Solar Patio Cover

581 CA-49
Sutter Creek, CA 95685
Amador County

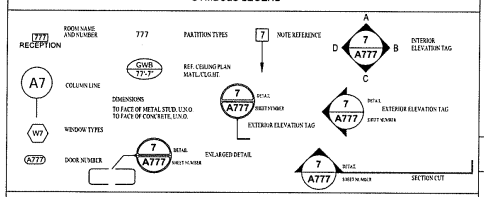
CHANNEL DESIGN 3
949-209-7641

revision dates:
1

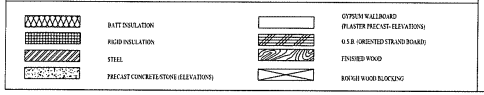
ABBREVIATIONS

ABV	ABOVE	F.O.C	FACE OF CONCRETE	QTY.	QUANTY
ACC. FL	ACCESS FLOOR	F.O.F	FACE OF FRAME	QTZ	QUARTZ
ACOUST	ACOUSTICAL	F.O.S	FACE OF STUD		
ADJ	ADJACENT	F.R	FIRE RETARDANT	RAD	RADIUS
AF	AIR FOIL	FL	FOIL	R.B	RUBBER BASE
ADHESIVE	ADHESIVE	FLG	FLOORING	R.C.P	REFLECTED CEILING PLAN
A.F.F	ABOVE FINISHED FLOOR	FOUND	FOUNDING	R.D	ROOF DRAIN
AGGR	AGGREGATE	FRP	FIBERGLASS	R.G	ROOF GRAVEL
AHU	AIRHANDLER	FTG	FOOTING	REF	REFER
ALUM. AL	ALUMINUM	F.W	FABRIC WALLPAPERING	REINF	REINFORCING BAR
ANOD	ANODIZED	GALV	GALVIN	REQ'D	REQUIRED
APPROX	APPROXIMATE	GI	GALVANIZED	RES	RESIDUE
ARCH	ARCHITECTURAL	G.S	GRAB BAR	RH	RIGHT HAND
ATHU	ATHUMATIC	G.C	GENERAL CONTRACTOR	SCH	SCHEDULE
		G.P.C	GYPSUM	S	SOUTH
BD	BOARD	GL	GLASS	SAD	SOUND ATTENUATION BLANKETS
B.O	BOTTOM OF	GYP BD	GYPSUM WALLBOARD	SAT	SUSPENDED ACOUSTICAL TILE
B.O.S	BOTTOM OF STEEL			S.C	SOLID CORE
BLKD	BLACKBOARD	H	HIGH	SCHED	SCHEDULE
BLK	BLOCK	HANDI	HANDICAP	SH	SHAT DISPENSER
BOARD	BULLETIN BOARD	H.B	HOSE BIB	SECT	SECTION
BLDG	BUILDING	H.C	HOLLOW CORE	S.F.T	SQUARE FOOT/FEET
BM	BEAM	HDG	HEAT	SHEAT	SHEATHING
BOL	BOLT	HDW	HARDWARE	SHT	SHEET
BOW	BOWSTRING	HDWD	HARD WOOD	SIM	SIMILAR
BTWN	BETWEEN	H.M	HOLLOW METAL	S.H.V	SHOUT TAP VERTICAL
B.U	BUILT UP	HORIZ	HORIZONTAL	SPEC	SPECIFICATION
		HT	HEAT POINT	SPKLR	SPRINKLER
CAB	CABINET	HTG	HEATING	S.S	STAINLESS STEEL
CA/FB	CABINET/ TACKBOARD	HVAC	HEAT VENT & AIR COND	S.T.C	SOUND TRANSMISSION COEFF.
CHN	CHANN. BARR	HWC	HOUSE	STD	STANDARD
CER	CERAMIC			STL	STEEL
CLG	CEILING	I.D	INSIDE DIAMETER	STM	STEAM
C.I.C	CONTINUOUS INTERRUPTED	INCL	INCLUDE	SUSP. ACC	SUSPENDED
C.I.P	CONCRETE INTERIOR	INCAND	INCANDESCENT	SUSPL	SUSPENSIONAL
C.I.S	CONCRETE INTERIOR SEALED	INSUL	INSULATION	SURF. MTD	SURFACE MOUNTED
C.I.W	CONCRETE INSTALLED	INT	INTERIOR	SUSP	SUSPENSION
CIR	CIRCLE			STRUC	STRUCTURAL
CLR	CLEAR	JAN	JANITOR		
CLT	CONTROL JOINT	JT	JOINT FILLER	T.O	TOP OF
C.J	CONTROL JOINT	JTS	JOINTS	TOL	TOLERANCE
CL	CENTERLINE			TEMP. GL	TEMPERED GLASS
CONC	CONCRETE	KIT	KITCHEN	THK	THICK
CO	CLEAN OUT			THRES	THRESHOLD
CPT	CARPET	LAB	LABORATORY	TOPS	TOPSIS
C.M.U	CONCRETE MASONRY UNIT	LAV	LAVATORY	T.P.D	TOILET PAPER DISPENSER
CTR	CENTER	LB	POUND	TEL	TELEPHONE
CTSK	CONTERSINKING	LH	LEFT HAND	TYP	TYPICAL
CTR	COUNTER	LIN	LINEAL		
CTS	CONTINUOUS	L.V	LINE VAC VERTICAL	U.C	UNDERCUT
CONN	CONNECTION	LT	LIGHT	UL	UNDERWRITERS LABORATORY
CONST	CONSTRUCTION	LP	LOW POINT	UNFIN	UNFINISHED
CONT	CONTINUOUS	LCD	LIQUID	U.O.N	UNLESS NOTED OTHERWISE
COORD	COORDINATE	LVL	LEVEL	UR	URINAL
CORR	CORRIDOR				
CSWT	CASEWORK	MAS	MASONRY	VAC	VACUUM
CT	CERAMIC TILE	MAT'L	MATERIAL	V.C	VINYL BASE
CTR	CENTER	MA	MATRIX	V.C.T	VINYL COMPOSITION TILE
CUBE	CUBICLE	MC	MEDICAL CORE	VERT	VERTICAL
C.W	CURTAIN WALL	MECH	MECHANICAL	VIF	VERIFY IN FIELD
		MEMB	MEMBRANE	VIN	VINYL
D	DIAMETER	MET. MTL	METAL	VWC	VINYL WALLCOVERING
DA	DECKING	MFG	MANUFACTURE	VWC	VINYL WALL COVERING
DIM	DIMENSION	MFR	MANUFACTURER		
DIV	DIVISION	MGR	MANAGER	W	WEST
DOC	DOCUMENT	M.H	MANHOLE	W/	WITH
D.F.A	DRINKING FOUNTAIN	MIN	MINIMUM	W/O	WITHOUT
DIA	DIAMETER	MIR	MIRROR	W.C	WATER CLOSET
DIAG	DIAGONAL	MISC	MISCELLANEOUS	WD	WOODEN
DIM	DIMENSION	MLDG	MOULDING	WDW	WINDOW
DISP	DISPENSER	MLWK	MILLWORK	WO	WALKOUT OPENING
DNSTR	DOWNSTREAM	MOD	MODULE	W.P.C	WATERPROOF
DN	DOWN	MRB	MARBLE	W.R.C.B	WATER RESISTANT
DR	DOOR	MTD	MOUNTED	W.S	WATER SHEDDING
DWG	DRAWING	MUL	MULLION	W.R.M	WOVEN WIRE MESH
DRAP	DRAPERY				
D.S	DOWNSPOUT	N	NORTH	YD	YARD
DWG	DRAWING	N/A	NOT APPLICABLE		
DWR	DRAWER	N.I.C	NOT IN CONTRACT		
		NO	NUMBER		
EA	EACH	NOM	NOMINAL		
EL	ELEVATION	NRC	NOISE REDUCTION COEFFICIENT		
E.I.F.S	EXTERIOR INSULATING FINISH SYSTEM	NTS	NOT TO SCALE		
E.W.C. W/	EVAPORATOR WATER COOLER	O.C	ON CENTER		
EXC. ELEV	EXCAVATION	O.D	OUTSIDE DIAMETER		
ELEV	ELEVATOR				
EMER	EMERGENCY	O.F.C	OWNER FURNISHED		
ENCL	ENCLOSURE	O.I.C	OWNER INSTALLED		
EP	EPOXY PAINT	OPNG	OPENING		
EQ	EQUAL	OPP	OPPOSITE		
EXP	EXPANSION				
EXP JT	EXPANSION JOINT	PART	PARTITION		
EWC	EVAPORATIVE WATER COOLER	PL	PLATE		
EXT	EXTERIOR	P.L	PLASTIC LAMINATE		
EXTRU	EXTRUDED	PLAS	PLASTER		
		PLYWD	PLYWOOD		
F.A	FIRE ALARM	PR	PAIR		
FAB	FABRICATE	PCL	POLISHED		
F.E	FIRE EXTINGUISHER	PT	PAINT		
FDN	FOUNDATION	PTN	PARTITION		
FIN	FINISH	PREFAB	PREFABRICATED		
F.H	FIRE HYDRANT	PROD	PRODUCTION		
F.A.C	FIRE ALARM CABINET	PROJ	PROJECT		
FIN	FINISH	PROP	PROPERTY		
F.O.F. FIN	FACE OF FINISH	PT	PAINT		
FIN	FINISH	PVC	POLYVINYL CHLORIDE		
F.P.D	FLOOR PLAN	PVD	PAPER TOWEL DISPENSER		
FURN	FURNISHING	P.T.D.W	PAPER TOWEL DISPENSER AND WASTE RECEPTACLE COMBINATION UNIT		
F.R.D	FOUNDER RAPAIR DISPENSER	PWC	POWDER COATED		
F.R.W	FOUNDER RAPAIR WORKER	PWS	PAYNES		

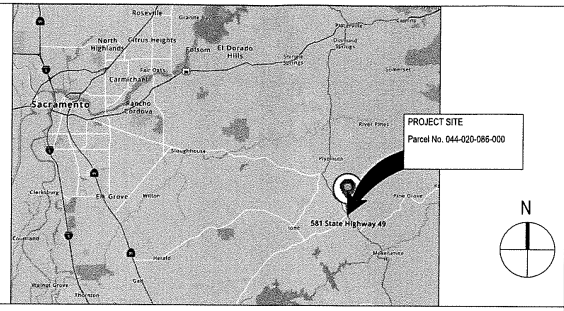
SYMBOLS LEGEND



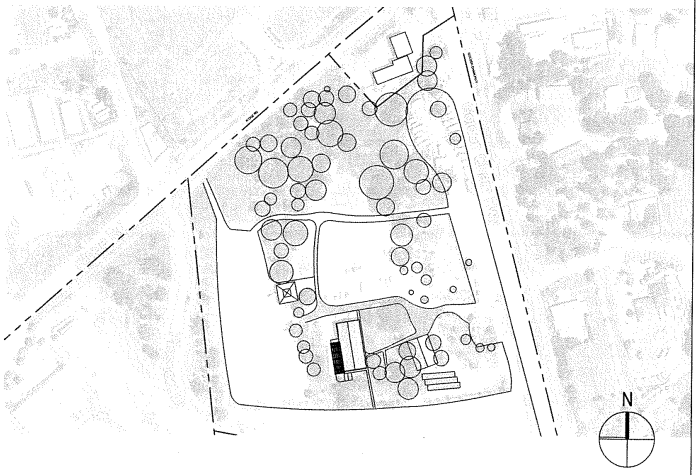
MATERIALS LEGEND



VICINITY MAP



SITE MAP



NOTE

1. ALL WORK CONSTRUCTION AND MATERIAL SHALL COMPLY WITH ALL PROVISIONS OF THE BUILDING CODE AND WITH OTHER RULES, REGULATIONS, AND ORDINANCES GOVERNING THE PLACE OF THE CONSTRUCTION . IT IS THE RESPONSIBILITY OF ANYONE SUPPLYING LABOR, CONSTRUCTION OR BOTH TO BRING TO THE ATTENTION OF THE OWNER ANY DISCREPANCIES OR CONFLICT BETWEEN THE REQUIREMENTS OF THE CODE AND THE DRAWINGS. THE APPLICABLE CODES SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO CALIFORNIA BUILDING CODES.

2. ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE VERIFIED BY CONTRACTOR FOR COORDINATION WITH PLANS. CONTRACTOR SHALL BE RESPONSIBLE THIS COORDINATION.

3.. ALL SUBCONTRACTORS SHALL BE RESPONSIBLE FOR REMOVAL OF ALL WAIST DURING CONSTRUCTION EACH DAY ON SITE.

4. VERIFY ALL EXISTING ROOF SLOPES.

SCOPE OF WORK

* 2062 sq metal patio cover

PROJECT INFORMATION

All work to conform to the following California Codes and Regulations and 2022 CRC Section R104.1:2016
California Building Code
2022 Building Energy Efficiency Standards
2022 California Fire Code Part 9
2022 California Residential Code Part 2.5
2022 California Electrical Code Part 3
2022 California Mechanical Code Part 4
2022 California Green Building Standards Code Part 1
2022 California Plumbing Code Part 5
2022 California Energy Code Part 6
2022 National Fire Protection Association 13D

BUILDING INFORMATION: PATIO COVER
STRUCTURE DESCRIPTION: PATIO COVER
OCCUPANCY : U
CONSTRUCTION TYPE: II
SPRINKLERED NO

SITE INFORMATION
PROJECT ADDRESS:
581 STATE HIGHWAY 49
SUTTER CREEK, CA 95685
PROPERTY LEGAL DESCRIPTION:
APN: 044-020-086-000

ZONING: C-2

SITE INFORMATION
area = 18.8 acres (789273.6914 sf)

DEFERRED SUBMITTALS

SHEET INDEX

ARCHITECTURE
A100 - Cover Sheet / Sheet Index / Vicinity Map
A101 - Site Plan
A200 - Foundation/Roof Plan
A400 - Elevations

STRUCTURAL
SC-1 - Cover Sheet
SD-1 - Structural Details

PROJECT CONTACTS

DESIGNER
CD3
CONTACT: Justin Velasquez
949-209-7641

SOLAR PATIO COVER
581-CA-49
Sutter Creek, CA 95685

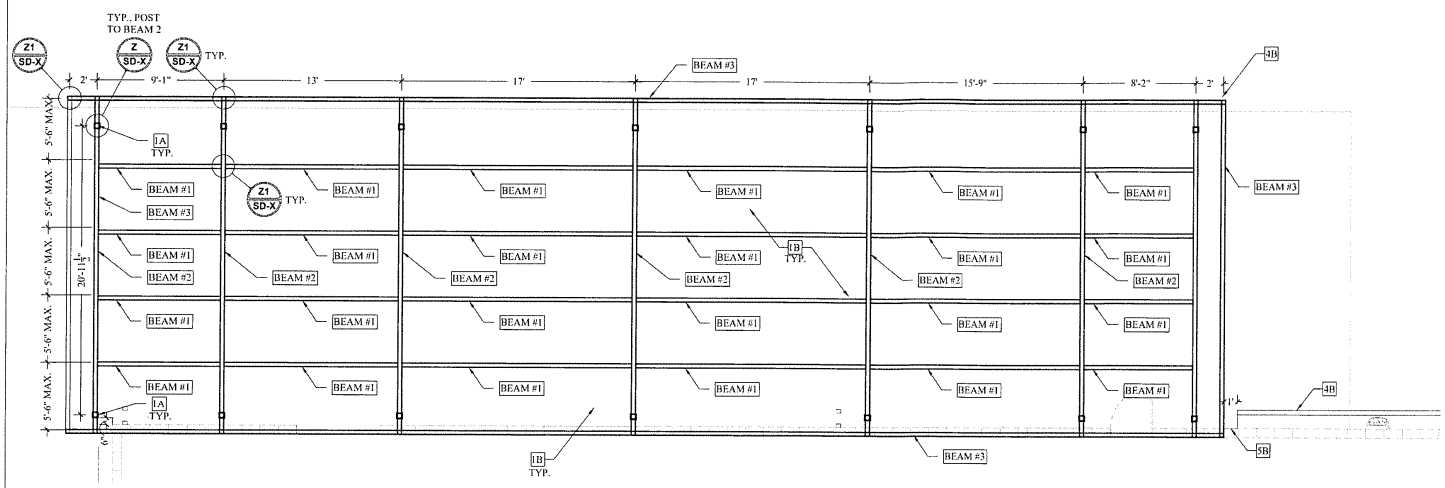
APN: 044-020-086-000

OWNER:

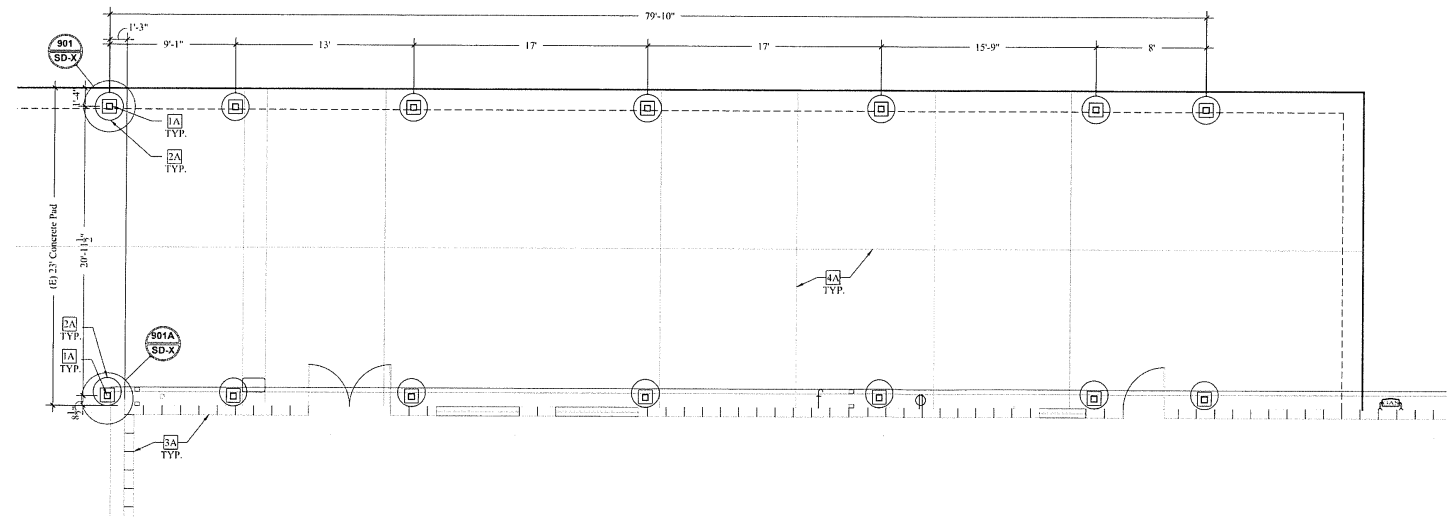
TITLE SHEET

A100

10/1/25 PRELIMINARY PLAN



PROPOSED ROOF 2



PROPOSED FOUNDATION 1

GENERAL NOTES

1 CONTRACTOR TO VERIFY ROOF SLOPE.

2 PLANS ARE PRELIMINARY

FOUNDATION KEYNOTES

1A HSS 5X5X½" COLUMN

2A 24" DIA. X 5'3" PIER FOOTING PER DETAIL 901 OR 901A

3A (E) CMU BUILDING

4A (E) CONTROL JOINTS

ROOF FRAMING

1B 24 GUAGE CORRUGATED METAL ROOF VERCO MANUFACTURING DEEP VERCOR 24 GUAGE TYPICAL

2B NOT USED

3B 24 GA. CORRUGATED METAL SYSTEM

4B (E) GUTTER W/ DOWNSPOUTS TO REMAIN

5B CUT EAVES BACK (RETAIN GUTTERS AND RE-APPLY WHERE APPLICABLE

REGISTERED PROFESSIONAL ENGINEER
JOHN J. SCHLEICHER
C 2957
10-21-25
STRUCTURAL
STATE OF CALIFORNIA

10-21-25
STRUCTURAL
ONLY

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CHANNEL DESIGN 3
949-209-7641

revision dates.
1

SOLAR PATIO COVER

581-CA-49
Sutter Creek, CA 95685

APN: 000-000-000-000

OWNER:
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FOUNDATION & ROOF PLANS

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

A200

10/1/25 PRELIMINARY PLAN

STRUCTURAL STEEL

1. STEEL WORK SHALL BE NEW AND CONFORM TO THE AISC SPECIFICATION FOR STRUCTURAL STEEL BLDGS. - ALLOWABLE STRESS DESIGN AND LOAD AND RESISTANCE FACTOR DESIGN AS PUBLISHED IN THE AISC STEEL CONSTRUCTION MANUAL.
2. MATERIAL SHALL CONFORM TO THE FOLLOWING, EXCEPT AS NOTED:

WIDE FLANGE SHAPES	A992 (Fy=50 KSI) or ASTM A572 GRADE 50
ANGLES, CHANNELS AND PLATES	ASTM A36 (Fy=36 KSI)
HIGH STRENGTH BOLTS	ASTM A325, GRADE 3 (Fy=46 KSI)
THREADED RODS	ASTM A36 (Fy=36 KSI)
HEAVY HEX NUTS	ASTM A563
HARDENED STEEL WASHERS	ASTM F436
ANCHOR RODS - UNLESS INDICATED	ASTM F1554, TYPE 55
ANCHOR RODS	ASTM F1554 GR. 36 (Fy=36 KSI)
HEADED STUD ANCHORS	ASTM A108 (Fu=65 KSI)
TWIST-OFF TENSION CONTROL BOLTS	ASTM F1852

3. CONNECTIONS:
   A. BOLTS SHALL BE HIGH-STRENGTH BEARING TYPE. TIGHTEN BY THE AISC APPROVED METHOD
   B. WELDING ELECTRODES SHALL BE PER AWS D1.1. RETURN FILLET WELDS FOR FRAMED CONNECTIONS 2T AT EACH END
4. ALL STRUCTURAL STEEL EXPOSED TO EXTERIOR CONDITIONS SHALL BE HOT DIPPED GALVANIZED PER ASTM A123 AND ALL FASTENERS AND HARDWARE SHALL BE HOT DIPPED GALVANIZED PER ASTM A153.

WELDING

1. WELDING SHALL BE DONE BY WELDERS WITH CURRENT CERTIFICATION IN ACCORDANCE WITH AWS D1.1
2. WELDS SHOWN ON STRUCTURAL DRAWINGS ARE MINIMUM DESIGN REQUIREMENTS. THE FABRICATORS SHOP DRAWINGS SHALL REFLECT WELDS IN ACCORDANCE WITH AWS REQUIREMENTS.
3. 100% OF COMPLETE JOINT PENETRATION WELDS (AKA FULL PENETRATION WELDS) SHALL BE INSPECTED BY ULTRASONIC TESTING. 25% OF THE WELDS SHALL BE INSPECTED AT RANDOM UNLESS NOTED OTHERWISE. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
4. UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL GROOVE WELDS SHALL BE COMPLETE JOINT PENETRATION WELDS (AKA FULL PENETRATION WELDS)
5. PROVIDE FILLET WELDS AT CONTACT POINTS BETWEEN STEEL MEMBERS SUFFICIENT TO DEVELOP THE ALLOWABLE STEEL STRENGTH OF THE SMALLER MEMBER AT THE JOINT UNLESS DETAILED OTHERWISE ON THE DRAWINGS. THE MINIMUM FILLET WELD SIZE IS 1/16" UNLESS OTHERWISE NOTED.

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT FULLY SHOWN SHALL BE OF THE SAME NATURE AS SHOWN FOR SIMILAR CONSTRUCTION.
2. CONSTRUCTION SHALL CONFORM TO THE 2022 CBC AND ALL APPLICABLE CODES AND REGULATIONS.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
4. CONTRACTOR SHALL NOTIFY THE ENGINEER AND ARCHITECT WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DRAWINGS OR DOCUMENTS. CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE BUILDING THAT IS IN CONFLICT, UNTIL CONFLICT IS RESOLVED WITH THE AFFECTED PARTIES.
5. THE DESIGN, ADEQUACY, AND SAFETY OF EREECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND HAS NOT BEEN DESIGNED BY THE ARCHITECT OR ENGINEER. THE CONTRACTOR SHALL PROVIDE FOR STABILITY OF THE STRUCTURE AS A WHOLE, PRECAUTIONARY MEASURES, TIES AND ROOF DIAPHRAGMS, AND FINISH MATERIALS PRIOR TO THE APPLICATION OF THE ABOVE MENTIONED MATERIALS. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
6. IN NO CASE SHOULD DRAWINGS, DETAILS, OR ANY PART OF THESE PLANS BE SCALED FOR ANY PURPOSE. IF ANY DIMENSIONS NOT SHOWN ARE REQUIRED IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE ENGINEER OR ARCHITECT FOR ADDITIONAL INFORMATION.

FOUNDATIONS

1. BEARING SOIL CONDITION IS CLASSIFIED BY MINIMUMS AS LISTED BY CODE OR SOILS REPORT IF AVAILABLE FOR PROFILE CONTITIES AT THE UPPER RIGHT CORNER OF THIS SHEET.
2. FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED NATURAL SOILS OR APPROVED ENGINEERED FILL.
3. EXCAVATIONS SHALL BE CLEAN OF ALL DEBRIS. STANDING WATER SHALL BE REMOVED.
4. FOUNDATIONS SHALL BE PLACED IN NEATLY CUT EXCAVATIONS.

CONCRETE AND REINFORCING STEEL

1. CONCRETE CONSTRUCTION SHALL CONFORM TO CBC 2022 AND ACI-318-19(22)
2. THE WEIGHT AND MINIMUM 28 DAY STRENGTH OF CONCRETE SHALL BE AS FOLLOWS: SLAB ON GRADE AND FOOTINGS.....150 PCF / 2,500 PSI (f'c=2,500 PSI (f'c=3,000 PSI ON FOUNDATION PLANS)
3. CEMENT SHALL CONFORM TO ASTM C150 TYPE I OR 2. PROVIDE TYPE 5 CEMENT FOR SULFATE CONTAINING SOIL WITH CONCENTRATIONS OF MORE THAN 0.2%.
4. CONCRETE AGGREGATES: NATURAL SANDS AND ROCK AGGREGATES SHALL CONFORM TO ASTM C32.
5. REINFORCING SHALL CONFORM TO ASTM A615 GRADE 40.
6. REINFORCING STEEL SHALL BE DETAILED, FABRICATED AND INSTALLED ACCORDING TO THE ACI 315 "STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION" BY WEIRS.
7. DIMENSIONS SHOWN FOR LOCATION OF REINFORCING ARE TO THE FACE OF MAIN AND DIAGONAL CLEAR COVERAGE. UNLESS OTHERWISE NOTED, CONCRETE SHALL BE AS FOLLOWS:
   CONCRETE IN INSTALLED DIRECTLY AGAINST GROUND (EXCEPT SCABS)..... 3"
   CONCRETE EXPOSED TO GROUND BUT PLACED IN FORMS..... 2"
   SLABS ON GRADE.....POSITION IN CENTER OF SLAB.
8. LAP SPLICE FOR CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH ACI318-14 SECTION 12.14. REBAR LAP SPLICES FOR PLANE CONCRETE PAVING SHALL BE 48 BAR DIAMETERS MINIMUM.
9. REMOVE ALL DEBRIS FROM THE FORMS BEFORE PLACING ANY CONCRETE.
10. REINFORCING DOWELS, BOLTS, ANCHORS, SLEEVES, ETC. TO BE EMBEDDED IN CONCRETE SHALL BE SECURELY POSITIONED BEFORE PLACING CONCRETE.
11. MAXIMUM FILL TALL OF CONCRETE SHALL BE 4"ab"
12. NO WOOD SPREADERS ARE ALLOWED.
13. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS AND FLOOR PLANS FOR LOCATION OF ALL PIPES, CONDUITS, ETC.
14. PIPE OR DUCTS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED
15. PIPE MAY PASS THROUGH STRUCTURAL CONCRETE IN SLEEVES, BUT MUST BE EMBEDDED THERETO.
16. THE STRENGTH LEVEL OF THE CONCRETE WILL BE CONSIDERED SATISFACTORY IF THE AVERAGE OF THE STRENGTHS OF A GIVEN AREA OR PANEL EQUALS OR EXCEEDS THE SPECIFIED STRENGTH AT 28 DAYS. NEITHER INDIVIDUAL STRENGTH OF SUCH AREA OR PANEL FALLS MORE THAN 5% BELOW THE SPECIFIED. CONCRETE THAT DOES NOT MEET THE ABOVE CRITERIA WILL BE REJECTED BY THE CONTRACTOR AND REPLACED WITH CONCRETE THAT CONFORMS TO THE SPECIFIED CRITERIA
17. PROVIDE 1"x1" CHAMFERS AT ALL EXPOSED CORNERS.
18. REFER TO ARCHITECTURAL DRAWINGS FOR MOLDS, GROOVES, ORNAMENTS, CLIPS, OR GROUNDS REQUIRED TO BE CAST IN CONCRETE, AND FOR LOCATIONS OF FLOOR FINISHES AND SLAB DEPRESSIONS.
19. CONCRETE SHALL NOT BE ALLOWED TO CURE IN TEMPERATURES LESS THAN 40 DEGREES FAHRENHEIT FOR THE FIRST THREE DAYS.
20. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR COLD WEATHER CONCRETING WHERE REQUIRED.
21. NO 5 OR LARGER REINFORCING BARS SHALL NOT BE BENT WITHOUT APPROVAL BY THE STRUCTURAL ENGINEER. DOWELS SHALL HAVE A MINIMUM PROJECTION EQUAL TO STANDARD LAP SPLICE UNLESS OTHERWISE SHOWN.
22. ALL CONTINUOUS REBARS OR DOWELS SHALL LAP 48 DIAMETERS.
23. WELDING OF REBAR IS NOT PERMITTED UNLESS PROCEDURE APPROVED BY THE STRUCTURAL ENGINEER.

ENGINEERING AND LOADING DATA

Roof Material Weights (D)

Roofing	=	1.5 psf
Girts	=	3.0 psf
Beams	=	2.5 psf
		0.0 psf
		0.0 psf
PV Panels	=	3.0 psf
Misc.	=	1.0 psf
	=	0.0 psf

Roof Loading (psf)

Roof Live Load (L_r)	=	20.0 psf
Roof Snow Load (S)	=	0.0 psf
Roof Dead Load (D)	=	11.0 psf
Ceiling Live Load (L)	=	0.0 psf
Ceiling Dead Load (D)	=	0.0 psf
Ceiling live load non-concurrent with roof live loads		

Snow Loading (psf)

Ground Snow Load	=	0 psf
Flat Roof Snow Load	=	0 psf
Sloped Roof Snow Load	=	0 psf
Exposure Factor	=	1.00
Thermal Factor	=	1.10
Importance Factor	=	1.00
Roof Slope Factor	=	1.00

Floor Loading (psf)

Floor Live Load (L)	=	0.0 psf
Floor Dead Load (D)	=	0.0 psf
Floor Ceiling Dead Load (D)	=	0.0 psf

Deck Loading (psf)

Deck Live Load (L)	=	0.0 psf
Deck Dead Load (D)	=	0.0 psf
Deck Soffit Dead Load (D)	=	0.0 psf

Seismic Dead Load Roofs

Roof Level Seismic (D)	=	11.0 psf

Seismic Dead Load Floors

Floor Level Seismic (D)	=	0.0 psf

Wind Loads ASCE 7-16

Basic Wind Speed	=	94 *mph (V ultimate)*
Exposure Category	=	C
Risk Category	=	II
λ	=	1.21
K_{zt}	=	1.00

$$P_S = \lambda K_{zt} P_{S30} \quad (28.5\text{-}1)$$

Soil information

2022 CBC Code Minimum

Soil Bearing Pressure Ftg 1500 psf

Seismic Loads ASCE 7-16

Site Classification	=	D	ASCE 7-16 Section 11.4.3
Risk Category	=	II	ASCE 7-16 Table 1.5-1
Seismic Design Category	=	D	ASCE 7-16 Section 11.6
Importance Factor	=	1	ASCE 7-16 Section 11.5
Response Modification Factor	R	=	1.250
System Overstrength Factor	Ω_o	=	1.250
Deflection Amplification Factor	C_d	=	1.250
Rho Factor (ρ)	ρ	=	1.300
Spectral Response Short Period	S_s	=	0.363
Spectral Response Long Period	S_1	=	0.192
Approximate Fundamental Period ($T = T_a$)	T_a	=	0.152
Long Period	T_L	=	12.000
$T_s = 0.20\ (S_{D1} / S_{DS})$	T_o	=	0.154
$T_s = (S_{D1} / S_{DS})$	T_s	=	0.771
Spectral Response Accelerations Short	S_{MS}	=	0.548
Spectral Response Accelerations Long	S_{M1}	=	0.422
Spectral Response Short Period	S_{DS}	=	0.365
Spectral Response Long Period	S_{D1}	=	0.282
Seismic Response Coefficient	C_s	=	0.292
Maximum Seismic Response Coefficient	$C_{s\ max}$	=	1.478
Minimum Seismic Response Coefficient	$C_{s\ min}$	=	0.016

V = 0.292 W

Beam Specifications

Beam#	Size	Grade and Type	Location
Beam+1	C8x11.5	50 KSI Steel	CROSS BEAMS
Beam+2	W8X21	50 KSI Steel	MAIN LONG BEAMS
Beam+3	C8x11.5	50 KSI Steel	END BEAMS

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Norman Scheel Structural Engineer

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YEARS 1989 - 2025 36 YEARS OF EXCELLENCE Structural Engineer

SOLAR PATIO COVER

581 CA-49
SUTTER CREEK, CA 95685

CHANNEL DESIGNS 3 - JUSTIN

655 S. HAROLD AVE
LINCLON, CA 95648

PROJ. MGR.:	JM
ENGINEER:	JM
DRAWN BY:	KT
CHECKED BY:	JM
ISSUE DATE:	10/21/2025

REVISIONS:
1
2
3
4
5
6

REGISTERED PROFESSIONAL ENGINEER NORMAN S. SCHEEL S 2597 CIVIL STATE OF CALIFORNIA

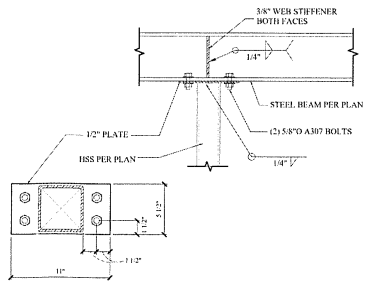
10/22/2025

SHEET

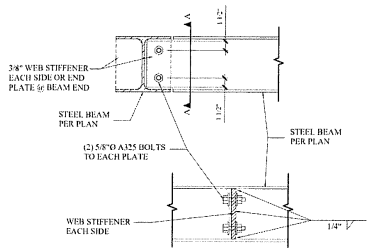
SC-1

COVER SHEET

JOB NO. 25252

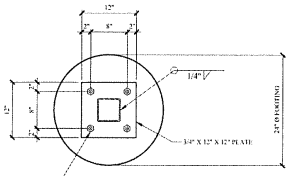


Z | POST TO BEAM DETAIL

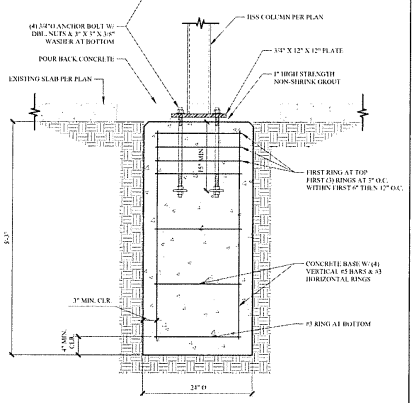


SECTION A-A

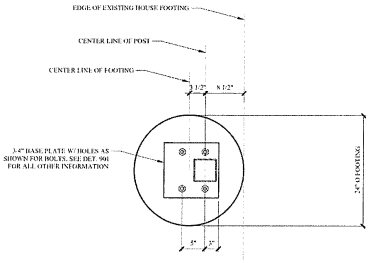
Z1 | BEAM TO BEAM DETAIL



PLAN VIEW



901 | PIER FOOTING @ HSS



901A | PIER FOOTING NEXT TO EXISTING STRUCTURE

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REGISTERED PROFESSIONAL ENGINEER
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EXP. 12/31/25
STRUCTURAL
STATE OF CALIFORNIA

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