OUTDOOR LEARNING SHADE STRUCTURES

LAS PALMAS ELEMENTARY SCHOOL EAST CAMPUS

577 LAS PALMAS AVENUE
SACRAMENTO, CA 95815

TWIN RIVERS UNIFIED SCHOOL DISTRICT

GENERAL NOTES

1. ALL WORK SHOWN, NOTED OR DETAILED IS NEW, EXCEPT WHERE INDICATED AS EXISTING OR AS EXISTING TO REMAIN.
2. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE SITE AND SHALL REPORT ANY DISCREPANCIES IN WRITING TO THE CONSTRUCTION MANAGER BY THE MEANS OF AN REQUEST FOR INFORMATION (RFI) OR AS PART OF THE APPLICABLE SHOP DRAWING/SUBMITTAL.
3. SPECIFIC ITEMS NOTED TO BE VERIFIED OR FIELD VERIFIED ARE REQUIRED TO BE VERIFIED PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH THE WORK.
4. CONTRACTOR IS RESPONSIBLE FOR ALL INCIDENTAL WORK NECESSARY TO COMPLETE THE INSTALLATION OF NEW WORK. THIS INCLUDES, BUT IS NOT LIMITED TO, THE REMOVAL AND/OR REINSTALLATION OF ALL EXISTING ITEMS.
5. ALL WORK, MATERIAL, METHODS, ETC. SHALL CONFORM TO ALL GOVERNING BUILDING CODES, REGULATIONS AND AGENCIES.
6. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT ALL NECESSARY PERMITS AND APPROVALS ARE OBTAINED PRIOR TO BEGINNING WORK OR ORDERING MATERIALS.
7. ANY CONFLICT WITH THESE PLANS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.
8. ALL WORK SHALL BE IN COMPLETE CONFORMANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS OR AS OTHERWISE OUTLINED IN THE SPECIFICATIONS.
9. CONTRACTOR TO COORDINATE WITH EQUIPMENT SUPPLIERS FOR POWER REQUIREMENTS, BLOCKING, SUPPORT FOR EQUIPMENT, PLUMBING REQUIREMENTS AND ROUGH-IN LOCATIONS.
10. WHERE INCLUDED IN THESE DRAWINGS, "KEYNOTES" DENOTE NEW WORK TO BE PERFORMED UNDER THIS CONTRACT AND ARE IDENTIFIED TO THE RIGHT OF EACH SHEET. THE "KEYNOTE" NUMBER REFERENCES THE SPECIFICATION SECTION RELATED TO THE WORK DESIGNATED BY THE "KEYNOTE". "NOTES" DENOTE EXISTING ITEMS FOR REFERENCE ONLY AND ARE ALSO IDENTIFIED TO THE RIGHT OF EACH SHEET. "GENERAL SHEET NOTES" DENOTE DESCRIPTIONS OF ADDITIONAL NEW WORK SPECIFIC TO THE SHEET CONTAINING THE "GENERAL SHEET NOTE".
11. USE OF ANY (N) MATERIAL CONTAINING ASBESTOS IS PROHIBITED.
12. DETAILS, MATERIALS, AND FINISHES ARE TYP. FOR ALL SIM. CONDITIONS U.O.N.
13. THE TERM "TYPICAL" (TYP) SHALL BE CONSTRUED TO MEAN APPLYING TO ALL LIKE OR SIMILAR CONDITIONS IN THE AREAS DESIGNATED FOR WORK SCOPE (I.E. WITHIN THE BOUNDARIES OF THIS PROJECT).
14. NOT ALL CEILING APPURTENANCES (SMOKE DETECTORS, EXHAUST FANS, ACCESS DOORS, ETC.) ARE SHOWN. CONTRACTOR TO FIELD VERIFY AND TAKE APPROPRIATE ACTION TO ACCOMMODATE THESE ITEMS.
15. ALL DEMOLISHED ITEMS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY UNLESS NOTED TO BE SALVAGED BACK TO OWNER.
16. PRIOR TO STARTING ANY WORK, THE CONTRACTOR SHALL CONDUCT A SURVEY, WITH A DESIGNATED DISTRICT REPRESENTATIVE, TO DETERMINE THE OPERABILITY OF ALL EXISTING MECHANICAL UNITS, FIRE ALARM, TELEPHONE AND INTRUSION ALARM SYSTEMS. THE DISTRICT'S REPRESENTATIVE WILL PROVIDE A WRITTEN REPORT TO THE CONSTRUCTION MANAGER AND TO THE CONTRACTOR TO INSURE THE SAME OPERABILITY OF THESE COMPONENTS AT THE COMPLETION OF THE PROJECT.
17. ALL ITEMS THAT ARE LABELED 'CONCURRENT', 'NIC', OR 'EXISTING' ARE NOT PART OF THIS APPLICATION AND ARE NOT PART OF THE DSA APPROVAL FOR THIS PACKAGE.
18. PRIOR TO SITE MOBILIZATION, THE CONTRACTOR AND DISTRICT'S REPRESENTATIVE ARE TO MEET ON SITE AND PHOTO DOCUMENT THE EXISTING CONDITIONS OF THE AREA OF WORK AND LANDSCAPED AREAS WHERE TRENCHING WILL BE OCCURRING OR WHERE VEHICLE TRAFFIC IS ANTICIPATED. ALSO TEST IRRIGATION SYSTEM FOR PROPER OPERATION. AT PROJECT COMPLETION ALL AREAS MUST BE RESTORED TO ORIGINAL CONDITION INCLUDING BUT NOT LIMITED TO INSTALLING SOD AT DAMAGED TURF AREAS, REPLACING DAMAGED PLANTINGS, REPAIRING DAMAGED UNDERGROUND UTILITIES, PATCHING DAMAGED ASPHALT PAVING, RE-STRIPPING PAVING OR REPLACEMENT OF DAMAGED CONCRETE. THE CONTRACTOR AND OWNER'S REPRESENTATIVE SHALL MEET ON SITE AT PROJECT COMPLETION AND REVIEW ALL SITE CONDITIONS AND OPERATION OF IRRIGATION SYSTEM.
19. ALL WORK MUST CONFIRM TO 2022 TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
20. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.
21. DEMOLITION GENERAL NOTES:
    - A. THE CONTRACTOR IS RESPONSIBLE TO HAVE EMERGENCY SHUT-OFF PROCEDURES IN PLACE PRIOR TO START OF CONSTRUCTION AND SHALL FAMILIARIZE THEMSELVES WITH ALL SHUT-OFF VALVE LOCATIONS ON SITE AND HAVE PROPER TOOLS READILY AVAILABLE TO OPERATE VALVES.
    - B. SAFETY: CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE PREMISES ON WHICH THE WORK IS PERFORMED AND FOR THE SAFETY OF ALL PERSONS AND PROPERTY ON THE SITE BOTH DURING AND OUTSIDE OF NORMAL WORKING HOURS, UNTIL SUCH WORK IS ACCEPTED BY THE OWNER.
    - C. UNDERGROUND SERVICES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES AND/OR UTILITY DISTRICT AS TO THE LOCATION OF ALL UNDERGROUND FACILITIES. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE LOCATION OF ALL UNDERGROUND UTILITIES OF OTHER BURIED OBJECTS WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS.
    - D. USE OF BARRICADES AND SITE CONTROLS: WHEN THE WORK AREA HAS TRENCHES OR DITCHES DEEPER THAN ONE FOOT, THE CONTRACTOR SHALL PROVIDE FENCING AND BARRICADES AND SUCH TRENCHES AND DITCHES SHALL BE COVERED AT THE END OF EACH DAY. THE CONTRACTOR SHALL EXPEDITE THE FILLING AND COMPACTING OF THE TRENCHES AND DITCHES.
    - E. QUANTITIES: MATERIAL QUANTITIES IF ANY NOTED ON THESE PLANS ARE NOT GUARANTEED CONTRACT QUANTITIES. CONTRACTOR IS TO PERFORM IS OWN ESTIMATE AND QUANTITY TAKE-OFF. CONTRACTOR IS TO PROVIDE ALL MATERIALS NECESSARY TO ACCOMPLISH COMPLETE PROJECT EVEN IF QUANTITIES ARE DIFFERENT FROM THOSE NOTED ON THE DRAWINGS.
    - F. ALL ITEMS NOT SHOWN AS (E) EXISTING SHALL BE CONSIDERED NEW AND ARE A PART OF THIS CONTRACT.
    - G. EXISTING GRADES: EXISTING GRADES IF INDICATED ARE APPOX. ONLY AND MAY VARY. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ALL FILL MATERIAL NECESSARY TO BRING THE PADS AND PAVING TO FINISH ELEVATIONS SHOWN REGARDLESS OF QUANTITY.
    - H. SEASONAL LIMITS: FILL MATERIAL SHALL NOT BE PLACED, SPREAD OR ROLLED DURING UNFAVORABLE WEATHER CONDITIONS. WHEN THE WORK IS INTERRUPTED BY HEAVY RAINS, FILL OPERATIONS SHALL NOT BE RESUMED UNTIL FIELD TESTS INDICATE THAT THE MOISTURE CONTENTS OF THE SUBGRADE AND FILL MATERIALS ARE SATISFACTORY.
    - I. MATERIALS: AT FILL AT BUILDING PADS AND PAVED AREAS SHALL BE AGGREGATE BASE ROCK. ALL FILL MATERIALS SHALL BE TESTED FOR MATERIALS CONTENT AT BORROW PIT OR SOILS PLANT.
    - J. FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION SHALL COMPLY WITH 2022 CFC, CHAPTER 33

APPLICABLE CODES

ALL WORK SHALL CONFORM TO THE FOLLOWING AND ALL OTHER APPLICABLE CODES AND ORDINANCES.

2022 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24, C.C.R.
2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24, C.C.R.
2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24, C.C.R.
2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24, C.C.R.
2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24, C.C.R.
2022 CALIFORNIA ENERGY CODE, PART 6, TITLE 24, C.C.R.
2022 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24, C.C.R.
2022 CALIFORNIA EXISTING BUILDING CODE, PART 10, TITLE 24, C.C.R.
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24, C.C.R.
2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24, C.C.R.
TITLE 19 C.C.R., PUBLIC SAFETY, DIVISION 1 STATE FIRE MARSHAL REGULATIONS
2022 NFPA 13, THE INSTALLATION OF AUTOMATIC SPRINKLER SYSTEMS, AS AMENDED
2019 NFPA 24, INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES, AS AMENDED
2022 NFPA 72, NATIONAL FIRE ALARM CODE, AS AMENDED

UL 464, 2003 AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS, INCLUDING ACCESSORIES
UL 521, 7TH EDITION, 1999 HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS

CONTRACTOR SHALL KEEP TITLE 24, CCR, PARTS 1-5 ON THE BUILDING SITE AT ALL TIMES

NOTE:
THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CHANGE ORDER, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK.

DSA PROCEDURES

1. ADDENDA MUST BE STAMPED AND SIGNED BY THE ARCHITECT OF RECORD AND APPROVED BY DSA IN ACCORDANCE WITH CCR TITLE 24, PART 1
2. THE CONTRACTOR SHALL BE FAMILIAR WITH, AND PERFORM THE DUTIES IN ACCORDANCE WITH DSA PROCEDURE 13-01, CONSTRUCTION OVERSIGHT PROCESS.
3. CHANGES TO THE STRUCTURAL, ACCESSIBILITY, OR FIRE AND LIFE-SAFETY PORTIONS OF THE APPROVED PLANS AND SPECIFICATIONS AFTER THE WORK HAS BEEN LET SHALL BE MADE BY A CONSTRUCTION CHANGE DOCUMENT AS REQUIRED IN TITLE 24, PART 1, 4-338 AND CONSTRUCTION CHANGE DOCUMENTS SHALL BE PREPARED AND SUBMITTED TO DSA IN ACCORDANCE WITH DSA IR A-6.
4. SUBSTITUTIONS AFFECTING DSA REGULATED ITEMS WILL BE CONSIDERED AS CHANGES TO THE APPROVED PLANS AND / OR SPECIFICATIONS. THEY ARE TO BE TREATED AS CONSTRUCTION CHANGE DOCUMENTS AND WILL REQUIRE DSA'S APPROVAL PRIOR TO FABRICATION ADN INSTALLATION IN ACCORDANCE WITH TITLE 24, PART 1, 4-338 AND DSA IR A-6.
5. THE PROJECT INSPECTOR (CLASS 2 MIN.) MUST BE EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE ARCHITECT, STRUCTURAL ENGINEER, AND DSA IN ACCORDANCE WITH TITLE 24, PART 1, 4-341, AND SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR.
6. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
7. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE DSA APPROVED DOCUMENTS WOULD MAKE THE BUILDING NON-COMPLIANT WITH THE REQUIREMENTS OF THE EDITION OF THE CBC IN FORCE AT THE TIME OF ORIGINAL CONSTRUCTION, A CHANGE CONSTRUCTION DOCUMENT OR SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK.

ABBREVIATIONS

<	CENTERLINE	F.D.	FLOOR DRAIN	P.L.	PROPERTY LINE
ϕ	DIAMETER OR ROUND	F.E.	FIRE EXTINGUISHER	PL.LAM.	PLASTIC LAMINATE
#	POUND OR NUMBER	F.H.C.	FIRE HOSE CABINET	PLYWD.	PLYWOOD
(E)	EXISTING	FIN.	FINISH	PREP.	PREPARATION
		FL.	FLOOR	P.M.	PRESSED METAL
A.C.	ASPHALT CONCRETE	F.O.C.	FACE OF CONCRETE	P.P.	PIPE PENTRATION
A.C.C.	ACCESSIBLE	F.O.F.	FACE OF FINISH	PTN.	PARTITION
A.D.	AREA DRAIN	F.O.S.	FACE OF STUDS	P.V.	PIPE VENT
A.F.F.	ABOVE FINISH FLOOR	F.O.W	FACE OF WALL		
ALUM.	ALUMINUM	F.R.P.	FIBERGLASS REINFORCED PLASTIC	R.	RISER/RADIUS
ASPH	ASPHALT	F.V.	FIELD VERIFY	R.D.	ROOF DRAIN
				REINF.	REINFORCED
BD.	BOARD	GA.	GAUGE	REQ'D.	REQUIRED
BLDG.	BUILDING	GALV.	GALVANIZED	R.H.	ROOF HATCH
BOT.	BOTTOM	G.B.	GRAB BAR	R.W.L.	RAIN WATER LEADER
B.V.	BOILER VENT	GYP.	GYPSUM		
CAB.	CABINET	H.B.	HOSE BIBB	S.C.	SOLID CORE
C.B.	CHALK BOARD	H.C.	HOLLOW CORE	SF.	SQUARE FOOT
C.D.	CONDENSATE DRAIN	HGT./HT.	HEIGHT	STOR.	STORAGE
CHEM.	CHEMISTRY	H.M.	HOLLOW METAL	SPEC.	SPECIFICATION
C.G.	CORNER GUARD	HR.	HOUR	S.S	STAINLESS STEEL
C.J.	CONSTRUCTION JOINT	HVAC	HVAC UNIT	STD.	STANDARD
CLG.	CEILING			STL.	STEEL
CLR.	CLEAR	JT.	JOINT	STRL.	STRUCTURAL
C.M.U.	CONCRETE MASONRY UNIT	M.B.	MARKER BOARD	SUSP.	SUSPENDED
		M.H.	MANHOLE	S.V.	SMOKE VENT
COL.	COLUMN	MTL.	METAL	SYM.	SYMMETRICAL
CONC.	CONCRETE	MUL.	MULLION		
CONT.	CONTINUOUS			T.B.	TACK BOARD
C.F.C.I.	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	(N)	NEW	T.C.	TOP OF CURB
		N.I.C.	NOT IN CONTRACT	T.O.C.	TOP OF CONCRETE
CTR.	CENTER	NO. or #	NUMBER	T.O.S.	TOP OF STEEL
		N.T.S.	NOT TO SCALE	T.O.P.	
DEMO.	DEMONSTRATION			T.V.	TELEVISION
D.F.	DRINKING FOUNTAIN	O.C.	ON CENTER	T.O.W.	TOP OF WALL
DIA.	DIAMETER	O.D.	OUTSIDE DIAMETER (DIM.)	TYP.	TYPICAL
DIM.	DIMENSION			U.O.N.	UNLESS OTHERWISE NOTED
D.S.	DOWNSPOUT	O.F.C.I.	OWNER FURNISHED CONTR. INSTAL.	U.V.	UNIT VENTILATOR
DTL.	DETAIL				
DW	DISH WASHER	O.F.O.I.	OWNER FURNISHED OWNER INSTAL.	VERT.	VERTICAL
DWG.	DRAWING			V.H.	VENT HOOD
		O.F.S.	OVER FLOW SCUPPER		
E.F.	EXHAUST FAN	OPNG.	OPENING	W/	WITH
E.J.	EXPANSION JOINT	OPP.	OPPOSITE	W.C.	WATER CLOSET
EMERG.	EMERGENCY	OSB	ORIENTED STRAND BOARD	WD.	WOOD
ELEV.	ELEVATION			W/O	WITHOUT
E.W.C.	ELECTRIC WATER COOLER			W.W.F.	WELDED WIRE FABRIC
EXST./(E)	EXISTING				

PROJECT TEAM

OWNER
TWIN RIVER UNIFIED SCHOOL DISTRICT
3222 WINONA WAY, SUITE 200
NORTH HIGHLANDS, CA 95660
PHONE: (916) 566-1600
CONTACT: PERRY HERRERA

ARCHITECT
HARRINGTON DESIGN ASSOCIATES, INC
5875 PACIFIC STREET, SUITE E2
ROCKLIN, CA 95677
PHONE: (916) 577-5789
CONTACT: FRANCIS J. HARRINGTON, AIA

STRUCTURE DATA

SHADE STRUCTURE 'S1'
AREA: 1920 SF.
CONSTRUCTION: II-B NON-SPRINKLERED
OCCUPANCY: A-3
SEE SHEET A1.0 FOR COMPLETE CODE ANALYSIS

DESIGN CRETERIA

VERTICAL LOAD: ROOF LIVE LOAD = 20 PSF; GROUND SNOW, Pg = 0 PSF
WIND LOAD: BASIC WIND SPEED, V-3 SECONDS = 95 MPH; RISK CATEGORY II; EXPOSURE CATEGORY C
SEISMIC LOAD: I = 1.00; RISK CATEGORY II; Ss = 0.531 S1 - 0.244; SITE CLASS D - DEFAULT; Sds = 0.487

SEISMIC DESIGN CATEGORY D

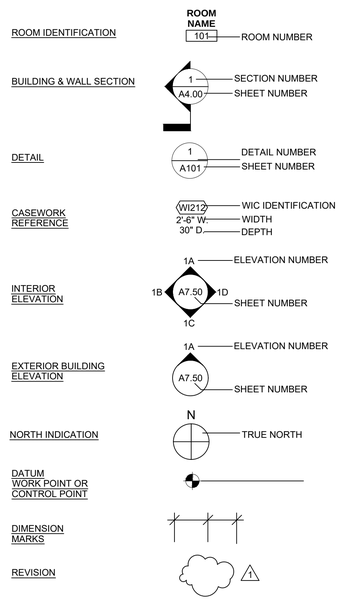
SCOPE OF WORK

WORK UNDER THIS PROJECT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING GENERAL SCOPE OF WORK

1. ONE (1) 30'x64' METAL SHADE STRUCTURE BASED ON A#04-122375 PC (O.F.C.I.) AND ASSOCIATED SITE WORK: PURCHASE, FABRICATION & DELIVERY BY OWNER/MANUFACTURER, OFF-LOADING & ASSEMBLY BY SITE CONTRACTOR.

SYMBOLS LEGEND

SEE INDIVIDUAL SHEETS FOR ADDITIONAL SHEET SPECIFIC SYMBOLS/ LEGENDS INDICATED HERE



DRAWING INDEX

T0.0 TITLE SHEET

ARCHITECTURE:

A1.0 CODE ANALYSIS & OVERALL SITE PLAN
A1.1 ENLARGED PLANS & DETAILS
A1.2 EXISTING ACCESSIBILITY PLANS & DETAILS

STATEMENT OF GENERAL CONFORMANCE:

THE FOLLOWING DRAWINGS AND/OR SPECIFICATIONS INDEXED BELOW HAVE BEEN PREPARED BY OTHER DESIGN PROFESSIONALS OR CONSULTANTS WHO ARE LICENSED AND/OR AUTHORIZED TO PREPARE SUCH DRAWINGS IN THIS STATE. THESE DOCUMENTS HAVE BEEN EXAMINED BY ME FOR DESIGN INTENT AND THEY APPEAR TO MEET THE APPROPRIATE REQUIREMENTS OF TITLE 24, CALIFORNIA CODE REGULATIONS, AND THE SPECIFICATIONS PREPARED BY ME FOR THIS PROJECT.

THESE DOCUMENTS ARE ACCEPTABLE FOR INCORPORATION INTO THE CONSTRUCTION OF THIS PROJECT FOR WHICH I AM THE INDIVIDUAL DESIGNATED TO BE IN GENERAL RESPONSIBLE CHARGE.

THIS STATEMENT OF GENERAL CONFORMANCE SHALL NOT BE CONSTRUED AS RELIEVING ME OF MY RIGHTS, DUTIES, AND RESPONSIBILITIES UNDER SECTIONS 17302 AND 81138 OF THE EDUCATION CODE AND SECTIONS 4-336, 4-341, AND 4-344 OF THE TITLE 24, PART 1. (TITLE 24, PART 1, SECTION 4-317[b]).

SIGNATURE OF ARCHITECT/ENGINEER	DATE	LICENSE NUMBER:	EXPIRATION DATE:
FRANCIS J. HARRINGTON, AIA	12/20/2023	C 28875	9/30/2025

DOCUMENTS PREPARED BY OTHERS

ICON SHELTER SYSTEMS INC. - 30' X 64' RECTANGULAR HIP
DSA A#04-122375 PC

LS1.0 GENERAL INFORMATION
LS1.1 GENERAL INFORMATION
LS1.2 DSA 103 (NOT USED)
LS1.3 DSA 103 (NOT USED)
LS3.0 30' WIDE RECTANGULAR HIP FOUNDATION PLAN
LS3.1 30' WIDE RECTANGULAR HIP FRAMING & CONNECTION DETAILS
LS3.2 30' WIDE RECTANGULAR HIP MULTI RIB ROOFING PLAN
LS5.0 ELECTRICAL ACCESS

TOTAL SHEET COUNT: 12

SPECIAL INSPECTIONS & TESTING

THE ITEMS LISTED BELOW ARE NOT SUBJECT TO DSA REQUIREMENTS FOR THE STRUCTURAL TESTS / SPECIAL INSPECTIONS:

1. CONCRETE BATCH PLANT (SITE FLATWORK)
2. SOIL COMPACTION AND FILL (SITE FLATWORK & SHADE STRUCTURE BASED ON A#04-122375 PC)
3. DEEP FOUNDATIONS, SINGLE-STORY STRUCTURE WITH DEAD LOAD LESS THAN 5 PSF (SHADE STRUCTURE BASED ON A#04-122375 PC)

DEFERRED APPROVALS

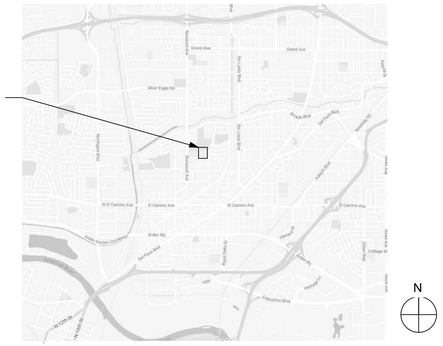
INSTALLATION OF DEFERRED APPROVAL ITEMS SHALL NOT BE STARTED UNTIL CONTRACTOR'S DRAWINGS, SPECIFICATIONS AND ENGINEERING CALCULATIONS FOR THE ACTUAL SYSTEMS TO BE INSTALLED HAVE BEEN ACCEPTED AND SIGNED BY THE ARCHITECT OR ENGINEER, AND APPROVED BY DSA.

1. N/A

VICINITY MAP

FLOOD HAZARD ZONE: ZONE 'X'

PROJECT LOCATION
577 LAS PALMAS AVENUE
SACRAMENTO, CA 95815



APPROVED
DIV. OF THE STATE ARCHITECT
APP: 02-122047 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 05/09/2024

HARRINGTON DESIGN ASSOCIATES
5875 PACIFIC STREET, SUITE E2
ROCKLIN, CA 95677 (916) 577-5789
www.HarringtonDA.COM

LICENSED ARCHITECT FRANCIS J. HARRINGTON No. C-28875 RENEWAL DATE: 9 / 30 / 25 STATE OF CALIFORNIA

ARCHITECT

CONSULTANT

TwinRivers UNIFIED SCHOOL DISTRICT

OWNER

OUTDOOR LEARNING SHADE STRUCTURES

LAS PALMAS ELEMENTARY - EAST CAMPUS
577 LAS PALMAS AVE.
SACRAMENTO, CA 95815

REVISIONS

1	DSA ADD-001	5/9/2024

DATE December 15, 2023

TITLE SHEET

T0.0

JOB NO. 2124.26

DSA **810**

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

School District/Owner: TWIN RIVERS UNIFIED SCHOOL DISTRICT

Project Name/School: LAS PALMAS ES EAST CAMPUS/OUTDOOR LEARNING SHADE STRUCTURES

Project Address: 577 LAS PALMAS AVENUE, SACRAMENTO, CA 95815

1.	Has a fire hydrant flow test been performed within the past 12 months? (If yes, provide a copy of the test data.) PER 2022 CFC APPENDIX BB FIRE FLOW REQUIREMENTS FOR BUILDINGS SECTION BB101.1 "FIRE FLOW REQUIREMENTS DO NOT APPLY TO STRUCTURES OTHER THAN BUILDINGS."	Yes ☐		No ■
2.	Was the fire hydrant water flow test performed as part of this LFA review?	Yes ☐		No ■
3.	Is the project located within a designated fie hazard severity zone (FHSZ) as established by Cal-Fire? (If yes, indicate FHSZ classification below.)	Yes ☐		No ■
	Refer to the following website for FHSZ locations: http://egis.fire.ca.gov/FHSZ/	Moderate ☐	High ☐	Very High ☐
	Wildland Interface Area (WIFA) (If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)			WIFA ☐

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT:

THE PATH OF TRAVEL (POT) IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS, AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS , COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT 1) HAVE BEEN IDENTIFIED AND 2) THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS.

DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

ACCESSIBLE PATH OF TRAVEL:

ACCESSIBLE PATH OF TRAVEL AS INDICATED IS A BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" IF BEVELED AT 1:2 MAXIMUM SLOPE, OR VERTICAL LEVEL CHANGES CHANGES THAT DO NOT EXCEED 1/4" VERTICAL AND IS AT LEAST 48" WIDE. THE PATH SURFACE IS SLIP RESISTANT, STABLE, FIRM AND SMOOTH. THE CROSS-SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED. ACCESSIBLE PATH OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL AND ABOVE 27" AND LESS THAN 80". GENERAL CONTRACTOR SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE PATH OF TRAVEL BASED UPON THESE NOTES AND SHALL NOTIFY THE ARCHITECT FOR ITEMS THAT ARE NOT COMPLIANT.

PASSING SPACES (11B-403.5.3) OF 60"x60" MIN. ARE LOCATED NOT MORE THAN 200' APART. WALKS WITH CONTINUOUS GRADIENTS HAVE 60" IN LENGTH OF LEVEL AREAS (11B-403.7) NOT MORE THAN 400' APART. THERE IS NO DROP-OFF OVER 4" AT THE EDGE OF WALK OR LANDING UNLESS IDENTIFIED BY A GUARD, A HANDRAIL, OR A WARNING CURB AT LEAST 6" IN HEIGHT ABOVE THE WALK (11B-303.5).

EXISTING CAMPUS BUILDING DATA

BLD'G	EXIST'G/ NEW	APP. NO.	NAME/USE	OCCUPANCY	BLDG. AREA	CONST. TYPE
A	EXIST'G	A#02-9412	CLASSROOM	E	- SF	V-B
B	EXIST'G	A#02-9412	MULTI-PURPOSE	A-3/B	- SF	V-B
C	EXIST'G	A#02-9412	CLASSROOM	E	- SF	V-B
D	EXIST'G	A#02-9412	CLASSROOM	E	- SF	V-B
E	EXIST'G	A#02-9412	CLASSROOM	E	- SF	V-B
F	EXIST'G	A#02-9412	CLASSROOM	E	- SF	V-B
G	EXIST'G	A#02-9412	CLASSROOM	E	- SF	V-B
H	EXIST'G	A#02-9412	CLASSROOM	E	- SF	V-B
I	EXIST'G	A#02-9412	MULTI-PURPOSE	A-3	- SF	V-B
J	EXIST'G	A#02-9412	CLASSROOM	E	- SF	V-B
K	EXIST'G	A#02-11537	CHILD CARE	E	- SF	V-B
M	EXIST'G	A#02-9412	CLASSROOM	E	- SF	V-B
R	EXIST'G	A#02-111978	RESTROOMS	E	- SF	V-B

CODE ANALYSIS: (SHADE STRUCTURE)

(N) SHADE STRUCTURE 'S1'*

OCCUPANCY CLASSIFICATION	A-3
CONSTRUCTION TYPE	II-B NON-SPRINKLERED 30'X60' = 1920 SF
OCCUPANT LOAD	1920 / 15 = 128 OCCUPANTS
BASIC ALLOWABLE AREA (TABLE 506.2)	9,500 SF
TOTAL BUILDING AREA 1920 SF < 9,500 SF	1920 SF **COMPLIES**

LEGEND:

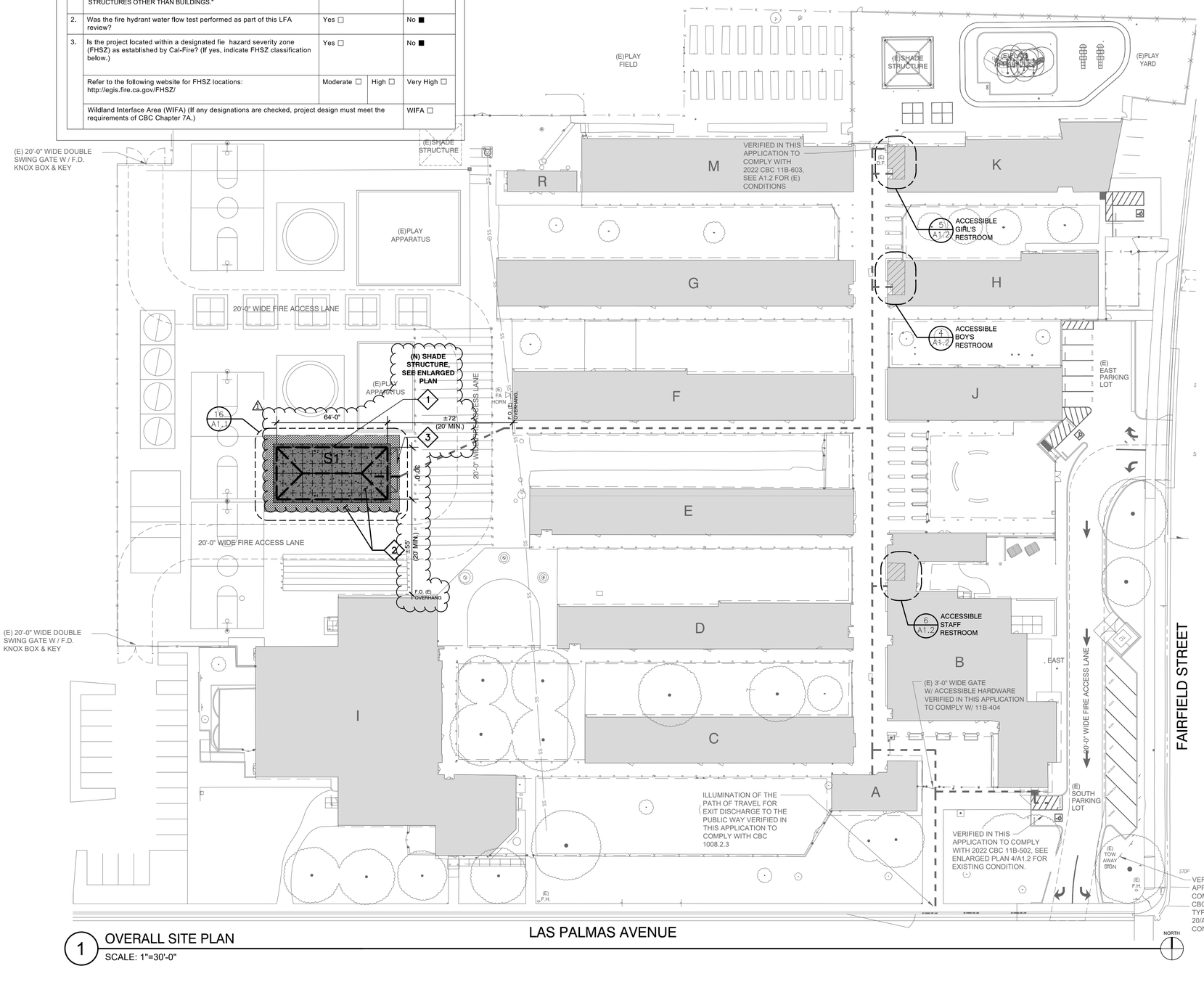
- **(E) BUILDING INCLUDED IN THIS APPLICATION.**
- **(N) SHADE STRUCTURE WITH CAST-IN-PLACE CONCRETE BELOW**, SEE ENLARGED SITE PLAN FOR ADDITIONAL INFORMATION INCLUDING COLUMN LOCATIONS
- (N) ASPHALT PAVING, SEE ENLARGED SITE PLAN FOR ADDITIONAL INFORMATION
- S / S / G — (E) ACCESSIBLE RESTROOMS
- (E) PROPERTY LINE
- (E) AND **(N) ACCESSIBLE PATH OF TRAVEL (P.O.T.), COMPLIANT WITH 11B-202.4**
- (E) D.F. — (E) HI-LOW DRINKING FOUNTAIN, VERIFIED IN THIS APPLICATION TO COMPLY WITH 2022 CBC 11B-602, SEE TYPICAL DETAIL 7/A1.5 FOR EXISTING CONDITION.
- (E) FA HORN — (E) FIRE ALARM HORN, VERIFIED IN THIS APPLICATION THE CAMPUS FIRE ALARM SIGNAL IS WITHIN PROXIMITY OF THE SHADE STRUCTURE
- (E) FIRE ACCESS ROAD — (E) FIRE APPARATUS ACCESS ROAD IS RATED FOR A 75,000 LB FIRE APPARATUS VEHICLE WEIGHING UP TO 75,000 LBS PER CFC APPENDIX D102.1

KEY NOTES:

1. **(N) SHADE STRUCTURE (ICON SHELTER SYSTEMS) BASED ON RH30X64 COLUMN LAYOUT (3 BAYS) PER DSA A#04-122375 PC, OWNER-FURNISHED / CONTRACTOR-INSTALLED, WITH DRILLED PIERS FOR 10' HEIGHT COLUMNS, TYP. OF 8. PER RH30 - PIER DETAIL ON LS3.0. SEE ENLARGED PLANS FOR ADDITIONAL INFORMATION.**
2. **(N) CONCRETE & ASPHALT PAVING, SEE ENLARGED PLAN FOR ADDITIONAL INFO**
3. **DEMO (E) FABRIC SHADE STRUCTURE AND ASSOCIATED POSTS/PIERS (TYP. OF 4)**

(E) PARKING CALCULATION:

(E) PARKING LOT, SOUTH	
TOTAL (E) PARKING STALL COUNT	14
ACCESSIBLE PARKING REQUIREMENTS	(CBC TABLE 11B-208.2)
TOTAL ACCESSIBLE STALLS REQ'D	1
ACCESSIBLE STALLS REQ'D (CAR)	0
ACCESSIBLE STALLS REQ'D (VAN)	1
ACCESSIBLE STALLS PROVIDED	1 CAR, 1 VAN COMPLIANT



1 OVERALL SITE PLAN
SCALE: 1"=30'-0"

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 02-122047 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 05/09/2024

HARRINGTON DESIGN ASSOCIATES
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LICENSED ARCHITECT — PATRICK T. HARRINGTON — No. C-26975 — RENEWAL DATE: 9 / 30 / 25 — STATE OF CALIFORNIA

ARCHITECT

CONSULTANT

TwinRivers UNIFIED SCHOOL DISTRICT

OWNER

OUTDOOR LEARNING SHADE STRUCTURES

LAS PALMAS ELEMENTARY - EAST CAMPUS
577 LAS PALMAS AVE.
SACRAMENTO, CA 95815

REVISIONS

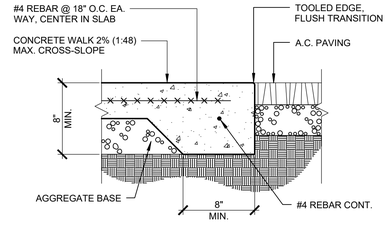
1	DSA ADD-001	5/9/2024

DATE December 15, 2023

CODE ANALYSIS & OVERALL SITE PLAN

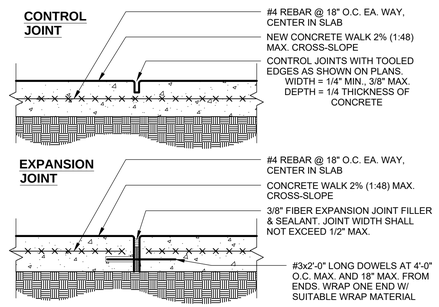
A1.0

JOB NO. 2124.26



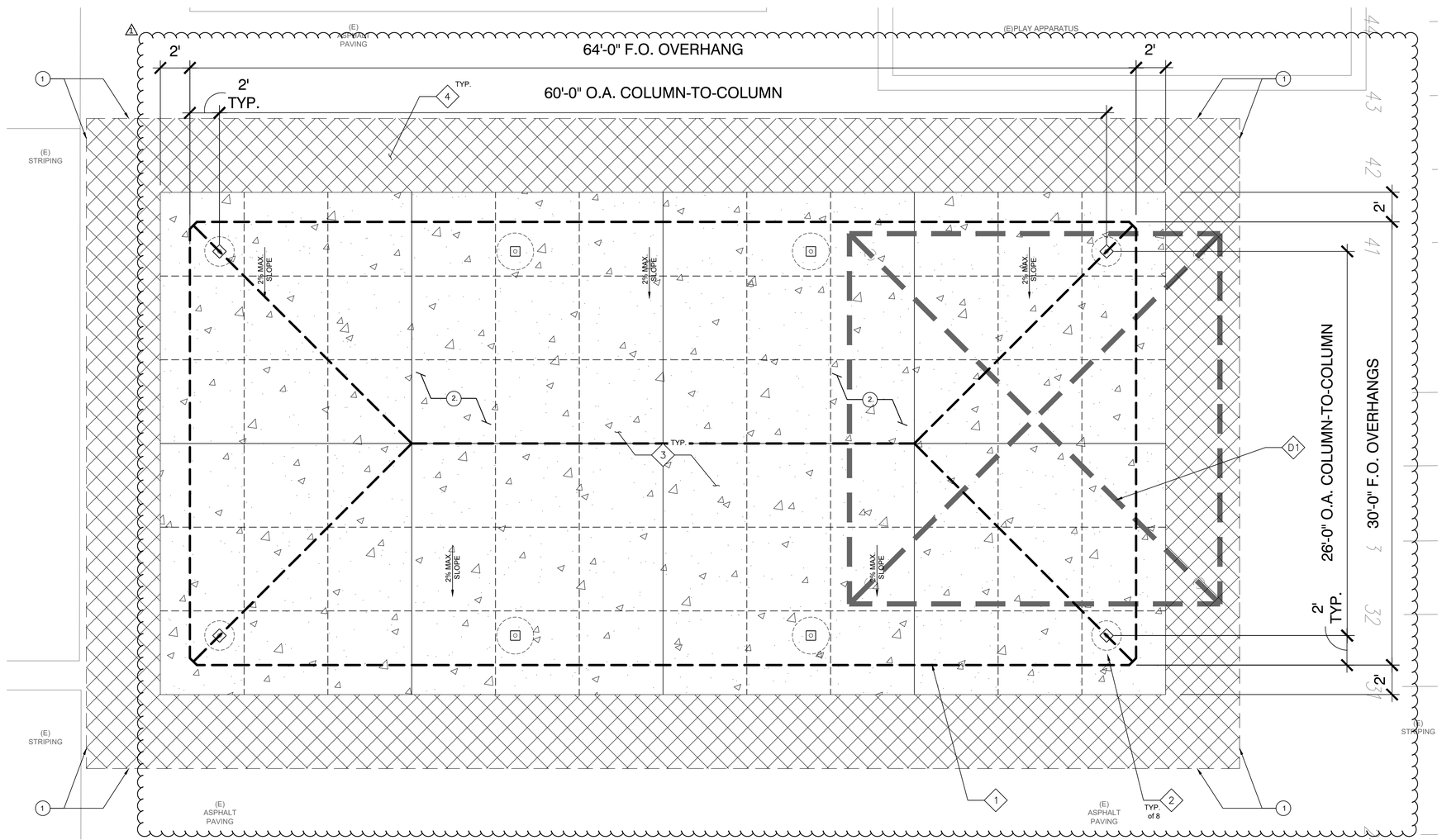
5 CONCRETE TO A.C. PAVING

SCALE: 1½" = 1'-0"



1 TYPICAL CONCRETE CONTROL & EXPANSION JOINTS

SCALE: 1½" = 1'-0"



DEMO NOTES:

D1 REMOVE AND DISPOSE OF EXISTING SHADE STRUCTURE AND ASSOCIATED FOOTINGS WITHIN AREA OF WORK.

KEY NOTES: (SHADE STRUCTURES)

1. (N) SHADE STRUCTURE, OWNER-FURNISHED / CONTRACTOR-INSTALLED, BASED ON RH30X64 COLUMN LAYOUT (3 BAYS) PER DSA A#04-122375 PC
2. (N) DRILLED PIERS FOR 10' HEIGHT COLUMNS BASED ON DSA A#04-122375 PC, SEE RH30-PIER DETAIL ON LS3.0.
3. (N) CONCRETE PAVING - SEE DETAILS 1 & 5/A1.1
   - 5" PCC WTIH #4 REBAR @ 18" O.C.E.W. OVER 5" CLASS II AB ON SUBGRADE COMPACTED PER SPECIFICATIONS AND PREPARATION NOTE
4. (N) ASPHALT CONCRETE PAVING, MAINTAIN 2% MAX. SLOPE IN ANY DIRECTION
   - 3" AC OVER 12" CLASS II AB ON SUBGRADE COMPACTED PER SPECIFICATIONS AND PREPARATION NOTE

GRADING NOTES:

1. MATCH EXISTING GRADE / ELEVATION
2. CROSS SLOPE ON ANY ACCESSIBLE PAVED AREA SHALL NOT EXCEED 2% IN ANY DIRECTION OR BE LESS THAN 1% ON ANY HARD SURFACED AREA. NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.

SUBGRADE PREPARATION:

1. EXCAVATE DOWN TO ROUGH SUBGRADE ELEVATION, SCARIFY THE EXISTING SOILS TO A MINIMUM DEPTH OF 8 INCHES, MOISTURE CONDITION TO AT LEAST 2 PERCENT ABOVE THE OPTIMUM MOISTURE AND COMPACT TO AT LEAST 90 PERCENT OF THE MAXIMUM DRY DENSITY DETERMINED BY THE ASTM D1557 TEST METHOD. UPPER 8 INCHES OF SUBGRADE BENEATH ASPHALT PAVEMENT SHALL BE COMPACTED TO 95 PERCENT.

16 ENLARGED SITE PLAN - OUTDOOR LEARNING SHADE STRUCTURES

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

NORTH

JOB NO. 2124.26

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 02-122047 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 05/09/2024

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LICENSED ARCHITECT
PATRICK T. HARRINGTON
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RENEWAL DATE: 9 / 30 / 25
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ARCHITECT

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REVISIONS

1	DSA ADD-001	5/9/2024

DATE December 15, 2023

ENLARGED PLANS & DETAILS

A1.1

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LAS PALMAS ELEMENTARY - EAST CAMPUS
577 LAS PALMAS AVE.
SACRAMENTO, CA 95815

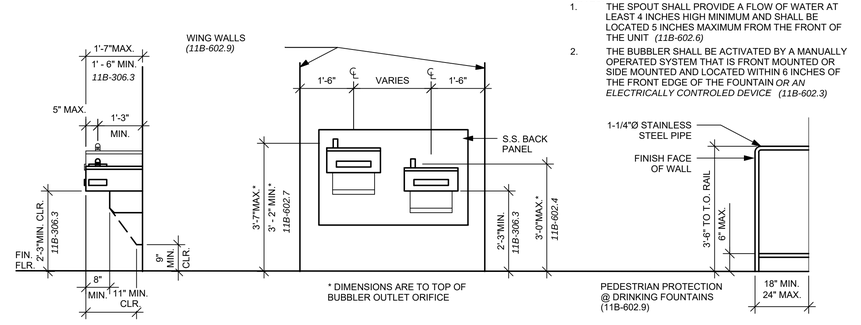
DATE December 15, 2023

EXISTING ACCESSIBILITY PLANS & DETAILS

A1.2

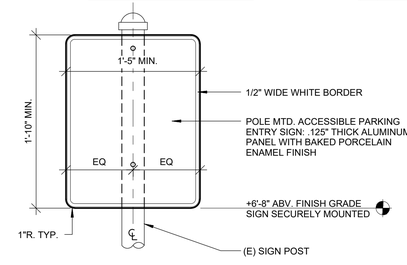
JOB NO. 2124.26

NOTES:
1. THE SPOUT SHALL PROVIDE A FLOW OF WATER AT LEAST 4 INCHES HIGH MINIMUM AND SHALL BE LOCATED 5 INCHES MAXIMUM FROM THE FRONT OF THE UNIT *(11B-602.6)*
2. THE BUBBLER SHALL BE ACTIVATED BY A MANUALLY OPERATED SYSTEM THAT IS FRONT MOUNTED OR SIDE MOUNTED AND LOCATED WITHIN 6 INCHES OF THE FRONT EDGE OF THE FOUNTAIN *OR AN ELECTRICALLY CONTROLED DEVICE (11B-602.3)*

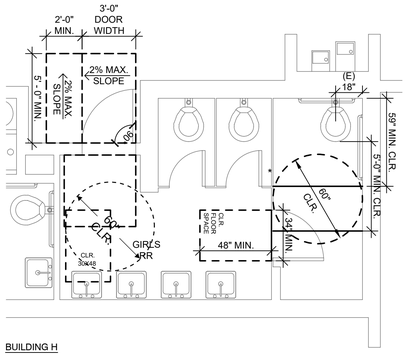


7 TYPICAL EXISTING HI-LOW DRINKING FOUNTAIN
SCALE: 1 1/2"=1'-0"

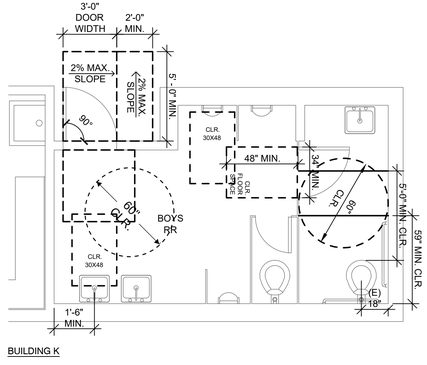
1" HIGH WHITE LETTERS ON BLUE BACKGROUND WITH MESSAGE:
"UNAUTHORIZED VEHICLES PARKED IN DESIGNATED ACCESSIBLE SPACES NOT DISPLAYING DISTINGUISHING PLACARDS OR LICENSE PLATES ISSUED FOR PERSONS WITH DISABILITIES WILL BE TOWED AWAY AT OWNER'S EXPENSE/ TOWED VEHICLES MAY BE RECLAIMED AT TWIN RIVERS POLICE DEPARTMENT OR BY TELEPHONING (916) 566-2777."



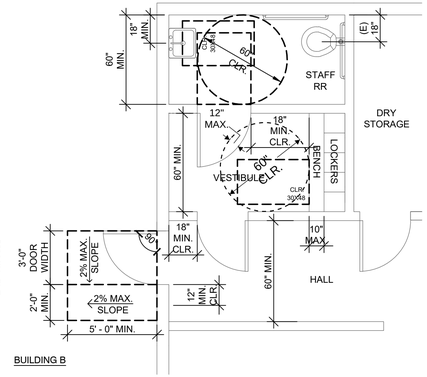
20 EXISTING ACCESSIBLE PARKING ENTRY SIGN
SCALE: 1 1/2"=1'-0"



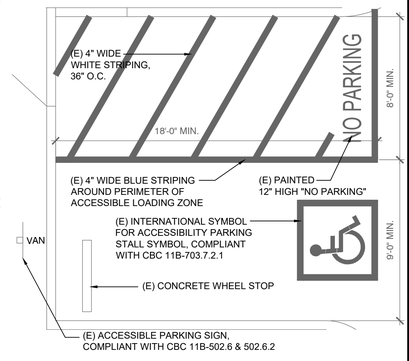
16 ENLARGED (E) GIRLS RR PLAN
SCALE: 1/8"=1'-0"



12 ENLARGED (E) BOYS RR PLAN
SCALE: 1/8"=1'-0"



8 ENLARGED (E) STAFF RR PLAN
SCALE: 1/8"=1'-0"



4 (E) ACCESSIBLE PARKING STALLS
SCALE: 1/4"=1'-0"

DESIGN CRITERIA	
BASE LOCATION LOCATED AT BOTTOM OF BASEPLATE/TOP OF FOOTING	
DESCRIPTION	DESIGN VALUES
DEAD AND LIVE LOADS	
ROOF LIVE LOAD	20 PSF
ROOF DEAD LOAD (SUPERIMPOSED ON FRAME)	5 PSF MAX
ROOF PANEL DEAD LOAD	M=1.1 PSF, ~~G = 1.2 PSF, S = 1.3 PSF~~
COLLATERAL DEAD LOAD	M = 3.9 PSF, ~~G = 3.8 PSF, S = 3.7 PSF~~
ROOF LIVE LOAD	
ROOF LIVE LOAD, L_r	20 PSF
ROOF SNOW LOAD	
GROUND SNOW LOAD, P_g	20 PSF
RISK CATEGORY	II
ROOF SNOW LOAD: SLOPED, P_s	20 PSF
FOR SNOW LOAD CONDITIONS ONLY - SITE APPLICATION REVIEWER SHALL VERIFY THE STTRUCTURE SHALL BE LOCATED AT LEAST 20 FEET	
FROM ANY ADJACENT STRUCTURE FOR SNOW DRIFT.	
SNOW LOAD SLOPE FACTOR, C_s	1.0
SNOW LOAD EXPOSURE FACTOR, C_e	1.0
SNOW LOAD IMPORTANCE FACTOR, I_s	1.0
THERMAL FACTOR, C_t	1.2
LOWEST ANTICIPATED SERVICE TEMPERATURE	30°
WIND DESIGN	
BASIC WIND SPEED (3 SECOND GUST), V_{ult}, V_{asd}	100 MPH, 78 MPH
RISK CATEGORY	II
EXPOSURE CATEGORY	C
FACTORS: K_z, K_{zt}, K_d	0.85, 1.0, 0.85
$q_h = 0.00256\ K_z\ K_{zt}\ K_d\ V^2$	18.50 PSF
C_{NW} PER ASCE FIGURE 27.3-5 ROOF ANGLE 18.43 - CLEAR / OBSTRUCTED	CASE A (1.1 / -1.2) CASE B (0.01 / -0.69)
C_{NL} PER ASCE FIGURE 27.3-5 ROOF ANGLE 18.43 - CLEAR / OBSTRUCTED	CASE A (-0.17 / -1.09) CASE B (-0.96 / -1.65)
C_N PER ASCE FIGURE 27.3-7 PARALLEL TO RIDGE - CLEAR / OBSTRUCTED (< h)	CASE A (-0.8 / -1.2) CASE B (0.8 / 0.5)
C_N PER ASCE FIGURE 27.3-7 PARALLEL TO RIDGE - CLEAR / OBSTRUCTED (> h, < 2h)	CASE A (-0.6 / -0.9) CASE B (0.5 / 0.5)
C_N PER ASCE FIGURE 27.3-7 PARALLEL TO RIDGE - CLEAR / OBSTRUCTED (>2h)	CASE A (-0.3 / -0.6) CASE B (0.3 / 0.3)
COMPONENTS & CLADDING - C_N (PRESSURE/SUCTION) CLEAR / OBSTRUCTED	ZONE 3 - (2.29 / -2.11) / (1.0 / -3.0)
	ZONE 2 - (1.77 / -1.63) / (0.8 / -2.3)
	ZONE 1 - (1.15 / -1.05) / (0.5 / -1.5)
SEISMIC DESIGN	
LATERAL FORCE RESISTING SYSTEM	STEEL - ORDINARY CANTILEVER COLUMN
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE
SESIMIC IMORTANCE FACTOR, I_e	1.0
SEISMIC SITE CLASS	D
MCE_R SPECTRAL RESPONSE ACCELERATION @ 0.2 s, S_S	2.60
MCE_R SPECTRAL RESPONSE ACCELERATION @ 0.2 s, S_1	0.90
SHORT PERIOD SITE COEFFICIENT, F_a	1.20
LONG PERIOD COEFFICIENT, F_v	1.70
FUNDAMENTAL PERIOD OF THE STRUCTURE, T (WORST CASE FOR ALL STRUCTURES)	0.152 s
DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, S_{DS}	2.08 ☐
DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, S_{DS} - USED TO DETERMINE Cs (WITH CAP PER ASCE 7 12.8.1.3) SOIL PROPERTIES MAY NOT BE CLASSIFIED AS SITE CLASS E.	2.08 * 0.70 = 1.456 ☐
DESIGN SPECTRAL RESPONSE ACCELERATION AT 1-s PERIODS, S_{D1}	1.02
SEISMIC DESIGN CATEGORY	E
SITE SPECFIC RESPONSE ANALYSIS NOT REQUIRED PER ASCE 7 11.4.8 EXCEPTION 2	$T_s = 0.49$ s ; $T < 1.5 * T_s$
RESPONSE MODIFICATION FACTOR, R	1.25
OVERSTRENGTH FACTOR, Ω	1.25
REDUNDANCY FACTOR, ρ	1.3
HORIZONTAL OR VERTICAL IRREGULARITIES	NONE
SEISMIC RESPONSE COEFFICIENT, C_s (20' WIDE, 30' WIDE, 40' WIDE)	~~1.16~~ ; 1.00 ; ~~1.00~~
DESIGN BASE SHEAR, V (20' WIDE, 30' WIDE, 40' WIDE)	~~12.73 PSF [ ]~~ ; 13.41 PSF [✓] ; ~~14.65 PSF [ ]~~
ALLOWABLE SOIL BEARING FOR FOUNDATIONS	VARIES - SEE FOUNDATION CHARTS
FLOOD DESIGN - DESIGN IS ASSUMED TO NOT BE IN FLOOD HAZARD AREA	
IF PROJECT IS LOCATED IN A FLOOD ZONE OTHERTHAN ZONE X, A LETTER STAMPED & SIGNED FROM A SOILS ENGINEER IS REQUIRED TO VALIDATE THE ALLOWABLE SOIL VALUES SPECIFIED.	

STRUCTURAL SEPARATION

ALL DEFLECTIONS SHOWN ALSO INCLUDE THE P-DELTA ROTATION PER IR PC-7

DEFLECTIONS ARE FOR (1) STRUCTURE

SOIL CLASSES PER CBC TABLE 1806A.2

MAXIMUM DRIFT δ_{max} SIDE COLUMNS	Soil Class 5	Soil Class 4	Soil Class 3
~~20' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT) (INCHES)~~	~~[ ] 2.40~~	~~[ ] 2.55~~	~~[ ] 2.65~~
30' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT) (INCHES)	[ ] 2.15	[ ] 2.30	[ ] 2.40
~~40' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT) (INCHES)~~	~~[ ] 2.20~~	~~[ ] 2.20~~	~~[ ] 2.30~~
MINIMUM SEPARATION ($\delta_m = C_d\ \delta_{max}$) $C_d = 1.25$			
~~20' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT) (INCHES)~~	~~[ ] 3.00~~	~~[ ] 3.19~~	~~[ ] 3.31~~
30' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT) (INCHES)	[ ] 2.69	[ ] 2.88	[ ] 3.00
~~40' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT) (INCHES)~~	~~[ ] 2.75~~	~~[ ] 2.75~~	~~[ ] 2.88~~

MAXIMUM DRIFT δ_{max} END COLUMNS	Soil Class 5	Soil Class 4	Soil Class 3
~~20' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT) (INCHES)~~	~~[ ] 2.40~~	~~[ ] 2.55~~	~~[ ] 2.65~~
30' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT) (INCHES)	[ ] 2.15	[ ] 2.30	[ ] 2.40
~~40' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT) (INCHES)~~	~~[ ] 2.20~~	~~[ ] 2.20~~	~~[ ] 2.30~~
MINIMUM SEPARATION ($\delta_m = C_d\ \delta_{max}$) $C_d = 1.25$			
~~20' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT) (INCHES)~~	~~[ ] 3.00~~	~~[ ] 3.19~~	~~[ ] 3.31~~
30' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT) (INCHES)	[ ] 2.69	[ ] 2.88	[ ] 3.00
~~40' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT) (INCHES)~~	~~[ ] 2.75~~	~~[ ] 2.75~~	~~[ ] 2.88~~

INSTRUCTIONS FOR ARCHITECTS SUBMITTING THESE PRE-CHECKED DRAWINGS TO DSA:

BEFORE SUBMITTING THESE PRE-CHECKED DRAWINGS FOR YOUR PROJECT, FOLLOW THE STEPS BELOW TO PROPERLY DEFINE THE APPROVED OPTIONS:

STEP 1: SELECT FRAME DIMENSIONS FOR YOUR PROJECT
- HIP STRUCTURES UP TO 20' WIDE USE THE "RH 20" BASE FRAME
- HIP STRUCTURES UP TO 30' WIDE USE THE "RH 30" BASE FRAME
- HIP STRUCTURES UP TO 40' WIDE USE THE "RH 40" BASE FRAME
- MAXIMUM WIDTH IS 40' (SEE "ARCHITECTURAL VIEWS" SHEET FOR REFERENCE)
- THE 24', 44', 64', 84' AND 104' LENGTHS ARE SUGGESTED BECAUSE THEY ARE THE MOST COMMON (20' BAYS ARE THE MOST ECONOMICAL)
- FRAME LENGTHS ASSUME 2' OVERHANGS (UNO BY ARCHITECT – 2' MAX DIMENSION)

STEP 1	FRAME DIMENSIONS					
		SUGGESTED				OTHER
	FRAME WIDTH	~~[ ] 20'~~	[✓] 30'	~~[ ] 40'~~		~~[ ] (40' MAX)~~
	FRAME LENGTH	~~[ ] 44'~~	[✓] 64'	~~[ ] 84'~~	~~[ ] 104'~~	~~[ ] (NO MAX)~~

STEP 2: SELECT ROOF DECK FOR YOUR PROJECT
- "M" REPRESENTS McELROY METAL "MULTI-RIB" ROOF PANEL
- "G" REPRESENTS McELROY METAL "MEGA-RIB" ROOF PANEL
- "S" REPRESENTS McELROY METAL "MEDALLION-LOK" 16" STANDING SEAM ROOF PANEL

STEP 2	ROOF PANEL			
	ROOF PANEL TYPE	[✓] M	~~[ ] G~~	~~[ ] S~~

STEP 3: IDENTIFY THE Ss ACCELERATION (g) FOR YOUR PROJECT
- Ss VALUE DETERMINES THE REQUIRED SEISMIC DESIGN FORCES
- Ss VAULE DEPENDS ON THE PROJECTS GEOGRAPHICAL LOCATION (VALUES RANGE FROM 0.00 TO 3.73)
  - FIND Ss VALUES FOR YOUR PROJECT ON THE USGS WEBSITE (SEARCH INTERNET FOR "USGS SEISMIC DESIGN MAPS")

STEP 3	PROJECT SITE – Ss ACCELERATION (g)
	0.53

STEP 4: IDENTIFY THE Ss REGION FOR YOUR PROJECT
- THE REGIONS ARE DEPENDANT ON THE Ss VALUE DETERMINED IN STEP 3
- THE Ss REGION DICTATES THE MAXIMUM DEAD LOAD PERMITTED ON THE FRAME

STEP 4	Ss REGION			
			Ss REGIONS	MAX DEAD LOAD
	DESCRIPTION	0.53	0 < Ss <= 2.14	5 PSF
			~~2.14 < Ss <= 2.50~~	~~5 PSF~~
			~~2.50 < Ss <= 2.60~~	~~5 PSF~~

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
- BE SURE THE TOTAL ROOF DEAD LOAD FOR YOUR PROJECT IS LESS THAN OR EQUAL TO THE MAX DEAD LOAD SHOWN IN STEP 4 FOR YOUR Ss VALUE
- Sds VALUE USED IN CALCULATION IS THE CAPPED Sds (SEE DESIGN CRITERIA)

STEP 5	TOTAL ROOF DEAD LOAD		
		DEAD LOAD	EXAMPLES
	ROOF DECK	1.1 PSF	M=1.1PSF; ~~G=1.2PSF ;S=1.3PSF~~ (SEE STEP 2)
	COLLATERAL	3.9 PSF	LIGHTNING,FIRE SUPPRESSION,SOLAR PANELS,ETC
	TOTAL	5.0 PSF	ADD ROOF DECK AND COLLATERAL LOADS (MAX 5 PSF)

STEP 6: IDENTIFY THE FOUNDATION REQUIREMENTS FOR YOUR PROJECT
- IDENTIFY SOIL CLASS FOR PROJECT SITE PER SITE SPECIFIC SOIL CONDITIONS
- USE THIS TO SELECT CORRECT FOUNDATION SIZE ON FOUNDATION SHEET

STEP 6	FOUNDATION REQUIREMENTS		
	[✓] GEOTECHNICAL REPORT NOT REQUIRED	~~[ ] GEOTECHNICAL REPORT REQUIRED~~	
	SOIL CLASS 5 (BEARING) 1500 PSF [✓]	~~SOIL CLASS 4 (BEARING) 2000 PSF [ ]~~	~~SOIL CLASS 3 (BEARING) 3000 PSF [ ]~~
	SOIL CLASS 5 (LATERAL BEARING) 200 PSF/FT	~~SOIL CLASS 5 (LATERAL BEARING) 300 PSF/FT~~	~~SOIL CLASS 5 (LATERAL BEARING) 400 PSF/FT~~
	COHESION 130 PSF	~~FRICTION COEFFICIENT 0.25~~	~~FRICTION COEFFICIENT 0.30~~

- SELECT AND VERIFY MINIMUM SEPARATION DISTANCE BETWEEN STRUCTURES

STEP 7: SELECT MISCELLANEOUS OPTIONS FOR YOUR PROJECT
- MAXIMUM CLEAR HEIGHT IS 12'-0"; (SEE "ARCHITECTURAL VIEWS" SHEET FOR REFERENCE)
- MARK UP PC DRAWINGS WITH SIZE AND LOCATION OF CUTOUTS BEFORE SUBMITTING TO DSA

STEP 7	MISCELLANEOUS		
		DESIGN OPTIONS	
	CLEAR HEIGHT	~~[ ] 8'~~ [✓] 10' ~~[ ] 12' MAX~~	
	ELECTRICAL CUTOUTS	[✓] YES	~~[ ] NO~~
	GUTTERS	[✓] YES	~~[ ] NO~~

STEP 8: SELECT APPLICABLE SHEET INDEX FOR YOUR PROJECT
- REFERENCE THE BASE FRAME (STEP 1) AND THE ROOF PANEL TYPE (STEP 2)
- IDENTIFY THE APPLICABLE SHEET INDEX

STEP 8 — SHEET INDEX	RH 20 M	RH 20 G	RH 20 S	RH 30 M	RH 30 G	RH 30 S	RH 40 M	RH 40 G	RH 40 S
BASE FRAME	RH 20			RH 30			RH 40		
ROOF PANEL TYPE	M	G	S	M	G	S	M	G	S
SELECT ONE	[ ]	[ ]	[ ]	[✓]	[ ]	[ ]	[ ]	[ ]	[ ]
GENERAL NOTES	LS1.0 LS1.1	LS1.0 LS1.1	LS1.0 LS1.1	LS1.0 LS1.1	LS1.0 LS1.1	LS1.0 LS1.1	LS1.0	LS1.0	LS1.0
FOUNDATION PLAN	LS2.0	LS2.0	LS2.0	LS3.0	LS3.0	LS3.0	LS4.0	LS4.0	LS4.0
FRAMING PLAN	LS2.1	LS2.1	LS2.1	LS3.1	LS3.1	LS3.1	LS4.1	LS4.1	LS4.1
FRAME CONNECTION DETAILS	LS2.1	LS2.1	LS2.1	LS3.1	LS3.1	LS3.1	LS4.2	LS4.2	LS4.2
ROOFING LAYOUT & DETAILS	LS2.2	LS2.3	LS2.4	LS3.2	LS3.3	LS3.4	LS4.3	LS4.4	LS4.5
(NOT USED) DSA 103 EXAMPLE	LS1.2 LS1.3	LS1.2 LS1.3	LS1.2 LS1.3	LS1.2 LS1.3	LS1.2 LS1.3	LS1.2 LS1.3	LS1.2 LS1.3	LS1.2 LS1.3	LS1.2 LS1.3
MISC DESIGN OPTIONS	LS5.0	LS5.0	LS5.0	LS5.0	LS5.0	LS5.0	LS5.0	LS5.0	LS5.0
–									
–									

STEP 9: INCLUDE APPLICABLE SHEETS WITH YOUR DSA SUBMITTAL
- INCLUDE 'MISC DESIGN OPTIONS' SHEET FOR PROJECTS WITHOUT ELECTRICAL CUTOUTS OR GUTTERS

STEP 10: IDENTIFY PROJECT NAME AND LOCATION

PROJECT NAME:	SCHOOL DISTRICT:
LAS PALMAS ES EAST CAMPUS OUTDOOR LEARNING SHADE STRUCTURE	TWIN RIVERS USD

STEP 11: CROSS OUT EXAMPLE 103 FORMS & INCORPORATE REQUIRED SPECIAL INSPECTIONS 103 FORMS THAT ARE PROJECT SPECIFIC

SITE SPECIFIC PARAMETERS

INSTRUCTIONS: DESIGN PROFESSIONAL SHALL CHECK THE APPROPRIATE SELECTION BOXES BELOW AND ENTER THE DESIGN PARAMETERS APPLICABLE TO THE SPECIFIC PROJECT SITE

SNOW
pg = 0 psf
Pf = ____ psf
Ce = ____ psf

WIND
V = 95 mph < XX mph
kzt = ____ ≤ 1
EXPOSURE: C ☑ D ☐

SELECT ONE

SIESMIC
☑ DESIGN BASED ON SITE CLASS D
NO GEOTECHNICAL INVESTIGATION REQUIRED
Ss = 0.53 Fa = 1.2

~~☐ DESIGN BASED ON SITE CLASS DETERMINED PER CHAPTER 20 OF ASCE 7–16 GEOTECHNICAL INVESTIGATION PROVIDED~~
~~SITE CLASS: C ☐ D ☐ E ☐~~
~~Ss = ____ Fa = ____ PER ASCE 7–16 SUPPL 3, TABLE 11.4–1~~

~~☐ DESIGN BASED ON SITE SPECIFIC GROUND MOTION HAZARD ANALYSIS PER CHAPTER 21 OF ASCE 7–16~~
~~SHORT–PERIOD DESIGN SPECTRAL RESPONSE PARAMETER, Sds, SHALL BE AS SPECIFIED IN GEOTECHNICAL INVESTIGATION~~
~~CGS APPROVAL REQUIRED~~
~~NOT ELEGIBLE FOR OTC REVIEW~~
~~SITE CLASS: C ☐ D ☐ E ☐~~

Sds = Fa Ss = 0.49
☑ SITE CLASS:C or D: 0.7 x Sds* = 0.7 x 0.49 = 0.343 ≤ X.XX
~~☐ SITE CLASS E: Sds = ____ ≤ X.XX~~
Cs= X.XXX USED IN DESIGN
SIESMIC DESIGN CATEGORY D ☑ E ☐
*SITE SPECIFIC Sds VALUE BEFORE APPLYING REDUCTION ALLOWED BY ASCE 7 SECTION 12.8.1.3

ABBREVIATIONS:			
ACI	AMERICAN CONCRETE INSTITUTE	MPH	MILES PER HOUR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	M	MULTI-RIB ROOF PANEL (MCELROY)
ASM	ASSEMBLY (INTERNAL REFERENCE)	NTS	NOT TO SCALE
ASTM	AMERICAN SOCIETY FOR TESTING AND MAT'LS	NO	NUMBER
AWS	AMERICAN WELDING SOCIETY	OC	ON CENTER
CBC	CALIFORNIA BUILDING CODE	OSHA	OCCUPATIONAL HEALTH AND SAFETY ADMIN
CJP	COMPLETE JOINT PENETRATION	PCF	POUNDS PER CUBIC FOOT
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

ARCHITECTURAL REQUIREMENTS	
DESCRIPTION	DESIGN VAULES
TYPE OF CONSTRUCTION	II–B
OCCUPANCY CLASSIFICATION	A–3
NUMBER OF STORIES	1
FIRE SPRINKLER SYSTEM	NOT BY ICON/WEIGHT NOT INCLUDED IN DESIGN
~~MOST COMMON RH20 MIN/MAX SQ.FT (SEE STEP 1)~~	~~480/2,080~~
MOST COMMON RH30 MIN/MAX SQ.FT (SEE STEP 1)	720/3,120
~~MOST COMMON RH40 MIN/MAX SQ.FT (SEE STEP 1)~~	~~960/4,160~~

AREA OVER 4000 SQ.FT REQUIRES GEOHAZARD REPORT
ALLOWABLE ARE FOR II–B / A–3 IS 9500 SQ.FT

RELATED BUILDING CODES AND STANDARDS

TITLE 24 CODES:

2022 CALIFORNIA ADMINISTRATIVE CODE (CAC)..................(PART 1, TITLE 24, CCR)
2022 CALIFORNIA BUILDING CODE (CBC),PART 2, TITLE 24 CCR
2022 CALIFORNIA ELECTRICAL CODE....................................(PART 3, TITLE 24, CCR)
2022 CALIFORNIA MECHANICAL CODE (CMC)........................(PART 4, TITLE 24, CCR)
2022 CALIFORNIA PLUMBING CODE (CPC)............................(PART 5, TITLE 24, CCR)
2022 CALIFORNIA ENERGY CODE..(PART 6, TITLE 24, CCR)
2022 CALIFORNIA FIRE CODE (CFC) ....(PART 9, TITLE 24, CCR)
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE......(PART 11, TITLE 24, CCR)
2022 CALIFORNIA REFERENCE 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 HOLLOW STRUCTURAL STEEL MEMBERS SUPPORTED BY CONCRETE FOUNDATIONS. THE FLEXIBILITY INCLUDED HEREIN ALLOWS THE STRUCTURE TO COMPLY WITH A WIDE VARIETY OF PROJECT SITES AND LOADING REQUIREMENTS.

PRE-CHECK (PC) DOCUMENT
Code: 2022 CBC
A separate project application for construction is required.

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 02-122047 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 05/09/2024

ICON STD	RH/DSA-PC
DRAWN BY	JD
DATE	7/25/2023
REV	
REV DATE	

JRMA
ARCHITECTS ENGINEERS
2700 SATURN ST I BREA, CA 92821
T. 714.524.1870 I F. 714.524.1875
WWW.JRMA.COM

REGISTERED PROFESSIONAL ENGINEER — MICHAEL D. LOCK — STRUCTURAL — STATE OF CALIFORNIA
Oct 04, 2023

~~APPROVED~~
~~DIV. OF THE STATE ARCHITECT~~
~~APP: 04-122375 PC~~
~~REVIEWED FOR~~
~~SS ☑ FLS ☑ ACS ☑ CG ☐~~
~~DATE: 10/10/2023~~

GENERAL INFO

ICON Shelter Systems Inc
DISTINCTIVE STEEL SHELTERS
WWW.ICONSHELTERS.COM

1455 LINCOLN AVE
HOLLAND MI, 49423
616.396.0919
800.748.0985
616.396.0944 FX

LS1.0

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APP: 02-122047 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 05/09/2024

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 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 VISIT 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, EXCEPT AS AMENDED BY CBC CHAPTER 35.
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 INSPECTOR ON 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.

STRUCTURAL AND MISCELLANEOUS STEEL:

1. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AMERICAN INSTITUE OF STEEL CONSTRUCTION (AISC) SPECIFICATION MANUAL REFERENCED BY THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE.
2. PIPE SECTIONS SHALL CONFORM TO ASTM A53, Fy = 35 KSI, GRADE B OR A501 UNLESS NOTED OTHERWISE.
3. STRUCTURAL TUBING (HSS SHAPES) SHALL CONFORM TO ASTM A–500, GRADE B (OR C), Fy = 46 KSI. MIN.
4. IF MATERIAL AVAILABILITY IS LIMITED, MEMBER THICKNESS CAN BE INCREASED BEYOND WHAT IS SHOWN IN THESE DRAWINGS (MAXIMUM INCREASE OF 1/8").
5. ALL CHANNELS, ANGLES, AND MISC. STEEL SHALL CONFORM TO ASTM A–36, Fy = 36 KSI.
6. ALL PLATE STEEL SHALL CONFORM TO ASTM A–572, Fy= 50 KSI.
7. ALL COLD FORM STEEL SHALL CONFORM TO ASTM A–653, CS = TYPE B, Fy = 50 KSI Fu = 65 KSI
8. STRUCTURAL STEEL AND DECK SHALL BE IDENTIFIED FOR CONFORMITY PER CBC 2202A.1.
9. ALL ROOF DECKS SHALL HAVE KYNAR 500 METAL COATING.
10. ALL ROOF DECKS SHALL CONFORM TO ASTM A–792, Fy = 50 KSI.
11. ALL BASE CONNECTIONS ARE A PART OF THE LATERAL FORCE RESISTING SYSTEM

NOTICE OF DISCLAIMER FOR STRUCTURAL ENGINEERING RESPONSIBILITY

1. PER TITLE 24, PART 1, SECTION 4–316(e) OF THE CALIFORNIA CODE OF REGULATIONS, THIS NOTICE SHALL BE GIVEN TO DSA PRIOR TO THE APPROVAL OF PLANS AND SPECIFICATIONS.
2. FOR THE SITE SPECIFIC PROJECT, J. R. MILLER & ASSOCIATES IS NOT THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE.
3. FOR THE SITE SPECIFIC PROJECT, J.R. MILLER & ASSOCIATES' RESPONSIBILITY IS LIMITED TO THE PREPARATION OF THE PLANS AND SPECIFICATIONS FOR THE SHELTERS OF THIS PC ONLY.
4. STRUCTURAL OBSERVATION OF CONSTRUCTION IS SPECIFICALLY EXCLUDED FROM J.R. MILLER & ASSOCIATES' RESPONSIBILITY FOR THE SITE SPECIFIC PROJECT.
5. ALL CONSTRUCTION ACTIVITIES RELATED TO STRUCTURAL ENGINEERING SHALL BE DELEGATED TO A QUALIFIED ENGINEER BY THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE. THESE ACTIVITIES INCLUDE, BUT ARE NOT LIMITED TO, STRUCTURAL OBSERVATION OF CONSTRUCTION, REVIEW OF INSPECTION REPORTS, AND SIGNING OFF OF THE VERIFIED REPORT FOR COMPLETED WORK.
6. J.R. MILLER & ASSOCIATES WILL BE RESPONSIBLE FOR RESPONDING TO QUESTIONS PERTAINING TO THE PLANS AND SPECIFICATIONS FOR THE SHELTERS OF THIS PC WHICH ARISE DURING PLAN REVIEW AND CONSTRUCTION.

CONSTRUCTION NOTES

1. A DSA–CERTIFIED CLASS 3 (MINIMUM) PROJECT 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.
3. A "DSA CERTIFIED" PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) 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 DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
5. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS ARE THAT ALL THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON–COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK, (SECTION 4–317(c), PART 1, TITLE 24, CCR)
6. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES

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 AS REQUIRED BY DSA.
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 HOT DIPPED GALVANIZED ASTM F3125 GRADE A325 HIGH STRENGTH BOLTS (UNO), WITH THE NUTS CONFORMING TO HOT DIPPED GALVANIZED ASTM A–563 GRADE DH.
2. HIGH STRENGTH BOLTS SHALL BE VERIFIED AND INSPECTED PER CBC 1705A2.1.
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. HARDENED STEEL WASHERS SHALL CONFORM TO ASTM F–436.
5. 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 BE INSTALLED AND INSPECTED PER THE APPLICABLE VERSION OF AISC'S USING HIGH–STRENGTH BOLTS", CBC 1705A.2.1; AISC 341–16 J7; AISC 360–16 N5.6.
   A) PRETENSIONED JOINTS MUST BE INSTALLED AND INSPECTED TO MEET ONE OF THE FOLLOWING REQUIREMENTS:
      1. TURN–OF–NUT PRETENSIONING: PER SECTION 8.2.1 OF THE *SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS* , WASHERS ARE NOT REQUIRED FOR THIS METHOD, THE NUT OR HEAD SHALL BE ROTATED AS SPECIFIED IN TABLE 8.2. THE PART NOT TURNED SHALL BE PREVENTED FROM ROTATING.
      2. CALIBRATED WRENCH: PER THE *SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS,* WASHERS ARE REQUIRED (NOT SUPPLIED BY ICON) THESE SHALL BE INSTALLED PER THE INSTALLATION TORQUE DETERMINED IN THE PRE–INSTALLATION VERIFICATION OF THE FASTENER ASSEMBLY PER SECTION 7. THE PART NOT TURNED SHALL BE PREVENTED FROM ROTATING.
      3. IDENTIFIED ON THE FRAME CONNECTION DETAILS WITH "PT REQUIRED"
   B) ALL OTHER JOINTS MUST BE INSTALLED AND INSPECTED TO MEET THE REQUIREMENTS OF THE SNUG–TIGHTENED JOINTS. SNUG TIGHT CONDITION EXISTS WHEN ALL PLIES IN A CONNECTION HAVE BEEN PULLED INTO FIRM CONTACT BY THE BOLTS IN THE JOINT AND ALL OF THE BOLTS IN THE JOINT HAVE BEEN TIGHTENED SUFFICIENTLY TO PREVENT REMOVAL OF THE NUTS WITHOUT THE USE OF A WRENCH.

FOUNDATIONS:

1. ALLOWABLE SOIL PRESSURES ASSUME CLASS 5 SOIL CLASSIFICATION PER CBC TABLE 1806A, UNLESS NOTED OTHERWISE. PASSIVE PRESSURE IS ASSUMED TO START 12" BELOW TOP OF FOOTING.
2. PER CBC SECTION 1803A.2, GEOTECHNICAL REPORTS ARE NOT REQUIRED FOR ONE–STORY LIGHT–STEEL FRAME BUILDINGS OF TYPE II CONSTRUCTION AND 4,000 SQUARE FOOT OR LESS IN FLOOR AREA AND NOT LOCATED WITHIN EARTHQUAKE FAULT ZONESOR SIESMIC HAZARD ZONES AS SHOWN ON THE MOST RECENT MAPS PUBLISHED BY THE CGS. ALLOWABLE FOUNDATION AND LATERAL SOIL PRESSURE VALUES MAY BE DETERMINED FROM TABLE 1806A.2.
3. FILL AND BACKFILL SHALL BE COMPACTED TO 95% OF MAX. DENSITY IN ACCORDANCE WITH ASTM TEST METHOD D–1557 OR AS RECOMMENDED BY THE GEO–TECH ENGINEER. FLOODING NOT PERMITTED.
4. 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.
5. MINIMUM SETBACK FROM TOE OF SLOPE ON AN ASCENDING SLOPE SHALL BE 15 FEET AND MINIMUM SETBACK FROM TOE OF SLOPE ON A DESCENDING SLOPE SHALL BE 40 FEET
6. PER CBC SECTION 1803A.6, GEOHAZARD REPORTS ARE NOT REQUIRED FOR ONE–STORY LIGHT–STEEL FRAME BUILDINGS OF TYPE II CONSTRUCTION AND 4,000 SQUARE FOOT OR LESS IN FLOOR AREA AND NOT LOCATED WITHIN EARTHQUAKE FAULT ZONESOR SIESMIC HAZARD ZONES AS SHOWN ON THE MOST RECENT MAPS PUBLISHED BY THE CGS.
7. GEOHAZRD REPORTS ARE TO COMPLY WITH DSA IR A–4 PER IR–7 SECTION 1.8
8. SITE SPECIFIC GEOTECHNICAL REPORT IS REQUIRED AT THE TIME OF SITE APPLICATION IF USING OTHER THAN CLASS 5 SOIL, PER DSA IR PC–7
9. LATERAL BEARING HAS BEEN INCREASED PER CBC 1806A.3.4 FOR THE 1/2" DEFLECTION & HAS BEEN DESIGNED FOR P–DELTA EFFECTS. NO 1/3 INCREASE HAS BEEN APPLIED.
10. MINIMUM CLEARANCE BETWEEN PIERS SHALL BE 8'–0".

CONCRETE:

1. MIX DESIGN REQUIREMENTS: (NORMAL WEIGHT CONCRETE)

STRENGTH Pc (28 DAYS)	W/C RATIO (NON–AIR ENTRAINED)	W/C RATIO (AIR ENTRAINED)	SLUMP (±1")	UNIT WEIGHT (NORMAL WEIGHT)
5000 PSI	0.44	0.35	3"	150 PCF

2. CONCRETE MIX DESIGN PARAMETERS ARE GOOD FOR EXPOSURE CATEGORIES F0, F1 & F2. THE AIR ENTRAINMENT FOR THESE CATEGORIES SHALL BE AS FOLLOWS: F0–0, F1–4.5, F2–6
3. CHANGES TO THE MIX DESIGN MUST BE APPROVED BY THE ENGINEER OR ARCHITECT OF RECORD AND DSA.
4. AGGREGATES SHALL CONFORM TO THE ASTM C–33 WITH PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN 0.005. MAX AGGREGATE SIZE = 1".
5. CEMENT SHALL CONFORM TO ASTM C–150 (TYPE V) UNLESS NOTED OTHERWISE ON THE DRAWINGS.
6. 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.
7. CONCRETE SHALL NOT FREE FALL MORE THAN FIVE FEET.
8. CONCRETE DURABILITY SHALL BE PER CBC 1904A.1 ACI 318–19, CHAPTER 19.
9. CONCRETE SHALL BE TESTED PER CBC 1903A, TABLE 1705A.3. AND ACI 318–19, SECTION 26.12.
10. NO ADMIXTURE SHALL CONTAIN CALCIUM CHLORIDE.

REINFORCING STEEL:

1. REINFORCING STEEL SHALL BE DEFORMED STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A–615, 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"
4. BARS SHALL BE CLEAN OF RUST, GREASE OR OTHER MATERIAL LIKELY TO IMPAIR BOND. BENDS SHALL BE MADE COLD.
5. REINFORCING SHALL BE LAP SPLICED PER ACI 318–19, SECTION 25.5.
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 INSPECTED PER CBC 1705A.3.

POWDER–COAT FINISH SYSTEM:

ALL BUILDINGS THAT HAVE A POWDER–COATED FINISH SHALL MEET THE FOLLOWING SPECIFICATIONS:

1. THE STEEL FRAME (HSS SECTIONS, COLD FORMED & PLATE STEEL) SHALL BE SHOT–BLASTED TO A NEAR WHITE CONDITION PER SSPC–10 SPECIFICATIONS.
2. THE STEEL SHALL BE WASHED IN A ZINC PHOSPHATE IN AN MINIMUM THREE STAGE ELECTRO DEPOSITION PRE–TREATEMENT PROCESS.
3. IMMEDIATELY FOLLOWING PRE–TREATMENT THE STEEL SHALL BE TOTALLY COATED IN AN EPOXY PRIMER TO A UNIFORM THICKNESS OF A MINIMUM OF 0.7 TO 0.9 MILS. THE E–COATING SHALL PROVIDE A MINIMUM OF 1000 HOURS OF SALT SPRAY CORROSION PROTECTION TO THE STEEL.
4. THE STEEL SHALL THEN HAVE A TGIC POLYESTER COLOR COAT APPLIED OVER THE E–COATED SURFACE.
5. THE FINISH THICKNESS OF THESE APPLICATIONS SHALL BE A MINIMUM OF 8 TO 12 MILS.
6. ALL CARBON STEEL MEMBERS (COLUMNS, BEAMS, PLATES, & COLD FORMED STEEL ETC.) NOT POWDER–COATED SHALL BE PAINTED WITH PRIME COAT PER THE "AISC CODE OF STANDARD PRACTICE" AND THE "AISC SPECIFICATION SECTION M3"(UNLESS NOTED OTHERWISE).

ICON STD	RH/DSA–PC
DRAWN BY	JD
DATE	7/25/2023
REV	
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STATE OF CALIFORNIA
Oct 04, 2023

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-122375 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 10/10/2023

GENERAL INFO

ICON Shelter Systems Inc
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800.748.0985
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DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC

Application Number: 04-122188	School Name: PC Update	School District: PC Update
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2022 CBC

IMPORTANT: This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A (2022 CBC).

**NOTE: Undefined section and table references found in this document are from the CBC, or California Building Code.

KEY TO COLUMNS

1. TYPE	2. PERFORMED BY
Continuous – Indicates that a continuous special inspection is required	GE (Geotechnical Engineer) – Indicates that the special inspection shall be performed by a registered geotechnical engineer or his or her authorized representative.
Periodic – Indicates that a periodic special inspection is required	LOR (Laboratory of Record) – Indicates that the test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-335.
Test – Indicates that a test is required	PI (Project Inspector) – Indicates that the special inspection may be performed by a project inspector when specifically approved by DSA.
	SI (Special Inspection) – Indicates that the special inspection shall be performed by an appropriately qualified/approved special inspector.

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

Table 1705A.6, Table 1705A.7, Table 1705A.8

Application Number: 04-122188	School Name: PC Update	School District: PC Update
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Geotechnical Reports: Project has a geotechnical report, or CDs indicate soils special inspection is required by GE

	S1. GENERAL:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Verify that: • Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations. • Foundation excavations are extended to proper depth and have reached proper material. • Materials below footings are adequate to achieve the design bearing capacity.	Periodic	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) form for exemptions.)

	S2. SOIL COMPACTION AND FILL:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	a. Perform classification and testing of fill materials.	Test	LOR*	* Under the supervision of the geotechnical engineer.
☑	b. Verify use of proper materials, densities and inspect lift thicknesses, placement and compaction during placement of fill.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (Refer to specific items identified in the Appendix (end of this form) form for exemptions where soils SI and testing may be conducted under the supervision of a geotechnical engineer or LOR's engineering manager. In such cases, the LOR's form DSA 291 shall satisfy the soil SI and test reporting requirements for the exempt items.)
☑	c. Compaction testing.	Test	LOR*	* Under the supervision of the geotechnical engineer. (Refer to specific items identified in the Appendix (end of this form) for exemptions where soils testing may be conducted under the supervision of a geotechnical engineer or LOR's engineering manager. In such cases, the LOR's form DSA 291 shall satisfy the soil test reporting requirements for the exempt items.)

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

Table 1705A.6, Table 1705A.7, Table 1705A.8

Application Number: 04-122188	School Name: PC Update	School District: PC Update
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	S3. DRIVEN DEEP FOUNDATIONS (PILES):			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	a. Verify pile materials, sizes and lengths comply with the requirements.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
☐	b. Determine capacities of test piles and conduct additional load tests as required.	Test	LOR*	* Under the supervision of the geotechnical engineer.
☐	c. Inspect driving operations and maintain complete and accurate records for each pile.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
☐	d. Verify locations of piles and their plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and record any pile damage.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
☐	e. Steel piles.	Provide tests and inspections per STEEL section below.		
☐	f. Concrete piles and concrete filled piles.	Provide tests and inspections per CONCRETE section below.		
☐	g. For specialty piles, perform additional inspections as determined by the registered design professional in responsible charge.	*	*	* As defined on drawings or specifications.

	S4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):			
	Test or Special Inspection	Type	Performed By	Code References and Note
☐	a. Inspect drilling operations and maintain complete and accurate records for each pier.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) for exemptions.)

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

Table 1705A.6, Table 1705A.7, Table 1705A.8

Application Number: 04-122188	School Name: PC Update	School District: PC Update
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	Test or Special Inspection	Type	Performed By	Code References and Note
☐	b. Verify pier locations, diameters, plumbness, bell diameters (if applicable), lengths and embedment into bedrock (if applicable); record concrete or grout volumes.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) for exemptions.)
☐	c. Confirm adequate end strata bearing capacity.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) for exemptions.)
☐	d. Concrete piers.	Provide tests and inspections per CONCRETE section below.		

	S5. RETAINING WALLS:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	a. Placement, compaction and inspection of backfill.	Continuous	GE*	1705A.6.1. * By geotechnical engineer or his or her qualified representative. (See section S2 above).
☐	b. Placement of soil reinforcement and/or drainage devices.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
☐	c. Segmental retaining walls; inspect placement of units, dowels, connectors, etc.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. See DSA IR 18-2.
☐	d. Concrete retaining walls.	Provide tests and inspections per CONCRETE section below.		
☐	e. Masonry retaining walls.	Provide tests and inspections per MASONRY section below.		

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

Table 1705A.6, Table 1705A.7, Table 1705A.8

Application Number: 04-122188	School Name: PC Update	School District: PC Update
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	S6. OTHER SOILS:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	a. Soil Improvements	Test		…ensive report documenting final soil improvements …ruction observation and the results of the …g and analysis to CGS (California Geological Survey) …e. …ngineer or his or her qualified representative.
☐	b. Inspection of Soil Improvements	Continuou…		…ngineer or his or her qualified representative.
☐	c.			

NOT USED

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

Table 1705A.3; ACI 318-19 Sections 26.12 & 26.13

Application Number: 04-122188	School Name: PC Update	School District: PC Update
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	C1. CAST-IN-PLACE CONCRETE			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Verify use of required design mix.	Periodic	SI	Table 1705A.3 Item 5, 1910A.1.
☑	b. Identify, sample, and test reinforcing steel.	Test	LOR	1910A.2; ACI 318-19 Ch.20 and Section 26.6.1.2; DSA IR 17-10. (See Appendix (end of this form) for exemptions.)
☑	c. During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Test	LOR	Table 1705A.3 Item 6; ACI 318-19 Sections 26.5 & 26.12.
☑	d. Test concrete (f'c).	Test	LOR	1905A.1.17; ACI 318-19 Section 26.12.
☐	e. Batch plant inspection:	See Notes	SI	Default of 'Continuous' per 1705A.3.3. If approved by DSA, batch plant inspection may be reduced to 'Periodic' subject to requirements in Section 1705A.3.3.1, or eliminated per 1705A.3.3.2. See IR 17-13. (See Appendix (end of this form) for exemptions.)
☐	f. Welding of reinforcing steel.	Provide special inspection per STEEL, Category S/A4(d) & (e) and/or S/A5(g) & (h) below.		

	C2. PRESTRESSED / POST-TENSIONED CONCRETE (IN ADDITION TO SECTION C1):			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	a. Sample and test prestressing tendons and anchorages.	Test	LOR	1705A.3.4, 1910A.3
☐	b. Inspect placement of prestressing tendons.	Periodic	SI	1705A.3.4, Table 1705A.3 Items 1 & 9.

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

Table 1705A.3; ACI 318-19 Sections 26.12 & 26.13

Application Number: 04-122188	School Name: PC Update	School District: PC Update
DSA File Number:	Increment Number:	Date Created: 2023-04-19 08:36:32

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	c. Verify in-situ concrete strength prior to stressing of post-tensioning tendons.	Periodic	SI	Table 1705A.3 Item 13. Special inspector to verify specified concrete strength test prior to stressing.
☐	d. Inspect application of post-tensioning or prestressing forces and grouting of bonded prestressing tendons.	Continuous	SI	1705A.3.4, Table 1705A.3 Item 9; ACI 318-14 Section 26.13

	C3. PRECAST CONCRETE (IN ADDITION TO SECTION C1):			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	a. Inspect fabrication of precast concrete members.	Continuous	SI	ACI 318-19 Section 26.13.
☐	b. Inspect erection of precast concrete members.	Periodic	SI*	Table 1705A.3 Item 10. * May be performed by PI when specifically approved by DSA.
☐	c. For precast concrete diaphragm connections or reinforcement at joints classified as moderate or high deformability elements (MDE or HDE) in structures assigned to Seismic Design Category D, E or F, inspect such connections and reinforcement in the field for: 1. Installation of the embedded parts 2. Completion of the continuity of reinforcement across joints. 3. Completion of connections in the field.	Continuous	SI	Table 1705A.3; ACI 318-19 Section 26.13.1.3; ACI 550.5
☐	d. Inspect installation tolerances of precast concrete diaphragm connections for compliance with ACI 550.5.	Periodic	SI	Table 1705A.3; ACI 318-19 Section 26.13.1.3; ACI 550.5

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Table 1705A.3; ACI 318-19 Sections 26.12 & 26.13

Application Number: 04-122188	School Name: PC Update	School District: PC Update
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	C4. SHOTCRETE (IN ADDITION TO SECTION C1):			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	a. Inspect shotcrete placement for proper application techniques.	Continuous	SI	1705A.3.9, Table 1705A.3 Item 7, 1908A.1, 1908A.2, 1908A.3. See ACI 506.2-13 Section 3.4, ACI 506R-16.
☐	b. Sample and test shotcrete (f'c).	Test	LOR	1908A.2, 1705A.3.9

	C5. POST-INSTALLED ANCHORS:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	a. Inspect installation of post-installed anchors	See Notes	SI*	1617A.1.19, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic), 1705A.3.8 (See Appendix (end of this form) for exemptions). ACI 318-14 Sections 17.8 & 26.13. * May be performed by the project inspector when specifically approved by DSA.
☐	b. Test post-installed anchors.	Test	LOR	1910A.5. (See Appendix (end of this form) for exemptions.)

	C6. OTHER CONCRETE:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	a.			

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMNINUM), 2022 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8

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	S/A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements. • Material sizes, types and grades comply with requirements.	Periodic	*	Table 1705A.2.1 Item 3a–3c. 2202A.1; AISI S100-20 Section A3.1 & A3.2, AISI S240-20 Section A3 & A5, AISI S220-20 Sections A4 & A6. * By special inspector or qualified technician when performed off-site.
☑	b. Test unidentified materials	Test	LOR	2202A.1.
☑	c. Examine seam welds of HSS shapes	Periodic	SI	DSA IR 17-3.
☑	d. Verify and document steel fabrication per DSA-approved construction documents.	Periodic	SI	Not applicable to cold-formed steel light-frame construction, except for trusses (1705A.2.4).
☐	e. Buckling restrained braces.	Test	LOR	Testing and special inspections in accordance with IR 22-4.

	S/A2. HIGH-STRENGTH BOLTS:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Verify identification markings and manufacturer's certificates of compliance conform to ASTM standards specified in the DSA-approved documents.	Periodic	SI	Table 1705A.2.1 Items 1a & 1b, 2202A.1; AISC 360-16 Section A3.3, J3.1, and N3.2; RCSC 2014 Section 1.5 & 2.1; DSA IR 17-8 & DSA IR 17-9.
☑	b. Test high-strength bolts, nuts and washers.	Test	LOR	Table 1705A.2.1 Item 1c, 2213A.1; RCSC 2014 Section 7.2; DSA IR 17-8.
☑	c. Bearing-type ("snug tight") connections.	Periodic	SI	Table 1705A.2.1 Item 2a, 1705A.2.6, 2204A.2; AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Section 9.1; DSA IR 17-9.
☑	d. Pretensioned and slip-critical connections.	*	SI	Table 1705A.2.1 Items 2b & 2c, 1705A.2.6, 2204A.2; AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Sections 9.2 & 9.3; DSA IR 17-9. *"Continuous" or "Periodic" depends on the tightening method used.

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DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMNINUM), 2022 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8

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	S/A3. WELDING:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS.	Periodic	SI	1705A.2.5, Table 1705A.2.1 Items 4 & 5; AWS D1.1 and AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-3.
☑	b. Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	DSA IR 17-3.
☑	c. Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.

	S/A4. SHOP WELDING (IN ADDITION TO SECTION S/A3):			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	Table 1705A.2.1 Items 5a.1–4; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☑	b. Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.	Periodic	SI	1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☐	c. Inspect welding of stairs and railing systems.	Periodic	SI	1705A.2.1; AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3.
☐	d. Verification of reinforcing steel weldability other than ASTM A706.	Periodic	SI	1705A.3.1; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.
☐	e. Inspect welding of reinforcing steel.	Continuous	SI	Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, 1903A.8; AWS D1.4; DSA IR 17-3.

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1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8

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	Test or Special Inspection	Type	Performed By	Code References and Notes
	S/A5. FIELD WELDING (IN ADDITION TO SECTION S/A3):			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	Table 1705A.2.1 Items 5a.1–4; AISC 360-16 (AISC 341-16 as applicable); DSA IR 17-3.
☐	b. Inspect single-pass fillet welds ≤ 5/16".	Periodic	SI	Table 1705A.2.1 Item 5a.5; AISC 360-16 (AISC 341-16 as applicable); DSA IR 17-3.
☐	c. Inspect end-welded studs (ASTM A-108) installation (including bend test).	Periodic	SI	2213A.2; AISC 360-16 (AISC 341-16 as applicable); AWS D1.1; DSA IR 17-3.
☐	d. Inspect floor and roof deck welds.	Periodic	SI	1705A.2.2, Table 1705A.2.1 Item 5a.6; AISC 360-16 (AISC 341-16 as applicable); AWS D1.3; DSA IR 17-3.
☐	e. Inspect welding of structural cold-formed steel.	Periodic	SI*	1705A.2.5; AWS D1.3; DSA IR 17-3. The quality control provisions of AISI S240-20 Chapter D shall also apply. * May be performed by the project inspector when specifically approved by DSA.
☐	f. Inspect welding of stairs and railing systems.	Periodic	SI*	1705A.2.1; AISC 360-16 (AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3. * May be performed by the project inspector when specifically approved by DSA.
☐	g. Verification of reinforcing steel weldability.	Periodic	SI	1705A.3.1; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.
☐	h. Inspect welding of reinforcing steel.	Continuous	SI	Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, 1903A.8; AWS D1.4; DSA IR 17-3.

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1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8

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	Test or Special Inspection	Type	Performed By	Code References and Notes
	S/A6. NONDESTRUCTIVE TESTING:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	a. Ultrasonic	Test	LOR	1705A.2.1, 1705A.2.5; AISC 341-16 J6.2, AISC 360-16 N5.5; AWS D1.1, AWS D1.8; DSA IR 17-2.
☐	b. Magnetic Particle	Test	LOR	1705A.2.1, 1705A.2.5; AISC 341-16 J6.2, AISC 360-16 N5.5; AWS D1.1, AWS D1.8; DSA IR 17-2.
☐	c.	Test	LOR	

	S/A7. STEEL JOISTS AND TRUSSES:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	a. Verify size, type and grade for all chord and web members as well as connectors and weld filler material; verify joist profile, dimensions and camber (if applicable); verify all weld locations, lengths and profiles; mark or tag each joist.	Continuous	SI	1705A.2.3, Table 1705A.2.3; AWS D1.1; DSA IR 22-3 for steel joists only. 1705A.2.4; AWS D1.3 for cold-formed steel trusses.

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1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8

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	Test or Special Inspection	Type	Performed By	Code References and Notes
	S/A8. SPRAYED FIRE-RESISTANT MATERIALS:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	a. Examine structural steel surface conditions, inspect application, take samples, measure thickness and verify compliance of all aspects of application with DSA-approved documents.	Periodic	SI	1705A.15, 1705A.1, 1705A.2, 1705A.3, 1705A.4.
☐	b. Test density.	Test	LOR	1705A.15.1, 1705A.15.5, ASTM E736
☐	c. Bond strength adhesion/cohesion.	Test	LOR	1705A.15.1, 1705A.15.4, ASTM E605

	S/A9. ANCHOR BOLTS AND ANCHOR RODS:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☑	a. Anchor Bolts and Anchor Rods	Test	LOR	Sample and test anchor bolts and anchor rods not readily identifiable per procedures noted in DSA IR 17-11.
☐	b. Threaded rod not used for foundation anchorage.	Test	LOR	Sample and test threaded rods not readily identifiable per procedures noted in DSA IR 17-11.

	S/A10. STORAGE RACK SYSTEMS:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	a. Materials used, to verify compliance with one or more of the material test reports in accordance with the approved construction documents.	Periodic	SI	Table 1705A.13.7
☐	b. Fabricated storage rack elements.	Periodic	SI	1704A.2.5; Table 1705A.13.7

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (STEEL AND ALUMNINUM), 2022 CBC

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-20; RCSC 2014; AWS D1.1, AWS D1.2, AWS D1.3, AWS D1.4, AWS D1.8

Application Number: 04-122188 | School Name: PC Update | School District: PC Update
DSA File Number: | Increment Number: | Date Created: 2023-04-19 08:36:32

	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	c. Storage rack anchorage installation.	Periodic	SI	ANSI/MH16.1 Section 7.3.2; Table 1705A.13.7
☐	d. Completed storage rack system to indicate compliance with the approved construction documents.	Periodic	SI*	Table 1705A.13.7; * May be preformed by the project inspector when specifically approved by DSA.

	S/A11. Other Steel			
	Test or Special Inspection	Type		d Notes
☐	a.			

NOT USED

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

Application Number: 04-122188 | School Name: PC Update | School District: PC Update
DSA File Number: | Increment Number: | Date Created: 2023-04-19 08:36:32

	X1. OTHER:			
	Test or Special Inspection	Type	Performed By	Code References and Notes
☐	a. Load test for identified product(s):	Test	LOR	1709A.2, 1709A.3. Testing is not required for: 1) a product with a valid evaluation service report per DSA IR A-5, or 2) a product that can be justified by structural calculation.
☐	b. Installation torque for non-HS bolts	Continuous	SI*	Applicable to communication towers identified as Essential Service Facility Projects (ESFP). Calibrated wrench use required, verified by SI during installation. DSA Policy PL 18-01: Communication Towers, Poles and Buildings Utilized by State Agencies for Essential Services Communications.*EXCEPTION: Non-ESFP may use PI without need for notification to DSA.
☐	c.			

Appendix: Work Exempt from DSA Requirements for Structural Tests / Special Inspections

Application Number: 04-122188 | School Name: PC Update | School District: PC Update
DSA File Number: | Increment Number: | Date Created: 2023-04-19 08:36:32

Exempt items given in DSA IR A-22 or the 2019 CBC (including DSA amendments) and those items identified below with a check mark by the design professional are NOT subject to DSA requirements for the structural tests / special inspections noted. Items marked as exempt shall be identified on the approved construction documents. The project inspector shall verify all construction complies with the approved construction documents.

	SOILS:
☐	1. Deep foundations acting as a cantilever footing with a design based on minimum allowable pressures per CBC Table 1806A.2 and without a geotechnical report for the following cases: A) free standing sign or scoreboard, B) cell or antenna towers and poles less than 35'-0" tall (e.g., lighting poles, flag poles, poles supporting open mesh fences, etc.), C) single-story structure with dead load less than 5 psf (e.g., open fabric shade structure), or D) covered walkway structure with an apex height less than 10'-0" above adjacent grade.
☐	2. Shallow foundations, etc. are exempt from special inspections and testing by a Geotechnical Engineer for the following cases: A) buildings without a geotechnical report and meeting the exception item #1 criteria in CBC Section 1803A.2 supported by native soil (any excavation depth) or fill soil (not exceeding 12" depth per CBC Section 1804A.6), B) soil scarification/recompaction not exceeding 12" depth, C) native or fill soil supporting exterior non-structural flatwork (e.g., sidewalks, site concrete ramps, site stairs, parking lots, driveways, etc.), D) unpaved landscaping and playground areas, or E) utility trench backfill.

	CONCRETE/MASONRY:
☐	1. Post-installed anchors for the following: A) exempt non-structural components (e.g., mechanical, electrical, plumbing equipment - see item 7 for "Welding" in the Appendix below) given in CBC Section 1617A.1.18 (which replaces ASCE 7-16, Section 13.1.4) or B) interior nonstructural wall partitions meeting criteria listed in exempt item 3 for "Welding" in the Appendix below
☐	2. Concrete batch plant inspection is not required for items given in CBC Section 1705A.3.3.2 subject to the requirements and limitations in that section.
☐	3. Non-bearing non-shear masonry walls may be exempt from certain DSA masonry testing and special inspection items as allowed per DSA IR 21-1. Refer to construction documents for specific exemptions accordingly for each applicable wall condition.
☐	4. Epoxy shear dowels in site flatwork and/or other non-structural concrete.

Appendix: Work Exempt from DSA Requirements for Structural Tests / Special Inspections

Application Number: 04-122188 | School Name: PC Update | School District: PC Update
DSA File Number: | Increment Number: | Date Created: 2023-04-19 08:36:32

	CONCRETE/MASONRY:
☐	5. Testing of reinforcing bars is not required for items given in CBC Section 1910A.2 subject to the requirements and limitations in that section.

	WELDING:
☐	1. Solid-clad and open-mesh fences, gates with maximum leaf span of 10', and gates with a maximum rolling section of 10' all having an apex height less than 8'-0" above lowest adjacent grade. When located above circulation or occupied space below, these gates/fences are not located within 1.5x gate/fence height (max 8'-0") to the edge of floor or roof.
☐	2. Handrails, guardrails, and modular or relocatable ramps associated with walking surfaces less than 30" above adjacent grade (excluding post base connections per the 'Exception' language in Section 1705A.2.1); fillet welds shall not be ground flush.
☐	3. Non-structural interior cold-formed steel framing spanning less than 15'-0", such as in interior partitions, interior soffits, etc. supporting only self weight and light-weight finishes or adhered tile, masonry, stone, or terra cotta veneer no more than 5/8" thickness and apex less than 20'-0" in height and not over an exit way. Maximum tributary load to a member shall not exceed the equivalent of that occurring from a 10'x10' opening in a 15' tall wall for a header or king stud.
☐	4. Manufactured support frames and curbs using hot rolled or cold-formed steel (i.e., light gauge) for mechanical, electrical, or plumbing equipment weighing less than 2000# (equipment only) (connections of such frames to superstructure elements using welding will require special inspection as noted in selected item(s) for Sections S/A3, S/A4 and/or S/A5 of listing above).
☐	5. Manufactured components (e.g., Tolco, B-Line, Afcon, etc.) for mechanical, electrical, or plumbing hanger support and bracing (connections of such components to superstructure elements using welding will require special inspection as noted in selected item(s) for Sections S/A3, S/A4 and/or S/A5 of listing above).
☐	6. TV Brackets, projector mounts with a valid listing (see DSA IR A-5) and recreational equipment (e.g., playground structures, basketball backstops, etc.) (connections of such elements to superstructure elements using welding will require special inspection as noted in selected item(s) for sections S/A3, S/A4 and/or S/A5 located in the Steel/Aluminum category of listing above).
☐	7. Any support for exempt non-structural components given in CBC Section 1617A.1.18 (which replaces ASCE 7-16, Section 13.1.4) meeting the following: A) when supported on a floor/roof, <400# and resulting composite center of mass (including component's center of mass) ≤4' above supporting floor/roof, B) when hung from a wall or roof/floor, <20# for discrete units or <5 plf for distributed systems.

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

Application Number: 04-122188 | School Name: PC Update | School District: PC Update
DSA File Number: | Increment Number: | Date Created: 2023-04-19 08:36:32

Name of Architect or Engineer in general responsible charge:

Name of Structural Engineer (When structural design has been delegated):

Signature of Architect or Structural Engineer: Date:

Note: To facilitate DSA electronic mark-ups and identification stamp application, DSA recommends against using secured electronic or digital signatures.

DSA STAMP

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 02-122047 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 05/09/2024

ICON STD	RH/DSA-PC
DRAWN BY	JD
DATE	7/25/2023
REV	
REV DATE	

JRMA ARCHITECTS ENGINEERS
2700 SATURN ST I BREA, CA 92821
T. 714.524.1870 I F. 714.524.1875
WWW.JRMA.COM

REGISTERED PROFESSIONAL ENGINEER MICHAEL D. LOCK S4092 STRUCTURAL STATE OF CALIFORNIA
Oct 04, 2023

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-122375 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 10/10/2023

DSA 103

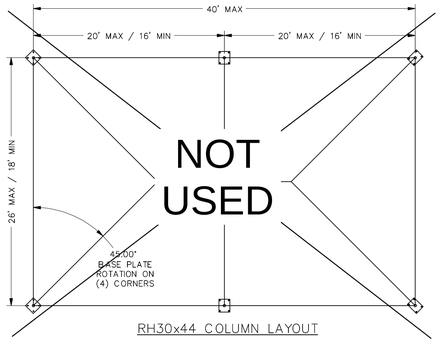
ICON Shelter Systems Inc
DISTINCTIVE STEEL SHELTERS
WWW.ICONSHELTERS.COM

1455 LINCOLN AVE
HOLLAND MI, 49423
616.396.0919
800.748.0985
616.396.0944 FX

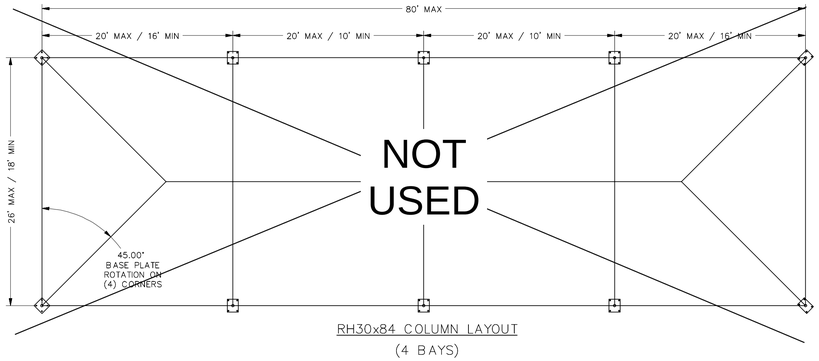
PRE-CHECK (PC) DOCUMENT
Code: 2022 CBC
A separate project application for construction is required.

LS1.3

PRINTED ON :



RH30x44 COLUMN LAYOUT
(2 BAYS)



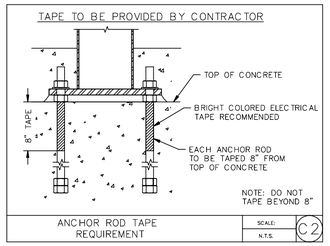
RH30x84 COLUMN LAYOUT
(4 BAYS)

NOTES:
COLUMN SIZE AND LOCATION WILL VARY DEPENDING ON MODEL TYPE ORDERED, PLEASE REFER TO JOB SPECIFIC BILL OF MATERIALS AND INSTALLATION MANUAL FOR CORRECT PLACEMENT AND SIZE.

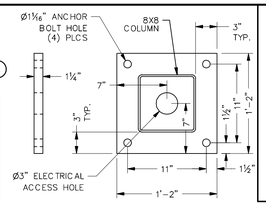
WHERE CONCRETE SLAB SPECIFIED PORTLAND CEMENT CONCRETE PAVING SHALL HAVE A MEDIUM SALTED (MEDIUM BROOM) FINISH ON ALL SURFACES SLOPED LESS THAN 6% AND SLIP RESISTANT (HEAVY BROOM FINISH) ON ALL SURFACES SLOPED GREATER THAN 6% CBC SECTION 1133B.7.1

BASE PLATE LOCATION

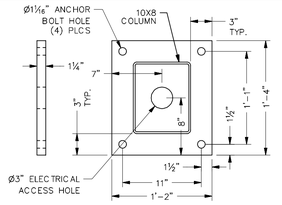
	DETAIL A	DETAIL B
0'	BP1	BP2
10'	BP1	BP2
12'	BP2	BP3



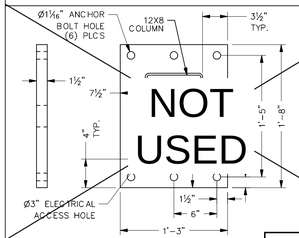
ANCHOR ROD TAPE REQUIREMENT — SCALE: N.T.S. — C2



8X8 COLUMN BASE PLATE DETAIL — BP1



10X8 COLUMN BASE PLATE DETAIL — BP2



12X8 COLUMN BASE PLATE DETAIL — BP3

ICON STD	RH/DSA-PC
DRAWN BY	JD
DATE	7/25/2023
REV	
REV DATE	

APPROVED
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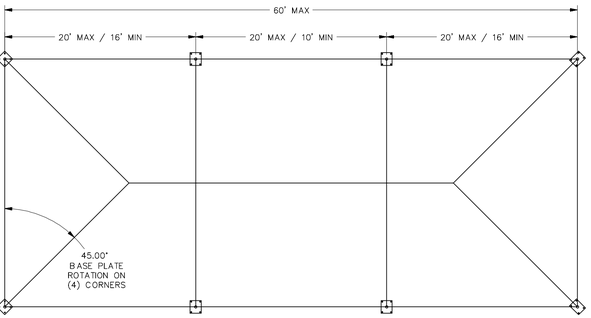
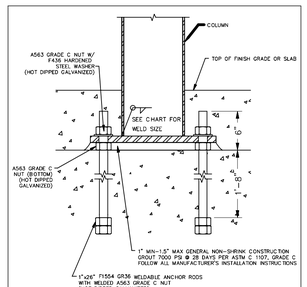
APP: 02-122047 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 05/09/2024

JRMA
ARCHITECTS ENGINEERS
2700 SATURN ST BREA, CA 92821
T. 714.524.1870 F. 714.524.1875
WWW.JRMA.COM

REGISTERED PROFESSIONAL ENGINEER — CIVIL — STATE OF CALIFORNIA
Oct 04, 2023



RH30x64 COLUMN LAYOUT
(3 BAYS)



NOTES:
COLUMN BASE PLATES ARE TO HAVE DOUBLE NUTS. PLACE ONE NUT UNDER THE PLATE AND ONE NUT ON TOP WITH A WASHER UNDER THE NUT.

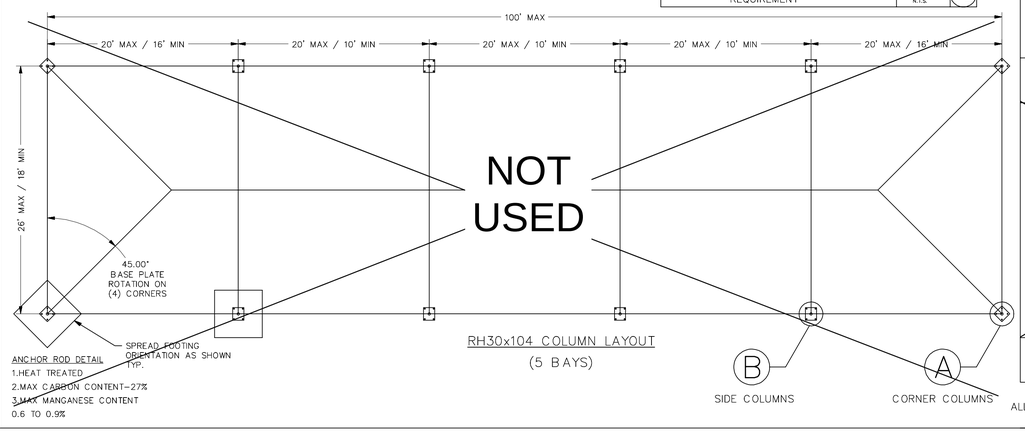
THE BOTTOM NUT CAN BE USED AS A LEVELING NUT.

AFTER COLUMN IS SET AND LEVELED AND THE NUTS HAVE BEEN TIGHTENED THE COLUMN MUST HAVE NON-SHRINK GROUT PLACED UNDER THE BASE PLATE BEFORE COVERING THE BASE WITH CONCRETE.

REFER TO FOOTING DETAIL FOR ROD/NUT LOCATIONS AND SIZE.

FOUNDATION ANCHORS ARE TO BE UNTORQUED.

COLUMN BASE CONNECTION DETAIL — SCALE: N.T.S. — C1



ANCHOR ROD DETAIL
1.HEAT TREATED
2.MAX CARBON CONTENT–27%
3.MAX MANGANESE CONTENT 0.6 TO 0.9%

RH30x104 COLUMN LAYOUT
(5 BAYS)

SIDE COLUMNS — CORNER COLUMNS

ALL ANCHORS RODS SHALL BE 1" X 26" U.N.O.

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APP: 04-122375 PC
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SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 10/10/2023

30' WIDE RECTANGULAR HIP

RH30 - PIER

4' height - Corner Columns				8' height - Corner Columns				8' height - Corner Columns			
Soil Class 5 - 1500 psf Bearing				Soil Class 4 - 2000 psf Bearing				Soil Class 3 - 3000 psf Bearing			
Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size	Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size	Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size
30	114	8	6	30	98	8	6	30	84	8	6
8' height - Side Columns				8' height - Side Columns				8' height - Side Columns			
Soil Class 5 - 1500 psf Bearing				Soil Class 4 - 2000 psf Bearing				Soil Class 3 - 3000 psf Bearing			
Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size	Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size	Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size
36	144	12	6	30	132	8	6	30	120	8	6
8' Eave - 1500 psf [ ]				8' Eave - 2000 psf [ ]				8' Eave - 3000 psf [ ]			

8' height - Corner Columns			
Rebar Dimensions			Weld
X (in)	Y (in)	Rebar Size	Fillet Weld "W"
12	47	6	1/4
8' height - Side Columns			
Rebar Dimensions			Weld
X (in)	Y (in)	Rebar Size	Fillet Weld "W"
16	59	7	1/4
8' Eave - Rebar & Weld			

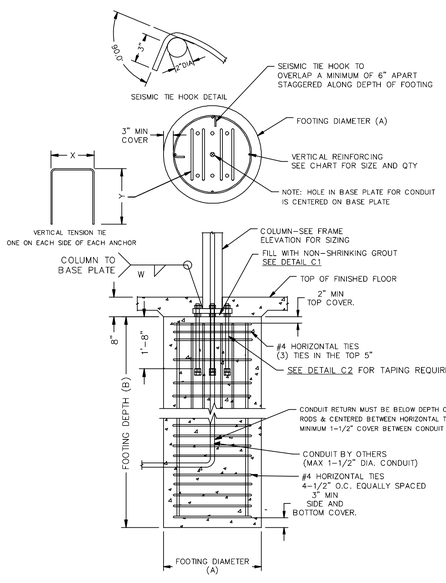
10' height - Corner Columns				10' height - Corner Columns				10' height - Corner Columns			
Soil Class 5 - 1500 psf Bearing				Soil Class 4 - 2000 psf Bearing				Soil Class 3 - 3000 psf Bearing			
Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size	Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size	Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size
30	120	8	6	30	102	8	6	30	90	8	6
10' height - Side Columns				10' height - Side Columns				10' height - Side Columns			
Soil Class 5 - 1500 psf Bearing				Soil Class 4 - 2000 psf Bearing				Soil Class 3 - 3000 psf Bearing			
Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size	Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size	Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size
36	136	12	6	36	116	12	6	36	102	12	6
10' Eave - 1500 psf [✔]				10' Eave - 2000 psf [ ]				10' Eave - 3000 psf [ ]			

10' height - Corner Columns			
Rebar Dimensions			Weld
X (in)	Y (in)	Rebar Size	Fillet Weld "W"
12	47	6	1/4
10' height - Side Columns			
Rebar Dimensions			Weld
X (in)	Y (in)	Rebar Size	Fillet Weld "W"
16	59	7	1/4
10' Eave - Rebar & Weld			

12' height - Corner Columns				12' height - Corner Columns				12' height - Corner Columns			
Soil Class 5 - 1500 psf Bearing				Soil Class 4 - 2000 psf Bearing				Soil Class 3 - 3000 psf Bearing			
Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size	Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size	Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size
30	132	8	6	30	112	8	6	30	96	8	6
12' height - Side Columns				12' height - Side Columns				12' height - Side Columns			
Soil Class 5 - 1500 psf Bearing				Soil Class 4 - 2000 psf Bearing				Soil Class 3 - 3000 psf Bearing			
Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size	Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size	Dia (A) (in)	Depth (B) (in)	Vertical Rebar Qty	Rebar Size
36	140	12	6	36	120	12	6	36	108	12	6
10' Eave - 1500 psf [ ]				10' Eave - 2000 psf [ ]				10' Eave - 3000 psf [ ]			

12' height - Corner Columns			
Rebar Dimensions			Weld
X (in)	Y (in)	Rebar Size	Fillet Weld "W"
16	59	7	5/16
12' height - Side Columns			
Rebar Dimensions			Weld
X (in)	Y (in)	Rebar Size	Fillet Weld "W"
20	59	7	1/4
12' Eave - Rebar & Weld			

SEE DETAILS BP1, BP2 OR BP3 FOR ANCHOR BOLT PATTERNS
BP1 & BP2 ARE (4) BOLT PATTERN WHILE B3 IS A (6) BOLT



RH30 - SPREAD

8' height - Corner Columns				8' height - Corner Columns				8' height - Corner Columns			
Soil Class 5 - 1500 psf Bearing				Soil Class 4 - 2000 psf Bearing				Soil Class 3 - 3000 psf Bearing			
Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size	Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size	Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size
60	30	8	6	57	30	7	6	57	30	7	6
8' height - Side Columns				8' height - Side Columns				8' height - Side Columns			
Soil Class 5 - 1500 psf Bearing				Soil Class 4 - 2000 psf Bearing				Soil Class 3 - 3000 psf Bearing			
Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size	Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size	Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size
84	30	11	6	81	30	10	6	75	30	10	6
8' Eave - 1500 psf [ ]				8' Eave - 2000 psf [ ]				8' Eave - 3000 psf [ ]			

8' - Corner Columns			
Tie Dimensions			Weld
B (in)	C (in)	Rebar Size	Fillet Weld "W"
16	17.5	5	1/4
8' - Side Columns			
Tie Dimensions			Weld
B (in)	C (in)	Rebar Size	Fillet Weld "W"
16	19.5	5	1/4
8' Eave - Rebar & Weld			

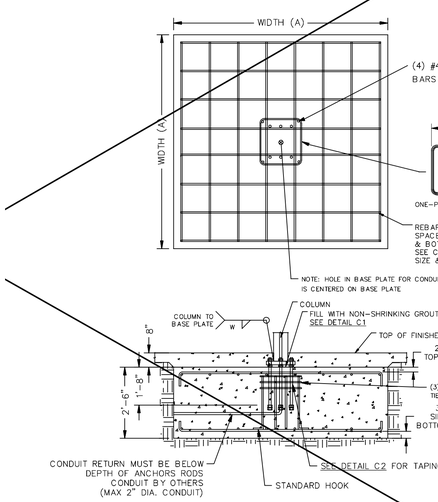
10' height - Corner Columns				10' height - Corner Columns				10' height - Corner Columns			
Soil Class 5 - 1500 psf Bearing				Soil Class 4 - 2000 psf Bearing				Soil Class 3 - 3000 psf Bearing			
Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size	Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size	Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size
66	30	9	6	63	30	8	6	63	30	8	6
10' height - Side Columns				10' height - Side Columns				10' height - Side Columns			
Soil Class 5 - 1500 psf Bearing				Soil Class 4 - 2000 psf Bearing				Soil Class 3 - 3000 psf Bearing			
Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size	Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size	Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size
81	30	10	6	75	30	10	6	75	30	10	6
10' Eave - 1500 psf [ ]				10' Eave - 2000 psf [ ]				10' Eave - 3000 psf [ ]			

10' - Corner Columns			
Tie Dimensions			Weld
B (in)	C (in)	Rebar Size	Fillet Weld "W"
16	17.5	5	1/4
10' - Side Columns			
Tie Dimensions			Weld
B (in)	C (in)	Rebar Size	Fillet Weld "W"
16	19.5	5	1/4
10' Eave - Rebar & Weld			

12' height - Corner Columns				12' height - Corner Columns				12' height - Corner Columns			
Soil Class 5 - 1500 psf Bearing				Soil Class 4 - 2000 psf Bearing				Soil Class 3 - 3000 psf Bearing			
Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size	Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size	Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size
78	30	10	6	78	30	10	6	72	30	9	6
12' height - Side Columns				12' height - Side Columns				12' height - Side Columns			
Soil Class 5 - 1500 psf Bearing				Soil Class 4 - 2000 psf Bearing				Soil Class 3 - 3000 psf Bearing			
Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size	Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size	Size (A) (in)	Depth (in)	T&B Rebar Qty	Rebar Size
84	30	11	6	78	30	10	6	78	30	10	6
12' Eave - 1500 psf [ ]				12' Eave - 2000 psf [ ]				12' Eave - 3000 psf [ ]			

12' - Corner Columns			
Tie Dimensions			Weld
B (in)	C (in)	Rebar Size	Fillet Weld "W"
16	19.5	5	1/4
12' - Side C			
Tie Dimension			Fillet Weld
B (in)	C (in)	Rebar Size	Fillet Weld "W"
17	21.5	5	1/4
12' Eave - Rebar & Weld			

SEE DETAILS BP1, BP2 OR BP3 FOR ANCHOR BOLT PATTERNS
BP1 & BP2 ARE (4) BOLT PATTERN WHILE B3 IS A (6) BOLT



NOT USED

30' WIDE RECTANGULAR HIP FOUNDATION PLAN

ICON Shelter Systems Inc
DISTINCTIVE STEEL SHELTERS
WWW.ICONSHELTERS.COM

1455 LINCOLN AVE
HOLLAND MI, 49423
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PRE-CHECK (PC) DOCUMENT
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ALL STRUCTURAL FASTENERS (NUTS, BOLTS, & WASHERS) ON THIS SHEET TO BE HOT DIPPED GALVANIZED
PLAN - EAVE BEAMS & CORNER RAFTER CONNECTIONS @ CORNER COLUMN 1
VIEW - EAVE BEAMS & CORNER RAFTER CONNECTIONS @ CORNER COLUMN 2
THIS CONNECTION REQUIRES STRUCTURAL WASHERS AT EACH BOLT
PLAN - CORNER RAFTERS CONNECTIONS @ END RIDGE BEAM 3
THIS CONNECTION REQUIRES STRUCTURAL WASHERS AT EACH BOLT
VIEW - CORNER RAFTERS CONNECTIONS @ END RIDGE BEAM 4
ISOMETRIC - PURLIN CONNECTIONS @ CORNER RAFTER 5
PLAN - EAVE BEAM & SIDE RAFTER CONNECTION @ SIDE COLUMN 6
VIEW - EAVE BEAM & SIDE RAFTER CONNECTION @ SIDE COLUMN 7
THIS CONNECTION REQUIRES STRUCTURAL WASHERS AT EACH BOLT
PLAN - SIDE RAFTERS & RIDGE BEAM CONNECTIONS @ CONNECTOR 8
THIS CONNECTION REQUIRES STRUCTURAL WASHERS AT EACH BOLT
VIEW - SIDE RAFTERS & RIDGE BEAM CONNECTIONS @ CONNECTOR 9
ISOMETRIC - PURLIN CONNECTIONS @ SIDE RAFTER 10
8X8 COLUMN
10X8 COLUMN
12X8 COLUMN
COLUMN TO RAFTER PLATE DETAIL 11
CORNER EAVE BEAM PLATE DETAIL 12
CORNER PURLIN PLATE DETAIL 15
CORNER RAFTER PLATE DETAIL 13
SIDE EAVE BEAM PLATE DETAIL 14
SIDE RAFTER PLATE DETAIL 16
RIDGE BEAM PLATE DETAIL 17
SIDE PURLIN PLATE DETAIL 18

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 02-122047 INC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 05/09/2024

ICON STD	RH/DSA-PC
DRAWN BY	JD
DATE	7/25/2023
REV	
REV DATE	

JRMA
ARCHITECTS ENGINEERS
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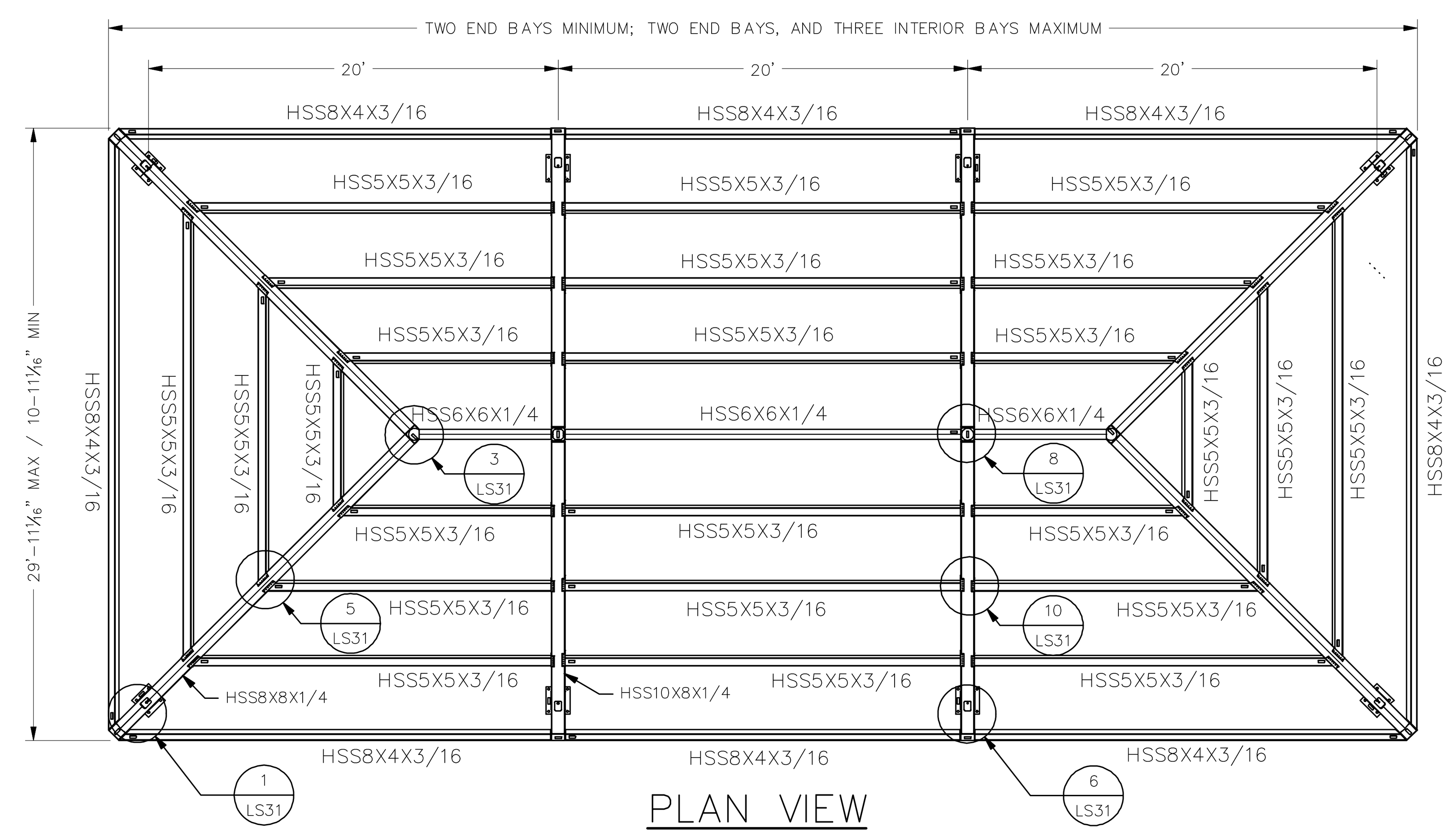
Oct 04, 2023

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-122375 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 10/10/2023



PLAN VIEW

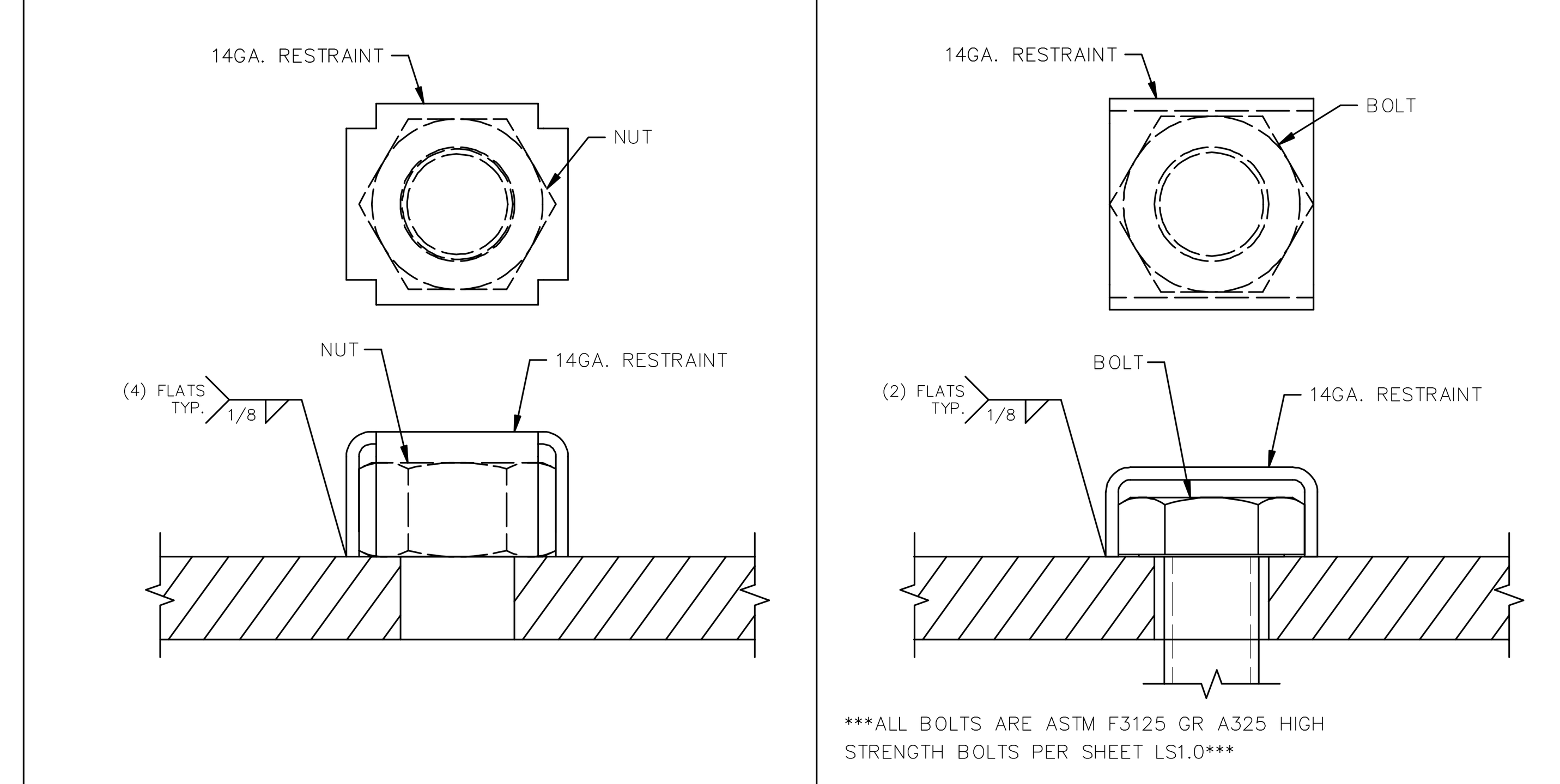
MODEL DESIGNATION	
~~RH30X44~~	~~2 BAY~~
RH30X64	3 BAY
~~RH30X84~~	~~4 BAY~~
~~RH30X104~~	~~5 BAY~~

*NOTE:
QUANTITIES WILL VARY DEPENDING ON SHELTER SIZE ORDERED, PLEASE REFER TO JOB SPECIFIC BILL OF MATERIALS AND INSTALLATION MANUAL.

ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL	LENGTH	UNIT WEIGHT
1	4		CORNER COLUMN	**SEE NOTE BELOW		353 lbmass
2	*		SIDE COLUMN	**SEE NOTE BELOW		473 lbmass
3	2		LH SIDE EAVE BEAM	HSS8X4X3/16		311 lbmass
4	2		RH SIDE EAVE BEAM	HSS8X4X3/16		311 lbmass
5	2		END EAVE BEAM	HSS8X4X3/16		422 lbmass
6	*		SIDE EAVE BEAM	HSS8X4X3/16		287 lbmass
7	4		CORNER RAFTER	HSS8X8X1/4		607 lbmass
8	4		SIDE RAFTER	HSS10X8X1/4		473 lbmass
9	2		END RIDGE BEAM	HSS6X6X3/16		149 lbmass
10	*		MID RIDGE BEAM	HSS6X6X3/16		329 lbmass
11	*		CONNECTOR	HSS8X8X1/2		48 lbmass
12	*		LH SIDE PURLIN 1	HSS5X5X3/16		210 lbmass
13	*		RH SIDE PURLIN 1	HSS5X5X3/16		210 lbmass
14	*		END PURLIN 1	HSS5X5X3/16		257 lbmass
15	*		LH SIDE PURLIN 2	HSS5X5X3/16		166 lbmass
16	*		RH SIDE PURLIN 2	HSS5X5X3/16		166 lbmass
17	*		END PURLIN 2	HSS5X5X3/16		169 lbmass
18	*		LH SIDE PURLIN 3	HSS5X5X3/16		122 lbmass
19	*		RH SIDE PURLIN 3	HSS5X5X3/16		122 lbmass
20	*		END PURLIN 3	HSS5X5X3/16		81 lbmass
21	*		MID PURLIN	HSS5X5X3/16		235 lbmass

**NOTE:
MATERIAL WILL VARY DEPENDING ON SHELTER SIZE ORDERED.

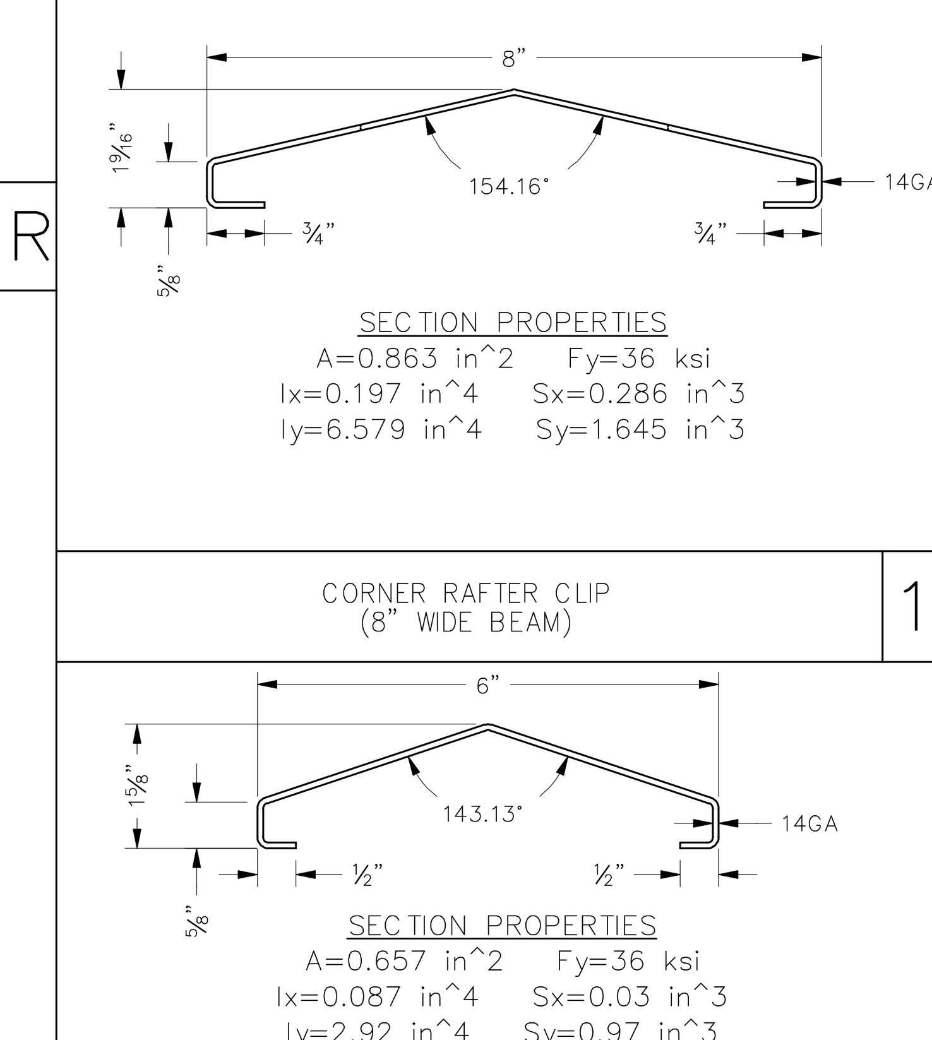
- ☐ ~~CORNER COLUMN 8' UTB - (HSS8X8X1/4)~~
- ☐ ~~SIDE COLUMN 8' UTB - (HSS10X8X5/16)~~
- ☑ CORNER COLUMN 10' UTB - (HSS8X8X1/4)
- ☑ SIDE COLUMN 10' UTB - (HSS10X8X5/16)
- ☐ ~~CORNER COLUMN 12' UTB - (HSS10X8X5/16)~~
- ☐ ~~SIDE COLUMN 12' UTB - (HSS12X8X5/16)~~



ALL BOLTS ARE ASTM F3125 OR A325 HIGH STRENGTH BOLTS PER SHEET LS1.0

TYPICAL NUT RESTRAINING SYSTEM NR

TYPICAL BOLT RESTRAINING SYSTEM BR



CORNER RAFTER CLIP (8" WIDE BEAM) 19

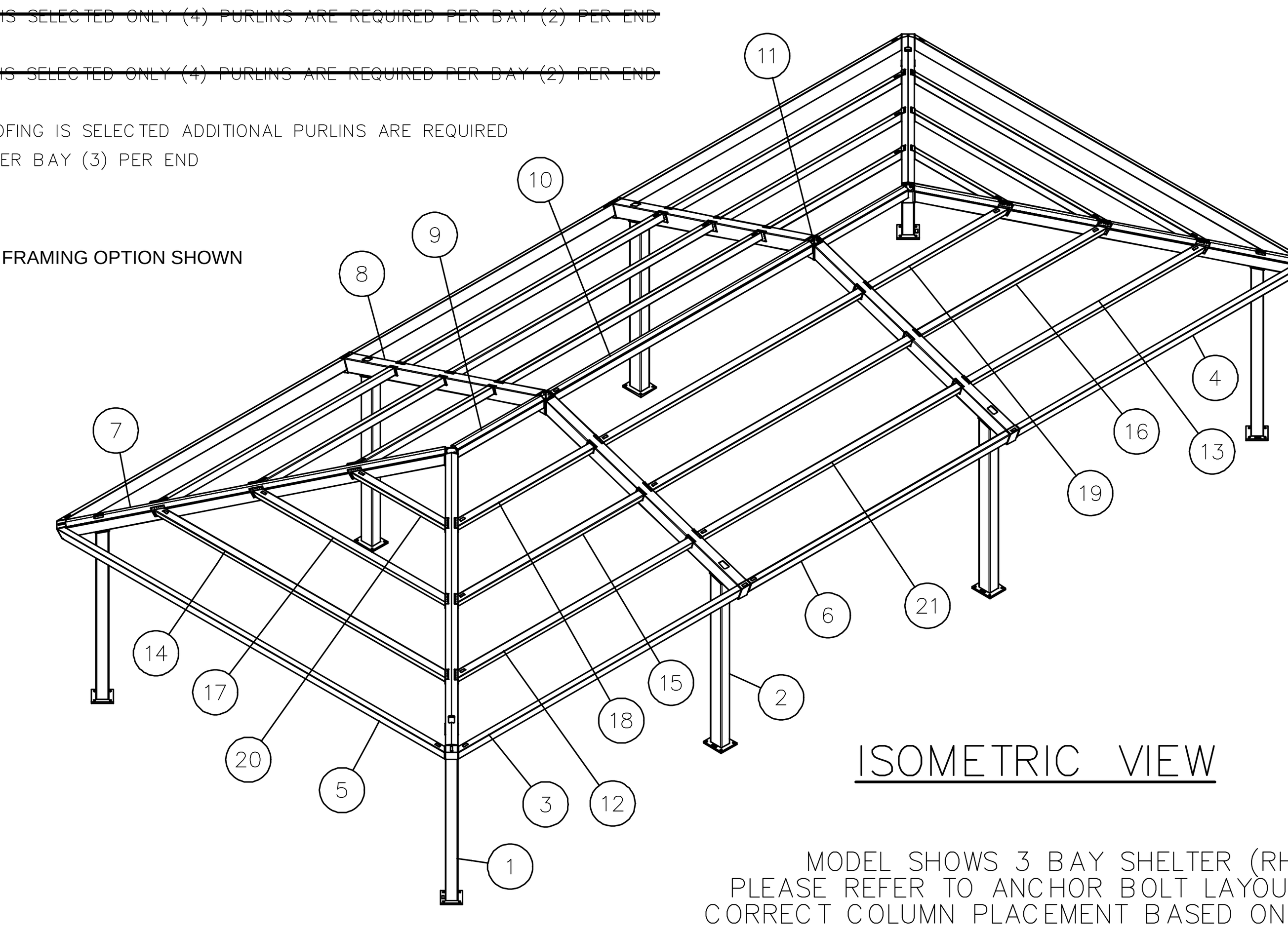
RIDGE BEAM CLIP (6" WIDE BEAM) 20

~~**IF MULTI RIB ROOFING IS SELECTED ONLY (4) PURLINS ARE REQUIRED PER BAY (2) PER END~~

~~**IF MEGA RIB ROOFING IS SELECTED ONLY (4) PURLINS ARE REQUIRED PER BAY (2) PER END~~

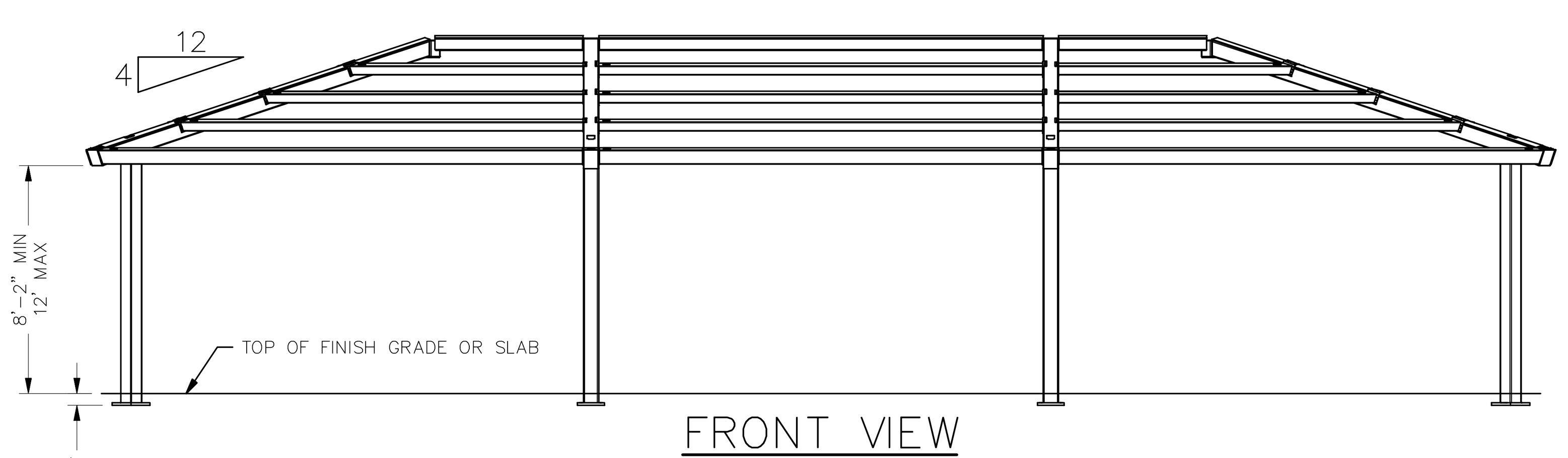
**IF STANDING SEAM ROOFING IS SELECTED ADDITIONAL PURLINS ARE REQUIRED (6) PURLINS REQUIRED PER BAY (3) PER END

STANDING SEAM FRAMING OPTION SHOWN



ISOMETRIC VIEW

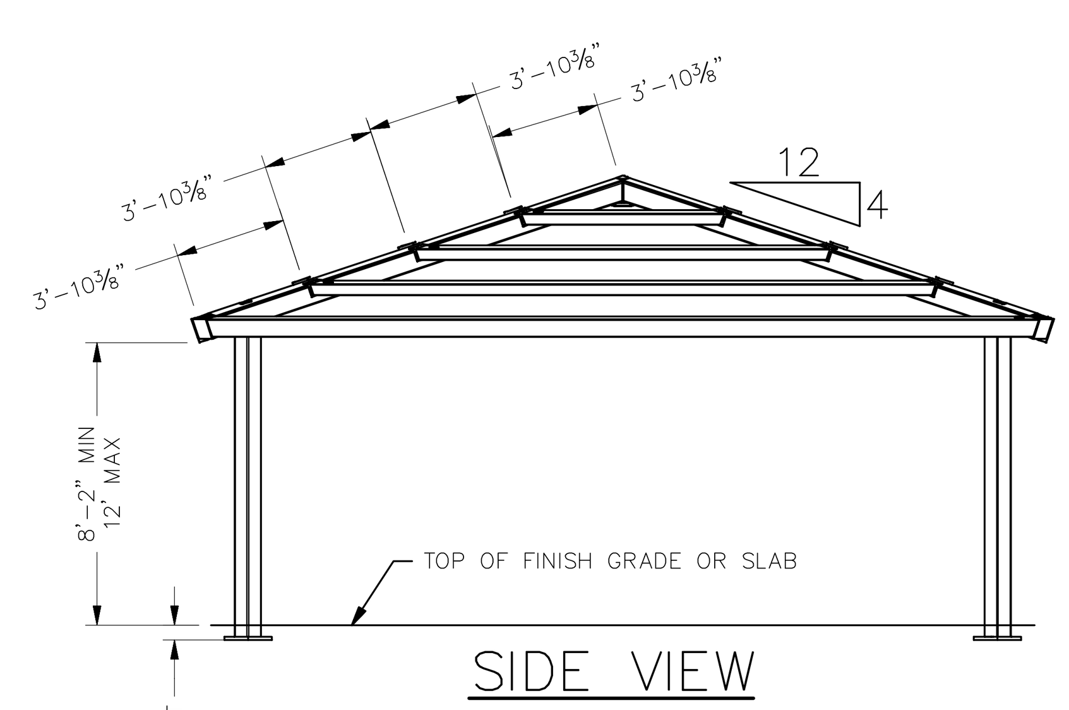
MODEL SHOWS 3 BAY SHELTER (RH30X64)
PLEASE REFER TO ANCHOR BOLT LAYOUT SHEET FOR CORRECT COLUMN PLACEMENT BASED ON SIZE ORDERED



FRONT VIEW

98" MIN IF USED OVER ACCESSIBLE PARKING OR ACCESS AISLES

114" MIN IF LOCATED OVER ACCESSIBLE PASSENGER LOADING ZONES



SIDE VIEW

30' WIDE RECTANGULAR HIP

30' WIDE RECTANGULAR HIP FRAMING & CONNECTION DETAILS

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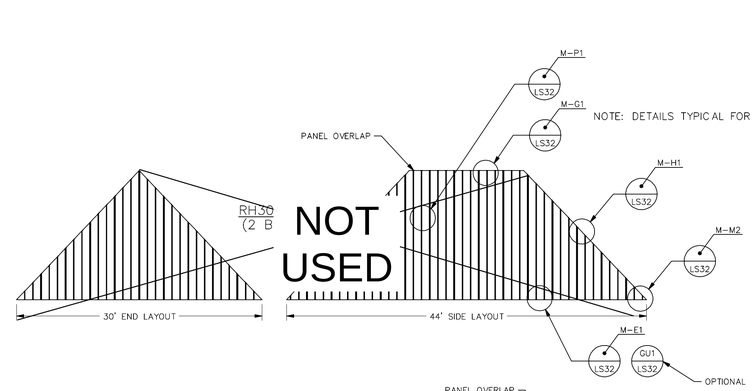
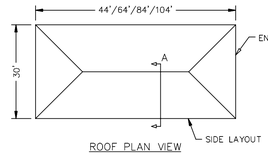
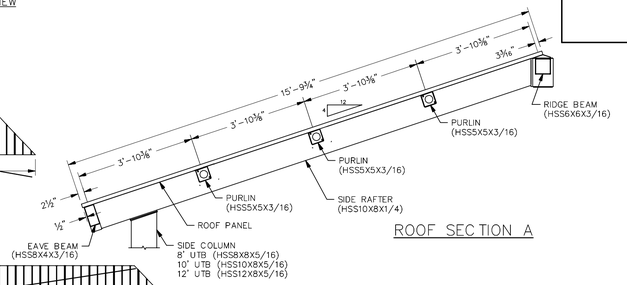
30' WIDE RECTANGULAR HIP MULTI RIB ROOFING



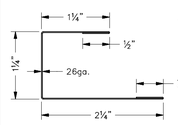


ROOF PLAN VIEW

FASTENER SCHEDULE
NOT TO SCALE



ROOF SECTION A



SECTION PROPERTIES
Fy = 50 ksi
A = 0.082 in^2
Ix = 0.029 in^4
Iy = 0.039 in^4
Sx = 0.019 in^3
Sy = 0.049 in^3

MULTI RIB EAVE TRIM 1

ICON STD	RH/DSA-PC
DRAWN BY	JD
DATE	7/25/2023
REV	
REV DATE	

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ARCHITECTS ENGINEERS
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WWW.JRMA.COM

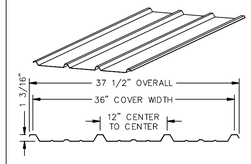
Oct 04, 2023

ROOF NOTES

ATTENTION INSTALLERS:
METAL SHAVINGS LEFT ON ROOF WILL QUICKLY RUST AND STAIN THE ROOF FINISH!

DRILLING OR INSTALLING ROOF FASTENERS WILL CAUSE METAL SHAVINGS. THESE SHAVINGS MUST BE CAREFULLY REMOVED AT THE END OF EACH DAY BY EITHER SWEEPING OR BRUSHING THE INSTALLED ROOF.

CLASS A ROOFING

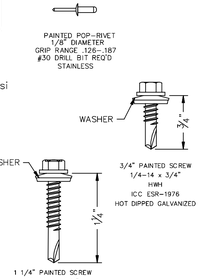


MULTI RIB PANEL SECTION
24 ga. Fy = 50 ksi Fu = 65 ksi
UES EVALUATION REPORT #270

SECTION PROPERTIES
(PER FT. OF WIDTH)

TOP IN COMPRESSION
Ix=0.050 in^4
Se=0.055 in^3
Ma=1.375 in-kips

BOTTOM IN COMPRESSION
Ix=0.029 in^4
Se=0.046 in^3
Ma=1.148 in-kips



INSTALLED CORRECTLY	INSTALLED TOO TIGHT	INSTALLED TOO LOOSE
THE SEALING MATERIAL SLIGHTLY VISIBLE AROUND THE METAL WASHER	THE SEALING MATERIAL IS DEFORMED BEYOND THE EDGE OF THE METAL WASHER	THE SEALING MATERIAL IS NOT VISIBLE AROUND THE EDGE OF THE METAL WASHER

THE ERECTOR SHOULD THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL INSTALLATION INSTRUCTION MATERIAL BEFORE STARTING WORK.

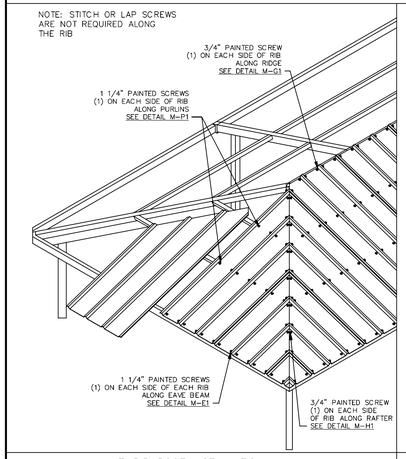
THE PANELS SHOULD BE INSTALLED PLUMB, STRAIGHT, AND ACCURATELY TO THE ADJACENT WORK.

ERECTORS SHALL BE RESPONSIBLE TO ENSURE THAT THE DETAILS MEET PARTICULAR BUILDING REQUIREMENTS AND TO ASSURE ADEQUATE WATER TIGHTNESS.

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

SOME FIELD CUTTING AND/OR FITTING OF PANELS, TRIM AND FLASHING IS TO BE EXPECTED BY THE ERECTOR. MINOR FIELD CORRECTIONS ARE PART OF NORMAL ERECTION WORK.

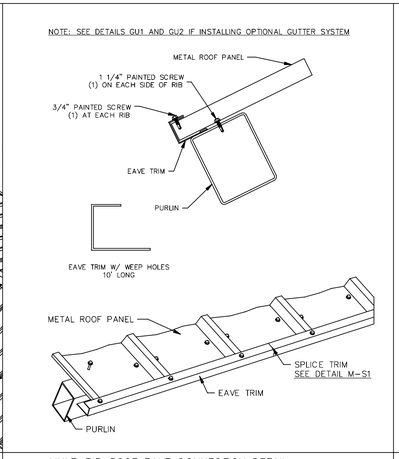
THE INSTALLATION SHALL BE PERFORMED BY EXPERIENCED METAL CRAFTSMEN AND WORKMANSHIP SHALL MEET THE BEST INDUSTRY STANDARDS.



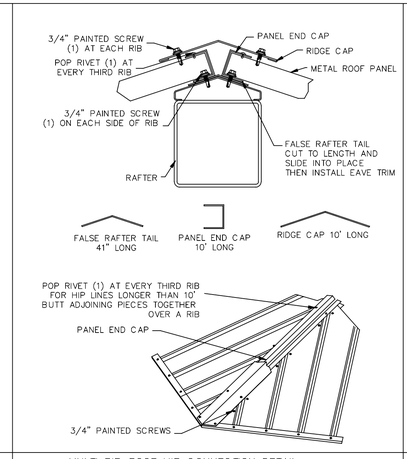
MULTI RIB ROOF INSTALLATION — ROOF

ORDER OF 26GA TRIM INSTALLATION
- PANEL END CAP 10' LONG SEE DETAIL M-H1,M-G1
- FALSE RAFTER 41" LONG SEE DETAIL M-H1
- EAVE TRIM 10' LONG W/ WEEP HOLES SEE DETAIL M-E1
- RIDGE CAP 10' LONG SEE DETAIL M-G1
- HIP CAP 10' LONG SEE DETAIL M-H1
- EAVE CORNER TRIM 8" LONG (2) PER CORNER SEE DETAIL M-M2
- EAVE CORNER TRIM ATTACHED W/ (3) PAINTED POP RIVETS SEE DETAIL M-M2
- PANEL END CAP NOT SHOWN SEE DETAIL M-G1
- RIDGE CAP ATTACHED W/ 3/4 PAINTED SCREWS (1) AT EACH RIB SEE DETAIL M-G1
- FALSE RAFTER TAIL NOT SHOWN SEE DETAIL M-H1
- HIP CAP ATTACHED W/ 3/4" PAINTED SCREWS (1) AT EACH RIB SEE DETAIL M-H1
- PANEL END CAP (NOT SHOWN) SEE DETAIL M-H1
- EAVE TRIM ATTACHED W/ 3/4" PAINTED SCREWS (1) AT EACH RIB SEE DETAIL M-E1 FOR OPTIONAL GUTTER SEE DETAIL GU1 & GU2

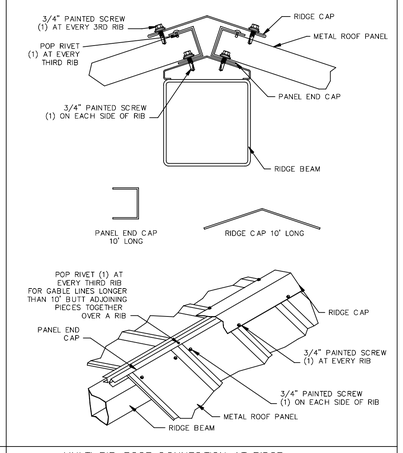
MULTI RIB TRIM INSTALLATION — TRIM



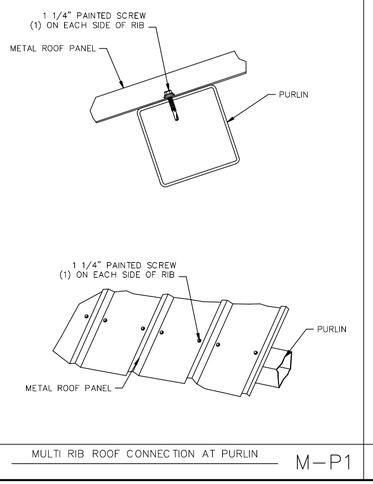
MULTI RIB ROOF EAVE CONNECTION DETAIL — M-E1



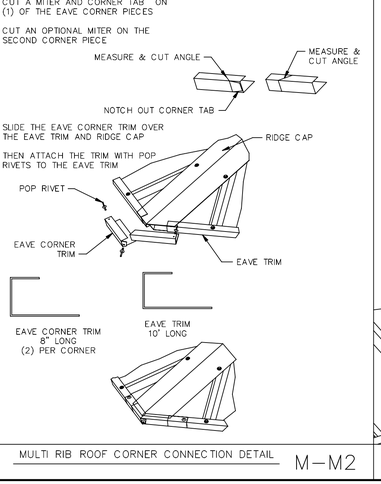
MULTI RIB ROOF HIP CONNECTION DETAIL — M-H1



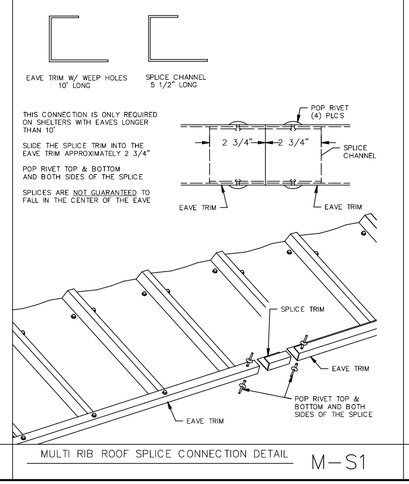
MULTI RIB ROOF CONNECTION AT RIDGE — M-G1



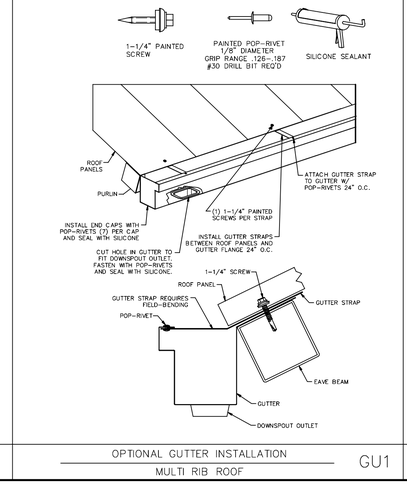
MULTI RIB ROOF CONNECTION AT PURLIN — M-P1



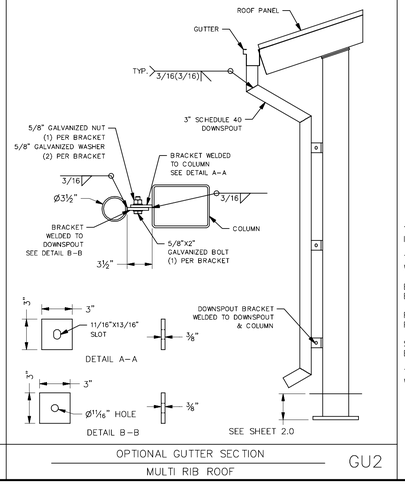
MULTI RIB ROOF CORNER CONNECTION DETAIL — M-M2



MULTI RIB ROOF SPLICE CONNECTION DETAIL — M-S1



OPTIONAL GUTTER INSTALLATION
MULTI RIB ROOF — GU1



OPTIONAL GUTTER SECTION
MULTI RIB ROOF — GU2

ICON
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30' WIDE RECTANGULAR HIP MULTI RIB ROOFING PLAN

LS3.2

PRE-CHECK (PC) DOCUMENT
Code: 2022 CBC
A separate project application for construction is required.

S:\Engineering\Inventor\Standard Parts\ROOF PARTS\EAVE TRIM.ipt

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ELECTRICAL INFORMATION - RECTANGULAR HIP

ICON'S STANDARD ELECTRICAL IS DESIGNED TO ACCOMMODATE Ø1/2" CONDUIT WITH A Ø3" INLET HOLE ON THE BOTTOM OF EACH COLUMN. THE CONDUIT PATHWAY RUNS THROUGH THE COLUMN, RAFTER, AND RIDGE BEAM THROUGH ALL BOLTED CONNECTIONS AS SHOWN. IF YOU HAVE SPECIAL ELECTRICAL REQUIREMENTS, PLEASE OUTLINE ANY CHANGES BELOW AS DESCRIBED.

PLEASE NOTE: DESIGN LIMITATIONS ON HOLE/CUTOUT SIZES MAY APPLY. ICON WILL REACH OUT TO DISCUSS ANY SUCH LIMITATIONS AS NEEDED.

NOTE: ICON SHELTER FRAME IS NOT UL LISTED TO ACT AS A CONDUIT FOR ELECTRICAL WIRING. CONSULT LOCAL BUILDING CODES WHEN PLANNING YOUR ELECTRICAL SYSTEM.

STEPS:

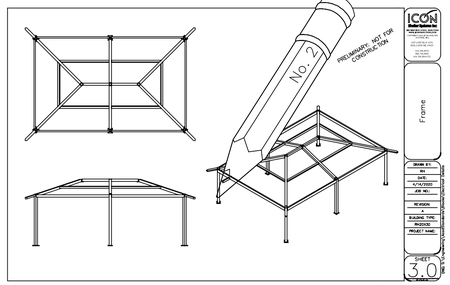
1. CONDUIT HOLE SIZE (DETAIL A)

2. ELECTRICAL EXIT HOLES (DETAIL B)

3. ELECTRICAL ACCESS & COVER PLATES (DETAIL C)

4. ELECTRICAL CONDUIT PATHWAY (DETAIL D)

IF REQUIRED, PLEASE DRAW THE NECESSARY ELECTRICAL CONDUIT PATHWAY ON THE FRAME SHEET OF THIS PRELIMINARY.

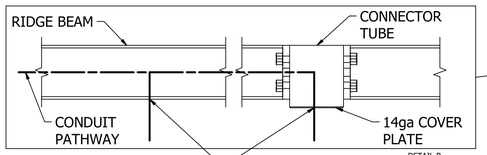


DETAIL D

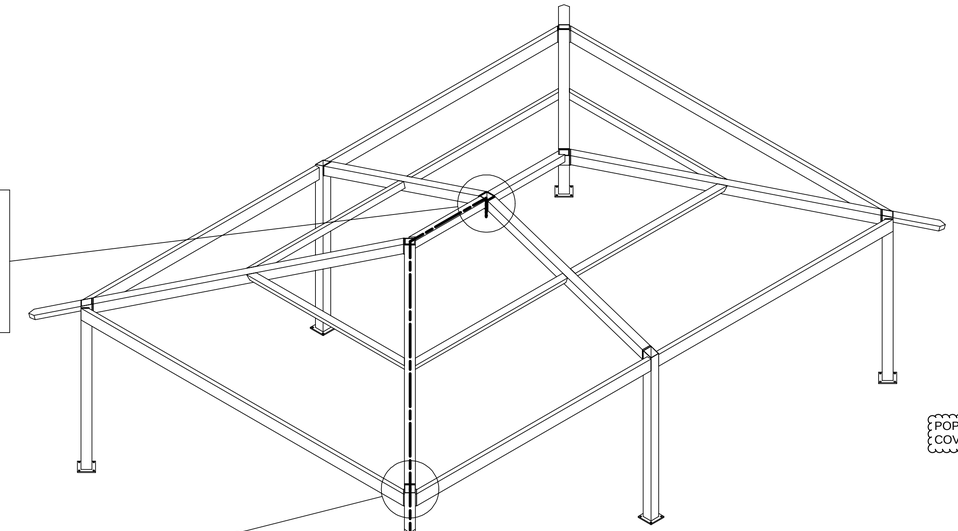
OPTIONAL EXIT HOLES

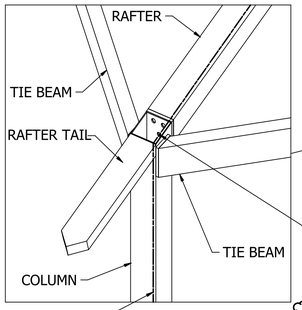
IF REQUIRED, EXIT HOLES FOR LIGHTING, ETC. CAN BE PLACED IN THE RIDGE BEAM AND/OR CONNECTOR TUBE WITH 14ga COVER PLATE AS SHOWN (CHARGES APPLY)
USE FRAME SHEET OF THIS PRELIMINARY TO SPECIFY REQUIRED EXIT HOLE LOCATIONS AND SIZE.

(1) EXIT HOLE PER CONNECTOR
~~(2) EXIT HOLES PER RIDGE BEAM~~



DETAIL B



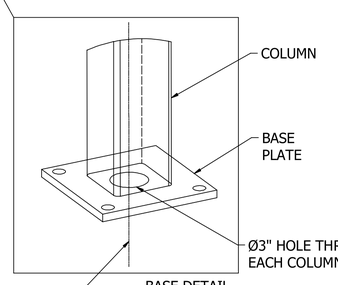


DETAIL A

ICON PROVIDES A MINIMUM OF (1) 3/4" HOLE AT EACH CONNECTION FOR 1/2" CONDUIT.
IF APPLICABLE, PLEASE SPECIFY REQUIRED CONDUIT SIZE: (CHARGES APPLY)

- [x] 3/4" CONDUIT (1" HOLES)
- [ ] ~~1" CONDUIT (1 1/4" HOLES)~~

CONDUIT PATHWAY PROVIDED FOR EACH COLUMN.



BASE DETAIL

CONDUIT (NOT BY ICON)

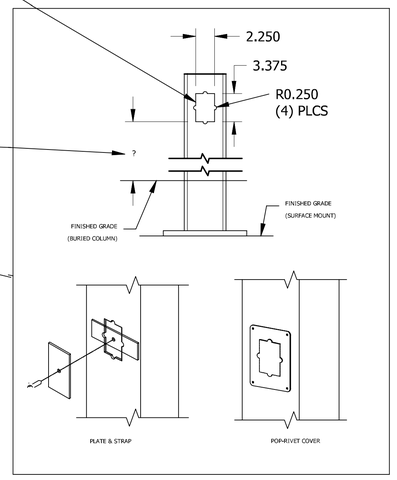
PROVIDE GROUNDING PER CEC ARTICLE 250

OPTIONAL CUTOUTS

USE FRAME SHEET OF THIS PRELIMINARY TO SPECIFY REQUIRED CUTOUT LOCATIONS (CHARGES APPLY)
SEE REQUIRED INFO BELOW

POP-RIVET COVER PLATE

+18" @ EACH CORNER COLUMN



DETAIL C

(4) COVER PLATES PROVIDED UPON REQUEST (CHARGES APPLY)
PLEASE SPECIFY TYPE AND QUANTITY REQUIRED:

- [ ] ~~PLATE & STRAP~~
- [x] POP-RIVET COVER PLATE (STAINLESS POP RIVET)
  HOW MANY REQUIRED? 4

NOTE: BUILDING DEPICTED ON THIS SHEET FOR ILLUSTRATION PURPOSES ONLY. ACTUAL LAYOUT AND FRAME MEMBER QUANTITIES VARY BY DESIGN. PLEASE REFER TO ELEVATION AND FRAME SHEETS IN THIS PRELIMINARY FOR ORDER-SPECIFIC CONFIGURATION.

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 02-122047 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 05/09/2024

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-122375 PC
REVIEWED FOR
SS ☑ PLS ☑ ACS ☒ CG ☐
DATE: 10/10/2023

ICON STD	RH/DSA-PC
DRAWN BY	JD
DATE	7/25/2023
REV	
REV DATE	

JRMA
ARCHITECTS ENGINEERS
2700 SATURN ST I BREA, CA 92821
T. 714.524.1870 I F. 714.524.1875
WWW.JRMA.COM

Oct 04, 2023

ELECTRICAL ACCESS

ICON Shelter Systems Inc
DISTINCTIVE STEEL SHELTERS
WWW.ICONSHELTERS.COM

1455 LINCOLN AVE
HOLLAND MI, 49423

616.396.0919
800.748.0985
616.396.0944 FX

PRE-CHECK (PC) DOCUMENT
Code: 2022 CBC
A separate project application for construction is required.

LS5.0

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