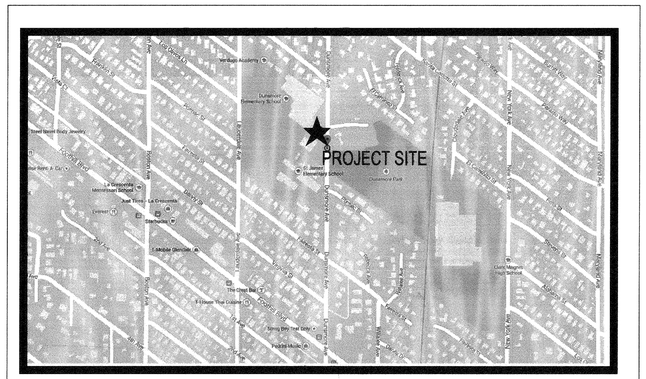
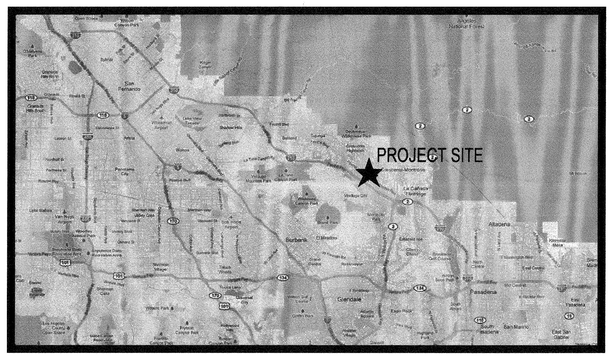
NEW SHADE STRUCTURE
DUNSMORE ELEMENTARY SCHOOL

4717 DUNSMORE AVE., LA CRESCENTA, CALIFORNIA

GLENDALE UNIFIED SCHOOL DISTRICT



VICINITY MAP



REGIONAL MAP

north

tBP /Architecture

4611 Teller Avenue - Newport Beach - California - 92660
http://www.tbparchitecture.com
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Architecture
Planning
Interiors

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architect

consultant

FILE NO.:
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DIVISION OF THE STATE ARCHITECT
DEPARTMENT OF GENERAL SERVICES
APPLICATION NO.
03 - 117044
AC. FLS SS
DATE APR 29 2016

DEPARTMENT OF GENERAL SERVICES
DSA Los Angeles Regional Office
700 N. Alameda Street, Suite 5-500
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NEW SHADE STRUCTURE
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4717 DUNSMORE AVE.
LA CRESCENTA, CALIFORNIA 91214

GLENDALE UNIFIED SCHOOL DISTRICT

owner

tBP project number : 20907.00
file name:
drawn by: checked by:
date: FEB. 9, 2016

Rev:	date:	description:

drawing title:
COVER SHEET

drawing no.:
T-1
drawing of

ABBREVIATIONS

&	AND	(E)	EXISTING	K	KIP (1000 LB)	R.	RISER
∠	ANGLE	EA.	EACH	KIT.	KITCHEN	RAD.	RADIUS
@	AT	E.J.	EXPANSION JOINT	KO	KNOCKOUT	R.D.	ROOF DRAIN
℄	CENTERLINE	ELEC.	ELECTRICAL	KVA	KILOVOLT AMPERE	RDWD.	REDWOOD
⌀	DIAMETER OR ROUND	ELEV.	ELEVATION			REF.	REFERENCE
#	NUMBER	EMER.	EMERGENCY	LAB.	LABORATORY	REFR.	REFRIGERATOR
		ENCL.	ENCLOSURE	LAM.	LAMINATED	REG.	REGISTER
AB	ANCHOR BOLT	ENG	ENGINEER	LAV.	LAVATORY	REINF.	REINFORCING
AC	ASPHALTIC CONCRETE	ENGY	ENERGY	LB.	POUND	REQD.	REQUIRED
ACP	ACOUSTICAL PANEL	ENTR	ENTRANCE	LDG	LANDING	RESIL.	RESILIENT
ACT	ACOUSTICAL TILE	EP	EPOXY ENAMEL	LL	LIVE LOAD	RET	RETURN
ACOUS	ACOUSTICAL	EQ.	EQUAL	LT	LIGHT	REV.	REVERSE
AD	AREA DRAIN	EQUIP.	EQUIPMENT	LTF	LINOLEUM TILE FLOORING	RFG	ROOFING
ADH	ADHESIVE	EST.	ESTIMATE	LTG	LIGHTING	RM.	ROOM
ADJ	ADJACENT	E.W.C.	ELECTRIC WATER COOLER	LVL	LEVEL	R.O.	ROUGH OPENING
AFF	ABOVE FINISH FLOOR	EWH	ELECTRIC WATER HEATER	LVR	LOUVER	R.T.F.	RUBBER TILE FLOORING
AFP	ACCORDIAN FOLDING PARTITION	EXH	EXHAUST				
AGGR	AGGREGATE	EXIST.	EXISTING	MAINT	MAINTENANCE	S.B.	SPLASH BLOCK
ALT	ALTERNATE	EXP.	EXPANSION	MAN	MANUAL	S.C.	SOLID CORE
ALUM	ALUMINUM	EXPSD.	EXPOSED	MAS	MASONRY	SCHED.	SCHEDULE
AMP	AMPERE	EXT.	EXTERIOR	MATL	MATERIAL	SCN	SOLID CORE NATURAL FINISH
ANOD	ANODIZED			MAX.	MAXIMUM	SCP	SOLID CORE PAINT FINISH
APPROX	APPROXIMATELY	F	FACTORY FINISH	MCC	MOTOR CONTROL CENTER	SCPL	SOLID CORE P.LAM FINISH
ARCH	ARCHITECT	F.A.	FIRE ALARM	MECH.	MECHANICAL	S.D.	STORM DRAIN
ASB	ASBESTOS	FC	FOOTCANDLE	MED	MEDIUM	SECT.	SECTION
ASSY	ASSEMBLY	F.D.	FLOOR DRAIN	MEZZ	MEZZANINE	SF	SQUARE FOOT
		FDC	FIRE DEPARTMENT CONNECTION	MFR.	MANUFACTURER	SHT.	SHEET
BAT	BATTERY	FDN	FOUNDATION	MH	MANHOLE	SIM.	SIMILAR
BBD	BULLETIN BOARD	F.E.	FIRE EXTINGUISHER	MIN.	MINIMUM	SLR	SEALER
BD	BOARD	F.E.C.	FIRE EXTINGUISHER CABINET	MIR	MIRROR	SPEC.	SPECIFICATIONS
BLDG	BUILDING	F.F.	FINISH FLOOR	MISC.	MISCELLANEOUS	SPLY	SUPPLY
BLKG	BLOCKING	F.G.	FINISHED GRADE	MKR	MARKER	SQ.	SQUARE
BLO	BLOWER	F.H.	FIRE HYDRANT	MTL.	METAL	S.SK.	SERVICE SINK
BLR	BOILER	FIN.	FINISH	MTD.	MOUNTED	SST.	STAINLESS STEEL
BLW	BELOW	F.L.	FLOW LINE	MUL.	MULLION	ST	STREET
BM	BEAM	FLASH.	FLASHING	MVBL	MOVABLE	STAG	STAGGERED
BO	BOTTOM OF	FLR.	FLOOR			STC	SOUND TRANSMISSION CLASS
BRKR	BREAKER	FLUOR.	FLUORESCENT	(N)	NEW	STD.	STANDARD
BTU	BRITISH THERMAL UNIT	F.O.	FACE OF	NAT.	NATURAL	STL.	STEEL
BUR	BUILT UP ROOFING	F.O.C.	FACE OF CONCRETE	NEG	NEGATIVE	STN	STAIN FINISH
		F.O.F.	FACE OF FINISH	N.I.C.	NOT IN CONTRACT	STOR	STORAGE
CAB	CABINET	F.O.M.	FACE OF MASONRY	NO.	NUMBER	STRUCT.	STRUCTURAL
CARP	CARPET	F.O.S.	FACE OF STUD	NOM.	NOMINAL	SURF	SURFACE
CAT	CATALOG	FPP	FOLDING PANEL PARTITION	N.T.S.	NOT TO SCALE	SUSP.	SUSPENDED
CB	CATCH BASIN	FPW	FOLDING PANEL WOOD DOOR			SV	SHEET VINYL
CEM	CEMENT	F.R.	FIRE RETARDANT	O.A.	OVERALL	SWBD	SWITCHBOARD
CF	CURB FACE	F.R.A.	FIRE RATED ASSEMBLY	O.C.	ON CENTER	SWGR	SWITCHGEAR
CFM	CUBIC FEET PER MINUTE	F.R.P.	FIBERGLASS REINFORCED PANEL	O.D.	OUTSIDE DIAMETER	SWR	SEWER
CHBD	CHALKBOARD	F.S.	FLOOR SINK	O.F.	OVERFLOW DRAIN	SYM.	SYMBOL
CHEM	CHEMICAL	FT.	FOOT OR FEET	OFCI	OWNER FURNISHED-CONTRACTOR INSTALLED	SYS	SYSTEM
CHWR	CHILLED WATER RETURN	FTG.	FOOTING			T.	TREAD
CHWS	CHILLED WATER SUPPLY	FURR.	FURRING	OFF	OFFICE	T. & B.	TOP AND BOTTOM
CI	CAST IRON	FXTR	FIXTURE	OFOI	OWNER FURNISHED-OWNER INSTALLED	T. & G.	TONGUE AND GROOVE
CIR	CIRCLE			OPNG.	OPENING	T.C.	TOP OF CURB
CJ	CONTROL JOINT	G.	GAS	OPP.	OPPOSITE	TD	TRENCH DRAIN
CL	CENTERLINE	GA.	GAGE	OVHD	OVERHEAD	TECH	TECHNICAL
CLG	CEILING	GALV.	GALVANIZED			TEL.	TELEPHONE
CLO	CLOSET	GB	GRAB BAR	PART.	PARTITION	TEMP.	TEMPERATURE
CLRM	CLASSROOM	G.I.	GALVANIZED IRON	PB	PULL BOX	T.G.	TOP OF GRATE
CMT	CERAMIC MOSAIC TILE	GL.	GLASS	PBD	PARTICLEBOARD	THK	THICK
CMU	CONCRETE MASONRY UNIT	GLU.LAM.	GLUE LAMINATED	PC	PORTLAND CEMENT	THRES.	THRESHOLD
CND	CONDUIT	GND.	GROUND	PD	PLANTER DRAIN	THRU	THROUGH
CO	CLEANOUT	GPM	GALLONS PER MINUTE	PERF	PERFORATED	TKBD	TACKBOARD
COL	COLUMN	GR.	GRADE	PERP	PERPENDICULAR	T.O.	TOP OF
COMM	COMMUNICATION	GYP.	GYPSUM	PE	PAINT EGGSHELL	T.O.P.	TOP OF PARAPET
COMP	COMPOSITION			PF	PAINT FLAT	TOT	TOTAL
CONC	CONCRETE	H.B.	HOSE BIBB	PG	PAINT GLOSS	T.P.	TOP OF PAVING
CONF	CONFERENCE	HCN	HOLLOW CORE NATURAL FINISH	P.H.	PANIC HARDWARE	TRNSF.	TRANSFORMER
CONN	CONNECTION	HCP	HOLLOW CORE PAINT FINISH	PIV	POST INDICATOR VALVE	TW	TOP OF WALL
CONT	CONTINUOUS	HDBD.	HARDBOARD	P.L.	PROPERTY LINE	TYP.	TYPICAL
CONTR	CONTRACTOR	HDR	HEADER	PL	PLATE		
COORD	COORDINATE	HDW.	HARDWARE	P.LAM.	PLASTIC LAMINATE	UGND	UNDERGROUND
CORR	CORRIDOR	HDWD.	HARDWOOD	PLAS.	PLASTER	UNFIN	UNFINISHED
COV	COVER	HGT.	HEIGHT	PLAT.	PLATFORM	U.N.O.	UNLESS NOTED OTHERWISE
CP	CONTROL PANEL	H.M.	HOLLOW METAL	PLBG	PLUMBING	U.O.S.	UNDERSIDE OF STRUCTURE
CR	CONDENSATE RETURN	HORIZ.	HORIZONTAL	PLF	POUNDS PER LINEAR FOOT	UR.	URINAL
CSWK	CASEWORK	HP	HORSEPOWER	PLYWD.	PLYWOOD	UTIL	UTILITY
CT	CERAMIC TILE	HR.	HOUR	PNL	PANEL		
CTSK	COUNTERSUNK	HTG.	HEATING	POS	POSITIVE	V	VOLT
CTV	CABLE TELEVISION	HTWR	HOT WATER RETURN	PR.	PAIR	VAC	VACUUM
CW	COLD WATER	HTWS	HOT WATER SUPPLY	PREFAB	PREFABRICATED	VAV	VARIABLE AIR VOLUME
		HVAC	HEATING, VENTILATING, AIR CONDITIONING	PREFIN	PREFINISHED	V.C.T.	VINYL COMPOSITION TILE
DBL	DOUBLE	HVY	HEAVY	PRELIM	PRELIMINARY	VERT.	VERTICAL
DEMO	DEMOLITION	HW	HOT WATER	PROJ	PROJECT	VEST.	VESTIBULE
DEPT	DEPARTMENT			PSF	POUNDS PER SQUARE FOOT	VFWC	VINYL FABRIC WALL COVERING
DET	DETAIL			PSG	PAINT SEMI-GLOSS		
DF	DRINKING FOUNTAIN	I.D.	INSIDE DIAMETER	PSI	POUNDS PER SQUARE INCH	W	WATT
DG	DECOMPOSED GRANITE	I.E.	INVERT ELEVATION	PVC	POLYVINYL CHLORIDE	W/	WITH
DIA	DIAMETER	INSUL.	INSULATION			W.C.	WATER CLOSET
DIM	DIMENSION	INT.	INTERIOR	Q.T.	QUARRY TILE	WD.	WOOD
DISP.	DISPENSER	INV.	INVERT	QTY	QUANTITY	WDW.	WINDOW
DIST.	DISTANCE	IW	IRRIGATION WATER			WHSE	WAREHOUSE
DIV.	DIVISION					WL	WIND LOAD
D.L.	DEAD LOAD	JAN.	JANITOR			WLD	WELDED
DN.	DOWN	JCT.	JUNCTION			WP	WORKING POINT
DS.	DOWN SPOUT	JT.	JOINT			WPG	WATERPROOFING
DWG.	DRAWING					WR	WATER RESISTANT
						WSCT.	WAINSCOT
						WT	WEIGHT
						W.W.F.	WELDED WIRE FABRIC
						XFMR	TRANSFORMER

DRAWING LIST

* = PRE-CHECKED (PC) DOCUMENTS

GENERAL (NO. OF DRAWINGS - 3)

ARCHITECTURAL DRAWINGS (NO. OF DRAWINGS - 2)

* 20x40 SHADE STRUCTURE (NO. OF DRAWINGS - 10)

(TOTAL NO. OF DRAWINGS -13)

Statement of General Conformance

(Application No. A#03-117044 File No. 19-41)

☒ The drawings or sheets listed on the cover or index sheet [marked by asterisk (*)]
☐ This drawing, page of specifications/calculations

have been prepared by other design professionals or consultants who are licensed and/or authorized to prepare such drawings in this state. It has been examined by me for:

1) design intent and appears to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications prepared by me, and

2) coordination with my plans and specifications and is acceptable for incorporation into the construction of this project.

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 Title 24, Part 1. (Title 24, Part 1, Section 4-317 (b))

I find that: ☒ All drawings or sheets listed on the cover or index sheet ☐ This drawing or page

☒ is/are in general conformance with the project design, and	☐ is/are in general conformance with the project design intent, and
☒ has/have been coordinated with the project plans and specifications.	☐ has/have been coordinated with the project plans and specifications.
Signature: [signature] Date: 4/28/2016	Signature: Date:
Architect or Engineer designated to be in general responsible charge	Architect or Engineer delegated responsibility for this portion of the work
Print Name: HUNG CHENG	Print Name:
License Number: C34187 Expiration Date: 4/30/2017	License Number: Expiration Date:

SUMMARY OF WORK

THE PROJECT CONSISTS OF PLACING A PRE-CHECKED 20'x40' SHADE STRUCTURE ONTO THE EXISTING CAMPUS

CODE ANALYSIS

OCCUPANCY GROUP: A3
CONSTRUCTION TYPE: TYPE V-B, NON-SPRINKLERED

ALLOWABLE HEIGHT PER TABLE 503	ALLOWABLE	ACTUAL
NUMBER OF STORIES	1	1
BUILDING HEIGHT	40'-0"	13'-10 3/16"

ALLOWABLE BUILDING AREA	
BASIC ALLOWABLE AREA A(t) PER TABLE 503	6,000 S.F.
FRONTAGE INCREASE:	NOT USED
SPRINKLER INCREASE:	NOT USED
TOTAL ALLOWABLE AREA A(a)	6,000 S.F.
ACTUAL BUILDING AREA	800 S.F.

APPLICABLE CODES

APPLICABLE CODES AS OF JANUARY 1, 2014:

2013 CALIFORNIA ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.

2013 CALIFORNIA BUILDING CODE (C.B.C.), PART 2, TITLE 24 C.C.R.
(2012 INTERNATIONAL BUILDING CODE AND 2013 CALIFORNIA AMENDMENTS)

2013 CALIFORNIA ELECTRICAL CODE (C.E.C.), PART 3, TITLE 24 C.C.R.
(2011 NATIONAL ELECTRICAL CODE AND 2013 CALIFORNIA AMENDMENTS)

2013 CALIFORNIA MECHANICAL CODE (C.M.C.), PART 4, TITLE 24 C.C.R.
(2012 UNIFORM MECHANICAL CODE AND 2013 CALIFORNIA AMENDMENTS)

2013 CALIFORNIA PLUMBING CODE (C.P.C.), PART 5, TITLE 24 C.C.R.
(2012 UNIFORM PLUMBING CODE AND 2013 CALIFORNIA AMENDMENTS)

2013 CALIFORNIA ENERGY CODE (C.E.C.), PART 6, TITLE 24 C.C.R.

2013 CALIFORNIA FIRE CODE (C.F.C.), PART 9, TITLE 24 C.C.R.
(2012 INTERNATIONAL FIRE CODE AND 2013 CALIFORNIA AMENDMENTS)

2013 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 C.C.R.

2013 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.

TITLE 8 C.C.R., DIVISION 1, CHAPTERS 4 AND 6, ELEVATOR SAFETY ORDERS
(INCLUDING ASME A17.1-2004, SAFETY CODE FOR ELEVATORS AND ESCALATORS)

TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

PARTIAL LIST OF APPLICABLE STANDARDS

2013 CALIFORNIA BUILDING CODE (FOR SFM) REFERENCED STANDARDS CHAPTER 35

NFPA 72 NATIONAL FIRE ALARM CODE (CALIFORNIA AMENDED) 2013 EDITION
(NOTE: SEE UL STANDARD 1971 FOR "VISUAL DEVICES")

PROJECT DIRECTORY

OWNER
GLENDALE UNIFIED SCHOOL DISTRICT
349 WEST MAGNOLIA
GLENDALE, CA 91204
PHONE: (818) 507-0201

ARCHITECT
IBP/ARCHITECTURE
4611 TELLER AVENUE
NEWPORT BEACH, CA 92660
PHONE : (949) 673-0300
FAX : (949) 732-3895

GENERAL NOTES

ALL WORK TO CONFORM TO 2013 EDITION TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)

CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CHANGE ORDERS APPROVED BY THE DIVISIONS OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.

A 'DSA CERTIFIED' PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24 CCR).

A 'DSA CERTIFIED' INSPECTOR WITH CLASS (1) CERTIFICATION IS REQUIRED FOR THIS PROJECT

A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE SCHOOL BOARD SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.

REFERENCE SYMBOLS

FULL BUILDING SECTION
A / A4 — LETTER ABOVE - SECTION; NUMBER BELOW - SHEET NUMBER
A / A4

PARTIAL BUILDING SECTION / WALL SECTION
B / A4 — LETTER ABOVE - SECTION; NUMBER BELOW - SHEET NUMBER

EXTERIOR ELEVATION
1 / A3 — NUMBER ABOVE - ELEVATION NUMBER; NUMBER BELOW - SHEET NUMBER

DETAIL
2 / 3.01 — NUMBER ABOVE - DETAIL NUMBER; NUMBER BELOW - SHEET NUMBER

MATERIAL SYMBOLS

EARTH | PLYWOOD | RIGID INSULATION
SAND & GROUT | FINISH WOOD | ACOUSTICAL CEILING PANEL/ TILE
CONCRETE | LATH & PLASTER
MASONRY | GYPSUM BOARD
STEEL | BATT INSULATION

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SHT. INDEX, GEN. NOTES, & CODE ANALYSIS

drawing no.:
T-2
drawing of

DSA 810

LOCAL FIRE AUTHORITY REVIEW

To facilitate the Division of the State Architect's (DSA) approval of the Fire/Life Safety portion of a project, DSA requires Local Fire Authority (LFA) review of certain elements as identified in this form. Use of this form is mandatory for projects that add square footage to a campus or if any item on this form is relevant to the project. For additional information, see DSA 810 Instructions and DSA Policy 09-01.

PROJECT INFORMATION

School District/Owner: Glendale Unified School District

Project Name/School: Dunsmore Elementary

Project Address: 4717 Dunsmore Ave., La Crescenta, CA 91214

LOCAL FIRE AUTHORITY (LFA)

LFA Agency Name: FIRE PREVENTION ENGINEERING

LFA Reviewer Name: Title:

Email: APPROVED Telephone Number:

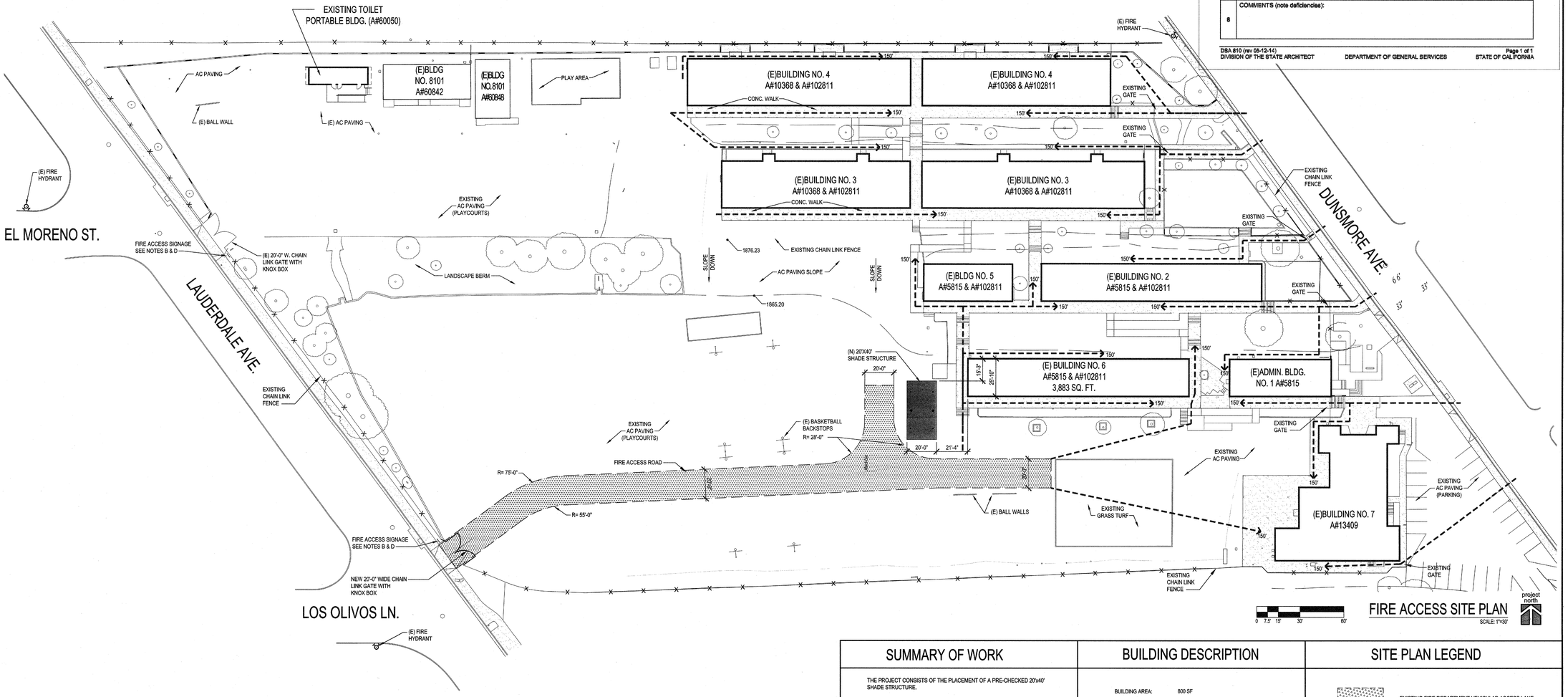
I have reviewed and responded to the applicable items for this project as listed below.
Note: Only sign this form when it is imaged onto the site plan. A loose form is not acceptable to DSA.

LFA Reviewer's Signature: Date: 7-24-15

Review Key: "Y" = Complies with LFA requirements "N" = Not approved (complete Section 8)
"NA" = Not applicable to the project "NR" = LFA elects not to review

	Description	Y	N	NA	NR
1	Where an elevator does not meet medical emergency service cab size, per the California Building Code (CBC), use of stairways for emergency rescue and patient transport is acceptable.				X
2	Access roads, fire lane markings, pavers and gate entrances are in accordance with Title 19, California Code of Regulations and the California Fire Code, Chapter 5.	X			
3	Fire hydrant location and distribution complies with the California Fire Code (or see # 4).				X
4	Fire hydrant location and distribution complies with NFPA 1142, "Alternate Means." If "NR" is checked, DSA can only approve on-site water storage as an alternate. The signature of the school district official is required to acknowledge the use of alternate means. **Signature of School District Official:** _____ **Date:** _____ **Print the School District Official's Name:**				X
5	The location(s) of the proposed post indicator valve and fire department connection meet the requirements of this jurisdiction.				X
6	The location(s) of the detector check valve assembly meet the requirements of this jurisdiction.				X
7	Is the project located in a hazard severity zone area? (CBC, Chapter 7A, Section 701A.) ☐ Yes ☒ No Check type if "Yes": ☐ Moderate ☐ High ☐ Very High ☐ WIFA (If one of these boxes is checked, the project design must meet the requirements of Chapter 7A.)				
8	COMMENTS (note deficiencies):				

DSA 810 (rev 05-12-14) DIVISION OF THE STATE ARCHITECT — DEPARTMENT OF GENERAL SERVICES — Page 1 of 1 STATE OF CALIFORNIA



FIRE ACCESS SITE PLAN

SCALE: 1"=30'

SUMMARY OF WORK

THE PROJECT CONSISTS OF THE PLACEMENT OF A PRE-CHECKED 20'x40' SHADE STRUCTURE.

FIRE DEPARTMENT NOTES

1. FIRE DEPARTMENT VEHICULAR ACCESS ROADS MUST BE INSTALLED AND MAINTAINED IN A SERVICEABLE MANNER PRIOR TO AND DURING THE TIME OF CONSTRUCTION. (FIRE CODE 501.4)
2. FIRE DEPARTMENT VEHICULAR ACCESS ROADS SHALL BE HARD SCAPE ALL WEATHER ACCESS IN ACCORDANCE WITH THE DEPARTMENT'S ALL WEATHER ACCESS REQUIREMENTS. (LOS ANGELES COUNTY FIRE CODE 503.2.3)
3. ALL FIRE HYDRANTS SHALL MEASURE 6" x 4" x 2 1/2", BRASS OR BRONZE, CONFORMING TO AMERICAN WATER WORKS ASSOCIATION STANDARD C503, OR APPROVED EQUAL, AND SHALL BE INSTALLED IN COMPLIANCE WITH THE COUNTY OF LOS ANGELES FIRE DEPARTMENT REGULATION 8. (FIRE CODE 507.5 AND REGULATION 8)

BUILDING DESCRIPTION

BUILDING AREA: 800 SF

BUILDING HEIGHT: 16'-0", NO PARAPET SINGLE STORY

CONSTRUCTION TYPE: TYPEV-B, NON-SPRINKLERED

FIRE FLOW ANALYSIS

2013 CALIFORNIA FIRE CODE TABLE B105.1
MIN. REQUIRED FIRE FLOW AND FLOW DURATION FOR BUILDINGS

FIRE AREA TYPE V-B	FIRE FLOW (GPM)	FLOW DURATION (HOURS)	
800 S.F.	1,500	2	

SITE PLAN LEGEND

EXISTING FIRE DEPARTMENT VEHICULAR ACCESS LANE 20'-0" MINIMUM UNOBSTRUCTED WIDTH

FIREFIGHTER ACCESS WALKWAY

(E) FH EXISTING FIRE HYDRANT

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FIRE ACCESS SITE PLAN

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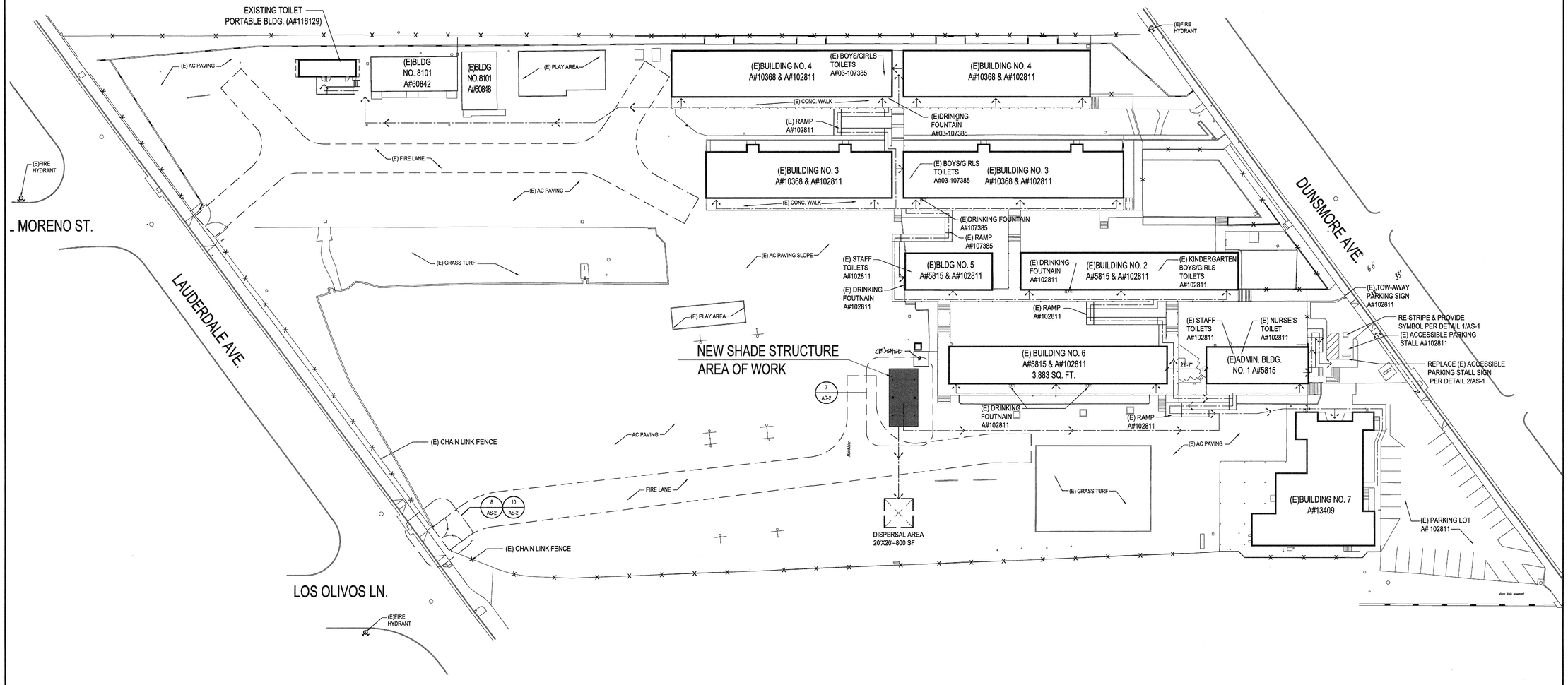
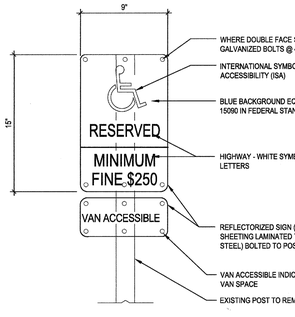
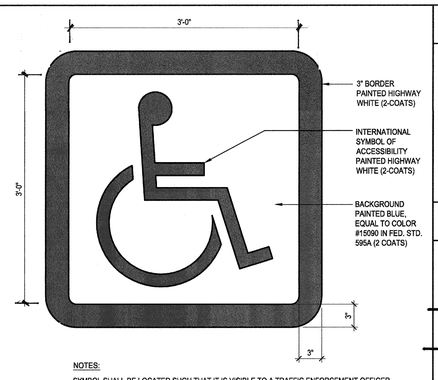




ACCESSIBLE PARKING STALL SIGN — SCALE: 1 1/2" = 1'-0" — 2



NOTES:
SYMBOL SHALL BE LOCATED SUCH THAT IT IS VISIBLE TO A TRAFFIC ENFORCEMENT OFFICER WHEN A VEHICLE IS PROPERLY PARKED IN THE STALL.

ACCESSIBLE PARKING SYMBOL — SCALE: 1-1/2" = 1'-0" — 1

FLOOD DESIGN INFORMATION

THE FLOOD ZONE DESIGNATION	ZONE X
THE FLOOD INSURANCE RATE MAP (FIRM) PANEL DESIGNATION	06037C1335F
EFFECTIVE DATE OF THE FIRM	09-26-2008
BASE FLOOD ELEVATION (BFE)	N/A
APPLICABLE COMMUNITY ORDINANCE SECTION	N/A

PARKING TABULATION

PARKING LOT : 26 PARKING STALLS
1 ACCESSIBLE PARKING STALL

FIRE EXTINGUISHER NOTE

1. VERIFY EXISTING FIRE EXTINGUISHER WITHIN 75'-0" TRAVEL DISTANCE. OTHERWISE PROVIDE NEW EXTINGUISHER PER CFC 906.

SITE PLAN LEGEND

PATH OF TRAVEL

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT: THE POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR THE 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. ARCHITECT HAS VERIFIED P.O.T. IS BARRIER FREE.

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 PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

—— X —— FENCE

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FILE NO:
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DIVISION OF THE STATE ARCHITECT
DEPARTMENT OF GENERAL SERVICES
APPLICATION NO. 03-117044
AC NV FLS FE SS PAL
DATE APR 29 2016

DEPARTMENT OF GENERAL SERVICES
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NEW SHADE STRUCTURE
DUNSMORE ELEMENTARY SCHOOL
4717 DUNSMORE AVE.
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GLENDALE UNIFIED SCHOOL DISTRICT

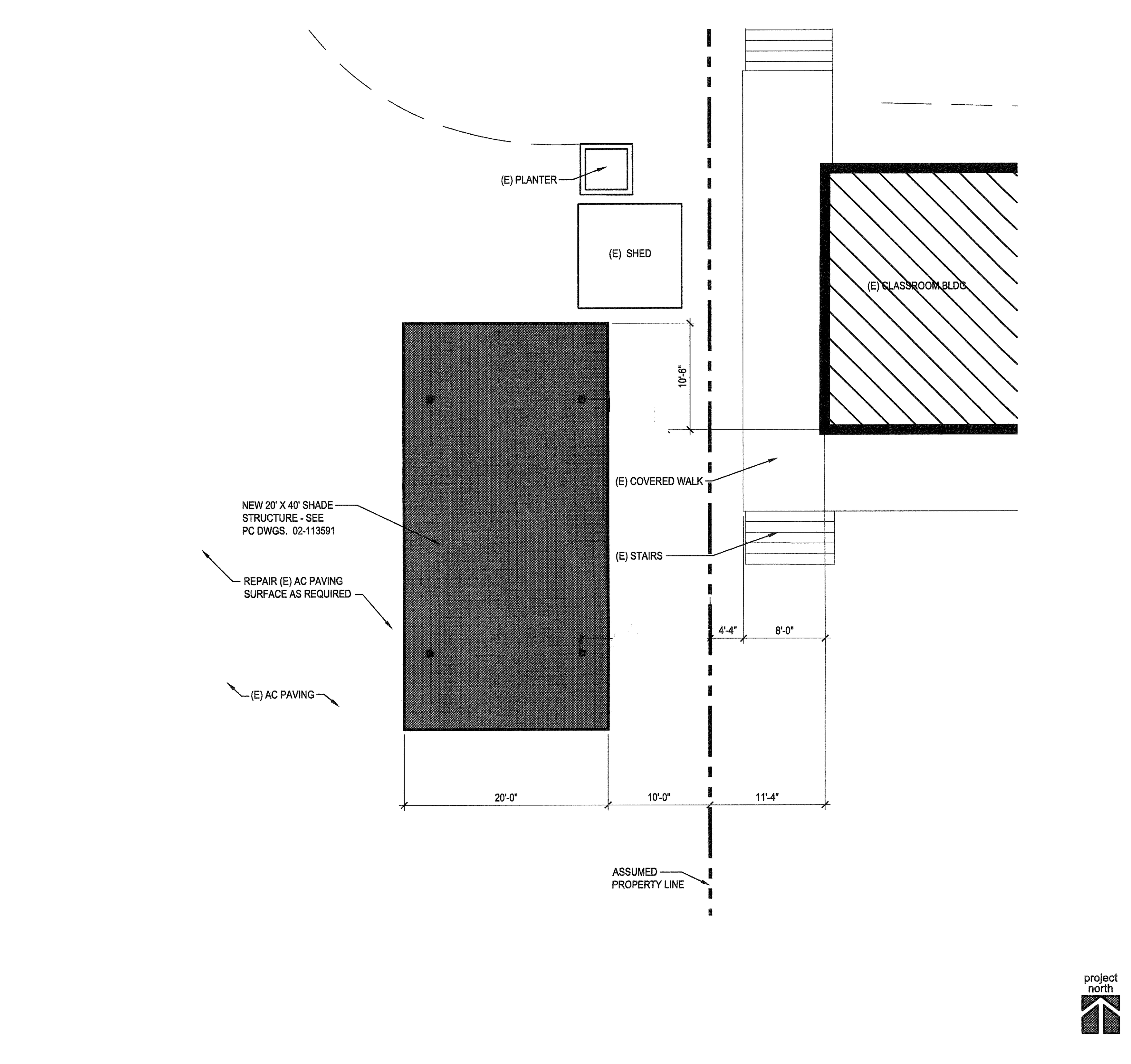
owner

tBP project number : 20907.00
file name:
drawn by: CL checked by:
date: FEB. 9, 2016

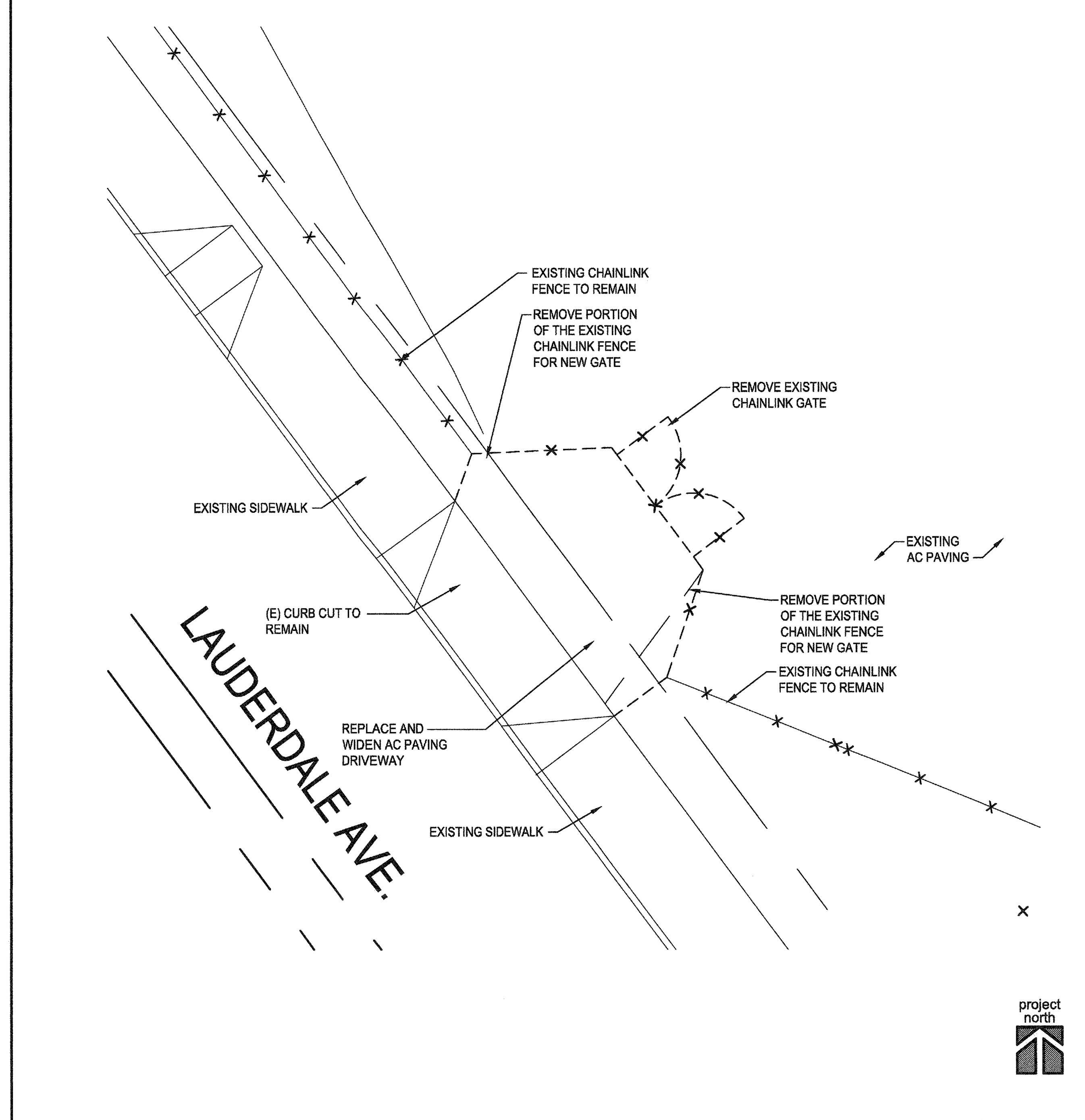
Rev:	date:	description:

drawing title:
OVERALL SITE PLAN

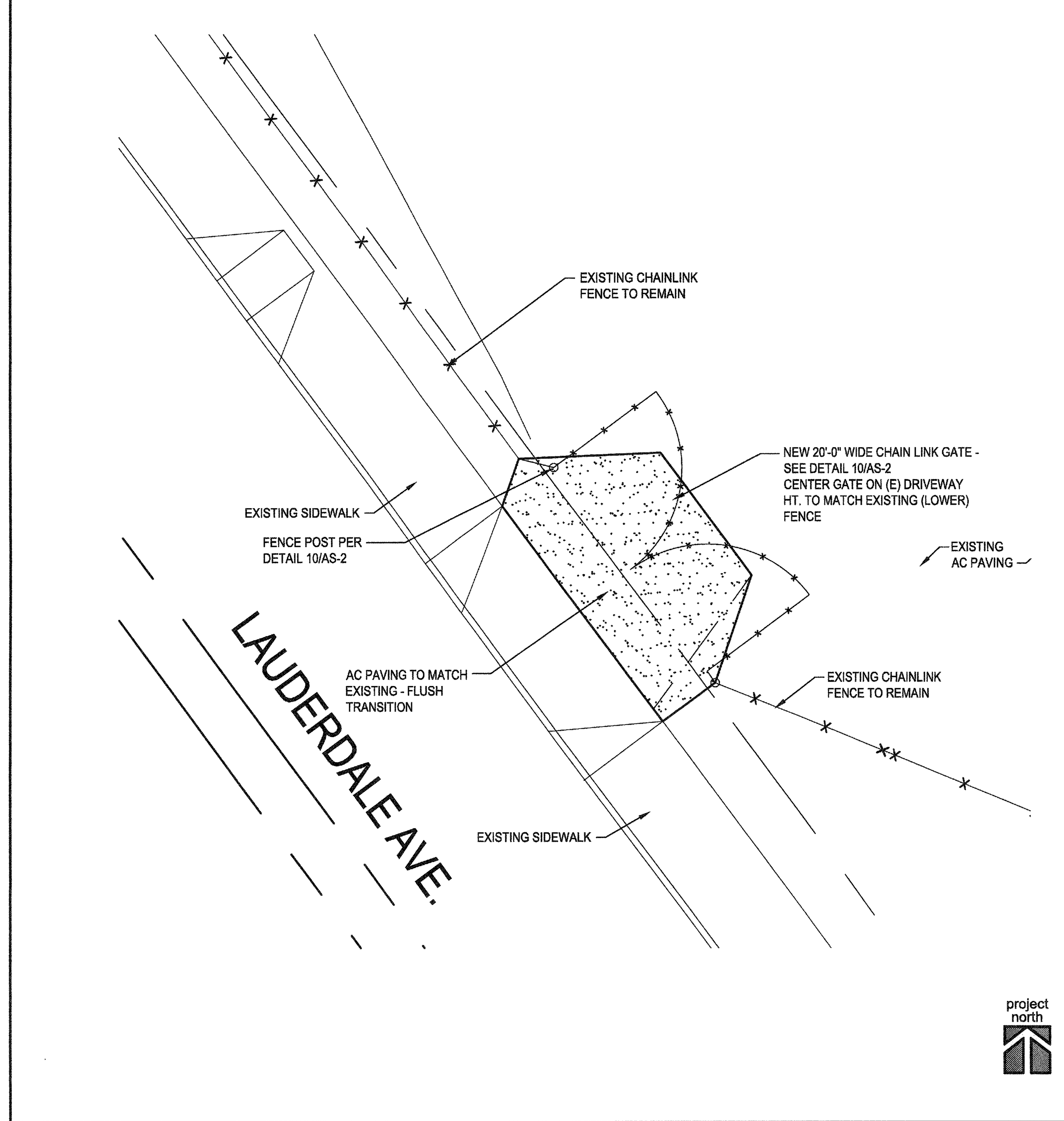
drawing no.:
AS-1
drawing of



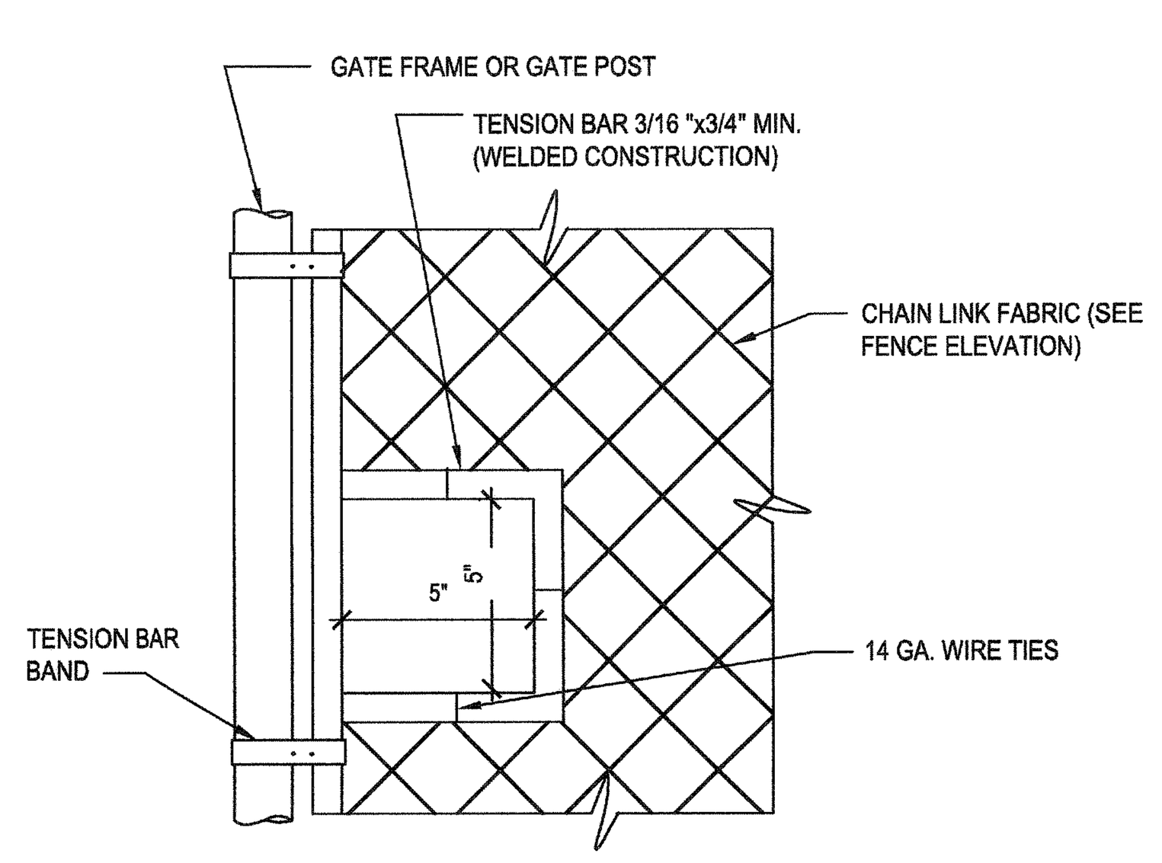
ENLARGED SITE PLAN SCALE: 1/8" = 1'-0" 7



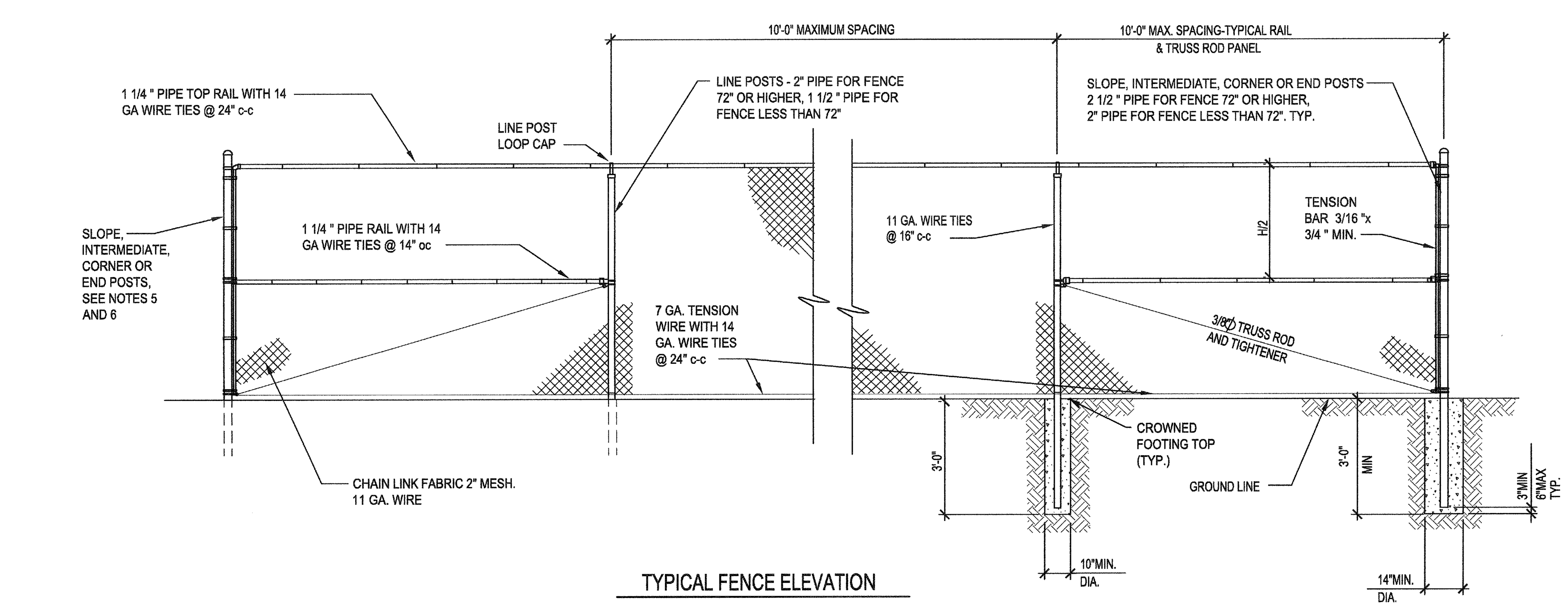
ENLARGED DEMOLITION SITE PLAN SCALE: 1/8" = 1'-0" 8



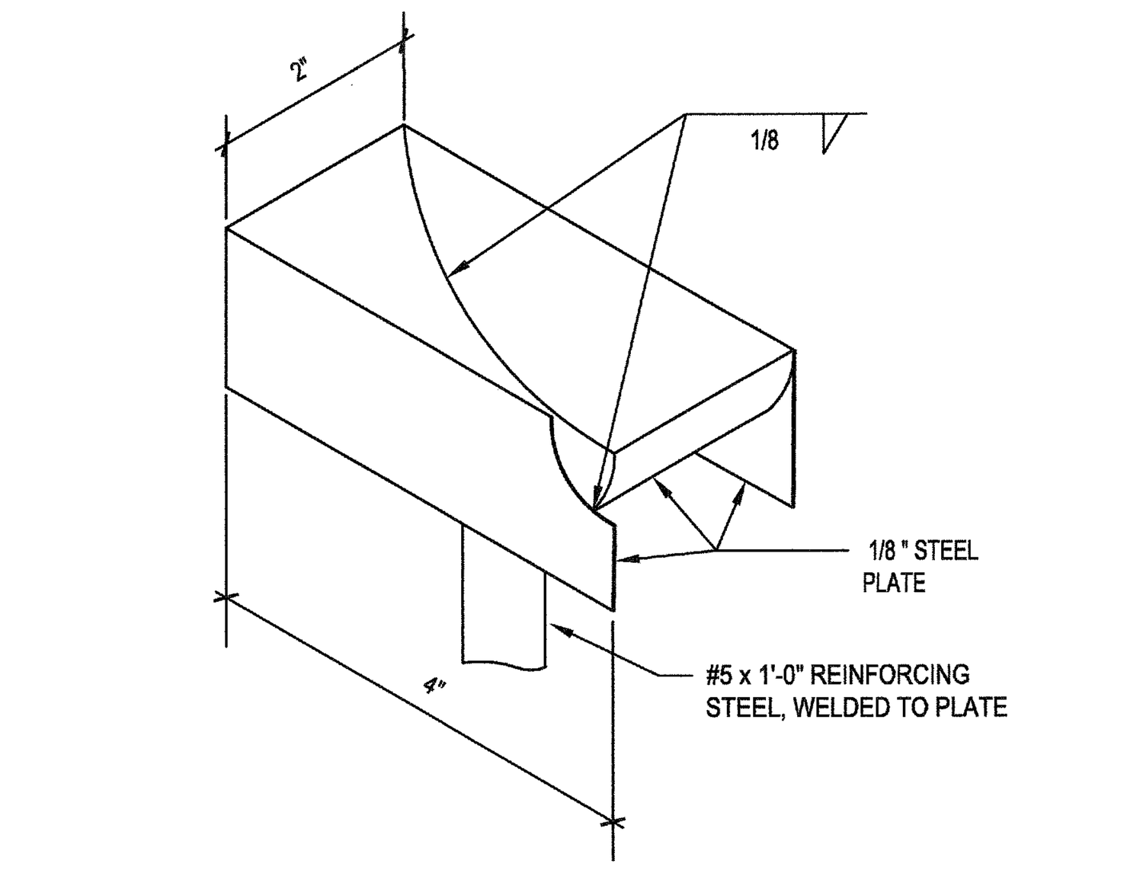
ENLARGED SITE PLAN SCALE: 1/8" = 1'-0" 10



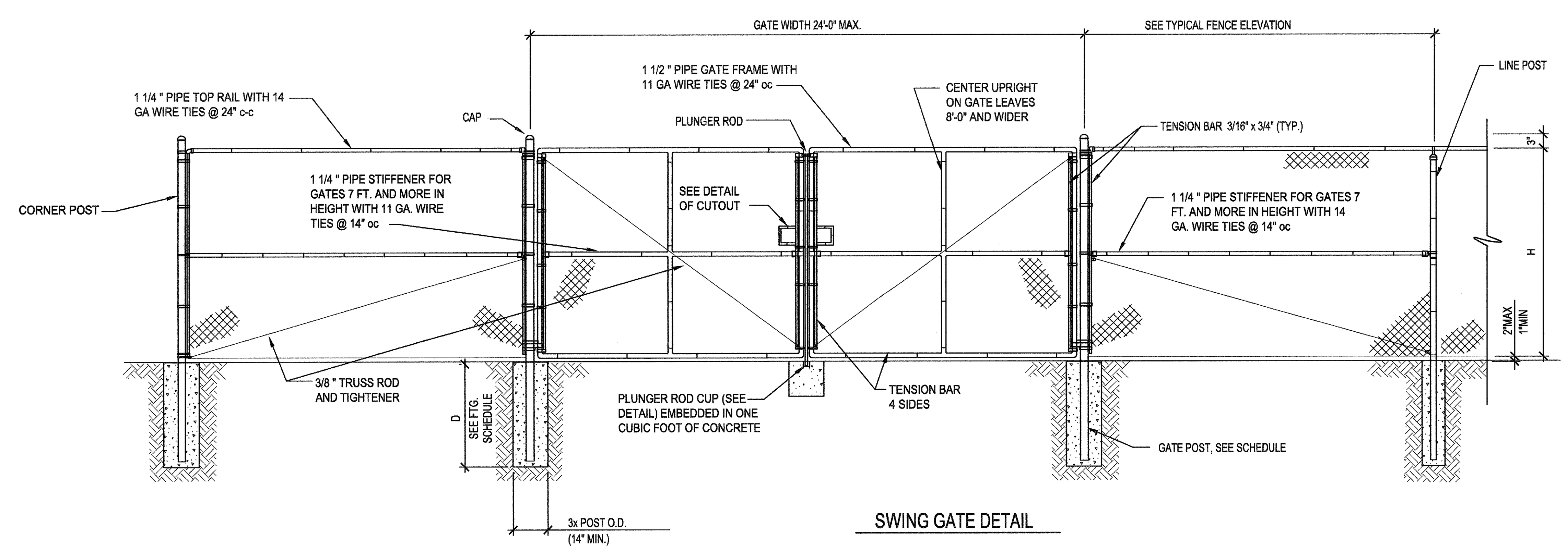
DETAIL OF CUTOUT FOR CHAIN AND LOCK



TYPICAL FENCE ELEVATION



PLUNGER ROD CUP DETAIL



SWING GATE DETAIL

GATE POST FOOTING SCHEDULE			
GATE WIDTH		FOOTING MIN. DEPTH, D	
SINGLE GATE	DOUBLE GATE	H TO 6'	H 6' TO 8'
TO 8'	TO 24'	4'-0"	4'-0"

GATE POST SCHEDULE				
FENCE HEIGHT (H)	GATE WIDTH	NOMINAL SIZE OF PIPE INCHES	ACTUAL O.D. INCHES	WEIGHT PER FOOT POUNDS
6 FEET TO 8 FEET INCLUSIVE	SINGLE GATES 6 FEET OR LESS AND DOUBLE GATES 12 FEET OR LESS	2 1/2	2.875	5.79
6 FEET TO 8 FEET INCLUSIVE	SINGLE GATES 6 TO 12 FEET AND DOUBLE GATES 12 TO 24 FEET	3 1/2	4.00	9.11

NOTES

1. FABRIC SHALL HAVE KNUCKLED FINISH ON BOTH TOP AND BOTTOM EDGES.
2. ALL GATE HINGES SHALL BE HEAVY DUTY MALLEABLE IRON OR STEEL, INDUSTRIAL SERVICE TYPE AND NOT LESS THAN 3-INCHES IN WIDTH.
3. ALL TIES SHALL BE GALVANIZED STEEL.
4. TOP CAP SHALL BE SECURED TO POST USING 1/4-INCH RIVET.
5. CORNER OR SLOPE POSTS SHALL BE INSTALLED WHEN THE CHANGE IN DEFLECTION ANGLE IS 30 DEGREES OR MORE AT CORNER OR SLOPE POINTS. CONSTRUCT SLOPE POSTS AS THOUGH THEY WERE CORNER POSTS.
6. INTERMEDIATE POSTS SHALL BE PROVIDED WHEN THE DISTANCE BETWEEN CORNER OF SLOPE POSTS EXCEEDS 300 FEET. THEY SHALL BE CONSTRUCTED AS THOUGH THEY WERE CORNER OR SLOPE POSTS.
7. THREADS OF ALL 3/8-INCH ROUND TRUSS RODS SHALL BE PEENDED AFTER INSTALLATION.
8. WHEN TOP RAIL IS OMITTED BY PLAN, PROVIDE 7-GAGE TENSION WIRE WITH 11-GAGE FABRIC TIES OR HOG RINGS SPACED AT 24-INCH INTERVALS.
9. GATES SHALL BE PROVIDED WITH A COMBINATION SPRING LATCH AND PLUNGER ROD, APPROVED BY THE ENGINEER.
10. TENSION WIRE SHALL BE SECURELY FASTENED TO THE TERMINAL POSTS AND BE TAUT AND FREE OF SAG.
11. THE FABRIC SHALL BE PLACED ON THE OUTWARD FACING SIDE OF THE POSTS, STRETCHED TAUT, AND FASTENED SECURELY.

CHAIN LINK FENCE AND GATES (TYPE G-C) SCALE: N.T.S. 20

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drawing title:
ENLARGED SITE PLANS & DETAILS

drawing no.:
AS-2
drawing of

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
03 117044
AC FLS SS
Date APR 29 2016

2014A

DESIGN VALUES:

DESCRIPTION	DESIGN VALUES
DEAD AND LIVE LOADS	
ROOF LIVE LOAD	20 PSF
ROOF DEAD LOAD (SUPERIMPOSED ON FRAME)	VARIES
ALLOWABLE SOIL PRESSURE	
DL+LL (CONCRETE FOOTING)	2000 PSF
DL+LL+SEISMIC (CONCRETE FOOTING)	2000 PSF
ROOF SNOW LOAD	
GROUND SNOW LOAD, Pg, FROM COUNTY	10 PSF
RISK CATEGORY	[X] II [ ] III
ROOF SNOW LOAD: [ ] FLAT, Pf OR [ ] LOW-SLOPE, Pm OR [X] SLOPED, Ps	10 PSF
SNOW ROOF SLOPE FACTOR, Cs	1.0
SNOW EXPOSURE FACTOR, Ce	1.2
SNOW LOAD IMPORTANCE FACTOR, Is	[X] 1.0 [ ] 1.1
THERMAL FACTOR, Ct	[ ] 1.0 [X] 1.2
FLOOD DESIGN	
FLOOD HAZARD AREA: [ ] YES [X] NO	
WIND DESIGN	
BASIC WIND SPEED (3 SECOND GUST), Vult	110 MPH
RISK CATEGORY	[X] II [ ] III
EXPOSURE CATEGORY	[X] C [ ] D
TOPOGRAPHIC FACTOR, Kzt (1 MINIMUM)	1.0
INTERNAL PRESSURE COEFFICIENT, GCpi (IF APPLICABLE)	0.0
SEISMIC DESIGN	
LATERAL FORCE-RESISTING SYSTEM	STEEL ORDINARY CANTILEVER COLUMN SYSTEMS
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE PROCEDURE
SEISMIC DESIGN CATEGORY (SDC)	E
SEISMIC IMPORTANCE FACTOR, Ie	[X] 1.0 [ ] 1.25
DESIGN BASE SHEAR, V	Cs x W
SEISMIC RESPONSE COEFFICIENT, Cs	LOAD SCENARIO = { 1, 2, 3, 4 } Cs = { 0.80, 0.80, 1.07, 1.28 }
RESPONSE MODIFICATION FACTOR, R	1.25
SITE CLASS	[X] D [ ] E
REDUNDANCY FACTOR, p	1.3
MAPPED SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, Ss - USED TO DETERMINE Cs (WITH CAP PER CBC 1616A.1.12)	LOAD SCENARIO = { 1, 2, 3, 4 } Ss (MAX) = { 1.875, 1.875, 2.500, 3.000 }
MAPPED SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, Ss - USED TO DETERMINE OTHER PARAMETERS AND NON-STRUCTURAL COMPONENT ANHORAGE (NO CAP)	3.00
SHORT-PERIOD SITE COEFFICIENT, Fa	1.0
DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, Sds - USED TO DETERMINE Cs (WITH CAP PER CBC 1616.1.12)	LOAD SCENARIO = { 1, 2, 3, 4} Sds (MAX) = { 1.00, 1.00, 1.33, 1.60 }
DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, Sds - USED TO DETERMINE OTHER PARAMETERS AND NON-STRUCTURAL COMPONENTS ANCHORAGE (NO CAP)	2.00
MAPPED SPECTRAL RESPONSE ACCELERATION AT 1 SECOND PERIOD, S1	1.07
LONG-PERIOD SITE COEFFICIENT, Fv	1.5
DESIGN SPECTRAL RESPONSE ACCELERATION AT 1 SECOND PERIOD, Sd1	1.07
HORIZONTAL OR VERTICAL IRREGULARITIES TYPE(S)	NONE

ARCHITECTURAL REQUIREMENTS:

DESCRIPTION	DESIGN VALUES
TYPE OF CONSTRUCTION	VB
OCCUPANCY CLASSIFICATION	A3
NUMBER OF STORIES	1
FIRE HAZARD SEVERITY ZONE	VERY HIGH
FIRE SPRINKLER SYSTEM	NOT BY POLIGON

POLIGON ASSUMES ANY OCCUPANT LOAD CALCULATIONS ARE BASED ON 15 SQ FT/ PERSON. PROJECT ARCHITECT MAY ADJUST OCCUPANT LOAD AS PERMITTLED BY THE BUILDING CDE.

RELATED BUILDING CODES AND STANDARDS:

TITLE 24 CODES:

2013 California Administrative Code (CAC)..........................(Part 1, Title 24, CCR)
2013 California Building Code (CBC), Volumes 1, and 2 (Part 2, Title 24, CCR)
(2012 International Building Code with 2013 California amendments)
2013 California Electrical Code ....(Part 3, Title 24, CCR)
(2011 National Electrical Code with 2013 California amendments)
2013 California Mechanical Code (CMC) ....(Part 4, Title 24, CCR)
(2012 Uniform Mechanical Code with 2013 California amendments)
2013 California Plumbing Code (CPC) ....(Part 5, Title 24, CCR)
(2012 Uniform Plumbing Code with 2013 California amendments)
2013 California Energy Code ....(Part 6, Title 24, CCR)
(Effective July 1, 2014)
2013 California Fire Code (CFC) ....(Part 9, Title 24, CCR)
(2012 International Fire Code with 2010 California Amendments)
2013 California Green Building Standards Code...................(Part 11, Title 24, CCR)
(Effective January 1, 2014)
2013 California Referenced Standards Code .... (Part 12, Title 24, CCR)

NFPA 13 - 2013
NFPA 72 - 2013

REFERENCE CODE SECTIONS FOR APPLICABLE STANDARDS:

2013 CBC, CHAPTER **35**
2013 CFC, CHAPTER **45**

SCOPE OF WORK NARRATIVE:

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

GENERAL:

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

STRUCTURAL AND MISCELLANEOUS STEEL:

1. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFIATION 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 A500, GRADE B (OR HIGHER), Fy = 46 KSI.
4. IF MATERIAL AVAILABILITY IS LIMITED, MEMBER THICKNESSES CAN BE INCREASED BEYOND WHAT IS SHOWN IN THESE DRAWINGS (MAXIMUM INCREASE OF 1/8").
5. ALL CHANNELS, ANGLES, AND MISC. STEEL SHALL CONFORM TO ASTM A36, Fy = 36 KSI.
6. ALL COLD FORM STEEL SHALL CONFORM TO ASTM A653, CS = TYPE B, Fy = 50 KSI.
7. STRUCTURAL STEEL AND DECK SHALL BE IDENTIFIED FOR CONFORMITY PER CBC 2203A.1.
8. ROOF DECK SHALL HAVE KYNAR 5000 METAL COATING.
9. ROOF DECK SHALL CONFORM TO ATSM A792, Fy = 50 KSI.
10. MR ROOF SCREWS MEET ASTM A510 WITH A HEAD DIMENSION OF 0.31" (FLAT-TO-FLAT) AND INTEGRAL WASHER DIMENSION OF 0.58" (OUTSIDE DIAMETER).
11. SS ROOF SCREWS MEET ASTM A510 WITH A HEAD DIMENSION OF 0.437" (OUTSIDE DIAMETER).

WELDING:

1. ALL WELDING SHALL COMPLY WITH AWS D1.1 SPECIFICATIONS AND SHALL BE DONE BY AWS QUALIFIED WELDERS CERTIFIED FOR THE TYPE OF WELDING TO BE PERFORMED 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 INSURE PROPER MATERIAL ID AND WELDING.
4. WELD FILLER METAL MANUFACTURER SHALL PROVIDE WRITTEN CERTIFICATION OF COMPLIANCE WITH CODE AND SPECIFICATIONS.

BOLTING:

1. ALL BOLTS SHOWN ON THESE DRAWINGS ARE ASTM A325 HIGH STRENGTH BOLTS (UNO), TYPE 3.
2. HIGH STRENGTH BOLTS SHALL BE SAMPLED AND TESTED IN COMPLANCE WITH CBC 2213A.1.
3. BEFORE ERECTING THE FRAME, VERIFY ALL BOLTS AND NUTS ARE CLEAN OF DEBRIS AND BURRS - INCLUDING THE HARDWARE ALREADY FASTENED INSIDE THE MEMBERS. CHASING SOME OF THE BOLTS AND NUTS MAY BE REQUIRED.
4. ANCHOR BOLTS (HEAVY HEX HEAD, ASTM F1554, GRADE 55) SHALL BE HOT DIPPED GALVANIZED PER ASTM F2329. ANCHOR BOLTS MAY BE HEADED OR THREADED WITH A NUT THAT IS PREVENTED FROM ROTATING.
5. HIGH STRENGTH NUTS SHALL CONFORM TO ASTM A563.
6. HIGH STRENGTH WASHERS SHALL CONFORM TO ASTM F436.
7. THE BOLTING INSTALLATION REQUIREMENTS OUTLINED BELOW ARE CRITICAL TO THE STRUCTURE'S DESIGN AND PERFORMANCE. **THE INSTALLER IS REQUIRED TO COORDINATE THIS PHASE OF CONSTRUCTION WITH THE SPECIAL BOLTING INSPECTOR AND THE INSPECTOR OF RECORD PRIOR TO THE ERECTION OF THE FRAME.** ALL BOLTS SHALL BE INSTALLED AND INSPECTED PER THE APPLICABLE VERSION OF AISC'S "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS", CBC 1705A.2.1; AISC 341-10 J7; AISC 360-10 N5.6.
   - A. PRETENSIONED JOINTS (IDENTIFIED ON THE FRAME CONNECTION DETAILS WITH A "PJ REQUIRED") MUST BE INSTALLED AND INSPECTED TO MEET ONE OF FOLLOWING REQUIREMENTS:
     1. TURN-OF-NUT PRETENSIONING
     2. CALIBRATED WRENCH PRENTENSIONING
     3. DIRECT-TENSION-INDICATOR PRETENSIONING (CONTRACTOR RESPONSIBLE FOR PURCHASE OF REQUIRED WASHERS)
   - B. ALL OTHER JOINTS MUST BE INSTALLED AND INSPECTED TO MEET THE REQUIREMENTS OF SNUG-TIGHTENED JOINTS. **NOTE TO INSTALLER AND INSPECTOR(S): THE SNUG-TIGHT CONDITION EXISTS, IN PART, WHEN ALL THE BOLTS IN THE JOINT HAVE BEEN TIGHTENED SUFFICIENTLY TO PREVENT THE REMOVAL OF THE NUTS WITHOUT THE USE OF A WRENCH.**

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

FOUNDATIONS:

3. ALLOWABLE SOIL PRESSURES ASSUME CLASS 4 SOIL CLASSIFICATION PER CBC TABLE 1806A.
2. **A GEOTECHNICAL REPORT / LETTER IS REQUIRED AT THE OVER-THE-COUNTER APPOINTMENT FOR EACH PROJECT.**
3. FILL AND BACKFILL SHALL BE COMPACTED TO 95% OF MAX. DENSITY IN ACCORDANCE WITH ASTM TEST METHOD D1557-70. FLOODING NOT PERMITTED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING, ETC. NECCESSARY TO SUPPORT CUT AND/OR FILL BANKS DURING EXCAVATION, AND FORMING AND PLACEMENT OF CONCRETE.

CONCRETE:

1. MIX DESIGN REQUIREMENTS: (NORMAL WEIGHT CONCRETE)

STRENGTH f'c (28 DAYS)	W/C RATIO (NON-AIR ENTRAINED)	W/C RATIO (AIR ENTRAINED)	SLUMP (± 1")	UNIT WEIGHT (NORMAL WEIGHT)
5000 PSI	0.63	0.55	3"	150 PCF

2. CHANGES TO THE MIX DESIGN MUST BE APPROVED BY THE ENGINEER OR ARCHITECT OF RECORD AND DSA
3. AGGREGATES SHALL CONFORM TO ASTM C33 WITH PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN .005. MAX AGGREGATE SIZE = 1".
4. CEMENT SHALL CONFORM TO ASTM C150 (TYPE V) UNLESS NOTED OTHERWISE ON THE DRAWINGS.
5. 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.
6. CONCRETE SHALL NOT FREE FALL MORE THAN FIVE FEET.
7. CONCRETE SHALL BE PROPORTIONED PER ACI 318-11 5.2.
8. CONCRETE SHALL BE TESTED PER CBC 1905A.1.2, 1913A.1, 1705A.3, AND ACI 318-11 5.6.

REINFORCING STEEL:

1. REINFORCING STEEL SHALL BE DEFORMED STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A615, (DEFORMATIONS SHALL BE IN ACCORDANCE WITH ASTM A305) AS FOLLOWS:
   GR 60: (#4 BARS AND LARGER)
   GR 40: (#3 BARS)
2. DETAILING, FABRICATION, AND ERECTION OF REINFORCING BARS SHALL CONFORM THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCING CONCRETE STRUCTURES."
3. MIN. COVER FOR CAST-IN-PLACE CONCRETE SHALL BE AS FOLLOWS:
   A. CAST AGAINST EARTH.. 3"
   B. CAST AGAINST FORM BELOW GRADE........................ 2"
   C. FORMED SLABS (#11 BAR & SMALLER)...................... 3/4"
   D. SLABS ON GRADE (FROM TOP OF SLAB).................. 1"
   E. COLUMNS AND BEAMS (MAIN BARS)........................ 2"
   F. WALLS EXPOSED TO WEATHER (#6-#18 BARS).......... 2"
   (#5 & SMALLER).......... 11/2"
   G. NOT EXPOSED TO WEATHER (#11 & SMALLER)........ 3/4"
4. BARS SHALL BE CLEAN OF RUST, GREASE OR OTHER MATERIAL LIKELY TO IMPAIR BOND. BENDS SHALL BE MADE COLD.
5. REINFORCING SHALL BE LAP SPLICED 45 BAR DIA. MINIMUM IN CONCRETE AND MUST COMPLY WITH ACI 318-11.
6. PRIOR TO PLACING OF CONCRETE, REINFORCING STEEL AND EMBEDDED ITEMS SHALL BE WELL SECURED IN POSITION.
7. WELDING OF REINFORCING IS NOT ALLOWED
8. REINFORCING STEEL SHALL BE SAMPLED AND TESTED PER CBC 1913A.2.

POWDER COATED AND EPOXY PRIMED FINISH:

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

ABBREVIATIONS:

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

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:
THE POLIGON ENGINEERING DEPARTMENT IS AVAILABLE TO HELP YOU COMPLETE THESE STEPS (616-399-1963).

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

STEP 2: SELECT ROOF DECK FOR YOUR PROJECT
- "MR" REPRESENTS MCELROY METAL "MULTI-RIB" ROOF DECK
- "SS" REPRESENTS MCELROY METAL "MEDALLION-LOK" 16" STANDING SEAM ROOF DECK

STEP 3: IDENTIFY THE Ss ACCELERATION (g) FOR YOUR PROJECT
- Ss VALUE DETERMINES THE REQUIRED SEISMIC DESIGN FORCES
- Ss VALUE 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")
- THIS PC IS NOT APPROVED FOR Ss VALUES GREATER THAN 3.00 (CONTACT POLIGON FOR ADDITIONAL OPTIONS)

STEP 4: IDENTIFY THE Ss REGION FOR YOUR PROJECT
- THE REGIONS ARE DEPENDANT ON THE Ss VALUE DETERMINED IN STEP 3
- REFERENCE DSA BU 14-01 FOR A MAP OF VARIOUS Ss REGIONS
- THE Ss REGION DICTATES THE MAXIMUM DEAD LOAD PERMITTED ON THE FRAME (SEE TABLE TO THE RIGHT)

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

STEP 6: IDENTIFY THE FOUNDATION REQUIREMENTS FOR YOUR PROJECT
- REFERENCE THE Ss REGION (STEP 4) AND THE TOTAL ROOF DEAD (STEP 5)
- IDENTIFY **A SINGLE** LOAD SCENARIO
  - E.G. A PROJECT IN THE WHITE Ss REGION WITH A 4 PSF ROOF DEAD LOAD IS LOAD SCENARIO 2
  - LOAD SCENARIOS HAVE NO IMPACT ON FRAME DESIGN OR COST (BUT DO AFFECT FOUNDATION SIZE)
- SELECT **EITHER** SPREAD PAD OR DRILLED PIER FOUNDATION
  - FOUNDATION TYPE IMPACTS STEEL FABRICATION (COLUMN LENGTH) AND CONSTRUCTION (TIMING, SEQUENCE, COST, ETC.)
  - POLIGON CAN REVIEW THE SITE-SPECIFIC SOILS REPORT TO EVALUATE THE POSSIBILITY OF SMALLER FOUNDATIONS

STEP 1 — FRAME DIMENSIONS

	SUGGESTED			OTHER
FRAME WIDTH	☒ 20'	☐ 30'		☐ (30' MAX)
FRAME LENGTH	☐ 44'	☐ 64'	☐ 84'	☒ 40'-0" (NO MAX)

STEP 2 — ROOF DECK

ROOF DECK TYPE	☐ MR	☒ SS

STEP 3 — Ss ACCELERATION (g)

2.697

STEP 4 — Ss REGIONS[1]

DESCRIPTION		Ss REGIONS	MAX DEAD LOAD
	☐ WHITE	0.000 < Ss <= 1.875	5 PSF
	☐ BLUE	1.875 < Ss <= 2.500	3.5 PSF
	☒ GREEN	2.500 < Ss <= 2.750	2 PSF
	☐ YELLOW	2.750 < Ss <= 3.000	2 PSF

[1] REFERENCE DSA BU 14-01 FOR A MAP OF VARIOUS Ss REGIONS

STEP 5 — TOTAL ROOF DEAD LOAD

	DEAD LOAD	EXAMPLES
ROOF DECK	1.8 PSF	MR = 1.2 PSF ; SS = 1.8 PSF (SEE STEP 2)
COLLATERAL[1]	0.0 PSF	LIGHTING, FIRE SUPPRESSION, PV PANELS, ETC.
TOTAL[2]	1.8 PSF	ADD ROOF DECK AND COLLATERAL LOADS

[1] PROVIDE DSA WITH EVIDENCE THAT THE COLLATERAL LOAD FOR YOUR PROJECT MEETS THESE REQUIREMENTS
[2] MAY NOT EXCEED REQUIREMENTS LISTED IN STEP 6 BELOW

STEP 6 — FOUNDATION REQUIREMENTS

Ss REGION	DEAD LOAD (DL)	LOAD SCENARIO	SPREAD PAD	DRILLED PIER
WHITE	DL <= 2 PSF	☐ LOAD SCENARIO 1	☐	☒
	2 PSF < DL <= 5 PSF	☐ LOAD SCENARIO 2		
BLUE	DL <= 3.5 PSF	☐ LOAD SCENARIO 3		
GREEN	DL <= 2 PSF	☒ LOAD SCENARIO 4		
YELLOW	DL <= 2 PSF	☐ LOAD SCENARIO 4		

STEP 7: SELECT MISCELLANEOUS OPTIONS FOR YOUR PROJECT
- MAXIMUM CLEAR HEIGHT IS 10'-0"; (SEE 'ARCHITECTURAL VIEWS' SHEET FOR REFERENCE)
- MARK UP PC DRAWINGS WITH SIZE AND LOCATION OF CUTOUTS BEFORE SUBMITTING TO DSA

STEP 8: SELECT APPLICABLE SHEET INDEX FOR YOUR PROJECT
- REFERENCE THE BASE FRAME (STEP1) AND THE ROOF DECK TYPE (STEP 2)
- IDENTIFY THE APPLICABLE SHEET INDEX

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

STEP 10: IDENTIFY PROJECT NAME AND SCHOOL DISTRICT

PROJECT NAME: Dunsmore Elementary School

SCHOOL DISTRICT: Glendale Unified School District

STEP 7 — MISCELLANEOUS

	DESIGN OPTIONS	
CLEAR HEIGHT	☒ 10'-0"	☐ (10' MAX)
ELECTRICAL CUTOUTS	☐ YES	☒ NO
GUTTERS	☒ YES	☐ NO

STEP 8 — SHEET INDEX

BASE FRAME	RAM 20		RAM 30	
ROOF DECK	MR	SS	MR	SS
SELECT ONE	☐	☒	☐	☐
GENERAL NOTES	PD1.0	PD1.0	PD1.0	PD1.0
SPECIAL INSPECTIONS	PD1.1	PD1.1	PD1.1	PD1.1
FOUNDATION PLAN	PD2.0	PD2.0	PD2.1	PD2.1
FRAMING PLAN	PD3.0	PD3.0	PD3.1	PD3.1
FRAME CONNECTION DETAILS	PD4.0	PD4.0	PD4.1	PD4.1
SECTION DETAILS	PD5.0	PD5.0	PD5.1	PD5.1
PLATE DETAILS	PD6.0 - PD6.1		PD6.2 - PD6.3	
ARCHITECTURAL VIEWS	PD7.0	PD7.0	PD7.1	PD7.1
ROOF CONNECTION DETAILS	PD8.0	PD8.1	PD8.0	PD8.1
MISC DESIGN OPTIONS	PD9.0	PD9.0	PD9.0	PD9.0

1

THOMAS A. BURKHART
No. S4378
Exp. 3/31/16

TEAM DRIVEN SOLUTIONS FOR THE BUILT ENVIRONMENT
CARLTON Engineering Inc.

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File No. PC-1
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02 113591
AC FLS SS
DATE 11-14-2014
1 Rev. 1

PRE-CHECK (PC) DOCUMENT

CODE: 2013 CBC

A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

GENERAL NOTES

HIP ROOF (RAM)
PC DRAWINGS

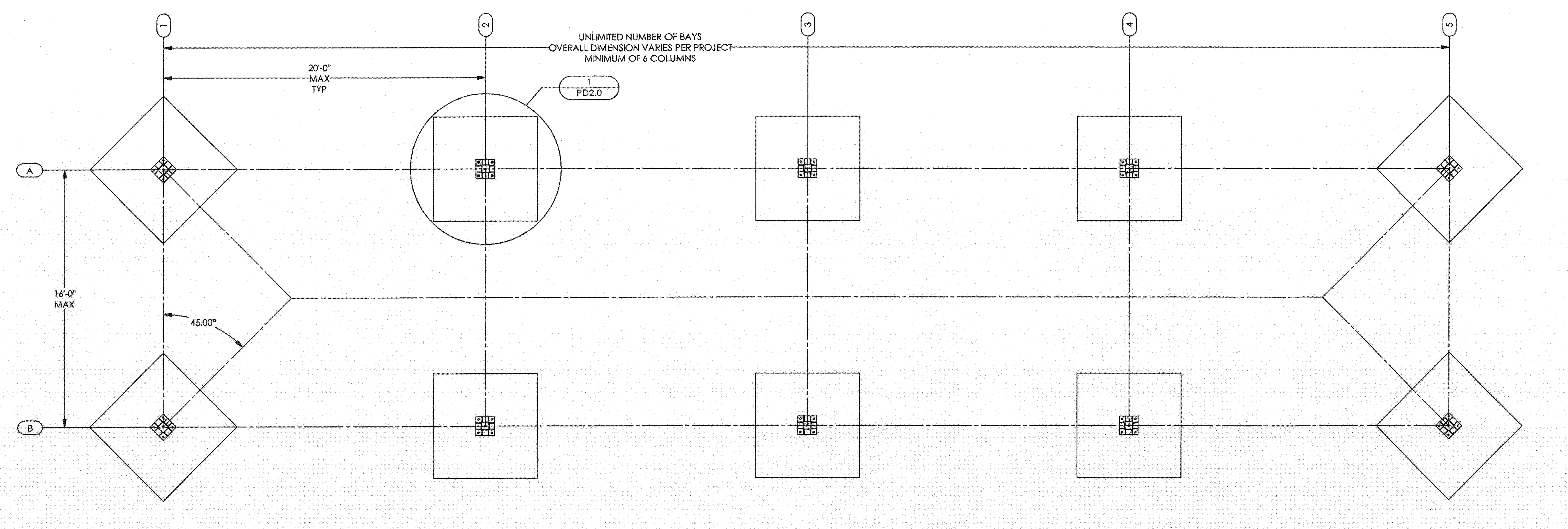
DRAWN BY: JMD
CHECKED BY: CE
POLIGON #: 51458

PD1.0

2014A

FOUNDATION PLAN NOTES:

1. TOP OF ALL FOUNDATIONS MUST BE CONSTRUCTED AT ONE COMMON ELEVATION (COORDINATE WITH SITE PLANS - NOT BY POLIGON)
2. ALL FOUNDATIONS MUST BE CENTERED UNDER COLUMNS (UNO).
3. SEE SHEET PD1.0 FOR CONCRETE REQUIREMENTS.
4. PRIOR TO FORMING AND CASTING FOUNDATIONS, REVIEW FOUNDATION PLAN FOR REQUIRED ORIENTATION.
5. FOUNDATION MATERIAL AND INSTALLATION NOT BY POLIGON.
6. VIBRATE CONCRETE FULL DEPTH OF FOUNDATION.
7. FOR DRILLED PIER FOUNDATIONS, PREVENT SOIL FROM ENTERING EXCAVATED HOLE (FORM, ETC).



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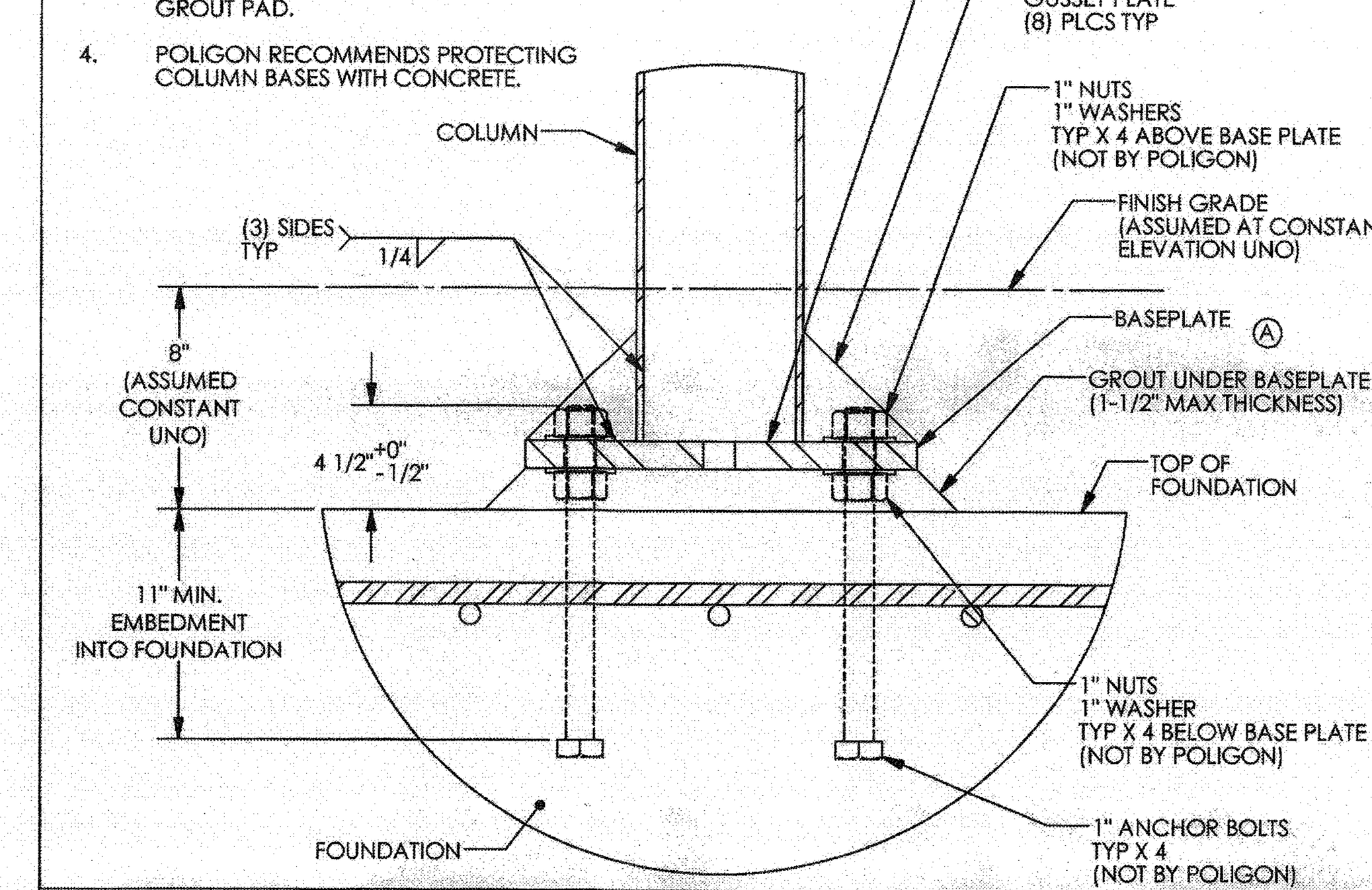
FOUNDATION PLAN (SPREAD PAD)

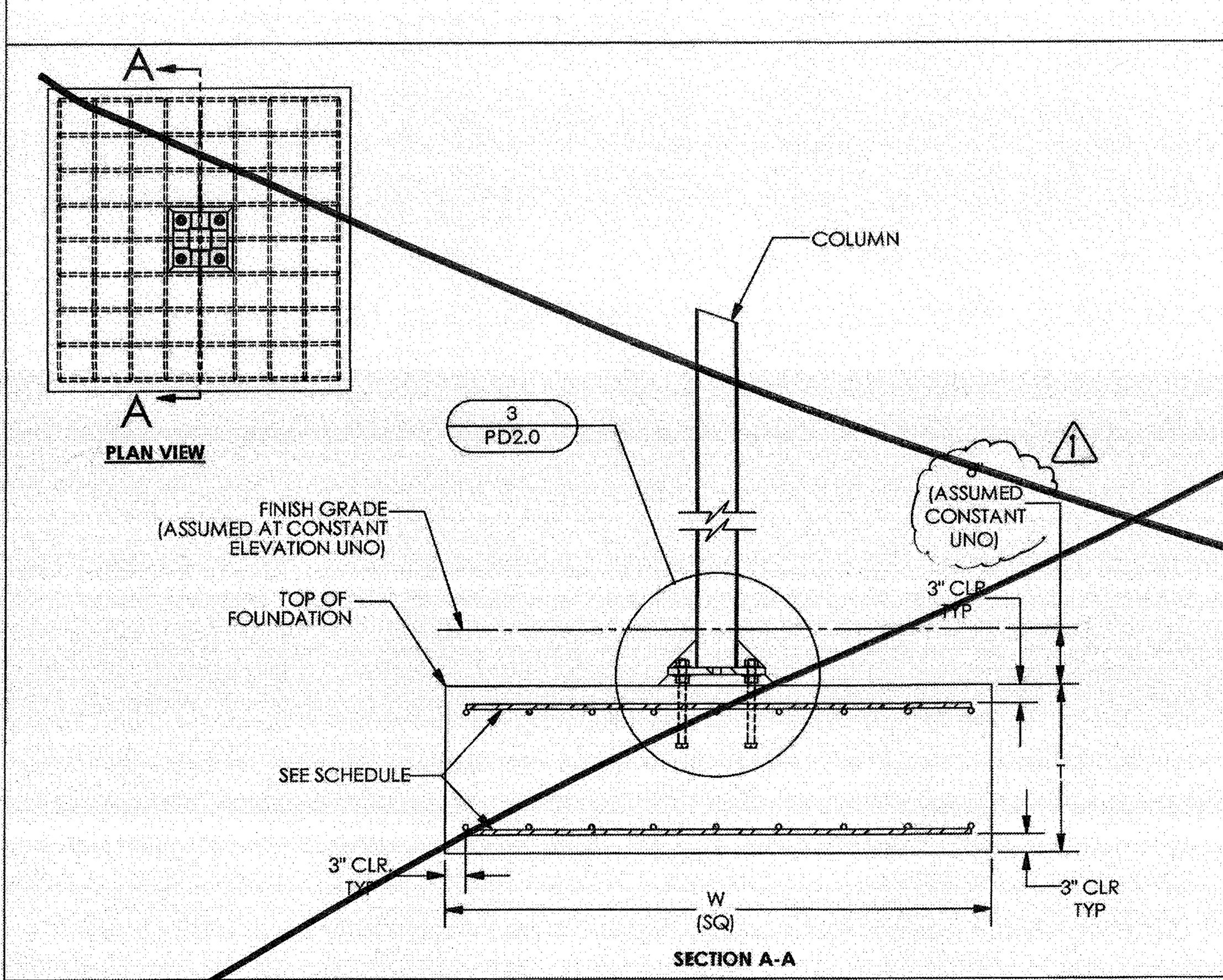
SCALE: 1/4" = 1'-0"

NOTES:

1. SEE PLATE (X) DETAILS ON SHEET PD6.0.
2. GROUT SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH MINIMUM f'c=6500 PSI.
3. COLUMNS FABICATED ASSUMING 1-1/2" GROUT PAD.
4. POLIGON RECOMMENDS PROTECTING COLUMN BASES WITH CONCRETE.



COLUMN BASE PLATE AND ANCHOR BOLTS 3



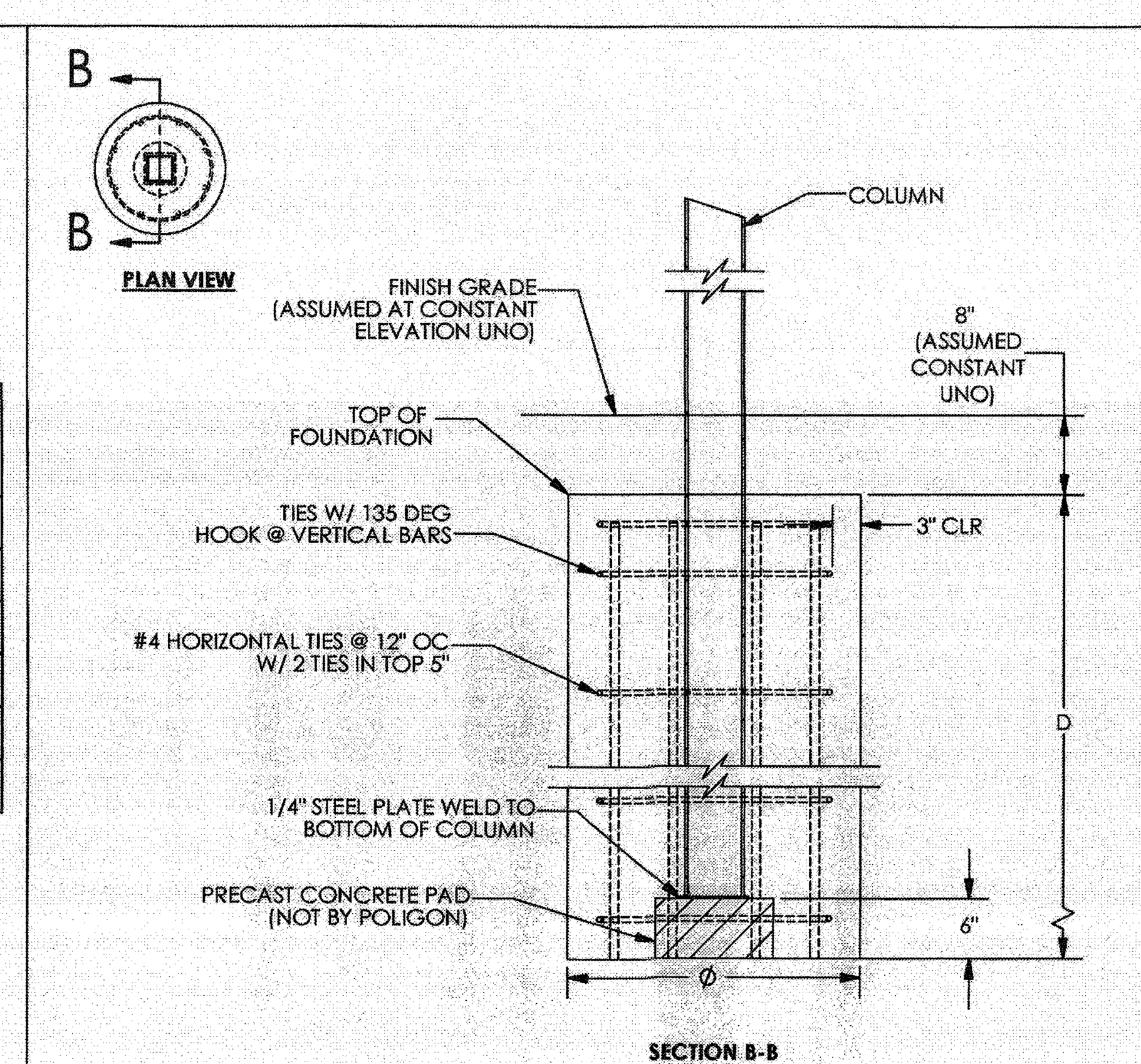
FOUNDATION REQUIREMENTS VARY PER PROJECT
SEE SHEET PD1.0 FOR REQUIRED LOAD SCENARIO AND FOUNDATION TYPE (STEP 6 OF 'INSTRUCTIONS')
ONLY REFERENCE COPY OF PC DRAWINGS SUBMITTED FOR THIS PROJECT

SPREAD PAD
SIZE AND REINFORCING REQUIREMENTS

LOAD SCENARIO	WIDTH (W)	THICKNESS (T)	HORIZONTAL REINFORCING[1]	
			QTY	SIZE
1	6'-0"	1'-6"	6	#6
2	6'-0"	2'-0"	8	#6
3	7'-0"	2'-0"	9	#6
4	7'-6"	2'-0"	9	#6

[1] EQUALLY SPACED EACH WAY, TOP AND BOTTOM

SPREAD PAD FOUNDATION 1



FOUNDATION REQUIREMENTS VARY PER PROJECT
SEE SHEET PD1.0 FOR REQUIRED LOAD SCENARIO AND FOUNDATION TYPE (STEP 6 OF 'INSTRUCTIONS')
ONLY REFERENCE COPY OF PC DRAWINGS SUBMITTED FOR THIS PROJECT

DRILLED PIER
SIZE AND REINFORCING REQUIREMENTS

LOAD SCENARIO	DIAMETER (Ø)	DEPTH (D)	VERTICAL REINFORCING[1]	
			QTY	SIZE
~~1~~	~~2'-6"~~	~~8'-0"~~	~~6~~	~~#6~~
~~2~~	~~2'-6"~~	~~9'-6"~~	~~8~~	~~#6~~
~~3~~	~~2'-6"~~	~~10'-0"~~	~~8~~	~~#6~~
4	2'-6"	11'-0"	8	#6

[1] EQUALLY SPACED AROUND DRILLED PIER

PRIOR TO CONCRETE PLACEMENT, POLIGON STRONGLY RECOMMENDS ERECTING ENOUGH OF THE FRAME (E.G. BEAMS AND PURLINS) TO ENSURE ACCURATE COLUMN SPACING, ROTATION, AND VERTICALITY.

DRILLED PIER FOUNDATION (BURIED COLUMN) 2

REGISTERED PROFESSIONAL ENGINEER
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No. S4378
Exp. 3/31/16
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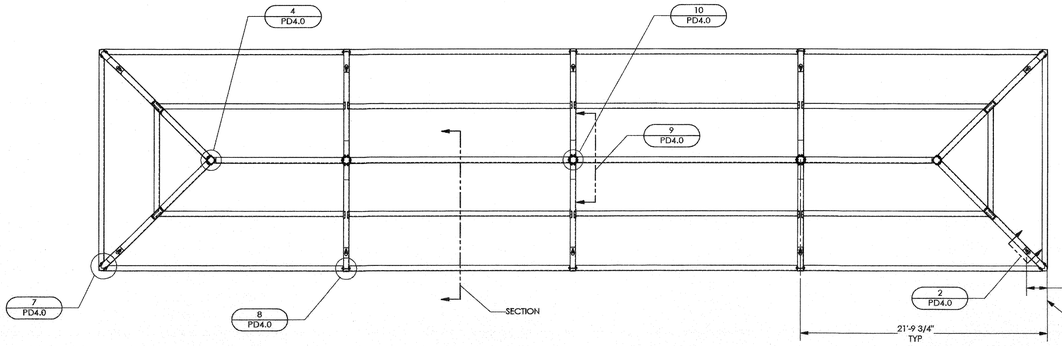
FOUNDATION PLAN
RAM 20

HIP ROOF (RAM)
PC DRAWINGS

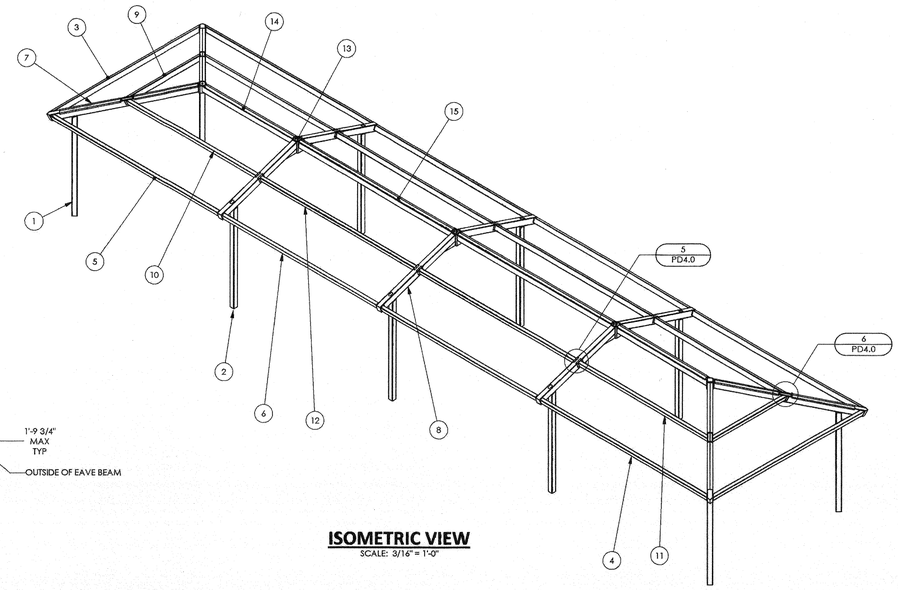
DRAWN BY: JMD
CHECKED BY: CE
POLIGON #: 51458

PD2.0

2014A



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



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

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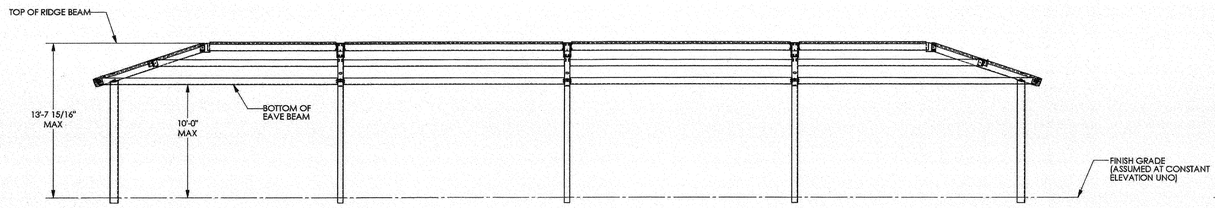
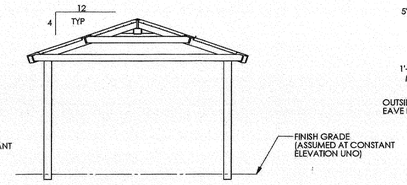
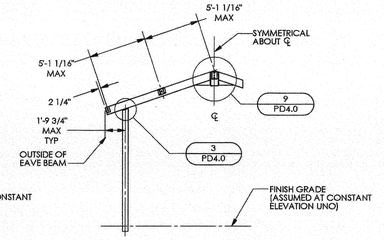


FRONT ELEVATION
SCALE: 3/16" = 1'-0"



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



SECTION
SCALE: 3/16" = 1'-0"

ITEM	FRAME /QTY.	PART NO.	DESCRIPTION	MATERIAL
15	2	-	RIDGE BEAM ASM, MID	HSSBX6X3/16
14	2	-	RIDGE BEAM ASM, END	HSSBX6X3/16
13	3	-	COMPRESSION TUBE ASM	HSSBXBX5/8
12	4	-	PURLIN ASM, SIDE	HSS6X4X3/16
11	2	-	PURLIN ASM, RH	HSS6X4X3/16
10	2	-	PURLIN ASM, LH	HSS6X4X3/16
9	2	-	PURLIN ASM, END	HSS6X4X3/16
8	6	-	GABLE BEAM ASM	HSSBX6X3/16
7	4	-	HIP BEAM ASM	HSSBX6X3/16
6	4	-	EAVE BEAM ASM, SIDE	HSS6X4X1/8
5	2	-	EAVE BEAM ASM, RH	HSS6X4X1/8
4	2	-	EAVE BEAM ASM, LH	HSS6X4X1/8
3	2	-	EAVE BEAM ASM, END	HSS6X4X1/8
2	6	-	COLUMN ASM, SIDE	HSS6X6X1/4
1	4	-	COLUMN ASM, CORNER	HSS6X6X1/4

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A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

FRAMING PLAN
RAM 20

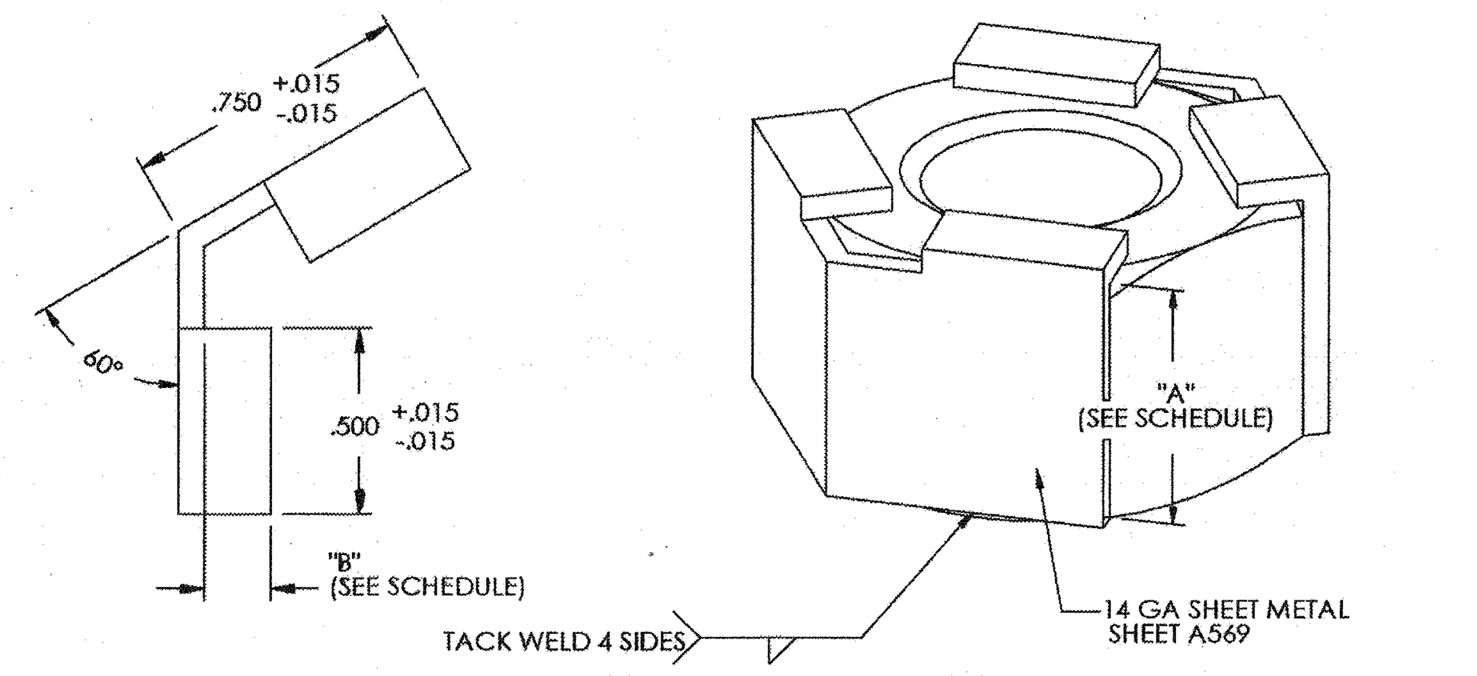
HIP ROOF (RAM)
PC DRAWINGS

DRAWN BY: JMD
CHECKED BY: CE
POLIGON #: 51458

PD3.0

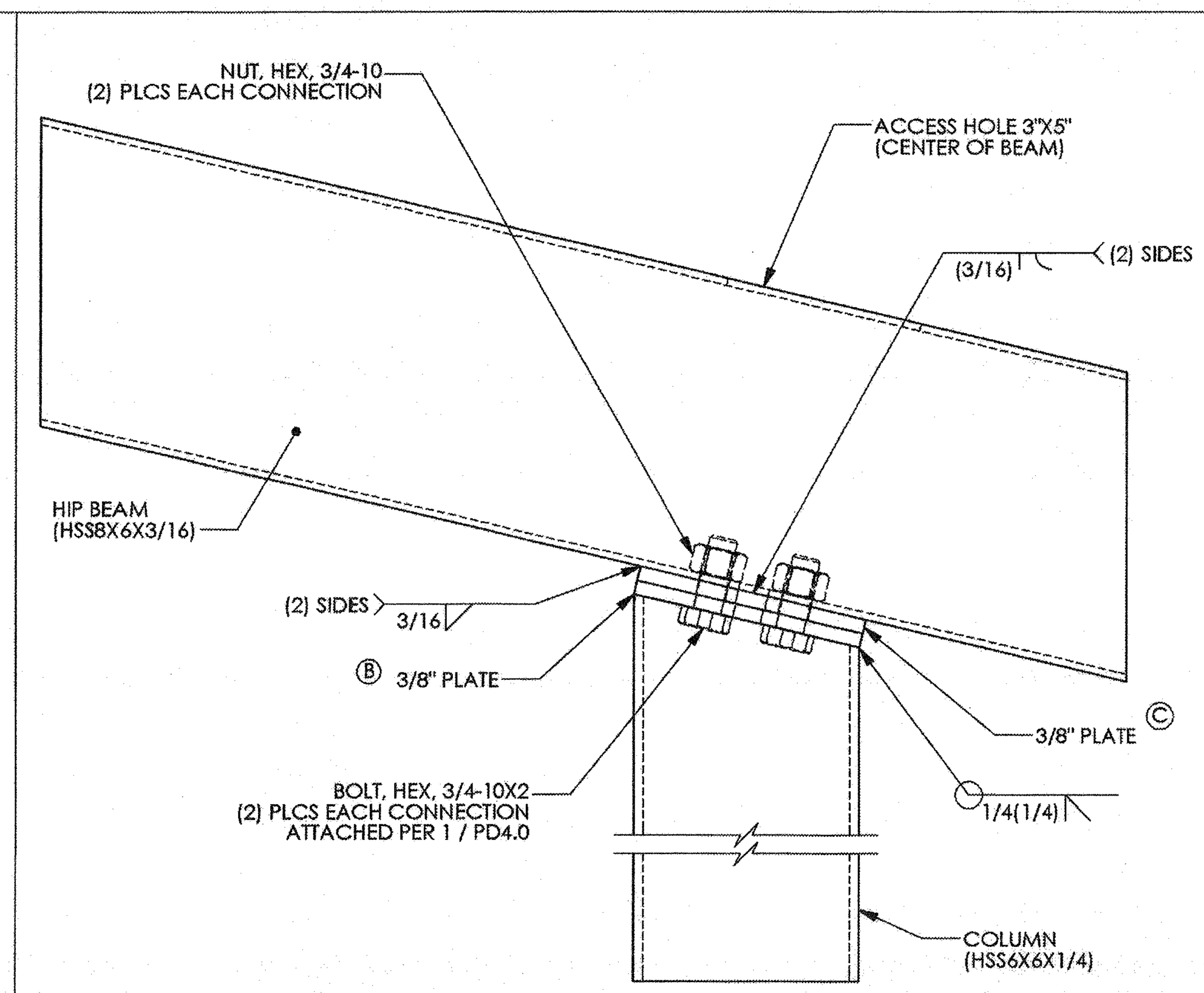
2014A

ALL HIDDEN NUTS AND BOLTS (INSTALLED IN SHOP DURING FABRICATION) ARE SECURED WITH THIS NUT AND BOLT RESTRAINING SYSTEM.

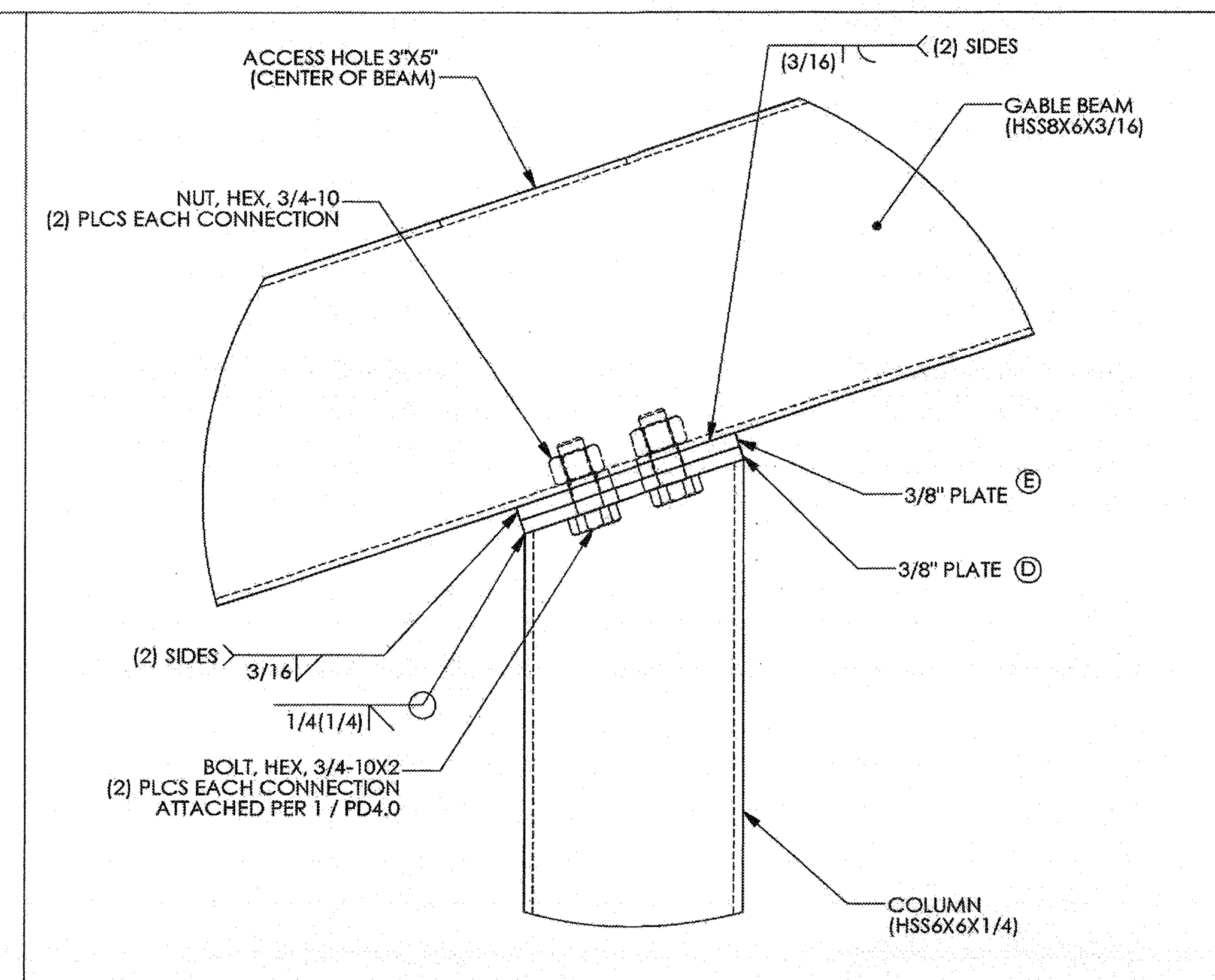


DIMENSION SCHEDULE		
FASTENER	DIM A	DIM B
5/8" NUT	.631 +.000 -.015	.180 +.015 -.015
5/8" BOLT	.403 +.000 -.015	.250 +.015 -.015
3/4" NUT	.758 +.000 -.015	.180 +.015 -.015
3/4" BOLT	.483 +.000 -.015	.375 +.015 -.015
1" NUT	1.012 +.000 -.015	.180 +.015 -.015
1" BOLT	.643 +.000 -.015	.375 +.015 -.015

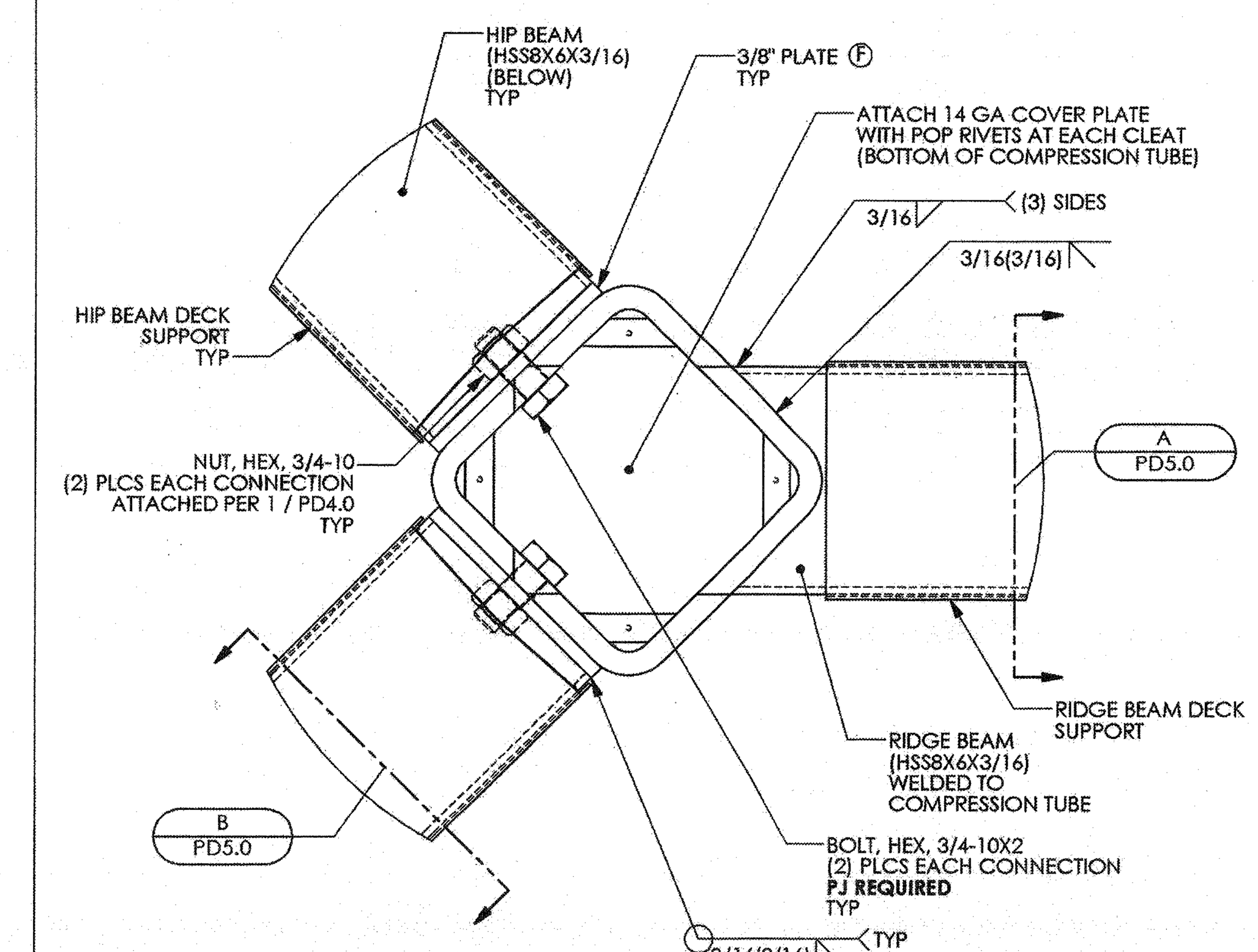
NUT & BOLT RESTRAINING SYSTEM (1)



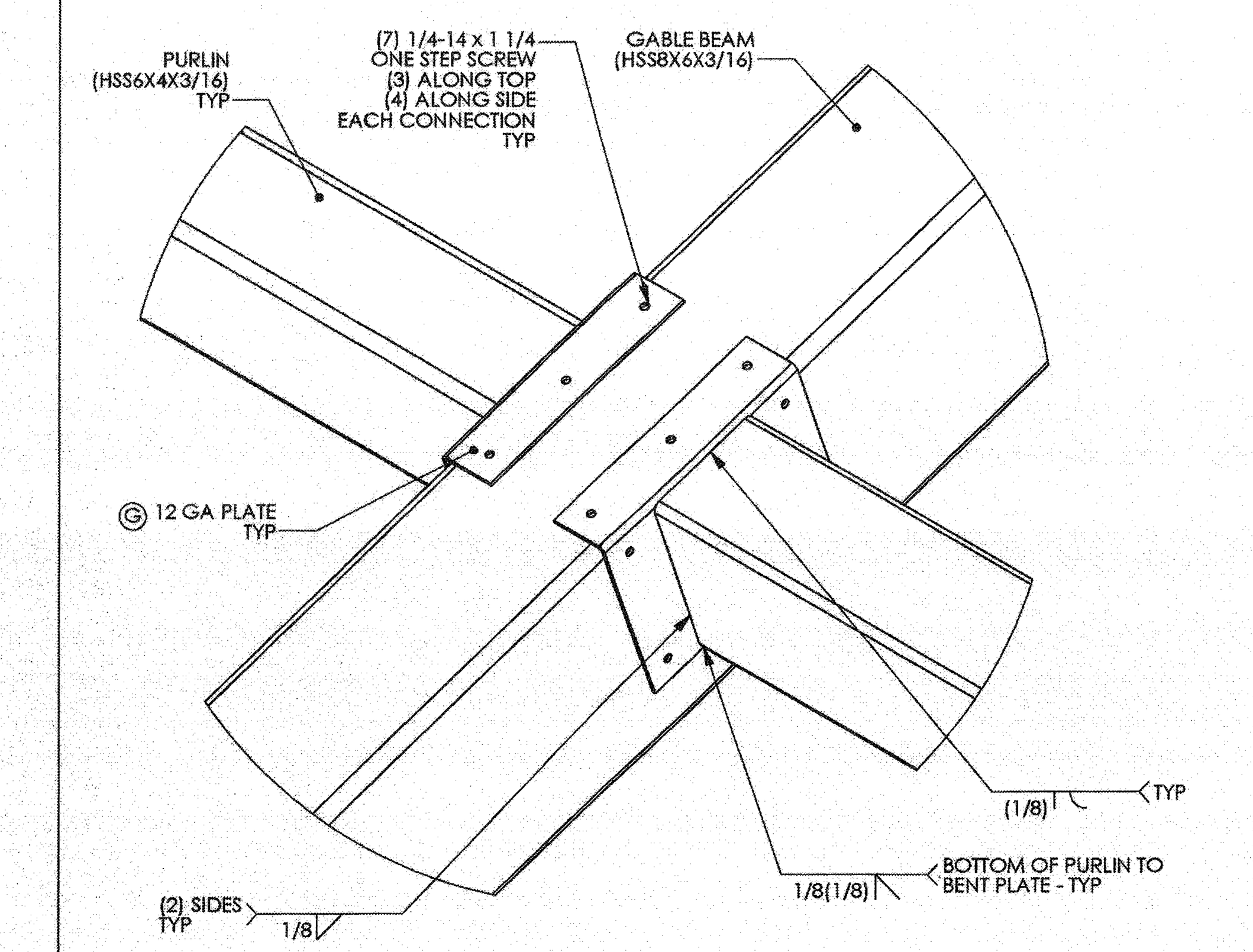
HIP BEAM CONNECTION @ COLUMN (2)



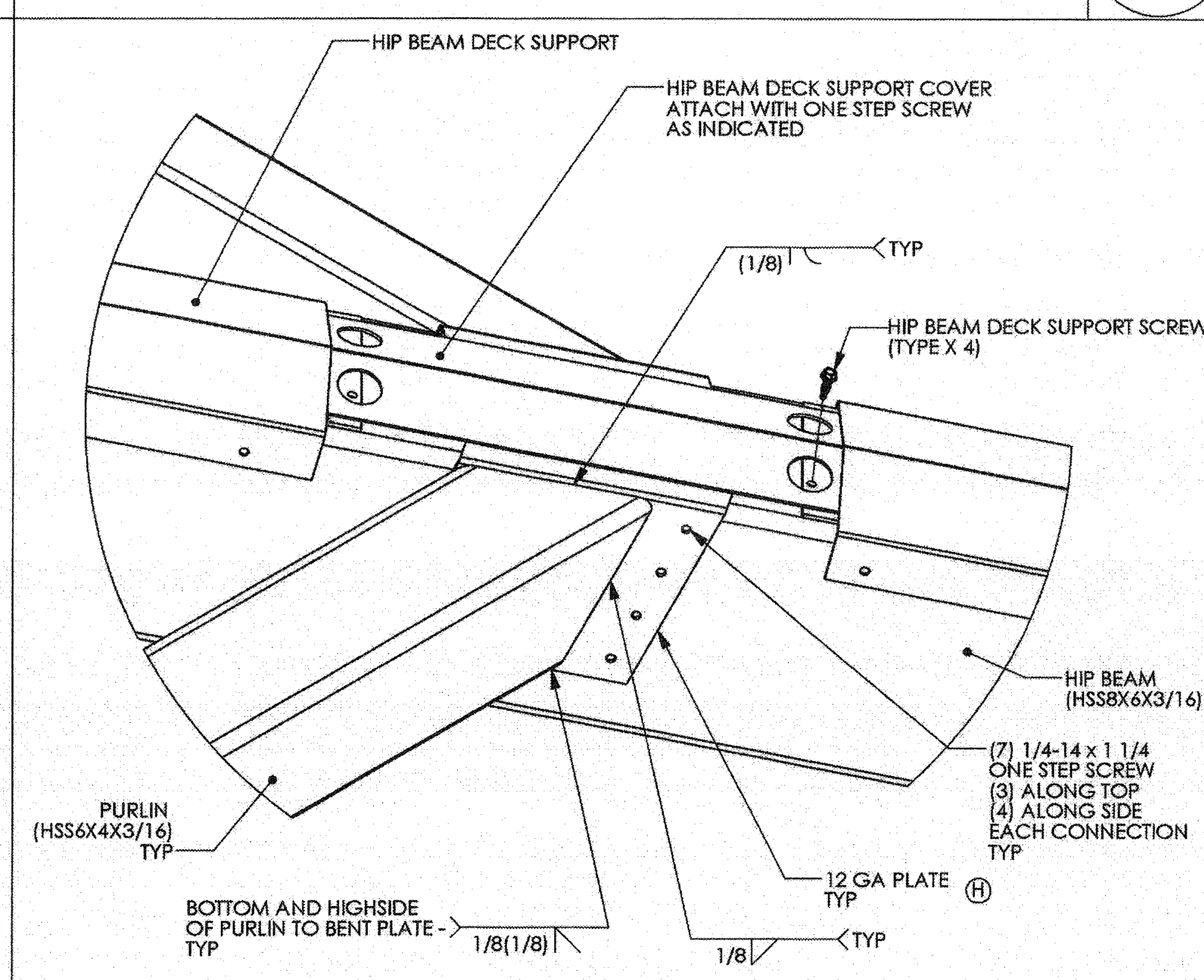
GABLE BEAM CONNECTION @ COLUMN (3)



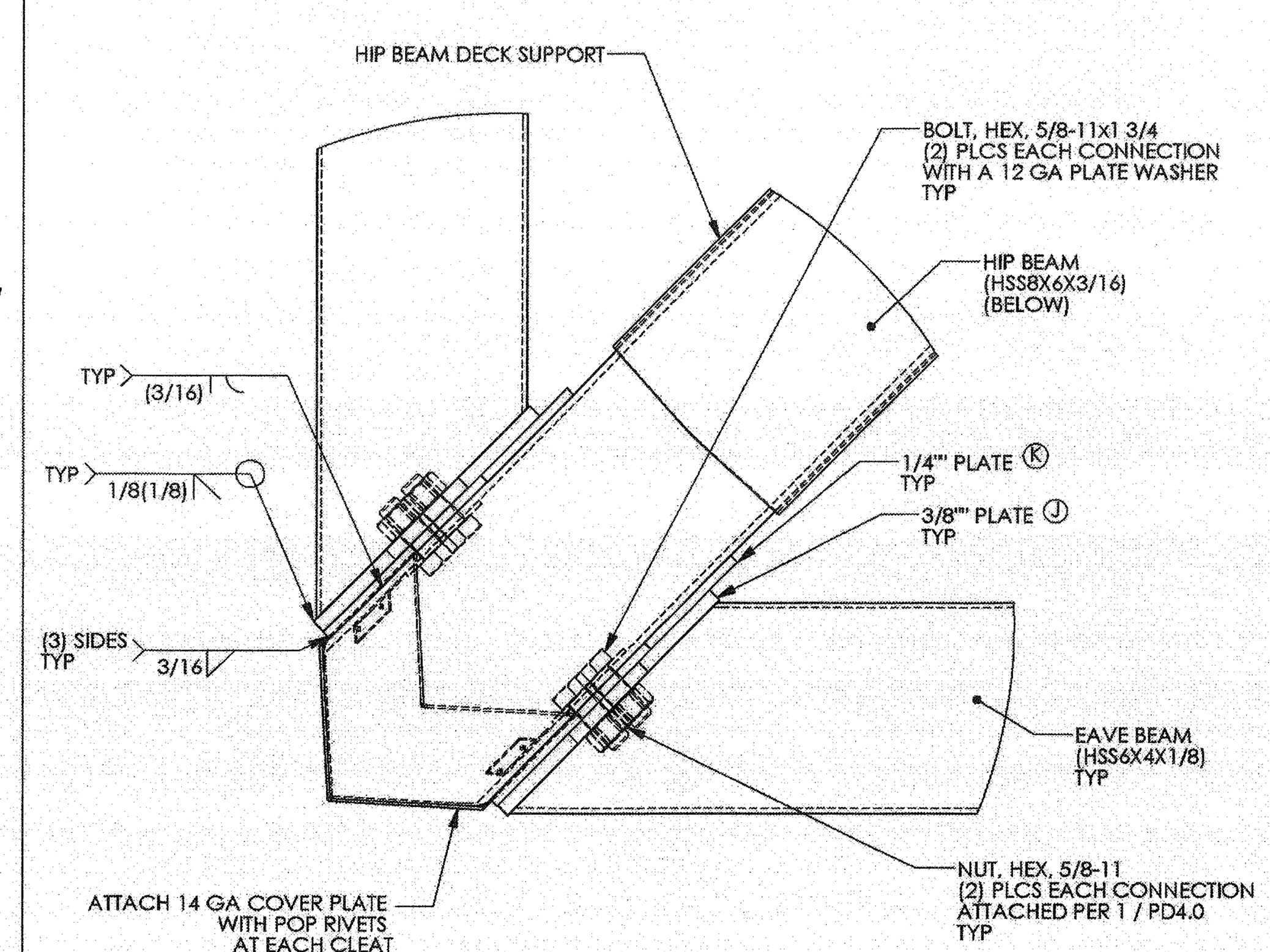
HIP BEAM CONNECTION @ COMPRESSION TUBE (4)



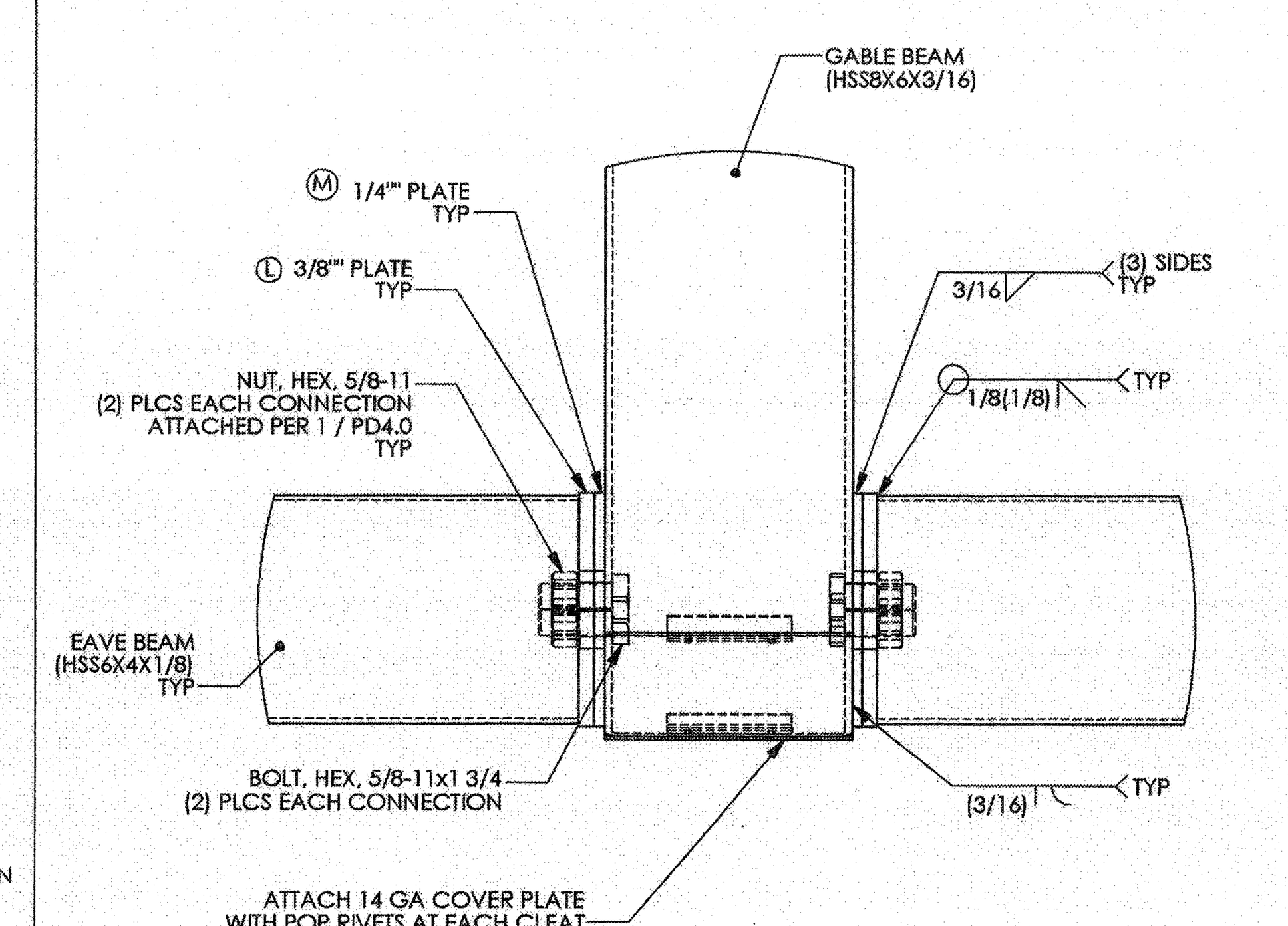
PURLIN CONNECION @ GABLE BEAM (5)



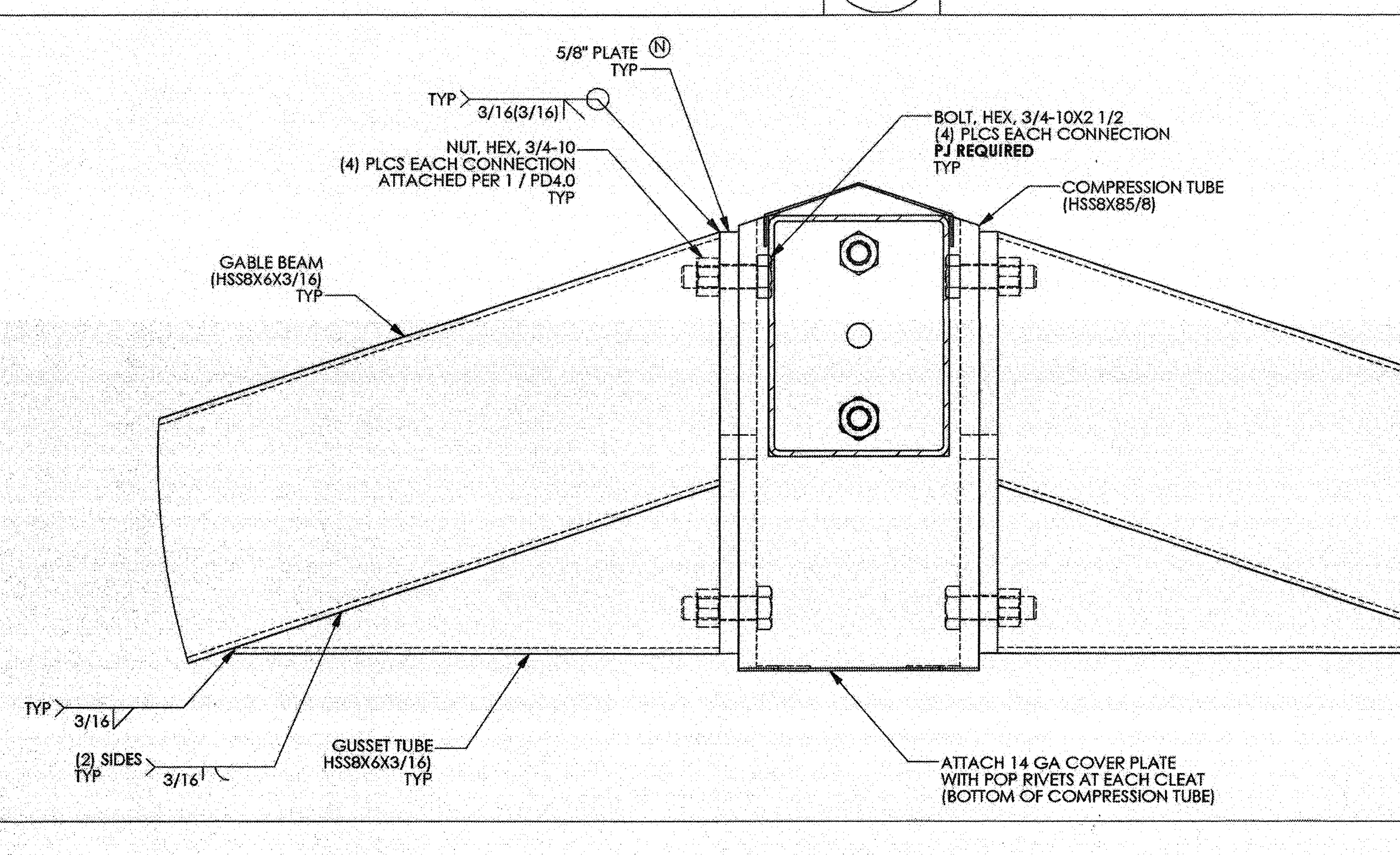
PURLIN CONNECTON @ HIP BEAM (6)



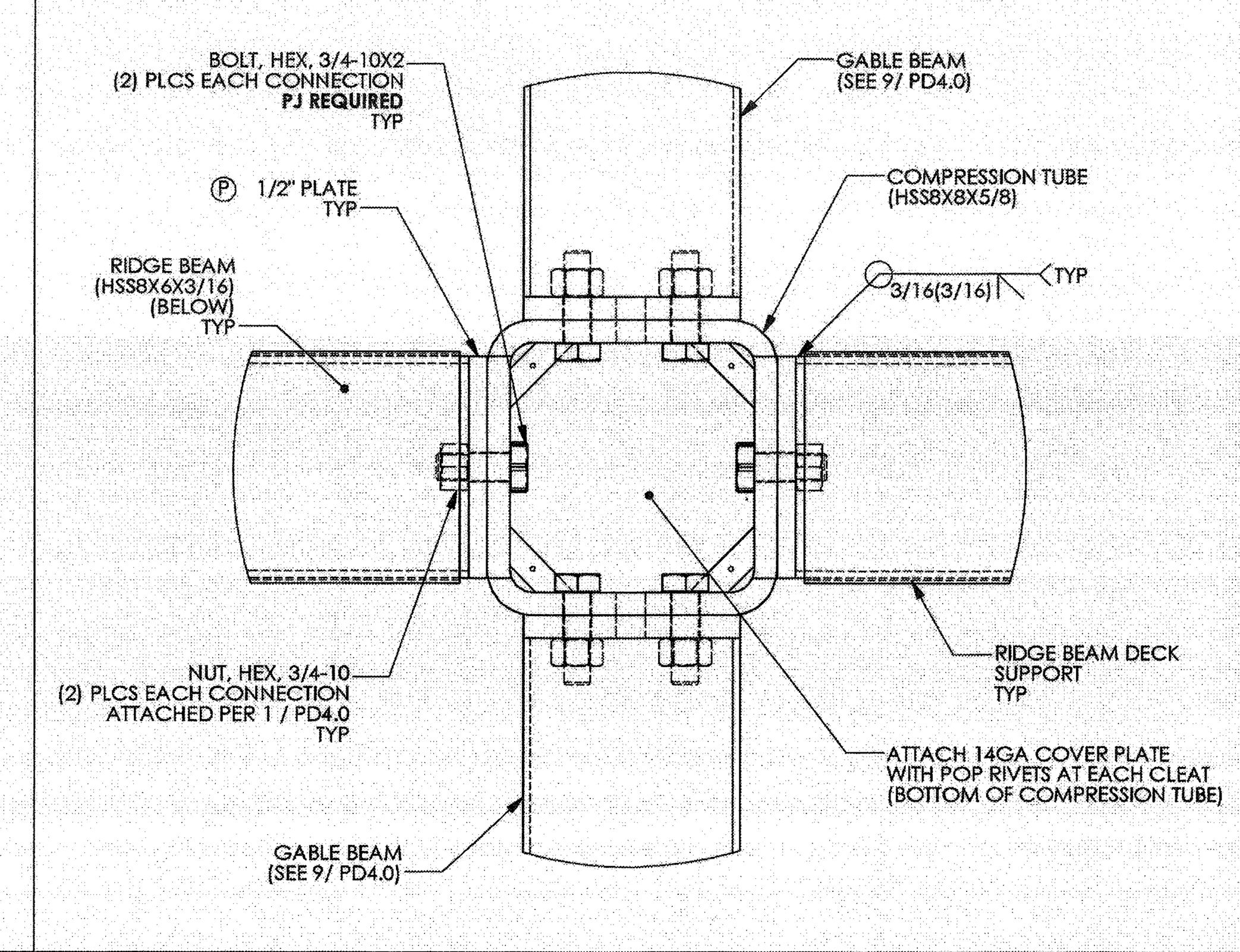
EAVE BEAM CONNECTION @ HIP BEAM (7)



EAVE BEAM CONNECTION @ GABLE BEAM (8)



GABLE BEAM CONNECTION @ COMPRESSION TUBE (9)



RIDGE BEAM CONNECTION @ COMPRESSION TUBE (10)

FRAME CONNECTION DETAIL NOTES:

1. SEE SECTIONS ON SHEET PD5.0.
2. SEE PLATE(X) DETAILS ON SHEET PD6.0 AND PD6.1
3. COVER ACCESS HOLES WITH GRACE ICE AND WATER SHIELD BEFORE ATTACHING ROOF DECK.

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REGISTERED PROFESSIONAL ENGINEER
THOMAS A. BURKHART
No. S4378
Exp. 3/31/16
STRUCTURAL
STATE OF CALIFORNIA

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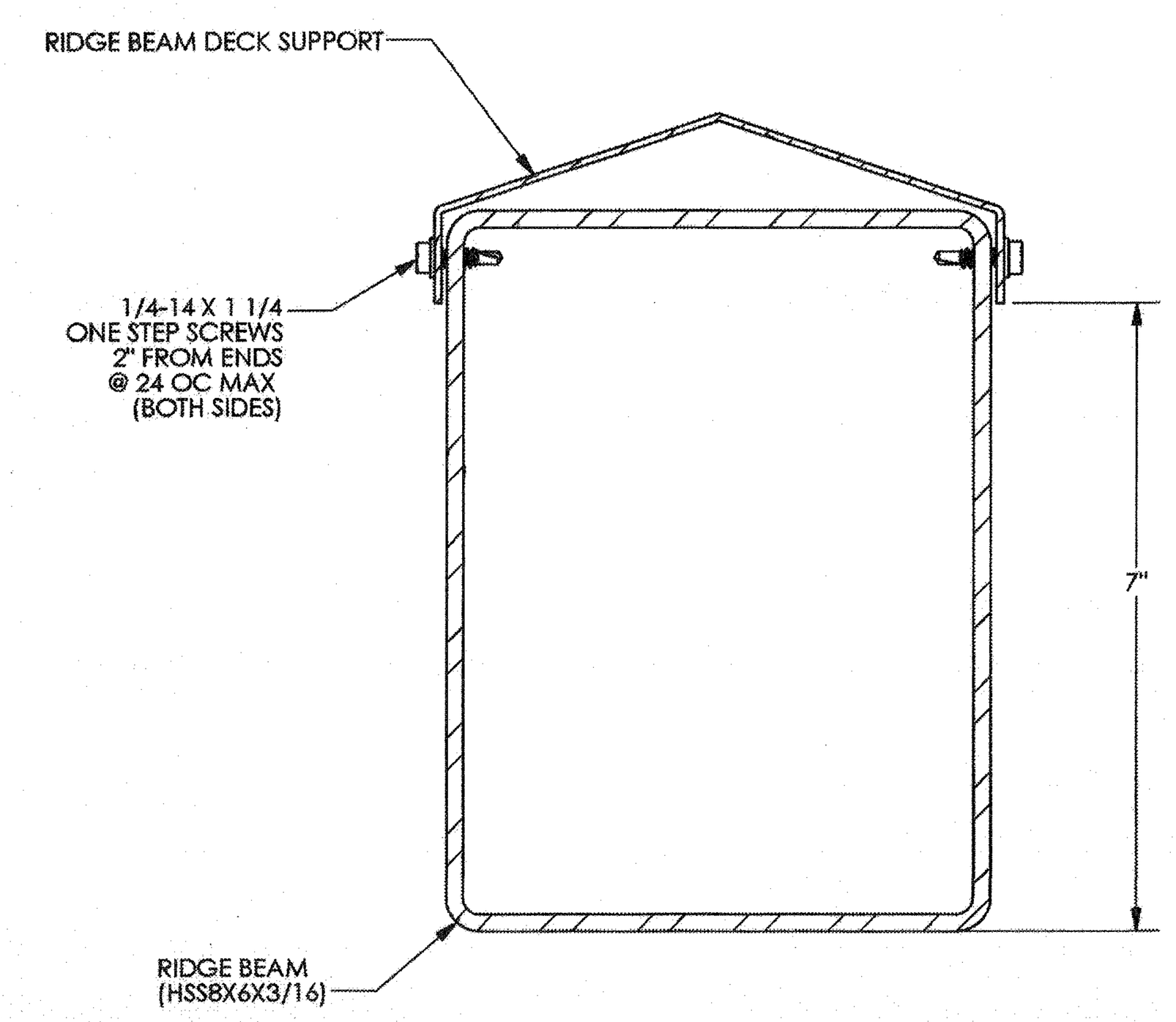
FRAME CONNECTION DETAILS
RAM 20

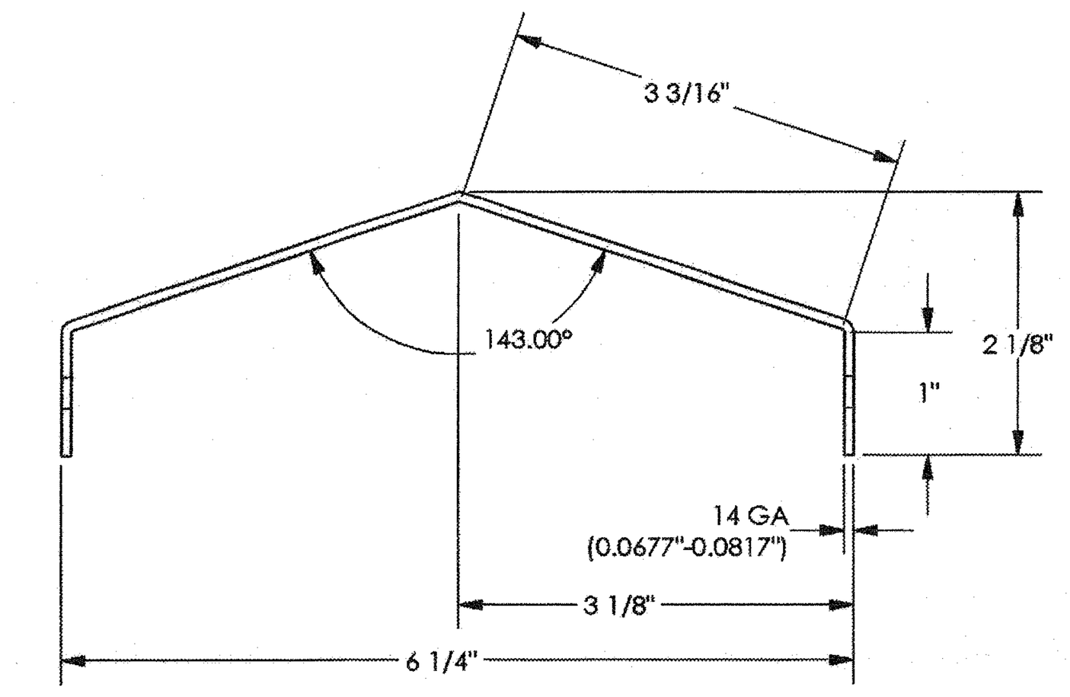
HIP ROOF (RAM)
PC DRAWINGS

DRAWN BY: JMD
CHECKED BY: CE
POLIGON #: S1458

PD4.0

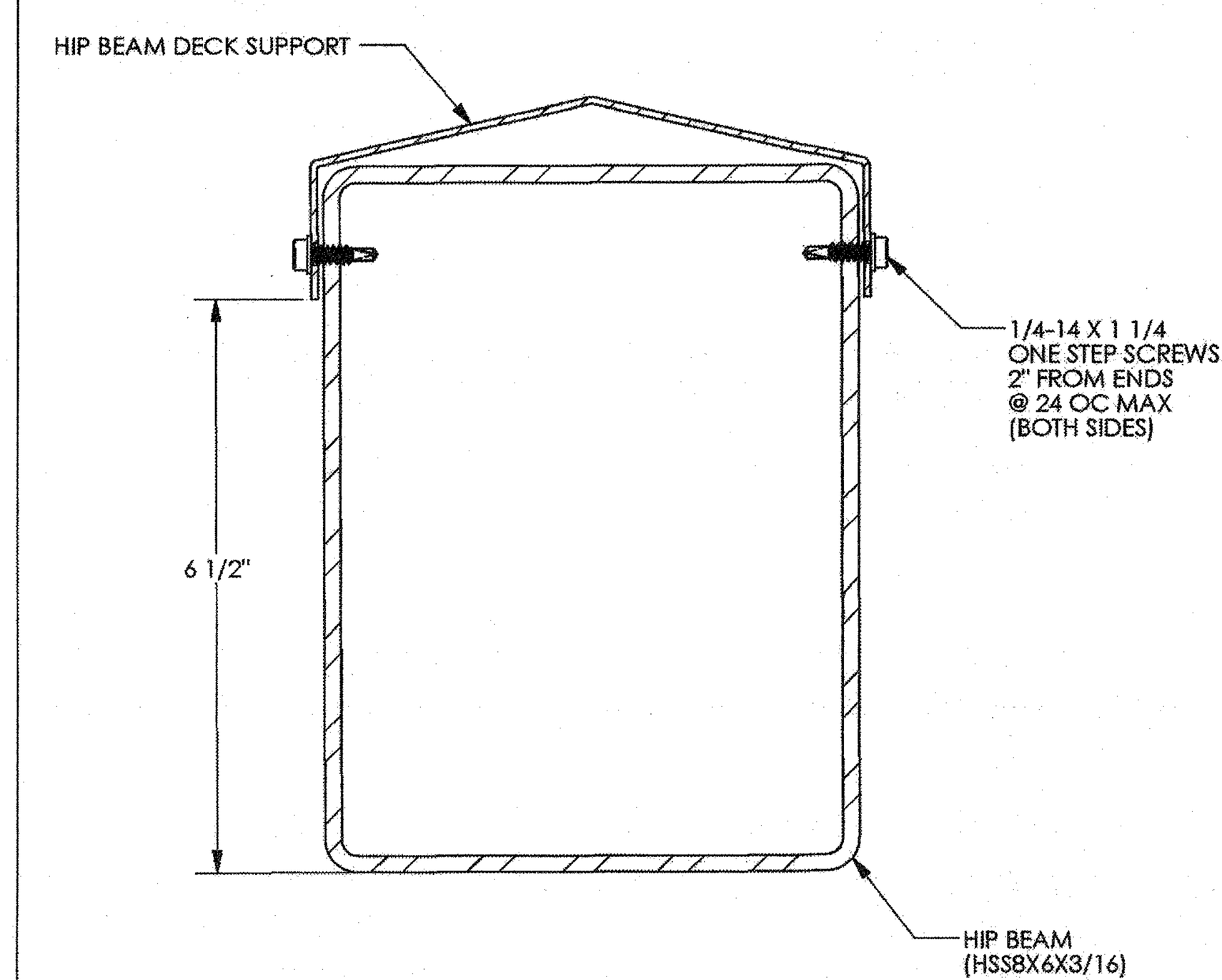
2014A

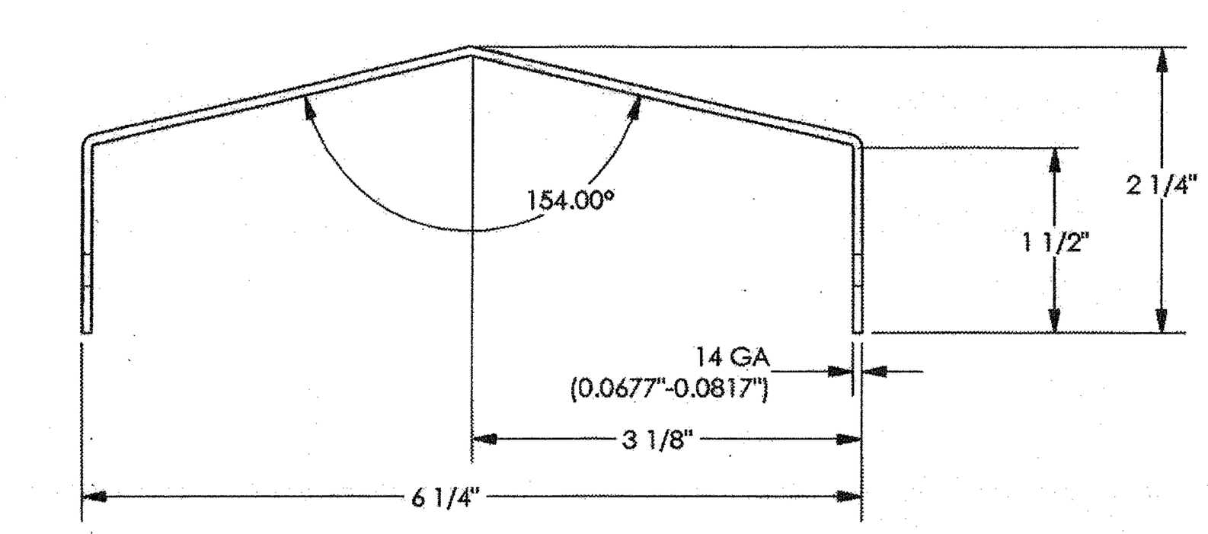




Fy = 36 KSI
A = 0.642 IN^2
Ix = 0.182 IN^4
Iy = 3.033 IN^4
Sx = 0.140 IN^3
Sy = 0.967 IN^3

RIDGE BEAM DECK SUPPORT (A)





Fy = 36 KSI
A = 0.704 IN^2
Ix = 0.261 IN^4
Iy = 3.711 IN^4
Sx = 0.171 IN^3
Sy = 1.183 IN^3

HIP BEAM DECK SUPPORT (B)

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A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

SECTION DETAILS

RAM 20

HIP ROOF (RAM)
PC DRAWINGS

DRAWN BY: JMD
CHECKED BY: CE
POLIGON #: 51458

PD5.0

2014A

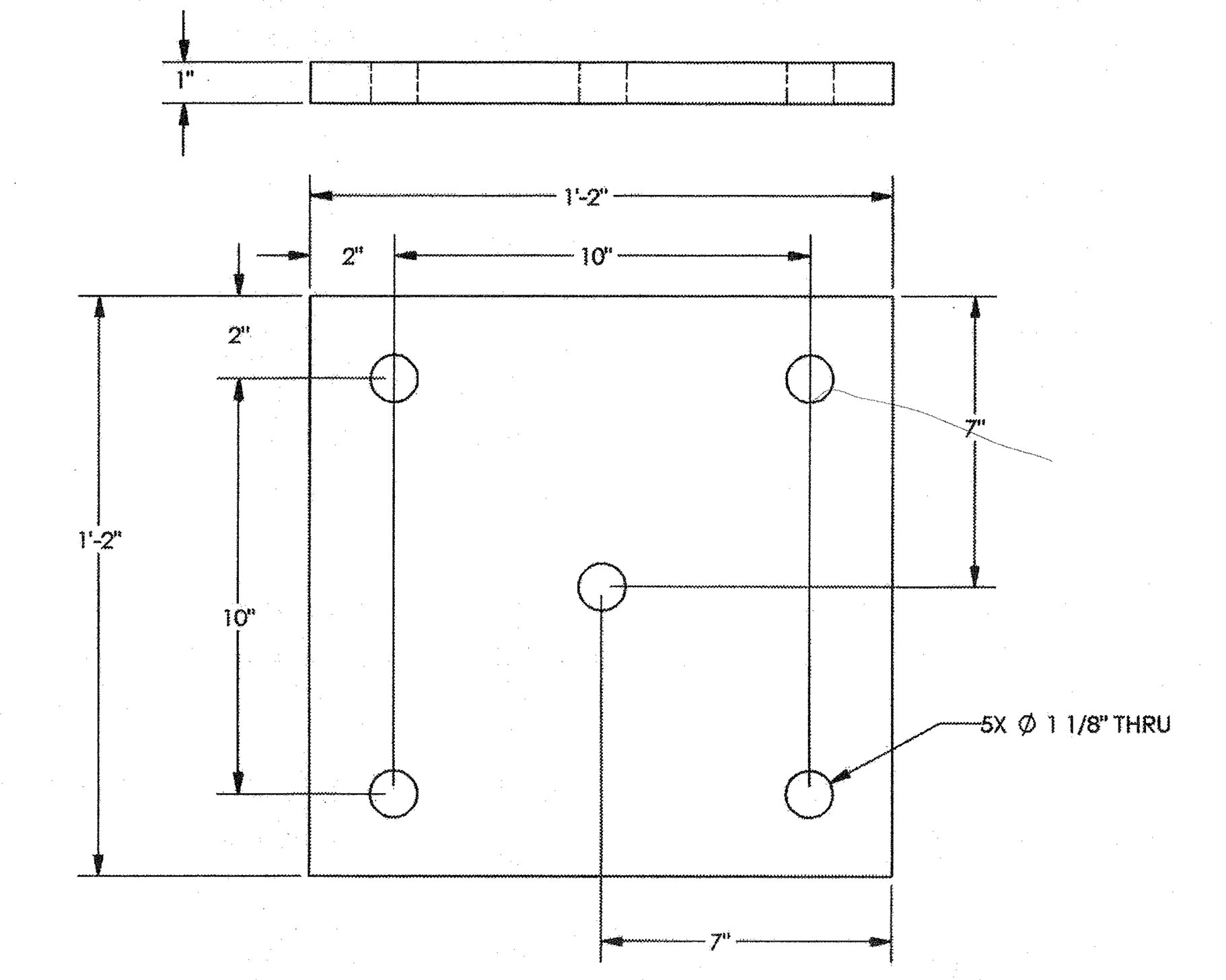

PLATE (A)

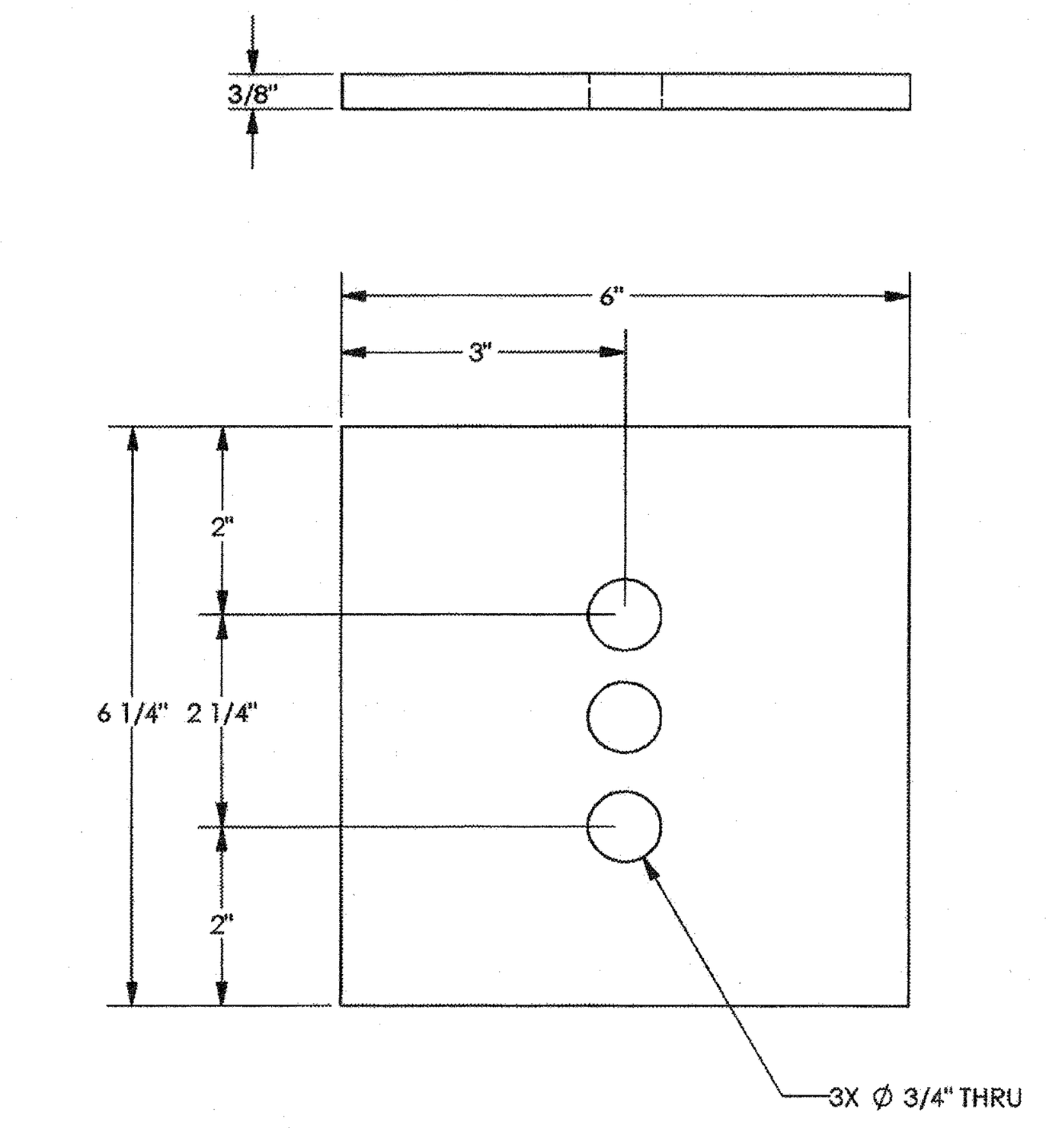

PLATE (B)

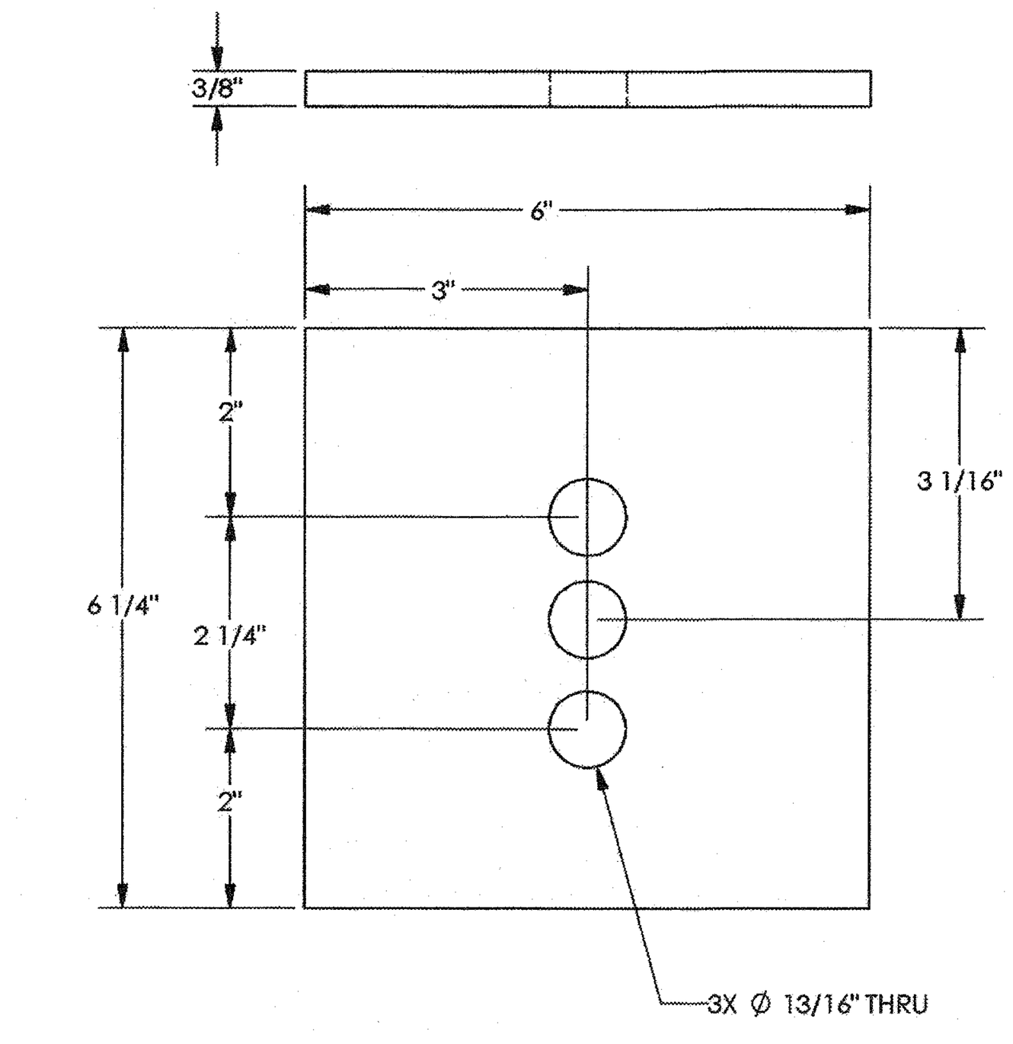

PLATE (C)

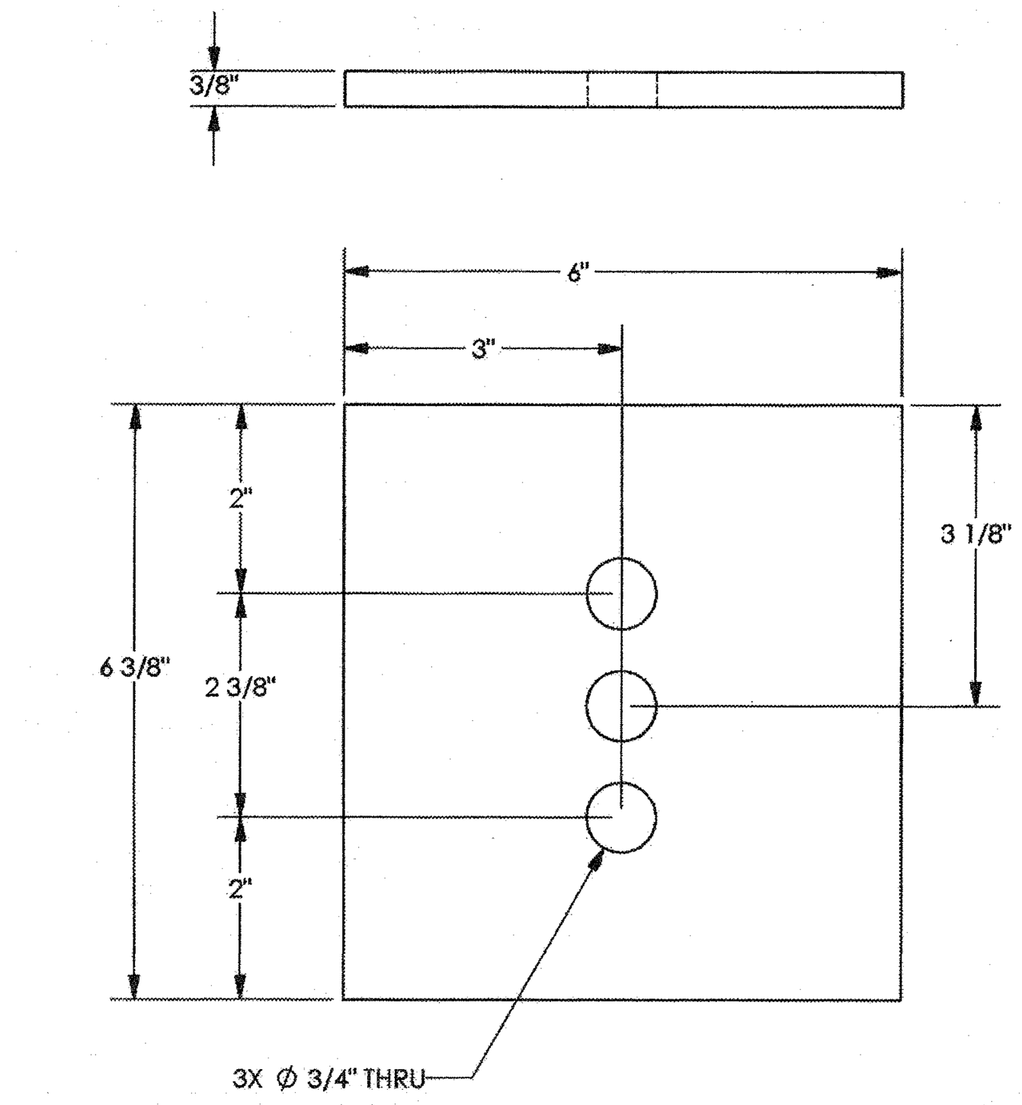

PLATE (D)

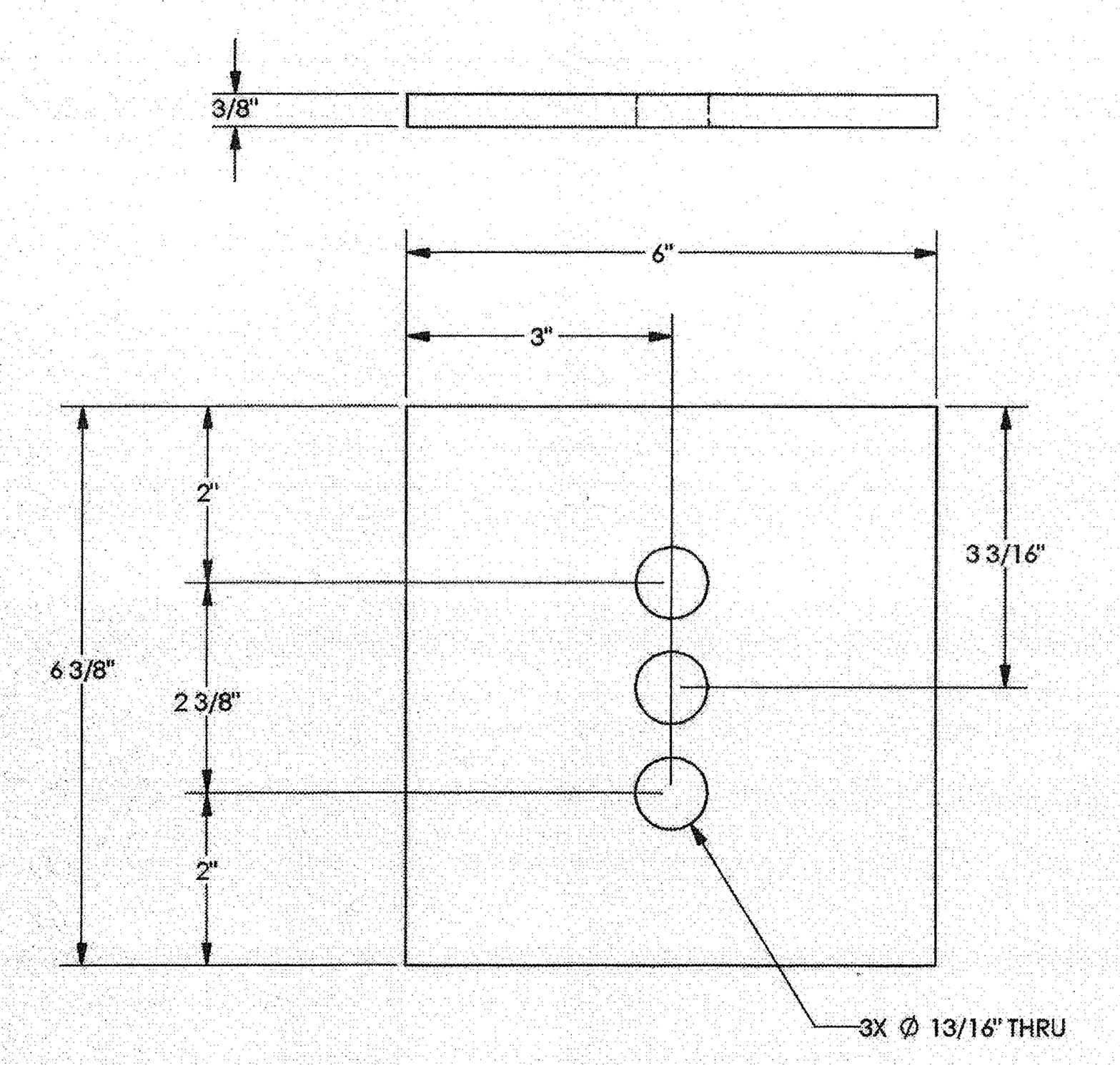

PLATE (E)

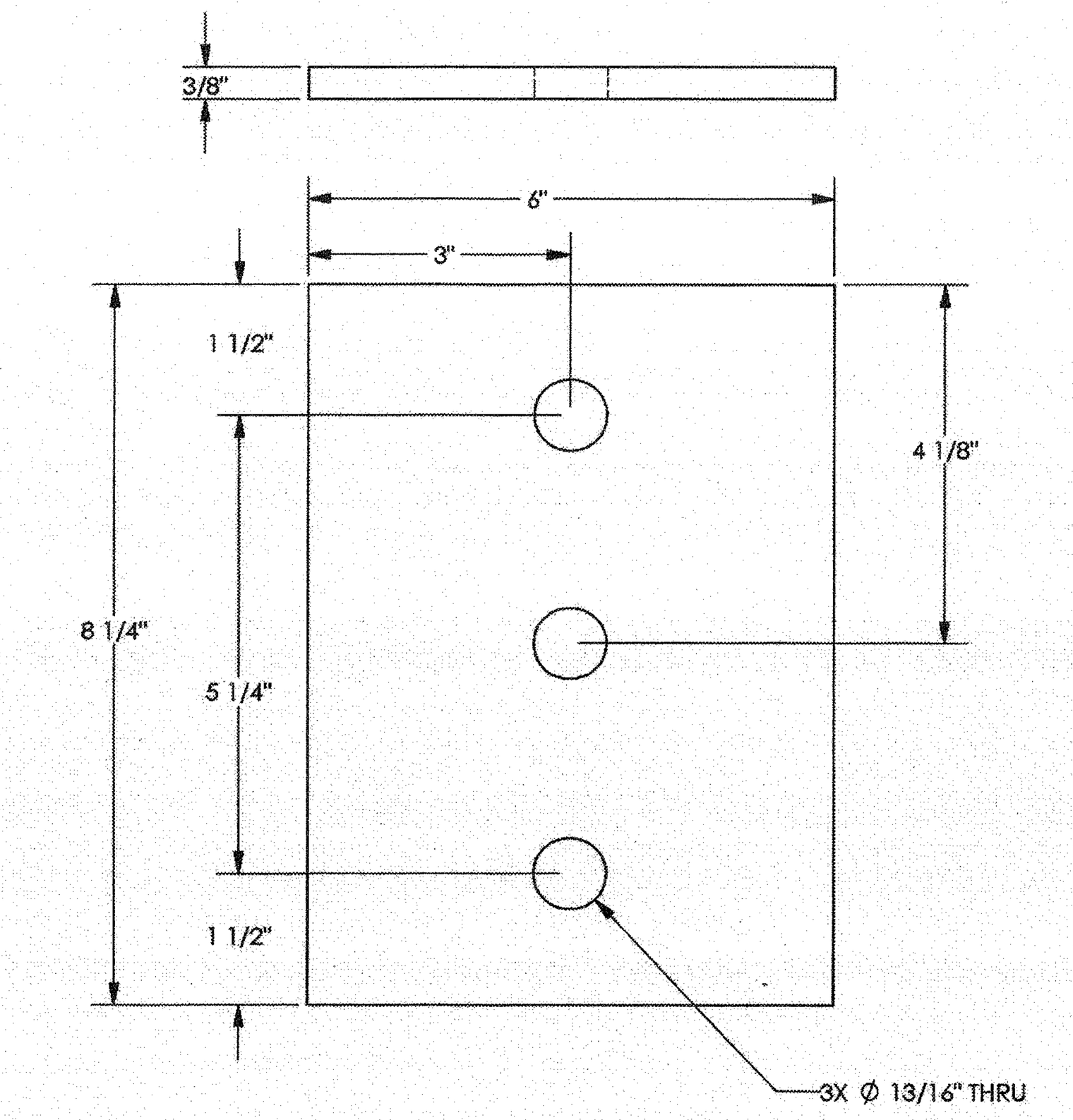

PLATE (F)

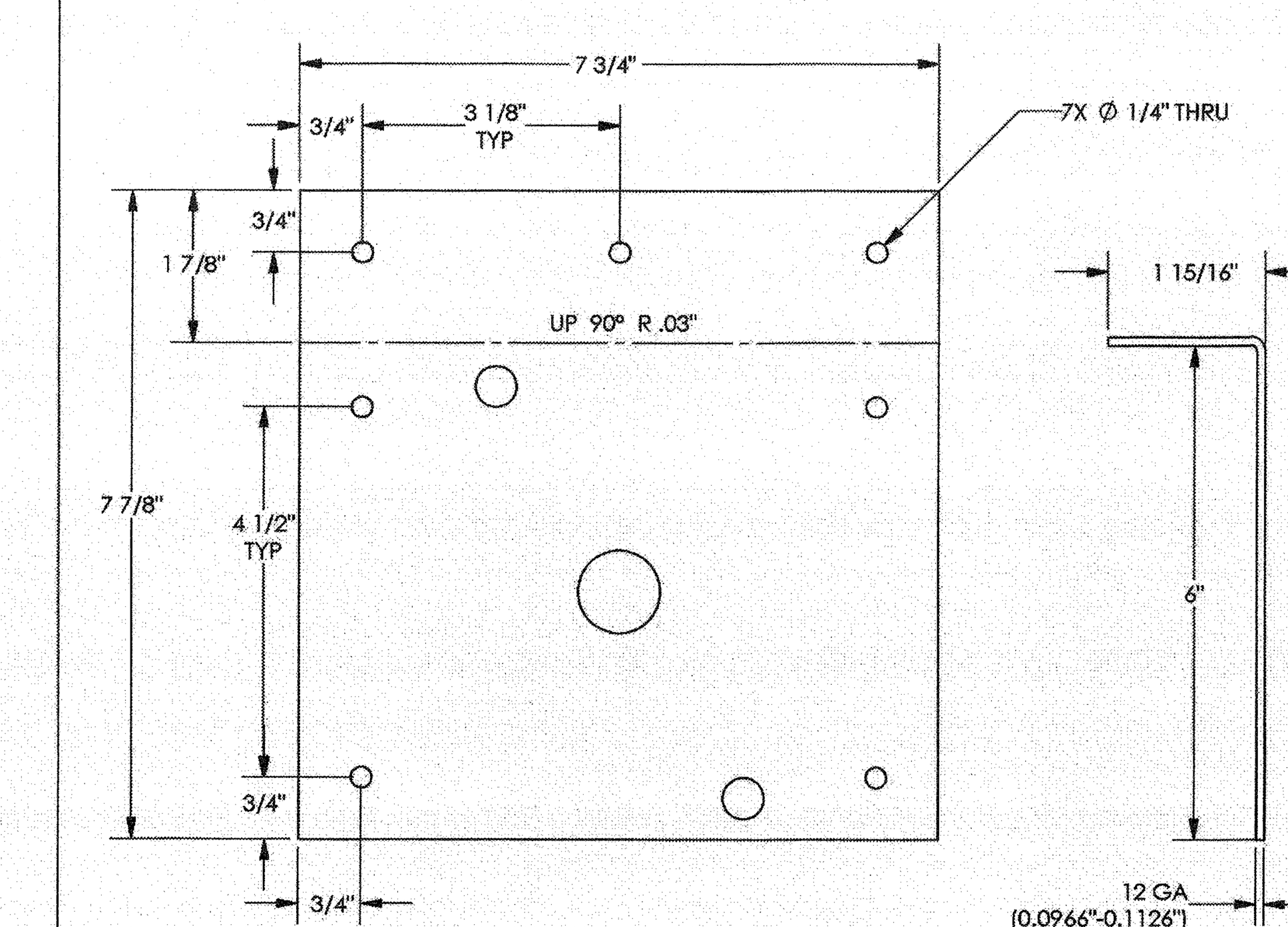

PLATE (G)

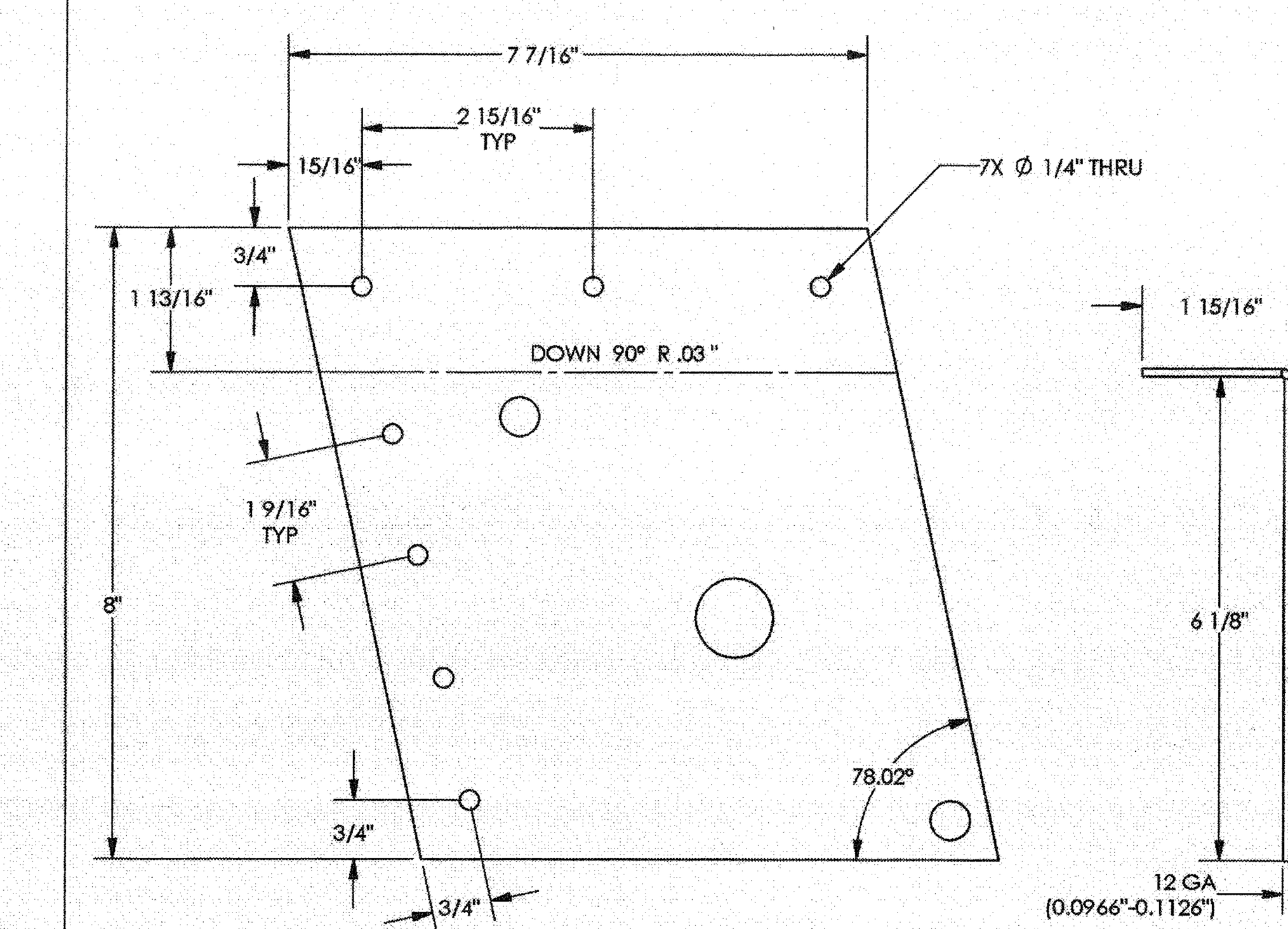

PLATE (H)

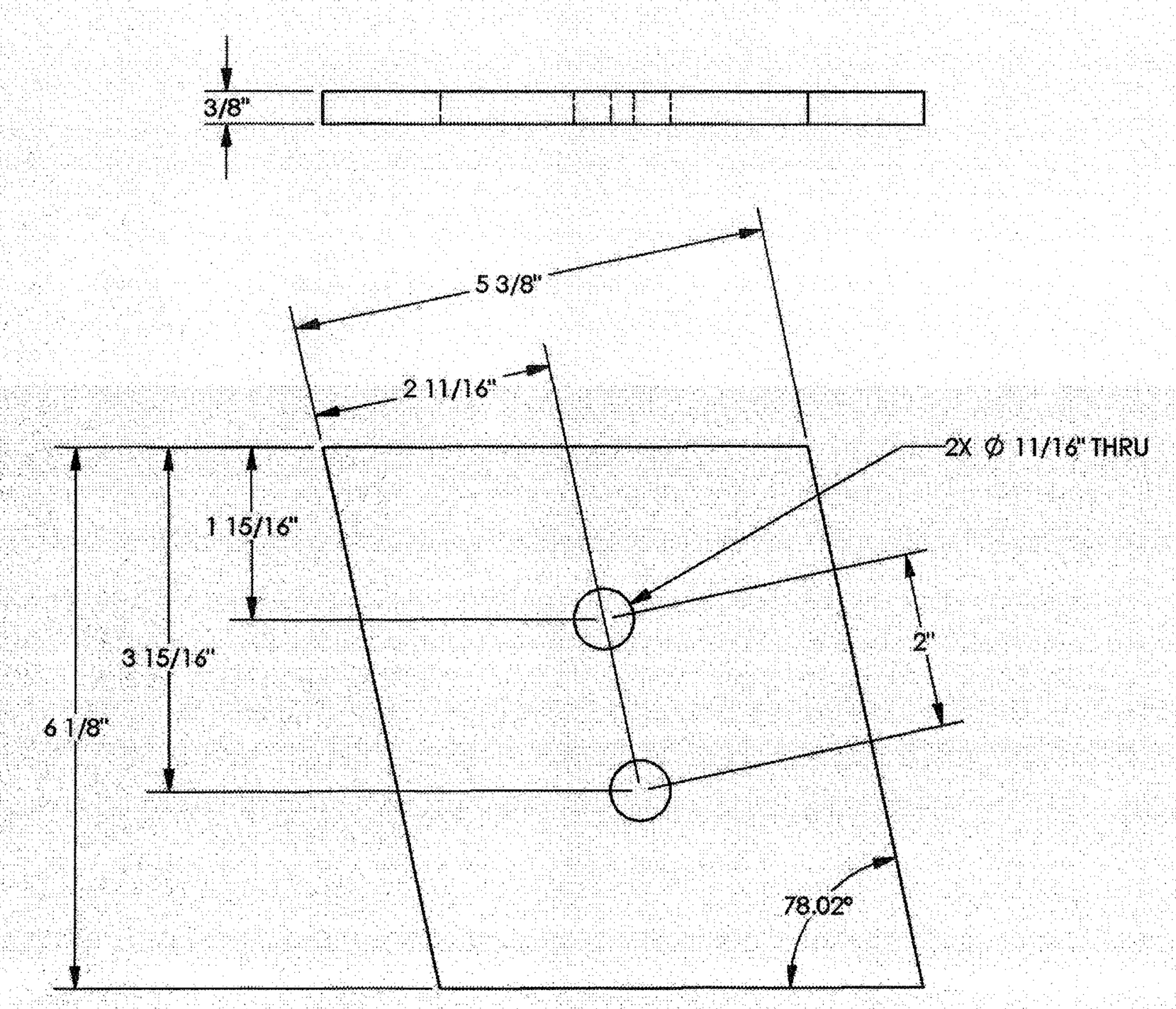

PLATE (J)

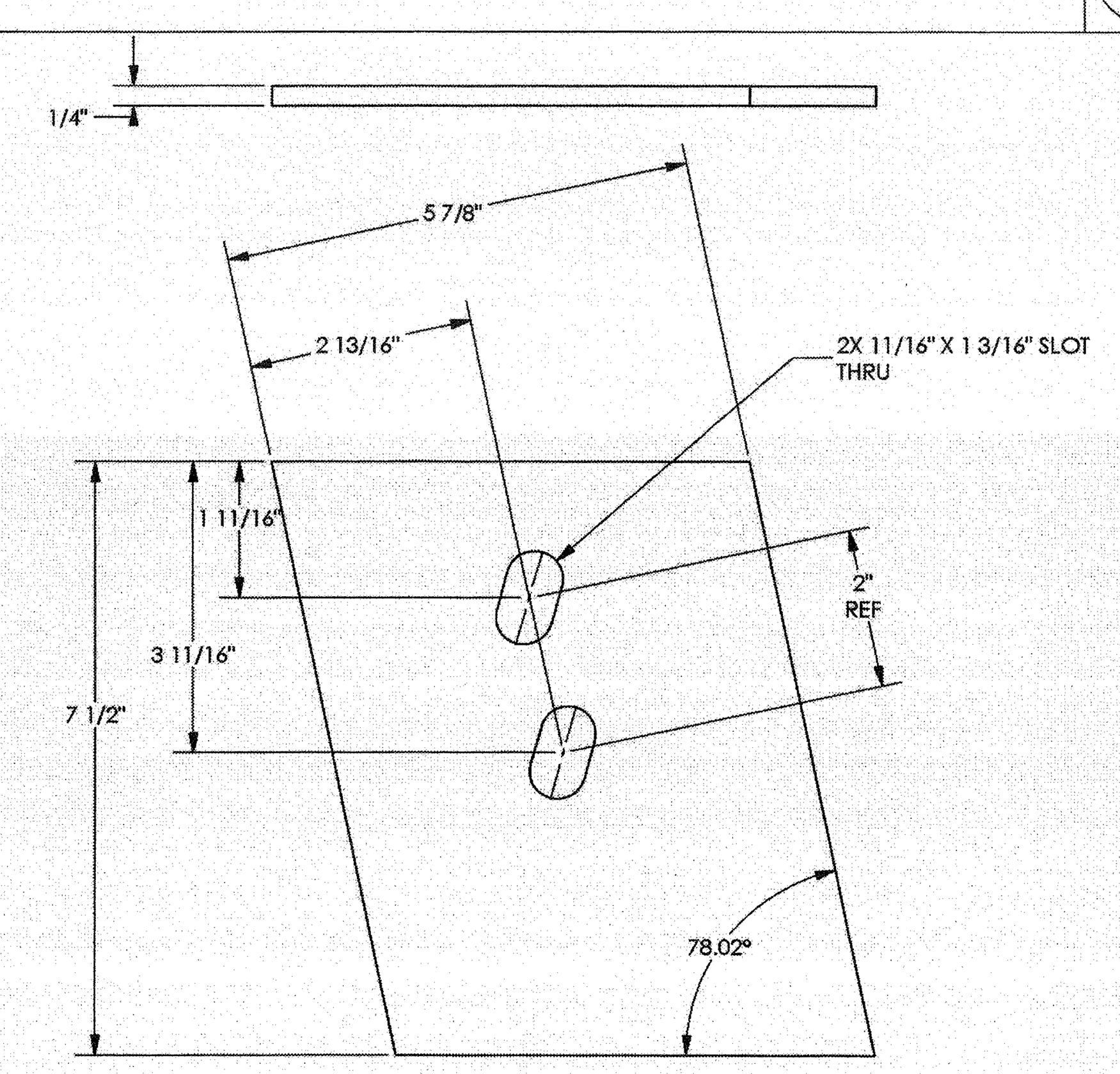

PLATE (K)

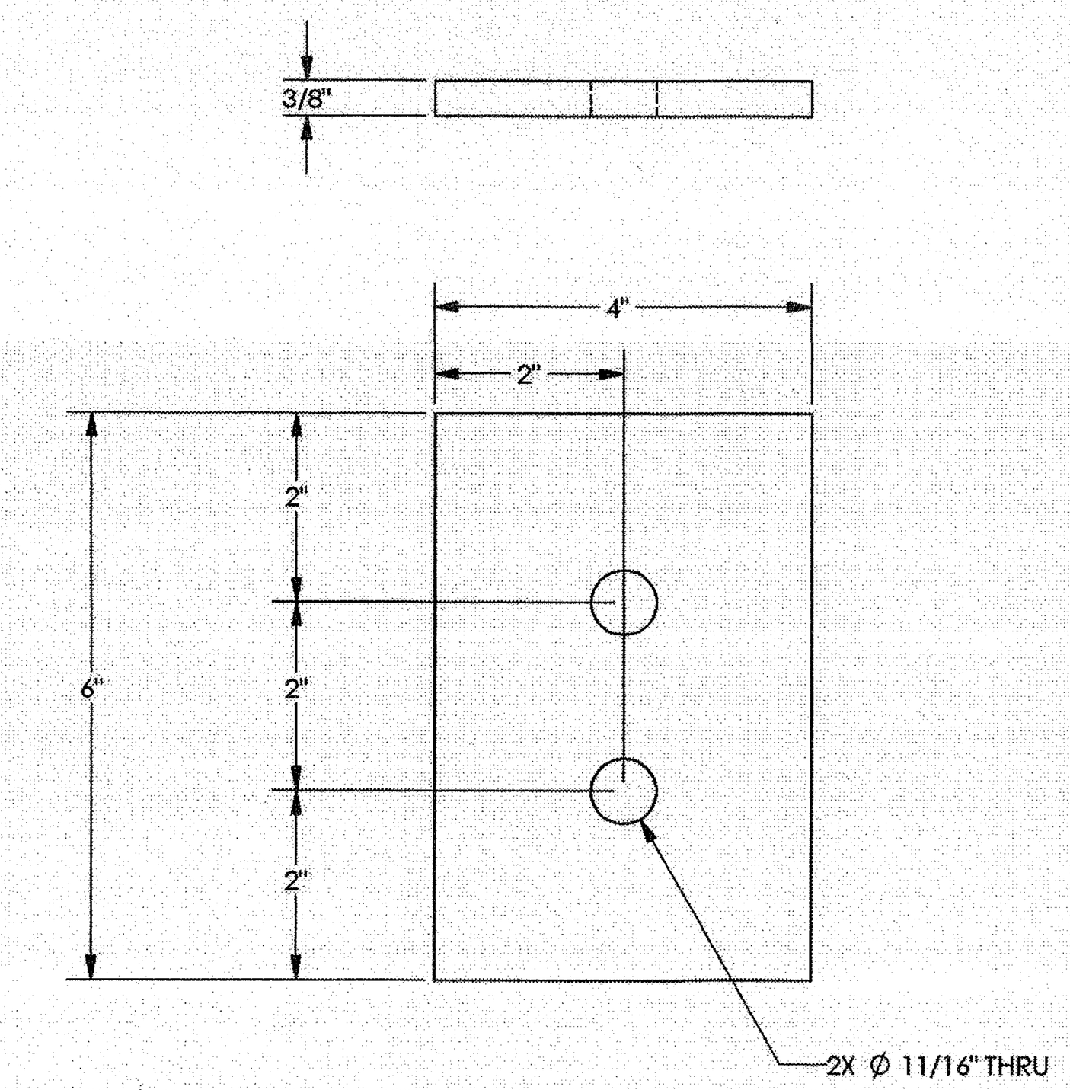

PLATE (L)

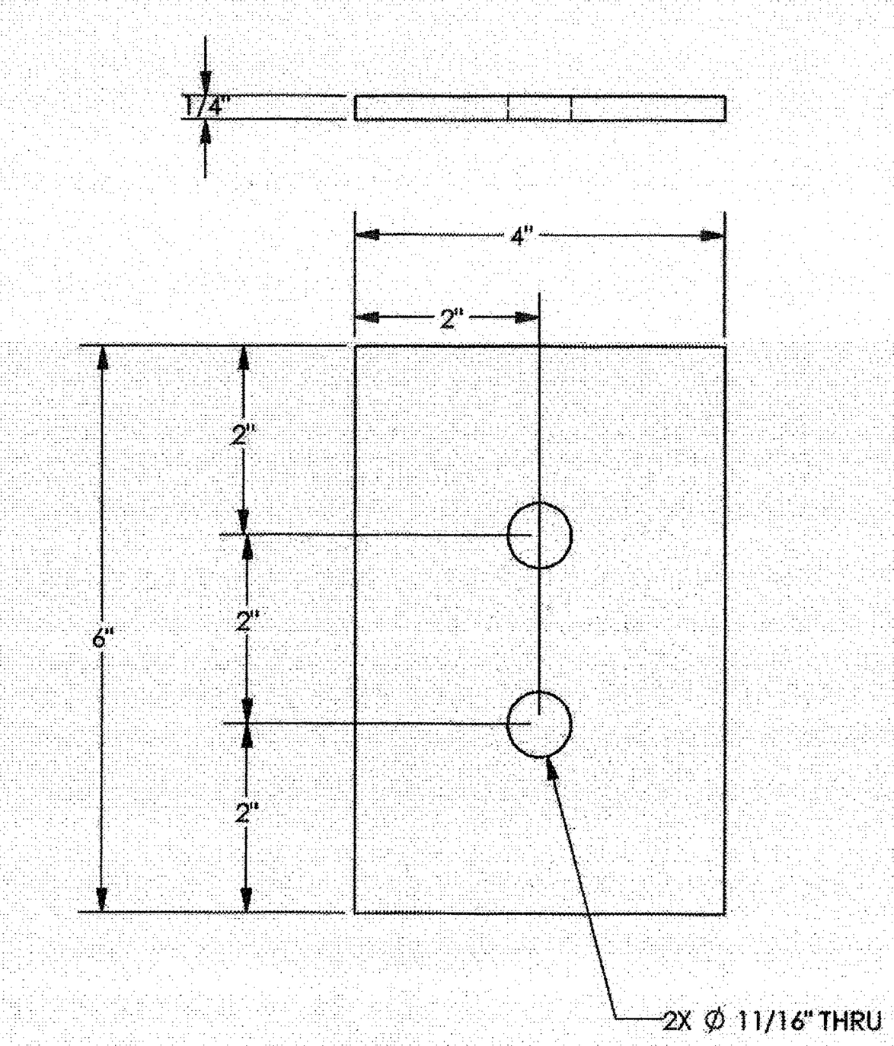

PLATE (M)

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A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

PLATE DETAILS
RAM 20

HIP ROOF (RAM)
PC DRAWINGS

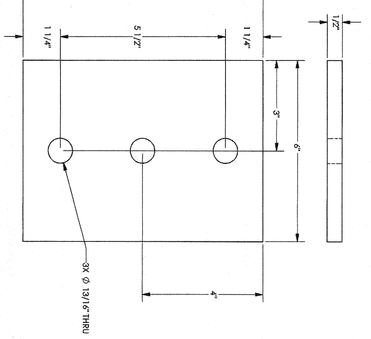
DRAWN BY: JMD
CHECKED BY: CE
POLIGON #: 51458

PD6.0

2016A

PLATE

N



PLATE

P

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PD6.1	**PLATE DETAILS** RAM 20	**PRE-CHECK (PC) DOCUMENT** CODE: 2013 CBC A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.	**STATE APPROVALS** IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT 02 113591 ACCEPTED DATE	poligon®	CARLTON Engineering Inc.	REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA STRUCTURAL
	DRAWN BY: JMD CHECKED BY: CE POLIGON #: 51458	HIP ROOF (RAM) PC DRAWINGS				

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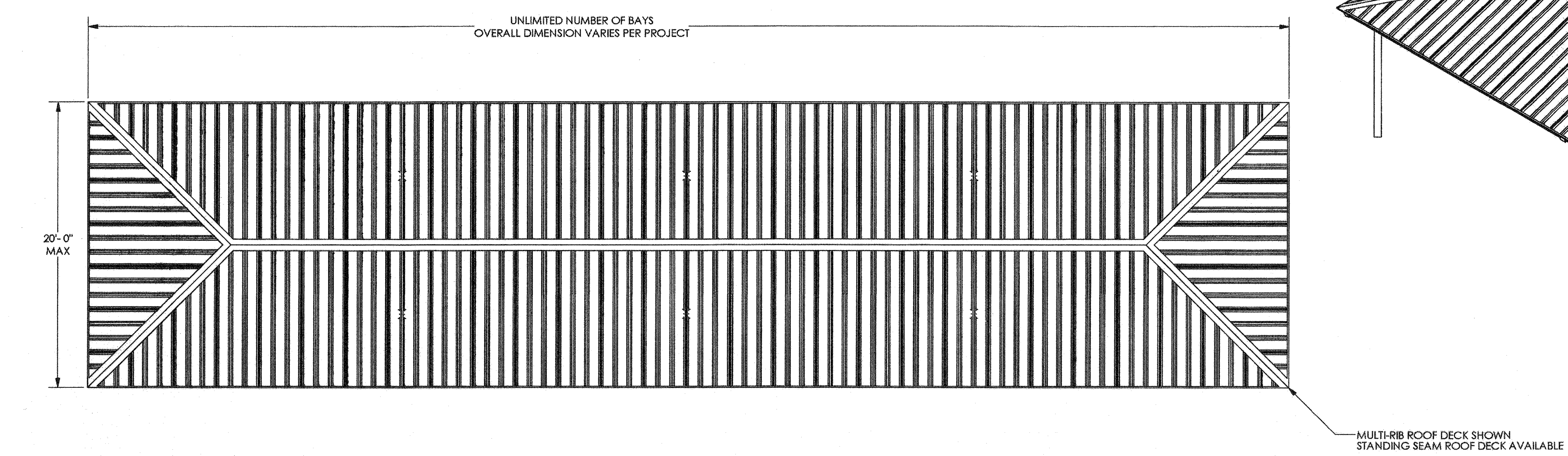
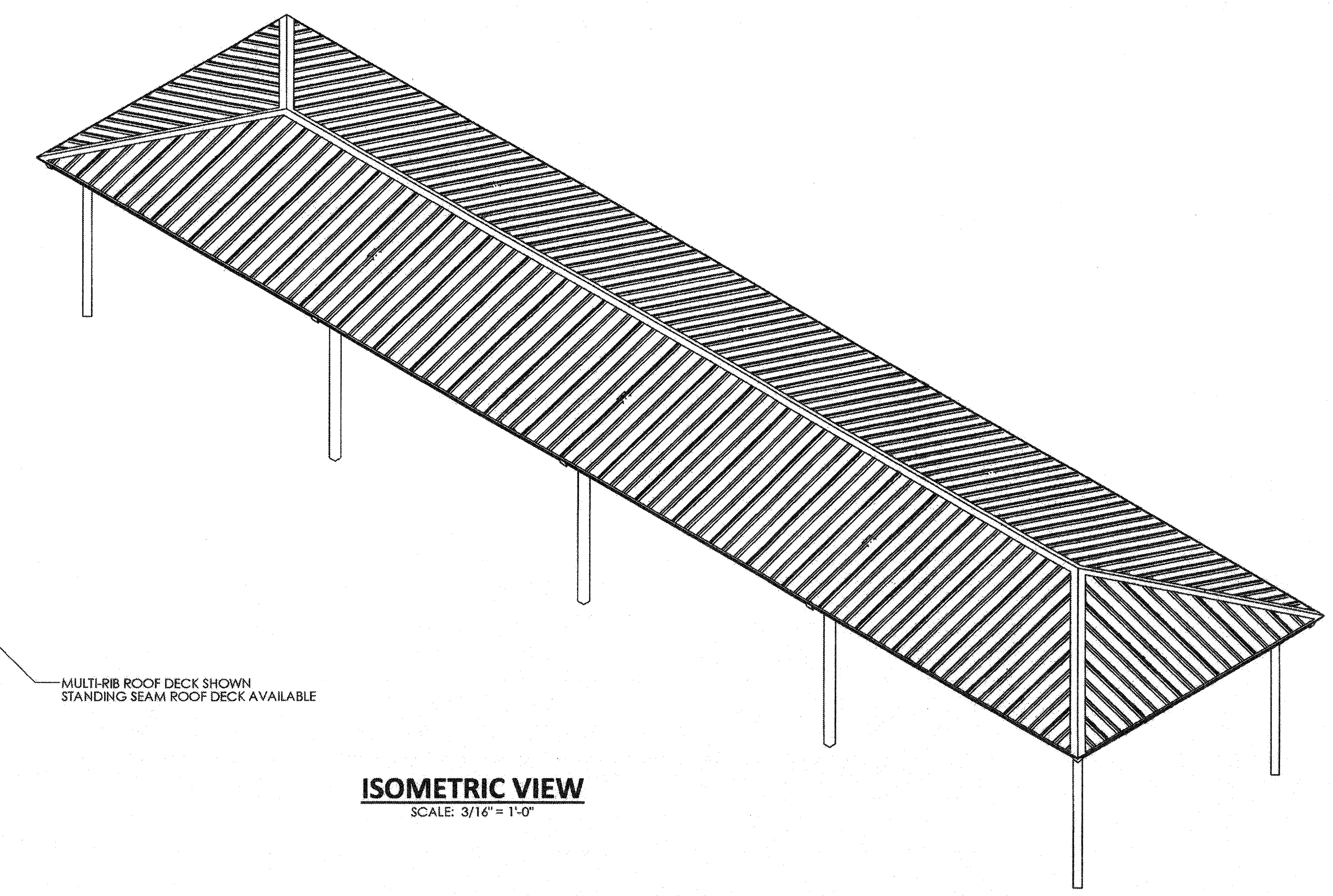


PLAN VIEW
SCALE: 3/16" = 1'-0"



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

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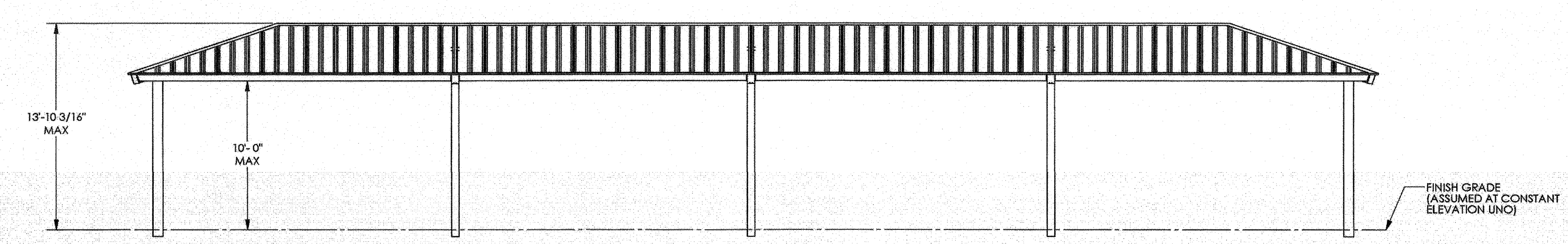
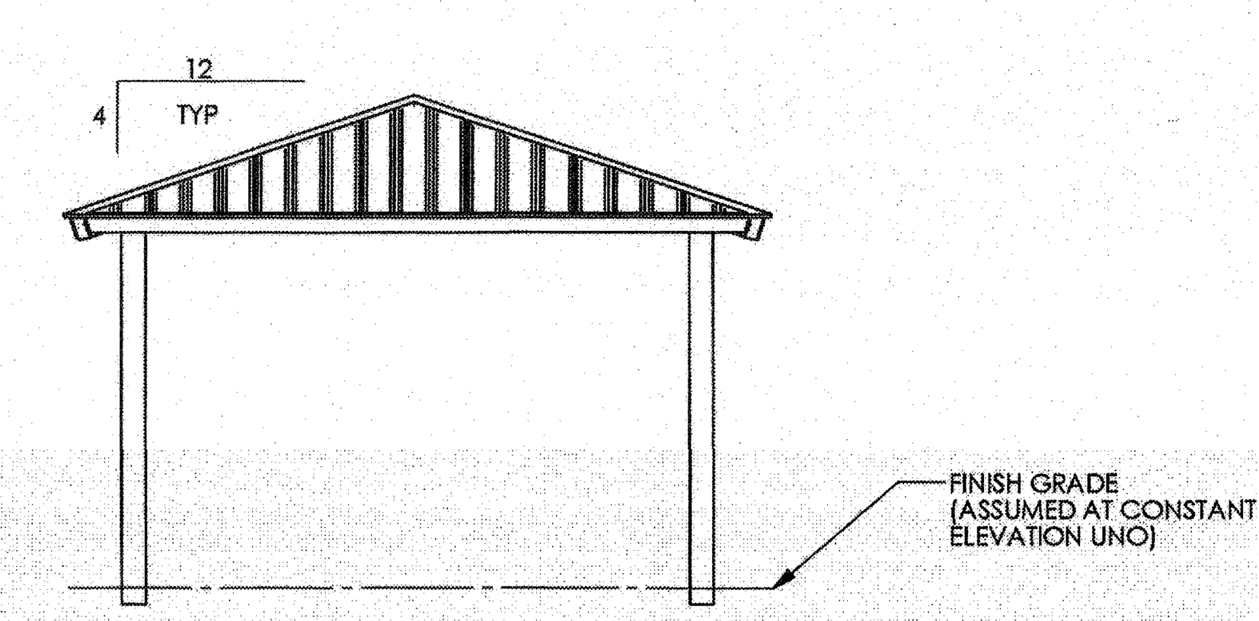


FRONT ELEVATION
SCALE: 3/16" = 1'-0"



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

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A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

ARCHITECTURAL VIEWS
RAM 20
HIP ROOF (RAM)
PC DRAWINGS

DRAWN BY: JMO
CHECKED BY: CE
POLIGON #: 51458

PD7.0

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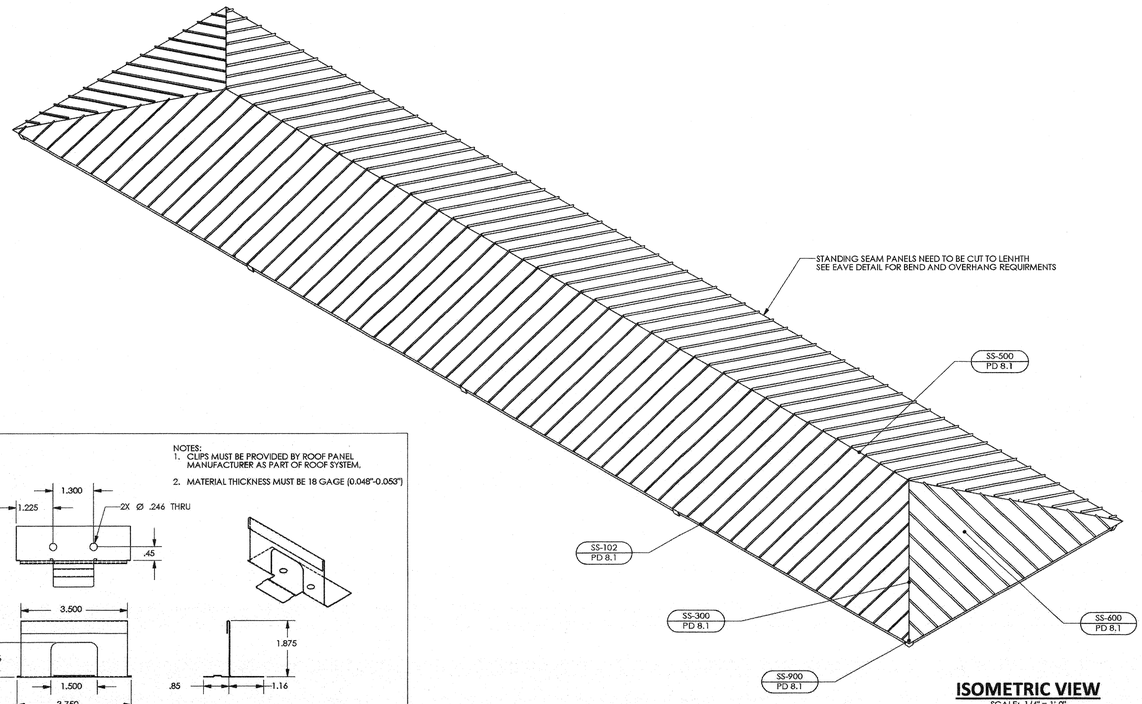

ISOMETRIC VIEW
SCALE: 1/4" = 1'-0"

ROOF LAYOUT NOTES (SS):

1. THE DETAILS SHOWN ARE SUGGESTIONS OR GUIDELINES ON HOW TO ERECT THE SYSTEMS. THE INFORMATION SHOWN IS ACCURATE, BUT IT IS NOT INTENDED TO COVER ALL INSTANCES, BUILDING REQUIREMENTS, DESIGNS OR CODES. THE DETAILS MAY REQUIRE CHANGES OR REVISIONS DUE TO FIELD CONDITIONS.
2. IT SHALL BE THE RESPONSIBILITY OF THE ERECTOR TO ENSURE THAT THE DETAILS MEET PARTICULAR BUILDING REQUIREMENTS AND TO ASSURE ADEQUATE WATER TIGHTNESS.
3. THE ERECTOR SHOULD THOROUGHLY FAMILIARIZE HIMSELF/HERSELF WITH ALL ERECTION INSTRUCTIONS BEFORE STARTING WORK.
4. THE PANELS SHOULD BE INSTALLED PLUMB, STRAIGHT, AND ACCURATELY TO THE ADJACENT WORK.
5. FLASHING AND TRIM SHALL BE INSTALLED TRUE, AND IN PROPER ALIGNMENT, WITH ANY EXPOSED FASTENERS EQUALLY SPACED FOR THE BEST APPEARANCE.
6. SEALANT SHALL BE FIELD APPLIED ON DRY, CLEAN SURFACES. SOME FIELD CUTTING AND FITTING OF PANELS AND FLASHING IS TO BE EXPECTED BY THE ERECTOR AND MINOR FIELD CORRECTIONS ARE A PART OF NORMAL ERECTION WORK.
7. WORKMANSHIP SHALL BE OF THE BEST INDUSTRY STANDARDS AND INSTALLATION SHALL BE PERFORMED BY EXPERIENCED METAL CRAFTSMEN.
8. METAL SHAVINGS FROM DRILLING OR INSTALLATION OF ROOF FASTENERS MUST BE CAREFULLY REMOVED FROM THE ROOF BY BRUSHING OR SWEEPING AT THE END OF EACH DAY DURING INSTALLATION. SHAVINGS LEFT ON THE ROOF WILL QUICKLY RUST AND STAIN THE ROOF FINISH.

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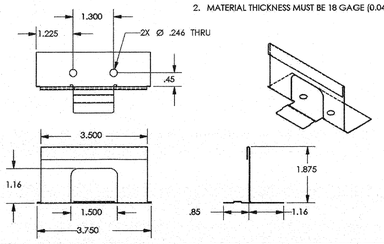
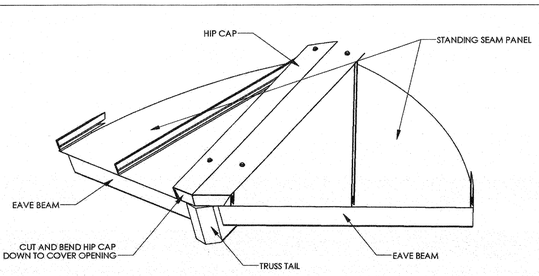
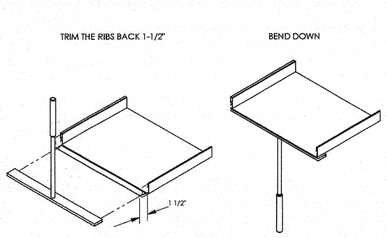
NOTES:
1. CLIPS MUST BE PROVIDED BY ROOF PANEL MANUFACTURER AS PART OF ROOF SYSTEM.
2. MATERIAL THICKNESS MUST BE 18 GAGE (0.048"-0.053")



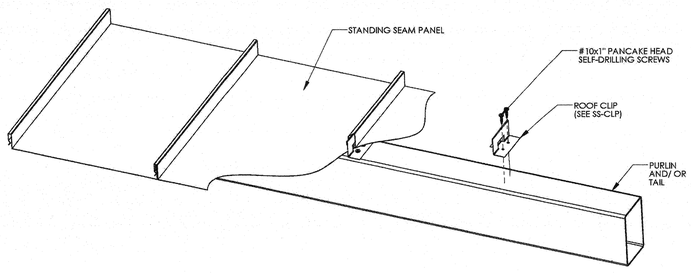
CLIP DETAIL | SS-CLP



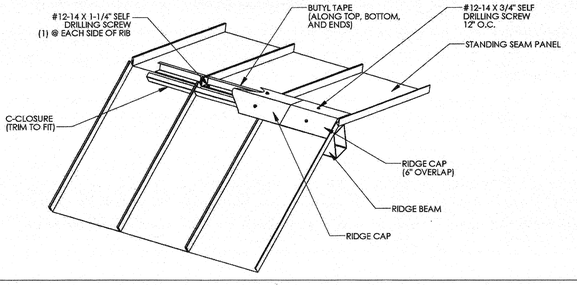
CORNER DETAIL | SS-900



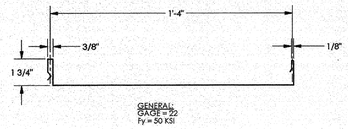
HEMMING DETAIL | SS-HEM



PURLIN DETAIL | SS-600



RIDGE DETAIL | SS-500

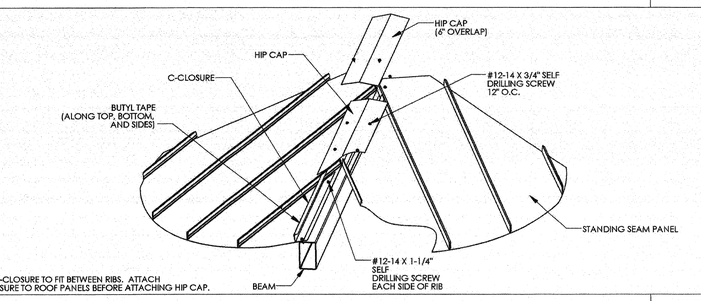


GENERAL:
GAGE = 22
Fy = 50 KSI

TOP IN COMPRESSION:
Ix=0.1222 IN^4
Se=0.0820 IN^3
Ma=2.4548 IN-KIPS

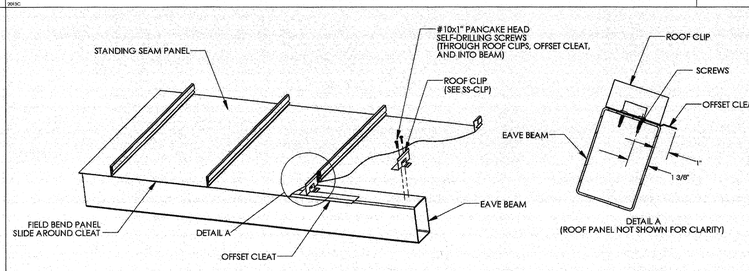
BOTTOM IN COMPRESSION:
Ix=0.0578 IN^4
Se=0.0746 IN^3
Ma=1.746 IN-KIPS

SS ROOF DECK SECTION PROPERTIES | SS-951



NOTE:
TRIM C-CLOSURE TO FIT BETWEEN RIBS. ATTACH C-CLOSURE TO ROOF PANELS BEFORE ATTACHING HIP CAP.

BEAM DETAIL | SS-300



EAVE DETAIL | SS-102

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A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

ROOF CONNECTION DETAILS

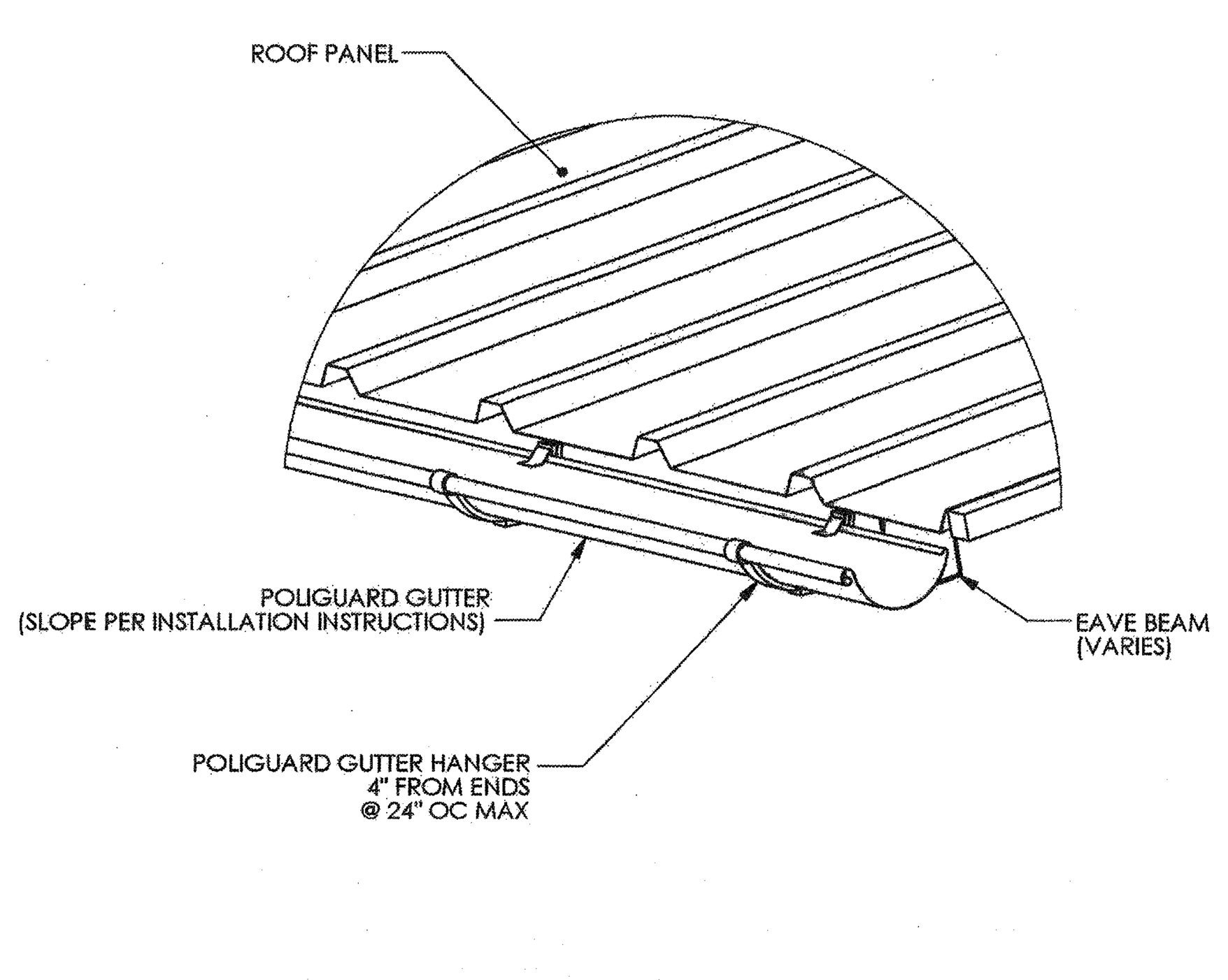
SS ROOF DECK

HIP ROOF (RAM)
PC DRAWINGS

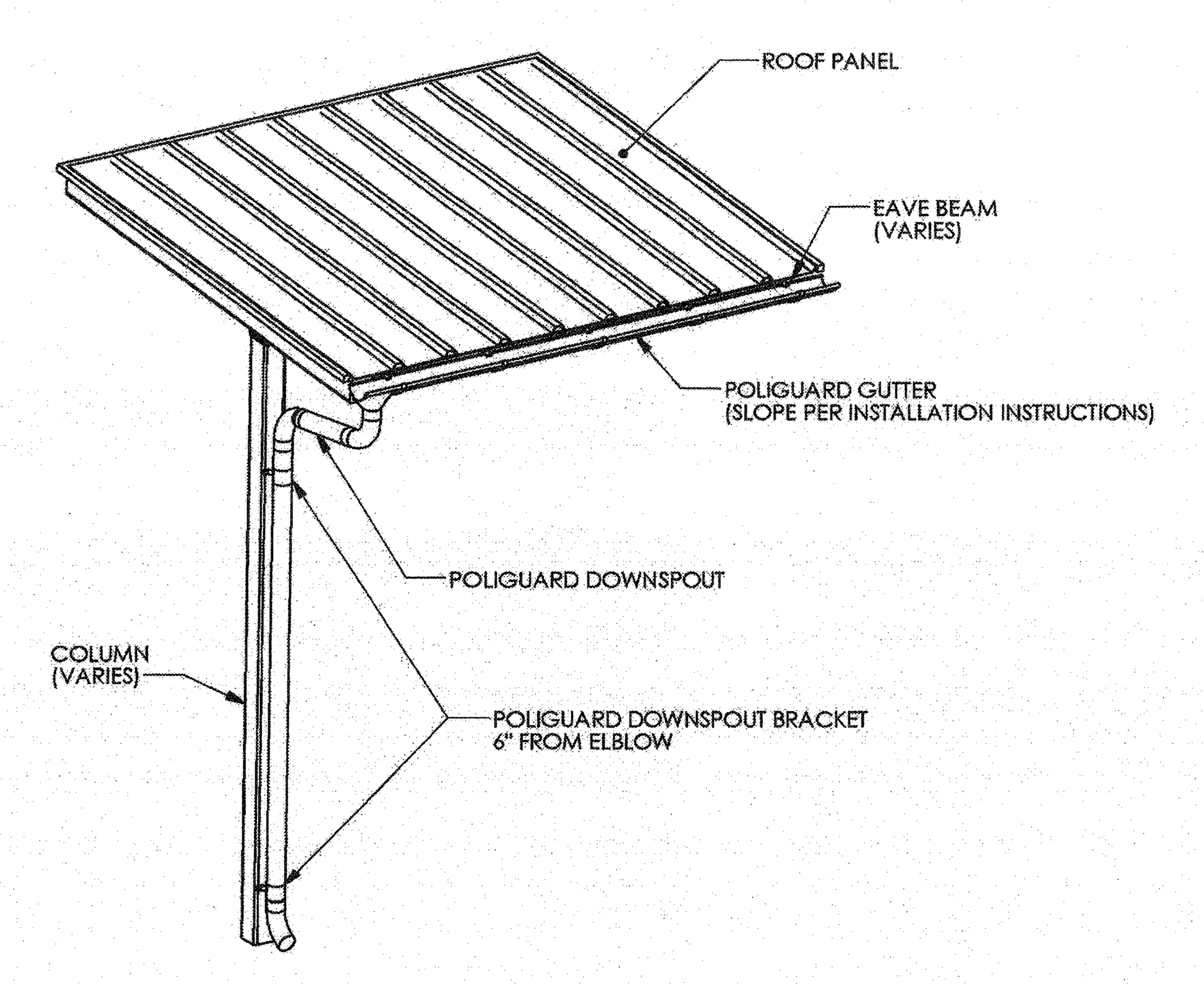
DRAWN BY: JMD
CHECKED BY: CE
POLIGON #: 51458

PD8.1

2014A



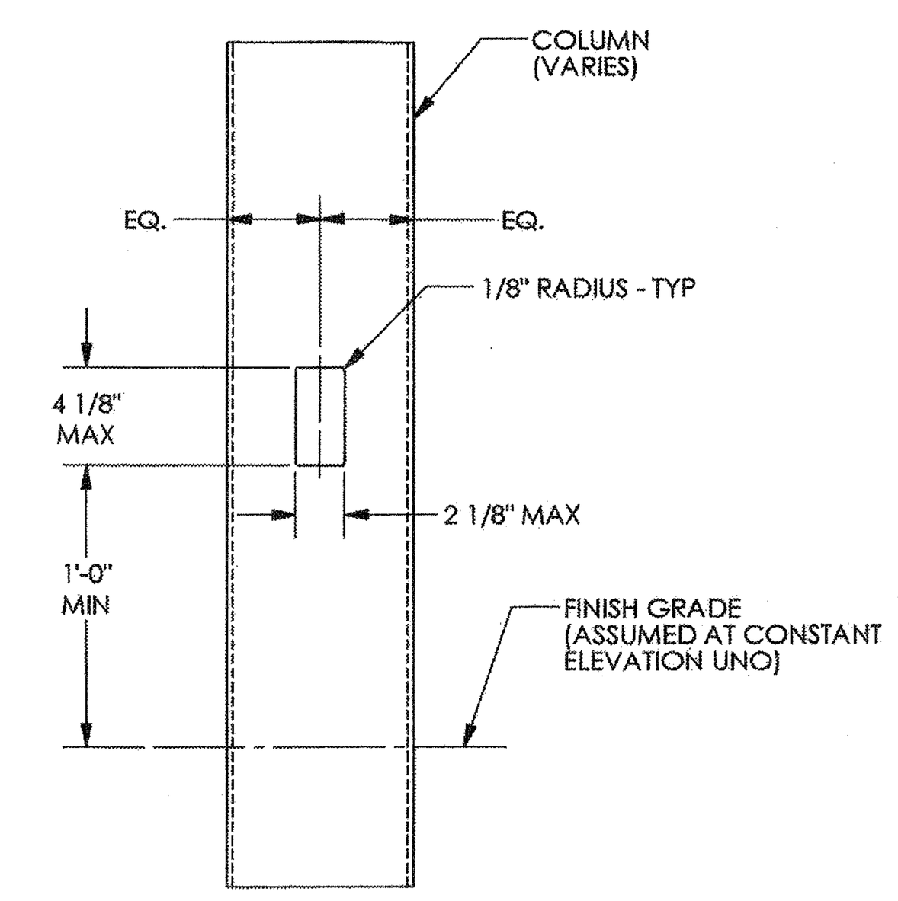
GUTTER DETAIL — GS-100



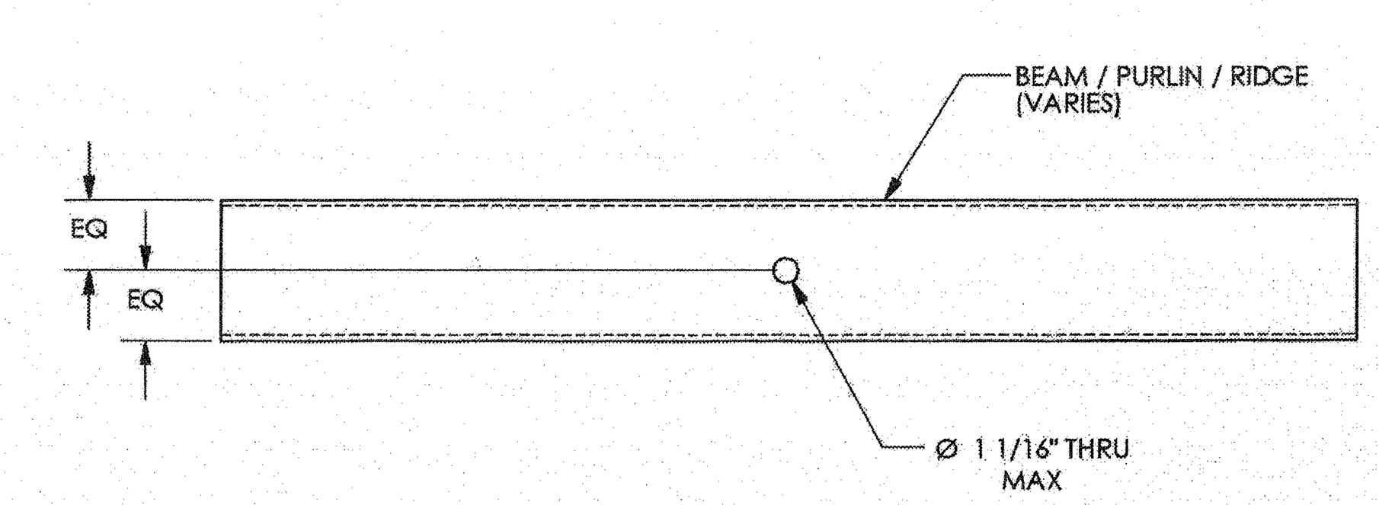
DOWNSPOUT DETAIL — GS-200

POLIGUARD GUTTER SYSTEM NOTES:

1. PREFABRICATED GUTTER SYSTEM IS ATTACHED TO THE STRUCTURE AFTER ROOF IS INSTALLED.
2. DETAILED INSTALLATION INSTRUCTIONS ARE SHIPPED WITH THE STRUCTURE.
3. DOWNSPOUTS REQUIRED AT EACH COLUMN.



ELECTRICAL CUTOUT IN COLUMNS — EC-100



ELECTRICAL CUTOUT IN BEAMS / PURLINS / RIDGES — EC-200

ELECTRICAL CUTOUT NOTES:

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

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MISC DESIGN OPTIONS
HIP ROOF (RAM)
PC DRAWINGS

DRAWN BY: JMD
CHECKED BY: CE
POLIGON #: 51458

PD9.0