS AND STABILIZE ALL CONSTRUCTION ENTRANCES AND EXITS TO SUFFICIENTLY CONTROL EROSION AND SEDIMENT DISCHARGES AND TRACKED MATERIALS FROM LEAVING THE SITE. AT A MINIMUM DAILY AND PRIOR TO ANY RAIN EVENT. THE CONTRACTOR SHALL REMOVE ANY SEDIMENT OR OTHER CONSTRUCTION ACTIVITY RELATED MATERIALS THAT ARE DEPOSITED ON THE ROADS (BY VACUUMING OR SWEEPING).
- 25. PLACE EQUIPMENT OR VEHICLES, WHICH ARE BEING FUELED, MAINTAINED AND STORED, IN A DESIGNATED AREA FITTED WITH APPROPRIATE BMPS.
- 26. AT A MINIMUM, ALL BMPS WILL BE INSPECTED EACH WORKING DAY AND BEFORE ALL RAIN EVENTS. BMPS THAT REQUIRE MAINTENANCE OR REPLACEMENT TO FUNCTION PROPERLY SHALL BE COMPLETED BEFORE THE NEXT FORECASTED RAIN, OR WITHIN THE NEXT 3 WORKING DAYS IF NO RAIN IS PREDICTED. MAINTENANCE INCLUDES REMOVAL OF ACCUMULATED SEDIMENT AND TRASH.
- 27. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN ALL APPLICABLE BMPS LISTED IN THE EROSION CONTROL AND /OR STORM WATER POLLUTION PREVENTION PLAN.
- 28. ADA COMPLIANCE: CONSTRUCTION CONTRACTOR MUST COMPLY WITH THE REQUIREMENTS OF THE AMERICAN WITH DISABILITIES ACT (ADA) WHILE WORKING IN THE PUBLIC RIGHT-OF-WAY. IF CONSTRUCTION CONTRACTOR'S WORK IN THE PUBLIC RIGHT-OF-WAY WILL AFFECT PEDESTRIAN ACCESS, THE CONSTRUCTION CONTRACTOR IS REQUIRED TO PROVIDE A PROPERLY SIGNED ACCESSIBLE ROUTE OF TRAVEL. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- 29. ALL GANG MAIL BOXES SHALL BE INSTALLED BEHIND THE SIDEWALK AND OUT OF THE RIGHT-OF-WAY.
- A) THE LOCATION AND INSTALLATION OF ALL MAIL BOXES SHALL BE COORDINATED BETWEEN THE DEVELOPER AND THE US POSTAL SERVICE.
- B) MAIL BOXES CONFORMING TO CITY STANDARD 271 MAY BE INSTALLED IN THE RIGHT-OF-WAY.
- C) THE CHOICE TO USE A CITY STANDARD 271 OR A GANG MAIL BOX WILL BE AT THE DISCRETION OF THE DEVELOPER.
- 30. SECTION 39 ASPHALT CONCRETE OF THE CITY CONSTRUCTION SPECIFICATIONS FOR PUBLIC IMPROVEMENTS SHALL INCLUDE THE FOLLOWING:
- A) LIQUID ANTI-STRIPPING AGENT (LAS) SHALL BE ADDED TO THE ASPHALT BINDER AT A RATE OF 0.5% BY WEIGHT OF ASPHALT BINDER. THE LAS SHALL BE AD-HERE LOF 65-00 OR EQUIVALENT, AND SHALL BE STORED, MEASURED AND BLENDED IN ACCORDANCE WITH THE LAS MANUFACTURER'S RECOMMENDED PRACTICE. THE LAS CAN BE ADDED TO THE ASPHALT BINDER AT THE ASPHALT PLANT OR AT THE REFINERY. WHEN ADDED AT THE ASPHALT PLANT, THE EQUIPMENT SHALL INDICATE AND RECORD THE AMOUNT OF LAS ADDED. IF ADDED AT THE REFINERY, THE SHIPPING TICKET FROM THE REFINERY SHALL CERTIFY THE TYPE AND AMOUNT OF LAS ADDED
- 31. THE ASPHALT CONCRETE MIXTURE FOR ASPHALT CONCRETE SURFACE AND ASPHALT CONCRETE BASE SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
- A) MINIMUM TENSILE STRENGTH RATIO (TSR) OF 70, AND A MINIMUM DRY TENSILE STRENGTH OF 65 POUNDS PER SQUARE INCH, BASED ON AASHTO T 283-07.
- B) AT ANY TIME DURING THE FIRST 12 MONTHS FROM THE TIME OF PLACEMENT OF THE ASPHALT CONCRETE, THE SURFACE SHALL BE VISUALLY INSPECTED BY THE CITY. IF SIGNS OF STRIPPING OF BINDER FROM AGGREGATE OR LOSS OF AGGREGATE IS APPARENT, THE CITY SHALL CORE THE ASPHALT CONCRETE SURFACE. THE CORE SAMPLES SHALL BE PREPARED PER THE METHOD FOR FIELD- MIXED, LABORATORY-COMPACTED SPECIMENS AND TESTED FOR TSR. ASPHALT CONCRETE WITH A TSR LESS THAN 70 SHALL BE REMEDIATED AS REQUIRED BY THE CITY ENGINEER.
- 32. PERMANENT MONUMENTS AS SHOWN ON THE PLANS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE STANDARD PLANS AFTER COMPLETION OF THE STREET IMPROVEMENTS AND STAKED IN THE FIELD BY THE ENGINEER OR SURVEYOR.

GENERAL NOTES CONTINUE:

- 33. ENGINEER/SURVEYOR SHALL COORDINATE WITH THE CONTRACTOR TO RESET MONUMENTS OR PROVIDE PERMANENT WITNESS MONUMENTS AND FILE THE REQUIRED DOCUMENTATION WITH THE COUNTY SURVEYOR, PURSUANT TO BUSINESS AND PROFESSIONS CODE SECTION 8771.
- 34. THE DEVELOPER ASSUMES ALL RESPONSIBILITY FOR THE APPROVAL OF MAILBOX LOCATIONS BY THE LOCAL BRANCH OF THE UNITED STATES POSTAL SERVICE
- 35. IN THE EVENT THAT ANY REMAINS OF PREHISTORIC OR HISTORIC HUMAN ACTIVITIES ARE ENCOUNTERED DURING PROJECT-RELATED ACTIVITIES, WORK IN THE IMMEDIATE VICINITY OF THE FINDS SHALL HALT AND THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT SUPERINTENDENT AND THE CITY OF SANTA ROSA INSPECTOR. WORK SHALL NOT RESUME UNTIL A QUALIFIED ARCHAEOLOGIST OR HISTORIC ARCHAEOLOGIST, AS APPROPRIATE, APPROVED BY THE CITY OF SANTA ROSA, HAS EVALUATED THE SITUATION AND MADE RECOMMENDATIONS FOR TREATMENT OF THE RESOURCE, AND WHOSE RECOMMENDATIONS ARE CARRIED OUT. IF HUMAN BURIAL REMAINS ARE ENCOUNTERED, THE CONTRACTOR MUST ALSO CONTACT THE COUNTY CORONER.
- 36. SEWER AND/OR WATER CONNECTIONS TO EXISTING RESIDENCES REQUIRE A PLUMBING PERMIT FROM THE CITY BUILDING DIVISION.
- 37. ANY ONSITE DRAINAGE SYSTEMS PROPOSED FOR CUSTOM LOTS SHALL BE SHOWN ON THE SITE PLAN SUBMITTED FOR REVIEW WITH THE LOTS BUILDING PERMIT APPLICATION.

EROSION AND SEDIMENT CONTROL NOTES:

- 1. EROSION AND SEDIMENT CONTROL SHOWN ON THIS SHEET ASSUMES STREET, CURB, GUTTER AND STORM DRAINS ARE COMPLETED PRIOR TO RAINS. PROJECT ENGINEER SHALL PREPARE INTERIM DRAINAGE AND EROSION AND SEDIMENT CONTROL PLAN BASED ON WINTER CONDITIONS FOR CITY APPROVAL PRIOR TO CONTRACTOR INSTALLATION. A CURRENT EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED AND KEPT ON THE JOB SITE.
- 2. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE USED TO ENSURE THAT WATER ENTERING THE STORM DRAIN SYSTEM FROM THE CONSTRUCTION SITE IS OF EQUIVALENT QUALITY AND CHARACTER AS THE WATER ABOVE THE SITE.
- 3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PLACED IN FRONT OF INCOMPLETE STORM DRAIN SYSTEMS TO PREVENT DEBRIS ANDSEDIMENT-LADEN WATER FROM ENTERING INTO THE PUBLIC STORM DRAIN SYSTEM. BEST MANAGEMENT PRACTICES SHALL BE USED WHEN DESIGNING AND INSTALLING SUCH DEVICES.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTANT MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES AT ALL TIMES TO THE SATISFACTION OF THE ENGINEER AND CITY OF SANTA ROSA AND IN ACCORDANCE WITH THE PROJECT SWPPP (IF APPLICABLE). EROSION AND SEDIMENT CONTROL MEASURES AND THEIR INSTALLATION SHALL BE ACCOMPLISHED USING BEST MANAGEMENT PRACTICES.
- 5. IF THE STORM DRAIN SYSTEM IS NOT IN PLACE BY OCTOBER 15, ADDITIONAL MEASURES SHALL BE TAKEN SUCH AS TEMPORARY SETTLING BASINS WHICH MEET THE SATISFACTION OF THE ENGINEER AND THE CITY OF SANTA ROSA. SILT AND/OR CATCH BASINS MUST BE CLEANED OUT ON A REGULAR BASIS AFTER STORMS TO MAINTAIN DESIGN CAPACITY.
- 6. STORM WATER RUNOFF FROM THE CONSTRUCTION SITE SHALL BE DIRECTED TOWARD AN INLET WITH A SEDIMENT OR FILTRATION INTERCEPTOR PRIOR TO ENTERING THE STORM DRAIN SYSTEM
- 7. THE CONTRACTOR WILL BE RESPONSIBLE FOR CLEANING WATER THAT HAS BECOME POLLUTED DUE TO NOT TAKING NECESSARY EROSION AND SEDIMENT CONTROL ACTIONS.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP OF MUD AND DEBRIS CARRIED ONTO SURROUNDING STREETS AND ROADS AS A RESULT OF CONSTRUCTION ACTIVITY ON THE SITE TO THE SATISFACTION OF THE CITY OF SANTA ROSA.
- 9. ANY DENUDED OR DISTURBED SOILS SHALL BE PROTECTED USING BEST MANAGEMENT PRACTICES.
- 10. PRIOR TO AND DURING A PRECIPITATION EVENT, ALL PAVED AREAS WILL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED BY THE DEVELOPER, CONTRACTOR OR OWNER SO THAT A MINIMUM OF SEDIMENT-LADEN RUNOFF LEAVES THE
- 11. THE CONTRACTOR SHALL INFORM ALL CONSTRUCTION SITE WORKERS ABOUT THE MAJOR PROVISIONS OF THE EROSION AND SEDIMENT CONTROL PLAN AND SEEK THEIR COOPERATION IN AVOIDING THE DISTURBANCE OF THESE CONTROL MEASURES.
- 12. BEST MANAGEMENT PRACTICES SHALL BE VISUALLY MONITORED ON A WEEKLY BASIS DURING THE DRY SEASON AND RECORDED IN AN INSPECTION CHECKLIST. RAIN EVENT VISUAL MONITORING SHALL BE PERFORMED WITHIN 48 HOURS PRIOR TO AN ANTICIPATED RAIN EVENT, DAILY DURING A RAIN EVENT AND WITH 48 HOURS FOLLOWING A RAIN EVENT. REMOVE SEDIMENT

WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE BARRIER AND REPLACE FILTER DEVICES AS NECESSARY TO ENSURE PROPER FUNCTION.

- 13. UNSTABLE AREAS WILL BE REPAIRED AS SOON AS POSSIBLE AFTER BEING DAMAGED.
- 14. ALL GRADED OR DISTURBED AREAS SHALL BE STABILIZED IMMEDIATELY AFTER GRADING IS COMPLETE.ENTRANCE TO THE PROJECT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT INTO PUBLIC RIGHT- OF-WAY. WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE OF PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED ROCK THAT DRAINS INTO A SEDIMENT TRAP.
- 15. ALL SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO PUBLIC RIGHTS-OF- WAY SHALL BE REMOVED IMMEDIATELY USING BEST MANAGEMENT PRACTICES.
- 16. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR PURPOSE SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- 17. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REPAIRED OR REPLACED WHEN THEY ARE NO LONGER FUNCTIONING PER BEST MANAGEMENT PRACTICES.
- CONTROL MEASURES ON SITE ADEQUATE TO PROTECT THE ENTIRE SITE PRIOR TO THE OCTOBER 15 DATE SUCH THAT IT IS IMMEDIATELY AVAILABLE IN PREPARATION OF THE UPCOMING WINTER SEASON OR IN THE EVENT OF AN EARLY RAIN.
- 19. AFTER CONSTRUCTION IS COMPLETE ALL STORM DRAIN SYSTEMS ASSOCIATED WITH THIS PROJECT SHALL BE INSPECTED AND CLEARED OF ACCUMULATED SEDIMENTS AND DEBRIS.

EROSION AND SEDIMENT CONTROL NOTES

- 20. ALL PROJECTS DISTURBING OR EXPOSING ONE ACRE OR MORE OF SOIL SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT OF STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES (CGP), ORDER NO. 2009-0009-DWQ. DOCUMENTS AND INSTRUCTIONS CAN BE DOWNLOADED FROM:
- WWW.SRCITY.ORG/STORMWATERPERMIT. THE DEVELOPER SHALL PROVIDE THE CITY WITH THE WASTE DISCHARGE IDENTIFICATION NUMBER (WDID#) OR WITH VERIFICATION THAT AN EXEMPTION HAS BEEN GRANTED BY REGIONAL WATER QUALITY CONTROL BOARD (RWQCB) FOR PROJECTS DISTURBING OVER ONE ACRE.
- 21. ALL PROJECTS SHALL HAVE A CITY APPROVED EROSION AND SEDIMENT CONTROL PLAN OR A SWRCB STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SPECIFIC FOR THE PROJECT. A COPY SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION. THE EROSION AND SEDIMENT CONTROL PLAN OR SWPPP SHALL BE UPDATED AND KEPT CURRENT AS WORK PROGRESSES AND CONDITIONS CHANGE AND SHALL BE MADE AVAILABLE TO CITY AND SWRCB INSPECTORS WHEN REQUESTED. THE CONTRACTOR

SHALL BE RESPONSIBLE FOR THE PLACEMENT, INSPECTION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES/DEVICES SPECIFIED N THE EROSION AND SEDIMENT CONTROL PLAN UNTIL SUCH TIME THAT THE PROJECT IS ACCEPTED AS COMPLETE OR UNTIL THE NOTICE OF TERMINATION IS FILED FOR THE CONSTRUCTION GENERAL PERMIT.

22. THE EROSION AND SEDIMENT CONTROL PLAN SHALL

EMPHASIZE SOURCE CONTROL AND ADDRESS CONTROLLING WATER AND WIND EROSION, SEDIMENTATION, TRASH AND OTHER POSSIBLE POLLUTANTS USING BEST MANAGEMENT PRACTICES (BMPS). THE PLAN SHALL REFERENCE CASQA "STORM WATER BEST MANAGEMENT PRACTICE HANDBOOK FOR CONSTRUCTION" FOR PROPER BMP SELECTION, INSTALLATION AND MAINTENANCE.THE EROSION AND SEDIMENT CONTROL PLAN SHALL CONTAIN ALL APPLICABLE BMPS AND CONFORM TO ALL REQUIREMENTS LISTED UNDER SECTION E, PART 8 NCRWQCB ORDER NO. 2009-0050-STORM WATER NON-STORM WATER DISCHARGES FROM MUNICIPAL SEPARATE STORM SEWER SYSTEMS, REGULATION STORM WATER RUNOFF FROM THE CITY OF SANTA ROSA AT A MINIMUM. WWW.SRCITY.ORG/STORMWATERPERMIT. THE CONTRACTOR IS TO INFORM ALL CONSTRUCTION SITE WORKERS ABOUT THE MAJOR PROVISIONS OF THE EROSION AND SEDIMENT CONTROL PLAN OR SWPPP.

- 23. TRASH OR MATERIALS DEPOSITED OR TRACKED ONTO THE PUBLIC RIGHT- OF-WAY SHALL BE REMOVED DAILY.
- 24. THE EROSION AND SEDIMENT CONTROL PLAN SHALL INCLUDE A STATEMENT DESCRIBING THE LOCATION OF BMPS AND RATIONALE FOR BMP SELECTION, AS WELL AS A STATEMENT CONFIRMING THAT THE OWNER AND CONTRACTOR ARE AWARE THAT THE SELECTED BMPS MUST BE INSTALLED. MONITORED AND MAINTAINED TO ENSURE THEIR EFFECTIVENESS AND MEET COMPLIANCE WITH LOCAL CODES AND ORDINANCES.
- 18. THE CONTRACTOR SHALL HAVE EROSION AND SEDIMENT 25. THE CITY CONSIDERS DISCHARGES FROM CONSTRUCTION SITES WITH TURBIDITY EXCEEDING 500 NTUS HAVE INADEQUATE LEVEL OF EROSION CONTROL MEASURES/BMPS. IMMEDIATE ASSESSMENT AND CORRECTIVE ACTION IS REQUIRED TO REDUCE TURBIDITY. CONTINUED EXCEEDING TURBIDITY LEVELS WILL BE CONSIDERED A VIOLATION OF CITY ORDINANCE 17-12. PROHIBITING NON-STORM WATER DISCHARGES. ADDITIONALLY, PROJECT SUBJECT TO REGULATION BY THE CGP MAY BE OUT OF COMPLIANCE AND SUBJECT TO ENFORCEMENT ACTION BY THE SWRCB.
 - 26. FAILURE TO IMPLEMENT OR MAINTAIN BMPS AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE CONSIDERED A POTENTIAL NON- STORM WATER DISCHARGE AND A VIOLATION OF CITY ORDINANCE 17-12.
 - 27. AFTER CONSTRUCTION IS COMPLETED ALL STORM DRAIN SYSTEMS IMPACTED BY THIS PROJECT SHALL BE CLEANED OF ACCUMULATED SEDIMENT AND DEBRIS AND INSPECTED. STORM DRAIN CLEANING/FLUSHING WATER SHALL NOT BE DISCHARGED TO THE STORM DRAIN SYSTEM.PERSON TO CONTACT 24 HOURS A DAY IN THE EVENT THERE IS AN EROSION CONTROL/SEDIMENTATION PROBLEM (STORM WATER COMPLIANCE OFFICER): NAME: _

LOCAL PHONE NO. _____

- 28. HYDROSEED SHALL BE EITHER APPLIED MECHANICALLY OR BY HYDROSEEDING. HYDROSEEDING REQUIRES THE APPLICATION OF FIBER AND STABILIZING EMULSION. MECHANICAL APPLICATION SHALL REQUIRE ROLLING. TAMPING, OR OTHERWISE WORKING THE SEED APPROXIMATELY 0.5 INCHES INTO THE TOPSOIL.
- 29. STABILIZATION OF EXPOSED GRADED AREAS WITH STRAW MULCH SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE.

537 College Avenue., Suite A Santa Rosa, Ca. 95404 P:(707) 542-6559 www.huffmanengineering.ne

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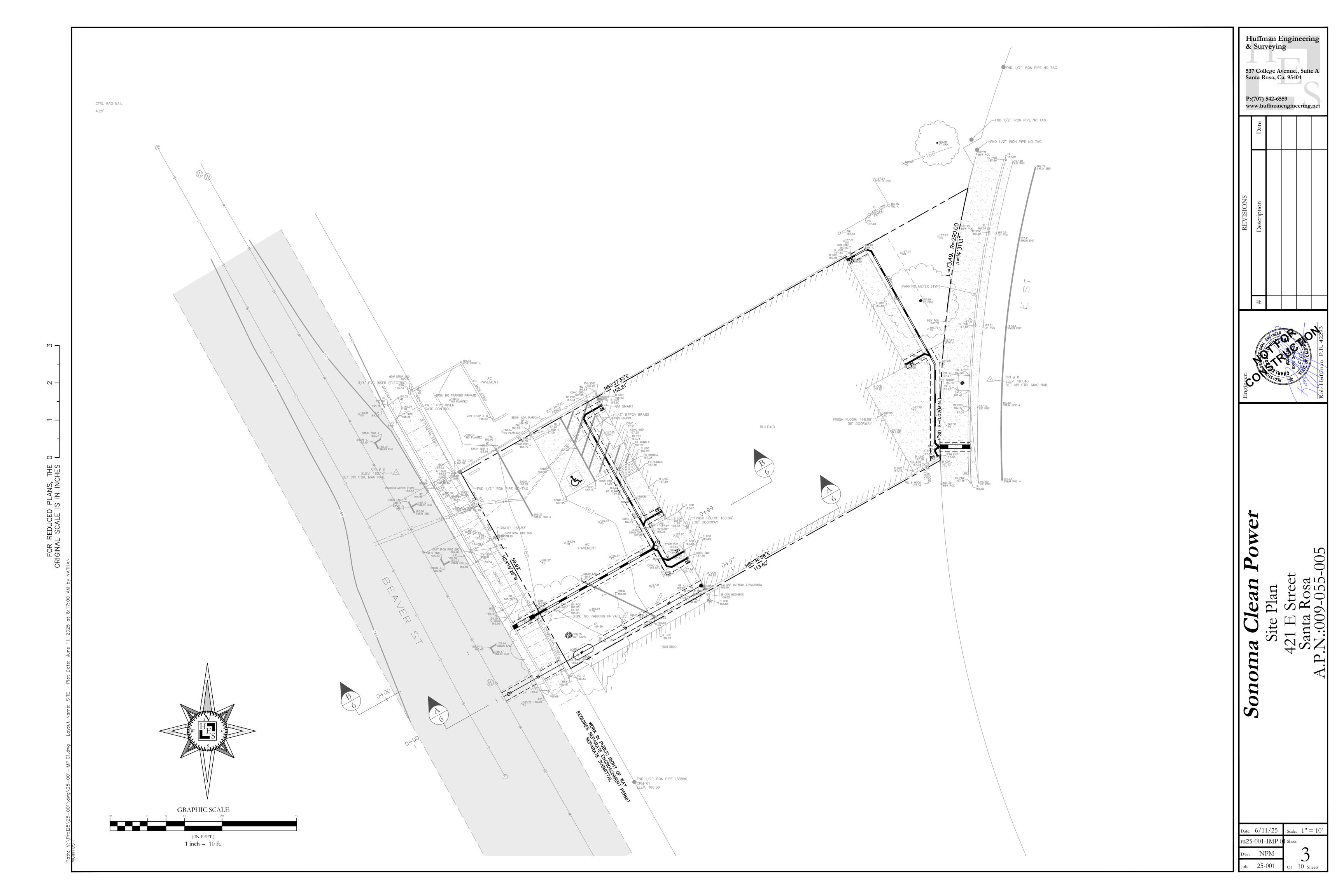


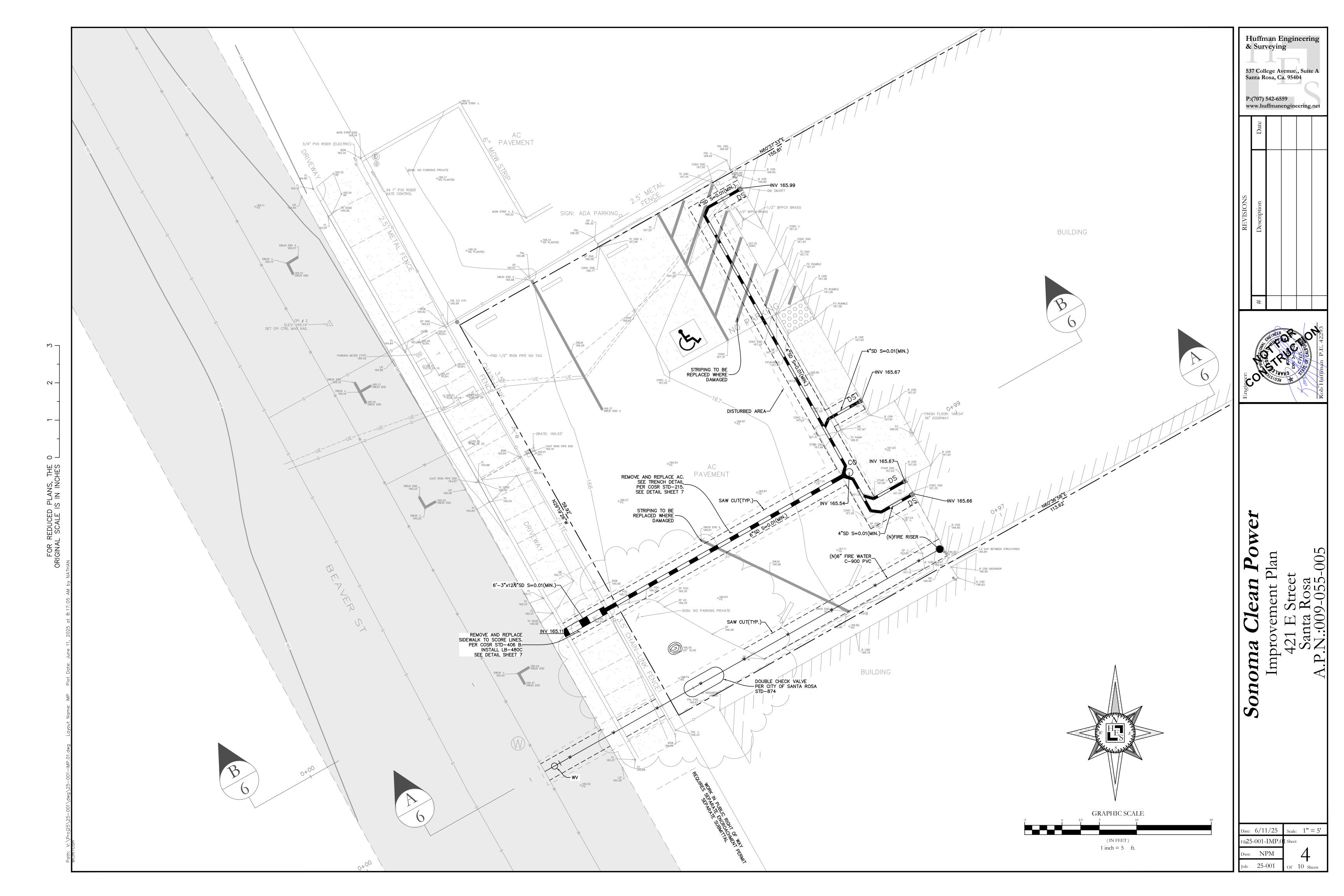
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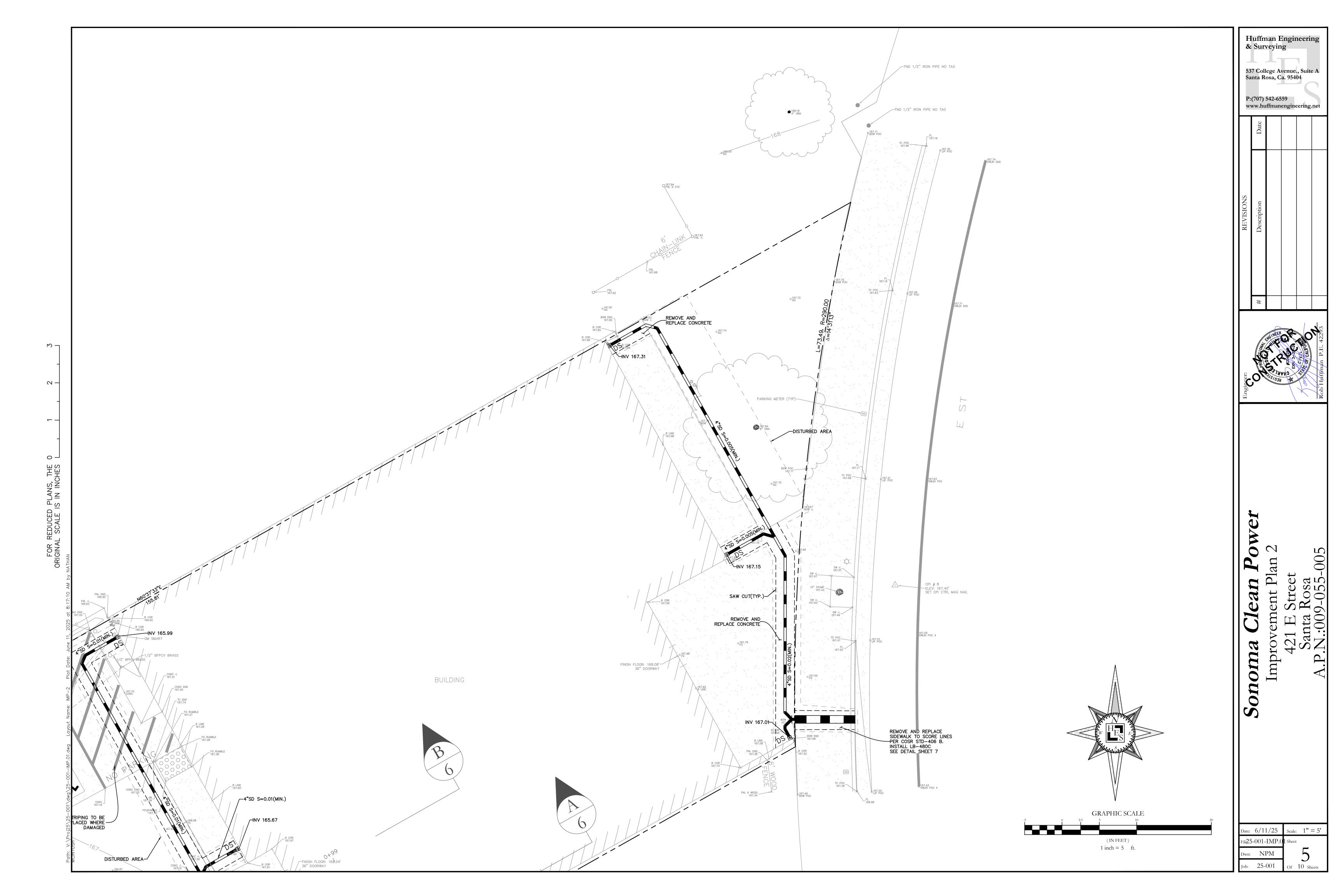
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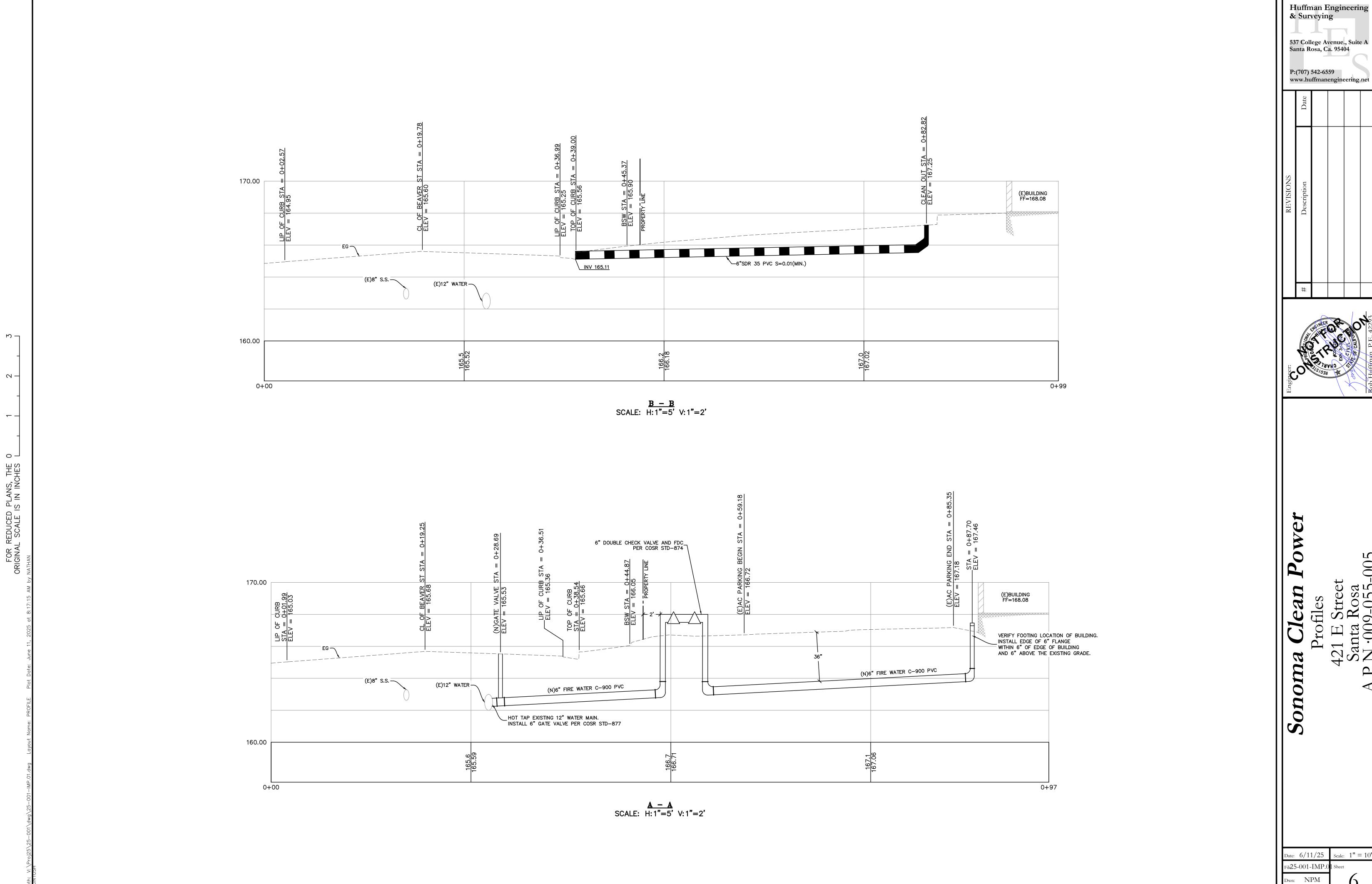
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25-001









Date: 6/11/25 Scale: 1" = 10'

Fil**25**-001-IMP.0 Job: 25-001

Attention is directed to std. 241, "Curb and Gutter", and Std. 235, "Typical Spacing - Weakened Planes, Expansion Joints and Score Marks", of the Standard Plans.

Weakened plane joints shall be constructed at 15-foot intervals, except that when Portland Cement concrete pavement is adjacent thereto, the joints shall coincide with the weakened plane joints in the adjacent pavement. The joints shall be constructed to a minimum depth of 1-1/2 inches by scoring with a tool which will leave the corners rounded with a 1/4 inch radius and insure a free movement of the concrete at the joint.

Expansion joint filler strips shall have the top edge placed and securely held 1/4 inch below the surface. Expansion joints shall be edged with an edging tool having a radius of 1/4 inch.

The finished surface of the top of curb shall not vary more than 0.01 foot above or below the staked grade.

73-1.07 Sidewalk, Gutter Depression, Island Paving, and

Driveway Construction

The surface of sidewalks shall be marked into rectangles as shown on Std. 235, "Typical Spacing - Weakened Planes, Expansion Joints and Score Marks".

Weakened plane joints shall be constructed to a minimum depth of one inch with a tool which will leave the corners rounded with a 1/4 inch radius and insure a free movement of concrete at the joint.

Expansion joint filler strips shall have the top edge placed and securely held 1/4 inch below the surface. Expansion joints shall be edged with an edging tool having a radius of 1/4 inch. Scoring lines shall be made with jointer tools having a radius of 1/4 inch.

73-1.08 Measurement

Curb and gutter will be measured by the linear foot, measured in place along the face of the curb.

Quantities of concrete in sidewalks, island paving, gutter depressions, or driveway areas will be measured by the cubic yard, computed on the basis of measurement of areas of completed work in place and the thickness shown on the plans.

SPECSSEC.73

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Revised

CITY OF SANTA ROSA CONTROL DENSITY FILL

Control Density Fill

Control density fill shall be a mixture of Portland cement, sand and 1" maximum coarse aggregate, air entraining agent and water, batched by a ready-mixed concrete plant and delivered to the jobsite by means of transit mixing trucks. Control density fill may also contain Class F pozzolan (fly ash). Control Density Fill shall be free of asphaltic material.

Materials

Cement shall meet the standards as set forth in ASTM C-150, Type II cement.

Fly ash shall meet the standards as set forth in ASTM C-618, for Class F pozzolans. The fly ash shall not inhibit the entrainment of air.

Aggregate Size 1" max.

Sand Equivalent 31 min.

Mix Proportions

The mix proportions shall be determined by the producer of the control density fill to produce a flowable fill mixture which will not segregate. Each yard shall contain not less that 50 pounds of Portland cement and not less than a total of 100 pounds of cementitious material. The Contractor shall supply a mix design two weeks prior to any use of control density fill.

Mixture Properties

Compressive Strength 75- 200 psi @ 28 days

3 - 9 inches

The consistency of CDF shall be such that all trench voids are filled with minimum rodding or vibrating but not so wet as to cause excessive shrinkage.

Permanent pavement may be placed directly upon the control density fill as soon as it has consolidated for the surface to withstand the process of paving without displacement. The surface of the control density fill shall be firm and unvielding. Any visible movement vertically or horizontally of the control density fill under the action of construction equipment or other maximum legal axle loads shall be considered as evidence that the control density fill does not meet this requirement. The Contractor shall provide trench plates to allow traffic flow for all locations until control density fill is ready to be paved.

CITY OF SANTA ROSA

SCALE: NONE DATE: April 2005

Sheet 6 of 6

STANDARD TRENCH DETAIL CONTROL DENSITY FILL

APPROVED CHK: MSS 886- STD. - 215 MATERIAL SPECIFICATIONS

DRAIN ROCK may be used as bedding under pipe for slopes less than 8%. DRAIN ROCK shall be 100% crushed and shall conform to the following grading:

1-1/2" 1" 1/2" #4 100 95-100 0-30 0-4

PIPE BEDDING and TRENCH BACKFILL shall be free of asphaltic material.

PIPE BEDDING for slopes less than or equal to 8% shall have a minimum sand equivalent value of 30 and shall conform to the following grading: 3/4" 3/8" #4 #200 90-100 65-100 30-100 0-15

PIPE BEDDING for slopes greater than 8% shall have a minimum sand equivalent of 30 and shall conform to the following grading:

1" 3/4" 3/8" #4 #30 #200 90-100 65-100 30-100 10-100 0-15

TRENCH BACKFILL shall conform to the following grading and have a minimum sand equivalent value of 25 when mechanically compacted, or a minimum sand equivalent value of 40 when jetted:

3" #4 100 40-100 10-100

AGGREGATE BASE shall conform to the requirements of Section 26 of the Standard Specifications of the City of Santa Rosa, aggregate base. Asphalt concrete shall conform to the requirements of Section 39 of the Standard Specifications of the City of Santa

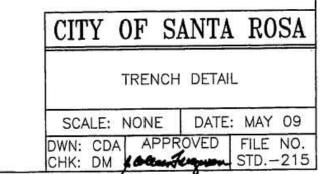
COMPACTION REQUIREMENTS (as shown on pages 1 - 3 and in the following modifications)

DRAIN ROCK shall be consolidated with a surface vibrator.

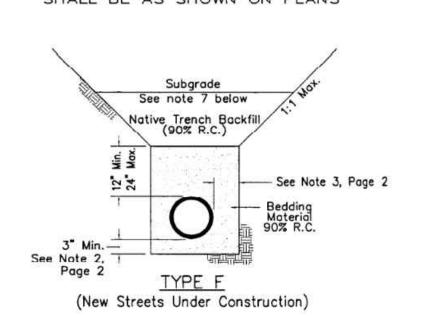
PIPE BEDDING material used to grade the trench shall be consolidated with a surface vibrator when it is placed over drain rock or when depth is greater than 6".

TRENCH BACKFILL may be compacted by jetting in lifts not greater than 10 feet when soil conditions permit water to drain quickly, as determined by the City Engineer. Jetting will not be permitted within 2 feet of finished grade. When compaction is obtained by jetting, the upper surface of the trench backfill shall be thoroughly wheel-rolled with suitable construction equipment. Trench backfill shall be compacted to 90% relative compaction prior to placing base rock or subgrade material over the trench.

Sheet 5 of 6







Notes:

- . Rocks exceeding 6" shall not be permitted within the trench section.
- 2. The maximum depth of native backfill material shall not exceed 10 feet, unless the street is excavated a uniform depth from face of curb to face of curb.
- 3. Embankment construction methods shall be used. All slopes must be keyed—in a minimum of one foot as the trench is backfilled.
- 4. The minimum equipment required for compaction of native backfill material shall consist of a sheepsfoot vibratory roller with a minimum drum width of 48", a minimum gross weight of 4600 lbs, or must meet approval of the City Engineer.
- 5. The contractor shall be responsible for coordinating with the private soils engineer and the City inspector 48 hours prior to excavation.
- 6. The private soils engineer shall provide testing and observations on a FULL TIME basis during ALL native backfilling operations. The private soils engineer is responsible for the verification of all native backfill work including compaction and uniform moisture conditioning, and that moisture content is above optimum moisture to the extent appropriate for the native material being used.
- Streets where native trench backfill is used, treated (lime, cement, flyash, etc.) subgrade shall not be used as part of the structural section.

Sheet 4 of 6

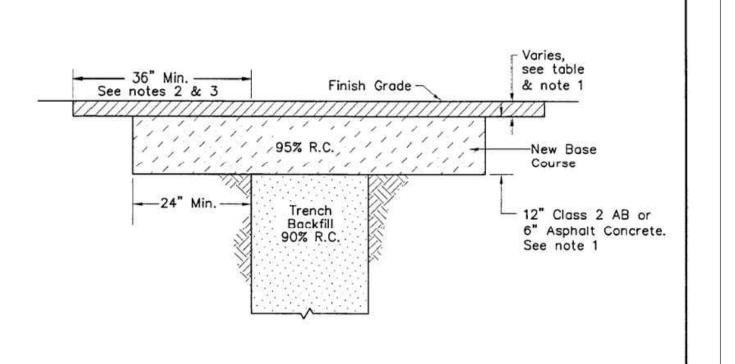
CITY OF SANTA ROSA

STANDARD TRENCH DETAIL

SCALE: NONE DATE: April 2005 DWN: DIT GAPPROVED FILE NO.

CHK: MSS & Seda STD. - 215

TRENCH BACKFILL AND SURFACING



Trench A.C. Paving Table Min. A.C. Thickness Street Type Residential/Local 0.25'Collector/Transitional 0.35 Arterial/Regional/Industrial 0.45

NOTES:

- 1. The street structural section shall be asphalt concrete (see table for minimum A.C. thickness) on 12" Class 2 AB, 6" asphalt concrete, or as shown on the plans.
- 2. Neatly cut pavement after trench is backfilled to subgrade.

ADDITIONAL PAVEMENT REMOVAL: Remove additional pavement to a painted lane stripe. a lip of gutter, a curb, an existing pavement patch, or an edge of the pavement if such street feature is within 3 feet of the final saw cut.

Sheet 1 of 6

3. Full tack coat coverage on all vertical surfaces.

4. Relative compaction is designated RC.

CITY OF SANTA ROSA

STANDARD TRENCH DETAIL TRENCH BACKFILL AND SURFACING

SCALE: NONE DATE: April 2005 DWN: DIT SPROVED FILE NO.

CHK: MSS & FOR STD.- 215

Huffman Engineering

537 College Avenue., Suite A

www.huffmanengineering.ne

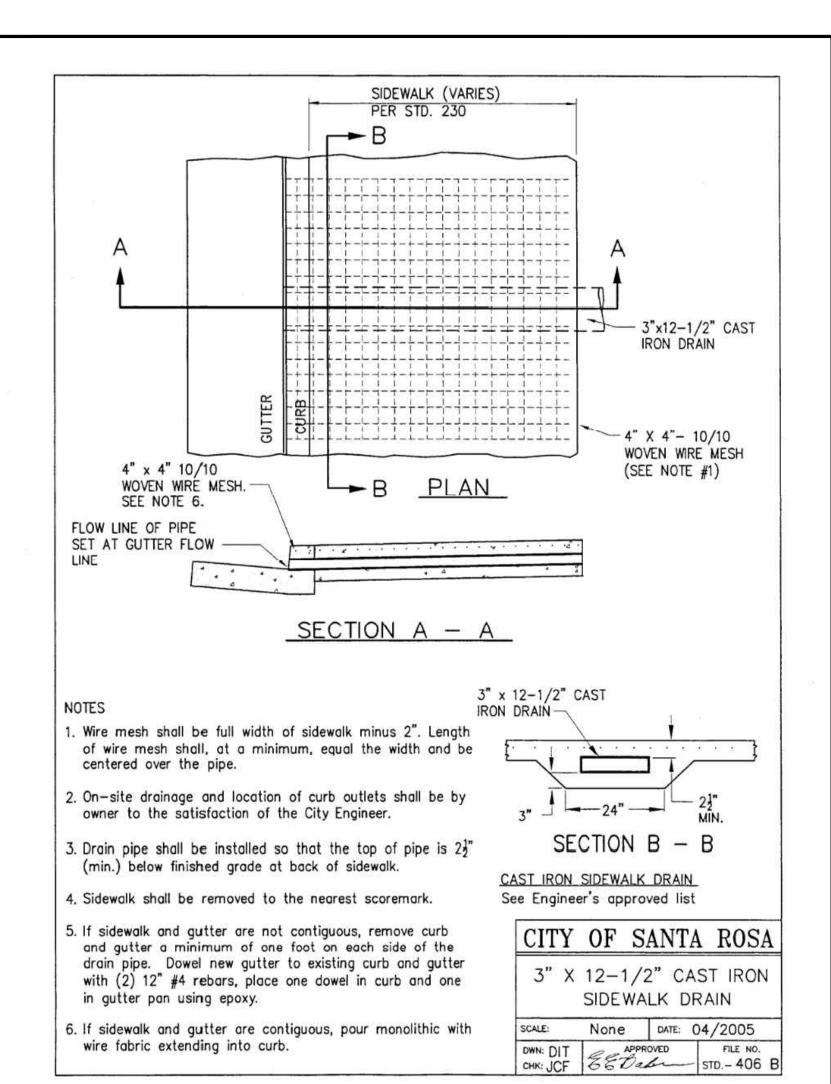
Santa Rosa, Ca. 95404

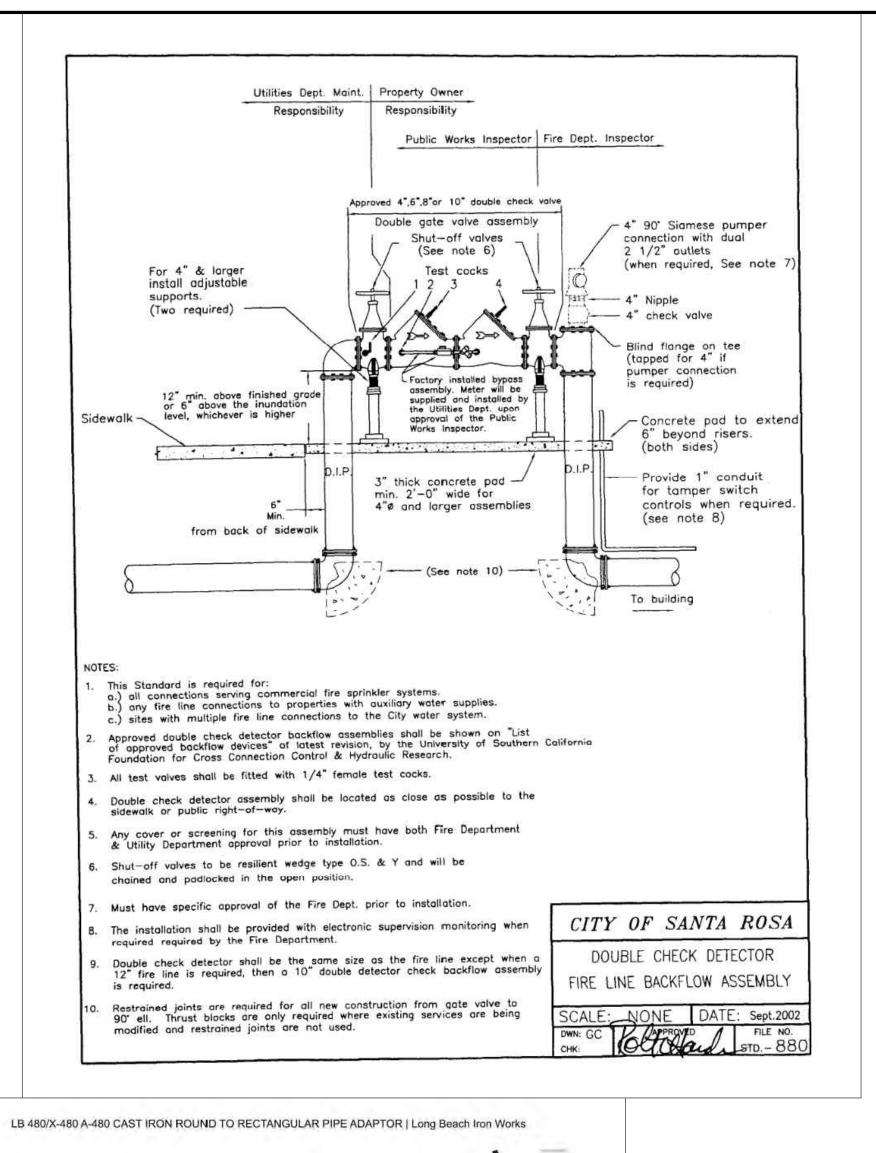
P:(707) 542-6559

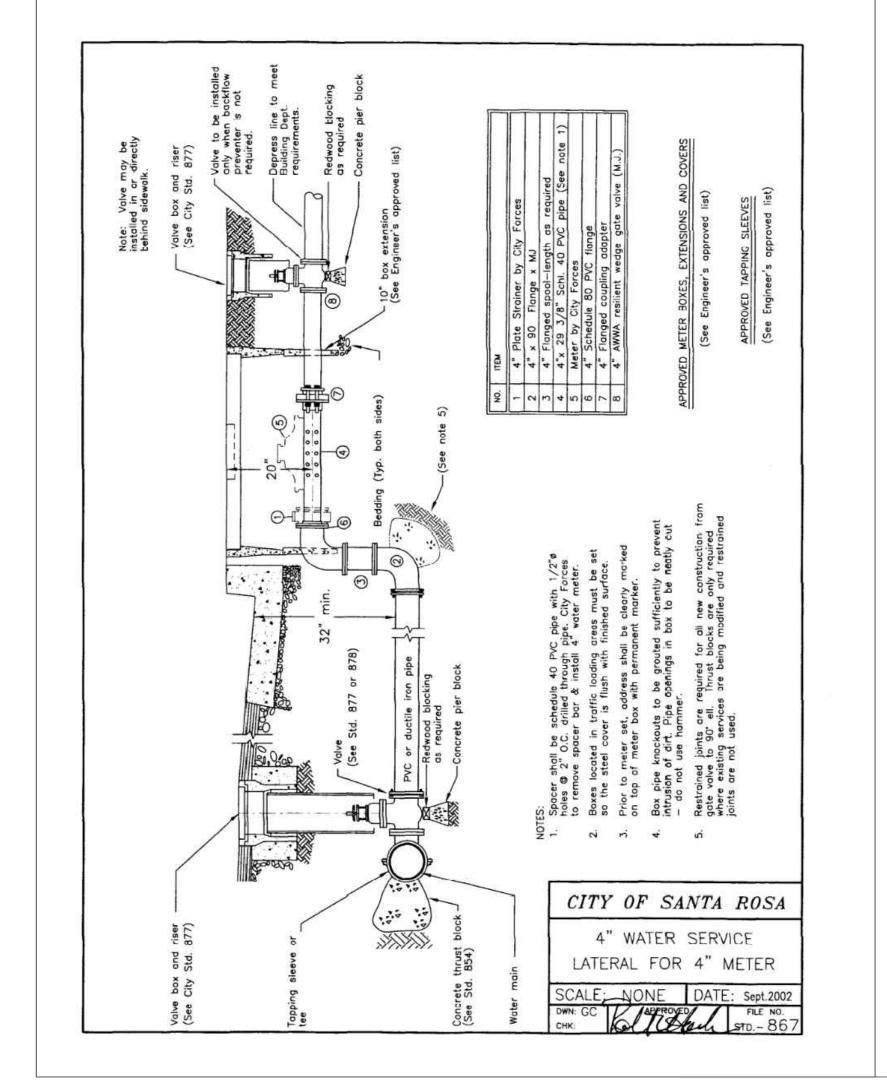
& Surveying

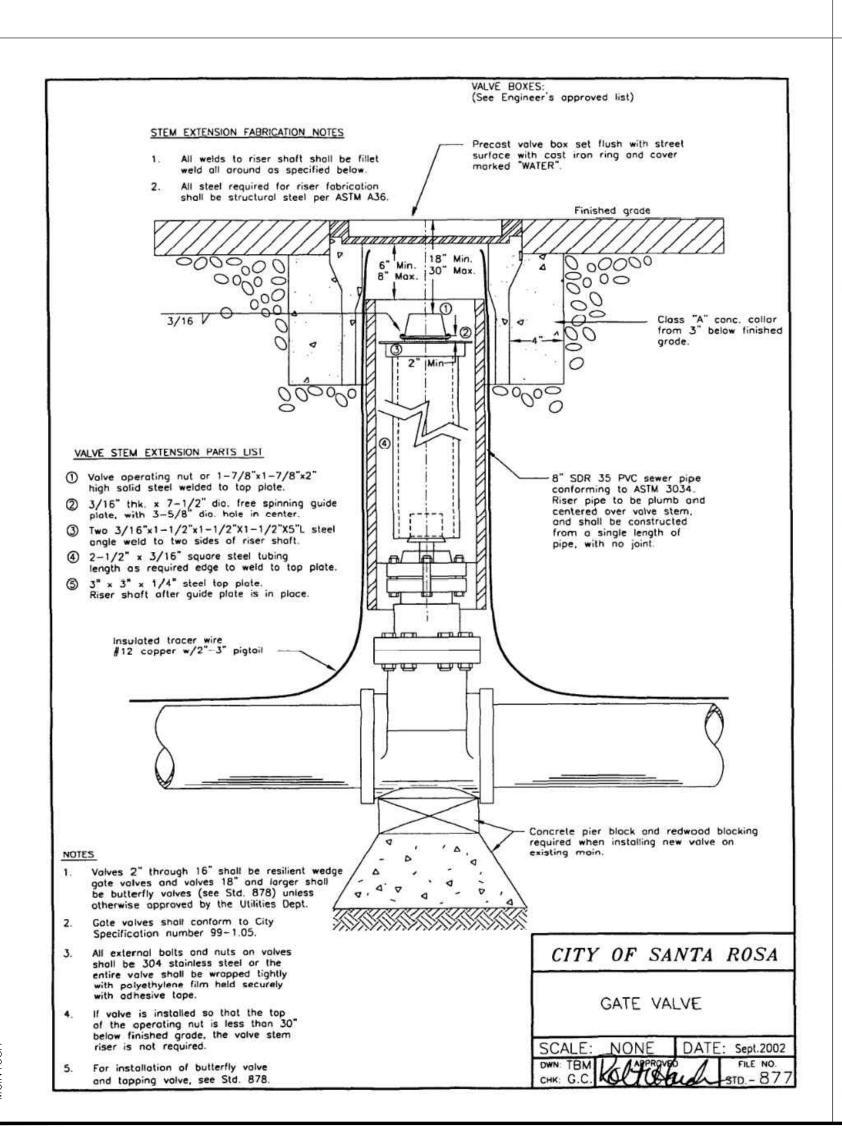
ate: 6/11/25 cale: 1'' = 10

Fil 25-001-IMP NPM 25-001







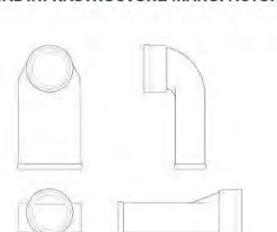


PLANS, IS IN INCH

Long Beach Iron Works CRITICAL INFRASTRUCTURE MANUFACTURING



3/26/25, 1:37 PM



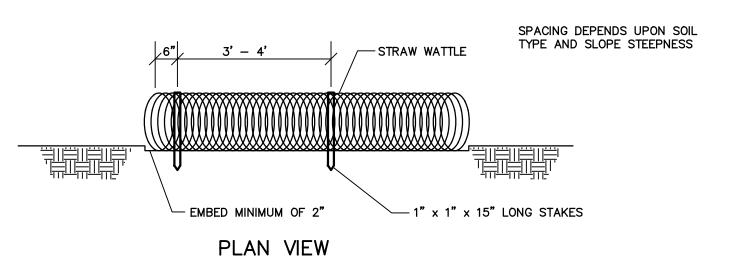
LB 480/X-480 A-480 CAST IRON ROUND TO RECTANGULAR PIPE ADAPTOR

ADAPTORS - ROUND TO RECTANGULAR PIPE FITTINGS (HORIZONTAL ONLY)

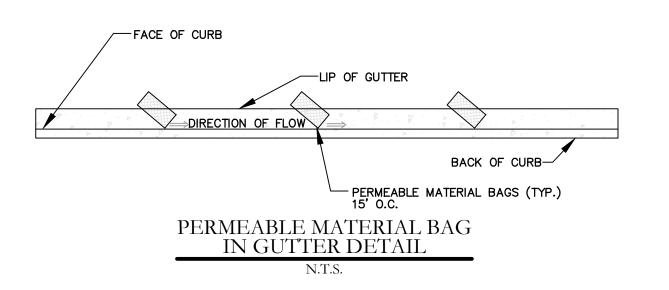
Cast gray iron fittings to transition from A-470 rectangular pipes to round pipe. All adaptors are flat (horizontal) and supplied with bell and spigot connections. Painted black with a water based coating.

Catalog	Round Pipe	Rectangular Pipe	Laying	Approximate
Number	Size	Size	Length	Weight
LB 480A	4"	3" x 5"	1'-0"	20 lbs
LB 480B	5"	3" x 9"	1'-0"	45 lbs
LB 480C	6"	3" x 12-1/2"	1'-0"	35 lbs
LB 480D	8"	4" x 14"	1'-0"	65 lbs

https://www.lbiw.com/products/area-drainage-castings/lb-480x-480-a-480-cast-iron-round-to-rectangular-pipe-adaptor



STRAW WATTLE INSTALLATION CROSS SECTION TYPICAL



Huffman Engineering & Surveying

537 College Avenue., Suite A Santa Rosa, Ca. 95404

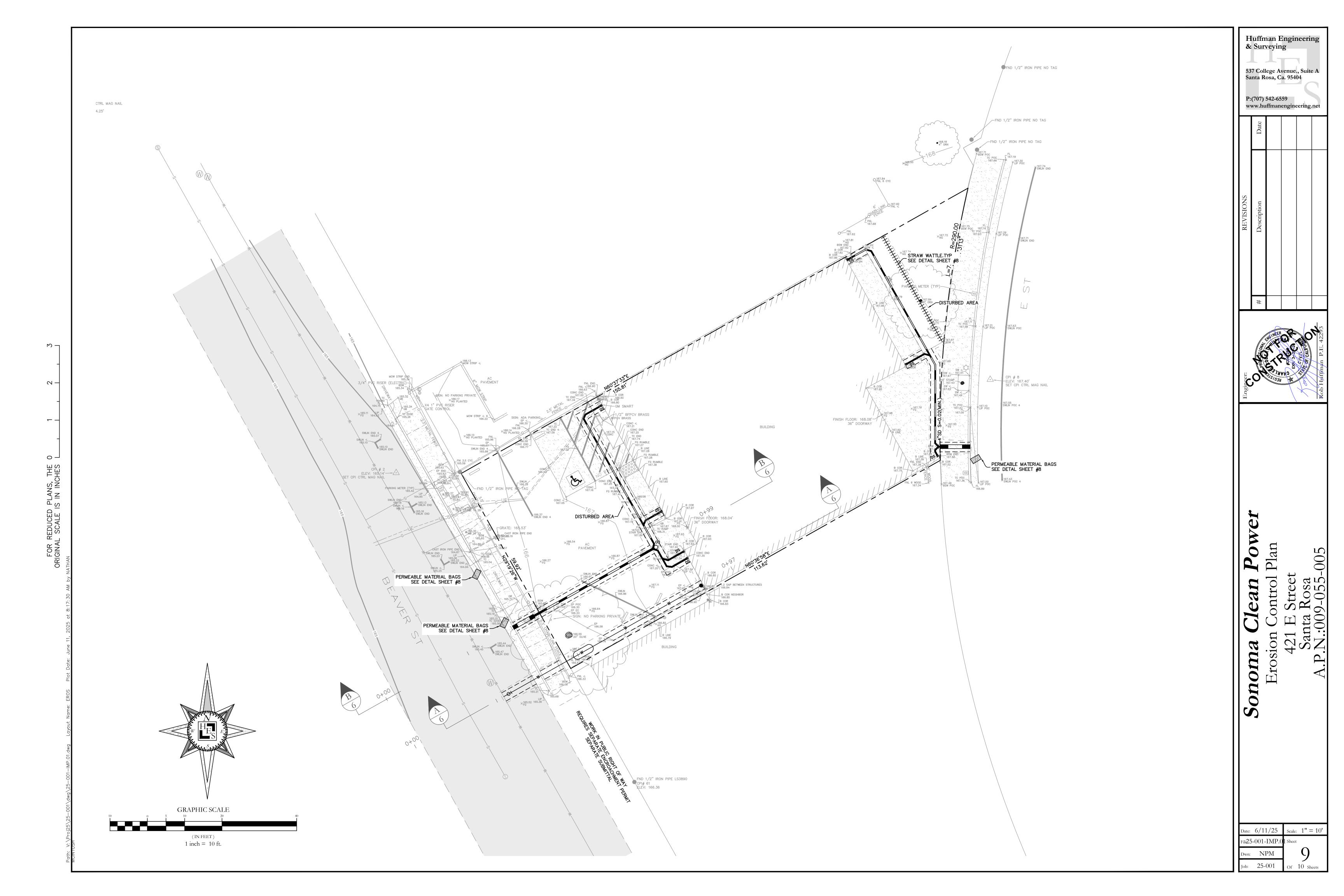
P:(707) 542-6559
www.huffmanengineering.net



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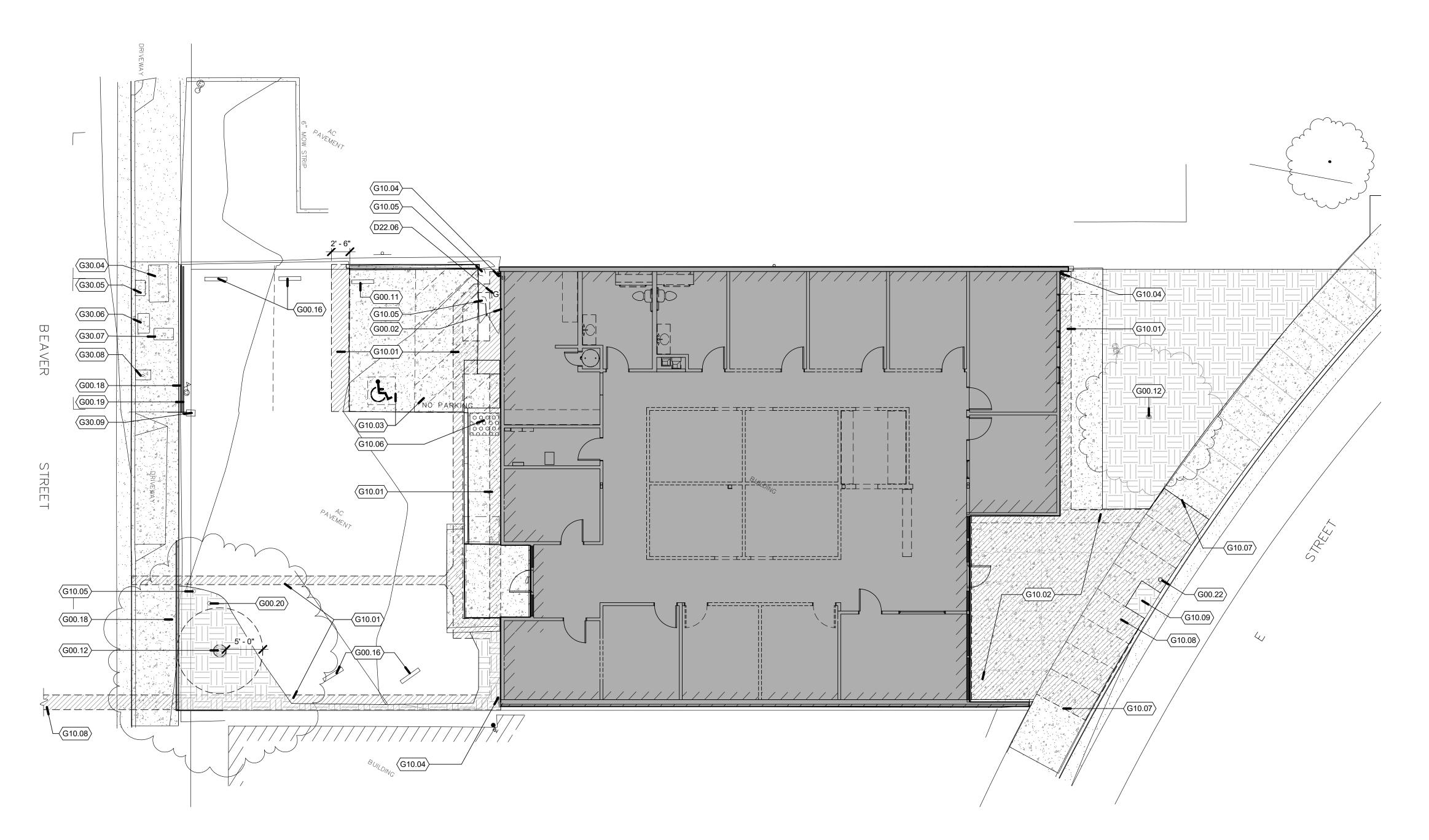


FOR REDUCED PLANS, THE GINAL SCALE IS IN INCHES

Huffman Engineering & Surveying 537 College Avenue., Suite A Santa Rosa, Ca. 95404 P:(707) 542-6559

Date: 6/11/25

Fil**25**-001-IMP.0



SITE PLAN - DEMOLITION A0.1 / 1/8" = 1'-0"





SITE PLAN GENERAL NOTES

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AWAY FROM BUILDINGS.

PLANTER AREAS.

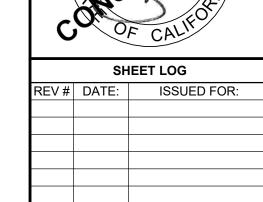
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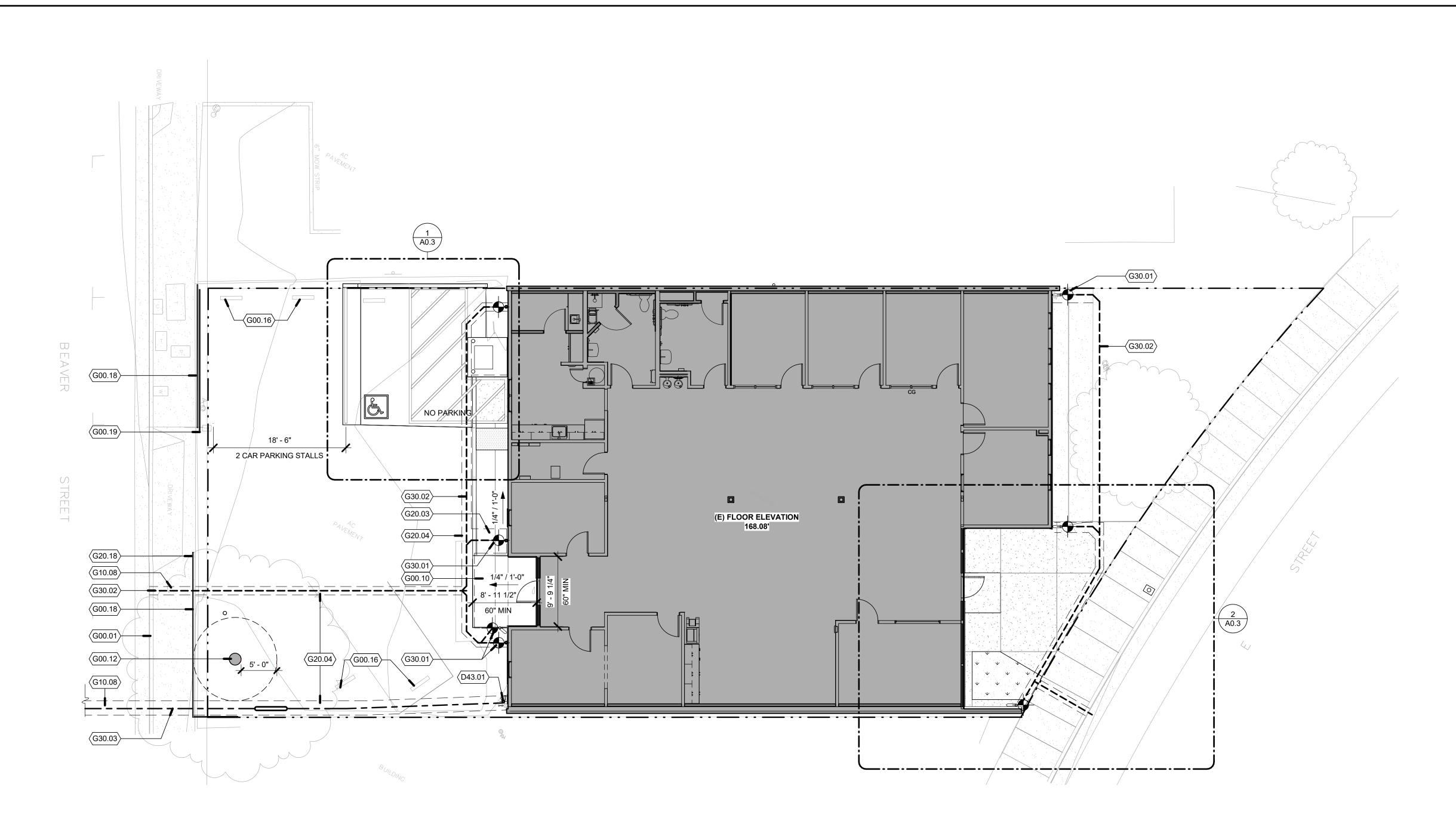
KEYNOTES

- D22.06 REMOVE EXISTING MAIN GAS LINE AND GAS METER, SPD G00.02 EXISTING BACKFLOW PREVENTER TO REMAIN
- G00.11 EXISTING CONCRETE WHEELSTOP TO BE REMOVED. STORE IN A A SECURE PLACE AND REINSTALL AFTER RE PAVING
- G00.12 EXISTING TREE TO REMAIN, PROTECT IN PLACE
- G00.16 EXISTING WHEELSTOP TO REMAIN
- G00.18 EXISTING CHAIN LINK FENCE TO REMAIN
- G00.19 EXISTING SLIDING GATE TO REMAIN G00.20 EXISTING TOW AWAY SIGN AND TOWING COMPANY
- INFORMATION, TO REMAIN G00.22 EXISTING STREET POLE TO REMAIN. CONTRACTOR TO PROTECT
- DURING CONSTRUCTION G10.01 SAWCUT EXISTING PAVING AS REQUIRED, SCD, SSD
- G10.02 REMOVE EXISTING CONCRETE PAVING
- G10.03 REMOVE EXISTING ACCESSIBLE PARKING MARKING PAINT G10.04 REMOVE EXISTING DOWNSPOUT
- G10.05 REMOVE EXISTING BOLLARD G10.06 REMOVE EXISTING TRUNCATED DOMES
- G10.07 SAWCUT AND DEMOLISH CONCRETE TO THE NEAREST EXISTING CONTROL JOINT LINE. CONTRACTOR TO VERIFY LOCATION IN
- G10.08 DEMOLITION WORK IN THE PUBLIC RIGHT OF WAY, SEE CIVIL,
- TRAFFIC CONTROL AND ENCROACHMENT DRAWINGS
- G10.09 PREPARE PLANTING STRIP TO RECEIVE NEW PAVEMENT
- G30.04 EXISTING TELEPHONE BOX, SCD G30.05 EXISTING CABLE TV BOX, SCD
- G30.06 EXISTING INTERNET BOX SONIC, SCD
- G30.07 EXISTING PG&E BOX, SCD
- G30.08 EXISTING WATER METER, SCD
- G30.09 EXISTING STORM DRAIN INLET, SCD



JOB NUMBER:

DEMOLITION SITE PLAN ORIGINAL DATE:









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KEYNOTES

D43.01 FIRE SPRINKLER RISER, SEE FIRE PROTECTION DRAWINGS G00.01 EXISTING CITY STREET CURB

G00.10 EXISTING CONCRETE LANDING TO REMAIN. SLOPE DOES NOT EXCEED 2% IN ANY DIRECTION AND SLOPES TO DRAIN, VIF G00.12 EXISTING TREE TO REMAIN, PROTECT IN PLACE

G00.16 EXISTING WHEELSTOP TO REMAIN G00.18 EXISTING 36" HEIGHT CHAIN LINK FENCE TO REMAIN

G00.19 EXISTING MANUALLY OPERATED ROLLING / SLIDING, 36" HEIGHT GATE, TO REMAIN G10.08 DEMOLITION WORK IN THE PUBLIC RIGHT OF WAY, SEE CIVIL,

TRAFFIC CONTROL AND ENCROACHMENT DRAWINGS G20.03 PATCH CONCRETE TO MATCH ADJACENT FINISH AND SLOPE G20.04 PATCH AC TO MATCH ADJACENT FINISH AND SLOPE, SCD G20.18 PROVIDE FIRE DEPARTMENT APPROVED KNOX PADLOCK OR KNOX

BOX ON STREET SIDE OF FENCE G30.01 CONNECT DOWNSPOUT TO SITE STORM WATER SYSTEM, BELOW GRADE, SCD

G30.02 STORMWATER TRANSMISSION LINE, PROVIDE CLEANOUTS AS REQUIRED, BELOW GRADE/ PAVEMENT, DAYLIGHT AT STREET CURB,

G30.03 FIRE SPRINKLER SYSTEM WATER SUPPLY, CONNECT TO WATER MAIN AT BEAVER STREET, SEE FIRE PROTECTION DRAWINGS, SCD

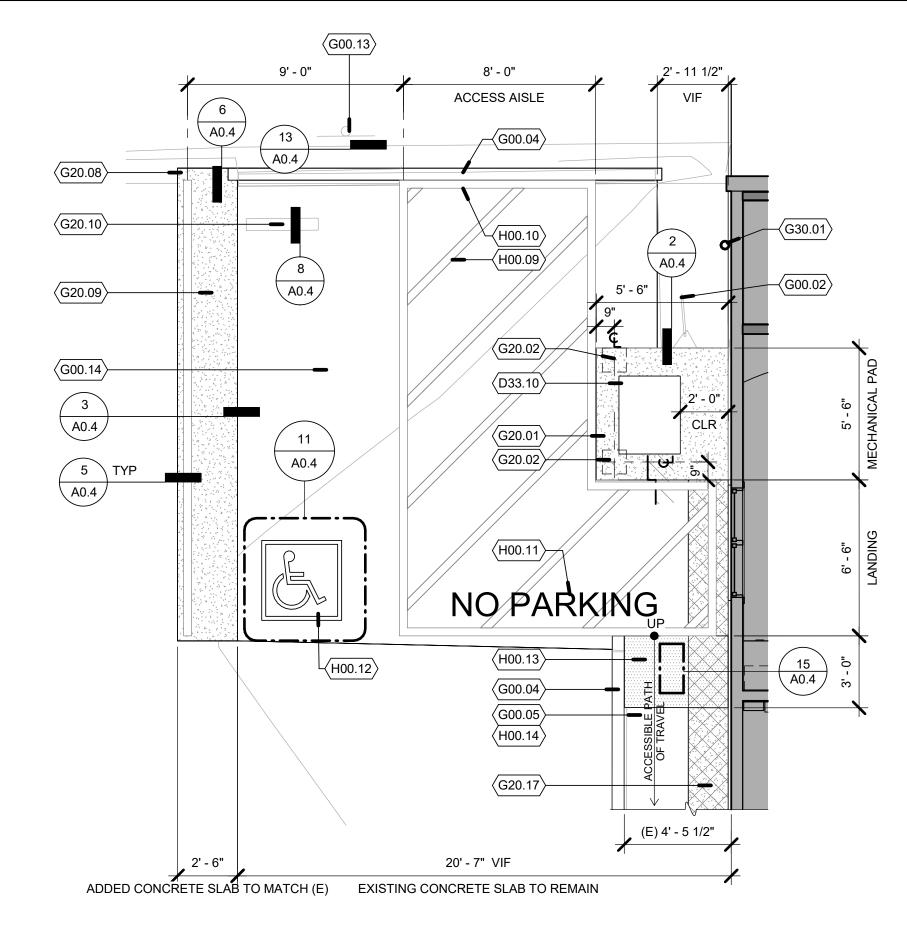


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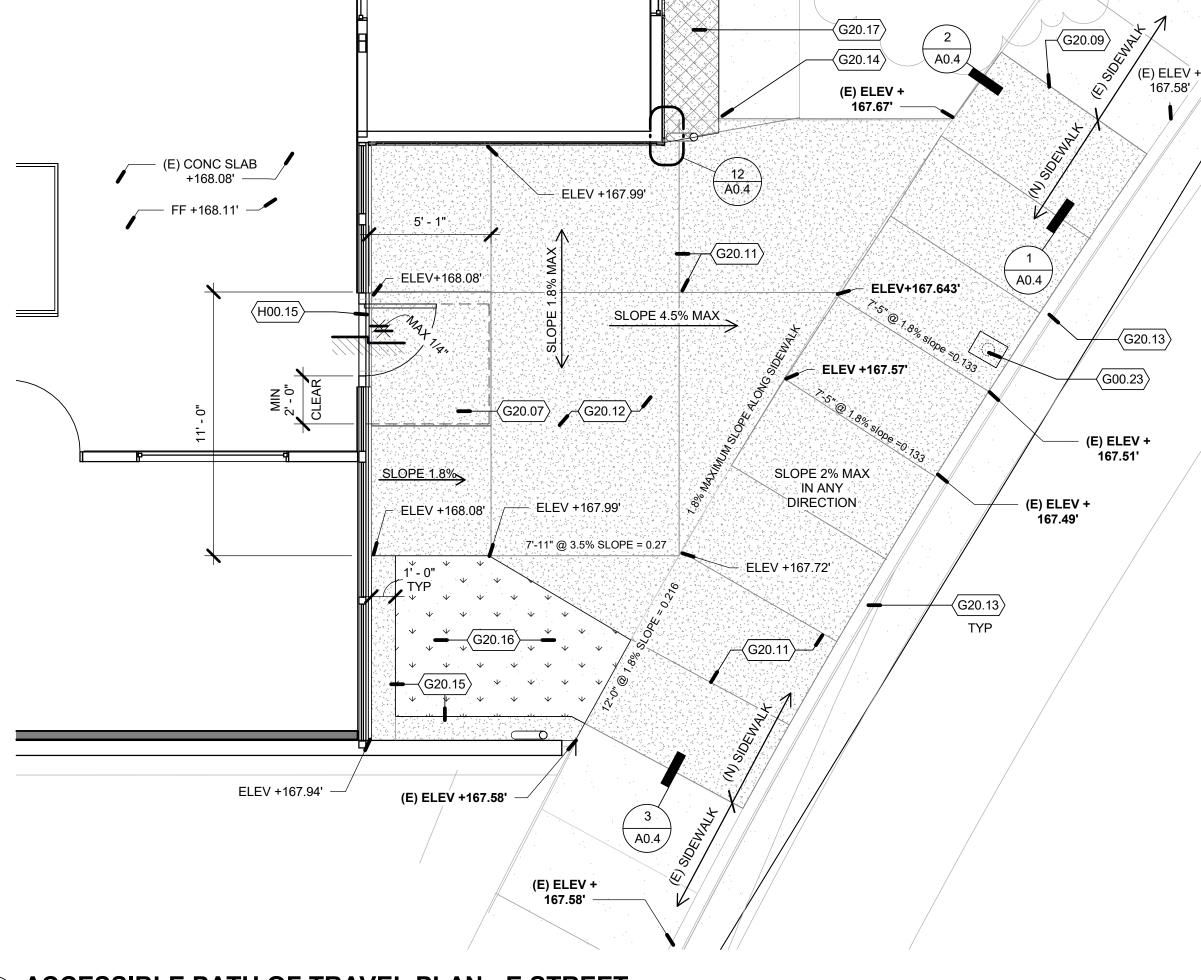
JOB NUMBER:

ORIGINAL DATE: © AXIA ARCHITECTS

SITE PLAN



VAN ACCESSIBLE PARKING A0.3 / 1/4" = 1'-0"



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KEYNOTES

D33.10 HVAC VARIABLE REFRIGERANT FLOW UNIT, SMD, SED

G00.02 EXISTING BACKFLOW PREVENTER TO REMAIN

G00.04 G00.05	EXISTING CONCRETE CURB TO REMAIN EXISTING CONCRETE ACCESSIBLE PATH OF TRAVEL TO REMAIN. SLOPE DOES NOT EXCEED 5% IN ANY DIRECTIONS, VIF	V	*(0)	2 × Z × S S S S S S S S S
G00.13	EXISTING VAN ACCESSIBLE IDENTIFICATION SIGN TO REMAIN OR BE RE-USED, VERIFY CODE COMPLIANCE OF SIGN, RELOCATE AS NECESSARY TO RE-CENTER SIGN TO WIDTH OF RELOCATED PARKING SPACE	C	OF O	F CALIFOR
G00.14	EXISTING CONCRETE PARKING PAVING TO REMAIN. EXISTING SLAB IS 2% MAXIMUM IN ANY DIRECTION		SH	IEET LOG
G00 23	STREET LIGHT	REV#	DATE:	ISSUED FOR:

	IS 2% MAXIMUM IN ANY DIRECTION
G00.23	STREET LIGHT
G20.01	CONCRETE MECHANICAL PAD, RAISED 4" ABOVE GRADE. MAINTAIN 24" CLEARANCE
G20 02	STEEL BOLLARD

- G20.07 CONCRETE LANDING, NO SLOPE EXCEEDING 1.8% IN ANY DIRECTION G20.08 CONCRETE CURB TO MATCH EXISTING G20.09 CONCRETE SIDEWALK TO MATCH EXISTING. CONFORM TO EXISTING ELEVATIONS AND MAINTAIN MAX SLOPE 4.5% MAX IN THE DIRECTION
- OF TRAVEL AND 1.8% MAX CROSS SLOPE G20.10 RE-INSTALLED CONCRETE WHEELSTOP G20.11 CONTROL JOINT, TYP
- G20.12 CONCRETE PAVING, BROOM FINISH, NO SLOPE EXCEEDING 4.5% IN DIRECTION OF TRAVEL G20.13 CONFORM NEW SIDEWALK PAVING TO EXISTING CURB ELEVATION,
- G20.14 CONFORM TO EXISTING ELEVATION
- G20.15 CONCRETE MAINTENANCE STRIP G20.16 WOOD MULCH, MATCH EXISTING MULCH ON SITE G20.17 CROSSHATCH PATTERN REPRESENTS NEW PAVEMENT RELATED TO
- FOOTING UPGRADES, SSD. MATCH EXISTING CONCRETE AND GRADE **ELEVATIONS** G30.01 CONNECT DOWNSPOUT TO SITE STORM WATER SYSTEM, BELOW GRADE, SCD
- H00.09 4" STRIPES @36" ON CENTER. PAINT A COLOR CONTRASTING WITH THE PARKING SURFACE, PREFERABLY BLUE OR WHITE
- H00.10 BLUE PAINTED BORDERLINE AROUND ACCESS AISLE PAINTED WORDS 'NO PARKING' WITH LETTERS 12" IN HEIGHT
- H00.12 36"X36" INTERNATIONAL SIGN OF ACCESSIBILITY H00.13 FEDERAL YELLOW DETECTIBLE WARNINGS PER CBC 11B-705.1
- H00.14 SLOPE IS 2% MAXIMUM IN ANY DIRECTION H00.15 THRESHOLD WITH BEVELED EDGE PER 11-303.3

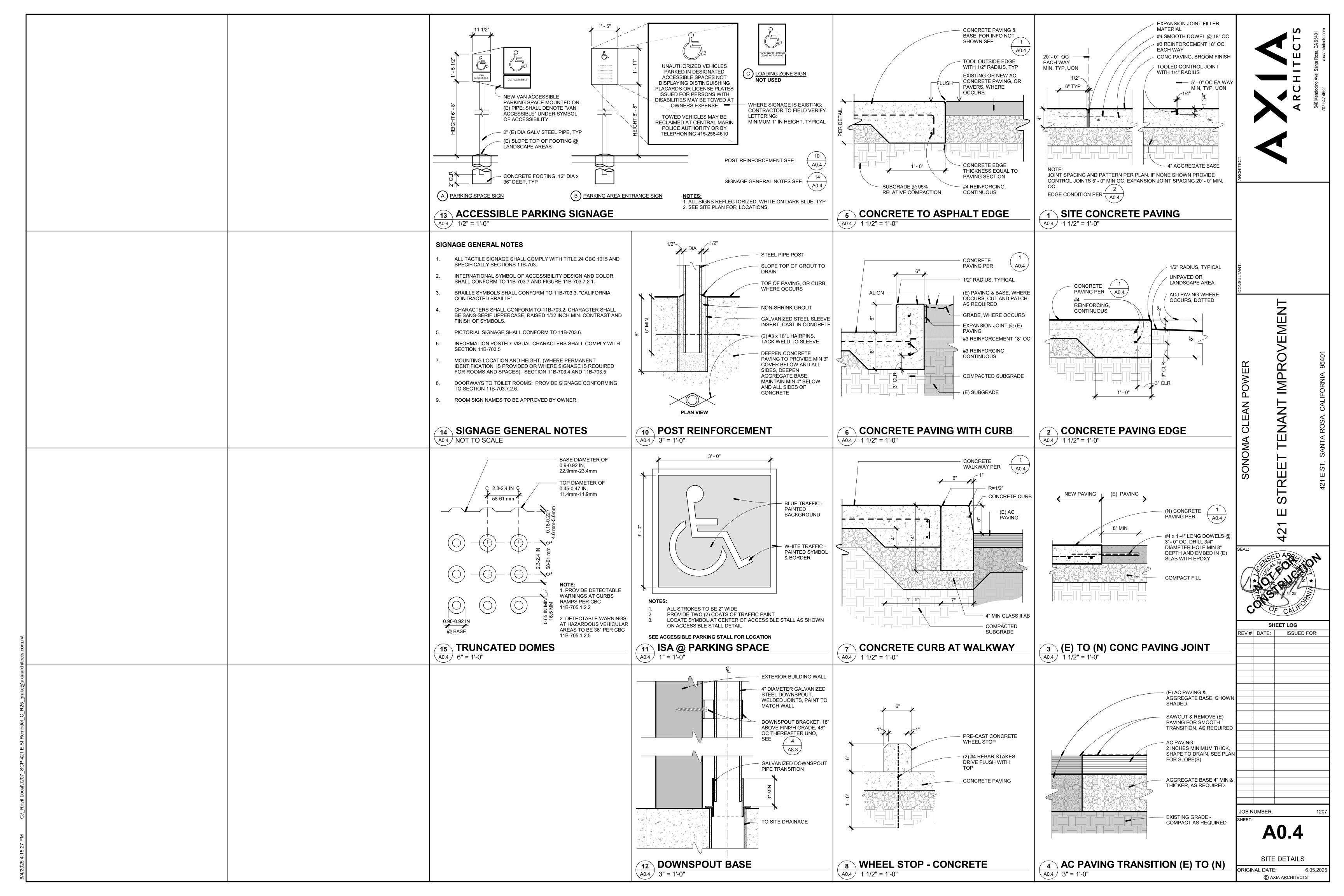
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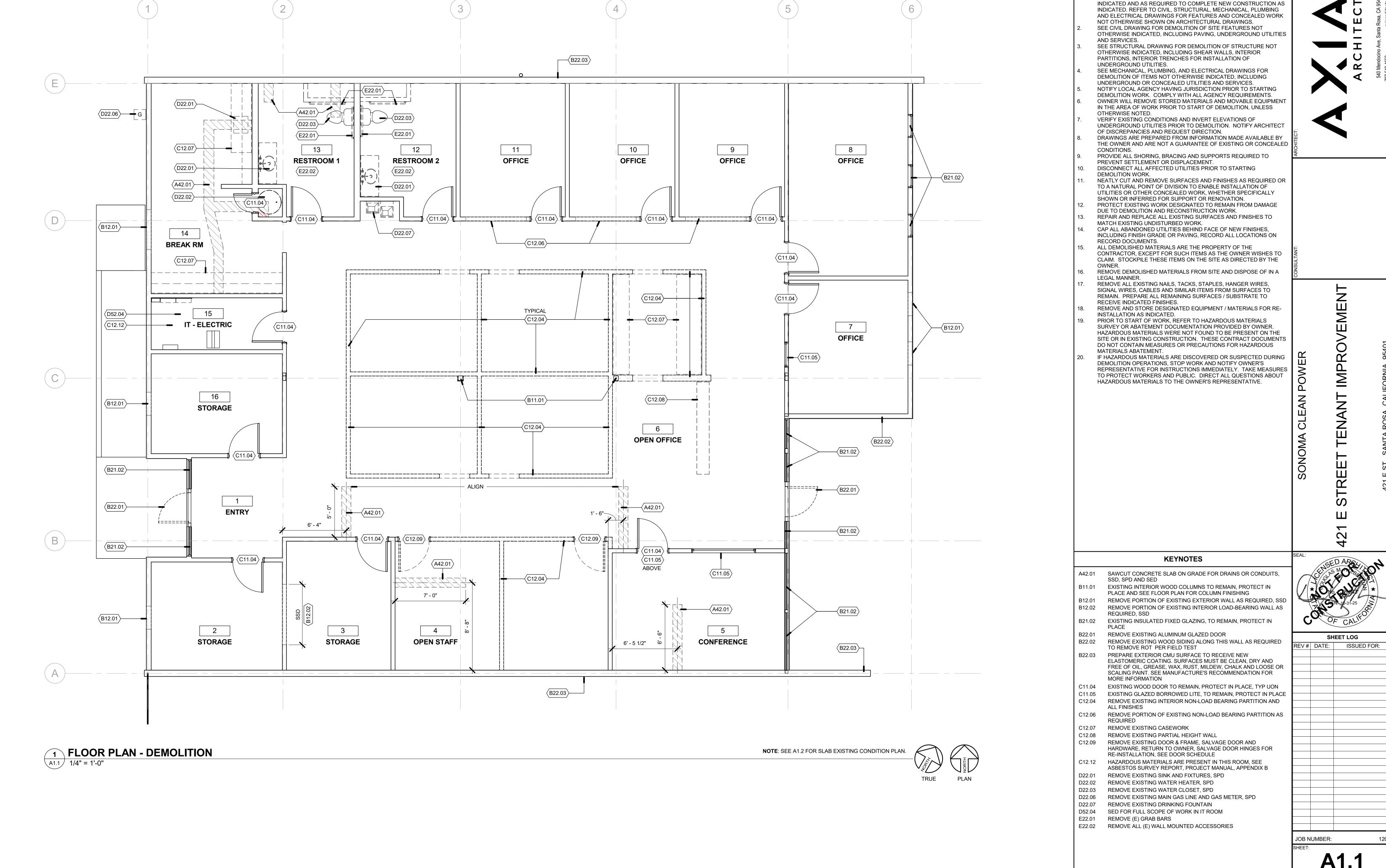
ENLARGED SITE PLAN © AXIA ARCHITECTS

ACCESSIBLE PATH OF TRAVEL PLAN - E STREET

A0.3 1/4" = 1'-0"

ORIGINAL DATE:



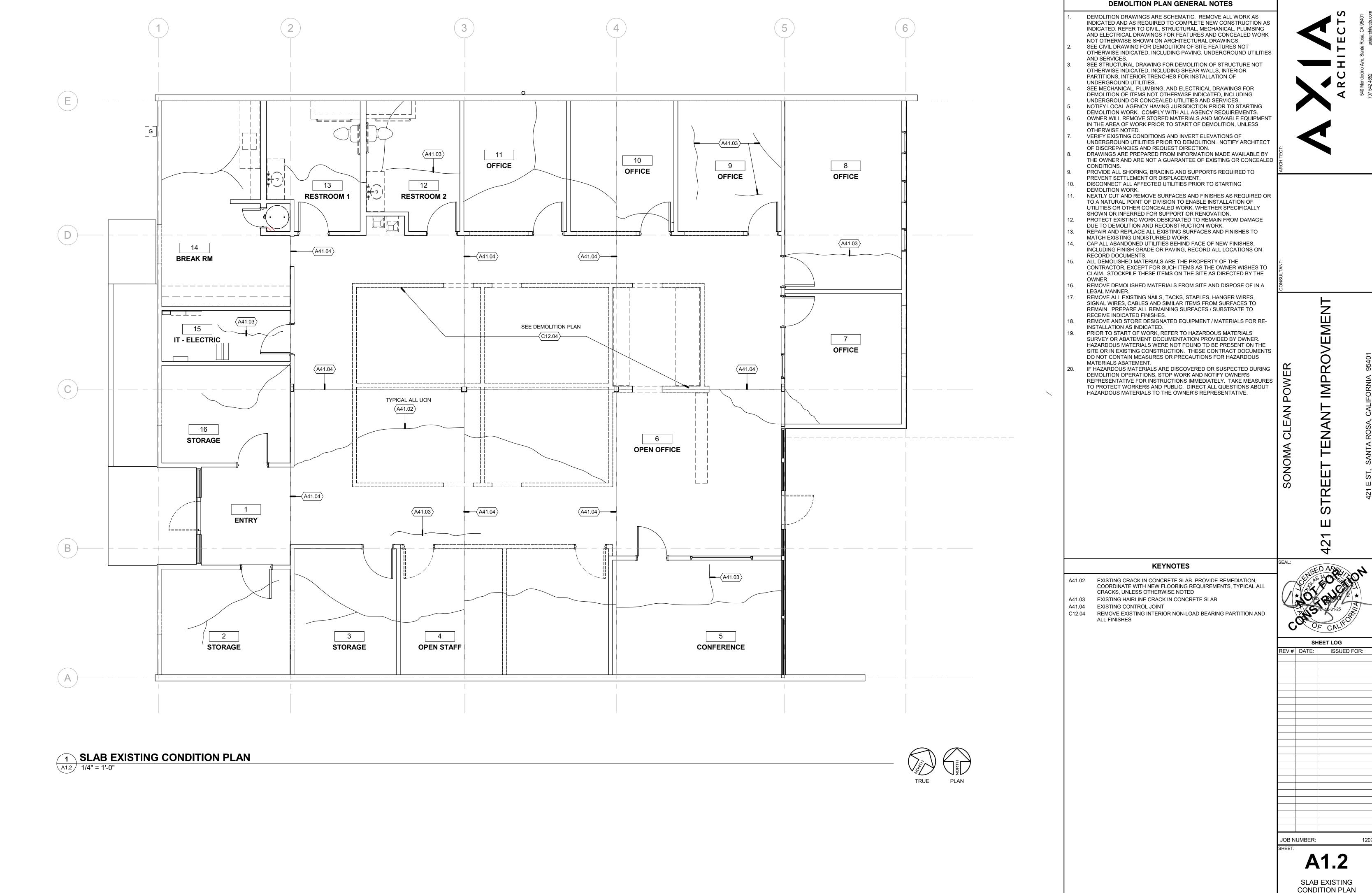


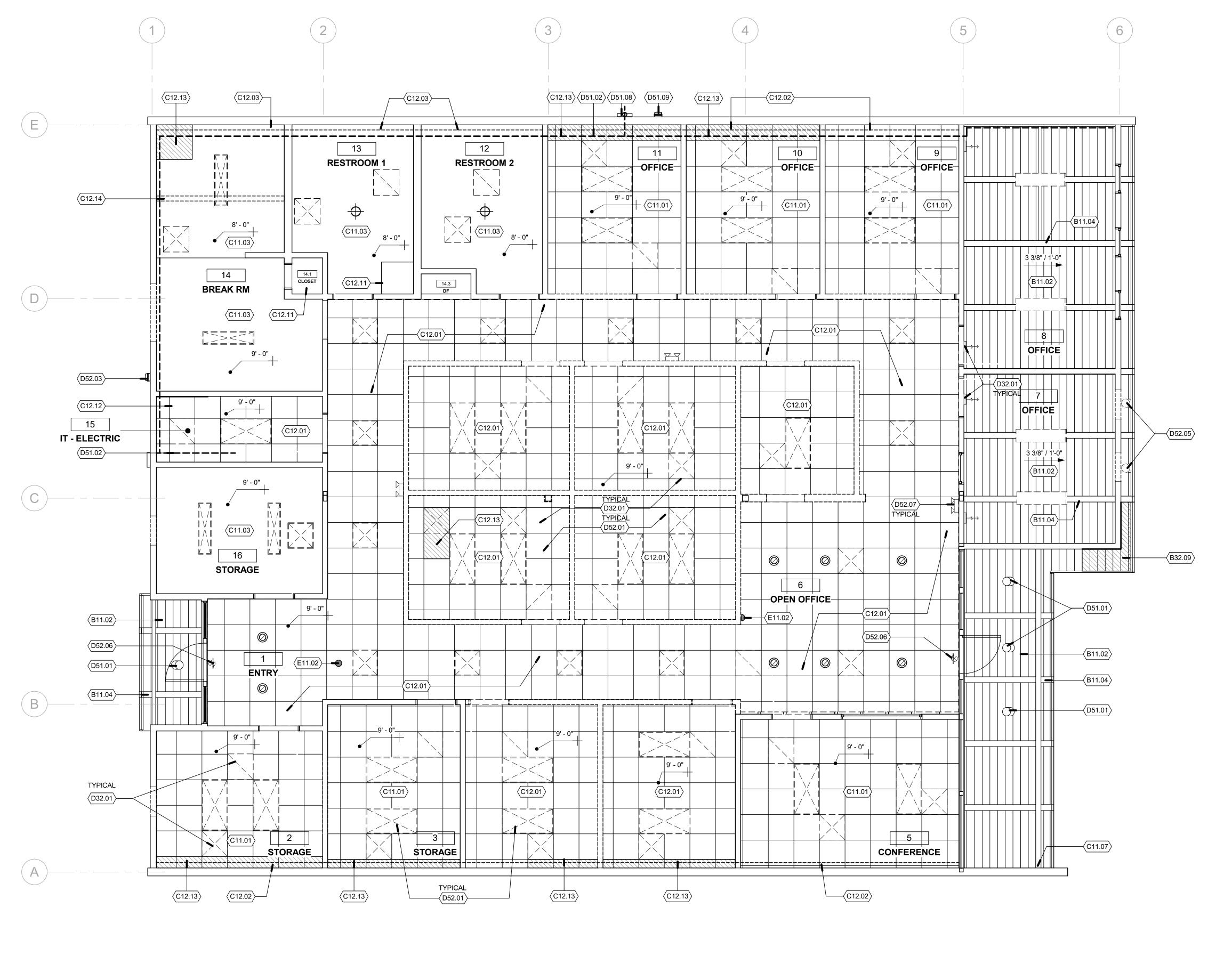
DEMOLITION PLAN GENERAL NOTES

DEMOLITION DRAWINGS ARE SCHEMATIC. REMOVE ALL WORK AS

DEMOLITION - FLOOR PLAN

ORIGINAL DATE: © AXIA ARCHITECTS





REFLECTED CEILING PLAN - DEMOLITION A1.3 1/4" = 1'-0"





DEMOLITION PLAN GENERAL NOTES DEMOLITION DRAWINGS ARE SCHEMATIC. REMOVE ALL WORK AS INDICATED AND AS REQUIRED TO COMPLETE NEW CONSTRUCTION AS

- INDICATED. REFER TO CIVIL, STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR FEATURES AND CONCEALED WORK NOT OTHERWISE SHOWN ON ARCHITECTURAL DRAWINGS. SEE CIVIL DRAWING FOR DEMOLITION OF SITE FEATURES NOT OTHERWISE INDICATED, INCLUDING PAVING, UNDERGROUND UTILITIES
- SEE STRUCTURAL DRAWING FOR DEMOLITION OF STRUCTURE NOT
- OTHERWISE INDICATED, INCLUDING SHEAR WALLS, INTERIOR PARTITIONS, INTERIOR TRENCHES FOR INSTALLATION OF UNDERGROUND UTILITIES.
 - SEE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DEMOLITION OF ITEMS NOT OTHERWISE INDICATED, INCLUDING UNDERGROUND OR CONCEALED UTILITIES AND SERVICES. NOTIFY LOCAL AGENCY HAVING JURISDICTION PRIOR TO STARTING
- DEMOLITION WORK. COMPLY WITH ALL AGENCY REQUIREMENTS. OWNER WILL REMOVE STORED MATERIALS AND MOVABLE EQUIPMENT IN THE AREA OF WORK PRIOR TO START OF DEMOLITION, UNLESS OTHERWISE NOTED.

VERIFY EXISTING CONDITIONS AND INVERT ELEVATIONS OF

- UNDERGROUND UTILITIES PRIOR TO DEMOLITION. NOTIFY ARCHITECT OF DISCREPANCIES AND REQUEST DIRECTION. DRAWINGS ARE PREPARED FROM INFORMATION MADE AVAILABLE BY THE OWNER AND ARE NOT A GUARANTEE OF EXISTING OR CONCEALED CONDITIONS.
- PROVIDE ALL SHORING, BRACING AND SUPPORTS REQUIRED TO PREVENT SETTLEMENT OR DISPLACEMENT. DISCONNECT ALL AFFECTED UTILITIES PRIOR TO STARTING DEMOLITION WORK.
- NEATLY CUT AND REMOVE SURFACES AND FINISHES AS REQUIRED OR TO A NATURAL POINT OF DIVISION TO ENABLE INSTALLATION OF UTILITIES OR OTHER CONCEALED WORK, WHETHER SPECIFICALLY SHOWN OR INFERRED FOR SUPPORT OR RENOVATION.
- PROTECT EXISTING WORK DESIGNATED TO REMAIN FROM DAMAGE DUE TO DEMOLITION AND RECONSTRUCTION WORK. REPAIR AND REPLACE ALL EXISTING SURFACES AND FINISHES TO
- MATCH EXISTING UNDISTURBED WORK. CAP ALL ABANDONED UTILITIES BEHIND FACE OF NEW FINISHES, INCLUDING FINISH GRADE OR PAVING, RECORD ALL LOCATIONS ON RECORD DOCUMENTS.
- ALL DEMOLISHED MATERIALS ARE THE PROPERTY OF THE CONTRACTOR, EXCEPT FOR SUCH ITEMS AS THE OWNER WISHES TO CLAIM. STOCKPILE THESE ITEMS ON THE SITE AS DIRECTED BY THE
- REMOVE DEMOLISHED MATERIALS FROM SITE AND DISPOSE OF IN A LEGAL MANNER. REMOVE ALL EXISTING NAILS, TACKS, STAPLES, HANGER WIRES,
- SIGNAL WIRES, CABLES AND SIMILAR ITEMS FROM SURFACES TO REMAIN. PREPARE ALL REMAINING SURFACES / SUBSTRATE TO RECEIVE INDICATED FINISHES.
- REMOVE AND STORE DESIGNATED EQUIPMENT / MATERIALS FOR RE-INSTALLATION AS INDICATED.
- PRIOR TO START OF WORK, REFER TO HAZARDOUS MATERIALS SURVEY OR ABATEMENT DOCUMENTATION PROVIDED BY OWNER. HAZARDOUS MATERIALS WERE NOT FOUND TO BE PRESENT ON THE SITE OR IN EXISTING CONSTRUCTION. THESE CONTRACT DOCUMENTS DO NOT CONTAIN MEASURES OR PRECAUTIONS FOR HAZARDOUS MATERIALS ABATEMENT.
- IF HAZARDOUS MATERIALS ARE DISCOVERED OR SUSPECTED DURING DEMOLITION OPERATIONS, STOP WORK AND NOTIFY OWNER'S REPRESENTATIVE FOR INSTRUCTIONS IMMEDIATELY. TAKE MEASURES
 TO PROTECT WORKERS AND PUBLIC. DIRECT ALL QUESTIONS ABOUT HAZARDOUS MATERIALS TO THE OWNER'S REPRESENTATIVE.

KEYNOTES

EXISTING WOOD TIMBER ROOF BEAMS TO REMAIN B32.09 REMOVE PORTION OF EXISTING T&G BOARDS WITH DRYROT/

SCHEDULE FOR NEW PAINT INFORMATION

FLOOR PLAN & RCP FOR NEW WORK

C12.11 REMOVE PORTION OF CEILING AS REQUIRED

SURVEY REPORT, PROJECT MANUAL, APPENDIX C

ACOUSTIC TILES AND ALL SUPPORTING WIRES

PROTECT IN PLACE

D32.01

EXISTING TONGUE & GROOVE WOOD PLANK DECK TO REMAIN

FOR THE ISSUING OF CLEARANCE BY REQUIRED INSPECTION

EXISTING SUSPENDED 2X4 CEILING GRID SYSTEM TO REMAIN,

EXISTING GYPSUM BOARD CEILING TO REMAIN. SEE ROOM

REMOVE EXISTING COMPLETE SUSPENDED CEILING GRID,

MODIFY EXISTING SUSPENDED CEILING GRID & REMOVE (E)

REQUIRED, SEE FLOOR PLAN & RCP FOR NEW WORK

FUNGUS DAMAGE. PREPARE TO RECEIVE NEW BOARDS TO MATCH EXISTING. CONTRACTOR TO PROVIDE DOCUMENTATION REQUIRED

HAZARDOUS MATERIALS ARE PRESENT IN THIS LOCATION, SEE LEAD

ACOUSTIC TILE AS REQUIRED ALONG EXISTING BLOCK WALL, SEE

REMOVE EXISTING GYPSUM BOARD CEILING ALONG BLOCK WALL AS

SHEET LOG

REV # DATE: ISSUED FOR:

C12.12 HAZARDOUS MATERIALS ARE PRESENT IN THIS ROOM. SEE ASBESTOS SURVEY REPORT, PROJECT MANUAL, APPENDIX B C12.13 AREA WITH VISIBLE WATER STAINING SHOWN HATCHED, CONTRACTOR TO VERIFY SCOPE C12.14 REMOVE PORTION OF GYPSUM CEILING TO ALLOW FOR NEW STUD WALL CONSTRUCTION REMOVE EXISTING HVAC GRILLE, TYPICAL ALL EXISTING GRILLES,

EXISTING EXTERIOR CEILING MOUNTED LIGHT FIXTURE TO REMAIN. REPLACE THE LAMP AND PROVIDE NEW PHOTOCONTROL OR ASTRONOMICAL TIMECLOCK TO SET TO DUSK TO DAWN, SED D51.02 EXISTING 2" CONDUIT WITH FIBER OPTIC CABLE TO REMAIN. VIF EXISTING ENTRANCE POINT OF FIBER OPTIC CABLE CONNECTION TO

THE MAIN BUILDING TO REMAIN D51.09 EXISTING WALL MOUNTED FIXTURE TO REMAIN

REMOVE ALL EXISTING INTERIOR G LIGHTING FIXTURES, TYPICAL

REMOVE EXISTING WALL MOUNTED EXTERIOR LIGHT FIXTURE, SED REMOVE EXISTING CEILING MOUNTED EXTERIOR LIGHT FIXTURE, D52.05

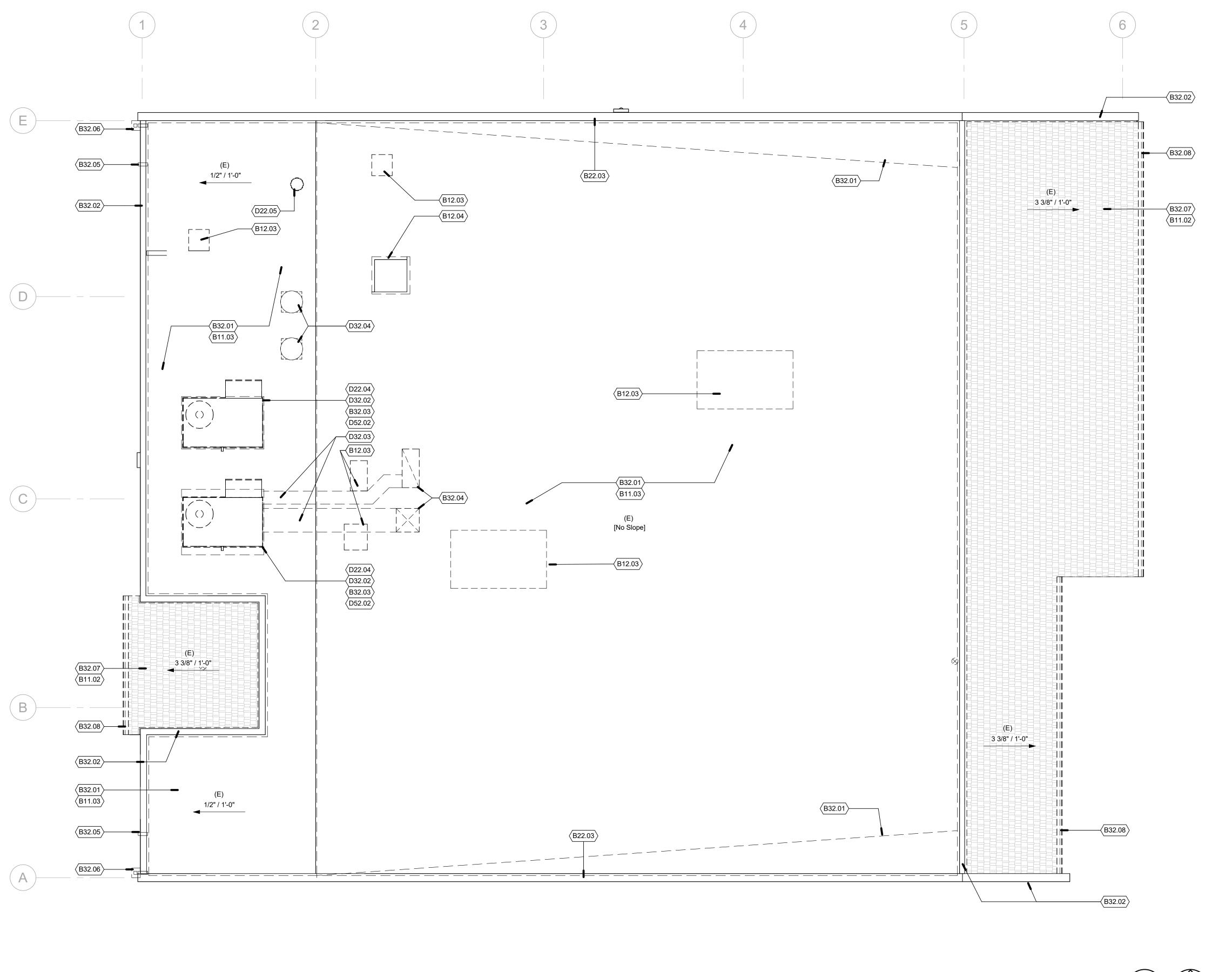
D52.06 REMOVE EXISTING EMERGENCY LIGHT/ EXIT SIGN COMBO, SED D52.07 REMOVE EXISTING EMERGENCY LIGHT EXISTING SECURITY CAMERA TO BE REMOVED AND SALVAGED FOR REINSTALLATION

DEMOLITION - REFLECTED

JOB NUMBER:

ORIGINAL DATE: © AXIA ARCHITECTS

CEILING PLAN



1 ROOF PLAN - DEMOLITION
A1.4 1/4" = 1'-0"



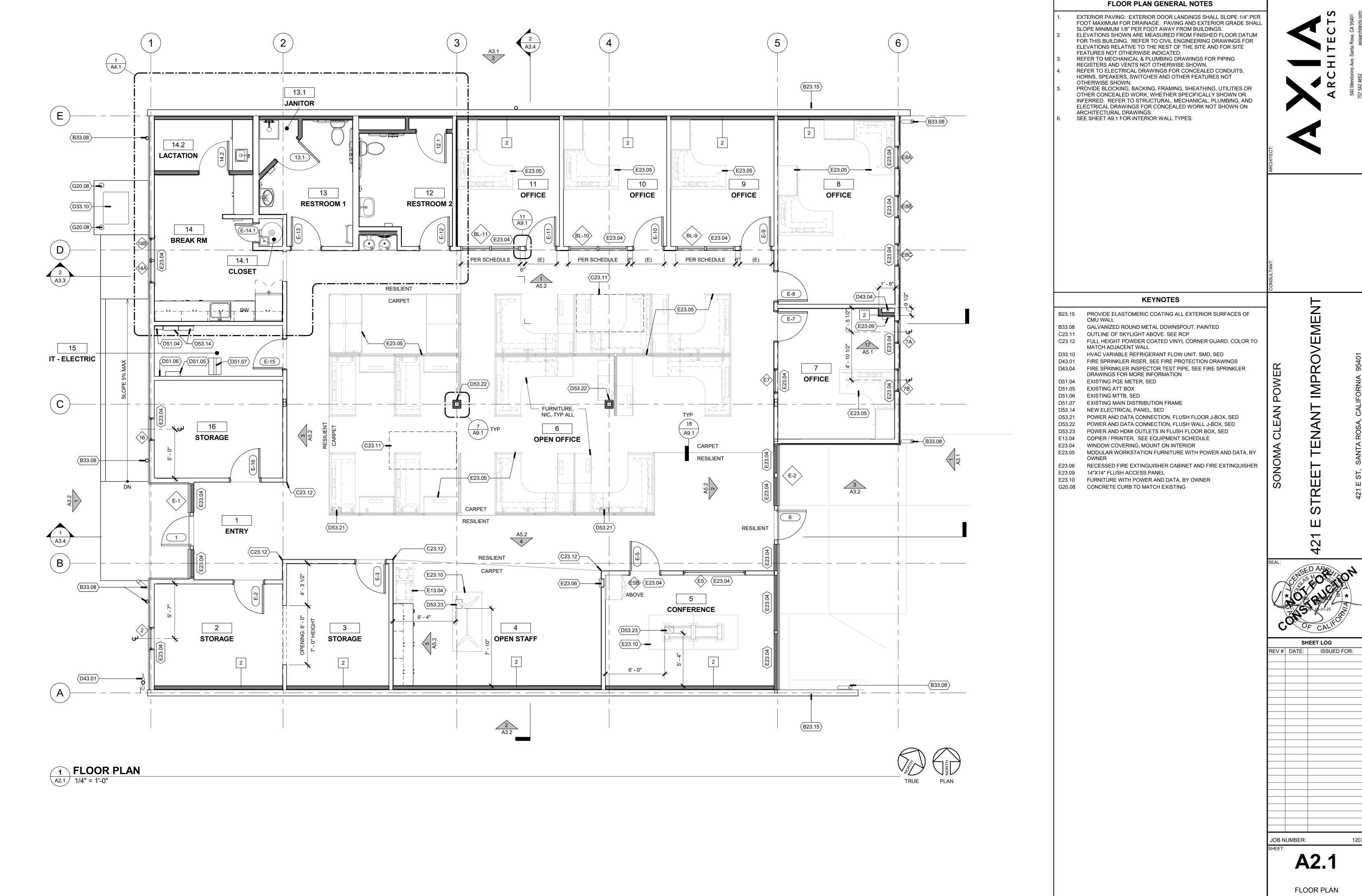


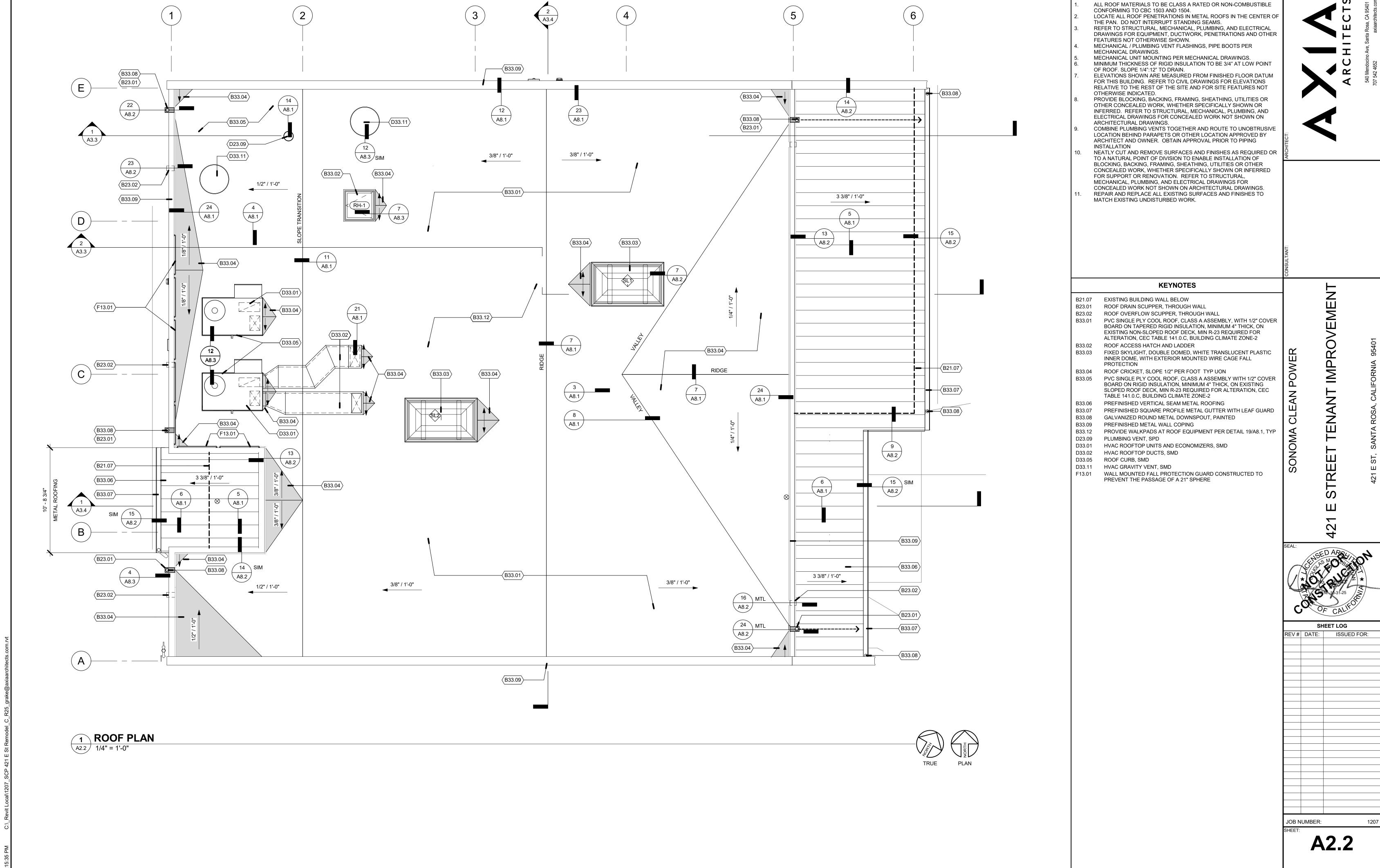
		1		
	DEMOLITION PLAN GENERAL NOTES DEMOLITION DRAWINGS ARE SCHEMATIC. REMOVE ALL WORK AS INDICATED AND AS REQUIRED TO COMPLETE NEW CONSTRUCTION AS INDICATED. AND AS REQUIRED TO COMPLETE NEW CONSTRUCTION AS INDICATED. AND AS REQUIRED TO COMPLETE NEW CONSTRUCTION AS INDICATED. AND AS REQUIRED TO COMPLETE NEW CONSTRUCTION AS INDICATED, LONG THE PROVINCE NOT OTHERWISE SHOWN ON ARCHITECTURAL DRAWINGS. SEE CIVIL DRAWING FOR DEMOLITION OF SITE FEATURES NOT OTHERWISE INDICATED, INCLUDING PAVING, UNDERGROUND UTILITIES AND SERVICES. SEE STRUCTURAL DRAWING FOR DEMOLITION OF STRUCTURE NOT OTHERWISE INDICATED, INCLUDING SHEAR WALLS, INTERIOR PARTITIONS, INTERIOR TRENCHES FOR INSTALLATION OF UNDERGROUND UTILITIES. SEE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR DEMOLITION OF ITEMS NOT OTHERWISE INDICATED, INCLUDING UNDERGROUND OR CONCEALED UTILITIES AND SERVICES. NOTIFY LOCAL AGENCY HAVING JURISDICTION PRIOR TO STARTING DEMOLITION WORK. COMPLY WITH ALL AGENCY REQUIREMENTS. OWNER WILL REMOVE STORED MATERIALS AND MOVABLE EQUIPMENT IN THE AREA OF WORK PRIOR TO START OF DEMOLITION, UNLESS OTHERWISE NOTED. VERIFY EXISTING CONDITIONS OF INVEST ELEVATIONS OF UNDERGROUND UTILITIES PRIOR TO DEMOLITION, UNLESS OTHERWISE NOTED. VERIFY EXISTING CONDITIONS PRIOR TO START OF DEMOLITION, UNLESS OTHERWISE NOTED. VERIFY EXISTING CONDITIONS PRIOR TO START OF DEMOLITON TO STARTING DEMOLITON. NOTIFY ARCHITECT OF DISCREPANCIES AND REQUEST DIRECTION. DRAWINGS ARE PREPARED FROM INFORMATION MADE AVAILABLE BY THE OWNER AND ARE NOT A GUARANTEE OF EXISTING OR CONCEALED CONDITIONS. PROVIDE ALL SHORING, BRACING AND SUPPORT'S REQUIRED TO PREVENT SETTLEMENT OR DISPLACEMENT. DISCONNECT ALL AFFECTED UTILITIES PRIOR TO STARTING DEMOLITION, NOTIFY ARCHITECT OF DISPLACEMENT. DISCONNECT ALL AFFECTED UTILITIES PRIOR TO STARTING DEMOLITION WORK. NEATLY CUT AND REMOVE SUPPORT OR RENOVATION OF UTILITIES OR OTHER CONCEALED WORK, WHETHER SPECIFICALLY SHOWN OF THE STRUCKED OF THE CONCEALED WORK, WHETHER SPECIFICALLY SHOWN OF THE PROPERTY OF THE CONCEAN O	SONOMA CLEAN POWER	EET TENANT IMPROVEMENT ARCHITECTS	540 Mendocino Ave, Santa Rosa, CA 95401 421 E ST, SANTA ROSA, CALIFORNIA 95401 axiaarchitects.com
			421 E STRE	,
	KEYNOTES	SEAL:		
11.02 11.03 12.03 12.04 22.03 32.01 32.02 32.04 32.05 32.06 32.06 32.07 32.08 22.04 22.05 32.02 32.03 32.04 52.02	EXISTING TONGUE & GROOVE WOOD PLANK DECK TO REMAIN EXISTING PLYWOOD ROOF DECK SHEATHING TO REMAIN REMOVE PORTION OF EXISTING ROOF SHEATHING AS REQUIRED, STRUCTURE BELOW TO REMAIN, SSD REMOVE PORTION OF EXISTING ROOF SHEATHING AND STRUCTURE AS REQUIRED, SSD PREPARE EXTERIOR CMU SURFACE TO RECEIVE NEW ELASTOMERIC COATING, SURFACES MUST BE CLEAN, DRY AND FREE OF OIL, GREASE, WAX, RUST, MILDEW, CHALK AND LOOSE OR SCALING PAINT. SEE MANUFACTURE'S RECOMMENDATION FOR MORE INFORMATION REMOVE EXISTING ASPHALT BASE ROOFING, ALL LAYERS, ALL ADHESIVES, CANTS, CRICKETS AND FLASHINGS REMOVE EXISTING METAL COPING REMOVE EXISTING MECHANICAL CURBS, SMD REMOVE EXISTING THROUGH ROOF CURBS, CLOSE EXISTING ROOF SHEATHING OPENINGS, SSD REMOVE EXISTING THROUGH WALL OVERFLOW SCUPPER REMOVE EXISTING THROUGH WALL SCUPPER, LEADER HEAD COLLECTOR AND DOWNSPOUT REMOVE EXISTING CONCRETE TILE ROOFING, ALL BASE LAYERS, ADHESIVES AND FLASHINGS REMOVE EXISTING GAS LINES AND SUPPORTS, SPD REMOVE EXISTING METAL GUTTERS, DOWNSPOUTS AND SUPPORTS REMOVE EXISTING METAL GUTTERS, DOWNSPOUTS, SMD REMOVE EXISTING MECHANICAL ROOFTOP UNITS, SMD REMOVE EXISTING MECHANICAL DUCTS AND SUPPORTS, SMD REMOVE EXISTING MECHANICAL DUCTS AND SUPPORTS, SMD REMOVE EXISTING WENTS, SMD REMOVE EXISTING ELECTRICAL CONDUITS AND SUPPORTS, SED		SHEET LOG DATE: ISSUED FO	₹:

JOB NUMBER:

DEMOLITION - ROOF PLAN

A1.4





ROOF PLAN

AL DATE: 6.0

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ROOF PLAN GENERAL NOTES

	ROOM SCHEDULE																											
	WT FLOOR BASE WALLS								WAINSCOT CEILING				i	TRIM CASES TOPS					TOPS									
R						NOR	TH	EA	ST	SOUTH	WI	EST	NORTH	EAST	SO	UTH	WE:	ST						-				
ROOM NUMBE	ROOM NAME	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	MATERIAL	FINISH	MATERIAL	MATERIAL	MATERIAL	FINISH	MATERIAL	FINISH	HEIGHT MATERIAL	FINISH	НЕІСНТ	MATERIAL	FINISH	SHADE TYPE	MATERIAL	FINISH	MATERIAL	NOTES
1	ENTRY	LNM-1		RB-1	`	E) GWB F				(E) GWB PES-1	(E) GWB	PES-1							SA-1		9' - 0"	PSS		-				REMOVE EXISTING ROUNDED CORNER BEADS
2	STORAGE	LNM-1		RB-1		E) GWB F		(E) GWB		GWB PES-1	(E) GWB								(E) SA-1	` ,	9' - 0"	PSS		NND-1				
3	STORAGE	LNM-1		RB-1	(E	E) GWB F		(E) GWB		GWB PES-1	(E) GWB								(E) SA-1	(E)	9' - 0"	PSS		-				
4	OPEN STAFF	CPT-1		RB-1		- -		(E) GWB			<u> </u>								SA-1		9' - 0"	PSS			PLM-1	PLI	.M-1	
5	CONFERENCE	CPT-1		RB-1		E) GWB F		(E) GWB		GWB PES-2	(E) GWB								(E) SA-1	(E)	9' - 0"	PSS		NND-1				
6	OPEN OFFICE	LNM-1/ CPT-1	R	RB-1	(E	E) GWB F	PES-3	(E) GWB	PES-1	(E) GWB PES-1	(E) GWB	PES-1							SA-1		9' - 0"	PSS	S-1	-				REMOVE EXISTING ROUNDED CORNER BEADS, PAINT SKYLIGHT WELLS
7	OFFICE	CPT-1	R	RB-1	(E	E) GWB F	PES-1	GWB	PES-1	(E) GWB PES-1	(E) GWB	PES-1							GWB	PES-1	9' - 0"	PSS	S-1 V	NND-1				
8	OFFICE	CPT-1		RB-1	G	SWB F	PES-1	GWB	PES-1	(E) GWB PES-1	(E) GWB	PES-1							GWB	PES-1	9' - 0"	PSS	S-1 V	NND-1				
9	OFFICE	CPT-1	R	RB-1	G	SWB F	PES-1	(E) GWB	PES-1	GWB PES-3	(E) GWB	PES-1							(E) SA-1	(E)	9' - 0"	PSS		-				
10	OFFICE	CPT-1		RB-1	G	SWB F	PES-1	(E) GWB	PES-1	GWB PES-3	(E) GWB	PES-1							(E) SA-1	(E)	9' - 0"	PSS		-				
11	OFFICE	CPT-1	R	RB-1	G	SWB F	PES-1	(E) GWB	PES-1	GWB PES-3	GWB	PES-1				NA			(E) SA-1	(E)	9' - 0"	PSS	S-1 -	-				
12	RESTROOM 2	PTL-1		COVE-1	N	IRGWB F	PSG-1	(E) GWB	PSG-1	(E) GWB PSG-1	(E) GWB	PSG-1	WTL-1		WTL-1		WTL-1	VAI	RIES (E) GWB	PSG-1	8' - 0"	PS	G-1 -	-				SEE INTERIOR ELEVATIONS FOR EXTENT OF MRGWB AND WALL TILE
12.1	CLOSET	PTL-1	С	COVE-1	G	SWB F	PSG-1	GWB	PSG-1	GWB PSG-1	GWB	PSG-1	NA						GWB	PSG-1	8' - 0"	PS	G-1 -	-	WD P	SS-1		
13	RESTROOM 1	PTL-1	С	COVE-1	N	IRGWB F	PSG-1	(E) GWB	PSG-1	(E) GWB PSG-1	(E) GWB	PSG-1	WTL-1	WTL-1	WTL-1		WTL-1	VA	RIES (E) GWB	PSG-1	8' - 0"	PS	G-1 -	-				SEE INTERIOR ELEVATIONS FOR EXTENT OF WALL TLE
13.1	JANITOR	PTL-1	С	COVE-1	N	IRGWB F	PSG-1	MRGWB	PSG-1	MRGWB PSG-1	MRGWB	PSG-1	FRP-1	FRP-1	FRP-1		FRP-1	5'-C	O" GWB	PSG-1	8' - 0"	PS	G-1 -	-				
14	BREAK RM	LNM-1	R	RB-1	G	SWB F	PSG-1	(E) GWB	PSG-1	MRGWB PSG-1	(E) GWB	PSG-1	FRP-1						(E) GWB	PSG-1	8' - 0"	PS	G-1 V	WND-1	PLM-2	SS	SM-1	
14.1	CLOSET	LNM-1	R	RB-1	N	IRGWB F	PSG-1	MRGWB	PSG-1	MRGWB PSG-1	MRGWB	PSG-1							(E) GWB	PSG-1	8' - 0"	PS	G-1 -	-				
14.2	LACTATION	LNM-1	R	RB-1	G	SWB F	PSG-1	MRGWB	PSG-1	GWB PSG-1	(E) GWB	PSG-1							(E) GWB	PSG-1	8' - 0"	PS	G-1 -	-	PLM-2	SS	SM-1	
14.3	DF	LNM-1	R	RB-1	M	IRGWB F	PSG-3	MRGWB	PSG-3		MRGWB	PSG-3							(E) GWB	PES-1	8' - 0"	PSS	S-1 -	-				
15	IT - ELECTRIC	LNM-1	R	RB-1	(E	E) GWB F	PES-1	(E) GWB	PES-1	(E) GWB PES-1	(E) GWB	PES-1							(E) SA-1		9' - 0"	PSS	S-1 -	-				PROVIDE PLYWOOD BACKING FOR SHELVES/ ELECTRICAL EQUIP/ PANELS
16	STORAGE	LNM-1	R	RB-1	(E	E) GWB F	PES-1	(E) GWB	PES-1	(E) GWB PES-1	(E) GWB	PES-1							(E) GWB	PES-1	9' - 0"	PSS	S-1 -	-				

OOR			BASE			•	AINTING AND COATING I SCHEDULE ABOVE FOR PA	INT SHEEN FINISH	CEILING	CEILING			
Γ-1	CARPET TILE	INTERFACE - AERIAL FLYING COLORS 10"X40" COLOR "FOG" SOLE SOURCE - OWNER STANDARD	COVE-1	6" X 12" TILE COVE BASE	DALTILE HARMONIST COLOR "AMITY" DESIGN BASIS	*COLOR-1	FIELD - WALLS	PPG COLOR "COTTON TAIL"	SA-1	ACOUSTIC CEILING	ARMSTRONG - FINE FISSURED -OR- MATCH (E) IN BUILDING		
1 -1	HOMOGENEOUS	FORBO MARMOLEUM LINEAR	RB-1	4" RUBBER BASE	JOHNSONITE COLOR	*COLOR-2	ACCENT COLOR 1	PPG COLOR "GHOST WRITER"	GWB	GYPSUM WALLBOARD	PAINTED		
	FLOOR COVERING	STRAITO COLOR "URBAN SILVER" SOLE SOURCE - OWNER STANDARD		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	#32 "PEBBLE" DESIGN BASIS	*COLOR-3	ACCENT COLOR 2 INTERIOR DOORS	PPG COLOR "ADVENTURE"		0 11 00 III 17 I	.,		
									WINDOW S	HADE			
-1	PORCELAIN TILE	12"X24" DALTILE HARMONIST COLOR "AMITY" DESIGN BASIS	WALL WTL-1	3"X12" WALL TILE	DALTILE STAGECRAFT	*COLOR-4	GWB & SKYLIGHT MISC. CEILING & SKYLIGHT WELLS	[WHITE-MATCH ACOUSTIC CLG COLOR]	WND-1	SHADE COLOR 1	MECHOSHADE- ECOVEIL- 3% OPEN SOLE SOURCE - OWNER STANDARD		
					3"X12" HORIZONTAL STACKED COLOR: "SPA 148" FINISH: GLOSSY DESIGN BASIS	*COLOR-5	ENTRANCE WNDW/ DOOR TRIM	PPG COLOR "STARLESS SKY"	CASEWOR	K AND TOPS			
					DESIGN BASIS	NOTE: PPG	PAINT COLORS - DESIGN BAS	SIS	PLM-1	CASEWORK TOPS & PANELS	FORMICA - MISSION WHITE SOLE SOURCE - OWNER STANDARD		
						FRP-1	FRP WALL PANELS	MARLITE STANDARD, PEBBLED COLOR WHITE - DESIGN BASIS	PLM-2	CASEWORK PANELS	WILSONART - RAW CHESTNUT SOLE SOURCE - OWNER STANDARD		
							DOOR TRIMS	MATCH TO ADJACENT WALL COLOR, UNO	SSM-1	COUNTERTOPS	WILSONART QUARTZ - MARBLE FALL SOLE SOURCE - OWNER STANDARD		
							WINDOW TRIMS	MATCH TO ADJACENT WALL COLOR, UNO			GOLE GOORGE - OWNER STANDARD		

ROOM SCHEDULE GENERAL NOTES

- MULTIPLE MATERIALS AT WALLS/ FLOORS/ CEILINGS: EXTENTS AS OCCURS. REFER TO OTHER DRAWINGS FOR EXTENTS.
- WATER-RESISTANT GYPSUM BOARD: PROVIDE AT ALL BATHS, TOILET ROOMS, LAUNDRY, MECHANICAL ROOMS AND KITCHENS. WHERE SUCH CONSTRUCTION IS INDICATED TO BE ONE-HOUR RATED, PROVIDE WATER-RESISTANT TYPE 'X' GYPSUM BOARD, TYPICAL.
- WALL MATERIAL TRANSITIONS: INSIDE CORNERS ONLY.
- BASE MATERIAL AT CABINETS: PROVIDE TO MATCH WALL BASE IN ROOM UNLESS DETAILED OTHERWISE.
- CERAMIC TILE AND RESILIENT TILE PATTERNS: ALL AREAS SHALL HAVE MULTIPLE COLOR PATTERNS. IF NO PATTERNS ARE INDICATED, REQUEST PATTERN BEFORE ORDERING MATERIALS.
- INSULATION AND COVERING ON PIPE AND TUBING, CBC 719.7: FLAME SPREAD RATING NOT TO EXCEED 25 AND SMOKE DENSITY NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E84 AND PER CALIFORNIA MECHANICAL CODE.
- INSULATION MATERIALS, CBC 719.2, 719.3: ALL TYPES SHALL HAVE A FLAME SPREAD RATING NOT TO EXCEED 25 AND SMOKE DENSITY NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM
- FLAME-SPREAD AND SMOKE-DEVELOPED LIMITATIONS DO NOT APPLY TO FACINGS INSTALLED IN SUBSTANTIAL CONTACT WITH THE UNEXPOSED SURFACE OF THE ADJACENT FINISH. CBC 719.2.1.
- INTERIOR FINISHES: FLAME SPREAD RATINGS SHALL CONFORM TO CBC 2007 CHAPTER 8 AND TABLE 803.5.
- 10. **COMBUSTIBLE INTERIOR TRIM, CBC 806.5.**: MINIMUM ASTM E84 CLASS C FLAME SPREAD FOR ALL OCCUPANCIES OTHER THAN GROUP I-3. COMBUSTIBLE TRIM EXCLUDING HANDRAILS AND GUARDRAILS NOT TO EXCEED 10 PERCENT AGGREGATE WALL OR CEILING AREA IN WHICH IT IS LOCATED.

ROOM SCHEDULE REMARKS

- SEE INTERIOR ELEVATIONS FOR CEILING HEIGHT CHANGE
- B. SEE INTERIOR ELEVATIONS FOR WAINSCOT LOCATION
- C. FOR INTERIOR FLOOR TRANSITIONS SEE DETAIL

ROOM SCHEDULE LEGEND

FLO	OR	
•	CON	CONCRETE
•	CPT	CARPET TILE
•	EP	EPOXY
•	LNM	LINOLEUM
•	LVP	LUXURY VINYL PLANK
•	PTL	PORCELAIN TILE
•	RSF	RESILIENT SHEET FLOORING
•	SCF	STATIC CONTROL FLOORING
•	VCT	VINYL COMPOSITE TILE

6" INTEGRAL COVED BASE CTB COVED CERAMIC TILE BASE 6WB 6" WOOD PAINT GRADE POPLAR BASE RB 4" RUBBER BASE

CT	CERAMIC TILE
GVP	GYPSUM VENEER BASE W/ GYPSUM PLASTE
GWB	GYPSUM WALLBOARD
IRGB	IMPACT RESISTANT GYPSUM WALLBOARD
MRGWB	MOISTURE RESISTANT GYPSUM WALLBOAR
VTB	VINYL COVERED TACKBOARD
FRP	FIBER REINFORCED PANELS

•	ACW	ACOUSTIC CEILING, WOOD FIBER
•	EXS	EXPOSED STRUCTURE
•	GVP	GYPSUM VENEER BASE W/ GYPSUM PLASTER
•	GWB	GYPSUM WALLBOARD
•	MRGWB	MOISTURE RESISTANT GYPSUM WALLBOARD
•	SA-1	SUSPENDED ACOUSTIC, PANEL TYPE 1
•	SA-2	SUSPENDED ACOUSTIC, PANEL TYPE 2, VINYL
•	WPF	WOOD PANEL FINISH

WDC	WOOD CHAIR RAIL
ASEWORK & TOPS	
CSM	CUT STONE, MORTAR BED
CTM	CERAMIC TILE, MORTAR BED
SSM	SYNTHETIC STONE, MORTAR BED
HWD	HARDWOOD
DLM	DI ACTICI LANGUATE

PLM SST

FINIS	SHES	
•	CMP	CEMENTITIOUS WATERPROOFING
•	CSH	CONCRETE SEAL-HARDENER COATING
•	DWF	DECORATIVE WALL FINISH
•	FFN	FACTORY FINISHED
•	FRP	FIBERGLASS REINFORCED PLASTIC
•	MFR	MANUFACTURER
•	MTL	METAL
•	TO	TAPED GYPSUM BOARD, GA LEVEL 2
•	PES	PAINT – EGGSHELL SHEEN
•	PSS	PAINT – SATIN SHEEN
•	PGS	PAINT – GLOSS SHEEN
•	PLM	PLASTIC LAMINATE
•	PSG	PAINT - SEMI-GLOSS SHEEN
•	SST	STAINLESS STEEL

TRANSPARENT – GLOSS TRANSPARENT – SATIN

TRANSPARENT STAIN – GLOSS TRANSPARENT STAIN – SATIN

PLASTIC LAMINATE STAINLESS STEEL

NOTES

1. NOT USED
2. NOT USED

TPG TPS TSG TSS

SHEET LOG REV # DATE: ISSUED FOR:

JOB NUMBER:

ROOM SCHEDULE

ORIGINAL DATE: © AXIA ARCHITECTS

NOTE: FRAME FINISH **PSG-**** = PAINTED SEMI GLOSS TO MATCH ADJACENT WALL COLOR



TYPICAL - LEVER - LATCH HARDWARE - (3) HINGE ON HOLLOW METAL FRAME - HINGE SETS TO BE REINSTALLED ON NEW DOORS, SEE SCHEDULE





NOTE: OWNER HAS (12) NEW STOCK, MATCHING LOCKING, LATCHING LEVER HARDWARE PACKAGES, NO

TYPICAL (E) DOOR HARDWARE

\A2.4\/ NO SCALE





KEYPAD - LEVER - LATCH HARDWARE - TO BE REMOVED AND REPLACED WITH OWNER'S NEW STOCK LEVER/LATCH HARDWARE

DOOR HARDWARE OPERATION

1-E LOCKING: EXISTING LOCKING, LATCHING LEVER HARDWARE **EXISTING TO REMAIN**

1-N LOCKING: EXISTING KEYPAD LOCKING, LATCHING LEVER HARDWARE REMOVE EXISTING KEYPAD LOCK REPLACE WITH NEW STOCK: LOCKING, LATCHING LEVER HARDWARE PROVIDED BY OWNER FROM BUILDING STOCK

2-E PRIVACY: EXISTING LOCKING, LATCHING LEVER HARDWARE EXISTING TO REMAIN ADD PRIVACY THUMB-TURN LOCK WITH OCCUPANCY INDICATOR ADD NEW STOCK; LOCKING, LATCHING LEVER HARDWARE

HARDWARE PROVIDED BY OWNER FROM BUILDING STOCK

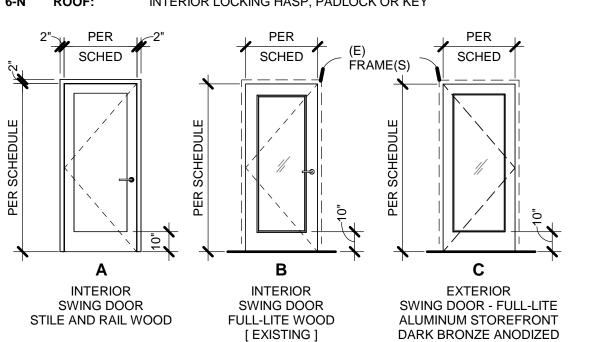
HARDWARE PROVIDED BY THE ENTRANCE DOOR MANUFACTURER

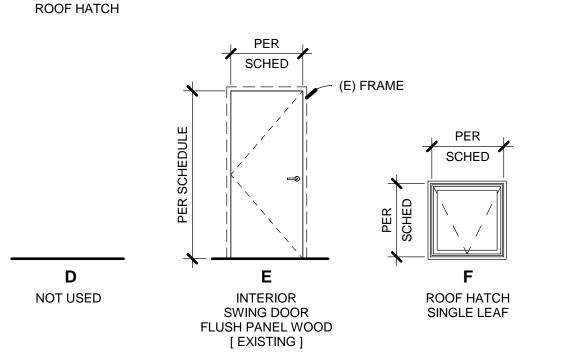
SEE OWNER'S SECURITY CONSULTANT FOR ELECTRIC STRIKES

ADD PRIVACY THUMB-TURN LOCK WITH OCCUPANCY INDICATOR EXISTING KNOB HARDWARE 3-E LOCKING: REMOVE EXISTING KNOB HARDWARE REPLACE WITH NEW STOCK; LOCKING, LATCHING LEVER HARDWARE

ADD NEW STOCK; LOCKING, LATCHING LEVER HARDWARE HARDWARE PROVIDED BY OWNER FROM BUILDING STOCK 5-N ENTRANCE: ELECTRIC LOCKING / LATCHING, PULL / PUSH HARDWARE KEY CARD / FOB ACCESS, AUTOMATIC RELEASE FOR EXIT CLOSER, SEE PROJECT MANUAL, SECTION 08-1116, FOR

INTERIOR LOCKING HASP, PADLOCK OR KEY





DIMENSIONS

OFFICE

OFFICE

RESTROOM

LACTATION

WATER HEATER CLOSET

CLOSET, JANITOR

BUILDING ENTRANCE

NOTE:

DOOR HARDWARE, HARDWARE FINISH AND KEYING TO MATCH

SEE 2/A2.4 FOR TYPICAL EXISTING DOOR HARDWARE

OWNER'S BUILDING STANDARDS AND TO MEET CURRENT CODE.

DOOR/ WINDOW SCHEDULE LEGEND

NOTE: ALL DIMENSIONS ARE FOR DOOR SIZES UNLESS OTHERWISE NOTED.

DOOR TYPE LETTER DESIGNATION CORRESPONDS TO DOOR TYPE ELEVATION.

THICKNESS:

EXTERIOR DOORS: 2" THICK, TYPICAL INTERIOR DOORS: 1-3/4" THICK, TYPICAL

CONSTRUCTION MATERIAL: AL = ALUMINUM, STOREFRONT GS = GALVANIZED STEEL

HM = HOLLOW METAL SCW = SOLID CORE WOOD

FACING & FINISH: FF = FACTORY FINISH

> PSG 1 = PAINT SEMI-GLOSS - PPG "ADVENTURE" OR EQUAL PSG 2 = PAINT SEMI GLOSS - PPG "STARLESS SKY" OR EQUAL TPS = TRANSPARENT STAIN SATIN

TYPICAL EXTERIOR: CLEAR LOW-E, TEMPERED, DOUBLE GLAZED/ INSULATED TYPICAL INTERIOR: CLEAR TEMPERED, SINGLE GLAZED OBSCURE GLAZING PER NOTES

FIRE RATING: 3/4, 1, 1-1/2 ETC. INDICATES HOURS OF OPENING ASSEMBLY FIRE RATING ALL FIRE RATED OPENINGS SHALL BE SELF-CLOSING.

HARDWARE OPERATION NUMBER; EXISTING HARDWARE TO REMAIN AND EXISTING NEW HARDWARE STOCK TO BE INSTALLED WHERE NOTED. SEE OWNER FOR NEW HARDWARE STOCK.

THRESHOLD: SEE DOOR HARDWARE SCHEDULE IN PROJECT MANUAL,

SECTION 08-7200 AND DETAILS NOTED. **HEAD - JAMB:**

NR = NONE REQUIRED

AS NOTED IN DOOR SCHEDULE. 10. FRAME TYPE:

HM = HOLLOW METAL

11. FRAME MATERIAL: AL = ALUMINUM HM = HOLLOW METAL

12. **FRAME FINISH:**

PSG-** =PAINTED SEMI-GLOSS FINISH. COLOR TO MATCH ADJACENT WALL

WM = WINDOW FRAMES MULLED, (2) UNITS

12. DOOR, WINDOW & BORROWED LITE REMARKS: CH = CONTINUOUS, LINEAR HINGE CL = PROVIDE DOOR CLOSER BL = ROLLER BLINDS, MANUAL OPERATION TB = THERMALLY BROKEN FRAMES

GENERAL REMARKS - ALL DOORS:

FINISH

- DOORS WITH PREFIX "E" ARE EXISTING DOORS TO REMAIN. ALL DIMENSIONS NOTED ON THIS PAGE ARE NOMINAL. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD MEASUREMENTS.
- SEE PROJECT MANUAL, SECTION 08-7200 FOR DOOR HARDWARE AND HARDWARE GROUPS
- EXISTING EXIT DOORS COMPLY FULLY WITH ALL REQUIRED PARTS OF CBC 11B-404
- COORDINATE SIGNAGE, ROOM NAMES AND ROOM NUMBERS WITH OWNER
- DOOR HARDWARE MOUNTING HEIGHTS, SEE 9/A9.1 ACCESSIBLE DOOR CLEARANCES, SEE 13/A9.1
- HOLLOW METAL DOOR FRAME ANCHORAGE, SEE 14/A9.1
- FLOOR TRANSITIONS AT DOOR SILLS, SEE 18/A9.1 DOOR SIGNAGE AT ENTRY, SEE 2/A9.3

REMARKS

- DOOR SIGNAGE AT INTERIOR, SEE 3/A9.3
- SANITARY FACILITY SIGNAGE, SEE 7/A9.3 ROOM IDENTIFICATION SIGNAGE, SEE 5/A9.3

DOOR SCHEDULE GENERAL NOTES

- ALL DOORS PROVIDING PASSAGE SHALL HAVE THE
- FOLLOWING: ACCESSIBLE THRESHOLD
- ACCESSIBLE HARDWARE 10 INCH CLEAR SMOOTH SURFACE AT BOTTOM OF PUSH SIDE (KICK PLATE OR EQUIVALENT)
- ALL EXIT DOORS, INCLUDING BUT NOT LIMITED TO DOORS OF TOILET ROOMS AND STORAGE ROOMS SHALL CONFORM TO CBC 1008.1. EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. SINGLE ACTION BOLT LOCK/LATCHSETS ARE PERMITTED IN THESE
- PANIC AND FIRE EXIT DEVICES (PANIC HARDWARE) SHALL BE INSTALLED IN CONFORMANCE WITH CBC 1008.1.10. THE ACTIVATING MEMBER SHALL BE MOUNTED AT A HEIGHT OF NOT LESS THAN 34 INCHES OR MORE THAN 48 INCHES ABOVE THE FLOOR, SEE CBC 1 008.1.9.2. THE MAXIMUM UNLATCHING FORCE SHALL NOT EXCEED 15 POUNDS APPLIED IN THE DIRECTION OF TRAVEL, SEE 1008.1.10.1.
- ADJUST DOORS WITH CLOSERS TO PROVIDE MINIMUM DOOR CLOSER PERIOD OF (5) SECONDS FROM A POSITION OF 90 DEGREES TO A POSITION OF 12 DEGREES FROM THE LATCH. SEE CBC 11B-404.2.8.
- MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 POUNDS FOR EXTERIOR DOORS AND 5 POUNDS FOR INTERIOR DOORS EXCEPT FOR FIRE DOORS WHICH MAY REQUIRE 15 POUNDS, MAX. SEE CBC 11B-404.2.9.
- OPERABLE PARTS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 POUNDS MAXIMUM, SEE 11B-309.4.
- DOOR AND GATE HARDWARE: HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERABLE PARTS ON DOORS AND GATES SHALL COMPLY WITH SECTION 11B-309.4. OPERABLE PARTS OF SUCH HARDWARE SHALL BE 34 INCHES MINIMUM AND 44 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND, SEE 11B-404.2.7.
- PROVIDE DOOR LOUVERS IN LOCATIONS AND SIZES AS SHOWN ON MECHANICAL DRAWINGS. EXTERIOR LOUVERS SHALL BE TAMPER-PROOF AND VANDAL-RESISTANT. DOOR LOUVERS IN RATED ASSEMBLIES SHALL MATCH THE FIRE RATING OF THE OPENING ASSEMBLIES WITH UL LISTED FUSIBLE LINK OPERATION.
- WEATHERTIGHT SEAL REQUIRED: LIMIT AIR LEAKAGE AROUND ALL EXTERIOR OPENING PERIMETERS WHEN IN A CLOSED POSITION. PROVIDE WEATHERTIGHT SEAL AT HEAD, SILL, JAMBS AND AT MEETING RAILS OF DOUBLE DOORS.
- INSPECTION: SIGNS AND IDENTIFICATION DEVICES SHALL BE FIELD INSPECTED AFTER INSTALLATION AND APPROVED BY THE ENFORCING AGENCY PRIOR TO THE ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY. CBC 11B-703.1.1.2

GLAZING GENERAL NOTES

SAFETY GLAZING: PROVIDE TEMPERED SAFETY GLAZING AT ALL VERTICAL HUMAN IMPACT LOAD LOCATIONS AND "HAZARDOUS LOCATIONS"REQUIRED PER CBC 2406.4. COMPLY WITH ANSI Z97.1 AND LABEL EACH PANE PER CBC 2406.2.

TEMPERED PANES: EACH 6MM TEMPERED PANE COMPOSED OF A SINGLE THICKNESS OF TEMPERED GLASS, CLEAR OR TINTED AS INDICATED FOR APPLICATION AND LOCATION IN ASSEMBLIES.

3. **EXTERIOR GLAZING:** DOUBLE GLAZED SEALED INSULATING GLASS, 24 MM ASSEMBLY COMPOSED OF 2-6MM PANES OF TEMPERED GLAZING PER GLAZING NOTE ABOVE: OUTER PANE CLEAR LOW-E ON FACE #2;

EXTERIOR OVERHEAD GLAZING: SKYLIGHTS TO HAVE PLASTIC GLAZING CONSISTING OF DOUBLE LAYERS OF TRANSLUCENT, WHITE POLYCARBONATE PANEL WITH A UNIFORM THICKNESS OF 0.118 INCH.

INTERIOR GLAZING: SINGLE 6 MM PANE, CLEAR, TEMPERED, U.N.O.

OBSCURE GLAZING: OPAQUE, TRANSLUCENT GLAZING FILM. PATTERN SELECTED BY OWNER. PLACE TEXTURED FACE AS FACE #3 IN

SEALED INSULATING GLASS UNITS, SMOOTH FACE TO INTERIOR AS FACE #4,

KEYNOTES

WINDOW COVERING, MOUNT ON INTERIOR

INNER PANE CLEAR.

WINDOW SCHEDULE REMARKS TEMPERED TB, BL 2/A8.4 3/A8.4 4/A8.4 FF N TB, BL TEMPERED 11/A8.4 4' - 8" | AL | A 9/A8.4 10/A8.4 TEMPERED 9/A8.4 10/A8.4 11/A8.4 TB, BL 4' - 8" | AL | ΓEMPERED 4/A8.4 TB, WM, BI 2/A8.4 3/A8.4 4' - 8" | AL | A TB, WM, BL 4' - 8" | AL | A | ΓEMPERED 2/A8.4 3/A8.4 4/A8.4 FF N 4' - 8" | AL | A | EMPERED 2/A8.4 3/A8.4 TB, BL HM B N/A EMPERED N/A N/A N/A 1' - 6" N/A EMPERED N/A N/A N/A PSG N/A EMPERED N/A N/A PSG PSG N/A EMPERED N/A N/A N/A PSG N N/A TEMPERED N/A N/A PSG PSG | N ΓEMPERED PSG N POLYCARBONATE 8/A8.2 N/A N/A FF FF N 7' - 0" | AL | SL | 8/A8.2 N/A POLYCARBONATE N/A N/A

È	臣	M/	B/	×	単	15	H	٨	SII	Û	Z	
BL-9	HM	HM	0' - 0"	6' - 0"	7' - 2"	TEMPERED	15/A9.1	11/A9.1	16/A9.1	PSG	PSG	
BL-10	HM	НМ	0' - 0"	6' - 0"	7' - 2"	TEMPERED	15/A9.1	11/A9.1	16/A9.1	PSG	PSG	
BL-11	HM	НМ	0' - 0"	6' - 0"	7' - 2"	TEMPERED	15/A9.1	11/A9.1	16/A9.1	PSG	PSG	
22			0 0	0 0	<u> </u>	12.00	10/7 (0.1	1 177 10.1	10/710.1			

2. ALL DIMENSIONS NOTED ON THIS PAGE ARE NOMINAL. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD MEASUREMENTS

INTERIOR BORROWED LITE SCHEDULE

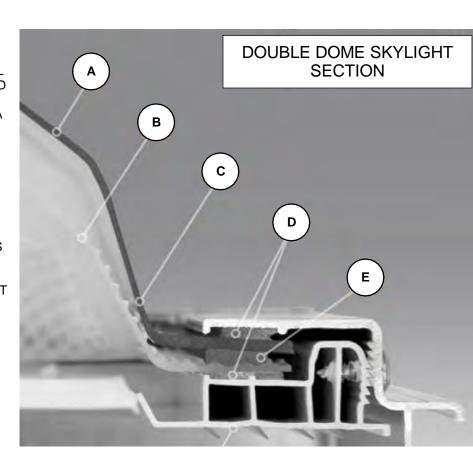
COMMERCIAL SKYLIGHT FEATURES:

- DYNAMIC SMOOTH CLEAR OPTICAL OUTER DOME, SHAPE ENGINEERED TO MAXIMIZE LOW-ANGLE SUNLIGHT & MORE SURFACE AREA TO HARVEST MORE DAYLIGHT
- TRANSLUCENT WHITE PRISMATIC INNER DOME, 100% LIGHT **DIFFUSION** WITH INSULATING AIR
- SIDEWALL OF OUTER DOME DESIGNED TO MATCH THE ANGLES OF THE SUN IN THE MORNING & AFTERNOON HOURS, THE LOWER LIGHT PERIODS, TO IMPROVE LIGHT TRANSMITTANCE
- WATER PROTECTION TWO LAYERS OF SEALANT
- GLAZING SPACER ALLOWS MOISTURE TO ESCAPE & DRAIN

OUT OF THE SKYLIGHT FRAME

PLASTIC DOMES ARE POLYCARBONATE PANEL

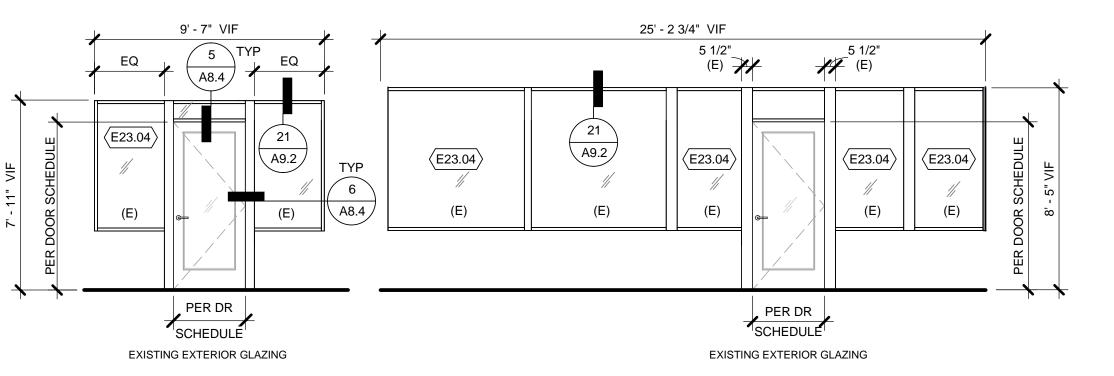
NFRC PRODUCT CERTIFIED SEE PROJECT MANUAL AND TITLE 24 FOR ADDITIONAL INFORMATION

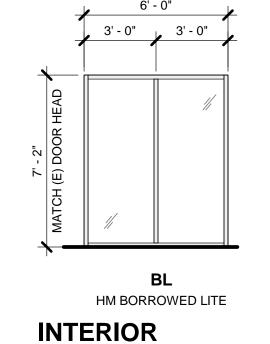


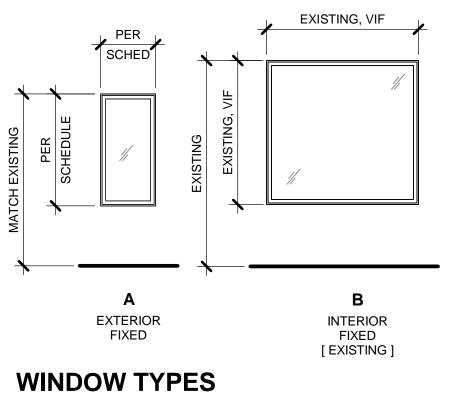
NOTE: 100% LIGHT DIFFUSION - SOFT LIGHT WITH NEITHER THE FROM ALL DIRECTIONS THAT DOES NOT CAST HARD SHADOWS OR

INTENSITY NOR THE GLARE OF DIRECT SUNLIGHT, SCATTERED LIGHT

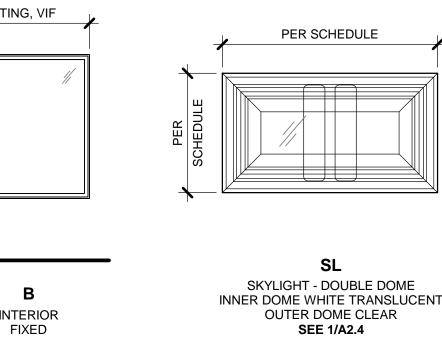
SKYLIGHT PERFORMANCE







1. WINDOWS WITH PREFIX "E" ARE EXISTING WINDOWS TO REMAIN.



SKYLIGHT TYPES

JOB NUMBER:

SHEET LOG

REV # DATE: ISSUED FOR:

A2.4

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(E) ENTRANCE WINDOWS

EXISTING TO REMAIN - FOR REFERENCE ONLY

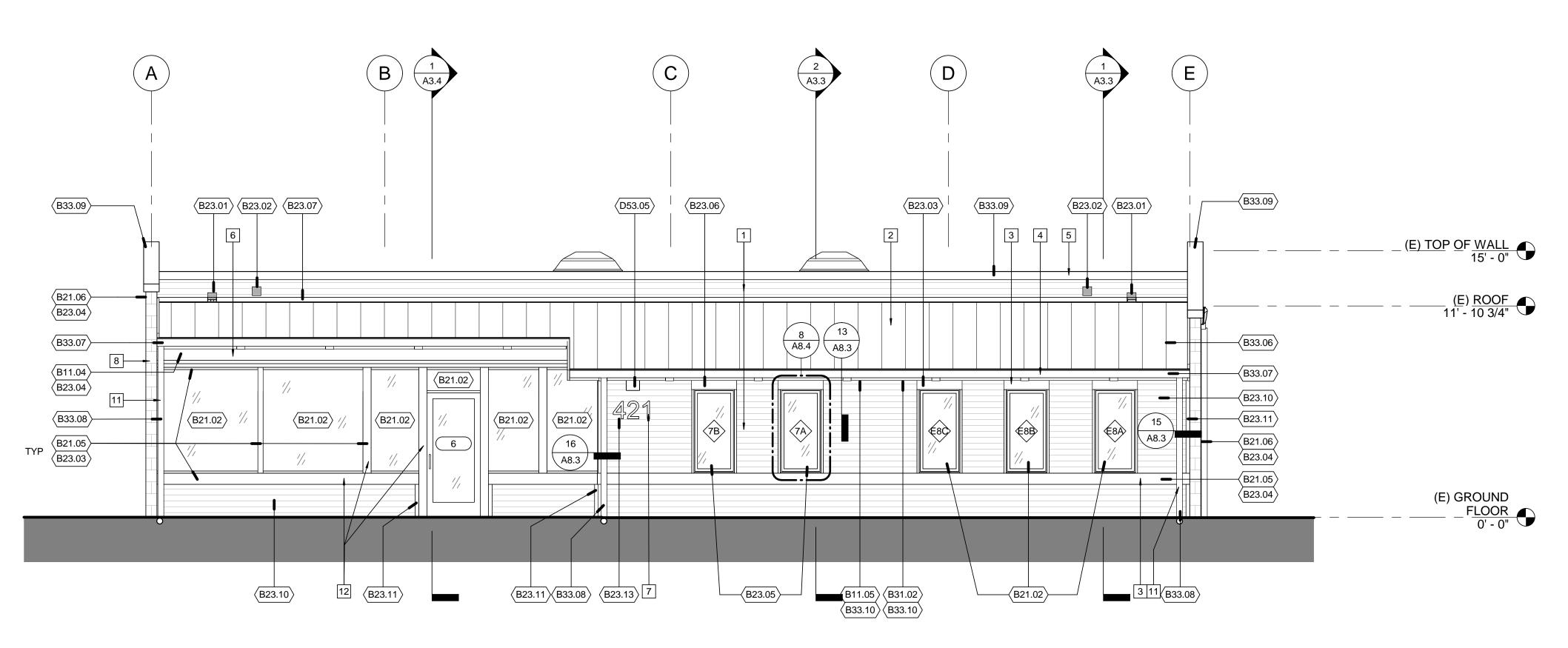
DOOR TYPES

[SEE (E) ENTRANCE WINDOWS]

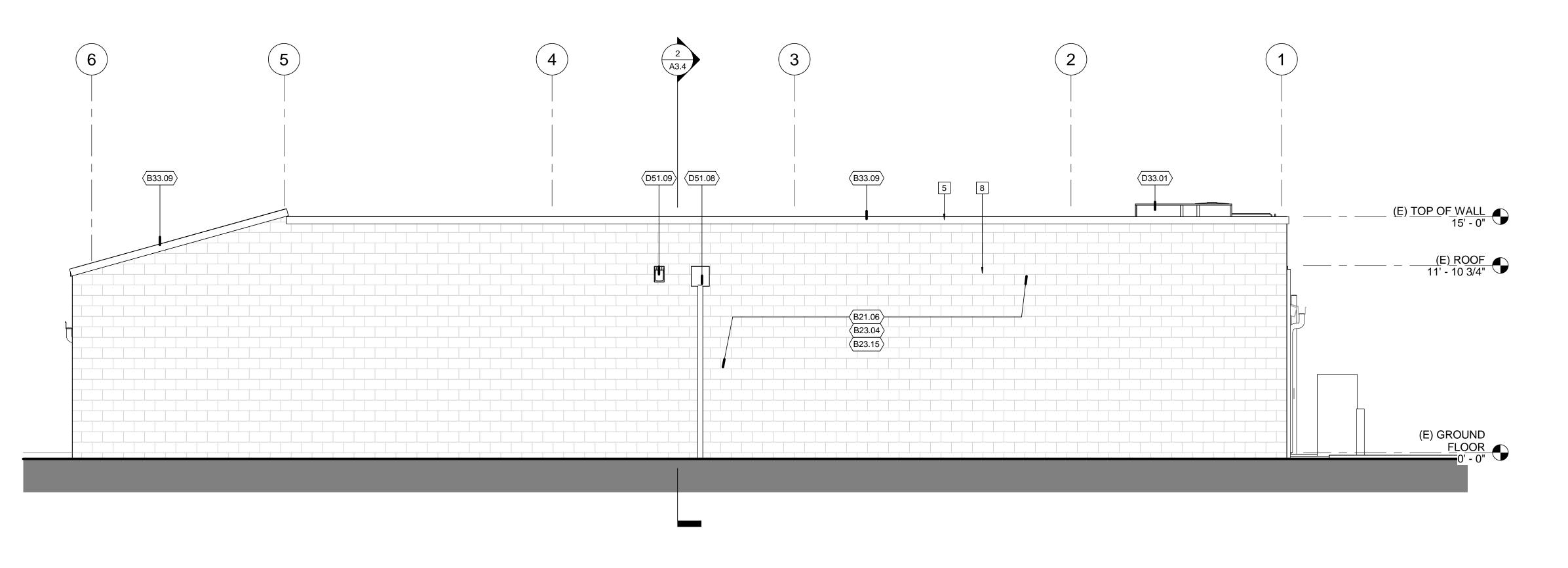
BORROWED LITE

A2.4 / 12" = 1'-0"

DOOR AND WINDOW SCHEDULES



BUILDING ELEVATION - EAST A3.1 1/4" = 1'-0"



EXTERIOR ELEVATION GENERAL NOTES SLOPE FINISH GRADE 2% MINIMUM AWAY FROM BUILDING FOR 5'-0" MINIMUM, DIRECT DRAINAGE AWAY FROM BUILDING WALLS, ELIMINATE PONDING. REFER TO CIVIL DRAWINGS FOR FINISH FLOOR ELEVATION AND GRADES ADJACENT TO BUILDING OTHERWISE. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR GRILLES, REGISTERS, HORNS, SPEAKERS, PANELS, PULL STATIONS AND OTHER FEATURES NOT OTHERWISE SHOWN FLASH AND SEAL ALL PENETRATIONS THROUGH EXTERIOR ROOFS AND WALLS, AND FLOORS WEATHER TIGHT AND WATERPROOF. PACK ALL PENETRATIONS THROUGH THE BUILDING INSULATION ENVELOPE WITH INSULATION. FLASH ALL WINDOWS, DOORS, LOUVERS, ACCESS PANELS AND SIMILAR WALL OPENINGS PER DETAIL 16/A8.2. ELEVATIONS SHOWN ARE MEASURED FROM FINISHED FLOOR DATUM FOR THIS BUILDING. REFER TO CIVIL DRAWINGS FOR ELEVATIONS RELATIVE TO THE REST OF THE SITE AND FOR SITE FEATURES NOT OTHERWISE INDICATED. PROVIDE BLOCKING, BACKING, FRAMING, SHEATHING, UTILITIES OR OTHER CONCEALED WORK, WHETHER SPECIFICALLY SHOWN OR INFERRED. REFER TO STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR CONCEALED WORK NOT SHOWN ON ARCHITECTURAL DRAWINGS. NEATLY CUT AND REMOVE SURFACES AND FINISHES AS REQUIRED OR TO A NATURAL POINT OF DIVISION TO ENABLE INSTALLATION OF BLOCKING, BACKING, FRAMING, SHEATHING, UTILITIES OR OTHER CONCEALED WORK, WHETHER SPECIFICALLY SHOWN OR INFERRED FOR SUPPORT OR RENOVATION. REFER TO STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR CONCEALED WORK NOT SHOWN ON ARCHITECTURAL DRAWINGS. REPAIR AND REPLACE ALL EXISTING SURFACES AND FINISHES TO MATCH EXISTING UNDISTURBED WORK. **KEYNOTES** B11.04 EXISTING WOOD TIMBER ROOF BEAMS TO REMAIN EXISTING WOOD TIMBER ROOF RAFTERS TO REMAIN EXISTING INSULATED FIXED GLAZING, TO REMAIN, PROTECT IN PLACE B21.05 EXISTING WOOD TRIM TO REMAIN B21.06 EXISTING CMU WALL TO REMAIN ROOF DRAIN SCUPPER, THROUGH WALL ROOF OVERFLOW SCUPPER, THROUGH WALL PREPARE AND PAINT EXISTING WINDOW TRIM PREPARE SURFACE TO RECEIVE PROTECTIVE COAT AND/ OR PAINT PER MANUFACTURER'S RECOMMENDATIONS B23.05 SEE WINDOW SCHEDULE B23.06 WOOD TRIM, PAINTED PREFINISHED METAL FLASHING B23.10 FIBER CEMENT HORIZONTAL LAP SIDING, PREFINISHED B23.11 FIBER CEMENT 5/4 TRIM, PREFINISHED 12" BUILDING ADDRESS NUMBERS. PAINTED METAL PROVIDE ELASTOMERIC COATING ALL EXTERIOR SURFACES OF CMU B31.02 (E) WOOD FASCIA TO REMAIN B33.06 PREFINISHED VERTICAL SEAM METAL ROOFING B33.07 PREFINISHED SQUARE PROFILE METAL GUTTER WITH LEAF GUARD B33.08 GALVANIZED ROUND METAL DOWNSPOUT, PAINTED B33.09 PREFINISHED METAL WALL COPING B33.10 PREPARE AND PAINT HVAC ROOFTOP UNITS AND ECONOMIZERS, SMD EXISTING ENTRANCE POINT OF FIBER OPTIC CABLE CONNECTION TO THE MAIN BUILDING TO REMAIN D51.09 EXISTING WALL MOUNTED FIXTURE TO REMAIN D53.05 WALL MOUNTED FIXTURE, SED **EXTERIOR COLOR / MATERIAL SCHEDULE** REV # DATE: ISSUED FOR: FIBER CEMENT HORIZONTAL FACTORY FINISH HARDIE PANEL COBBLE STONE OR EQUAL LAP SIDING STANDING SEAM METAL FACTORY FINISH OLD ZINC GREY OR EQUAL ROOFING FIBER CEMENT TRIM FACTORY FINISH HARDIE PANEL COBBLE STONE OR EQUAL PPG GHOST WRITER 4 WOOD FASCIA PAINTED 1007-3 OR EQUAL 5 METAL COPING MATCH PPG GHOST WRITER 1007-3 OR EQUAL PAINTED PPG GHOST WRITER 6 EXPOSED STRUCTURAL MEMBERS, OUTRIGGERS 1007-3 OR EQUAL AND T&G CEILING METAL NUMBERS PAINTED MATCH PPG STARLESS SKY 0995-7 OR EQUAL **ELASTOMERIC BASE** 8 CMU WALL PAINTED COAT, WITH PPG GHOST WRITER 1007-3 FINISH COAT OR EQUAL 9 CEMENT PLASTER SIDING PAINTED PPG GHOST WRITER 1007-3 OR EQUAL PREFINISHED **GALVANIZED STEEL** 10 METAL GUARDRAILS PREFINISHED 11 METAL DOWNSPOUTS MATCH PPG GHOST WRITER 1007-3 OR EQUAL 12 EXISING WOOD TRIM PAINTED PPG STARLESS SKY -0995-7 OR EQUAL FACTORY FINISH HARDIE PANEL COBBLE 12 FIBER CEMENT TRIM JOB NUMBER: STONE OR EQUAL **A3.1 EXTERIOR ELEVATIONS**

ORIGINAL DATE:

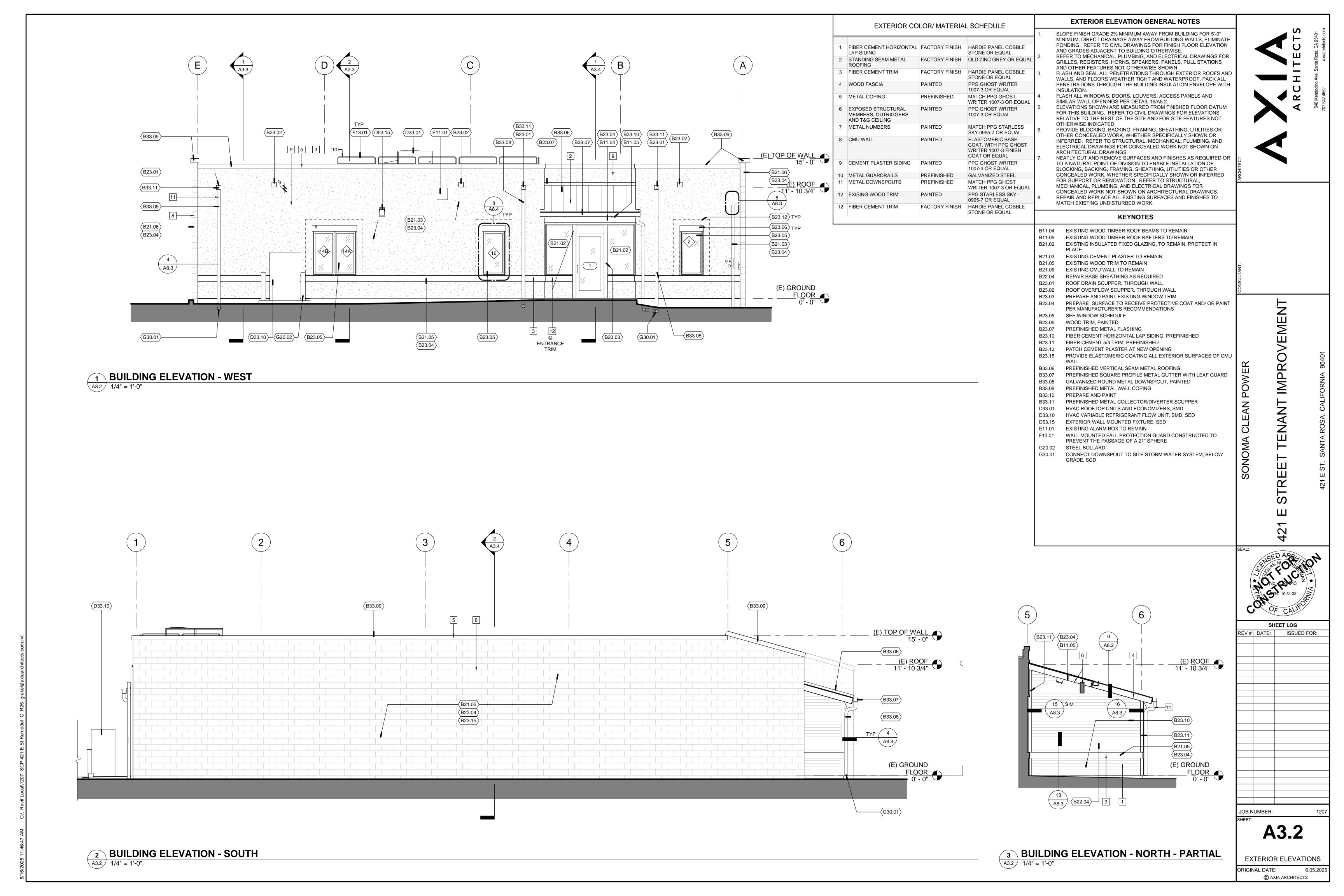
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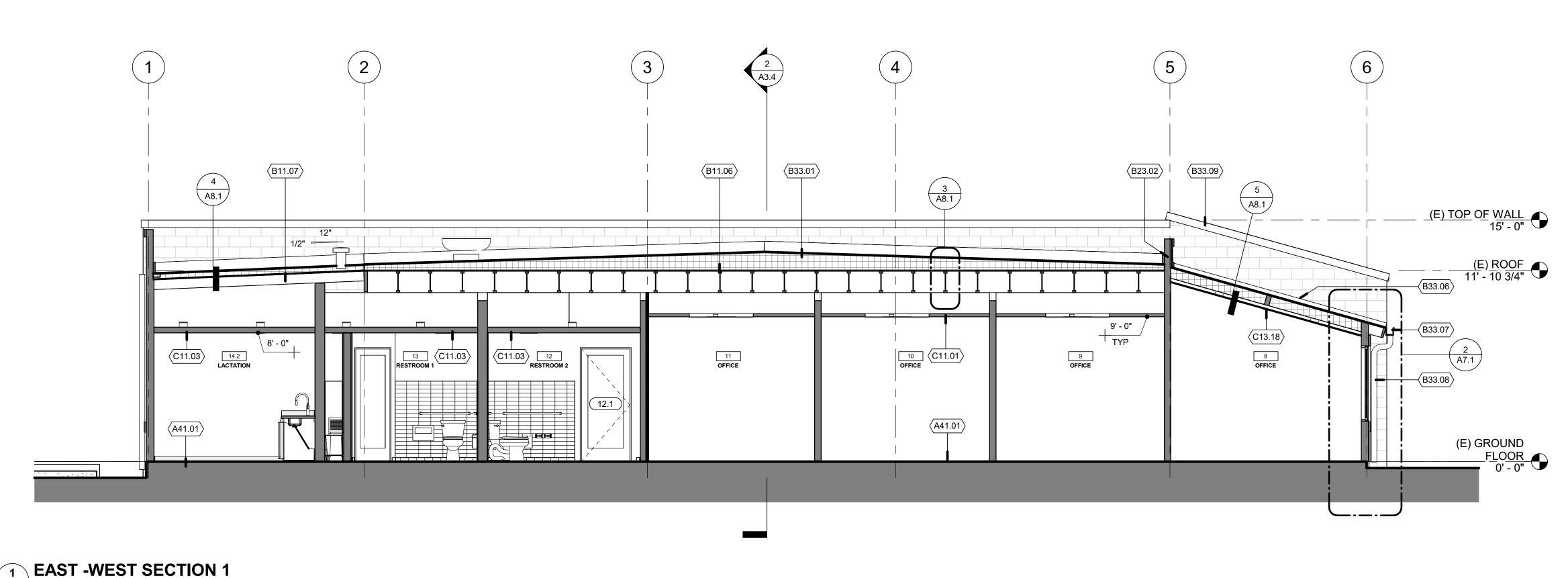
B21.02

D33.01

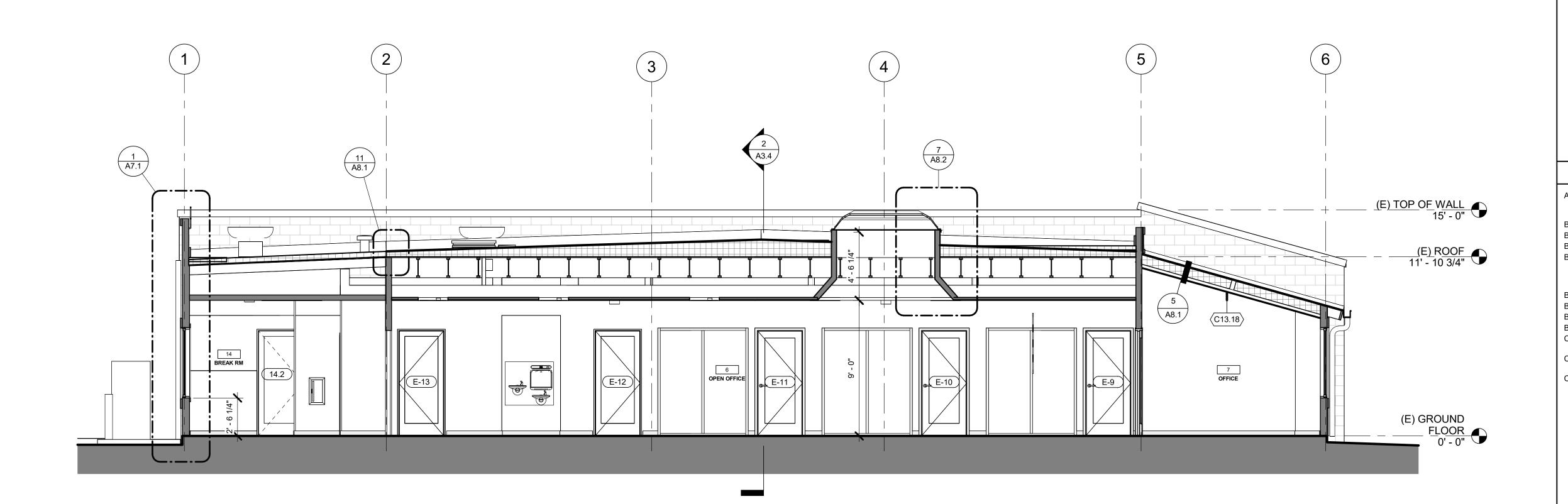
BUILDING ELEVATION - NORTH

A3.1 1/4" = 1'-0"





1 EAST -V A3.3 1/4" = 1'-0"



EAST -WEST SECTION 2 A3.3 1/4" = 1'-0"

BUILDING SECTION GENERAL NOTES

ELEVATIONS SHOWN ARE MEASURED FROM FINISHED FLOOR DATUM FOR THIS BUILDING. REFER TO CIVIL ENGINEERING DRAWINGS FOR ELEVATIONS RELATIVE TO THE REST OF THE SITE AND FOR SITE FEATURES NOT OTHERWISE INDICATED.

REFER TO ROOM SCHEDULE FOR FINISHES, TYPICAL. REFER TO INTERIOR ELEVATIONS FOR INFORMATION AND FEATURES

NOT SHOWN. FLASH AND SEAL ALL PENETRATIONS THROUGH EXTERIOR ROOFS AND WALLS, AND FLOORS WEATHER TIGHT AND WATERPROOF. PACK ALL PENETRATIONS THROUGH THE BUILDING INSULATION ENVELOPE WITH

INSULATION. FLASH ALL WINDOWS, DOORS, LOUVERS, ACCESS PANELS AND SIMILAR WALL OPENINGS PER DETAIL **24/A8.4**. EXTERIOR WALL INSULATION IS EXISTING, INSTALLED AS PART OF

APPROVED BUILDING CONSTRUCTION. REPAIR AND PATCH ALL INSULATION DISTURBED BY NEW CONSTRUCTION. PROVIDE AND MAINTAIN COMPLETE THERMAL BARRIER MATCHING ORIGINAL DESIGN. ROOF AND EXTERIOR WALL FIRE RATING IS EXISTING, INSTALLED AS PART OF APPROVED BUILDING CONSTRUCTION. REPAIR AND PATCH ALL FIRE-RATED ASSEMBLIES DISTURBED BY NEW CONSTRUCTION. PROVIDE AND MAINTAIN COMPLETE FIRE-RATED ASSEMBLIES MATCHING ORIGINAL DESIGN.

FIREBLOCKING, CBC 718.2.: PROVIDE MATERIALS COMPLYING WITH CBC 718.2.1 AT CONCEALED SPACES, FURRED SPACES, CEILING/FLOOR LEVELS AND 10'-0" INTERVALS ALONG LENGTH OF WALL, SOFFITS, DROP CEILINGS, AND COVE CEILINGS, CONCEALED PLACES BETWEEN STAIR STRINGERS & BETWEEN STUDS IN LINE WITH STAIR RUN, AND ALL LOCATIONS LISTED IN CBC 718.2.2 THROUGH 718.2.7.

B23.02 ROOF OVERFLOW SCUPPER, THROUGH WALL PVC SINGLE PLY COOL ROOF, CLASS A ASSEMBLY, WITH 1/2" COVER BOARD ON TAPERED RIGID INSULATION, MINIMUM 4" THICK, ON EXISTING NON-SLOPED ROOF DECK, MIN R-23 REQUIRED FOR ALTERATION, CEC TABLE 141.0.C, BUILDING CLIMATE ZONE-2 PREFINISHED VERTICAL SEAM METAL ROOFING

PREFINISHED SQUARE PROFILE METAL GUTTER WITH LEAF GUARD

KEYNOTES

EXISTING CONCRETE SLAB ON GRADE, PATCH AND PREPARE TO RECEIVE NEW FLOOR FINISHES, VERIFY MOISTURE CONTENT

B33.08 GALVANIZED ROUND METAL DOWNSPOUT, PAINTED B33.09 PREFINISHED METAL WALL COPING C11.01 EXISTING SUSPENDED 2X4 CEILING GRID SYSTEM TO REMAIN,

BEFORE INSTALLING FINISHES

EXISTING WOOD TJI ROOF JOISTS TO REMAIN EXISTING WOOD 2X ROOF RAFTERS TO REMAIN

PROTECT IN PLACE C11.03 EXISTING GYPSUM BOARD CEILING TO REMAIN. SEE ROOM SCHEDULE FOR NEW PAINT INFORMATION

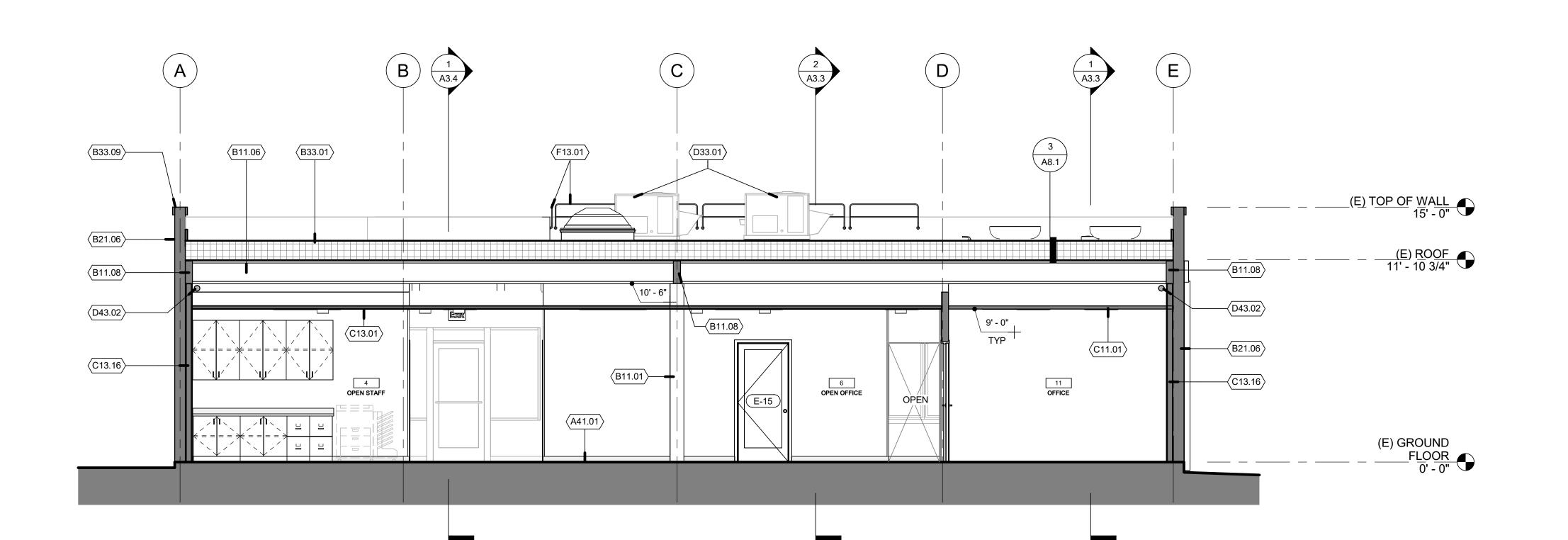
C13.18 SLOPED GYPSUM CEILING ON METAL FURRING, PAINT, SEE ROOM SCHEDULE

SHEET LOG REV # DATE: ISSUED FOR:

JOB NUMBER:

BUILDING SECTIONS

ORIGINAL DATE: © AXIA ARCHITECTS



NORTH-SOUTH SECTION 1 A3.4 / 1/4" = 1'-0"

BUILDING SECTION GENERAL NOTES

ELEVATIONS SHOWN ARE MEASURED FROM FINISHED FLOOR DATUM FOR THIS BUILDING. REFER TO CIVIL ENGINEERING DRAWINGS FOR ELEVATIONS RELATIVE TO THE REST OF THE SITE AND FOR SITE FEATURES NOT OTHERWISE INDICATED.

REFER TO ROOM SCHEDULE FOR FINISHES, TYPICAL. REFER TO INTERIOR ELEVATIONS FOR INFORMATION AND FEATURES NOT SHOWN.

FLASH AND SEAL ALL PENETRATIONS THROUGH EXTERIOR ROOFS AND WALLS, AND FLOORS WEATHER TIGHT AND WATERPROOF. PACK ALL PENETRATIONS THROUGH THE BUILDING INSULATION ENVELOPE WITH

INSULATION. FLASH ALL WINDOWS, DOORS, LOUVERS, ACCESS PANELS AND SIMILAR WALL OPENINGS PER DETAIL **24/A8.4**. EXTERIOR WALL INSULATION IS EXISTING, INSTALLED AS PART OF

APPROVED BUILDING CONSTRUCTION. REPAIR AND PATCH ALL INSULATION DISTURBED BY NEW CONSTRUCTION. PROVIDE AND MAINTAIN COMPLETE THERMAL BARRIER MATCHING ORIGINAL DESIGN. ROOF AND EXTERIOR WALL FIRE RATING IS EXISTING, INSTALLED AS PART OF APPROVED BUILDING CONSTRUCTION. REPAIR AND PATCH ALL FIRE-RATED ASSEMBLIES DISTURBED BY NEW CONSTRUCTION. PROVIDE AND MAINTAIN COMPLETE FIRE-RATED ASSEMBLIES MATCHING ORIGINAL DESIGN.

FIREBLOCKING, CBC 718.2.: PROVIDE MATERIALS COMPLYING WITH CBC 718.2.1 AT CONCEALED SPACES, FURRED SPACES, CEILING/FLOOR LEVELS AND 10'-0" INTERVALS ALONG LENGTH OF WALL, SOFFITS, DROP CEILINGS, AND COVE CEILINGS, CONCEALED PLACES BETWEEN STAIR STRINGERS & BETWEEN STUDS IN LINE WITH STAIR RUN, AND ALL LOCATIONS LISTED IN CBC 718.2.2 THROUGH 718.2.7.

KEYNOTES

EXISTING CONCRETE SLAB ON GRADE, PATCH AND PREPARE TO RECEIVE NEW FLOOR FINISHES, VERIFY MOISTURE CONTENT BEFORE INSTALLING FINISHES

EXISTING INTERIOR WOOD COLUMNS TO REMAIN, PROTECT IN PLACE AND SEE FLOOR PLAN FOR COLUMN FINISHING

EXISTING WOOD TJI ROOF JOISTS TO REMAIN

B11.08 EXISTING GLULAM BEAM TO REMAIN

B21.06 EXISTING CMU WALL TO REMAIN

B33.01 PVC SINGLE PLY COOL ROOF, CLASS A ASSEMBLY, WITH 1/2" COVER BOARD ON TAPERED RIGID INSULATION, MINIMUM 4" THICK, ON EXISTING NON-SLOPED ROOF DECK, MIN R-23 REQUIRED FOR ALTERATION, CEC TABLE 141.0.C, BUILDING CLIMATE ZONE-2

B33.03 FIXED SKYLIGHT, DOUBLE DOMED, WHITE TRANSLUCENT PLASTIC INNER DOME, WITH EXTERIOR MOUNTED WIRE CAGE FALL PROTECTION

B33.09 PREFINISHED METAL WALL COPING C11.01 EXISTING SUSPENDED 2X4 CEILING GRID SYSTEM TO REMAIN,

PREFINISHED SQUARE PROFILE METAL GUTTER WITH LEAF GUARD

PROTECT IN PLACE C13.01 SUSPENDED 2X4 CEILING GRID WITH 2X2 ACOUSTIC TILE LOOK

C13.16 INSULATED, FURRED WALL, SEE WALL TYPES

C23.08 TRANSLUCENT GLAZING FILM, WHITE, SEE DOOR SCHEDULE D23.10 ACCESSIBLE HI-LOW FILTERED WATER DRINKING FOUNTAIN AND BOTTLE FILLER, INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS TO MEET ACCESSIBILITY

REQUIREMENTS, SPD D33.01 HVAC ROOFTOP UNITS AND ECONOMIZERS, SMD

D43.02 FIRE SPRINKLER MAIN LINE, SEE FIRE PROTECTION DRAWINGS

F13.01 WALL MOUNTED FALL PROTECTION GUARD CONSTRUCTED TO PREVENT THE PASSAGE OF A 21" SPHERE

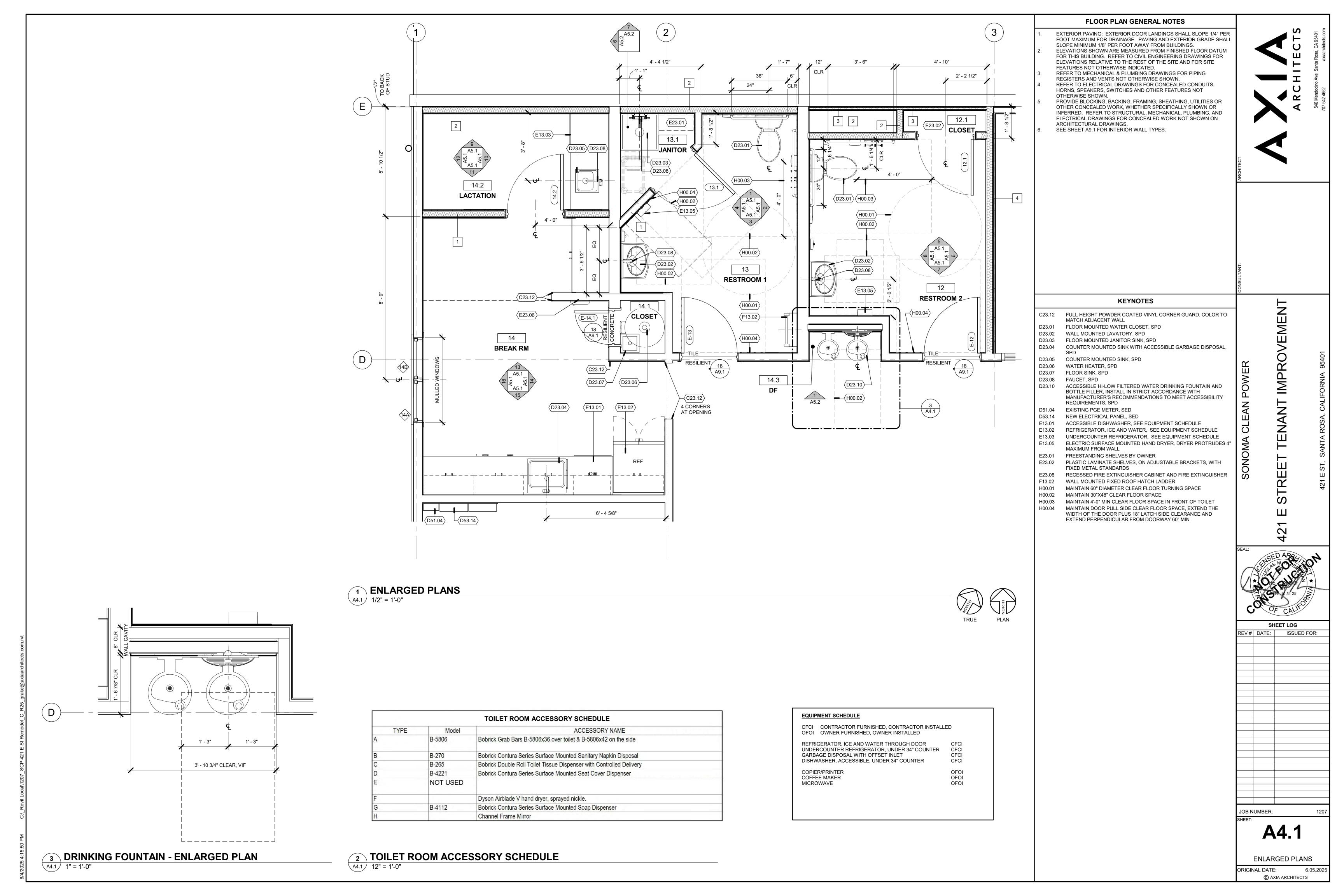
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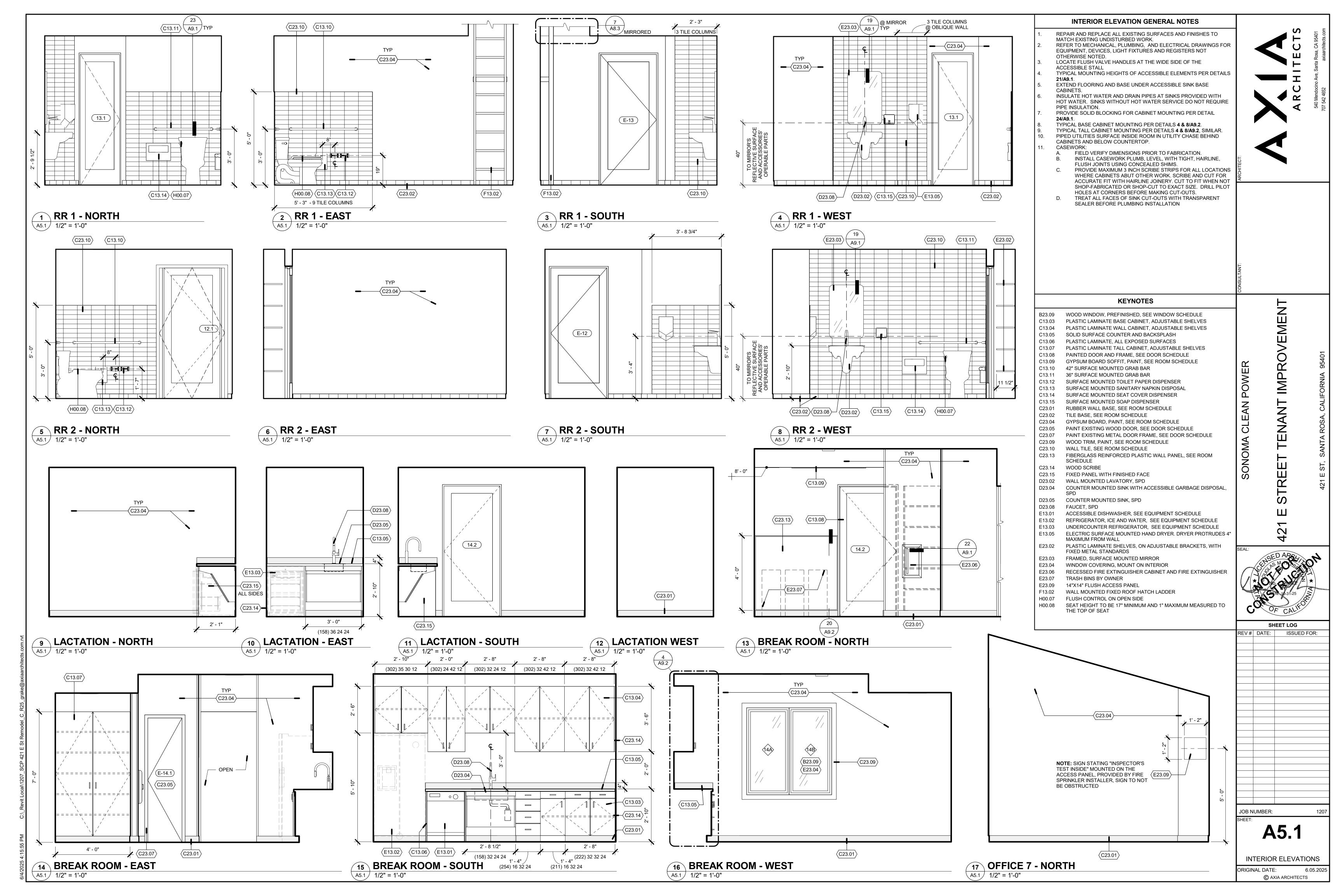
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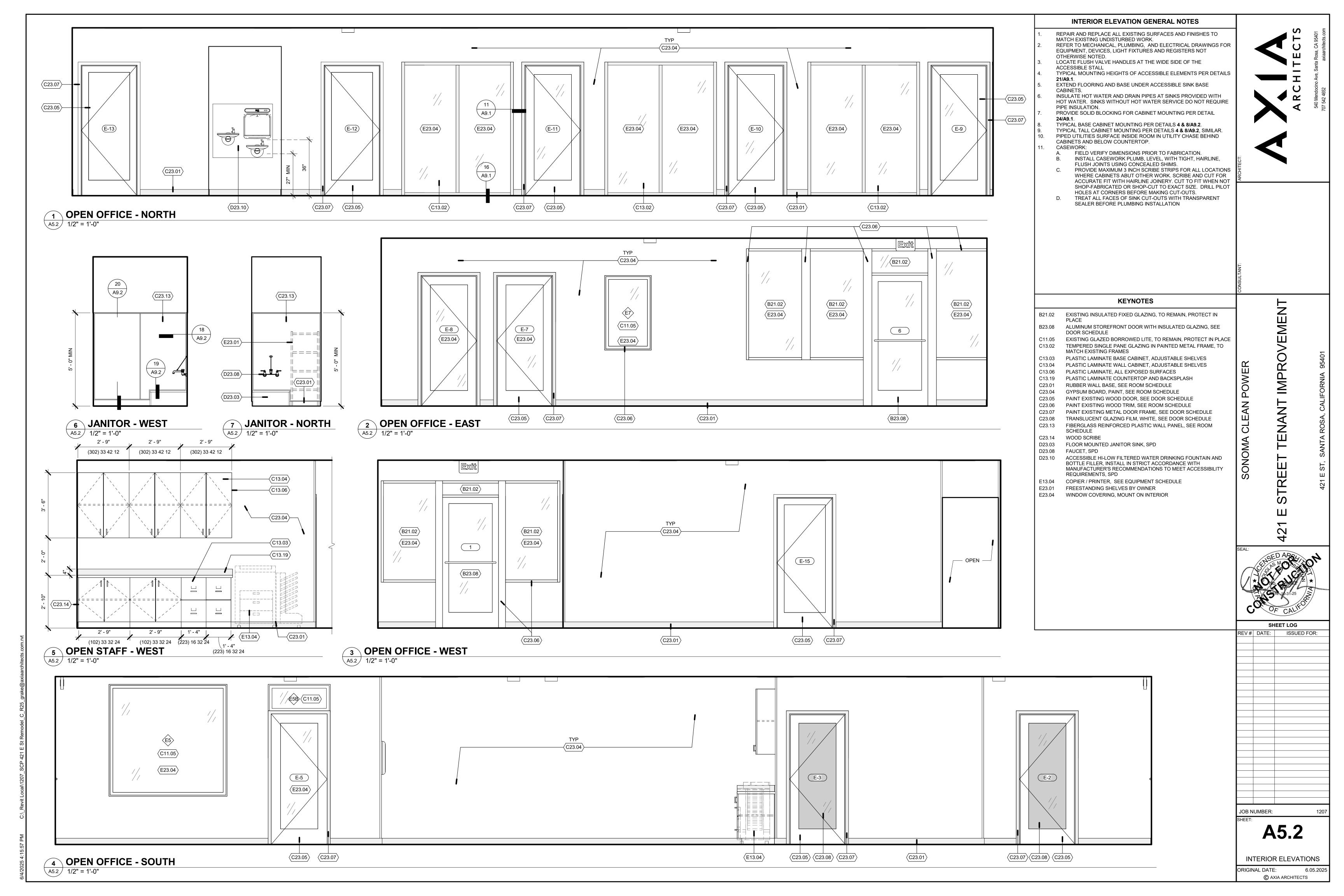
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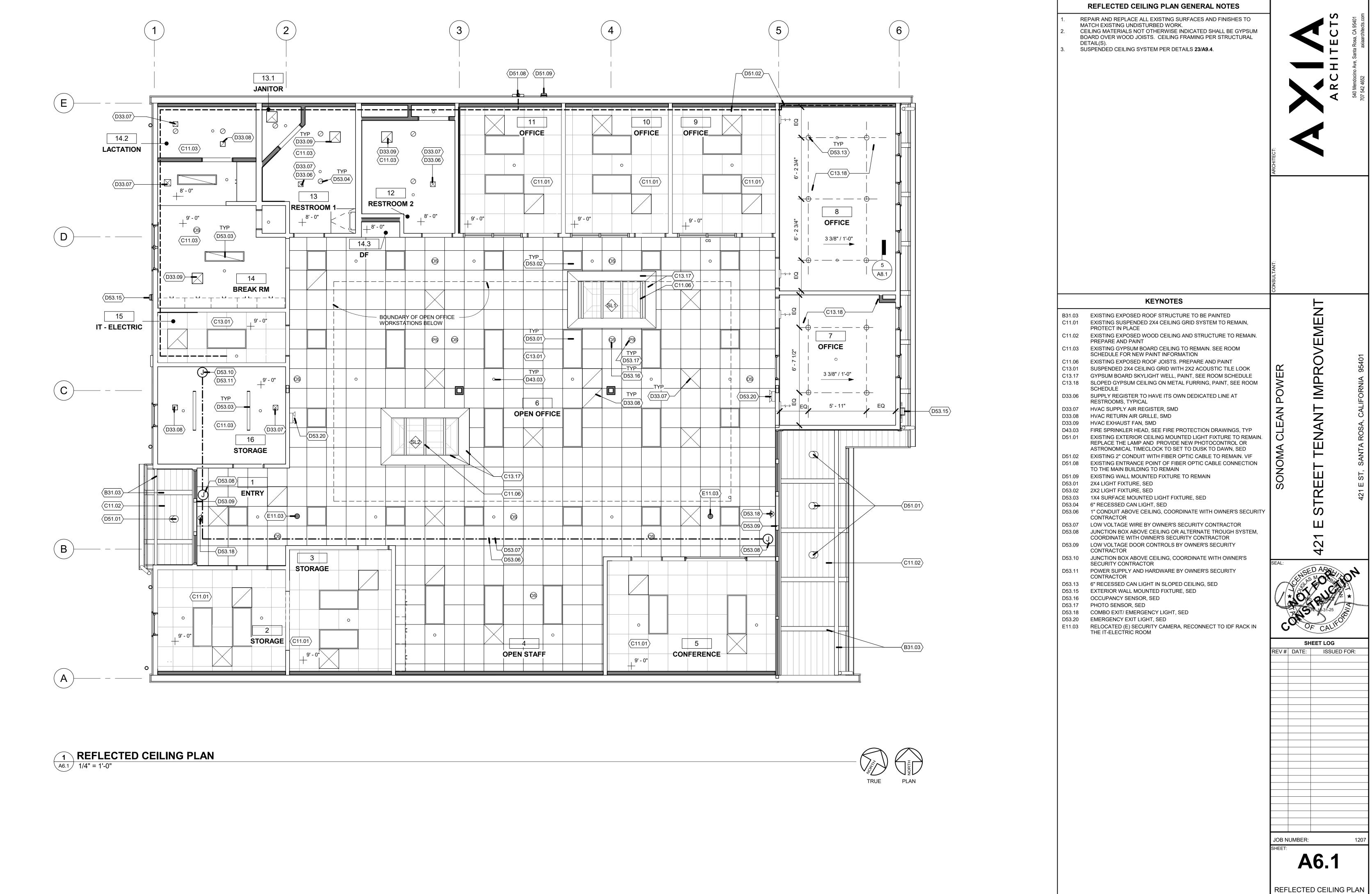
BUILDING SECTIONS

ORIGINAL DATE:





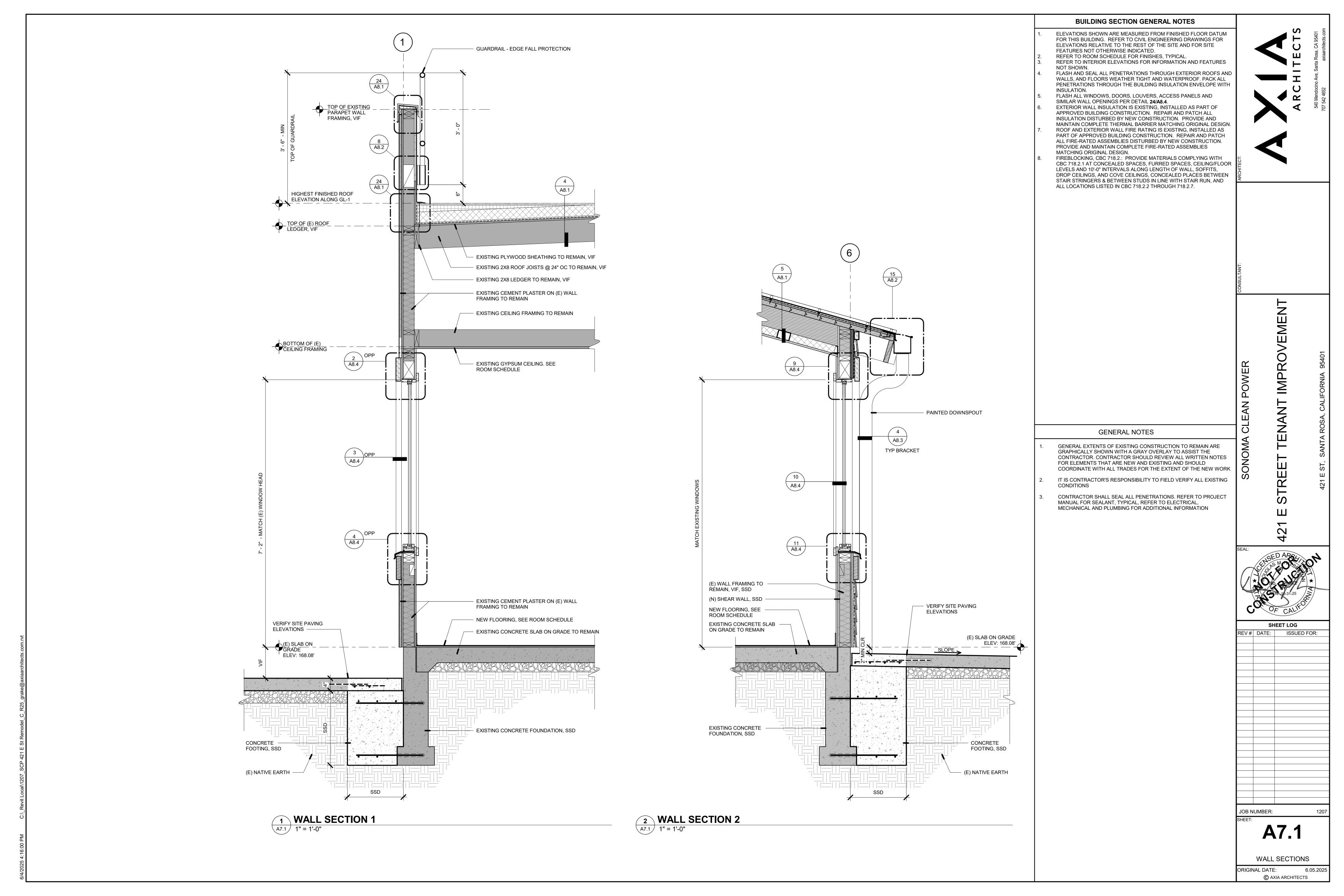


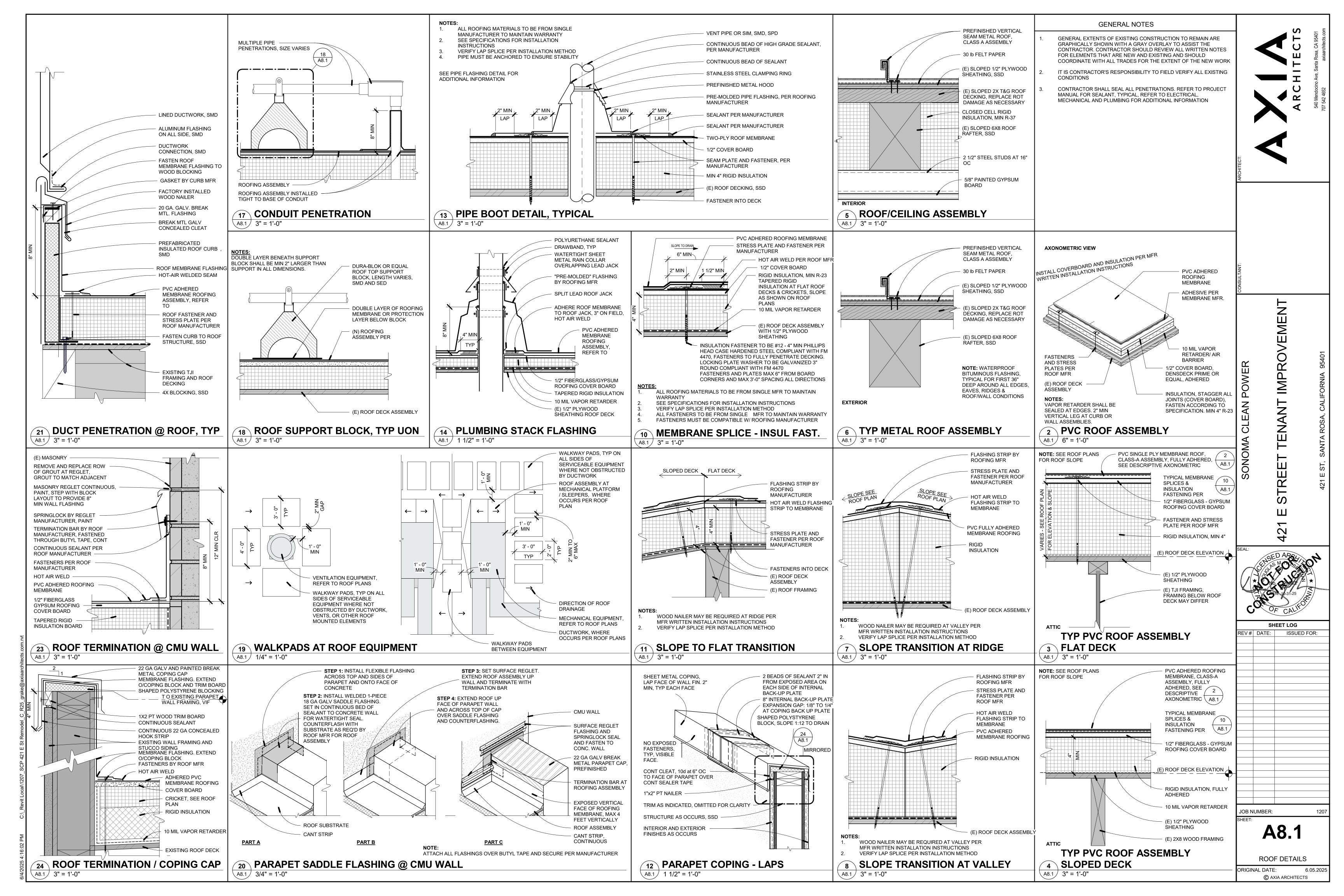


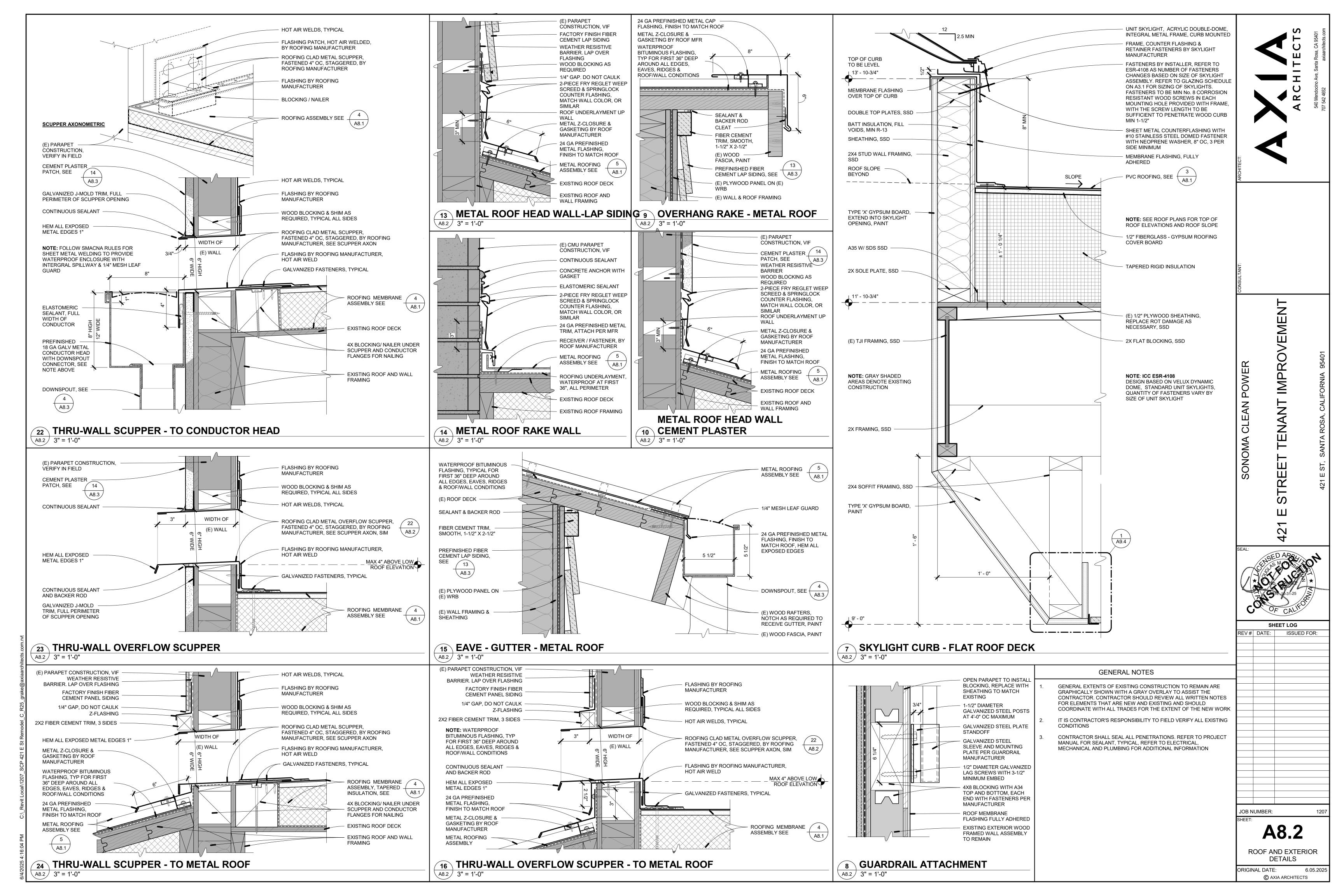
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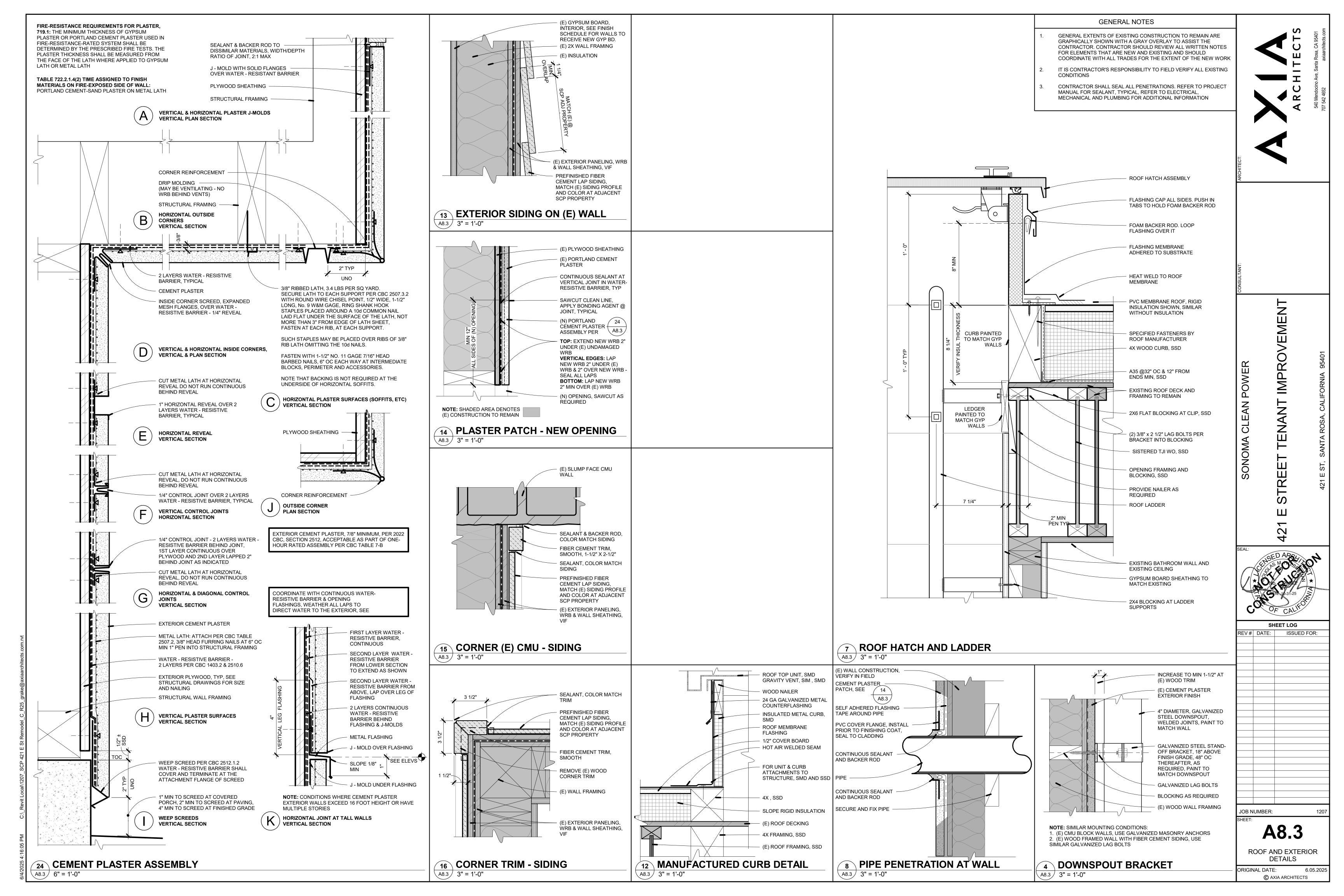
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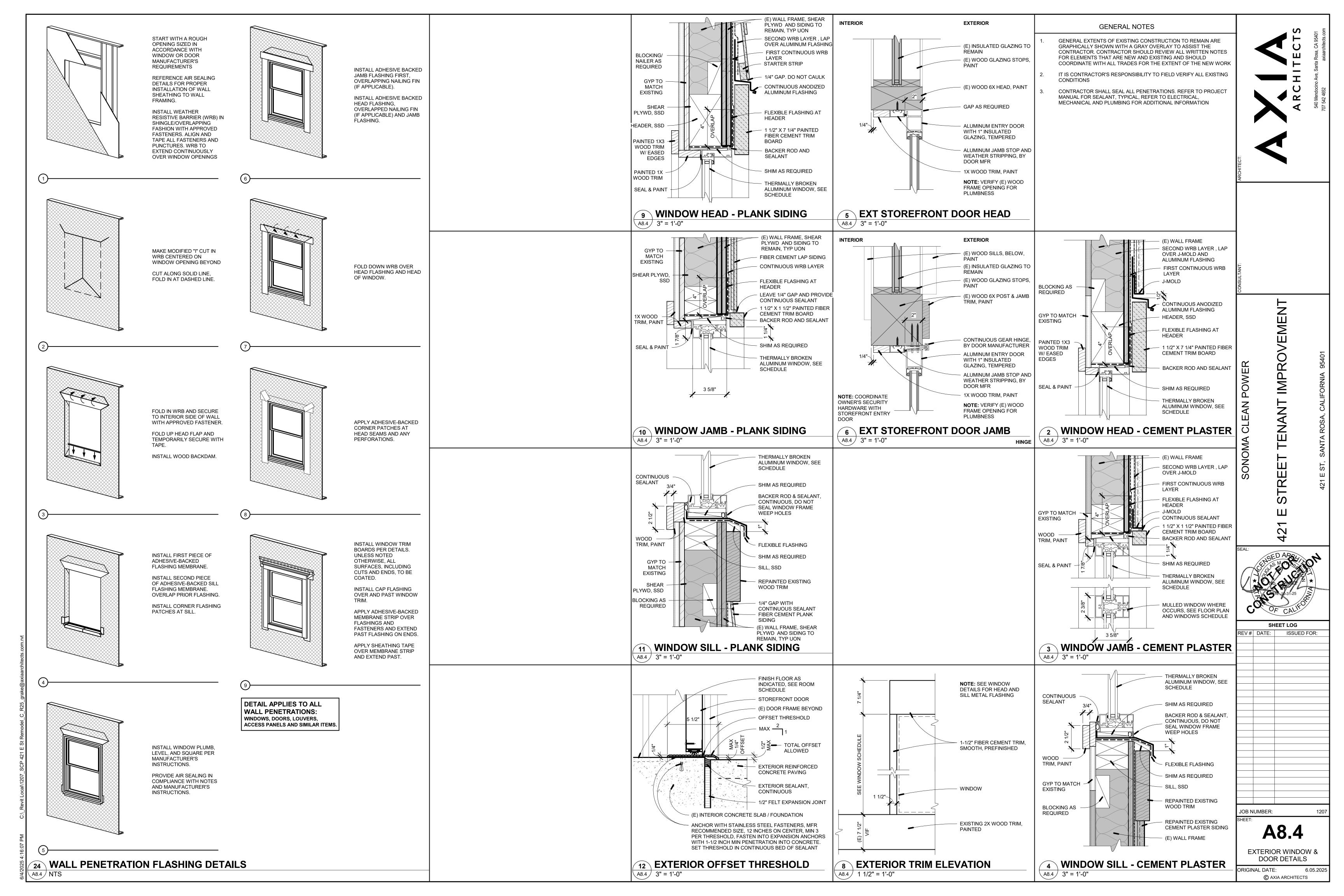
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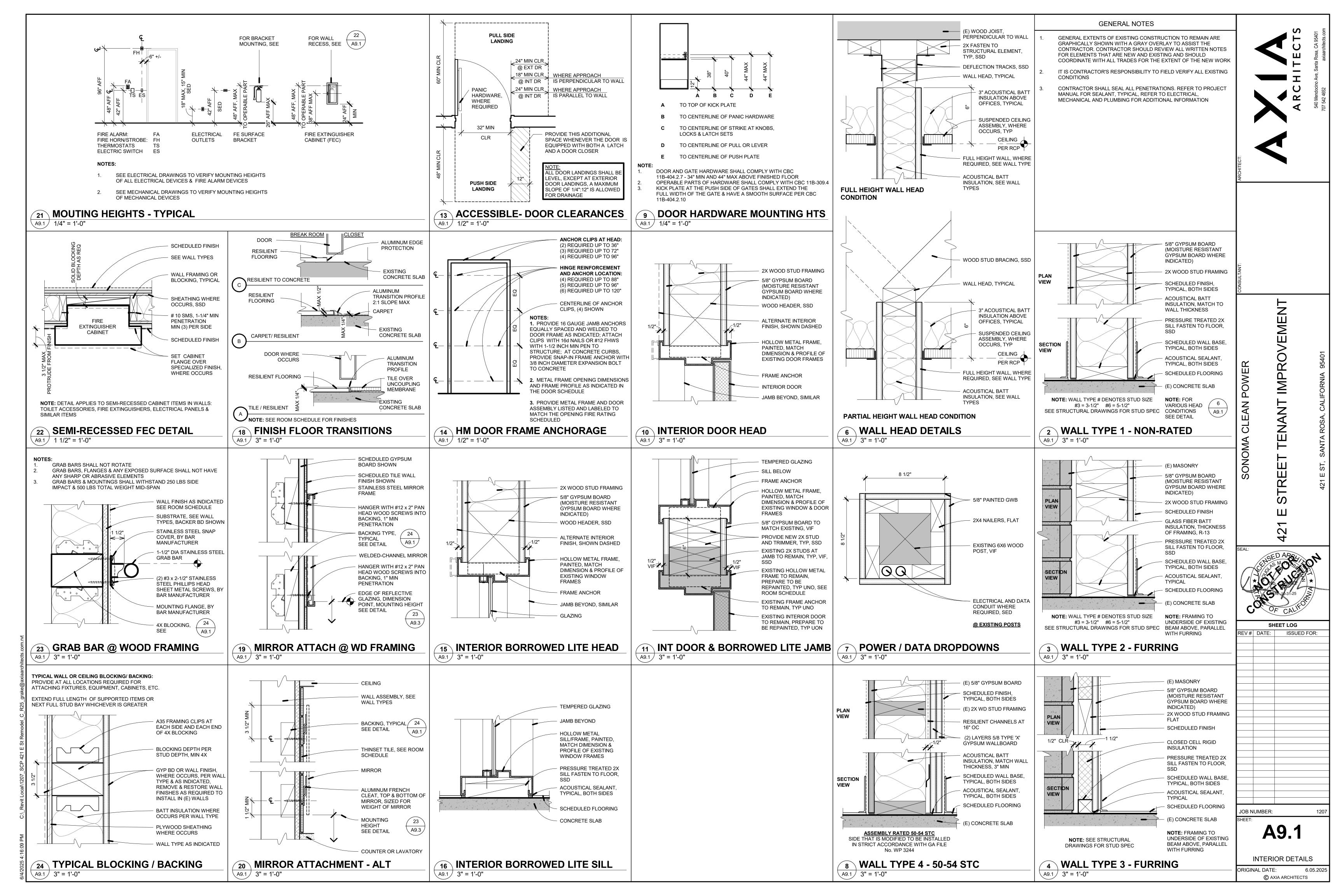


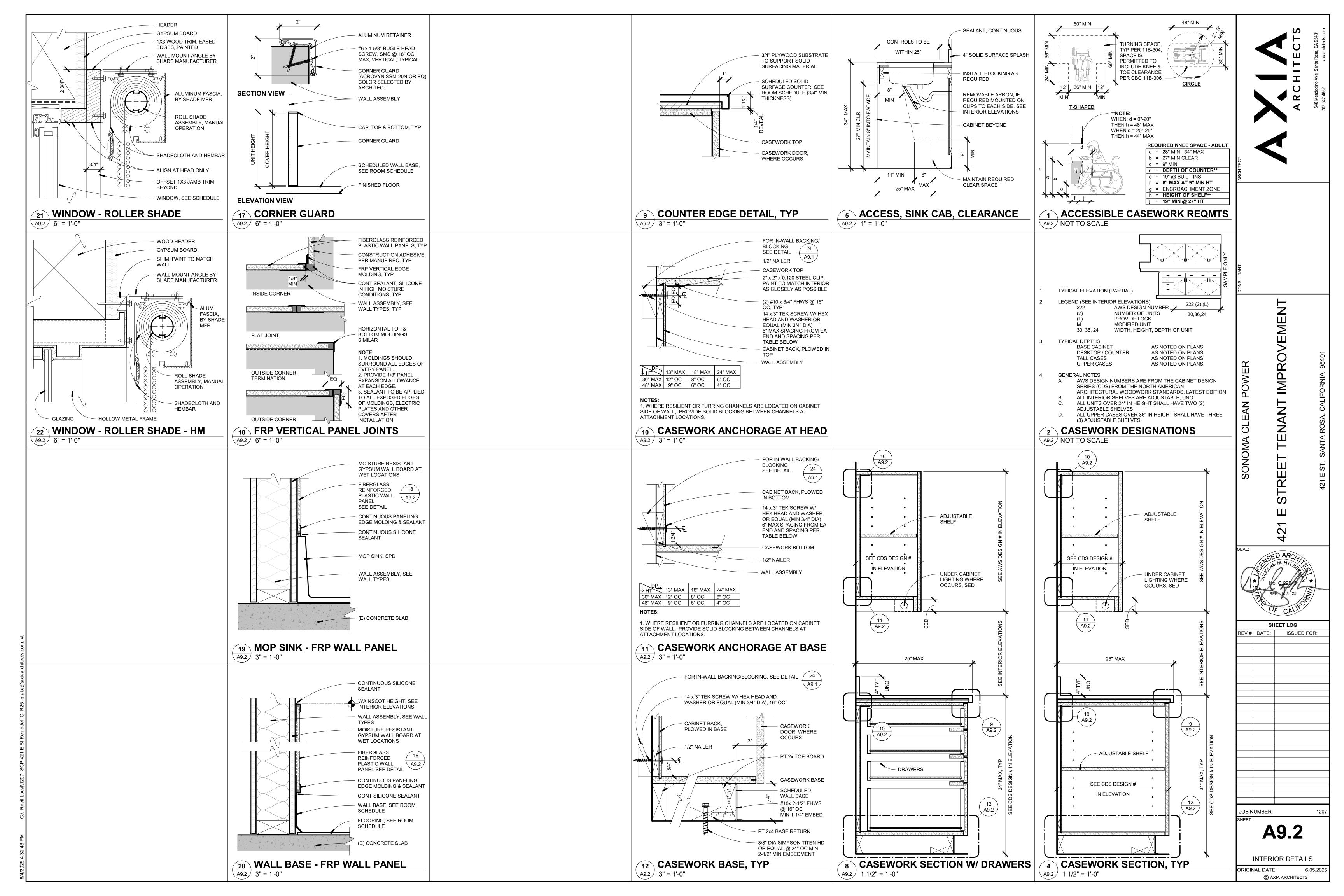


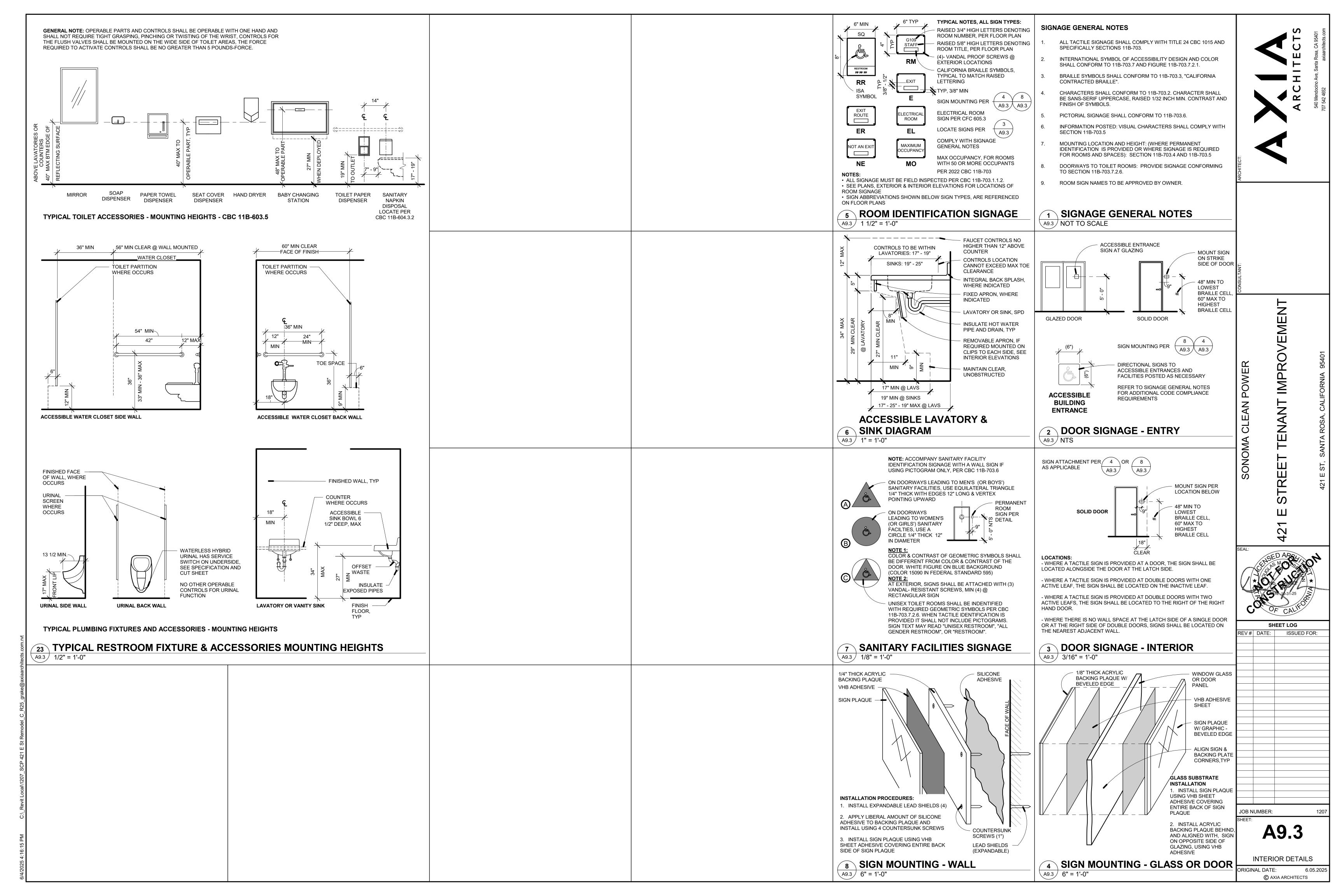


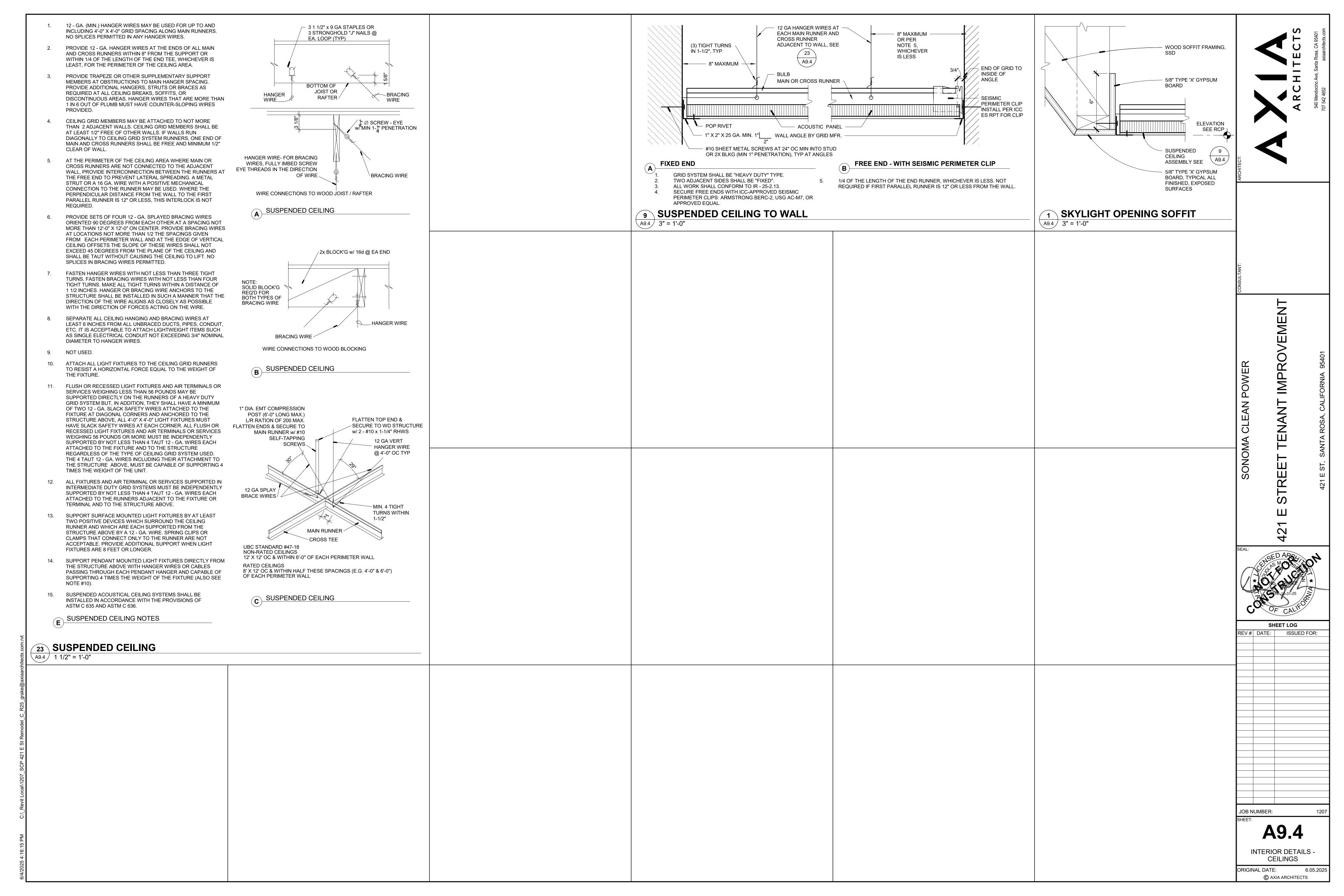












1. ZFA RECOMMENDS GEOTECHNICAL REPORTS FOR ALL CONSTRUCTION PROJECTS. NO GEOTECHNICAL REPORT HAS BEEN PROVIDED FOR THIS PROJECT AND UNDER DIRECTION OF THE CLIENT, ZFA IS PROCEEDING WITH FOUNDATION DESIGN BASED ON THE CONVENTIONAL PROVISIONS AND THE MINIMUM ALLOWABLE SOIL BEARING PRESSURE ALLOWED PER THE CALIFORNIA BUILDING CODE, CHAPTER 18. HOWEVER, GEOTECHNICAL AND GEOLOGICAL CONDITIONS SUCH AS EXPANSIVE AND COMPRESSIBLE SOILS, LIQUEFACTION, SLOPE INSTABILITY, ETC MAY EXIST WHICH WARRANT SPECIAL DESIGN CONSIDERATIONS. ZFA SHALL NOT BE RESPONSIBLE FOR UNSATISFACTORY PERFORMANCE RESULTING FROM THESE CONDITIONS. ALLOWABLE (ASD) FOUNDATION DESIGN PRESSURES ARE PER CBC SHALLOW FOOTINGS:

> DEAD LOAD + LIVE LOAD = 1,500 PSF DEAD LOAD + LIVE LOAD + LATERAL = 2,000 PSF

- 2. ALL SOILS WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS AND THE REQUIREMENTS OF CHAPTER 18 OF THE CBC. ALL FOUNDATIONS SHALL BEAR ON FIRM, UNDISTURBED, NATIVE SOILS AT OR EXCEEDING DEPTHS SHOWN ON THE DRAWINGS. INCREASE FILL AND OR FOOTING DEPTH AS REQUIRED. ALL FOOTING EXCAVATIONS SHALL BE AS NEAT AS PRACTICABLE. MAXIMUM OVER EXCAVATION IN WIDTH SHALL BE LESS THAN 12 INCHES OR 25% OF FOOTING WIDTH, WHICH EVER IS LESS. 6 INCHES MAXIMUM PER SIDE. LARGER OVER-EXCAVATIONS IN WIDTH SHALL BE FILLED WITH ADDITIONAL REINFORCED CONCRETE AS DIRECTED BY THE ENGINEER, OR FORMWORK SHALL BE PROVIDED. OVER-EXCAVATIONS IN DEPTH MAY BE FILLED WITH LEAN CONCRETE OR COMPACTED APPROVED BACKFILL. ALL LOOSE SOILS SHALL BE REMOVED FROM EXCAVATIONS PRIOR TO PLACEMENT OF REINFORCING OR CONCRETE.
- 3. AT WOOD SILL PLATES, USE %" DIAMETER ANCHOR BOLTS (AB) AT 48"oc UNLESS OTHERWISE NOTED. MINIMUM EMBEDMENT INTO CONCRETE IS 7" (EXCLUDING CURB) UNLESS DETAILED OTHERWISE. ANCHOR BOLTS ARE TO BE TIED IN PLACE PRIOR TO PLACEMENT OF CONCRETE. SEE SHEAR WALL SCHEDULE FOR ADDITIONAL REQUIREMENTS. MINIMUM TWO ANCHOR BOLTS PER SILL PIECE.
- TYPICAL SLAB: 4" CONCRETE REINFORCED WITH #3 @ 16"oc EACH WAY AT MID-DEPTH OVER VAPOR RETARDER (PER SPECIFICATIONS) AND 4" MINIMUM FREE DRAINING COMPACTED 3/4" CRUSHED ROCK ON SUBGRADE. DO NOT DRIVE CONCRETE TRUCKS OR LARGE SCREED MACHINES ON VAPOR RETARDER WITHOUT ADDITIONAL BUFFER MATERIAL AND APPROVAL FROM THE STRUCTURAL ENGINEER.
- REFER TO ARCHITECTURAL AND PLUMBING DRAWINGS FOR DEPRESSED SLABS FOR ARCHITECTURAL FLOORING OR INSERTS, SLOPED SLABS TO DRAIN AND PIPES OR CONDUITS AT SLAB. SEE 3/S1.5 FOR PIPES AND CONDUITS.
- FORMWORK STAKES ARE NOT PERMITTED WITHIN CONCRETE PLACEMENTS. IF REQUIRED, PROVIDE STEEL STAKES SLEEVED WITH PLASTIC PIPE OR SOLID PLASTIC STAKES; WOOD STAKES NOT PERMITTED. FLUSH CUT SLEEVE OR STAKE AND FILL SLEEVES IMMEDIATELY WITH GROUT. WHERE STAKES PENETRATE VAPOR RETARDER, TAPE OR SEAL PER MANUFACTURER'S RECOMMENDATIONS
- 7. DO NOT UNDERCUT EXISTING FOUNDATIONS. NOTIFY ENGINEER FOR REVIEW AND POSSIBLE REVISIONS, IF EXISTING FOUNDATION CONDITIONS ARE NOT AS SHOWN.

\ MANUFACTURED I-JOIST NOTES

- 1. IJ = BUILT-UP "I" SHAPED WOOD JOIST WITH PLYWOOD OR OSB WEB. SUBMIT SHOP
- 2. JOISTS ARE PER PLAN. PROVIDE "ITS" HANGERS AT FLOOR FRAMING AND "IUS" HANGERS AT ROOF FRAMING UNLESS NOTED OTHERWISE. HANGER SIZE TO BE CORRECT FULL SIZE FOR JOIST SIZE WITH 'MAX' NAILING UNLESS NOTED OTHERWISE
- 3. ALTERNATE FRAMING CAN BE SUBMITTED FOR SUBSTITUTION REVIEW AS AN EXTRA SERVICES ITEM. CONTRACTOR SHALL BE RESPONSIBLE FOR COST OF INVESTIGATING AND REVIEWING THE ADEQUACY AND/OR ACCEPTABILITY OF SUCH SUBSTITUTION, INCLUDING ANY REQUIRED REVISIONS TO DRAWINGS AND SPECIFICATIONS.
- IJ SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. WEB STIFFENERS AND WEB FILLERS SHALL BE INSTALLED PER IJ AND JOIST HANGER MANUFACTURER'S REQUIREMENTS AND 2/S1.4
- NO MODIFICATIONS ARE PERMITTED TO I-JOIST TOP AND BOTTOM CHORDS, DO NOT CUT. OPENINGS THROUGH I-JOIST WEBS ARE PERMITTED AS INDICATED PER <u>1/S1.4</u>
- 6. BLOCKING AT I-JOIST SHALL BE INSTALLED PER 3/S1.4
- 7. AT FLOOR IJ WITH SPAN GREATER THAN 17'-0", PROVIDE BRIDGING (OR FULL DEPTH BLOCKING) AT 8'-0"oc MAX AND WITHIN 24" OF ENDS IF INSTALLED WITH TOP FLANGE HANGER. SEE BRIDGING DETAIL 1/S1.4
- 8. WHERE MULTIPLE-PLY I-JOIST ARE USED, PROVIDE CONNECTIONS BETWEEN JOISTS PER <u>5/S1.4</u>

	SHEET INDEX
S0.1	GENERAL NOTES
S0.2	SPECIFICATIONS
S1.1	TYPICAL CONCRETE DETAILS
S1.2	TYPICAL WOOD DETAILS
S1.3	TYPICAL WOOD DETAILS
S1.4	TYPICAL I-JOIST DETAILS
S1.5	MODERNIZATION FOUNDATION
S1.6	MODERNIZATION WOOD
S2.1	FOUNDATION PLAN
S2.2	ROOF FRAMING PLAN

EXISTING CONSTRUCTION NOTES

- 1. IN PREPARING THE PROJECT PLANS, THE SOURCE OF INFORMATION WAS BASED ON THE EXISTING BUILDING PLANS BY, M. GEORGE LAWRY, A.I.A., DATED 10/23/72. ACTUAL FIELD CONDITIONS MAY VARY. THE CONTRACTOR SHALL VERIFY ALL EXISTING JOB CONDITIONS, REVIEW THE PLANS AND VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ALL DISCREPANCIES AND EXCEPTIONS BEFORE
- 2. ALL WORK NOT INDICATED AS EXISTING (E) SHALL BE ASSUMED TO BE NEW (N).
- 3. ANY REMOVAL, CUTTING, DRILLING, ETC OF EXISTING WORK SHALL BE PERFORMED WITH GREAT CARE. SMALL TOOLS SHALL BE USED IN ORDER NOT TO JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE STRUCTURE. IF STRUCTURAL MEMBERS OR MECHANICAL, ELECTRICAL, OR ARCHITECTURAL ELEMENTS NOT INDICATED FOR REMOVAL INTERFERE WITH THE NEW WORK, THE ARCHITECT/ENGINEER SHALL BE IMMEDIATELY NOTIFIED AND PRIOR APPROVAL SHALL BE OBTAINED BEFORE REMOVAL OF THE MEMBERS.
- 4. DO NOT OVER CUT EXISTING WOOD, CONCRETE, MASONRY OR OTHER WORK TO REMAIN. CUTS SHALL BE MADE NEATLY TO A CORNER, THEN ALTERNATE MEANS SHALL BE USED TO REMOVE REMAINING MATERIAL. CONTRACTOR IS RESPONSIBLE FOR REPAIR/REPLACEMENT OF OVER CUT MATERIAL AS DIRECTED BY THE ARCHITECT AND/OR ENGINEER.
- 5. EXISTING DAMAGED STRUCTURAL MEMBERS WHICH ARE UNCOVERED SHALL BE REPORTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND REPAIR.
- 6. EXISTING CONCRETE SURFACE ABUTTING NEW CONCRETE SHALL BE ROUGHENED TO 1/4" AMPLITUDE AND THOROUGHLY CLEANED OF DUST. LOOSE AGGREGATE.
- 7. EXISTING REINFORCING AND/OR STEEL EMBEDS THAT ARE EXPOSED DURING DEMOLITION SHALL BE WIRE-BRUSHED AND FOREIGN MATERIAL REMOVED PRIOR TO PLACEMENT OF NEW CONCRETE.
- 8. ALTERATIONS REQUIRE ASSUMPTIONS BE MADE REGARDING EXISTING CONDITIONS WHICH MAY NOT BE VERIFIABLE WITHOUT DESTROYING OTHERWISE ADEQUATE OR SERVICEABLE PORTIONS OF THE STRUCTURE. THIS ANALYSIS DOES NOT MAKE ANY GUARANTEE TO THE ADEQUACY OF THE STRUCTURAL DESIGN OF THE EXISTING BUILDING NOT SPECIFICALLY ADDRESSED IN THE STRUCTURAL CALCULATIONS. ZFA SHALL NOT BE RESPONSIBLE FOR UNSATISFACTORY PERFORMANCE OF EXISTING PORTIONS OF THE STRUCTURE NOT SPECIFICALLY ADDRESSED IN THE CONSTRUCTION DOCUMENTS.
- 9. DIFFERENTIAL SETTLEMENT BETWEEN NEW AND EXISTING CONSTRUCTION AT ALTERATION OR ADDITION FOUNDATION INTERFACES CAN BE EXPECTED. ZFA SHALL NOT BE RESPONSIBLE FOR UNSATISFACTORY PERFORMANCE RESULTING FROM THESE CONDITIONS.

SHEAR WALL NOTES

- 1. PEN = PLYWOOD/OSB SHEATHING EDGE NAILING. BLOCK ALL UNSUPPORTED EDGES WITH 2x MATERIAL UNO. BLOCK EDGES WITH 3x MATERIAL WHERE NAILING IS 4"oc OR LESS. SEE 6/S1.2 FOR NAIL STAGGER AT ALL 3x.
- 2. FIELD NAILING TO BE 12"oc UNO.
- 3. ALL SHEATHING NAILS TO BE COMMON WIRE. SEE **D/S0.1** AND SPECIFICATIONS FOR OTHER NAIL REQUIREMENTS.
- 4. ALL EXTERIOR WALLS NOT DESIGNATED AS SHEAR WALLS ON PLANS TO HAVE SHEATHING AND PEN NAILING PER SHEAR WALL TYPE 'A'.
- 5. SHEAR WALL LENGTHS, WHERE NOTED, ARE MINIMUM. DO NOT LOCATE HOLDOWNS FROM THESE DIMENSIONS. SAD FOR ACTUAL WALL LENGTHS.
- 6. HOLDOWN REFERS TO SIMPSON STRONG TIE CO. HOLDOWNS. INSTALL HOLDOWNS AND REQUIRED POSTS PER 5/S1.6 AND 8/S1.2 SEE PLANS FOR OTHER REQUIREMENTS.
- 7. EDGE NAIL WALL SHEATHING TO STUDS OR POSTS WITH HOLDOWNS.
- 8. PORTIONS OF INTERIOR WALL SURFACES ADJACENT TO SPECIFIED SHEAR WALLS SHALL BE SHEATHED FOR THE FULL, UNINTERRUPTED LENGTH TO MATCH EXTERIOR WALLS OR WITH GYPSUM BOARD OF THE SAME THICKNESS TO PROVIDE AN EVEN WALL SURFACE FOR FINISH MATERIALS.
- 9. SHEAR WALLS MORE THAN ONE VERTICAL PANEL IN HEIGHT SHALL HAVE STAGGERED HORIZONTAL OR VERTICAL SPLICE JOINTS.
- 10. WHERE PANELS ARE APPLIED ON BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6"oc ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3x OR THICKER AND NAILS ON EACH SIDE SHALL BE STAGGERED.
- 11. ANCHOR BOLTS (AB) FOR SHEAR WALLS SHALL INCLUDE STEEL PLATE WASHERS, A MINIMUM OF 0.229 INCH BY 3 INCHES SQUARE IN SIZE, BETWEEN THE SILL PLATE AND NUT. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE AB DIAMETER AND A SLOT LENGTH NOT TO EXCEED 13/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. PLATE WASHER TO EXTEND WITHIN ½" OF SHEAR WALL SHEATHING UNO. PROVIDE OVERSIZED PLATE WASHER OR OFFSET AB AS REQUIRED. AT DOUBLE-SIDED SHEAR WALLS, STAGGER AB AS REQUIRED. AB TO BE PLACED A MINIMUM OF 41/2" AND A MAXIMUM OF 12" FROM ENDS OF ALL SILL PLATES AND AT NOTCHES IN SILL PLATES.
- 12. NO OPENINGS ARE ALLOWED IN SHEAR WALLS UNLESS SHOWN ON THE STRUCTURAL PLANS. OPENINGS NOTED ARE PER 3/\$1.2. COORDINATE ANY OPENINGS NOT SHOWN WITH THE STRUCTURAL ENGINEER

	SHEAR WALL SCHEDULE 3								
SW	APA RATED EXP 1	NAILING			CHORA			REMARKS	
1000	SHEATHING	(PEN)	% "ø BO	LT FDN 4	А	T FRAMING	2	INLIVIATIO	
	SHEATHING	(PEN)	2x SILL	3x SILL	16d	A35	SCREW ¹		
$\langle A \rangle$	¹⁵ ⁄ ₃₂ " (32/16) CD	8d @ 6"oc	48"oc	48"oc	8"oc	24"oc	24"oc		
$\langle B \rangle$	¹⁵ / ₃₂ " (32/16) CD	8d @ 4"oc	32"oc	32"oc	6"oc	16"oc	16"oc		
$\langle c \rangle$	¹⁵ ⁄ ₃₂ " (32/16) CD	8d @ 3"oc	24"oc	32"oc	4"oc	12"oc	12"oc	3x MIN AT	
D	¹⁵ ⁄ ₃₂ " (32/16) CD	8d @ 2"oc	-	24"oc	(2) ROWS @ 6"oc	12"oc	8"oc	ALL ADJOINING PANEL	
(E)	¹⁵ ⁄ ₃₂ " (32/16) CD BOTH SIDES	8d @ 3"oc	-	12"oc	(2) ROWS @ 4"oc	6"oc	(2) ROWS @ 6"oc	EDGES	
(F)	15/32 " STRUCT 1 BOTH SIDES	8d @ 2"oc EXT 10d @ 2"oc INT	1	12"oc	(2) ROWS @ 4"oc	6"oc	(2) ROWS @ 6"oc	PER <u>8/S1.6</u>	

- 1. 2x SILL: SDS¼x4½" OR SDWS 0.22"x4". AT 3x SILL: SDS¼x6" OR SDWS 0.22"x6" 2. FOR SCREW @ 6"oc OR LESS & DBL ROW OF ANCHORAGE PROVIDE 4x OR EQUIVALENT
- SB/RIM BLW. AT DBL ROW STGR ROWS TYPICAL.
- 3. AT EXISTING WALLS: (E) STRUCT SHTG, NAILING, & ANCHORAGE SHALL BE VERIFIED BY THE CONTRACTOR TO MEET THE REQUIREMENTS NOTED IN THE SCHED ABV. ALL (E) SW COMPONENTS NOT MEETING THE REQUIREMENTS OF THE SCHED INCLUDING
- SHEAR TRANSFER DETAILS SHALL BE UPGRADED AS REQD. 4. SCREW ANCHORS PER 8/S1.1 MAY BE USED AT (E) FDN. SIZE & SPCG PER SW SCHED.

SPECIAL INSPECTION BY OWNERS **TESTING AGENCY**

SPECIAL INSPECTIONS AND TESTING SHALL BE PERFORMED BY AN APPROVED AGENCY IN ACCORDANCE WITH CBC CHAPTER 17 AND THE STATEMENT OF SPECIAL INSPECTIONS AS REQUIRED BY CBC SECTIONS 1704.2.3 AND 1704.3 FOR BUILDING STRUCTURAL ELEMENTS SUMMARIZED AS FOLLOWS:

- SHOP FABRICATION OF STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES PER CBC SECTION 1704.2.5 OR ALTERNATIVELY, APPROVED FABRICATORS SHALL SUBMIT A CERTIFICATE OF COMPLIANCE PER CBC SECTION 1704.2.5.1 INCLUDING GLULAM BEAM INSPECTION CERTIFICATES.
- 2. CONCRETE CONSTRUCTION PER CBC SECTIONS 1705.3, AND TABLE 1705.3 INCLUDING FORMWORK, REINFORCING STEEL, CAST-IN-PLACE BOLTS, MIX DESIGNS, CONCRETE SAMPLES, AND PLACEMENT FOR ALL CONCRETE. REINFORCING DOWELS FROM FOOTINGS TO RETAINING WALLS SHALL BE INSPECTED PRIOR TO PLACEMENT OF FOOTING CONCRETE AND WALL GROUT OR CONCRETE. CONTINUOUS OR ISOLATED SPREAD FOOTINGS WITH DESIGN STRENGTH NO GREATER THAN 2500 PSI, NON-STRUCTURAL SLABS ON GRADE, AND EXTERIOR FLATWORK DO NOT REQUIRE SPECIAL INSPECTION PER CBC SECTION
- WOOD CONSTRUCTION PER CBC SECTIONS 1705.5, 1705.12.1, AND 1705.13.2 INCLUDING NAILING, BOLTING, AND ANCHORING OF ALL DRAG STRUTS; TOP PLATE SPLICES, LEDGER SPLICES, SIMPSON HARDWARE, BRACES, AND HOLDOWNS; AND NAILING, BOLTING, AND ANCHORING OF ALL SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS WHERE THE FASTENER SPACING OF THE SHEATHING IS 4" APART OR
- 4. SPECIAL CASES PER CBC SECTION 1705.1.1 AND PRODUCT ICC REPORTS FOR ALL STRUCTURAL MATERIALS AND SYSTEMS REQUIRED TO BE INSTALLED IN ACCORDANCE WITH ADDITIONAL MANUFACTURER'S INSTRUCTIONS THAT PRESCRIBE REQUIREMENTS NOT CONTAINED IN THE CBC OR REFERENCED STANDARDS INCLUDING POST-INSTALLED ANCHOR BOLTS IN CONCRETE AND CMU, AND PRE-MANUFACTURED SHEAR PANELS AND BRACED FRAMES.

WOOD FRAMING NOTES

- HEADERS, BEAMS, POSTS, TOP PLATE SPLICES, AND ETC., ARE PER 1/S1.6 AND 2/S1.2 WHERE NOT NOTED ON PLAN AND DETAILS. WALLS AT SEISMIC SEPARATIONS SHALL BE CONSIDERED EXTERIOR WALLS.
- 2. ALL BEAMS AND JOISTS (EXCLUDING I JOISTS) SHALL BE SEAT CUT FOR FULL UNIFORM BEARING AT SUPPORTS, INCLUDING BEAM SEATS AND COLUMN CAPS.
- 3. SEE 6/S1.2 FOR SHEATHING NAILING REQUIREMENTS. ALL NAILING NOT NOTED OR DETAILED OTHERWISE SHALL BE PER 4/S1.2. NAIL LENGTH TO BE SUFFICIENT TO MEET CBC PENETRATION REQUIREMENTS. NAILS INTO PRESSURE TREATED MATERIAL SHALL BE HOT DIP GALVANIZED. NAILS AT BORATE TREATED LUMBER MAY BE CLEAR ZINC COATED. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AT EXTERIOR EXPOSURES.
- SEE ARCHITECTURAL DRAWINGS FOR INTERIOR WALL FRAMING SIZES. COORDINATE STUD AND PLATE SIZES WITH THE REQUIREMENTS OF THE SHEAR WALL SCHEDULE.
- WOOD POST SIZES ARE TO MATCH BEAM AND STUD WIDTH, UNO. WHERE POST OCCURS ABOVE RAISED FLOOR, PROVIDE SOLID BLOCKING AT FLOOR FRAMING TO MATCH WIDTH OF POST. PEN PER F/S0.1TO POSTS AT ALL EXTERIOR WALLS AND INTERIOR SHEAR WALLS. POSTS AT HOLDOWNS TO BE FULL HEIGHT AND PER 5/S1.6
- 6. FOR ROOF DRAINAGE, TOP OF FRAMING BETWEEN NOTED POINTS IS A STRAIGHT LINE.
- 7. ALL MECHANICAL SUPPLY AND RETURN OPENINGS TO BE BETWEEN FRAMING UNO.
- 8. JOISTS AND RAFTERS ARE PER PLAN. UNLESS NOTED OTHERWISE, PROVIDE "LU" HANGER AT FLUSH FRAMING AND "HU" HANGER WHERE HANGER IS SHOWN SKEWED PER PLAN AND/OR HANGER SEAT IS INDICATED TO BE SLOPED. HANGER SIZE TO BE CORRECT FULL SIZE FOR JOIST SIZE (I.E. LU210 FOR 2x10). FILL ALL NAIL
- 9. PROVIDE SOLID BLOCKING @ 8'-0"oc MAX FOR ALL 2x12 REPETITIVE FRAMING. PROVIDE SOLID BLOCKING OR SIMPSON TB X-BRIDGING @ 8'-0"oc MAX FOR ALL 11/2" LSL AND 134" LVL REPETITIVE FRAMING WITH A DEPTH OF 1114" OR GREATER.
- 10. PROVIDE ADDITIONAL JOIST BELOW ALL OR ADJACENT TO NON-STRUCTURAL WALLS PARALLEL TO FRAMING, UNO.
- 11. ROUND HOLES IN STEEL PLATES TO BE 1/16" OVERSIZE. SLOTTED HOLES IN STEEL PLATES SHALL BE 1/16" WIDER THAN THE BOLT DIAMETER AND HAVE A LENGTH OF 2 TIMES THE BOLT DIAMETER. THE DIRECTION OF THE SLOTTED LENGTH IS INDICATED ON THE DETAILS (VSH OR HSH). INSTALL BOLT AT THE CENTER LINE OF THE HOLE. BOLT HOLES IN WOOD SHALL BE ROUND AND 1/32" OVERSIZE. CUT OFF BOLT THREADED END FLUSH WITH NUT WHEN REQUIRED BY FINISHES AND 1" MAXIMUM FROM NUT OTHERWISE. PROVIDE STANDARD CUT WASHERS UNDER HEAD AND NUT WHERE BOLT BEARS ON WOOD. USE PLATE OR MALLEABLE IRON WASHERS AT EXPOSED CONDITIONS OR AS INDICATED.
- 12. ALL BOLTED OR NAILED STRAP CONNECTIONS SHALL HAVE AN EQUAL NUMBER OF BOLTS OR NAILS EACH SIDE OF THE SPLICE JOINT. THE FIRST BOLT OR NAIL FROM EACH SIDE OF THE SPLICED OR STRAPPED MEMBER SHALL BE EQUIDISTANT FROM THE SPLICE. STRAPS USING 16d NAILS ON 2x MATERIAL TO BE INSTALLED ON THE 1½" EDGE OF THE MEMBER.
- 13. THE CONTRACTOR SHALL VERIFY THAT THE MOISTURE CONTENT OF ALL FRAMING LUMBER AND SHEATHING MEET THE REQUIREMENTS OF THE SPECIFICATIONS AT THE TIME OF INSTALLATION AND AT CLOSE-IN. THE CONTRACTOR SHALL PROVIDE ALLOWANCE FOR DIFFERENTIAL SHRINKAGE BETWEEN FLOORS, ETC.
- 14. VENTING IS REQUIRED IN ENCLOSED FRAMING AREAS, SAD. DRILL BLOCKING AND LEDGERS AND PROVIDE SKIP BLOCKING AS DETAILED.
- 15. SAD FOR CEILING INFO. WHERE REQUIRED PROVIDE CEILING JOISTS PER 3/S1.3,
- 16. ALL SHEATHING SHALL HAVE 1/8" GAP AT ALL EDGES AND JOINTS. TYPICAL
- A. FLAT ROOF SHEATHING (SLOPE 2:12 OR LESS): 19/32 " T&G APA RATED SHEATHING (40/20) EXP 1 WITH 10d @ 6"oc EDGES (PEN) AND 12"oc FIELD UNO ON PLANS. LAY PERPENDICULAR TO FRAMING MEMBERS. NO PANELS LESS THAN 24" WIDE SHALL BE USED. STAGGER SHEETS.
- B. SLOPING ROOF SHEATHING (SLOPE GREATER THAN 2:12): 15/32 APA RATED SHEATHING (32/16) EXP 1 WITH 10d @ 6"oc EDGES (PEN) AND 12"oc FIELD UNO ON PLANS. LAY PERPENDICULAR TO FRAMING MEMBERS. NO PANELS LESS THAN 24" WIDE SHALL BE USED. STAGGER SHEETS.

DESIGN CRITERIA

2022 CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2 (CBC) FLOOR LIVE LOAD: ROOF LIVE LOAD: RISK CATEGORY:

50 PSF (REDUCIBLE) + 15 PSF PARTITION 20 PSF (REDUCIBLE)

ULTIMATE WIND SPEED (3 SEC GUST) IN MPH: 92 WIND DATA: WIND EXPOSURE: C

EARTHQUAKE DATA: SEISMIC IMPORTANCE FACTOR, I_e: 1.0

INTERNAL WIND PRESSURE COEFFICIENT (GCPI) = ± 0.18 COMPONENTS AND CLADDING DESIGN PRESSURES FOR SYSTEMS DESIGNED BY OTHERS SHALL COMPLY WITH THE "ASCE 7-16" DESIGN STANDARD

SITE CLASS: D (BY DEFAULT) SPECTRAL RESPONSE COEFFICIENTS: $S_{DS} = 1.833$; $S_{D1} = 1.006$ SEISMIC DESIGN CATEGORY: E

MAPPED SPECTRAL RESPONSE ACCELERATIONS: $S_8 = 2.291$; $S_1 = 0.888$

SEISMIC FORCE RESISTING SYSTEM(S): WOOD FRAMED SHEAR RESPONSE MODIFICATION FACTOR(S): R = 6.5

SEISMIC RESPONSE COEFFICIENT(S), C_S = 0.282 (ULTIMATE) ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE

INTERIOR TENANT IMPROVEMENTS INCLUDING ROOF TOP MECHANICAL UNITS, INTERIOR NON-BEARING WALLS, FURRING WALLS, AND OPENINGS IN EXISTING NON-BEARING AND SHEAR WALLS.

GENERAL NOTES

SCOPE:

- 1. REFER TO SHEETS <u>S1.1</u> THROUGH <u>S1.6</u> FOR STANDARD DETAILS OF CONSTRUCTION. REFER TO THE PROJECT SPECIFICATIONS FOR MATERIALS AND
- 2. BUILDING DIMENSIONS SHOWN ARE FOR GENERAL REFERENCE ONLY. SEE ARCHITECTURAL DRAWINGS (SAD) FOR ALL ACTUAL BUILDING DIMENSIONS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER SO CLARIFICATION CAN BE MADE PRIOR TO COMMENCING
- 3. STRUCTURAL DRAWINGS SHALL NOT BE SCALED. ALL DIMENSIONS AND FIT SHALL BE DETERMINED AND VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING
- 4. DETAILS NOT FULLY OR SPECIFICALLY SHOWN SHALL BE OF SAME NATURE AS OTHER SIMILAR CONDITIONS.
- 5. REFER TO ARCHITECTURAL DRAWINGS FOR SIDEWALK SLABS AND DIMENSIONS.
- 6. COORDINATION OF MECHANICAL, ELECTRICAL, PLUMBING, AND SITE UTILITY SYSTEMS WITH THE STRUCTURAL SYSTEM IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. USE DETAILS ON SHEETS <u>\$1.1</u> THROUGH <u>\$1.6</u>. AT CONDITIONS WHERE THESE DETAILS DO NOT APPEAR TO APPLY, NOTIFY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION. AT CONDITIONS WHERE FIELD MODIFICATIONS OF MECHANICAL, ELECTRICAL, PLUMBING, OR SITE UTILITIES AFFECT STRUCTURAL SYSTEMS, NOTIFY STRUCTURAL ENGINEER PRIOR TO INSTALLATION.
- 7. VERIFY WEIGHTS AND LOCATIONS OF MECHANICAL UNITS WITH MECHANICAL ENGINEER PRIOR TO PLACEMENT. UNITS EXCEEDING WEIGHT NOTED ON PLANS SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION. CONTRACTOR TO VERIFY MECHANICAL UNIT SIZES AND WEIGHTS AS INSTALLED PRIOR TO INSTALLATION OF ADDITIONAL FRAMING TO ENSURE CORRECT PLACEMENT UNDER CURBS, ETC. SEE 4/S1.3.
- 8. SHORING, SCAFFOLDING, AND BRACING DESIGN, MATERIALS AND INSTALLATION SHALL BE PROVIDED BY THE GENERAL CONTRACTOR, AND SHALL BE ADEQUATE FOR ALL LOADS. LEAVE IN PLACE AS LONG AS MAY BE REQUIRED FOR SAFETY AND UNTIL FINAL STRUCTURAL CONSTRUCTION IS COMPLETED. THE CONTRACTOR SHALL ENGAGE A LICENSED CIVIL OR STRUCTURAL ENGINEER TO PROVIDE
- 9. SPECIAL INSPECTIONS ARE REQUIRED PER C/S0.1 AND THE TESTING AND
- 10. STRUCTURAL OBSERVATION PER CBC SECTION 1704.6 IS NOT REQUIRED. NOTIFY ZFA FOR GENERAL ON SITE REVIEW OF:
- MINIMUM FOOTING SIZE AND REINFORCING STEEL.

STRUCTURAL WOOD FRAMING.

- WOOD SHEAR WALLS, SHEAR PANELS AND FLOOR/ROOF DIAPHRAGMS, INCLUDING NAILING. BOLTING, ANCHORAGE AND OTHER FASTENING TO OTHER COMPONENTS OF THE SEISMIC FORCE RESISTING SYSTEM.
 - NOTIFY ZFA FOR REVIEW PRIOR TO COVERING ABOVE LISTED WORK. PROVIDE

2 WORKING DAYS MINIMUM SCHEDULING NOTICE PRIOR TO REVIEW DATE. ZFA SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF CONSTRUCTION IF THE AUTHORITY HAVING JURISDICTION OR OWNER REQUIRES A FINAL GENERAL CONFORMANCE LETTER. ALL STRUCTURAL CONSTRUCTION DEVIATIONS OBSERVED DURING SITE VISITS SHALL BE RESOLVED AND COPIES OF ALL SPECIAL INSPECTIONS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A CONFORMANCE LETTER.

- 11. SUBMIT ENGINEERING FOR DEFERRED APPROVAL ITEMS TO ARCHITECT/ENGINEER OR REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE FABRICATED OR INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL. DEFERRED APPROVAL ITEMS SHALL BE DESIGNED AND DETAILED BY MANUFACTURER TO ACCOMMODATE HORIZONTAL AND VERTICAL MOVEMENTS AS NOTED IN STRUCTURAL DRAWINGS. GENERAL CONTRACTOR SHALL REVIEW AND APPROVE DIMENSIONS AND DETAILS SHOWN ON THE SHOP DRAWINGS PRIOR TO SUBMITTAL. MANUFACTURER TO PROVIDE DRAWINGS AND CALCULATIONS DESIGNED IN ACCORDANCE WITH THE CBC AND SPECIFICATIONS, PREPARED AND SIGNED BY A CALIFORNIA LICENSED CIVIL OR STRUCTURAL ENGINEER FOR THE FOLLOWING ITEMS, UNLESS NOTED OTHERWISE:
- A. STORE FRONT, CURTAIN WALL, GLAZING AND SKYLIGHT SYSTEMS: INCLUDE ATTACHMENTS TO STRUCTURE.
- B. FIRE SPRINKLERS, INCLUDING SEISMIC BRACING AND HANGERS FOR PIPING 21/2 "Ø OR GREATER. TO BE PREPARED AND STAMPED BY A CALIFORNIA LICENSED MECHANICAL ENGINEER.

SHEET LOG

REV # DATE: ISSUED FOR:

JOB NUMBER:

GENERAL NOTES ORIGINAL DATE:

JUNE 5, 2025

(A) MATERIAL DATA

(INFORMATION SHOWN IS FOR STRUCTURAL DESIGN REFERENCE ONLY. SEE THE PROJECT SPECIFICATIONS FOR ALL MATERIAL SPECIFICATIONS.)

CONCRETE 28-DAY MINIMUM DESIGN STRENGTH: $F'_{c} = 3,000 \; PSI \quad FOUNDATIONS \; (DESIGNED \; FOR \; 2,500 \; PSI)$ $F'_{c} = 3,000 \; PSI \quad INTERIOR \; SLAB \; ON \; GRADE$

REINFORCING STEEL:

ASTM A615 GRADE 60 OR A706 GRADE 60 ($F_y = 60,000 \text{ PSI}$)

FASTENERS:

MACHINE BOLTS - ASTM A307 GRADE A

HIGH STRENGTH BOLTS - ASTM F3125 GRADE A325 OR F1852 UNO ANCHOR RODS - ASTM F1554 GR 36 UNO ARC-WELDING ELECTRODES - E70

WOOD BASE DESIGN STRESSES (UNO):

SAWN LUMBER MEMBER	SPECIES AND MINIMUM GRADE, UNO	F _b (PSI)	F _v (PSI)	E (PS
6x POSTS	DOUGLAS FIR - #1	1200	170	1.6x10
6x BEAMS	DOUGLAS FIR - #1	1350	170	1.6x10
4x POSTS & BEAMS	DOUGLAS FIR - #1	1000	180	1.7x10
2x JOISTS, RAFTERS	DOUGLAS FIR - #2	900	180	1.6x10
P MATERIAL	DOUGLAS FIR - #2	900	180	1.6x10
2x STUDS	DOUGLAS FIR - #2	900	180	1.6x10

MANUFACTURED WOOD PRODUCTS:

LVL (JOISTS) $F_b = 2,600 \text{ PSI}$ $E = 2.0 \times 10^6 \text{ PSI}$ LSL (BLOCKING, LEDGERS) $F_b = 1,700 \text{ PSI}$ $E = 1.3 \times 10^6 \text{ PSI}$ $F_b = 2,900 \text{ PSI}$ $F_c = 2,500 \text{ PSI}$ (PARALLEL) $E = 2.2x10^6 PSI$ $E = 1.8x10^6 PSI$ PSL (BEAMS, JOISTS) PSL (POSTS)

FOR METAL CONNECTOR DESIGNATION REFER TO SIMPSON STRONG-TIE PER SPECIFICATIONS.

ABBRE	EVIATIONS				
AB	ANCHOR BOLT	FTG	FOOTING	PNL	PANEL
ABV AC	ABOVE	GA GALV	GAGE or GAUGE	PSF PSI	POUNDS PER SQUARE FOOT
ADJ	AIR CONDITIONING ADJACENT	GALV GB	GALVANIZED GRADE BEAM	PSL	POUNDS PER SQUARE INCH PARALLEL STRAND LUMBER
DDL	ADDITIONAL	GL	GRIDLINE	PTDF	PRESSURE TREATED
LT	ALTERNATE	GLB	GLUE LAMINATED BEAM		DOUGLAS FIR
LUM	ALUMINUM	GR	GRADE	PT	POINT
RCH YC	ARCHITECT ALASKAN YELLOW CEDAR	HD HDG	HOLD DOWN HOT-DIP GALVANIZED	R RBS	RADIUS REDUCED BEAM SECTION
	AT	HDR	HEADER	RFTR	RAFTER
F	BRACED FRAME	HGR	HANGER	REF	REFERENCE
LDG	BUILDING	HK	HOOK	REINF	REINFORCING
LK/BLKG LW	BLOCK/BLOCKING BELOW	HORIZ HSB	HORIZONTAL HIGH STRENGTH BOLT	REQD RET	REQUIRED RETAINING
M	BEAM	HSG	HIGH STRENGTH GROUT	REV	REVISION
N	BOUNDARY NAIL	HSH	HORIZONTAL SLOTTED	RF	ROOF
OT	BOTTOM		HOLE	RWD	REDWOOD
RG TWN	BEARING BETWEEN	HSS	HOLLOW STRUCTURAL	S SAD	AMERICAN STANDARD BEAM
U	BUILT-UP	нт	SECTION HEIGHT	SAD	SEE ARCHITECTURAL DRAWINGS
YND	BEYOND	ID	INSIDE DIAMETER	SB	SOLID BLOCK
	AMERICAN STANDARD	IJ	I SHAPED WOOD BUILT	SC	SLIP CRITICAL
	CHANNEL	INIT	UP TRUSS	SCD	SEE CIVIL DRAWINGS
A ANT	CALIFORNIA CANTILEVER	INT JST	INTERIOR JOIST	SCHED SED	SCHEDULE SEE ELECTRICAL DRAWINGS
В	CARRIAGE BOLT	JT	JOINT	SEOR	STRUCTURAL ENGINEER OF
FS	COLD FORMED STEEL	KP	KING POST	CECIT	RECORD
IP	CAST IN PLACE	L. "	STEEL ANGLE	SFRS	SEISMIC FORCE RESISTING
GL	CERTIFIED GLUED LUMBER	Lb or # LGMF	POUND(s)	OUTO	SYSTEM
J	CONTROL JOINT CENTERLINE	LGIVIF	LIGHT GAGE METAL FRAMING	SHTG	SHEATHING SIMILAR
JP	COMPLETE JOINT	LGMFC	LIGHT GAGE METAL	SKYLT	SKYLIGHT
	PENETRATION		FRAMING CONTRACTOR	SLD	SEE LANDSCAPE DRAWINGS
LG	CEILING	LL	LIVE LOAD	SMS	SHEET METAL SCREW
LR OL	CLEAR COLUMN	LLH LLV	LONG LEG HORIZONTAL LONG LEG VERTICAL	SMD SOG	SEE MECHANICAL DRAWINGS
ONC	CONCRETE	Loc	LOCATION	SPCG	SLAB ON GROUND SPACING
ONN	CONNECTION	LS	LAG SCREW	SPD	SEE PLUMBING DRAWINGS
ONT	CONTINUOUS	LSL	LAMINATED STRAND LUMBER	SPEC	SPECIFICATION
OORD	COORDINATION	LVL LWC	LAMINATED VENEER LUMBER	SQ	SQUARE
MU	COORDINATION CONCRETE MASONRY UNIT	MAX	LIGHTWEIGHT CONCRETE MAXIMUM	SS	SELECT STRUCTURAL or STAINLESS STEEL
SK	COUNTERSINK	MB	MACHINE BOLT	STGR	STAGGERED
:W	CUT WASHER	MBM	METAL BUILDING	STD	STANDARD
BA	DEFORMED BAR ANCHOR		MANUFACTURER	STIFF	STIFFENER
BL CW	DOUBLE DEMAND CRITICAL WELD	MC MECH	MISCELLANEOUS CHANNEL MECHANICAL	STL	STEEL
F	DOUGLAS FIR	MEZZ	MEZZANINE	STRUCT	STRUCTURAL SHEAR WALL
IA or Ø	DIAMETER	MF	MOMENT FRAME	SYM	SYMMETRICAL
IAG	DIAGONAL	MFR	MANUFACTURER	T&B	TOP AND BOTTOM
IM IST	DIMENSION DISTANCE	MIN	MINIMUM	T&G	TONGUE AND GROOVE
J	DOWEL JOINT	MISC MIW	MISCELLANEOUS MALLEABLE IRON WASHER	THK THRD	THICK THREADED
)L	DEAD LOAD	MTL	METAL	THRU	THROUGH
N	DOWN	MU	MECH UNIT	TL	TOTAL LOAD
O WG	DITTO	(N)	NEW	TN	TOE NAIL
WL	DRAWING DOWEL	N/A NO or#	NOT APPLICABLE NUMBER	TOC TOF	TOP OF CONCRETE TOP OF FRAMING
A	EACH	NS	NEAR SIDE	TOM	TOP OF MASONRY
E	EACH END	NSG	NON-SHRINK GROUT	TOP	TOP OF PLYWOOD
F	EACH FACE	NTS	NOT TO SCALE	TOS	TOP OF STEEL
LEC LEV	ELECTRICAL ELEVATOR/ELEVATION	NWC	NORMAL-WEIGHT CONCRETE OVER	TOT	TOTAL
MBED	EMBEDMENT	O/ oc	ON CENTER	TU TYP	TILT UP TYPICAL
Q	EQUAL	ÖD	OUTSIDE DIAMETER	UNO	UNLESS NOTED OTHERWISE
QUIP	EQUIPMENT	ОН	OPPOSITE HAND	VERT	VERTICAL
S N	EACH SIDE EACH WAY	OPNG	OPENING	VIF	VERIFY IN FIELD
vv :)	EXISTING	OPP OVS	OPPOSITE OVERSIZED	VSH W	VERTICAL SLOTTED HOLE WIDE FLANGE STEEL BEAM
XP	EXPANSION	OW	OTHERWISE	W/	WITH
XT	EXTERIOR	OWT	OPEN WEB TRUSS	W/O	WITHOUT
DN	FOUNDATION	PL	PLATE or PROPERTY LINE	WD	WOOD
IN G	FINISH FINISH GRADE	PA	POST ABOVE	WHS	WELDED HEADED STUD
G LR	FLOOR	PAF	POWER ACTUATED FASTENERS	WLD WP	WELDED WORK POINT/WATERPROOF
N	FACE NAIL	PEN	PANEL EDGE NAIL	WS	WOOD SCREW
OC	FACE OF CONCRETE	PERP	PERPENDICULAR	WT	WEIGHT
	FACE OF MASONRY			WTS	WELDED THREADED STUD
OM		PES	PANEL EDGE SCREWS		
OM OS RMG	FACE OF STUD FRAMING	PES PJP PLF	PARTIAL JOINT PENETRATION POUNDS PER LINEAR FOOT	WWR	WELDED WIRE REINFORCEMENT

SHEET LOG

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SPECIFICATIONS

-493)	3/4"	5½"	1¾"	3"	8¾"	20	15
	NCHOR PER DETAILS —	PLAN		THAN	OVS HOLE A 1 12GA (1/8") N ES OTHERWI	MAX 1/16 "Ø (
El	OP OF CONC DGE OF CON S OCCURS —		S _{min}	H Hoom	HOLE I		

1¾"

1¾"

4"

3"

5"

6"

10

31/4"

NOTES:

TITEN HDSS

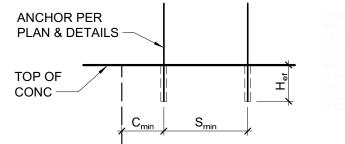
(IAPMO UES

ER-493)

- 1. EXCEPT AT EXTERIOR EXPOSURE CONDITIONS, PROVIDE CARBON STEEL ANCHORS UNO. INSTALL SCREW ANCHORS PER MANUFACTURER'S INFORMATION AND ICC REPORT INSTRUCTIONS. SPECIAL INSPECTION IS REQUIRED PER SECTION 1705 OF THE CBC AND THE REQUIREMENTS OF THE ICC REPORTS. INSTALLED ANCHORS SHALL BRING CONNECTED PLIES INTO FIRM CONTACT, MEETING THE INSTALL TORQUE BUT NOT EXCEEDING THE MAXIMUM INSTALL TORQUE.
- 2. CONTRACTOR TO VERIFY MINIMUM EDGE DISTANCES, SPACING AND THICKNESS ARE IN ACCORDANCE W/ SCHEDULE PRIOR TO INSTALLING ANCHOR.
- 3. HOLES TO BE DRILLED W/ ROTARY DRILL ONLY. WHEN INSTALLING DRILLED-IN ANCHORS IN EXISTING REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. MAINTAIN 1" CLEARANCE BETWEEN REINFORCEMENT AND THE DRILLED-IN ANCHOR. FILL ABANDONED HOLES W/ HIGH STRENGTH GROUT.
- 4. THE SPECIAL INSPECTOR SHALL PERFORM PERIODIC/CONTINUOUS INSPECTION IN ACCORDANCE WITH TABLE 1705.3. THE SPECIAL INSPECTOR SHALL INSPECT ANCHOR TYPE, ANCHOR DIMENSIONS, HOLE CLEANLINESS, EMBEDMENT DEPTH, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, DRILL BIT DIAMETER, HOLE DEPTH, EDGE DISTANCE(S), ANCHOR SPACING(S), CONCRETE THICKNESS, AND TIGHTENING TORQUE.

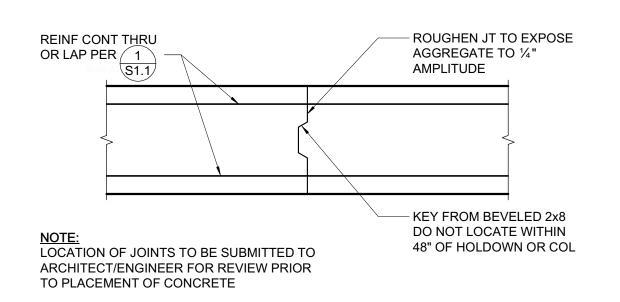


A	DHES				WIII 0011	<u> </u>	
ADHESIVE	ANC	HOR	PILOT	MIN	MIN EDGE	MIN	MIN CONC
TYPE	THRD ROD	REBAR	HOLE	EMBED UNO H _{ef}	DISTANCE C _{min}	SPCG S _{min}	DEPTH H _{min}
	-	#3	½ "ø	3"	1¾"	3"	H _{ef} + 11/4"
	-	#4	% "Ø	4"	13/4"	3"	H _{ef} + 11/4"
	-	#5	3/4 "Ø	5"	1¾"	3"	H _{ef} + 1½"
SIMPSON	3⁄8 "Ø	-	7∕16 "Ø	3"	13/4"	3"	H _{ef} + 11/4"
SET-3G	½ "ø	-	%₁6 "Ø	4"	13/4"	3"	H _{ef} + 11/4"
(ICC-ESR	%"Ø	-	¹ / ₁₆ "Ø	5"	1¾"	3"	H _{ef} + 1%"
4057)	¾ "Ø	#6	7∕8 "Ø	6"	13/4"	3"	H _{ef} + 1¾"
	7% "ø	#7	1"Ø	7"	13/4"	3"	H _{ef} + 2"
	1"Ø	#8	11/8 "Ø	8"	1¾"	3"	H _{ef} + 21/4"
	1¼"ø	#10	1%"Ø	10"	2¾"	6"	$H_{ef} + 2\frac{3}{4}$ "
	¾" ø	N/A	7∕ ₁₆ "Ø	3"	1¾"	1%"	
	N/A	#3	½ "Ø	3"	13/4"	1%"	11 . 41/"
	½ "ø	N/A	%16 "Ø	4"	1¾"	2½"	H _{ef} + 1¼"
	N/A	#4	5⁄8 "Ø	4"	1¾"	2½"	
HILTI HIT-HY	%" ø	#5	3/4 "Ø	5"	1¾"	31/8"	H _{ef} + 1½"
200R V3 (ICC-ESR	¾ "ø	#6	7∕8 "Ø	6"	1¾"	3¾"	H _{ef} + 1¾"
4868)	7∕8 "ø	#7	1"Ø	7"	1¾"	4%"	H _{ef} + 2"
	1"Ø	#8	11/8 "Ø	8"	1¾"	5"	H _{ef} + 21/4"
	N/A	#9	1% "Ø	9"	1¾"	5%"	H _{ef} + 2¾"
	1¼"ø	N/A	1¾ "Ø	10"	1¾"	61/4"	7 17ef ▼ ∠ 74
	N/A	#10	1½"ø	10"	13/4"	61/4"	H _{of} + 3"

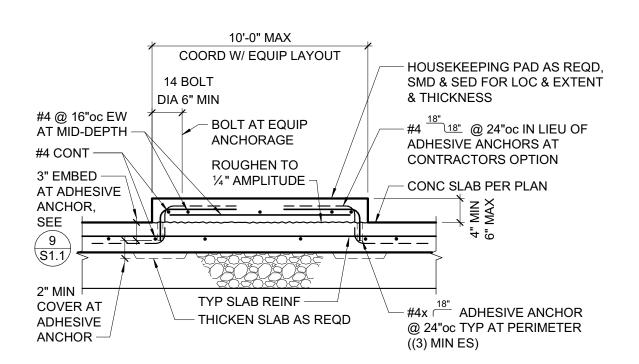


- 1. INSTALL ADHESIVE ANCHORS PER MANUFACTURER'S INFORMATION AND ICC
- 2. CONTRACTOR TO VERIFY MINIMUM EDGE DISTANCES, SPACING, AND THICKNESS
- 3. HOLES TO BE DRILLED W/ ROTARY DRILL ONLY. WHEN DRILLING HOLES IN EXISTING CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. MAINTAIN 1" CLEARANCE BETWEEN REINFORCEMENT AND THE DRILLED-IN ANCHOR. FILL ABANDONED HOLES W/ HIGH STRENGTH GROUT.
- THE ICC REPORTS. THE SPECIAL INSPECTOR SHALL PERFORM PERIODIC/CONTINUOUS INSPECTION IN ACCORDANCE WITH TABLE 1705.3. THE SPECIAL INSPECTOR SHALL INSPECT ANCHOR TYPE, ANCHOR DIMENSIONS, HOLE CLEANLINESS, EMBEDMENT DEPTH, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, DRILL BIT DIAMETER, HOLE DEPTH, EDGE DISTANCE(S), ANCHOR SPACING(S), CONCRETE THICKNESS, AND ADHESIVE INJECTION.





FOOTING CONSTRUCTION JOINT



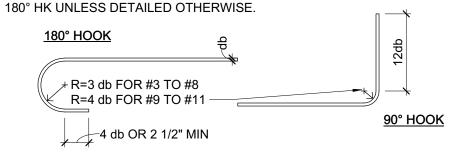




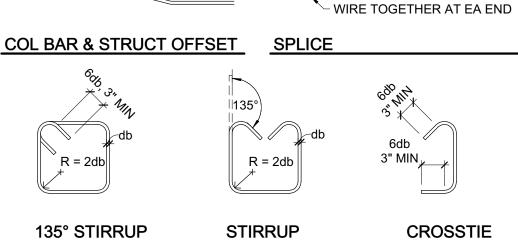
(CLASS B TOP BAR) BAR SPCG SHALL NOT BE LESS THAN 4x BAR DIA OR 4". * WHERE COVER NOT LESS THAN 1½", #5 LAP LENGTH = 31" CONC COVER FOR REINF STL CAST AGAINST EARTH OR GR EXPOSED TO EARTH (FORMED) OR WEATHER #5 & SMALLER -NOT EXPOSED TO EARTH OR WEATHER

#5 & SMALLER -

#6 & LARGER, & ALL BM STIRRUPS, COL TIES & SPIRALS - - - - 1½" ALL REINF SHALL EXTEND AS FAR AS POSSIBLE. WHERE BAR SPLICES ARE REQUIRED, BARS SHALL BE LAPPED PER SCHEDULE ABOVE UNLESS DETAILED OTHERWISE. WHERE REINF TERMINATES AT END OF MEMBER, REINF SHALL END IN A STD 90° OR



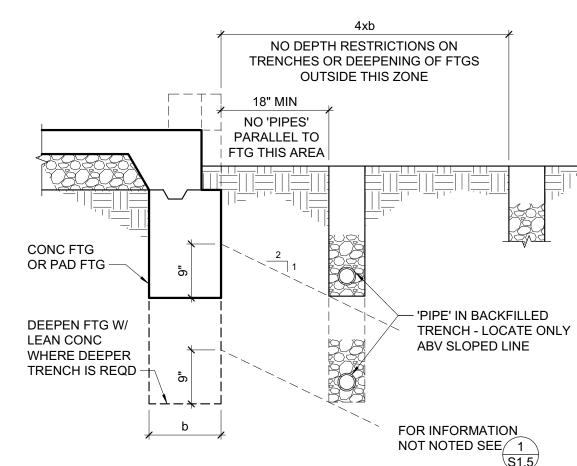
STANDARD HOOKS & BENDS

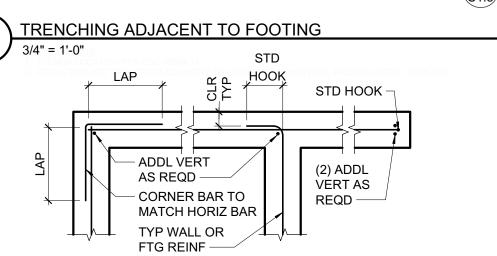


#3, #4, #5

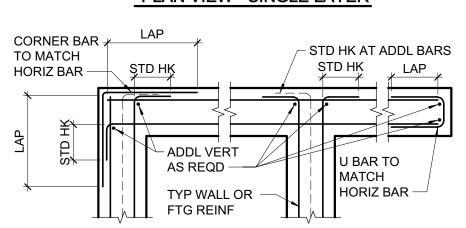
135° STIRRUP TIES #3, #4, #5 *#*3, *#*4, *#*5

TYPICAL REINFORCING DETAILS (f'c = 2500psi MIN)





PLAN VIEW - SINGLE LAYER



PLAN VIEW - 2 OR MORE LAYERS

FOOTING REINFORCING AT CORNER AND INTERSECTION TO BE SIMILAR TYPICAL CORNER, INTERSECTION AND END REINFORCING

SHEET LOG REV # DATE: ISSUED FOR:

JOB NUMBER:

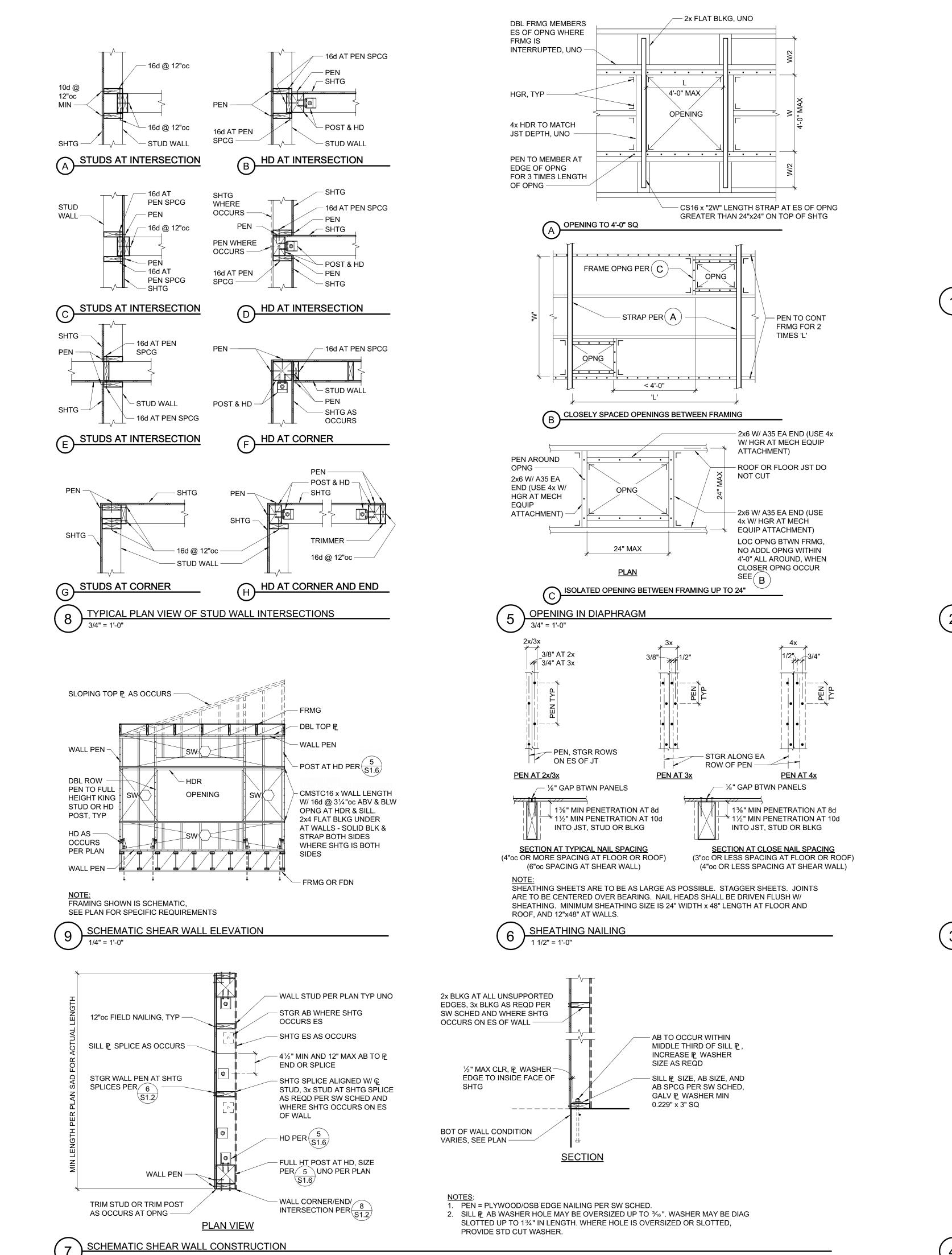
TYPICAL CONCRETE DETAILS ORIGINAL DATE: JUNE 5, 2025

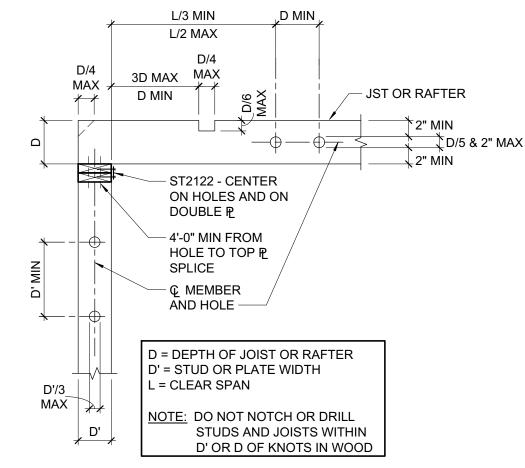
| N/A | #10 | 1½"Ø | 10" | 1¾" | 6¼" | H_{ef} + 3" |

- EDGE OF CONC AS OCCURS

ARE IN ACCORDANCE W/ SCHEDULE PRIOR TO INSTALLING ANCHOR.

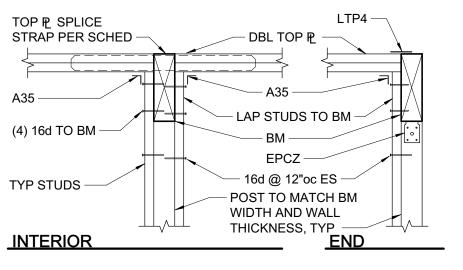
4. SPECIAL INSPECTION IS REQUIRED PER SECTION 1705 AND THE REQUIREMENTS OF

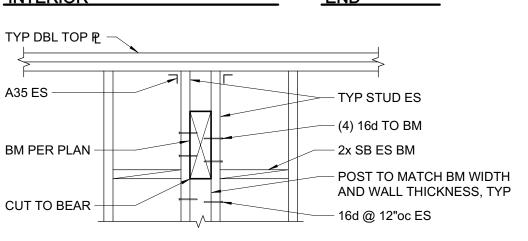




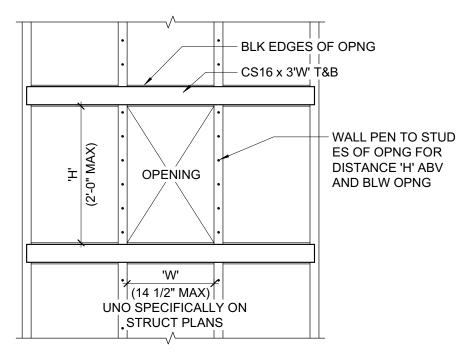
HOLES AND NOTCHES IN WOOD STUDS,

JOISTS, AND PLATES





TYPICAL BEAM IN AND THRU STUD WALI 3/4" = 1'-0"



1. OPENINGS < 6" SQ DO NOT REQUIRE BLOCKING AND STRAPPING. 2. NO ADDITIONAL OPENINGS WITHIN 4'-0" ALL AROUND.

- 3. NO OPENINGS PERMITTED IN SHEAR WALL $\langle C \rangle$ OR HIGHER OR IN SHEAR WALLS LESS THAN 10'-0" LONG UNLESS SPECIFICALLY DETAILED ON
- STRUCTURAL PLANS. CONTACT STRUCTURAL ENGINEER FOR ASSISTANCE. 4. FRAME OPENINGS PER <u>1/S1.6</u> WHERE STUDS ARE INTERRUPTED.

SMALL OPENINGS IN SHEAR WALLS

RIM JOIST/BLKG TO TOP P, TOE NAIL-	
TRUSSES, JOISTS OR RAFTERS AT ALL BEARING POINT TOE NAILS EACH SIDE	TS
TOE NAILS EACH SIDE	(2) 10d
TRUSSES, JOISTS OR RAFTERS TO SIDE OF STUDS EIGHT (8) INCH JOISTS OR LESS	()
FIGHT (8) INCH JOISTS OR LESS	(3) 16d
FOR EACH ADDITIONAL 4 INCHES OF DEPTH OF JO	IST (1) 16d
BLOCKING BETWEEN JOISTS OR RAFTERS:	()
TO JOIST OR RAFTERS - TOE NAILS EA SIDE, EA EN	ND (2) 10d
TO JOIST OR RAFTER BEARINGS - TOE NAILS EA S	DE (2) 10d
BLOCKING BETWEEN STUDS. EACH END TOE NAILS	(2) 10d OR (2) 16d
BLOCKING BETWEEN STUDS, EACH END TOE NAILS BRIDGING TO JOIST, TOE NAIL EACH END	(2) 8d
2" SUBFLOOR TO JOIST OR GIRDER, BLIND & FACE NAI	L(2) 16d
2" SUBFLOOR TO JOIST OR GIRDER, BLIND & FACE NAI SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	
SOLE PLATE TO JOIST OR BLOCKING AT	
BRACED WALL PANELS	(3) 16d @ 16"oc
TOP PLATE TO STUD, END NAIL	(2) 16d
STUD TO SOLE PLATE. TOE NAIL	(4) 8d
DOUBLE STUDS AT EXTERIOR WALLS, FACE NAIL DOUBLE STUDS, FACE NAIL DOUBLE TOP PLATES, FACE NAIL	16d @ 12"oc
DOUBLE STUDS, FACE NAIL	16d @ 24"oc
DOUBLE TOP PLATES, FACE NAIL	16d @ 12"oc
TOP PLATES LAPS & INTERSECTIONS FACE NAIL	(3) 16d
CONTINUOUS HEADER. TWO PIECES	- 160 (a) 16"0c ALONG EACH EDGE
DOUBLE TOP PLATE LAP AT CORNER	(3) 16d
DOUBLE TOP PLATE LAP AT CORNER CONTINUOUS HEADER TO STUD, TOE NAIL	(4) 8d
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL =	· (3) 16d
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	(3) 16d
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL BUILT-UP CORNER STUDS	16d @ 12"oc
POST TO SILL/SOLE/TOP PLATE, EACH SIDE TOE NAIL-	· · · · · (4) 10d

4 NAILING SCHEDULE

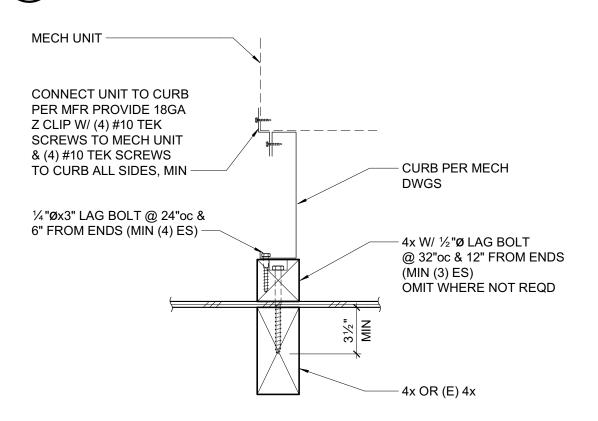
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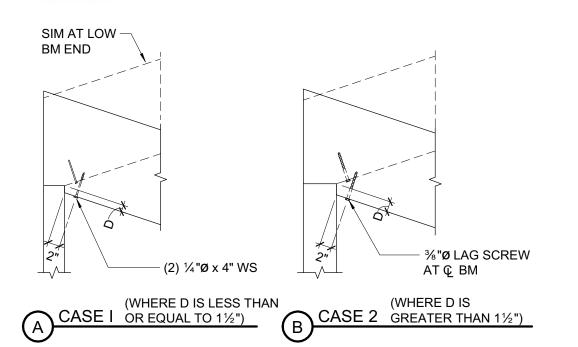
TYPICAL WOOD DETAILS ORIGINAL DATE: JUNE 5, 2025 1. CEILING JOIST SCHEDULE IS BASED ON LL = 10 psf.

- 2. WHERE LEDGERS ARE NAILED THROUGH WALL SHTG, USE 20d NAILS IN LIEU OF 16d NAILS.
- 3. PROVIDE MIDSPAN BLOCKING AT 2x10 JOISTS.



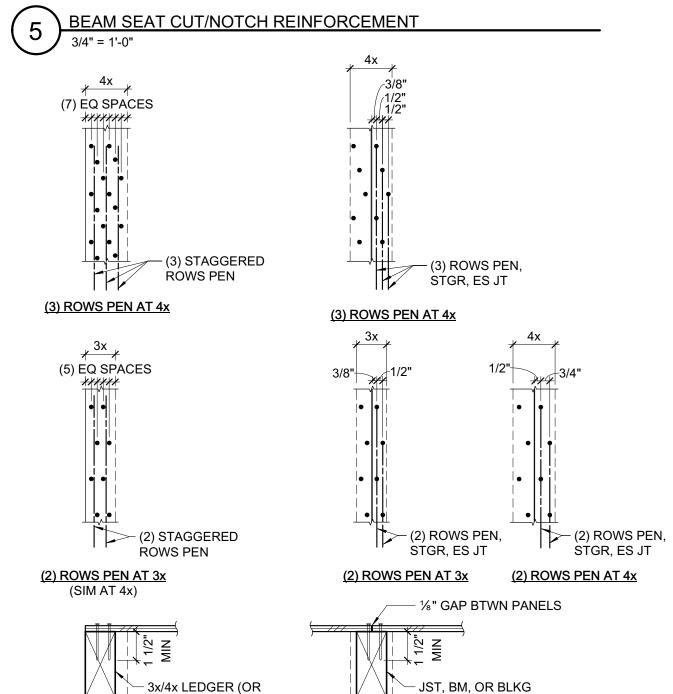


MECHANICAL CURB DETAIL ABOVE 4x OR GLB



 DO NOT OVERCUT NOTCHES OR SEAT CUTS. 2. D MAX = BEAM DEPTH/4 SEE OTHER DETAILS FOR ADDITIONAL NOTCH OR SEAT CUT SIZE INFORMATION.

3. MINIMUM LAG SCREW LENGTH = D + $2\frac{1}{2}$ ".

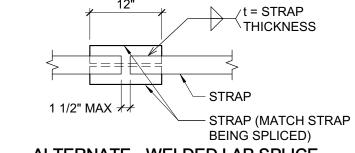


SECTION AT BOUNDARY MEMBER SECTION AT SHEATHING PANEL SPLICE SHEATHING SHEETS ARE TO BE AS LARGE AS POSSIBLE. STAGGER SHEETS. JOINTS ARE TO BE CENTERED OVER BEARING. NAIL HEADS SHALL BE DRIVEN FLUSH W/

SHEATHING. MINIMUM SHEATHING SIZE IS 24" WIDTH x 48" LENGTH. FLOOR/ROOF SHEATHING - MULTIPLE NAIL ROWS 1 1/2" = 1'-0"

TOP P AS OCCURS)

LAP 36" NAIL ALL HOLES

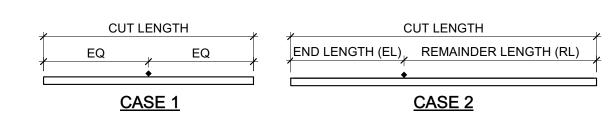


NAILED LAP SPLICE

ALTERNATE - WELDED LAP SPLICE

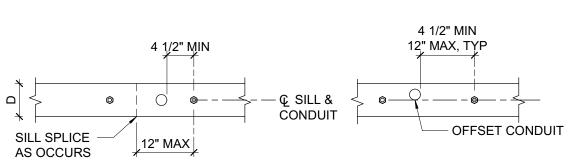
	TIE STRAP SCHEDULE								
MADIC	OTDAD	MIN.	(SEE NOTES #1 & #2)						
MARK	STRAP	NAILING ES OF ◆	CASE 1	CAS	SE 2	LENGTH			
		E3 OF •	CAGLI	EL	RL	(EL)			
A	CS16	(10) 10d	10d @ 4"oc STGR	FILL ALL NAIL HOLES	10d @ 4"oc STGR	12"			
$^{\odot}$	CS14	(13) 10d	10d @ 4"oc STGR	FILL ALL NAIL HOLES	10d @ 4"oc STGR	16"			
(C)	CMSTC16	(25) 10d	10d @ 3"oc STGR	FILL ALL NAIL HOLES	10d @ 3"oc STGR	24"			
(D)	CMST14	(33) 10d	10d @ 3½"oc STGR	FILL ALL NAIL HOLES	10d @ 3½"oc STGR	32"			
E	CMST12	(43) 10d	10d @ 3½"oc STGR	FILL ALL NAIL HOLES	10d @ 3½"oc STGR	48"			

- 1. CASE 1 APPLIES UNLESS END LENGTH (EL) IS NOTED ON PLANS. WHERE END LENGTH (EL) IS NOTED, SEE CASE 2.
- 2. AS REQUIRED, PROVIDE CLOSER NAIL SPACING TO MEET MINIMUM NAILING EACH SIDE OF ◆.

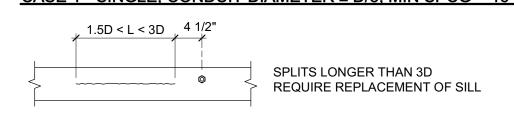


- 3. LOCATE STRAPS OVER SHEATHING AND BLOCK UNDER STRAP W/ FLAT 2x6 (2x4 AT CS16/CS14) WHERE NO FRAMING OCCURS, UNO.
- 4. SEE PLANS FOR STRAP LENGTHS, LOCATIONS AND DETAILS, UNO.
- 5. SPLICE STRAPS AS SHOWN WHERE LENGTH PER PLAN EXCEEDS AVAILABLE PRODUCT LENGTH

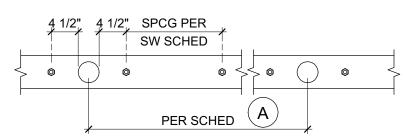




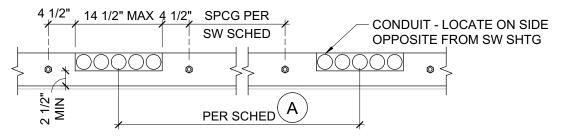
CASE 1 - SINGLE, CONDUIT DIAMETER ≤ D/3, MIN SPCG = 16"oc



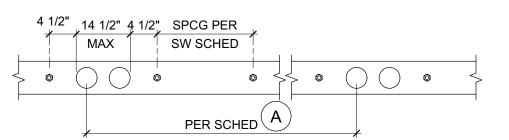
CASE 2 - SPLIT IN SILL



CASE 3 - SINGLE, CONDUIT DIAMETER > D/3



CASE 4 - NOTCH FOR CONDUIT



CASE 5 - MULTI CONDUIT, DIAMETER > D/3

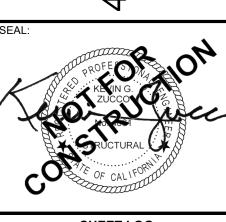
	SCHE	DULE A		
	CASE 3	CASE 4	CASE 5	
sw(A)	48"	32"	48"	
SW(B)	64"	48"	64"	
sw(c)	80"	64"	N/A	
SW(D) AND	N/A	N/A	N/A	

1. ALL PENETRATIONS THROUGH SHEAR WALL SILL PLATE SHALL CONFORM TO THE REQUIREMENTS OF THIS DETAIL OR BE REROUTED PRIOR TO INSTALLATION OF SILL. 2. PROVIDE ADDITIONAL ANCHOR BOLTS AS REQUIRED TO MEET INDICATED SPACINGS. ADDITIONAL ANCHOR BOLTS TO BE INSTALLED AT CENTERLINE OF SILL PLATE PER 8/S1.1 WHERE NECESSARY. AB DIA AS REQD BY SW

SCHED. MATCH CAST-IN-PLACE EMBED.

HOLES IN PLATES AT SHEAR WALLS

3/4" = 1'-0"

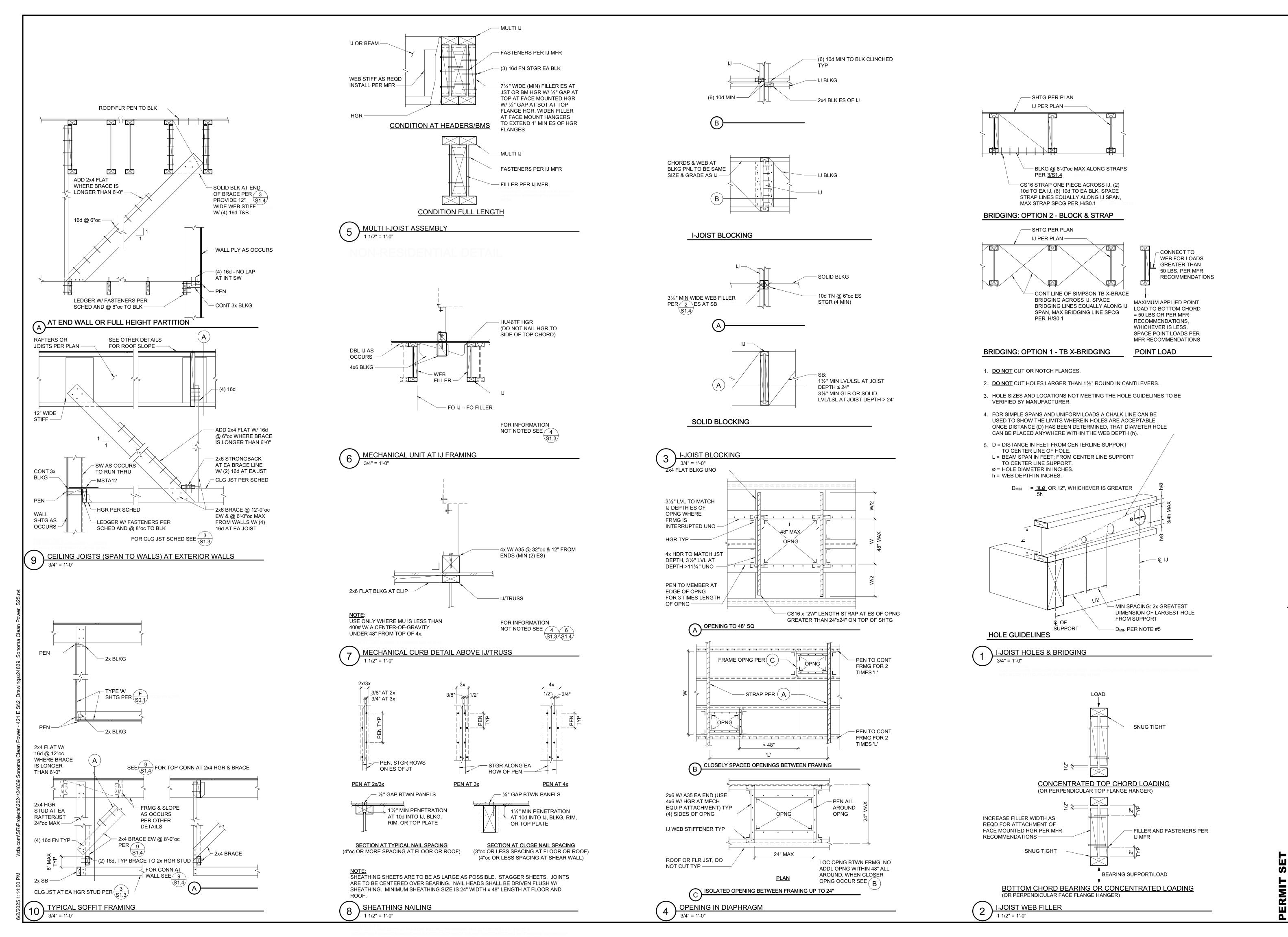


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TYPICAL WOOD DETAILS ORIGINAL DATE:

JUNE 5, 2025



ARCHITECTS
540 Mendocino Ave, Santa Rosa, CA 95401
707 542 4652 axiaarchitects.com

250 d street | suite 200

santa rosa ca 95404

T07.526.0992

zfa job no. 24839

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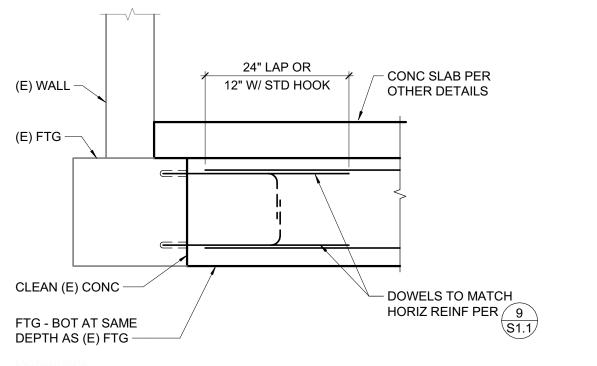
SHEET LOG
REV # DATE: ISSUED FOR:

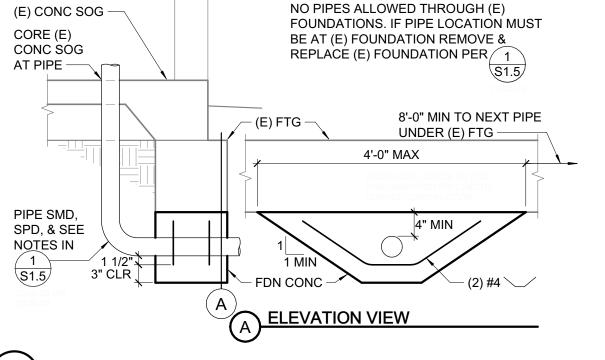
JOB NUMBER:

S1.4

TYPICAL I-JOIST DETAILS
ORIGINAL DATE: JUNE 5, 2025

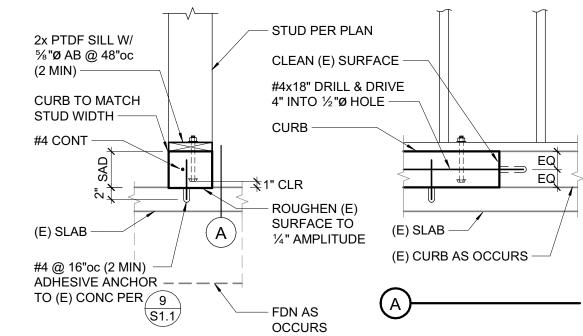
1. 'PIPE' = ANY PENETRATION THRU OR EMBEDDED IN FOUNDATION. 3. CLEARANCE BETWEEN 'PIPES' TO BE 3d MIN. 2. ALL PIPES THROUGH FOOTINGS TO BE WRAPPED OR SLEEVED AS FOLLOWS: 4. NO 'PIPE' TO RUN PARALLEL IN FOOTING, STEM OR CURB. a. SLEEVES: PROVIDE 1" MIN CLEAR ALL AROUND O.D. PIPE TO I.D. SLEEVE 5. PVC CONDUIT ('PIPE') EMBEDDED IN CURB/STEM MAY BE UNO. SEAL SLEEVE ENDS W/ MASTIC OR PLASTIC BITUMINOUS CEMENT. WIRE TIED TO HORIZONTAL REINF. b. WRAPPED VERTICAL PIPES: PROVIDE 1/8" NOMINAL SHEET FOAM W/ (3) 6. NO HORIZONTAL PIPES ALLOWED THROUGH FOOTING WRAPS MINIMUM UNO. WITHIN 24" EACH SIDE OF HOLDOWNS OR STEEL COLUMNS. c. WRAPPED HORIZONTAL PIPES: PROVIDE 1/8" NOMINAL SHEET FOAM W/ (8) NO VERTICAL PIPES ALLOWED IN GRADE BEAMS AT BRACED WRAPS MINIMUM UNO. 7. 'PIPE' EMBEDDED IN CONCRETE TO BE PROVIDED W/ d. UNDERGROUND FIRE LINES 4" AND LARGER: 1. SLEEVES: PROVIDE 2" MIN CLEAR ALL AROUND OD PIPE TO ID FLEXIBLE COUPLINGS AT ENTRY/EXIT POINTS. 8. NOTIFY ENGINEER FOR REPAIRS IF (E) REINF STEEL IS SLEEVE. SEAL ENDS PER ABOVE. 2. WRAPPED: PROVIDE 1/8" NOMINAL SHEET FOAM W/ (16) WRAPS DAMAGED IN CONC REMOVAL THICKEN AT "PIPE" AS REQD MINIMUM. TO PROVIDE CLEARANCE TO 3. WRAPPED AND SLEEVED PIPES SHALL HAVE 1½" MIN CLEAR TO REINF REINF & CONC COVER TO STEEL. MINIMUM CONCRETE COVER AT PIPES TO BE 3". "PIPE" PROVIDE #4 HORIZ VERT "PIPE" (WRAPPED) 12" AT "PIPE" NO "PIPES" PARALLEL TO FTG THIS AREA 12" MIN PIPE THRU FTG "PIPE" THRU FOOTING IN "PIPE" SLEEVE -- "PIPE" IN BACKFILLED – (E) REINF TRENCH - LOC TO REMAIN ONLY ABV SLOPED LINE REMOVE (E) CONC FTG AND REPLACE DEEPEN FTG W/ "U" BARS, SIZE TO MATCH LEAN CONC W/ CONC AFTER TYP FTG REINF (#6 MAX), "PIPES" ARE WHERE DEEPER 18"oc, (2) MIN EXCEPT WHERE | ℚ "PIPE" FTG HAS ONLY (1) BAR T&B INSTALLED TRENCH IS REQD -TYPICAL PIPE THROUGH FOOTING

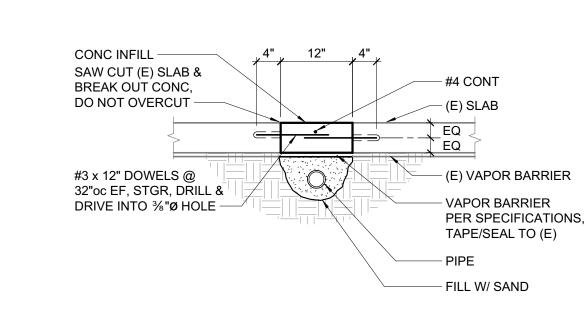






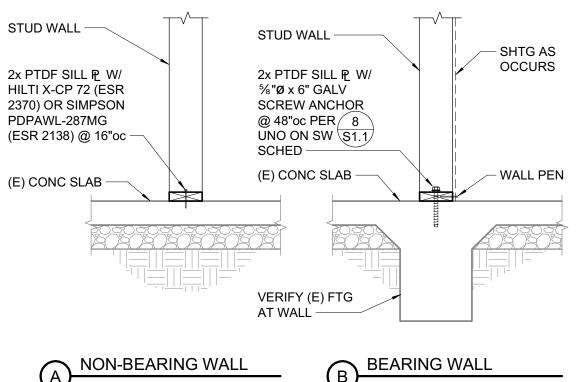


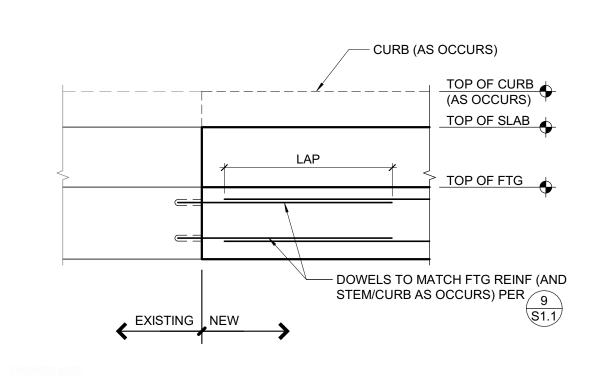












(7) NON BEARING & BEARING WALLS AT (E) SLAB/FOOTING (7) 3/4" = 1'-0"

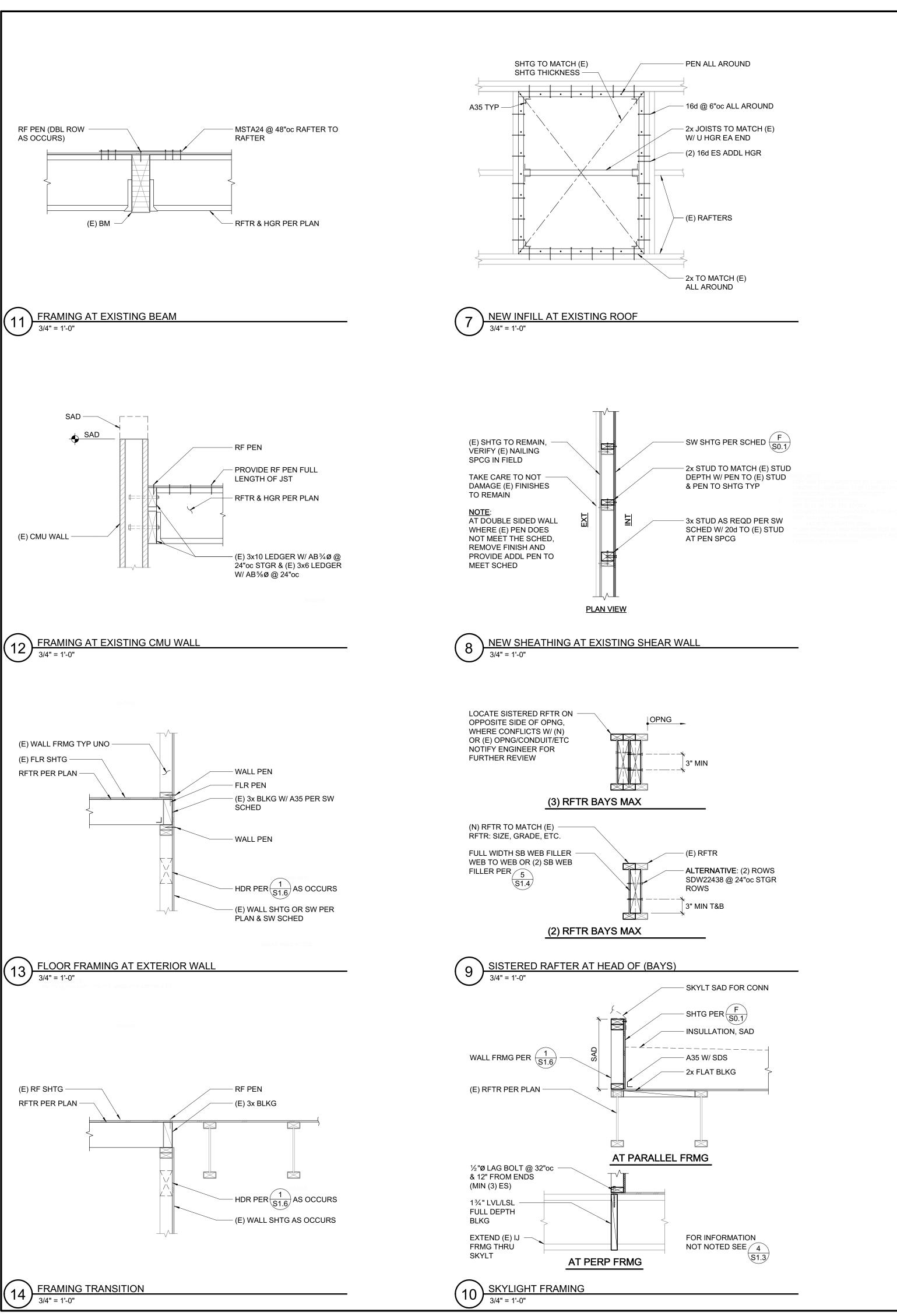
NEW FOOTING TO EXISTING FOOTING

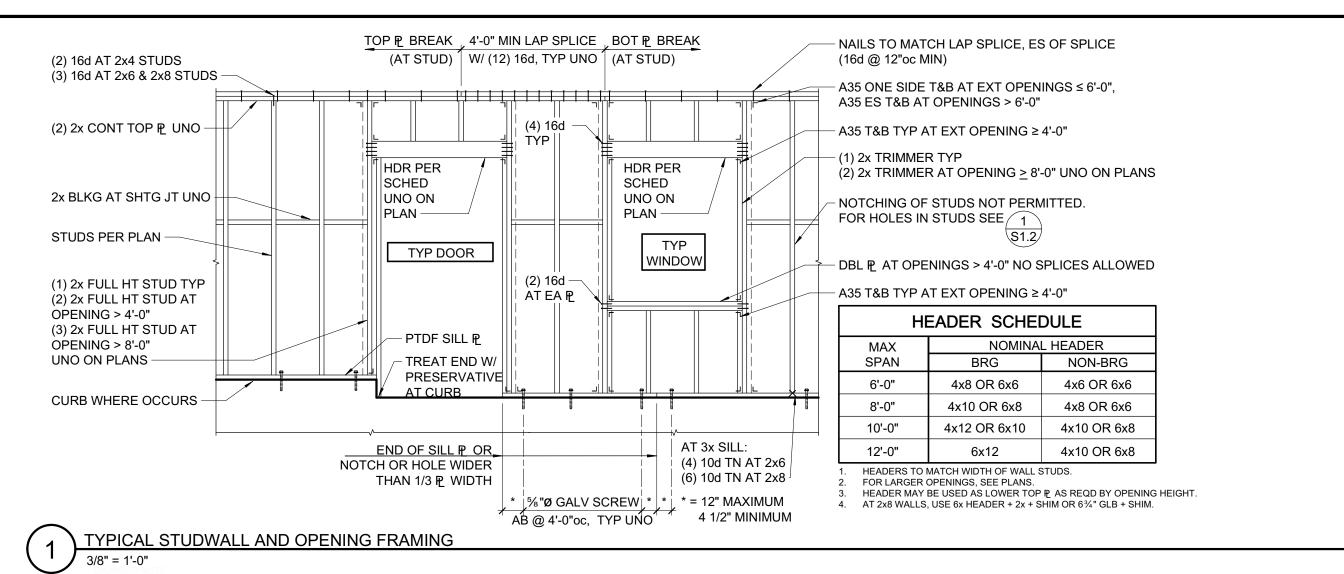
3/4" = 1'-0"

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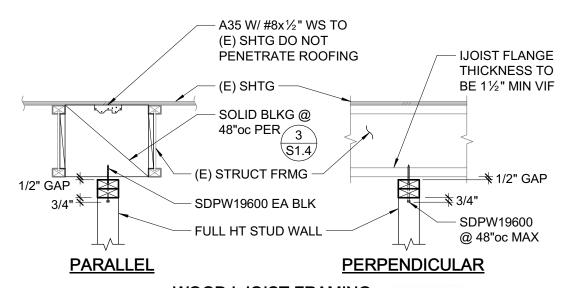
MODERNIZATION FOUNDATION ORIGINAL DATE: JUNE 5, 2025

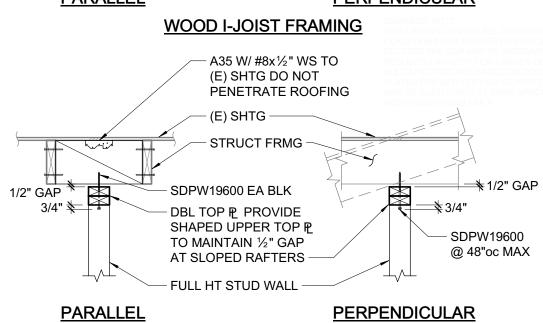




WALL PEN PER SW SCHED TO POST W/ HD -SHEAR WALL SHTO POST OR TRIM STUD NOT SHOWN FULL HEIGHT POST PER SCHED (4x MIN) HOLDOWN PER SCHEDULE SCREWS TO SILL P. & ANCHORAGE PER SW SCHED POST PER MFR A35 ES T&B AT HDU8 & LARGER -FIN FLR OR TOP OF CURB TOP OF FTG THRD ROD CONSTRUCTION DEPTH PER PER SCHED SCHED ADHESIVE ANCHOR PER 9 3" CLR MIN

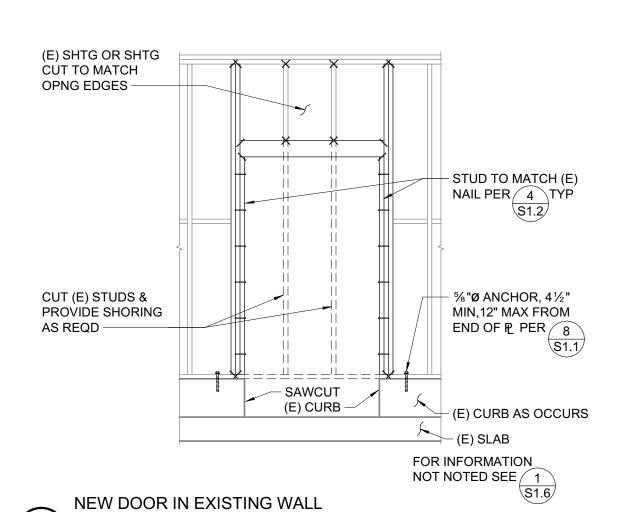
HOLDOWN	THRD ROD	DEPTH	MIN FTG WIDTH	MIN POST SIZE UNO ON PLANS	TENSION TEST LOAD (LBS)
HDU2	5⁄8 "Ø	12"	12"	4x	6200
HDU4	5⁄8 "Ø	12"	12"	4x	6500
HDU5	5% "Ø	12"	12"	4x	6500
HDU8	7∕8 "Ø	15"	18"	4x6	13300





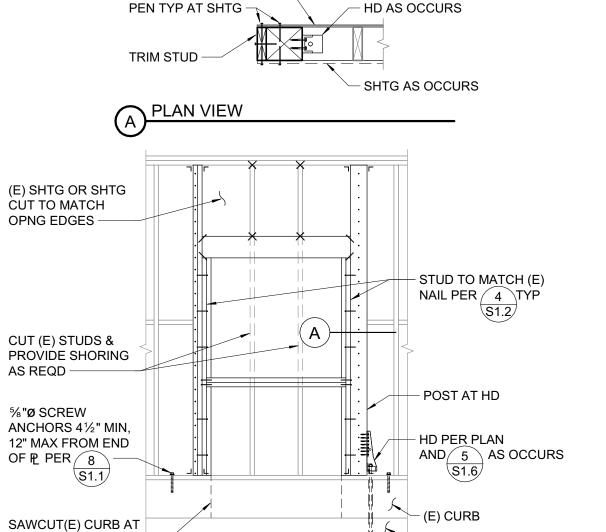
NOMINAL OR MANUFACTURED LUMBER FRAMING INSTALL SDPW AT & OF BLOCKING OR STRUCTURAL FRAMING AND WITHIN MIDDLE

HALF OF DOUBLE TOP PLATES TYPICAL NON-BEARING STUD WALL DETAILS



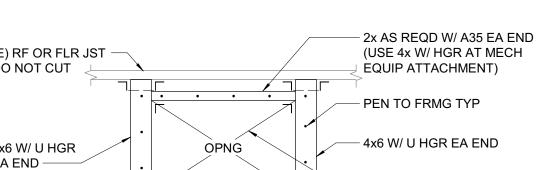
(NON-SHEAR WALL)

(E) SHTG

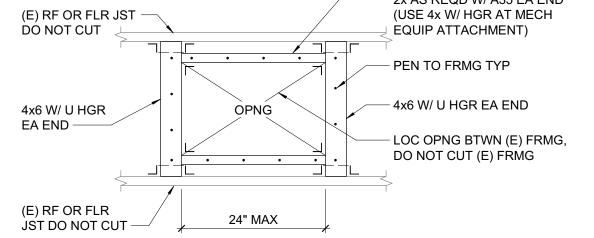


FOR INFORMATION

NOT NOTED SEE



NEW OPENING AT EXISTING SHEAR WALL



NEW 24" MAXIMUM OPENING 3/4" = 1'-0"

DOOR OPENING AS

JOB NUMBER:

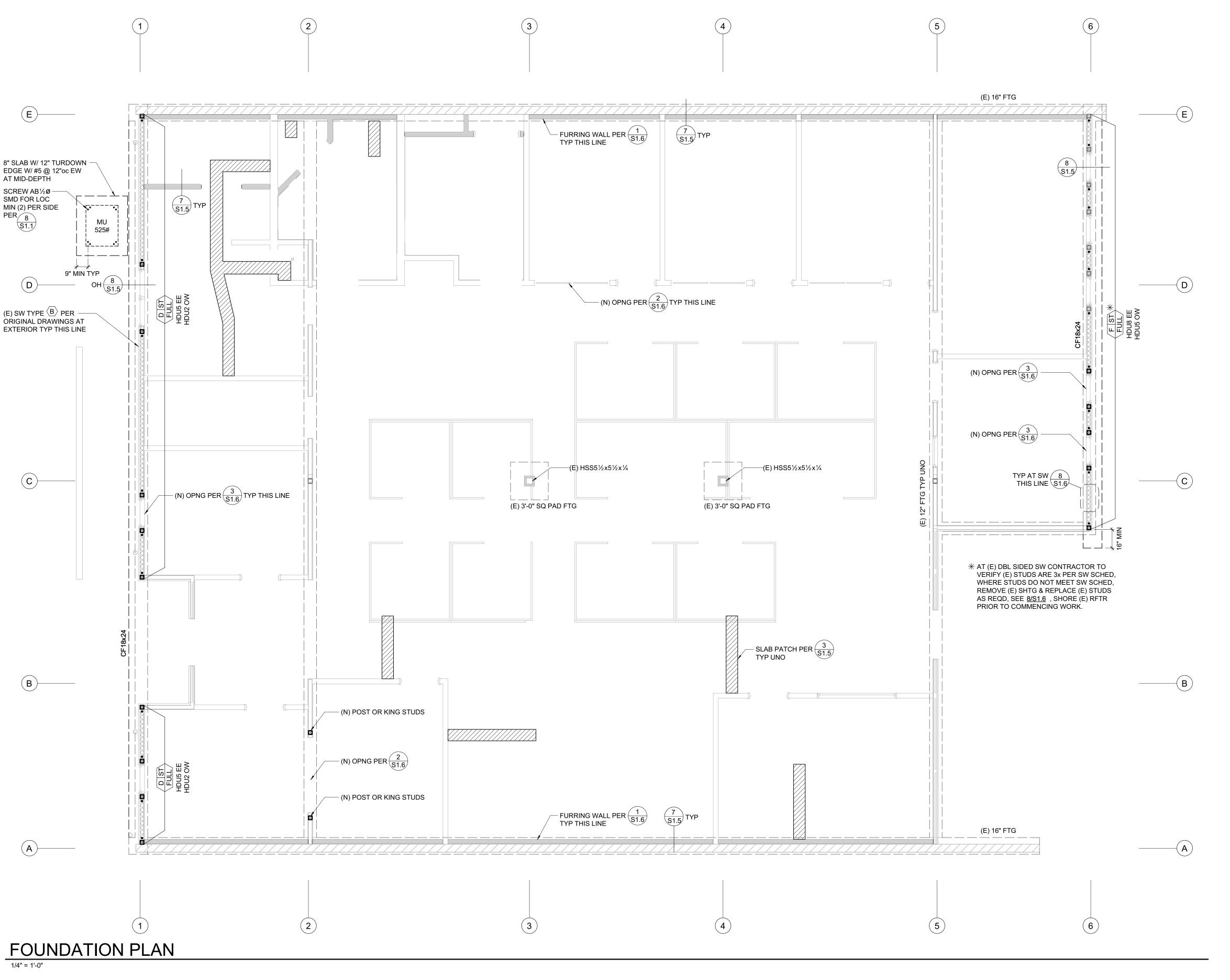
ORIGINAL DATE:

MODERNIZATION WOOD JUNE 5, 2025

SHEET LOG

ISSUED FOR:

REV # DATE:



FOUNDATION PLAN NOTES:

- REFER TO SHEETS <u>S0.1</u>, <u>S0.2</u>, AND <u>S1.1</u> THROUGH <u>S1.6</u> FOR GENERAL NOTES AND TYPICAL DETAILS. THE FOLLOWING DETAIL REFERENCES ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. ALL GENERAL NOTES AND TYPICAL DETAIL SHEETS NOTED ABOVE ARE APPLICABLE AND SHALL BE FOLLOWED.
 - 2. DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE. COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
 - 3. SEE DETAILS OR CURB PLAN FOR CURB LOCATIONS. COORDINATE WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES. PROVIDE LONGER ANCHOR BOLTS AT CURBS PER <u>G/S0.1</u>.
 - 4. ALL EXTERIOR WALLS NOT DESIGNATED AS SHEAR WALLS ON PLANS (INCLUDING WALLS ADJACENT TO SEISMIC GAPS) SHALL BE SHEATHED AS SHEAR WALL TYPE 'A' PER SHEAR WALL SCHEDULE, UNO.
 - 5. PLUMBING AND ELECTRICAL CONDUIT AND GROUND STRAP SHALL NOT BE LAID WITHIN FOUNDATIONS. NO UTILITY PIPES OR CONDUITS SHALL BE LOCATED THRU COLUMN FOOTINGS OR FRAME FOOTINGS. NO PIPES OR CONDUITS THRU SILL PLATES SHALL BE WITHIN 12" OF HOLDOWN BOLTS. NO MECHANICAL, ELECTRICAL, OR PLUMBING OPENINGS SHALL BE LOCATED IN SHEAR WALLS UNLESS SHOWN AND DETAILED ON THE STRUCTURAL DRAWINGS. NO VERTICAL OR HORIZONTAL PIPES OR CONDUITS SHALL BE LOCATED THROUGH STEEL FRAMES, STEEL COLUMNS, OR STEEL BASE PLATES. PROVIDE FURRING AND/OR THICKENED CONCRETE WHERE REQUIRED TO CLEAR UTILITY SYSTEMS. NOTIFY STRUCTURAL ENGINEER/ARCHITECT PRIOR TO ANY INSTALLATION NOT CONFORMING TO THESE DETAILS.

PIPES THROUGH FOOTINGS SHALL BE PER 1/S1.5.

PIPES PARALLEL TO FOOTINGS SHALL BE PER <u>2/S1.1</u>.

PIPES AT SLAB ON GRADE SHALL BE PER 3/S1.5.

PIPES THROUGH WOOD FRAMING SHALL BE PER $\underline{1/S1.2}$ AND $\underline{2/S1.3}$.

		PLAN LEGEND
SYMBOL	REFERENCE DETAIL	DESCRIPTION
	<u>1/S1.6</u>	INDICATES STRUCTURAL WALL.
A 10'-0" HDUx	7/S1.2 F/S0.1	INDICATES SHEAR WALL TYPE AND MINIMUM WALL LENGTH. SYMBOL LOCATION INDICATES SHEATHED FACE OF WALL UNLESS NOTED OTHERWISE. "HDUx" INDICATES SIMPSON HOLDOWN AT EACH END UNO.
A ST 20'-0" HDUx	<u>9/S1.2</u>	INDICATES STRAPPED SHEAR WALL WITH TYPE AND OVERALL WALL LENGTH, SEE ARCHITECTURAL DRAWINGS FOR OPENINGS."HDUx" INDICATES SIMPSON HOLDOWN AT EACH END UNO.
	<u>D/S0.1</u>	INDICATES WOOD POST.
⋈•	<u>5/S1.6</u>	INDICATES POST WITH HOLDOWN. POSTS WITH HOLDOWN ARE FULL HEIGHT FROM SILL TO TOP PLATE.
0, 🗆 , 📘		INDICATES STEEL COLUMN. LOCATE COLUMN AT
		INDICATES FOUNDATION.
CF24		INDICATES CONTINUOUS FOOTING SIZE AND REINFORCING PER SCHEDULE.
F2.0		INDICATES PAD FOOTING SIZE AND REINFORCING PER SCHEDULE.
		INDICATES STEP IN ELEVATION, SEE ARCHITECTURAL DRAWINGS.
A 3 2'-8"	<u>7/S1.2</u>	INDICATES SHEAR WALL TYPE, MINIMUM NUMBER OF SILL BOLTS (IN ADDITION TO HOLDOWN BOLTS) AND MINIMUM WALL LENGTH.
88)—		INDICATES GRIDLINE.
1 S3.1		INDICATES ELEVATION.
		INDICATES EXISTING FOUNDATION.
		INDICATES EXISTING FRAMING.
		INDICATES EXISTING CONCRETE MASONRY UNIT WALL.

CONTINUOUS FOOTING SCHEDULE						
	'b'	'd'				
MARK	WIDTH	DEPTH	REINF 'a'	NOTES		
CF18x24	18"	24"	(3) #5 T&B			

	SHEAR WALL SCHEDULE 3							
sw	APA RATED EXP 1	NAILING		A٨	CHORA	GE		DEMARKS
500			%"ø BO	LT FDN 4	A	T FRAMING	3 2	REMARKS
	SHEATHING	(PEN)	2x SILL	3x SILL	16d	A35	SCREW ¹	
$\langle A \rangle$	¹⁵ ⁄ ₃₂ " (32/16) CD	8d @ 6"oc	48"oc	48"oc	8"oc	24"oc	24"oc	
$\langle B \rangle$	¹⁵ ⁄ ₃₂ " (32/16) CD	8d @ 4"oc	32"oc	32"oc	6"oc	16"oc	16"oc	
$\langle c \rangle$	¹⁵ ⁄ ₃₂ " (32/16) CD	8d @ 3"oc	24"oc	32"oc	4"oc	12"oc	12"oc	3x MIN AT
(D)	¹⁵ ⁄ ₃₂ " (32/16) CD	8d @ 2"oc	-	24"oc	(2) ROWS @ 6"oc	12"oc	8"oc	ALL ADJOINING PANEL
(E)	¹⁵ ⁄ ₃₂ " (32/16) CD BOTH SIDES	8d @ 3"oc	-	12"oc	(2) ROWS @ 4"oc	6"oc	(2) ROWS @ 6"oc	EDGES
(F)	15/32 " STRUCT 1 BOTH SIDES	8d @ 2"oc EXT 10d @ 2"oc INT	-	12"oc	(2) ROWS @ 4"oc	6"oc	(2) ROWS @ 6"oc	PER <u>8/S1.6</u>

NOTES:

- 2x SILL: SDS¼x4½" OR SDWS 0.22"x4". AT 3x SILL: SDS¼x6" OR SDWS 0.22"x6"
 FOR SCREW @ 6"oc OR LESS & DBL ROW OF ANCHORAGE PROVIDE 4x OR EQUIVALENT
- FOR SCREW @ 6"00 OR LESS & DBL ROW OF ANCHORAGE PROVIDE 4x OR EQUIVALENT SB/RIM BLW. AT DBL ROW STGR ROWS TYPICAL.
 AT EXISTING WALLS: (E) STRUCT SHTG, NAILING, & ANCHORAGE SHALL BE VERIFIED BY THE CONTRACTOR TO MEET THE REQUIREMENTS NOTED IN THE SCHED ABV. ALL (E)

SW COMPONENTS NOT MEETING THE REQUIREMENTS OF THE SCHED INCLUDING

SHEAR TRANSFER DETAILS SHALL BE UPGRADED AS REQD.

4. SCREW ANCHORS PER <u>8/S1.1</u> MAY BE USED AT (E) FDN. SIZE & SPCG PER SW SCHED.

ARCHITECT

Ta job no.

THIS DOCUME

REET TENANT IMPRO

ROFE SON A SUCCO CONTROL OF CALIFORNIA CONTR

SHEET LOG							
DATE:	ISSUED FOR:						

JOB NUMBER:
SHEET:

FOUNDATION PLAN

FOUNDATION PLAN
U ORIGINAL DATE: JUNE

ROOF FRAMING PLAN

FRAMING PLAN NOTES:

- 1. REFER TO SHEETS <u>S0.1</u>, <u>S0.2</u>, AND <u>S1.2</u> THROUGH <u>S1.6</u> FOR GENERAL NOTES AND TYPICAL DETAILS. THE FOLLOWING DETAIL REFERENCES ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. ALL GENERAL NOTES AND TYPICAL DETAIL SHEETS NOTED ABOVE ARE APPLICABLE AND SHALL BE FOLLOWED.
- 2. DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE. COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
- 3. MECHANICAL, ELECTRICAL AND PLUMBING PENETRATIONS THROUGH WALLS, ROOFS OR FLOORS SHALL BE PER REFERENCES BELOW UNLESS SHOWN AND DETAILED OTHERWISE ON THE STRUCTURAL PLANS. NOTIFY ARCHITECT/ENGINEER PRIOR TO ANY INSTALLATION NOT CONFORMING TO THESE DETAILS.
 - PENETRATIONS THROUGH SHEAR WALLS SHALL BE PER 3/S1.2.
 - PENETRATIONS THROUGH FLOORS/ROOFS SHALL BE PER 5/S1.2.
- 4. ALL EXTERIOR WALLS NOT DESIGNATED AS SHEAR WALLS ON PLANS (INCLUDING WALLS ADJACENT TO SEISMIC GAPS) SHALL BE SHEATHED AS SHEAR WALL TYPE 'A' PER SHEAR WALL SCHEDULE, UNLESS NOTED OTHERWISE.
- 5. ELEVATIONS ON PLANS AND DETAILS " ARE TO HEIGHTS ABOVE FINISHED GROUND FLOOR ELEVATION REFERENCE 0'-0". COORDINATE TOP OF FRAMING AND LEDGER HEIGHTS AS REQUIRED TO PROVIDE ROOF SLOPES AS SHOWN ON ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
- 6. SEISMIC GAPS WHERE NOTED ARE DIMENSIONED CLEAR BETWEEN WALL FINISHES. WALLS AT SEISMIC SEPARATION JOINTS SHALL BE FRAMED AS EXTERIOR WALLS, UNO. THIS GAP TO BE MAINTAINED ENTIRELY CLEAR TO ALLOW FOR DIFFERENTIAL BUILDING MOVEMENT. NO PIPES, CONDUITS, ETCETERA SHALL BE LOCATED WITHIN THE GAP. PROVIDE FLEXIBLE COUPLINGS AT ALL UTILITIES CROSSING SEISMIC

		PLAN LEGEND
SYMBOL	REFERENCE DETAIL	DESCRIPTION
	<u>1/S1.6</u>	INDICATES STRUCTURAL WALL.
====	<u>1/S1.6</u>	INDICATES STRUCTURAL WALL ABOVE.
\boxtimes	<u>D/S0.1</u>	INDICATES WOOD POST.
0, □, ፲		INDICATES STEEL COLUMN.
3½x12 GLB C=1"	<u>D/S0.1</u>	INDICATES GLULAM BEAM SIZE AND CAMBER. WHERE NO CAMBER IS SPECIFIED SEE WOOD FRAMING NOTES FOR TYPICAL GLULAM BEAM CAMBER.
<u></u>	<u>6/S1.2</u>	INDICATES PANEL EDGE NAILING ALONG FULL LENGTH OF MEMBER.
E	<u>D/S0.1</u>	INDICATES HANGER.
DRAG (100PLF)		INDICATES DRAG TRUSS, ALIGN WITH SHEAR WALLS BELOW OR BEYOND AS OCCUR. DESIGN DRAG TRUSS TO TRANSFER LOAD INDICATED FROM TOP CHORD TO BOTTOM CHORD. LOAD INDICATED IS ASD SEISMIC LOAD.
		INDICATES LEDGER. SEE PLAN FOR SIZE AND ANCHORAGE.
88		INDICATES GRIDLINE.
1 S3.1		INDICATES ELEVATION.
MU 1,000#	<u>4/S1.3</u> <u>7/S1.4</u>	INDICATES APPROXIMATE LOCATION, SIZE AND MAXIMUM WEIGHT OF MECHANICAL UNIT. SEE MECHANICAL DRAWINGS FOR ANCHORAGE AND ADDITIONAL INFORMATION.
		INDICATES STEP IN ELEVATION, SEE ARCHITECTURAL DRAWINGS.
		INDICATES EXISTING FRAMING.
A 4'-0"	<u>1/S1.3</u>	INDICATES TIE STRAP. SEE SCHEDULE FOR STRAP, NAILING AND LENGTH.
		INDICATES EXISTING CONCRETE MASONRY UNIT WALL.

TIE STRAP SCHEDULE									
MADIC	CTDAD	MIN.	MAX (SI	MIN. END					
MARK	STRAP	NAILING ES OF ◆	CASE 1	CAS	SE 2	LENGTH			
		E3 OF •	OAOL 1	EL	RL	(EL)			
A	CS16	(10) 10d	10d @ 4"oc STGR	FILL ALL NAIL HOLES	10d @ 4"oc STGR	12"			
lack	CS14	(13) 10d	10d @ 4"oc STGR	FILL ALL NAIL HOLES	10d @ 4"oc STGR	16"			
\odot	CMSTC16	(25) 10d	10d @ 3"oc STGR	FILL ALL NAIL HOLES	10d @ 3"oc STGR	24"			
(D)	CMST14	(33) 10d	10d @ 3½"oc STGR	FILL ALL NAIL HOLES	10d @ 3½"oc STGR	32"			
(E)	CMST12	(43) 10d	10d @ 3½"oc STGR	FILL ALL NAIL HOLES	10d @ 3½"oc STGR	48"			

- 1. CASE 1 APPLIES UNLESS END LENGTH (EL) IS NOTED ON PLANS. WHERE END LENGTH (EL) IS NOTED, SEE CASE 2.
- 2. AS REQUIRED, PROVIDE CLOSER NAIL SPACING TO MEET MINIMUM NAILING EACH SIDE OF ◆.

MAXIMUM ROOF WEIGHT SCHEDULE								
MARK	EXISTING WEIGHT ¹	ALLOWABLE ADDED WEIGHT ²						
Α	16 PSF	6.8 PSF						
В	14 PSF	6.7 PSF						
С	20 PSF	10.0 PSF						

- 1. TOTAL ROOF WEIGHT INCLUDING STRUCTURE, ETC.
- 2. TOTAL ALLOWABLE ADDED WEIGHT INCLUDING INSULLATION, ROOFING, DUCTING, SPRINKLERS ETC. ASSUMES THAT THE EXISTING ROOFING IS REMOVED DOWN TO EXISTING PLY PRIOR TO RE-ROOFING. AN ADDITIONAL 5% OF THE EXISTING WEIGHT IS INCLUDED.

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SHEET LOG REV # DATE: ISSUED FOR:

JOB NUMBER:

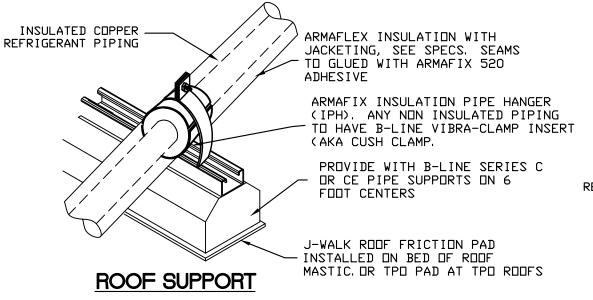
ORIGINAL DATE: JUNE 5, 2025

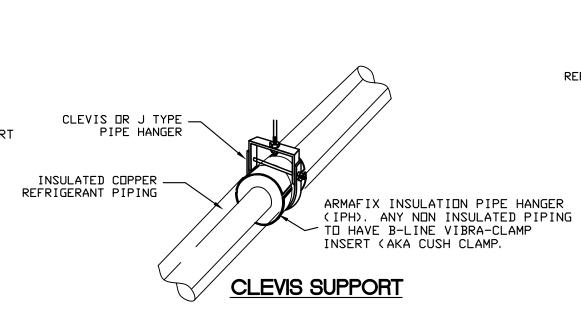
ROOF FRAMING PLAN

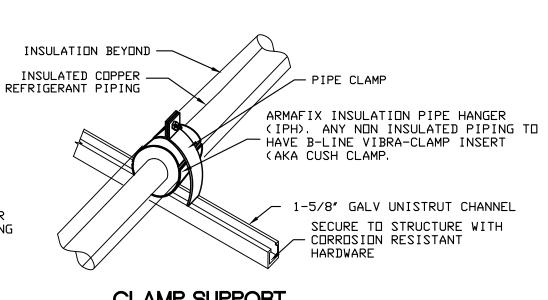
	MECHANI	CAL SYMBOLS					MECHA	NICAL EQ	UIPMENT S	3CHEDU	JLE						
SYMBOL	ABBREVIATION		Mark	Serving	Make / Model	Description	Accessories/ Options	Cooling Capacity	Heating Capacity	Gas Input	Airflow	Min. OA Notes		Volts Ph	FLA / HP	MCA MOCF	Weight
\boxtimes \longrightarrow	CD	SUPPLY DIFFUSER	CO2	CONFERENCE ROOM		0-2,000 PPM) monitoring sensor with OLED display, analog s with set-point relay.		-	-	-	-	Install in-wall using concealing ring a	accessory.	24-30 VDC -	-	5W max -	-
$\square \leftarrow$	RAG, EAG	RETURN/EXHAUST AIR GRILLE	HP-1	RTU-1 & RTU-2		al 8 ton outdoor air cooled heat pump, side discharge, R-410A rant	-	96 MBH	108 MBH	-	-			230 V 3 P	-	36.6 A 45 A	525 Lbs
	VD	VOLUME DAMPER	GR-1	-	GREENHECK GRSR-10 Spun OR APPROVED EQUIVALENT	aluminum construction, gravity ventilator for relief pressure.	Interior aluminum bird screen with 1/2 inch openings, backdraft damper, gpi roof curb.	-	-	-	-				-		10 Lbs each
14×12		DUCT SIZE, FIRST NUMBER IS IN PLANE OF PAGE		Nominal 5 ton packaged unit, heat pump, electric		al 5 ton packaged unit, heat pump, electric heating and g unit, R-410A refrigerant, vertical supply/return, direct drive	2 inch MERV 13 air filters, #CRRFCURB001A01 14 inch high roof curb, #33ConnectStar43 T-24 compliant Wi-Fi thermostat ("T") &					Install thermostat such that all control the finished floor. Where possible n					
14×12L	L	LINED DUCTWORK	RTU-1	NORTH SPACES	contro	axial fan technology, Al/Cu coil, Base Electromechanical Is, hinged access panels. 10 year limited parts and essor warranty.	an technology, Al/Cu coil, Base Electromechanical mged access panels. 10 year limited parts and TCB-IFTH2UUG-UL - 24V Thermostat Interface. Economizer: #CRECOMZR076A00 economizer, ultra low leakage economizer, vertical		60 MBH 66 MBH -		1,750 CFM at	lighting controls in the same room. F continuous fan operation during occ Configure WiFi and set up owner for any operation during from phase application.	upied periods. access to operation	208-230 V 1 P 8 6 A	8.6 A	11 A 15 A	410 Lbs unit + 200 Lbs Roof Curb +
+++		DEMOLITION	RIU-1	NORTH SPACES	40QQ-060ABA3-0A0	modulating damper, spring return actuator, up to 100% barometric relief, supply and outdoor air temperature sensors, and CO2 sensor compatible, for use in electro mechanical controls only. Controller meets California title 24 Section 120.2 Fault Detection and Diagnostic (FDD) requirements. Supply air duct smoke detector ("SD").	,	60 MRH 66 MRH -		0.5"WG ESP	shall be wired for automatic shut dov detection of products of combustion. shall provide 24V transformer to pow	wn of supply fan upon Electrical Contractor	208-230 V 1 P	0.0 A	ITA 15A	105 Lbs Economizer	
		TURNING VANES										, ,					
	FC	FLEXIBLE CONNECTION		Nominal 5 ton packaged unit, heat pump, electric heating and cooling unit, R-410A refrigerant, horizontal supply/return, direct drive vane axial fan technology, Al/Cu coil, Base Electromechanical controls, hinged access panels. 10 year limited parts and			2 inch MERV 13 air filters, #CRRFCURB001A01 14 inch high roof curb, #irive #33ConnectStar43 T-24 compliant Wi-Fi thermostat ("T") & TCB-IFTH2UUG-UL - 24V Thermostat Interface. Economizer: #CRECOMZR077A00 economizer, ultra low leakage economizer,				Install thermostat such that all control the finished floor. Where possible n lighting controls in the same room. F continuous fan operation during occ	natch centerline of Program for					
<u> </u>	FD	FIRE OR FIRE SMOKE DAMPER	RTU-2	SOUTH SPACES TOSHIBA-CARRIER 40QQ-060ABA3-0A0 TOSHIBA-CARRIER 40QQ-060ABA3-0A0			harizontal orientation, EconoMi¢or V with solid state W/7220 controller	60 MBH	66 MBH	-	1,750 CFM at 0.5"WG ESP	275 CFM 276 Configure WiFi and set up owner for at and scheduling from phone application shall be wired for automatic shut down	access to operation on. Smoke detector	208-230 V 1 P 8.6 A	8.6 A	11 A 15 A	410 Lbs unit + 200 Lbs Roof Curb + 105 Lbs Economizer
M		SUPPLY DUCT UP					sensor compatible, for use in electro mechanical controls only. Controller meets California title 24 Section 120.2 Fault Detection and Diagnostic (FDD) requirements. Supply air duct smoke detector ("SD").				detection of products of combustion shall provide 24V transformer to pov	Electrical Contractor	ctor				
		RETURN/EXHAUST DUCT UP	TL	_	APPROVED induct	oltage wall mounted thermostat, 30-110 F setpoint range, ive rating at 120 V 16 A	(199) requirements. Supply all dust emone detector (1997).	_	-	-	_	Set operate fan above 80°F			-		-
T	Т	THERMOSTAT			EQUIVALENT												
•	POC	POINT OF CONNECTION						FAN S	CHEDULE								
SD	SD	DUCT SMOKE DETECTOR	MAI	RK M	MAKE / MODEL	DESCRIPTION	I ACCESSOR	RIES	AIRFL PRES		SOUND LEVEL	NOTES	VOLTS	PHASE	FLA	MOTOR HP	WEIGHT
М		MOTOR-ACTUATOR	CEF-1,	CEF-1, CEF-2 PANASONIC FV-1115VK2 OR APPROVED EQUIVALENT Ceiling exhaust fan, ECM motor, single speed Whispergreet damper, Energy Star Certified.		en fan, integral backdraft FV-VS15VK1 multi speed with time delay		30 CFM CC 150 CFM at 0	ONSTANT,	<0.3 Sones	Ducting and fittings to be 26 gauge galvanized sheetmetal (no aluminum flex). Set delay timer to 15	120 V	1 P	0.24 A	24.4 watts each	12 Lbs each	
	AFF	ABOVE FINISHED FLOOR	Calling publication FCM mater single aread White area		en fan integral backdraft					minutes. SED for occupancy sensor control integration. Ducting and fittings to be 26 gauge galvanized		+					
	BDD	BACK DRAFT DAMPER	CEF-3,	CEF-3, CEF-4 PANASONIC FV-1115VK2 OR APPROVED EQUIVALENT Celling exhaust fair, ECM motor, single speed whispergr damper, Energy Star Certified.		een tan, integral backdraft -		150 CFM at 0.1" WC ESP				120 V	120 V 1 P 0.2	0.24 A	24.4 watts each	12 Lbs each	
	DG	DOOR GRILLE	PANASONIC FV-20NLF1 OR APPROVED INI		Inline exhaust fan, quiet operation, Energy star rated, 3 y	year warranty 6" Backdraft damper		2" WC ECD	2.00	Ducting and fittings to be 26 gauge galvanized	400.17	4.5	0.40.4	+	1		
	DN	DOWN		-1	EQUIVALENT				225 CFM at 0.3" WC ESP		ESP 2 Sones sheetmetal (no aluminum flex). Control via respective line voltage thermostat (TL).		120 V	120 V 1 P	0.46 A		20 Lbs
	DWG	DRAWING															
	EA	EXHAUST AIR				ROUTH ET SCHEDUI E		DUCTING MATERIALS SCHEDULE									

AIR OUTLET SCHEDULE							
Mark	Make / Model	Alternate Manufacturer	Description				
CD-1	TITUS TMS, BORDER 3 (NT AT NARROW T-BAR)	PRICE OR KREUGER	PANEL FACE, STEEL CONSTRUCTION, 24x24 T-BAR LAYIN, PROVIDE WITH DEFLECTORS WHERE DIRECTED BLOW PATTERN IS SHOWN ON PLANS.				
CD-2, CD-2D	TITUS MCD, BORDER 1	PRICE OR KREUGER	LOUVERED FACE, 4-WAY MODULAR CORE, STEEL CONSTRUCTION, SURFACE MOUNT OPPOSED BLADE DAMPER (AT CD-2D)				
CR-1, EG-1	TITUS PAR-3F, BORDER 3 (NT AT NARROW T-BAR)	PRICE OR KREUGER	STEEL CONSTRUCTION, PERFORATED FACE, 24x24 T-BAR LAY-IN				
CR-2, CR-2D	TITUS 355RL, BORDER 1	PRICE OR KREUGER	STEEL CONSTRUCTION, LOUVERED BLADES ON 1/2" CENTERS, SURFACE MOUNT, OPPOSED BLADE DAMPER (AT CR-2D)				
SG-1, SG-1D	TITUS 272FL, BORDER 1	PRICE OR KREUGER	ALUMINUM CONSTRUCTION, AEROBLADES ON 3/4" CENTERS, OPPOSED BLADE DAMPER (AT SG-1D)				

	DUCTING MATERIALS SCHEDULE							
	SEE SPECIFICATIONS SECTION 23 00 00 FOR COMPLETE REQUIREMENTS							
OUTSIDE AIR, SUPPLY,	OUTDOORS	RECTANGULAR	SHOP FABRICATED PER SMACNA AND MINIMUM 20 GAUGE GALVANIZED SHEET METAL WITH GOVERNMENT CLIP OR TDC (FLANGE PART OF DUCT) CONNECTORS, PITTSBURGH LONGITUDINAL SEAMS WITH SEALANT IN SEAMS, SEAL ALL JOINTS WITH 2 LAYERS OF UNITED MCGILL OUTDOOR DUCT SEALER.					
	INDOORS	ROUND	GALVANIZED SHEET METAL, 6" AND SMALLER 26 GAUGE SPIRAL OR SNAPLOK PIPE, 7" AND LARGER TO BE PER SMACNA 4" WG PRESSURE CLASS AND MINIMUM 24 GAUGE. FITTINGS TO BE UNITED MCGILL UNI-SEAL "LO-LOSS" OR APPROVED EQUAL.					
RETURN AIR DUCTS		ROUND (AT FINAL CONNECTIONS)	ATCO #036, R-6 PRE- INSULATED, 10" WG PRESSURE RATED, MAXIMUM 7 FEET LENGTH. AT UNCONDITIONED SPACES: ATCO #031, R-8 PRE- INSULATED, 10" WC PRESSURE RATED, MAXIMUM 5 FEET LENGTH.					
		RECTANGULAR	GALVANIZED SHEET METAL, GAUGE PER SMACNA 4" WG PRESSURE CLASS, 24 GAUGE MINIMUM. SEAL ALL JOINTS WITH DUCT SEALER.					
		RECTANGULAR	SHOP FABRICATED PER SMACNA 4" WG PRESSURE CLASS AND MINIMUM 26 GAUGE GALVANIZED SHEET METAL WITH S-DRIVE OR DUCT MATE CONNECTOR SYSTEM.					
EXHAUST DUCTS	INDOORS	ROUND	GALVANIZED SHEET METAL, 6" AND SMALLER PER SMACNA 6" WG PRESSURE CLASS AND 26 GAUGE SPIRAL OR SNAPLOK PIPE, 7" AND LARGER TO BE PER SMACNA 4" WG PRESSURE CLASS AND MINIMUM 24 GAUGE. FITTINGS TO BE UNITED MCGILL UNI-SEAL "LO-LOSS" OR APPROVED EQUAL.					







CLAMP SUPPORT

MECHANICAL GENERAL NOTES

- 1. PROVIDE MINIMUM DUTSIDE AIR TO HVAC UNITS PER MECHANICAL SCHEDULE
- SUSPENDED OR MOUNTED ON VIBRATION ISOLATORS. 3. MAINTAIN A MINIMUM 10'-0" CLEAR BETWEEN HVAC EQUIPMENT AIR INTAKES AND PLUMBING VENTS, VENTS SERVING FUEL BURNING EQUIPMENT OR EXHAUST OUTLETS

SURFACE OF ANY ABUTTING PUBLIC WAY OR DRIVEWAY; OR WHEN IT IS IN A

2. PROVIDE FLEXIBLE PIPE AND DUCT CONNECTORS TO ALL EQUIPMENT WHICH IS

HORIZONTAL POSITION IN A SIDEWALK, STREET, ALLEY OR DRIVEWAY. 4. PROVIDE UL FIRE STOPPING, PER UL LISTING, WHERE PIPES OR DUCTS PASS THROUGH FIRE RATED CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF FIRE RATED ASSEMBLES. AT SHAFT FLOOR PENETRATIONS PROVIDE FIRE STOPPING

WITH DBJECTIONABLE DDORS, FUMES OR FLAMMABLE VAPORS; OR 10 FEET ABOVE THE

FLEX CONNECTOR

FULL LOAD AMPS

GREASE EXHAUST

IN JOIST SPACE

NOT TO SCALE OUTSIDE AIR

RETURN AIR

SUPPLY AIR

REFRIGERANT LIQUID REFRIGERANT SUCTION

SEE CIVIL DRAWINGS

STAINLESS STEEL

VOLUME DAMPER

VERIFY IN FIELD

VENT THROUGH ROOF

TRANSFER AIR

TYPICAL

SEE ARCHITECTURAL DRAWINGS

SEE ELECTRICAL DRAWINGS

SEE STRUCTURAL DRAWINGS

SEE PLUMBING DRAWINGS

GALVANIZED SHEET METAL

THOUSAND BTU PER HOUR MINIMUM CIRCUIT AMPS

MAXIMUM OVER CURRENT PROTECTION

FC FLA

GE

IJS MBH

MOCP

NTS

OA

RA

SAD

SCD

SED

SPD

SSD

S/S

TA

TYP

VD

VIF

VTR

AT VENTS, PIPES AND DUCTS PASSING THROUGH FLOORS PER CBC SECTION 711. 5. ALL EXPOSED CONTROL WIRING SHALL BE INSTALLED IN EMT CONDUIT UNLESS CONCEALED IN WALLS OR ATTIC SPACES. ALL WIRING IN ATTIC SPACES SHALL BE

NEATLY STAPLED OR ATTACHED TO FRAMING AT MINIMUM 10' INTERVALS.

- 6. LABEL ALL EQUIPMENT WITH ENGRAVED PLASTIC TAGS PER SPECS WITH EQUIPMENT TAG NUMBERS.
- 7. DUCT LINER TO HAVE MOLD, HUMIDITY AND EROSION RESISTANT INTERIOR SURFACES
- THAT MEET OR EXCEED REQUIREMENTS IN ACCORDANCE WITH CMC SECTION 605. O. 8. INSULATION APPLIED TO THE EXTERIOR SURFACES OF DUCTS LOCATED IN THE BUILDING SHALL HAVE A FLAME SPREAD OF NOT MORE THAN 25 AND A SMOKE-DENSITY NOT EXCEEDING 50 WHEN TESTED AS A COMPOSITE INSTALLATION IN
- 9. INSTALL PVC JACKETING OVER INSULATION ON ALL OUTDOOR REFRIGERANT SUCTION
- 10. INSTALLATION INSTRUCTIONS FOR ALL EQUIPMENT SHALL BE MADE AVAILABLE TO THE BUILDING INSPECTOR AT THE TIME OF INSPECTION.
- 11. REFER TO SPECIFICATION SECTION 23 00 00 DN SHEET M7. 1 FOR ADDITIONAL REQUIREMENTS.

MECHANICAL SHEET INDEX

- MO. 1 MECHANICAL LEGEND, SCHEDULES & NOTES
- MECHANICAL DEMOLITION PLAN

ACCORDANCE WITH CMC SECTION 605. O.

- MECHANICAL PLAN
- MECHANICAL PLAN ROOF
- M5. 1 MECHANICAL DETAILS

M7. 1 MECHANICAL SPECIFICATIONS

CONTROL DESCRIPTION

- PACKAGED ROOFTOP UNITS (RTU-1, RTU-2):

 SHALL OPERATE FROM RESPECTIVE WALL THERMOSTAT TO MAINTAIN SPACE TEMPERATURE AT
- SETPOINTS.
- FAN TO OPERATE CONTINUOUSLY DURING OCCUPIED MODE.
- COORDINATE SETPOINTS AND SCHEDULES WITH OWNER.
 VENTILATION TO RUN AT TITLE 24 MINIMUM OSA VALUE DURING NORMAL OPERATION WHEN OUTSIDE AIR TEMPERATURE IS GREATER THAN RETURN AIR TEMPERATURE. SEE OSA VENTILATION SCHEDULE.
- WHEN THERMOSTAT IS CALLING FOR COOLING AND OUTSIDE AIR TEMPERATURE IS LESS
- THAN RETURN AIR TEMPERATURE, ECONOMIZER SHALL OPEN OUTSIDE AIR DAMPER TO PROVIDE COOLING TO THE SPACE.
- PROVIDE WITH SMOKE DETECTION SHUT-OFF PER CMC 609. 1.

EXHAUST FANS - RESTROOMS (CEF-1, CEF-2): • FANS HAVE INTEGRAL CONTROLS TO OPERATE BASED UPON MOTION DETECTION, SEE SCHEDULES.

EXHAUST FANS (CEF-3, CEF-4):

• FANS SHALL BE WIRED TO OPERATE VIA RESPECTIVE WALL SWITCH.

EXHAUST FAN - ELECTRICAL ROOM (IF-1):

• FANS SHALL BE WIRED THROUGH LINE VOLTAGE THERMOSTAT, SET FOR 80F.

• CO2 SENSORS ARE FACTORY CALIBRATED TO 400 PPM BASELINE CO2 CONCENTRATION, HAVE A DETECTION RANGE OF 0 - 2,000 PPM, AND HAVE WITH A +/- 30 PPM ACCURACY.

• SENSORS ARE AUTO-CALIBRATING AND HAVE A 3 YEAR WARRANTY. ECONOMIZERS:

- ECONOMIZERS ARE REQUIRED AND SHALL BE EQUIPPED WITH CALIFORNIA ENERGY COMMISSION TITLE 24 CERTIFIED ECONOMIZER CONTROLLERS.
- THE DUTSIDE AIR DAMPER SHALL BE SET TO THE DCV MINIMUM DUTDOOR AIR (SEE DSA VENTILATION SCHEDULE).
- DEMAND CONTROLLED VENTILATION WHEN CO2 READING FROM CO2 SENSOR IN CONFERENCE ROOM RISES ABOVE 1,100 PPM, THE DA DAMPERS SHALL MODULATE OPEN TO BRING IN ADDITONAL DA TO MAINTAIN A SPACE PPM LEVEL BELOW 1,100 PPM.

- SHALL BE PROGRAMMED FOR CONTINUOUS FAN OPERATION DURING OCCUPIED HOURS. • SHALL BE PROGRAMMED TO PROVIDE PRE-OCCUPANCY ("SMART RECOVERY") ONE HOUR PRIOR
- TO NORMAL OCCUPIED HOURS. THERMOSTATS SHALL CONTROL SUPPLY FAN OPERATION OF UNITS AND VENTILATION RATE
 THROUGH ECONOMIZERS WHEN EQUIPPED WITH INTEGRAL CO2 MONITORING (SEE EQUIPMENT)
- ALL THERMOSTAT FUNCTIONS, INCLUDING 7-DAY PROGRAMMED SCHEDULES, UNDCCUPIED TEMPERATURE SETBACK/SETUP, AND SETPOINTS AND SCHEDULES TO BE CONTROLLED
- THROUGH WEB BASED APP. COORDINATE WITH OWNER. • COORDINATE SCHEDULE WITH OWNER.

INSULATED REFRIGERANT PIPE SUPPORT

- HEAT PUMP 16 GAUGE, 18"LONG CLIP WITH - (4) TEK SCREWS INTO UNIT BASE, TYP. (2) PER UNIT. REFRIG LINES, SMD. -3/8"x2-1/2" HILTI QUICK-BOLT - TZ-2 (ESR-1917), ANCHOR BOLT WITH WASHER, TYP-2 - MIN. 2" EMBEDMENT 4 INCH HIGH HOUSEKEEPING PAD. PROVIDED BY OTHERS. 4 4 4 4

HEAT PUMP MOUNTING DETAIL

MINIMUM 6 INCHES

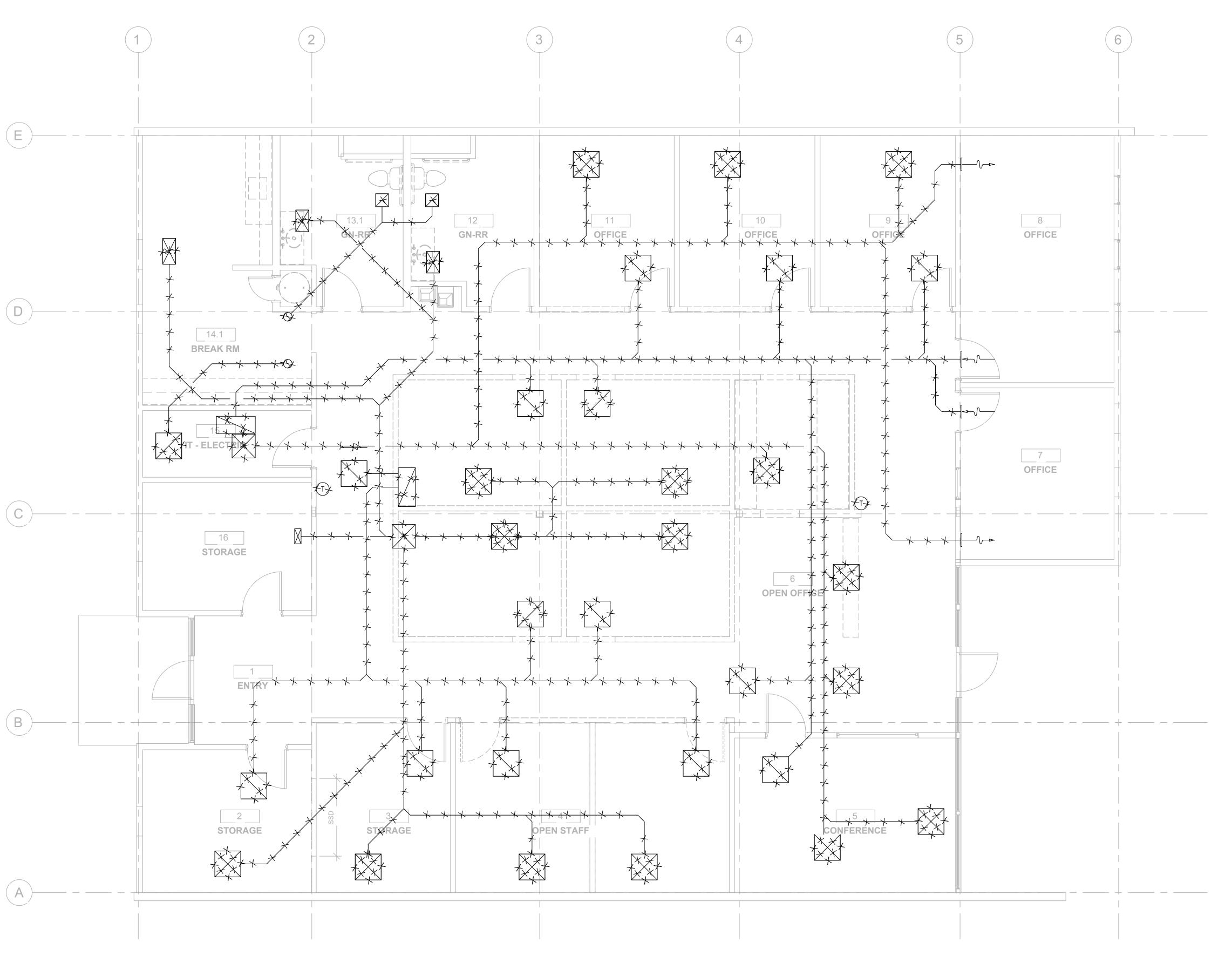
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SHEET LOG REV # DATE: ISSUED FOR: DRAWN BY: A. SOUZA CHECKED BY: T. SOUZA PLOT DATE: 5.29.25 TEP JOB NUMBER:

M0.1MECHANICAL LEGEND,

SCHEDULES & NOTES ORIGINAL DATE:

6.05.2025



MECHANICAL DEMOLITION PLAN
1/4" = 1'-0"





ENGINEERING
575 W College Ave #101
Santa Rosa, CA 95401
707.538.0400 tep.net

21 E STREET TENANT IMPROVEMEI

AL:

PROFESSION

M3756

CHANCE

OF CALIFORNIA

CONTRACT

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SHEET LOG					
REV#	DATE:	ISSUED FOR:			

DRAWN BY: CHECKED BY: PLOT DATE: TEP JOB NUMBER:

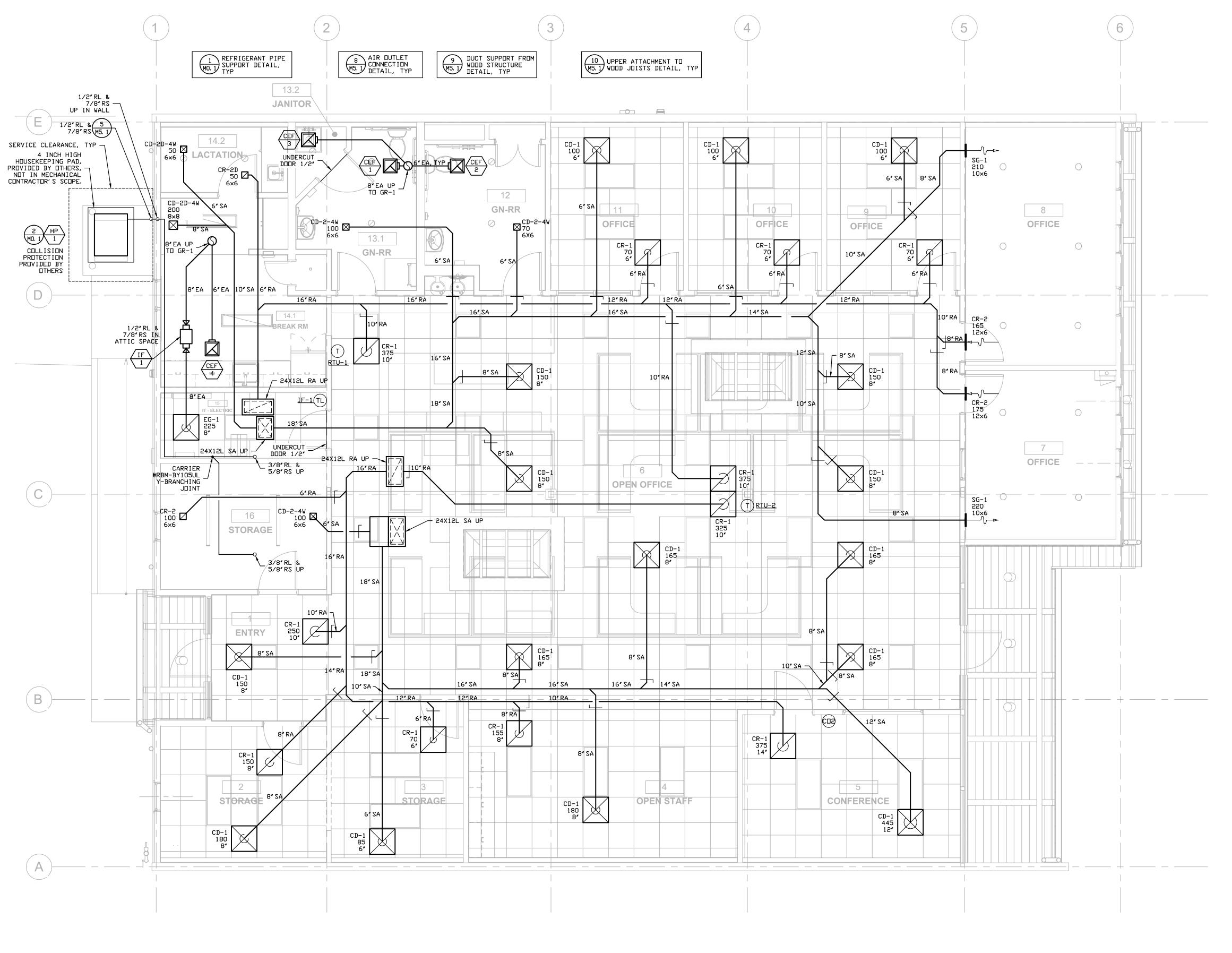
A. SOUZA T. SOUZA 5.29.25 4174

M1.1

MECHANICAL
DEMOLITION PLAN

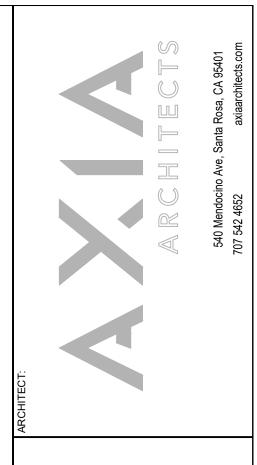
ORIGINAL DATE:

6.05



MECHANICAL PLAN
1/4" = 1'-0"





ENGINEERING
575 W College Ave #101
Santa Rosa, CA 95401
707.538.0400 tep.net

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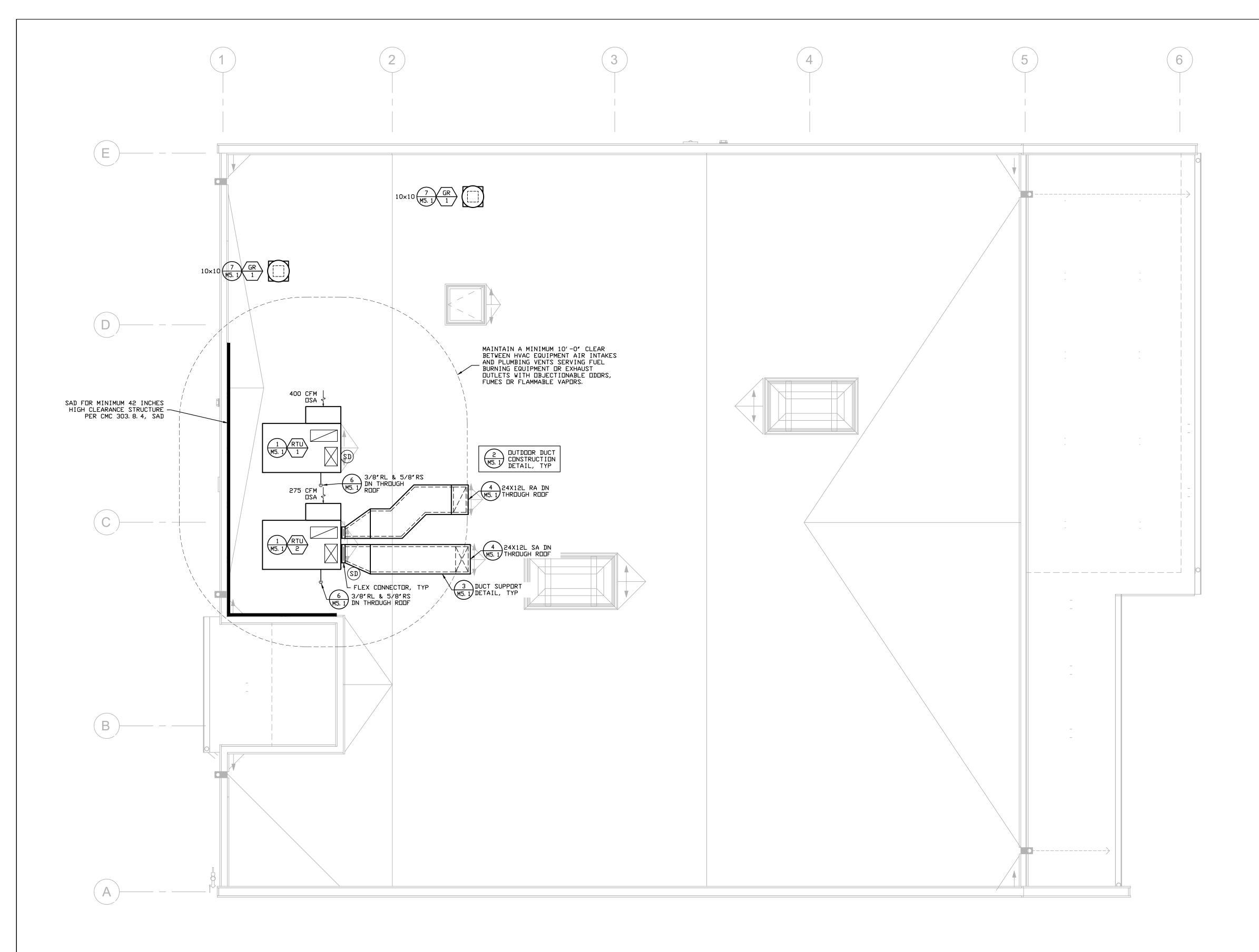
M2.1

MECHANICAL PLAN

ORIGINAL DATE:

6.05.20

A. SOUZA T. SOUZA 5.29.25 4174



MECHANICAL PLAN - ROOF 1/4" = 1'-0"





ENGINEERING
575 W College Ave #101
Santa Rosa, CA 95401
707.538.0400 tep.net

STREET TENANT IMPROVEME

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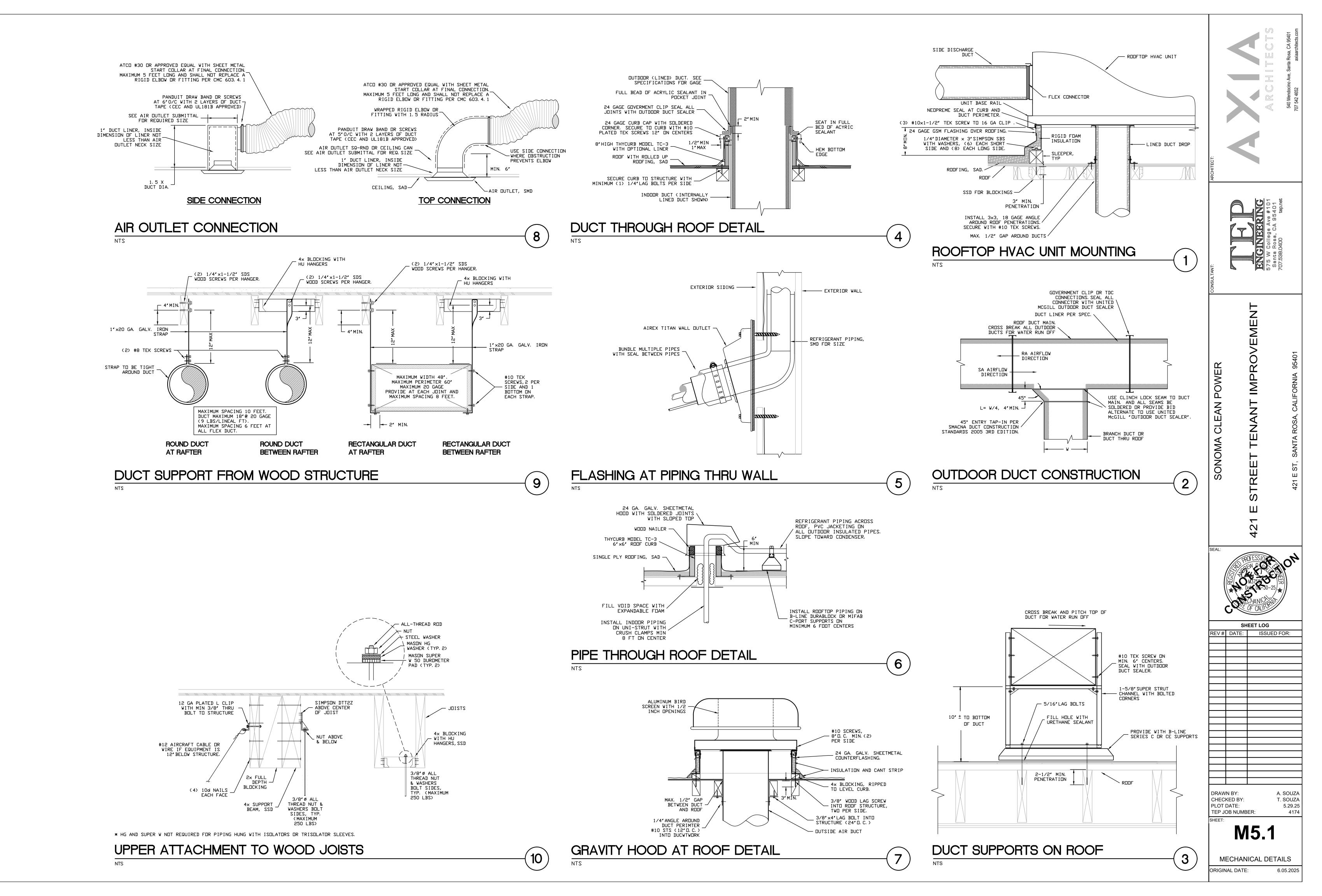
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A. SOUZA T. SOUZA 5.29.25 4174

MECHANICAL PLAN - ROOF



HVAC SPECIFICATIONS - DIVISION 23 00 00

1. GENERAL

1.1 SCOPE

- A. The work in this section includes, but is not limited to, providing all mechanical work as shown and noted on the mechanical Drawings and Specifications, including the following items:
- 1. Mechanical equipment and appurtenances.
- 2. Ductwork, duct insulation and appurtenances.
- 3. Vibration Isolation.
- 4. Controls & control wiring. 5. Refrigerant piping and insulation.
- 6. Pipe hangers and supports.
- 7. Piping markers and equipment nameplates. 8. Energy code testing, adjusting and reporting.
- B. Work of other sections includes the following:
- 1. All trenching and backfilling associated with the mechanical installation.
- 2. Line voltage wiring and disconnect switches. The Electrical Contractor will provide all line voltage wiring & conduit, disconnect switches & magnetic starters (except those furnished under this Section as a part of packaged mechanical equipment). 3. Condensate drainage piping from mechanical equipment.

.2 CODES AND STANDARDS

- A. All work and materials shall be in full accordance with the latest adopted edition of the following documents:
- 1. 2022 California Building Code (CBC)
- 2. 2022 California Plumbing Code (CPC)
- 3. 2022 California Mechanical Code (CMC) 4. 2022 California Electrical Code (CEC)
- 5. 2022 California Fire Code (CFC)
- 6. 2022 California Energy Code (Title 24) 7. 2022 California Green Building Code (CALGreen)

the original certificates, permits, licenses and receipts for fees.

- 8. National Electric Code (NEC) 9. Americans with Disabilities Act (ADA)
- 10. Sheet metal Contractors and Air Conditioning Contractors' National Association (SMACNA), HVAC Duct Construction Standards and Seismic Restraint Manual.
- 11. National Fire Protection Association (NFPA) 12.Local codes and ordinances
- B. Whenever this specification calls for material, workmanship, arrangement or construction of higher quality and/or capacity than that required by governing codes, higher quality and/or capacity takes precedence.

.3 DRAWINGS AND SPECIFICATIONS

A. Where a conflict exists between Drawings and Specifications, promptly notify the Architect for interpretation and resolution.

The most stringent requirements shall be used for bid.

A. The Contractor shall obtain all permits, licenses and fees that are required to perform the work. Provide the Architect with

1.5 SUBMITTALS

1.4 PERMITS

- A. Provide complete product submittals and shop drawings in electronic format (PDF), as one complete package, prior to commencing work or prior to ordering any materials. Piecemealed product submittals may be rejected. Do not include any installation manuals or product catalogs, provide only product data sheets. Clearly identify/mark each submittal in detail. Note what differences, if any, exist between the submitted Item and the specified Item. Failure to identify the differences will be considered cause for disapproval. If differences are not identified and/or not discovered during the submittal review process, Contractor remains responsible for providing equipment and materials that meet the Specifications and Drawings. Items, other than those specified, will not be allowed unless they are approved in writing via the submittal process. Include cut sheets and drawings for the following items in the submittal:
- 1. All mechanical components that are a part of the mechanical contract documents.
- 2. Insulating Contractor's current California C-2 Insulation license issued by the California State Licensing Board and
- 3. Testing, Adjusting and Balancing (TAB) Contractor's current AABC license issued by the Associated Air Balance Council or current NEBB license issued by the National Environmental Balancing Bureau with sample TAB report of a similar air moving
 - 4. Drawings for installation details that differ from the details in the contract documents.
- 5. Control drawings for all control work that is specified in the mechanical contract documents. 6. Provide shop drawing for all VRF system refrigerant piping routing through the building.
- B. "No Exception Taken" constitutes that review is for general conformance with the design concept expressed in the Contract Documents for the limited purpose of checking for conformance with information given. Any action is subject to the requirements of the Contract Documents. Contractor is responsible for the dimensions and quantity and will confirm and correlate at the job site, fabrication processes and techniques of construction, coordination of the work with that of all other trades, and the satisfactory performance of the work.
- C. All details shown on the Drawings are schematic in nature; the Contractor is responsible for determining actual installation requirements. Contractor shall include in his bid all materials and appurtenances for a complete and operable installation. Provide shop drawings for the proposed installation when coordination with other trades is required. The Contractor is responsible for all materials, equipment and appurtenances not reviewed and approved by the Engineer. Contractor shall coordinate with framing contractor all framed out opening locations and sizes in floors, walls, and roofs prior to construction.
- D. In checking Drawings and Submittals data, the reviewer makes effort to detect errors and omissions. Failure of the reviewer to detect errors or omissions during the review of Drawings and Submittals data shall not relieve the vendors and/or Contractor of his/her responsibility to comply with the Contract Documents.
- E. Upon completion of work, provide one set of reproducible as-built drawings and two operation and maintenance manuals. The operation and maintenance manuals shall be in a binder, labeled, organized, and contain manufacturers' data, manufacturers' warranties and maintenance instructions for the equipment, fixtures and appurtenances installed. The Contractor is responsible for all materials, equipment and appurtenances not reviewed and approved by the Engineer.

1.6 QUALITY ASSURANCE

- A. Regulatory Requirements: Work and materials installed to conform with all local, State, Federal and other applicable laws and regulations.
- B. Drawings are diagrammatic. They are not intended to show every item in its exact dimensions, or details of equipment or proposed systems layout. Verify actual dimensions of systems (i.e., piping) and equipment proposed to assure that systems
- C. Manufacturer's Instructions: Follow manufacturer's written instructions. If in conflict with Contract Documents, obtain
- clarification. Notify Engineer/Architect, in writing, before starting work.
- D. UL Compliance: Provide electrical panels and equipment which are UL or ETL listed.
- E. Installer Qualifications: Installer shall be trained and certified in the proper installation of mechanical systems by a nationally or regionally recognized training or certification program. Uncertified persons may perform mechanical installation where under the direct supervision and responsibility of a person trained and certified to install mechanical systems.
- F. Pipe insulation and jacketing must be installed by a Contractor normally engaged in this type of work and holds a current C-2 Insulation Contractor license issued by the California State Licensing Board. Contractor must provide license information with submittals.

.7 SUBSTITUTIONS OF MATERIALS AND EQUIPMENT

and equipment will fit in available space.

A. The named materials and equipment are considered the basis for design; however equal materials and equipment may be submitted to the Architect and Engineer for review. The decision of the Owner and Engineer shall be final and shall govern as to what materials and equipment may be substituted, but the burden of proof as to the quality, performance and space requirements of any proposed substitution shall rest with the Contractor.

1.8 WARRANTY

- A. The Contractor shall provide a one-year warranty for the work of this Section. During this period the Contractor shall provide all labor and materials necessary to repair or replace defective systems. The warranty period shall begin at the date of final acceptance, per Section 3 below.
- B. Additional warranty conditions: Where applicable, provide additional warranty time period and/or conditions in accordance with the General Conditions Section of the project Specifications manual.

1.9 GENERAL

- A. The locations, sizes, capacities and types of all piping, equipment and appurtenances shown on the Drawings as existing are approximate and may not have been independently verified. The Contractor shall determine the exact locations, sizes, capacities and types of existing piping, equipment and appurtenances. If necessary, use electronic pipe locating devices to locate existing piping below grade. The Contractor shall include in his bid allowances for minor modifications to pipe routing necessitated by actual field conditions.
- B. The Contractor shall verify all building dimensions with Architectural Drawings and all site dimensions with Civil Drawings prior to submitting a bid.

- C. The submission of a bid or proposal will be construed as evidence that the Contractor has familiarized themself with the Drawings and building site. Claims made subsequent to the proposal for materials and/or labor due to difficulties encountered will not be recognized unless these difficulties could not have been foreseen, even though proper examination
- D. Provide Turnkey operation of all mechanical systems described in the Drawings and Specifications. Provide all materials and labor required for complete operational systems, unless specifically noted as provided by others on the Drawings and Specifications; or specifically excluded in the bid. Provide all cleaning, test, balance & commissioning of systems to guarantee proper operation at project completion. Inform the Owner and General Contractor of the timing of all work to be done and the requirements of other trades so the work can be completed in a timely fashion. With the bid, provide a list of all equipment and material that have lead times exceeding 4 weeks. Clearly indicate expected lead times for such

2. PRODUCTS

2.1 DUCTWORK

- A. Ductwork shall be constructed from galvanized sheet metal in accordance with the latest edition of "SMACNA HVAC Duct Construction Standards".
- 1. Outdoor ducts (all) to be built to 4" WG pressure class and seal class A.
- 2. Indoor ducts (supply, return, outside, make-up air) to be built to 4" WG pressure class and seal class B. 3. Indoor exhaust air ducts to be built to 3"WG pressure class and seal class B.
- B. Outdoor Rectangular Ducts: Longitudinal seams to be Pittsburgh seams with sealant inside joint. Transverse seams to be MEZ TDC with compatible metal cleats and corners or manufactured TDF system meeting SMACNA class J by Ductmate or approved equal. Additionally install over exterior seams a 1/4" bead of Vulkum 642 or Silkaflex sealant. Diagonally cross break all ducts.
- C. Concealed Round Ducts and Fittings: Spiral duct with RL-1 spiral lock seams by United McGill Uni-Seal, Mina Metals or approved equal. Wye branches, Laterals and Tap-ins to be conical, tapered body or low loss type. Elbows to be 1.5-radius segmented, stamped or gored. Join ducts with RT-1 beaded sleeve joints attached per SMACNA Standards.
- D. Flexible Ducting at final supply and return connections: Class 0 or Class 1, pre-insulated with minimum R-6, to be used in concealed, conditioned, areas on the supply and return only. 5'-0" maximum length at final connection to outlet. Flexmaster, ATCO series #036 (R-6) or approved equal. All connections shall be wrapped with three layers of UL rated duct tape and secured with stainless steel gear clamps or 0.345" (9 mm) heavy duty nylon cable ties, Catamount series 175 or equal by Panduit, or Thomas & Betts, tightened with factory tool.
- E. Lined Round Duct: Double wall galvanized sheet metal spiral duct, conical tees, standard gauges, gored welded elbows, fittings shall have welded construction with RT-1 beaded sleeve joints, 1" thick lining within conditioned spaces and 2" thick lining outside conditioned spaces, lining shall have an R-value per CMC and Title 24 energy code requirements, lining shall have a flame spread rating of not more than 25 and a smoke development rating of not more than 50, inner duct wall shall be perforated galvanized sheet metal, paintable galvanized finish, United McGill Acousti-K27.

2.2 DUCT INSULATION AND LINER

- A. Duct liner
- 1. Exterior ducts and unconditioned spaces: Owens Corning QuietR type R-8, 2" thick or approved equal by Certainteed or
- 2. Supply, return and make-up air ducts in conditioned concealed spaces Owens Corning QuietR type R-4.2, 1" thick or approved equal by Certainteed or Knauf.
- 3. Supply, return and make-up air ducts in unconditioned concealed spaces communicating with outdoors: Owens Corning QuietR type R-8.0, 2" thick or approved equal by Certainteed or Knauf.
- 4. At all register cans: Owens Corning type 75, minimum 1/2" thick, or approved equal by Certainteed or Knauf.

B. All insulation shall have a flame spread rating of not more than 25 and a smoke-developed rating of not more than 50. 2.3 DUCT SPECIALTIES

- A. Duct joint sealer: Hardcast duct seal 321 or equal United McGill, indoor and outdoor duct sealer, gray smooth finish, water based low VOCs. Up to 10" WG duct pressure rated. Install 20 mil thickness minimum. Where duct sealer is installed outdoors and installed during wet conditions, use Hardcast metal bond.
- B. Duct access doors: Elmdor DT series, minimum 24 gauge, double wall construction with insulated and gasketed between
- C. Duct flex connectors: 24 gage galvanized iron with grip lock seams meeting NFPA 701, 90A & 90B. Indoors, Duro Dyne Excelon #10210 MBX, color black or approved equal. Outdoors, Duro Dyne Durolon #10159 (or #10210 at TDC connectors), color white or approved equal.
- D. Turning vanes: Aero-Dyne "Double wall" or Ductmate Industries Prorail, double radius, minimum 26 gauge vanes with 24 gauge siderails. Do not install in ducts with smaller dimension less than 11".
- E. Duct tape: Polyken 558CA air duct closure system, 14 mils thick, CEC approved.
- F. Register cans (at Residential units) shall be type with sealing flange with gasketing.

2.4 ECONOMIZERS

- A. Where economizers are scheduled on the mechanical equipment schedule, they shall meet the requirements of CEC section 104.4(e).4 which includes:
- 5 Year warranty.
- 2. Damper reliability testing to 60,000 cycles.
- Damper leakage maximum rate of 10 CFM/SF at 1"WG. 4. Adjustable high limit setpoint.
- 5. Calibrated sensor accuracy per CEC.

2.5 VOLUME DAMPERS

- A. Galvanized steel minimum 24 gage sleeve, 16 gage blade with Ventlok 638 regulator locking quadrant.
- 1. At ducts up to 14" round: Greenheck VCDR-50 single blade with locking quadrant.
- 2. At ducts 16" and larger round: Greenheck VCDRM-50 multi blade with locking quadrant.
- 3. At rectangular ducts up to 2000 FPM: Greenheck MBD-15 with 3V blades,16 gauge galvanized iron construction with manual locking quadrant. Ducts with one dimension 8" or less use single blade model MBD-10. 4. Control dampers: Greenheck VCD-40/42/43 or approved equal.

shell. Seams shall be glued tightly to form a continuous vapor barrier.

2.6 AIR FILTERS

A. Flanders or approved equal by Farr or Camfil. Air filters shall be pleated disposal type with MERV rating per equipment schedule (or minimum MERV 13 rating for any system with at least 10 feet of ducting attached). Provide minimum 2 inch

2.7 VRF REFRIGERANT PIPING

- A. Refrigerant piping from outdoor units to indoor Branch Controller units: Liquid and suction refrigerant piping shall be type "ACR" copper tubing, hard drawn straight-length by Mueller Industries or approved equal, with forged copper fittings and long radius ells (at suction). Copper to copper joints shall be brazed with copper-phosphorous brazing alloy containing minimum of 15% silver (Sil-Fos 15 or approved equal). And during all brazing an inert gas (such as dry nitrogen or argon) shall be continuously passed through the system at a flow rate sufficient to maintain an oxygen free environment to prevent the formation of copper oxide scale inside the piping.
- B. Refrigerant piping from heat recovery (branch) units to indoor units: Liquid and suction refrigerant piping shall be type "ACR" copper (soften) tubing by Mueller Industries or approved equal. Copper to copper joints shall be brazed with copper-phosphorous brazing alloy containing minimum of 15% silver (Sil-Fos 15 or approved equal). And during all brazing an inert gas (such as dry nitrogen or argon) shall be continuously passed through the system at a flow rate sufficient to maintain an oxygen free environment to prevent the formation of copper oxide scale inside the piping. Maximum length of 100 feet. Piping from heat recovery (branch) units to Fan coils to be continuous without couplings or joints.

2.8 REFRIGERANT PIPE INSULATION

smoke-developed rating not to exceed 50.

- A. Refrigerant pipe supports and clamps: Superstrut series 1400 "GOLDGALV" metal framing channel or approved equivalent by B-LINE. At insulated pipe provide Armafix insert per Specification below. Clamps at uninsulated pipes: Superstrut A-716 or A-717 cushioned clamps.
- B. Hanger support: Superstrut C-711F or C-727F felt lined J hanger. At insulated pipe provide Armafix insert per Specification

closure strips, 0.27 BTU-in/hr -SF-F thermal conductivity, and 30 mil thick painted aluminum or unpainted stainless steel

C. Insulated pipe supports; Armacell Armafix IPH / NPH insulated pipe hanger with longitudinal seams with self-adhering

- D. Armacell Armaflex AC elastomeric insulation, thickness per Title 24. California Energy Code. Covering to be continuous with all seams and joints glued tightly. All fitting shall be cleanly mitered with proper cutting tool. Cover all exposed indoor and outdoor piping with continuous white PVC jackets, Proto "Lo Smoke" or equal, including all fittings and valves. Insulation shall have a flame spread rating not to exceed 25, a smoke density rating not to exceed 450, and a
- Provide Airex E-Flex Guard vapor retarder & insulation protector on all outdoor line sets. Verify color with Architect &

2.9 CONTROLS

- A. Provide complete automatic controls for all heating, ventilating and air conditioning systems, including room thermostats, control valves and all necessary control wiring, transformers, and panels. Refer to the "Control Description" on the Drawings for control sequences and specifications.
- B. Install all low voltage wiring, which is not concealed in any walls or attics, shall be installed in conduit (EMT). All outdoor control wiring shall be installed in either rigid or sealtight conduit.
- C. Install all Thermostats, switches and controls at elevations shown on Architectural Drawings. Where not shown on Architectural Drawings, install devices such that all controls are within 48" of the finished floor. Where possible match centerline of lighting controls in the same room.

2.10 PIPING SPECIALTIES

- A. Pipe hangers: Tolco, Uni-Strut, Super-Strut or B-Line with zinc electroplated finish. Provide with cushioned clamps inserts. Piping supports shall be felt lined J-type hangers. Use beam clamps at hangers from steel beams. All miscellaneous steel, bolts, rods, nuts and washers shall be cadmium electroplated finish. Use materials that are consistent throughout each
- B. Roof flashings: To be uniform with roofing material and roofing warranty. Verify exact requirements with Architect.
- C. Pipe Seals: Pipes passing through walls and floors underground provide Link-Seal modular seal assemble WS series, color Black or approved equal by MetraSeal. At fire rated assemblies, provide MetraSeal 120 or approved equal.
- D. Firestopping Sealant: 3M Fire Barrier CP25WB + Caulk. At PEX tubing, Wirsbo Aquapex Firestop sealant listed and tested to ASTM E-814.
- 2.11 ADHESIVES, SEALANTS, CAULKS, PAINTS AND COATING
- A. All products shall comply with the VOC limits requirements in CALGreen Code section 5.504. If a non-conforming product is found in these bid documents, notify the Architect immediately for an alternate product.
- 2.12 ACCESS PLATES AND DOORS (CEILING AND WALLS)
- A. Tile or wood surfaces: ELMDOR #DW-SS, 16 gauge, type 304 brushed stainless steel construction, or approved equal. Minimum size 10"x10".
- B. Gypsum board wall: ELMDOR #DWB 16 gage galvannealed steel construction with prime finish or approved equal. Minimum size 10"x10".
- C. Fire rated ceiling or walls, ELMDOR FRC or FR series or approved equal.

2.13 EQUIPMENT

- A. Provide equipment of the manufacturer and model numbers shown on the Drawings, complete with all required trim and other items necessary for proper operation.
- B. All equipment, fixtures and fittings shall conform to California Energy Commission Certification per CEC subchapter 2, for energy usage and water usage compliance. See equipment schedules for specific ratings.
- 2.14 PIPE MARKERS AND EQUIPMENT NAMEPLATES
- A. QUALITY ASSURANCE: Meet ANSI A13.1 2007 Scheme for identification of piping systems.

penetration, and every 20 feet but not less than once per room and shall be visible from the floor level.

- B. Piping markers: Provide Seton Opti-Code or approved equal by MSI, self-adhesive pipe markers for all piping. Pipe markers shall include direction of fluid flow arrows, color coded field and lettering height in accordance with OSHA and ASME (ANSI) Standard A13.1-2007. As a minimum, pipes shall be marked with service and direction at both sides of wall
- C. Equipment nameplates: Provide Seton custom engraved acrylic (plastic), Black with white border and lettering, 3" wide by 1" high with minimum 1/4" lettering, attached with two small screws. Provide a label at each piece of major equipment for equipment identification.
- 2.15 OTHER MATERIALS
- A. Other materials not specified, but required for a complete installation, shall be as selected by the Contractor subject to acceptance by the Engineer.
- 3. EXECUTION

3.1 GENERAL

- A. Verify that the work of this Section may be completed in accordance with all pertinent codes and regulations, the Construction Documents, approved Submittals, and the manufacturers' recommendations. In the event of discrepancy, immediately notify the Engineer. Do not proceed in areas of discrepancy until all discrepancies have been resolved.
- B. Install all equipment, valves, controls and appurtenances in accordance with manufacturers' instructions. Install all ductwork Per CMC requirements and SMACNA standards.
- C. Size and location of all housekeeping pads shall be coordinated between subcontractor and general contractor prior to construction. Housekeeping pads are not in mechanical contractor's scope of work.
- D. At a minimum, provide the manufacturer's recommended access clearances to all components requiring adjustment. Provide access panels where these components are concealed behind non-accessible construction. Label access panels with description of service.

E. Install ductwork upstream and downstream of fans with as few offsets and elbows as possible. If conditions allow, provide a

downstream of fans than indicated on the Drawings without authorization from the Engineer. F. Cover all duct openings and protect mechanical equipment during construction at time of rough installation and during storage on construction site until final startup all duct and other related air distribution components openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of dust,

minimum of 3 fan diameters of straight duct upstream of fan intakes. Do not provide less straight duct upstream and

water and debris which may enter the system. And in accordance with the CALGreen section 5.504.3. G. Provide approved flexible connections between fans and ducts.

access panels with description of service.

- H. Duct sizes shown on the Drawings are clear airflow dimensions, inside the insulation.
- I. Provide double-thickness turning vanes at all duct elbows 10" or wider unless noted otherwise on Drawings.
- J. Seal all duct seams and joints with approved joint sealant. Seal ducts exposed to weather watertight. Slope top of exterior ducts to shed rain.
- K. Install ducts in the locations shown on the Drawings. If interference with pipes, structure etc. requires a change in duct shape or size, obtain approval from the Engineer before installing duct.

L. Install flexible ducts in a fully extended condition free of kinks and maximum sag of 1/2" per foot. Support on 48" centers

- with 1-1/2" wide galvanized iron strap minimum 24 gauge. All elbows shall be made with a minimum radius of 1.5 times the M. Where access doors are required in ductwork, for access to internal components, provide doors with an airtight seal. Label
- N. Where branch ducts tap in main ducts, provide 45 degree entry tap with clinch lock connection or conical fitting one duct size larger than branch. O. Provide a continuous vapor barrier on all chilled water and refrigerant suction pipe insulation. All closed cell insulation shall
- be glued at all seams and joints. P. Do not cut into or reduce the size of any load-carrying member without the prior approval of the Architect.
- Q. All registers with sheet metal cans shall be internally lined with duct liner.
- R. Suspend ducts with sheet metal straps and hangers from structural building components.
- S. Provide seismic bracing per SMACNA / PPIC "Guidelines for Seismic Restraints of Mechanical Systems and Plumbing Piping Systems". T. Piping shall be securely held in place by hangers, supports & trapezes in accordance with CA Mechanical Code Section

313.0. All hangers shall be designed to support the pipe, including fluid and insulation. Provide hangers and supports at

- intervals per CPC table 313.3 U. Pipe Supports: All materials shall be new and manufactured for the specific purpose of supporting systems, equipment, pipes and accessories.
- V. All overhead primary pipe supports shall meet the following minimum standards: ANSI/MSS SP-58: Materials, Design, Manufacture, Selection, Application, and Installation; ANSI/MSS SP-69: Selection & Application; ANSI/MSS SP-89: Fabrication & Installation Practices.
- W. All in-wall secondary supports shall meet IAPMO PS 42-2013 Pipe Alignment & Secondary Support Systems

- X. Provide weather-proof flashing for all piping extending through roofs and walls.
- Y. Anchor piping subject to expansion or contraction in a manner permitting strains to be evenly distributed. Provide offsets and expansion compensation devices as required to prevent undue stress on the piping and building components. Allow for pipe expansion of 1 inch per 100 feet.
- Z. Isolate all dissimilar metals with dielectric unions, except that brass or bronze valves do not need to be isolated from steel
- AA. Paint any PVC piping and fittings where exposed to direct sunlight with light colored, water based latex paint which compatible with PVC.
- BB. Provide unions at 2-1/2" and smaller equipment connections. Provide flanges at larger equipment connections.
- CC. Where PVC jackets are installed, PVC jackets shall be continuous, covering all fittings, with water-tight seams. Protect
- DD. Provide UL listed fire stopping, installed per manufacturer's recommendations, where pipes pass through fire rated
- EE. Provide nitrogen purge when brazing refrigerant piping.

insulation at ends of sleeved pipe with waterproof material.

- FF. Install duct lining with 100% adhesive coverage and mechanical fasteners per SMACNA standards. Coat all exposed edges of lining to prevent erosion of fiberglass
- GG. Install all equipment level.
- HH. Do not operate fan coils, air handlers, air conditioning units, etc. without specified filters.
- II. Do not install thermostats or temperature sensors in locations where they are subject to direct sunlight. Where thermostat or sensor are on exterior or partition walls to unconditioned space, insulate wall with minimum 1" expandable foam and seal
- JJ. Install volume dampers or balancing devices on all supply, return, outside, and exhaust air branch ducts or air outlets (even if not shown on Drawings). Install dampers or devices so they are easily accessible without crawling through attic or crawl
- KK. Pipe insulation thickness shall be per California Mechanical Code and California Energy Code (Section 120.3) or as indicated below, whichever is greater. Pipe insulation thickness indicated below, based on a minimum insulation K-value of 0.24. Space cooling systems (chilled water, refrigerant and brine).
 - 1. Fluid Range 40-60 F (Non-residential):
- A. Nominal Pipe Diameter: less than 1.5 inch = 0.5 inches of Insulation Wall Thickness Required. B. Nominal Pipe Diameter: 1.5 inch and larger= 1.0 inches of Insulation Wall Thickness Required.
- LL. All insulation jacketing laps and band seals to be placed in such a way as to be hidden when viewed from the most traveled locations. Insulation located outdoors where exposed to weather, must be installed with the jacket seams on bottom of piping. All banding and support shields are to be installed with equal spacing and in a uniform manner. Applications of caulking at any joints are to be kept at an absolute minimum.
- MM. Install variable refrigerant flow (VRF) system refrigerant piping as short and direct as possible, with minimum number of joints, elbows and fittings. Piping shall be installed in a workmanship manner and parallel with the building lines unless noted otherwise.
- NN. Pitch all variable refrigerant flow (VRF) system refrigerant lines towards back toward the outdoor unit unless required otherwise by the manufacturer.
- OO. Label each variable refrigerant flow (VRF) system refrigerant line set to heat recovery (branch) units with fan coil it serves. Provide Seaton printed labels with 1/2" lettering or equal. Hand written labels will not be acceptable. PP. (VRF Systems) Strictly follow manufacturer's instructions for pressure testing, evacuation and charging of the system. Pressurize the system with 600 psi of nitrogen, and verify it maintains the pressure for 24 hours before proceeding with

evacuation with a thermistor vacuum gauge installed, triple evacuate the system to 650 microns, and continue evacuation

for at least one hour. With vacuum pump off, the system must hold 500 microns for 1 hour. Keep a log of the time and date

of the testing for the commissioning report. QQ. (VRF Systems) Keep track of the refrigerant line lengths. Verify the total line lengths are less than the scheduled line lengths. Notify the engineer if the line lengths are exceeded for verification before proceeding. Carefully calculate the refrigerant charge per the manufacturer's instructions. Keep written log of the added refrigerant change (with documentation

in city multi service manual).

- 3.2 ENERGY CODE TESTING, ADJUSTING AND REPORTING A. The Contractor shall test and commission all mechanical equipment shown on the Mechanical Drawings. Testing and documentation shall be in accordance with manufacture's installation instructions and California Energy Code NRCC-MCH
- B. The Contractor shall coordinate and schedule with the General Contractor, (or owner where applicable), controls contractor, other subcontractors and the owner as necessary to complete all testing in a timely manner.
- C. The Contractor shall submit all completed and signed commissioning documents in one package (in PDF format) to the Mechanical Engineer of Record for review and approval. Any comments and/or corrections shall be addressed promptly, retested, and an updated report resubmitted for approval prior to completion. Provide an additional copy to the building department official where requested.

3.3 REQUIREMENTS FOR ACCEPTANCE

certificate of compliance forms.

- A. Make arrangements with the Engineer and the Building Inspector to observe the Work prior to covering or enclosing the
- B. Clean all mechanical systems to remove all contaminants. At the completion of work, provide new, clean air filters in all
- C. Clean and flush all (non-refrigerant) piping systems and equipment to remove all contaminants.
- D. At completion of construction, prior to TAB air balancing, provide all systems with new filters per the equipment schedule specifications.
- E. Duct pressure testing: When required by the project Title 24 Energy Documentation, provide duct pressure testing and verification reports for all duct systems. Systems shall be sealed to a leakage rate not to exceed 6% of the fan airflow or rate shown in Title 24 documentation whichever is less. Provide verification reports to Owner and building department official. All other Ductwork shall be leak-tested per CMC 603.9.2 in accordance with the SMACNA HVAC Air Duct Leakage Test Manual. Representative sections totaling not less than 10 percent of the total installed duct area shall be tested. Where the tested 10 percent fail to comply with the requirements of this section, then 40 percent of the total installed duct area shall be tested. Where the tested 40 percent fail to comply with the requirements of this section, then 100 percent of the total installed duct area shall be tested. Sections shall be selected by the building owner or designated representative of the building owner. Positive pressure leakage testing shall be permitted for negative pressure ductwork. The permitted duct leakage shall be per CMC 603.9.2.
- Test and balance all air moving systems and refrigeration piping systems in accordance with AABC National Standards for Field Measurements and Instrumentation. Testing shall be done by an AABC licensed TAB Contractor or independent certified NEBB Contractor which in not affiliated with a Mechanical Contractor, design Engineer or equipment manufacturer.
- retest. Provide verification of this test along with the Test and Balance report. H. Test all control functions and verify that all control features operate as specified. Provide written verification of these tests

G. Test the VRF refrigerant piping with nitrogen to 600 PSIG for 24 hours. If the piping fails the test, repair faulty sections and

- along with the Test and Balance report. The Contractor shall test all mechanical equipment shown on the Drawings. Testing and documentation shall be in accordance with manufacturer's installation instructions and California Energy Code NRCC-MCH certificate of compliance
- J. The Contractor shall coordinate and schedule with the General Contractor, (or Owner where applicable), Controls Contractor, other subcontractors and the Owner as necessary to complete all testing in a timely manner.
- K. The Contractor shall submit all completed and signed reporting documents in one package (in PDF format), organized and labeled by equipment, to the Mechanical Engineer of Record for review and approval. Any comments and/or corrections shall be addressed promptly, retested, and an updated report resubmitted for approval prior to completion. Provide an additional copy to the building department official where requested.
- An "as-built" red lined drawing set shall be kept on site and updated daily. These "as-builts" shall include the full scope of the design documents and specifications in this section of work. Submit "as-builts" to General Contractor and Owner.

N. Provide operation and maintenance manuals on all equipment, including equipment warranties certificates, organized and

- M. Prior to job completion, submit AutoCAD (.DWG) and PDF format (color, 200 to 300 DPI resolution) as-built drawings to the Engineer and Owner via digital transfer.
- labeled by equipment. O. Instruct the Owner with on-site training, on how to operate and maintain all systems that are a part of this Section.

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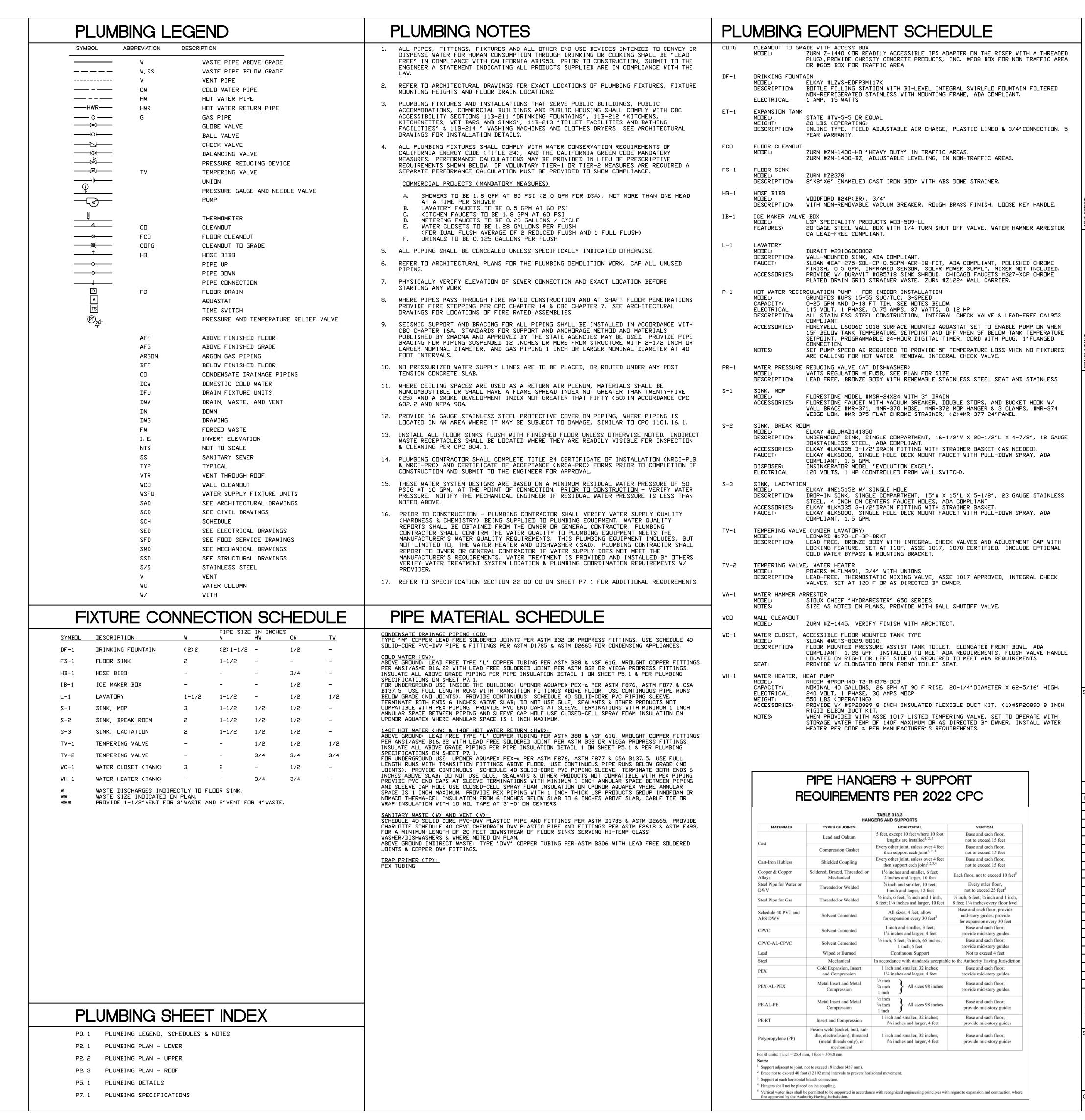
5.29.25 4174

6.05.2025

T. SOUZA

A. SOUZA

SPECIFICATIONS



A R C H I T E C T S

540 Mendocino Ave, Santa Rosa, CA 95401
707 542 4652 axiaarchitects.com

ENGINEERING
575 W College Ave #101
Santa Rosa, CA 95401
707.538.0400 tep.net

TREET TENANT IMPROVEME

PROFESSION DO M3758 CHANCOF CALIFORNICA

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PLUMBING LEGEND, SCHEDULES & NOTES

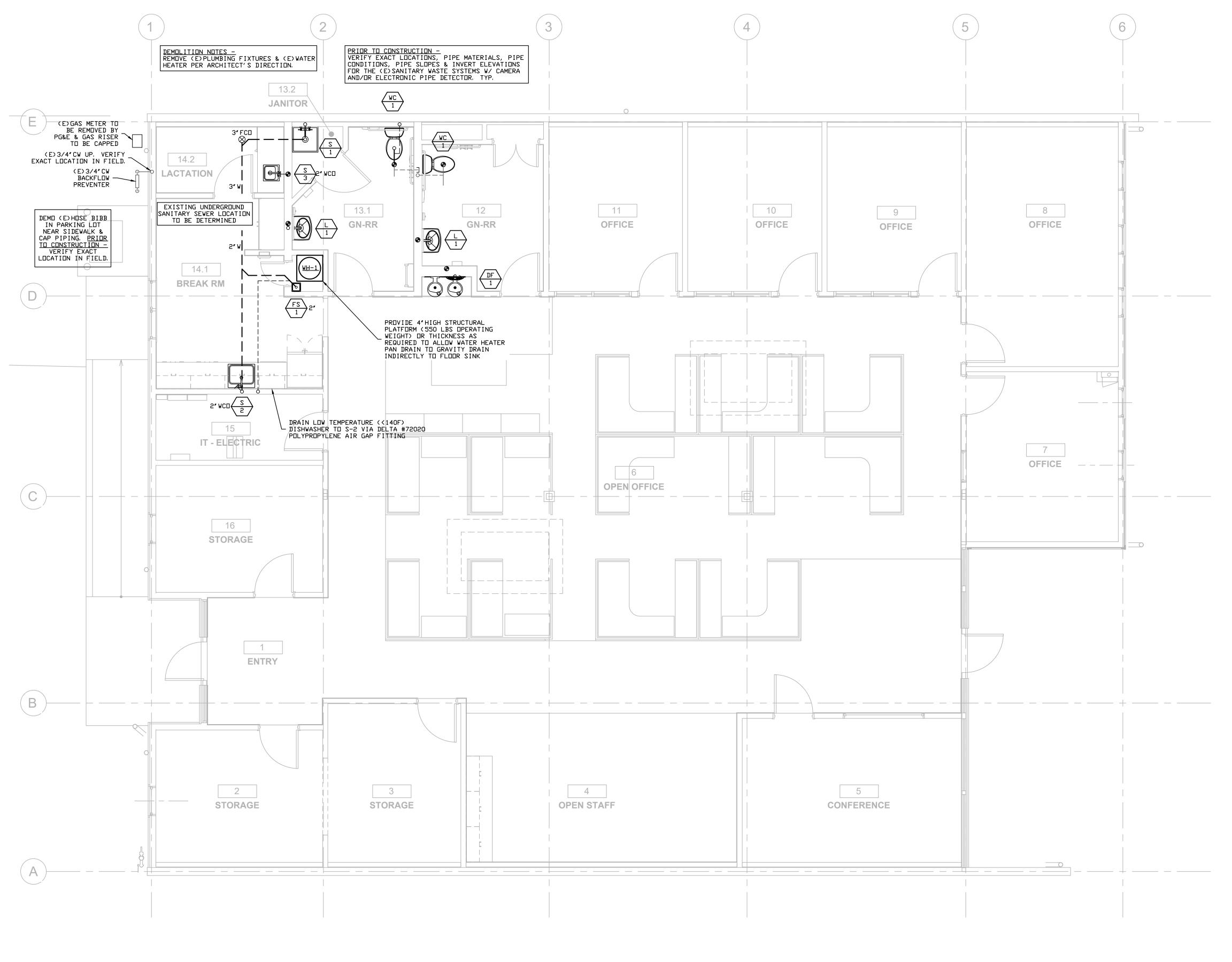
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6.05.2025

A. SOUZA

T. SOUZA

5.29.25



PLUMBING PLAN - LOWER
1/4" = 1'-0"



ARCHITECT:

ARCHIT

ENGINEERING
575 W College Ave #101
Santa Rosa, CA 95401
707.538.0400 tep.net

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CHANCOF CALIFORNIA

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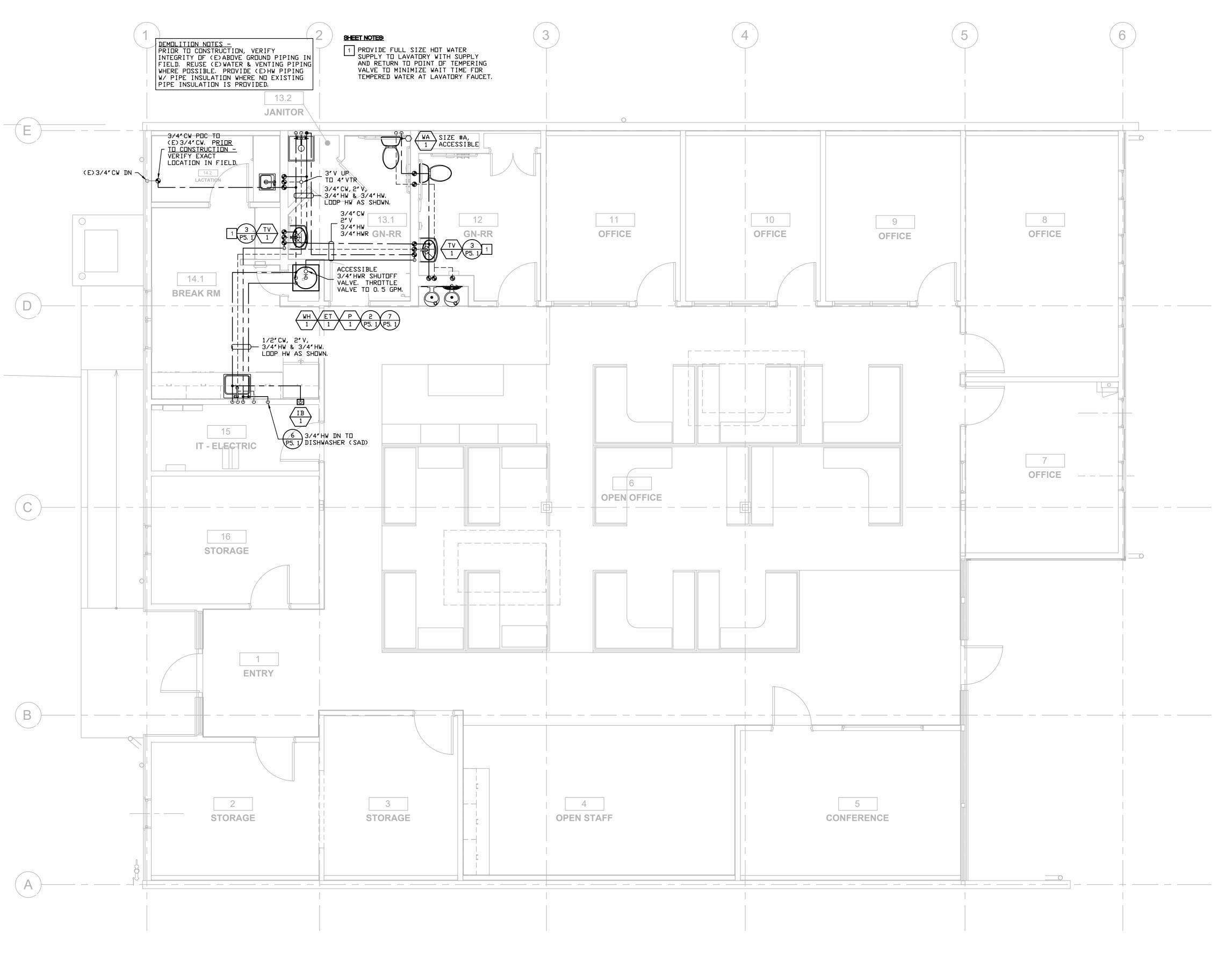
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P2.1

A. SOUZA T. SOUZA 5.29.25 4174

PLUMBING PLAN - LOWER

ORIGINAL DATE:



PLUMBING PLAN - UPPER 1/4" = 1'-0"





ENGINEERING
575 W College Ave #101
Santa Rosa, CA 95401
707.538.0400 tep.net

STREET TENANT IMPROVEM

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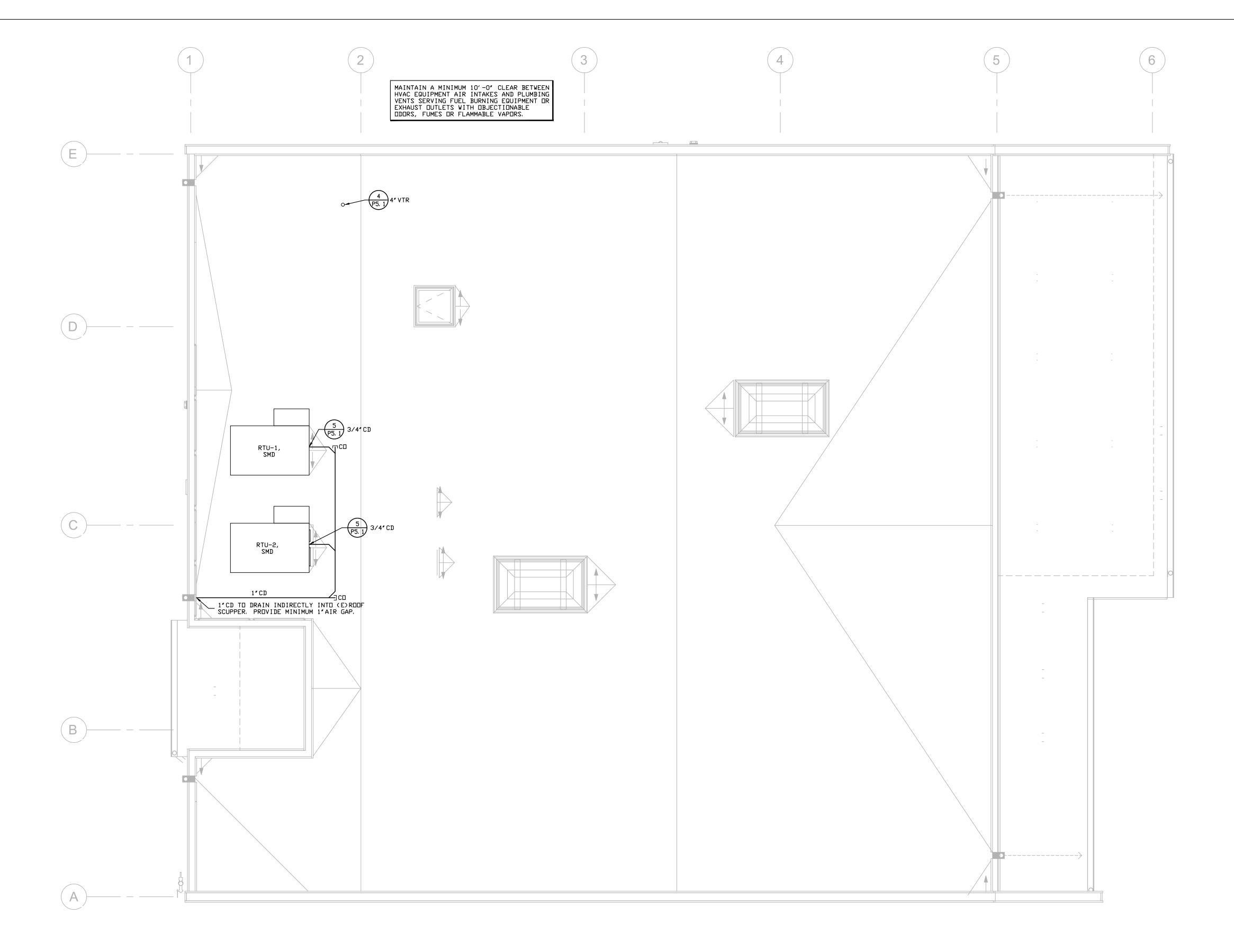
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A. SOUZA T. SOUZA 5.29.25 4174

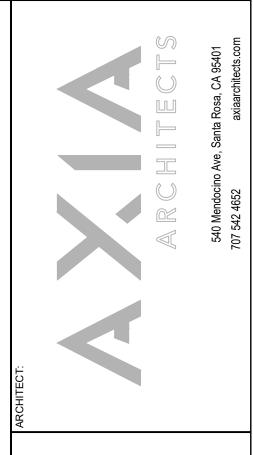
PLUMBING PLAN - UPPER

ORIGINAL DATE:



PLUMBING PLAN - ROOF 1/4" = 1'-0"





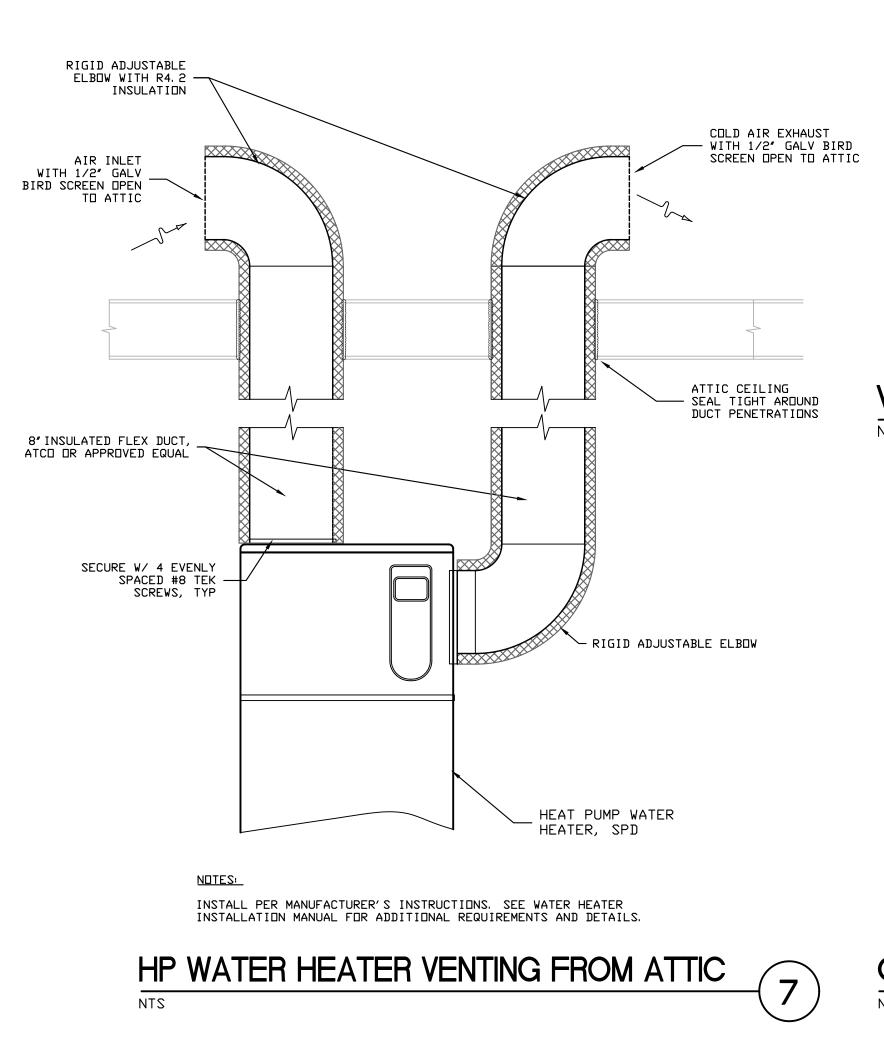
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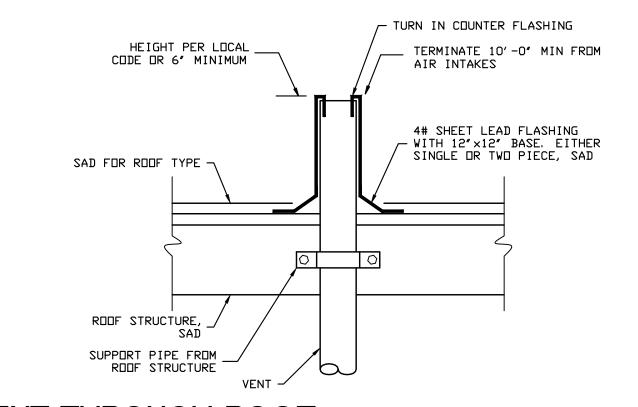
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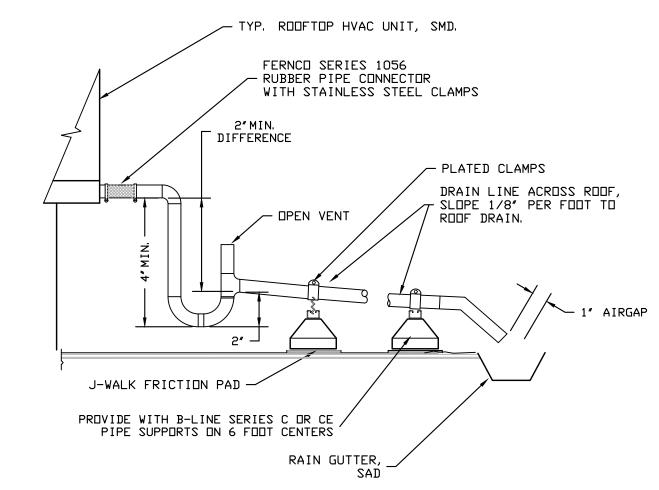
A. SOUZA T. SOUZA 5.29.25 4174 **P2.3**

PLUMBING PLAN - ROOF

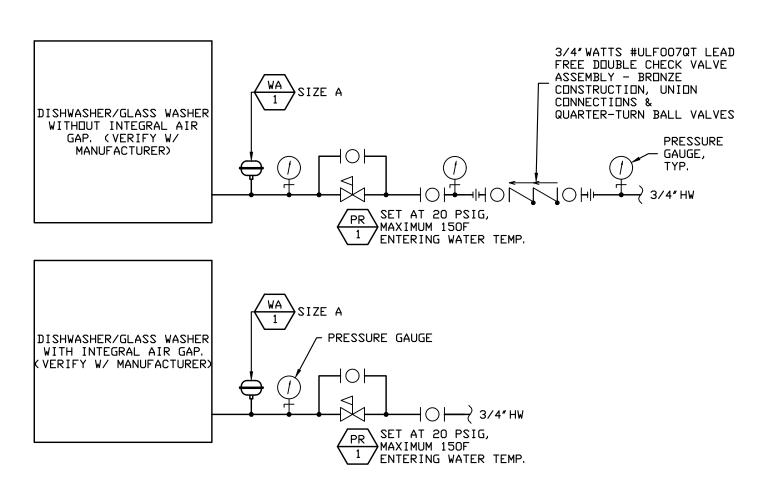






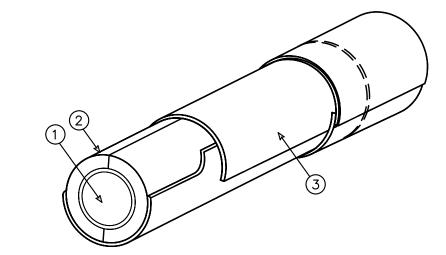






NDTE: 1. DMIT $\underline{\mathsf{PR-1}}$ IF DISHWASHER CAN RECEIVE LINE PRESSURE.

DISHWASHER / GLASS WASHER DETAIL 6



 FIBERGLASS INSULATION WITH ALL SERVICE JACKET.
 WHERE PIPING IS NOT CONCEALED IN WALL OR CEILING SPACES, PROVIDE WHITE PVC JACKETING ON PIPING INDOORS & WHITE PVC JACKETING ON PIPING OUTDOORS. SILICONE CAULK PVC JACKETING SEAMS, JOINTS & ENDS WATERTIGHT WITH APPROVED ADHESIVE. INSIDE BUILDINGS LOCATE JACKET SEAMS IN LEAST VISIBLE LOCATION. OUTSIDE, WHERE EXPOSED TO WEATHER, LOCATE JACKET SEAMS ON BOTTOM OF PIPING.

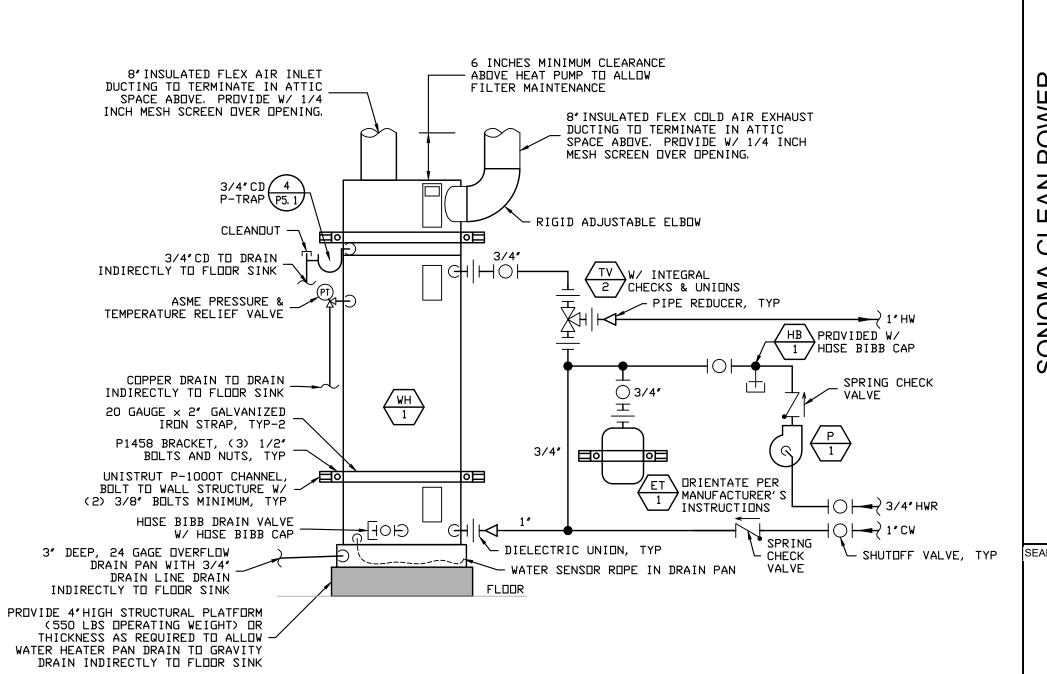
INSULATION THICKNESS (1)									
	TEMPERATURE RANGE	NOMINAL PIPE DIAMETER (in inches)							
SERVICE		< 1	1 to < 1.5 to <4		4 to < 8				
		MINIMUM PIPE INSULATION REQUIRED (THICKNESS IN INCHES OR R-VALUE)							
	105F - 140F	1.0	1.5	1.5	1.5				
HOT WATER (2)		R-7.7	R-12.5	R-11	R-9				
COLD WATER (3)	FREEZE PROTECTION	0.75	0.75	0.75	0.75				

REFERENCE 2022 CALIFORNIA ENERGY CODE, TABLE 120.3-A & 2022 CALIFORNIA PLUMBING CODE SECTION 609.11.

INSULATE ALL HOT WATER PIPING SYSTEMS AS INDICATED.

COLD WATER IS ONLY INSULATED OUTSIDE THE BUILDING, WHERE EXPOSED TO EXTERIOR AMBIENT CONDITIONS, FOR FREEZE PROTECTION.

PIPE INSULATION DETAIL



NOTES:

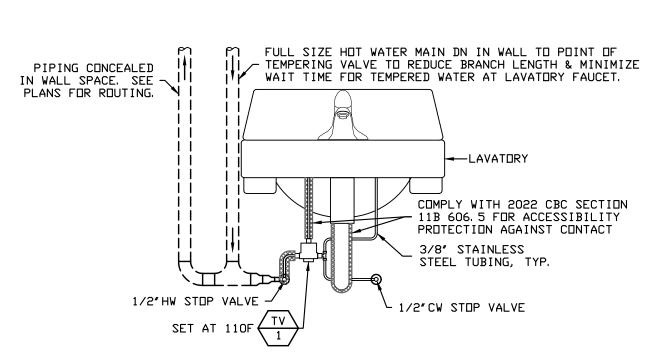
1. PROVIDE DIELECTRIC ISOLATION BETWEEN PIPING AND WATER HEATER.

2. INCREASE AIR PRESSURE IN EXPANSION TANK TO MATCH COLD WATER FEED PRESSURE PRIOR TO CONNECTING TO COLD WATER SYSTEM.

2. TORREST OF TAMES STRAPPING PER CODE REQUIREMENTS. STRAPS MUST BE LOCATED WITHIN UPPER CONNECTION.

- PROVIDE SEISMIC STRAPPING PER CODE REQUIREMENTS. STRAPS MUST BE LOCATED WITHIN UPPER AND LOWER THIRD OF UNIT. DO NOT COVER UP CONTROLS, NAMEPLATE OR HEATING ELEMENT ACCESS. ROUTE RELIEF PIPING TO DRY WELL.
- 5. PROVIDE 3/4"WATTS #LFN36-M1 VACUUM RELIEF VALVE PER 2022 CPC 608.7 "WHERE A HOT-WATER STORAGE TANK IS LOCATED AT AN ELEVATION ABOVE THE FIXTURE OUTLETS IN THE HOT-WATER SYSTEM".
 6. INSTALL RECIRCULATION PUMP IN VERTICAL SECTION OF RETURN LINE PER 2022, TITLE 24, PART 6, SECTION 110.3(C)4(A). INSTALL RECIRCULATION PUMP IN THE PUMP UP DIRECTION.

HEAT PUMP WATER HEATER DETAIL



TEMPERING VALVE AT LAVATORY

SHEET LOG REV # DATE: ISSUED FOR:

A. SOUZA CHECKED BY: T. SOUZA

> PLOT DATE: TEP JOB NUMBER: P5.1

> > PLUMBING DETAILS

ORIGINAL DATE:

6.05.2025

5.29.25

PLUMBING SPECIFICATIONS - DIVISION 22 00 00

1. GENERAL

1.1 SCOPE

A. The work in this section includes, but is not limited to, providing all plumbing work as shown and noted on the plumbing Drawings and Specifications, including the following items:

- Plumbing fixtures, equipment and piping.
- 2. Sanitary waste and vent system to five feet from the building.
- 3. Domestic hot and cold water distribution to five feet from the building.
- 4. Service water heating and distribution.
- 5. Cleaning, sterilization and testing for work in this section. 6. Air inlet and cold air exhaust for heat pump water heater.
- 7. Condensate drains from mechanical equipment.
- 8. Pipe hangers and supports. 9. Pipe insulation.
- 11. Energy code testing, adjusting and reporting.

10. Piping markers and equipment nameplates.

- B. Work of other sections, includes the following:
- 1. All trenching and backfilling associated with the plumbing installation.
- 2. Site piping and utilities beyond five feet from the building. 3. Fire protection systems.
- 4. Wastewater treatment and disposal systems. 5. Water supply system including tanks and pumps.
- 6. Line voltage wiring and disconnect switches. The Electrical Contractor will provide all line voltage wiring & conduit, disconnect switches & magnetic starters (except those furnished under this Section as a part of equipment).
- CODES AND STANDARDS
- A. All work and materials shall be in full accordance with the latest adopted edition of the following documents:
- 1. 2022 California Building Code (CBC)
- 2. 2022 California Plumbing Code (CPC)
- 3. 2022 California Mechanical Code (CMC) 4. 2022 California Electrical Code (CEC)
- 5. 2022 California Fire Code (CFC)
- 6. 2022 California Energy Code (Title 24)
- 7. 2022 California Green Building Code (CALGreen)
- 8. National Electric Code (NEC)
- 9. Americans with Disabilities Act (ADA)
- 10. Sheetmetal Contractors and Air Conditioning Contractors' National Association (SMACNA) Seismic Restraint Manual. 11. National Fire Protection Association (NFPA) 12.Local codes and ordinances
- B. Accessible (ADA) plumbing fixtures shall comply with all of the accessibility requirements of CBC Chapters 11A and 11B and Federal ADA requirements.
- C. Whenever this Specification calls for material, workmanship, arrangement or construction of higher quality and/or capacity than that required by governing codes, higher quality and/or capacity takes precedence.
- D. All potable water system components, devices, materials, or equipment containing a weighted average of greater than 0.25 percent lead are prohibited, and shall be certified in accordance with the current editions of the Safe Drinking Water Act (SDWA), NSF 61, NSF 372 & California AB1953. Endpoint devices used to dispense water for drinking shall meet the requirements of NSF 61 & California AB1953.
- 1.3 DRAWINGS AND SPECIFICATIONS
- A. Where a conflict exists between Drawings and Specifications, promptly notify the Architect for interpretation and resolution. The most stringent requirements shall be used for bid.
- 1.4 PERMITS AND FEES
- A. The Contractor shall obtain all permits, licenses and fees that are required to perform the work. Provide the Architect with the original certificates, permits, licenses, and receipts for fees.
- SUBMITTALS
- A. Provide complete product submittals and shop drawings in electronic format (PDF), as one complete package, prior to commencing work or prior to ordering any materials. Piecemealed product submittals may be rejected. Do not include any installation manuals or product catalogs, provide only product data sheets. Clearly identify/mark each submittal in detail. Note what differences, if any, exist between the submitted Item and the specified Item. Failure to identify the differences will be considered cause for disapproval. If differences are not identified and/or not discovered during the submittal review process, Contractor remains responsible for providing equipment and materials that meet the Specifications and Drawings. Items, other than those specified, will not be allowed unless they are approved in writing via the submittal process. Include cut sheets and drawings for the following items in the submittal:
- 1. All plumbing components, including pipe hangers, pipe supports & appurtenances that are a part of the plumbing
- 2. Insulating Contractor's current C-2 "Insulation and Acoustical Contractor" license issued by the California State License
- 3. Testing, Adjusting and Balancing (TAB) Contractor's current AABC license issued by the Associated Air Balance Council or current NEBB license issued by the National Environmental Balancing Bureau and sample TAB report for all plumbing
- 4. Drawings for installation details that differ from the details in the contract documents.
- B. "No Exception Taken" constitutes that review is for general conformance with the design concept expressed in the Contract Documents for the limited purpose of checking for conformance with information given. Any action is subject to the requirements of the Contract Documents. Contractor is responsible for the dimensions and quantity and will confirm and correlate at the job site, fabrication processes and techniques of construction, coordination of the work with that of all other trades, and the satisfactory performance of the work.
- C. All details shown on the Drawings are schematic in nature; the Contractor is responsible for determining actual installation requirements. Contractor shall include in his bid all materials and appurtenances for a complete and operable installation. Provide shop drawings for the proposed installation when coordination with other trades is required.
- D. In checking Drawings and Submittals data, the reviewer makes effort to detect errors and omissions. Failure of the reviewer to detect errors or omissions during the review of Drawings and Submittals data shall not relieve the vendors and/or Contractor of his/her responsibility to comply with the Contract Documents.
- E. Upon completion of work, provide one set of reproducible as-built drawings and two operation and maintenance manuals. The operation and maintenance manuals shall be in a binder, labeled, organized, and contain manufacturers' data, manufacturers' warranties and maintenance instructions for the equipment, fixtures and appurtenances installed. The Contractor is responsible for all materials, equipment and appurtenances not reviewed and approved by the Engineer.
- 1.6 QUALITY ASSURANCE
- A. Regulatory Requirements: Work and materials installed to conform with all local, State, Federal and other applicable laws and regulations.
- B. Drawings are diagrammatic. They are not intended to show every item in its exact dimensions, or details of equipment or proposed systems layout. Verify actual dimensions of systems (i.e., piping) and equipment proposed to assure that systems and equipment will fit in available space.
- C. Manufacturer's Instructions: Follow manufacturer's written instructions. If in conflict with Contract Documents, obtain clarification. Notify Engineer/Architect, in writing, before starting work.
- D. UL Compliance: Provide electrical panels and equipment which are UL or ETL listed.
- E. Installer Qualifications: Installer shall be trained and certified in the proper installation of plumbing systems by a nationally or regionally recognized training or certification program. Uncertified persons may perform plumbing installation where under the direct supervision and responsibility of a person trained and certified to install plumbing systems. Installers of AquaPEX, ProPress and other specialty systems, shall be trained and certified by the respective manufacturer.
- F. Pipe insulation and jacketing must be installed by a Contractor normally engaged in this type of work and holds a current C-2 Insulation Contractor license issued by the California State Licensing Board. Contractor must provide license information with submittals.
- 1.7 SUBSTITUTIONS OF MATERIALS AND EQUIPMENT
- A. The named materials and equipment are considered the basis for design; however equal materials and equipment may be submitted to the Architect and Engineer for review. The decision of the Owner and Engineer shall be final and shall govern as to what materials and equipment may be substituted, but the burden of proof as to the quality, performance and space requirements of any proposed substitution shall rest with the Contractor.
- 1.8 WARRANTY
- A. The Contractor shall provide a one-year warranty for the work of this Section. During this period the Contractor shall provide all labor and materials necessary to repair or replace defective systems. The warranty period shall begin at the date of final acceptance, per section 3 below.
- B. Additional Warranty conditions: Where applicable, provide additional warranty time period and/or conditions in accordance with the General Conditions Section of the project Specifications manual.

- GENERAL
- A. The locations, sizes, capacities and types of all piping, equipment and appurtenances shown on the Drawings as existing are approximate and may not have been independently verified. The Contractor shall determine the exact locations, sizes, capacities and types of existing piping, equipment and appurtenances. If necessary use electronic pipe locating devices to locate existing piping below grade. The Contractor shall include in his bid allowances for minor modifications to pipe routing necessitated by actual field conditions.
- B. The Contractor shall verify all building dimensions with Architectural Drawings and all site dimensions with Civil Drawings prior to submitting a bid. The submission of a bid or proposal will be construed as evidence that the Contractor has familiarized themselves with the Drawings and building site. Claims made subsequent to the proposal for materials and/or labor due to difficulties encountered will not be recognized unless these difficulties could not have been foreseen, even though proper examination had been made.
- C. Provide Turnkey operation of all plumbing systems described in the Drawings and Specifications. Provide all materials and labor required for complete operational systems, unless specifically noted as provided by others on the Drawings and Specifications; or specifically excluded in the bid. Provide all cleaning, test, balance & commissioning of systems to guarantee proper operation at project completion. Inform the Owner and General Contractor of the timing of all work to be done and the requirements of other trades so the work can be completed in a timely fashion. With the bid, provide a list of all equipment and material that have lead times exceeding 4 weeks. Clearly indicate expected lead times for such
- D. In these Drawings and Specifications "Exposed" defines plumbing systems that are visible, such as in equipment rooms, vaulted building spaces, on roofs and where not concealed. "Concealed" refers to plumbing systems that are not normally visible, such as above ceilings and in shafts/walls.

2. PRODUCTS

- 2.1 PIPE
- A. See "PIPING SCHEDULE" on sheet P0.1
- PIPING SPECIALTIES 2.2
- A. Trap primers: Mifab #MR-500-NPB with distribution manifold as required. Trap primers concealed in walls shall have Elmdor DW-SS wall access panel, or approved equal, minimum 10" x 10".
- B. Water hammer arrestors: Sioux Chief "Hydrarester" 650, sizes as shown on Drawings. Provide with ball shutoff valve.
- C. Sound and Vibration Isolators: All water systems and drainage piping systems, including supply, return, waste and drain shall be installed with vibration isolators and shall be isolated from the any structural member, wall sections or other materials that could transmit sound to the occupied areas. All hangers, straps, brackets, and supports shall have acoustical components or combined neoprene and plastic. Provide isolator to isolate complete pipe contact area. All isolation materials shall have a minimum thickness of 1/2". Install all components as per manufacturer's instructions.
- 1. For pipes 1-inch or less: ACOUSTO-PLUMB by Specialty Products. For pipes larger than 1-inch TRISOLATOR pipe sleeves by STONEMAN COMPANY (or approved equal) in conjunction with standard metal pipe clamps and hangers or felt lined hangers. Riser clamps shall be isolated with 3/8" thick neoprene pad between the riser clamp ear and the slab.
- D. Pipe hangers: Tolco, Uni-Strut, Super-Strut or B-Line with zinc electroplated finish. Provide with cushioned clamps inserts. Piping supports shall be felt lined J-type hangers. Use beam clamps at hangers from steel beams. All miscellaneous steel, bolts, rods, nuts and washers shall be cadmium electroplated finish. Use materials that are consistent throughout each
- E. Roof flashings: At TPO roof flashings to be by roofing contractor. At built up roofs provide 4 pound lead, 12" high by 12" base and stainless steel draw band. At shingle roofs, provide 24 gauge galvanized steel metal jack with neoprene top seal
- F. Pipe Seals: Pipes passing through walls underground provide Link-Seal modular seal assemble WS series, color Black or approved equal by MetraSeal. At fire rated assemblies, provide MetraSeal 120 or approved equal.
- G. Firestopping Sealant: Hilti FS-ONE MAX firestop intumescent sealant or 3M Fire Barrier CP25WB + Caulk. At PEX tubing, Wirsbo Aquapex Firestop sealant listed and tested to ASTM E-814.
- H. Thermometers: Provide thermometers where shown on Drawings and diagrams. Provide Trerice light-powered digital SX9, cast aluminum, NEMA 4X, IP65. Provide thermowell and stem length for insertion of 6" into tanks and to midline of pipe. Provide with lead free brass well with extended stem length past insulation and Trerice #HTP-1070001 heat transfer paste per manufacturer's instructions.
- Water Pressure Gauges: Provide pressure gauges where shown on Drawings and diagrams. Provide Trerice model 600CB with 3-1/2" dial and 0-160 PSI range. Include for each pressure gauge, a 1/4" brass needle valve by Dwyer NVII-1B, Treice or equivalent. Provide needle valve as lead-free for potable water systems.
- A. Use full line size ported valves, types and models as follows:
- 1. Ball Valves at water systems: UPC listed, IAMPO / ANSI Z1157 approved, max pressure 600 PSI CWP /150 PSI SWP, max temperature 450 F, bronze body with full ported hard chrome plated brass ball, lever handle. 2-1/2 inch and smaller Apollo 77CLF series unless otherwise noted or approved equivalent by Nibco, Jomar or Milwaukee. Provide extended handle shaft where pipes are insulated.
- B. Pressure and Temperature Relief Valves:
- 1. Water heaters with less than 100 MBH input: Watts LF100XL, lead free. 2. Water heaters with 100 MBH or higher input: Watts LF40XL, lead free.
- 3. Pressure relief valves on hot water storage tanks: Watts type LF174A, lead free, set at 125 psi.
- C. Check Valves:
- T-Pattern Swing Check Valves:
- a. 3 inch and smaller: Bronze and lead free, Milwaukee Valve UP509 or UP1509 or equivalent by Apollo Valves, Nibco or Jomar. Silent Check Valves:
- a. 2 inch and smaller: Bronze and lead free, Milwaukee Valve UP548T or UP1548T or equivalent by Apollo Valves, Nibco or Jomar.
- b. 2-1/2 inch and larger: Cast iron wafer style, lead free, stainless steel trim, class 125 Milwaukee 1400 Series or equivalent by Apollo Valves, Nibco or Jomar.
- 3. Where installed on the discharge of a pump: a. 2 inch and smaller: Bronze and lead free, Milwaukee Valve UP548T or UP1548T or equivalent by Apollo Valves,
- b. 2-1/2 inch and larger: Bronze NPT Spirax Sarco LCV1 lift check valve or equivalent by Apollo Valves, Nibco, Milwaukee or Jomar
- D. Strainers: Bronze, lead free, wye patter, Watts LF777S/LFS777S or equivalent by Apollo Valves, Nibco or Jomar, Provide ball valve with plug at cleanout connection.
- 2.4 CLEANOUTS
- A. General:
- 1. Floor cleanout, non-traffic areas: Zurn no. ZN-1400 with membrane flange and bronze plug. 2. Floor cleanout, traffic areas: Zurn no. ZN-1400-HD with membrane flange and bronze plug.
- 3. Grade cleanouts: Zurn no. Z-1440 with membrane flange, ABS threaded plug. Provide Christy F08 utility box and lid in
- non-traffic areas & G05 with cast iron lid in traffic areas. 4. Wall cleanouts: Zurn Z-1445 and Z-1468, Cast iron tee with plug, chrome plated cover.
- B. Finishes: All exposed parts of floor cleanouts in finished areas shall be scoriated nickel bronze.
- 2.5 INSULATION
- A. Pipe insulation thickness shall be per California Mechanical Code and California Energy Code (Section 120.3) or as indicated below, whichever is greater. Pipe insulation wall thickness indicated below per California Energy Code Table 120.3-A installed at all piping recirculating sections, electric trace tape, and first eight feet of hot and cold outlet piping for nonrecirculating storage systems, and all hot water piping on residential systems.
- 1. Fluid Range 105-140 F:
- A. Nominal pipe diameter: less than 1 inch, provide 1.0 inches of insulation wall thickness. B. Nominal pipe diameter: 1 inch to less than 4 inch, provide 1.5 inches of insulation wall thickness.
- B. Above grade, inside building: Cover all piping, fittings, valves and appurtenances with Owens Corning SSL II with ASJ Max 3.5-5.5 lbs/sqft density, preformed, fiberglass with all service vapor jacket. Butt ends shall be tightly pressed together. Butt joints shall be covered with ASJ tape. Cover all fittings with Proto or Speedline 20 mil thick PVC fitting covers, color white, verify color with Architect and Owner; and coordinate color with other trades, attached with adhesive recommended by the manufacturer. Insulation in buildings shall have a flame spread rating not to exceed 25 and a smoke density not to exceed 450 when tested in accordance with UBC Standard 8-1, CBC Section 720.2. Exposed pipe and fittings or where routing in return air plenum spaces shall be covered with 25/50 rated Proto or Speedline 20 mil thick PVC jacketing and fitting covers, color white, attached with adhesive recommended by the manufacturer. PVC covers shall be installed watertight; all jackets penetrations and ends, seams and joints shall be sealed watertight with approved adhesive. Cover all pumps with 1" thick neoprene cover with glued joints. Verify jacketing color with Architect and Owner.
- C. Above grade, outside building: Cover all piping, fittings, valves and appurtenances with Owens Corning SSL II with ASJ Max 3.5-5.5 lbs/sqft density, preformed, fiberglass with all service vapor jacket. Butt ends shall be tightly pressed together. Butt joints shall be covered with ASJ tape. Cover all piping and fittings with Proto or Speedline 30 mil thick PVC fitting covers, color white, attached with adhesive recommended by the manufacturer. PVC covers shall be installed watertight; all jackets penetrations and ends, seams and joints shall be sealed watertight with approved adhesive. Cover all pumps with 1"

thick neoprene cover with glued joints.

- D. Insulation blocks at pipe supports shall be pipe shields calcium silicate blocks, size to match pipe insulation. The insulation jacket shall be butted to the support and sealed watertight to the metal shield. Provide 360 degree 12"long (8" long for piping less than 3" diameter) 18 ga galvanized sheet metal shields at each hanger. Provide 360 degree saddles. Top saddle should overlap bottom saddle. 180 degree saddles at clevis and J-hangers are acceptable.
- E. Below grade piping:
- 1. For all potable cold water piping provide continuous schedule 40 solid core PVC piping sleeve. Terminate both ends 6" above slab; do not use glue, sealants & other products not compatible with PEX piping. Provide PVC end caps at sleeve terminations with minimum 1" annular space between piping and sleeve cap hole Use closed-cell spray foam insulation on Uponor AquaPEX where annular space is 1"maximum. Use full length PEX runs with transition fittings above floor. No underground joints.
- 2. For all potable hot water piping provide continuous schedule 40 solid core PVC piping sleeve. Terminate both ends 6" above slab; do not use glue, sealants & other products not compatible with PEX piping. Provide PVC end caps at sleeve terminations with minimum 1" annular space between piping and sleeve cap hole Use closed-cell spray foam insulation on Uponor AquaPEX where annular space is 1"maximum. Use full length PEX runs with transition fittings above floor. No underground joints. Provide PEX piping with 1" insulation, cable tie or wrap insulation with 10 mil tape at 3'-0" on centers; where insulation is installed above the water table, use LSP Products Group Innofoam or Nomaco Therma-cel.
- F. Lavatory and sink traps: Manufactured insulators with smooth, white, PVC outer covering, complying with ADA and state accessibility requirements, Truebro Lav Guard 2 or Plumberex Pro-Extreme series. Also insulate the hot water supply valve and pipe. There shall be no sharp or abrasive surfaces under sinks or lavatories.
- 2.6 ADHESIVES, SEALANTS, CAULKS, PAINTS AND COATING
- A. All products shall comply with the VOC limits requirements in California Green Building Code (CALGreen). If a non-conforming product is found in these bid documents, notify the Engineer immediately for an alternate product.
- ACCESS PLATES AND DOORS
- A. Wall cleanouts: Zurn #ZANB-1460-7 nickel bronze with polished stainless steel cover or #Z1460-8 stainless steel; with bronze cleanout plug (at cast iron) or plastic cleanout plug (at PVC or ABS).
- B. Access doors:
- 1. Tile or wood surfaces: ELMDOR #DW-SS, 16 gauge, type 304 brushed stainless steel construction, or approved equal. Minimum size 10"x10".
- 2. Gypsum board wall: ELMDOR #DWB 16 gage galvannealed steel construction with prime finish or approved equal. Minimum size 10"x10".
- 3. Fire rated ceiling or walls, ELMDOR FRC or FR series or approved equal.
- 4. Prior to Construction Verify access panel labeling requirements with Owner.
- 2.8 FIXTURES AND EQUIPMENT
- A. Provide fixtures and equipment of the manufacturer and model numbers shown on the Drawings, complete with all required carriers, stops, supplies, trim, and other items necessary for proper operation.
- B. Fixture tailpieces and traps for lavatories and sinks shall be KEENEY 17-gauge brass tubing or semi-cast brass with heavy duty chrome plated finish.
- C. Sink, lavatory, and tank toilet supply stop valves and supply kits: BRASSCRAFT KTS 1/4 turn ball valves, chrome plated brass finish, lock shield with loose key, stainless steel or chrome plated copper supply tubing.
- D. All equipment, fixtures and fittings shall conform to California Energy Commission Certification per CEC subchapter 2, for energy usage and water usage compliance. See equipment schedules for specific ratings.
- 2.9 PIPE MARKERS AND EQUIPMENT NAMEPLATES
- A. QUALITY ASSURANCE: Meet ANSI A13.1 2007 Scheme for identification of piping systems.
- B. PIPING MARKERS: Provide Seton Opti-Code or approved equal by MSI, self-adhesive pipe markers for all piping. Pipe markers shall include direction of fluid flow arrows, color coded field and lettering height in accordance with OSHA and ASME (ANSI) Standard A13.1-2007. As a minimum, pipes shall be marked with service and direction at both sides of wall penetration, and every 20 feet but not less than once per room, and shall be visible from the floor level.
- C. EQUIPMENT NAMEPLATES: Provide Seton custom engraved acrylic (plastic), Black with white border and lettering, 3" wide by 1" high with minimum 1/4" lettering, attached with two small screws. Provide a label at each piece of major equipment for equipment identification.
- 2.10 OTHER MATERIALS
- A. Other materials not specified, but required for a complete installation, shall be as selected by the Contractor subject to acceptance by the Engineer
- 3. EXECUTION
- 3.1 GENERAL
- A. Verify that the work of this Section may be completed in accordance with all pertinent codes and regulations, the Construction Documents, approved Submittals, and the manufacturers' recommendations. In the event of discrepancy, immediately notify the Engineer. Do not proceed in areas of discrepancy until all discrepancies have been resolved.
- B. Install all equipment per manufacturer's instructions and recommendations.
- C. Install all equipment level. Install all equipment in accordance with manufactures installation instructions, where plans or detail differ from manufactures' instructions, contact Engineer for clarification before proceeding with installation.
- D. Size and location of all housekeeping pads shall be coordinated between subcontractor and general contractor prior to
- construction. Housekeeping pads are not in plumbing contractor's scope of work. E. See Structural Drawings for details of underground piping beneath and through building footings.
- F. Do not cut into or reduce the size of any load-carrying member without the prior approval of the Architect.
- G. Anchor piping subject to expansion or contraction in a manner permitting strains to be evenly distributed. Provide offsets and expansion compensation devices as required to prevent undue stress on the piping and building components. Allow for pipe expansion of 1 inch per 100 feet.
- H. Piping shall be securely held in place by hangers, supports & trapezes in accordance with CA Plumbing Code Section 313.0. All hangers shall be designed to support the pipe, including fluid and insulation. Provide hangers and supports at
- I. Pipe Supports: All materials shall be new and manufactured for the specific purpose of supporting systems, equipment, pipes and accessories.
- J. All overhead primary pipe supports shall meet the following minimum standards: ANSI/MSS SP-58: Materials, Design, Manufacture, Selection, Application, and Installation; ANSI/MSS SP-69: Selection & Application; ANSI/MSS SP-89: Fabrication & Installation Practices. Support hubless cast iron pipe and fittings per CISPI Installation Manual Handbook Ch.
- K. All in-wall secondary supports shall meet IAPMO PS 42-2013 Pipe Alignment & Secondary Support Systems.

wrap with one third overlap. Provide minimum of 3/8" annular space (between concrete and pipe).

- L. Provide Link-Seals for protection against water penetration where underground pipes pass through finished floors, ceilings or walls. Provide chrome plated brass split escutcheons where pipes pass through finished floors, ceilings or walls.
- pipe passing through the structure. Caulk the annular space between the pipes or provide Link-Seals at foundation walls. Provide chrome plated brass split escutcheons where pipes pass through finished floors, ceilings, or walls. N. Foam pipe wrap all unsleeved piping passing through or in concrete: Benjamin Mfg. Co. in-sul wrap #6200. Apply in spiral

M. Where piping passes through foundations, footings or bearing walls, provide PVC pipe sleeves two sizes larger than the

- O. Make allowances for building and support structure movement.
- P. Place a hanger within 12 inches of each horizontal elbow. Provide 1/2" minimum separation between piping and building construction. Piping shall not be in contact with hangers or building members.
- Q. Provide seismic bracing per SMACNA / PPIC "Seismic Restraints Manual: Guidelines for Mechanical Systems and Plumbing Piping Systems".
- R. Do not support piping from other pipes, ductwork or other equipment that is not building structure. S. All steel piping and appurtenances exposed to weather shall be galvanized or zinc plated.
- T. Isolate all dissimilar metals with dielectric unions and dielectric flanges, except brass or bronze valves do not need to be isolated from steel pipe.

- U. Provide means of preventing dissimilar metal contact such as plastic-coated hangers, copper colored epoxy paint, or non-adhesive isolation tape - B-Line Iso-pipe.
- V. Paint any PVC piping and fittings where exposed to direct sunlight with light colored, water based latex paint which
- W. Where threaded piping connects between plastic and metal materials, provide metal female connection. Do not provide a metal male connection at these types of transitions.
 - X. All wetted materials for valves and appurtenances shall be the same material of the piping, unless noted otherwise.
- Y. All valves and appurtenances shall be full line size.
- Z. Provide accessible shutoff valves at all fixtures, equipment, and appliances. Provide access doors where valves are installed behind or above non-removable construction. Install all below-grade valves in concrete valve boxes. Install boxes flush with the finished grade. Install water hammer arrestors, valves, air vents and other appurtenances in accessible locations, or provide access doors.
- AA. Provide unions at 2-1/2" and smaller equipment connections. Provide flanges at larger equipment connections.
- CC. Provide UL listed fire stopping, installed per manufacturer's recommendations, where pipes pass through fire rated
- DD. All horizontal waste piping is to be at a 2% slope unless otherwise noted on the Drawings.

BB. Provide straight pipe with a minimum length of six times the pipe diameter upstream of pumps.

- EE. Seal all vapor barriers and insulation jacketing watertight, per manufacturer's instructions. Use approved materials to seal ends of insulation watertight.
- FF. Ends of insulation shall be tightly butted together and held in place with bands at a max of 24" on centers
- GG. Insulate all piping components, including but not limited to flexible connectors/expansion joints, valves, pumps, fittings and appurtenances.
- HH. Test plugs must be installed to clear insulation.
- II. Valve handles shall be installed to clear insulation/jacket by 3/4" (minimum)
- JJ. Finish insulation neatly at pipe supports.
- KK. Provide pre-molded fitting covers for all pumps, fittings, valves and appurtenances. Fitting covers must be easily removable for access to equipment and valves.
- LL. All insulation jacketing laps and band seals to be placed in such a way as to be hidden when viewed from the most traveled locations. Insulation located outdoors where exposed to weather, must be installed with the jacket seams on bottom of piping. All banding and support shields are to be installed with equal spacing and in a uniform manner. Applications of caulking at any joints are to be kept at an absolute minimum.

MM. Insulate and jacket cold water piping, outside the building, where exposed to exterior ambient conditions, for freeze protection.

- NN. All piping in trenches shall have bedding from 6 inches below pipe to 4 inches above pipe. Bedding material to be 1/4 inch min. fill sand by Canyon Rock Company or approved equivalent. Bedding must be clean and compacted so as to protect and uniformly support the pipe enclosure. Provide backfill above bedding. Backfill material specification is provided by Others. Prior to construction - verify backfill material specification with General Contractor. Bedding and backfill materials must not contain boulders, cinder fill, construction debris or materials that will damage or break the piping or cause corrosive action. Provide bedding material submittal for review and approval.
- 3.2 ENERGY CODE TESTING, ADJUSTING AND REPORTING
- A. The Contractor shall test and commission all plumbing equipment shown on the Plumbing Drawings. Testing and documentation shall be in accordance with manufacture's installation instructions and California Energy Code NRCC-PLB certificate of compliance forms.
- B. The Contractor shall coordinate and schedule with the General Contractor, (or owner where applicable), controls contractor, other subcontractors and the owner as necessary to complete all testing in a timely manner.
- C. The Contractor shall submit all completed and signed commissioning documents in one package (in PDF format) to the Mechanical Engineer of Record for review and approval. Any comments and/or corrections shall be addressed promptly, retested, and an updated report resubmitted for approval prior to completion. Provide an additional copy to the building
 - REQUIREMENTS FOR ACCEPTANCE

department official where requested.

- A. Make arrangements with the Engineer and the Building Inspector to observe the Work prior to covering or enclosing the B. Clean and flush all piping systems and equipment to remove all contaminants.
- Coordinate times of sterilization with the Owner. Provide warning signs during sterilization to prevent system use during sterilization. Provide documentation that indicates when the sterilization was completed. D. All installations of PEX piping shall be flushed twice over a period of at least one week. First flushed for at least 10 minutes

C. Sterilize all domestic hot and cold water piping with chlorine solution for a minimum of 24 hours. The residual chlorine

concentration shall not be less than 50 PPM. Thoroughly flush the piping systems after the sterilization is completed.

flushed long enough to fully empty the contained volume, as required per California Plumbing Code. 1. At the time of fill, each fixture shall have a removable tag applied stating: "This new plumbing system was first filled and flushed on _____ (date) by ____ (name). The State of California requires that the system be flushed after standing at least one week after the fill date specified above. If this system is used earlier than one week after the fill date, the

water must be allowed to run for at least two minutes prior to use for human consumption. This tag may not be removed

material has been installed in compliance with the requirements of the code, including the requirements to flush and tag

and then filled and allowed to stand for no less than one week, after which all the branches of the pipe system must be

- 2. Prior to issuing a building permit to install PEX pipe, the building official shall require as part of the permitting process that the contractor, or the appropriate plumbing subcontractors, provide written certification that he or she will comply with the flushing procedures set forth in the code. 3. The building official shall not give final permit approval of any PEX material installation unless he or she finds that the
- 4. Any contractor or subcontractor found to have failed to comply with the PEX flushing requirements shall be subject to the penalties in Health and Safety Code, Division 13, Part 1.5, Chapter 6 (Section 17995, et seq.).

prior to the completion of the required second flushing, except by the building owner or occupant."

- E. Testing, Adjusting and Reporting: Operate all equipment that is a part of this Division and report the following:
- 1. Pumps: motor amps, pump rotation direction, differential pressure. 2. Water heaters: Hot water supply temperature. F. Test, adjust and balance all pumps and pumping systems and hydronic piping systems in accordance with AABC National
- manufacturer. Provide test reports for approval. The test reports shall include, but not be limited to the following information: 1. Operating and nameplate data for all pumps and pumping equipment; including motor speed and motor amps.

Standards for Field Measurements and Instrumentation. Testing shall be done by an AABC licensed TAB Contractor or

independent certified NEBB Contractor which in not affiliated with a Mechanical Contractor, design Engineer or equipment

- G. Adjust and test all shower and tub/shower combination control valve handle stops per the manufactures instructions to deliver a maximum mixed water temperature setting of 120 F (after main water heating system has been set). Adjust and test all tempering valves to the scheduled temperature (where not scheduled provide 105 F at public lavatories and hand sinks, and all others provide at 120 F).
- H. Test the plumbing systems as outlined below. Isolate all equipment, instruments, and gauges that are not rated for test pressure. If the piping fails the test, repair faulty sections and retest. Provide documentation that all piping systems passed pressure test, indicate day of test and ambient temperature. Piping must be pressure tested and inspected prior to being
- 1. DWV systems: Test with a 10 foot water head for a minimum of one hour. 2. Water lines: Test with water at 100 PSIG for 24 hours.

2. Water flow rates and pressures at the pump and water heater.

- An "as-built" red lined drawing set shall be kept on site and updated daily. These "as-builts" shall include the full scope of the design documents and specifications in this section of work. For underground systems include piping depth/invert elevations and exact dimension to grid lines for underground mains. Submit "As-builts" to General Contractor and Owner.
- J. Prior to job completion, submit Autocad (.DWG) and PDF format (color, 200 to 300 DPI resolution) as-built drawings to the Engineer and Owner via digital transfer. K. Provide operation and maintenance manuals on all equipment, organized and labeled, including equipment warranties
- L. Instruct the Owner with on-site training, on how to operate and maintain all systems and equipment that are a part of this Section.

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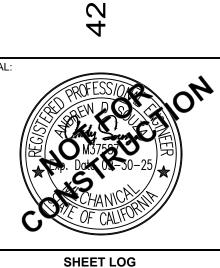
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REV # DATE: ISSUED FOR:

DRAWN BY: CHECKED BY: PLOT DATE: TEP JOB NUMBER:

PLUMBING SPECIFICATIONS

ORIGINAL DATE:

6.05.2025

A. SOUZA T. SOUZA 5.29.25

ELECTRICAL LEGEND **ABBREVIATIONS** ABOVE FINISHED FLOOR **EXISTING** NEW (N) U.O.N. UNLESS OTHERWISE NOTED AMPS CONDUIT GROUND VOLTS WEATHER PROOF <u>DEVICES</u> DUPLEX RECEPTACLE 125V, 20A, 3PG, +18" A.F.F. U.O.N. QUADPLEX RECEPTACLE 125V, 20A, 3PG, +18" A.F.F. U.O.N. DUPLEX GFCI RECEPTACLE 125V, 20A, 3PG, +18" A.F.F. U.O.N. DUPLEX CONTROLLED RECEPTACLE 125V, 15A, 3PG, +18" A.F.F. U.O.N. SINGLE RECEPTACLE SEE PLANS FOR TYPE DATA/VOICE OUTLET 1-GANG FLUSH J-BOX EXTRA DEEP +18" A.F.F. U.O.N. PROVIDE 3/4"C TO ACCESSIBLE SPACE ABOVE CEILING WITH PLASTIC INSULATED BUSHING ON END OF CONDUIT U.O.N. **LIGHTING** LIGHTING FIXTURE TAG — SEE FIXTURE SCHEDULE 2' X 4' LIGHT FIXTURE- RECESSED 2' X 2' LIGHT FIXTURE - RECESSED 1' X 4' SURFACE MOUNT LIGHT \oslash RECESSED DOWNLIGHT OUTDOOR WALL MOUNT FIXTURE WITH SHIELD DIRECTING LIGHT DOWNWARDS EMERGENCY LIGHT WITH 90 MINUTE BATTERY BACK-UP EXIT COMBO EXIT/EMERGENCY LIGHT WITH 90 MINUTE BATTERY BACK UP CONDUIT ABOVEGROUND CONDUIT UNDERGROUND CONDUIT 4-11/16" SQUARE TYPE JUNCTION BOX

WITH BLANK COVER PLATE

WIRING IDENTIFICATION

NEUTRAL

CONDUIT HOMERUN TO PANELBOARD

TYPE	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	DRIVER	LAMP(S)	WATTS	VOLTAGE
F1	2' X 4' LED FLAT PANEL 5000L FULLY SWITCHABLE CONFIGURABLE	LITHONIA	CPX 2X4 ALO8 80CRI SWW7 SWL 120 NLIGHT	0-10V	LED 3500K	35.9	120V
F2	2' X 2' LED FLAT PANEL 4000L FULLY SWITCHABLE CONFIGURABLE	LITHONIA	CPX 2X2 ALO7 80CRI SWW7 SWL 120 NLIGHT	0-10V	LED 3500K	27.7	120V
(F3)	1' X 4' LED FLAT PANEL 4000L FULLY SWITCHABLE CONFIGURABLE	LITHONIA	CPX 1X4 ALO7 80CRI SWW7 SWL 120 NLIGHT	0-10V	LED 3500K	24.8	120V
F4	1' X 4' LED LINEAR STRIP	LITHONIA	CLX L48 5000LM SEF FDL 120 GZ10 35K 80CRI N100 WH	0-10V	LED 3500K	31.8	120V
F5	6" RECESSED LED DOWNLIGHT	LITHONIA	LDN6 35/15 LO6 AR LSS MVOLT GZ10 NPP16D	0-10V	LED 3500K	17.5	120V
(F6)	UNDER CABINET LED LIGHTS 2FT WITH SENSOR	WILLIAMS	1SF 2-L12/835-AF12125-OPTIONS- CONTROL/DRV-120 WITH OCCLV-OSF10-10W SENSOR	120V	LED 3500K	11.4	120V
F7	WALL SCONCE -OUTDOOR	LITHONIA	WEDGE2 LED P4 40K 80CRI VW MVOLT SRM DDBXD	0-10V	LED 4000K 4526 LUMENS	35	MVOLT
F8	(E) EXTERIOR DOWNLIGHT					26	120V
(F9)	(E) EXTERIOR WALL LIGHT					40	120V
EXIT	COMBO EXIT/EMERG LIGHT— LED 120V WITH 90 MINUTE BATTERY BACK—UP GREEN LETTERS	LITHONIA	LHQM LED G M6			4.3	120V
	EMERGENCY LED LIGHT-120V WITH 90 MINUTE BATTERY BACK-UP	LITHONIA	EU2C M6			.70	120V

LIGHTING FIXTURE SCHEDULE

POWER DISTRIBUTION HVAC AND PLUMBING MECHANICAL EQUIPMENT TAG- SEE MECHANICAL DRAWINGS SURFACE MOUNTED ELECTRICAL PANEL 6'-6" TO TOP TRANSFORMER $\left\langle \begin{array}{c} P \\ 1 \end{array} \right\rangle$ PLUMBING EQUIPMENT TAG- SEE PLUMBING DRAWINGS FUSED SAFETY SWITCH HEAVY DUTY. VOLTAGE AND FUSE SIZE CALLED OUT ON PLANS EXHAUST FAN NON-FUSED SAFETY SWITCH HEAVY DUTY THERMOSTAT BY MECHANICAL 120V, 15A, 1P TOGGLE SWITCH

TIME CLOCK

ELECTRICAL DRAWING LIST

- EO.1 ELECTRICAL COVER SHEET AND LIGHTING FIXTURE SCHEDULE
- E1.0 LIGHTING DEMOLITION PLAN
- E1.1 ELECTRICAL DEMOLITION PLAN
- E2.0 ELECTRICAL ROOF DEMOLITION PLAN
- E2.0 LIGHTING PLAN
- E3.0 POWER PLAN

GENERAL NOTES:

OTHERWISE NOTED.

- E4.0 ELECTRICAL ROOF PLAN
- E5.0 ONE LINE DIAGRAM AND PANEL SCHEDULES

1. ALL DEVICES AND EQUIPMENT SHOWN ARE NEW UNLESS

EQUIPMENT. IT ALSO INDICATES THE CIRCUIT NUMBER

AND PANEL DESIGNATION WHICH SUPPLIES THEM. THE

COMPLETELY CONCEALED CONDUIT SYSTEM U.O.N. ALL

GREEN COPPER THHN GROUNDING CONDUCTOR IN ALL

4. RECEPTACLES AND SWITCHES INTENDED TO BE USED BY

MEASURED TO THE BOTTOM OF THE OUTLET BOX AND THE HIGH REACH OF 48" MEASURED TO THE TOP OF

APPROPRIATE TRADES PRIOR TO INSTALLATION OF ANY

6. PROVIDE PULL LINE IN ALL SPARE CONDUITS AND IN

9. ALL ELECTRICAL WORK SHALL COMPLY TO CBC 2022.

10. PROVIDE SUBMITTALS ON LIGHT FIXTURES, ELECTRICAL

11. AT THE COMPLETION OF THE PROJECT PROVIDE COPIES

NRCA FORMS MUST BE DONE BY A THIRD PARTY

12. ANOTHER FORM THE BUILDING DEPARTMENT MAY

WHICH CAN BE COMPLETED BY THE INSTALLING

REQUEST FOR THE LIGHTING SYSTEM IS THE

PANELS, AUDIO/VISUAL, AND FIRE ALARM FOR APPROVAL

OF THE NONRESIDENTIAL CERTIFICATES (NRCA) FOR NEW

LIGHTING SYSTEMS TO THE BUILDING DEPARTMENT. THESE FORMS ARE CONFIRMATION THE CONTROLS HAVE BEEN

TESTED AND ARE WORKING PROPERLY. THE TESTING OF

THE CONTROLS SYSTEMS AND THE COMPLETION OF THE

NONRESIDENTAIL CERTIFICATE OF INSTALLATION (NRCL)

3 CONTRACTOR SHALL PROVIDE & INSTALL A #12 AWG

POWER CIRCUITS, BRANCH CIRCUITS & HOMERUNS

OCCUPANT SHALL HAVE A LOW REACH OF 15"

5. CONTRACTOR SHALL COORDINATE WITH ANY OTHER

BOXES OR CONDUIT IN ORDER TO AVOID ANY

7. CONDUIT ROUTING SHOWN IS APPROXIMATE EXACT

CONDUITS DESIGNATED AS CONDUIT ONLY.

ROUTING TO BE DETERMINED IN FIELD.

8. ALL CABLES ARE THHN/THWN COPPER.

WITHIN 30 DAYS OF STARTING WORK.

CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETELY CONNECTING ALL ELECTRICAL DEVICES TO THE CIRCUITS INDICATED ON DRAWING. CONTRACTOR SHALL PROVIDE A

2. DRAWINGS INDICATES THE LOCATION OF DEVICES &

DEVICES SHALL BE MOUNTED FLUSH U.O.N.

(UNLESS OTHERWISE NOTED).

THE OUTLET BOX. CBC 11B-308.

CONFLICTING INSTALLATIONS.

CEC 2022, AND NEC 2022.

INSPECTOR.

CONTRACTOR.

EMEN. 0

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OF CALIFORNIA

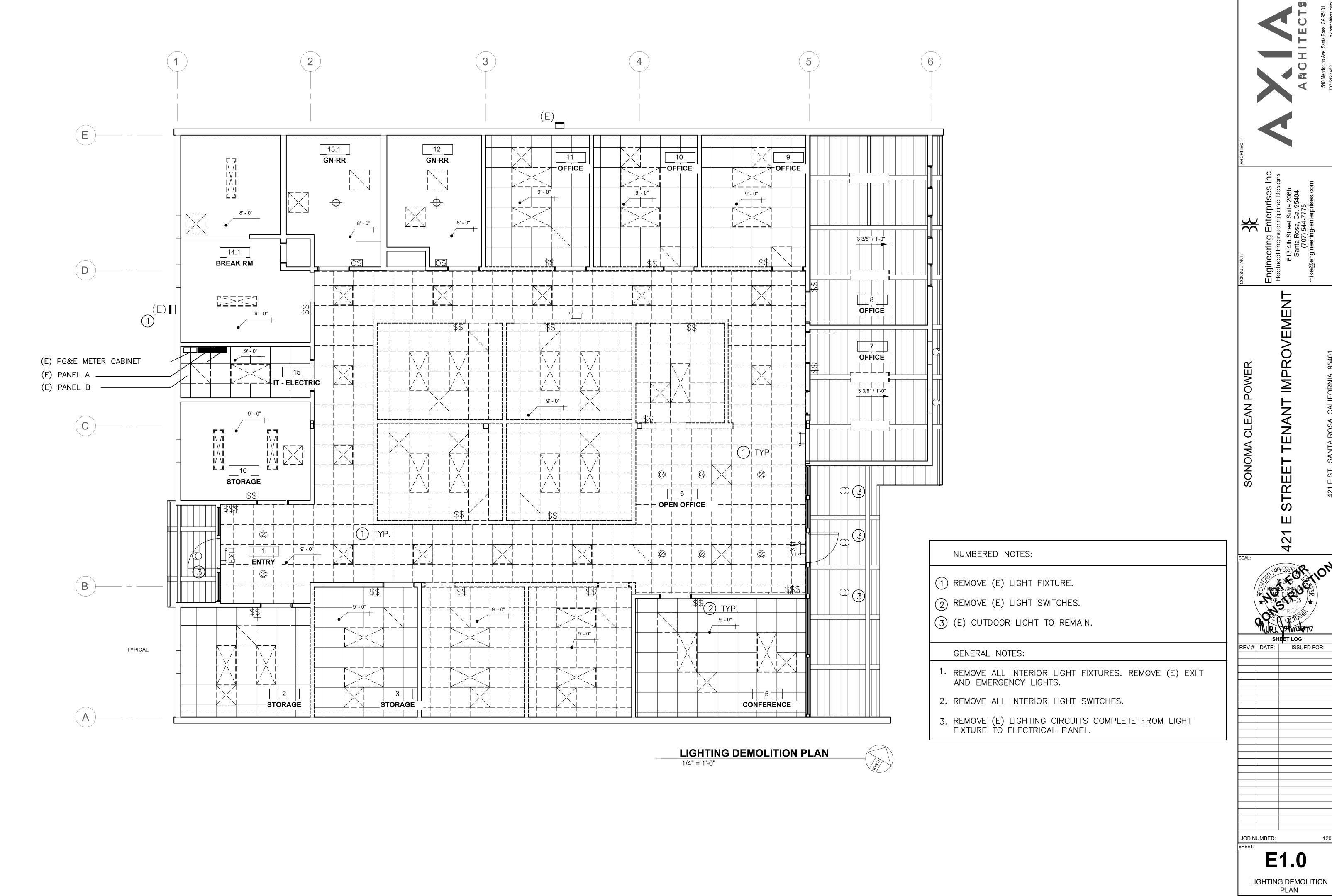
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ELECTRICAL COVER SHEET AND LIGHTING FIXTURE SCHEDULE

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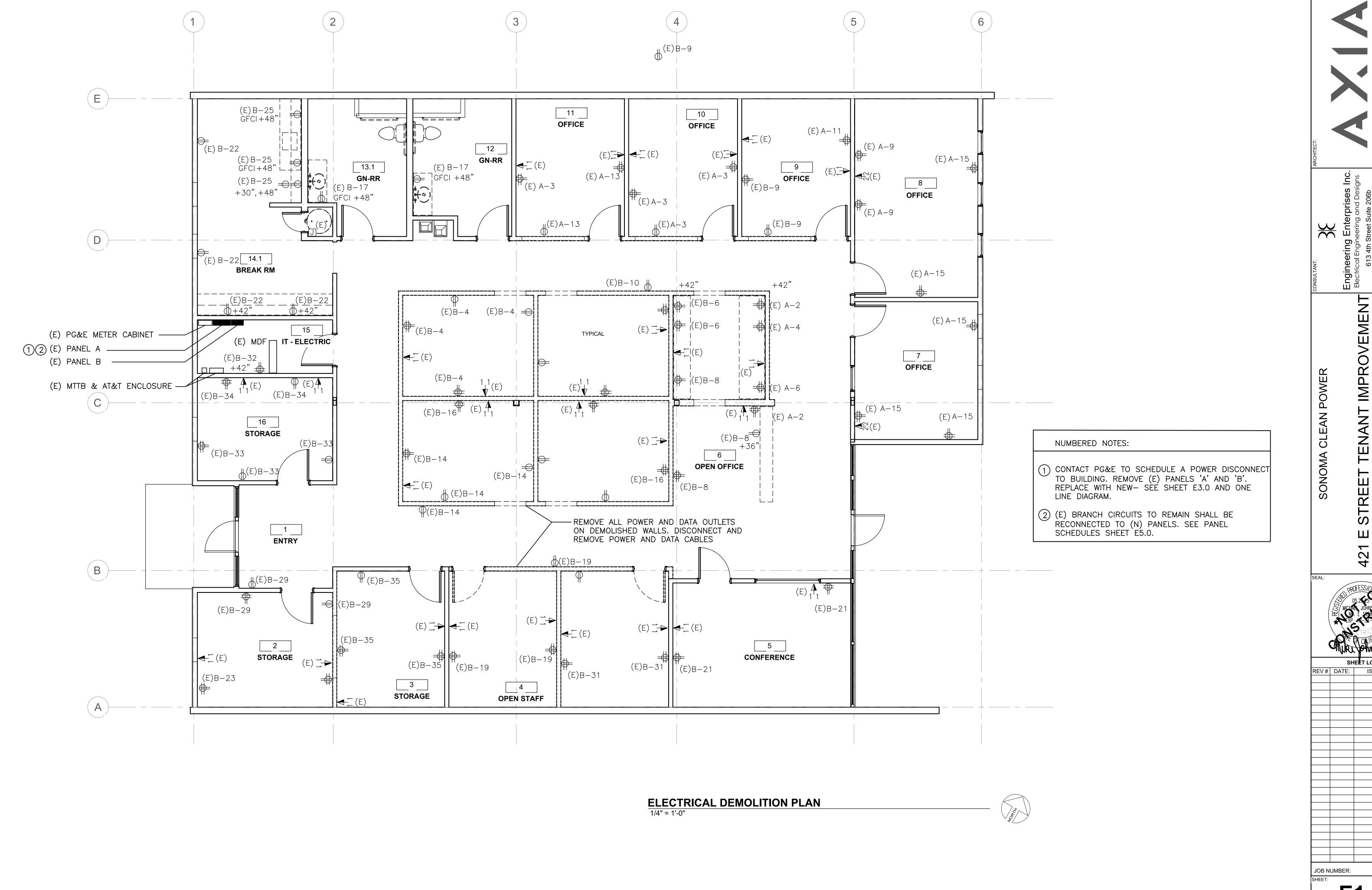
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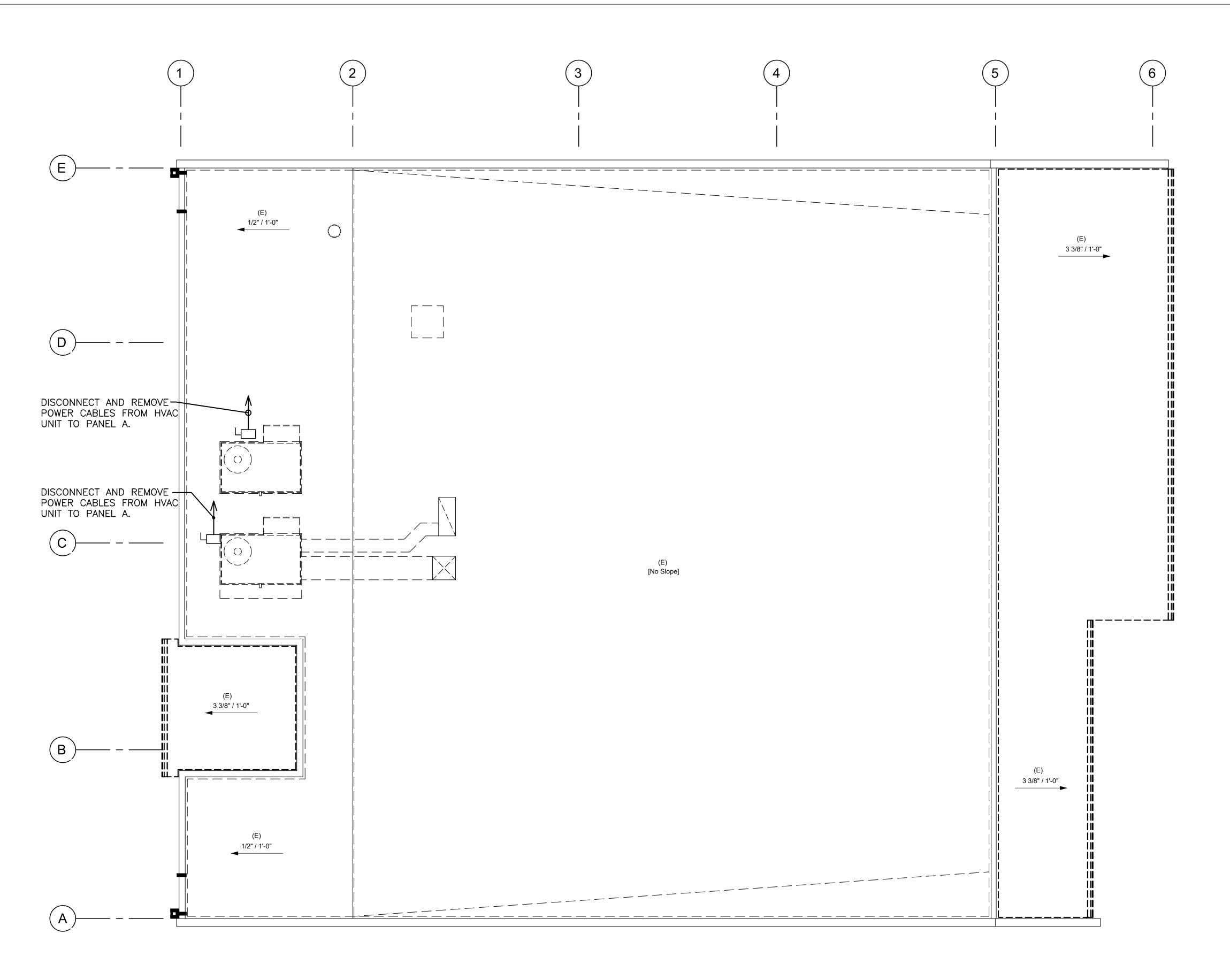
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REV # DATE: ISSUED FOR:

E1.1

ELECTRICAL DEMOLITION PLAN ORIGINAL DATE:

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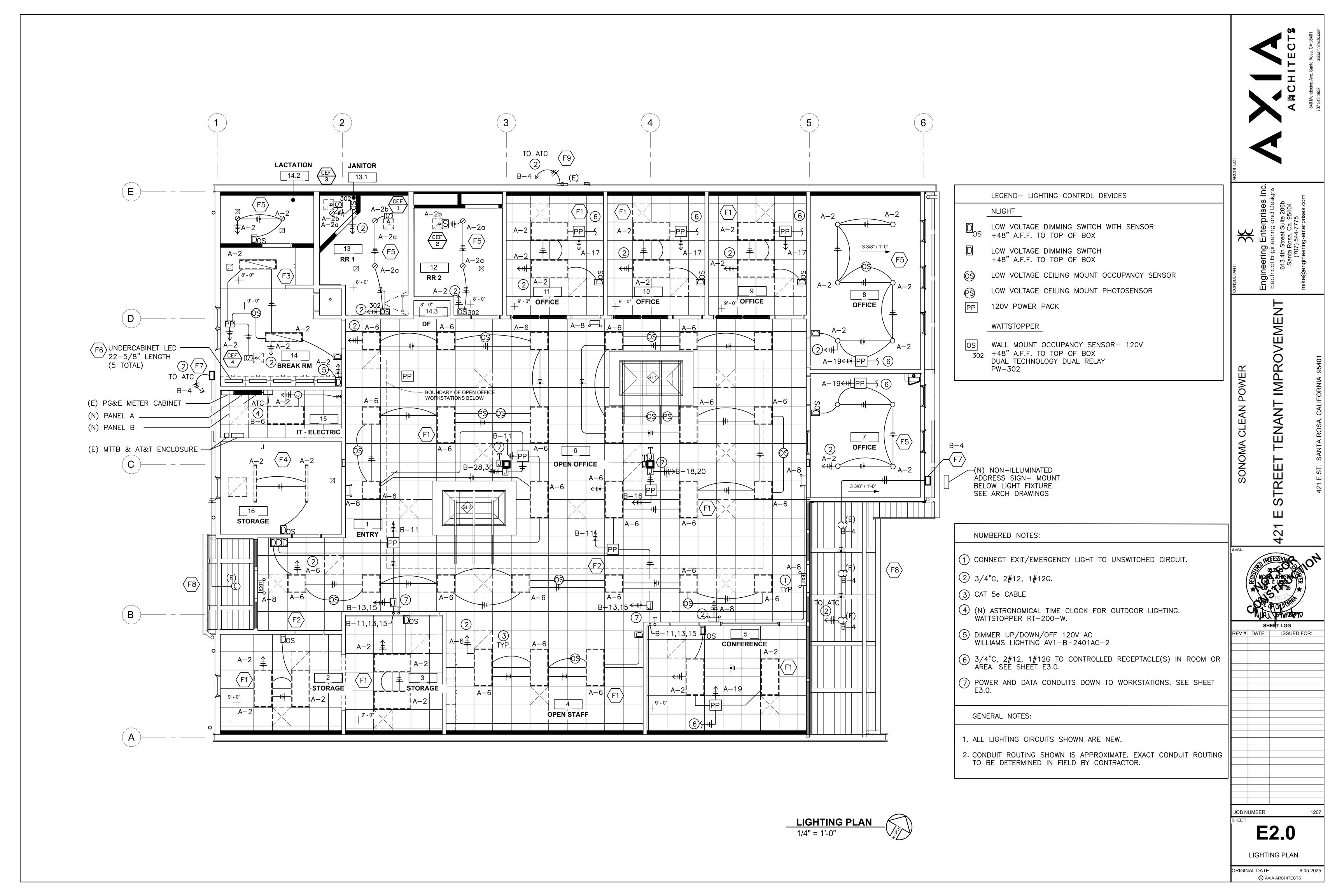


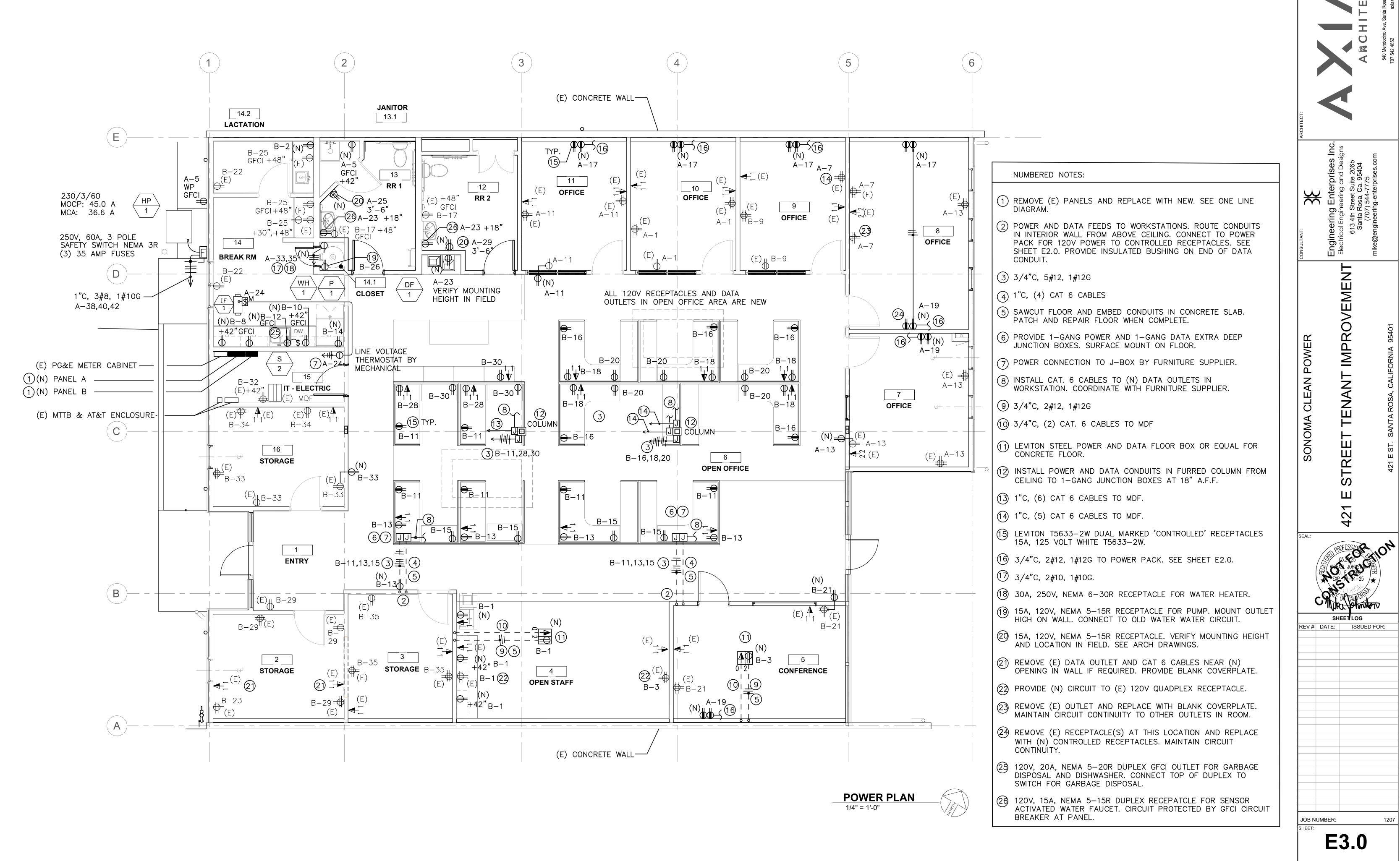
ELECTRICAL DEMOLITION ROOF PLAN
1/4" = 1'-0"



JOB NUMBER: SHEET: E1.2 ELECTRICAL DEMOLITION - ROOF PLAN

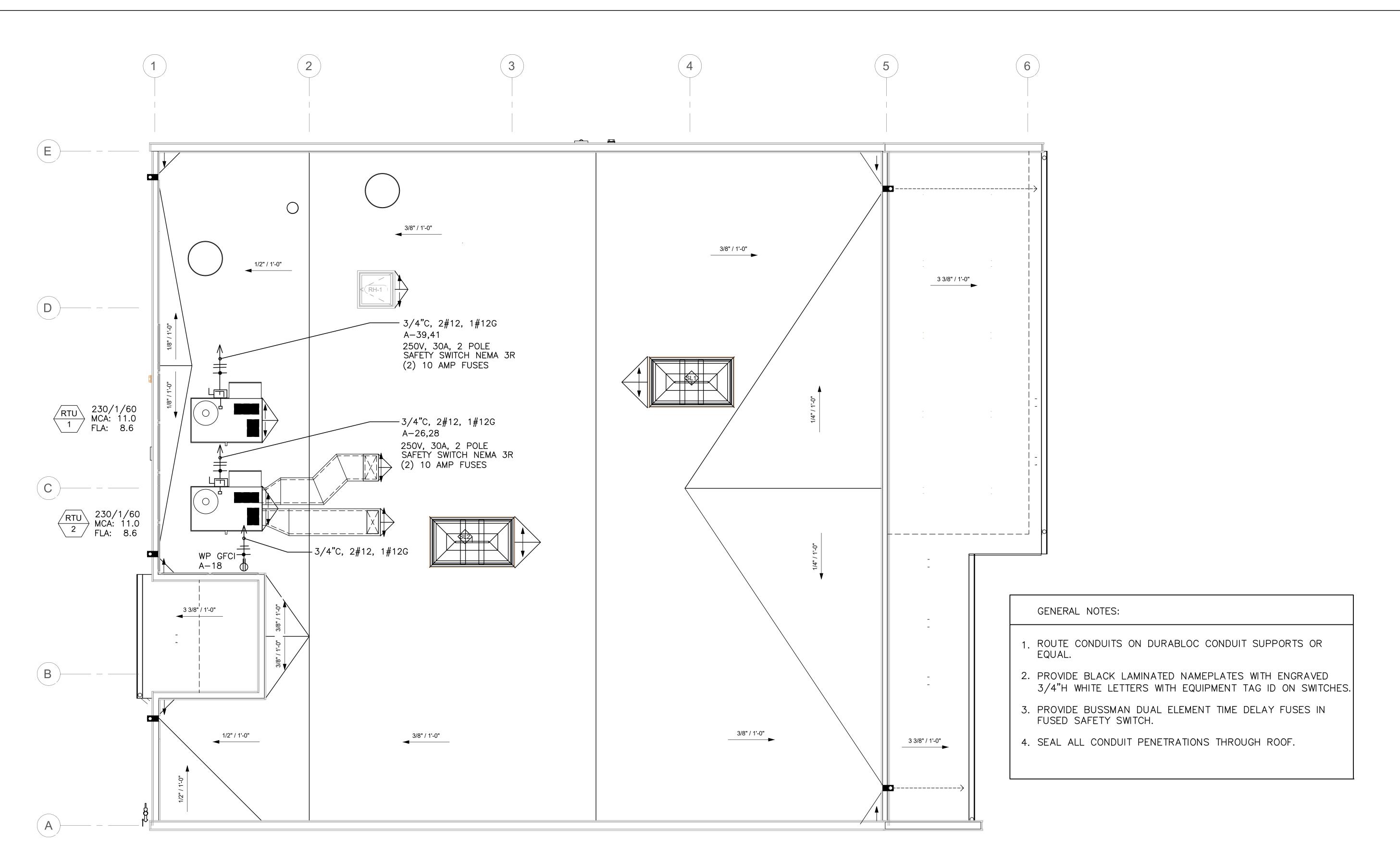
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POWER PLAN

ORIGINAL DATE: © AXIA ARCHITECTS



ELECTRICAL ROOF PLAN
1/4" = 1'-0"





SONOMA CLEAN POWER

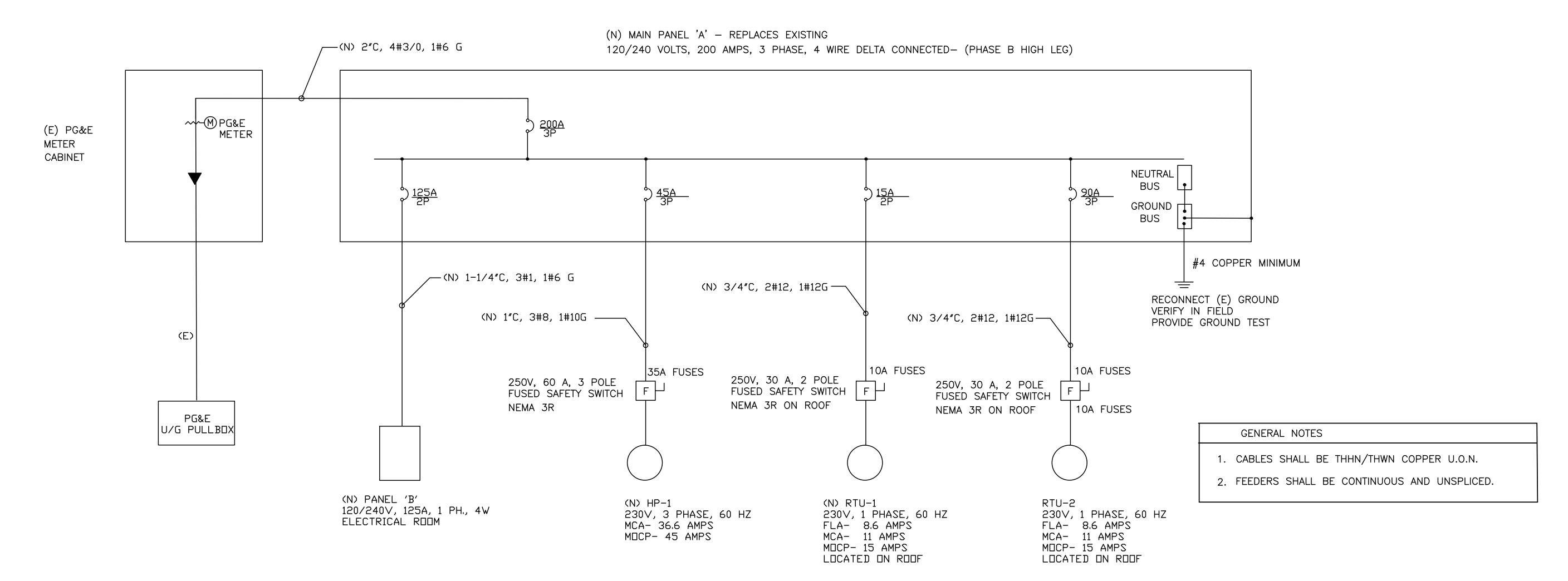
JOB NUMBER:

E4.0

ELECTRICAL **ROOF PLAN**

ORIGINAL DATE:

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DNE LINE DIAGRAM

	BUS: COPPER CIRCUIT BREAKER: THERMAL MAGNETIC BOLT-ON NEUTRAL BUS: COPPER GROUND BUS: COPPER COPPER							MAIN: 200A MOUNTING: SURFACE ENCLOSURE: NEMA 1 FEED: BOTTOM AIC RATING: 10KAIC								
	SERVICE	L(AØ	OAD V BØ		BKR. SIZE	CKT. NO.	A	Ø BØ	CØ		CKT. NO.	BKR. SIZE	L(AØ	DAD V BØ	/A CØ	SERVICE
OLD CIRCUIT A-3	(E) RECEPT- OFFICE 10	900	_	_	20A	1	_^_	\downarrow	+	_	2	15A	950	_	_	LIGHTS-OFFICES/BREAK/RR
	SPACE- DO NOT USE		_	_		3		┤ ∳	+	<u></u>	4		1		_	SPACE- DO NOT USE
	(N) RECEPT- JAN/OUTDOOR		-	360	20A	5		++	+	<u></u>	6	15A	1		830	LIGHTS-OPEN AREA
OLD CIRCUIT A-9	(E) RECEPT- OFFICE 8	1080	_	_	20A	7		\downarrow	+	_	8	15A	100		_	EXIT/EMERGENCY LIGHTS
	DO NOT USE		_	_		9		┤ ∳	+	_	10				_	SPACE- DO NOT USE
OLD CIRCUIT A-13	(E) RECEPT- OFFICE 11	_	_	900	20A	11			•	_	12	20A	_	_		SPARE
OLD CIRCUIT A-15	(E) RECEPT- OFFICE 7/8		_	_	20A	13		\downarrow	+	_	14	20A	360	_	_	GFI OUTLETS- 305
	SPACE- DO NOT USE	_	_	_		15		→	+	_	16		_	_	_	SPACE- DO NOT USE
	RECEPT-CONTROL OFFICES	_	_	1080	20A	17		$\perp \perp$	•	_	18	20A	_	_	180	ROOF OUTLET
	RECEPT-CONTROL OFFICES	1440	_	_	20A	19		$\downarrow \downarrow$	+	_	20	20A	-	_	_	_
	SPACE- DO NOT USE	_	_	_		21		→	+	_	22		_	_	_	SPACE- DO NOT USE
*GFCI BREAKER	DRINKING FOUNTAIN/FAUCETS	_	_	30	15A	23		\perp	•	_	24	20A	_	_	360	IF-1
NOTE 3	HAND DRYER- RR 2	1000	_	_	15A	25		$\downarrow \downarrow$		_	26	<u>15A</u>	895		_	RTU-2
	SPACE- DO NOT USE	_		_		27		$\downarrow \downarrow$	1	_	28	2P		895	_	
	HAND DRYER- RR 1	_	_	1000	15A	29			•	<u>T</u>	30	125A 2P	-	_	10720	PANEL B
	SPARE	_	_	_	20A	31		$\downarrow \downarrow$	-	_	32		11720	_	_	
	WH-1 WATER HEATER	_	2500	_	<u>30A</u> 2P	33		│ 	-	_	34				_	SPACE- NOT FOR 120V LOAD
			_	2500		35			<u></u>	_	36					
	SPARE				15A	37		\downarrow	-	<u></u>	38	<u>45A</u>	3500		_	HP-1
	RTU-1	_	895	_	15A 2P	39		↓ ↓		-\-	40	32		3500	_	
		_	_	895	2P	41		\perp	•	_	42		_	_	3500	
	SUB-TOTAL	5680	3395	6765			(_(<u>2(</u>	00A 3P			17575	4395	15590	
	NOTE 1. ALL LOADS ARE NEW UNLESS OTHERWISE NOTED 2. CONNECT (E) LOADS TO (N) PANEL AT CIRCUIT LOCATION SHOWN. 3. PROVIDE GFCI CIRCUIT BREAKER. PHASE C = 22355 VA TOTAL CONNECTED LOAD = 53380 TOTAL										$= \frac{7790}{22355} VA$ $= \frac{22355}{3380} VA$ $= \frac{53380}{3380} TOTAL VA$					

(N) PANEL REPLACES EXISTING.

DELTA CONNECTED -PHASE B HIGH LEG

BUS: COPPER CIRCUIT BREAKER: THERMAL MA NEUTRAL BUS: COPPER GROUND BUS: COPPER	AGNETIC	<u>12</u>	20/2			125	B AMP, ROOM		<u>, 3</u>	WIR	<u>E</u>	MAIN: MAIN LUGS ONLY MOUNTING: SURFACE ENCLOSURE: NEMA 1 AIC RATING: 10 KAIC FEED: TOP	
SERVICE	LOA AØ	D VA	BKR. SIZE	CKT. NO.		AØ CØ		CKT.	BKR. SIZE	LOAD	VA CØ	SERVICE	
RECEPT- OPEN STAFF 4	1080	_	20A	1		1	_^_	2	15A	600	_	RECEPT— LACTATION RM UNDERCOUNTER FRIDGE	
RECEPT- STAFF/CONF SPARE	_	540 1440		5		+		4	15A 15A		400 200	LIGHTS— OUTDOOR TIME CLOCK— OUTDOOR	
(E) RECEPT- OFFICE 8 (E) RECEPT- OFFICE 9	720 540	_	20A 20A	7 9		++	_^_	10	20A	1000 1000	_	RECEPT—COUNTERTOP BREAK RECEPT—BREAK COUNTER	
CTRL RECEPT— OPEN OFFICE 6 RECEPT— OPEN OFFICE 6	<u> </u>	1080 900	20A	13		+	_^_	14	20A 20A	_		RECEPT-DISH/GAR.DISP. BREAK RECEPT-FRIDGE BREAK	
RECEPT— OPEN OFFICE 6 (E) RECEPT— RESTROOMS (E) RECEPT— OPEN STAFF 4	720 360	_		15 17		+	_^_	18	20A			CTRL RECEPT— OPEN OFFICE 6 RECEPT— OPEN OFFICE 6	
(E) RECEPT— CONF 5	<u> — </u>	720	20A			+		22	20A 20A	_	900 360	RECEPT— OPEN OFFICE 6 (E) RECEPT BREAK/LACTATION	
(E) RECEPT STORAGE 2 (E) RECEPT COUNTER LACTATION	720	_	20A 20A 20A			++			15A	200		SECURITY PANEL - FUTURE	
SPARE (E) RECEPT- STORAGE 2 SPARE	 	1080	20A 20A	29		 			15A 20A	 360	200	P-1 CIRCULATION PUMP (N) RECEPT- OPEN OFFICE 6	OLD CIRCUIT WATER HEATE NOTE 3
(E) RECEPT— STORAGE 16 (E) RECEPT— STORAGE 3	720	900	20A 20A	33		++		30	20A	540 1000		(N) RECEPT- OPEN OFFICE 6	
SPARE	 	300	20A	37		$\uparrow \uparrow$	<u> </u>		20A			(E) RECEPT IT ROOM (E) RECEPT STORAGE	
SUB-TOTAL	4860	6660								6860	4060		
NOTE 1. ALL LOADS ARE NEW UNLESS 2. CONNECT (E) LOADS TO (N) P SHOWN. 3. CONNECT OLD WATER HEATER	OTHERW ANEL A	ISE NOTE TO P	OTED CUIT I	LOCA	ΠΟΝ			Р	HASE HASE	A _	11720 10720 22440	<u> </u>	
CIRCUIT SHALL BE USED FOR I	NEW CIR			CONN	ECTED L	OAD A1	Γ 240V,			-	94	AMPS	

NOTE: PANEL CIRCUIT ARRANGEMENT DESIGNED TO MATCH THE (E) PANEL. (E) PANEL SHALL BE REMOVED AND REPLACED WITH NEW.

TENANT IMPROVEMENT

CLEAN POWER

SONOMA

421

REV # DATE: ISSUED FOR: JOB NUMBER: **E5.0**

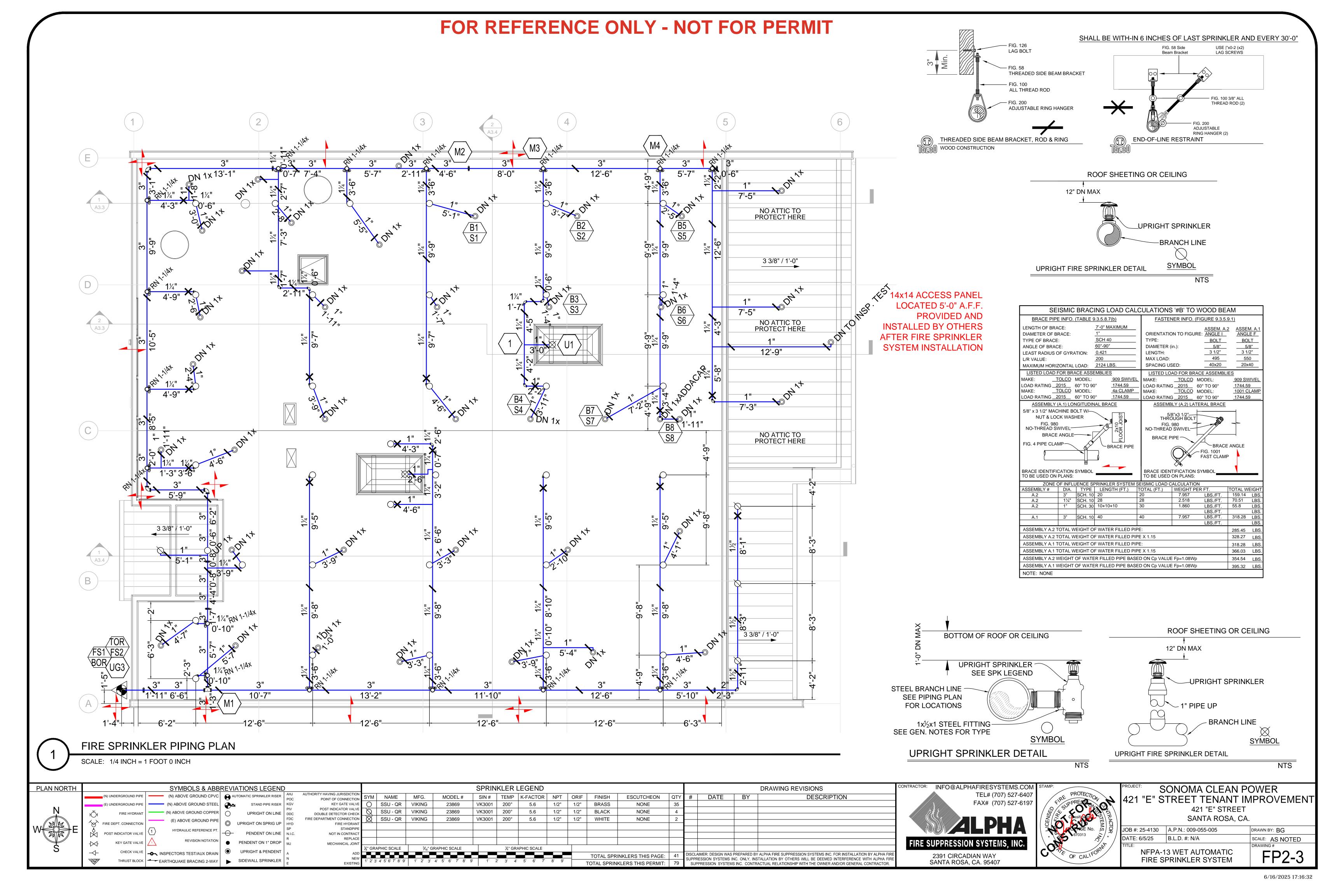
ONE LINE DIAGRAM

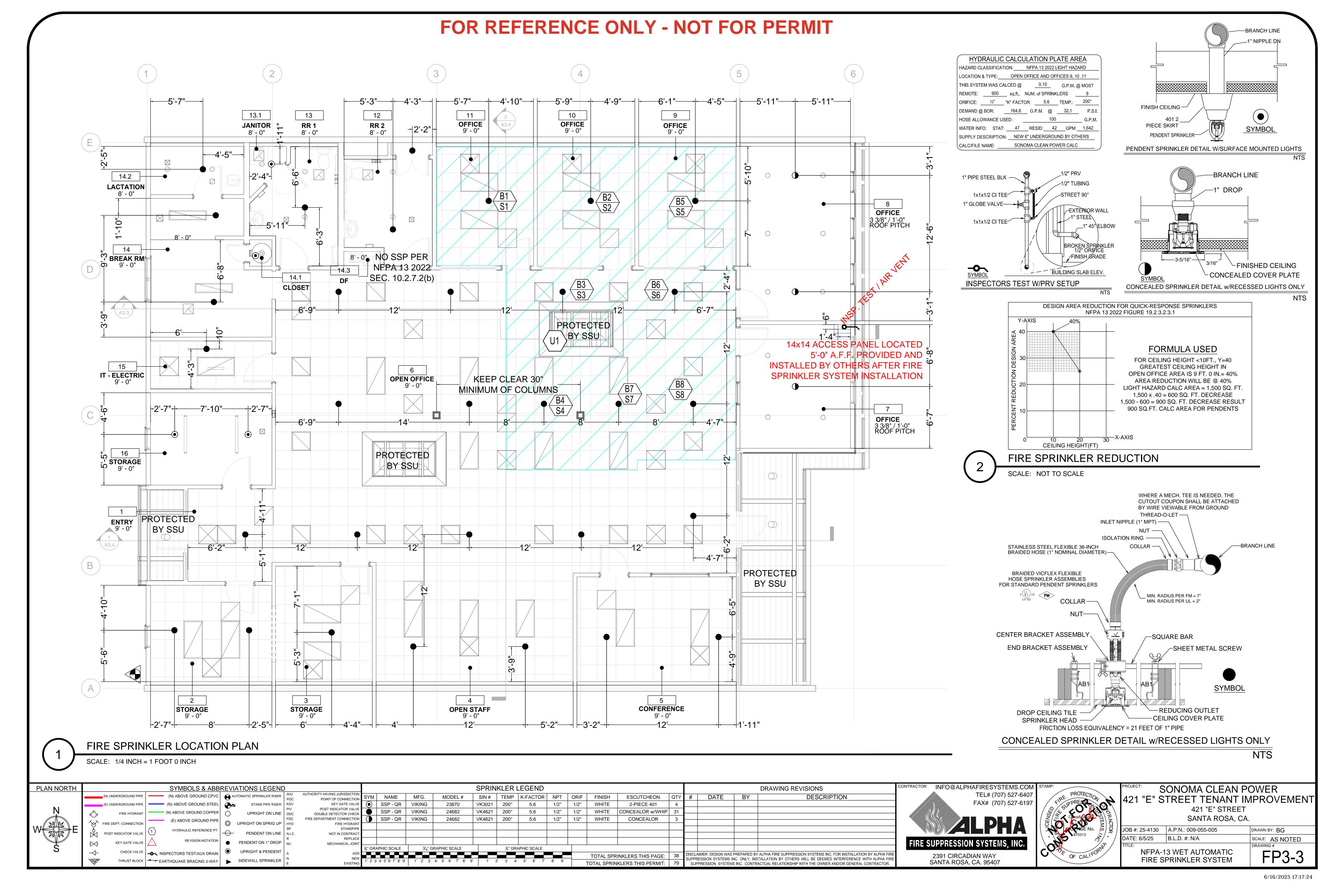
ORIGINAL DATE:

AND PANEL SCHEDULES

© AXIA ARCHITECTS

FOR REFERENCE ONLY - NOT FOR PERMIT **OVERHEAD SYSTEM GENERAL NOTES** 1. SCOPE OF WORK CONSISTS OF DESIGNING, INSTALLING, AND PROVIDING A NEW WET-PIPE AUTOMATIC FIRE SUPPRESSION SYSTEM DURING REMODEL OF AN EXISTING WOOD STRUCTURE OFFICE BUILDING. 2. THE DESIGN, EQUIPMENT, MATERIALS, INSTALLATION AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION (AHJ) AND THE NFPA 13 2022 EDITION. 2.1. FOR AREAS WITH BLACK STEEL NOTED, ALL MATERIALS SHALL BE NEW AND UL LISTED AND/OR FACTORY MUTUAL APPROVED PER THE STANDARD OF OCCUPANCY AND CONSTRUCTION TYPE. ALL PIPING 1½" AND LARGER SHALL BE SCHEDULE 10 WITH A C-FACTOR OF 120 AND FITTINGS SHALL BE CAST IRON, CLASS 125, ASTM A795, WELDED AND/OR GROOVED. ALL PIPING 1" AND SMALLER SHALL BE SCHEDULE 30 WITH A C-FACTOR OF 120 AND FITTINGS SHALL BE CAST IRON, CLASS 125, ANSI/ASTM A53, AND 3. DIMENSIONS FOR THE AUTOMATIC FIRE SPRINKLERS AND RELATED PIPING LOCATIONS APPLIES TO THE GENERAL ARRANGEMENT OF THE SYSTEM ONLY. THE APPROVED LOCATIONS SHALL BE COORDINATED AND VERIFIED WITH OTHER TRADES. ANY DEVIATIONS FROM APPROVED PLANS SHALL BE REVIEWED BY ARCHITECT AND OR OWNER FOR APPROVAL, PRIOR TO COMMENCEMENT OF WORK. 4. NFPA 13 (2022) SEC. 29.2.1.1 UNLESS PERMITTED BY 29.2.1.3 THROUGH 29.2.1.6, ALL PIPING AND ATTACHED APPURTENANCES SUBJECTED TO SYSTEM WORKING PRESSURE SHALL BE HYDROSTATICALLY TESTED AT 200 PSI (14 BAR) AND SHALL MAINTAIN THAT PRESSURE WITHOUT LOSS FOR 2 HOURS.THIS IS TO BE WITNESSED BY THE AUTHORITY HAVING JURISDICTION. 5. NFPA 13 (2022) SEC. 16.2.7.5 THE STOCK OF SPARE SPRINKLERS SHALL INCLUDE ALL TYPES AND RATINGS INSTALLED AND SHALL BE AS 1. for protected facilities having under 300 sprinklers- no fewer than six sprinklers 2. for protected facilities having under 300 to 1000 sprinklers- no fewer than 12 sprinklers 3. for protected facilities having over 1000 sprinklers- no fewer than 24 sprinklers THERE SHALL BE A MINIMUM OF TWO SPRINKLERS OF EACH TYPE TO BE LOCATED IN A SPARE SPRINKLER HEAD BOX, TO BE WITNESSED BY AUTHORITY HAVING JURISDICTION. 6. NFPA 13 (2022) SEC. 16.17 AS REQUIRED BY A.16.11.2 APPROVED IDENTIFICATION SIGNS SHALL BE PROVIDED FOR ALL ALARM DEVICES (E) TOP OF WALL AND SERVICING EQUIPMENT THAT THEY ARE SUBJECT TOO. THE SIGN FOR THE FIRE ALARM BELL SHOULD BE WORDED AS FOLLOWS: SPRINKLER FIRE ALARM - WHEN BELL RINGS CALL FIRE DEPARTMENT 7. WHERE ADDITIONAL FREEZE PROTECTION HAS BEEN ADDRESSED, IT SHALL BE INSTALLED AND MAINTAINED BY OTHERS AND OWNER AT A MINIMUM TEMPERATURE OF 40 DEGREES. 1' MAX. SUPERVISORY AND MONITORING OF THE FIRE SUPPRESSION SYSTEM IS DONE BY OTHERS. ALL ELECTRIC DEVICES SHOWN SHALL BE WIRED BY OTHERS PER MANUFACTURE/AUTHORITY REQUIREMENTS. 11' - 10 3/4" AS PER HEALTH AND SAFETY CODE SECTION 13110, A CERTIFICATION CARD IS REQUIRED FOR FIRE SPRINKLER PIPE FITTERS. AT LEAST ONE CERTIFIED FITTER SHALL BE PRESENT ON SITE. IF NO CERTIFIED PIPE FITTER IS PRESENT ON SITE, A NOTICE OF VIOLATION OR CORRECTION ORDER MAY BE ISSUED. IF THE NOTICE OF CORRECTION IS NOT CORRECTED WITHIN 72 HOURS OF ISSUANCE, THE CAL FIRE - OSFM OR AHJ IS AUTHORIZED TO ISSUE A STOP WORK ORDER. HIGH PERFORMANCE INTUMESCENT FIRESTOP (H. P. I. F.) PROJECT DATA RATED WALL ASSEMBLY (UL/ULC CLASSIFIED L500 SERIES) OCCUPANCY GROUP: "B" - OFFICE (1-HR. / 2-HR. FIRE RATING) TOTAL BUILDING AREA: 4,179 SQ. FT. (NOT SHOWN) WOOD STUDS TO CONSIST OF BREAK RIV BUILDING HEIGHT: 15'-0" NOMINAL 2"x4" LUMBER, STEEL STUDS TO BE **BUILDING STORIES: 1** MINIMUM 2-1/2" WIDE. TYPE OF CONSTRUCTION: TYPE V-B NON-RATED PENETRATING TO BE ONE OF FOLLOWING: (E) GROUND A. MAX. 30" NOM. DIAM. STEEL PIPE (SCH.10) B. MAX. 30" NOM. DIAM. CAST IRON PIPE SPRINKLERED: NO HILTI FS-ONE H. P. I. F. WUI FIRE AREA: NO A. MIN. 5/8" FOR 1-HR FIRE RATING FLOOD ZONE: ZONE "X" B. MIN. 1 1/4" DEPTH FOR 2-HR FIRE RATING MIN. 1/2" BEAD HILTI FS-ONE H. P. I. F. SEALANT AT POINT OF CONTACT RISK CATEGORY: II HOUR RATED WALL NOTES: SITE CLASS (SEISMIC): D 12FT IN HEIGHT MAX NOTES: 1. MAXIMUM DIAMETER OF OPENING A. 32-1/4" FOR STEEL STUD WALL B. 14-1/2" FOR WOOD STUD WALL SEISMIC DESIGN CATEGORY: E FIRE SPRINKLER SECTION PLAN SPECIAL WIND REGION: C RATED WALL ASSEM. 2. ANNULAR SPACE = MIN 0", MAX 2 1/2" SNOW LOADS: N FULL HEIGHT SCALE: 1/4 INCH = 1 FOOT 0 INCH METAL PIPE THRU GYP WALL (18) TO WET-PIPE SYSTEM (17) ELECTRIC HORN STROBE BY OTHERS 16 3" FLOW SWITCH (15) N/A (14) 3" GRV 90° ELBOW (13) N/A MAIN **EXISTING DOMESTIC WATER SERVICE SHALL BE TERMINATED** AT THE WATER MAIN PURSUANT TO APPLICABLE (11) CALCULATION PLATE C-900 WATER CITY STANDARDS AND REALIGN WATER SERVICE WITH COMBINATION SERVICE CITY STANDARD 870. (10) 3" RISER CHECK VALVE 9) 11/4" ANGLE DRAIN VALVE (8) 11/4" SCH. 30 DOWN TO CONCRETE SPLASH BLOCK PROVIDED BY OTHERS (6) WATER GAUGES (5) N/A (4) 3" SCH. 10 (3) 3" GROOVE FLEX COUPLING NEW WATER SERVICE SHALL B COMBINATION TYPE PURSUANT TO (2) 3"x1-0 FLGxGRV CITY STANDARD 870. NO FIRE HYDRANT REQUIRE (1) 6" SUPPLY BY OTHERS PER FIRE DEPARTMENT 6" DI /UG1\/BF2\ BF1/UG2/ 6" DI 1'-0" BY ALPHA FIRE ~40'-0" ~40'-0" FIRE SPRINKLER SITE PLAN, SHOWN FOR HYDRAULIC REFERENCE ONLY, ALL WORK PERMITTED AND DONE BY OTHERS FIRE SPRINKLER RISER DETAIL SCALE: 1/8 INCH = 1 FOOT 0 INCH SCALE: NOT TO SCALE CONTRACTOR: INFO@ALPHAFIRESYSTEMS.COM GENERAL CONTRACTOR: SONOMA CLEAN POWER PLAN NORTH DRAWING REVISIONS SANTA ROSA FIRE DEPARTMENT TEL# (707) 527-6407 AUTHORITY HAVING JURISDICT DESCRIPTION (N) UNDERGROUND PIPE (N) ABOVE GROUND CPVC 421 "E" STREET TENANT IMPROVEMENT POINT OF CONNECTIO 1/8" GRAPHIC SCALE DDRESS: N/A FAX# (707) 527-619 2373 CIRCADIAN WAY KEY GATE VALVE 421 "E" STREET SANTA ROSA, CA. 95407 (N) ABOVE GROUND COPPER DOUBLE DETECTOR CHECK 707-543-3500 N/A SANTA ROSA, CA. FIRE DEPARTMENT CONNECTION O UPRIGHT ON SPRIG UP HYD 3/6" GRAPHIC SCALE JOB #: 25-4130 | A.P.N.: 009-055-005 DRAWN BY: BG POST INDICATOR VALVE SANTA ROSA WATER DEPARTMENT **AXIA ARCHITECTS** DATE: 6/5/25 B.L.D. #: N/A SCALE: AS NOTED FIRE SUPPRESSION SYSTEMS, INC PENDENT ON 1" DROP KEY GATE VALVE MECHANICAL JOIN ADDRESS: 540 MENDOCINO AVENUE SANTA ROSA, CA. 95401 NFPA-13 WET AUTOMATIC CHECK VALVE NSPECTORS TEST/AUX DRAIN UPRIGHT & PENDENT OF CALIFOR SCLAIMER: DESIGN WAS PREPARED BY ALPHA FIRE SUPPRESSION SYSTEMS INC. FOR INSTALLATION BY ALPHA FIR 2391 CIRCADIAN WAY SANTA ROSA, CA. 95407 707-542-4652 UPPRESSION SYSTEMS INC. ONLY, INSTALLATION BY OTHERS WILL BE DEEMED INTERFERENCE WITH ALPHA FIRE FIRE SPRINKLER SYSTEM SIDEWALL SPRINKLER THRUST BLOCK EARTHQUAKE BRACING 2-WAY CONTACT: DOMENIC JORGENSON CONTACT: GREGG RAKE SUPPRESSION SYSTEMS INC. CONTRACTUAL RELATIONSHIP WITH THE OWNER AND/OR GENERAL CONTRACTOR.





FOR REFERENCE ONLY - NOT FOR PERMIT

Encroachment Plans

Sonoma Clean Power Authority

421 E Street

Santa Rosa, California

Abbreviations List

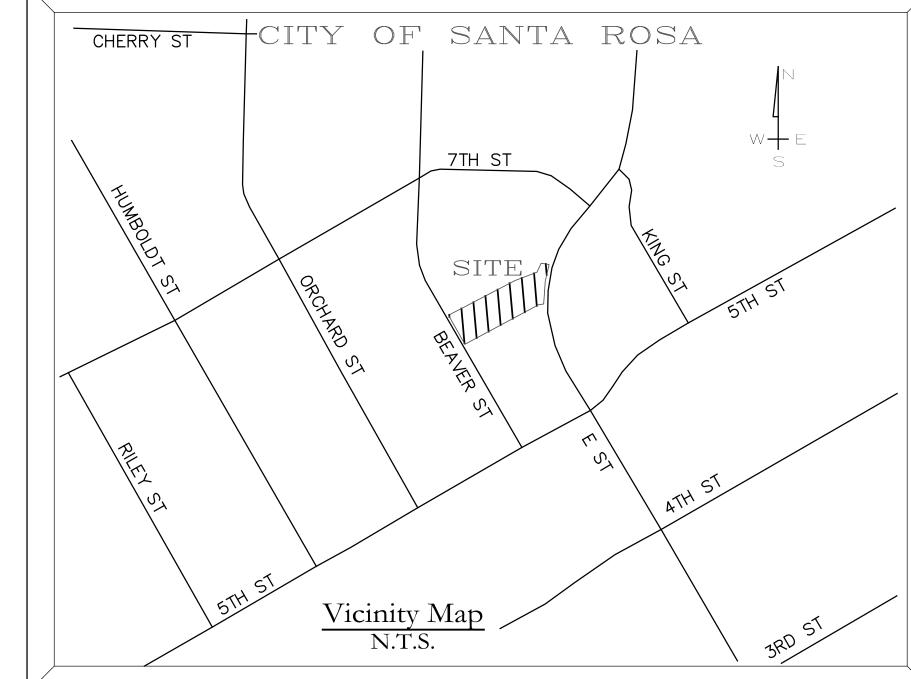
A	ACRES	LF	LINEAR FEET
A/E	ALARM/ELECTRIC	MAX	MAXIMUM
BLDG	BUILDING	MIN	MINIMUM
BM	BENCHMARK	N	NEW
BO	BLOWOFF	NIC	NOT IN CONTRACT
BSW	BACK OF SIDEWALK	N.T.S	NOT TO SCALE
BW	BOTTOM OF WALL	O.C.	ON CENTER
CI	CURB INLET	O/H	OVERHEAD
CL	CENTERLINE	P	PACIFIC GAS AND ELECTRIC COMPANY
CMP	CORRUGATED METAL PIPE	PERC	PERCOLATION
CO	CLEANOUT	PG&E	PACIFIC GAS AND ELECTRIC COMPANY
COSR	CITY OF SANTA ROSA	PL	PROPERTY LINE
CONC	CONCRETE	PRIM	PRIMARY
CP	CONTROL POINT	PUE	PUBLIC UTILITY EASEMENT
DI	DROP INLET	PVC	POLYVINYL CHLORIDE PIPE
DIA	DIAMETER	RC	RELATIVE COMPACTION
DIA	DAYLIGHT	RCE	REGISTERED CIVIL ENGINEER
DWG	DRAWING	RCP	REINFORCED CONCRETE PIPE
D/W	DRIVEWAY	RE	REGISTERED ENGINEER
D/ W DS	DOWNSPOUT	R/W	RIGHT OF WAY
E E	EXISTING	S.A.D.	SEE ARCHITECTS DRAWINGS
EG	EXISTING EXISTING GRADE	S.A.D. S.A.R.	SONOMA COUNTY RECORDS
ELEV	ELEVATION	S.A.K. SD	STORM DRAIN
ELEC	ELECTRIC	S	SLOPE
ELEC	ELECTRIC METER	STA.	STATION
ESMT	EASEMENT	STA. STD	STANDARD
EXP	EXPANSION	T/B	TOP OF BANK
FF	FINISH FLOOR	TOE	TOE OF BANK
FG	FINISH GRADE	TR	TRAFFIC SIGNAL
FL	FLOWLINE	TS	
FND	FOUND		TOP OF SLAB (OR SIDEWALK) TELEVISION/CABLE
GB	GRADE BREAK	TV	
GB GM		TW	TOP OF WALL
GW GV	GAS WALVE	TYP.	TYPICAL
HP	GAS VALVE	SBC	SOUTHWESTERN BELL CORPORATION
	HIGH POINT	SD	STORM DRAIN
H/C	HANDICAP	SDMH	STORM DRAIN MANHOLE
HV	HIGH VOLTAGE	SL	STREET LIGHT
IG	INVERT GRADE	SSMH	SANITARY SEWER MANHOLE
INV	INVERT	UK	UNKNOWN
IP ID	IRON PIPE	USP	UNDER SEPARATE PERMIT
JP	JOINT POLE	WM	WATER METER
L	LINE	WV	WATER VALVE

Project Description

APN: 009-055-005

The purpose of this encroachment plan is for the construction of new storm water lines from downspouts and daylighting through street curbs on Beaver Street and E Street. We will also connect a new fire service from the existing water main in Beaver Street. This plan will outline the necessary earthworks and drainage systems to direct water away from structures, prevent erosion, and comply with local regulations.

> DISTURBED AREA 0.02 ACRES



OWNER:

421 E Street LLC

421 E St Santa Rosa, California 95404 T: 707-486-4592

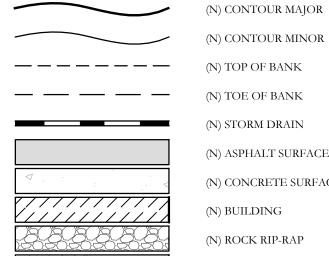
LANDSCAPE TREE

CIVIL ENGINEER:

Huffman Engineering & Surveying Rob Huffman, P.E.

537 College Ave. Suite A Santa Rosa, CA 95404 T: 707.542.6559 F: 707.521.0411 E: rob@huffmanengineering.net

LEGEND

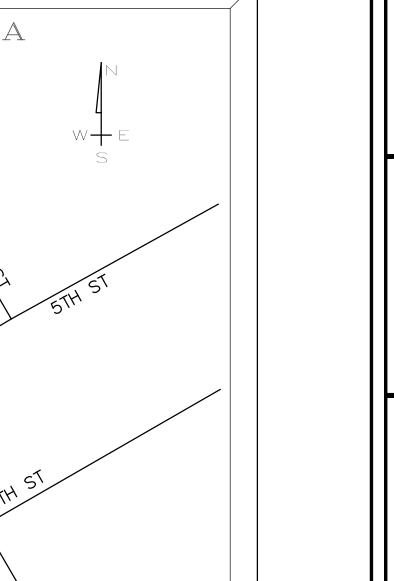


(N) STORM DRAIN (N) ROCK RIP-RAP

(N) ASPHALT SURFACE (N) CONCRETE SURFACE (N) GRAVEL SURFACE

Sheet Index

SHEET #	DESCRIPTION	
1	TITLE SHEET	
2	NOTES	
3	SITE	
4	ENCROACHMENT PLAN	
5	ENCROACHMENT PLAN 2	
6	PROFILES	
7	DETAILS	
8	DETAILS 2	
9	EROSION CONTROL PLAN	
10	TRAFFIC CONTROL PLAN	



Huffman Engineering

& Surveying

Santa Rosa, Ca. 95404

P:(707) 542-6559

Scale: N.T.S. Fil25-001-ENC

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- 2. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL CONSTRUCTION PERMITS REQUIRED BY THE CITY OF SANTA ROSA (SUCH AS ENCROACHMENT, GRADING, BUILDING, DEMOLITION ETC.) PRIOR TO COMMENCEMENT OF WORK.
- 3. AN ENCROACHMENT PERMIT MUST BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS PRIOR TO BEGINNING ANY WORK WITHIN THE PUBLIC RIGHT-OF- WAY. A TRAFFIC CONTROL PLAN MUST BE SUBMITTED FOR APPROVAL PRIOR TO BEGINNING ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- 4. THE CONTRACTOR SHALL OBTAIN A DE-WATERING PERMIT FROM THE NORTH COAST REGIONAL WATER QUALITY CONTROL BOARD FOR DE-WATERING OPERATIONS THAT ARE USED TO MANAGE THE REMOVAL OF GROUND WATER FROM EXCAVATIONS AND THEIR DISCHARGE TO THE WATERS OF THE STATE OR THE STORM DRAIN SYSTEM. APPROVAL MUST BE OBTAINED FROM THE CITY OF SANTA ROSA ENVIRONMENTAL COMPLIANCE DIVISION PRIOR TO DISCHARGING GROUNDWATER TO THE SEWER.
- 5. TEMPORARY STOCKPILES SHALL NOT BE LOCATED WITHIN CREEK SETBACK AREAS, PROTECTED VEGETATION/TREE AREAS OR WITHIN 10 FEET OF AN ADJACENT RESIDENTIAL PROPERTY LINE. STOCKPILES TALLER THAN 2.5 FEET SHALL NOT BE WITHIN 50 FEET OF AN ADJACENT RESIDENTIAL PROPERTY LINE.
- 6. TEMPORARY STOCKPILES MUST BE REMOVED BY COMPLETION OF GRADING ACTIVITIES UNLESS A SEPARATE TEMPORARY USE PERMIT AND GRADING PERMIT IS OBTAINED FOR THE STOCKPILE.
- 7. RAIN WATER LEADERS AND ROOF DRAINS ARE TO BE CONNECTED BY DEVELOPER TO STORM DRAIN SYSTEM OR SPLASH BLOCK. SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND SIZES. NO CONCENTRATED LOT DRAINAGE SHALL FLOW ACROSS SIDEWALKS.
- 8. CONTRACTOR SHALL SECURE A TRENCH PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO EXCAVATION OF ANY TRENCH OVER FIVE FEET IN DEPTH.
- 9. IF CONTAMINATED MATERIAL IS ENCOUNTERED DURING CONSTRUCTION, WORK MUST STOP UNTIL A WORK PLAN HAS BEEN APPROVED IN WRITING BY THE CITY FIRE DEPARTMENT AND THE STATE REGIONAL WATER QUALITY CONTROL BOARD (NCRWQCB). HAZARDOUS MATERIAL SHALL BE REMOVED AND DISPOSED OF ACCORDING TO THE REQUIREMENTS OF THE CITY'S FIRE DEPARTMENT. THE APPLICANT IS REQUIRED TO DEMONSTRATE COMPLIANCE WITH STATE AND LOCAL CODES FOR REMOVAL OF ASBESTOS CONTAINING MATERIALS DURING DEMOLITION OF THE STRUCTURES ON THE PROJECT SITE.
- 10. ALL TRENCH SPOILS SHALL BE REMOVED AS THEY ARE GENERATED OR DISPOSED OF ON SITE AS REQUIRED BY THE GRADING PERMIT. EXCESS/UNSUITABLE MATERIAL DISPOSED OF OFFSITE AT AN APPROVED LOCATION BY ENGINEERING DEVELOPMENT SERVICES. CONTAIN AND SECURELY PROTECT STOCKPILED TRENCH BACKFILL AND WASTE MATERIAL FROM WIND AND RAN AT ALL TIMES UNLESS ACTIVELY BEING USED. DO NOT BLOCK STORM WATER FLOWS.
- 11. ALL UNDERGROUND IMPROVEMENTS INCLUDING SEWER LINES, WATER LINES, STORM DRAINS, PUBLIC UTILITY FACILITIES, AND SERVICES SHALL BE INSTALLED, TESTED, AND ACCEPTED BY THE UTILITIES AND PUBLIC WORKS DEPARTMENTS PRIOR TO PAVING. TRENCH PAVING FOR ALL UTILITIES SHALL BE COORDINATED AND INSTALLED AT THE SAME TIME.
- 12. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONSTRUCTION CONTRACTOR FURTHER AGREES TO HOLD HARMLESS, INDEMNIFY AND DEFEND THE DESIGN PROFESSIONAL, THE OWNER AND THEIR CONSULTANTS, AND THE CITY OF SANTA ROSA, AND EACH OF THEIR OFFICERS, EMPLOYEES, AND AGENTS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.
- 13. THE LOCATIONS OF UNDERGROUND OBSTRUCTIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY AND SHOULD NOT BE TAKEN AS FINAL OR ALL INCLUSIVE. THE CONTRACTOR IS CAUTIONED THAT THE DRAWINGS MAY NOT INCLUDE ALL EXISTING UTILITIES INCLUDING SEWERS AND STORM DRAINS PRIOR TO ANY TRENCHING TO ALLOW THE ENGINEER TO VERIFY THE GRADE AND ALIGNMENT OF THE UTILITIES, AND VERIFY DESIGN ASSUMPTIONS AND EXACT FIELD LOCATION. EXISTING UTILITIES MAY REQUIRE RELOCATION AND /OR PROPOSED IMPROVEMENTS MAY REQUIRE GRADE OR ALIGNMENT REVISION DUE TO FIELD CONDITIONS.
- 14. THE CONTRACTOR SHALL EXPOSE ALL EXISTING UTILITIES INCLUDING SEWERS AND STORM DRAINS PRIOR TO ANY TRENCHING TO ALLOW THE ENGINEER TO VERIFY THE GRADE AND ALIGNMENT OF THE UTILITIES, AND TO VERIFY DESIGN ASSUMPTIONS AND EXACT FIELD LOCATION. EXISTING UTILITIES MAY REQUIRE RELOCATION AND/OR PROPOSED IMPROVEMENTS MAY REQUIRE GRADE OR ALIGNMENT REVISION DUE TO FIELD CONDITIONS.
- 15. UNDERGROUND FACILITIES NOT SHOWN ON THESE DRAWINGS SUCH AS PG&E, TELEPHONE, TV, IRRIGATION, ETC. SHALL BE COORDINATED AND CONSTRUCTED PRIOR TO PLACEMENT OF BASE ROCK AND PAVING.
- 16. CONTRACTOR IS RESPONSIBLE FOR PRESERVATION AND/OR PERPETUATION OF ALL EXISTING SURVEY MONUMENTS (CURB TAGS, IRON PIPES, CENTERLINE WELL DISKS, ETC). IF THE CONTRACTOR SUSPECTS THAT WORK WILL BE CONDUCTED IN AN AREA WHICH MAY RESULT IN THE DISTURBANCE OF SURVEY MONUMENTS, THE CONTRACTOR SHALL RETAIN THE SERVICES OF A LICENSED PROFESSIONAL AUTHORIZED TO PRACTICE LAND SURVEYING TO LOCATE SAID MONUMENTS PRIOR TO DISTURBANCE, RE-ESTABLISH MONUMENTS WHICH HAVE BEEN DISTURBED AS A RESULT OF CONSTRUCTION AND FILE THE APPROPRIATE DOCUMENTATION WITH THE COUNTY ONCE THE MONUMENTS ARE RESET. CONTRACTOR SHALL PROVIDE A MINIMUM OF 10 (TEN) WORKING DAYS NOTICE TO THE ENGINEER/SURVEYOR PRIOR TO DISTURBANCE OR REMOVAL OF EXISTING MONUMENTS. CONTRACTOR SHALL PROVIDE THE CITY WITH A MONUMENT CERTIFICATION LETTER FROM THE ENGINEER/SURVEYOR STATING THAT THE EXISTING MONUMENTS HAVE BEEN IDENTIFIED AND LOCATED PRIOR TO REMOVAL.

GENERAL NOTES CONTINUE:

- 17. CONSTRUCTION HOURS SHALL BE LIMITED FROM 7 AM TO 7 PM MONDAY THROUGH SATURDAY, EXCLUDING HOLIDAYS. THIS RESTRICTION INCLUDES THE START UP OF ANY MOTORIZED EQUIPMENT. ALL CONTRACTORS' EQUIPMENT SHALL BE PROPERLY MUFFLED AND SHALL BE SHUT DOWN WHEN NOT IN USE. (HOURS ARE SUBJECT TO THE CONDITIONS OF APPROVAL)
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING DAMAGE OR DETERIORATION OCCURRING TO EXISTING PUBLIC IMPROVEMENTS AS A DIRECT RESULT OF CONSTRUCTION ACTIVITY (GRADING, ROAD CONSTRUCTION, UTILITY INSTALLATION, ETC.). REPAIR MAY REQUIRE PATCHING, SEALING OR OVERLAYING AFFECTED AREAS AS APPROPRIATE TO RETURN THE ROADS TO AT LEAST AS GOOD A CONDITION AS THEY WERE PRIOR TO CONSTRUCTION. IF THE CONTRACTOR DOES NOT ACT IN A TIMELY MANNER, THE CITY MAY, AT ITS DISCRETION PERFORM THE CORRECTION AND CHARGE THE CONTRACTOR FOR ALL COSTS AND OVERHEAD INCURRED.
- 19. RECORD DRAWINGS SHALL BE PROVIDED TO THE CITY UPON COMPLETION OF PROJECT AND PRIOR TO FINAL ACCEPTANCE.
- 20. THE CONTRACTOR SHALL KEEP THE WORK SITE, STAGING AREAS AND OTHER AREAS USED BY IT IN A NEAT AND CLEAN CONDITION, AND FREE FROM ANY ACCUMULATION OF TRASH. THE CONTRACTOR SHALL DISPOSE OF ALL TRASH, RUBBISH AND WASTE MATERIALS OF ANY KIND GENERATED BY THE CONTRACTOR. SUBCONTRACTOR OR ANY COMPANY HIRED BY THE CONTRACTOR ON A DAILY BASIS. THE CONTRACTOR SHALL ALSO KEEP HAUL ROADS FREE FROM DIRT, RUBBISH, AND UNNECESSARY OBSTRUCTIONS RESULTING FROM SITE OPERATION. DISPOSAL OF ALL TRASH, RUBBISH AND DEBRIS MATERIALS SHALL BE IN A COVERED WASTE RECEPTACLE OR HAULED OFF SITE, IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES GOVERNING LOCATIONS AND METHODS OF DISPOSAL, AND IN CONFORMANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. WASTE RECEPTACLES SHALL BE COVERED AT THE END OF EVERY DAY AND DURING RAIN
- 21. ENSURE THE CONTAINMENT OF SANITATION FACILITIES (E.G., PORTABLE TOILETS) TO PREVENT DISCHARGES OF POLLUTANTS TO THE STORM WATER DRAINAGE SYSTEM, ROADS OR RECEIVING WATERS. SANITATION FACILITIES MUST BE MAINTAINED PERIODICALLY BY A LICENSED SERVICE COMPANY TO KEEP THEM IN GOOD WORKING ORDER AND PREVENT OVERFLOWS. PORTABLE TOILETS ARE REQUIRED TO HAVE SECONDARY CONTAINMENT.
- 22. EQUIPMENT AND MATERIALS NECESSARY FOR CONTROL OF SPILLS SHALL BE AVAILABLE ON SITE AT ALL TIMES. SPILLS AND LEAKS SHALL BE STOPPED AND THE MATERIAL CLEANED UP IMMEDIATELY AND DISPOSED OF PROPERLY. USE PROPER BEST MANAGEMENT PRACTICES (BMPS) TO PREVENT OIL, GREASE, OR FUEL FROM LEAKING ON THE GROUND, INTO THE STORM DRAINS OR SURFACE WATERS.
- 23. CONTAIN CONCRETE WASHOUT AREAS AND SIMILAR AREAS THAT MAY CONTAIN POLLUTANTS TO PREVENT DISCHARGE INTO THE UNDERLYING SOIL OR ONTO THE SURROUNDING AREAS.
- 24. ESTABLISH AND MAINTAIN EFFECTIVE SITE PERIMETER CONTROLS AND STABILIZE ALL CONSTRUCTION ENTRANCES AND EXITS TO SUFFICIENTLY CONTROL EROSION AND SEDIMENT DISCHARGES AND TRACKED MATERIALS FROM LEAVING THE SITE. AT A MINIMUM DAILY AND PRIOR TO ANY RAIN EVENT. THE CONTRACTOR SHALL REMOVE ANY SEDIMENT OR OTHER CONSTRUCTION ACTIVITY RELATED MATERIALS THAT ARE DEPOSITED ON THE ROADS (BY VACUUMING OR SWEEPING).
- 25. PLACE EQUIPMENT OR VEHICLES, WHICH ARE BEING FUELED, MAINTAINED AND STORED, IN A DESIGNATED AREA FITTED WITH APPROPRIATE BMPS.
- 26. AT A MINIMUM. ALL BMPS WILL BE INSPECTED. EACH WORKING DAY AND BEFORE ALL RAIN EVENTS. BMPS THAT REQUIRE MAINTENANCE OR REPLACEMENT TO FUNCTION PROPERLY SHALL BE COMPLETED BEFORE THE NEXT FORECASTED RAIN, OR WITHIN THE NEXT 3 WORKING DAYS IF NO RAIN IS PREDICTED. MAINTENANCE INCLUDES REMOVAL OF ACCUMULATED SEDIMENT AND TRASH.
- 27. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN ALL APPLICABLE BMPS LISTED IN THE EROSION CONTROL AND /OR STORM WATER POLLUTION PREVENTION PLAN.
- 28. ADA COMPLIANCE: CONSTRUCTION CONTRACTOR MUST COMPLY WITH THE REQUIREMENTS OF THE AMERICAN WITH DISABILITIES ACT (ADA) WHILE WORKING IN THE PUBLIC RIGHT-OF-WAY IF CONSTRUCTION CONTRACTOR'S WORK IN THE PUBLIC RIGHT-OF-WAY WILL AFFECT PEDESTRIAN ACCESS, THE CONSTRUCTION CONTRACTOR IS REQUIRED TO PROVIDE A PROPERLY SIGNED ACCESSIBLE ROUTE OF TRAVEL. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- 29. ALL GANG MAIL BOXES SHALL BE INSTALLED BEHIND THE SIDEWALK AND OUT OF THE RIGHT-OF-WAY.
- A) THE LOCATION AND INSTALLATION OF ALL MAIL BOXES SHALL BE COORDINATED BETWEEN THE DEVELOPER AND THE US POSTAL SERVICE.
- B) MAIL BOXES CONFORMING TO CITY STANDARD 271 MAY BE INSTALLED IN THE

IMPROVEMENTS SHALL INCLUDE THE FOLLOWING:

CERTIFY THE TYPE AND AMOUNT OF LAS ADDED

- RIGHT-OF-WAY. C) THE CHOICE TO USE A CITY STANDARD 271 OR A GANG MAIL BOX WILL BE AT THE
- DISCRETION OF THE DEVELOPER. 30. SECTION 39 ASPHALT CONCRETE OF THE CITY CONSTRUCTION SPECIFICATIONS FOR PUBLIC
- A) LIQUID ANTI-STRIPPING AGENT (LAS) SHALL BE ADDED TO THE ASPHALT BINDER AT A RATE OF 0.5% BY WEIGHT OF ASPHALT BINDER. THE LAS SHALL BE AD-HERE LOF 65-00 OR EQUIVALENT, AND SHALL BE STORED, MEASURED AND BLENDED IN ACCORDANCE WITH THE LAS MANUFACTURER'S RECOMMENDED PRACTICE. THE LAS CAN BE ADDED TO THE ASPHALT BINDER AT THE ASPHALT PLANT OR AT THE REFINERY. WHEN ADDED AT THE ASPHALT PLANT, THE EQUIPMENT SHALL INDICATE AND RECORD THE AMOUNT OF LAS ADDED. IF ADDED AT THE REFINERY, THE SHIPPING TICKET FROM THE REFINERY SHALL
- 31. THE ASPHALT CONCRETE MIXTURE FOR ASPHALT CONCRETE SURFACE AND ASPHALT CONCRETE BASE SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
- A) MINIMUM TENSILE STRENGTH RATIO (TSR) OF 70, AND A MINIMUM DRY TENSILE STRENGTH OF 65 POUNDS PER SQUARE INCH, BASED ON AASHTO T 283-07.
- B) AT ANY TIME DURING THE FIRST 12 MONTHS FROM THE TIME OF PLACEMENT OF THE ASPHALT CONCRETE, THE SURFACE SHALL BE VISUALLY INSPECTED BY THE CITY. IF SIGNS OF STRIPPING OF BINDER FROM AGGREGATE OR LOSS OF AGGREGATE IS APPARENT, THE CITY SHALL CORE THE ASPHALT CONCRETE SURFACE. THE CORE SAMPLES SHALL BE PREPARED PER THE METHOD FOR FIELD- MIXED, LABORATORY-COMPACTED SPECIMENS AND TESTED FOR TSR. ASPHALT CONCRETE WITH A TSR LESS THAN 70 SHALL BE REMEDIATED AS REQUIRED BY THE CITY ENGINEER.
- 32. PERMANENT MONUMENTS AS SHOWN ON THE PLANS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE STANDARD PLANS AFTER COMPLETION OF THE STREET IMPROVEMENTS AND STAKED IN THE FIELD BY THE ENGINEER OR SURVEYOR.

FOR REFERENCE ONLY - NOT FOR PERMIT

- 33. ENGINEER/SURVEYOR SHALL COORDINATE WITH THE CONTRACTOR TO RESET MONUMENTS OR PROVIDE PERMANENT WITNESS MONUMENTS AND FILE THE REQUIRED DOCUMENTATION WITH THE COUNTY SURVEYOR, PURSUANT TO BUSINESS AND PROFESSIONS CODE SECTION 8771.
- 34. THE DEVELOPER ASSUMES ALL RESPONSIBILITY FOR THE APPROVAL OF MAILBOX LOCATIONS BY THE LOCAL BRANCH OF THE UNITED STATES POSTAL SERVICE
- 35. IN THE EVENT THAT ANY REMAINS OF PREHISTORIC OR HISTORIC HUMAN ACTIVITIES ARE ENCOUNTERED DURING PROJECT-RELATED ACTIVITIES, WORK IN THE IMMEDIATE VICINITY OF THE FINDS SHALL HALT AND THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT SUPERINTENDENT AND THE CITY OF SANTA ROSA INSPECTOR. WORK SHALL NOT RESUME UNTIL A QUALIFIED ARCHAEOLOGIST OR HISTORIC ARCHAEOLOGIST, AS APPROPRIATE, APPROVED BY THE CITY OF SANTA ROSA, HAS EVALUATED THE SITUATION AND MADE RECOMMENDATIONS FOR TREATMENT OF THE RESOURCE, AND WHOSE RECOMMENDATIONS ARE CARRIED OUT. IF HUMAN BURIAL REMAINS ARE ENCOUNTERED, THE CONTRACTOR MUST ALSO CONTACT THE COUNTY CORONER.
- 36. SEWER AND/OR WATER CONNECTIONS TO EXISTING RESIDENCES REQUIRE A PLUMBING PERMIT FROM THE CITY BUILDING DIVISION.
- 37. ANY ONSITE DRAINAGE SYSTEMS PROPOSED FOR CUSTOM LOTS SHALL BE SHOWN ON THE SITE PLAN SUBMITTED FOR REVIEW WITH THE LOTS BUILDING PERMIT APPLICATION.

EROSION AND SEDIMENT CONTROL NOTES:

- 1. EROSION AND SEDIMENT CONTROL SHOWN ON THIS SHEET ASSUMES STREET, CURB, GUTTER AND STORM DRAINS ARE COMPLETED PRIOR TO RAINS. PROJECT ENGINEER SHALL PREPARE INTERIM DRAINAGE AND EROSION AND SEDIMENT CONTROL PLAN BASED ON WINTER CONDITIONS FOR CITY APPROVAL PRIOR TO CONTRACTOR INSTALLATION. A CURRENT EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED AND KEPT ON THE JOB SITE.
- 2. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE USED TO ENSURE THAT WATER ENTERING THE STORM DRAIN SYSTEM FROM THE CONSTRUCTION SITE IS OF EQUIVALENT QUALITY AND CHARACTER AS THE WATER ABOVE THE SITE.
- 3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PLACED IN FRONT OF INCOMPLETE STORM DRAIN SYSTEMS TO PREVENT DEBRIS ANDSEDIMENT-LADEN WATER FROM ENTERING INTO THE PUBLIC STORM DRAIN SYSTEM. BEST MANAGEMENT PRACTICES SHALL BE USED WHEN DESIGNING AND INSTALLING SUCH DEVICES.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTANT MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES AT ALL TIMES TO THE SATISFACTION OF THE ENGINEER AND CITY OF SANTA ROSA AND IN ACCORDANCE WITH THE PROJECT SWPPP (IF APPLICABLE). EROSION AND SEDIMENT CONTROL MEASURES AND THEIR INSTALLATION SHALL BE ACCOMPLISHED USING BEST MANAGEMENT PRACTICES.
- 5. IF THE STORM DRAIN SYSTEM IS NOT IN PLACE BY OCTOBER 15, ADDITIONAL MEASURES SHALL BE TAKEN SUCH AS TEMPORARY SETTLING BASINS WHICH MEET THE SATISFACTION OF THE ENGINEER AND THE CITY OF SANTA ROSA. SILT AND/OR CATCH BASINS MUST BE CLEANED OUT ON A REGULAR BASIS AFTER STORMS TO MAINTAIN DESIGN CAPACITY.
- 6. STORM WATER RUNOFF FROM THE CONSTRUCTION SITE SHALL BE DIRECTED TOWARD AN INLET WITH A SEDIMENT OR FILTRATION INTERCEPTOR PRIOR TO ENTERING THE STORM DRAIN SYSTEM
- 7. THE CONTRACTOR WILL BE RESPONSIBLE FOR CLEANING WATER THAT HAS BECOME POLLUTED DUE TO NOT TAKING NECESSARY EROSION AND SEDIMENT CONTROL ACTIONS.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP OF MUD AND DEBRIS CARRIED ONTO SURROUNDING STREETS AND ROADS AS A RESULT OF CONSTRUCTION ACTIVITY ON THE SITE TO THE SATISFACTION OF THE CITY OF SANTA ROSA.
- 9. ANY DENUDED OR DISTURBED SOILS SHALL BE PROTECTED USING BEST MANAGEMENT PRACTICES.
- 10. PRIOR TO AND DURING A PRECIPITATION EVENT, ALL PAVED AREAS WILL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED BY THE DEVELOPER, CONTRACTOR OR OWNER SO THAT A MINIMUM OF SEDIMENT-LADEN RUNOFF LEAVES THE
- 11. THE CONTRACTOR SHALL INFORM ALL CONSTRUCTION SITE WORKERS ABOUT THE MAJOR PROVISIONS OF THE EROSION AND SEDIMENT CONTROL PLAN AND SEEK THEIR COOPERATION IN AVOIDING THE DISTURBANCE OF THESE CONTROL MEASURES.
- 12. BEST MANAGEMENT PRACTICES SHALL BE VISUALLY MONITORED ON A WEEKLY BASIS DURING THE DRY SEASON AND RECORDED IN AN INSPECTION CHECKLIST. RAIN EVENT VISUAL MONITORING SHALL BE PERFORMED WITHIN 48 HOURS PRIOR TO AN ANTICIPATED RAIN EVENT, DAILY DURING A RAIN EVENT AND WITH 48 HOURS FOLLOWING A RAIN EVENT. REMOVE SEDIMENT

- WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE BARRIER AND REPLACE FILTER DEVICES AS NECESSARY TO ENSURE PROPER FUNCTION.
- 13. UNSTABLE AREAS WILL BE REPAIRED AS SOON AS POSSIBLE AFTER BEING DAMAGED.
- 14. ALL GRADED OR DISTURBED AREAS SHALL BE STABILIZED IMMEDIATELY AFTER GRADING IS COMPLETE.ENTRANCE TO THE PROJECT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT INTO PUBLIC RIGHT- OF-WAY. WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE OF PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED ROCK THAT DRAINS INTO A SEDIMENT TRAP.
- 15. ALL SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO PUBLIC RIGHTS-OF- WAY SHALL BE REMOVED IMMEDIATELY USING BEST MANAGEMENT PRACTICES.
- 16. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR PURPOSE SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- 17. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REPAIRED OR REPLACED WHEN THEY ARE NO LONGER FUNCTIONING PER BEST MANAGEMENT PRACTICES.
- CONTROL MEASURES ON SITE ADEQUATE TO PROTECT THE ENTIRE SITE PRIOR TO THE OCTOBER 15 DATE SUCH THAT IT IS IMMEDIATELY AVAILABLE IN PREPARATION OF THE UPCOMING WINTER SEASON OR IN THE EVENT OF AN EARLY RAIN.
- 19. AFTER CONSTRUCTION IS COMPLETE ALL STORM DRAIN SYSTEMS ASSOCIATED WITH THIS PROJECT SHALL BE INSPECTED AND CLEARED OF ACCUMULATED SEDIMENTS AND DEBRIS.

EROSION AND SEDIMENT CONTROL NOTES

- 20. ALL PROJECTS DISTURBING OR EXPOSING ONE ACRE OR MORE OF SOIL SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT OF STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES (CGP), ORDER NO. 2009-0009-DWQ. DOCUMENTS AND INSTRUCTIONS CAN BE DOWNLOADED FROM:
 - WWW.SRCITY.ORG/STORMWATERPERMIT. THE DEVELOPER SHALL PROVIDE THE CITY WITH THE WASTE DISCHARGE IDENTIFICATION NUMBER (WDID#) OR WITH VERIFICATION THAT AN EXEMPTION HAS BEEN GRANTED BY REGIONAL WATER QUALITY CONTROL BOARD (RWQCB) FOR PROJECTS DISTURBING OVER ONE ACRE.
- 21. ALL PROJECTS SHALL HAVE A CITY APPROVED EROSION AND SEDIMENT CONTROL PLAN OR A SWRCB STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SPECIFIC FOR THE PROJECT. A COPY SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION. THE EROSION AND SEDIMENT CONTROL PLAN OR SWPPP SHALL BE UPDATED AND KEPT CURRENT AS WORK PROGRESSES AND CONDITIONS CHANGE AND SHALL BE MADE AVAILABLE TO CITY AND SWRCB INSPECTORS WHEN REQUESTED. THE CONTRACTOR

SHALL BE RESPONSIBLE FOR THE PLACEMENT, INSPECTION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES/DEVICES SPECIFIED N THE EROSION AND SEDIMENT CONTROL PLAN UNTIL SUCH TIME THAT THE PROJECT IS ACCEPTED AS COMPLETE OR UNTIL THE NOTICE OF TERMINATION IS FILED FOR THE CONSTRUCTION GENERAL PERMIT.

22. THE EROSION AND SEDIMENT CONTROL PLAN SHALL

EMPHASIZE SOURCE CONTROL AND ADDRESS CONTROLLING WATER AND WIND EROSION. SEDIMENTATION, TRASH AND OTHER POSSIBLE POLLUTANTS USING BEST MANAGEMENT PRACTICES (BMPS). THE PLAN SHALL REFERENCE CASQA "STORM WATER BEST MANAGEMENT PRACTICE HANDBOOK FOR CONSTRUCTION" FOR PROPER BMP SELECTION, INSTALLATION AND MAINTENANCE.THE EROSION AND SEDIMENT CONTROL PLAN SHALL CONTAIN ALL APPLICABLE BMPS AND CONFORM TO ALL REQUIREMENTS LISTED UNDER SECTION E, PART 8 NCRWQCB ORDER NO. 2009-0050-STORM WATER NON-STORM WATER DISCHARGES FROM MUNICIPAL SEPARATE STORM SEWER SYSTEMS, REGULATION STORM WATER RUNOFF FROM THE CITY OF SANTA ROSA AT A MINIMUM. WWW.SRCITY.ORG/STORMWATERPERMIT. THE CONTRACTOR IS TO INFORM ALL CONSTRUCTION SITE WORKERS ABOUT THE MAJOR PROVISIONS OF THE EROSION AND SEDIMENT CONTROL PLAN OR SWPPP.

- 23. TRASH OR MATERIALS DEPOSITED OR TRACKED ONTO THE PUBLIC RIGHT- OF-WAY SHALL BE REMOVED DAILY.
- 24. THE EROSION AND SEDIMENT CONTROL PLAN SHALL INCLUDE A STATEMENT DESCRIBING THE LOCATION OF BMPS AND RATIONALE FOR BMP SELECTION. AS WELL AS A STATEMENT CONFIRMING THAT THE OWNER AND CONTRACTOR ARE AWARE THAT THE SELECTED BMPS MUST BE INSTALLED. MONITORED AND MAINTAINED TO ENSURE THEIR EFFECTIVENESS AND MEET COMPLIANCE WITH LOCAL CODES AND ORDINANCES.
- 18. THE CONTRACTOR SHALL HAVE EROSION AND SEDIMENT 25. THE CITY CONSIDERS DISCHARGES FROM CONSTRUCTION SITES WITH TURBIDITY EXCEEDING 500 NTUS HAVE INADEQUATE LEVEL OF EROSION CONTROL MEASURES/BMPS. IMMEDIATE ASSESSMENT AND CORRECTIVE ACTION IS REQUIRED TO REDUCE TURBIDITY. CONTINUED EXCEEDING TURBIDITY LEVELS WILL BE CONSIDERED A VIOLATION OF CITY ORDINANCE 17-12. PROHIBITING NON-STORM WATER DISCHARGES. ADDITIONALLY, PROJECT SUBJECT TO REGULATION BY THE CGP MAY BE OUT OF COMPLIANCE AND SUBJECT TO ENFORCEMENT ACTION BY THE SWRCB.
 - 26. FAILURE TO IMPLEMENT OR MAINTAIN BMPS AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE CONSIDERED A POTENTIAL NON- STORM WATER DISCHARGE AND A VIOLATION OF CITY ORDINANCE 17-12.
 - 27. AFTER CONSTRUCTION IS COMPLETED ALL STORM DRAIN SYSTEMS IMPACTED BY THIS PROJECT SHALL BE CLEANED OF ACCUMULATED SEDIMENT AND DEBRIS AND INSPECTED. STORM DRAIN CLEANING/FLUSHING WATER SHALL NOT BE DISCHARGED TO THE STORM DRAIN SYSTEM.PERSON TO CONTACT 24 HOURS A DAY IN THE EVENT THERE IS AN EROSION CONTROL/SEDIMENTATION PROBLEM (STORM WATER COMPLIANCE OFFICER): NAME: _

LOCAL PHONE NO. _____

- 28. HYDROSEED SHALL BE EITHER APPLIED MECHANICALLY OR BY HYDROSEEDING. HYDROSEEDING REQUIRES THE APPLICATION OF FIBER AND STABILIZING EMULSION. MECHANICAL APPLICATION SHALL REQUIRE ROLLING, TAMPING, OR OTHERWISE WORKING THE SEED APPROXIMATELY 0.5 INCHES INTO THE TOPSOIL.
- 29. STABILIZATION OF EXPOSED GRADED AREAS WITH STRAW MULCH SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE.

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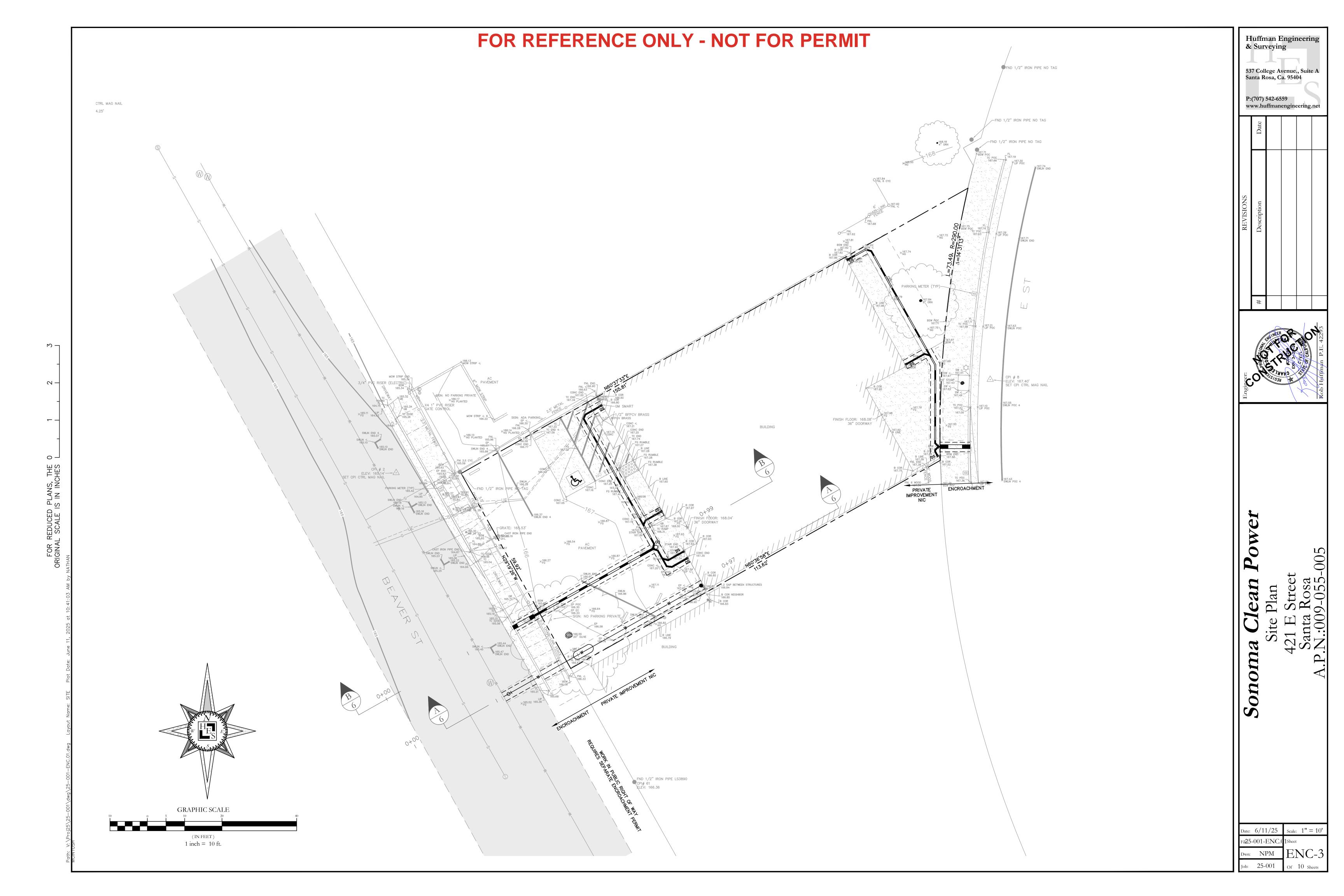
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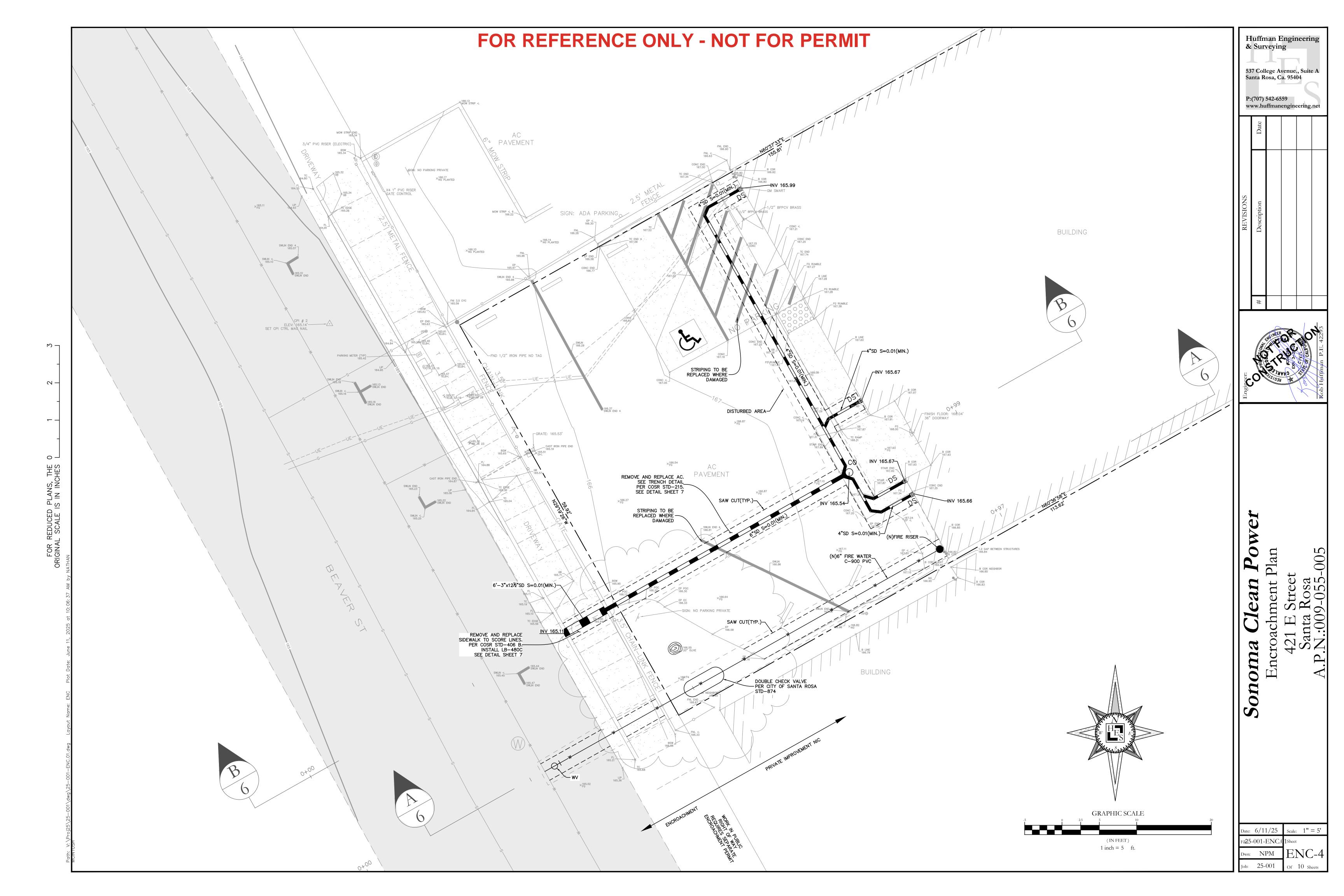


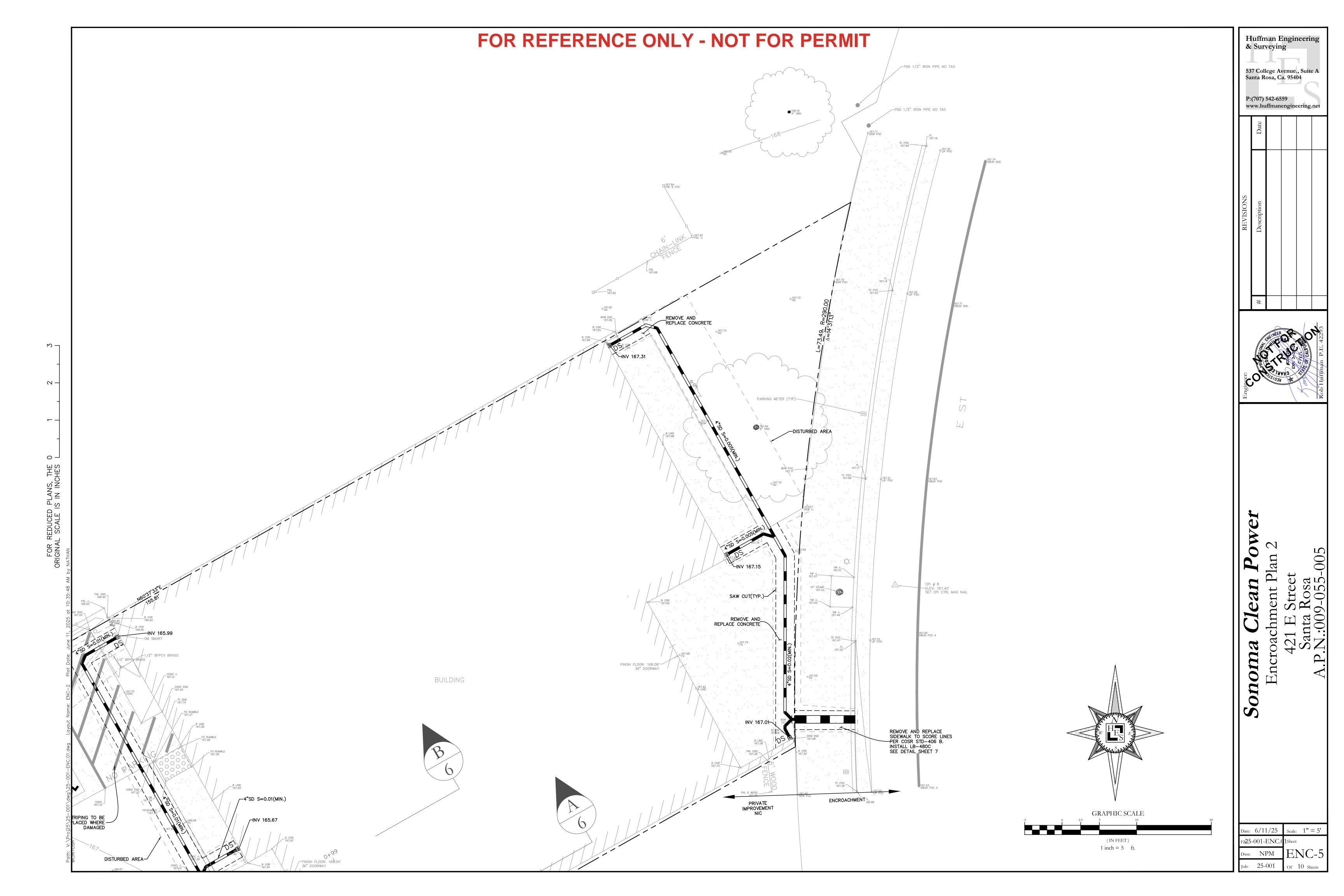
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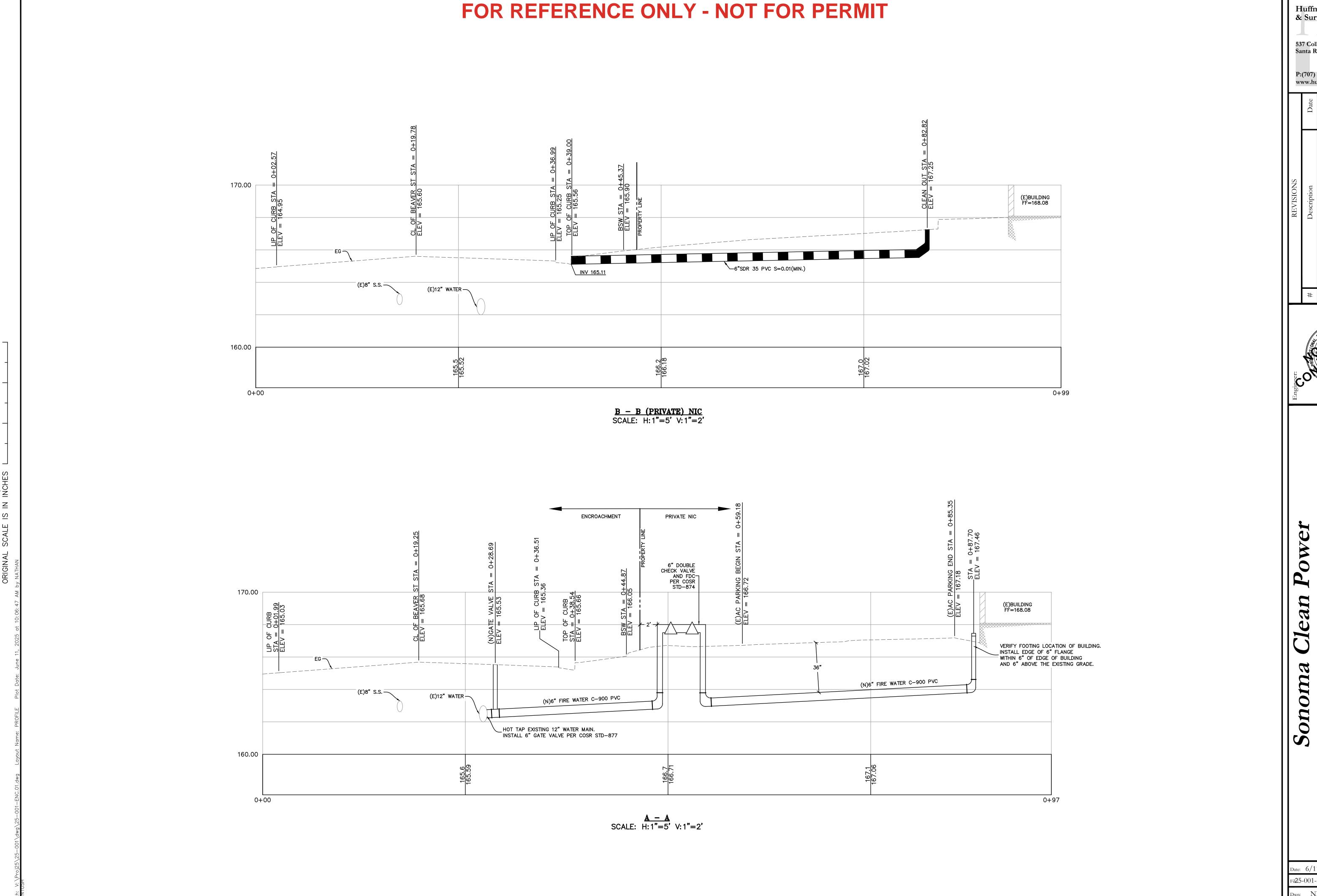
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Curb Construction

Attention is directed to std. 241, "Curb and Gutter", and Std. 235, "Typical Spacing - Weakened Planes, Expansion Joints and Score Marks", of the Standard Plans.

Weakened plane joints shall be constructed at 15-foot intervals, except that when Portland Cement concrete pavement is adjacent thereto, the joints shall coincide with the weakened plane joints in the adjacent pavement. The joints shall be constructed to a minimum depth of 1-1/2 inches by scoring with a tool which will leave the corners rounded with a 1/4 inch radius and insure a free movement of the concrete at the joint.

Expansion joint filler strips shall have the top edge placed and securely held 1/4 inch below the surface. Expansion joints shall be edged with an edging tool having a radius of 1/4 inch.

The finished surface of the top of curb shall not vary more than 0.01 foot above or below the staked grade.

73-1.07

Sidewalk, Gutter Depression, Island Paving, and Driveway Construction

The surface of sidewalks shall be marked into rectangles as shown on Std. 235, "Typical Spacing - Weakened Planes, Expansion Joints and Score Marks".

Weakened plane joints shall be constructed to a minimum depth of one inch with a tool which will leave the corners rounded with a 1/4 inch radius and insure a free movement of concrete at the joint.

Expansion joint filler strips shall have the top edge placed and securely held 1/4 inch below the surface. Expansion joints shall be edged with an edging tool having a radius of 1/4 inch. Scoring lines shall be made with jointer tools having a radius of 1/4 inch.

73-1.08 Measurement

Curb and gutter will be measured by the linear foot, measured in place along the face of the curb.

Quantities of concrete in sidewalks, island paving, gutter depressions, or driveway areas will be measured by the cubic yard, computed on the basis of measurement of areas of completed work in place and the thickness shown on the plans.

SPECSSEC.73

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Revised

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CITY OF SANTA ROSA CONTROL DENSITY FILL

Control Density Fill

Control density fill shall be a mixture of Portland cement, sand and 1" maximum coarse aggregate, air entraining agent and water, batched by a ready—mixed concrete plant and delivered to the jobsite by means of transit mixing trucks. Control density fill may also contain Class F pozzolan (fly ash). Control Density Fill shall be free of asphaltic material.

<u>Materials</u>

Cement shall meet the standards as set forth in ASTM C-150, Type II cement.

Fly ash shall meet the standards as set forth in ASTM C-618, for Class F pozzolans. The fly ash shall not inhibit the entrainment of air.

Aggregate Size 1" max.

Sand Equivalent 31 min.

Mix Proportions

The mix proportions shall be determined by the producer of the control density fill to produce a flowable fill mixture which will not segregate. Each yard shall contain not less that 50 pounds of Portland cement and not less than a total of 100 pounds of cementitious material. The Contractor shall supply a mix design two weeks prior to any use of control density fill.

Mixture Properties

Compressive Strength 75- 200 psi @ 28 days

3-9 inches

The consistency of CDF shall be such that all trench voids are filled with minimum rodding or vibrating but not so wet as to cause excessive shrinkage.

Paving

Permanent pavement may be placed directly upon the control density fill as soon as it has consolidated for the surface to withstand the process of paving without displacement. The surface of the control density fill shall be firm and unyielding. Any visible movement vertically or horizontally of the control density fill under the action of construction equipment or other maximum legal axle loads shall be considered as evidence that the control density fill does not meet this requirement. The Contractor shall provide trench plates to allow traffic flow for all locations until control density fill is ready to be paved.

CITY	OF S	SANTA	ROSA
STA	NDARD	TRENCH I	DETAIL
CO	NTROL	DENSITY	FILL
SCALE:	NONE	DATE:	April 2005
DWN: DIT	88 to	PROVED	FILE NO. STD 215

MATERIAL SPECIFICATIONS

DRAIN ROCK may be used as bedding under pipe for slopes less than 8%. DRAIN ROCK shall be 100% crushed and shall conform to the following grading:

1-1/2" 1" 1/2" #4 100 95-100 0-30 0-4

PIPE BEDDING and TRENCH BACKFILL shall be free of asphaltic material.

PIPE BEDDING for slopes less than or equal to 8% shall have a minimum sand equivalent value of 30 and shall conform to the following grading:

1" 3/4" 3/8" #4 #200

100 90-100 65-100 30-100 0-15

PIPE BEDDING for slopes greater than 8% shall have a minimum sand equivalent of 30 and shall conform to the following grading:

1" 3/4" 3/8" #4 #30 #200 100 90-100 65-100 30-100 10-100 0-15

TRENCH BACKFILL shall conform to the following grading and have a minimum sand equivalent value of 25 when mechanically compacted, or a minimum sand equivalent value of 40 when jetted:

3" #4 #30 100 40-100 10-100

see table & note 1

STANDARD TRENCH DETAIL

TRENCH BACKFILL AND SURFACING

SCALE: NONE DATE: April 2005

DWN: DIT SPROVED FILE NO.

CHK: MSS & FOR STD.- 215

AGGREGATE BASE shall conform to the requirements of Section 26 of the Standard Specifications of the City of Santa Rosa, aggregate base. Asphalt concrete shall conform to the requirements of Section 39 of the Standard Specifications of the City of Santa Rosa.

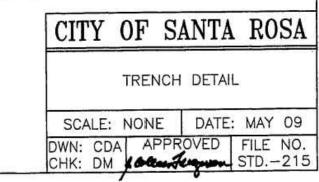
COMPACTION REQUIREMENTS (as shown on pages 1 - 3 and in the following modifications)

DRAIN ROCK shall be consolidated with a surface vibrator.

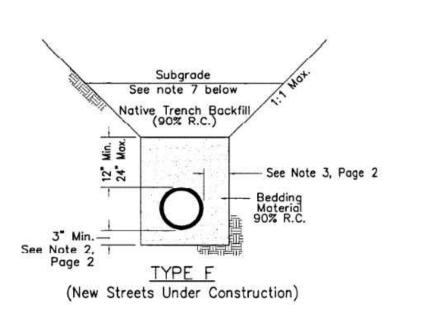
PIPE BEDDING material used to grade the trench shall be consolidated with a surface vibrator when it is placed over drain rock or when depth is greater than 6".

TRENCH BACKFILL may be compacted by jetting in lifts not greater than 10 feet when soil conditions permit water to drain quickly, as determined by the City Engineer. Jetting will not be permitted within 2 feet of finished grade. When compaction is obtained by jetting, the upper surface of the trench backfill shall be thoroughly wheel—rolled with suitable construction equipment. Trench backfill shall be compacted to 90% relative compaction prior to placing base rock or subgrade material over the trench.

Sheet 5 of 6



STREET STRUCTURAL SECTION SHALL BE AS SHOWN ON PLANS



Notes:

- 1. Rocks exceeding 6" shall not be permitted within the trench section.
- The maximum depth of native backfill material shall not exceed 10 feet, unless the street is excavated a uniform depth from face of curb to face of curb.
- Embankment construction methods shall be used. All slopes must be keyed—in a minimum of one foot as the trench is backfilled.
- 4. The minimum equipment required for compaction of native backfill material shall consist of a sheepsfoot vibratory roller with a minimum drum width of 48", a minimum gross weight of 4600 lbs, or must meet approval of the City Engineer.
- The contractor shall be responsible for coordinating with the private soils engineer and the City inspector 48 hours prior to excavation.
- 6. The private soils engineer shall provide testing and observations on a <u>FULL TIME</u> basis during <u>ALL</u> native backfilling operations. The private soils engineer is responsible for the verification of all native backfill work including compaction and uniform moisture conditioning, and that moisture content is above optimum moisture to the extent appropriate for the native material being used.
- 7. Streets where native trench backfill is used, treated (lime, cement, flyash, etc.) subgrade shall not be used as part of the structural section.

Sheet 4 of 6

STANDARD TRENCH DETAIL

SCALE: NONE DATE: April 2005

DWN: DIT APPROVED FILE NO.
STD. - 215

See notes 2 & 3 95% R.C. -New Base Course Trench - 12" Class 2 AB or Backfill 6" Asphalt Concrete. 90% R.C. See note 1 Trench A.C. Paving Table Min. A.C. Thickness Street Type Residential/Local 0.25'Collector/Transitional 0.35 Arterial/Regional/Industrial 0.45 NOTES: 1. The street structural section shall be asphalt concrete (see table for minimum A.C. thickness) on 12" Class 2 AB, 6" asphalt concrete, or as shown on the plans. 2. Neatly cut pavement after trench is backfilled to subgrade. ADDITIONAL PAVEMENT REMOVAL: Remove additional pavement to a painted lane stripe. a lip of gutter, a curb, an existing pavement patch, or an edge of the pavement if such street feature is within 3 feet of the final saw cut. Full tack coat coverage on all vertical surfaces. CITY OF SANTA ROSA 4. Relative compaction is designated RC.

Sheet 1 of 6

TRENCH BACKFILL AND SURFACING

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Details 2
421 E Street

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STEM EXTENSION FABRICATION NOTES

All external bolts and nuts on valves

shall be 304 stainless steel or the entire valve shall be wrapped tightly with polyethylene film held securely

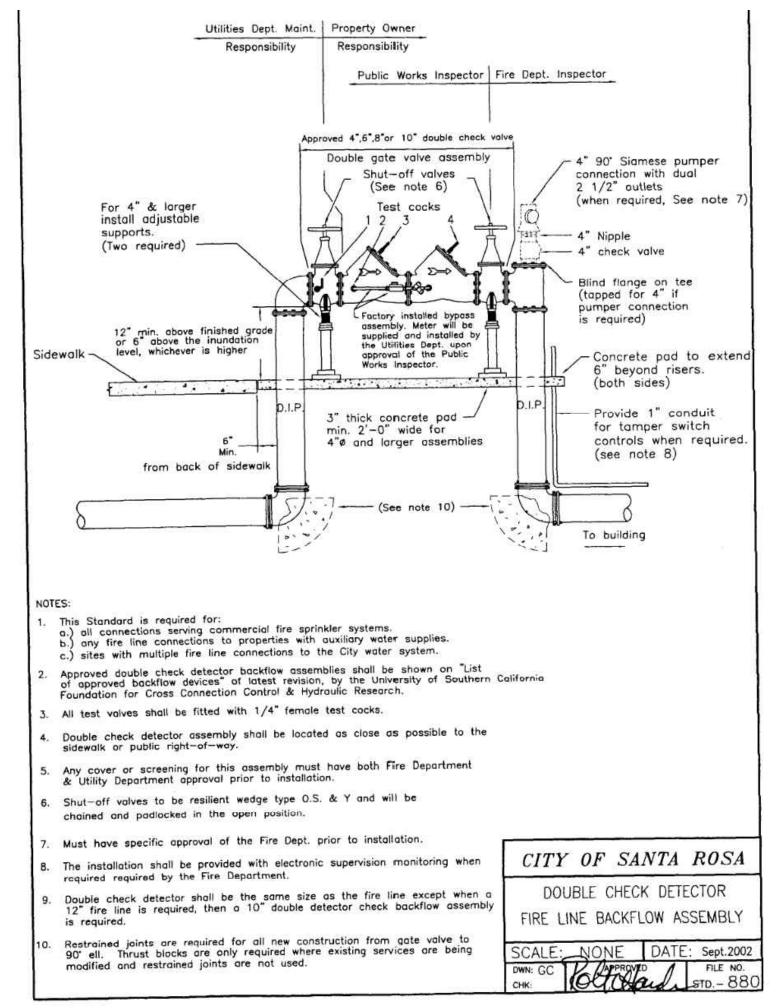
If valve is installed so that the top

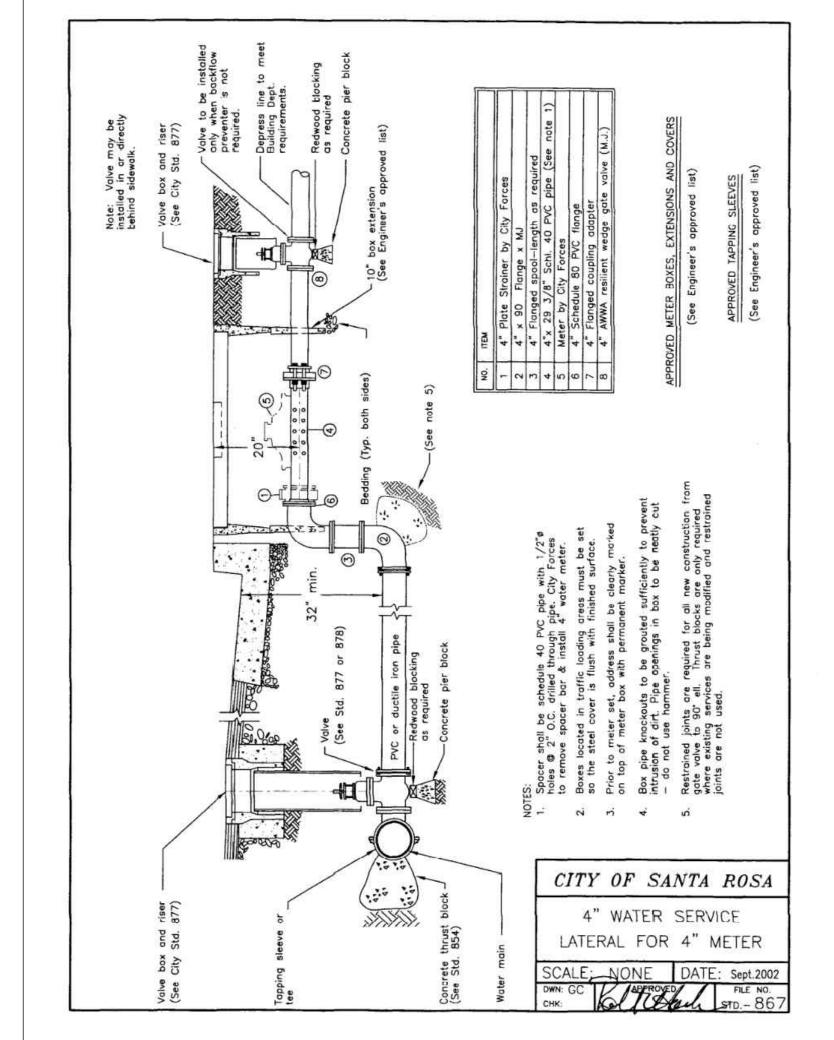
For installation of butterfly valve and topping valve, see Std. 878.

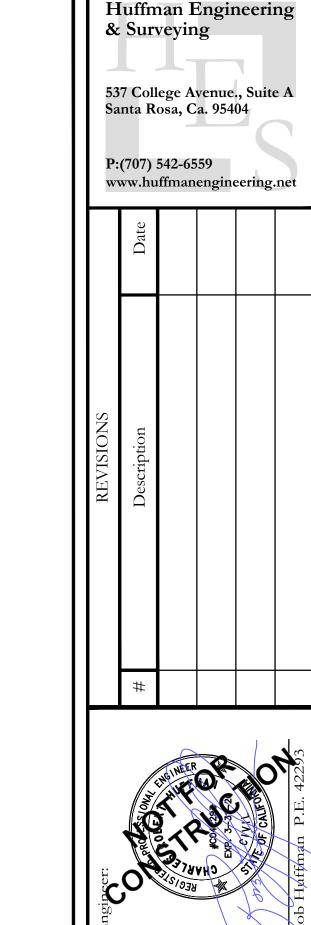
of the operating nut is less than 30" below finished grade, the valve stem

1. All welds to riser shaft shall be fillet

FOR REFERENCE ONLY - NOT FOR PERMIT

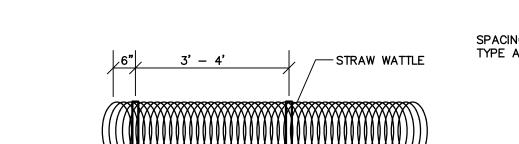








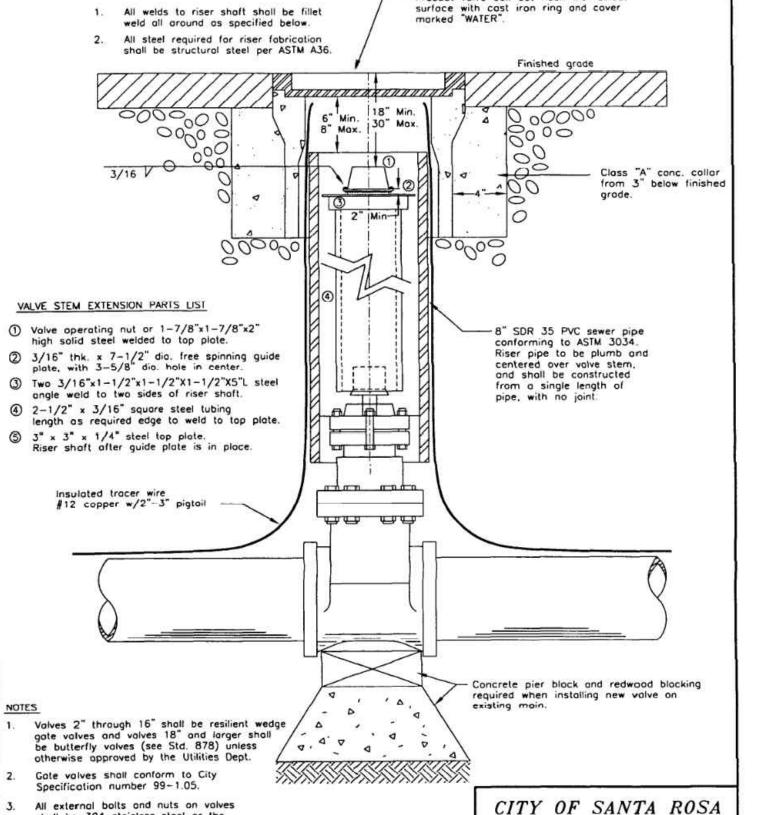




SPACING DEPENDS UPON SOIL TYPE AND SLOPE STEEPNESS - 1" x 1" x 15" LONG STAKES EMBED MINIMUM OF 2" PLAN VIEW

STRAW WATTLE INSTALLATION CROSS SECTION TYPICAL (PRIVATE NIC) N.T.S.

-FACE OF CURB DIRECTION OF FLOW BACK OF CURB-PERMEABLE MATERIAL BAGS (TYP.) 15' O.C. PERMEABLE MATERIAL BAG IN GUTTER DETAIL



(See Engineer's approved list)

Precast valve box set flush with street

GATE VALVE

SCALE: NONE DATE: Sept.2002



3/26/25, 1:37 PM

LB 480/X-480 A-480 CAST IRON ROUND TO RECTANGULAR PIPE ADAPTOR

LB 480/X-480 A-480 CAST IRON ROUND TO RECTANGULAR PIPE ADAPTOR | Long Beach Iron Works

ADAPTORS - ROUND TO RECTANGULAR PIPE FITTINGS (HORIZONTAL ONLY)

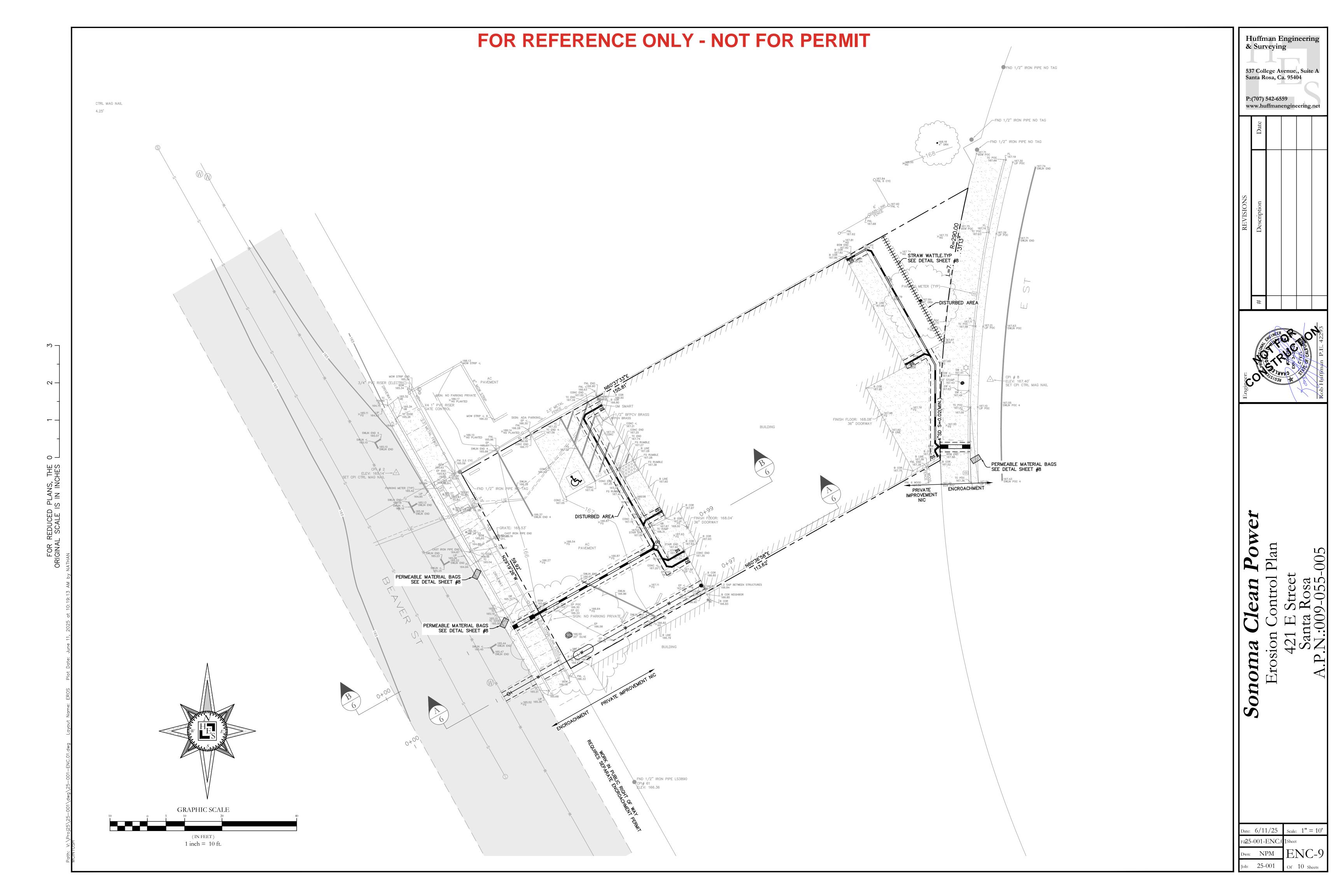
Cast gray iron fittings to transition from A-470 rectangular pipes to round pipe. All adaptors are flat (horizontal) and supplied with bell and spigot connections. Painted black with a water based coating.

Catalog Number	Round Pipe Size	Rectangular Pipe Size	Laying Length	Approximate Weight	
LB 480A	4"	3" x 5"	1'-0"	20 lbs	
LB 480B	5"	3" x 9"	1'-0"	45 lbs	
LB 480C	6"	3" x 12-1/2"	1'-0"	35 lbs	
LB 480D	8"	4" x 14"	1'-0"	65 lbs	

https://www.lbiw.com/products/area-drainage-castings/lb-480x-480-a-480-cast-iron-round-to-rectangular-pipe-adaptor

1/1

cale: 1'' = 10Fi25-001-ENC 25-001



FOR REDUCED PLANS, THE GINAL SCALE IS IN INCHES

Huffman Engineering & Surveying 537 College Avenue., Suite / Santa Rosa, Ca. 95404 P:(707) 542-6559

Date: 6/11/25 Fil25-001-ENC. Dwn: NPM

25-001