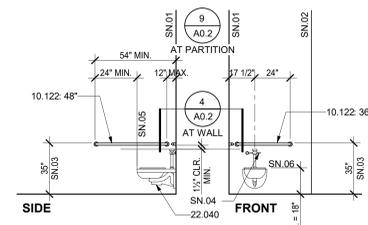
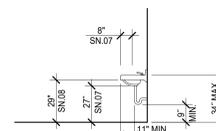


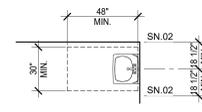
9 TYPICAL GRAB BAR AT PARTITIONS  
3" = 1'-0"



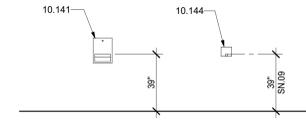
WALL MOUNTED WATER CLOSET



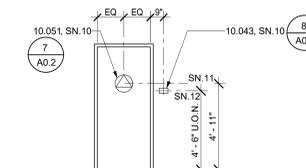
LAV. / SINK (ELEVATION)



LAV. / SINK (PLAN)

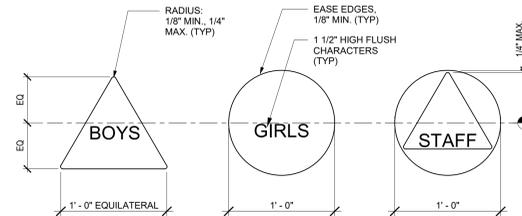


PAPER TOWEL DISPENSER SOAP DISPENSER



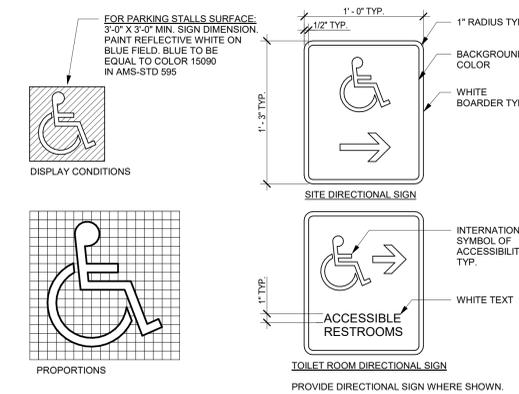
SIGNAGE MOUNTING

6 TYPICAL MOUNTING HEIGHTS AND DETAILS  
1/4" = 1'-0"

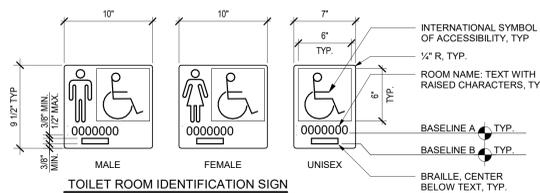


NOTE:  
1. TEXT ON DOOR SYMBOL TO BE AS INDICATED ON DRAWINGS

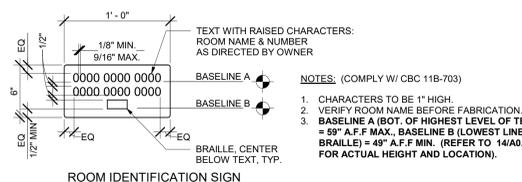
7 TOILET ROOM DOOR SYMBOLS  
1 1/2" = 1'-0"



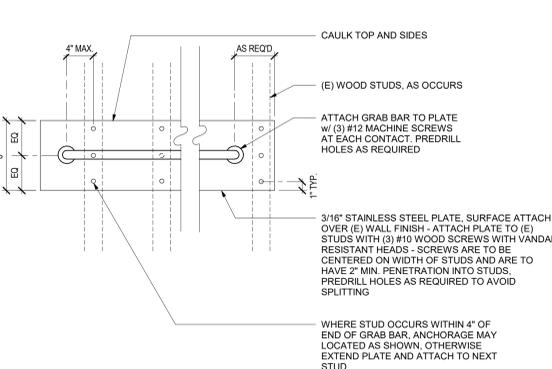
3 SYMBOL OF ACCESSIBILITY  
NOT TO SCALE



TOILET ROOM IDENTIFICATION SIGN



8 IDENTIFICATION SIGNS  
1 1/2" = 1'-0"



4 GRAB BAR - STAINLESS STEEL PLATE  
1 1/2" = 1'-0"

GENERAL NOTES

1. TYPICAL MOUNTING HEIGHTS AND DETAILS APPLY TO ENTIRE PROJECT, WHETHER REFERENCED OR NOT, UNLESS OTHERWISE NOTED.
2. ALL DISABLED ACCESSIBLE DIMENSIONS, ARE MAXIMUM DIMENSIONS UNLESS OTHERWISE NOTED.
3. HEIGHTS ARE MEASURED FROM FINISH FLOOR, UNLESS OTHERWISE NOTED.

SHEET NOTES

- SN.01 TO FACE OF FINISH
- SN.02 FACE OF OBJECTS OR WALLS
- SN.03 TOP OF GRAB BAR
- SN.04 AT ACCESSIBLE WATER CLOSETS, FLUSH CONTROL HANDLE SHALL BE MOUNTED ON THE WIDE SIDE OF THE TOILET ENCLOSURE
- SN.05 FRONT EDGE OF WATER CLOSET.
- SN.06 TOP OF SEAT
- SN.07 MINIMUM KNEE CLEARANCE
- SN.08 MINIMUM APRON CLEARANCE
- SN.09 TO CENTERLINE CONTROL.
- SN.20 PROVIDE AT ALL TOILET ROOM DOORS
- SN.11 CENTERLINE OF SYMBOL
- SN.12 CENTERLINE OF SIGN.

KEYNOTES

- 10.043 SIGNAGE: TOILET ROOM IDENTIFICATION
- 10.051 SIGNAGE: TOILET ROOM DOOR SYMBOL
- 10.122 TOILET ACCESSORY: GRAB BAR
- 10.141 TOILET ACCESSORY: PAPER TOWEL DISPENSER
- 10.144 TOILET ACCESSORY: SOAP DISPENSER
- 22.040 WATER CLOSET



SHADE STRUCTURE AT TAHOE  
ELEMENTARY SCHOOL

SACRAMENTO CITY UNIFIED SCHOOL DISTRICT  
SACRAMENTO, CA

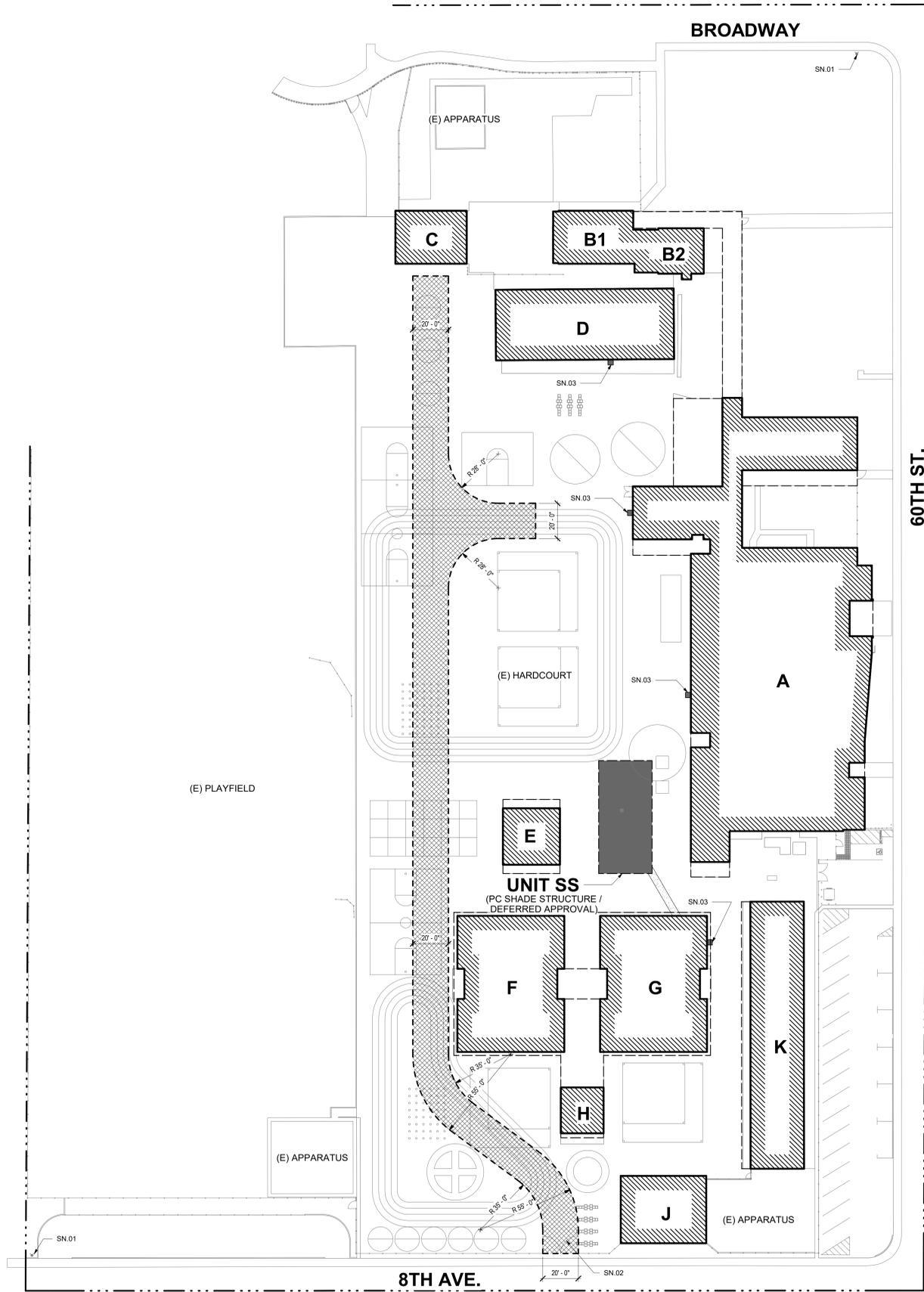
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TYPICAL MOUNTING HEIGHTS AND DETAILS

PROJECT NO. 21-1504.07  
DATE: 3/3/22  
SHEET A0.2

C:\Users\mkt\Documents\1924\07\_2024\_Central.ssh.kut



**1 LOCAL FIRE AUTHORITY SITE PLAN**  
1" = 30'-0"

**DSA-810 FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL**

**PROJECT INFORMATION**  
 School District: SACRAMENTO UNIFIED SCHOOL DISTRICT  
 Project name / school: TAHOE ES SHADE STRUCTURE  
 Project address: 3110 60TH ST., SACRAMENTO, CA 95820

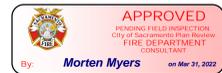
FIRE & LIFE SAFETY INFORMATION		ALTERNATE ACCEPTED	
1. Has a fire hydrant flow test been performed within the past 12 months? (If yes, provide a copy of the test data)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
2. Was the fire hydrant water flow test performed as part of this LFA review?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
3. Is the project located within a designated fire hazard severity zone as established by Cal-Fire? (If yes, indicate fire hazard zone classification below)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Refer to the following for fire hazard zone locations: www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps			
Wildland Interface Area (WIFA) (If any designations are checked, project design must meet the requirements of CBC Chapter 7A)		Moderate <input type="checkbox"/> High <input type="checkbox"/> Very High <input type="checkbox"/>	WIFA <input type="checkbox"/>

CONDITION MEANS AND METHODS RESOLUTION		ALTERNATE ACCEPTED	
4. Emergency vehicle access roadways do not meet CFC requirements	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> N/R <input type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> N/R <input type="checkbox"/>	
4a. Acceptable Alternative: Emergency vehicle and personal access as proposed by the architect is acceptable for providing fire suppression and protection of life and property			
5. Fire Hydrants: Number and spacing does not meet CFC requirements	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
5a. Acceptable Alternative: Number of fire hydrants and spacing as proposed by the architect is acceptable for fire suppression and protection of life and property			
6. Fire Hydrants: Water flow and pressure are less than CFC minimum	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
6a. Acceptable Alternative: The available flow and pressure is acceptable for providing fire suppression and protection of life and property			
7. Location of fire department connection(s) serving fire sprinkler system or standpipe system does not meet CFC requirements	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
7a. Acceptable Alternative: The location of fire department connection serving the fire sprinkler system and/or standpipe system is acceptable for providing fire suppression and protection of life and property			

**School District Acceptance of Acceptable Design Alternates**  
 By signing this form, the school district acknowledges and accepts the proposed design as an alternative to California Building Code (CBC) and California Fire Code (CFC) minimum requirements as indicated by one of more of the conditions indicated at items 4a, 5a, 6a, or 7a, for providing fire and life safety protection of life and property.

Accepted by: Chris Ralston Title: Dir III, Facilities Management  
 Signature: *Chris Ralston* Date: 3/24/2022

**LOCAL FIRE AUTHORITY (LFA) INFORMATION**  
 LFA Agency Name: Sacramento Fire Dept  
 LFA Review Official: Jason Lee, Fire Marshal  
 Title: \_\_\_\_\_ Work Phone: 9168081620  
 Work Email: jalee@sacfire.org  
 LFA Reviewer's Signature: *Jason Lee* Date: 4.1.2022



**LEGEND**

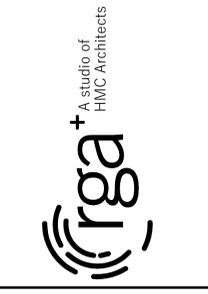
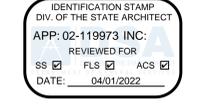
- PROPERTY LINE
- X UNIT DESIGNATION SHADE STRUCTURE
- EXISTING BUILDINGS
- CONCRETE WALK / PAVING
- ASPHALT CONCRETE PAVING
- (E) EMERGENCY ACCESS LANE
- (E) CHAIN LINK FENCE
- (E) FIRE HYDRANT (NTS)

**SHEET NOTES**

- SN.01 (E) FIRE HYDRANT
- SN.02 (E) PR - 10' - 0" WIDE GATES WITH KNOX LOCK BOX
- SN.03 (E) EXTERIOR FIRE ALARM NOTIFICATION APPLIANCE

**BUILDING DESIGNATIONS**

- UNIT A - ADMINISTRATION / MULTIPURPOSE / CLASSROOMS
- UNIT B1 - KINDERGARTEN
- UNIT B2 - BOILER ROOM
- UNIT C - KINDERGARTEN
- UNIT D - CLASSROOMS
- UNIT E - TOILET ROOMS
- UNIT F - CLASSROOMS
- UNIT G - CLASSROOMS
- UNIT H - TOILET ROOMS
- UNIT J - CLASSROOMS
- UNIT K - CLASSROOMS



SHADE STRUCTURE AT TAHOE ELEMENTARY SCHOOL  
 SACRAMENTO CITY UNIFIED SCHOOL DISTRICT  
 SACRAMENTO, CA

Revision

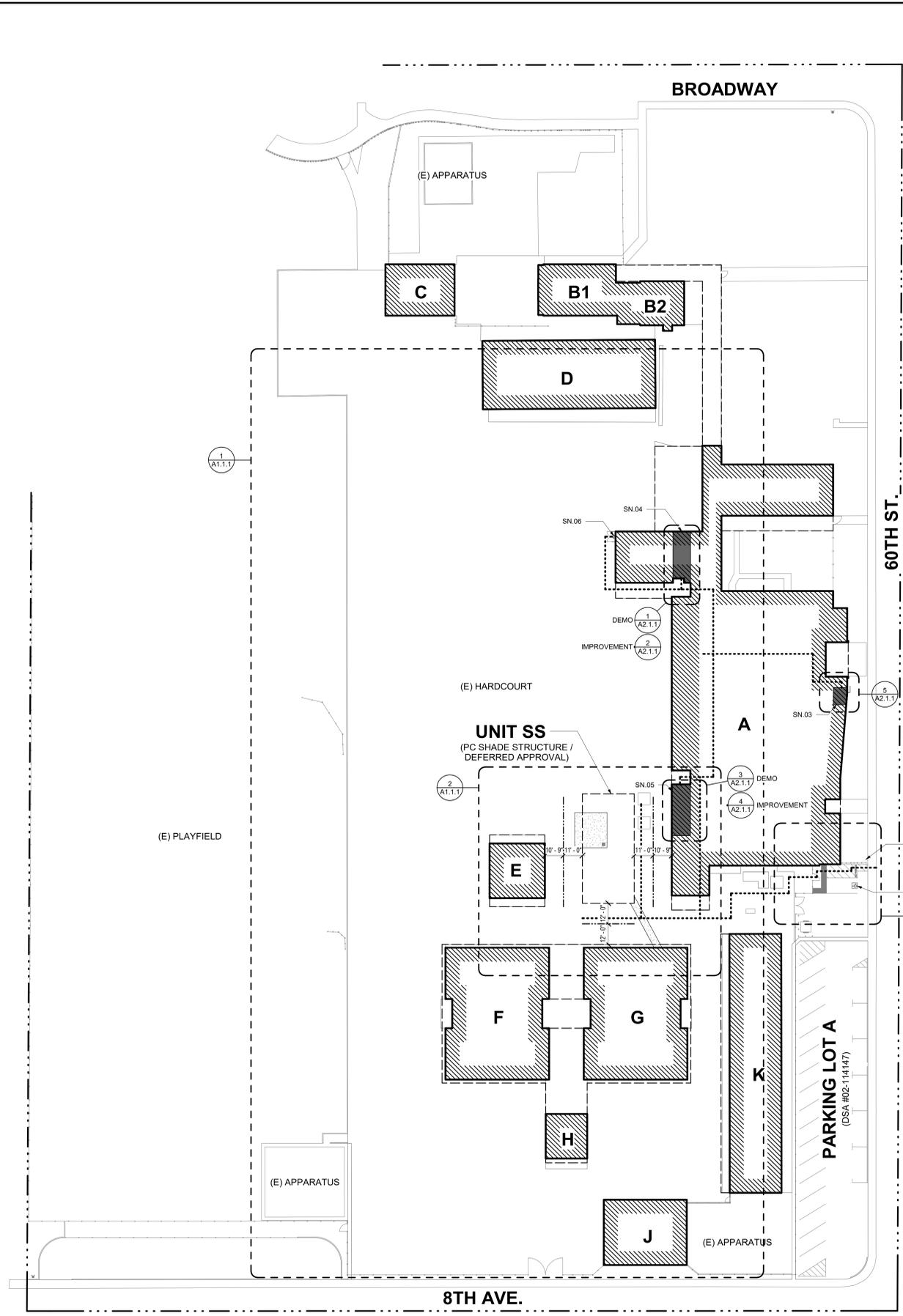
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**LOCAL FIRE AUTHORITY SITE PLAN**

**SEE OTHER SHEETS FOR CONSTRUCTION**

THIS PLAN INCLUDES INFORMATION FOR LOCAL FIRE AUTHORITY APPROVAL ONLY. REFER TO OTHER SHEETS FOR SITE CONSTRUCTION DETAILS.

PROJECT NO. 21-1504.07  
 DATE: 3/3/22  
 SHEET **A0.7**



PROPOSED SHADE STRUCTURE					
UNIT	DESCRIPTION	OCCUPANCY	CONSTRUCTION TYPE	ALLOWABLE AREA (TABLE 506.2)	OCCUPANCY CALCULATION
SS	SHADE STRUCTURE	A-3	V-B NON-SPRINKLERED	6,000 S.F.	1,920 S.F. / 15 NET = 128 OCC.

EXISTING BUILDING DESIGNATIONS				
UNIT	DESCRIPTION	DSA APPLICATION #	AREA (SF)	NOTES
A	ADMIN. / MULTI / CLASSROOM	5509, 68544, 02-114926, 02-115154, THIS APPLICATION	24,223	OCCUPANCY: A, B, E CONSTRUCTION: V-B
B1	KINDERGARTEN	5509, 68544	1,692	
B2	BOILER ROOM	5509	648	
C	KINDERGARTEN	37721, 68544	1,200	
D	RELOCATABLE CLASSROOMS	02-103298	4,000	
E	TOILET ROOMS	11292	837	OCCUPANCY: E CONSTRUCTION: V-B
F	CLASSROOMS	37721, 68544	4,575	
G	CLASSROOMS	37721, 68544	4,575	OCCUPANCY: E CONSTRUCTION: V-B
H	TOILET ROOMS	37721, 68544	633	
J	RELOCATABLE CLASSROOMS	-	1,833	
K	RELOCATABLE CLASSROOMS	68544	4,927	

**EXISTING PATH OF TRAVEL (POT): ARCHITECT STATEMENT**

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE IN CHARGE STATEMENT: THE 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 NON-COMPLIANT

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 NON-COMPLIANT 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 NON-COMPLYING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT TO COMPLIANCE WITH THE CBC AS PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

**ACCESSIBLE PARKING STALL CALCULATION**

TOTAL PARKING STALL COUNT:	24 STALLS
ACCESSIBLE PARKING STALLS:	(TABLE 11B-208.2)
REQUIRED ACCESSIBLE STALLS:	2 (1-25 TOTAL STALLS)
REQUIRED VAN ACCESSIBLE STALLS:	1 (1-6 ACCESSIBLE STALLS)
ACCESSIBLE STALLS PROVIDED:	1 VAN



2 (E) DRINKING FOUNTAIN  
1/2" = 1'-0"

1 SITE PLAN  
1" = 30'-0"

- LEGEND**
- PROPERTY LINE
  - - - - - ASSUMED PROPERTY LINE
  - UNIT DESIGNATION
  - PC SHADE STRUCTURE / DEFERRED APPROVAL
  - UNIT DESIGNATION
  - EXISTING BUILDINGS
  - EXPANSION JOINT
  - CONCRETE WALK / PAVING
  - CONTROL JOINT
  - ASPHALT CONCRETE PAVING
  - ACCESSIBLE PATH OF TRAVEL

- SITE WALKWAYS SHALL PROVIDE A BARRIER-FREE P.O.T. ABRUPT CHANGES IN LEVEL ALONG ANY P.O.T. ARE ALLOWED UP TO 1/2" ONLY. ABRUPT CHANGES IN ELEVATION UP TO 1/4" ARE ALLOWED TO HAVE A VERTICAL TRANSITION. ABRUPT CHANGES IN ELEVATION BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:1. UNIT VERTICAL TO 2 UNITS HORIZONTAL.
- WALKWAYS SHALL BE FREE OF GRATINGS WHEREVER POSSIBLE. GRATINGS WHICH OCCUR WITHIN THE P.O.T. SHALL HAVE OPENINGS WHICH DO NOT EXCEED 1/2" IN THE DIRECTION OF TRAVEL PER CBC SECTION 11B-302.3.
- AN ABRUPT DROP-OFF CHANGE IN ELEVATION AT THE EDGE OF ANY WALK INTO AN ADJACENT PLANTER SHALL NOT EXCEED 4".
- SLOPES IN THE DIRECTION OF THE P.O.T. GREATER THAN 1:1 UNIT VERTICAL TO 20 UNITS HORIZONTAL SHALL BE CONSIDERED A RAMP AND WILL REQUIRE HANDRAILS ON BOTH SIDES PER CBC SECTION 11B-506. SLOPES IN THE DIRECTION OF THE P.O.T. ALONG WALKWAYS SHALL NOT EXCEED 5%. CROSS SLOPES IN THE P.O.T. ALONG WALKWAYS SHALL NOT EXCEED 2%.
- ALL WALKWAYS WITHIN THE P.O.T. SHALL BE A MINIMUM OF 48" IN WIDTH. SURFACES WITH A SLOPE OF 5% OR LESS SHALL BE AT LEAST AS SLIP-RESISTANT AS THAT PROVIDED BY A MEDIUM BROOM FINISH. SURFACES WITH A SLOPE OF MORE THAN 5% SHALL BE AT LEAST AS SLIP-RESISTANT AS THAT PROVIDED BY A MEDIUM BROOM FINISH.
- OBJECTS PROTRUDING INTO THE P.O.T. SHALL NOT REDUCE THE CLEAR WIDTH OR MANEUVERING SPACE WITHIN THE P.O.T. PER CBC SECTION 11B-307.
- PASSING SPACES (11B-403.5.3) OF 60" X 60" MIN. ARE LOCATED NOT MORE THAN 200' APART. WALKS WITH CONTINUOUS GRADIENTS SHALL HAVE 60" IN LENGTH LEVEL RESTING AREAS (11B-403.7) NOT MORE THAN 400' APART. P.O.T. SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MIN (11B-307.4) AND FREE OF PROTRUDING OBJECTS (11B-307) GREATER THAN 4" PROJECTION FROM WALL ABOVE 27" AND LESS THAN 80". OBJECTS PROTRUDING INTO THE P.O.T. SHALL NOT REDUCE THE CLEAR WIDTH OR MANEUVERING SPACE REQUIRED FOR ACCESSIBLE ROUTES (11B-307.5).

- SHEET NOTES**
- SN 01 (E) PARKING LOT ENTRANCE SIGN PER DSA #02-114147
  - SN 02 (E) ACCESSIBLE PARKING STALL PER DSA #02-114147
  - SN 03 (E) ACCESSIBLE STAFF TOILET ROOM PER DSA #02-115154
  - SN 04 (E) ACCESSIBLE GIRL'S TOILET ROOM UPGRADED PER THIS APPLICATION
  - SN 05 (E) ACCESSIBLE BOYS TOILET ROOM UPGRADED PER THIS APPLICATION
  - SN 06 (E) ACCESSIBLE DRINKING FOUNTAIN REVIEWED AND VERIFIED PER THIS APPLICATION. SEE 2/A1.1.0-1

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP: 02-119973 INC.  
REVIEWED FOR  
SS  FLS  ACS   
DATE: 04/01/2022

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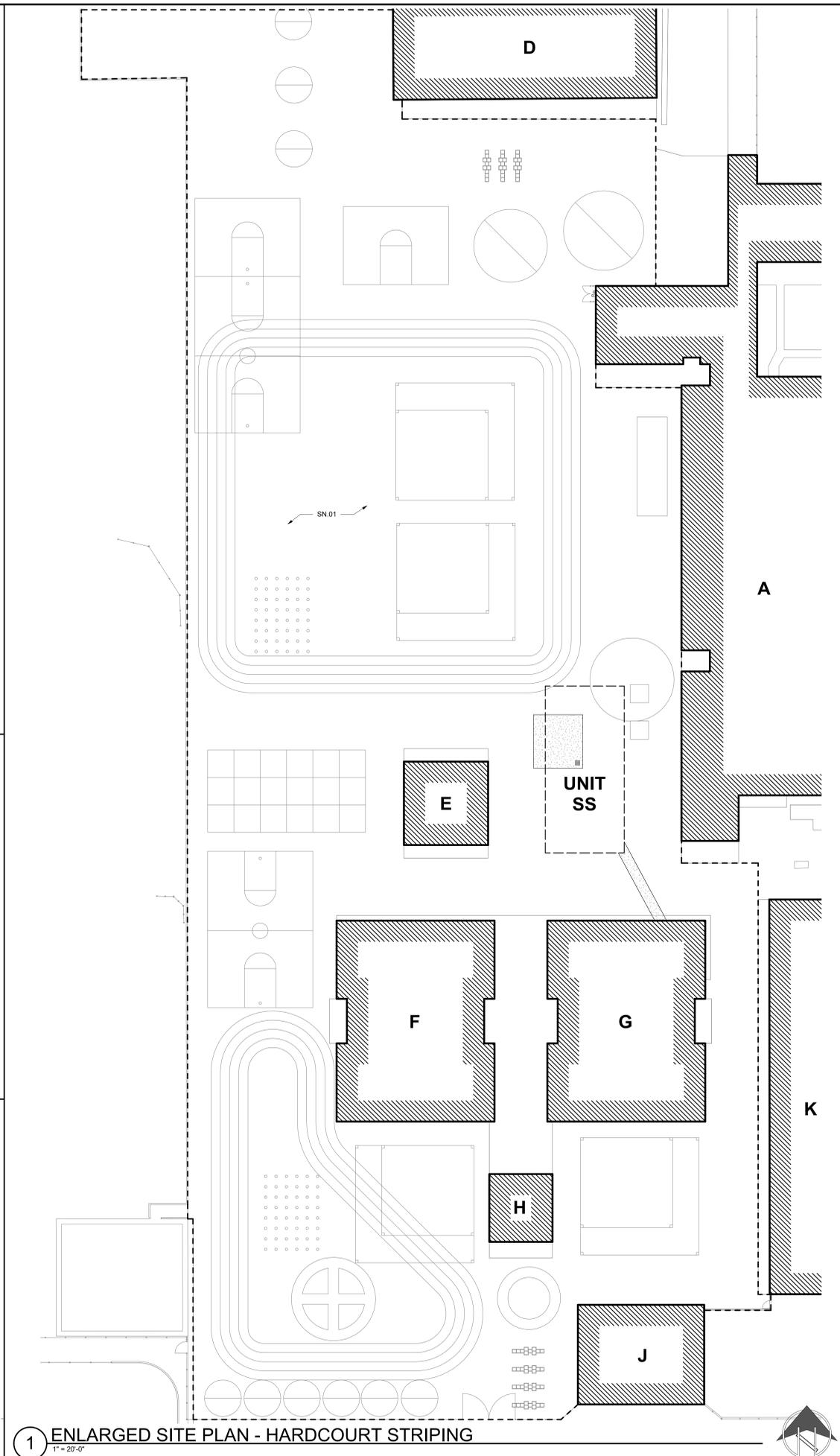
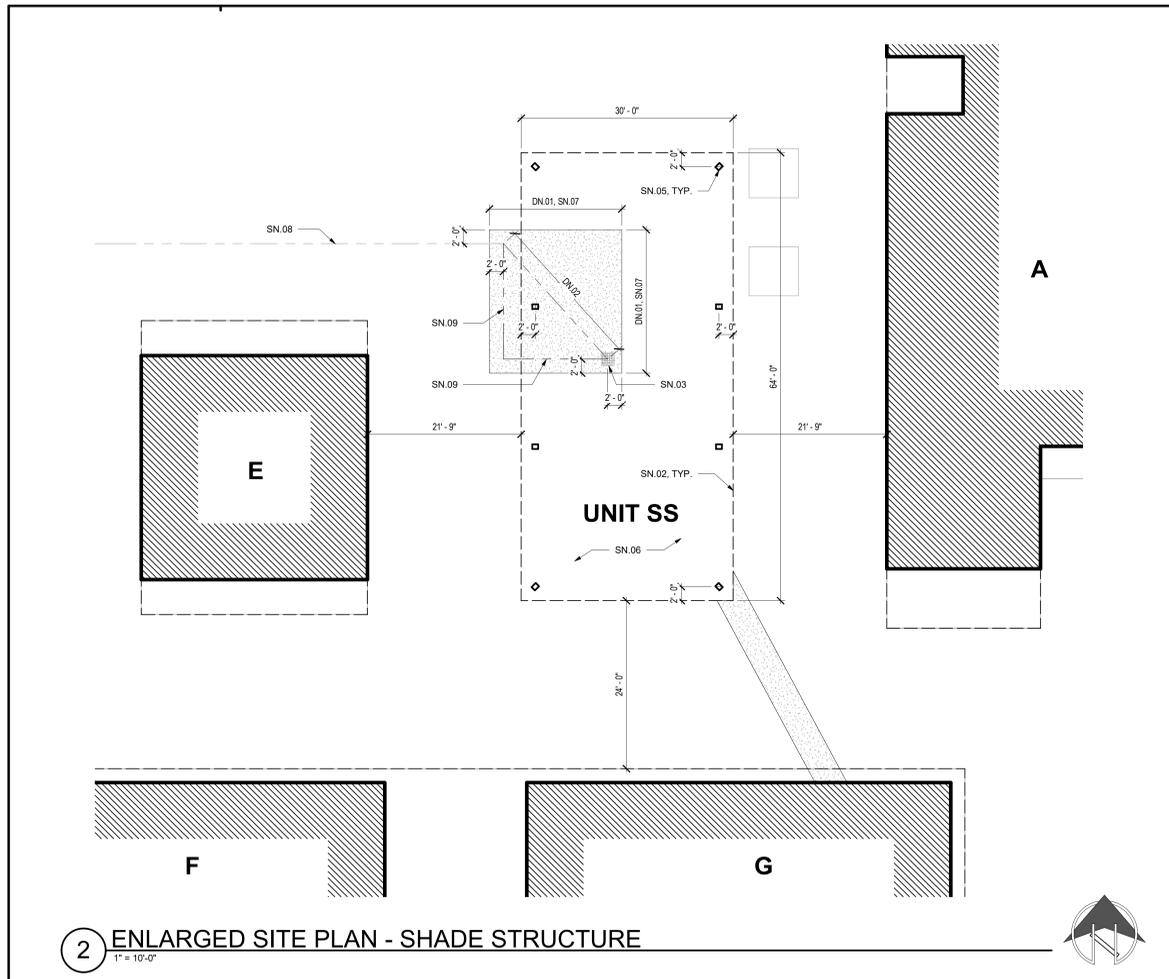
SHADE STRUCTURE AT TAHOE  
ELEMENTARY SCHOOL  
SACRAMENTO CITY UNIFIED SCHOOL DISTRICT  
SACRAMENTO, CA

Revision

SITE PLAN AND CODE INFORMATION

PROJECT NO. 21-1504.07  
DATE: 3/3/22  
SHEET

A11.0



- LEGEND**
- PROPERTY LINE
  - - - ASSUMED PROPERTY LINE
  - [X] UNIT DESIGNATION  
PC SHADE STRUCTURE / DEFERRED APPROVAL
  - [Hatched Box] UNIT DESIGNATION  
EXISTING BUILDINGS
  - [Dashed Line] EXPANSION JOINT
  - [Grid Pattern] CONCRETE WALK / PAVING
  - [Solid Line] CONTROL JOINT
  - [Stippled Area] ASPHALT CONCRETE PAVING

- GENERAL NOTES**
1. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXTENT OF CRACK REPAIR AT (E) HARDCOURT.
  2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING (E) STRIPING CONDITIONS AND VERIFYING EXACT LAYOUT TO BE RESTRIPE WITH DISTRICT.

- DEMOLITION NOTES**
- DN.01 SAWCUT, REMOVE AND DISPOSE OF EXISTING ASPHALT PAVING AND ASSOCIATED AGGREGATE BASE. SAWCUT SHALL BE A NEAT STRAIGHT LINE, MAINTAIN CLEAN, STRAIGHT CUT EDGE UNTIL NEW PAVING IS PLACED.
  - DN.02 REMOVE (E) PORTION OF STORM DRAIN LINE.

- SHEET NOTES**
- SN.01 ALTERNATE 1: (E) HARDCOURT SHALL RECEIVE CRACK REPAIRS AND 2 COATS OF SEAL COAT. (E) STRIPING IS TO BE RESTRIPE OVER SEAL COAT. EXTENTS SHOWN DASHED.
  - SN.02 ROOF OVERHANG ABOVE, PER PC SHADE STRUCTURE / DEFERRED APPROVAL. CONTRACTOR IS RESPONSIBLE FOR FIELD CUTTING METAL ROOF PANELS FOR INSTALLATION.
  - SN.03 (E) DRAIN TO REMAIN.
  - SN.04 (E) 4'-0" W CHAINLINK GATE TO REMAIN, INSTALL KICK PLATE AND HARDWARE PER (A1.1.1).
  - SN.05 HSS COLUMN AND FOOTING, PER PC SHADE STRUCTURE / DEFERRED APPROVAL.
  - SN.06 (E) ASPHALT CONCRETE PAVING UNDER SHADE STRUCTURE LOCATION HAS 2% MAX. SLOPE IN ALL DIRECTIONS, VERIFIED PER THIS APPLICATION.
  - SN.07 PLACE 3" AC OVER 12" AB ON COMPACTED SUBGRADE.
  - SN.08 (E) PORTION OF STORM DRAIN LINE TO REMAIN.
  - SN.09 REROUTE (E) STORM DRAIN LINE, NEW PATH SHOWN DASHED.

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP: 02-119973 INC.  
REVIEWED FOR  
SS  FLS  ACS   
DATE: 04/01/2022

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HMC Architects

ARCHITECT  
C-11648  
STATE OF CALIFORNIA

**SHADE STRUCTURE AT TAHOE  
ELEMENTARY SCHOOL**

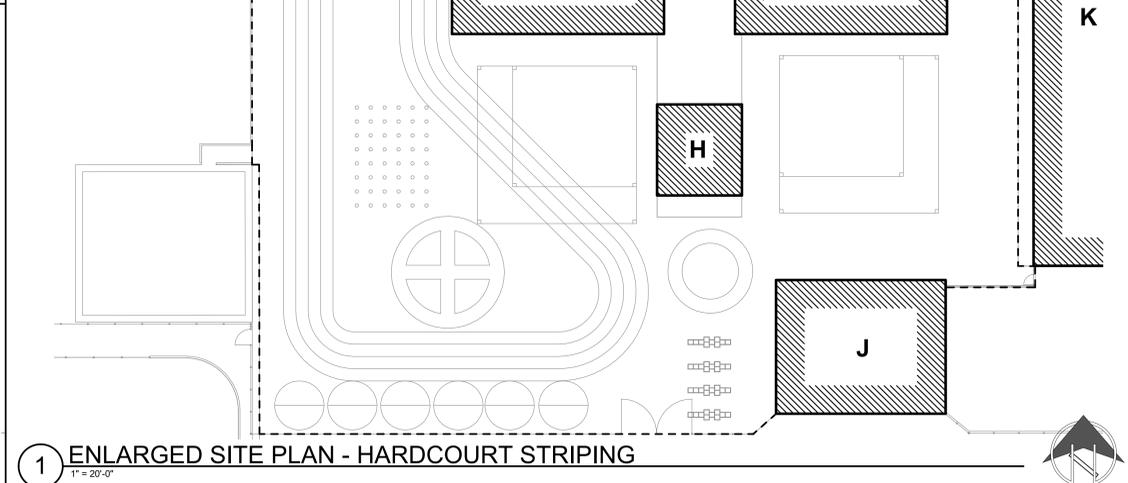
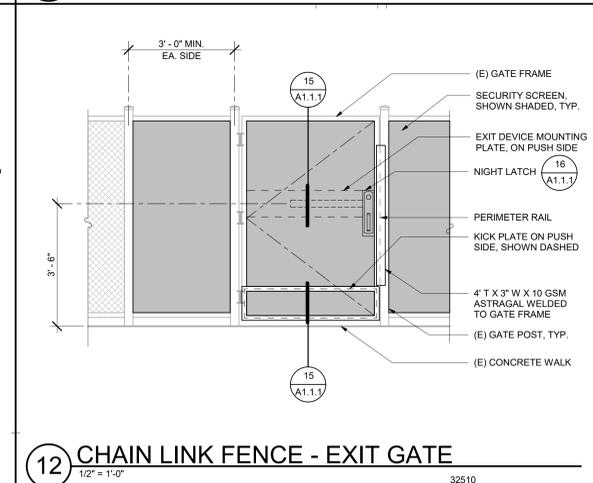
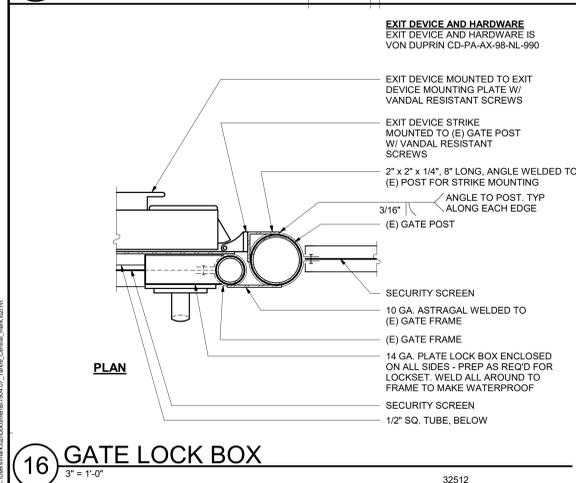
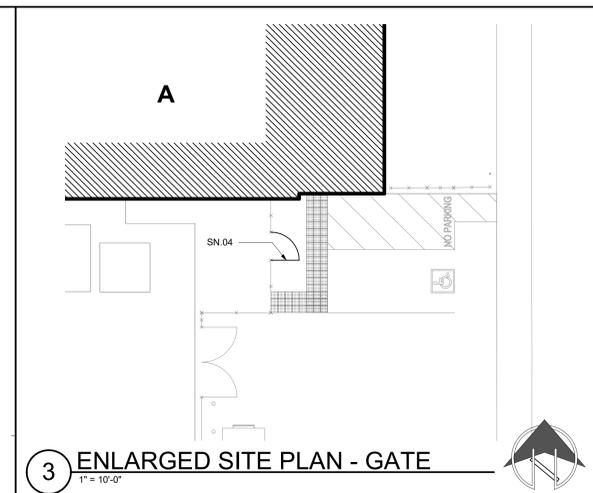
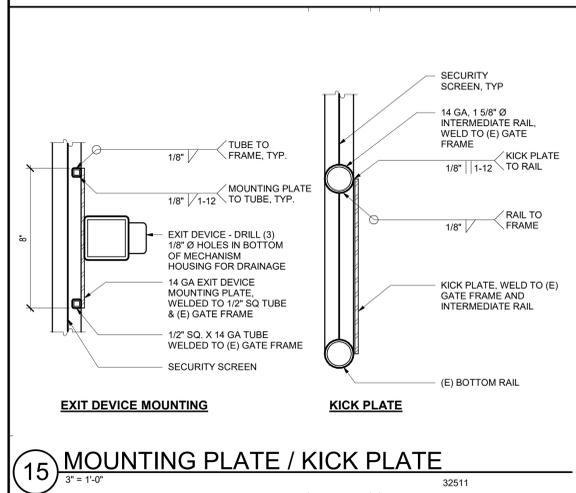
**SACRAMENTO CITY UNIFIED SCHOOL DISTRICT  
SACRAMENTO, CA**

Revision	Description

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**PARTIAL SITE PLANS  
AND DETAILS**

PROJECT NO. 21-1504.07  
DATE: 3/3/22  
SHEET **A1.1.1**





**ABBREVIATION LIST**

Ø	AT
A	AMPERE
AC	ALTERNATING CURRENT
A/C	AIR CONDITIONING
AER	ARC ENERGY REDUCTION
AF	AMP FRAME
AFF	ABOVE FINISHED FLOOR
AIC	AMPERES INTERRUPTING CAPACITY
AT	AMP TRIP SETTING
AWG	AMERICAN WIRE GAUGE
BC	BARE COPPER
BD	BOARD
BFC	BELOW FINISHED CEILING
BRKR	BREAKER
BLDG	BUILDING
BPS	BOOSTER POWER SUPPLY
C	CONDUIT
C/B	CIRCUIT BREAKER
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CRC	CIRCUIT
CLG	CEILING
CO	CONDUIT ONLY, WITH PULL LINE
CONT	CONTINUOUS
CU	COPPER
CWP	METALLIC COLD WATER PIPE
(D)	DEMOLISH
DC	DIRECT CURRENT
DISC	DISCONNECT
DP	DISTRIBUTION PANEL
(E)	EXISTING
E/W	EACH WITH
EA	EACH
EL	EVENING LIGHT
ELEC	ELECTRIC
EM	EMERGENCY
EQ	ELECTRICAL METALLIC TUBING
END	END OF LINE DEVICE
EQUIP	EQUIPMENT
(ER)	EXISTING RELOCATED
EW	ELECTRICAL WATER COOLER
EW	ELECTRIC WATER HEATER
(F)	FUTURE
FAFP	FIRE ALARM CONTROL PANEL
FAEP	FIRE ALARM EXTENDER PANEL
FATC	FIRE ALARM TERMINAL CABINET
FBO	FURNISHED BY OTHERS
FLUOR	FLUORESCENT
FT	FOOT
GA	GAUGE
GFCI	GROUND FAULT CIRCUIT INTERRUPT
GLZ	GENERAL LIGHTING ZONE
GND	GROUND
GP	METAL GAS PIPE
GYP	GYP-SUM
HID	HIGH INTENSITY DISCHARGE
HT	HORSE POWER
HT	HEIGHT
HZ	HERTZ
IMC	INTERMEDIATE METALLIC CONDUIT
IN	INCH
ISC	SHORT CIRCUIT CURRENT (RMS SYMMETRICAL)
ISO	ISOLATED
J-BOX	JUNCTION BOX
KMIL	THOUSAND CIRCULAR MILLS
KVA	KILO VOLT AMP
KW	KILOWATT
LC	LIGHTING CONTROL PANEL
LV	LOW VOLTAGE
MCM	METALLIC CIRCULAR MILLS
MECH	MECHANICAL
MDP	MAIN DISTRIBUTION PANEL
MH	METAL HALIDE
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MPOE	MAIN POINT OF ENTRY
MSB	MAIN SWITCHBOARD
(N)	NEW
NIC	NOT IN CONTRACT
NIES	NOT IN ELECTRICAL SECTION OF THESE PLANS & SPECS.
NL	NIGHT LIGHT
NO #	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OC	OWNER FURNISHED, CONTRRACTOR INSTALLED
OCFI	OWNER FURNISHED, OWNER INSTALLED
P	POLE
PB	PULL BOX
PFB	PROVISION FOR FUTURE BREAKER W/ MOUNTING HARDWARE
PDZ	PRIMARY DAYLIT ZONE
PFCT	PROVISION FOR FUTURE CURRENT TRANSFORMER
PH, Ø	PHASE
PLYWD	PLYWOOD
PNL	PANEL
PR	PAIR
PVC	POLYVINYL CHLORIDE CONDUIT
(R)	RELOCATE / RELOCATED
REQ'D	REQUIRED
RM	ROOM
RMC	RIGID METAL CONDUIT
(RR)	REMOVE AND REPLACE
SDZ	SECONDARY DAYLIT ZONE
SKZ	SKYLIGHT DAYLIT ZONE
SPEC	SPECIFICATION
STC	SIGNAL TERMINAL CABINET
SQ	SQUARE
SW	SWITCH
TEL	TELEPHONE
TGB	TELECOMMUNICATIONS GROUNDING
TMGB	BUSBAR
TEL	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
TTB	TELEPHONE TERMINAL BOARD
TYP	TYPICAL
UC	UNDERGROUND
UCN	UNLESS OTHERWISE NOTED
V	VOLTS
WP	WEATHERPROOF
WT	WEIGHT
W	WATT
W/	WITH
XFRM	TRANSFORMER
&	AND

**GENERAL NOTES**

- PLANS ARE NOT FOR CONSTRUCTION UNTIL APPROVED BY THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL NOT ORDER ANY MATERIALS OR INSTALL ANY EQUIPMENT, PIPING, ETC. UNTIL PLANS ARE APPROVED BY THE AUTHORITY HAVING JURISDICTION.
- ALL WORK SHALL BE DONE AT SUCH TIME AND IN SUCH MANNER AS PRESCRIBED BY THE SCHOOL'S REPRESENTATIVE.
- PROTECT EXISTING EQUIPMENT AND FURNISHINGS FROM ANY DAMAGE DUE TO DUST, MOISTURE OR CONTACT WITH WORK CREW OR MATERIALS.
- THE SCHOOL SHALL BE NOTIFIED AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY POWER SHUTDOWN OF EXISTING PANELS OR SERVICE. SCHEDULE OF SHUTDOWNS SHALL BE AT CONVENIENCE OF THE SCHOOL. THE SCHOOL MAY, AT THEIR OPTION, HAVE A REPRESENTATIVE PRESENT DURING SHUTDOWN. ALL WORK REQUIRING SHUTDOWNS OF EXISTING PANELS OR SERVICE SHALL BE DONE BETWEEN 12:00 AM MIDNIGHT AND 6:00AM WEEKDAYS OR ON SATURDAY AND SUNDAY. REQUIRED SHUTDOWNS SHALL BE KEPT TO A MINIMUM.
- ADEQUATELY STRAP AND SUPPORT ALL CONDUIT WORK PER CEC. IN GENERAL, SUPPORT ALL CONDUIT WITHIN THREE FEET (3') OF OUTLET BOX, CABINET OR PANEL AND MAXIMUM TEN FEET (10') ON CENTER THEREAFTER.
- CORE BORE SHALL BE 1" DIAMETER LARGER THAN EACH CONDUIT. SPACE CONDUIT HOLES 3" APART. SEAL AROUND CONDUIT WITH NON-SHRINK, NON-METALLIC GROUT.
- ALL CONDUCTORS INSTALLED IN PANELBOARDS SHALL BE TRAINED, LACED, AND INSTALLED WITH PHASE TAPE ON ALL CONDUCTORS.
- LABEL DEVICES (I.E. RECEPTACLES, ETC.) ON EACH COVER PLATE IDENTIFYING CIRCUIT AND PANEL DEVICE IS CONNECTED TO.
- CLEAN ALL EXTERIOR AND INTERIOR SURFACES OF PANELS AND ALL MATERIAL AND METAL SHAVINGS FROM PANEL AND CABINET INTERIORS. ALL OPENINGS SHALL BE SEALED AND APPLY TOUCH-UP SPRAY PAINT WHERE NEEDED.
- FIELD COORDINATE DEVICE LOCATIONS PRIOR TO ROUGH-IN.
- CONTRACTOR WILL PROVIDE WARNING LABELS NOTING THE POTENTIAL FOR ELECTRIC ARC FLASH HAZARDS PER CEC 110.16. PROVIDE LABELS ON EQUIPMENT SUCH AS SWITCHBOARDS, SWITCHGEAR, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, MOTOR CONTROL CENTERS, MOTOR STARTER / CONTACTOR PANELS, DISCONNECTS, ETC.. PROVIDE WARNING LABELS BY BRADY, MODEL NO. 101517, OR EQUAL, ON ALL EQUIPMENT.
- INSTALLATION SHALL COMPLY WITH CEC 210.4 - EACH MULTIWIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES. THEREFORE ANY CIRCUIT SHARING A COMMON NEUTRAL SHALL BE CAPABLE OF SIMULTANEOUS DISCONNECT OR DEDICATED NEUTRALS SHALL BE INSTALLED.
- SUPPORT ENCLOSURES, BOXES AND CONDUIT INSTALLATIONS PER CEC 314.23 (A) THROUGH (H).
- SEAL CONDUIT OPENINGS THROUGH WALLS AND CEILINGS. INSTALL ESCUTCHEON PLATES AT BUILDING INTERIOR, WHERE EQUIPMENT IS INSTALLED ON THE EXTERIOR WALL, STUB CONDUITS THROUGH WALL AND SEAL CONDUIT OPENINGS. THEN INSTALL EXTERIOR EQUIPMENT. ALSO, SEAL AROUND THE PERIMETER EDGE OF THE EQUIPMENT ENCLOSURE BETWEEN THE ENCLOSURE AND BUILDING.
- CONDUITS INSTALLED ON ROOF AND BUILDING EXTERIOR SHALL BE RIGID GALV. STEEL (HEAVY WALL) WITH THREADED FITTINGS. CONDUIT AND WALL TO BE PAINTED OUT TO MATCH EXTERIOR FINISH.
- SPLICES AND TERMINALS SHALL BE COMPRESSION TYPE OF SEAMLESS PURE COPPER, TIN PLATED, LONG BARREL (TERMINALS WITH TWO-HOLE PAD AND INSPECTION WINDOW WITH NEMA DRILLING), AS MANUFACTURED BY BURNDY TYPE YS, YAZ-ZN OR EQUAL. CLEAN ALL SURFACES AND INSTALL WITH OXIDE INHIBITING COMPOUND, BURNDY PENETROX-E OR EQUAL. APPLY COMPOUND BETWEEN BUS AND LUG PAD AND BETWEEN CONDUCTOR AND LUG BARREL. INSTALL COMPRESSION CONNECTORS WITH 360° CIRCUMFERENTIAL COMPRESSION DYE, BURNDY HYPRESS OR EQUAL. THE INDENTER OR OTHER TYPE TOOLS WILL NOT BE ACCEPTABLE.
- INSTALL "MECHANICALLY FASTENED PHENOLIC NAMEPLATE WITH WHITE LETTERING ON BLACK BACKGROUND ON ALL EQUIPMENT, INCLUDING PULL BOXES, WITH DESCRIPTION INDICATED ON DRAWINGS. NAMEPLATES SHALL READ EXACTLY AS DESCRIBED ON THE DRAWINGS. IN GENERAL, NAMEPLATE LETTERING SIZE SHALL BE 3/16" HIGH FOR ALL NAMEPLATES SERVING FEEDER AND BRANCH CIRCUIT BREAKERS. ON MAIN SERVICE PANEL, DISTRIBUTION PANELS AND ALL OTHER NAMEPLATES LETTERING SHALL BE 1/4" HIGH.
- ALL SWITCHBOARDS, SWITCHGEAR, PANELBOARDS, VFD'S, MOTORS, JUNCTION BOXES, PULL BOXES, DISCONNECT SWITCHES, ETC., SHALL BE MARKED TO INDICATE EACH DEVICE OR EQUIPMENT WHERE THE POWER ORIGINATES PER CEC 408.4, FIELD IDENTIFICATION REQUIRED. (B) SOURCE OF SUPPLY.
- COORDINATE EQUIPMENT LOCATIONS, CONTROL AND POWER WIRING REQUIREMENTS AND CONNECT POINTS WITH ALL APPLICABLE DISCIPLINES.
- PROVIDE AND INSTALL FUSES PER UNIT NAMEPLATE DATA ON THE EQUIPMENT PROVIDED.
- A LAMINATED COPY OF THE FINAL RECORD ONE LINE DIAGRAM SHALL BE PLACED IN ELEC ROOM.
- PROVIDE WRING DEVICES AND COVER PLATES IN COLOR(S) SELECTED BY ARCHITECT. THE COLOR OF THE WRING DEVICE AND COVER PLATE SHALL BE THE SAME UNLESS SPECIFICALLY NOTED OTHERWISE.
- RECEPTACLE WEATHERPROOF COVERS SHALL BE LISTED "EXTRA DUTY", LOCKABLE, METAL, IN-USE TYPE.
- REINSTALL EXISTING ELECTRICAL INSTALLATIONS DISTURBED. CERTAIN EXISTING ELECTRICAL INSTALLATIONS MAY BE LOCATED IN WALLS, CEILINGS OR FLOORS THAT ARE TO BE REMOVED AND ARE ESSENTIAL FOR THE OPERATION OF OTHER REMAINING INSTALLATIONS. WHERE THIS CONDITIONS OCCURS, PROVIDE A NEW EXTENSION OF ORIGINAL CIRCUITS, RACEWAYS, EQUIPMENT AND OUTLETS TO RETAIN SERVICE CONTINUITY. INSTALLATIONS SHALL BE CONCEALED IN FINISHED AREAS.
- FOR ROOF PENETRATIONS, REFER TO ARCHITECTURAL PLANS FOR INSTALLATION REQUIREMENTS.
- FOR WALL PENETRATION INSTALLATIONS, REFER TO ARCHITECTURAL PLANS FOR REQUIREMENTS.
- PROVIDE "LOOK-ON" DEVICE FOR ALL CIRCUIT BREAKERS ON EMERGENCY DEDICATED CIRCUITS.
- DRAWINGS ARE TO BE CONSIDERED DIAGRAMMATIC. CONTRACTOR SHALL ACCEPT RESPONSIBILITY IN FAMILIARIZING THEMSELVES WITH ARCHITECTURAL AND STRUCTURAL CONDITIONS ALONG WITH INHERENT SPACE LIMITATIONS. WITH THAT UNDERSTANDING SHALL PROVIDE ALL ITEMS OF LABOR, MATERIALS AND TOOLS REQUIRED TO PROVIDE A COMPLETE INSTALLATION.
- MAINTAIN A MINIMUM OF 12" SEPARATION BETWEEN ANY CONDUIT AND (E) UTILITY CONDUIT.
- FOR INTERSECTING TRENCHED CONDUIT, MAINTAIN OR EXCEED THE MINIMUM CONDUIT DEPTH REQUIREMENTS.

**MEP COMPONENT ANCHORAGE NOTE**

ALL MECHANICAL, PLUMBING AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED AND BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30:

- ALL PERMANENT EQUIPMENT AND COMPONENTS.
- TEMPORARY, MOVEABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/20 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
- TEMPORARY, MOVEABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL, THAT DIRECTLY SUPPORTS THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

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

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

**PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE**

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8 AND 2019 CBC, SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., OSHPD OPM FOR 2019 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

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

MP  MD  PP  E  OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) \_\_\_\_\_

**SYMBOLS LIST**

- FUSED DISCONNECT SWITCH
- DUPLEX CONVENIENCE OUTLET
- DOUBLE DUPLEX CONVENIENCE OUTLET
- GROUND FAULT CIRCUIT INTERRUPTER DUPLEX OUTLET
- GROUND FAULT CIRCUIT INTERRUPTER DOUBLE DUPLEX OUTLET
- SPECIAL OUTLET TO MATCH CAP PROVIDED WITH MACHINE
- FLUSH FLOOR BOX OR "POKE-THRU" UNIT EQUIPPED WITH FLUSH OR PEDESTAL DUPLEX RECEPTACLE AND VOICE/DATA OUTLETS AS NOTED OR REFER TO SCHEDULE ON DRAWINGS.
- PLUGMOLD/WIREMOLD RECEPTACLE SYSTEM
- TRANSFORMER
- JUNCTION BOX, SIZE AS REQUIRED BY CODE
- FLEX CONNECTION TO FIXTURE
- PANELBOARD, RECESSED MOUNTED
- PANELBOARD, SURFACE MOUNTED
- MAIN SWITCHBOARD
- TERMINAL CABINET, RECESSED MOUNTED
- TERMINAL CABINET, SURFACE MOUNTED
- HOMERUN TO PANELBOARD OR RESPECTIVE TERMINAL
- CONDUIT RUN CONCEALED IN CEILING OR WALL, SEE SYMBOLS LIST NOTES
- CONDUIT RUN UNDERGROUND OR UNDER FLOOR
- EMERGENCY SYSTEM CONDUIT AND WIRES
- INSULATED GREEN GROUND CONDUCTOR
- INSULATED ISOLATED GROUND CONDUCTOR, GREEN WITH TRACER STRIPE
- CONDUIT RISER
- EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED
- WIREMOLD SURFACE RACEWAY(S) WITH OUTLETS AS SHOWN OR NOTED, SEE SURFACE RACEWAY SCHEDULE
- SYMBOLS REFERRING TO KEYED NOTES ON SAME SHEET
- MECHANICAL EQUIPMENT BY OTHERS, CONNECTED BY ELECTRICAL CONTRACTOR
- DETAIL DESIGNATION, "A-1" SIGNIFIES DETAIL, "E-1" SIGNIFIES SHEET NUMBER
- (1)1-1/2" ← INDICATES SIZE OF CONDUIT = ONE AND ONE HALF INCH CONDUIT
- ← NUMBER WITHIN PARENTHESIS INDICATES QUANTITY OF CONDUITS

**SYMBOLS LIST NOTES:**

- MOUNT SWITCH BOXES AT +48" TO TOP OF BOX UNLESS OTHERWISE NOTED.
- MOUNT OUTLET BOXES AT +15" TO BOTTOM OF BOX UNLESS OTHERWISE NOTED.
- "A" ADJACENT TO OUTLET INDICATES OUTLET BOX TO BE MOUNTED ABOVE COUNTER, COORDINATE WITH COUNTER HEIGHT AND DEPTH PRIOR TO ROUGH IN. MOUNT OUTLET ABOVE COUNTERS AT:
  - +48" MAX TO TOP OF BOX WHERE BOX IS INSTALLED OVER BASE CABINET.
  - +44" MAX TO TOP OF BOX WITH OPEN COUNTERS WITH FORWARD APPROACH.
- OUTLET BOXES SHALL BE:
  - WALL MOUNTED - 4" SQ. x 2-1/8" DEEP MINIMUM
  - CEILING MOUNTED - 4" SQ. OR 4" OCT. x 2-1/8" DEEP MINIMUM
- OUTLET BOXES REQUIRING 1-1/4", 1-1/2" OR 2" CONDUITS SHALL BE 4-11/16" x 3-1/4" DEEP MINIMUM.
- FLUSH MOUNTED OUTLET BOXES SHALL UTILIZE TRIM RINGS. COORDINATE TRIM RING DEPTH WITH WALL FINISH PRIOR TO ROUGH-IN.
- NO CROSSBARS ON CONDUIT RUN INDICATES MINIMUM 1" CONDUIT, TWO #10 CU CONDUCTORS PLUS #10 CU GND. CROSSBARS INDICATE NUMBER OF #10 CU CONDUCTORS IN CONDUIT. CONDUCTOR SIZES OTHER THAN #10 NOTED ON DRAWINGS. INCREASE CONDUIT SIZE AS REQUIRED TO ACCOMMODATE C.E.C. WIRE FILL REQUIREMENTS. INCLUDE ADDITIONAL BOND WIRE IN ALL PVC AND FLEXIBLE CONDUIT. LONG CROSSBAR INDICATES NEUTRAL CONDUCTOR, SHORT CROSSBARS INDICATE PHASE CONDUCTORS.
- INCREASE BRANCH CIRCUIT CU CONDUCTOR SIZES AS REQUIRED BY THE 120V BRANCH CIRCUIT VOLT DROP CONDUCTOR LENGTH CHART BELOW. USE CONDUCTOR LENGTHS AS FIELD MEASURED, BASED UPON MEASURED FIELD ROUTING LENGTHS. INCREASE MINIMUM CONDUIT SIZE AS REQUIRED TO ACCOMMODATE A MAXIMUM 40% CONDUCTOR FILL OF THE BRANCH CIRCUIT CONDUCTORS. WHERE NECESSARY, PROVIDE A JUNCTION BOX AT ACCESSIBLE CEILING SPACE, TO CONVERT THE LAST 15 FEET OF CONDUCTORS TO #10 AWG TO ACCOMMODATE TERMINATION OF CONDUCTORS AT WIRING DEVICES, LIGHTING FIXTURES, CIRCUIT BREAKER, ETC.
- INSTALL CU GROUND CONDUCTOR IN ALL BRANCH CIRCUITS FOR LIGHT FIXTURES AND POWER DEVICES.

**120V BRANCH CIRCUIT VOLT DROP CONDUCTOR LENGTH CHART**

LOAD IN VOLT AMPERES	LENGTH OF CONDUCTOR WIRE SIZE IN (GAUGE)			
	#12	#10	#8	#6
1200VA	74	121	183	284
1560VA	57	93	141	218
1800VA	49	81	122	189
1920VA	46	76	115	178
2340VA	X	62	94	146
2880VA	X	51	76	118
3000VA	X	48	73	114
3900VA	X	X	56	87
4800VA	X	X	46	71

- NOTES
- THIS CHART IS FOR COPPER CONDUCTORS ONLY.
  - THIS CHART ASSUMES AN 80% POWER FACTOR AND STEEL RACEWAYS.
  - 2019 CALIFORNIA ENERGY CODE, 130.5(c) ALLOWS A MAXIMUM COMBINED VOLTAGE DROP OF 5%. THIS CHART ASSUMES A MAXIMUM DROP OF 3% FOR FEEDERS. THIS CHART PROVIDES THE MAXIMUM LENGTH OF CONDUCTORS FOR LESS THAN 2% VOLTAGE DROP ON A BRANCH CIRCUIT AT GIVEN VA LOAD.
  - USE WIRE SIZE FROM THIS CHART UNLESS LARGER CONDUCTOR SIZES ARE NOTED ON THE DRAWINGS.
  - FOR VA VALUES NOT SHOWN USE NEXT HIGHEST VALUE FROM THE CHART

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17247  
Exp. 6/30/22  
STATE OF CALIFORNIA

PLOT DATE: 3/29/2022

SHADE STRUCTURE AT TAHOE  
ELEMENTARY SCHOOL

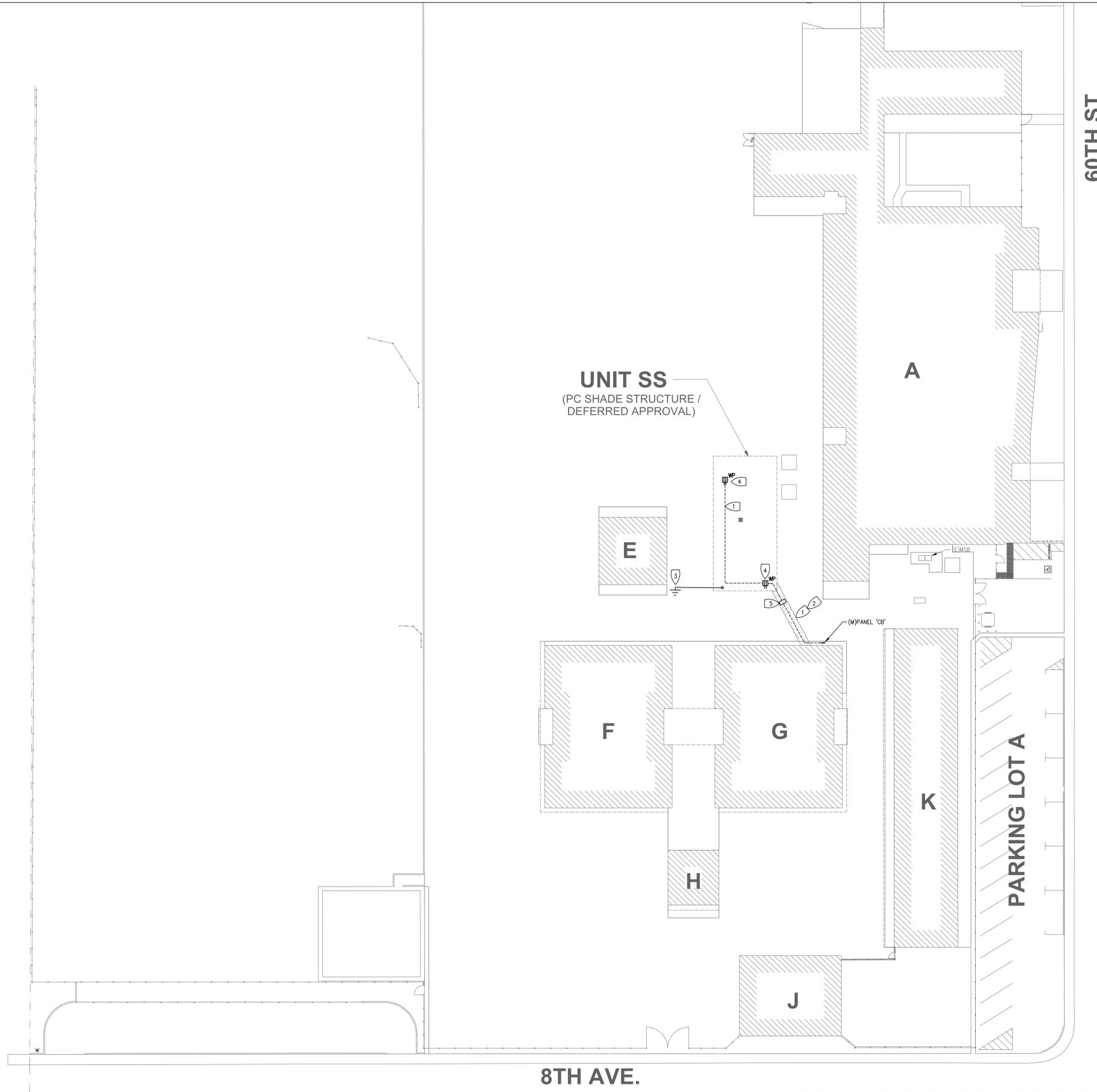
SACRAMENTO CITY UNIFIED SCHOOL DISTRICT  
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Revision

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**SYMBOLS, NOTES**

PROJECT NO. 21-1504.07  
DATE: 3/1/22  
SHEET

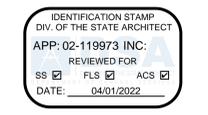


**SHEET NOTES:**

1. ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DRAWINGS AND LIMITED SITE SURVEYS, AND SHOWN FOR CLARITY ONLY.
2. SEE ONE LINE DIAGRAM AND PANEL SCHEDULE ON SHEET **E2.1** FOR REFERENCE.

**KEYED NOTES:**

- 1 PROVIDE TRENCH FOR 24 INCH MINIMUM COVER. LOCATE AND PROTECT (E) UTILITIES, I.E. IRRIGATION, SEWER, DRAINAGE PIPES, ETC. SAW CUT AND PATCH BACK (E) ASPHALT. PROVIDE SAND TO COVER CONDUIT TO SIX(6) INCHES, THEN ADD TRACER TAPE. COMPLETE BACKFILL TO GRADE WITH NATIVE SOIL. COMPACT IN SIX(6) LIFTS. FINISH TO MATCH EXISTING. SEE DETAIL **3/E3.1**.
- 2 DROP CONDUIT TO BELOW ASPHALT AND TRENCH TO SHADE LOCATION, INTERCEPTING THE CHRISTY BOX ALONG THE WAY. PAINT EXPOSED CONDUIT TO MATCH (E) FINISH.
- 3 PROVIDE AT MINIMUM TWO(2) GROUND RODS, EACH 5/8" BY TEN(10) FEET LONG, CU, AT LEAST TEN(10) FEET APART. BOND TO METAL OF SHADE STRUCTURE. SEE DETAIL **5/E3.1**.
- 4 LOCKABLE, WEATHERPROOF RECEPTACLE TO HAVE A TWO-GANG BACK BOX WITH 1" THREADED PORT(S). MOUNT RECEPTACLES 36" ABOVE GRADE UNLESS SPECIFIED OTHERWISE. SEE DETAIL **4/E3.1**.
- 5 PROVIDE CHRISTY B1324 PULL BOX WITHIN FIVE(5) FT OF SHADE STRUCTURE. CHRISTY BOX TO HAVE HOLD DOWN BOLTS AND BE LABELED FOR POWER. SEE DETAIL **2/E3.1**.



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PLOT DATE: 3/29/2022

**SHADE STRUCTURE AT TAHOE  
ELEMENTARY SCHOOL**  
  
**SACRAMENTO CITY UNIFIED SCHOOL DISTRICT  
SACRAMENTO, CA**

△ Revision

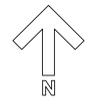
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**SITE PLAN -  
ELECTRICAL**

PROJECT NO. 21-1504.07  
DATE: 3/1/22  
SHEET

**E1.1**

**1 SITE PLAN - ELECTRICAL**  
SCALE: 1"=20'

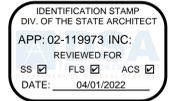


**SHEET NOTES:**

- ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DRAWINGS AND LIMITED SITE SURVEYS, AND SHOWN FOR CLARITY ONLY.

**KEYED NOTES:**

- MODIFIED PANEL SERVES EQUIPMENT BEING ADDED IN THIS PROJECT. SEE PANEL SCHEDULE ON THIS SHEET FOR REFERENCE.

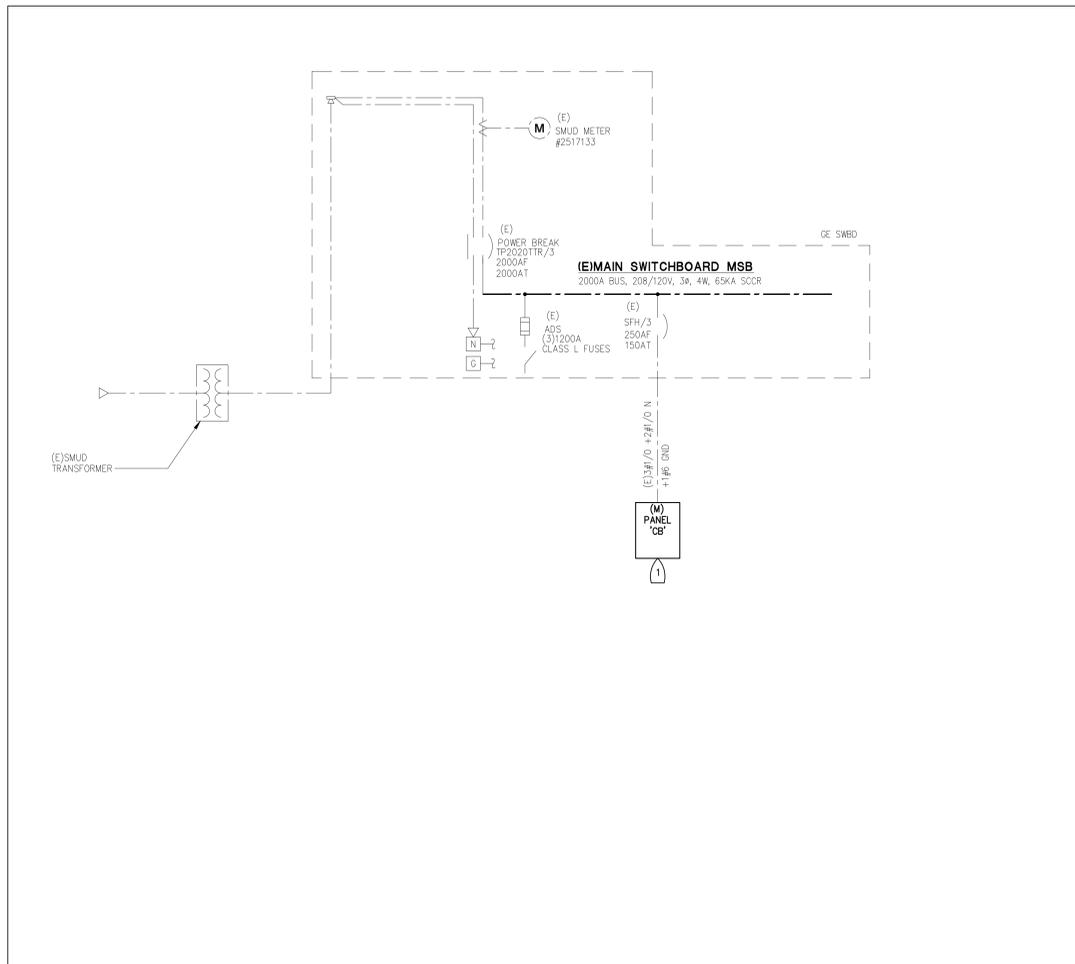


PLOT DATE: 3/29/2022

**SHADE STRUCTURE AT TAHOE ELEMENTARY SCHOOL**  
**SACRAMENTO CITY UNIFIED SCHOOL DISTRICT**  
**SACRAMENTO, CA**

MODIFIED												
PANEL:		MANF:	GE	MAIN:	150	SERVICE:	MOUNTING:	ENCLOSURE:	65K AIC			
TYPE:		AEF	BUS:	225 AMP	120/208 VOLT	SURFACE	WIDTH 20"	200% NEUT.				
FEEDER RATING:		150 AMP		3 Ø, 4W		DEPTH 5.81"						
AØ	BØ	CØ	DIRECTORY			BRKR	CKT	CKT	BRKR	DIRECTORY		
			SPARE	20/1	1	•	2	20/1	SPARE			
			SPARE	20/1	3	•	4	20/1	SPARE			
			SPARE	20/1	5	•	6	20/1	SPARE			
			SPARE	20/1	7	•	8	20/1	SPARE			
			SPARE	20/1	9	•	10	20/1	SPARE			
			SPARE	20/1	11	•	12	20/1	SPARE			
			SPARE	20/1	13	•	14	20/1	SPARE			
			SPARE	20/1	15	•	16	20/1	SPARE			
			SPARE	20/1	17	•	18	20/1	SPARE			
			SPARE	20/1	19	•	20	20/1	SPARE			
			SPARE	20/1	21	•	22	20/1	SPARE			
			SPARE	20/1	23	•	24	20/1	SPARE			
			SPARE	20/1	25	•	26	20/1	SPARE			
			SPARE	20/1	27	•	28	20/1	SPARE			
			SPARE	20/1	29	•	30	20/1	SPARE			
			SPARE	20/1	31	•	32	20/1	SPARE			
			SPARE	20/1	33	•	34	20/1	SPARE			
			SPARE	20/1	35	•	36	20/1	SPARE			
			SPARE	20/1	37	•	38	20/1	SPARE			
			SPARE	20/1	39	•	40	20/1	RECEPTS - SHADE STRUCT. [5]		360	
			SPARE	20/1	41	•	42	20/1	IDF - RM 12		1200	
NEW LOAD			DEMAND READINGS			PEAK DEMAND @ 125% + (N) LOAD			TOTAL DEMAND LOAD			
TOTAL PANEL VA			AMPS	AMPS	@125%	AMPS	VA					
AØ =	0 VA		0	0	0.0	0 A	0 VA				1560 VA	
BØ =	360 VA		3	0	0.0	3 A	360 VA				10.0 AMPS	
CØ =	1200 VA		10	0	0.0	10 A	1200 VA					

NOTES:  
 1. FEEDER CONDUCTORS CONSIST OF 3#1/0 + 2#1/0 NEUT + 1#6 GND CU  
 2. GENERAL ELECTRIC SPECTRA-SERIES MAIN BREAKER IS TYPE SFH, 3-POLE, 250AF, 150AT, I-MAX  
 3. BRANCH BREAKERS ARE GENERAL ELECTRIC TYPE TEV  
 4. PROVIDE TYPE-WRITTEN PANEL DIRECTORY  
 5. USE EXISTING SPARE 20 AMP, SINGLE-POLE BREAKER



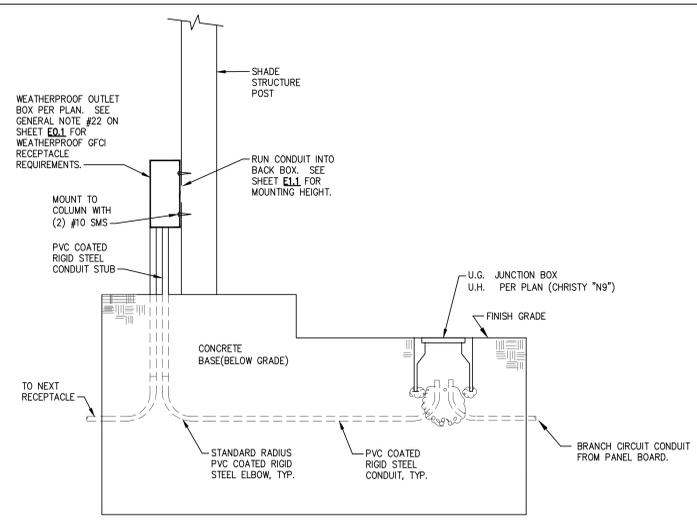
**1 ONE LINE DIAGRAM**  
SCALE: NONE

Voltage Drop Calculations Copper												
Job Name: Tahoe Elementary School - Shade Structure											Job #:	22.010
Date: 2/24/2022												
VOLTAGE:		120	PHASE:		3	POWER FACTOR:		80%	CONDUIT:		Steel	
FEEDER NUMBER	AMPS AT LOAD	KVA	VOLTS AT LOAD	DISTANCE FEET	DISTANCE TOTAL	WIRES/ PHASE	LOAD/ WIRE	WIRE SIZE	WIRE FACTOR	VOLTS DROP	PERCENT VOLT DROP	
RECEPT-1	3	0.4	119.74	44	44	1	3.00	10	1995	0.26	0.22%	
RECEPT-2	2	0.2	119.52	74	118	1	1.50	10	1995	0.48	0.40%	

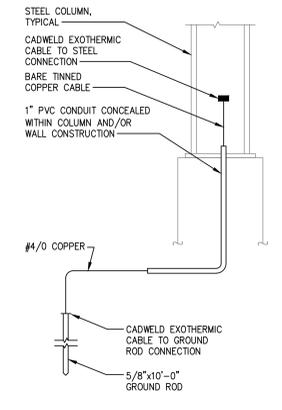
Revision

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**ONE LINE DIAGRAM**

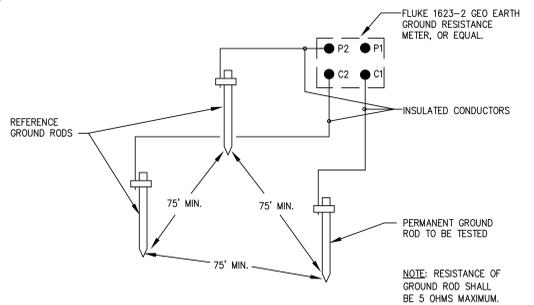


**4 CONDUIT STUB IN POST DETAIL**  
 SCALE: NONE



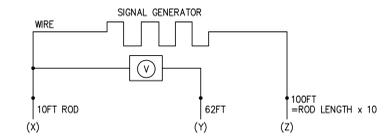
- NOTES:  
 1. ALL GROUNDING CONNECTIONS SHALL BE IN CONFORMANCE WITH N.E.C. ARTICLE 250.  
 2. FOR ALL ADDITIONAL REQUIREMENTS REFER TO SPEC SECTIONS 26 05 26.

**5 TYPICAL STEEL COLUMN & REBAR GROUNDING DETAIL**  
 SCALE: NONE



- FALL OF POTENTIAL TEST METHOD NOTES:  
 1. POWER EQUIPMENT OR SYSTEMS WITH CAPACITY OF 500KVA OR LESS: 10 OHMS.  
 2. POWER EQUIPMENT OR SYSTEMS WITH CAPACITY OF 500 TO 1000KVA: 5 OHMS.  
 3. POWER EQUIPMENT OR SYSTEMS WITH CAPACITY GREATER THAN 1000KVA: 3 OHMS.  
 4. POWER DISTRIBUTION UNITS OR PANELBOARDS SERVING ELECTRONIC I.T. EQUIPMENT: 3 OHMS.  
 5. MAN-HOLE GROUNDS: 10 OHMS.

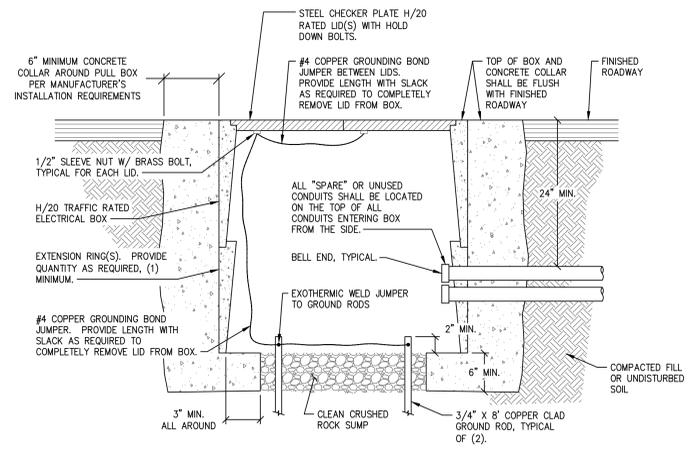
FALL OF POTENTIAL 3-POINT TEST:  
 GROUND ROD, I.E. 10 BY 10 RING, 14" DIAGONAL LENGTH ISOLATION FROM UTILITY NEUTRAL PROBE Z IS DRIVEN A DISTANCE OF 10 TIMES DIAGONAL LENGTH OF THE GROUNDING ROD SYSTEM (ROD X). A SECOND PROBE (Y) IS PLACED IN LINE AT A DISTANCE FROM ROD X EQUAL TO THE DIAGONAL LENGTH OF THE GROUNDING SYSTEM.



AT THIS POINT, A KNOWN CURRENT IS APPLIED ACROSS X & Z, WHILE THE RESULTING VOLTAGE IS MEASURED ACROSS X & Y. OHMS LAW APPLIED  $R=V/I$ . THEN (Y) MOVED TO 2 TIMES THE DIAGONAL LENGTH, THEN MOVE OUT TO 3 TIMES(3X), 4X, ... 9X THE DIAGONAL LENGTH TO COMPLETE THE 3 POINT TEST WITH A TOTAL OF NINE RESISTANCE MEASUREMENTS.

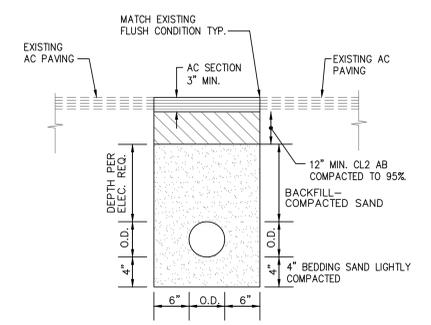
**6 METHOD OF TESTING GROUND RODS DETAIL**  
 SCALE: NONE

**1 DETAIL REMOVED**  
 SCALE: NONE



- NOTES:  
 1. PROVIDE H/20 TRAFFIC RATED BOXES IN ALL LOCATIONS WITH VEHICLE TRAFFIC  
 2. CONTRACTOR SHALL PROVIDE THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR H/20 TRAFFIC RATING REQUIREMENTS AS PART OF THE SUBMITTALS.

**2 TYPICAL H/20 TRAFFIC RATED PULL BOX**  
 SCALE: NONE

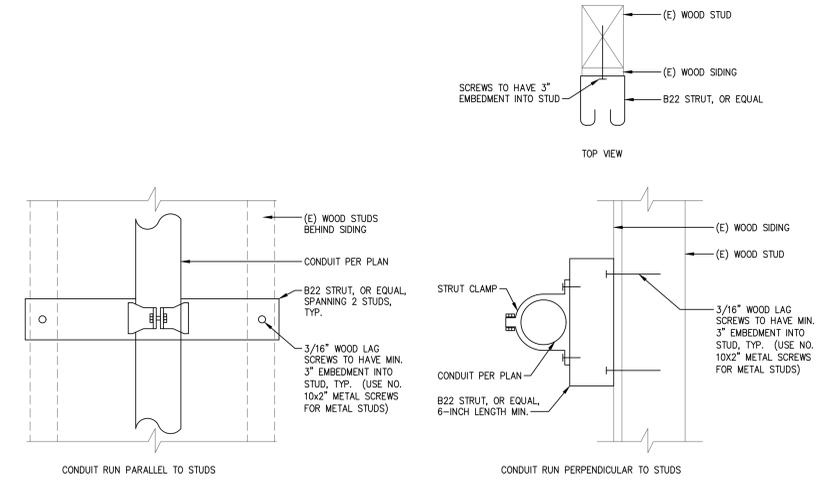


**3 TYPICAL TRENCH DETAIL**  
 SCALE: NONE

Revision

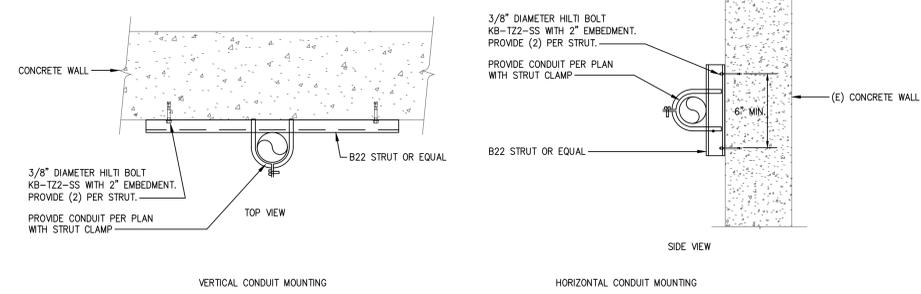
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DETAILS



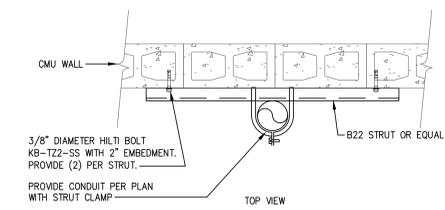
- NOTES:
1. CONDUIT SHALL BE SUPPORTED AT INTERVALS NOT EXCEEDING TEN(10) FEET AND NOT MORE THAN THREE(3) FEET FROM THE OUTLET AND AT ANY POINT WHERE IT CHANGES DIRECTION.
  2. PERFORATED STRAP AND PLUMBER'S TAPE SHALL NOT BE PERMITTED.
  3. MAXIMUM CONDUIT AND CONDUCTOR WEIGHT IS 1.83LBS PER LINEAR FOOT.

1 CONDUIT MOUNTING DETAIL - STUD WALLS  
 SCALE: NONE



- NOTES:
1. CONDUIT SHALL BE SUPPORTED AT INTERVALS NOT EXCEEDING TEN(10) FEET AND NOT MORE THAN THREE(3) FEET FROM THE OUTLET AND AT ANY POINT WHERE IT CHANGES DIRECTION.
  2. PERFORATED STRAP AND PLUMBER'S TAPE SHALL NOT BE PERMITTED.
  3. MAXIMUM CONDUIT AND CONDUCTOR WEIGHT IS 1.83LBS PER LINEAR FOOT.

2 CONDUIT MOUNTING DETAIL - CONCRETE WALLS  
 SCALE: NONE



- NOTES:
1. CONDUIT SHALL BE SUPPORTED AT INTERVALS NOT EXCEEDING TEN(10) FEET AND NOT MORE THAN THREE(3) FEET FROM THE OUTLET AND AT ANY POINT WHERE IT CHANGES DIRECTION.
  2. PERFORATED STRAP AND PLUMBER'S TAPE SHALL NOT BE PERMITTED.
  3. MAXIMUM CONDUIT AND CONDUCTOR WEIGHT IS 1.83LBS PER LINEAR FOOT.

3 CONDUIT MOUNTING DETAIL - CMU WALLS  
 SCALE: NONE

Revision

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DETAILS

DESIGN CRITERIA table with columns for DESCRIPTION and DESIGN VALUES. Includes sections for DEAD AND LIVE LOADS, ROOF SNOW LOAD, GROUND SNOW LOAD, WIND DESIGN, SEISMIC DESIGN, and DESIGN SPECTRAL RESPONSE ACCELERATION.

GENERAL:

- 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... 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...

STRUCTURAL AND MISCELLANEOUS STEEL:

- ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERRECTED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATION MANUAL REFERENCED BY THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE... 1. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERRECTED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATION MANUAL...

WELDING:

- 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... 1. ALL WELDING SHALL COMPLY WITH AWS D1.1 SPECIFICATIONS AND SHALL BE DONE BY AWS QUALIFIED WELDERS...

BOLTING:

- ALL BOLTS SHOWN ON THESE DRAWINGS ARE ASTM F3125 GRADE A325 HIGH STRENGTH BOLTS (UNO), WITH THE NUTS CONFORMING TO ASTM A-563... 1. ALL BOLTS SHOWN ON THESE DRAWINGS ARE ASTM F3125 GRADE A325 HIGH STRENGTH BOLTS (UNO), WITH THE NUTS CONFORMING TO ASTM A-563...

FOUNDATIONS:

- ALLOWABLE SOIL PRESSURES ASSUME CLASS 5 SOIL CLASSIFICATION PER CBC TABLE 1806A, UNLESS NOTED OTHERWISE... 1. ALLOWABLE SOIL PRESSURES ASSUME CLASS 5 SOIL CLASSIFICATION PER CBC TABLE 1806A, UNLESS NOTED OTHERWISE...

FOUNDATIONS:

- 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... 1. 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...

Table with columns: STRENGTH Fc (28 DAYS), W/C RATIO (NON-AIR ENTRAINED), W/C RATIO (AIR ENTRAINED), SLUMP (1"), UNIT WEIGHT (NORMAL WEIGHT). Values: 4500 PSI, 0.44, 0.35, 3", 150 PCF.

- 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... 1. 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...

STEP 10: IDENTIFY PROJECT NAME AND SCHOOL DISTRICT

Form with fields for PROJECT NAME and SCHOOL DISTRICT.

Table for STEP 1: FRAME DIMENSIONS. Columns: FRAME WIDTH, FRAME LENGTH. Values: 20', 30', 40', 44', 64', 84', 104'. Includes checkboxes for suggested and other options.

Table for STEP 2: ROOF PANEL. Columns: ROOF PANEL TYPE. Values: M, G, S.

Table for STEP 3: PROJECT SITE - Ss ACCELERATION (g). Value: 0.642.

Table for STEP 4: Ss REGION. Columns: Ss REGION, MAX DEAD LOAD. Values: X, 0 < Ss <= 2.14 (5 PSF), 2.14 < Ss <= 2.50 (5 PSF), 2.50 < Ss <= 2.75 (5 PSF), 2.75 < Ss <= 3.00 (4 PSF), Ss > 3.73 MAX (3 PSF).

Table for STEP 5: TOTAL ROOF DEAD LOAD. Columns: DEAD LOAD, EXAMPLES. Values: 1.1 PSF, 0 PSF, 1.1 PSF. Includes notes on roof deck, collaterals, and lighting.

CONSTRUCTION NOTES

- A DSA-CERTIFIED CLASS 3 PROJECT INSPECTOR IS REQUIRED FOR THIS PROJECT... 1. A DSA-CERTIFIED CLASS 3 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...

REINFORCING STEEL:

- REINFORCING STEEL SHALL BE DEFORMED STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A-615, AS FOLLOWS... 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)...

- ALL BUILDINGS THAT HAVE A POWDER-COATED FINISH SHALL MEET THE FOLLOWING SPECIFICATIONS... 1. THE STEEL FRAME 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 ANTIMINE EIGHT STAGE ELECTRO DEPOSITION PRE-TREATMENT PROCESS...

Table with columns: ABBREVIATIONS, ACI, AISC, ASM, ASTM, AWS, CBC, C/P, CLR, DEG, DIA, DIM, DSA, EQ, FT, GA, IN, KSI, MAX, MN, MISC. Lists various codes and their meanings.

APPROVED DIV. OF THE STATE ARCHITECT APP:04-120013 PC REVIEWED FOR SS FLS ACS CG DATE: 08/06/2021

Table for STRUCTURAL SEPARATION. Columns: ALL DEFLECTIONS SHOWN ALSO INCLUDE THE P-Delta ROTATION PER IRC P-7, DEFLECTIONS ARE FOR (1) STRUCTURE SOIL CLASSIFICATION TABLE 1806.2. Includes sub-tables for SIDE COLUMNS, CORNER COLUMNS, and END COLUMNS.

Table for ARCHITECTURAL REQUIREMENTS. Columns: DESCRIPTION, DESIGN VAULES. Includes rows for TYPE OF CONSTRUCTION, OCCUPANCY CLASSIFICATION, NUMBER OF STORES, FIRE SPRINKLER SYSTEM.

RELATED BUILDING CODES AND STANDARDS

- TITLE 24 CODES: 2019 CALIFORNIA ADMINISTRATIVE CODE (CAC).....(PART 1, TITLE 24, CCR) 2019 CALIFORNIA BUILDING CODE (CBC), VOLUMES 1, AND 2.(PART 2, TITLE 24, CCR) 2019 CALIFORNIA ELECTRICAL CODE.....(PART 3, TITLE 24, CCR) 2019 CALIFORNIA MECHANICAL CODE (CMC).....(PART 4, TITLE 24, CCR) 2019 CALIFORNIA PLUMBING CODE (CPC).....(PART 5, TITLE 24, CCR) 2019 CALIFORNIA ENERGY CODE.....(PART 6, TITLE 24, CCR) 2019 CALIFORNIA FIRE CODE (CFC) .....(PART 9, TITLE 24, CCR) 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE.....(PART 11, TITLE 24, CCR) 2019 CALIFORNIA REFERENCE STANDARDS CODE.....(PART 12, TITLE 24, CCR)

REFERENCE CODE SECTIONS FOR APPLICABLE STANDARDS: 2019 CBC, CHAPTER 35 2019 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.

NOTICE OF DISCLAIMER FOR STRUCTURAL ENGINEERING RESPONSIBILITY

- 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... 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.

Professional Engineer seal for J.R. Miller, State of California, License No. 47293. Includes logo for JRMA ARCHITECTS ENGINEERS.

GENERAL INFO section with contact information for Shelter Systems Inc. 1455 LINCOLN AVE HOLLAND MI, 49423. Phone: 616.396.0919. Website: www.sheltersystems.com.

PRE-CHECK (PC) DOCUMENT Code: 2019 CBC A separate project application for construction is required.

LS1.0

2019 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.

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

KEY TO COLUMNS

Table with 2 columns: 1. TYPE, 2. PERFORMED BY. Rows include Continuous, Periodic, and Test inspection types and their corresponding professional roles.

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2019 CBC

Table 1705A.6: 7. CAST-IN-PLACE CONCRETE. Columns: Test or Special Inspection, Type, Performed By, Code References and Notes.

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC

Table 1705A.3.1: 23. ANCHOR BOLTS AND ANCHOR RODS. Columns: Test or Special Inspection, Type, Performed By, Code References and Notes.

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2019 CBC

Geotechnical Reports: Project has a geotechnical report, or CDs indicate soils special inspection is required by CE

Table 1705A.6: 1. GENERAL. Columns: Test or Special Inspection, Type, Performed By, Code References and Notes.

Table 1705A.6: 2. SOIL COMPACTION AND FILL. Columns: Test or Special Inspection, Type, Performed By, Code References and Notes.

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Concrete), 2019 CBC

Table 1705A.3: 17. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSE. Columns: Test or Special Inspection, Type, Performed By, Code References and Notes.

Table 1705A.3: 18. HIGH-STRENGTH BOLTS: RCSC 2. Columns: Test or Special Inspection, Type, Performed By, Code References and Notes.

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SIGNATURE), 2019 CBC

Signature fields for Architect or Engineer in general responsible charge, Name of Structural Engineer, and Signature of Architect or Structural Engineer.

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



DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2019 CBC

Table 1705A.6: 4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS). Columns: Test or Special Inspection, Type, Performed By, Code References and Notes.

Table 1705A.6: 4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS). Columns: Test or Special Inspection, Type, Performed By, Code References and Notes.

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Concrete), 2019 CBC

Table 1705A.2.1: 19. WELDI. Columns: Test or Special Inspection, Type, Performed By, Code References and Notes.

Table 1705A.2.5: 19. WELDI. Columns: Test or Special Inspection, Type, Performed By, Code References and Notes.

DSA 103-19: LIST OF REQUIRED VERIFIED REPORTS, CBC 2019

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

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2019 CBC

Table 1705A.6: 5. RETAINING WALLS. Columns: Test or Special Inspection, Type, Performed By, Code References and Notes.

Table 1705A.6: 6. OTHER SOIL. Columns: Test or Special Inspection, Type, Performed By, Code References and Notes.

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Concrete), 2019 CBC

Table 1705A.3: 19.1 SHOP WELDING. Columns: Test or Special Inspection, Type, Performed By, Code References and Notes.

Table 1705A.3: 23. ANCHOR BOLTS AND ANCHOR RODS. Columns: Test or Special Inspection, Type, Performed By, Code References and Notes.

ICONS STD: RH/DSA-PC
DRAWN BY: ANGEL
DATE: 4/2/2021
REV:
REV DATE:



APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-120013 PC
REVIEWED FOR
SS [x] FLS [x] ACS [x] CG [x]
DATE: 08/06/2021

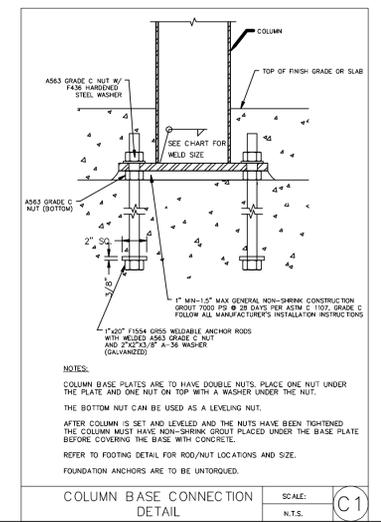
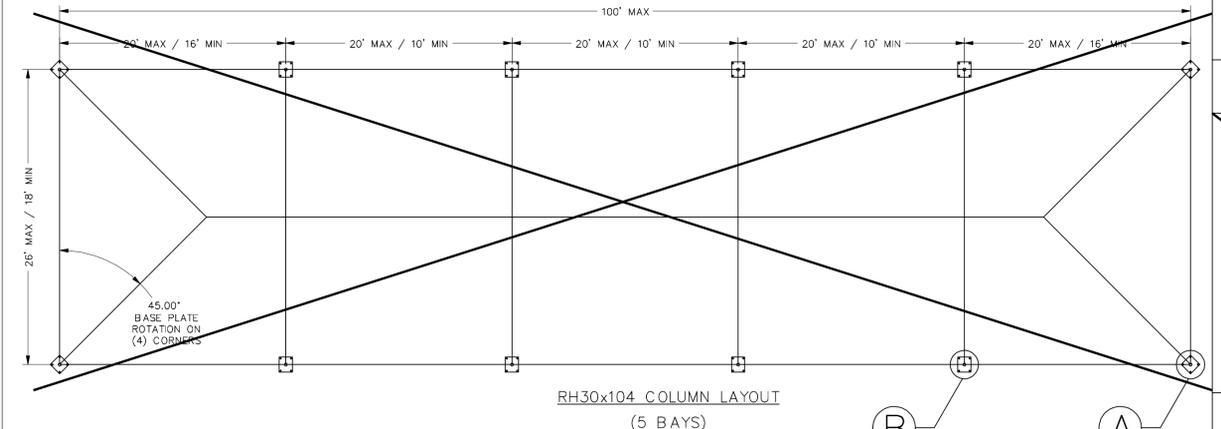
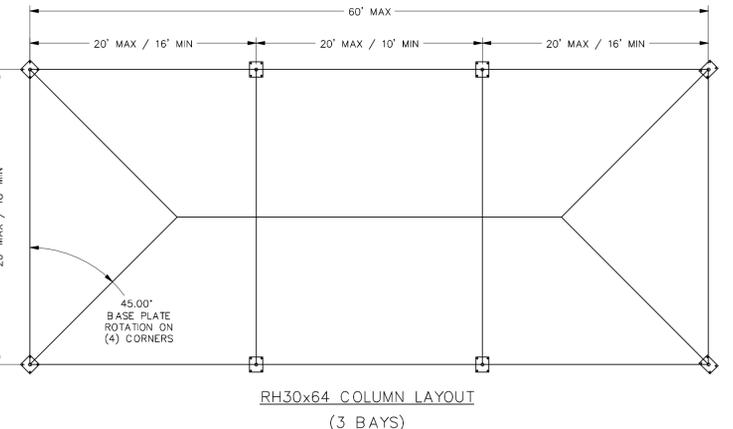
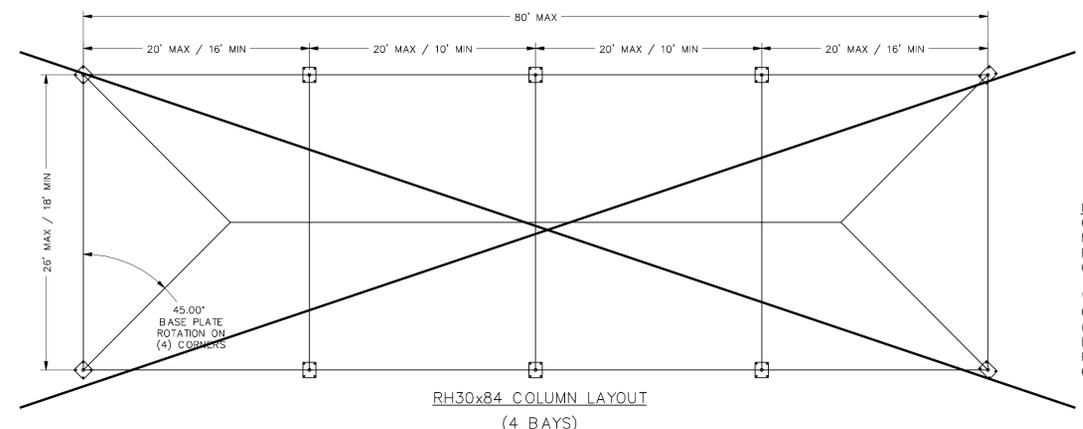
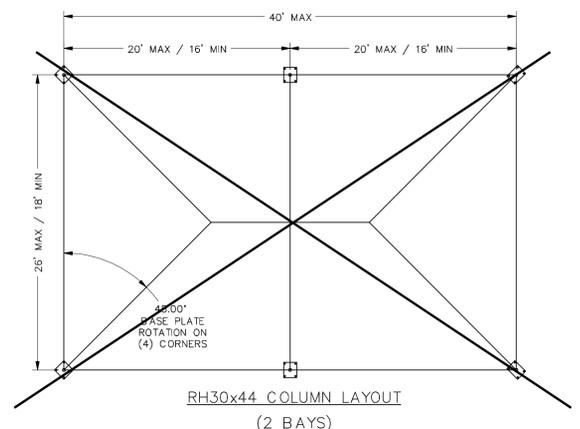
DSA 103



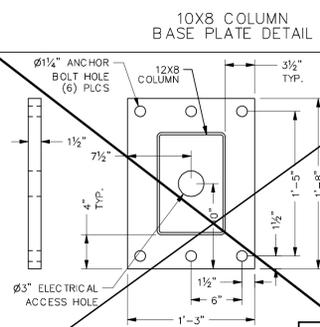
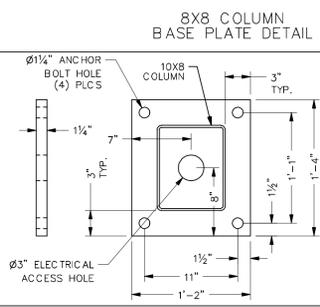
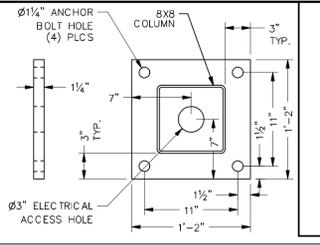
1455 LINCOLN AVE
HOLLAND MI, 49423
616.396.0919
800.748.0985
616.396.0944 FX

LS1.1

PRE-CHECK (PC) DOCUMENT
Code: 2019 CBC
A separate project application for construction is required.



BASE PLATE LOCATION	
DETAIL A	DETAIL B
8'	BP1
10'	BP1
12'	BP2



**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

ICON STD	RH/DSA-PC
DRAWN BY	ANGEL
DATE	4/2/2021
REV	
REV DATE	

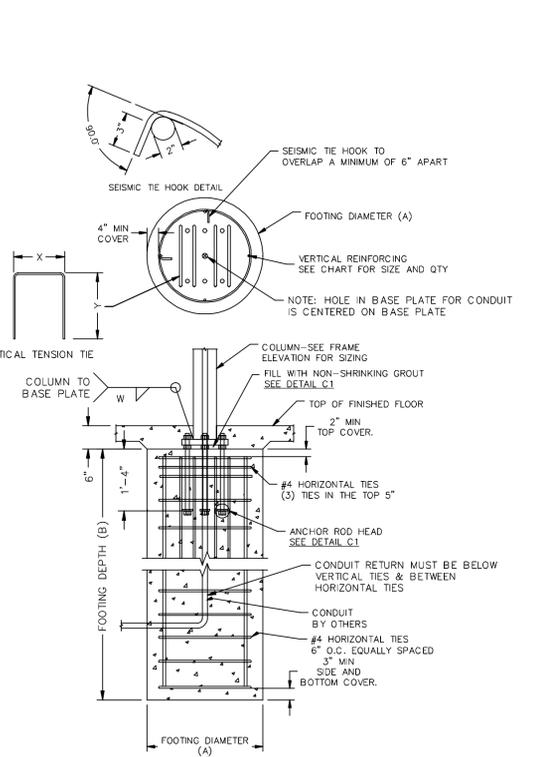
**JRMA ARCHITECTS ENGINEERS**  
 2700 SATURN ST IRRGA, CA 92621  
 T. 714.524.1870 F. 714.524.1875  
 WWW.JRMA.COM

**REGISTERED PROFESSIONAL ENGINEER**  
 ANGELO D. FORNARI  
 LICENSE NO. 5000  
 STATE OF CALIFORNIA  
 4/7/29/2021

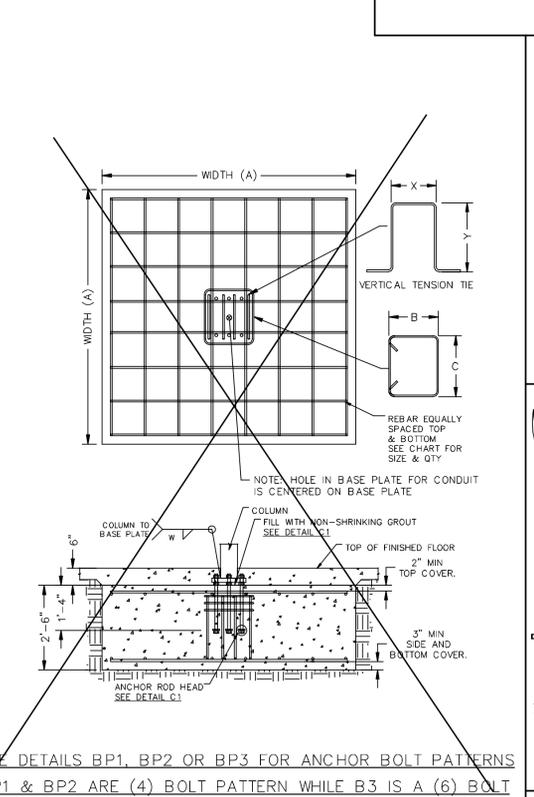
APPROVED  
 DIV. OF THE STATE ARCHITECT  
 APP-04-120013 PC  
 REVIEWED FOR  
 SS  FLS  ACS  CG   
 DATE: 08/06/2021

### 30' WIDE RECTANGULAR HIP

RH30 - PIER				
8' height - Corner Columns				
Soil Class	Vertical Rebar Qty	Vertical Rebar Size	Rebar Size	Weld
Soil Class 5 - 1500 psf Bearing	24	114	6	6
Soil Class 4 - 2000 psf Bearing	24	98	6	6
Soil Class 3 - 3000 psf Bearing	24	92	6	6
8' height - Side Columns				
Soil Class 5 - 1500 psf Bearing	36	144	12	6
Soil Class 4 - 2000 psf Bearing	30	132	8	6
Soil Class 3 - 3000 psf Bearing	30	118	8	6
10' height - Corner Columns				
Soil Class 5 - 1500 psf Bearing	24	120	6	6
Soil Class 4 - 2000 psf Bearing	24	102	6	6
Soil Class 3 - 3000 psf Bearing	24	92	6	6
10' height - Side Columns				
Soil Class 5 - 1500 psf Bearing	36	136	12	6
Soil Class 4 - 2000 psf Bearing	30	124	8	6
Soil Class 3 - 3000 psf Bearing	30	112	8	6
12' height - Corner Columns				
Soil Class 5 - 1500 psf Bearing	30	132	8	6
Soil Class 4 - 2000 psf Bearing	30	112	8	6
Soil Class 3 - 3000 psf Bearing	30	102	8	6
12' height - Side Columns				
Soil Class 5 - 1500 psf Bearing	36	140	12	6
Soil Class 4 - 2000 psf Bearing	36	120	12	6
Soil Class 3 - 3000 psf Bearing	36	108	12	6



RH30 - SPREAD												
8' height - Corner Columns												
Soil Class	Depth (in)	T&B Qty	T&B Size	Rebar Qty	Rebar Size	X (in)	Y (in)	B (in)	C (in)	Rebar Size	Fillet Weld "W"	Weld
Soil Class 5 - 1500 psf Bearing	60	30	4	6	6	14	40	5	17.3	5	1/4	
Soil Class 4 - 2000 psf Bearing	56	30	4	6	6	14	40	5	17.3	5	1/4	
Soil Class 3 - 3000 psf Bearing	54	30	4	6	6	14	40	5	17.3	5	1/4	
8' height - Side Columns												
Soil Class 5 - 1500 psf Bearing	80	30	5	6	6	16	40	5	15.6	5	1/4	
Soil Class 4 - 2000 psf Bearing	72	30	5	6	6	16	40	5	15.6	5	1/4	
Soil Class 3 - 3000 psf Bearing	68	30	5	6	6	16	40	5	15.6	5	1/4	
10' height - Corner Columns												
Soil Class 5 - 1500 psf Bearing	66	30	5	6	6	14	40	5	17.3	5	1/4	
Soil Class 4 - 2000 psf Bearing	60	30	4	6	6	14	40	5	17.3	5	1/4	
Soil Class 3 - 3000 psf Bearing	57	30	4	6	6	14	40	5	17.3	5	1/4	
10' height - Side Columns												
Soil Class 5 - 1500 psf Bearing	81	30	5	6	6	16	40	5	15.6	5	1/4	
Soil Class 4 - 2000 psf Bearing	72	30	5	6	6	16	40	5	15.6	5	1/4	
Soil Class 3 - 3000 psf Bearing	69	30	5	6	6	16	40	5	15.6	5	1/4	
12' height - Corner Columns												
Soil Class 5 - 1500 psf Bearing	78	30	5	6	6	16	40	5	16.6	5	5/16	
Soil Class 4 - 2000 psf Bearing	72	30	5	6	6	16	40	5	16.6	5	5/16	
Soil Class 3 - 3000 psf Bearing	72	30	5	6	6	16	40	5	16.6	5	5/16	
12' height - Side Columns												
Soil Class 5 - 1500 psf Bearing	84	30	6	6	6	20	40	5	16.6	5	1/4	
Soil Class 4 - 2000 psf Bearing	75	30	5	6	6	20	40	5	16.6	5	1/4	
Soil Class 3 - 3000 psf Bearing	75	30	5	6	6	20	40	5	16.6	5	1/4	



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

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

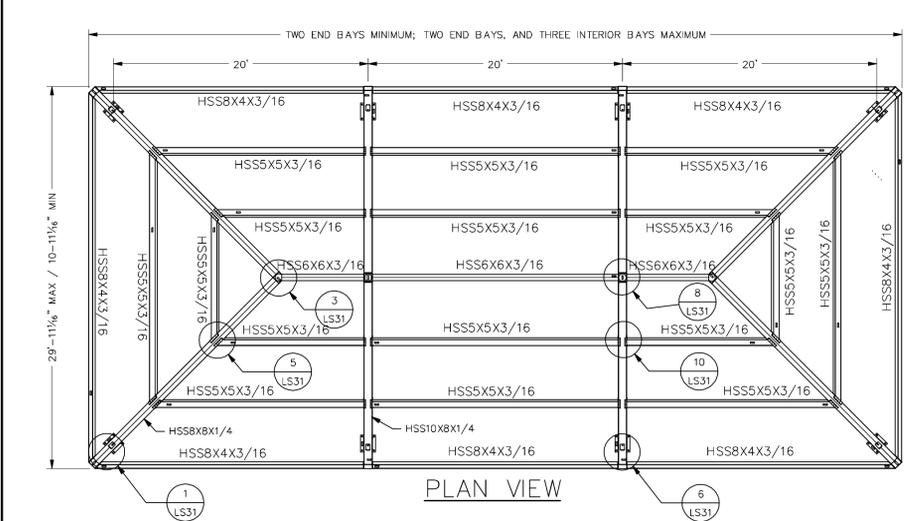
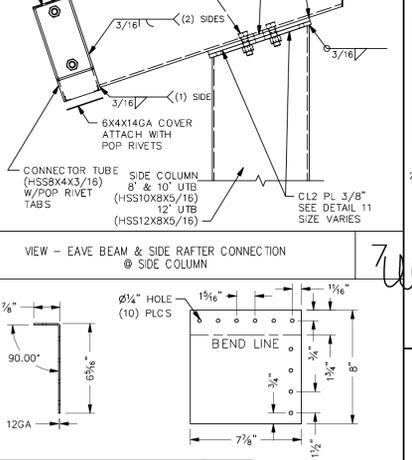
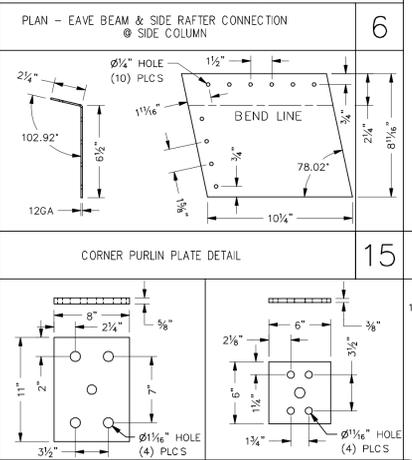
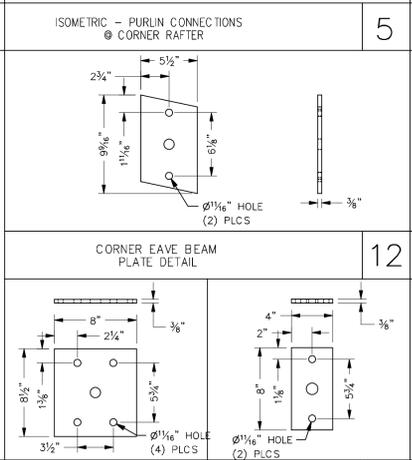
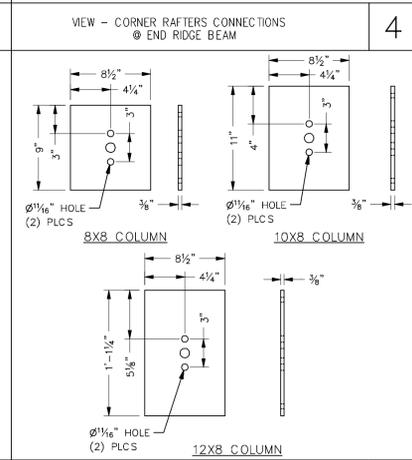
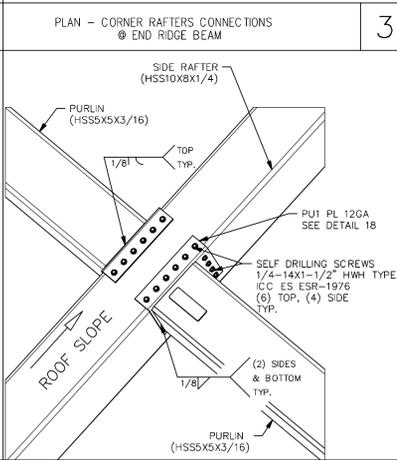
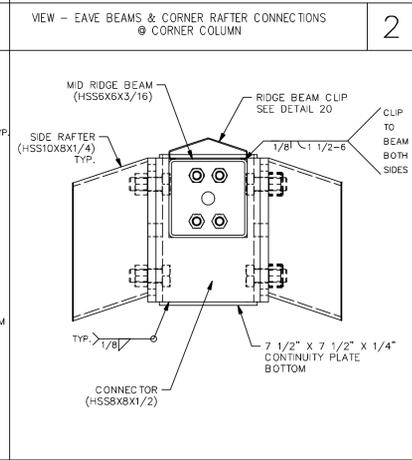
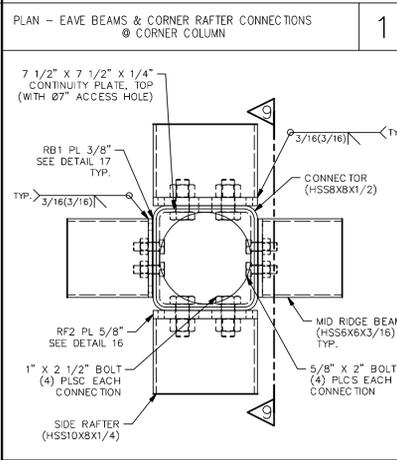
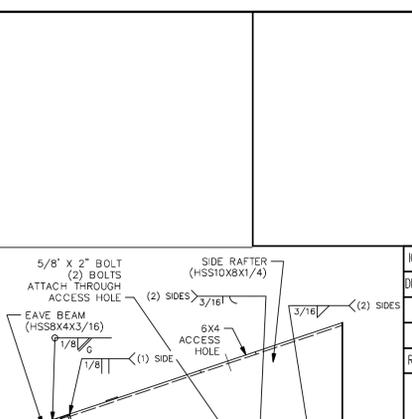
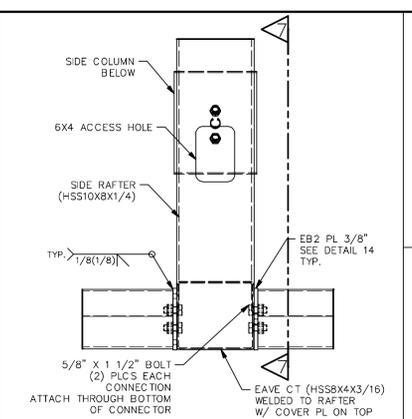
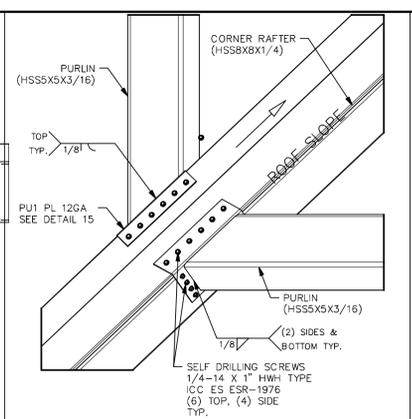
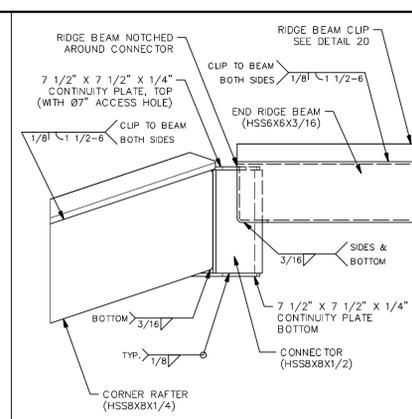
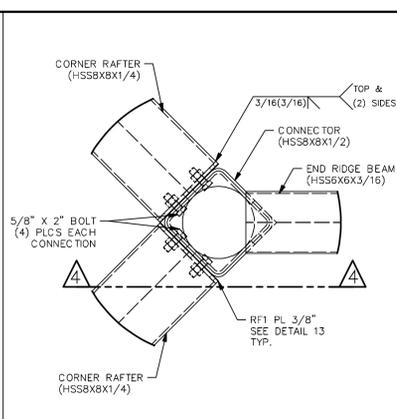
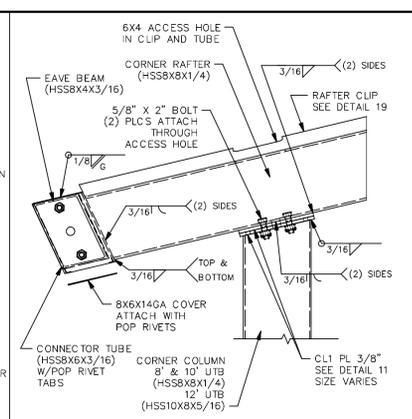
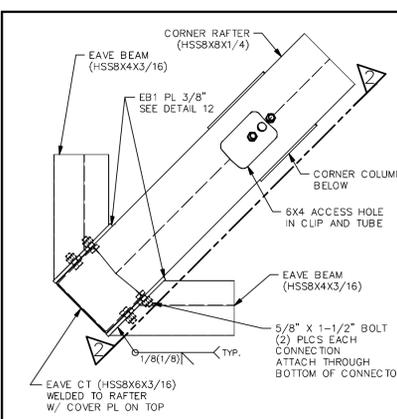
PRE-CHECK (PC) DOCUMENT  
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30' WIDE RECTANGULAR HIP FOUNDATION PLAN

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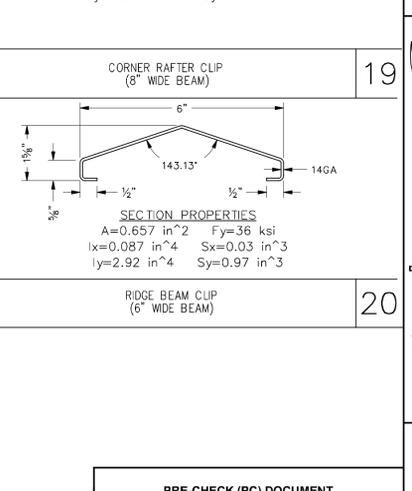
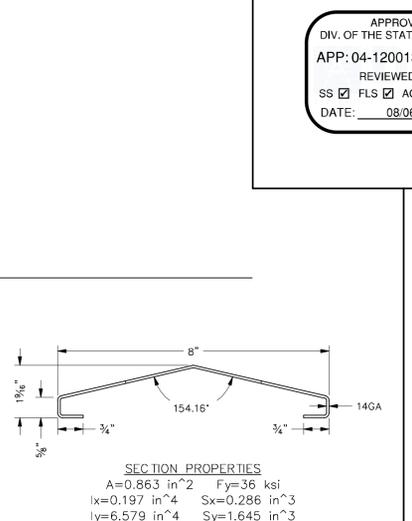
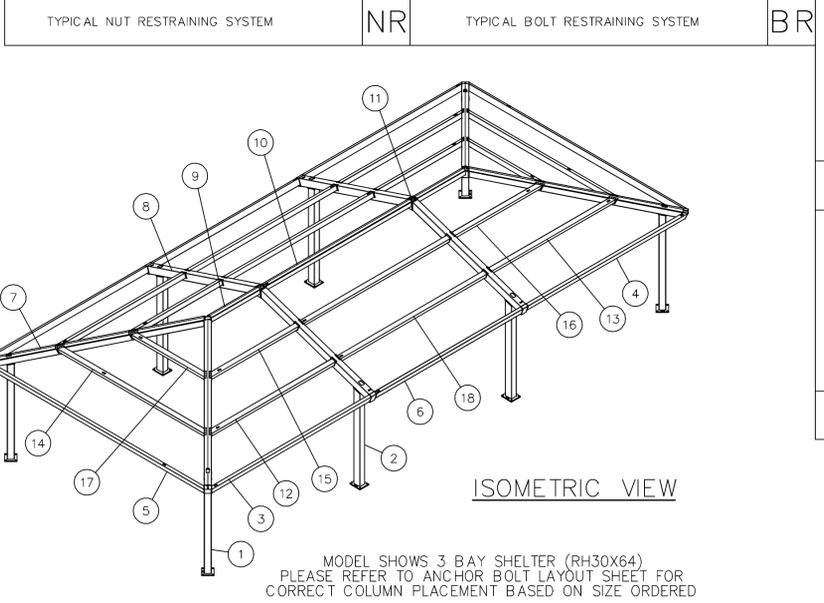
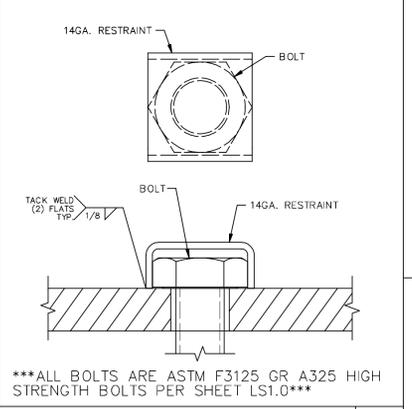
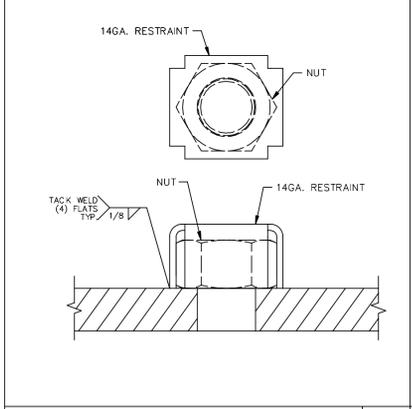
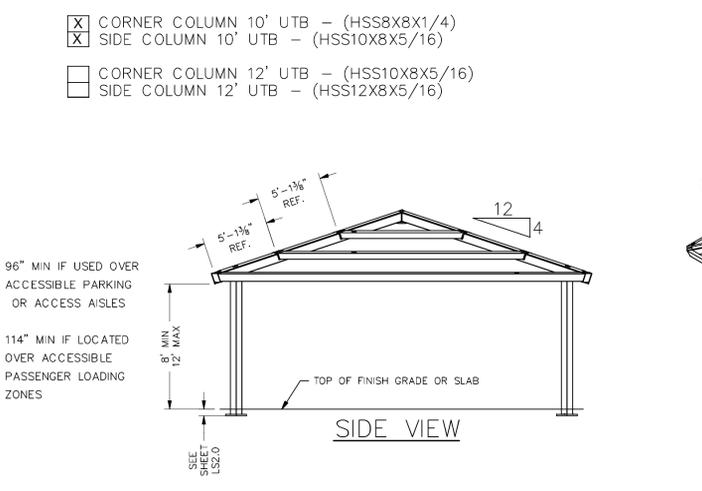
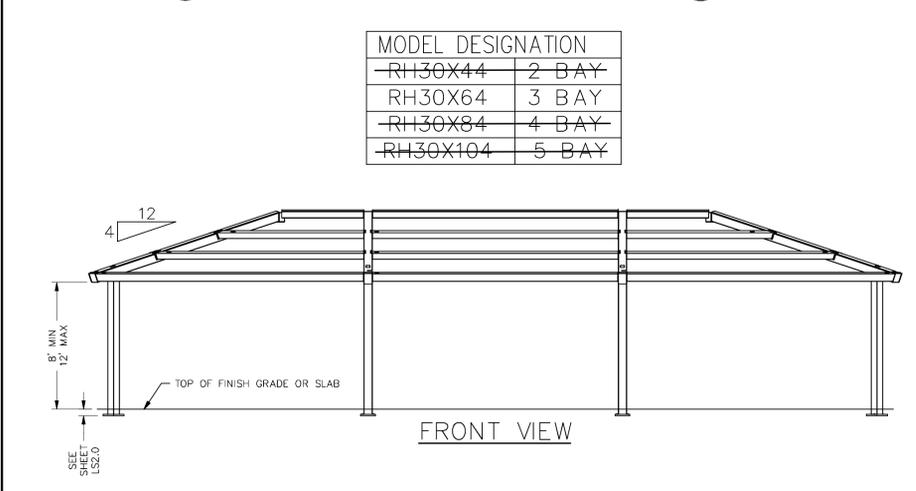


**\*NOTE:**  
QUANTITIES WILL VARY DEPENDING ON SHELTER SIZE ORDERED, PLEASE REFER TO JOB SPECIFIC BILL OF MATERIALS AND INSTALLATION MANUAL.

ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL	LENGTH	UNIT WEIGHT
1	4		CORNER COLUMN	**SEE NOTE BELOW		353 lbmass
2	*		SIDE COLUMN	**SEE NOTE BELOW		399 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	*		SIDE RAFTER	HSS10X8X1/4		474 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	2		LH SIDE PURLIN 1	HSS5X5X3/16		238 lbmass
13	2		RH SIDE PURLIN 1	HSS5X5X3/16		238 lbmass
14	2		END PURLIN 1	HSS5X5X3/16		278 lbmass
15	2		LH SIDE PURLIN 2	HSS5X5X3/16		167 lbmass
16	2		RH SIDE PURLIN 2	HSS5X5X3/16		167 lbmass
17	2		END PURLIN 2	HSS5X5X3/16		137 lbmass
18	*		MID PURLIN	HSS5X5X3/16		284 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)



ICON STD RH/DSA-PC
DRAWN BY ANGEL

DATE 4/2/2021
REV

REV DATE

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2700 SATURN ST IRRIGA, CA 92821  
T. 714.524.8701 F. 714.524.1875  
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REGISTERED PROFESSIONAL ENGINEER  
DANIEL D. JONES  
STATE OF CALIFORNIA  
No. 50997  
Exp. 12/31/2021

APPROVED  
DIV. OF THE STATE ARCHITECT  
APP-04-120013 PC  
REVIEWED FOR  
SS  FLS  ACS  CG   
DATE: 08/06/2021

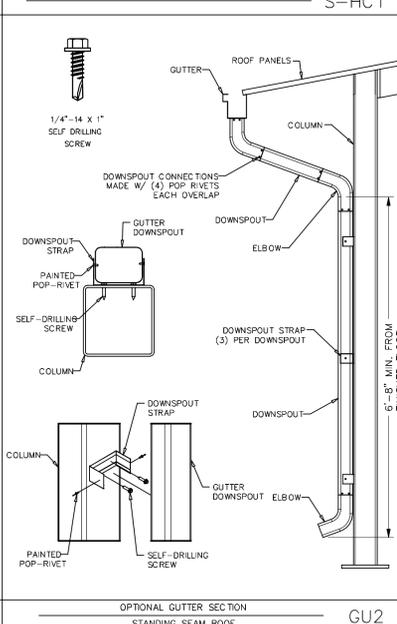
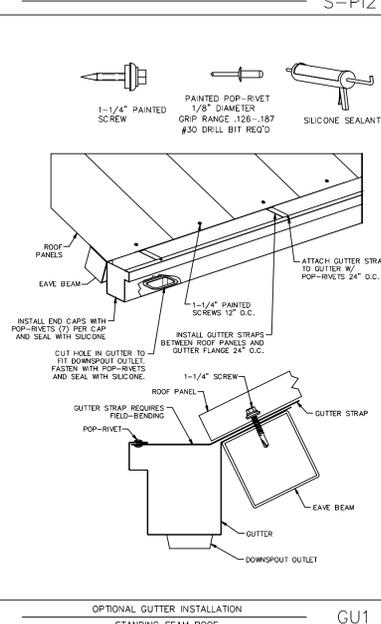
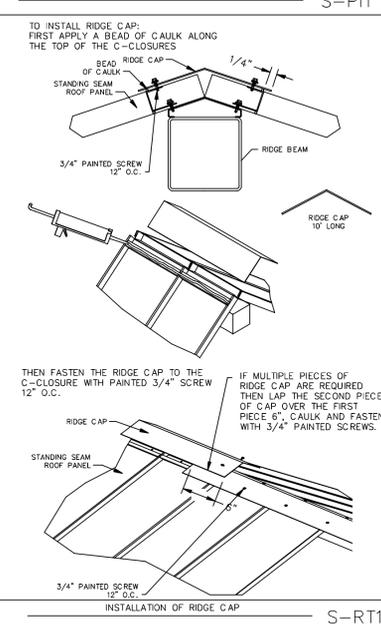
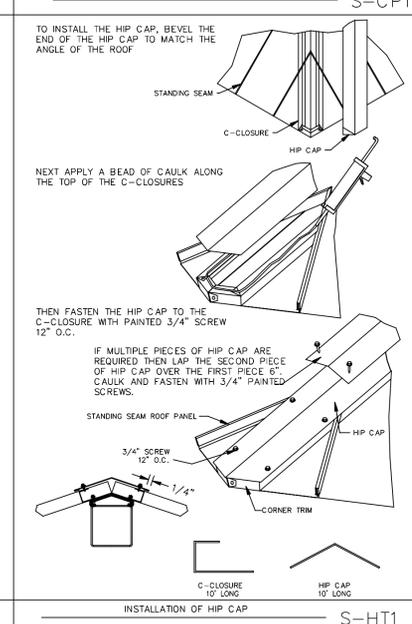
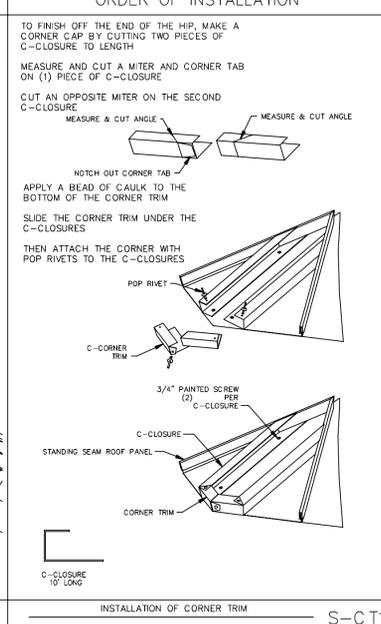
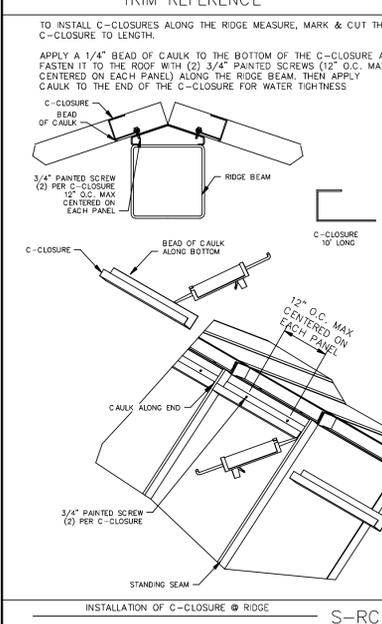
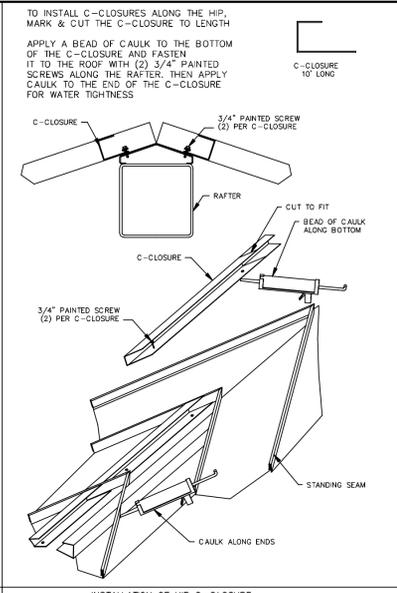
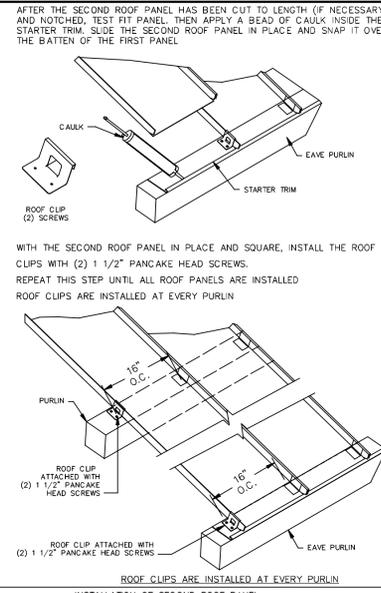
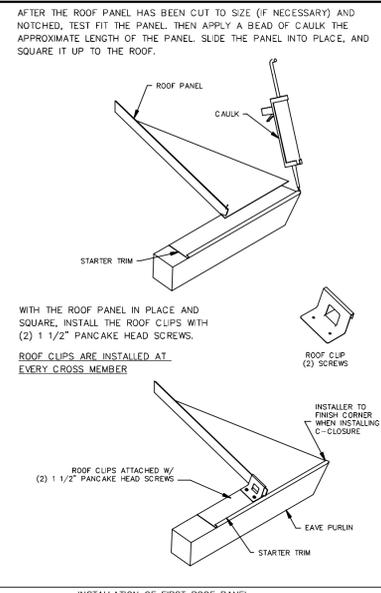
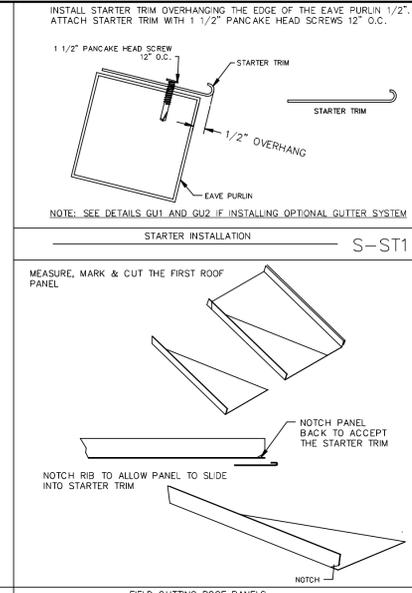
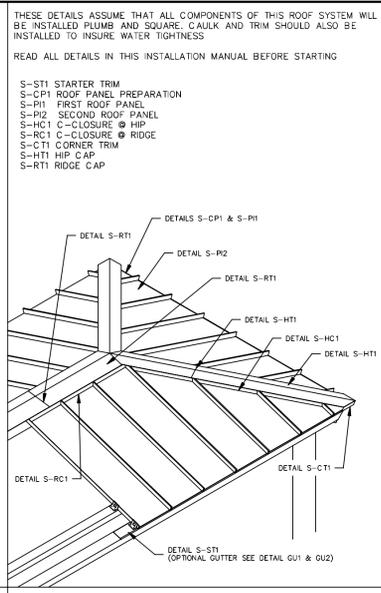
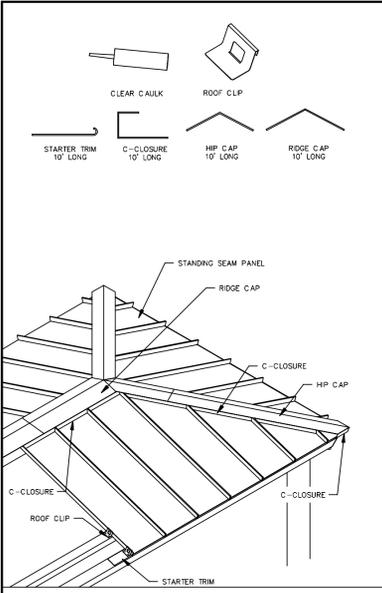
30' WIDE RECTANGULAR HIP FRAMING & CONNECTION DETAILS

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LS3.1

30' WIDE RECTANGULAR HIP

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A separate project application for construction is required.



### 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.

<b>INSTALLED CORRECTLY</b>	<b>INSTALLED TOO TIGHT</b>	<b>INSTALLED TOO LOOSE</b>
THE SEALING MATERIAL IS 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 DETAILS SHOWN ARE SUGGESTIONS OR GUIDELINES ON HOW TO ERECT THE METAL ROOFING SYSTEM. THE INFORMATION SHOWN IS ACCURATE, BUT IT IS NOT INTENDED TO COVER ALL INSTANCES, BUILDING REQUIREMENTS, DESIGN OR CODES. CHANGES TO THE DETAILS MAY BE REQUIRED DUE TO FIELD CONDITIONS.

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 CRAFTSPERSON AND WORKMANSHIP SHALL MEET THE BEST INDUSTRY STANDARDS.

**APPROVED**  
DIV. OF THE STATE ARCHITECT  
APP-04-120013 PC  
REVIEWED FOR  
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DATE: 08/06/2021

**SECTION PROPERTIES (PER FT. OF WIDTH)**

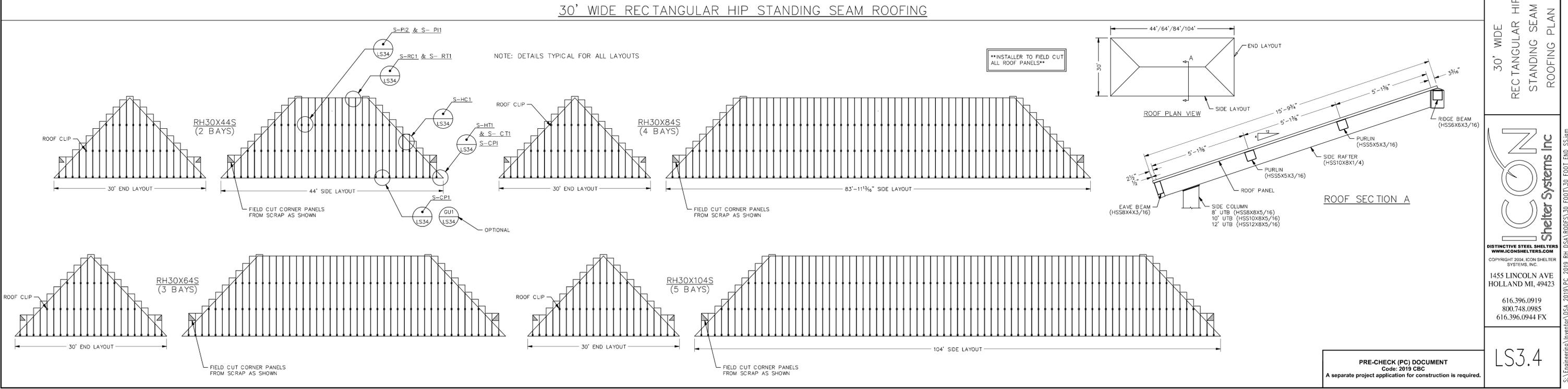
**TOP IN COMPRESSION**  
Ix=0.086 in<sup>4</sup>  
Sx=0.0561 in<sup>3</sup>  
Mx=1.68 in-kips

**BOTTOM IN COMPRESSION**  
Ix=0.040 in<sup>4</sup>  
Sx=0.0479 in<sup>3</sup>  
Mx=1.248 in-kips

**ICONS**  
RH/DSA-PC  
ANGEL  
4/2/2021

**JRMA ARCHITECTS ENGINEERS**  
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T. 714.524.8701 F. 714.524.1875  
WWW.JRMA.COM

**REGISTERED PROFESSIONAL ENGINEER**  
MICHAEL D. JOHNSON  
STATE OF CALIFORNIA  
07/29/2021



**30' WIDE RECTANGULAR HIP STANDING SEAM ROOFING PLAN**

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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.

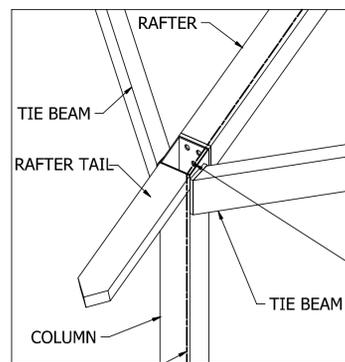
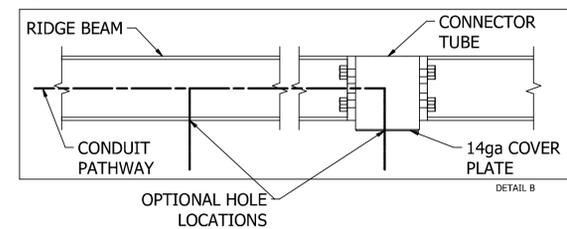
PRELIMINARY: NOT FOR CONSTRUCTION

**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)

**OPTIONAL EXIT HOLES**

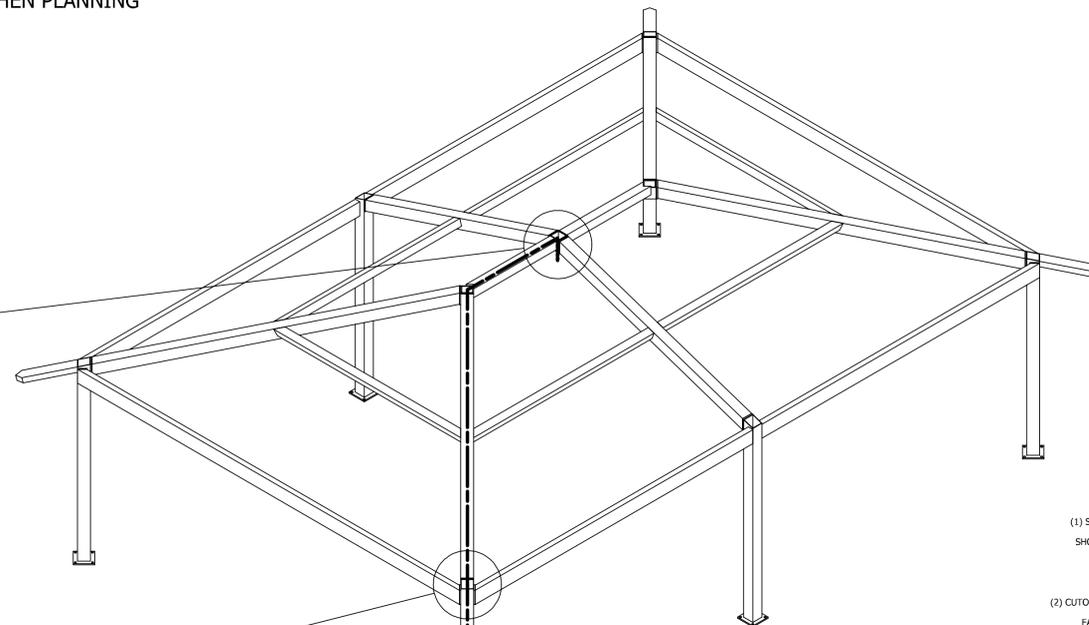
IF REQUIRED, EXIT HOLES FOR LIGHTING, ETC. CAN BE PLACED IN THE RIDGE BEAM AND/OR CONNECTOR TUBE WITH 14ga COVER PLATE AS SHOWN (CHARGES APPLY). USE FRAME SHEET OF THIS PRELIMINARY TO SPECIFY REQUIRED EXIT HOLE LOCATIONS AND SIZE.



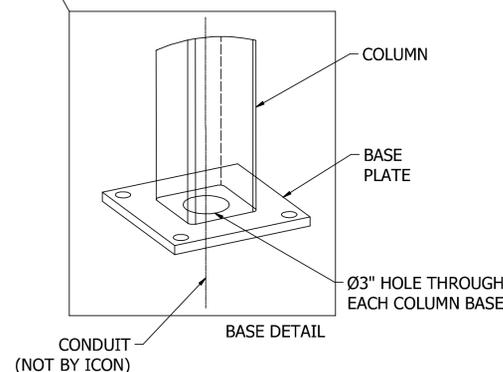
ICON PROVIDES A MINIMUM OF (1) 3/4" HOLE AT EACH CONNECTION FOR 1/2" CONDUIT. IF APPLICABLE, PLEASE SPECIFY REQUIRED CONDUIT SIZE: (CHARGES APPLY)

- 3/4" CONDUIT (1" HOLES)
- 1" CONDUIT (1 1/4" HOLES)
- OTHER (PLEASE SPECIFY)

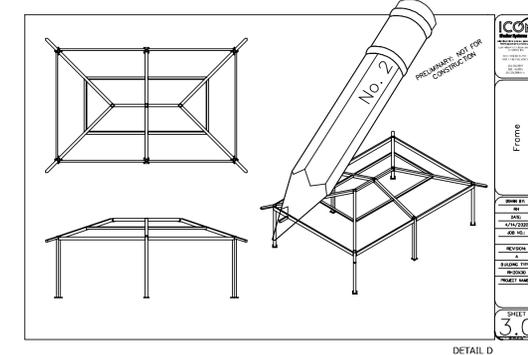
NOTE: BUILDING DEPICTED ON THIS SHEET FOR ILLUSTRATION PURPOSES ONLY. ACTUAL LAYOUT AND FRAME MEMBER QUANTITIES VARY BY DESIGN. PLEASE REFER TO ELEVATION AND FRAME SHEETS IN THIS PRELIMINARY FOR ORDER-SPECIFIC CONFIGURATION.



CONDUIT PATHWAY PROVIDED FOR EACH COLUMN.

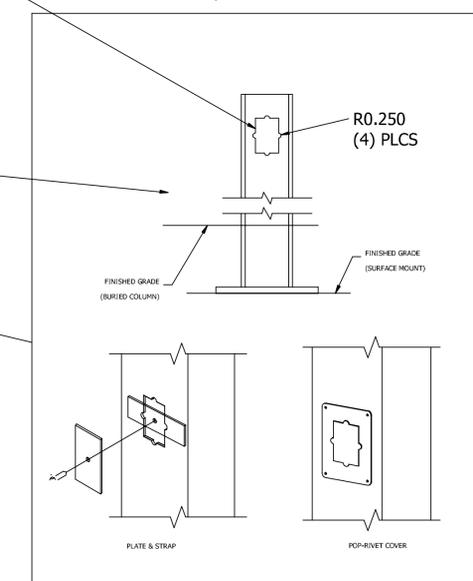


IF REQUIRED, PLEASE DRAW THE NECESSARY ELECTRICAL CONDUIT PATHWAY ON THE FRAME SHEET OF THIS PRELIMINARY.



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

- (1) STANDARD CUTOUT SIZE SHOWN. SPECIFY IF OTHER SIZE REQUIRED.
- (2) CUTOUTS WILL BE ON INSIDE FACE OF COLUMN UNLESS OTHERWISE INDICATED ON FRAME SHEET.
- (3) SPECIFY HEIGHT ABOVE FINISHED GRADE FOR EACH CUTOUT AS SHOWN



- (4) COVER PLATES PROVIDED UPON REQUEST (CHARGES APPLY)  
PLEASE SPECIFY TYPE AND QUANTITY REQUIRED:
- PLATE & STRAP
  - POP-RIVET COVER PLATE
- HOW MANY REQUIRED? \_\_\_\_\_

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DRAWN BY	ANGEL
DATE	4/2/2021
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STATE OF CALIFORNIA  
07/29/2021

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ELECTRICAL ACCESS



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