

DESIGN VALUES:		DESIGN VALUES ¹
DESCRIPTION		
DEAD AND LIVE LOADS		
ROOF LIVE LOAD		20 PSF
ROOF DEAD LOAD (SUPERIMPOSED ON FRAME) ²		LOAD SCENARIO = {1,2} DL = (3.5 PSF 2.0 PSF)
ALLOWABLE SOIL PRESSURE^{3, 5}		
SPREAD PAD		
VERTICAL BEARING: DL + Lr + SEISMIC (CONCRETE FOOTING)		1500 PSF
LATERAL COHESION: DL + Lr + SEISMIC (CONCRETE FOOTING)		130 PSF
DRILLED PIER		
SKIN FRICTION (DOWN): DL + Lr + SEISMIC (CONCRETE FOOTING) PER 1810A.3.3.1.5		167 PSF
SKIN DRICITION (UPLIFT): DL + Lr + SEISMIC (CONCRETE FOOTING) PER 1810A.3.3.1.5		83 PSF
LATERAL BEARING: DL + Lr + SEISMIC (CONCRETE FOOTING) PER 1810A.3.3.2		100 PSF/FT
ROOF SNOW LOAD⁶		
GROUND SNOW LOAD, Pg		10 PSF
RISK CATEGORY		II
ROOF SNOW LOAD: [] FLAT, Pf OR [] LOW SLOPE, Pm OR [X] SLOPED, Ps		10 PSF
SNOW ROOF SLOPE FACTOR, Cs		1
SNOW EXPOSURE FACTOR, Ce		1.2
SNOW LOAD IMPORTANCE FACTOR, Is		1.0
THERMAL FACTOR, Ct		1.2
DRIFT SURCHARGE LOAD, Pd		0 PSF
DISTANCE FROM ADJACENT STRUCTURE, Pg = 0 PSF		4 IN
DISTANCE FROM ADJACENT STRUCTURE, Pg > 0 PSF		20 FT
ICE LOAD		0 PSF
FLOOD DESIGN		
FLOOD HAZARD AREA		NO
WIND DESIGN⁴		
BASIC WIND SPEED (3 SECOND GUST), VuH		110 MPH
EXPOSURE CATEGORY		C
TOPOGRAPHIC FACTOR, Kzt (1 MINIMUM)		1
INTERNAL PRESSURE COEFFICIENT, Gcpi (IF APPLICABLE)		0.0
CLEAR WIND FLOW		YES
OBSTRUCTED WIND FLOW		YES
SEISMIC DESIGN⁴		
LATERAL FORCE-RESISTING SYSTEM		STEEL ORDINARY CANTILEVER COLUMN SYSTEM
ANALYSIS PROCEDURE		EQUIVALENT LATERAL FORCE PROCEDURE
SEISMIC DESIGN CATEGORY (SDC)		E
SEISMIC IMPORTANCE FACTOR, Ie		1.0
DESIGN BASE SHEAR, V		Cs x W
SEISMIC RESPONSE COEFFICIENT, Cs		LOAD SCENARIO = {1,2} Cs = (0.90, 1.32)
RESPONSE MODIFICATION FACTOR, R		1.25
SITE CLASS ⁷		E
REDUNDANCY FACTOR, p		1.3
MAPPED SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, Ss - USED TO DETERMINE Cs		LOAD SCENARIO = {1,2} Ss = (1.406, 2.063)
SHORT-PERIOD SITE COEFFICIENT, Fa		1.2
DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, Sds - USED TO DETERMINE Cs		LOAD SCENARIO = {1,2} Sds (MAX) = (1.125, 1.650)
MAPPED SPECTRAL RESPONSE ACCELERATION AT 1 SECOND PERIOD, S1		LOAD SCENARIO = {1,2} S1 = (0.844, 1.07)
LONG-PERIOD SITE COEFFICIENT, Fv		2.0
DESIGN SPECTRAL RESPONSE ACCELERATION AT 1 SECOND PERIOD, Sd1		LOAD SCENARIO = {1,2} Sd1 = (1.125, 1.427)
HORIZONTAL OR VERTICAL IRREGULARITIES TYPE(S)		NONE

- IF SITE-SPECIFIC DESIGN CRITERIA ARE OUTSIDE THE LIMITS OF THESE PC DRAWINGS, CONTACT POLYGON ENGINEERING TO SEE IF AN ENGINEERING LETTER, SUPPLEMENTAL DRAWINGS, AND/OR CALCULATIONS COULD BE SUBMITTED FOR A SITE SPECIFIC SOLUTION. ANY SITE-SPECIFIC DEVIATION FROM THIS PC MAY NOT BE SUBMITTED TO DSA AS AN OVER-THE-COUNTER.
- STRUCTURE IS NOT DESIGNED TO SUPPORT SOLAR PANELS. STRUCTURE IS NOT DESIGNED TO SUPPORT SPRINKLER SYSTEMS IN LOAD SCENARIO 2 REGIONS.
- GEHAZARD REPORTS ARE REQUIRED IF THE AREA COVERED UNDER THE ROOF EXCEEDS 4000 SQ FT OR IS LOCATED WITHIN STATE OR LOCAL GEOLOGIC HAZARD ZONE, VERIFY SUBMITTAL AND APPROVAL OF A GEOHAZARD REPORT BY CGS PRIOR TO DSA SITE APPLICATION.
- STRUCTURAL SEPARATION BETWEEN ADJACENT STRUCTURES: REK 20= 4.5" REK 30= 3.0" STRUCTURAL SEPARATION BETWEEN EXISTING STRUCTURES: REK 20= 5.25" REK 30= 4.0"
- WHEN PLACING MULTIPLE CANOPIES WITH PIER FOOTINGS ADJACENT TO ONE ANOTHER, THE DESIGN MAY REQUIRE AN ANALYSIS OF GROUP EFFECTS ON THE FOUNDATIONS, THE MINIMUM CLEARANCE BETWEEN CENTER OF PIERS IS EIGHT TIMES PIER DIAMETER WITHOUT AN ACCOMPANYING ENGINEERING LETTER
- SITE APPLICATION DESIGN PROFESSIONAL AND DSA REVIEWER SHALL VERIFY THE STRUCTURE TO BE LOCATED AT LEAST 20 FT FROM ANY HIGHER ADJACENT STRUCTURE IF GROUND SNOW LOAD IS GREATER THAN ZERO.
- DESIGN COMPLIES WITH THE CONDITIONS OF EXCEPTION 1 OF ASCE 7-16 SECTION 11.4.8, ITEM 2.
- APPROVED FIRE APPARATUS ACCESS ROADS SHALL EXTEND TO WITHIN 150 FEET OF ALL PORTIONS OF THE PERIMETER OF THE STRUCTURE PER CFC 503.1.1.

ARCHITECTURAL REQUIREMENTS:

DESCRIPTION	DESIGN VALUES
TYPE OF CONSTRUCTION	II B
NUMBER OF STORIES	1
FIRE SPRINKLER SYSTEM	NOT BY POLYGON

RELATED BUILDING CODES AND STANDARDS:

- TITLE 24 CODES:**
- 2022 California Administrative Code (CAC).....(Part 1, Title 24, CCR)
 - 2022 California Building Code (CBC), Volumes 1 and 2 (Part 2, Title 24, CCR)
 - 2021 International Building Code with 2022 California amendments
 - 2022 California Electrical Code (CEC).....(Part 3, Title 24, CCR)
 - (2020 National Electrical Code with 2022 California amendments)
 - 2022 California Mechanical Code (CMC).....(Part 4, Title 24, CCR)
 - (2021 Uniform Mechanical Code with 2022 California amendments)
 - 2022 California Plumbing Code (CPC).....(Part 5, Title 24, CCR)
 - (2021 Uniform Plumbing Code with 2022 California amendments)
 - 2022 California Energy Code.....(Part 6, Title 24, CCR)
 - 2022 California Fire Code (CFC).....(Part 9, Title 24, CCR)
 - (2021 International Fire Code with 2022 California Amendments)
 - 2022 California Existing Building Code (CEBC).....(Part 10, Title 24, CCR)
 - 2022 California Green Building Standards Code.....(Part 11, Title 24, CCR)
 - 2022 California Referenced Standards Code.....(Part 12, Title 24, CCR)
 - Title 19 CCR, Public Safety, State Fire Marshal Regulations
- REFERENCE CODE SECTIONS FOR APPLICABLE STANDARDS:**
- 2022 CBC, CHAPTER 35
 - 2022 CFC, CHAPTER 80

SCOPE OF WORK NARRATIVE:

THESE DRAWINGS ILLUSTRATE THE FABRICATION AND INSTALLATION REQUIREMENTS FOR A FREE-STANDING PREFABRICATED STEEL SHADE STRUCTURE. THE ENTIRE STRUCTURAL SYSTEM IS COMPRISED OF TUBULAR STEEL MEMBERS SUPPORTED ON CONCRETE FOUNDATIONS. THE FLEXIBILITY INCLUDED HEREIN ALLOWS THIS STRUCTURE TO COMPLY WITH A WIDE VARIETY OF PROJECT SITES AND LOADING REQUIREMENTS.

INSTRUCTIONS FOR ARCHITECTS PLANNING TO SUBMIT THESE PRE-CHECKED DRAWINGS TO DSA:

STEP 1 PROJECT INFORMATION

PROJECT NAME	
SCHOOL DISTRICT	
USE AND OCCUPANCY CLASSIFICATION	(PROPOSED OCCUPANCY: A1, A2, A3, A4, A5, B, E)
OCCUPANT LOAD FACTOR	(15 SQFT/PERSON MAX; 5 SQFT/PERSON MIN FOR ANY A OCCUPANCY, 20 SQFT/PERSON MAX FOR B OR E OCCUPANCY)
TOTAL ROOF AREA	(MAXIMUM 4500 SQFT FOR ANY A OCCUPANCY, 10,000 SQFT FOR B OCCUPANCY, AND 5000 SQFT FOR E OCCUPANCY)
NUMBER OF OCCUPANTS	(MAXIMUM 300 FOR ANY A OCCUPANCY, 500 FOR B OCCUPANCY, AND 250 FOR E OCCUPANCY)

STEP 2 DESIGN OPTION

ROOF DECK	<input type="checkbox"/> MULTI-RIB	DEFAULT, WEIGHT 1.8 PSF
	<input type="checkbox"/> STANDING SEAM (SS)	WEIGHT 1.8 PSF
GUTTERS	<input type="checkbox"/> NO	DEFAULT
	<input type="checkbox"/> YES	SEE REK7.0 FOR DETAILS
ELECTRICAL ACCESS	<input type="checkbox"/> NO	DEFAULT
	<input type="checkbox"/> YES	SEE REK7.1 FOR DETAILS
CLEAR HEIGHT	<input type="checkbox"/> 8'	DEFAULT
	<input type="checkbox"/> OTHER	10' MAX

STEP 3 SEISMIC ACCELERATION

Ss	_____ (g)
S1	_____ (g)

STEP 4 SEISMIC REGIONS

0.000 < Ss <= 1.406	S1 <= 0.844	<input type="checkbox"/> WHITE	3.5 PSF MAX DEAD LOAD
1.406 < Ss <= 2.063	S1 <= 1.070	<input type="checkbox"/> GREEN	2.0 PSF MAX DEAD LOAD

STEP 5 TOTAL ROOF DEAD LOAD

ROOF DECK	_____ PSF	SEE STEP 2 "ROOF DECK FOR WEIGHTS"
COLLATERAL	_____ PSF	LIGHTING, FIRE SUPPRESSION, ETC.
TOTAL	_____ PSF	ADD "ROOF DECK" AND "COLLATERAL"

STEP 6 LOAD SCENARIO

WHITE	TOTAL ROOF DEAD LOAD <= 3.5 PSF	<input type="checkbox"/> LOAD SCENARIO 1
GREEN	TOTAL ROOF DEAD LOAD < 2.0 PSF	<input type="checkbox"/> LOAD SCENARIO 2

STEP 7 PC STRUCTURE

ROOF WIDTH <= 20	<input type="checkbox"/> REK 20
20 < ROOF WIDTH <= 30	<input type="checkbox"/> REK 30

STEP 8 STRUCTURE SIZE

	REK 20	DEFAULT	REK 30	DEFAULT
ROOF WIDTH	<input type="checkbox"/> 20'		<input type="checkbox"/> 30'	
	<input type="checkbox"/> OTHER 10' MIN, 20' MAX		<input type="checkbox"/> OTHER 20'-6" MIN, 30' MAX	
ROOF LENGTH	<input type="checkbox"/> 144'	2 BAYS	<input type="checkbox"/> 144'	2 BAYS
	<input type="checkbox"/> 164'	3 BAYS	<input type="checkbox"/> 164'	3 BAYS
	<input type="checkbox"/> 184'	4 BAYS	<input type="checkbox"/> 184'	4 BAYS
	<input type="checkbox"/> OTHER		<input type="checkbox"/> OTHER	

STEP 9 FOUNDATION TYPE

FOUNDATION TYPE	REK 20	REK 30
	<input type="checkbox"/> SPREAD PAD	<input type="checkbox"/> DRILLED PIER
	<input type="checkbox"/> DRILLED PIER	<input type="checkbox"/> SPREAD PAD
	<input type="checkbox"/> DRILLED PIER	<input type="checkbox"/> DRILLED PIER

STEP 10 FOUNDATION SUMMARY

	REK 20	REK 30
<input type="checkbox"/> LOAD SCENARIO 1	SPREAD PAD	<input type="checkbox"/> LOAD SCENARIO 1 DRILLED PIER
	<input type="checkbox"/> LOAD SCENARIO 1 DRILLED PIER	<input type="checkbox"/> LOAD SCENARIO 1 SPREAD PAD
<input type="checkbox"/> LOAD SCENARIO 2	SPREAD PAD	<input type="checkbox"/> LOAD SCENARIO 2 DRILLED PIER
	<input type="checkbox"/> LOAD SCENARIO 2 DRILLED PIER	<input type="checkbox"/> LOAD SCENARIO 2 SPREAD PAD

STEP 11 SHEET INDEX

BASE FRAME	REK 20 SHEET INDEX				REK 30 SHEET INDEX			
	SPREAD PAD	DRILLED PIER	SPREAD PAD	DRILLED PIER	SPREAD PAD	DRILLED PIER	SPREAD PAD	DRILLED PIER
ORDER FORM	REK1.0	REK1.0	REK1.0	REK1.0	REK1.0	REK1.0	REK1.0	REK1.0
NOTES AND SPECIAL INSPECTIONS	REK1.1	REK1.1	REK1.1	REK1.1	REK1.1	REK1.1	REK1.1	REK1.1
FOUNDATION PLAN	REK2.0	REK2.1	REK2.0	REK2.1	REK2.2	REK2.3	REK2.2	REK2.3
FRAMING PLAN	REK3.0	REK3.0	REK3.0	REK3.0	REK3.1	REK3.1	REK3.1	REK3.1
FRAME CONNECTION DETAILS	REK4.0	REK4.0	REK4.0	REK4.0	REK4.1	REK4.1	REK4.1	REK4.1
ARCHITECTURAL VIEWS	REK5.0	REK5.0	REK5.0	REK5.0	REK5.1	REK5.1	REK5.1	REK5.1
ROOF CONNECTION DETAILS	REK6.0	REK6.0	REK6.1	REK6.1	REK6.0	REK6.0	REK6.1	REK6.1
MISC DESIGN OPTIONS	REK7.0	REK7.0	REK7.0	REK7.0	REK7.0	REK7.0	REK7.0	REK7.0
ELETRICAL CUTOUPS	REK7.1	REK7.1	REK7.1	REK7.1	REK7.1	REK7.1	REK7.1	REK7.1

STEP 12 MULTIPLE STRUCTURES

MULTIPLE STRUCTURES	ROOF WIDTH X LENGTH	QTY
---------------------	---------------------	-----

STEP 1: GENERAL PROJECT INFORMATION

- IDENTIFY PROJECT NAME AND SCHOOL DISTRICT
- IDENTIFY USE AND OCCUPANCY CLASSIFICATION
- THE USE AND OCCUPANCY DETERMINE THE MAXIMUM SQUARE FOOTAGE OF THE STRUCTURE
- THE MAXIMUM SQUARE FOOTAGE IS ALSO LIMITED BY THE NUMBER OF OCCUPANTS
- IDENTIFY THE OCCUPANT LOAD PER TABLE 1004.5 IN THE CBC
- IDENTIFY TOTAL ROOF AREA WHICH SHALL NOT EXCEED ALLOWABLE AREA PER TABLE 506.2 IN THE CBC.
- IDENTIFY EXPECTED NUMBER OF OCCUPANTS BASED ON THE ESTIMATED OCCUPANT LOAD
- TOTAL ROOF AREA DIVIDED BY OCCUPANT LOAD CAN DETERMINE NUMBER OF OCCUPANTS

STEP 2: DESIGN OPTIONS

- SELECT ROOF DECK FOR YOUR PROJECT
- "MR" REPRESENTS MCELROY METAL "MULTI-RIB" ROOF DECK
- "SS" REPRESENTS MCELROY METAL "MEDALLION-LOCK" 16" STANDING SEAM ROOF DECK
- SELECT WHETHER GUTTERS AND DOWNSPOUTS FROM POLIGON IS NEEDED FOR YOUR PROJECT
- IF "YES", THEN INCLUDE SHEET REK7.0 IN THE DRAWING SET
- SELECT WHETHER ELECTRICAL CUTOUPS ARE NEEDED FOR YOUR PROJECT
- SHEET REK7.0 SHOWS ELECTRICAL CUTOUT SIZE AND LOCATION CUTOUPS IN COLUMNS
- SHEET REK7.1 HAS INSTRUCTIONS AND SHEET TO IDENTIFY WHICH COLUMNS
- SHEET REK7.1 MUST BE FILLED OUT IN THE SUBMITTAL SET APPROVED BY DSA
- IF NOTHING IS FILLED IN ON REK7.1, POLIGON WILL ASSUME CUTOUPS ARE ONLY IN COLUMN A1 (SEE "FRAMING PLAN" FOR REFERENCE)
- SELECT CLEAR HEIGHT (SEE "ARCHITECTURAL VIEWS" SHEET FOR REFERENCE)
- MIN 7'-11"; MAX 10'-0"
- IF NOTHING IS SELECTED, POLIGON WILL ASSUME THE DEFAULT FOR EACH DESIGN OPTION

STEP 3: IDENTIFY THE Ss & S1 ACCELERATION (g) FOR YOUR PROJECT AND GEOTECHNICAL INFORMATION

- Ss & S1 VALUE DETERMINES THE REQUIRED SEISMIC DESIGN FORCES
- Ss & S1 VALUE DEPENDS ON PROJECT'S GEOGRAPHICAL LOCATION
- FIND Ss & S1 VALUES FOR YOUR PROJECT IN THE SITE SPECIFIC GEOTECHNICAL REPORT
- FIND Ss & S1 VALUES FOR YOUR PROJECT USING <https://asce7.hazardtool.online/>
- THIS PC IS NOT APPROVED FOR Ss VALUES GREATER THAN 2.063 (CONTACT POLIGON FOR ADDITIONAL OPTIONS)

STEP 4: IDENTIFY THE SEISMIC REGION FOR YOUR PROJECT

- THE REGIONS ARE DEPENDANT ON THE Ss & S1 VALUES DETERMINED IN STEP 3
- THE SEISMIC REGION DICTATES THE MAXIMUM DEAD LOAD PERMITTED (SEE TABLE TO THE LEFT)

STEP 5: IDENTIFY THE ROOF DEAD LOAD FOR YOUR PROJECT

- THE ROOF DECK DEAD LOAD WILL ALWAYS BE INCLUDED
- THE COLLATERAL LOAD REPRESENTS ADDITIONAL LOAD THAT CAN BE SUPPORTED BY THE FRAME
- TOTAL ROOF DEAD LOAD MUST BE LESS THAN OR EQUAL TO THE MAX DEAD LOAD SHOWN IN STEP 4
- CUT SHEETS OF ANY BOARDS, BOXES AND EQUIPMENT TO BE MOUNTED ON THE STRUCTURE, INCLUDING WEIGHTS AND DIMENSIONS ARE REQUIRED

STEP 6: IDENTIFY THE LOAD SCENARIO

- REFERENCE THE STEP 4 COLOR AND SELECT THE APPLICABLE LOAD SCENARIO
- LOAD SCENARIOS HAVE NO IMPACT ON FRAME DESIGN OR COST, BUT DO AFFECT FOUNDATION SIZE

STEP 7: IDENTIFY PC STRUCTURE

- ROOF WIDTHS UP TO 20' WIDE USE THE "REK 20"
- ROOF WIDTHS UP TO 30' WIDE USE THE "REK 30"
- THE 20' AND 30' WIDTHS ARE SUGGESTED BECAUSE THEY ARE THE MOST ECONOMICAL
- MAXIMUM WIDTH IS 30'; (SEE "ARCHITECTURAL VIEWS" SHEET FOR REFERENCE)

STEP 8: IDENTIFY SITE SPECIFIC ROOF WIDTH AND LENGTH

- DO NOT EXCEED THE TOTAL ROOF AREA FROM STEP 1 (ROOF WIDTH MULTIPLIED BY ROOF LENGTH)

STEP 9: FOUNDATION TYPE

- SELECT A FOUNDATION BASED THE DESIRED FOUNDATION TYPE
- SELECT EITHER SPREAD PAD OR DRILLED PIER FOUNDATION PRIOR TO APPROVAL
- FOUNDATION TYPE IMPACTS CONSTRUCTION TIMING, SEQUENCE, COST, ETC.
- FOUNDATION TYPE IMPACTS ANCHOR BOLT LENGTH (NOT PROVIDED BY POLIGON)
- REVIEW OF SITE-SPECIFIC SOILS REPORT TO EVALUATE APPLICABILITY OF FOUNDATION OPTIONS AVAILABLE

STEP 10: FOUNDATION SUMMARY

- USE THE SELECTIONS FROM STEP 6 AND STEP 9 TO SELECT THE APPROPRIATE FOUNDATION

STEP 11: SELECT APPLICABLE SHEET INDEX FOR YOUR PROJECT

- IDENTIFY THE APPLICABLE SHEET INDEX
- INCLUDE APPLICABLE SHEETS WITH YOUR DSA SUBMITTAL
- EXCLUDE "MISC DESIGN" SHEET FOR PROJECTS WITHOUT ELECTRICAL CUTOUPS OR GUTTERS
- EXCLUDE "ELECTRICAL CUTOUPS" SHEET FOR PROJECTS WITHOUT ELECTRICAL CUTOUPS

STEP 12: MULTIPLE STRUCTURES WITH THE SAME PC#

- FILL IN ROOF LENGTH AND WIDTH OF STRUCTURES AS WELL AS QUANTITY
- UNO ON THE POLIGON DRAWINGS, POLIGON WILL ASSUME ALL DESIGN CRITERIA FOR EACH STRUCTURE IS THE SAME
- CONTACT POLIGON FOR FURTHER INFORMATION

SHEET INDEX					
1	REK1.0	ORDER FORM	11	REK5.0	ARCHITECTURAL VIEWS - REK 20
2	REK1.1	NOTES AND SPECIAL INSPECTIONS	12	REK5.1	ARCHITECTURAL VIEWS - REK 30
3	REK2.0	FOUNDATION PLAN SPREAD PAD - REK 20	13	REK6.0	ROOF CONNECTION DETAILS
4	REK2.1	FOUNDATION PLAN DRILLED PIER - REK 20	14	REK6.1	ROOF CONNECTION DETAILS
5	REK2.2	FOUNDATION PLAN SPREAD PAD - REK 30	15	REK7.0	MISC DESIGN OPTIONS
6	REK2.3	FOUNDATION PLAN DRILLED PIER - REK 30	16	REK7.1	ELECTRICAL CUTOUPS
7	REK3.0	FRAMING PLAN - REK 20			
8	REK3.1	FRAMING PLAN - REK 30			
9	REK4.0	FRAME CONNECTION DETAILS - REK 20			
10	REK4.1	FRAME CONNECTION DETAILS - REK 30			
TOTAL SHEETS = 16					

ABBREVIATIONS:

ACI	AMERICAN CONCRETE INSTITUTE	MR	MULTI-RIB ROOF PANEL (MCELROY)
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	NTS	NOT TO SCALE
ASM	ASSEMBLY (INTERNAL REFERENCE)	NO	NUMBER
ASTM	AMERICAN SOCIETY FOR TESTING AND MATLS	OC	ON CENTER
AWS	AMERICAN WELDING SOCIETY	OSHA	OCCUPATIONAL HEALTH AND SAFETY ADM.
CBC	CALIFORNIA BUILDING CODE	PCF	POUNDS PER CUBIC FOOT
CJP	COMPLETE JOINT PENETRATION	PD	POLIGON DRAWING
CLR	CLEAR	PJ	PRETENSIONED JOINT
DEG	DEGREE	PLCS	PLACES
DIA	DIAMETER	PLT	PLATE
DIM	DIMENSION	PSF	POUNDS PER SQUARE FOOT
DSA	DIVISION OF THE STATE ARCHITECT	PSI	POUNDS PER SQUARE INCH
EQ	EQUAL	QTY	QUANTITY
FT	FEET	REF	REFERENCE
GA	GAGE	SQ	SQUARE
IN	INCHES	SS	STANDING SEAM ROOF PANEL (MCELROY)
KSI	KIPS PER SQUARE INCH	Typ	TYPICAL
MAX	MAXIMUM	UNO	UNLESS NOTED OTHERWISE
MIN	MINIMUM	USGS	U.S. GEOLOGICAL SURVEY
MISC	MISCELLANEOUS	W/	WITH
MPH	MILES PER HOUR		

SPECIFICATIONS

PART 1 - GENERAL

- 1.1 STRUCTURE DESCRIPTION**
- A. STRUCTURE(S) BASED ON THE FOLLOWING PC DESIGN(S):
 - 1. GABLE ROOF (REK)
- 1.2 DESIGN REQUIREMENTS**
- A. MEET THE DESIGN INTENT SHOWN ON THE PC DRAWINGS APPROVED FOR THIS PROJECT.
 - 1. DESIGN CRITERIA
 - 2. MEMBERS SIZES
 - 3. HIDDEN BOLTED CONNECTIONS BETWEEN STRUCTURAL MEMBERS
 - 4. COLUMN ANCHORAGE SHALL INCLUDE FOUR (4) BOLTS IN COMPLIANCE WITH OSHA 1926.755(A)(1).</

GENERAL:

- 1. GENERAL NOTES AND TYPICAL DETAILS SHALL APPLY TO ALL PARTS OF THE JOB EXCEPT WHERE THEY MAY CONFLICT WITH DETAILS AND NOTES ON OTHER SHEETS. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED SUBJECT TO REVIEW BY THE STRUCTURAL ENGINEER FOR THIS PROJECT.
2. WORK SHALL CONFORM TO THE REQUIREMENTS, AS AMENDED TO DATE, OF THE LATEST ADOPTED EDITION OF THE CBC, C.A.C. TITLE 24, AND ALL OTHER LOCAL, STATE AND FEDERAL REGULATIONS.
3. OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER FOR THIS PROJECT PRIOR TO PROCEEDING WITH ANY WORK INVOLVED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE STRUCTURAL ENGINEER FOR THIS PROJECT AND BE RESOLVED BEFORE PROCEEDING WITH THE WORK.
5. THESE CONSTRUCTION DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, INCLUDING, BUT NOT LIMITED TO, BRACING, TEMPORARY SUPPORTS, AND SHORING. OBSERVATION VISITS TO THE SITE BY FIELD REPRESENTATIVES OF THE ARCHITECT/ENGINEER SHALL NOT INCLUDE INSPECTIONS OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES. ANY SUPPORT SERVICES PERFORMED BY THE ARCHITECT/ENGINEER DURING THE CONSTRUCTION SHALL BE DISTINGUISHED FROM CONSTRUCTION AND DETAILED INSPECTION SERVICES WHICH ARE FURNISHED BY OTHERS. THESE SUPPORT SERVICES PERFORMED BY THE ARCHITECT/ENGINEER, WHETHER OF MATERIAL OR WORK, ARE FOR THE PURPOSE OF ASSISTING IN QUALITY CONTROL AND IN ACHIEVING CONFORMANCE WITH CONTRACT DOCUMENTS, BUT DO NOT GUARANTEE CONSTRUCTION.
6. ASTM DESIGNATIONS AND ALL STANDARDS REFER TO THE LATEST AMENDMENTS.
7. CONFORM TO APPLICABLE CAL/OSHA CONSTRUCTION SAFETY REGULATIONS FOR ALL WORK PERFORMED DURING CONSTRUCTION. JOB SITE SAFETY IS STRICTLY THE RESPONSIBILITY OF THE CONTRACTOR AND NOT THE ARCHITECT/ENGINEER OR OWNER.
8. THE ENGINEER AND THEIR CONSULTANTS SHALL HAVE NO RESPONSIBILITY FOR THE DISCOVERY, HANDLING, REMOVAL OR DISPOSAL OF HAZARDOUS MATERIALS AT THE PROJECT SITE, INCLUDING BUT NOT LIMITED TO, ASBESTOS, ASBESTOS PRODUCTS, POLYCHLORINATED BIPHENYL (PCB) OR OTHER TOXIC SUBSTANCES.
9. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS, OR IF A CHANGE IN THE SCOPE OF WORK IS PROPOSED, A CONSTRUCTION CHANGE DOCUMENT DETAILING AND SPECIFYING THE REQUIRED CHANGE(S) SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK.
10. THE SCHOOL DISTRICT'S INSPECTOR OF RECORD SHALL INSPECT AND APPROVE THE ERECTED FRAME PRIOR TO ROOF INSTALLATION.
11. SEE REQUIREMENTS FOR LOCATION IN ANY FIRE HAZARD SEVERITY ZONE FOR WILDLAND URBAN INTERFACE AREAS (WUI) AS SPECIFIED IN THE APPLICABLE VERSION OF THE CALIFORNIA BUILDING CODE. PROVIDE PROTECTION AND DETAILS OF ALL AREAS COMPLYING WITH THE WUI REQUIREMENTS.
12. LOCATING THIS STRUCTURE CLOSER THAN 20 FEET TO OTHER STRUCTURES MAY AFFECT THE ALLOWABLE AREA FOR THE EXISTING CONSTRUCTION PER THE APPLICABLE VERSION OF THE CALIFORNIA BUILDING CODE.
13. VIEWS AND DETAILS ARE NOT DRAWN TO SCALE (UNLESS NOTED OTHERWISE). DO NOT SCALE THESE DRAWINGS.
14. OTHER SITE SPECIFIC ITEMS MAY BE REQUIRED.
15. WHEN A SITE-SPECIFIC PROJECT IS LOCATED IN A FLOOD ZONE OTHER THAN ZONE X, A LETTER STAMPED AND SIGNED FROM A SOLS ENGINEER IS NEEDED TO VALIDATE THE ALLOWABLE SOIL VALUES SPECIFIED IN THE PC ARE STILL APPLICABLE.

STRUCTURAL AND MISCELLANEOUS STEEL:

- 1. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) 360-16 AND 303-16 REFERENCED BY THE 2022 EDITION OF THE CALIFORNIA BUILDING CODE.
2. PIPE SECTIONS SHALL CONFORM TO ASTM A53, Fy = 35 ksi, GRADE B UNLESS NOTED OTHERWISE.
3. STRUCTURAL TUBING (HSS SHAPES) SHALL CONFORM TO ASTM A500, GRADE B (OR HIGHER), Fy = 46 KSI.
4. IF MATERIAL AVAILABILITY IS LIMITED, MEMBER THICKNESSES CAN BE INCREASED BEYOND WHAT IS SHOWN IN THESE DRAWINGS (MAXIMUM INCREASE OF 1/8").
5. ALL CHANNELS, ANGLES, PLATES AND MISC. STEEL SHALL CONFORM TO ASTM A36, Fy = 36 KSI.
6. ALL COLD FORM STEEL SHALL CONFORM TO ASTM A653, CS = TYPE B, Fy = 50 KSI.
7. STRUCTURAL STEEL AND DECK SHALL BE IDENTIFIED FOR CONFORMITY PER CBC 2202A.1.
8. ROOF DECK SHALL HAVE KYNAR 5000 METAL COATING.
9. ROOF DECK SHALL CONFORM TO ATSM A792, Fy = 50 KSI.
10. MR ROOF SCREWS MEET ASTM A510 WITH A HEAD DIMENSION OF 0.31" (FLAT-TO-FLAT) AND INTEGRAL WASHER DIMENSION OF 0.58" (OUTSIDE DIAMETER).
11. SS ROOF SCREWS MEET ASTM A510 WITH A HEAD DIMENSION OF 0.437" (OUTSIDE DIAMETER).

WELDING:

- 1. ALL WELDING SHALL COMPLY WITH AWS D1.1 SPECIFICATIONS AND SHALL BE DONE BY AWS QUALIFIED WELDERS CERTIFIED FOR THE TYPE OF WELDING TO BE PERFORMED.
2. ALL WELDING SHALL BE DONE BY GAS METAL ARC PROCESS WITH E70XX ELECTRODES. FLUX CORE ARC WELD SHALL CONFORM TO CHARPY NOTCH TOUGHNESS RATING OF 20 ft-lb @ (0° F).
3. ALL WELDING SHALL BE DONE IN THE SHOP WITH REQUIRED INSPECTION, PRE-APPROVED BY DSA, TO ENSURE PROPER MATERIAL ID AND WELDING.
4. WELD FILLER METAL MANUFACTURER SHALL PROVIDE WRITTEN CERTIFICATION OF COMPLIANCE WITH CODE AND SPECIFICATIONS.

BOLTING:

- 1. ALL BOLTS SHOWN ON THESE DRAWINGS ARE ASTM F3125 (A325 TYPE 1) HIGH STRENGTH BOLTS (UNO) AND SHALL BE HOT DIPPED GALVANIZED PER ASTM F2329.
2. HIGH STRENGTH BOLTS SHALL BE SAMPLED AND TESTED IN COMPLIANCE WITH CBC 2213A.1.
3. BEFORE ERECTING THE FRAME, VERIFY ALL BOLTS AND NUTS ARE CLEAN OF DEBRIS AND BURRS - INCLUDING THE HARDWARE ALREADY FASTENED INSIDE THE MEMBERS. CHASING SOME OF THE BOLTS AND NUTS MAY BE REQUIRED.
4. ANCHOR BOLTS (HEAVY HEX HEAD, ASTM F1554, GRADE 55) SHALL BE HOT DIPPED GALVANIZED PER ASTM F2329. ANCHOR BOLTS MAY BE HEADED OR THREADED WITH A NUT THAT IS PREVENTED FROM ROTATING.
5. HIGH STRENGTH NUTS SHALL CONFORM TO ASTM A563 AND SHALL BE GALVANIZED PER ASTM F2329.
6. HIGH STRENGTH WASHERS SHALL CONFORM TO ASTM F436 AND SHALL BE GALVANIZED PER ASTM F2329.
7. THE BOLTING INSTALLATION REQUIREMENTS OUTLINED BELOW ARE CRITICAL TO THE STRUCTURE'S DESIGN AND PERFORMANCE. THE INSTALLER IS REQUIRED TO COORDINATE THIS PHASE OF CONSTRUCTION WITH THE SPECIAL BOLTING INSPECTOR AND THE INSPECTOR OF RECORD PRIOR TO THE ERECTION OF THE FRAME. ALL BOLTS SHALL BE INSTALLED AND INSPECTED PER THE APPLICABLE VERSION OF AISC'S SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS", CBC 1705A.2.1; AISC 341-16 17; AISC 360-16 N5.6.
A. PRETENSIONED JOINTS (IDENTIFIED ON THE FRAME CONNECTION DETAILS WITH A "PJ REQUIRED") MUST BE INSTALLED AND INSPECTED TO MEET ONE OF FOLLOWING REQUIREMENTS:
1. TURN-OF-NUT PRETENSIONING
2. CALIBRATED WRENCH PRETENSIONING
3. DIRECT-TENSION-INDICATOR PRETENSIONING (CONTRACTOR RESPONSIBLE FOR PURCHASE OF REQUIRED WASHERS)
B. ALL OTHER JOINTS MUST BE INSTALLED AND INSPECTED TO MEET THE REQUIREMENTS OF SNUG-TIGHTENED JOINTS. NOTE TO INSTALLER AND INSPECTOR(S): THE SNUG-TIGHT CONDITION EXISTS, IN PART, WHEN ALL THE BOLTS IN THE JOINT HAVE BEEN TIGHTENED SUFFICIENTLY TO PREVENT THE REMOVAL OF THE NUTS WITHOUT THE USE OF A WRENCH.

THE CONTRACTOR, SPECIAL BOLTING INSPECTOR AND THE INSPECTOR OF RECORD MUST ALL AGREE ON WHICH APPROACH WILL BE USED TO PRETENSION THE BOLTS. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING THE APPROACH AGREED TO BY ALL PARTIES LISTED ABOVE.

FOUNDATIONS:

- 1. ALLOWABLE SOIL PRESSURES ASSUME CLASS 5 SOIL CLASSIFICATION PER 2022 CBC TABLE 1806A.2.
2. FILL AND BACKFILL SHALL BE COMPACTED TO 95% OF MAX. DENSITY IN ACCORDANCE WITH ASTM TEST METHOD D1557. FLOODING NOT PERMITTED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING, ETC. NECESSARY TO SUPPORT CUT AND/OR FILL BANKS DURING EXCAVATION, AND FORMING AND PLACEMENT OF CONCRETE.
4. STRUCTURES SHALL BE SETBACK FROM ADJACENT SLOPES TO PROVIDE FIRM MATERIAL FOR EMBEDMENT AND FOR PROTECTION FROM SLOPE DRAINAGE, EROSION, AND SLOW FAILURES.
A. BOTTOM OF ASCENDING SLOPE: THE SMALLER OF HALF THE HEIGHT OF THE SLOPE AND 15FT MEASURED FROM THE FACE OF THE STRUCTURE TO THE TOE OF THE SLOPE
B. TOP OF DESCENDING SLOPE: THE SMALLER OF A THIRD OF THE HEIGHT OF THE SLOPE AND 40 FT MEASURED FROM THE FACE OF THE FOOTING TO THE TOP OF THE SLOPE
ALTERNATE SETBACKS ARE PERMITTED, SUBJECT FOR APPROVAL. A GEOTECHNICAL INVESTIGATION MAY BE REQUIRED.
5. STRUCTURES PLACED ON LIQUIFIABLE SOILS OR SITE CLASS F MAY NOT BE SUBMITTED FOR AN OVER THE COUNTER REVIEW

CONCRETE:

- 1. MIX DESIGN REQUIREMENTS: (NORMAL WEIGHT CONCRETE)
MINIMUM STRENGTH F'c (28 DAYS) EXPOSURE CATEGORY MAXIMUM W/C RATIO SLUMP (± 1") UNIT WEIGHT (NORMAL WEIGHT)
5000 PSI F3, S3, W2, C2 0.4 4" 150 PCF
2. CHANGES TO THE MIX DESIGN MUST BE APPROVED BY THE ENGINEER OR ARCHITECT OF RECORD AND DSA
3. AGGREGATES SHALL CONFORM TO ASTM C33. MAX AGGREGATE SIZE = 1".
4. CEMENT SHALL CONFORM TO ASTM C150 (TYPE V) WITH A MAXIMUM EXPANSION OF 0.040%, FOR SULFATE RESISTANCE.
5. ADMIXTURES CONTAINING CALCIUM CHLORIDE ARE PROHIBITED.
6. CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES SHALL BE AIR ENTRAINED PER ACI 318-19 SECTION 19.3.3.
7. CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR A MINIMUM OF FIVE DAYS AFTER PLACEMENT. ALTERNATE METHODS WILL BE APPROVED IF SATISFACTORY PERFORMANCE CAN BE ASSURED.
8. CONCRETE SHALL NOT FREE FALL MORE THAN FIVE FEET.
9. CONCRETE SHALL BE PROPORTIONED PER ACI 318-19 26.4.
10. CONCRETE SHALL BE TESTED PER CBC 1910A.1, 1705A.3, AND ACI 318-19 26.13. BATCH PLANT INSPECTION NOT REQUIRED. CONTRACTOR SHALL IMPLEMENT WEIGHTMASTER AND BATCH TICKET REQUIREMENTS OF CBC 1705A.3.3.1.

REINFORCING STEEL:

- 1. REINFORCING STEEL SHALL BE DEFORMED STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A615. (DEFORMATIONS SHALL BE IN ACCORDANCE WITH ASTM A305) AS FOLLOWS:
GR 60: (#4 BARS AND LARGER)
GR 40: (#3 BARS)
2. DETAILING, FABRICATION, AND ERECTION OF REINFORCING BARS SHALL CONFORM TO THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCING CONCRETE STRUCTURES."
3. MIN. COVER FOR CAST-IN-PLACE CONCRETE SHALL BE AS FOLLOWS:
A. CAST AGAINST EARTH..... 3"
B. CAST AGAINST FORM BELOW GRADE..... 2"
C. FORMED SLABS (#11 BAR & SMALLER)..... 3/4"
D. SLABS ON GRADE (FROM TOP OF SLAB)..... 1"
E. COLUMNS AND BEAMS (MAIN BARS)..... 2"
F. WALLS EXPOSED TO WEATHER (#6-#18 BARS)..... 2"
G. WALLS EXPOSED TO WEATHER (#5 & SMALLER)..... 11/2"
H. NOT EXPOSED TO WEATHER (#11 & SMALLER)..... 3/4"
4. BARS SHALL BE CLEAN OF RUST, GREASE OR OTHER MATERIAL LIKELY TO IMPAIR BOND. BENDS SHALL BE MADE COLD.
5. FOR #6 BARS AND SMALLER, REINFORCING SHALL BE LAP SPLICED 45 BAR DIA MINIMUM IN CONCRETE. FOR #7 BARS AND LARGER, REINFORCING SHALL BE LAP SPLICED 55 BAR DIAMETERS MINIMUM IN CONCRETE. ALL LAP SPLICES MUST COMPLY WITH ACI 318-19.
6. PRIOR TO PLACING OF CONCRETE, REINFORCING STEEL AND EMBEDDED ITEMS SHALL BE WELL SECURED IN POSITION.
7. WELDING OF REINFORCING IS NOT ALLOWED
8. REINFORCING STEEL SHALL BE SAMPLED AND TESTED PER CBC 1910A.2.

POWDER COATED AND EPOXY PRIMED FINISH:

- 1. ENTIRE POWDER COATING PROCESS COMPLETED IN SAME FACILITY AS STEEL FABRICATION.
2. ALL CARBON STEEL MEMBERS (COLUMNS, BEAMS, PLATES, ETC.) PAINTED WITH PRIME COAT PER THE "AISC CODE OF STANDARD PRACTICE" AND THE "AISC SPECIFICATION SECTION M3" (UNLESS NOTED OTHERWISE).
3. PARTS PRETREATED IN A 3 STAGE IRON PHOSPHATE WASHER (OR EQUAL).
4. EPOXY PRIMER POWDER COAT APPLIED TO PARTS FOR SUPERIOR CORROSION PROTECTION.
5. TOP POWDER COAT OF SUPER DURABLE TGIC (COLOR SELECTED FROM MANUFACTURER'S STANDARD OPTIONS OR CUSTOM COLOR).
6. SAMPLE PRODUCTION PARTS TESTED TO MEET THE FOLLOWING CRITERIA:
A. SALT SPRAY RESISTANCE PER ASTM B 117/ASTM D 1654
1. 10000 HOURS WITH NO CREEP FROM SCRIBE LINE AND RATING OF 10
B. HUMIDITY RESISTANCE PER ASTM D2247-02
1. 5000 HOURS WITH NO LOSS OF ADHESION OR BLISTERING
C. COLOR/UV RESISTANCE PER ASTM G154-04
1. 2000 HOURS EXPOSURE ALTERNATE CYCLES WITH NO CHALKING, 75% COLOR RETENTION, AND COLOR VARIATION MAXIMUM 3.0 E VARIATION CIE FORMULA (BEFORE AND AFTER 2000 HOURS EXPOSURE)

CONSTRUCTION NOTES

- 1. A DSA-CERTIFIED CLASS 2 INSPECTOR IS REQUIRED FOR THIS PROJECT.
2. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY DSA, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24 CCR AND DSA IR A-6.
3. A "DSA-CERTIFIED" PROJECT INSPECTOR EMPLOYED BY THE OWNER (E.G. DISTRICT, ETC.) AND APPROVED BY DSA SHALL PROVIDE CONTINUOUS INSPECTION OF WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR.
4. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE OWNER (E.G. DISTRICT, ETC.) SHALL CONDUCT ALL THE REQUIRED TEST AND INSPECTIONS FOR THE PROJECT.

NOTICE OF DISCLAIMER FOR STRUCTURAL ENGINEER RESPONSIBILITY

- 1. FOR THE SITE-SPECIFIC PROJECT, NEITHER POLYGON OR GHD ARE THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE.
2. FOR THE SITE-SPECIFIC PROJECT, GHD AND POLYGON'S RESPONSIBILITY IS LIMITED TO THE PREPARATION OF THE PLANS AND SPECIFICATIONS FOR THE STRUCTURES OF THIS PC ONLY.
3. STRUCTURAL OBSERVATION OF CONSTRUCTION IPECIFICALLY EXCLUDED FROM GHD AND POLYGON'S RESPONSIBILITY FOR THE SITE-SPECIFIC PROJECT.
4. ALL CONSTRUCTION ACTIVITIES RELATED TO STRUCTURAL ENGINEERING MAY BE DELEGATED TO A QUALIFIED ENGINEER BY THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE. THESE ACTIVITIES INCLUDE, BUT ARE NOT LIMITED TO, APPROVAL OF INSPECTOR QUALIFICATIONS, STRUCTURAL OBSERVATIONS OF CONSTRUCTION, REVIEW OF INSPECTIONS REPORTS, AND SIGNING OFF ON THE VERIFIED REPORT FOR COMPLETED WORK.
5. POLYGON WILL BE RESPONSIBLE FOR RESPONDING TO QUESTIONS PERTAINING TO THE PLANS AND SPECIFICATIONS FOR THE STRUCTURES OF THIS PC WHICH ARISE DURING PLAN REVIEW AND CONSTRUCTION.

SPECIAL INSPECTION NOTES:

- 1. THE PROJECT INSPECTOR AND TESTING AGENCY SHALL BE SELECTED BY THE SCHOOL DISTRICT AND APPROVED BY DSA AND THE ARCHITECT OF RECORD.
2. COSTS OF THE PROJECT INSPECTOR AND THE TESTING AGENCY SHALL BE BORN BY THE SCHOOL DISTRICT.
3. THE PROJECT INSPECTOR, AND ENTIRE CONSTRUCTION OVERSIGHT PROCESS, SHALL COMPLY WITH DSA PR 13-01.
4. ON APPROVED PC DRAWINGS, THE STATEMENT OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS (FORM DSA-103) BELOW IS ONLY AN EXAMPLE ON APPROVED PC DRAWINGS, THE EXAMPLE FORM DSA-103 MUST BE CROSSED OUT BEFORE THE PC DRAWINGS CAN BE APPROVED AS PART OF A SITE-SPECIFIC (OR STOCKPILE) PROJECT SO THEY WILL NOT CONFLICT WITH THE OFFICIAL FORM DSA-103 FOR THE PROJECT.

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC

Table with columns: Application Number, School Name, School District, DSA File Number, Increment Number, Date Submitted. Includes sections for Key to Columns (1. TYPE, 2. PERFORMED BY), S1. GENERAL, S2. SOIL COMPACTION AND FILL, S4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS), C1. CAST-IN-PLACE CONCRETE, S/A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES, S/A2. HIGH-STRENGTH BOLTS, S/A3. WELDING, S/A4. SHOP WELDING (IN ADDITION TO SECTION S/A3), S/A9. ANCHOR BOLTS AND ANCHOR RODS, and DSA STAMP.

DSA 103-22: LIST OF REQUIRED VERIFIED REPORTS, CBC 2022

- 1. Soils Testing and Inspection: Geotechnical Verified Report Form DSA 293
2. Structural Testing and Inspection: Laboratory Verified Report Form DSA 291
3. Shop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292
4. High-Strength Bolt Installation Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292



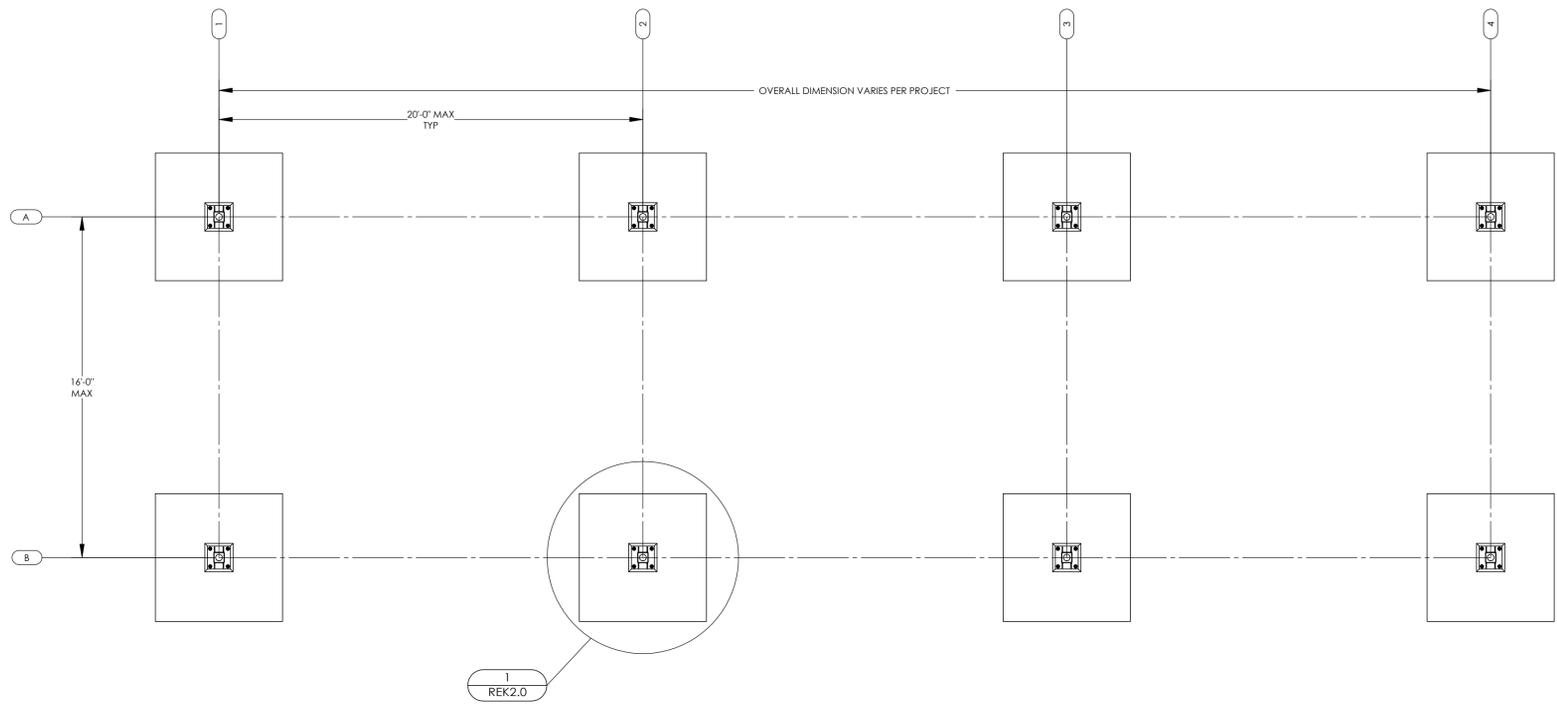
STATE APPROVALS-PC
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-121214 PC
REVIEWED FOR
SS [] FLS [] ACS [] CG []
DATE: 7/18/2023

PRE-CHECK (PC) DOCUMENT CODE: 2022 CBC A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

NOTES AND SPECIAL INSPECTIONS

REK1.1

GABLE ROOF - REK



FOUNDATION PLAN (SPREAD PAD)
SCALE: 1/4" = 1'-0"

FOUNDATION PLAN NOTES:

- TOP OF ALL FOUNDATIONS MUST BE CONSTRUCTED AT ONE COMMON ELEVATION (COORDINATE WITH SITE PLANS - NOT BY POLYGON)
- ALL FOUNDATIONS MUST BE CENTERED UNDER COLUMNS (UNO).
- SEE SHEET REK1.1 FOR CONCRETE REQUIREMENTS.
- PRIOR TO FORMING AND CASTING FOUNDATIONS, REVIEW FOUNDATION PLAN FOR REQUIRED ORIENTATION.
- FOUNDATION MATERIAL AND INSTALLATION NOT BY POLYGON.
- VIBRATE CONCRETE FULL DEPTH OF FOUNDATION.

STATE APPROVALS-SITE



poligon
PORTER



STATE APPROVALS-PC

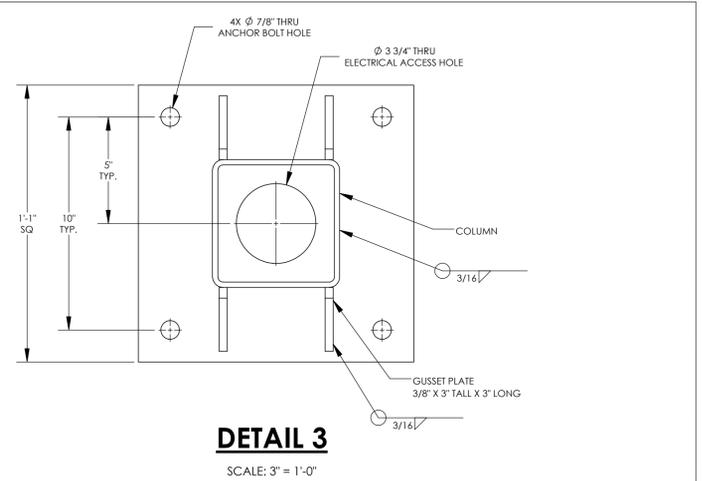
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-121214 PC
REVIEWED FOR
SS FLS ACS CG
DATE: 7/18/2023

PRE-CHECK (PC) DOCUMENT
CODE: 2022 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

FOUNDATION PLAN SPREAD PAD

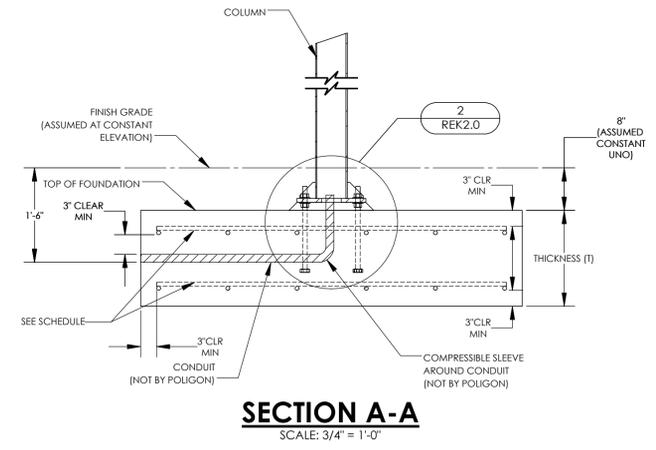
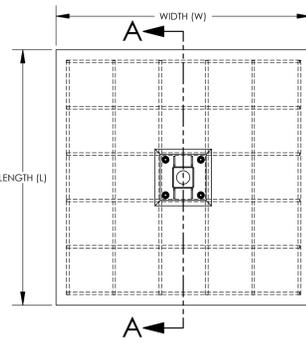
GABLE ROOF - REK 20

REK2.0



COLUMN BASEPLATE

3



SPREAD PAD FOUNDATION

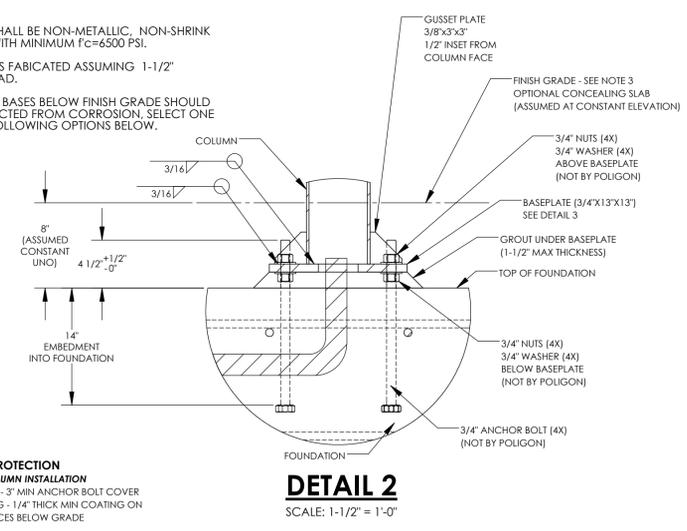
FOUNDATION REQUIREMENTS VARY PER PROJECT
SEE SHEET REK1.0 FOR REQUIRED LOAD SCENARIO AND FOUNDATION TYPE (STEP 9 OF 'INSTRUCTIONS')
ONLY REFERENCE COPY OF PC DRAWINGS SUBMITTED FOR THIS PROJECT

LOAD SCENARIO	WIDTH (W)	LENGTH (L)	THICKNESS (T)	HORIZONTAL REINFORCING ¹	
				QTY	SIZE
				1	7'-0"
2	7'-6"	7'-6"	1'-6"	7	#6

¹ EQUALLY SPACED EACH WAY, TOP AND BOTTOM

NOTES:

- GROUT SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH MINIMUM $f_c=6500$ PSI.
- COLUMNS FABRICATED ASSUMING 1-1/2" GROUT PAD.
- COLUMN BASES BELOW FINISH GRADE SHOULD BE PROTECTED FROM CORROSION, SELECT ONE OF THE FOLLOWING OPTIONS BELOW.

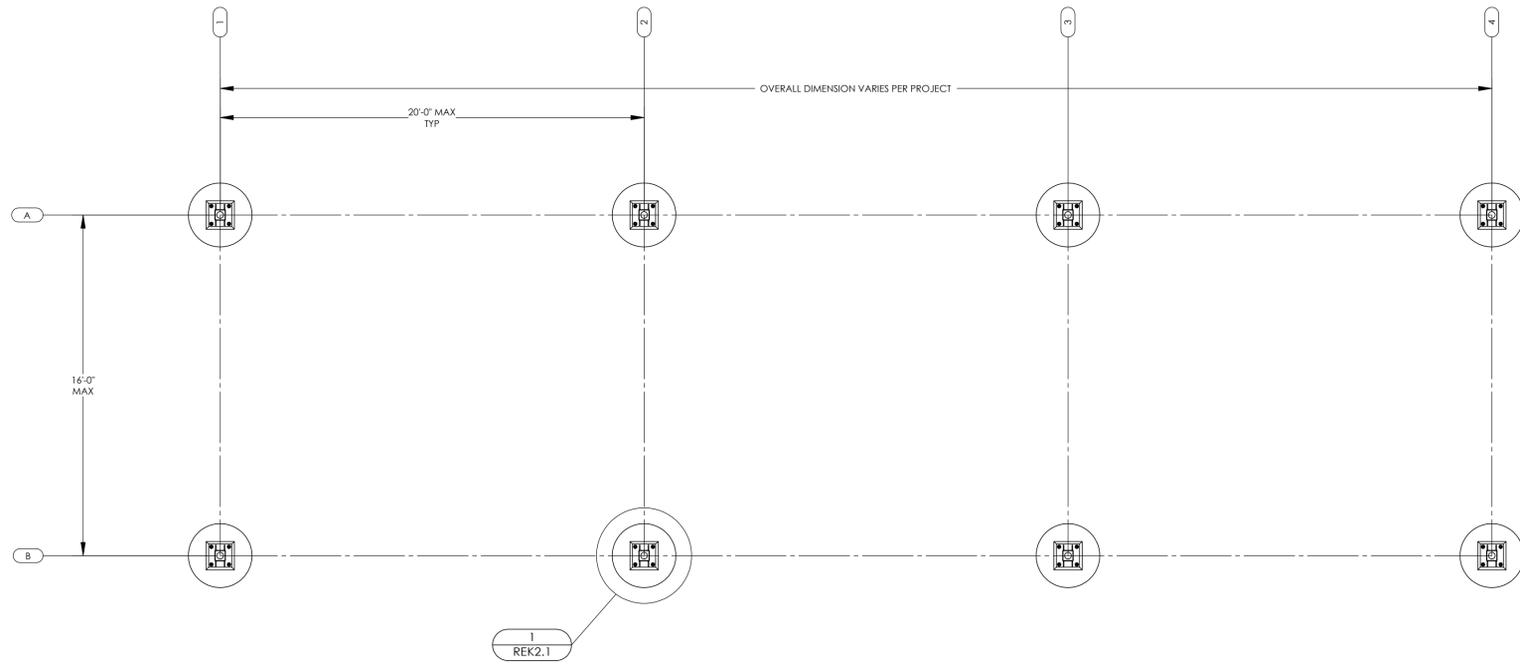


COLUMN BASE PROTECTION BELOW SURFACE COLUMN INSTALLATION
[1] CONCRETE SLAB - 3" MIN ANCHOR BOLT COVER
[] MASTIC COATING - 1/4" THICK MIN COATING ON ALL STEEL SURFACES BELOW GRADE

COLUMN BASEPLATE AND ANCHOR BOLTS

2

1

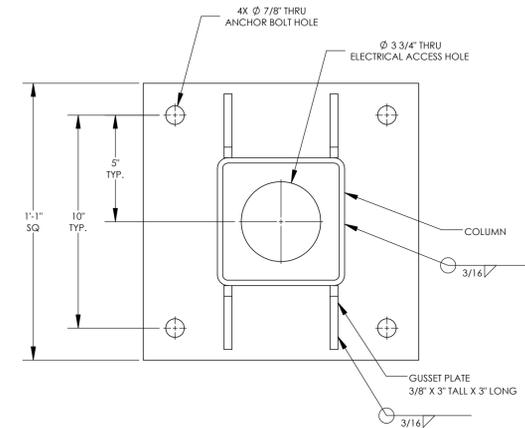


FOUNDATION PLAN (DRILLED PIER)

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

FOUNDATION PLAN NOTES:

1. TOP OF ALL FOUNDATIONS MUST BE CONSTRUCTED AT ONE COMMON ELEVATION (COORDINATE WITH SITE PLANS - NOT BY POLYGON)
2. ALL FOUNDATIONS MUST BE CENTERED UNDER COLUMNS (UNO).
3. SEE SHEET REK1.1 FOR CONCRETE REQUIREMENTS.
4. PRIOR TO FORMING AND CASTING FOUNDATIONS, REVIEW FOUNDATION PLAN FOR REQUIRED ORIENTATION.
5. FOUNDATION MATERIAL AND INSTALLATION NOT BY POLYGON.
6. VIBRATE CONCRETE FULL DEPTH OF FOUNDATION.
7. FOR DRILLED PIER FOUNDATIONS, PREVENT SOIL FROM ENTERING EXCAVATED HOLE (FORM, ETC).

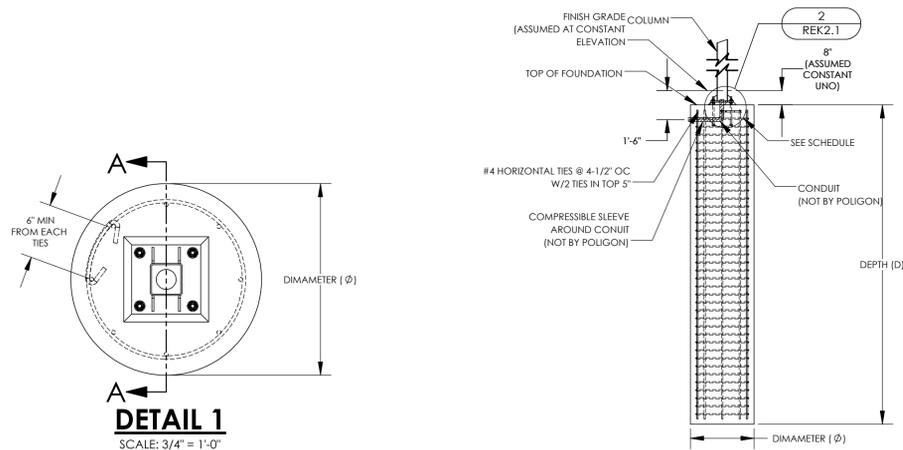


DETAIL 3

SCALE: 3" = 1'-0"

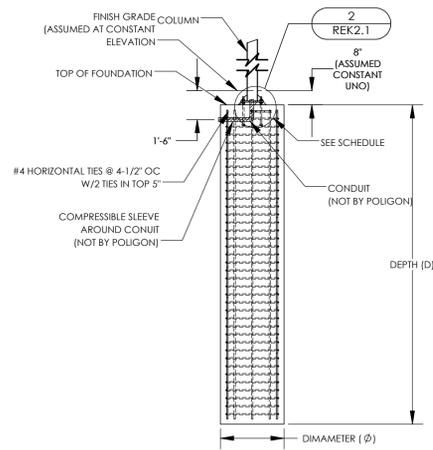
COLUMN BASEPLATE

3



DETAIL 1

SCALE: 3/4" = 1'-0"



SECTION A-A

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

DRILLED PIER FOUNDATION

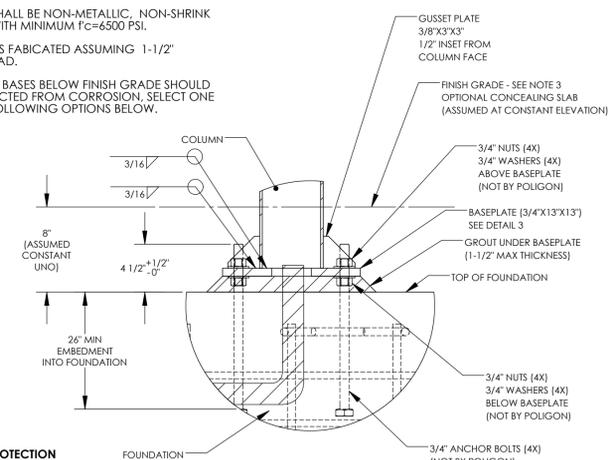
FOUNDATION REQUIREMENTS VARY PER PROJECT
SEE SHEET REK1.0 FOR REQUIRED LOAD SCENARIO AND FOUNDATION TYPE (STEP 9 OF 'INSTRUCTIONS')
 ONLY REFERENCE COPY OF PC DRAWINGS SUBMITTED FOR THIS PROJECT

LOAD SCENARIO	DIAMETER (Ø)	DEPTH (D)	VERTICAL REINFORCING ¹	
			QTY	SIZE
1	2'-6"	10'-6"	8	#6
2	2'-6"	11'-0"	8	#6

¹ EQUALLY SPACED AROUND DRILLED PIER

NOTES:

1. GROUT SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH MINIMUM F_c=6500 PSI.
2. COLUMNS FABRICATED ASSUMING 1-1/2" GROUT PAD.
3. COLUMN BASES BELOW FINISH GRADE SHOULD BE PROTECTED FROM CORROSION, SELECT ONE OF THE FOLLOWING OPTIONS BELOW.



DETAIL 2

SCALE: 1-1/2" = 1'-0"

COLUMN BASE PROTECTION

- [1] CONCRETE SLAB - 3" MIN ANCHOR BOLT COVER
- [2] MASTIC COATING - 1/4" THICK MIN COATING ON ALL STEEL SURFACES BELOW GRADE

1

COLUMN BASEPLATE AND ANCHOR BOLTS

2

STATE APPROVALS-SITE



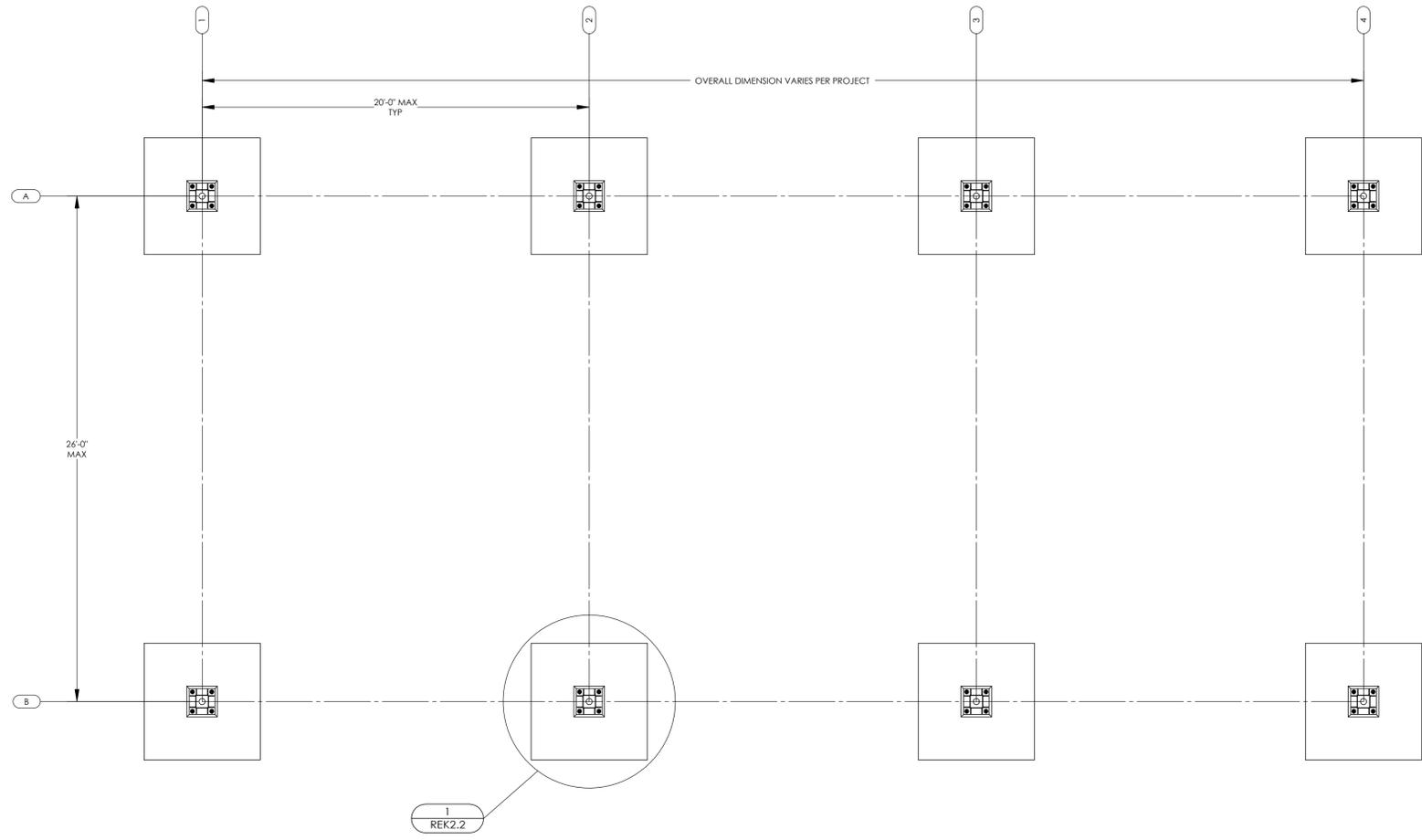
STATE APPROVALS-PC



PRE-CHECK (PC) DOCUMENT
 CODE: 2022 CBC
 A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

FOUNDATION PLAN DRILLED PIER
 GABLE ROOF - REK. 20

REK2.1



FOUNDATION PLAN (SPREAD PAD)
SCALE: 1/4" = 1'-0"

FOUNDATION PLAN NOTES:

1. TOP OF ALL FOUNDATIONS MUST BE CONSTRUCTED AT ONE COMMON ELEVATION (COORDINATE WITH SITE PLANS - NOT BY POLYGON)
2. ALL FOUNDATIONS MUST BE CENTERED UNDER COLUMNS (UNO).
3. SEE SHEET REK1.1 FOR CONCRETE REQUIREMENTS.
4. PRIOR TO FORMING AND CASTING FOUNDATIONS, REVIEW FOUNDATION PLAN FOR REQUIRED ORIENTATION.
5. FOUNDATION MATERIAL AND INSTALLATION NOT BY POLYGON.
6. VIBRATE CONCRETE FULL DEPTH OF FOUNDATION.

STATE APPROVALS-SITE

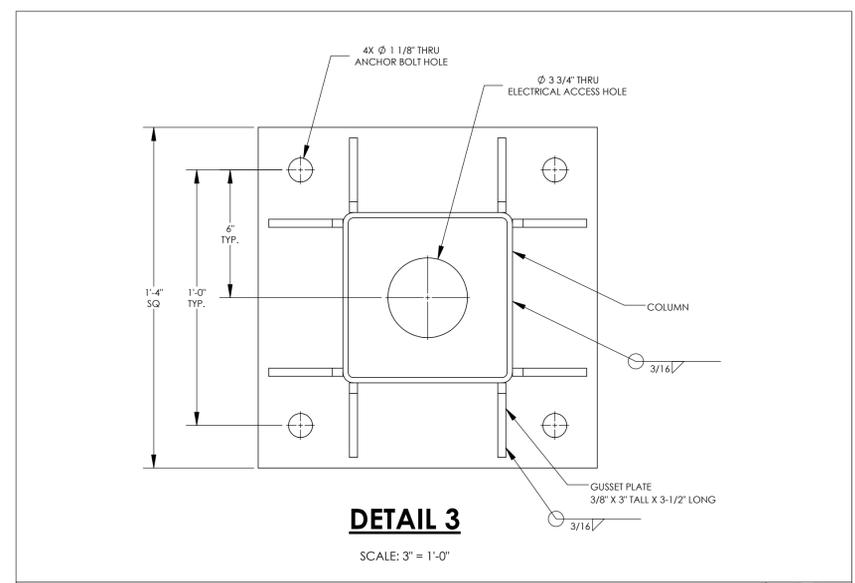
1035 P. AZA, GOLDEN GATE DISTRICT
SUITE 11
CAMERON PARK BLVD., CA 94582
510.877.1016



poligon
PORTER
ARCHITECTS



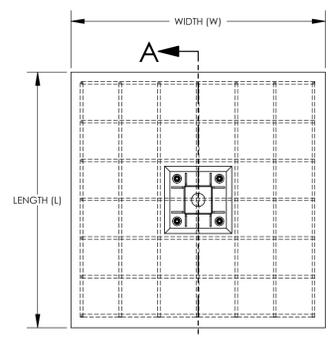
STATE APPROVALS-PC



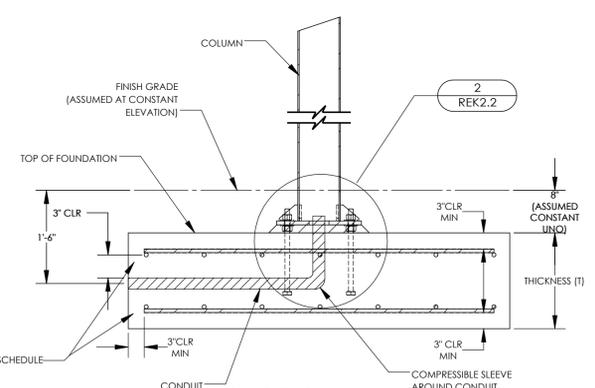
DETAIL 3
SCALE: 3" = 1'-0"

COLUMN BASEPLATE

3



DETAIL 1
SCALE: 1/2" = 1'-0"



SECTION A-A
SCALE: 3/4" = 1'-0"

SPREAD PAD FOUNDATION

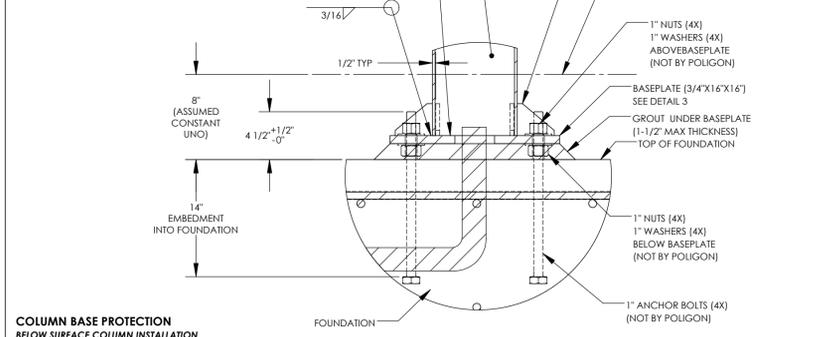
FOUNDATION REQUIREMENTS VARY PER PROJECT
SEE SHEET REK1.0 FOR REQUIRED LOAD SCENARIO AND FOUNDATION TYPE (STEP 9 OF 'INSTRUCTIONS')
ONLY REFERENCE COPY OF PC DRAWINGS SUBMITTED FOR THIS PROJECT

LOAD SCENARIO	WIDTH (W)	LENGTH (L)	THICKNESS (T)	HORIZONTAL REINFORCING ¹	
				QTY	SIZE
1	8'-0"	8'-0"	1'-6"	8	#6
2	9'-0"	9'-0"	1'-6"	8	#6

¹EQUALLY SPACED EACH WAY, TOP AND BOTTOM

NOTES:

1. GROUT SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH MINIMUM F_c=6500 PSI.
2. COLUMNS FABRICATED ASSUMING 1-1/2" GROUT PAD.
3. COLUMN BASES BELOW FINISH GRADE SHOULD BE PROTECTED FROM CORROSION. SELECT ONE OF THE FOLLOWING OPTIONS BELOW.



DETAIL 2
SCALE: 1-1/2" = 1'-0"

COLUMN BASE PROTECTION
BELOW SURFACE COLUMN INSTALLATION
[1] CONCRETE SLAB - 3" MIN ANCHOR BOLT COVER
[2] MASTIC COATING - 1/4" THICK MIN COATING ON ALL STEEL SURFACES BELOW GRADE

COLUMN BASEPLATE AND ANCHOR BOLTS

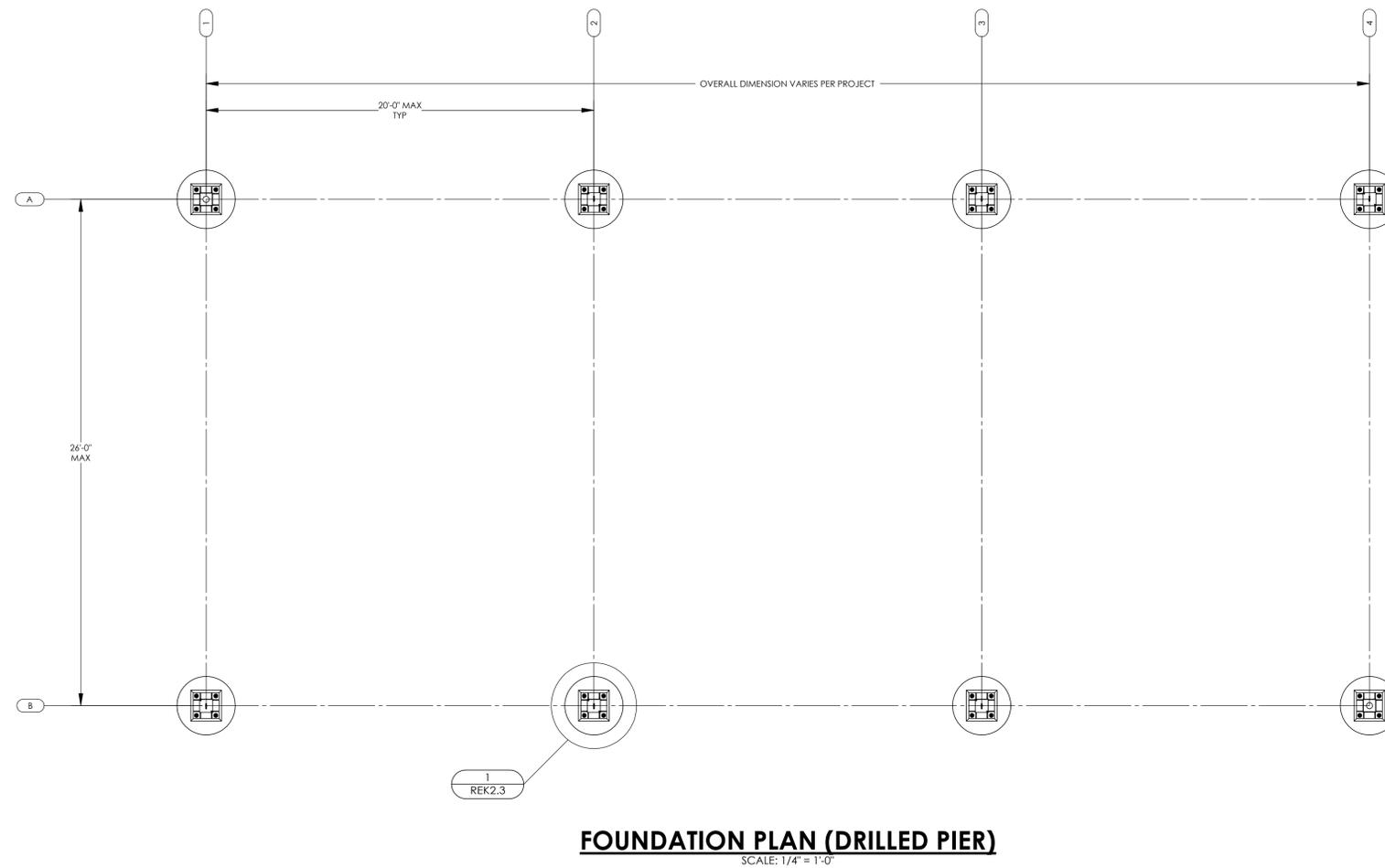
2

PRE-CHECK (PC) DOCUMENT
CODE: 2022 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

FOUNDATION PLAN SPREAD PAD

GABLE ROOF - REK 30

REK2.2



FOUNDATION PLAN (DRILLED PIER)

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

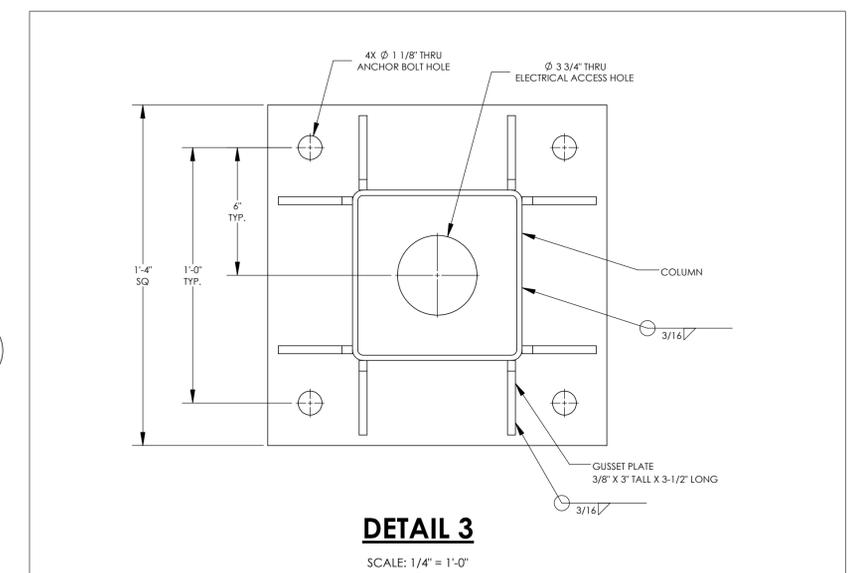
FOUNDATION PLAN NOTES:

1. TOP OF ALL FOUNDATIONS MUST BE CONSTRUCTED AT ONE COMMON ELEVATION (COORDINATE WITH SITE PLANS - NOT BY POLYGON)
2. ALL FOUNDATIONS MUST BE CENTERED UNDER COLUMNS (UNO).
3. SEE SHEET REK1.1 FOR CONCRETE REQUIREMENTS.
4. PRIOR TO FORMING AND CASTING FOUNDATIONS, REVIEW FOUNDATION PLAN FOR REQUIRED ORIENTATION.
5. FOUNDATION MATERIAL AND INSTALLATION NOT BY POLYGON.
6. VIBRATE CONCRETE FULL DEPTH OF FOUNDATION.
7. FOR DRILLED PIER FOUNDATIONS, PREVENT SOIL FROM ENTERING EXCAVATED HOLE (FORM, ETC).

STATE APPROVALS-SITE



STATE APPROVALS-PC

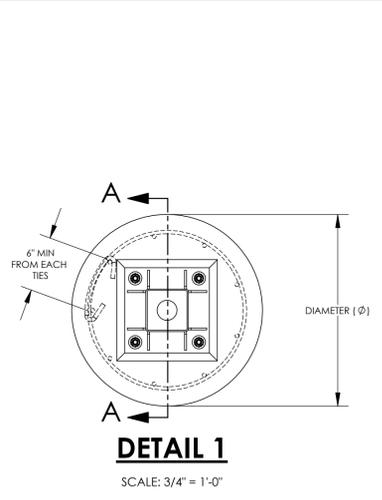


DETAIL 3

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

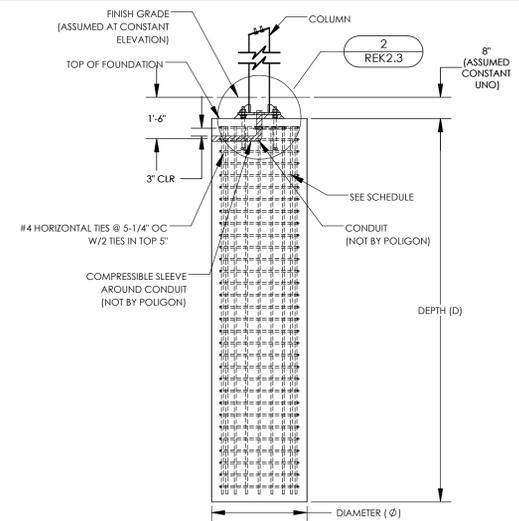
COLUMN BASEPLATE

3



DETAIL 1

SCALE: 3/4" = 1'-0"



SECTION A-A

SCALE: 3/8" = 1'-0"

DRILLED PIER FOUNDATION

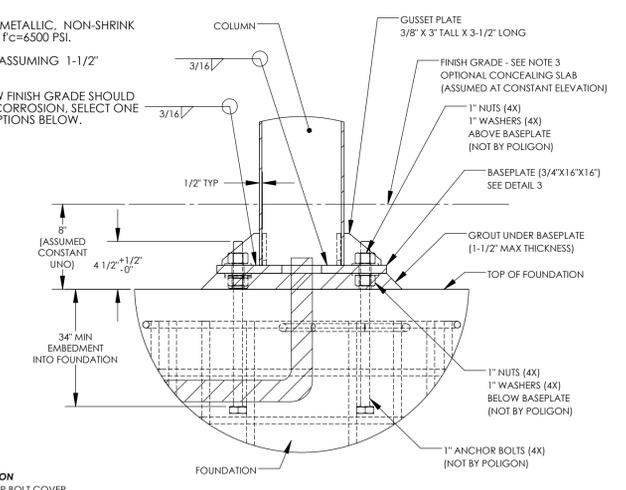
FOUNDATION REQUIREMENTS VARY PER PROJECT
SEE SHEET REK1.0 FOR REQUIRED LOAD SCENARIO AND FOUNDATION TYPE (STEP 9 OF INSTRUCTIONS)
 ONLY REFERENCE COPY OF PC DRAWINGS SUBMITTED FOR THIS PROJECT

LOAD SCENARIO	DIAMETER (Ø)	DEPTH (D)	VERTICAL REINFORCING ¹	
			QTY	SIZE
1	3'-0"	11'-6"	9	#7
2	3'-0"	12'-6"	9	#7

¹EQUALLY SPACED AROUND DRILLED PIER

NOTES:

1. GROUT SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH MINIMUM $f_c=6500$ PSI.
2. COLUMNS FABRICATED ASSUMING 1-1/2" GROUT PAD.
3. COLUMN BASES BELOW FINISH GRADE SHOULD BE PROTECTED FROM CORROSION. SELECT ONE OF THE FOLLOWING OPTIONS BELOW.



DETAIL 2

SCALE: 1-1/2" = 1'-0"

COLUMN BASE PROTECTION
 BELOW SURFACE COLUMN INSTALLATION
 [] CONCRETE SLAB - 3" MIN ANCHOR BOLT COVER
 [] MASTIC COATING - 1/4" THICK MIN COATING ON ALL STEEL SURFACES BELOW GRADE

1

COLUMN BASEPLATE AND ANCHOR BOLTS

2

PRE-CHECK (PC) DOCUMENT
 CODE: 2022 CBC
 A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

FOUNDATION PLAN
DRILLED PIER
 GABLE ROOF - REK 30

REK2.3



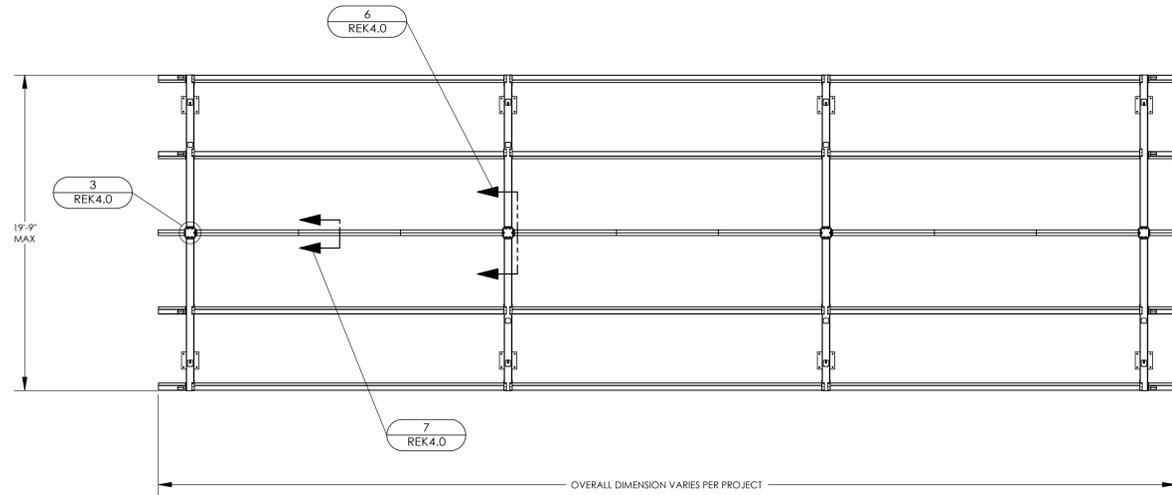
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-121214 PC
REVIEWED FOR
SS FLS ACS CG
DATE: 7/18/2023

**PRE-CHECK (PC)
DOCUMENT**
CODE: 2022 CBC
A SEPARATE PROJECT
APPLICATION FOR
CONSTRUCTION IS REQUIRED.

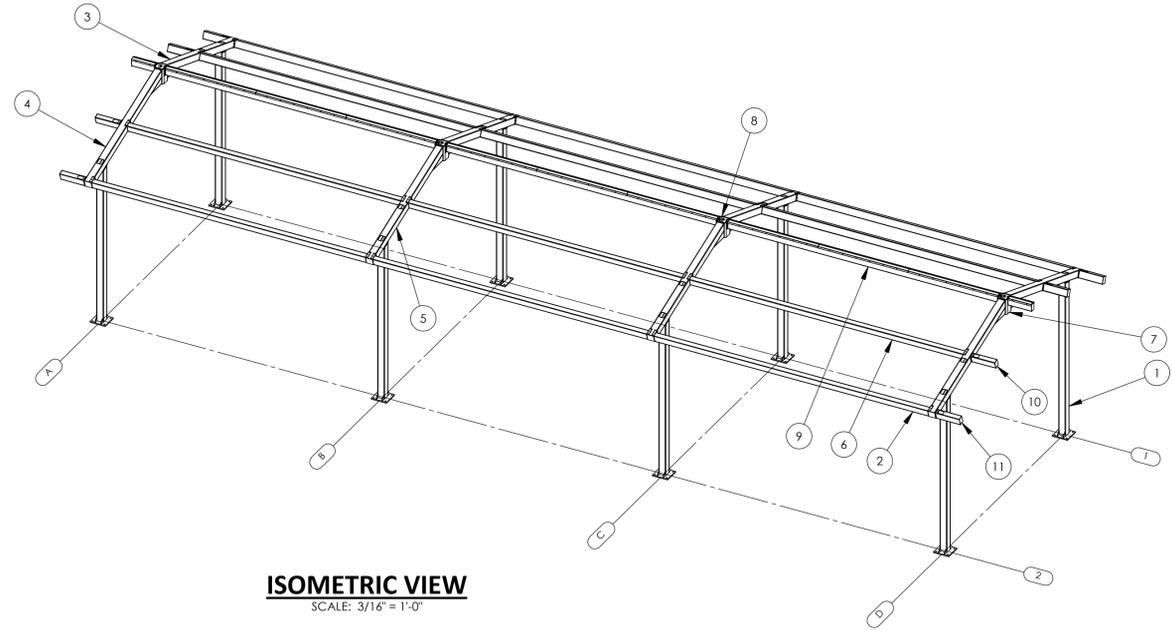
FRAMING PLAN

GABLE ROOF - REK. 20

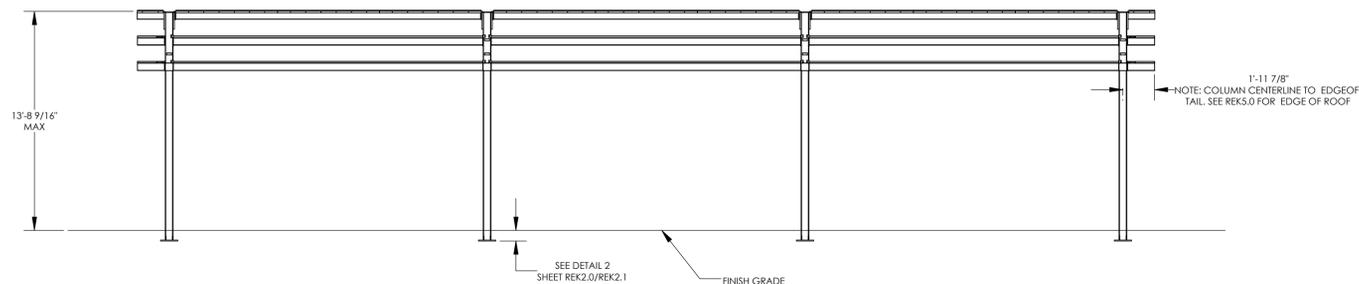
REK3.0



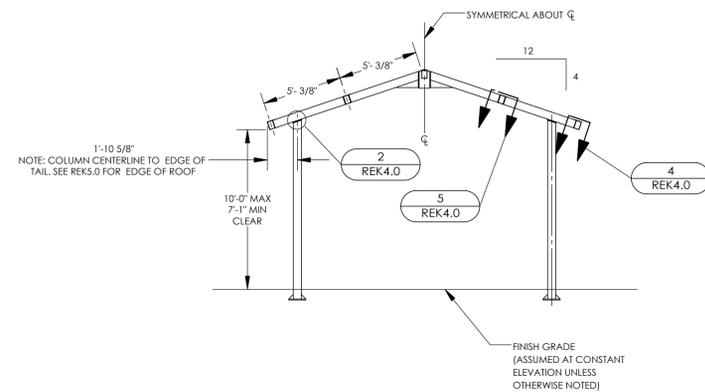
PLAN VIEW
SCALE: 3/16" = 1'-0"



ISOMETRIC VIEW
SCALE: 3/16" = 1'-0"



FRONT ELEVATION
SCALE: 3/16" = 1'-0"



SIDE ELEVATION
SCALE: 3/16" = 1'-0"

ITEM	QTY.	PART NO.	DESCRIPTION	MATERIAL	WEIGHT
11	4	-	EAVE BEAM TAIL ASM	HSS6X4X3/16	16.49
10	4	-	PURLIN TAIL ASM	HSS6X4X3/16	22.66
9	3	-	RIDGE BEAM ASM	HSS6X4X1/8	163.15
8	2	-	MID C-TUBE ASM	HSS8X8X5/8	69.22
7	2	-	END C-TUBE ASM	HSS8X8X5/8	80.46
6	6	-	PURLIN ASM	HSS6X4X3/16	235.13
5	4	-	GABLE BEAM 3 ASM	HSS6X6X3/16	168.85
4	2	-	GABLE BEAM 2 ASM	HSS6X6X3/16	173.39
3	2	-	GABLE BEAM 1 ASM	HSS6X6X3/16	172.50
2	6	-	EAVE BEAM ASM	HSS6X4X1/8	161.42
1	8	-	COLUMN 1 ASM	HSS6X6X1/4	249.23

4835 P. AZA, GOLDEN RIDGE, CIRCLE
SUITE II
CAMERON PARK, CA 95982
(916) 877-1016



poligon
PORTER
A PLACE FOR EVERYTHING



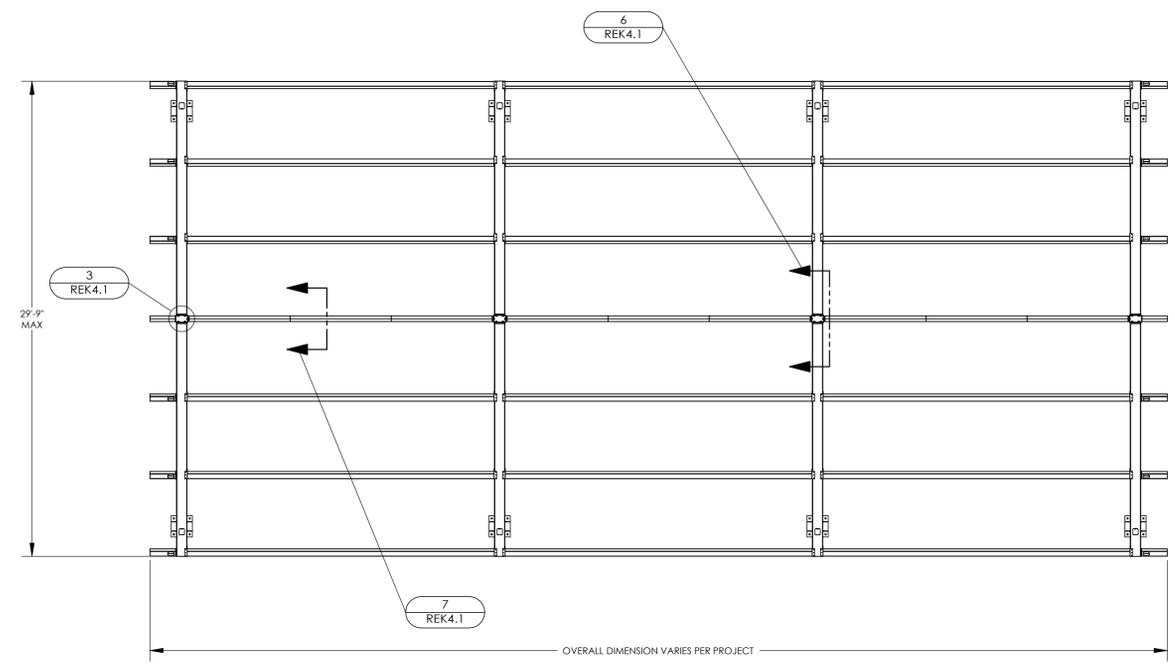
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-121214 PC
REVIEWED FOR
SS FLS ACS CG
DATE: 7/18/2023

**PRE-CHECK (PC)
DOCUMENT**
CODE: 2022 CBC
A SEPARATE PROJECT
APPLICATION FOR
CONSTRUCTION IS REQUIRED.

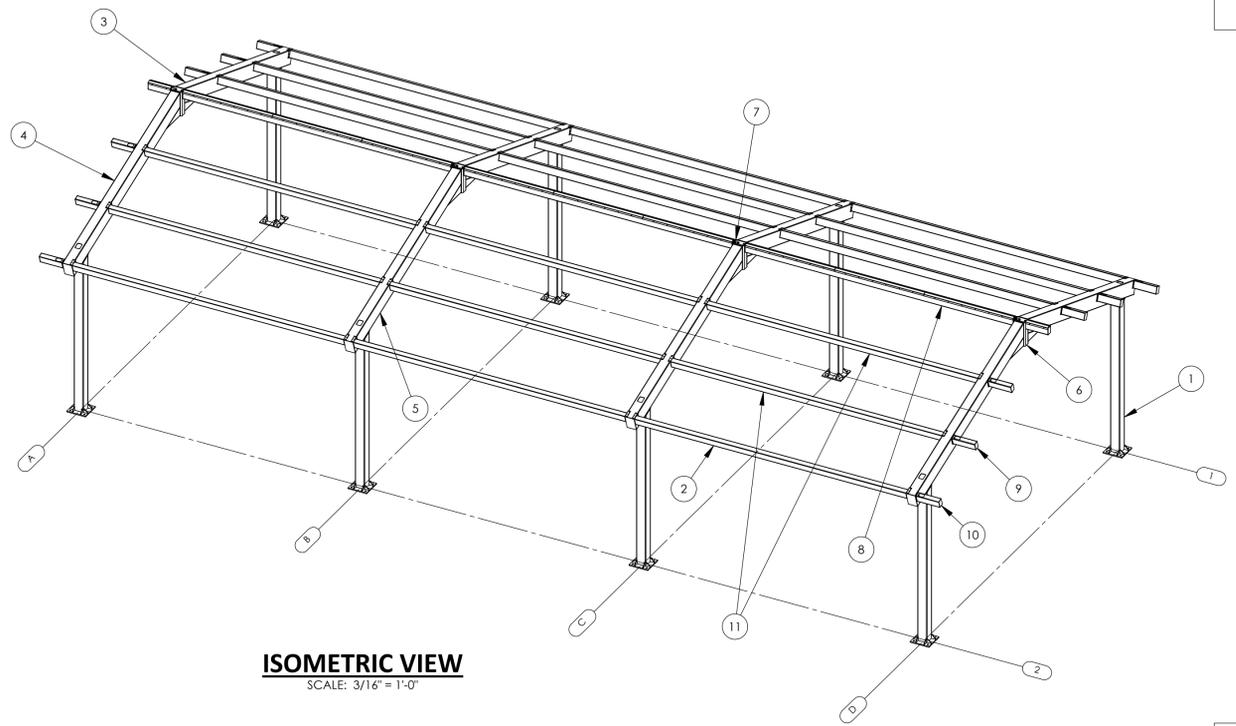
FRAMING PLAN

GABLE ROOF - REK 30

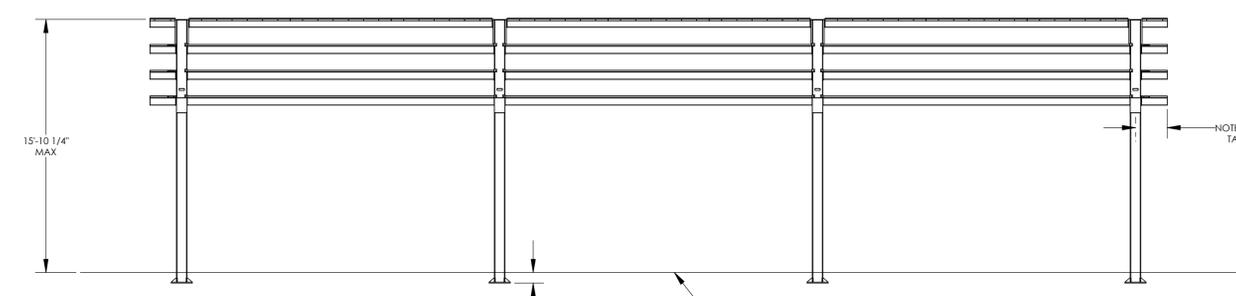
REK3.1



PLAN VIEW
SCALE: 3/16" = 1'-0"



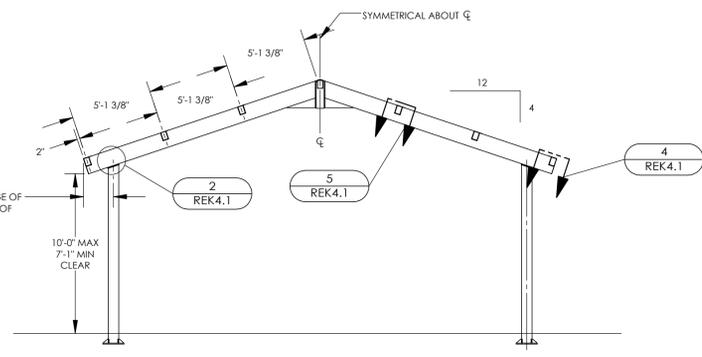
ISOMETRIC VIEW
SCALE: 3/16" = 1'-0"



FRONT ELEVATION
SCALE: 3/16" = 1'-0"

1'-11 7/8"
NOTE: COLUMN CENTERLINE TO EDGE OF TAIL. SEE REK5.1 FOR EDGE OF ROOF

1'-10 5/8"
NOTE: COLUMN CENTERLINE TO EDGE OF TAIL. SEE REK5.1 FOR EDGE OF ROOF



SIDE ELEVATION
SCALE: 3/16" = 1'-0"

ITEM	QTY.	PART NO.	DESCRIPTION	MATERIAL	WEIGHT
11	12	-	PURLIN ASM	HSS6X4X3/16	235.90
10	4	-	EAVE BEAM TAIL ASM	HSS6X4X3/16	15.81
9	8	-	PURLIN TAIL ASM	HSS6X4X3/16	21.67
8	3	-	RIDGE BEAM ASM	HSS6X4X1/8	162.30
7	2	-	MID C-TUBE ASM	HSS10X6X5/8	100.89
6	2	-	END C-TUBE ASM	HSS10X6X5/8	114.86
5	4	-	GABLE BEAM 3 ASM	HSS12X8X3/16	428.21
4	2	-	GABLE BEAM 2 ASM	HSS12X8X3/16	433.72
3	2	-	GABLE BEAM 1 ASM	HSS12X8X3/16	433.72
2	6	-	EAVE BEAM ASM	HSS6X4X3/16	235.90
1	8	-	COLUMN 1 ASM	HSS8X8X1/4	347.39

STATE APPROVALS-SITE

4833 P. AZA, GOLDEN GATE DISTRICT
SUITE 11
CAMERON PARK, CA 95822
530.877.0016



poligon
PORTER & PORTER
ARCHITECTS INC.



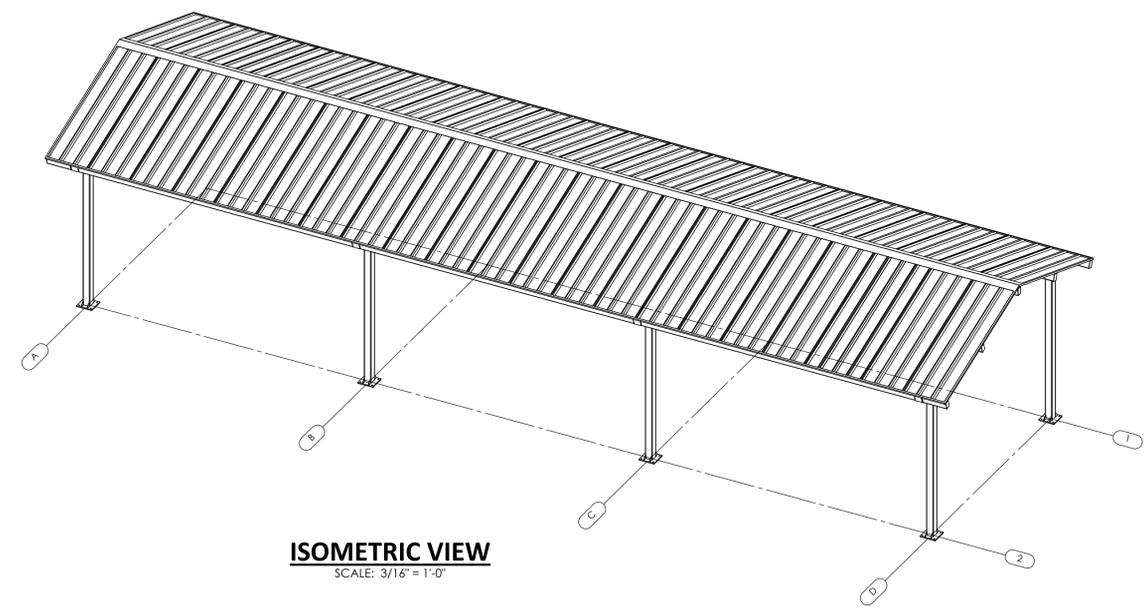
STATE APPROVALS-PC
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-121214 PC
REVIEWED FOR
SS FLS ACS CG
DATE: 7/18/2023

PRE-CHECK (PC)
DOCUMENT
CODE: 2022 CBC
A SEPARATE PROJECT
APPLICATION FOR
CONSTRUCTION IS REQUIRED.

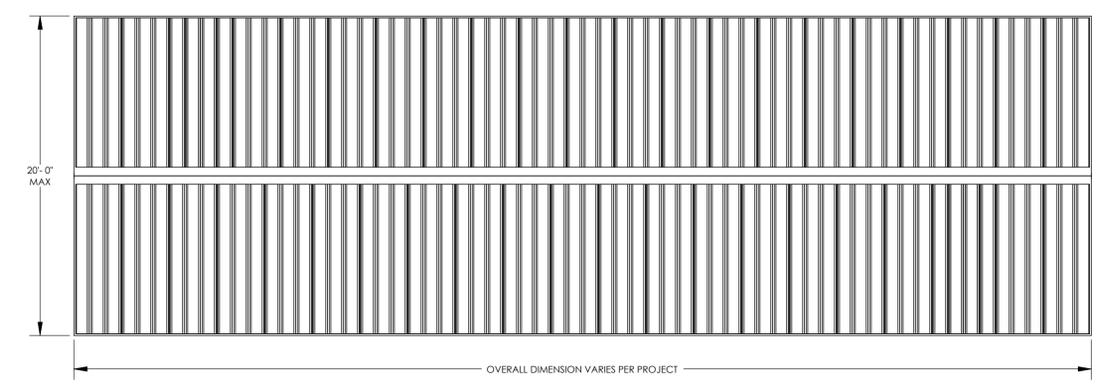
ARCHITECTURAL
VIEWS

GABLE ROOF - REK 20

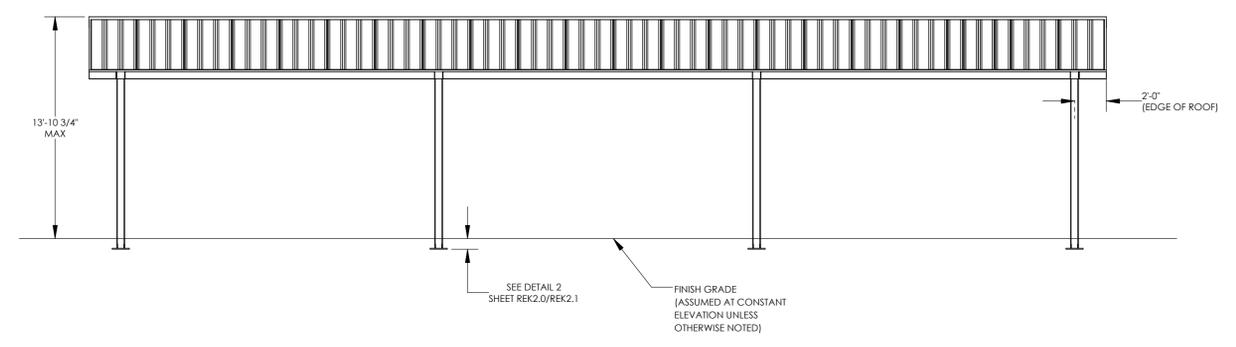
REK5.0



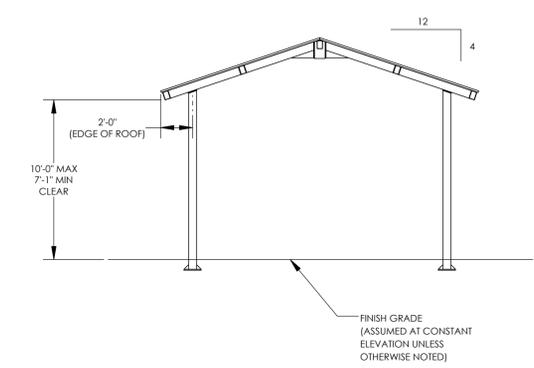
ISOMETRIC VIEW
SCALE: 3/16" = 1'-0"



PLAN VIEW
SCALE: 3/16" = 1'-0"



FRONT ELEVATION
SCALE: 3/16" = 1'-0"



SIDE ELEVATION
SCALE: 3/16" = 1'-0"

STATE APPROVALS-SITE

4833 P. AZA, GOLDEN GATE CIRCLE
SUITE 11
CAMERON PARK, CA 95822
530.877.0016



poligon
PORTER
ARCHITECTS



STATE APPROVALS-PC

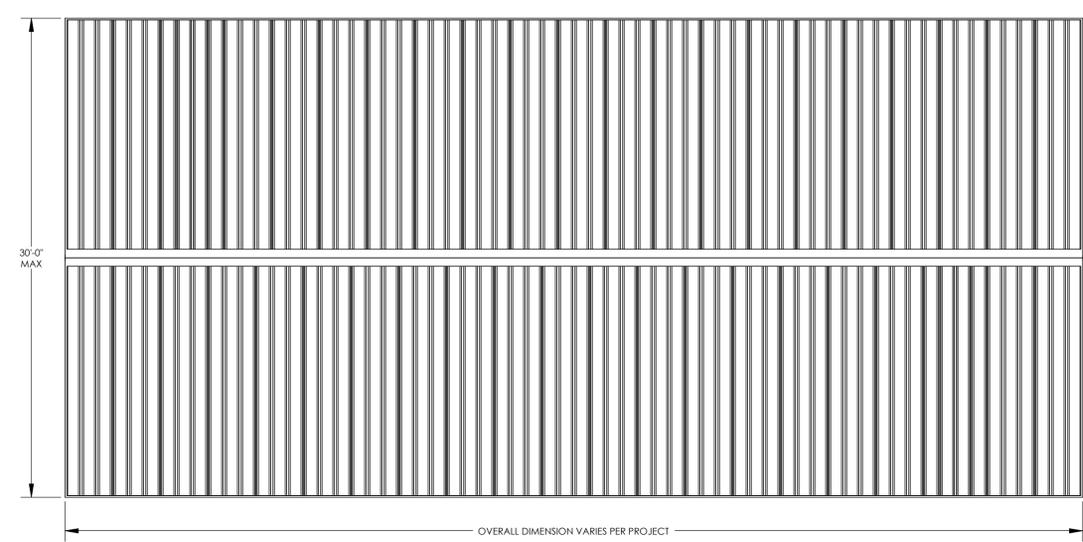
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-121214 PC
REVIEWED FOR
SS FLS ACS CG
DATE: 7/18/2023

PRE-CHECK (PC)
DOCUMENT
CODE: 2022 CBC
A SEPARATE PROJECT
APPLICATION FOR
CONSTRUCTION IS REQUIRED.

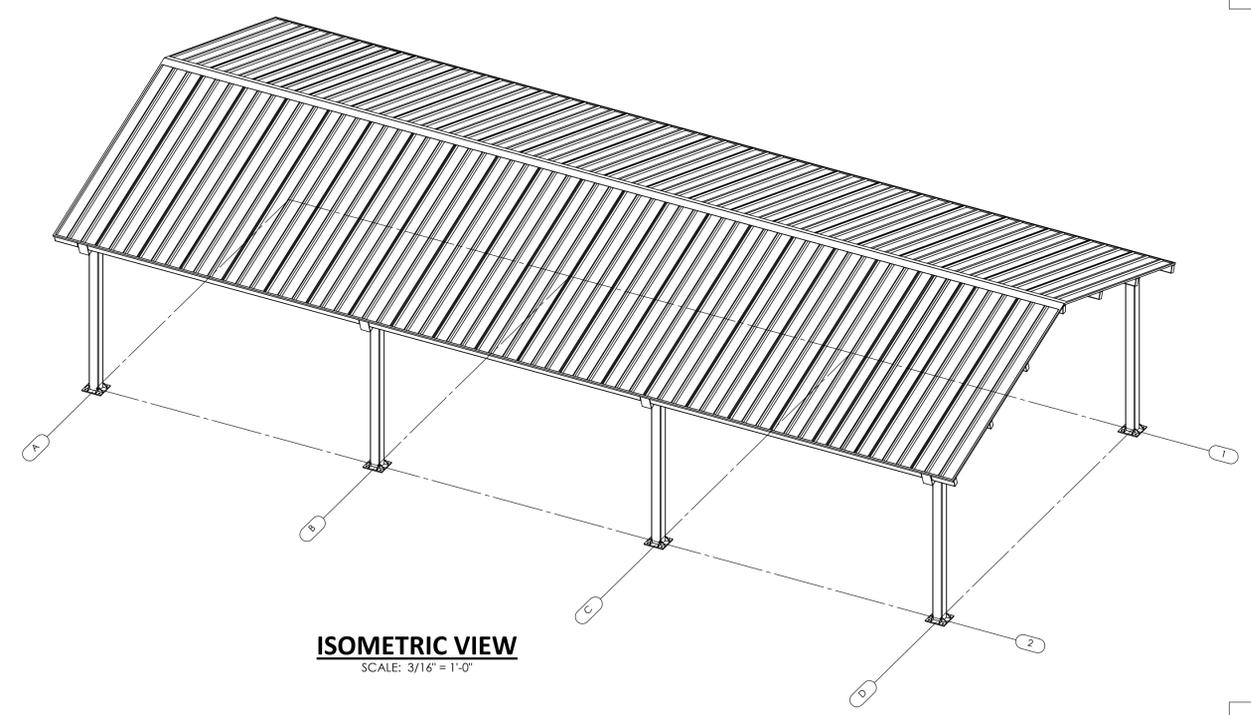
**ARCHITECTURAL
VIEWS**

GABLE ROOF - REK 30

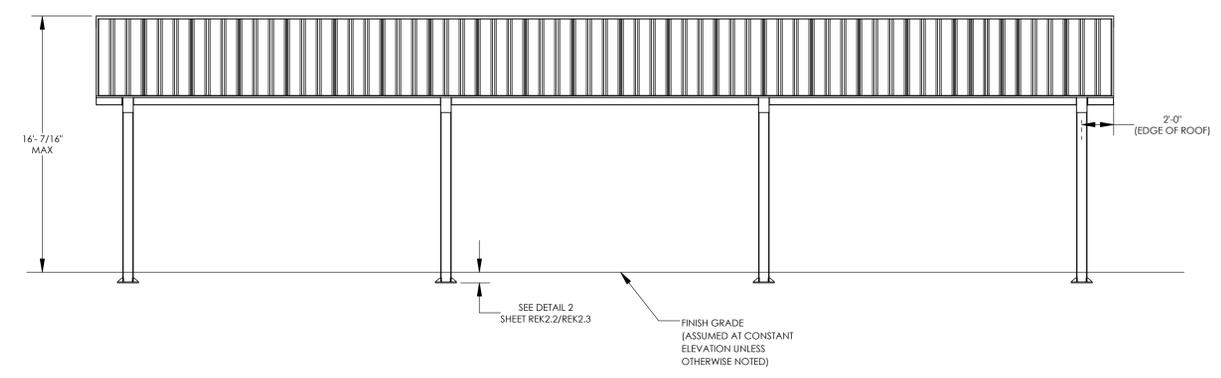
REK5.1



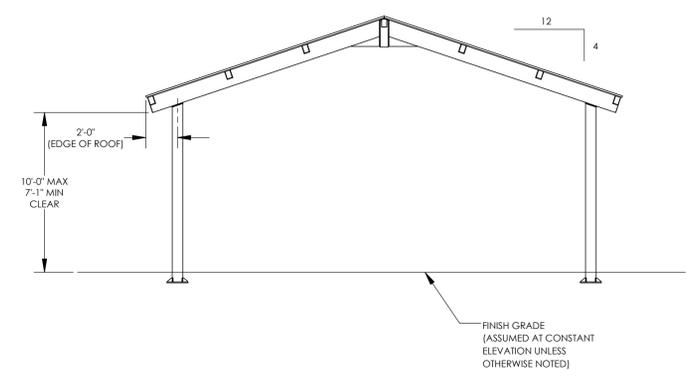
PLAN VIEW
SCALE: 3/16" = 1'-0"



ISOMETRIC VIEW
SCALE: 3/16" = 1'-0"



FRONT ELEVATION
SCALE: 3/16" = 1'-0"



SIDE ELEVATION
SCALE: 3/16" = 1'-0"

MULTI-RIB NOTES:

THE DETAILS SHOWN ARE SUGGESTIONS OR GUIDELINES ON HOW TO ERECT THE SYSTEMS. THE INFORMATION SHOWN IS ACCURATE, BUT IT IS NOT INTENDED TO COVER ALL INSTANCES, BUILDING REQUIREMENTS, DESIGNS OR CODES. THE DETAILS MAY REQUIRE CHANGES OR REVISIONS DUE TO FIELD CONDITIONS.

IT SHALL BE THE RESPONSIBILITY OF THE ERECTOR TO ENSURE THAT THE DETAILS MEET PARTICULAR BUILDING REQUIREMENTS AND TO ASSURE ADEQUATE WATER TIGHTNESS.

THE ERECTOR SHOULD THOROUGHLY FAMILIARIZE HIMSELF/HERSELF WITH ALL ERECTION INSTRUCTIONS BEFORE STARTING WORK.

THE PANELS SHOULD BE INSTALLED PLUMB, STRAIGHT, AND ACCURATELY TO THE ADJACENT WORK.

FLASHING AND TRIM SHALL BE INSTALLED TRUE, AND IN PROPER ALIGNMENT, WITH ANY EXPOSED FASTENERS EQUALLY SPACED FOR THE BEST APPEARANCE.

SEALANT SHALL BE FIELD APPLIED ON DRY, CLEAN SURFACES. SOME FIELD CUTTING AND FITTING OF PANELS AND FLASHING IS TO BE EXPECTED BY THE ERECTOR AND MINOR FIELD CORRECTIONS ARE A PART OF NORMAL ERECTION WORK.

WORKMANSHIP SHALL BE OF THE BEST INDUSTRY STANDARDS AND INSTALLATION SHALL BE PERFORMED BY EXPERIENCED METAL CRAFTSMEN.

METAL SHAVINGS FROM DRILLING OR INSTALLATION OF ROOF FASTENERS MUST BE CAREFULLY REMOVED FROM THE ROOF BY BRUSHING OR SWEEPING AT THE END OF EACH DAY DURING INSTALLATION. SHAVINGS LEFT ON THE ROOF WILL QUICKLY RUST AND STAIN THE ROOF FINISH.

COVER ACCESS HOLES WITH GRACE ICE AND WATER SHIELD BEFORE ATTACHING ROOF DECK.

METAL ROOFING PRODUCT AND INSTALLATION SHALL MEET ALL REQUIREMENTS OF UL 580.

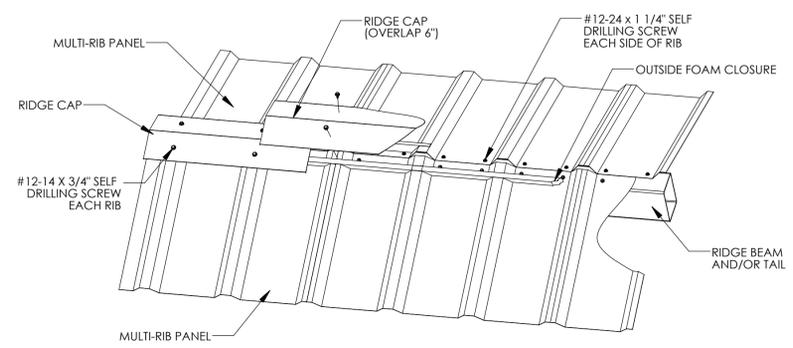
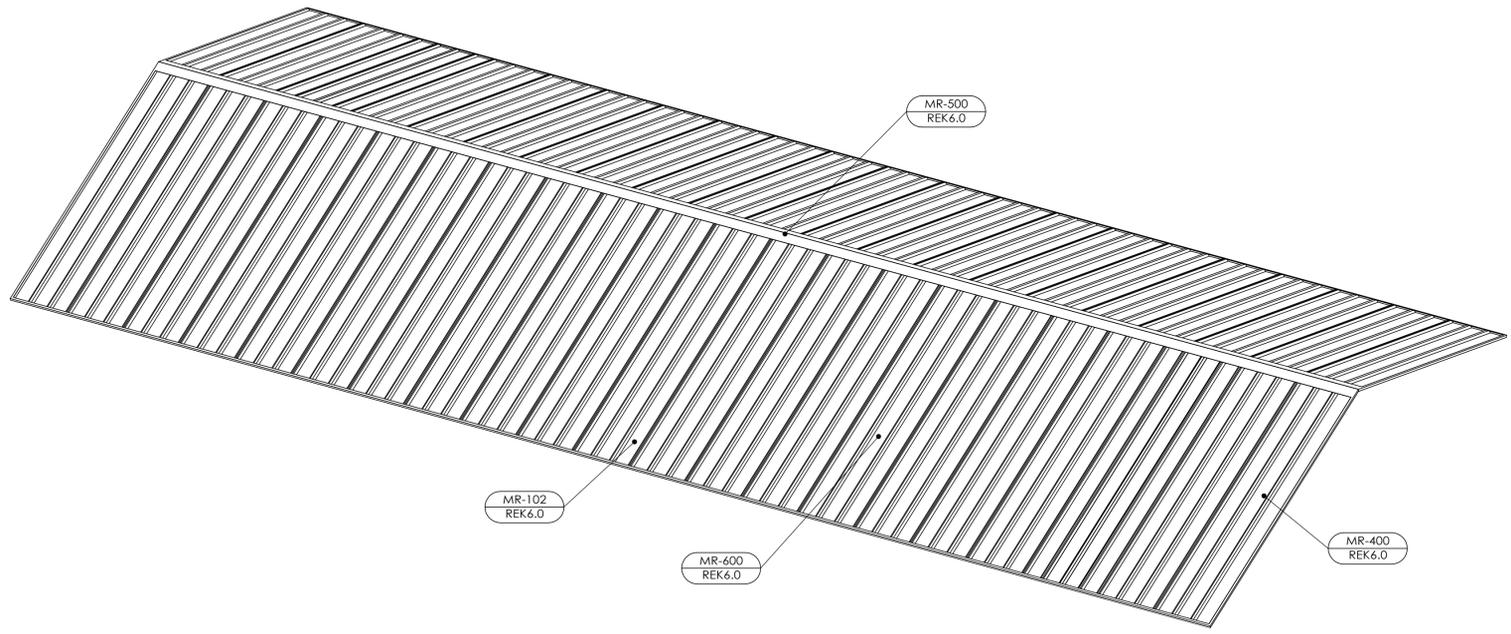
4035 P. AZA, GOLDEN RIDGE, DUBLIN, CA 94568
SUITE 111
CHAMPION TR. BK. CA 94582
530.877.0016



poligon
PORTER
A HANOVER COMPANY

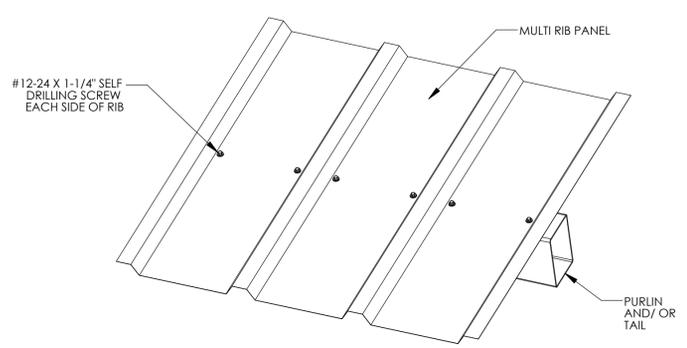


IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-121214 PC
REVIEWED FOR
SS FLS ACS CG
DATE: 7/18/2023



RIDGE DETAIL

MR-500



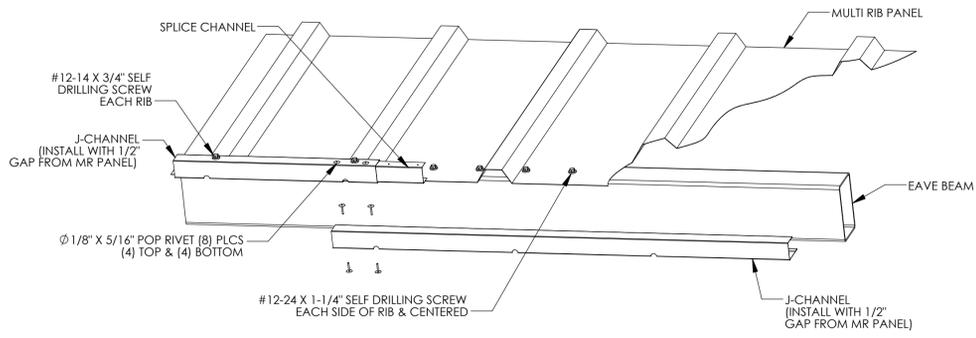
PURLIN DETAIL

MR-600



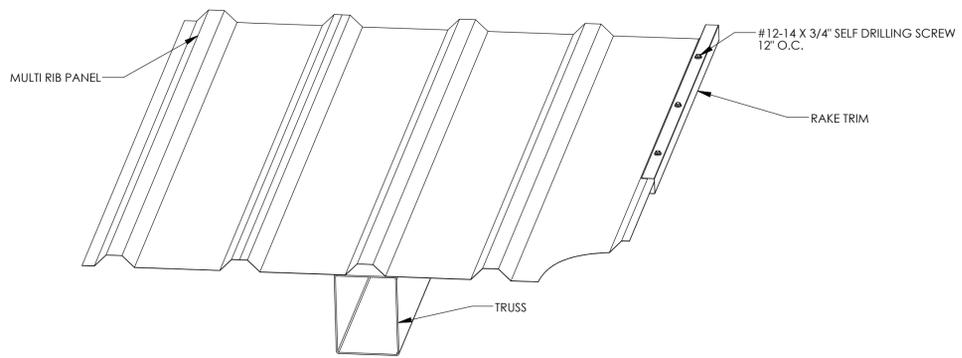
ROOF FASTENER TIGHTENING

MR-950



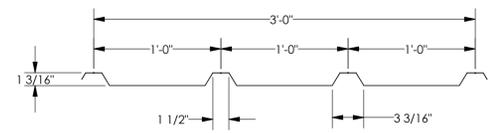
EAVE DETAIL

MR-102



RAKE DETAIL

MR-400



GENERAL:
GAGE = 24
Fy = 50 KSI
TOP IN COMPRESSION:
Ix=0.052 IN^4
Sx=0.0575 IN^3
Mx=1.723 IN-KIPS
BOTTOM IN COMPRESSION:
Iy=0.031 IN^4
Sy=0.0499 IN^3
My=1.483 IN-KIPS

MR ROOF DECK SECTION PROPERTIES

MR-951

PRE-CHECK (PC) DOCUMENT
CODE: 2022 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

ROOF CONNECTION DETAILS
GABLE ROOF - REK

REK6.0

STANDING SEAM INSTALLATION NOTES:

THE DETAILS SHOWN ARE SUGGESTIONS OR GUIDELINES ON HOW TO ERECT THE SYSTEMS. THE INFORMATION SHOWN IS ACCURATE, BUT IT IS NOT INTENDED TO COVER ALL INSTANCES, BUILDING REQUIREMENTS, DESIGNS OR CODES. THE DETAILS MAY REQUIRE CHANGES OR REVISIONS DUE TO FIELD CONDITIONS.

IT SHALL BE THE RESPONSIBILITY OF THE ERECTOR TO ENSURE THAT THE DETAILS MEET PARTICULAR BUILDING REQUIREMENTS AND TO ASSURE ADEQUATE WATER TIGHTNESS.

THE ERECTOR SHOULD THOROUGHLY FAMILIARIZE HIMSELF/HERSELF WITH ALL ERECTION INSTRUCTIONS BEFORE STARTING WORK.

THE PANELS SHOULD BE INSTALLED PLUMB, STRAIGHT, AND ACCURATELY TO THE ADJACENT WORK.

FLASHING AND TRIM SHALL BE INSTALLED TRUE, AND IN PROPER ALIGNMENT, WITH ANY EXPOSED FASTENERS EQUALLY SPACED FOR THE BEST APPEARANCE.

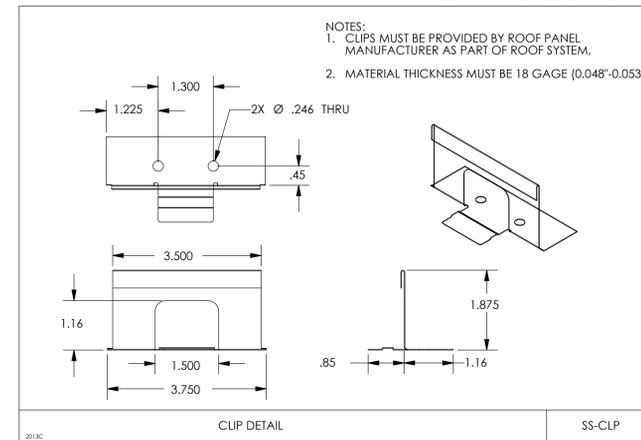
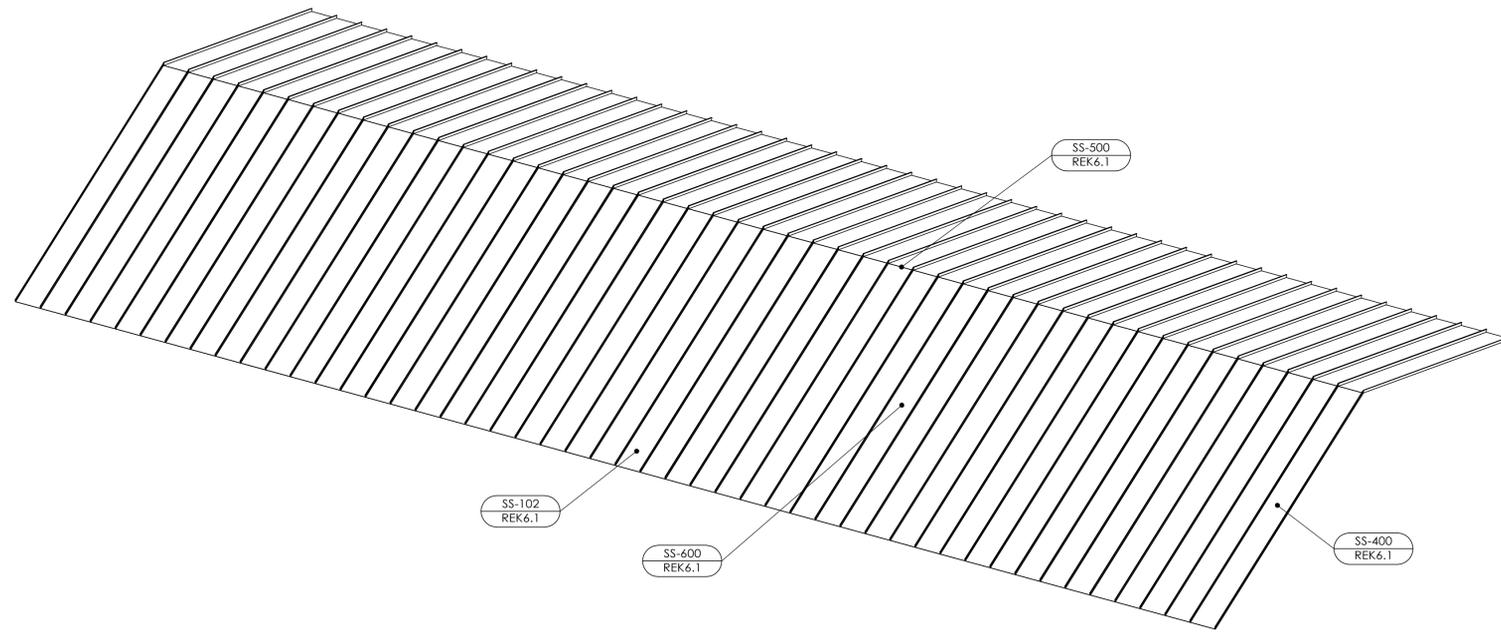
SEALANT SHALL BE FIELD APPLIED ON DRY, CLEAN SURFACES. SOME FIELD CUTTING AND FITTING OF PANELS AND FLASHING IS TO BE EXPECTED BY THE ERECTOR AND MINOR FIELD CORRECTIONS ARE A PART OF NORMAL ERECTION WORK.

WORKMANSHIP SHALL BE OF THE BEST INDUSTRY STANDARDS AND INSTALLATION SHALL BE PERFORMED BY EXPERIENCED METAL CRAFTSMEN.

METAL SHAVINGS FROM DRILLING OR INSTALLATION OF ROOF FASTENERS MUST BE CAREFULLY REMOVED FROM THE ROOF BY BRUSHING OR SWEEPING AT THE END OF EACH DAY DURING INSTALLATION. SHAVINGS LEFT ON THE ROOF WILL QUICKLY RUST AND STAIN THE ROOF FINISH.

COVER ACCESS HOLES WITH GRACE ICE AND WATER SHIELD BEFORE ATTACHING ROOF DECK.

METAL ROOFING PRODUCT AND INSTALLATION SHALL MEET ALL REQUIREMENTS OF ICC-ES REPORT ESL-1082.



STATE APPROVALS-SITE

4035 P. AZA, GOLDEN GATE DISTRICT
SUITE 11
CHAMBERLAIN BLVD., CA 94608
(916) 877-1016

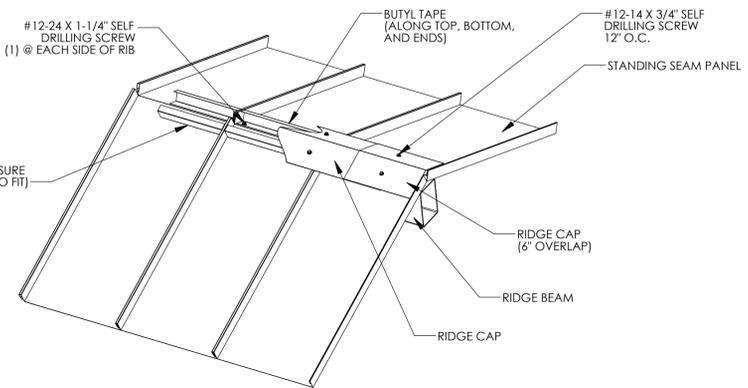


poligon
PORTER
A HANOVER COMPANY



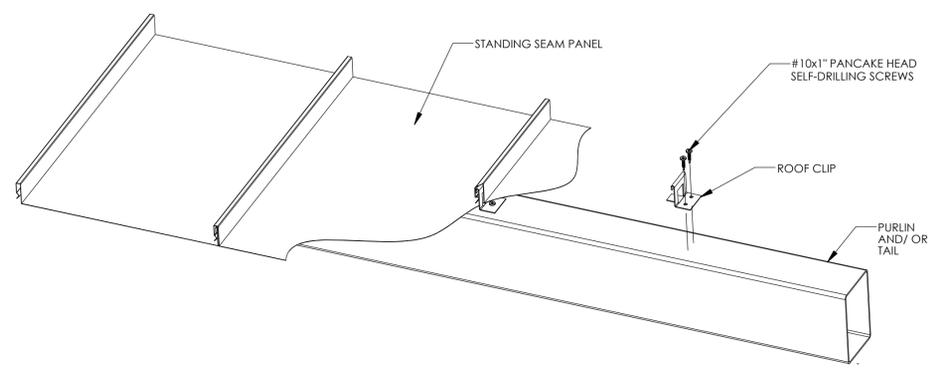
STATE APPROVALS-PC

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-121214 PC
REVIEWED FOR
SS FLS ACS CG
DATE: 7/18/2023



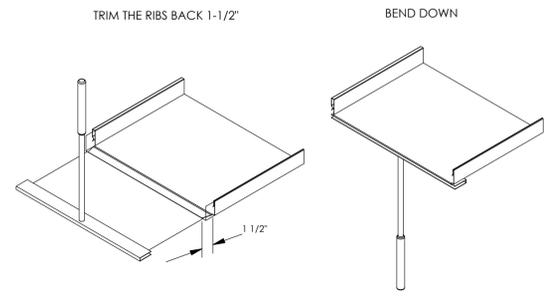
RIDGE DETAIL

SS-500



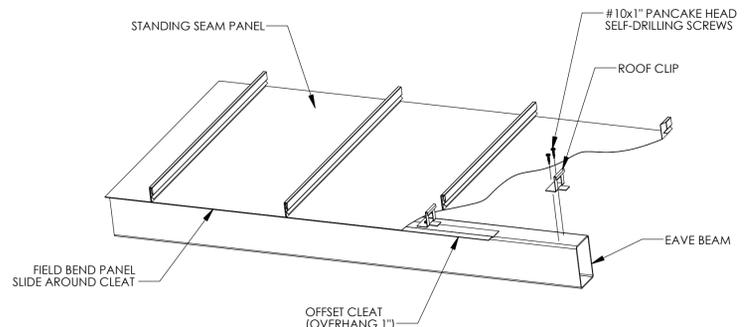
PURLIN DETAIL

SS-600



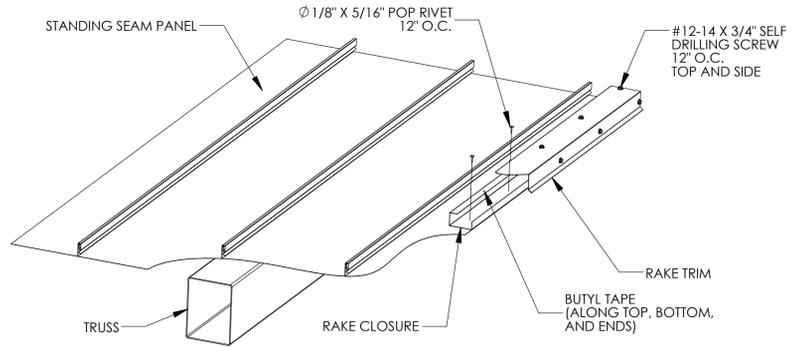
HEMMING DETAIL

SS-HEM



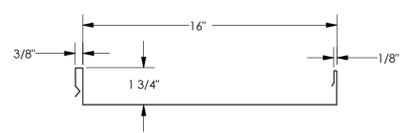
EAVE DETAIL

SS-102



RAKE DETAIL

SS-400



GENERAL
GAGE = 22
FY = 50 KSI

TOP IN COMPRESSION
Ix = 0.1200 IN⁴
Sx = .0803 IN³
Mx = 2.4050 IN-KIPS

BOTTOM IN COMPRESSION
Ix = 0.0570 IN⁴
Sx = 0.0729 IN³
Mx = 1.7220 IN-KIPS

ROOF DECK SECTION PROPERTIES

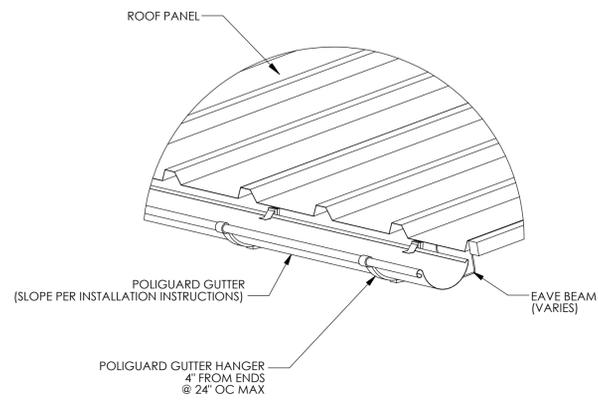
SS-950

PRE-CHECK (PC)
DOCUMENT
CODE: 2022 CBC
A SEPARATE PROJECT
APPLICATION FOR
CONSTRUCTION IS REQUIRED.

ROOF CONNECTION
DETAILS

REK6.1

GABLE ROOF-REK

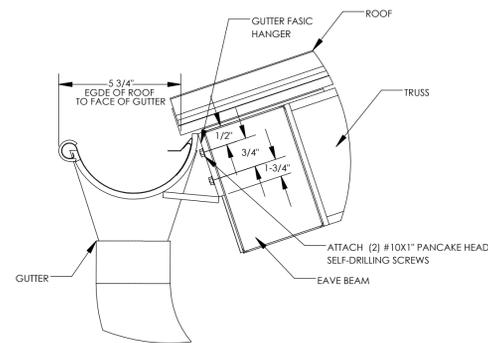


GUTTER DETAIL

GS-100

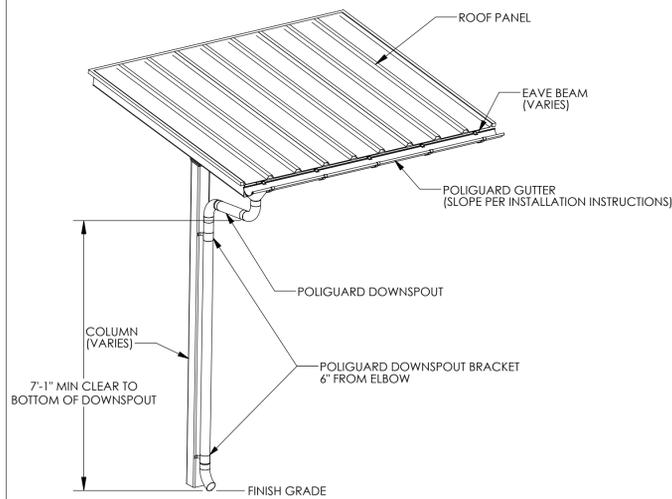
POLIGUARD GUTTER SYSTEM NOTES:

1. PREFABRICATED GUTTER SYSTEM IS ATTACHED TO THE STRUCTURE AFTER ROOF IS INSTALLED.
2. DETAILED INSTALLATION INSTRUCTIONS ARE SHIPPED WITH THE STRUCTURE.
3. DOWNSPOUTS REQUIRED AT EACH COLUMN.
4. ALL MATERIAL IS 24GA G90
5. ALL DOWNSPOUTS AND SUTTERS ARE POWDER COATED WITH AN EPOXY PRIMED FINISH.



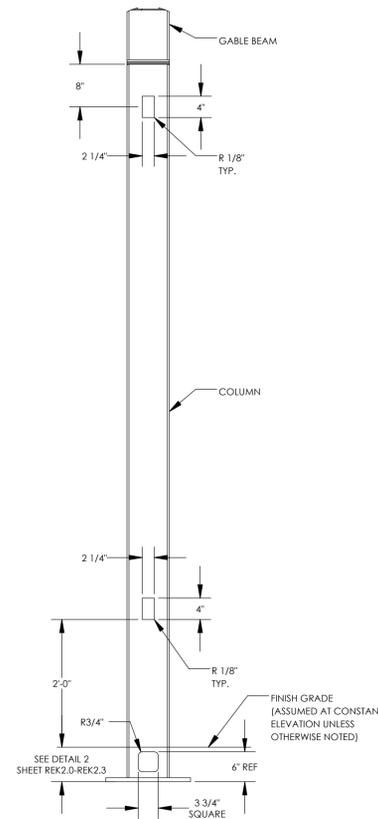
GUTTER DETAIL

GS-200



DOWNSPOUT DETAIL

GS-300



ELECTRICAL CUTOUT IN COLUMNS

EC-100

ELECTRICAL CUTOUT NOTES:

1. MAXIMUM ONE CUTOUT PERMITTED IN EACH MEMBER.
2. CUTOUTS CAN BE PLACED ON ANY SIDE OF A MEMBER.
3. CUTOUTS CAN BE PLACED ALONG MEMBERS AS INDICATED IN THE DETAILS.
4. ARCHITECTS REQUESTING CUTOUTS MUST MARKUP APPROVED PC DRAWINGS TO LOCATE CUTOUTS FOR APPROVAL AND FABRICATION.

STATE APPROVALS-SITE



poligon
PORTER
ARCHITECTS



STATE APPROVALS-PC

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-121214 PC
REVIEWED FOR
SS FLS ACS CG
DATE: 7/18/2023

**PRE-CHECK (PC)
DOCUMENT**
CODE: 2022 CBC
A SEPARATE PROJECT
APPLICATION FOR
CONSTRUCTION IS REQUIRED.

MISC DESIGN
OPTIONS

GABLE ROOF-REK

REK7.0

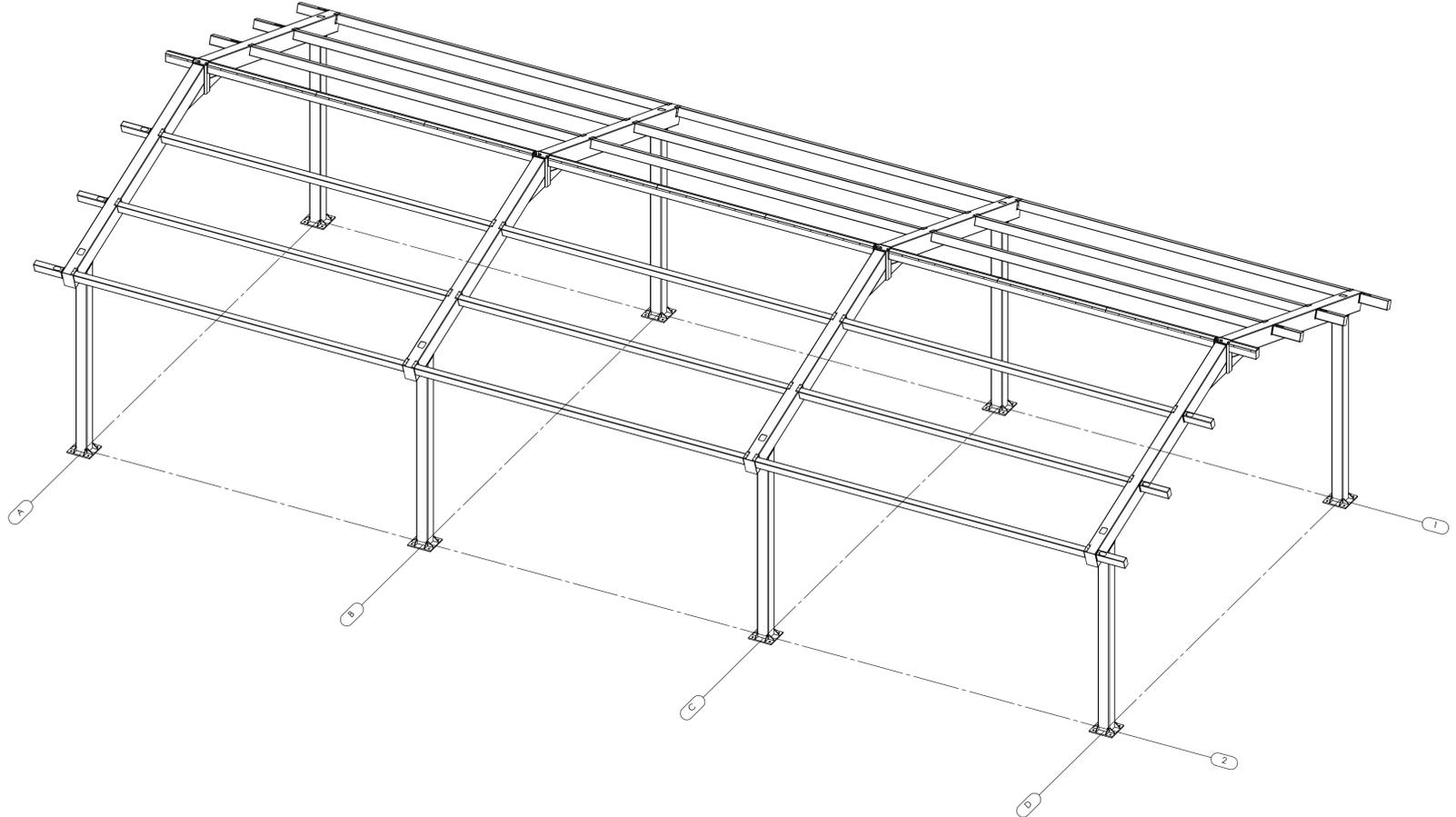
ELECTRICAL CUTOUT AND ACCESS INSTRUCTIONS

- IF 'YES' IS NOT SELECTED IN STEP 2 ON ORDER FORM, THEN THIS SHEET NEED NOT BE INCLUDED IN SITE-SPECIFIC DRAWINGS
- ONLY COLUMNS ARE PERMITTED TO HAVE ELECTRICAL ACCESS
- THE COLUMN CUTOUTS ARE STATIC AND SHOWN IN THE 'MISC DESIGN OPTIONS SHEET'
- IDENTIFY THE COLUMNS WITH ELECTRICAL CUTOUTS BELOW (REFERENCE GRID LINES IN ISOMETRIC FRAME VIEW TO THE RIGHT)
- STRUCTURES MAY BE LONGER OR SHORTER THAN THE ISOMETRIC FRAME VIEW SHOWN
- IF SITE-SPECIFIC STRUCTURE HAS A DIFFERENT NUMBER OF COLUMNS THAN ISOMETRIC SHOWN, REFERENCE COLUMN A1 IN THE ISOMETRIC VIEW AND CONTINUE PATTERN TO FIT SITE-SPECIFIC LAYOUT
- IF NO COLUMNS ARE IDENTIFIED, POLIGON WILL ASSUME CUTOUTS ONLY IN COLUMN A1
- CONTACT POLIGON ENGINEERING FOR SPECIAL PROJECT SPECIFIC REQUIREMENTS

ELECTRICAL CUTOUT IDENTIFICATION IN COLUMNS
SPECIFIC MEMBERS _____

EXAMPLE:

ELECTRICAL CUTOUT IDENTIFICATION IN COLUMNS
SPECIFIC MEMBERS <u> A1, B1, F1 </u>



STATE APPROVALS-SITE

4033 P. AZA, GOLDEN GATE DISTRICT
SUITE 11
CAMERON PARK, CA 95822
530.877.0016

poligon
PORTER
POLYMER



STATE APPROVALS-PC

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP: 02-121214 PC
REVIEWED FOR
SS <input checked="" type="checkbox"/> FLS <input checked="" type="checkbox"/> ACS <input checked="" type="checkbox"/> CG <input type="checkbox"/>
DATE: 7/18/2023

PRE-CHECK (PC)
DOCUMENT
CODE: 2022 CBC
A SEPARATE PROJECT
APPLICATION FOR
CONSTRUCTION IS REQUIRED.

**ELECTRICAL
CUTOUTS**
GABLE ROOF - REK

REK7.1