

MARK TWAIN ELEMENTARY SCHOOL

(N) PLAYGROUND EQUIPMENT



Lawndale Unified School District

DSA Back Check - May 3rd, 2024

STATE: _____

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 03-123949 INC:
REVIEWED FOR
SS ☒ FLS ☒ ACS ☒
DATE: 05/21/2024

ARCHITECT:

architecture
westbergwhite
7700 IRVINE CENTER DR. STE 100
IRVINE, CA 92618
(714) 508-1780 508-1790 FAX

CONSULTANT:

PROJECT NAME:

(N) PLAYGROUND STRUCTURE
MARK TWAIN ELEMENTARY SCHOOL
3728 WEST 154TH STREET
LAWDALE, CA 90260

CLIENT:

**LAWDALE
ELEMENTARY SCHOOL
DISTRICT**

4161 WEST 147TH
STREET, LAWDALE,
CA 90260

Rev.	Date	Description

JOB NO: 23026.01
DATE: 05/03/2024
DRAWN: TG
CHECK: GC
ARCHITECT: PDW
ENGINEER:
SHEET DESCRIPTION:
COVER SHEET

SHEET NO:

G000

CHAPTER 4, PART 1, TITLE 24, C.C.R. ADMINISTRATIVE REQUIREMENTS
(PARTIAL LISTING ONLY)

1. A COPY OF PARTS 1 AND 5, TITLE 24, C.C.R. SHALL BE KEPT ON THE JOB SITE AT ALL TIMES.

2. ALL CHANGE ORDERS ARE NOT VALID UNTIL APPROVED BY DSA PER SECTION 4-338, PART 1 TITLE 24

3. ALL TESTS TO CONFORM TO THE REQUIREMENTS OF SECTION 4-335, PART 1, TITLE 24, AND APPROVED T AND I SHEET

4. TESTS OF MATERIALS AND TESTING LABORATORY SHALL BE IN ACCORDANCE WITH SECTION 4-332 OF PART 1, TITLE 24 AND THE DISTRICT SHALL EMPLOY AND PAY THE LABORATORY. COSTS OF RE-TEST MAY BE BACK CHARGED TO THE CONTRACTOR.

5. DSA WILL BE NOTIFIED AT THE START OF CONSTRUCTION AND PRIOR TO THE PLACEMENT OF CONCRETE PER SECTION 4-331, PART 1, TITLE 24.

6. PROJECT INSPECTOR CLASS 3 WILL BE APPROVED BY DSA. INSPECTION WILL BE IN ACCORDANCE WITH SECTION 4-333(B). THE DUTY OF THE INSPECTOR WILL BE IN ACCORDANCE WITH SECTION 4-342, PART 1, TITLE 24.

7. SUPERVISION OF THE CONSTRUCTION BY DSA WILL BE IN ACCORDANCE WITH SECTION 4-334, PART 1, TITLE 24.

8. CONTRACTOR, INSPECTOR, ARCHITECT, AND ENGINEERS WILL SUBMIT VERIFIED REPORTS (FORM DSA-6 BY INSPECTORS AND DSA-6A/E BY ARCHITECTS AND ENGINEERS) IN ACCORDANCE WITH SECTION 4-334 AND 4-342, PART 1, TITLE 24.

9. THE ARCHITECT AND THE STRUCTURAL ENGINEER WILL PERFORM THEIR DUTIES IN ACCORDANCE WITH SECTION 4-333(A) AND 4-341, PART 1, TITLE 24.

10. THE CONTRACTOR WILL PERFORM HIS DUTIES IN ACCORDANCE WITH SECTION 4-343, PART 1, TITLE 24.

PARTIAL LIST OF APPLICABLE CODES AS OF JANUARY 1, 2020

-2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR *

-2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR

-2018 INTERNATIONAL BUILDING CODE, VOL. 1 & 2 AND 2019 CALIFORNIA AMENDMENTS

-2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 1, TITLE 24 CCR

-2017 NATIONAL ELECTRICAL CODE AND 2019 CALIFORNIA AMENDMENTS

-2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR

-2022 CALIFORNIA MECHANICAL CODE AND 2019 CALIFORNIA AMENDMENTS

-2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR

-2018 APWU UNIFORM PLUMBING CODE AND 2019 CALIFORNIA AMENDMENTS

-2022 CALIFORNIA FIRE CODE (CFC), PART 6, TITLE 24 CCR AND 2019 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 CCR

-2018 INTERNATIONAL FIRE CODE AND 2019 CALIFORNIA AMENDMENTS

-2022 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR

-2018 INTERNATIONAL EXISTING BUILDING CODE AND 2019 CALIFORNIA AMENDMENTS

-2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 CCR

-2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 CCR

-TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS/2016 ASME A17 /ICSA B44-18 SAFETY CODE FOR ELEVATORS AND ESCALATORS (PER 2019 CBC PART 2 CH 35)

-NOTE: CALIFORNIA ELEVATOR UNIT ENFORCES CCR TITLE 8 AND USES THE 2004 ASME A17.1 BY ADOPTION.

PARTIAL LIST OF APPLICABLE STANDARDS

-NFPA 13 - STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS (CA AMENDED), 2022 EDITION

-NFPA 14 - STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS (CA AMENDED), 2019 EDITION

-NFPA 17 - STANDARD FOR DRY CHEMICAL EXTINGUISHING SYSTEMS, 2021 EDITION

-NFPA 20 - STANDARD FOR WET CHEMICAL EXTINGUISHING SYSTEMS, 2021 EDITION

-NFPA 20 - STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION, 2019 EDITION

-NFPA 24 - STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES (CA AMENDED), 2019 EDITION

-NFPA 72 - NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDED), 2022 EDITION

-NFPA 72 - STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES, 2019 EDITION

-NFPA 2001 - STANDARD ON CLEAN AGENT FIRE EXTINGUISHING SYSTEMS (CA AMENDED), 2019 EDITION

-UL 300 - STANDARD FOR FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS FOR PROTECTION OF COMMERCIAL COOKING EQUIPMENT, 2006 (R2010)

-UL 694 - AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS, INCLUDING ACCESSORIES, 2003 EDITION

-UL 521 - STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS, 1999 EDITION

-UL 1971 - STANDARD ON SIGNALING DEVICES FOR THE HEARING IMPAIRED, 2002 (R2024)

-ICC 300 - STANDARD ON BLEACHERS, FOLDING AND TELESCOPIC SEATING, AND GRANDSTANDS, 2017 EDITION

FOR A COMPLETE LIST ON APPLICABLE NFPA STANDARDS REFER TO 2022 CBC (SFM) CHAPTER 35 AND CALIFORNIA FIRE CODE CHAPTER 80.

SEE CALIFORNIA BUILDING CODE CHAPTER 35 AND CFC CHAPTER 80 FOR STATE OF CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS.

*ALL PARTS OF THE 2022 CALIFORNIA BUILDING CODE BECAME EFFECTIVE JANUARY 1, 2023 EXCEPT THE EFFECTIVE DATE FOR THE USE OF THE 2022 BUILDING ENERGY EFFICIENCY STANDARDS (TITLE 24, PART 1, CHAPTER 10) IS JANUARY 8, 2022 AND THE EFFECTIVE DATE FOR THE USE OF THE CALIFORNIA ADMINISTRATIVE CODE (TITLE 24, PART 1, CHAPTER 4) IS JANUARY 1, 2022.

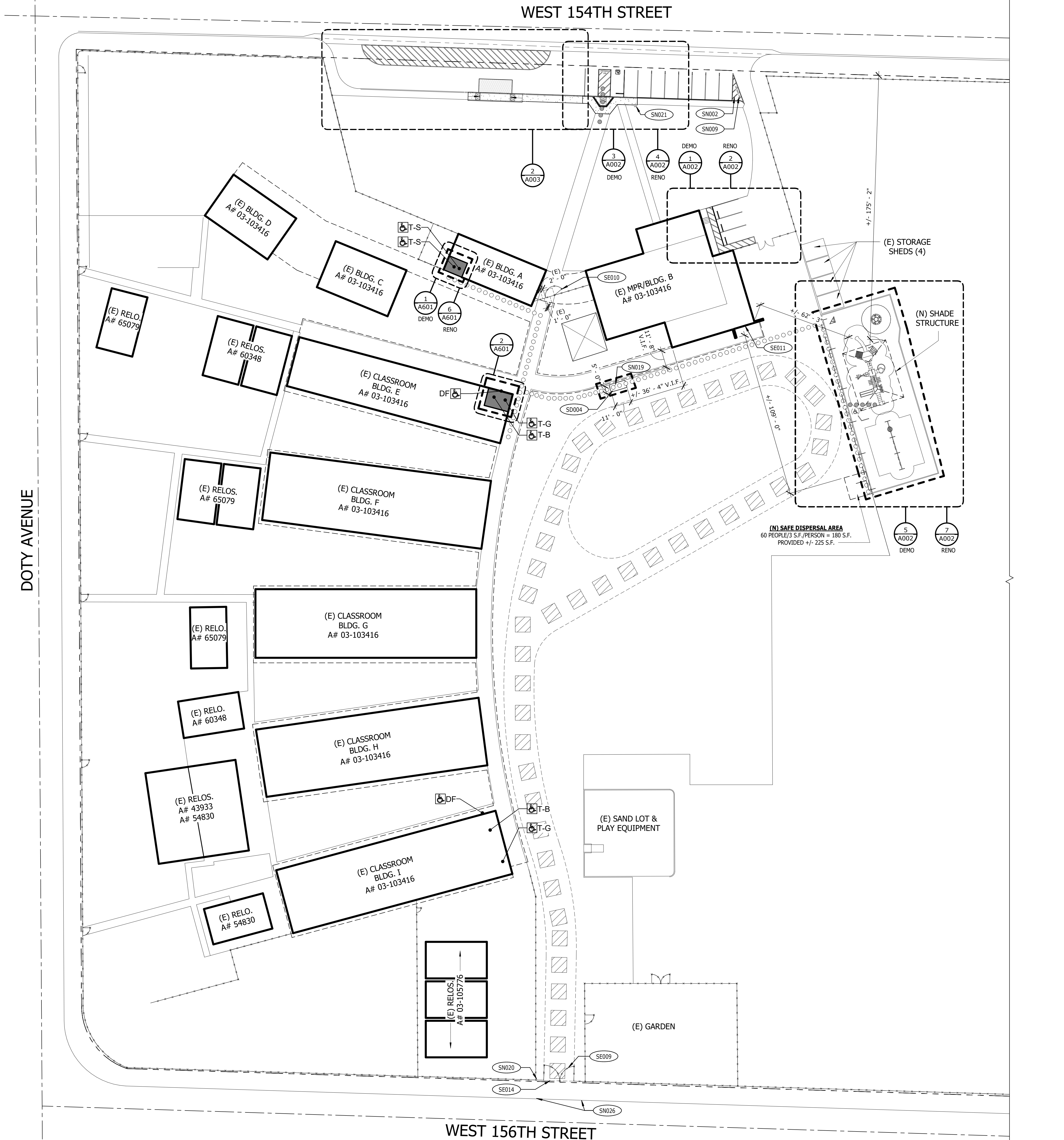
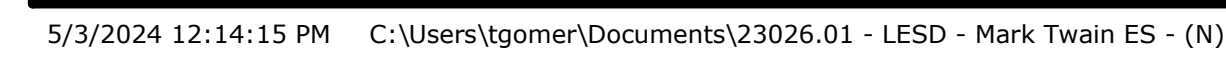
APPLICABLE CODES DATE	
STATEMENT OF GENERAL CONFORMANCE FOR ARCHITECTS/ENGINEERS WHO UTILIZE PLANS, INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS	
(APPLICATION NO. _____)	(FILE NO. _____)
☒ THE DRAWINGS OR SHEETS LISTED ON THE COVER OR INDEX SHEET INDICATED WITH AN * ☐ 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 26100, 26101, 26102, 26103, 26104, 26105, 26106, 26107, 26108, 26109, 26110, 26111, 26112, 26113, 26114, 26115, 26116, 26117, 26118, 26119, 26120, 26121, 26122, 26123, 26124, 26125, 26126, 26127, 26128, 26129, 26130, 26131, 26132, 26133, 26134, 26135, 26136, 26137, 26138, 26139, 26140, 26141, 26142, 26143, 26144, 26145, 26146, 26147, 26148, 26149, 26150, 26151, 26152, 26153, 26154, 26155, 26156, 26157, 26158, 26159, 26160, 26161, 26162, 26163, 26164, 26165, 26166, 26167, 26168, 26169, 26170, 26171, 26172, 26173, 26174, 26175, 26176, 26177, 26178, 26179, 26180, 26181, 26182, 26183, 26184, 26185, 26186, 26187, 26188, 26189, 26190, 26191, 26192, 26193, 26194, 26195, 26196, 26197, 26198, 26199, 26200, 26201, 26202, 26203, 26204, 26205, 26206, 26207, 26208, 26209, 26210, 26211, 26212, 26213, 26214, 26215, 26216, 26217, 26218, 26219, 26220, 26221, 26222, 26223, 26224, 26225, 26226, 26227, 26228, 26229, 26230, 26231, 26232, 26233, 26234, 26235, 26236, 26237, 26238, 26239, 26240, 26241, 26242, 26243, 26244, 26245, 26246, 26247, 26248, 26249, 26250, 26251, 26252, 26253, 26254, 26255, 26256, 26257, 26258, 26259, 26260, 26261, 26262, 26263, 26264, 26265, 26266, 26267, 26268, 26269, 26270, 26271, 26272, 26273, 26274, 26275, 26276, 26277, 26278, 26279, 26280, 26281, 26282, 26283, 26284, 26285, 26286, 26287, 26288, 26289, 26290, 26291, 26292, 26293, 26294, 26295, 26296, 26297, 26298, 26299, 26300, 26301, 26302, 26303, 26304, 26305, 26306, 26307, 26308, 26309, 26310, 26311, 26312, 26313, 26314, 26315, 26316, 26317, 26318, 26319, 26320, 26321, 26322, 26323, 26324, 26325, 26326, 26327, 26328, 26329, 26330, 26331, 26332, 26333, 26334, 26335, 26336, 26337, 26338, 26339, 26340, 26341, 26342, 26343, 26344, 26345, 26346, 26347, 26348, 26349, 26350, 26351, 26352, 26353, 26354, 26355, 26356, 26357, 26358, 26359, 26360, 26361, 26362, 26363, 26364, 26365, 26366, 26367, 26368, 26369, 26370, 26371, 26372, 26373, 26374, 26375, 26376, 26377, 26378, 26379, 26380, 26381, 26382, 26383, 26384, 26385, 26386, 26387, 26388, 26389, 26390, 26391, 26392, 26393, 26394, 26395, 26396, 26397, 26398, 26399, 26400, 26401, 26402, 26403, 26404, 26405, 26406, 26407, 26408, 26409, 26410, 26411, 26412, 26413, 26414, 26415, 26416, 26417, 26418, 26419, 26420, 26421, 26422, 26423, 26424, 26425, 26426, 26427, 26428, 26429, 26430, 26431, 26432, 26433, 26434, 26435, 26436, 26437, 26438, 26439, 26440, 26441, 26442, 26443, 26444, 26445, 26446, 26447, 26448, 26449, 26450, 26451, 26452, 26453, 26454, 26455, 26456, 26457, 26458, 26459, 26460, 26461, 26462, 26463, 26464, 26465, 26466, 26467, 26468, 26469, 26470, 26471, 26472, 26473, 26474, 26475, 26476, 26477, 26478, 26479, 26480, 26481, 26482, 26483, 26484, 26485, 26486, 26487, 26488, 26489, 26490, 26491, 26492, 26493, 26494, 26495, 26496, 26497, 26498, 26499, 26500, 26501, 26502, 26503, 26504, 26505, 26506, 26507, 26508, 26509, 26510, 26511, 26512, 26513, 26514, 26515, 26516, 26517, 26518, 26519, 26520, 26521, 26522, 26523, 26524, 26525, 26526, 26527, 26528, 26529, 26530, 26531, 26532, 26533, 26534, 26535, 26536, 26537, 26538, 26539, 26540, 26541, 26542, 26543, 26544, 26545, 26546, 26547, 26548, 26549, 26550, 26551, 26552, 26553, 26554, 26555, 26556, 26557, 26558, 26559, 26560, 26561, 26562, 26563, 26564, 26565, 26566, 26567, 26568, 26569, 26570, 26571, 26572, 26573, 26574, 26575, 26576, 26577, 26578, 26579, 26580, 26581, 26582, 26583, 26584, 26585, 26586, 26587, 26588, 26589, 26590, 26591, 26592, 26593, 26594, 26595, 26596, 26597, 26598, 26599, 26600,	

4-342 AND 4-343 OF THE EDUCATION CODE AND SECTIONS 4-340, 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 INTENT, AND ☒ HAS/HAVE BEEN COORDINATED WITH THE PROJECT PLANS AND SPECIFICATIONS. ☐ HAS/HAVE BEEN COORDINATED WITH THE PROJECT PLANS AND SPECIFICATIONS.	
<u>01/24/2024</u> SIGNATURE DATE ARCHITECT OR ENGINEER DESIGNATED TO BE IN GENERAL RESPONSIBLE CHARGE Paul D. Westberg PRINT NAME C-11045 SEPTEMBER 2025 LICENSE NUMBER EXPIRATION DATE	SIGNATURE DATE ARCHITECT OR ENGINEER DELEGATED RESPONSIBILITY FOR THIS PORTION OF THE WORK PRINT NAME LICENSE NUMBER EXPIRATION DATE

<u>ARCHITECTURAL</u> (7 Sheets)	
GENERAL	
G000	COVER SHEET
G001	SHEET INDEX, SYMBOLS, ABBREVIATIONS, AND NOTES
SITE PLAN(S) AND DETAILS	
A001	SITE PLAN
A002	ENLARGED SITE PLANS & SITE DETAILS
A003	ENLARGED SITE PLANS & SITE DETAILS
A004	SITE DETAILS
A601	ENLARGED TOILET ROOM PLANS AND INTERIOR ELEVATIONS
<u>*SHADE STRUCTURE</u> PC: A# 02-120865 (6 Sheets)	
*S1	COVER SHEET AND NOTES
*S2	ELEVATION DETAILS
*S3	TYPICAL DETAILS
*S4	REFERENCE TABLES
*S5	SPECIFICATION INFORMATION
*S6	EXAMPLE FORM DSA 103 - TESTS & INSPECTIONS

TOTAL: (13) SHEETS

5/3/2024 12:14:19 PM C:\Users\tgomer\Documents\23026.01 - LESD - Mark Twain ES - (N) Playground_tgomerG6LAZ.rvt



REGULAR STALLS:	12
VAN ACCESSIBLE (11B-208.2.4):	1
ACCESSIBLE STALLS (TABLE 11B-208.2):	0
TOTAL:	13

PARKING TABULATION

SD004	GRIND AND REMOVE THE TOP 1.5" OF AS C PAVING & PREPARE FOR (N) AC OVERLAY
SD009	(E) 15' WIDE FIRE GATE TO REMAIN, PROTECT IN PLACE, TYP. (PER A# 03-103416)
SE010	(E) 6' WIDE SINGLE PEDESTRIAN GATE TO REMAIN, PROTECT IN PLACE, (E) GATE HAS PANIC HARDWARE AND COMPLIES WITH 2022 CBC CH. 11B-404
SD011	(E) AUDIBLE FIRE ALARM BELL THAT SERVES PLAYGROUND TO REMAIN, PROTECT IN PLACE.
SD014	(E) FIRE LANE SIGNAGE TO REMAIN, PROTECT IN PLACE, TYP.
SN002	(N) AISLE STRIPING PER 71A003
SN009	(N) 12" HIGH TEXT, "NO PARKING," PAINT TRAFFIC WHITE, TYP.
SN019	(N) 1.5" MIN. AC PAVING OVERLAY AT 2% MAX CROSS SLOPE AND 4.9% SLOPE IN THE DIRECTION OF TRAVEL. ACCESSIBLE PARKING STALLS AND AISLES TO BE 2% MAX. SLOPE IN ALL DIRECTIONS
SN020	PROVIDE (N) KNOX BOX FOR (E) FIRE GATE
SN021	(N) "TOW-AWAY" SIGNAGE PER 61A002
SN026	REPAINT (E) FIRE LANE CURB PER 3/A001, EACH SIDE OF (E) DRIVEWAY

KEYNOTES

1.

PATHTHAT IS INDICATED IS A BARRIER FREE ROUTE WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" BEVELED AT 1:2 MAXIMUM SLOPE, EXCEPT THAT LEVEL CHANGES DO NOT EXCEEDS 1/4" VERTICAL AND IS AT LEAST 48" WIDE. SURFACE IS SLIP RESISTANT, STABLE, FIRM AND SMOOTH. CROSS-SLOPE DOES NOT EXCEEDS 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED (11B-403.3). (POT) SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM (11B-307.4) AND PROJECTING OBJECTS GREATER THAN 4" PROJECTION FROM WALL AND ABOVE 7" AND LESS THAN 80" (11B-307.2) ARCHITECT HAS VERIFIED THAT ALL BARRIERS IN THE PATH OF TRAVEL HAVE BEEN REMOVED OR WILL BE REMOVED UNDER THIS PROJECT, AND PATH OF TRAVEL COMPLES WITH CBC 11B-206.

2.

ALL UNCERTIFIED (E) P.O.T. IN THE PROJECT SCOPE SHALL NOT EXCEED 5% MAXIMUM RUNNING SLOPE AND 2% MAXIMUM CROSS SLOPE UNLESS OTHERWISE NOTED. MAXIMUM SLOPE SHALL NOT EXCEED 2% IN ALL DIRECTIONS WHERE P.O.T. TRAFFIC FLOW IS MULTIDIRECTIONAL. AT CHANGE OF DIRECTIONS, OR IN ANY ACCESSIBLE SPACE OR AREA WITH SLOPES TO DRAINS OR CATCH BASINS, ETC. CONTRACTOR IS TO VERIFY P.O.T. SHOWN IS IN COMPLIANCE. SEE NOTE 3 BELOW.

3.

ALL BARRIERS IN THE PATH OF TRAVEL HAVE BEEN REMOVED, WILL BE REMOVED, OR MODIFIED TO COMPLY WITH CBC SECTION 11B-402 UNDER THIS PROJECT. CONTRACTOR TO NOTIFY ARCHITECT IF ANY BARRIERS ARE DISCOVERED PRIOR TO PROCEEDING WITH WORK.

4.

GRATINGS LOCATED IN THE SURFACE OF ANY PEDESTRIAN WAY IN THE PATH OF TRAVEL, GRID/OPENINGS IN GRATINGS SHALL BE LIMITED TO 1/2" MAXIMUM CLEAR IN THE DIRECTION OF TRAFFIC FLOW. IF SUCH CONDITION OCCURS, PROVIDE MANUFACTURERS CUT-SHEETS REVIEW.

5.

FOR TYPICAL SYMBOLS AND ABBREVIATIONS. SEE SHEET 0001.

6.

ALL ITEMS SHOWN OR NOTED ARE EXISTING, UNLESS INDICATED OTHERWISE AS NEW.

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

SITE ACCESSIBILITY

SHADE STRUCTURE (NEW CONSTRUCTION)
CONSTRUCTION TYPE: II-B
OCCUPANCY: E
OCCUPANT LOAD FACTOR: 20
TOTAL OCCUPANT LOAD: 60
SHADE STRUCTURE AREA: 1,200 S.F.

(N) PLAYGROUND STRUCTURE
MARK TWAIN ELEMENTARY SCHOOL
3728 WEST 154TH STREET
LAWNDALE, CA 90260

CUSTOMER:
**LAWNDALE
ELEMENTARY SCHOOL
DISTRICT**

4161 WEST 147TH
STREET, LAWNDALE,
CA 90260

CODE ANALYSIS

EXISTING BUILDING(S) PART OF THIS CONTRACT

EXISTING BUILDING(S) NOT PART OF THIS CONTRACT

(E) FIRE LANE PER A# 03-103416

SCOPE OF WORK

PROPERTY LINE

LINE OF SAFE DISPERSAL

(E) CHAINLINK FENCE

ACCESSIBLE FEATURE CALLOUT:

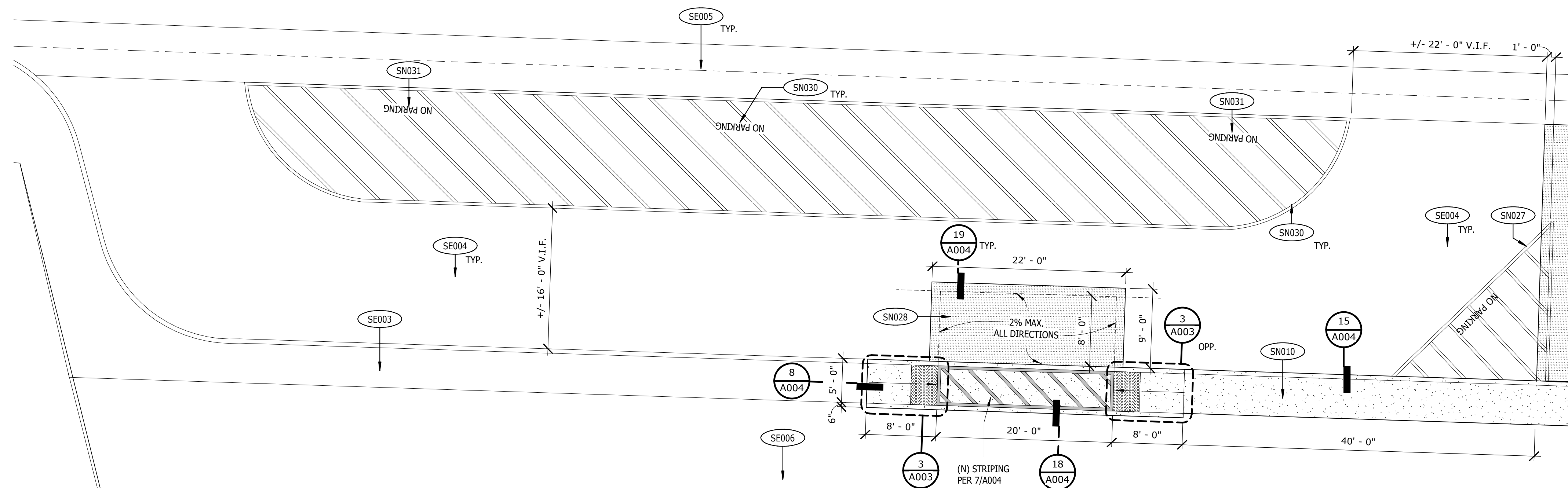
DF = DRINKING FOUNTAIN
T-G = BOYS TOILET
T-G = GIRLS TOILET
T-M = MEN TOILET
T-W = WOMEN TOILET
T-S = STAFF(UNSEX) TOILET

(E) ACCESSIBLE PATH OF TRAVEL

(N) ACCESSIBLE PATH OF TRAVEL

LEGEND

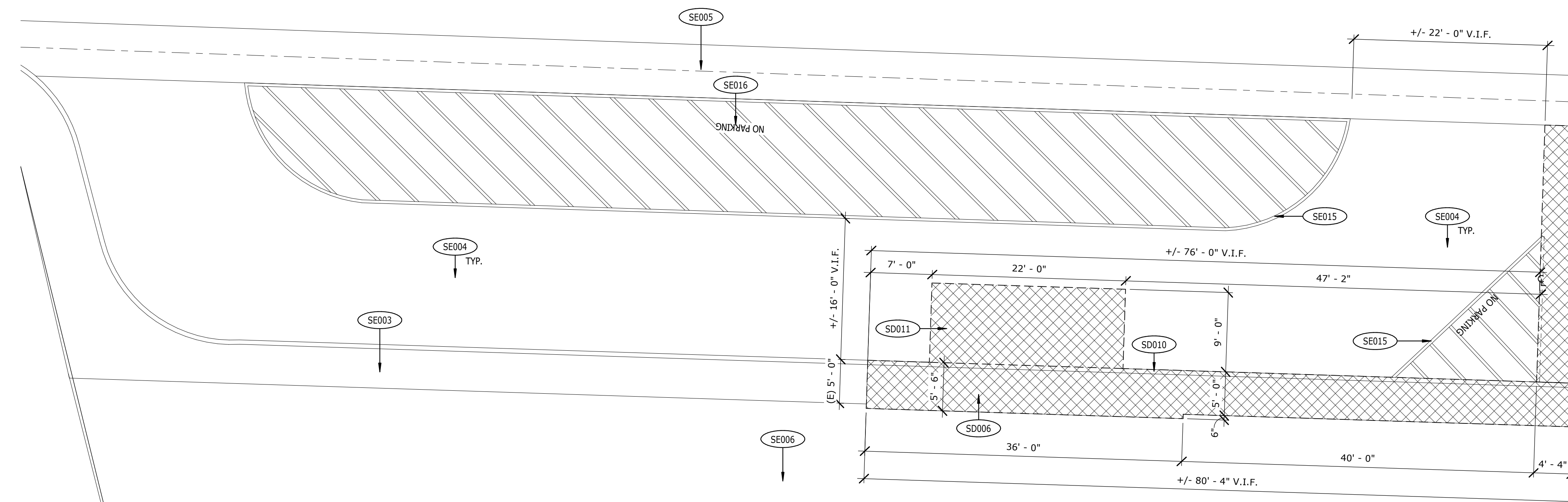
A001



(E) PICK UP/DROP OFF AREA - RENO

$$1/8'' = 1'-0''$$

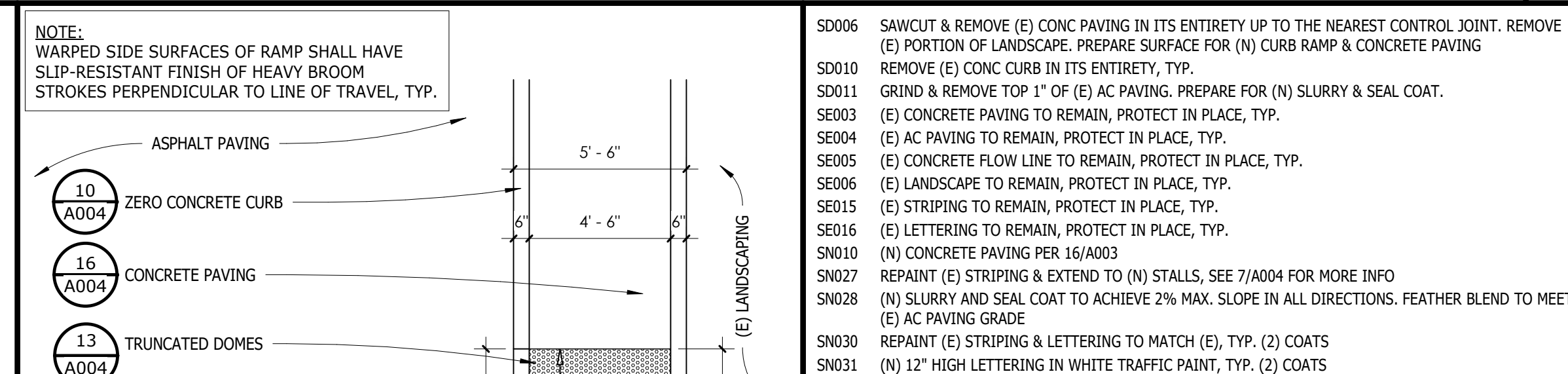
2



(E) PICK UP/DROP OFF AREA - DEMO

$$1/8'' = 1'-0''$$

1



ENLARGED CURB RAMP

$$1/4'' = 1'-0''$$

3

DSA IDENTIFICATION STAMP

SUPERIOR
RECREATIONAL PRODUCTS

Shade

SUPERIOR SHADE
150 Adamson Industrial Blvd.
Carrollton, GA 30117

FABRIC CANOPIES DSA PC - EMB
COVER SHEET

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PROPERTY OF THE MANUFACTURER AND MAY
NOT BE USED OR REPRODUCED WHOLE OR
IN PART WITHOUT THE WRITTEN PERMISSION
FROM THE MANUFACTURER.

PC IDENTIFICATION STAMP
PRE-CHECK (PC) DOCUMENT
CODE: 2022 CBC
A separate project application
for construction is required

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-120868 PC
REVIEWED FOR
SS ☒ FLS ☒ ACS ☒ CG ☐
DATE: 8/23/2023

SITE PROJECT NAME:

DISTRICT/TOWNER:

LOCATION/ADDRESS:

Revisions

	Date:	By:
0	11/30/2022	KJK
1	8/14/2023	KJK

Drawn: KJK
Date: 10/23/2022
Chkd: Zhisong Zhao
Date: 11/22/2022
Job Number:

S1
Sheet No.

APPLICABLE CODES AND STANDARDS

2022 California Administrative Code (CAC), Part 1, Title 24 CCR*
2022 California Building Code (CBC), Part 2, Title 24 CCR
(2021 International Building Code, Vol. 1 & 2, and 2022 California amendments)
2022 California Electrical Code (CEC), Part 3, Title 24 CCR
(2020 National Electrical Code and 2022 California Amendments)
2022 California Mechanical Code (CMC), Part 4, Title 24 CCR
(2021 IAPMO Uniform Mechanical Code and 2022 California amendments)
2022 California Plumbing Code (CPC), Part 5, Title 24 CCR
(2021 IAPMO Uniform Plumbing Code and 2022 California amendments)
2022 California Energy Code (CEC), Part 6, Title 24 CCR
2022 California Fire Code (CFC), Part 9, Title 24 CCR
(2021 International Fire Code and 2022 California Amendments)
2022 California Existing Building Code (CEBC), Part 10, Title 24 CCR
(2021 International Existing Building Code and 2022 California Amendments)
2022 California Green Building Standards Code (CALGreen), Part 11, Title 24 CCR
2022 California Referenced Standards Code, Part 12, Title 24 CCR
Title 19 CCR, Public Safety, State Fire Marshal Regulations
2019 ASME A17.1/CSA B44-13 Safety Code for Elevators and Escalators (per 2022 CBC Part 2 Ch 35)
Note: Cal/OSHA Elevator Unit enforces CCR Title 8 and uses the 2004 ASME A17.1 by adoption
NFPA 13 (2022) - Standard for the Installation of Sprinkler Systems (CA amended)
NFPA 14 (2019) - Standard for the Installation of Standpipe and Hose Systems (CA amended)
NFPA 17 (2021) - Standard for Dry Chemical Extinguishing Systems
NFPA 17A (2021) - Standard for Wet Chemical Extinguishing Systems
NFPA 20 (2019) - Standard for the Installation of Stationary Pumps for Fire Protection
NFPA 22 (2018) - Standard for Water Tanks for Private Fire Protection
NFPA 24 (2019) - Standard for the Installation of Private Fire Service Mains and Their Appurtenances (CA amended)
NFPA 72 (2022) - National Fire Alarm and Signaling Code (CA amended)
NFPA 80 (2019) - Standard for Fire Doors and Other Opening Protectives
NFPA 2001 (2018) - Standard on Clean Agent Fire Extinguishing Systems (CA amended)
UL 300 (2005, R2010) - Standard for Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment
UL 464 (2003) - Audible Signaling Devices for Fire Alarm and Signaling Systems, Including Accessories
UL 521 (1999) - Standard for Heat Detectors for Fire Protective Signaling Systems
UL 1971 (2002, R2010) - Standard for Signaling Devices for the Hearing Impaired
ICC 300 (2017) - Standard for Bleachers, Folding and Telescopic Seating, and Grandstands

ABBREVIATIONS & SYMBOLS

A	AREA	S	SECTION MODULOUS
DIM.	DIMENSION	SHT.	SHEET
EA.	EACH	SIM.	SIMILAR
EXT.	EXTERIOR	SQ.	SQUARE
FT.	FOOT OR FEET	STD.	STANDARD
GA.	GAGE	STRUC.	STRUCTURAL
INSP.	INSPECTIONS	SYM.	SYMMETRICAL
INT.	INTERIOR	TYP.	TYPICAL
ISI	KIPS PER SQUARE INCH	U.O.N.	UNLESS OTHERWISE NOTED
I	MOMENT OF INERTIA	XS	EXTRA STRONG
LB	POUND	#	DIAMETER
MAX.	MAXIMUM	<	LESS THAN
MIN.	MINIMUM	>	GREATER THAN
NA	NOT APPLICABLE	<	LESS THAN OR EQUAL TO
NO.	NUMBER	≥	GREATER THAN OR EQUAL TO
OZ.	OUNCES		
PL	PLATE		
PSF	POUND PER SQUARE FOOT		

DESIGN CRITERIA

1. VERTICAL LOADS
- 1.A. CANOPY LIVE LOAD = 5 psf (NON-REDUCIBLE)
1.B. CANVAS DEAD LOAD = 0.069 psf
1.C. SUPERIMPOSED LOAD = 0.5 psf (TEMPORARY LOAD)
1.D. LIVE LOAD = 5 psf
1.E. GROUND SNOW LOAD = 0 psf
2. LATERAL LOADS
- 2.A. WIND (ASCE/SEI 7-16 DIRECTIONAL PROCEDURE)
ULTIMATE DESIGN WIND SPEED: $V_{ult} = 110$ mph
NOMINAL DESIGN WIND SPEED: $V_{50} = 85$ mph
EXPOSURE CATEGORY = "C"
RISK CATEGORY = II
CLASSIFICATION: OPEN STRUCTURE (CLEAR WIND FLOW), $K_d = 1.0$
WIND VELOCITY PRESSURE: $q_h = 0.00256 K_d K_{zt} K_{e} V^2 = 22.38$ psf
NOTE: WIND IS BASED ON OPEN STRUCTURE WITH CLEAR WIND FLOW
2.B. EARTHQUAKE (EQUIVALENT LATERAL FORCE PROCEDURE)
MAPED SPECTRAL RESPONSE ACCELERATIONS: $S_s = 2.500$, $S_1 = 0.750$
SITE CLASS = "D", UNLESS A SITE-SPECIFIC GROUND MOTION HAZARD ANALYSIS IS PERFORMED,
THE S_{M1} VALUE INCREASED BY 50% SHALL BE LESS THAN THE DESIGN CRITERIA STATED
HEREIN.
RISK CATEGORY = II
SEISMIC DESIGN CATEGORY (SDC) = "E"
ORDINARY STEEL CANTILEVERED COLUMN SYSTEM
SPECTRAL RESPONSE COEFFICIENTS: $F_a = 1.2$, $F_v = 1.7$, $S_{D1} = 2.0$, $S_{D2} = 0.850$
REDUNDANCY FACTOR: FOR HIP STYLE $\rho = 1.0$, FOR UMBRELLA STYLE $\rho = 1.3$
IMPORTANCE FACTOR: $I_e = 1.0$
OVERSTRENGTH FACTOR: $\Omega_n = 1.25$
RESPONSE MODIFICATION FACTOR: $R = 1.25$
SEISMIC RESPONSE COEFFICIENT, $C_s = 1.6$
SEISMIC BASE SHEAR: $V = 1.6W$ (STRENGTH LEVEL)
MAXIMUM FUNDAMENTAL PERIOD OF STRUCTURE: 0.25 seconds
HORIZONTAL OR VERTICAL IRREGULARITY: NONE
3. ULTIMATE REACTION LOADS (MAX. LOADS)
- 3.A. HIP SHADE (PER COLUMN)
- DEAD: 0.57 k
LIVE: 1.84 k
WIND (LRFD):
2.2 k (DOWN)
1.1 k (UPLIFT)
7.6 k (HORIZONTAL)
89.9 k-R (MAX. MOMENT)
SEISMIC (LRFD):
0.83 k (HORIZONTAL)
9.9 k-R (MAX. MOMENT)
- 3.B. UMBRELLA SHADE (PER COLUMN)
- DEAD: 1.04 k
LIVE: 2.81 k
WIND (LRFD):
4.87 k (DOWN)
3.24 k (UPLIFT)
3.3 k (HORIZONTAL)
27.6 k-R (MAX. MOMENT)
SEISMIC (LRFD):
1.84 k (HORIZONTAL)
19.68 k-R (MAX. MOMENT)
4. PIER FRICTION RESISTANCE
- PIER FRICTION COEFFICIENT: $\mu = 0.3$
MAXIMUM PIER FRICTION RESISTANCE: $f = 28$ k
5. MINIMUM CLEARANCES
- 5.A. AS PER IR PC-4.5.4.5, THE MINIMUM CLEARANCE REQUIRED BETWEEN DRILLED PIERS WHEN PLACING MULTIPLE CANOPIES IS: 8" PIER DIAMETER (16", 20" OR 24" FROM PIER TO PIER).
- 5.B. THE MINIMUM SEISMIC SEPARATION BETWEEN ADJACENT SHADE STRUCTURES IS 4 INCHES.

GENERAL NOTES

1. MATERIAL SPECIFICATIONS
- 1.A. SOIL (NO SOIL REPORT PROVIDED): SOIL BEARING PRESSURE = 1500 PSF AT 24" BELOW THE LOWEST GRADE. LATERAL BEARING PRESSURE = 200 PSF/FT (CLASS 5), INCREASED PER CBC SECTION 1806A.3.4. A SITE-SPECIFIC GEOTECHNICAL REPORT IS REQUIRED AT THE TIME OF SITE APPLICATION WHEN USING LOAD-BEARING VALUES ABOVE THE STATED MAXIMUMS FOR CLASS 5 SOIL. ALLOWABLE PIER FRICTIONAL UPLIFT CAPACITY = 250 PSF. 1/3 INCREASE FOR SHORT TERM LOADS IS NOT ALLOWED.
- 1.B. CONCRETE: $f'_c = 4,500$ PSI MIN. @ 28 DAYS (SPECIAL INSPECTION REQUIRED). CONCRETE SHALL BE MADE WITH TYPE V CEMENT, PLUS POZZOLAN OR SLAG CEMENT COMPLYING WITH FOOTNOTE 7 OF ACI 318 TABLE 19.3.2.1, WITH A WATER TO CEMENT RATIO NOT MORE THAN 0.45. SITE-SPECIFIC GEOTECHNICAL REPORT MUST BE PROVIDED IF A LOWER f'_c IS DESIRED. APPLICABLE EXPOSURE LEVELS = S2. CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES SHALL BE AIR ENTRAINED PER ACI 318 SECTION 19.3.3. ADMIXTURES CONTAINING CALCIUM AND CHLORIDE ARE PROHIBITED.
- 1.C. REINFORCING STEEL: ASTM A615, GRADE 60, EXCEPT STIRRUPS AND TIES SHALL BE GRADE 40.
- 1.D. PLATE STEEL: ASTM A36, $F_y = 36$ ksi
- 1.E. SCHEDULE PIPE: ASTM A500 GRADE B&C, $F_y = 46$ ksi
- 1.F. STRUCTURAL TUBES: ASTM A500 GRADE B, $\phi \cdot 3"$ $F_y = 50$ ksi, $\phi \cdot 2 \cdot 3"$ 46 ksi. CORROSION PROTECTION SHALL BE TRIPLE COATED FLO-COAT® HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A 1037/A1037M.
- 1.G. MACHINED BOLTS: ASTM F593C/304 OR F593D/304 (LOCK NUTS ARE REQUIRED).
- 1.H. LOCK NUTS: ASTM F594; ASME B18.16.6
- 1.I. SELF-TAP SCREWS: AISI 410 SS
- 1.J. ANCHOR BOLTS: ASTM F1554 GRADE 36 MINIMUM
- 1.K. ANCHOR NUTS: ASTM A563
- 1.L. CABLE STEEL: 7x19 OR 6x36 CLASS IWRC (TYPICALLY REFERRED TO AS AIRCRAFT CABLE), CABLE SHALL BE AISI 304 STAINLESS STEEL, ASTM A240.
- NOMINAL CABLE STRENGTH FOR 3/16"Ø $F_u = 3.7k$, 1/4"Ø $F_u = 6.4k$, 5/16"Ø $F_u = 9k$, 3/8"Ø $F_u = 12k$, 7/16"Ø $F_u = 16.3k$.
ALLOWABLE STRENGTH FOR 3/16"Ø $S_u = 1.23k$, 1/4"Ø $S_u = 2.18k$, 5/16"Ø $S_u = 3.07k$, 3/8"Ø $S_u = 4.09k$, 7/16"Ø $S_u = 6.3k$.
MIN. PRETENSION FORCE ON 1/4"Ø = 0.10k, ON 5/16"Ø = 0.15k, ON 3/8"Ø = 0.20k, ON 7/16"Ø = 0.25k. MAX. PRETENSION FORCE ON 1/4"Ø = 0.15k, ON 5/16"Ø = 0.23k, ON 3/8"Ø = 0.30k, ON 7/16"Ø = 0.35k.
- 1.M. WELDING ELECTRODES SHALL BE GMAW / SEMI-AUTOMATIC, GRADE E70S-6 PER AWS A5.18
- 1.N. GROUT: NON-SHRINK, NON-METALLIC GROUT, SHALL MEET ASTM C1107, MIN. $f'_c = 5,000$ psi
- 1.O. EXPOSED STEEL FASTENERS: ALL EXPOSED STEEL FASTENERS, INCLUDING CAST-IN-PLACE ANCHOR BOLTS/RODS, SHALL BE STAINLESS STEEL (TYPE 304 MINIMUM), OR HOT-DIP GALVANIZED (ASTM A153, CLASS D MINIMUM OR ASTM F2329 OR ASTM A325 HIGH STRENGTH)
2. WELDING
- 2.A. WORKMANSHIP AND TECHNIQUE OF WELDING ARE TO CONFORM TO THE 2022 C.B.C. SECTION 2204A.1. ALL WELDS SHALL BE INSPECTED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE 2022 C.B.C. CHAPTER 17A, SECTION 1705A.2.5
3. CABLE CLIPS & TURNBUCKLES
- 3.A. CABLE CLIPS SHALL BE FORGED STEEL PER FEDERAL SPECIFICATION FF-C-450 TYPE 1, CLASS 1 INSTALLED WITH THE U-BOLT ON THE CABLE DEAD END (SEE SPECIFICATION SHEET ON FINAL SHEET OF THIS SUBMITTAL). CABLE CLIPS WILL DEVELOP THE ALLOWABLE STRENGTH OF THE CABLE WHEN PROPER QUANTITY AND BOLT TORQUE IS USED.
- 3.B. 3/16"Ø CABLE REQUIRES A MINIMUM OF 3 CLIPS. 1/4"Ø CABLE REQUIRES A MINIMUM OF 3 CLIPS, 5/16"Ø CABLE REQUIRES A MINIMUM OF 3 CLIPS, 3/8"Ø CABLE REQUIRES A MINIMUM OF 3 CLIPS, AND 7/16"Ø CABLE REQUIRES A MINIMUM OF 4 CLIPS.
- 3.C. BOLT TORQUE FOR 3/16" Ø CABLE CLIPS = 7 lb-ft, FOR 1/4"Ø CABLE CLIPS = 15 lb-ft, FOR 5/16"Ø CABLE CLIPS = 30lb-ft, FOR 3/8"Ø CABLE CLIPS = 45lb-ft, FOR 7/16"Ø CABLE CLIPS = 65lb-ft.
- 3.D. TURNBUCKLES SHALL BE AISI 316 STAINLESS STEEL. ALLOWABLE STRENGTH FOR 1/2"Ø $S_u = 1.54k$, 5/8"Ø $S_u = 2.46k$, FOR 3/4"Ø = 3.32k.
4. BOLT HOLES
- 4.A. ANCHOR BOLT HOLE DIAMETERS SHALL BE 1/8" LARGER THAN THE BOLT DIAMETER. ALL OTHER CONNECTION BOLT HOLE DIAMETERS SHALL BE 1/16" LARGER THAN THE BOLT DIAMETER
5. CORROSION PROTECTION
- 5.A. ALL STEEL MEMBERS (U.N.O.) SHALL BE POWDER COATED WITH A ZINC RICH PRIMER AND TGIC POLYESTER TOP COAT MEETING ASTM B117, ASTM D2247, AND ASTM D4587-05
6. FABRIC MATERIAL
- 6.A. FABRIC MATERIAL SHALL BE COMMERCIAL NINETYFIVE 340 FR FABRIC
- 6.B. MAXIMUM MODULUS OF ELASTICITY = 463 psi
- 6.C. THE FABRIC SHALL BE MANUFACTURED FROM HIGH DENSITY POLYETHYLENE POLYMER
- 6.D. NOMINAL WEIGHT = 10 oz/yd²
- 6.E. MIN. ULTIMATE BREAKING STRENGTH PER ASTM D 5034: WARP = 158.6 lbs, WEFT = 412.3 lbs
- 6.F. MAX. ELONGATION: WARP = 49%, WEFT = 89%
- 6.G. MIN. ULTIMATE TEAR STRENGTH PER ASTM D 2261: WARP = 43.0 lbf, WEFT =39.6 lbf
- 6.H. ALLOWABLE STRENGTH OF SEAMS: 67.3 lbf/in
- 6.I. FIRE RETARDANT RATING PER CSFM - TITLE 19, (LICENSE # : F-037801).
- 6.J. FABRIC SHADE STRUCTURES SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF CBC SECTION 3102 AND 3105
- 6.K. FABRIC MATERIAL SHALL COMPLY WITH CBC SECTIONS 3102.3.1, 3105.3, AND CCR, TITLE 19, DIVISION 1, CHAPTER 8
7. QUALITY CONTROL
- 7.A. QUALITY CONTROL PERFORMED BY THE SUPPLIER SHALL INCLUDE VISUAL AND/OR INSTRUMENT VERIFICATION OF THE FOLLOWING ASPECTS, IF APPLICABLE: MATERIAL TRACEABILITY, WELD QUALITY, DIMENSIONAL ACCURACY, COATINGS, ASSEMBLY, PACKING, AND SHIPPING.
- 7.B. ALL MANUFACTURER PERSONNEL SHALL RECEIVE TRAINING AS MANDATED BY SUPERIOR RECREATIONAL PRODUCTS. QUALITY PERSONNEL WILL BE CONTINUALLY TRAINED, INCLUDING PROCESS AUDITS THROUGHOUT THE PRODUCT REALIZATION. QUALITY ASSURANCE AUDITS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF AN SRP AND LADES CERTIFIED INSPECTOR.
- 7.C. ALL WELDED STEEL PRODUCTS SHALL RECEIVE QUALITY ASSURANCE AUDITS AFTER WELDING TO ENSURE DIMENSIONAL ACCURACY AND WELD QUALITY. PAINTED STEEL PRODUCTS SHALL RECEIVE RANDOM QUALITY ASSURANCE AUDITS USING A FILM THICKNESS GAUGE 250 TIMES PER DAY ON PRIMER COAT AND 250 PER DAY ON TOP COAT TO ENSURE PROPER COATING THICKNESS.
- 7.D. STANDARDS FOR EXECUTION OF THE WORK SHALL FOLLOW SUPERIOR RECREATIONAL PRODUCTS' WORK INSTRUCTIONS, QUALITY PROCEDURES, AND DSA APPROVED SEALED DRAWINGS. MANUFACTURER SHALL ADHERE TO DIMENSIONAL TOLERANCES AS SPECIFIED ON APPLICABLE DRAWINGS AND DOCUMENTATION.
8. STANDARD NOTES
- 8.A. ALL WORK SHALL CONFORM TO 2022 EDITION TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)
- 8.B. 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
- 8.C. A "DSA CERTIFIED" PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR
- 8.D. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT
- 8.E. SUBSTITUTIONS AFFECTING DSA REGULATED ITEMS SHALL BE CONSIDERED AS A CONSTRUCTION CHANGE DOCUMENT OR ADDENDUM, AND SHALL BE APPROVED BY DSA PRIOR TO FABRICATION AND INSTALLATION PER DSA IR A-6 AND SECTION 338(C) PART 1, TITLE 24 CCR.
- 8.F. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(c), PART 1, TITLE 24, CCR)
- 8.G. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.
- 8.H. AS PER IR PC-4.1.7: FLOOD ZONE: DESIGN SHALL COMPLY WITH CBC SECTION 1612A AND PROCEDURE PR 14-01: FLOOD DESIGN AND PROJECT SUBMITTAL REQUIREMENTS. WHEN A SITE-SPECIFIC PROJECT IS LOCATED IN A FLOOD ZONE OTHER THAN ZONE X A LETTER STAMPED AND SIGNED FROM A GEOTECHNICAL ENGINEER IS NEEDED TO VALIDATE THE ALLOWABLE SOIL VALUES SPECIFIED IN THE PC ARE STILL APPLICABLE.
- 8.I. AS PER IR PC-4.1.8: GEOHAZARD REPORTS: GEOHAZARD REPORTS ARE NOT REQUIRED FOR OPEN FABRIC SHADE STRUCTURES 1,600 SQUARE FEET (SQ. FT.) OR LESS COMPLYING WITH THE REQUIREMENTS OF IR A-4. GEOHAZARD REPORT REQUIREMENTS, SECTION 3.1.1. OPEN FABRIC SHADE STRUCTURES GREATER THAN 1,600 SQ. FT. UP TO A MAXIMUM OF 4,000 SQ. FT. AND COMPLYING WITH THE REQUIREMENTS NOTED IN IR A-4 SECTION 3.1.1 DO NOT REQUIRE A GEOHAZARD REPORT PROVIDED A GEOTECHNICAL REPORT INDICATES THAT NO LIQUEFACTION POTENTIAL EXISTS.
- 8.J. AS PER IR PC-4.5.4.5, THE MINIMUM CLEARANCE REQUIRED BETWEEN DRILLED PIERS WHEN PLACING MULTIPLE CANOPIES IS: 8" PIER DIAMETER (16", 20" OR 24" FROM PIER TO PIER).
- 8.K. THE MINIMUM SEISMIC SEPARATION BETWEEN ADJACENT SHADE STRUCTURES IS 4 INCHES.
- 8.L. AS PER IR PC-4.5.7: PIER & SHALLOW SPREAD FOOTINGS MAY BE COMBINED WITHIN THE SAME SHADE STRUCTURE IF ALL COLUMNS IN THE SHADE STRUCTURE HAVE THE SAME HEIGHT.
- 8.M. SHADE STRUCTURE APPROVAL FOR WILDLAND-URBAN INTERFACE PER CBC 7A TO BE FIELD VERIFIED. THIS PC HAS NOT BEEN APPROVED FOR USE IN A FIRE HAZARD SEVERITY ZONE PER CBC CHAPTER 7A.
- 8.N. MINIMUM SETBACK LIMIT FOR THE SHADE STRUCTURES AS PER FIGURE 1:

DESIGN PARAMETER CHECKLIST FOR OVER-THE-COUNTER REVIEW

THE FOLLOWING CHECKLIST IS INTENDED TO ASSIST THE PLAN REVIEWER DETERMINE IF THIS PRE-CHECKED SUBMITTAL IS APPLICABLE TO THE SITE-SPECIFIC CONDITIONS IN WHICH IT IS INTENDED TO BE USED. IF THIS CHECKLIST CANNOT BE COMPLETED, ADDITIONAL ENGINEERING PROVING SITE-SPECIFIC COMPLIANCE IS REQUIRED.

THIS PRE-CHECKED SUBMITTAL IS APPLICABLE UNDER THE FOLLOWING CIRCUMSTANCES:

- ☑ THE CONSTRUCTION TYPE IS "B"
- ☑ THE RISK CATEGORY IS "I" OR LESS
- ☑ THE WIND EXPOSURE CATEGORY IS "C" OR LESS
- ☑ THE SOIL CLASS IS "D" OR BETTER
- ☑ THE PROJECT SITE BASIC ULTIMATE WIND SPEED IS ≤ 110 mph
- ☑ THE PROJECT SITE SEISMIC DESIGN CATEGORY IS "E" OR LESS
- ☑ THE PROJECT SITE IS NOT IN A FLOOD ZONE (WHEN A SITE-SPECIFIC PROJECT IS LOCATED IN A FLOOD ZONE OTHER THAN ZONE X A LETTER STAMPED AND SIGNED FROM GEOTECHNICAL ENGINEER IS NEEDED TO VALIDATE THE ALLOWABLE SOIL VALUES SPECIFIED IN PC ARE STILL APPLICABLE)
- ☑ THE PROJECT SITE IS NOT IN AN AREA CLASSIFIED AS A WILD LAND URBAN INTERFACE FIRE AREA (A FIRE HAZARD SEVERITY ZONE)
- ☑ NONE OF THE MAXIMUM DESIGN CRITERIA ARE EXCEEDED
- ☑ ALLOWABLE SOIL COMPRESSIVE STRENGTH IS 1,500 psf OR GREATER
- ☑ LATERAL BEARING PRESSURE SHALL BE 200 PSF/FT (INCREASED PER CBC SECTION 1806A.3.4) OR GREATER
- ☑ PIER FRICTIONAL RESISTANCE SHALL BE LARGER THAN USED IN DESIGN
- ☑ IF THE CANOPY SIZE IS $\leq 1,600$ ft² IN AREA, COMPLYING WITH THE REQUIREMENTS OF DSA IR A-4 SECTION 3.1.1. SUPPORTED ON ALL CORNERS (3 COLUMNS MINIMUM), A SITE-SPECIFIC GEOHAZARD REPORT IS NOT REQUIRED -OR- IF THE CANOPY SIZE IS $\leq 4,000$ ft² IN AREA AND THERE IS A GEOTECHNICAL REPORT PROVING THAT NO POTENTIAL FOR LIQUEFACTION EXISTS, A SITE-SPECIFIC GEOHAZARD REPORT IS NOT REQUIRED
- ☑ THE CANOPY SIZE PROVIDES THE MINIMUM REQUIRED AREA FOR THE SELECTED ASSEMBLY USE AND DESIRED OCCUPANCY LOAD (SEE ASSEMBLY USE SELECTION CHECKLIST)

OCCUPANCY USE SELECTION CHECKLIST

THE FOLLOWING CHECKLIST IS TO BE USED BY THE PARTY SUBMITTING THIS PRE-CHECK TO INDICATE THE INTENDED OCCUPANCY USE FOR THIS FABRIC CANOPY.

- ☐ ASSEMBLY GROUP A-2
 - ☐ ASSEMBLY GROUP A-3
 - ☐ BUSINESS GROUP B
 - ☑ EDUCATIONAL GROUP E
- INTENDED OCCUPANCY LOAD = 60 PERSONS

SITE-SPECIFIC CODE ANALYSIS

THIS SECTION IS TO BE FILLED OUT BY THE ARCHITECT OF RECORD FOR SITE-SPECIFIC APPROVAL
TYPE OF CONSTRUCTION: TYPE IIB
FIRE SPRINKLER: NO
ALLOWABLE AREA = 9,500 ft²

CODE ANALYSIS			
OCCUPANCY GROUP	OCCUPANT LOAD FACTOR	TOTAL OCCUPANT LOAD	SHADE STRUCTURE AREA (ft²)
E	20	60	1,200

NOTE: THE INTENDED USE AND OCCUPANCY TO BE SPECIFIED ON SITE-SPECIFIC APPLICATION DRAWINGS.

CANOPY SIZE SELECTION CHECKLIST

THE FOLLOWING CHECKLIST IS TO BE USED BY THE PARTY SUBMITTING THIS PRE-CHECK TO INDICATE THE INTENDED SIZES USED FOR THIS FABRIC CANOPY SUBMITTAL. SELECT ONE STYLE/SIZE AND ONE HEIGHT.

- NOTES:
- HEIGHT OPTIONS ARE FROM 9FT TO 12FT.
 - INTERMEDIATE SIZES MAY USE THE MEMBER SIZES OF THE NEXT LARGEST CANOPY WITH AN IDENTICAL WIDTH TO LENGTH RATIO.

HIP STYLE SIZE

- ☐ 10'-x-20'
- ☐ 15'-x-20'
- ☐ 18'-x-36'
- ☐ 20'-x-20'
- ☐ 20'-x-30'
- ☐ 20'-x-40'
- ☐ 25'-x-25'
- ☐ 25'-x-30'
- ☐ 30'-x-30'
- ☑ 30' x 40'

HEIGHT

- ☐ 9'
- ☐ 10'
- ☑ 12'

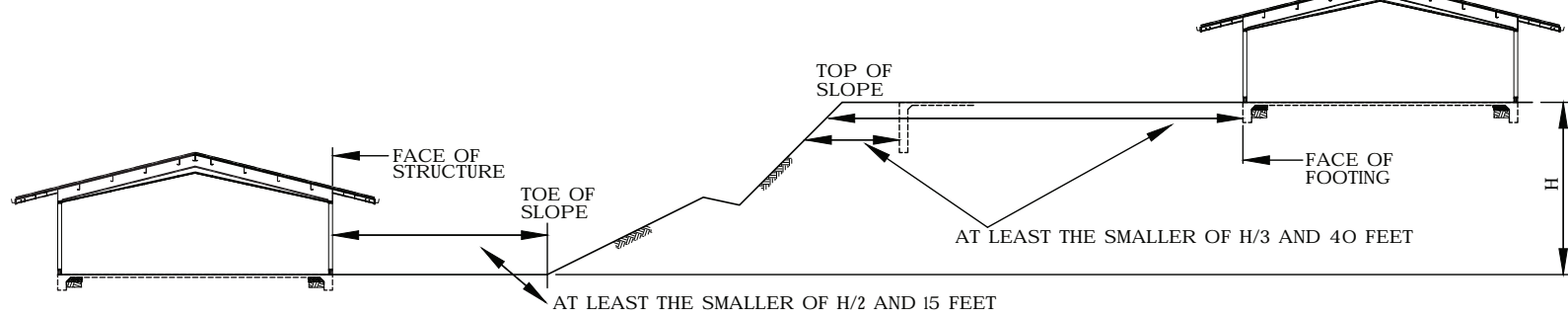
UMBRELLA-STYLE SIZE

- ☐ 12'
- ☐ 20'

HEIGHT

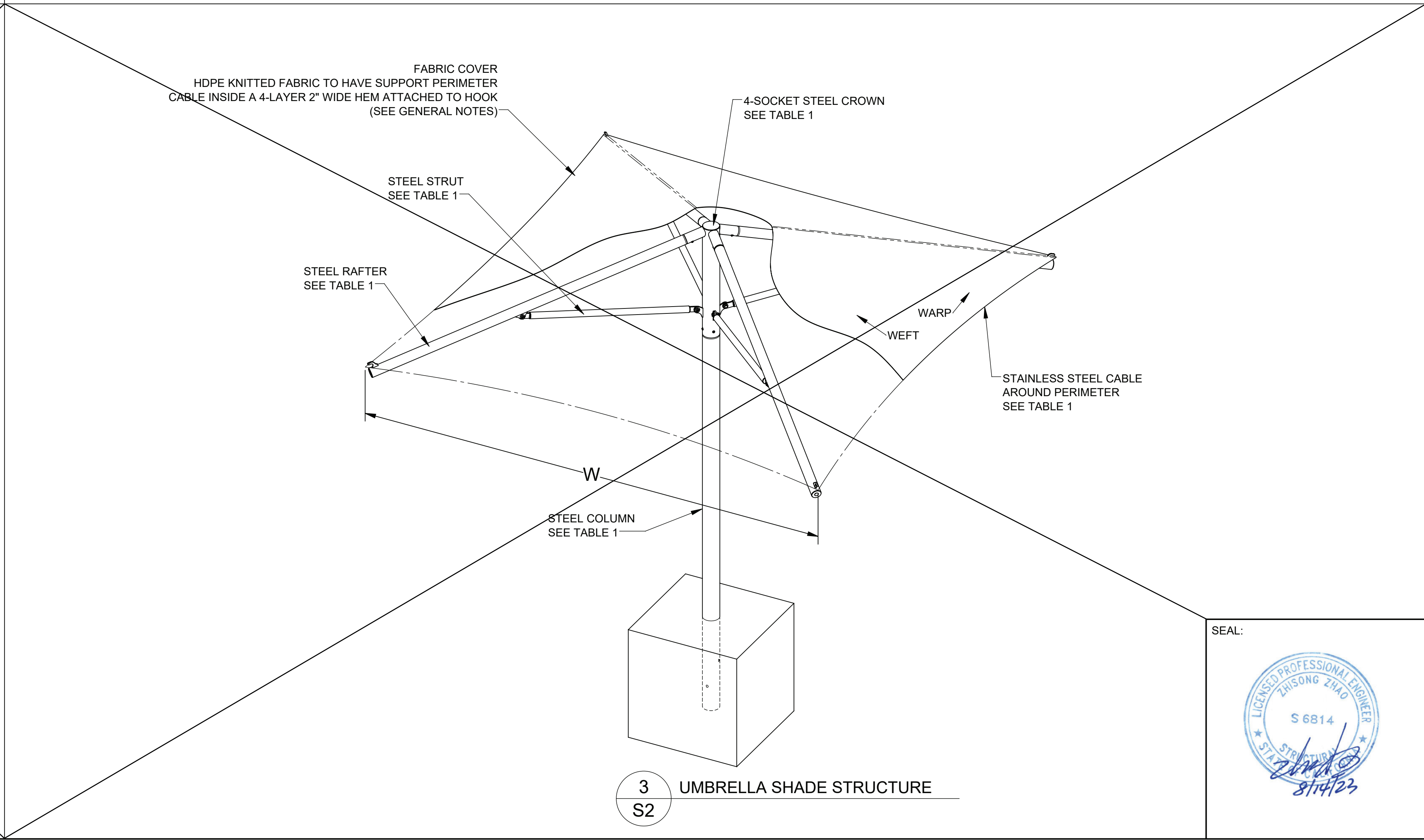
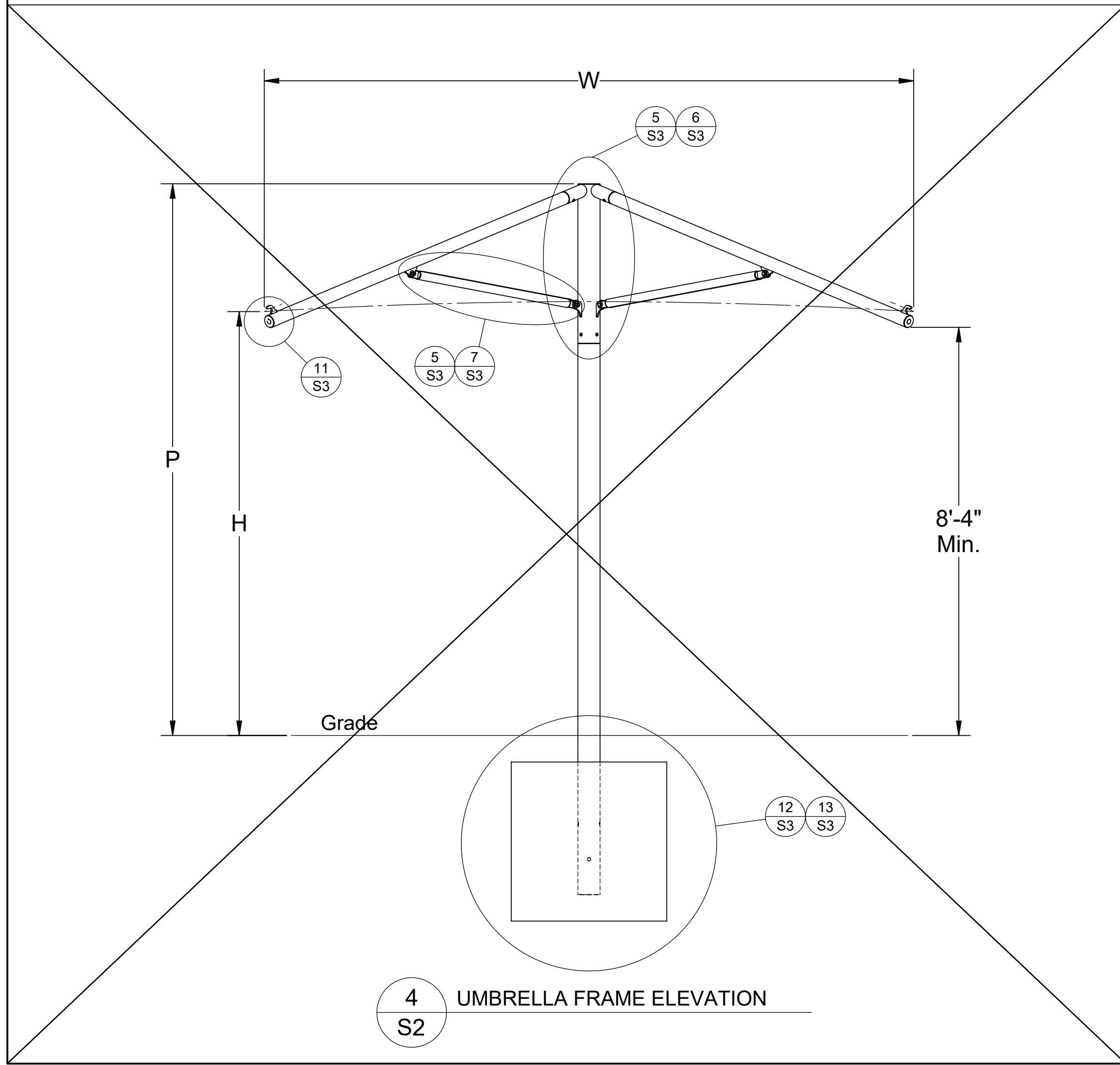
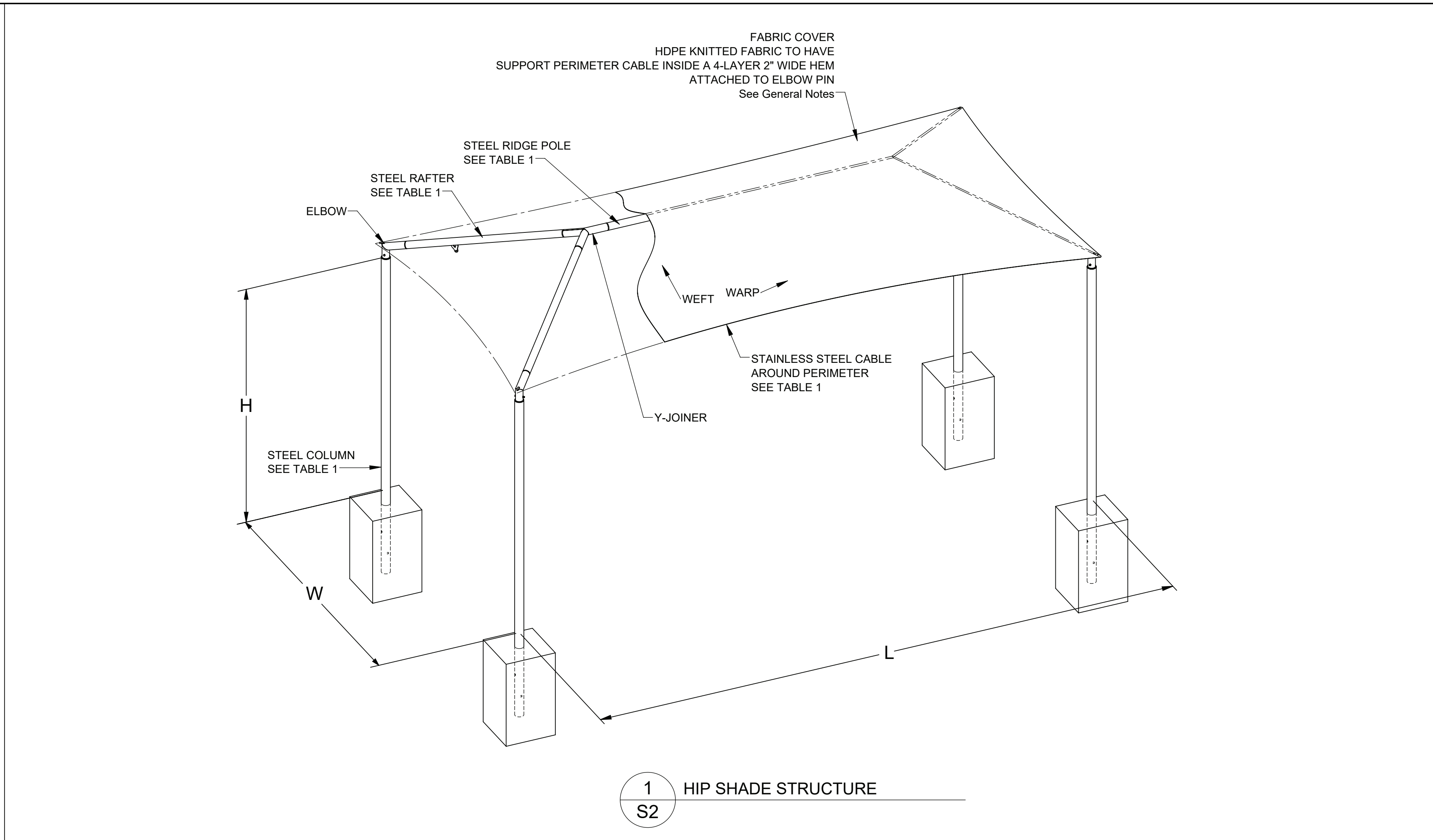
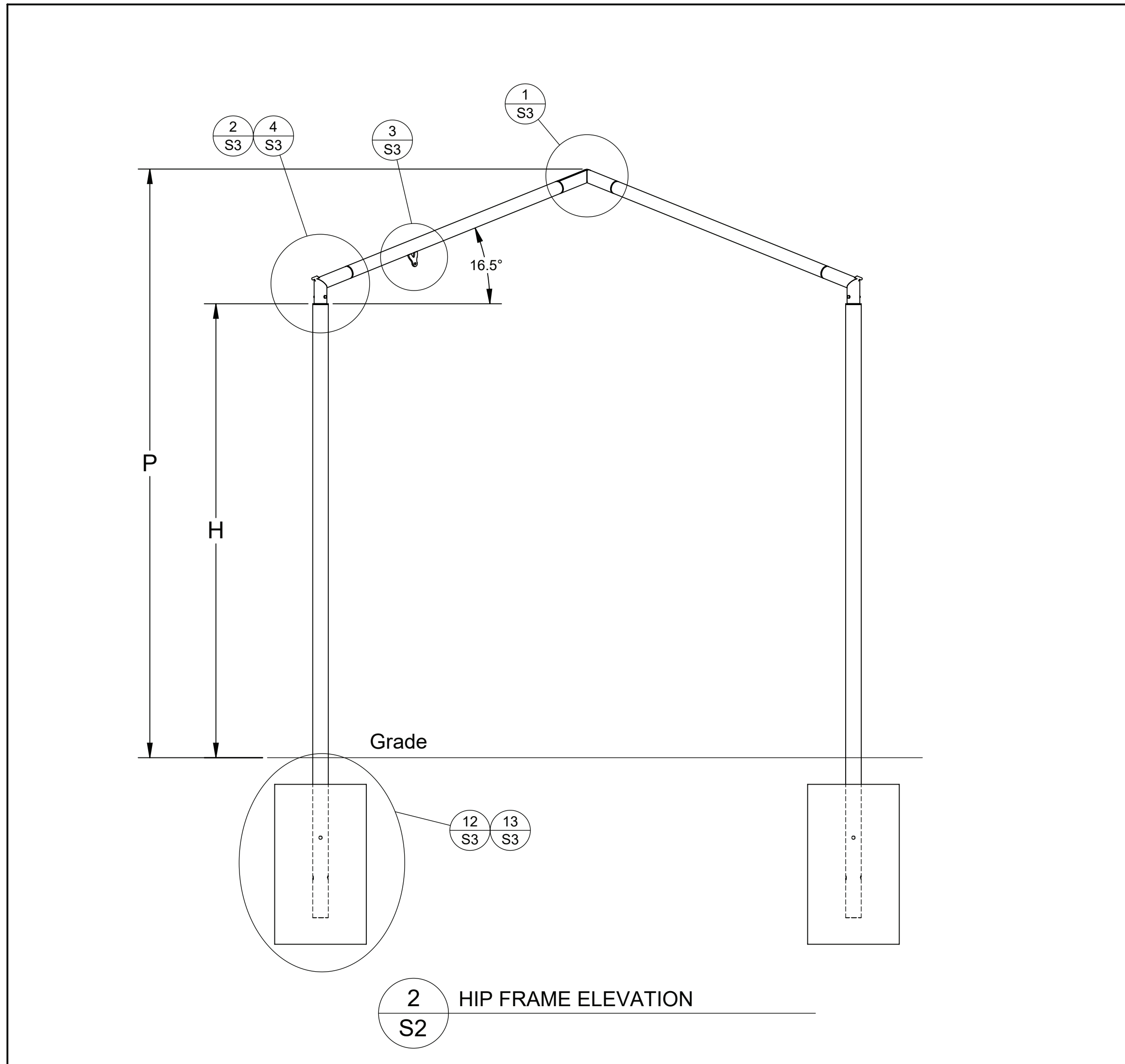
- ☐ 9'
- ☐ 10'
- ☑ 12'

FIG. 1: FOUNDATION CLEARANCES FROM SLOPE



SEAL:





DSA IDENTIFICATION STAMP

SUPERIOR
RECREATIONAL PRODUCTS
Shade

SUPERIOR SHADE
150 Adamson Industrial Blvd.
Carrollton, GA 30117

**FABRIC CANOPIES DSA PC - EMB
ELEVATION DETAILS**

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NOT BE USED OR REPRODUCED WHOLE OR
IN PART WITHOUT THE WRITTEN PERMISSION
FROM THE MANUFACTURER.

PC IDENTIFICATION STAMP
PRE-CHECK (PC) DOCUMENT
CODE: 2022 CBC
A separate project application
for construction is required

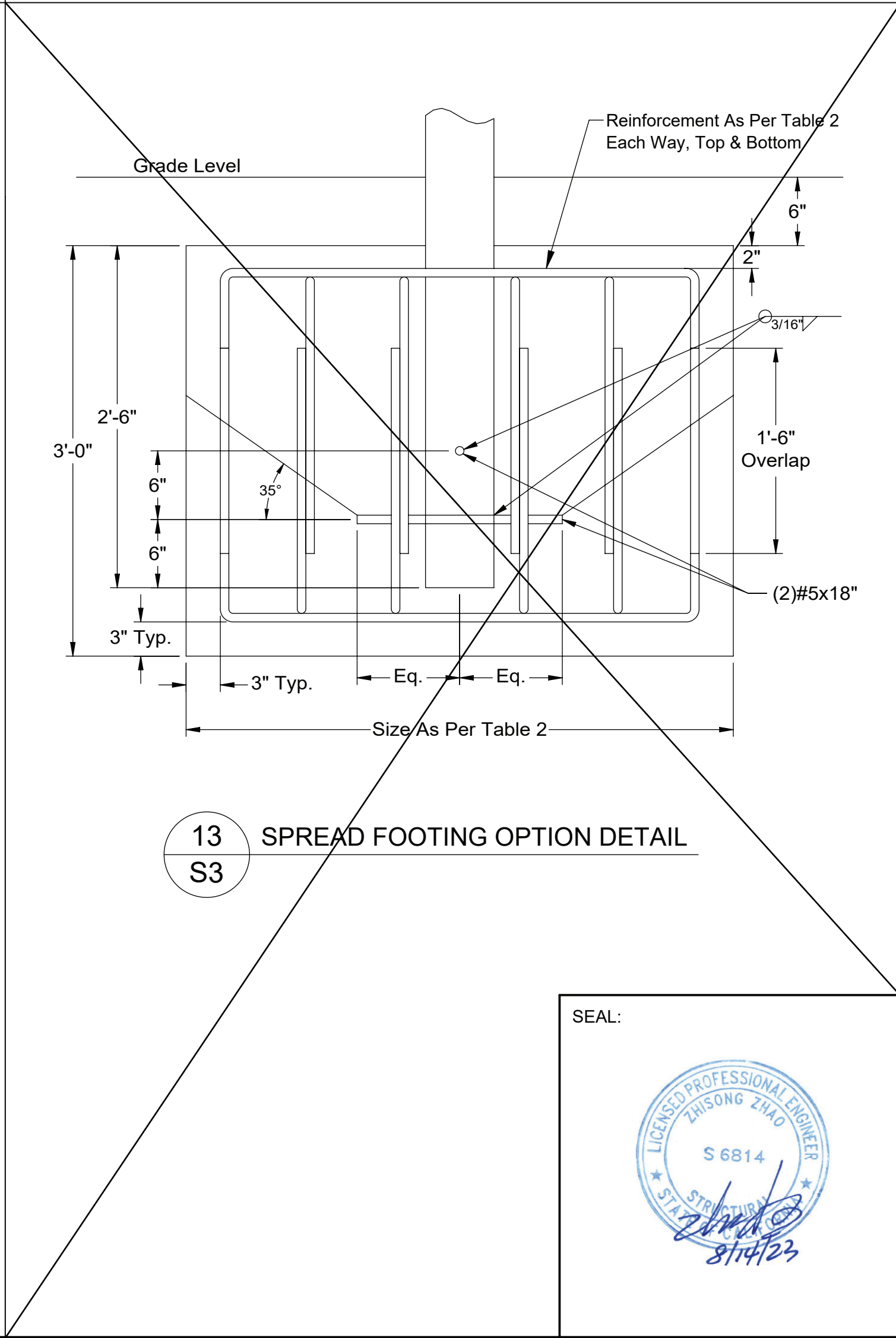
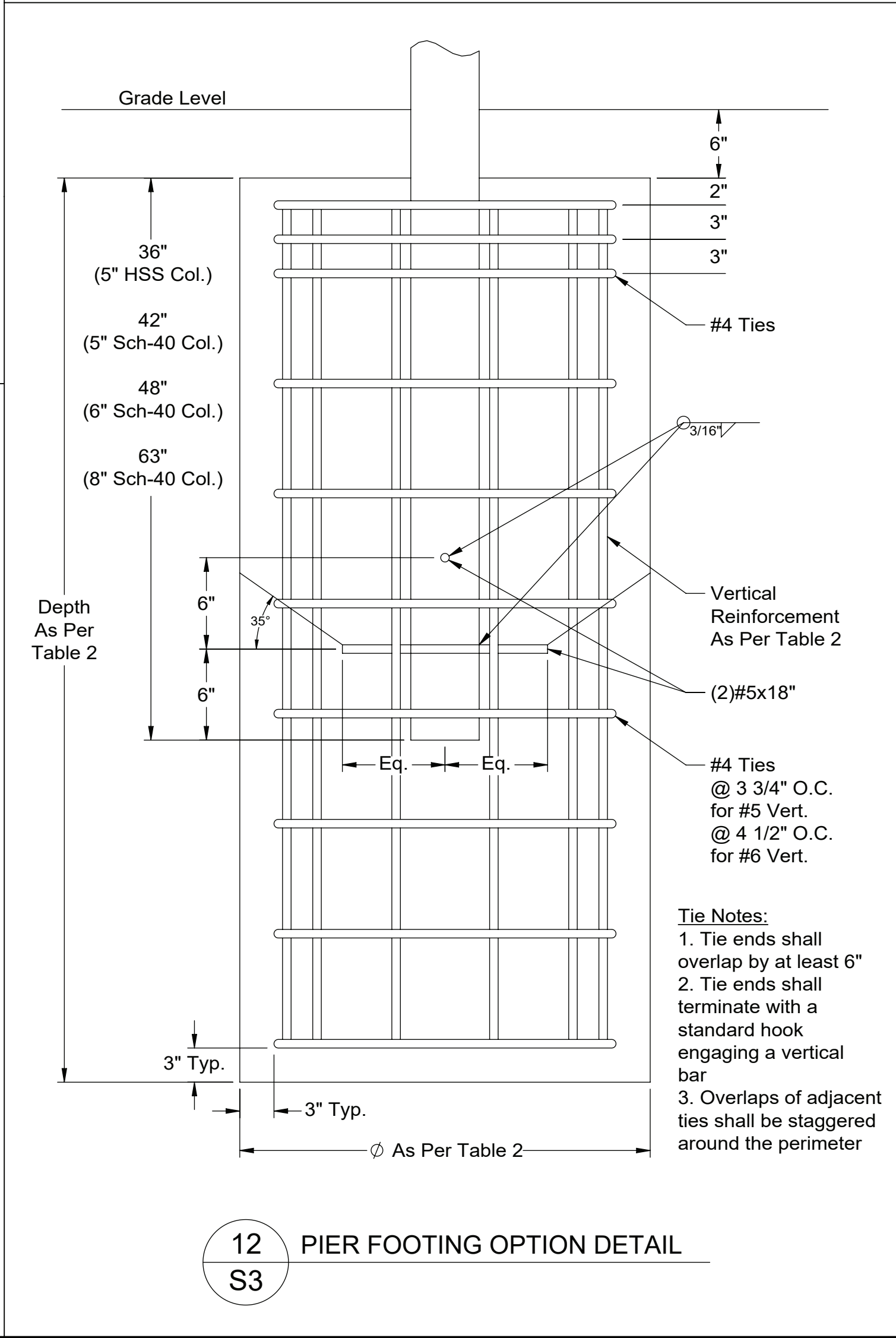
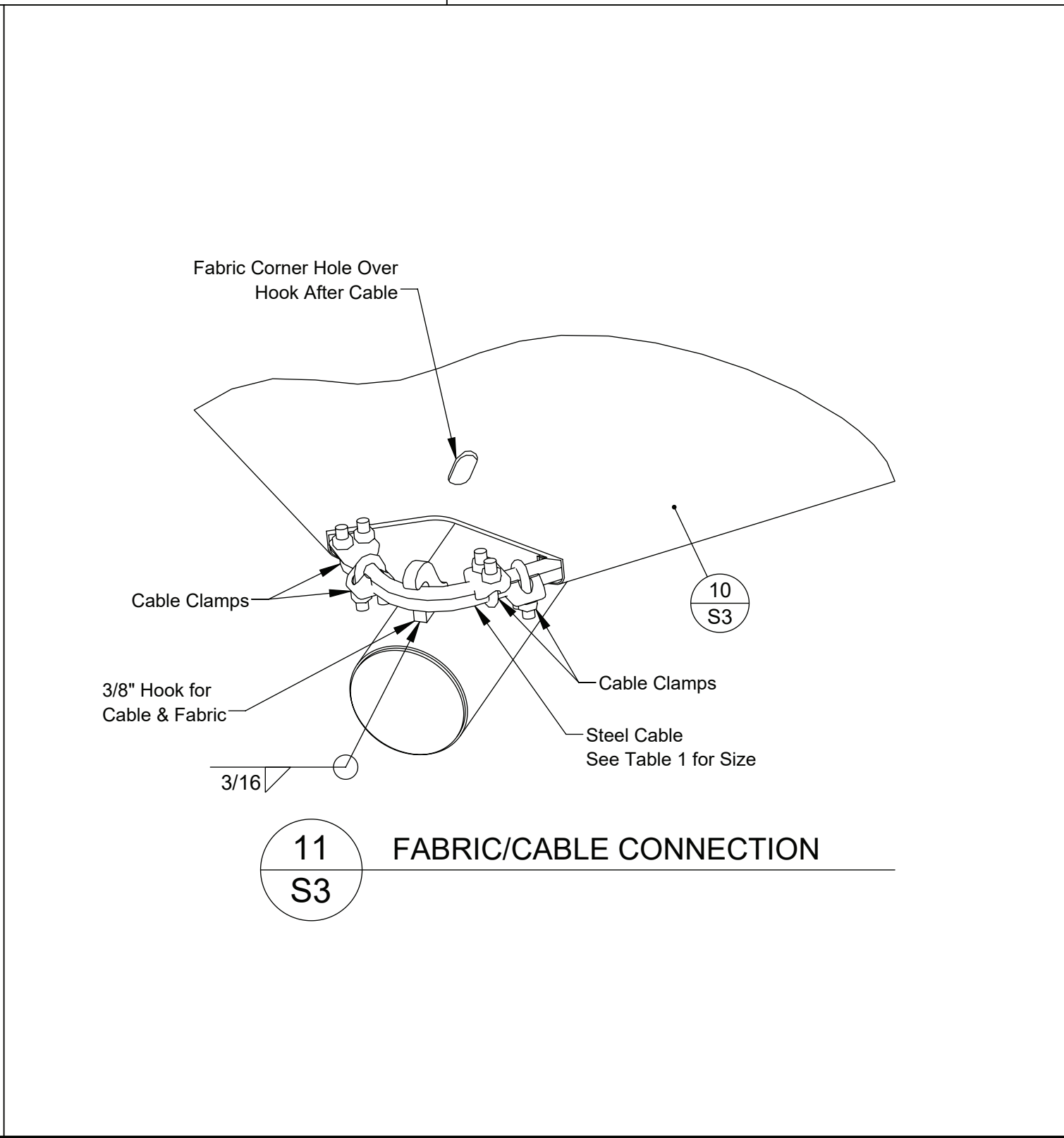
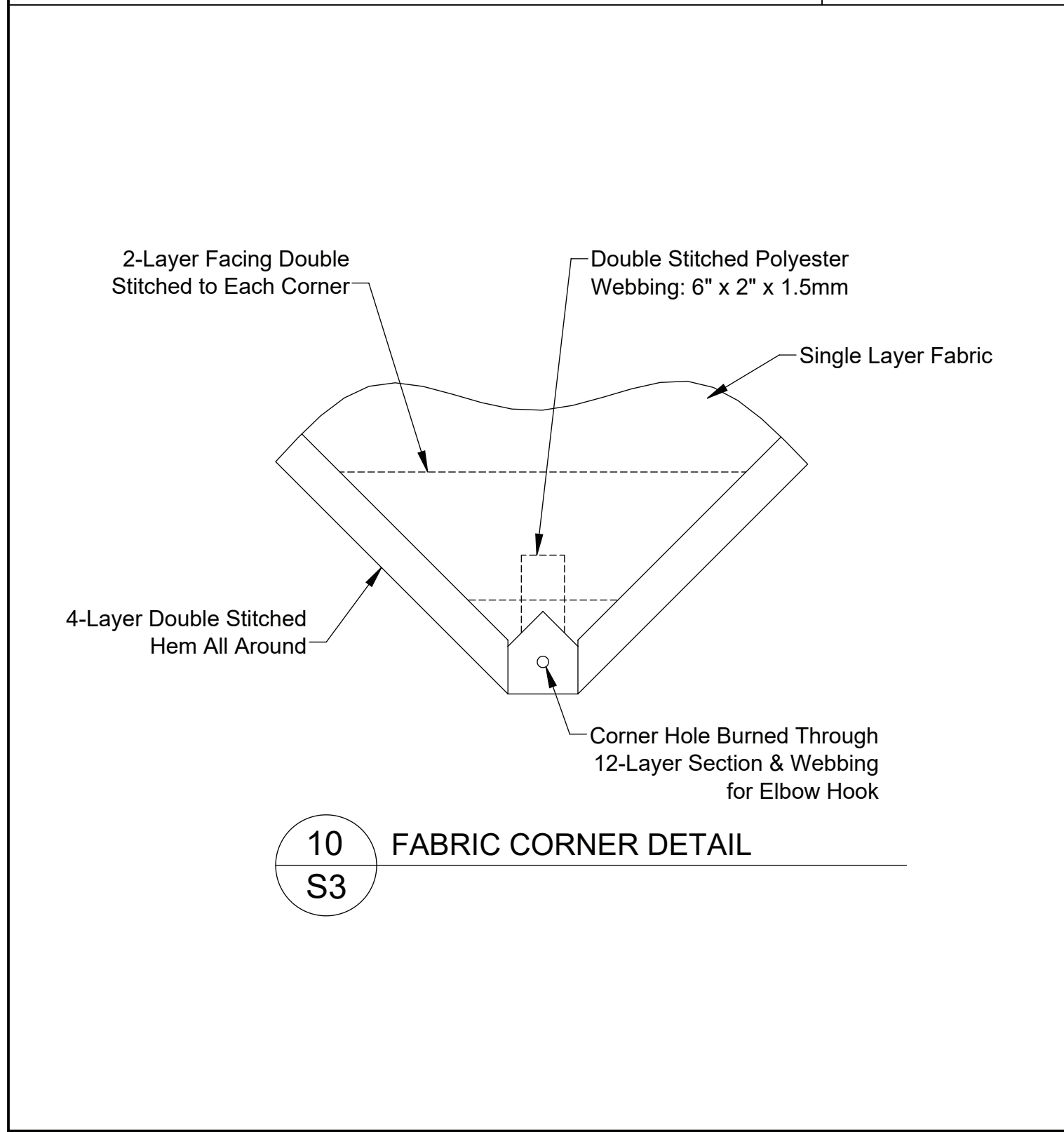
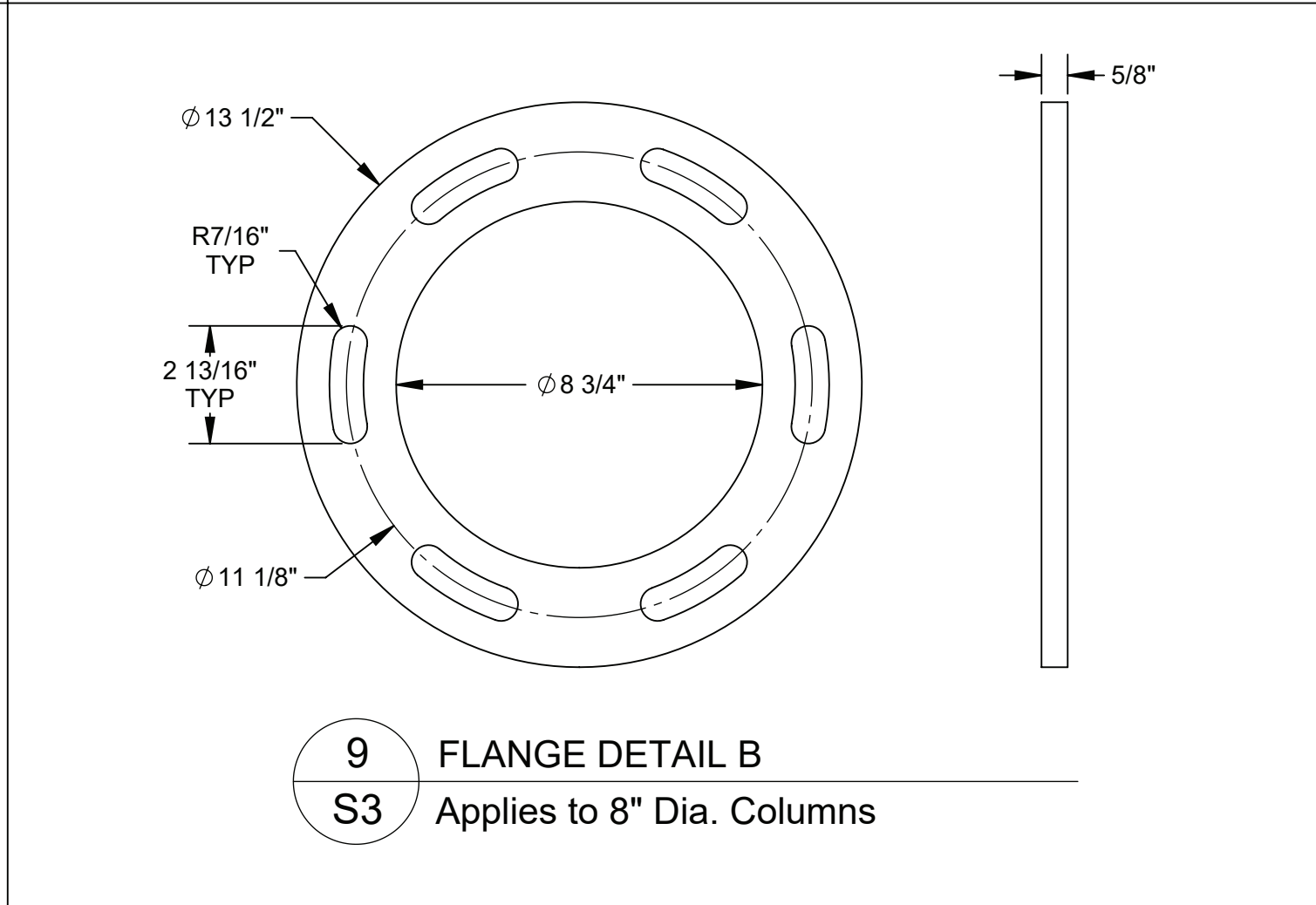
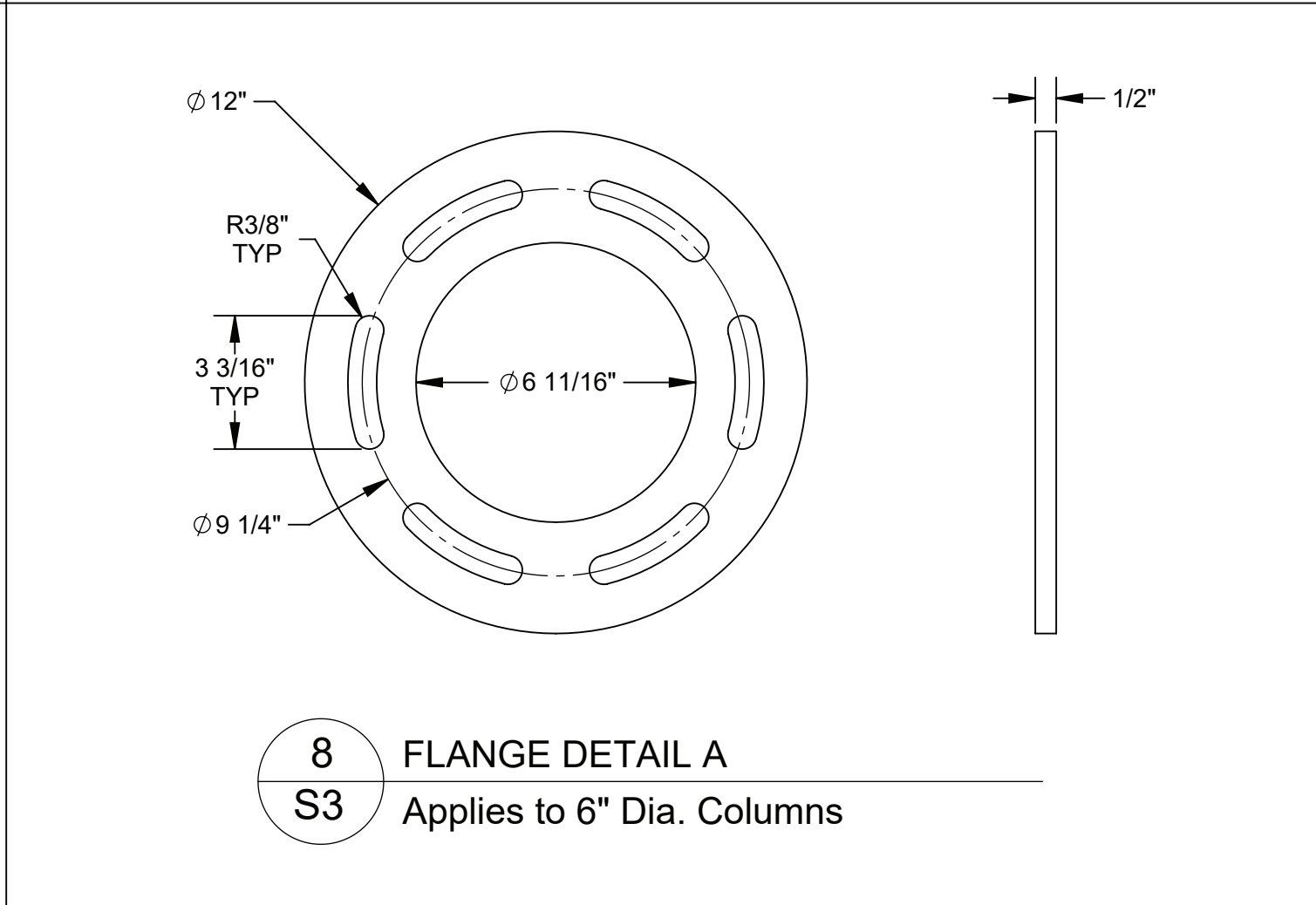
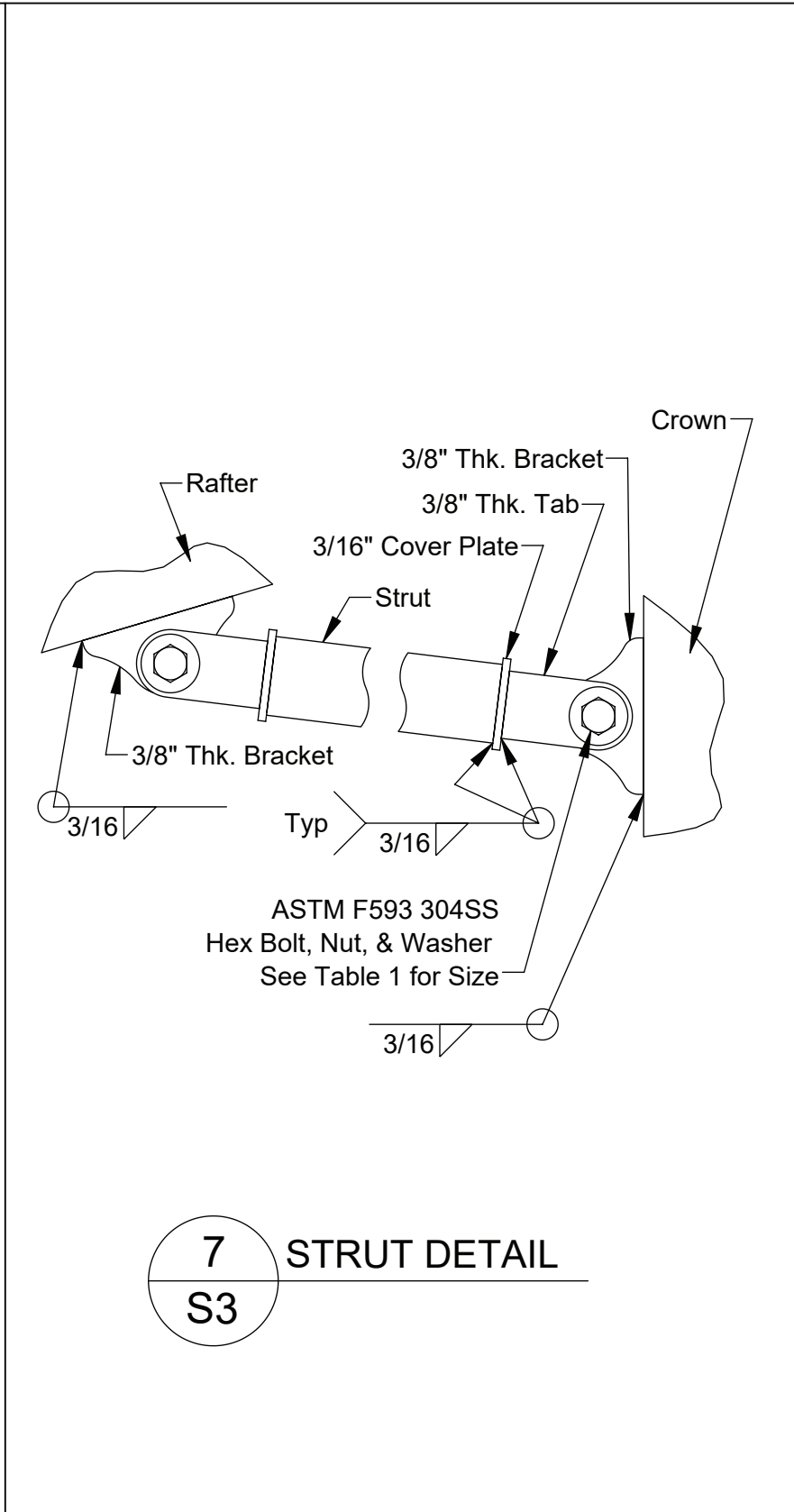
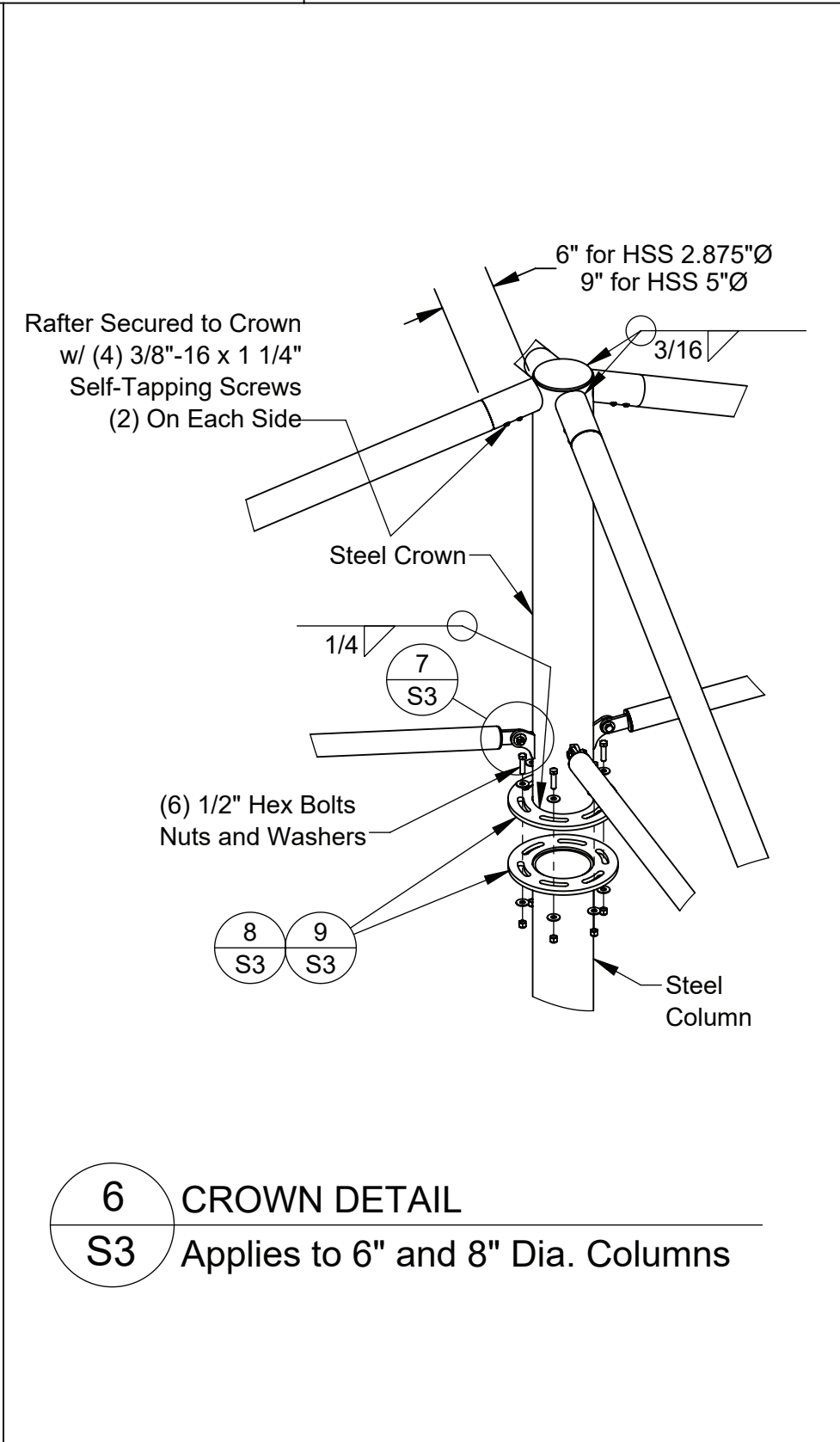
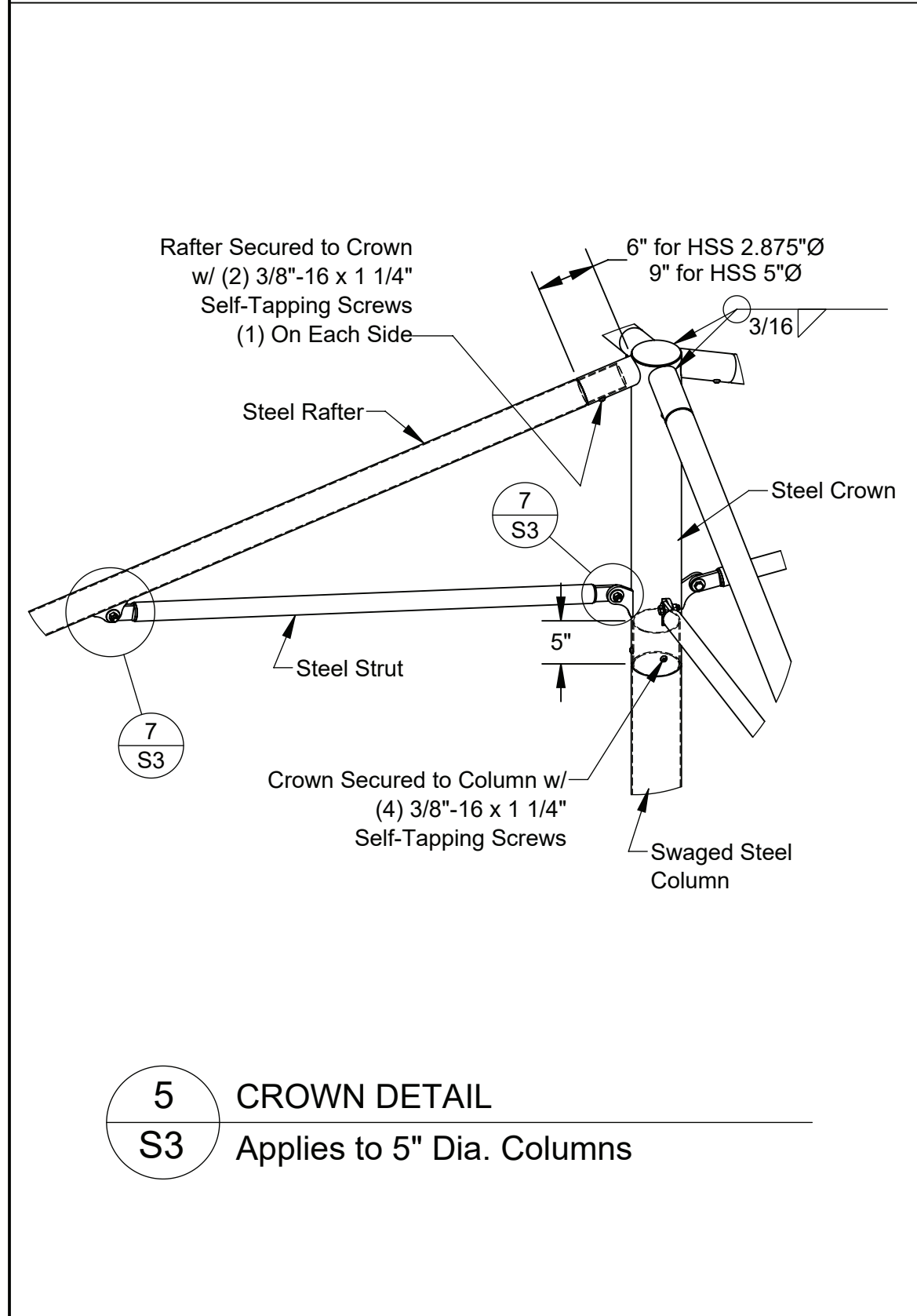
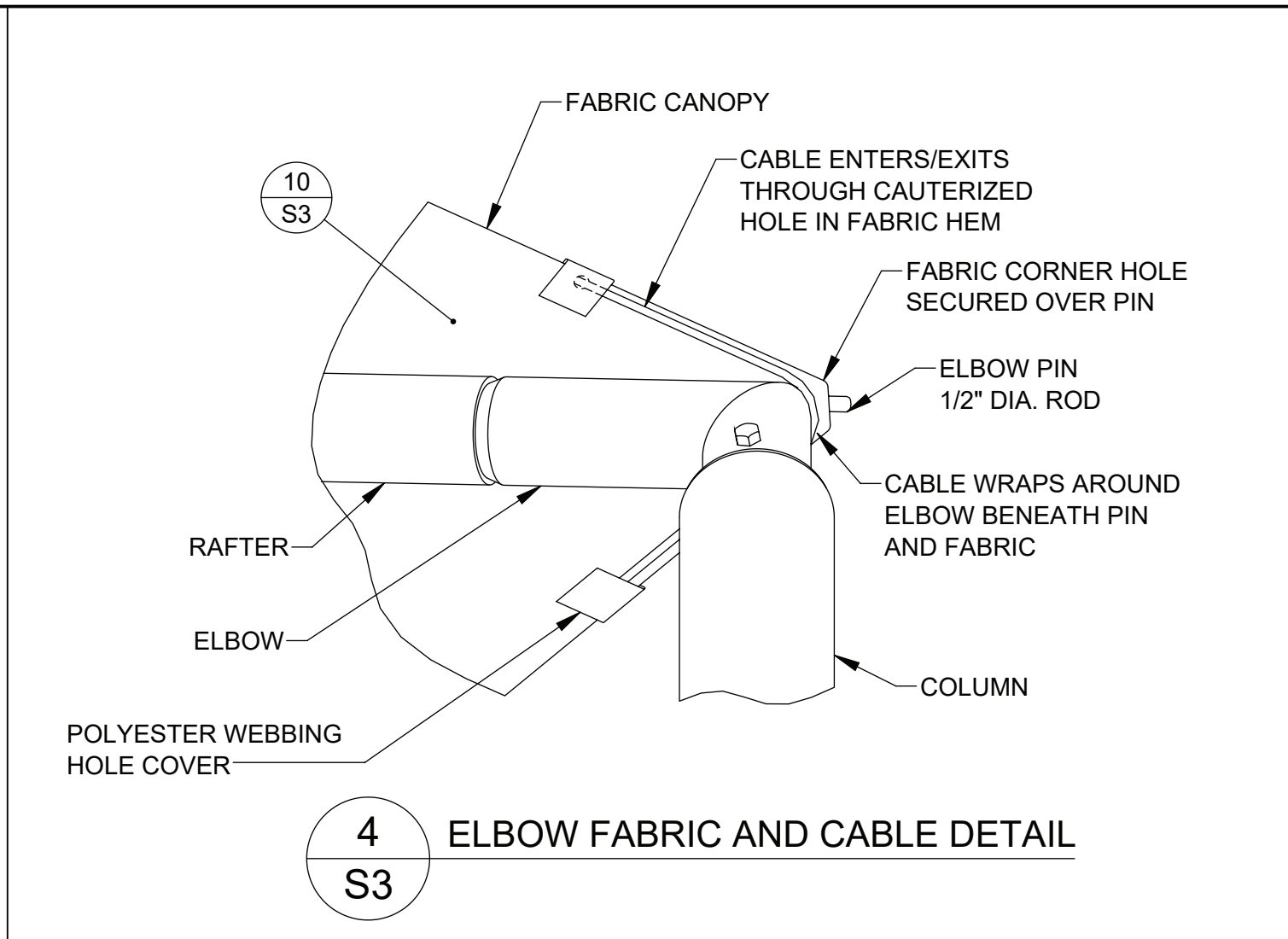
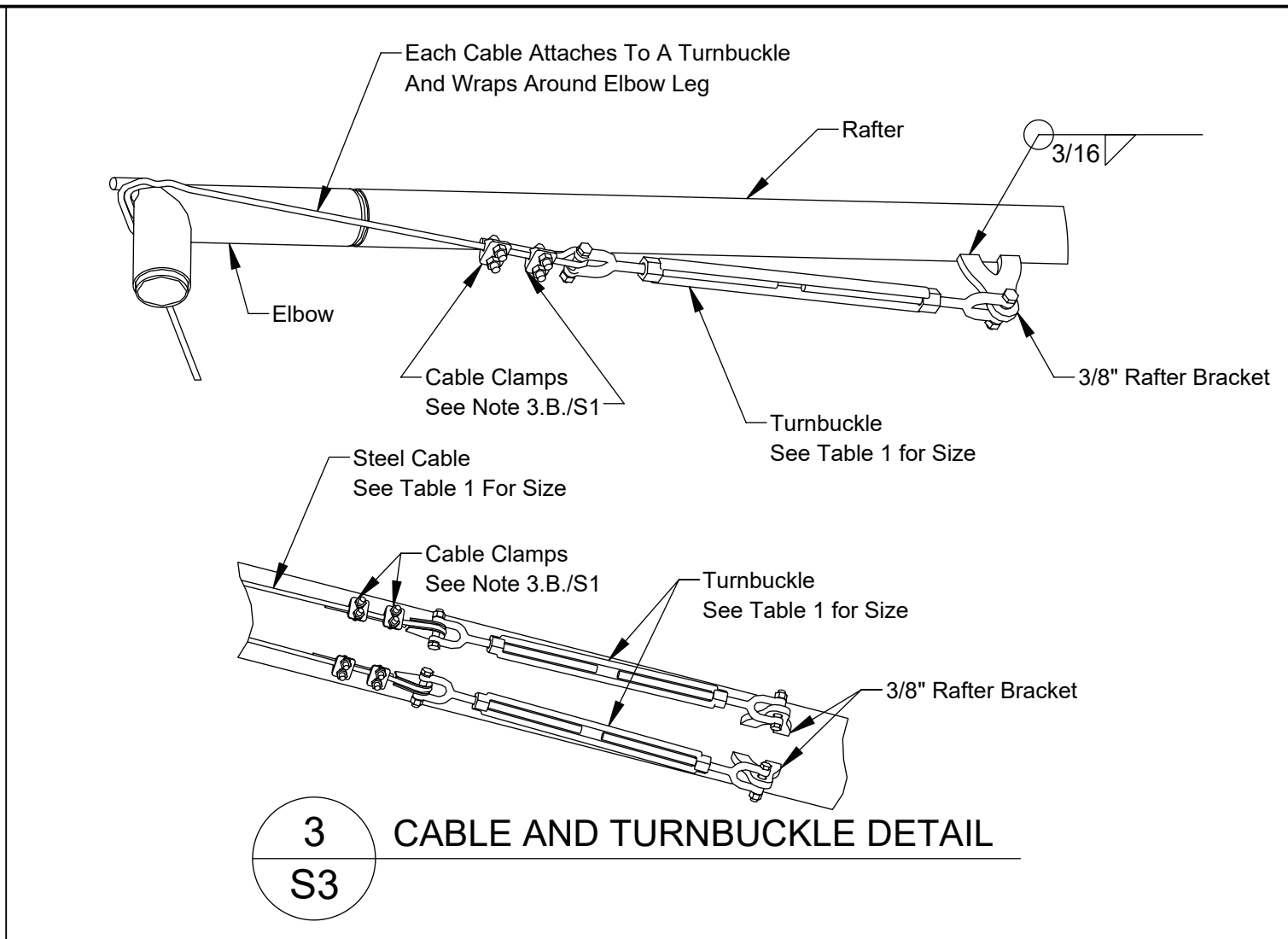
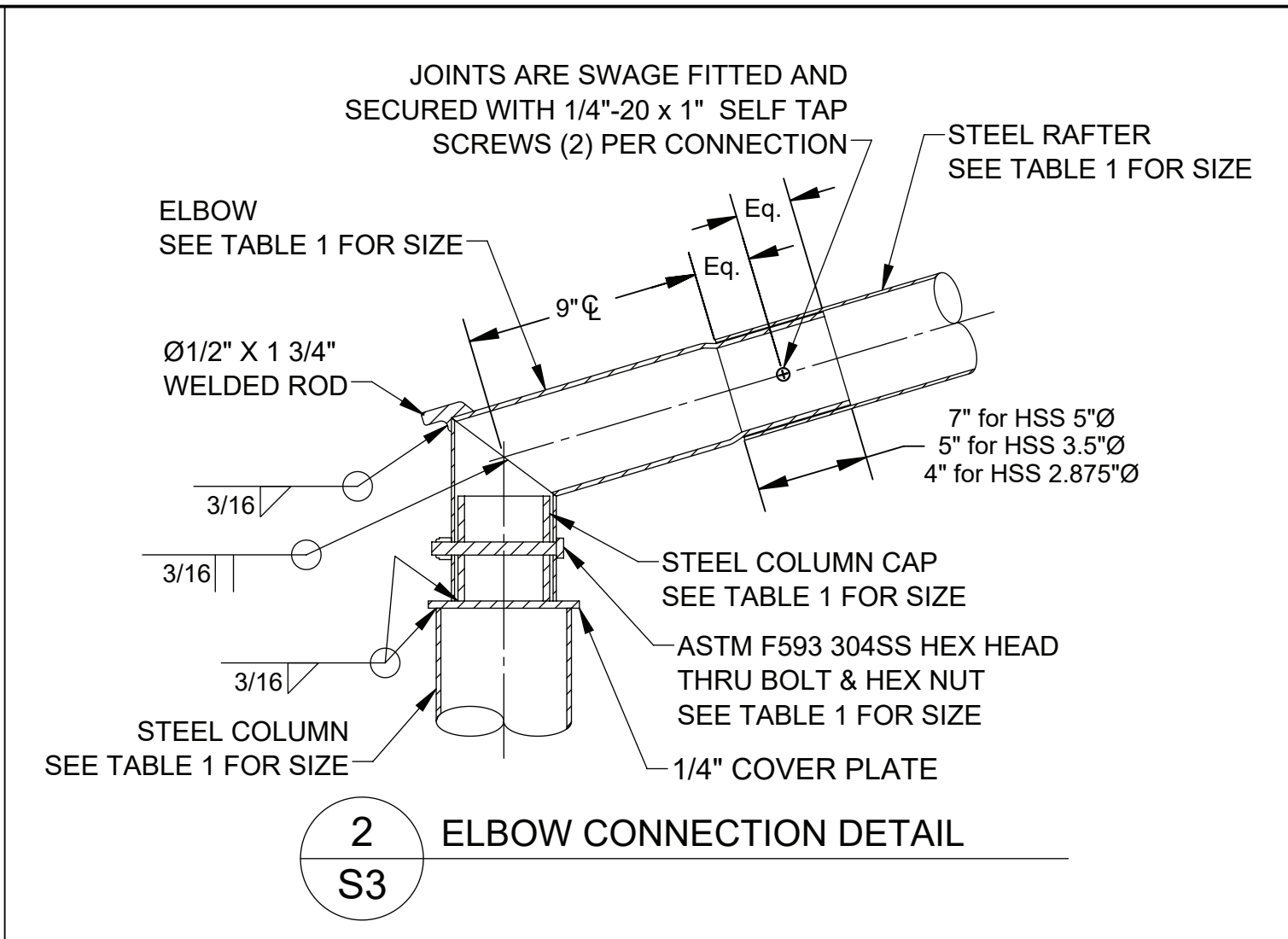
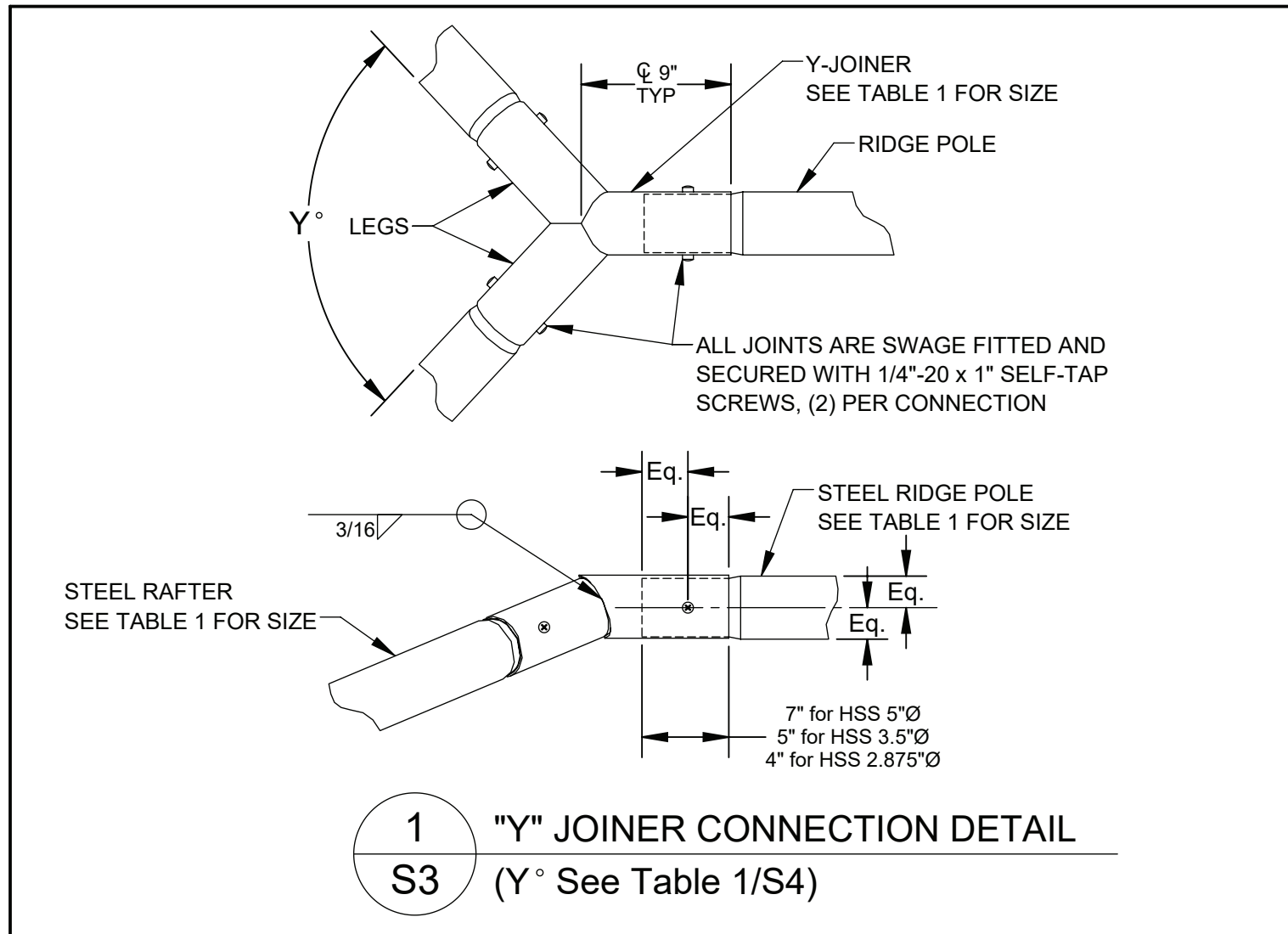
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-320965 PC
REVIEWED FOR
SS ☒ FLS ☒ ACS ☒ CG ☐
DATE: 8/23/2023

SITE PROJECT NAME:
DISTRICT/TOWNER:
LOCATION/ADDRESS:

Revisions		
Date:	By:	
11/30/2022	KJK	0
8/14/2023	KJK	1
Drawn:	KJK	
Date:	10/23/2022	
Chkd:	Zhisong Zhao	
Date:	11/22/2022	
Job Number:		

SEAL:

S2
Sheet No.



DSA IDENTIFICATION STAMP

SUPERIOR
RECREATIONAL PRODUCTS
Shade

SUPERIOR SHADE
150 Adamson Industrial Blvd.
Carrollton, GA 30117

FABRIC CANOPIES DSA PC - EMB
TYPICAL CANOPY DETAILS

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

IDENTIFICATION STAMP
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APP: 02-120865 PC
REVIEWED FOR
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DATE: 8/23/2023

SITE PROJECT NAME:
DISTRICT/TOWNER:
LOCATION/ADDRESS:

Revisions		
Date:	By:	
11/30/2022	KJK	0
8/14/2023	KJK	1

Drawn: KJK
Date: 10/23/2022
Chkd: Zhisong Zhao
Date: 11/22/2022
Job Number:

S3
Sheet No.

TABLE 1 : Shade Member Sizes															
	✓	Shade Number	Width (W)	Length (L)	Height (H)	Peak Height (P)	Steel Column	Steel Rafter	Steel Ridge	Elbow & Y-Joiner	Cable Size	Turnbuckle Size	Y° (See detail 1/S3)	Elbow Bolt Size (See Detail 2/S3)	Column Cap Material (See Detail 2/S3)
HIP STYLE		DSARD102009IN	10'	20'	9'	11.02'	HSS 5" x 11 Gauge	HSS 2.875" x 12 Gauge	HSS 2.875" x 12 Gauge	HSS 2.875" x 12 Gauge	3/16" 7x19	Ø 5/8" x 12"	94.3	3/8" x 3-1/2"	2" Sch-40
		DSARD152009IN	15'	20'	9'	12.03'	HSS 5" x 7 Gauge	HSS 2.875" x 12 Gauge	HSS 2.875" x 12 Gauge	HSS 2.875" x 12 Gauge	1/4" 7x19	Ø 5/8" x 12"	94.3	3/8" x 3-1/2"	2" Sch-40
		DSASD202009IN	20'	20'	9'	12.7'	Pipe 5" x Sch 40	HSS 3.5" x 11 Gauge	HSS 3.5" x 11 Gauge	HSS 3.5" x 11 Gauge	1/4" 7x19	Ø 5/8" x 12"	106	1/2" x 4-1/2"	3" OD DOM 1/4" Wall
		DSASD252509IN	25'	25'	9'	13.63'	Pipe 6" x Sch 40	HSS 5" x 11 Gauge	HSS 5" x 11 Gauge	HSS 5" x 7 Gauge	5/16" 7x19	Ø 3/4" x 12"	106	1/2" x 6"	4" Sch-40
		DSARD203009IN	20'	30'	9'	13.04'	Pipe 6" x Sch 40	HSS 5" x 11 Gauge	HSS 5" x 11 Gauge	HSS 5" x 7 Gauge	5/16" 7x19	Ø 3/4" x 12"	94.3	1/2" x 6"	4" Sch-40
		DSARD253009IN	25'	30'	9'	14.05'	Pipe 8" x Sch 40	HSS 5" x 11 Gauge	HSS 5" x 11 Gauge	HSS 5" x 7 Gauge	3/8" 7x19	Ø 3/4" x 12"	94.3	1/2" x 6"	4" Sch-40
		DSASD303009IN	30'	30'	9'	14.55'	Pipe 8" x Sch 40	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	3/8" 7x19	Ø 3/4" x 12"	106	1/2" x 6"	4" Sch-40
		DSARD183609IN	18'	36'	9'	12.63'	Pipe 8" x Sch 40	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	7/16" 6x36	Ø 1" x 12"	94.3	1/2" x 6"	4" Sch-40
		DSARD204009IN	20'	40'	9'	13.04'	Pipe 8" x Sch 40	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	7/16" 6x36	Ø 1" x 12"	94.3	1/2" x 6"	4" Sch-40
		DSARD304009IN	30'	40'	9'	15.06'	Pipe 8" x Sch 40	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	7/16" 6x36	Ø 1" x 12"	94.3	1/2" x 6"	4" Sch-40
		DSARD102010IN	10'	20'	10'	12.02'	HSS 5" x 11 Gauge	HSS 2.875" x 12 Gauge	HSS 2.875" x 12 Gauge	HSS 2.875" x 12 Gauge	3/16" 7x19	Ø 5/8" x 12"	94.3	3/8" x 3-1/2"	2" Sch-40
		DSARD152010IN	15'	20'	10'	13.03'	HSS 5" x 7 Gauge	HSS 2.875" x 12 Gauge	HSS 2.875" x 12 Gauge	HSS 2.875" x 12 Gauge	1/4" 7x19	Ø 5/8" x 12"	94.3	3/8" x 3-1/2"	2" Sch-40
		DSASD202010IN	20'	20'	10'	13.7'	Pipe 5" x Sch 40	HSS 3.5" x 11 Gauge	HSS 3.5" x 11 Gauge	HSS 3.5" x 11 Gauge	1/4" 7x19	Ø 5/8" x 12"	106	1/2" x 4-1/2"	3" OD DOM 1/4" Wall
		DSASD252510IN	25'	25'	10'	14.63'	Pipe 6" x Sch 40	HSS 5" x 11 Gauge	HSS 5" x 11 Gauge	HSS 5" x 7 Gauge	5/16" 7x19	Ø 3/4" x 12"	106	1/2" x 6"	4" Sch-40
		DSARD203010IN	20'	30'	10'	14.04'	Pipe 6" x Sch 40	HSS 5" x 11 Gauge	HSS 5" x 11 Gauge	HSS 5" x 7 Gauge	5/16" 7x19	Ø 3/4" x 12"	94.3	1/2" x 6"	4" Sch-40
		DSARD253010IN	25'	30'	10'	15.05'	Pipe 8" x Sch 40	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	3/8" 7x19	Ø 3/4" x 12"	94.3	1/2" x 6"	4" Sch-40
		DSASD303010IN	30'	30'	10'	15.55'	Pipe 8" x Sch 40	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	3/8" 7x19	Ø 3/4" x 12"	106	1/2" x 6"	4" Sch-40
		DSARD183610IN	18'	36'	10'	13.63'	Pipe 8" x Sch 40	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	7/16" 6x36	Ø 1" x 12"	94.3	1/2" x 6"	4" Sch-40
		DSARD204010IN	20'	40'	10'	14.04'	Pipe 8" x Sch 40	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	7/16" 6x36	Ø 1" x 12"	94.3	1/2" x 6"	4" Sch-40
		DSARD304010IN	30'	40'	10'	16.06'	Pipe 8" x Sch 40	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	7/16" 6x36	Ø 1" x 12"	94.3	1/2" x 6"	4" Sch-40
		DSARD102012IN	10'	20'	12'	14.02'	HSS 5" x 11 Gauge	HSS 2.875" x 12 Gauge	HSS 2.875" x 12 Gauge	HSS 2.875" x 12 Gauge	3/16" 7x19	Ø 5/8" x 12"	94.3	3/8" x 3-1/2"	2" Sch-40
		DSARD152012IN	15'	20'	12'	15.03'	Pipe 5" x Sch 40	HSS 2.875" x 12 Gauge	HSS 2.875" x 12 Gauge	HSS 2.875" x 12 Gauge	1/4" 7x19	Ø 5/8" x 12"	94.3	3/8" x 3-1/2"	2" Sch-40
		DSASD202012IN	20'	20'	12'	15.7'	Pipe 5" x Sch 40	HSS 3.5" x 11 Gauge	HSS 3.5" x 11 Gauge	HSS 3.5" x 11 Gauge	1/4" 7x19	Ø 5/8" x 12"	106	1/2" x 4-1/2"	3" OD DOM 1/4" Wall
		DSASD252512IN	25'	25'	12'	16.63'	Pipe 6" x Sch 40	HSS 5" x 11 Gauge	HSS 5" x 11 Gauge	HSS 5" x 7 Gauge	5/16" 7x19	Ø 3/4" x 12"	106	1/2" x 6"	4" Sch-40
		DSARD203012IN	20'	30'	12'	16.04'	Pipe 6" x Sch 40	HSS 5" x 11 Gauge	HSS 5" x 11 Gauge	HSS 5" x 7 Gauge	5/16" 7x19	Ø 3/4" x 12"	94.3	1/2" x 6"	4" Sch-40
		DSARD253012IN	25'	30'	12'	17.05'	Pipe 8" x Sch 40	HSS 5" x 11 Gauge	HSS 5" x 11 Gauge	HSS 5" x 7 Gauge	3/8" 7x19	Ø 3/4" x 12"	94.3	1/2" x 6"	4" Sch-40
		DSASD303012IN	30'	30'	12'	17.55'	Pipe 8" x Sch 40	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	3/8" 7x19	Ø 3/4" x 12"	106	1/2" x 6"	4" Sch-40
		DSARD183612IN	18'	36'	12'	15.63'	Pipe 8" x Sch 40	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	7/16" 6x36	Ø 1" x 12"	94.3	1/2" x 6"	4" Sch-40
		DSARD204012IN	20'	40'	12'	16.04'	Pipe 8" x Sch 40	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	7/16" 6x36	Ø 1" x 12"	94.3	1/2" x 6"	4" Sch-40
		DSARD304012IN	30'	40'	12'	18.06'	Pipe 8" x Sch 40	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	HSS 5" x 7 Gauge	7/16" 6x36	Ø 1" x 12"	94.3	1/2" x 6"	4" Sch-40
UMBRELLA STYLE		Shade Number	Width (W)	Length (L)	Height (H)	Peak Height (P)	Steel Column	Steel Rafter	Steel Crown	Steel Strut	Cable Size	Strut Bolt (See Detail 7/S3)			
		DSASU121209IN	12'	12'	9'	11.42'	~~HSS 5" x 11 Gauge~~	~~HSS 2.875" x 12 Gauge~~	~~HSS 5" x 11 Gauge~~	~~HSS 1.9" x 11 Gauge~~	~~3/16" 7x19~~	~~Ø 3/4"~~			
		DSASU121210IN	12'	12'	10'	12.42'	~~HSS 5" x 11 Gauge~~	~~HSS 2.875" x 12 Gauge~~	~~HSS 5" x 11 Gauge~~	~~HSS 1.9" x 11 Gauge~~	~~3/16" 7x19~~	~~Ø 3/4"~~			
		DSASU121212IN	12'	12'	12'	14.42'	~~HSS 5" x 7 Gauge~~	~~HSS 2.875" x 12 Gauge~~	~~HSS 5" x 7 Gauge~~	~~HSS 1.9" x 11 Gauge~~	~~3/16" 7x19~~	~~Ø 3/4"~~			
		DSASU202009IN	20'	20'	9'	13.04'	~~Pipe 8" x Sch 40~~	~~HSS 5" x 7 Gauge~~	~~Pipe 8" x Sch 40~~	~~HSS 2.5" x 12 Gauge~~	~~5/16" 7x19~~	~~Ø 1"~~			
		DSASU202010IN	20'	20'	10'	14.04'	~~Pipe 8" x Sch 40~~	~~HSS 5" x 7 Gauge~~	~~Pipe 8" x Sch 40~~	~~HSS 2.5" x 12 Gauge~~	~~5/16" 7x19~~	~~Ø 1"~~			
	DSASU202012IN	20'	20'	12'	16.04'	~~Pipe 8" x Sch 40~~	~~HSS 5" x 7 Gauge~~	~~Pipe 8" x Sch 40~~	~~HSS 2.5" x 12 Gauge~~	~~5/16" 7x19~~	~~Ø 1"~~				
TABLE 2 : Shade Foundation															
Style	✓	Shade Number	Spread Footing Depth	Spread Foot Size	Spread Footing Reinforcement	Pier Footing Depth	Pier Footing Diameter	Pier Footing Reinforcement							
HIP		DSARD102009IN	3.0'	3.5' x 3.5'	5 #5	5.75'	Ø 2'	8 #6							
		DSARD152009IN	3.0'	4' x 4'	6 #5	6.75'	Ø 2'	8 #6							
		DSASD202009IN	3.0'	5.25' x 5.25'	7 #5	7.75'	Ø 2'	8 #6							
		DSASD252509IN	3.0'	6.5' x 6.5'	9 #5	9'	Ø 2.5'	10 #6							
		DSARD203009IN	3.0'	5.5' x 5.5'	7 #5	8.75'	Ø 2.5'	10 #6							
		DSARD253009IN	3.0'	6.5' x 6.5'	9 #5	9.25'	Ø 3'	12 #6							
		DSASD303009IN	3.0'	7.25' x 7.25'	10 #5	9.5'	Ø 3'	12 #6							
		DSARD183609IN	3.0'	6' x 6'	8 #5	9.25'	Ø 3'	12 #6							
		DSARD204009IN	3.0'	6.5' x 6.5'	9 #5	10'	Ø 3'	12 #6							
		DSARD304009IN	3.0'	7.25' x 7.25'	10 #5	11'	Ø 3'	12 #6							
		DSARD102010IN	3.0'	3.5' x 3.5'	5 #5	5.75'	Ø 2'	8 #6							
		DSARD152010IN	3.0'	4' x 4'	6 #5	6.75'	Ø 2'	8 #6							
		DSASD202010IN	3.0'	5.5' x 5.5'	7 #5	7.75'	Ø 2'	8 #6							
		DSASD252510IN	3.0'	6.5' x 6.5'	9 #5	9'	Ø 2.5'	10 #6							
		DSARD203010IN	3.0'	5.75' x 5.75'	8 #5	8.75'	Ø 2.5'	10 #6							
		DSARD253010IN	3.0'	6.25' x 6.25'	8 #5	9.25'	Ø 3'	12 #6							
		DSASD303010IN	3.0'	7.25' x 7.25'	10 #5	9.75'	Ø 3'	12 #6							
		DSARD183610IN	3.0'	6.5' x 6.5'	9 #5	9.5'	Ø 3'	12 #6							
		DSARD204010IN	3.0'	7' x 7'	9 #5	10'	Ø 3'	12 #6							
		DSARD304010IN	3.0'	7.25' x 7.25'	10 #5	11'	Ø 3'	12 #6							
		DSARD102012IN	3.0'	3.75' x 3.75'	5 #5	6'	Ø 2'	8 #6							
		DSARD152012IN	3.0'	4.5' x 4.5'	6 #5	7'	Ø 2'	8 #6							
		DSASD202012IN	3.0'	5.5' x 5.5'	7 #5	7.75'	Ø 2'	8 #6							
		DSASD252512IN	3.0'	6.5' x 6.5'	9 #5	9'	Ø 2.5'	10 #6							
		DSARD203012IN	3.0'	6.25' x 6.25'	8 #5	9'	Ø 2.5'	10 #6							
		DSARD253012IN	3.0'	6.5' x 6.5'	9 #5	9.25'	Ø 3'	12 #6							
		DSASD303012IN	3.0'	7.5' x 7.5'	10 #5	9.75'	Ø 3'	12 #6							
		DSARD183612IN	3.0'	6.75' x 6.75'	9 #5	10'	Ø 3'	12 #6							
		DSARD204012IN	3.0'	7.25' x 7.25'	10 #5	10'	Ø 3'	12 #6							
		DSARD304012IN	3.0'	7.5' x 7.5'	10 #5	11'	Ø 3'	12 #6							
UMBRELLA		DSASU121209IN	3.0'	4' x 4'	6 #5	5.25'	Ø 2'	8 #6							
		DSASU121210IN	3.0'	4.25' x 4.25'	6 #5	5.5'	Ø 2'	8 #6							
		DSASU121212IN	3.0'	4.5' x 4.5'	6 #5	6'	Ø 2'	8 #6							
		DSASU202009IN	3.0'	5.5' x 5.5'	7 #5	7'	Ø 2.5'	10 #6							
		DSASU202010IN	3.0'	5.75' x 5.75'	8 #5	7.5'	Ø 2.5'	10 #6							
		DSASU202012IN	3.0'	6.25' x 6.25'	8 #5	8'	Ø 2.5'	10 #6							

SEAL:

REGISTERED PROFESSIONAL ENGINEER
ZHISONG ZHAO
S 6814
8/14/23

DSA IDENTIFICATION STAMP



Shade

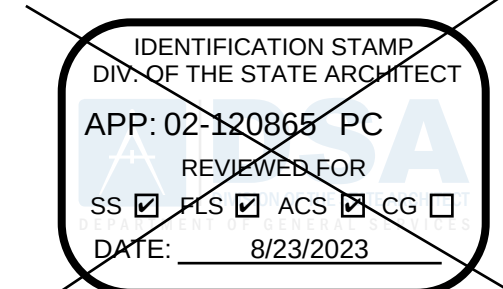
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Carrollton, GA 30117

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PC IDENTIFICATION STAMP

PRE-CHECK (PC) DOCUMENT
CODE: 2022-080
A separate project application
for construction is required



SITE PROJECT NAME:

DISTRICT/OWNER:

LOCATION/ADDRESS:

Revisions

	Date:	By:
0	11/30/2022	KJK
1	8/14/2023	KJK

Drawn: KJK
Date: 10/23/2022
Chkd: Zhisong Zhao
Date: 11/22/2022
Job Number:

S5

Sheet No.



FLAME RETARDANT

Fabric Registration

LICENSE NUMBER: F-037801

COMMERCIAL NINETYFIVE
340FR

Product Marketed by:

GALE PACIFIC LTD

145 WOODLANDS DRIVE

BRAESIDE, AUSTRALIA 3195,

Issue Date : 04/18/2023

Expiration Date : 06/30/2024

This product meets the minimum requirements of flame resistance established by the California State Fire Marshal for products identified in Section 13115, California Health and Safety Code. The scope of the approved use of this product is provided in the current edition of the CALIFORNIA APPROVED LIST OF FLAME RETARDANT CHEMICALS AND FABRICS, GENERAL AND LIMITED APPLICATIONS CONCERNS published by the California State Fire Marshal.

C. Walker

Issued By Cortney Walker
Fire Engineering License Manager
Fire Engineering & Investigations Division

Patricia Setter

Reviewed and Approved By Patricia Setter
Deputy State Fire Marshal III
Fire Engineering & Investigations Division

OFFICE OF THE STATE FIRE MARSHAL

Please visit calfire.gov/motus.org for more information on Licensing and Permitting with CAL FIRE

Commercial
NinetyFive
340FR

PRODUCT SPECIFICATION

Commercial NinetyFive 340 FR, the flame retardant version of the most trusted HDPE shade fabric in the industry, is a mid-weight, flame retardant fabric that delivers the utmost in versatility. Available in 22 vibrant and on-trend colors, Commercial NinetyFive 340 FR can fulfill almost any HDPE design requirement.

PERFORMANCE

ASTM D5034
Tensile Strength and Elongation
Maximum Force – Warp (Mean) 158.8 bf
Elongation at Maximum Force (Mean) 89%
Maximum Force – Weft (Mean) 412.3 bf
Elongation at Maximum Force – Weft (Mean) 49%

ASTM D2281
Tearing Strength – Tongue (Single Rip)
Mean Force – Warp 43.0 bf
Mean Force – Weft 39.8 bf

ASTM D6797
Bursting Strength – Ball Burst (Constant Rate of Extension)
Mean Force 408 bf

AS 4174-2018
Shade Protection Fabric Performance

Colour	Cover Factor	Shade Factor	UV ₅₀ %	UVR	UVR	UVR	UVE %	Protection Category
Aquatic Blue	90	85.1	11.9	8.5	91.5	91	Very Effective	
Black	95	94.8	5.2	5.0	95.0	94	Very Effective	
Bright Green	90	87.3	12.7	9.0	91.0	90	Effective	
Brown	95	94.3	5.7	4.0	95.0	95	Most Effective	
Burntwood Green	93	92.9	7.1	6.4	93.6	92	Very Effective	
Cayenne	93	87.3	12.7	6.7	93.3	92	Very Effective	
Cedar	93	88.4	11.6	6.4	93.6	93	Very Effective	
Charcoal	93	93.6	6.4	6.1	93.9	92	Very Effective	
Cherry Red	90	80.0	20.0	10.0	90.0	90	Effective	
Deep Ochre	91	90.5	9.5	8.3	91.7	90	Effective	
Desert Sand	93	86.1	13.9	6.6	93.4	92	Very Effective	
Gun Metal	95	94.5	5.5	3.5	96.5	96	Most Effective	
Natural	94	78.3	21.7	6.5	93.5	92	Very Effective	
Navy Blue	94	93.1	5.5	6.2	93.8	93	Very Effective	
Orange	92	80.8	19.2	7.6	92.4	91	Very Effective	
Rivergum Green	94	89.7	10.3	6.0	94.0	93	Very Effective	
Royal Purple	91	87.9	12.1	8.6	91.4	90	Effective	
Sky Blue	94	91.3	6.7	6.0	94.0	93	Very Effective	
Steel Grey	92	89.7	10.3	7.6	92.4	91	Very Effective	
Turquoise	94	89.5	10.5	6.6	93.4	93	Very Effective	
White	95	76.5	23.5	5.4	94.6	94	Very Effective	
Yellow	93	77.5	22.5	6.8	93.2	92	Very Effective	

FLAMMABILITY

CSFRA Title 19 1227.1
NFPA 701 Test Methods 1 & 2
ASTM E84 198

Each color individually tested and passes all certification criteria. For above. Test results available upon request.
NFPS2-503 Class M1 in process

FABRIC PROPERTIES

AS 2001-2 13 Mass per unit
Approximate fabric mass: 340 gsm ± 20, 110 oz/syd
Approximate thickness 0.08 in. / 1.6 mm

ROLL SPECIFICATIONS

Roll width: 9 ft, 10 ft, 13 ft, 15 ft, 20 ft (Baked)
Length: 131 ft 3 in. / 40m
Approx. roll weight: 97 lbs. / 44 kg
Approx. roll diameter: 1.08 ft / 0.33 m
Core diameter: 1.38 in. / 35 mm

USAGE INSTRUCTIONS

Do not use against flames. Contact with organic solvents, halogens or highly acidic substances may reduce the service life of the fabric and void the warranty. Biannual elastic material properties available on request.

SUGGESTED SPECIFICATION

Shade cloth fabric shall be compliant to Australian standard AS 4174-2018 and shall be GALE Pacific Commercial NinetyFive 340 FR. Knitted HDPE monofilament & tape shade fabric offering a UVE Protection from 90 to 96%.

USA
AU
NZ
UK

P 1800 560 4667
P 1800 555 1711
P 01714 891171

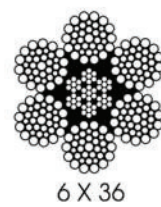
F +1 407 772 0553
F +1 214 993 3299
F 0800 555 172
F 01714 4951700

www.galecommercial.com



7X19 Stainless Steel Cable

Diameter (Inches)	Weight per 100ft (Lbs)	Nominal B.S. (Lbs)	AISI 302, 304	AISI 316
3/16	6.50	3,700	3,210	
7/32	8.60	5,000	4,350	
1/4	11.00	6,400	5,600	
5/16	17.30	9,000	8,200	
3/8	24.30	12,000	11,000	



6X19/37 Class Stainless Steel Wire Rope

Diameter (Inches)	Weight per 100ft (Lbs)	Nominal B.S. (Lbs)	AISI 302, 304	AISI 316
7/16	35.0	16,300	14,800	



Stainless Steel Wire Rope Clips

Precision Cast Type 316

Size (Inch)	Size (mm)	Min Clips Required	Weight (Lbs)
3/16	5	3	0.08
1/4	6	3	0.09
5/16	8	3	0.19
3/8	10	3	0.38
1/2	12	4	0.53
5/8	16	4	0.90
3/4	20	5	1.06

Stainless Steel Jaw & Jaw Turnbuckle

T316, Forged

Size X Take Up (Inch)	Working Load Limit (Lbs)	Weight per Each (Lbs)
1/4 x 4	500	0.528
5/16 x 4-1/2	800	0.726
3/8 x 6	1,200	0.880
1/2 x 12	2,200	2.394
5/8 x 12	3,500	4.664
3/4 x 12	5,200	7.042
1 x 12	8,000	11.24

SEAL:



DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC
Application Number: School Name: School District:
DSA File Number: Increment Number: Date Created:

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

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

KEY TO COLUMNS

1. TYPE	2. PERFORMED BY
Continuous - Indicates that a continuous special inspection is required	GE (Geotechnical Engineer) - Indicates that the special inspection shall be performed by a registered geotechnical engineer or his or her authorized representative.
Periodic - Indicates that a periodic special inspection is required	LOR (Laboratory of Record) - Indicates that the test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-3.5.
Test - Indicates that a test is required	PI (Project Inspector) - Indicates that the special inspection may be performed by a project inspector when specifically approved by DSA.
	SI (Special Inspection) - Indicates that the special inspection shall be performed by an appropriately qualified/approved special inspector.

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DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2022 CBC
Table 1705A.2, Table 1705A.7, Table 1705A.8
Application Number: School Name: School District:
DSA File Number: Increment Number: Date Created:

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

Test or Special Inspection	Type	Performed By	Code References and Notes
☒ a. Verify that: • Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations. • Foundation excavations are extended to proper depth and have reached proper material. • Materials below footings are adequate to achieve the design bearing capacity.	Periodic	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) for exemptions.)
☒ b. Verify pile location, diameters, plumbness, bell diameters (if applicable), lengths and embedment into bedrock (if applicable); record concrete or grout volumes.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) for exemptions.)
☒ c. Confirm adequate end state bearing capacity.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) for exemptions.)
☒ d. Concrete piles.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) for exemptions.)

S3. DRIVEN DEEP FOUNDATIONS (PILES):

S4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):

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

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DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2022 CBC
Table 1705A.6, Table 1705A.7, Table 1705A.8
Application Number: School Name: School District:
DSA File Number: Increment Number: Date Created:

S3. DRIVEN DEEP FOUNDATIONS (PILES):

S4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):

Test or Special Inspection	Type	Performed By	Code References and Notes
☒ a. Inspect drilling operations and maintain complete and accurate records for each pier.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) for exemptions.)
☒ b. Verify pile location, diameters, plumbness, bell diameters (if applicable), lengths and embedment into bedrock (if applicable); record concrete or grout volumes.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) for exemptions.)
☒ c. Confirm adequate end state bearing capacity.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) for exemptions.)
☒ d. Concrete piles.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix (end of this form) for exemptions.)

Provide tests and inspections per CONCRETE section below.

S5. RETAINING WALLS:

S6. OTHER SOILS:

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Appendix: Work Exempt from DSA Requirements for Structural Tests & Special Inspections
Application Number: School Name: School District:
DSA File Number: Increment Number: Date Created:

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

SOILS:

CONCRETE/MASONRY:

WELDING:

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DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (CONCRETE), 2022 CBC
Table 1705A.3, ACI 318-19 Sections 26.12 & 26.13
Application Number: School Name: School District:
DSA File Number: Increment Number: Date Created:

Test or Special Inspection	Type	Performed By	Code References and Notes
☒ a. Verify use of required design mix.	Periodic	SI	Table 1705A.3 Item 5, 1910A.1.
☒ b. Identify, sample, and test reinforcing steel.	Test	LOR	1910A.2, ACI 318-19 Ch.20 and Section 26.5.1.2; DSA IR 17-10. (See Appendix (end of this form) for exemptions.)
☒ c. During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Test	LOR	Table 1705A.3 Item 6, ACI 318-19 Sections 26.5 & 26.12.
☒ d. Test concrete (f'c).	Test	LOR	1905A.1.17, ACI 318-19 Section 26.12.
☒ e. Batch plant inspection.	See Notes	SI	Default of Continuous per 1705A.3.3. If approved by DSA, batch plant inspection may be reduced to Periodic subject to requirements in Section 1705A.3.3.3, or eliminated per 1705A.3.3.2. See IR 17-15. (See Appendix (end of this form) for exemptions.)
☒ f. Wrapping of reinforcing steel.			Provide special inspection per STEEL, Category S/A4(d) & (e) and/or S/A5(g) & (h) below.

C2. PRESTRESSED / POST-TENSIONED CONCRETE (IN ADDITION TO SECTION C1):

C3. PRECAST CONCRETE (IN ADDITION TO SECTION C1):

C4. SHOTCRETE (IN ADDITION TO SECTION C1):

C5. POST-INSTALLED ANCHORS:

C6. OTHER CONCRETE:

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DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SIGNATURE), 2022 CBC
Application Number: School Name: School District:
DSA File Number: Increment Number: Date Created:

Name of Architect or Engineer in general responsible charge:

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

Signature of Architect or Structural Engineer: Date:

DSA STAMP

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SEAL:

REGISTERED PROFESSIONAL ENGINEER
ZHONG ZHAO
S 6814
8/14/23

DSA IDENTIFICATION STAMP

SUPERIOR RECREATIONAL PRODUCTS
Shade

SUPERIOR SHADE
150 Adamson Industrial Blvd.
Carrollton, GA 30117

**FABRIC CANOPIES DSA PC - EMB
EXAMPLE FORM DSA 103-
TESTS & INSPECTIONS**

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PC IDENTIFICATION STAMP
PRE-CHECK (PC) DOCUMENT
CODE: 2022 CBC
A separate project application
for construction is required

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-120868 PC
REVIEWED FOR
SS ☒ FLS ☒ ACS ☒ CG ☐
DATE: 8/23/2023

SITE PROJECT NAME:
DISTRICT/OWNER:
LOCATION/ADDRESS:

Revisions		
Date:	By:	
0 11/30/2022	KJK	
1 8/14/2023	KJK	
Drawn:	KJK	
Date:	10/23/2022	
Chkd:	Zhisong Zhao	
Date:	11/22/2022	
Job Number:		

S6
Sheet No.