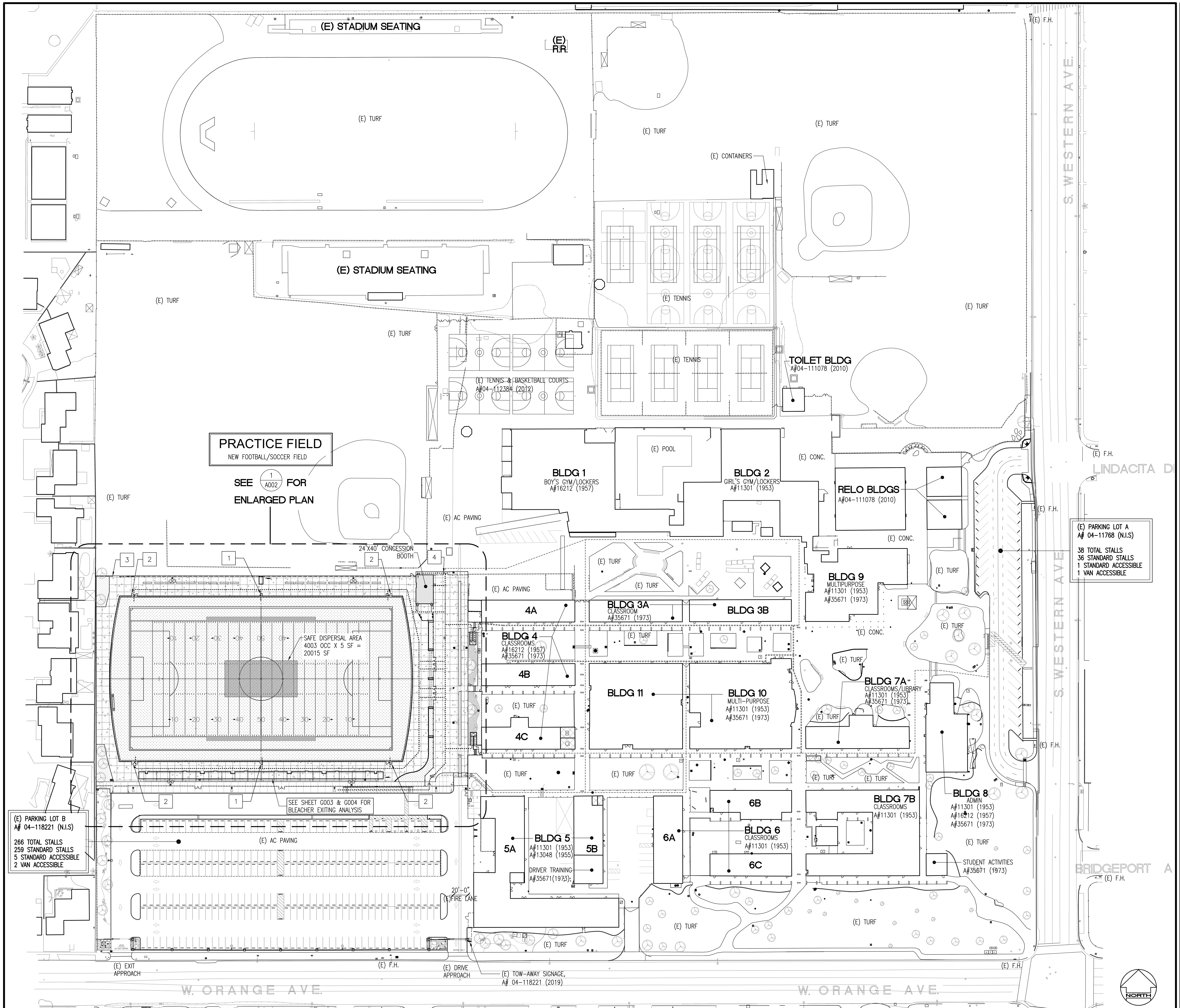
Attachment 2



OVERALL SITE PLAN 1
1"=50'-0"

KEYNOTES GENERALLY CORRESPOND TO SPECIFICATION SECTIONS BY MEANS OF THE SIX-DIGIT NUMBER IDENTIFYING THE SPECIFICATION SECTION FOR REFERENCE AND CONVENIENCE. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL WORK INDICATED HEREIN PURSUANT TO THE GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS OF THE CONTRACT, REGARDLESS OF WHETHER OR NOT THE KEYNOTE(S) SPECIFICALLY CORRESPOND TO ANY SPECIFICATION DIVISION PROVIDED IN THE TECHNICAL SPECS.

SITE NOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G001.
2. PROTECT AND SAFEGUARD FROM DAMAGES ALL EXISTING CONSTRUCTION AND FINISHES TO REMAIN.
3. PROVIDE TEMPORARY 6' HIGH CHAIN LINK FENCE ENCLOSURES WITH LOCKABLE GATES AS REQUIRED FOR CONSTRUCTION ACCESS AT CONTRACTOR'S STAGING AREA AND AROUND ALL CONSTRUCTION SITES.
4. WHERE REMOVAL OF CONCRETE WALKS, MOWSTRIPS, CURBS AND GUTTERS IS REQUIRED BY THE EXECUTION OF THIS CONTRACT, REMOVE THE CONCRETE WORK TO THE NEAREST EXISTING EXPANSION OR CONTROL JOINT (SAWCUT IF REQUIRED). CURBS AND GUTTERS MAY BE REMOVED IN MINIMUM LENGTHS OF 6' IF THE DISTANCE BETWEEN EXISTING JOINTS IS 12' OR MORE. REPLACE REMOVED WORK WITH REINFORCED CONCRETE TO MATCH ADJACENT EXISTING WORK IN PROFILE, JOINT LAYOUT AND FINISH. SEE SHEET A004 FOR SIMILAR DETAILS AND REINFORCING REQUIREMENTS. DOWEL NEW CONCRETE WORK INTO EXISTING PER DETAIL 1/A003.
5. WHERE ASPHALT PAVING IS DAMAGED BY THE EXECUTION OF THIS CONTRACT, PATCH & REPAIR TO ORIGINAL OR BETTER CONDITION. WHERE (E) LAWNS ARE DAMAGED BY THE EXECUTION OF THIS CONTRACT, FILL, COMPACT, AND REPLANT AREA TO MATCH EXISTING TURF AREA.
6. CONTRACTOR SHALL MAINTAIN EXISTING PLANTING WITHIN THE JOB SITE FENCE ENCLOSURE DURING DEMOLITION AND CONSTRUCTION PHASES. EXISTING IRRIGATION SYSTEMS SHALL EITHER REMAIN OPERATIONAL FOR CONTRACTOR'S USE OR CONTRACTOR SHALL HAND WATER EXISTING PLANT MATERIALS AT LEAST ONCE A WEEK.
7. REPAIR EXISTING IRRIGATION SYSTEMS DAMAGED DURING THE EXECUTION OF THIS CONTRACT. REPLACE PLANT MATERIALS DAMAGED DURING THE CONSTRUCTION PERIOD WITH THE SAME SPECIES OF EQUAL OR GREATER SIZE.

SITE PLAN LEGEND

- (E) BUILDINGS – NOT IN SCOPE
- CONCRETE PAVING PER CIVIL DRAWINGS
- CONCRETE PAVING PER CIVIL DRAWINGS
- SYNTHETIC TURF
- LANDSCAPE AND IRRIGATION PER LANDSCAPE DRAWINGS
- ACCESSIBLE RESTROOM G=GIRLS B=BOYS A=ALL-GENDER
- —X—X—X— CHAINLINK FENCE.
- —□—□—□— DECORATIVE METAL FENCE PER
- E.J. EXPANSION JOINT PER
- C.J. CONTROL JOINT PER
- —●·●·●— (N) "PATH OF TRAVEL" (P.O.T.) AS INDICATED IS A BARRIER FREE ACCESSIBLE ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" BEVELED AT A SLOPE NOT STEEPER THAN 1:2 EXCEPT THAT LEVEL CHANGES ARE 1/4" MAXIMUM VERTICAL AND IS AT LEAST 48" WIDE. SURFACE SHALL BE STABLE, FIRM, AND SLIP RESISTANT. CROSS-SLOPE SHALL NOT BE STEEPER THAN 1:48 AND RUNNING SLOPE SHALL NOT BE STEEPER THAN 1:20 UNLESS OTHERWISE INDICATED (SECTION 11B-403.3) P.O.T. SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTION TO 80" MINIMUM (SECTION 11B-307.4) AND PROTRUDING OBJECTS GRATER THAN 4" PROJECTION FROM WALL SURFACE BETWEEN 27" AND 80" ABOVE FINISH FLOOR OR GROUND (SECTION 11B-307.2) PROVIDE FLUSH TRANSITIONS AT ANY ADJOINING JOINTS BETWEEN NEW AND EXISTING (E) WALK SURFACES IN P.O.T. ARCHITECT TO VERIFY THAT THERE ARE NO BARRIERS IN THE P.O.T AND ALL P.O.T. COMPLY WITH SECTION 11B-206."

GBA GHATAODE BANNON ARCHITECTS
Architecture · Planning · Interior Design
760 W. 16TH STREET, UNIT B
COSTA MESA, CA 92627
ph: 714.665.8030
fax: 714.665.8029

LICENSED ARCHITECT SUSHILA GHATAODE NO. C-28923 EXP. NOV. 30, 2021 STATE OF CALIFORNIA

Architect Seal

Consultant Seal

WESTERN HIGH SCHOOL - FOOTBALL/SOCCER FIELDS
501 S WESTERN AVENUE, ANAHEIM, CA 92804
ANAHEIM UNION HIGH SCHOOL DISTRICT

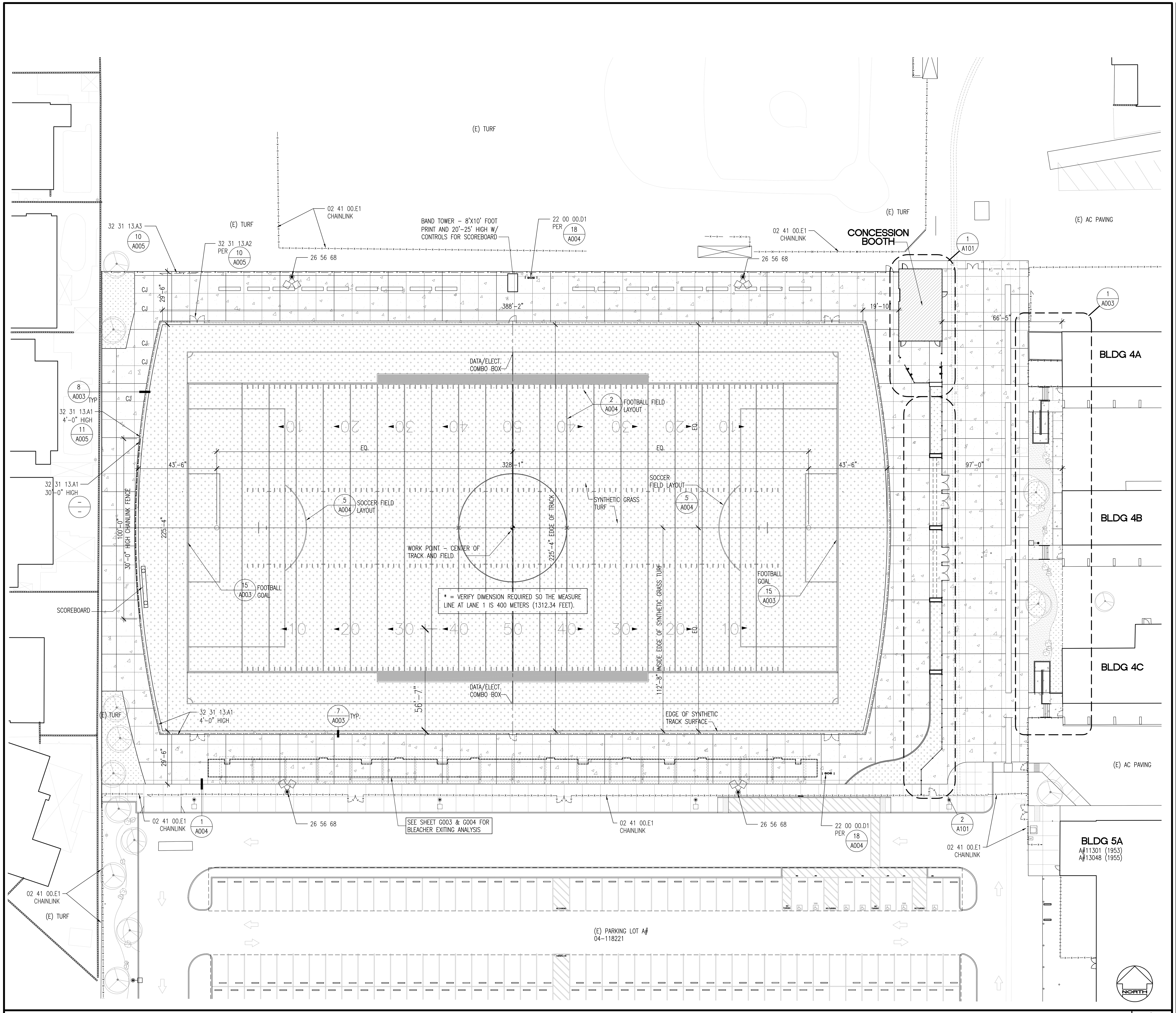
OVERALL SITE PLAN
DESIGN DEVELOPMENT

REVISIONS: 1 2 3 4 5 6 7 8

Date:	3/29/2022
Job:	2006
Scale:	
Drawn:	

A001

SHEET - OF XXX
XREF:



ENLARGED SITE PLAN 1
1"=20'-0"

KEYNOTES GENERALLY CORRESPOND TO SPECIFICATION SECTIONS BY MEANS OF THE SIX-DIGIT NUMBER IDENTIFYING THE SPECIFICATION SECTION FOR REFERENCE AND CONVENIENCE. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL WORK INDICATED HEREIN PURSUANT TO THE GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS OF THE CONTRACT, REGARDLESS OF WHETHER OR NOT THE KEYNOTE(S) SPECIFICALLY CORRESPOND TO ANY SPECIFICATION DIVISION PROVIDED IN THE TECHNICAL SPECS.

KEYNOTES

DIVISION 02 - EXISTING CONDITIONS

02 41 00.E1 – EXISTING ITEM TO REMAIN

DIVISION 22 - PLUMBING

22 00 00.D1 – ACCESSIBLE HI-LO DRINKING FOUNTAIN

DIVISION 26 - ELECTRICAL

26 56 68 – FUTURE EXTERIOR ATHLETIC LIGHTING POLE

DIVISION 32 - EXTERIOR IMPROVEMENTS

32 31 13.A1 – CHAINLINK FENCE
32 31 13.A2 – CHAINLINK GATE
32 31 13.A3 – ROLLING CHAINLINK GATE

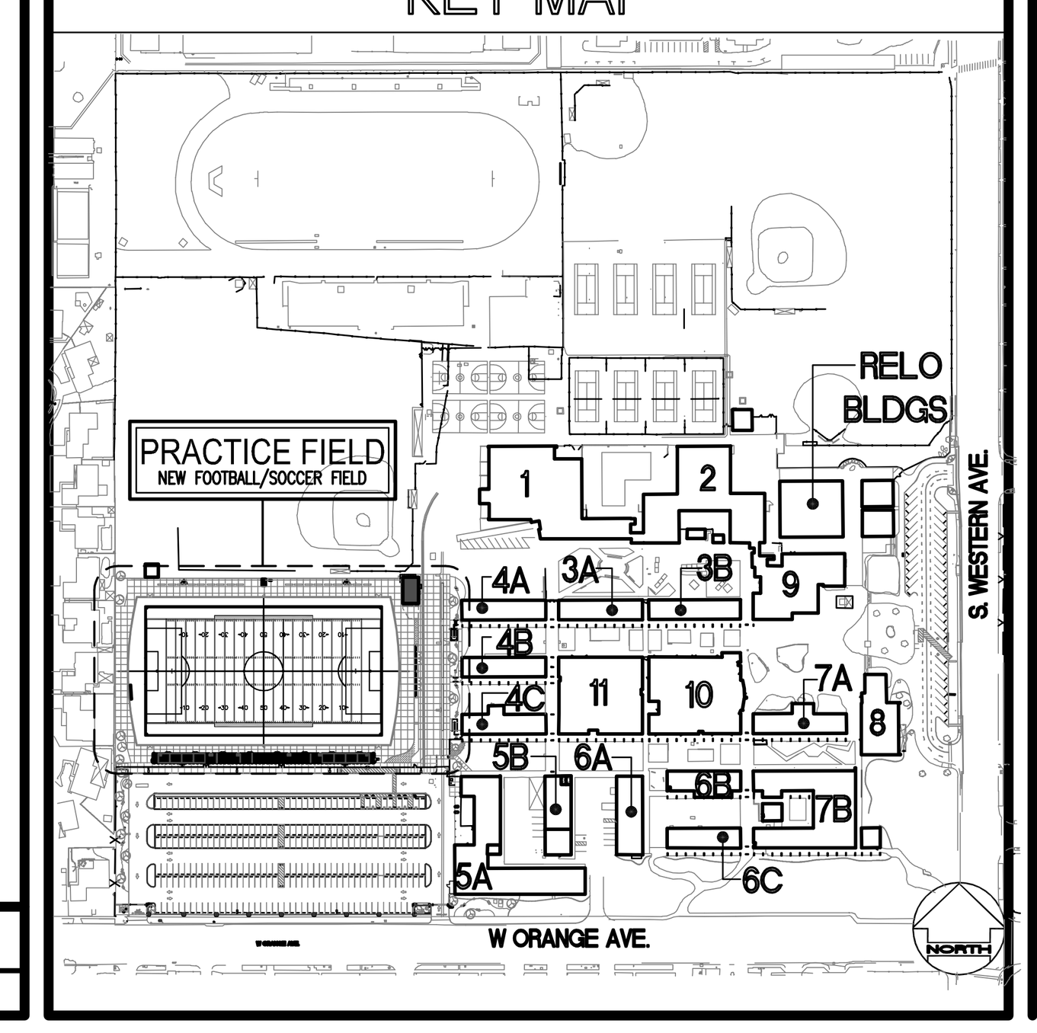
SITE NOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G001.
2. PROTECT AND SAFEGUARD FROM DAMAGES ALL EXISTING CONSTRUCTION AND FINISHES TO REMAIN.
3. PROVIDE TEMPORARY 6' HIGH CHAIN LINK FENCE ENCLOSURES WITH LOCKABLE GATES AS REQUIRED FOR CONSTRUCTION ACCESS AT CONTRACTOR'S STAGING AREA AND AROUND ALL CONSTRUCTION SITES.
4. WHERE REMOVAL OF CONCRETE WALKS, MOWSTRIPS, CURBS AND GUTTERS IS REQUIRED BY THE EXECUTION OF THIS CONTRACT, REMOVE THE CONCRETE WORK TO THE NEAREST EXISTING EXPANSION OR CONTROL JOINT (SAWCUT IF REQUIRED). CURBS AND GUTTERS MAY BE REMOVED IN MINIMUM LENGTHS OF 6' IF THE DISTANCE BETWEEN EXISTING JOINTS IS 12' OR MORE. REPLACE REMOVED WORK WITH REINFORCED CONCRETE TO MATCH ADJACENT EXISTING WORK IN PROFILE, JOINT LAYOUT AND FINISH. SEE SHEET A004 FOR SIMILAR DETAILS AND REINFORCING REQUIREMENTS. DOWEL NEW CONCRETE WORK INTO EXISTING PER DETAIL 1/A003.
5. WHERE ASPHALT PAVING IS DAMAGED BY THE EXECUTION OF THIS CONTRACT, PATCH & REPAIR TO ORIGINAL OR BETTER CONDITION. WHERE (E) LAWNS ARE DAMAGED BY THE EXECUTION OF THIS CONTRACT, FILL, COMPACT, AND REPLANT AREA TO MATCH EXISTING TURF AREA.
6. CONTRACTOR SHALL MAINTAIN EXISTING PLANTING WITHIN THE JOB SITE FENCE ENCLOSURE DURING DEMOLITION AND CONSTRUCTION PHASES. EXISTING IRRIGATION SYSTEMS SHALL EITHER REMAIN OPERATIONAL FOR CONTRACTOR'S USE OR CONTRACTOR SHALL HAND WATER EXISTING PLANT MATERIALS AT LEAST ONCE A WEEK.
7. REPAIR EXISTING IRRIGATION SYSTEMS DAMAGED DURING THE EXECUTION OF THIS CONTRACT. REPLACE PLANT MATERIALS DAMAGED DURING THE CONSTRUCTION PERIOD WITH THE SAME SPECIES OF EQUAL OR GREATER SIZE.

SITE PLAN LEGEND

- (E) BUILDINGS – NOT IN SCOPE
- CONCRETE PAVING PER CIVIL DRAWINGS
- CONCRETE PAVING PER CIVIL DRAWINGS
- SYNTHETIC TURF
- LANDSCAPE AND IRRIGATION PER LANDSCAPE DRAWINGS
- ACCESSIBLE RESTROOM G=GIRLS B=BOYS A=ALL-GENDER
- —X—X—X— CHAINLINK FENCE.
- —□—□—□— DECORATIVE METAL FENCE PER
- E.J. EXPANSION JOINT PER

KEY MAP



CBA CHATAODE BANNON ARCHITECTS
Architecture · Planning · Interior Design
760 W. 16TH STREET, UNIT B
COSTA MESA, CA 92627
ph: 714.665.8030
fax: 714.665.8029

Architect Seal

Consultant Seal

WESTERN HIGH SCHOOL - FOOTBALL/SOCCER FIELDS
501 S WESTERN AVENUE, ANAHEIM, CA 92804
ANAHEIM UNION HIGH SCHOOL DISTRICT

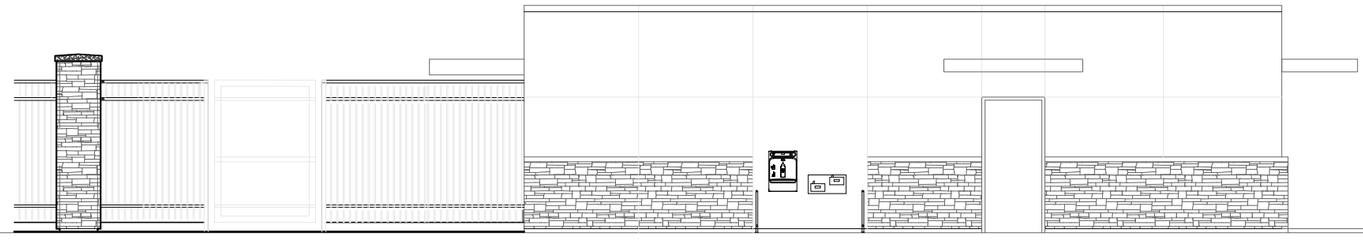
PARTIAL ENLARGED SITE PLAN - PRACTICE FIELD
DESIGN DEVELOPMENT

REVISIONS:
1
2
3
4
5
6
7
8

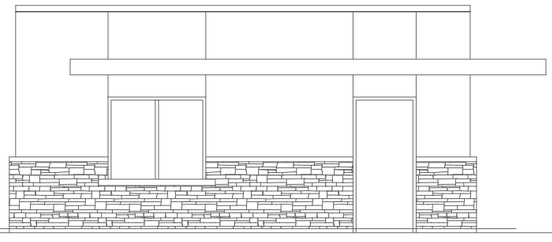
Date:	3/29/2022
Job:	2006
Scale:	
Drawn:	

A002

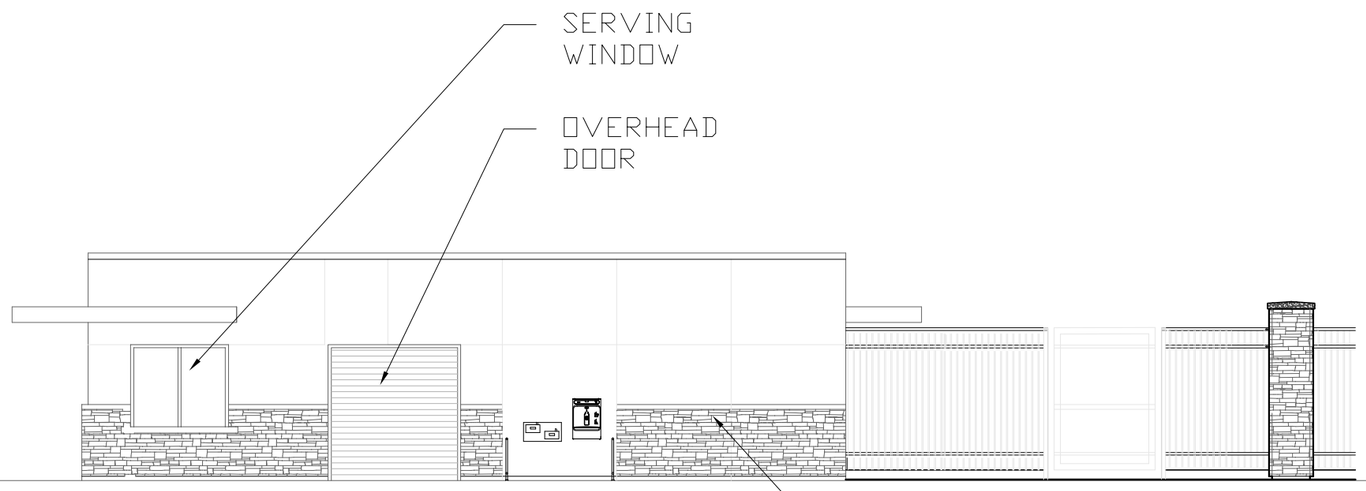
SHEET - OF XXX
XREF:



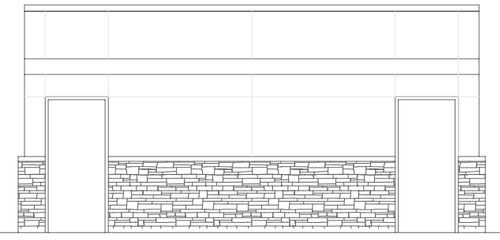
EAST ELEVATION



NORTH ELEVATION



WEST ELEVATION



SOUTH ELEVATION

Western High School Football Soccer LED

Anaheim,CA

Lighting System

Pole / Fixture Summary

Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
F1-F2	80'	80'	8	TLC-LED-1500	11.44 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
F3-F4	80'	80'	8	TLC-LED-1500	11.44 kW	A
		25'	2	TLC-BT-575	1.15 kW	A
		70'	2	TLC-LED-400	0.80 kW	C
4			***44***		***51.96 kW***	

Circuit Summary

Circuit	Description	Load	Fixture Qty
A	Football	50.36 kW	40
C	Egress	1.6 kW	4

Fixture Type Summary

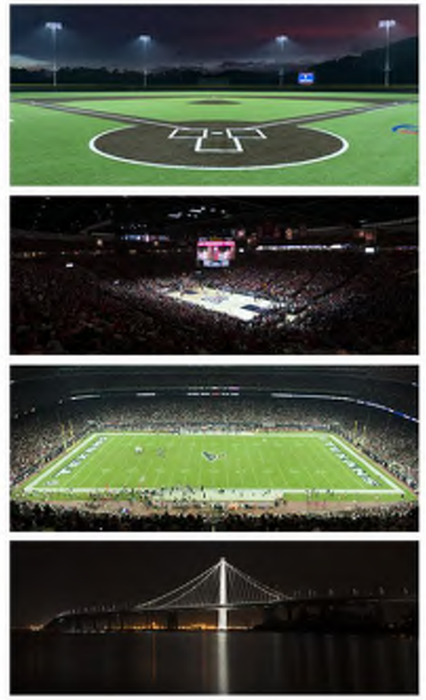
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1500	LED 5700K - 75 CRI	1430W	160,000	>120,000	>120,000	>120,000	32
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	8
TLC-LED-400	LED 5700K - 75 CRI	400W	46,500	>120,000	>120,000	>120,000	4

Light Level Summary

Calculation Grid Summary

Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Bleacher Egress	Horizontal Illuminance	4.33	2	9	5.55	2.17	C	4
Bleacher	Horizontal Illuminance	12.9	7	21	2.88	1.84	A	40
Egress Blanket	Horizontal	1.95	0	6	53909.35		C	4
Football	Horizontal Illuminance	50.9	37	60	1.62	1.38	A	40
Soccer	Horizontal Illuminance	50.2	37	60	1.64	1.36	A	40
South Spill	Horizontal	0	0	0	0.00		A	40
South Spill	Max Candela (by Fixture)	2.15	0	7.73	0.00		A	40
South Spill	Max Vertical Illuminance Metric	0	0	0	0.00		A	40
West Spill	Horizontal	0.82	0	3.46	0.00		A	40
West Spill	Max Candela (by Fixture)	22088	4.84	113900	23540.54	4563.73	A	40
West Spill	Max Vertical Illuminance Metric	1.49	0	6.86	0.00		A	40

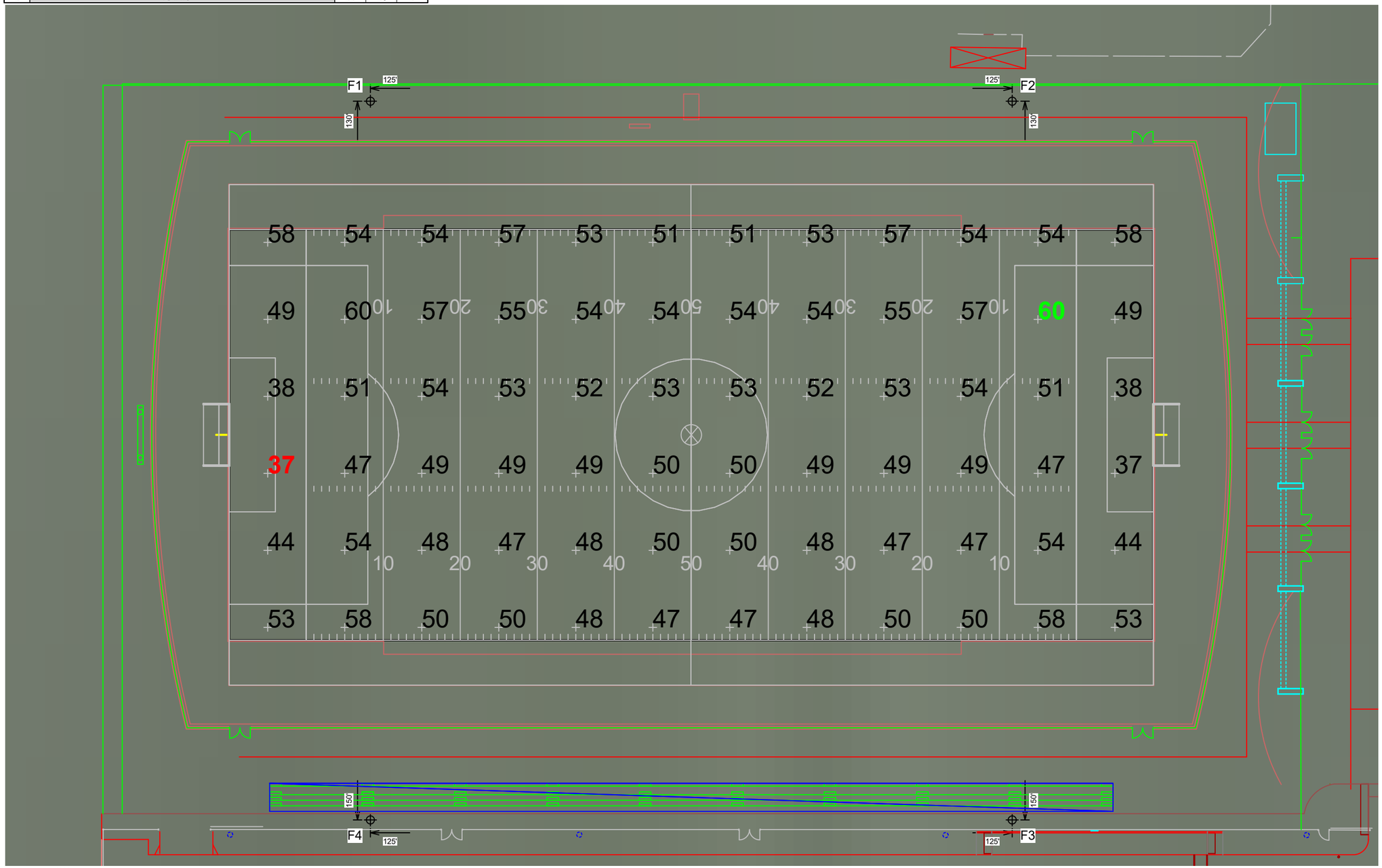
From Hometown to Professional



ENGINEERED DESIGN By: Brendon Guler · File #207993Ar1 · 05-Oct-20

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	F1-F2	80'	-	15.5'	TLC-BT-575	2	2	0
				80'	TLC-LED-1500	8	8	0
2	F3-F4	80'	-	25'	TLC-BT-575	2	2	0
				70'	TLC-LED-400	2	0	2
				80'	TLC-LED-1500	8	8	0
4	TOTALS					44	40	4



SCALE IN FEET 1 : 40

0' 40' 80'

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

ENGINEERED DESIGN By: Brendon Guler · File #207993Ar1 · 05-Oct-20

Western High School Football Soccer LED
Anaheim,CA

GRID SUMMARY

Name:	**Football**
Size:	360' x 160'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Guaranteed Average:	**50**
Scan Average:	50.94
Maximum:	60
Minimum:	37
Avg / Min:	1.39
Guaranteed Max / Min:	**2**
Max / Min:	1.62
UG (adjacent pts):	1.35
CU:	0.62
No. of Points:	72

LUMINAIRE INFORMATION

Applied Circuits:	A
No. of Luminaires:	**40**
Total Load:	50.36 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

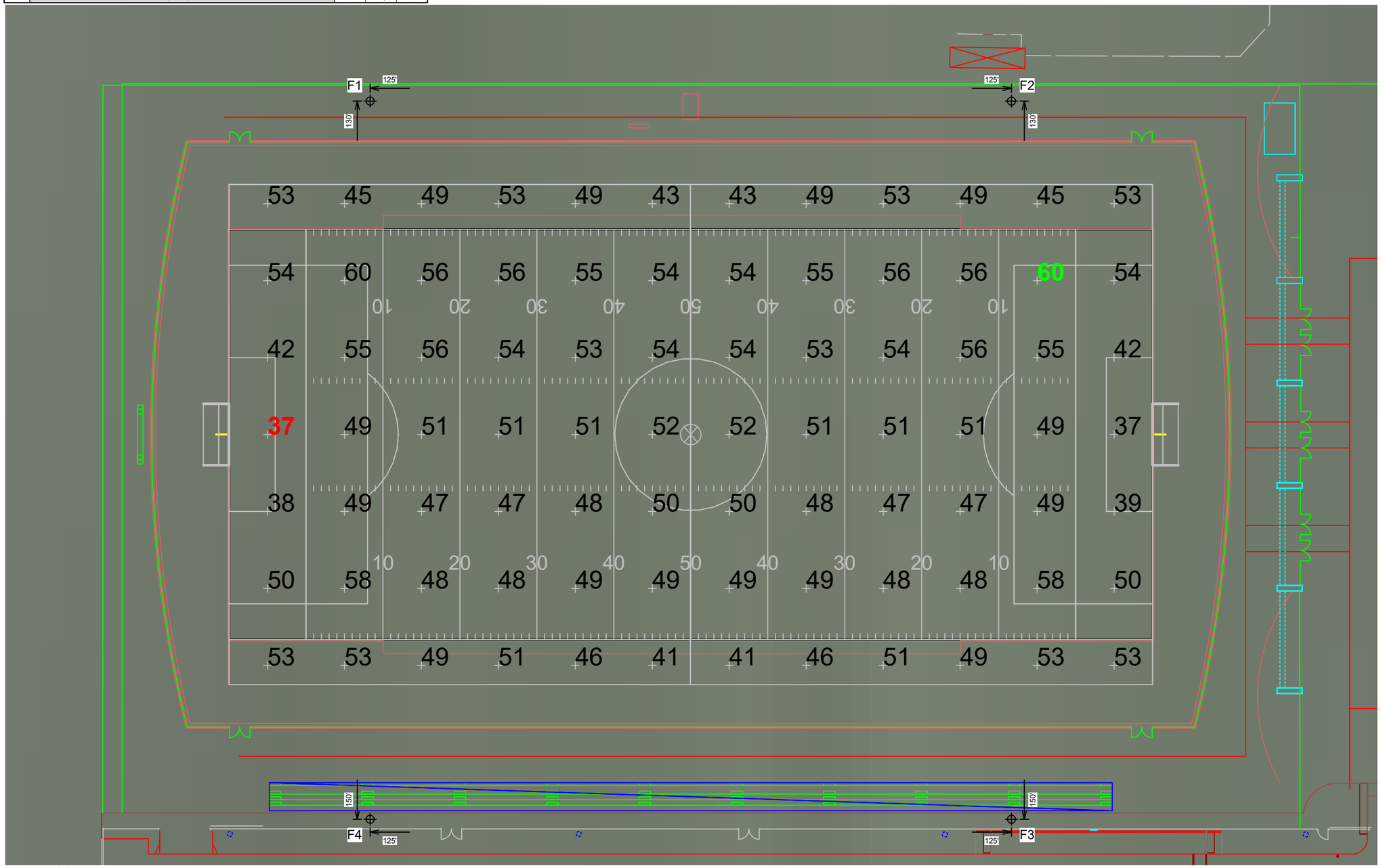
Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

musco Lighting
We Make It Happen.

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	F1-F2	80'	-	15.5'	TLC-BT-575	2	2	0
				80'	TLC-LED-1500	8	8	0
2	F3-F4	80'	-	25'	TLC-BT-575	2	2	0
				70'	TLC-LED-400	2	0	2
				80'	TLC-LED-1500	8	8	0
4	TOTALS					44	40	4



SCALE IN FEET 1 : 40

0' 40' 80'

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

ENGINEERED DESIGN By: Brendon Guler · File #207993Ar1 · 05-Oct-20

Western High School Football Soccer LED
Anaheim,CA

GRID SUMMARY

Name:	**Soccer**
Size:	360' x 195'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Guaranteed Average:	**50**
Scan Average:	50.18
Maximum:	60
Minimum:	37
Avg / Min:	1.37
Guaranteed Max / Min:	**2**
Max / Min:	1.64
UG (adjacent pts):	1.34
CU:	0.71
No. of Points:	84

LUMINAIRE INFORMATION

Applied Circuits:	A
No. of Luminaires:	**40**
Total Load:	50.36 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

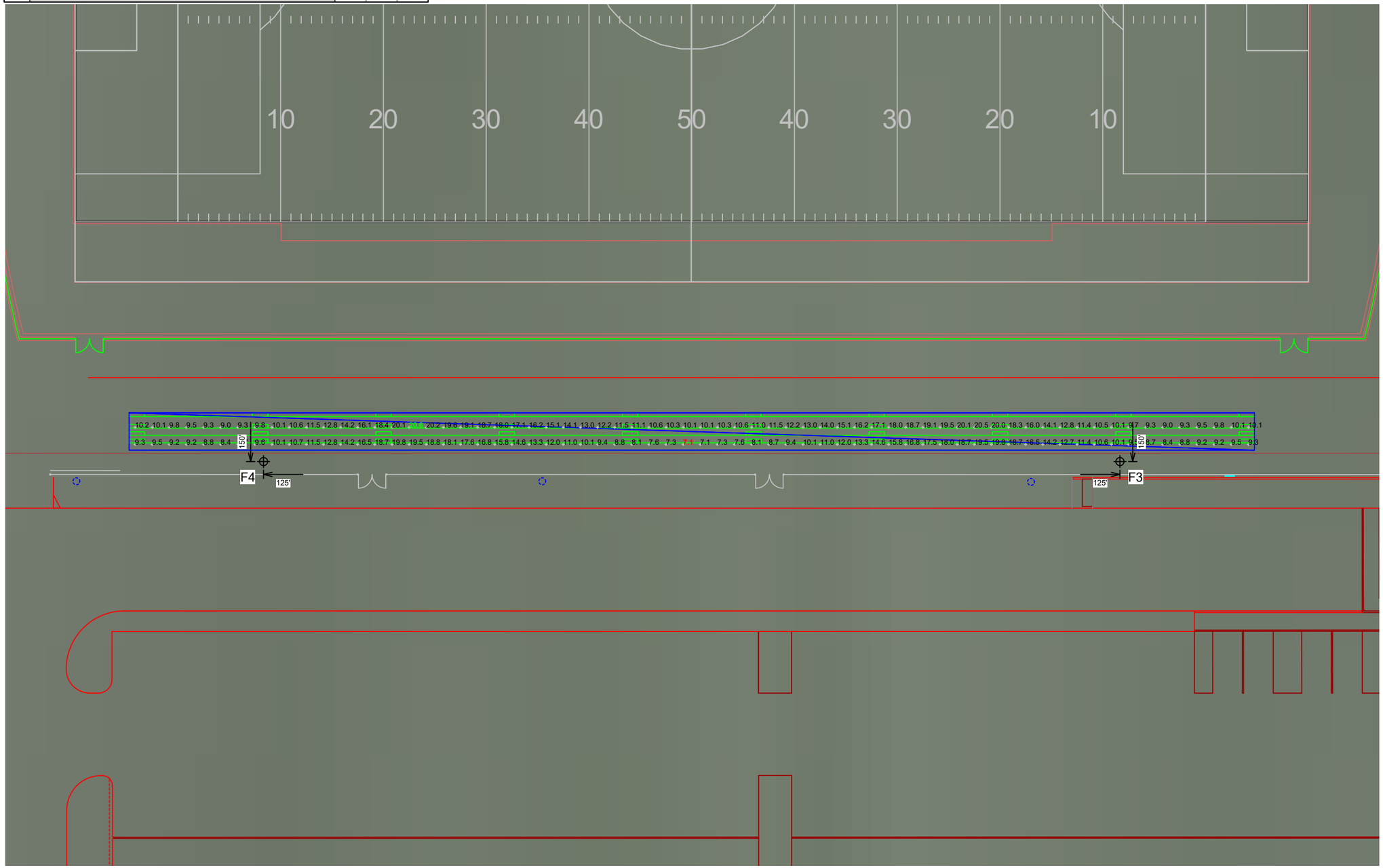
Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

musco Lighting
We Make It Happen.

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	F1-F2	80'	-	15.5'	TLC-BT-575	2	2	0
				80'	TLC-LED-1500	8	8	0
2	F3-F4	80'	-	25'	TLC-BT-575	2	2	0
				70'	TLC-LED-400	2	0	2
				80'	TLC-LED-1500	8	8	0
4	TOTALS					44	40	4



SCALE IN FEET 1 : 30

0' 30' 60'

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

ENGINEERED DESIGN By: Brendon Guler · File #207993Ar1 · 05-Oct-20

Western High School Football Soccer LED
Anaheim,CA

GRID SUMMARY

Name:	**Bleacher**
Size:	360' x 195'
Spacing:	5.0' x 5.0'
Height:	15.7' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Scan Average:	**12.89**
Maximum:	21
Minimum:	7
Avg / Min:	1.80
Max / Min:	**2.88**
UG (adjacent pts):	0.00
CU:	0.01
No. of Points:	132

LUMINAIRE INFORMATION

Applied Circuits:	A
No. of Luminaires:	**40**
Total Load:	50.36 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

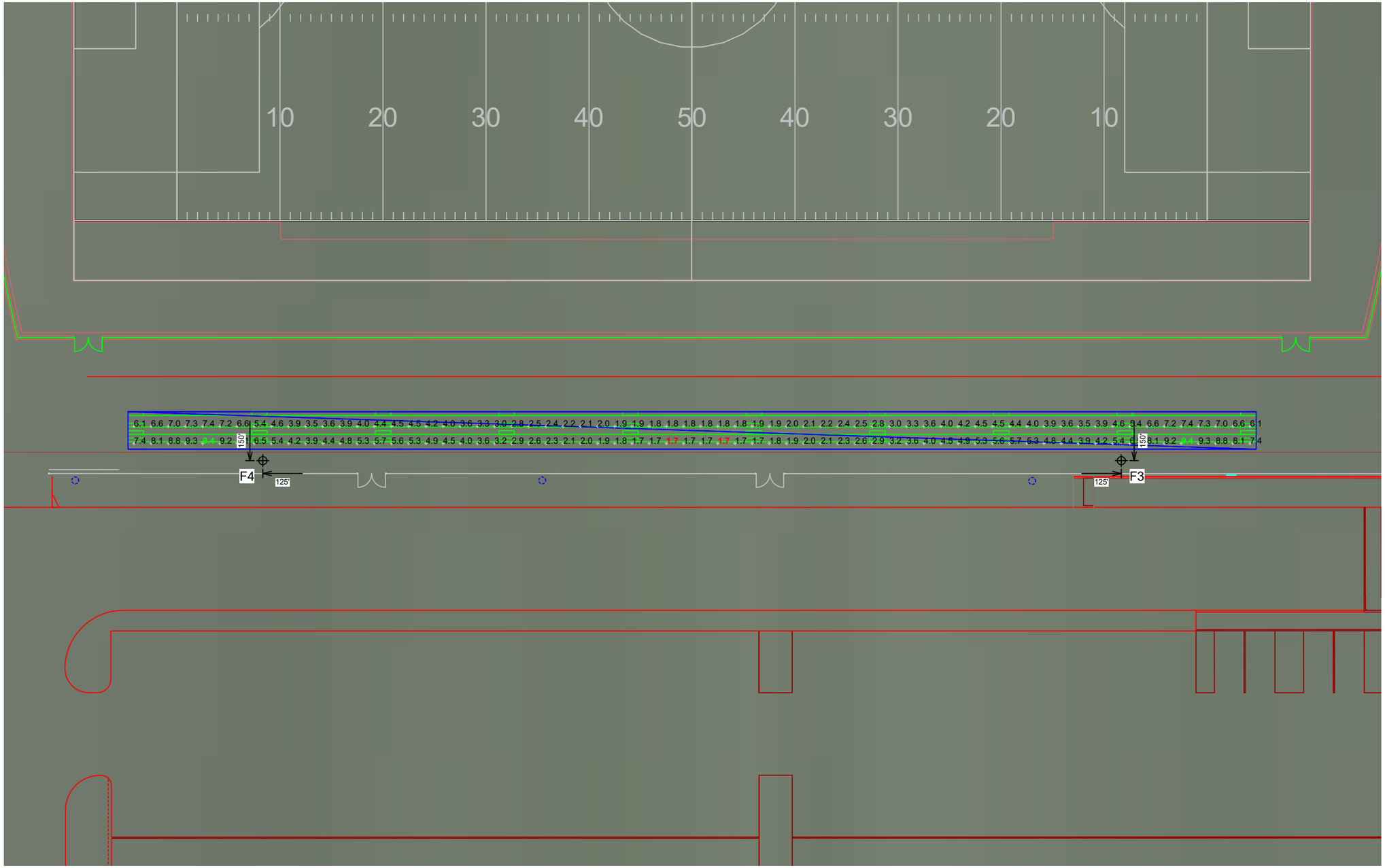
Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

musco Lighting
We Make It Happen.

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	F3-F4	80'	-	25'	TLC-BT-575	2	0	2
				70'	TLC-LED-400	2	2	0
				80'	TLC-LED-1500	8	0	8
2	TOTALS					24	4	20



SCALE IN FEET 1 : 30

0' 30' 60'

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

ENGINEERED DESIGN By: Brendon Guler · File #207993Ar1 · 05-Oct-20

Western High School Football Soccer LED
Anaheim,CA

GRID SUMMARY

Name:	**Bleacher Egress**
Size:	360' x 195'
Spacing:	5.0' x 5.0'
Height:	15.7' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Scan Average:	**4.33**
Maximum:	9
Minimum:	2
Avg / Min:	2.55
Max / Min:	**5.55**
UG (adjacent pts):	0.00
CU:	0.08
No. of Points:	132

LUMINAIRE INFORMATION

Applied Circuits:	C
No. of Luminaires:	**4**
Total Load:	1.6 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

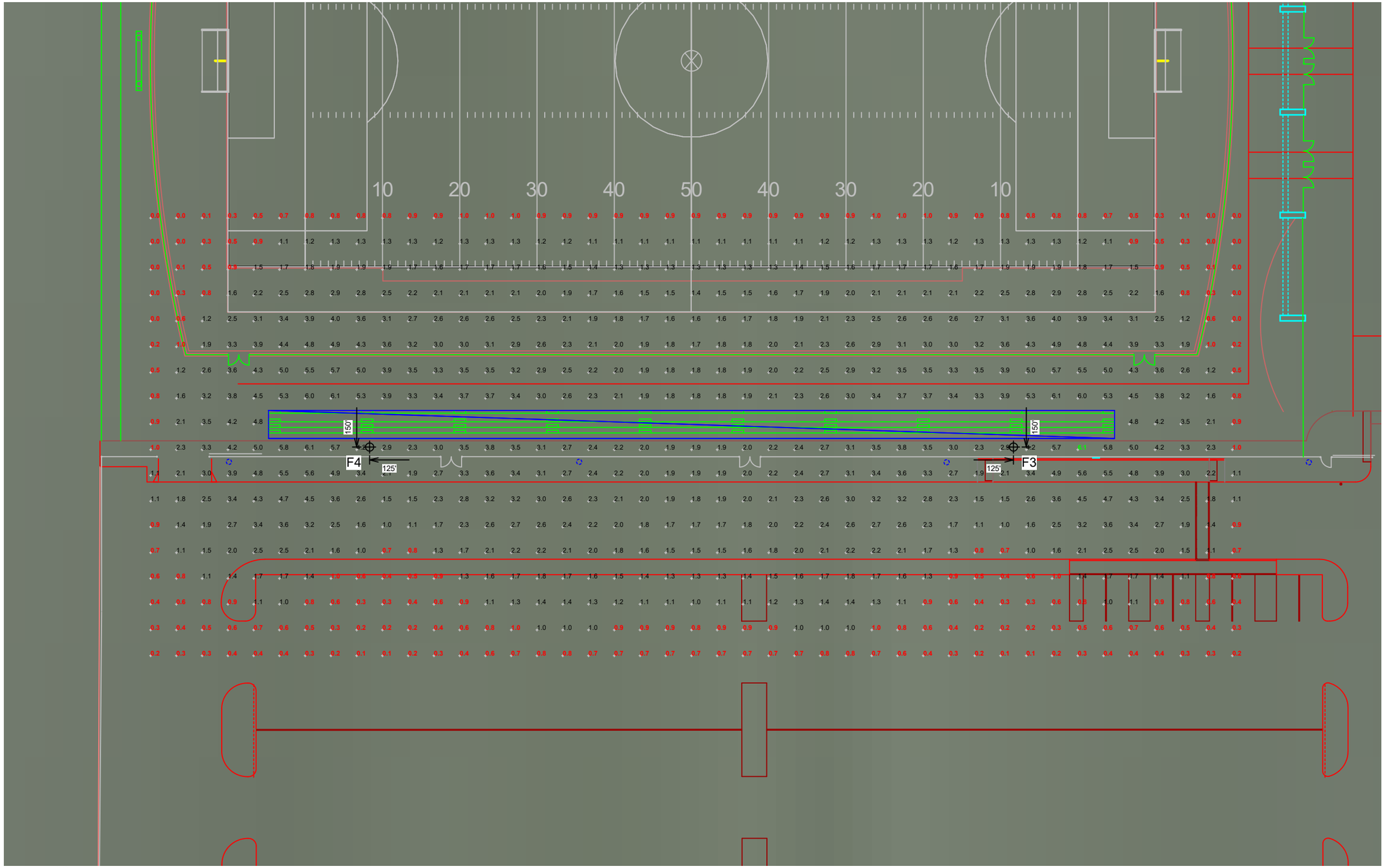
Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

musco Lighting
We Make It Happen.

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	F3-F4	80'	-	25'	TLC-BT-575	2	0	2
				70'	TLC-LED-400	2	2	0
				80'	TLC-LED-1500	8	0	8
2	TOTALS					24	4	20



SCALE IN FEET 1 : 40

0' 40' 80'

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

ENGINEERED DESIGN By: Brendon Guler · File #207993Ar1 · 05-Oct-20

Western High School Football Soccer LED
Anaheim,CA

GRID SUMMARY

Name:	**Egress Blanket**
Size:	360' x 195'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Scan Average:	**1.95**
Maximum:	6
Minimum:	0
Avg / Min:	17280.28
Max / Min:	**53909.35**
UG (adjacent pts):	416.24
CU:	0.85
No. of Points:	741

LUMINAIRE INFORMATION

Applied Circuits:	C
No. of Luminaires:	**4**
Total Load:	1.6 kW

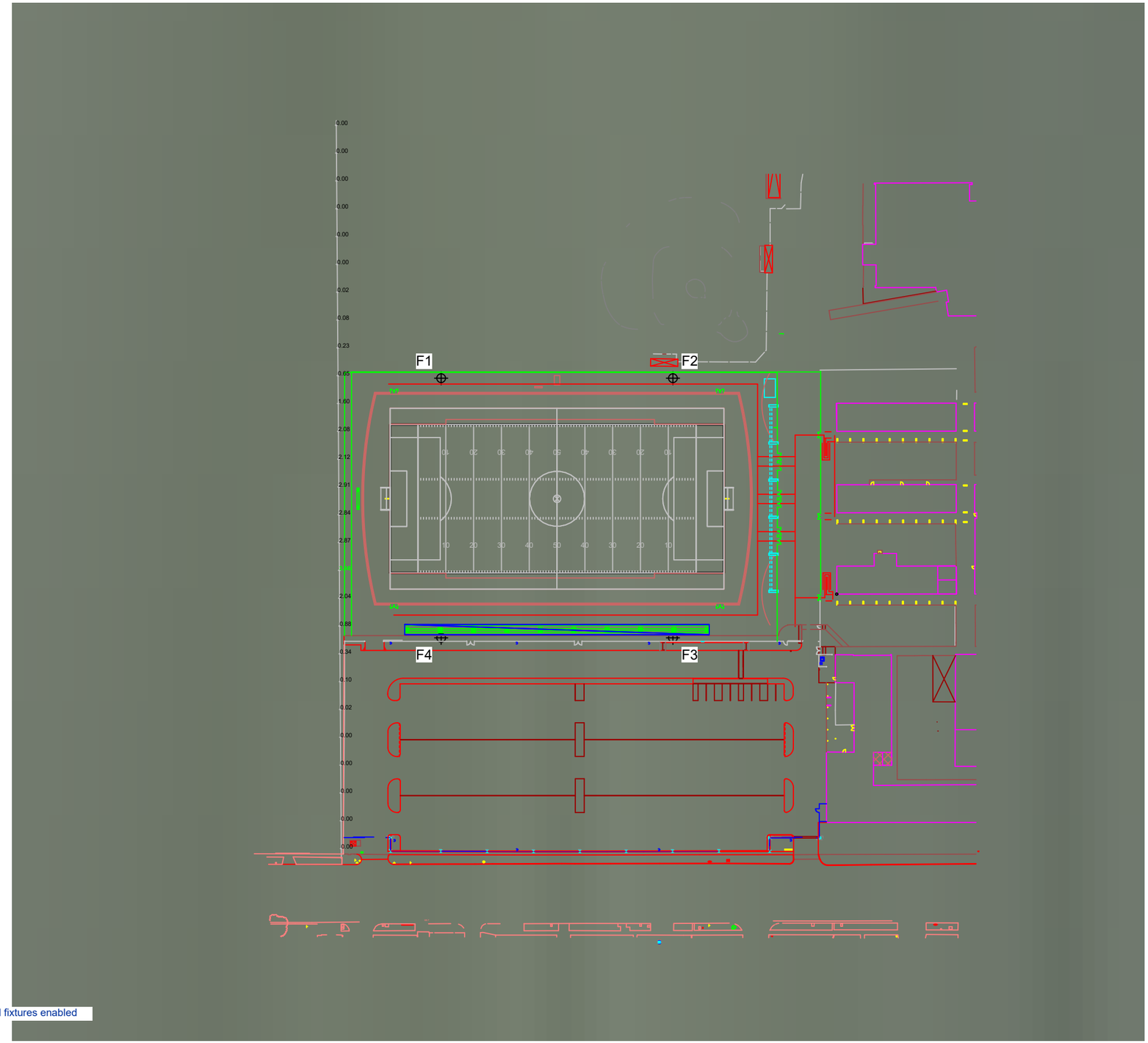
Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

musco Lighting
We Make It Happen.



NOTES: Values shown with all fixtures enabled

SCALE IN FEET 1 : 120

0' 120' 240'

ENGINEERED DESIGN By: Brendon Guler · File #207993Ar1 · 05-Oct-20

Pole location(s) ⌖ dimensions are relative to 0,0 reference point(s) ⊗

Western High School Football Soccer LED
Anaheim,CA

GRID SUMMARY

Name:	**West Spill**
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

HORIZONTAL FOOTCANDLES

	Entire Grid
Scan Average:	0.8227
Maximum:	3.46
Minimum:	0.00
No. of Points:	27

LUMINAIRE INFORMATION

Applied Circuits:	A
No. of Luminaires:	**40**
Total Load:	50.36 kW

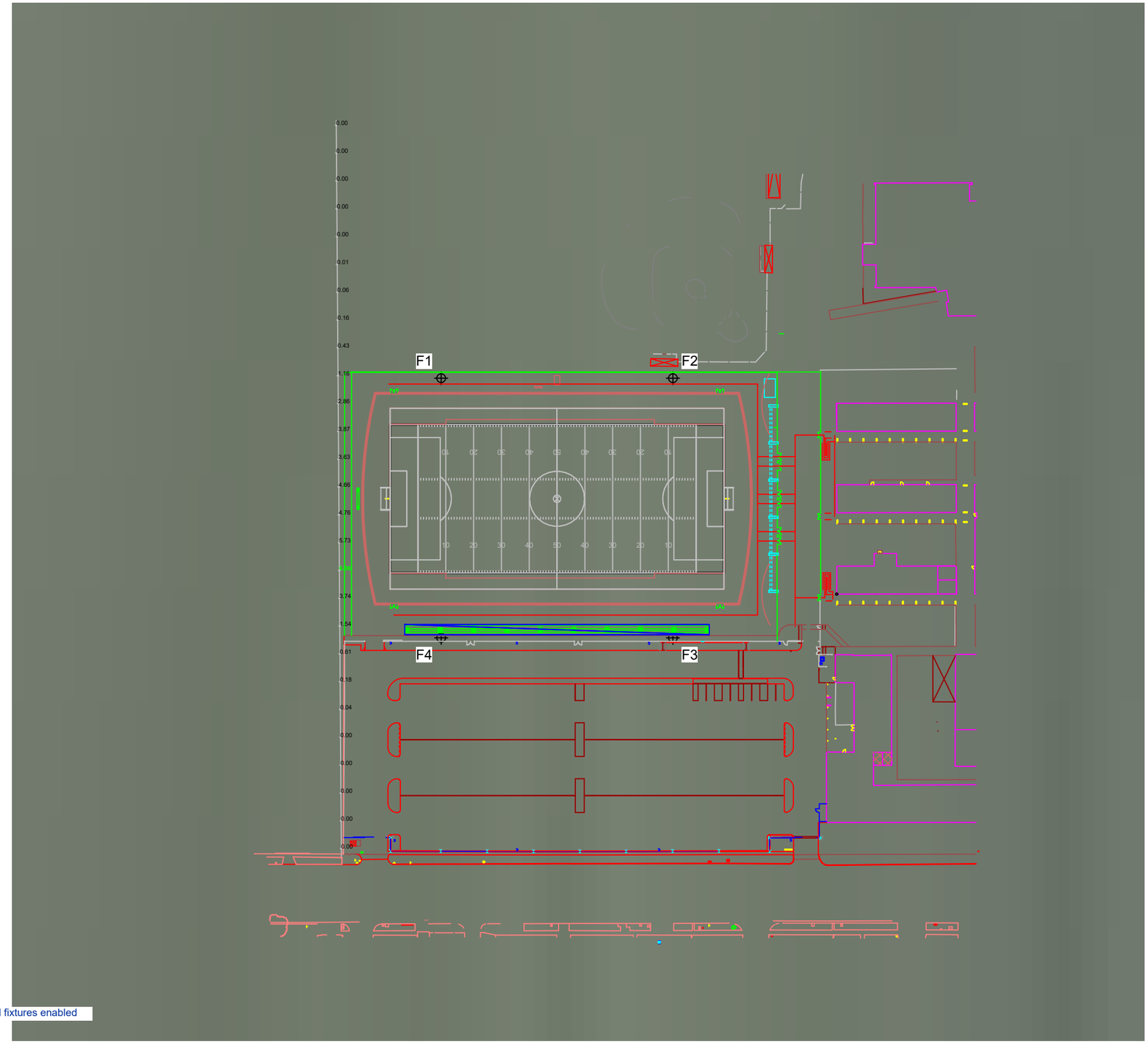
Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

We Make It Happen.



NOTES: Values shown with all fixtures enabled

SCALE IN FEET 1 : 120

0' 120' 240'

ENGINEERED DESIGN By: Brendon Guler · File #207993Ar1 · 05-Oct-20

Pole location(s) ⌖ dimensions are relative to 0,0 reference point(s) ⊗

Western High School Football Soccer LED
Anaheim,CA

GRID SUMMARY

Name:	**West Spill**
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAX VERTICAL FOOTCANDLES

	Entire Grid
Scan Average:	1.4934
Maximum:	6.86
Minimum:	0.00
No. of Points:	27

LUMINAIRE INFORMATION

Applied Circuits:	A
No. of Luminaires:	**40**
Total Load:	50.36 kW

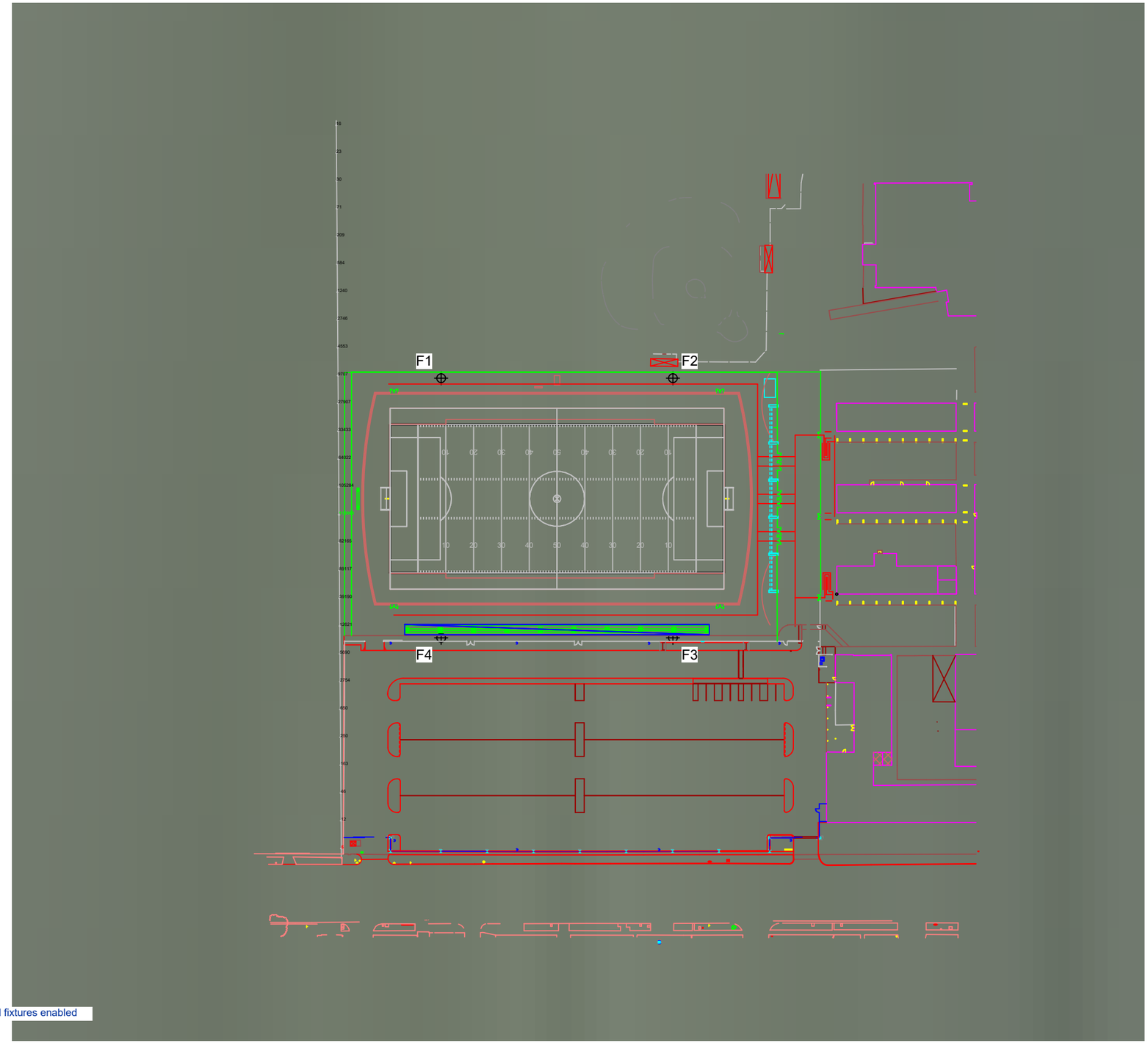
Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

musco Lighting
We Make It Happen.



NOTES: Values shown with all fixtures enabled

SCALE IN FEET 1 : 120

0' 120' 240'

ENGINEERED DESIGN By: Brendon Guler · File #207993Ar1 · 05-Oct-20

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

Western High School Football Soccer LED
Anaheim,CA

GRID SUMMARY

Name:	**West Spill**
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

CANDELA (PER FIXTURE)

	Entire Grid
Scan Average:	22088.4375
Maximum:	113899.81
Minimum:	4.84
No. of Points:	27

LUMINAIRE INFORMATION

Applied Circuits:	A
No. of Luminaires:	**40**
Total Load:	50.36 kW

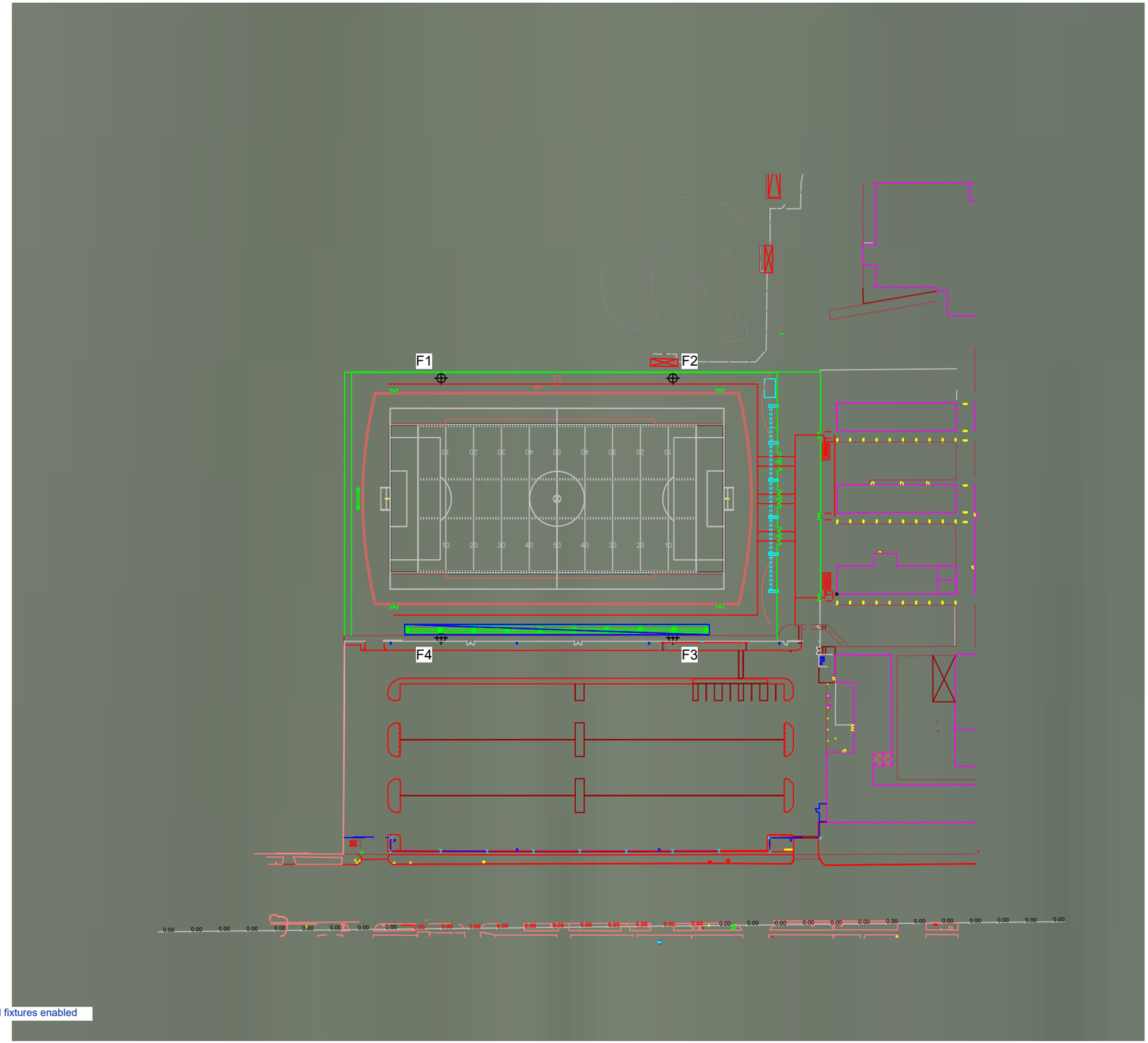
Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

We Make It Happen.



NOTES: Values shown with all fixtures enabled

SCALE IN FEET 1 : 120

0' 120' 240'

ENGINEERED DESIGN By: Brendon Guler · File #207993Ar1 · 05-Oct-20

Western High School Football Soccer LED
Anaheim,CA

GRID SUMMARY

Name:	**South Spill**
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

HORIZONTAL FOOTCANDLES

	Entire Grid
Scan Average:	0.0000
Maximum:	0.00
Minimum:	0.00
No. of Points:	33

LUMINAIRE INFORMATION

Applied Circuits:	A
No. of Luminaires:	**40**
Total Load:	50.36 kW

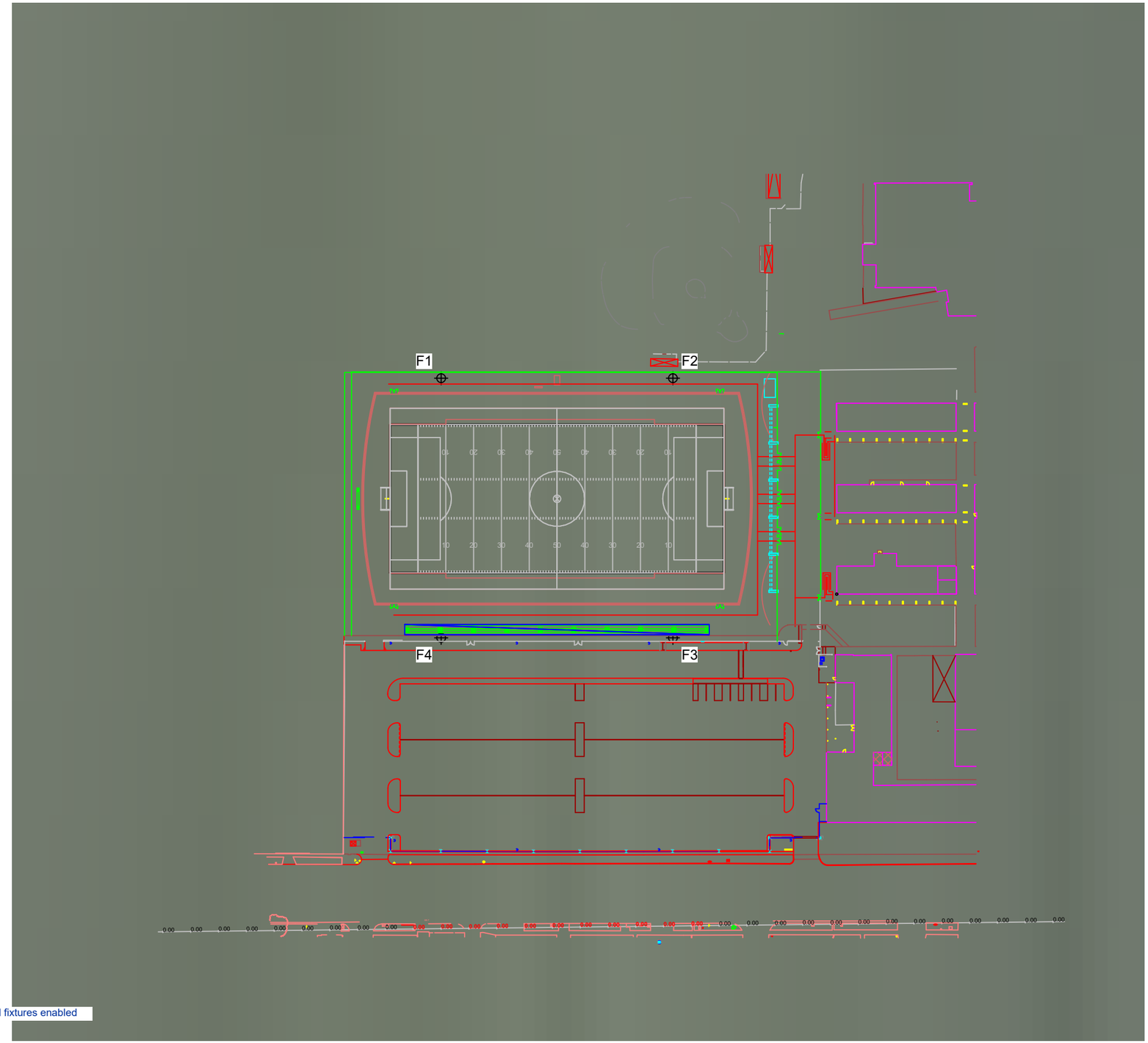
Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗



NOTES: Values shown with all fixtures enabled

SCALE IN FEET 1 : 120

0' 120' 240'

ENGINEERED DESIGN By: Brendon Guler · File #207993Ar1 · 05-Oct-20

Western High School Football Soccer LED
Anaheim,CA

GRID SUMMARY

Name:	**South Spill**
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAX VERTICAL FOOTCANDLES

	Entire Grid
Scan Average:	0.0000
Maximum:	0.00
Minimum:	0.00
No. of Points:	33

LUMINAIRE INFORMATION

Applied Circuits:	A
No. of Luminaires:	**40**
Total Load:	50.36 kW

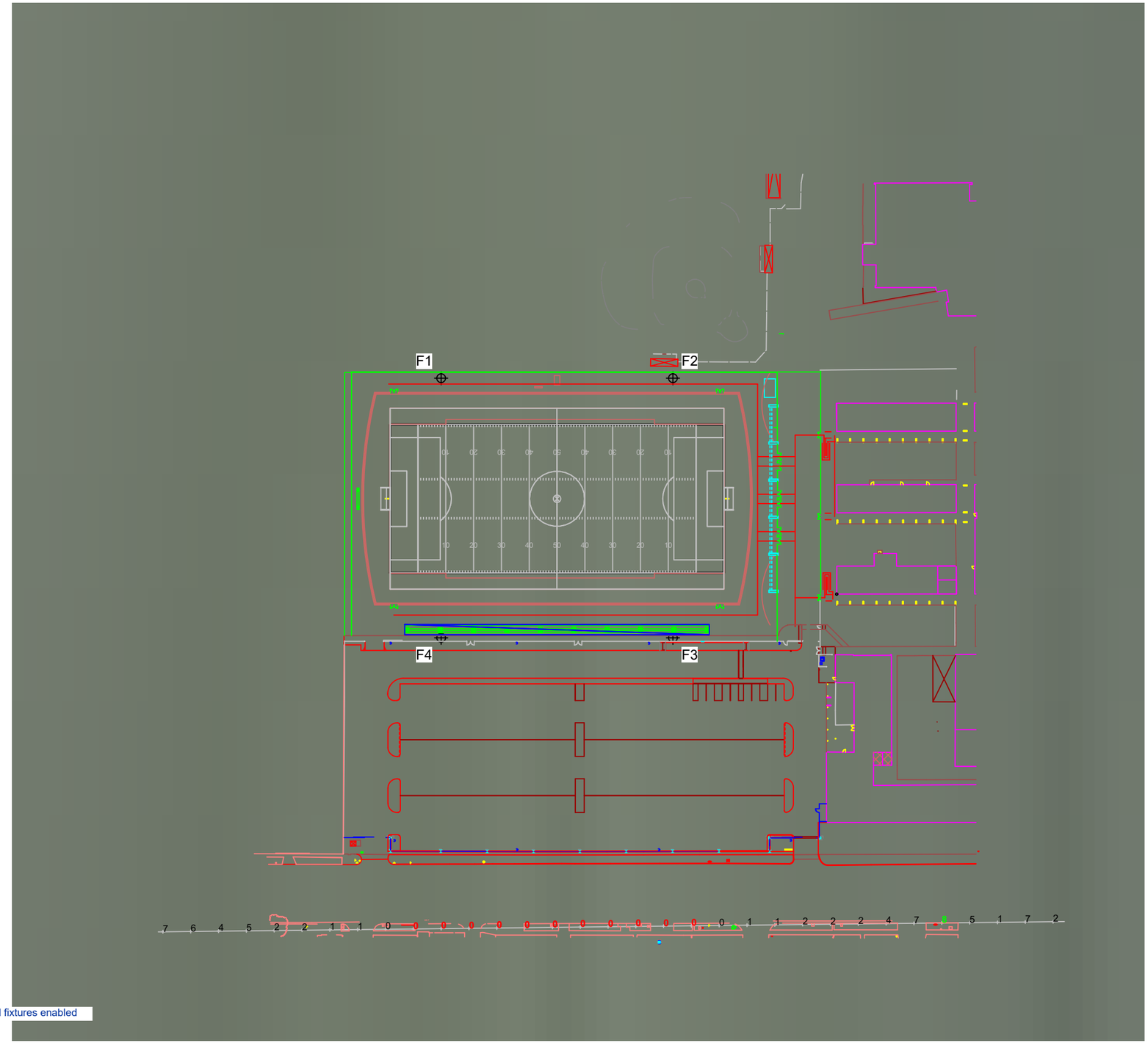
Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗



NOTES: Values shown with all fixtures enabled

SCALE IN FEET 1 : 120

0' 120' 240'

ENGINEERED DESIGN By: Brendon Guler · File #207993Ar1 · 05-Oct-20

Western High School Football Soccer LED
Anaheim,CA

GRID SUMMARY

Name:	**South Spill**
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

CANDELA (PER FIXTURE)

	Entire Grid
Scan Average:	2.1480
Maximum:	7.73
Minimum:	0.00
No. of Points:	33

LUMINAIRE INFORMATION

Applied Circuits:	A
No. of Luminaires:	**40**
Total Load:	50.36 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

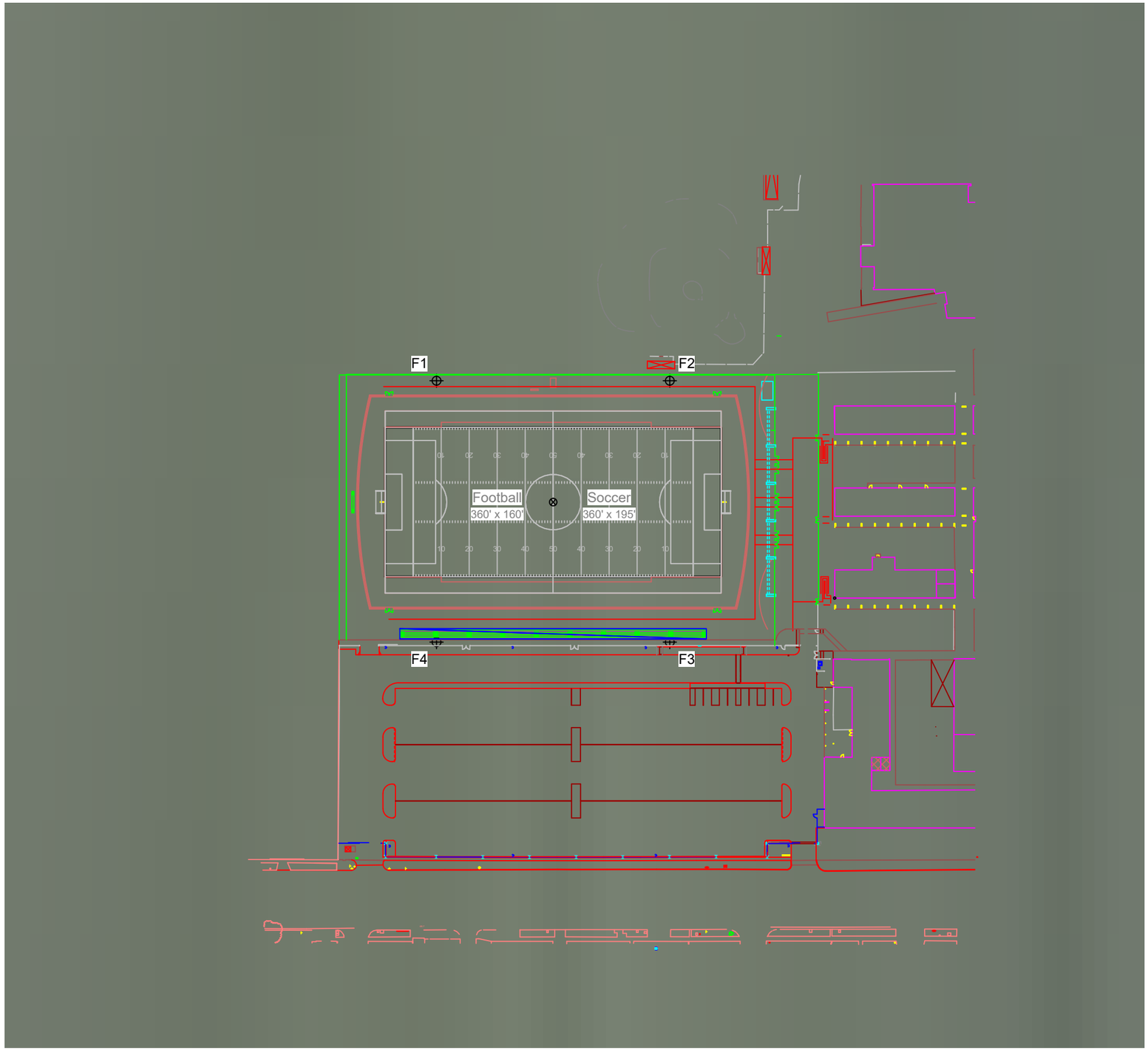
Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

Western High School Football Soccer LED
Anaheim,CA



EQUIPMENT LAYOUT

INCLUDES:
· Football
· Soccer

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires		
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE
2	F1-F2	80'	-	15.5' 80'	TLC-BT-575 TLC-LED-1500	2 8
2	F3-F4	80'	-	25' 70' 80'	TLC-BT-575 TLC-LED-400 TLC-LED-1500	2 2 8
4	TOTALS					44

SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)						
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
TLC-LED-1500	8.5	8.1	7.4	6.4	5.1	4.7	3.7
TLC-BT-575	3.4	3.2	2.9	2.5	2.0	1.8	1.5
TLC-LED-400	2.3	2.2	2.0	1.7	1.4	1.3	1.0

SCALE IN FEET 1 : 120
0' 120' 240'

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

ENGINEERED DESIGN By: Brendon Guler · File #207993Ar1 · 05-Oct-20

DESIGN VALUES:

DESCRIPTION	DESIGN VALUES[1]
DEAD AND LIVE LOADS	
ROOF LIVE LOAD	20 PSF
ROOF DEAD LOAD (SUPERIMPOSED ON FRAME)[2]	LOAD SCENARIO= {1,2} DL= {3.5 PSF, 2.0 PSF}
ALLOWABLE SOIL PRESSURE[3,5]	
SPREAD PAD	
VERTICAL BEARING: DL + Lr + SEISMIC (CONCRETE FOOTING)	1500 PSF
LATERAL COHESION: DL + Lr + SEISMIC (CONCRETE FOOTING)	130 PSF
DRILLED PIER	
SKIN FRICTION (DOWN): DL + Lr + SEISMIC (CONCRETE FOOTING) PER 1810A.3.3.1.4	167 PSF
SKIN FRICTION (UPLIFT): DL + Lr + SEISMIC (CONCRETE FOOTING) PER 1810A.3.3.1.5	83 PSF
LATERAL BEARING: DL + Lr + SEISMIC (CONCRETE FOOTING) PER 1810A.3.3.2	100 PSF/FT
ROOF SNOW LOAD[6]	
GROUND SNOW LOAD, Pg	10 PSF
RISK CATEGORY	[ ] II [X] III
ROOF SNOW LOAD: [ ] FLAT, Pf OR [ ] LOW SLOPE, Pm OR [X] SLOPED, Ps	11 PSF
SNOW ROOF SLOPE FACTOR, Cs	1.0
SNOW EXPOSURE FACTOR, Ce	1.2
SNOW LOAD IMPORTANCE FACTOR, Is	[ ] 1.0 [X] 1.1
THERMAL FACTOR, Ct	[ ] 1.0 [X] 1.2
DRIFT SURCHARGE LOAD, Pd	0 PSF
DISTANCE FROM ADJACENT STRUCTURE, Pg = 0 PSF	4 IN
DISTANCE FROM ADJACENT STRUCTURE, Pg > 0 PSF	20 FT
ICE LOAD	0 PSF
FLOOD DESIGN	
FLOOD HAZARD AREA	[X] NO [ ] YES
WIND DESIGN[4]	
BASIC WIND SPEED (3 SECOND GUST), Vult	115 MPH
EXPOSURE CATEGORY	[X] C [ ] D
TOPOGRAPHIC FACTOR, Kzt (1 MINIMUM)	1
INTERNAL PRESSURE COEFFICIENT, GCpi (IF APPLICABLE)	0.0
CLEAR WIND FLOW	[ ] NO [X] YES
OBSTRUCTED WIND FLOW	[ ] NO [X] YES
SEISMIC DESIGN[4]	
LATERAL FORCE-RESISTING SYSTEM	STEEL ORDINARY CANTILEVER COLUMN SYSTEM
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE PROCEDURE
SEISMIC DESIGN CATEGORY (SDC)	E
SEISMIC IMPORTANCE FACTOR, Ie	[ ] 1.0 [X] 1.25
DESIGN BASE SHEAR, V	Cs x W
SEISMIC RESPONSE COEFFICIENT, Cs	LOAD SCENARIO = {1,2} Cs = {1.13,1.65}
RESPONSE MODIFICATION FACTOR, R	1.25
SITE CLASS	[ ] D [X] E
REDUNDANCY FACTOR, p	1.3
MAPPED SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, Ss - USED TO DETERMINE Cs	LOAD SCENARIO = {1,2} Ss = {1.406, 2.063}
SHORT-PERIOD SITE COEFFICIENT, Fa	1.2
DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, Sds - USED TO DETERMINE Cs	LOAD SCENARIO = {1,2} Sds (MAX) = {1.125, 1.650}
MAPPED SPECTRAL RESPONSE ACCELERATION AT 1 SECOND PERIOD, S1	LOAD SCENARIO = {1,2} S1 = {0.844, 1.07}
LONG-PERIOD SITE COEFFICIENT, Fv	2.0
DESIGN SPECTRAL RESPONSE ACCELERATION AT 1 SECOND PERIOD, Sd1	LOAD SCENARIO = {1,2} Sd1 = {1.125, 1.427}
HORIZONTAL OR VERTICAL IRREGULARITIES TYPE(S)	NONE

1. IF SITE-SPECIFIC DESIGN CRITERIA ARE OUTSIDE THE LIMITS OF THESE PC DRAWINGS, CONTACT POLIGON ENGINEERING TO SEE IF AN ENGINEERING LETTER, SUPPLEMENTAL DRAWINGS, AND/OR CALCULATIONS COULD BE SUBMITTED FOR A SITE-SPECIFIC SOLUTION. ANY SITE-SPECIFIC DEVIATION FROM THIS PC MAY NOT BE SUBMITTED TO DSA AS AN OVER- THE- COUNTER

2. STRUCTURE IS NOT DESIGNED TO SUPPORT SOLAR PANELS. STRUCTURE IS NOT DESIGNED TO SUPPORT SPRINKLER SYSTEMS IN LOAD SCENARIO 2 REGIONS.

3. GEOHAZARD REPORTS ARE REQUIRED IF THE AREA COVERED UNDER THE ROOF EXCEEDS 4000 SQ FT.

4. STRUCTURAL SEPERATION BETWEEN ADJACENT STRUCTURES: CWC10= 2.75" CWC15= 3.00"
STRUCTURAL SEPARATION BETWEEN EXISTING STRUCTURES: CWC10= 3.75" CWC15=4.00"

5. WHEN PLACING MULTIPLE CANOPIES WITH PIER FOOTINGS ADJACENT TO ONE ANOTHER, THE DESIGN MAY REQUIRE AN ANALYSIS OF GROUP EFFECTS ON THE FOUNDATIONS. THE MINIMUM CLEARANCE BETWEEN CENTER OF PIERS IS EIGHT TIMES PIER DIAMETER WITHOUT AN ACCOMPANYING ENGINEERING LETTER.

6. SITE APPLICATION DSA REVIEWER SHALL VERIFY THE STRUCTURE TO BE LOCATED AT LEAST 20 FEET FROM ANY ADJACENT STRUCTURE IF GROUND SNOW LOAD IS GREATER THAN ZERO.

ARCHITECTURAL REQUIREMENTS:

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

RELATED BUILDING CODES AND STANDARDS:

TITLE 24 CODES:

2019 California Administrative Code (CAC)..........................(Part 1, Title 24, CCR)
2019 California Building Code (CBC), Volumes 1 and 2 (Part 2, Title 24, CCR)
(2018 International Building Code with 2019 California amendments)
2019 California Electrical Code ....(Part 3, Title 24, CCR)
(2017 National Electrical Code with 2019 California amendments)
2019 California Mechanical Code (CMC) ....(Part 4, Title 24, CCR)
(2018 Uniform Mechanical Code with 2019 California amendments)
2019 California Plumbing Code (CPC) ....(Part 5, Title 24, CCR)
(2018 Uniform Plumbing Code with 2019 California amendments)
2019 California Energy Code ....(Part 6, Title 24, CCR)
2019 California Fire Code (CFC) ....(Part 9, Title 24, CCR)
(2018 International Fire Code with 2019 California Amendments)
2019 California Green Building Standards Code...................(Part 11, Title 24, CCR)
2019 California Referenced Standards Code .... (Part 12, Title 24, CCR)

NFPA 13 - 2016
NFPA 72 - 2016

REFERENCE CODE SECTIONS FOR APPLICABLE STANDARDS:

2019 CBC, CHAPTER **35**
2019 CFC, CHAPTER **80**

SCOPE OF WORK NARRATIVE:

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

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

STEP 1 PROJECT INFORMATION

PROJECT NAME		
SCHOOL DISTRICT		
USE AND OCCUPANCY CLASSIFICATION		**(PROPOSED OCCUPANCY: A3)**
OCCUPANT LOAD FACTOR	**SQ. FT / PERSON**	**(15 SQ.FT PER PERSON MAX;5 SQ.FT PER PERSON MIN)**
TOTAL ROOF AREA		**(MAX ALLOWABLE AREA: 9500 SQ FT)**
NUMBER OF OCCUPANTS		

STEP 2 DESIGN OPTIONS

ROOF DECK	[ ] MULTI-RIB (MR)	**DEFAULT**, WEIGHT 1.2 PSF
	[ ] STANDING SEAM (SS)	WEIGHT 1.8 PSF
GUTTERS	[ ] NO	**DEFAULT**
	[ ] YES	SEE CWC 7.0 FOR DETAILS
ELECTRICAL ACCESS	[ ] NO	**DEFAULT**
	[ ] YES	SEE CWC 7.1 FOR DETAILS
CLEAR HEIGHT	[ ] 8'	**DEFAULT**
	[ ] _____ OTHER	10' MAX

STEP 3 SEISMIC ACCELERATION

Ss_________ . __________ __________ __________ **(g)**
S1_________ . __________ __________ __________ **(g)**

STEP 4 SEISMIC REGIONS

0.000 <Ss <= 1.406	S1<=0.844	[ ] WHITE	3.5 PSF MAX DEAD LOAD
1.406 < Ss <=2.063	S1<=1.070	[ ] GREEN	2.0 PSF MAX DEAD LOAD

STEP 5 TOTAL ROOF DEAD LOAD

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

STEP 6 LOAD SCENARIO

WHITE	TOTAL ROOF DEAD LOAD <= 3.5 PSF	[ ] **LOAD SCENARIO 1**
GREEN	TOTAL ROOF DEAD LOAD < 2.0 PSF	[ ] **LOAD SCENARIO 2**

STEP 7 PC STRUCTURE

ROOF WIDTH <= 10	[ ] CWC 10
10 < ROOF WIDTH <= 15	[ ] CWC 15

STEP 8 STRUCTURE SIZE

	CWC 10		**CWC 15**	
ROOF WIDTH	[ ] 10'	**DEFAULT**	[ ] 15'	**DEFAULT**
	[ ] ________ OTHER	6' MIN; 10' MAX	[ ] ________ OTHER	10'-6" MIN; 15' MAX
ROOF LENGTH	[ ] 44'	2 BAYS	[ ] 36'	2 BAYS
	[ ] 64'	3 BAYS	[ ] 52'	3 BAYS
	[ ] 84'	4 BAYS	[ ] 68'	4 BAYS
	[ ] ________ OTHER		[ ] ________ OTHER	

STEP 9 FOUNDATION TYPE

FOUNATION TYPE	**CWC 10**		**CWC 15**	
	[ ] SPREAD PAD	[ ] DRILLED PIER	[ ] SPREAD PAD	[ ] DRILLED PIER

STEP 10 FOUNDATION SUMMARY

CWC 10		**CWC 15**	
[ ] LOAD SCENARIO 1 SPREAD PAD	[ ] LOAD SCENARIO 1 DRILLED PIER	[ ] LOAD SCENARIO 1 SPREAD PAD	[ ] LOAD SCENARIO 1 DRILLED PIER
[ ] LOAD SCENARIO 2 SPREAD PAD	[ ] LOAD SCENARIO 2 DRILLED PIER	[ ] LOAD SCENARIO 2 SPREAD PAD	[ ] LOAD SCENARIO 2 DRILLED PIER

STEP 11 SHEET INDEX

BASE FRAME	CWC 10 SHEET INDEX				CWC 15 SHEET INDEX			
ROOF DECK	MR		SS		MR		SS	
FOUNDATION TYPE	SPREAD PAD	DRILLED PIER	SPREAD PAD	DRILLED PIER	SPREAD PAD	DRILLED PIER	SPREAD PAD	DRILLED PIER
SELECT ONE	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
ORDER FORM	CWC 1.0	CWC 1.0	CWC 1.0	CWC 1.0	CWC 1.0	CWC 1.0	CWC 1.0	CWC 1.0
NOTES AND SPECIAL INSPECTIONS	CWC 1.1	CWC 1.1	CWC 1.1	CWC 1.1	CWC 1.1	CWC 1.1	CWC 1.1	CWC 1.1
FOUNDATION PLAN	CWC 2.0	CWC 2.1	CWC 2.0	CWC 2.1	CWC 2.2	CWC 2.3	CWC 2.2	CWC 2.3
FRAMING PLAN	CWC 3.0	CWC 3.0	CWC 3.0	CWC 3.0	CWC 3.1	CWC 3.1	CWC 3.1	CWC 3.1
FRAME CONNECTION DETAILS	CWC 4.0	CWC 4.0	CWC 4.0	CWC 4.0	CWC 4.1	CWC 4.1	CWC 4.1	CWC 4.1
ARCHITECTURAL VIEWS	CWC 5.0	CWC 5.0	CWC 5.0	CWC 5.0	CWC 5.1	CWC 5.1	CWC 5.1	CWC 5.1
ROOF CONNECTION DETAILS	CWC 6.0	CWC 6.0	CWC 6.1	CWC 6.1	CWC 6.0	CWC 6.0	CWC 6.1	CWC 6.1
MISC DESIGN OPTIONS	CWC 7.0	CWC 7.0	CWC 7.0	CWC 7.0	CWC 7.0	CWC 7.0	CWC 7.0	CWC 7.0
ELETRICAL CUTOUTS	CWC 7.1	CWC 7.1	CWC 7.1	CWC 7.1	CWC 7.1	CWC 7.1	CWC 7.1	CWC 7.1

STEP 12 MULTIPLE STRUCTURES

	ROOF WIDTH X LENGTH	QTY
MULTIPLE STRUCTURES		

STEP 1: GENERAL PROJECT INFORMATION

- IDENTIFY PROJECT NAME AND SCHOOL DISTRICT
- IDENTIFY USE AND OCCUPANCY CLASSIFICATION
  - THE USE AND OCCUPANCY DETERMINE THE MAXIMUM SQUARE FOOTAGE OF THE STRUCTURE
  - THE MAXIMUM SQUARE FOOTAGE IS ALSO LIMITED BY THE NUMBER OF OCCUPANTS
- IDENTIFY THE OCCUPANT LOAD PER TABLE 1004.5 IN THE CBC
- IDENTIFY TOTAL ROOF AREA
- IDENTIFY EXPECTED NUMBER OF OCCUPANTS BASED ON THE ESTIMATED OCCUPANT LOAD
  - THE MAXIMUM NUMBER OF OCCUPANTS FOR THIS STRUCTURE IS 250
  - TOTAL ROOF AREA DIVIDED BY OCCUPANT LOAD CAN DETERMINE NUMBER OF OCCUPANTS

STEP 2: DESIGN OPTIONS

- SELECT ROOF DECK FOR YOUR PROJECT
  - "MR" REPRESENTS MCELROY METAL "MULTI-RIB" ROOF DECK
  - "SS" REPRESENTS MCELROY METAL "MEDALLION-LOK" 16" STANDING SEAM ROOF DECK
- SELECT WHETHER GUTTERS AND DOWNSPOUTS FROM POLIGON IS NEEDED FOR YOUR PROJECT
  - IF "YES", THEN INCLUDE SHEET CWC7.0 IN THE DRAWING SET
- SELECT WHETHER ELECTRICAL CUTOUTS ARE NEEDED FOR YOUR PROJECT
  - SHEET CWC7.0 SHOWS ELECTRICAL CUTOUT SIZE AND LOCATION CUTOUTS IN COLUMNS
  - SHEET CWC7.1 HAS INSTRUCTIONS AND SHEET TO IDENTIFY WHICH COLUMNS
  - SHEET CWC7.1 MUST BE FILLED OUT IN THE SUBMITTAL SET APPROVED BY DSA
  - IF NOTHING IS FILLED IN ON CWC7.1, POLIGON WILL ASSUME CUTOTUS ARE ONLY IN COLUMN A1 (SEE 'FRAMING PLAN' FOR REFERENCE)
- SELECT CLEAR HEIGHT (SEE 'ARCHITECTURAL VIEWS' SHEET FOR REFERENCE)
  - MIN 6'-8"; MAX 10'-0"
- **IF NOTHING IS SELECTED, POLIGON WILL ASSUME THE DEFAULT FOR EACH DESIGN OPTION**

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

- Ss & S1 VALUE DETERMINES THE REQUIRED SEISMIC DESIGN FORCES
- Ss & S1 VALUE DEPENDS ON PROJECT'S GEOGRAPHICAL LOCATION
  - FIND Ss & S1 VALUES FOR YOUR PROJECT IN THE SITE SPECIFIC GEOTECHNICAL REPORT
  - FIND Ss & S1 VALUES FOR YOUR PROJECT USING https://asce7hazardtool.online/
- THIS PC IS NOT APPROVED FOR Ss VALUES GREATER THAN 2.063 (CONTACT POLIGON FOR ADDITIONAL OPTIONS)

STEP 4: IDENTIFY THE SEISMIC REGION FOR YOUR PROJECT

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

STEP 5: IDENTIFY THE ROOF DEAD LOAD FOR YOUR PROJECT

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

STEP 6: IDENTIFY THE LOAD SCENARIO

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

STEP 7: IDENTIFY PC STRUCTURE

- ROOF WIDTHS UP TO 10' WIDE USE THE "CWC 10"
- ROOF WIDTHS UP TO 15' WIDE USE THE "CWC 15"
- THE 10' AND 15' WIDTHS ARE SUGGESTED BECAUSE THEY ARE THE MOST ECONOMICAL
- MAXIMUM WIDTH IS 15'; (SEE 'ARCHITECTURAL VIEWS' SHEET FOR REFERENCE)

STEP 8: IDENTIFY SITE SPECIFIC ROOF WIDTH AND LENGTH

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

STEP 9: FOUNDATION TYPE

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

STEP 10: FOUNDATION SUMMARY

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

STEP 11: SELECT APPLICABLE SHEET INDEX FOR YOUR PROJECT

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

STEP 12: MULTIPLE STRUCTURES WITH THE SAME PC#

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

STEP 13: COLUMN BASE PROTECTION - SPREAD PAD FOUNDATION SELECTION ONLY

- SELECT THE METHOD OF COLUMN INSTALLATION ON APPLICABLE FOUNDATION PLAN SHEET, DETAIL 2, NOTE 3 SPREAD PAD FOUNDATION IS SELECTED

SHEET INDEX

1	CWC1.0	ORDER FORM	11	CWC5.0	ARCHITECTURAL VIEWS - CWC 10
2	CWC1.1	NOTES AND SPECIAL INSPECTIONS	12	CWC5.1	ARCHITECTURAL VIEWS - CWC 15
3	CWC2.0	FOUNDATION PLAN SPREAD PAD - CWC 10	13	CWC6.0	ROOF CONNECTION DETAILS
4	CWC2.1	FOUNDATION PLAN DRILLED PIER - CWC 10	14	CWC6.1	ROOF CONNECTION DETAILS
5	CWC2.2	FOUNDATION PLAN SPREAD PAD - CWC 15	15	CWC7.0	MISC DESIGN OPTIONS
6	CWC2.3	FOUNDATION PLAN DRILLED PIER - CWC 15	16	CWC7.1	ELECTRICAL CUTOUTS
7	CWC3.0	FRAMING PLAN - CWC 10			
8	CWC3.1	FRAMING PLAN - CWC 15			
9	CWC4.0	FRAME CONNECTION DETAILS - CWC 10			
10	CWC4.1	FRAME CONNECTION DETAILS - CWC 15			

TOTAL SHEETS = 16

ABBREVIATIONS:

ACI	AMERICAN CONCRETE INSTITUTE	MR	MULTI-RIB ROOF PANEL (MCELROY)
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	NTS	NOT TO SCALE
ASM	ASSEMBLY (INTERNAL REFERENCE)	NO	NUMBER
ASTM	AMERICAN SOCIETY FOR TESTING AND 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	SQ	SQUARE
IN	INCHES	SS	STANDING SEAM ROOF PANEL (MCELROY)
KSI	KIPS PER SQUARE INCH	TYP	TYPICAL
MAX	MAXIMUM	UNO	UNLESS NOTED OTHERWISE
MIN	MINIMUM	USGS	U.S. GEOLOGICAL SURVEY
MISC	MISCELLANEOUS	W/	WITH
MPH	MILES PER HOUR		

SPECIFICATIONS

PART 1 - GENERAL

1.1 STRUCTURE DESCRIPTION
A. STRUCTURE(S) BASED ON THE FOLLOWING PC DESIGN(S):
  1. WALKWAY COVER (CWC)

1.2 DESIGN REQUIREMENTS
A. MEET THE DESIGN INTENT SHOWN ON THE PC DRAWINGS APPROVED FOR THIS PROJECT.
  1. DESIGN CRITERIA
  2. MEMBERS SIZES
  3. HIDDEN BOLTED CONNECTIONS BETWEEN STRUCTURAL MEMBERS
  4. COLUMN ANCHORAGE SHALL INCLUDE FOUR (4) BOLTS IN COMPLIANCE WITH OSHA 1926.755(A)(1).
  5. NO FIELD WELDING PERMITTED
  6. NO FIELD PAINTING PERMITTED
  7. ROOF DIMENSIONS AND SLOPES
  8. EXPOSED STEEL ROOF FASTENERS (IF APPLICABLE) POWDER COATED BY MANUFACTURER
  9. ROOF DECK SPANS FROM PEAK TO EAVE AND PERMITS PROPER DRAINAGE WITHOUT DEBRIS BUILD-UP.

1.3 SUBMITTALS
A. DRAWINGS AND CALCULATIONS SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE APPROPRIATE STATE.
B. ONLY MANUFACTURERS THAT SUBMIT DRAWINGS AND CALCULATIONS PRIOR TO BID SHALL BE CONSIDERED.
C. MANUFACTURER MUST BE ABLE TO SUBMIT APPROPRIATE LABORATORY TESTS FOR THE FOLLOWING:
  1. FRAME FINISH REQUIREMENTS LISTED IN PART 2 OF THIS SPECIFICATION.
  2. CERTIFIED MILL TEST REPORTS FOR STRUCTURAL STEEL (DESCRIBING THE CHEMICAL AND PHYSICAL PROPERTIES).
  3. CERTIFIED MILL TEST REPORTS FOR STRUCTURAL BOLTS.

1.4 TECHNICAL SUPPORT
A. MANUFACTURER MUST HAVE IN-HOUSE ENGINEERING DEPARTMENT AND A PROFESSIONAL ENGINEER LICENSED IN THE APPROPRIATE STATE TO ANSWER TECHNICAL QUESTIONS.

1.5 QUALITY ASSURANCE
A. GENERAL
  1. FABRICATION PROCEDURES SHALL COMPLY WITH APPLICABLE CODES AND LOCAL REGULATIONS.
  2. REQUIRED STRUCTURAL TESTS AND SPECIAL INSPECTIONS INCLUDED ON THE PROJECT DSA-103 FORM.
B. MANUFACTURER QUALIFICATIONS
  1. MINIMUM (10) YEARS ENGINEERING AND FABRICATING PRE-ENGINEERED STRUCTURES
  2. MANUFACTURER OWNED AND OPERATED POWDER COAT PAINT FINISH SYSTEM
  3. ALL AWS CERTIFIED WELDERS
  4. FULL-TIME PROFESSIONAL ENGINEER ON STAFF LICENSED IN THE APPROPRIATE STATE
  5. FULL-TIME AWS CERTIFIED ASSOCIATE WELDING INSPECTOR ON STAFF
  6. FULL-TIME QUALITY ASSURANCE MANAGER ON STAFF
  7. FULL-TIME LEED AP ON STAFF
C. MANUFACTURER CERTIFICATIONS
  1. PCI 4000 CERTIFICATION THROUGH POWDER COATING INSTITUTE (PCI)

1.6 MANUFACTURER WARRANTY
A. STRUCTURE MUST HAVE (10) YEAR LIMITED WARRANTY ON STEEL FRAME MEMBERS.
B. STRUCTURE MUST HAVE (10) YEAR LIMITED WARRANTY ON PAINT SYSTEM.
C. PASS THROUGH WARRANTY OF ROOFING MANUFACTURER SHALL BE PROVIDED UPON REQUEST.

PART 2 - PRODUCTS

2.1 MANUFACTURER
A. ACCEPTABLE MANUFACTURERS
  1. POLIGON, A DIVISION OF PORTERCORP.
    A. 4240 N 136TH AVE., HOLLAND, MI 49424; (616) 399-1963; WWW.POLIGON.COM .
      I. FOR POLIGON STRUCTURES IN *NORTHERN CALIFORNIA*, THE LOCAL REPRESENTATIVE IS ALL ABOUT PLAY(WWW.PLAYGROUNDPROS.COM). EMAIL AAP@PLAYGRAOUNDPROS.COM OR CALL (916) 923-2180
      II. FOR POLIGON STRUCTURES IN *SOUTHERN CALIFORNIA*, THE LOCAL REPRESENTATIVE IS MIRACLE PLAYGROUND SALES (WWW.MIRACLEPLAYGROUNDSALES.COM). EMAIL SALES@MIRACLEPLAYGROUND.COM OR CALL (951) 695-4515
B. SUBSTITUTION LIMITATIONS
  1. THE ENGINEERING FOR THIS STRUCTURE IS ONLY APPLICABLE IF POLIGON SUPPLIES THE MATERIAL.
  2. IF THE CONTRACTOR ELECTS TO SUBSTITUTE A DIFFERENT STRUCTURE, THEY ARE RESPONSIBLE TO OBTAIN THE NECESSARY DSA APPROVAL WITH:
    A. NO COST TO THE DISTRICT OR ARCHITECT
    B. NO CHANGE TO THE CONSTRUCTION SCHEDULE
  3. SUBSTITUTIONS MUST BE APPROVED A MINIMUM OF (10) DAYS BEFORE BID.
  4. ALL APPROVED MANUFACTURERS SHALL BE NOTIFIED IN WRITING BEFORE THE BID DATE.
  5. SUBSTITUTE MANUFACTURERS SHALL NOT BE ALLOWED TO BID WITHOUT WRITTEN NOTIFICATION.
  6. SUBSTITUTE MANUFACTURERS MUST MEET "MANUFACTURER QUALIFICATIONS" LISTED IN PART 1 OF THIS SPECIFICATION.
  7. SUBSTITUTE MANUFACTURERS MUST PROVIDE PROOF OF "MANUFACTURER CERTIFICATIONS" ABOVE.
  8. SUBSTITUTE MANUFACTURERS MUST PROVIDE PAINT FINISH DESCRIBED IN "FRAME FINISH" BELOW.

2.2 FRAME
A. MATERIALS
  1. ANCHOR BOLTS: SEE DRAWINGS FOR REQUIREMENTS. ANCHOR BOLTS NOT PROVIDED BY MANUFACTURER.
  2. STRUCTURAL STEEL: SEE DRAWINGS FOR REQUIREMENTS.
  3. STRUCTURAL BOLTS: SEE DRAWINGS FOR REQUIREMENTS.
B. FINISH
  1. FRAME FINISH: POLI-5000 POWDER COAT. NO FIELD PAINTING PERMITTED.
    A. COMPONENTS SHALL BE CLEANED, PRE-TREATED, AND FINISHED AT A FACILITY OWNED AND DIRECTLY SUPERVISED BY THE MANUFACTURER.
    B. COMPONENTS SHALL BE SHOT BLASTED TO SSPC-SP10 NEAR-WHITE BLAST CLEANING. SSPC-SP2 HAND TOOL CLEANING WILL NOT BE AN ACCEPTABLE ALTERNATIVE.
    C. COMPONENTS SHALL BE PRETREATED IN A (3) STAGE IRON PHOSPHATE OR EQUAL WASHER.
    D. COMPONENTS SHALL RECEIVE EPOXY PRIMER COAT FOR SUPERIOR CORROSION PROTECTION.
    E. COMPONENTS SHALL RECEIVE TOP COAT OF SUPER DURABLE TGIC POWDER COAT.
    F. FINISH SHALL NOT HAVE ANY VOC EMISSIONS.
    G. MANUFACTURER SHALL BE ABLE TO PRODUCE DOCUMENTATION STATING SAMPLE PRODUCTION COMPONENTS HAVE BEEN TESTED TO MEET THE FOLLOWING:
      I. SALT SPRAY RESISTANCE PER ASTM B 117/ ASTM D 1654 TO 10,000 HOURS WITH NO CREEP FROM SCRIBE LINE AND RATING OF 10.
      II. HUMIDITY RESISTANCE PER ASTM D2247-02 TO 5,000 HOURS WITH NO LOSS OF ADHESION OR BLISTERING.
      III. COLOR/UV RESISTANCE PER ASTM G154-04 TO 2,000 HOURS EXPOSURE, ALTERNATE CYCLES WITH RESULTS OF NO CHALKING, 75% COLOR RETENTION, COLOR VARIATION MAXIMUM 3.0 E VARIATION CIE FORMULA (BEFORE AND AFTER 2,000 HOURS EXPOSURE).
  2. FRAME COLOR: DETERMINED BY DISTRICT.
C. FABRICATION
  1. FABRICATE COMPONENTS TO PERMIT BOLTED CONNECTIONS ON SITE. NO FIELD WELDING PERMITTED.
  2. LABEL EACH MEMBER WITH UNIQUE PART NUMBER TO STREAMLINE ERECTION.
  3. WELDING REQUIREMENTS: SEE DRAWINGS FOR REQUIREMENTS.

2.3 ROOF
A. MATERIALS
  1. ROOF MATERIAL: SEE DRAWINGS FOR REQUIREMENTS.
  2. ROOF HARDWARE: SEE DRAWINGS FOR REQUIREMENTS.
B. FINISH
  1. ROOF FINISH: KYNAR 500 HIGH-PERFORMANCE RESIN-BASED PAINT.
  2. ROOF COLOR: DETERMINED BY OWNER.

2.4 MISCELLANEOUS
A. MATERIALS
  1. CONCRETE MATERIAL: SEE DRAWINGS FOR REQUIREMENTS. CONCRETE NOT PROVIDED BY MANUFACTURER.

PART 3 - EXECUTION

3.1 STORAGE AND HANDLING
A. PROTECT MATERIAL AFTER DELIVERY FROM WEATHER, SUNLIGHT, AND DAMAGE.
B. ELEVATE MATERIAL TO ALLOW CIRCULATION AND REDUCE MOLD, FUNGI DECAY, AND INSECT INFESTATION.
C. HANDLE MATERIAL WITH PROTECTIVE STRAPS OR PADDED FORKLIFT. HANDLING MATERIAL WITH CHAIN OR CABLE WILL NOT BE ACCEPTED AND MAY VOID MANUFACTURER'S WARRANTY.
D. TO PREVENT MOISTURE DAMAGE TO ANY WOOD MATERIAL (IF APPLICABLE), KEEP WOOD PACKAGED BEFORE INSTALLATION AND COVER IMMEDIATELY WITH ANY SECONDARY ROOF MATERIAL.

3.2 ERECTION
A. INSTALL COMPONENTS ACCORDING TO MANUFACTURER'S INSTALLATION DRAWINGS AND THESE SPECIFICATIONS.
B. ANCHOR BOLT AND COLUMN LAYOUT IS CRITICAL.
C. COMPLY WITH SPECIFIC BOLTING INSTALLATION REQUIREMENTS PROVIDED ON DRAWINGS REQUIRING THE CONTRACTOR TO COORDINATE THIS PHASE OF CONSTRUCTION WITH THE SPECIAL BOLTING INSPECTOR AND THE INSPECTOR OF RECORD *PRIOR TO THE ERECTION OF THE FRAME.*
D. NO FIELD SLOTTING OR OPENING OF HOLES WILL BE ALLOWED. TOLERANCES ON STEEL STRUCTURAL MEMBERS ARE SET ACCORDING TO AISC CONSTRUCTION PRACTICES, FOLLOWED DURING FABRICATION, AND CANNOT BE INCREASED.
E. AFTER INSTALLATION, RESTORE DAMAGED SURFACES TO THE ORIGINAL CONDITION USING TOUCH-UP PAINT PROVIDED BY MANUFACTURER. IF THE ARCHITECT DOES NOT ACCEPT THAT, REPLACE DAMAGED MATERIAL AT NO COST TO THE DISTRICT.
F. COORDINATE AS REQUIRED WITH OTHER DISCIPLINES (ELECTRICAL, PLUMBING, ETC.)
G. COMPLY WITH ALL APPLICABLE OHSA REQUIREMENTS.

3.3 REPAIR
A. DO NOT ATTEMPT ANY FIELD CHANGES TO THE STRUCTURE WITHOUT FIRST CONTACTING THE MANUFACTURER.

3.4 QUALITY CONTROL
A. TESTS AND INSPECTIONS DURING ERECTION ARE NOT REQUIRED BY THE MANUFACTURER, BUT MAY BE REQUIRED BY OTHERS.
B. THE PROJECT INSPECTOR, AND ENTIRE CONSTRUCTION OVERSIGHT PROCESS, SHALL COMPLY WITH DSA PR 13-01. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

STATE APPROVALS-SITE

4580 PLAZA GOLDORADO CIRCLE
SUITE B
CAMERON PARK, CA 95682
530.677.5515

poligon
PORTER CORP

SAMANTHA K. MOOSE
NO. S6729

STATE APPROVALS-PC

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-119075 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 07/22/2021

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

ORDER FORM

WALKWAY COVER - CWC

CWC1.0

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.
15. WHEN A SITE-SPECIFIC PROJECT IS LOCATED IN A FLOOD ZONE OTHER THAN ZONE X, A LETTER STAMPED AND SIGNED FROM A SOILS ENGINEEER IS NEEDED TO VALIDATE THE ALLOWABLE SOIL VALUES SPECIFIED IN THE PC ARE STILL APPLICABLE.

STRUCTURAL AND MISCELLANEOUS STEEL:

1. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) 360-16 AND 303-16 REFERENCED BY THE 2019 EDITION OF THE CALIFORNIA BUILDING CODE.
2. PIPE SECTIONS SHALL CONFORM TO ASTM A53, Fy = 35 ksi, GRADE B UNLESS NOTED OTHERWISE.
3. STRUCTURAL TUBING (HSS SHAPES) SHALL CONFORM TO ASTM A500, GRADE B (OR HIGHER), Fy = 46 KSI.
4. IF MATERIAL AVAILABILITY IS LIMITED, MEMBER THICKNESSES CAN BE INCREASED BEYOND WHAT IS SHOWN IN THESE DRAWINGS (MAXIMUM INCREASE OF 1/8").
5. ALL CHANNELS, ANGLES, PLATES AND MISC. STEEL SHALL CONFORM TO ASTM A36, Fy = 36 KSI.
6. ALL COLD FORM STEEL SHALL CONFORM TO ASTM A653, CS = TYPE B, Fy = 50 KSI.
7. STRUCTURAL STEEL AND DECK SHALL BE IDENTIFIED FOR CONFORMITY PER CBC 2202A.1.
8. ROOF DECK SHALL HAVE KYNAR 5000 METAL COATING.
9. ROOF DECK SHALL CONFORM TO ATSM A792, Fy = 50 KSI.
10. MR ROOF SCREWS MEET ASTM A510 WITH A HEAD DIMENSION OF 0.31" (FLAT-TO-FLAT) AND INTEGRAL WASHER DIMENSION OF 0.58" (OUTSIDE DIAMETER).
11. SS ROOF SCREWS MEET ASTM A510 WITH A HEAD DIMENSION OF 0.437" (OUTSIDE DIAMETER).

WELDING:

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

BOLTING:

1. ALL BOLTS SHOWN ON THESE DRAWINGS ARE ASTM F3125 (A325 TYPE 1) HIGH STRENGTH BOLTS (UNO) AND SHALL BE HOT DIPPED GALVANIZED PER ASTM F2329.
2. HIGH STRENGTH BOLTS SHALL BE SAMPLED AND TESTED IN 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 AND SHALL BE GALVANIZED PER ASTM F2329.
6. HIGH STRENGTH WASHERS SHALL CONFORM TO ASTM F436 AND SHALL BE GALVANIZED PER ASTM F2329.
7. THE BOLTING INSTALLATION REQUIREMENTS OUTLINED BELOW ARE CRITICAL TO THE STRUCTURE'S DESIGN AND PERFORMANCE. **THE INSTALLER IS REQUIRED TO COORDINATE THIS PHASE OF CONSTRUCTION WITH THE SPECIAL BOLTING INSPECTOR AND THE INSPECTOR OF RECORD PRIOR TO THE ERECTION OF THE FRAME**. ALL BOLTS SHALL BE INSTALLED AND INSPECTED PER THE APPLICABLE VERSION OF AISC'S "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS", CBC 1705A.2.1; AISC 341-16 J7; AISC 360-16 N5.6.
   - A. PRETENSIONED JOINTS (IDENTIFIED ON THE FRAME CONNECTION DETAILS WITH A "PJ REQUIRED") MUST BE INSTALLED AND INSPECTED TO MEET ONE OF FOLLOWING REQUIREMENTS:
     1. TURN-OF-NUT PRETENSIONING
     2. CALIBRATED WRENCH 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:

1. ALLOWABLE SOIL PRESSURES ASSUME CLASS 5 SOIL CLASSIFICATION PER 2019 CBC TABLE 1806A.2
2. FILL AND BACKFILL SHALL BE COMPACTED TO 95% OF MAX. DENSITY IN ACCORDANCE WITH ASTM TEST METHOD D1557. FLOODING NOT PERMITTED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING, ETC. NECCESSARY TO SUPPORT CUT AND/OR FILL BANKS DURING EXCAVATION, AND FORMING AND PLACEMENT OF CONCRETE.
4. STRUCTURES SHALL BE SETBACK FROM ADAJCENT SLOPES TO PROVIDE FIRM MATERIAL FOR EMBEDMENT AND FOR PROTECTION FROM SLOPE DRAINAGE, EROSION, AND SHALLOW FAILURES.
   - A. BOTTOM OF ASCENDING SLOPE: THE SMALLER OF HALF THE HEIGHT OF THE SLOPE AND 15FT MEASURED FROM THE FACE OF THE STRUCTURE TO THE TOE OF THE SLOPE
   - B. TOP OF DECENDING SLOPE: THE SMALLER OF A THIRD OF THE HEIGHT OF THE SLOPE AND 40 FT MEASURED FROM THE FACE OF THE FOOTING TO THE TOP OF THE SLOPE

   ALTERNATE SETBACKS ARE PERMITTED, SUBJECT FOR APPROVAL. A GEOTECHNICAL INVESTIGATION MAY BE REQUIRED.
5. STRUCTURES PLACED ON LIQUIFIABLE SOILS OR SITE CLASS F MAY NOT BE SUBMITTED FOR AN OVER THE COUNTER REVIEW.

CONCRETE:

1. MIX DESIGN REQUIREMENTS: (NORMAL WEIGHT CONCRETE)

STRENGTH f'c (28 DAYS)	W/C RATIO (NON-AIR ENTRAINED)	W/C RATIO (AIR ENTRAINED)	AIR ENTRAINMENT	SLUMP (± 1")	UNIT WEIGHT (NORMAL WEIGHT)
5000 PSI	0.45	0.4	6%	4"	150 PCF

2. CHANGES TO THE MIX DESIGN MUST BE APPROVED BY THE ENGINEER OR ARCHITECT OF RECORD AND DSA
3. AGGREGATES SHALL CONFORM TO ASTM C33. MAX AGGREGATE SIZE = 1".
4. CEMENT SHALL CONFORM TO ASTM C150 (TYPE V) 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 318-14 26.4.
8. CONCRETE SHALL BE TESTED PER CBC 1910A.1, 1705A.3, AND ACI 318-14 24.13. BATCH PLANT INSPECTION NOT REQUIRED. CONTRACTOR SHALL IMPLEMENT WEIGHMASTER AND BATCH TICKET REQUIREMENTS OF CBC 1705A.3.3.1.

REINFORCING STEEL:

1. REINFORCING STEEL SHALL BE DEFORMED STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A615, (DEFORMATIONS SHALL BE IN ACCORDANCE WITH ASTM A305) AS FOLLOWS:
   GR 60: (#4 BARS AND LARGER)
   GR 40: (#3 BARS)
2. DETAILING, FABRICATION, AND ERECTION OF REINFORCING BARS SHALL CONFORM TO THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCING CONCRETE STRUCTURES."
3. MIN. COVER FOR CAST-IN-PLACE CONCRETE SHALL BE AS FOLLOWS:
   - A. CAST AGAINST EARTH.. 3"
   - B. CAST AGAINST FORM BELOW GRADE...................... 2"
   - C. FORMED SLABS (#11 BAR & SMALLER)..................... 3/4"
   - D. SLABS ON GRADE (FROM TOP OF SLAB).................. 1"
   - E. COLUMNS AND BEAMS (MAIN BARS)...................... 2"
   - F. WALLS EXPOSED TO WEATHER (#6-#18 BARS)......... 2"
     (#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. FOR #6 BARS AND SMALLER, REINFORCING SHALL BE LAP SPLICED 45 BAR DIA MINIMUM IN CONCRETE. FOR #7 BARS AND LARGER, REINFORCING SHALL BE LAP SPLICED 55 BAR DIAMETERS MINIMUM IN CONCRETE. ALL LAP SPLICES MUST COMPLY WITH ACI 318-14.
6. PRIOR TO PLACING OF CONCRETE, REINFORCING STEEL AND EMBEDDED ITEMS SHALL BE WELL SECURED IN POSITION.
7. WELDING OF REINFORCING IS NOT ALLOWED
8. REINFORCING STEEL SHALL BE SAMPLED AND TESTED PER CBC 1910A.2.

POWDER COATED AND EPOXY PRIMED FINISH:

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

CONSTRUCTION NOTES

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

NOTICE OF DISCLAIMER FOR STRUCTURAL ENGINEER RESPONIBILITY

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

SPECIAL INSPECTION NOTES:

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

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

Application Number:	**School Name:**	**School District:**
DSA File Number:	**Increment Number:**	**Date Submitted:**

2019 CBC

IMPORTANT: This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. 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 (2019 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 **Periodic** – Indicates that a periodic special inspection is required **Test** – Indicates that a test is required	**GE** – Indicates that the special inspection shall be performed by a registered geotechnical engineer or his or her authorized representative. **LOR** – Indicates that the test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-335. **PI** – Indicates that the special inspection may be performed by a project inspector when specifically approved by DSA. **SI** – Indicates that the special inspection shall be performed by an appropriately qualified/approved special inspector.

	1. GENERAL:	**Table 1705A.6**		
	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.	**See Notes**	**PI**	Refer to specific items identified in the Appendix listing exemptions for limitations. Placement of controlled fill exceeding 12" depth under foundations is not permitted without a geotechnical report.

	4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):	**Table 1705A.8**		
	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**	**PI**	Continuous inspection to be provided by project inspector. Refer to specific items identified in the Appendix listing exemptions for limitations.
☑	**b.** Verify pier locations, diameters, plumbness, bell diameters (if applicable), lengths and embedment into bedrock (if applicable); record concrete or grout volumes.	**Continuous**	**PI**	Continuous inspection to be provided by project inspector. Refer to specific items identified in the Appendix listing exemptions for limitations.
☑	**c.** Concrete piers.	Provide tests and inspections per CONCRETE section below.		

	7. CAST-IN-PLACE CONCRETE			
Material Verification and Testing:				
	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.** Identifiy, sample, and test reinforcing steel.	**Test**	**LOR**	**1910A.2**; ACI 318-14 Section 26.6.1.2; DSA IR 17-10. (See Appendix 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 318-14 Sections 26.5 & 26.12.
☑	**d.** Test concrete (f'_c).	**Test**	**LOR**	**1905A.1.15;** ACI 318-14 Section 26.12.

	17. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES			
Material Verification and Testing:				
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☑	**a.** Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements. • Material sizes, types and grades comply with requirements.	**Periodic**	*	**Table 1705A.2.1 Item 3a–3c.** 2202A.1; AISI S100-16 Section A3.1 & A3.2, AISI S240-15 Section A3 & A5, AISI S220-15 Sections A4 & A6. * By special inspector or qualified technician when performed off-site.
☑	**b.** Test unidentified materials	**Test**	**LOR**	**2202A.1.**
☑	**c.** Examine seam welds of HSS shapes	**Periodic**	**SI**	DSA IR 17-3.
Inspection:				
☑	**d.** Verify and document steel fabrication per DSA-approved construction documents.	**Periodic**	**SI**	Not applicable to cold-formed steel light-frame construction, except for trusses (**1705A.2.4**).

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

	19. WELDING:	**1705A.2.5, Table 1705A.2.1 Items 4 & 5;** AWS D1.1 and AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17- 3 (See Appendix for exemptions.)		
Verification of Materials, Equipment, Welders, etc.:				
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☑	**a.** Verify weld filler material identification markings per AWS designation listed on the DSA- approved documents and the WPS.	**Periodic**	**SI**	DSA IR 17-3.
☑	**b.** Verify weld filler material manufacturer's certificate of compliance.	**Periodic**	**SI**	DSA IR 17-3.
☑	**c.** Verify WPS, welder qualifications and equipment.	**Periodic**	**SI**	DSA IR 17-3.
	19.1 SHOP WELDING:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☑	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	**Continuous**	**SI**	**Table 1705A.2.1 Items 5a.1–4;** AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☑	**b.** Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.	**Periodic**	**SI**	**1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6;** AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.

	23. ANCHOR BOLTS AND ANCHOR RODS:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☑	**a.** Anchor Bolts and Anchor Rods	**Test**	**LOR**	Sample and test anchor bolts and anchor rods not readily identifiable per procedures noted in DSA IR 17-11.

Name of Architect or Engineer in general responsible charge:

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

Signature of Architect or Structural Engineer: Date:

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

DSA STAMP

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

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

STATE APPROVALS-SITE

4080 PLAZA GOLDORADO CIRCLE
SUITE B,
CAMERON PARK, CA 95682
530.677.5515

poligon
PORTER CORP

REGISTERED PROFESSIONAL ENGINEER
SAMANTHA K. MOOSE
NO. S6729
STRUCTURAL
STATE OF CALIFORNIA

STATE APPROVALS-PC

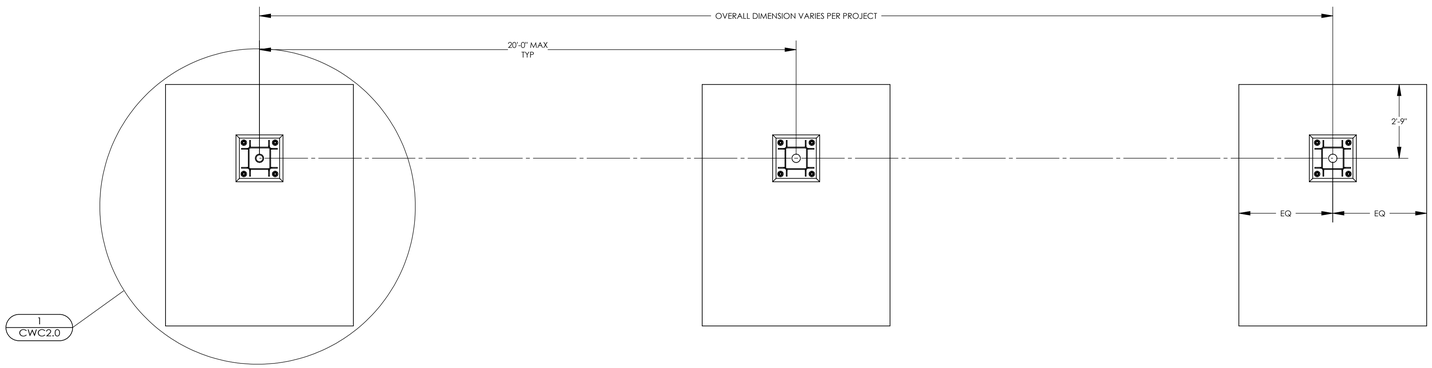
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-119075 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 07/22/2021

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

NOTES AND SPECIAL INSPECTIONS

WALKWAW COVER - CWC

CWC1.1

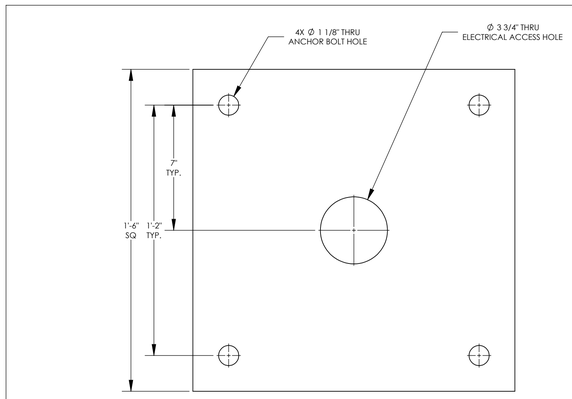


FOUNDATION PLAN (SPREAD PAD)

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

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 CWC1.1 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.

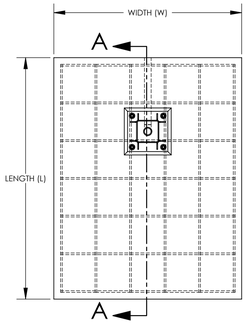


DETAIL 3

SCALE: 3" = 1'-0"

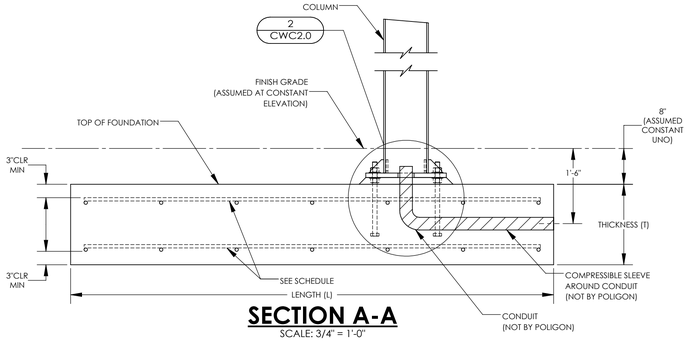
COLUMN BASEPLATE

3



DETAIL 1

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



SECTION A-A

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

FOUNDATION REQUIREMENTS VARY PER PROJECT

SEE SHEET CWC1.0 FOR REQUIRED LOAD SCENARIO AND FOUNDATION TYPE (STEP 9 OF 'INSTRUCTIONS')

ONLY REFERENCE COPY OF PC DRAWINGS SUBMITTED FOR THIS PROJECT

SPREAD PAD

SIZE AND REINFORCING REQUIREMENTS

LOAD SCENARIO	WIDTH (W)	LENGTH (L)	THICKNESS (T)	HORIZONTAL REINFORCING[1]	
				QTY	SIZE
1	7'-6"	10'-0"	1'-6"	9	#6
2	8'-6"	11'-0"	1'-6"	10	#6

[1] EQUALLY SPACED EACH WAY, TOP AND BOTTOM

SPREAD PAD FOUNDATION .

1

NOTES:

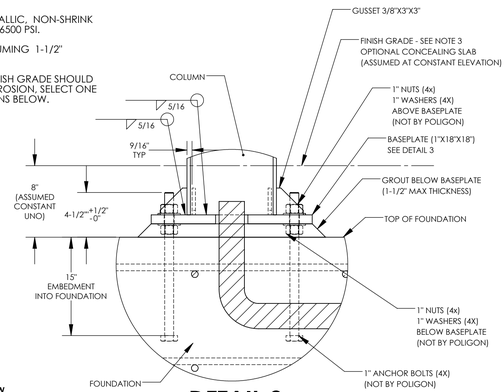
1. GROUT SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH MINIMUM f'c=6500 PSI.
2. COLUMNS FABICATED ASSUMING 1-1/2" GROUT PAD.
3. COLUMN BASES BELOW FINISH GRADE SHOULD BE PROTECTED FROM CORROSION. SELECT ONE OF THE FOLLOWING OPTIONS BELOW.

COLUMN BASE PROTECTION

BELOW SURFACE COLUMN INSTALLATION

[ ] CONCRETE SLAB - 3" MIN ANCHOR BOLT COVER

[ ] MASTIC COATING - 1/4" THICK MIN COATING ON ALL STEEL SURFACES BELOW GRADE



DETAIL 2

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

COLUMN BASEPLATE AND ANCHOR BOLTS

2

STATE APPROVALS-SITE

4080 PLAZA GOLD DRIVE CIRCLE F
SUITE B
CAMERON PARK, CA 95682
P 530.677.5515

poligon

PORTER

REGISTERED PROFESSIONAL ENGINEER
MARTHA K. MOSES
NO. S6729
STRUCTURAL
STATE OF CALIFORNIA

STATE APPROVALS-PC

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-119075 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 07/22/2021

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

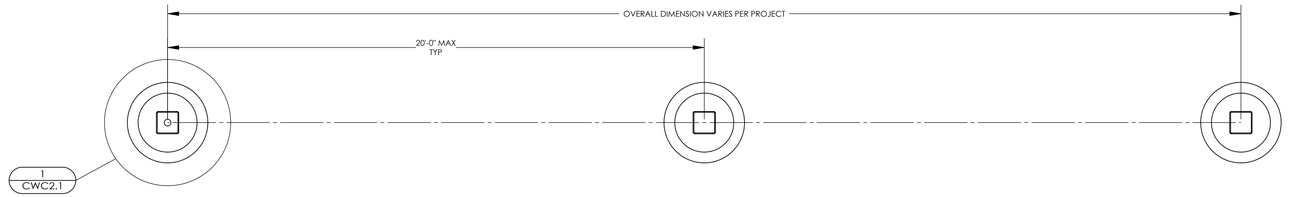
FOUNDATION PLAN
SPREAD PAD

WALKWAY COVER - CWC 10

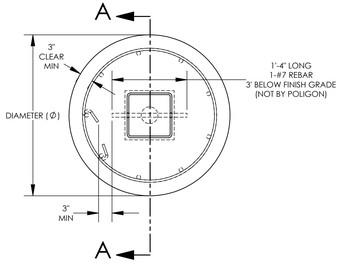
CWC2.0

FOUNDATION PLAN NOTES:

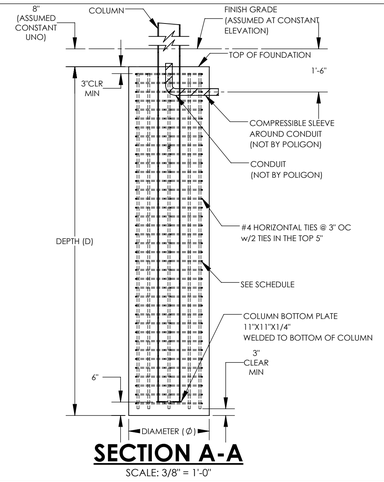
1. TOP OF ALL FOUNDATIONS MUST BE CONSTRUCTED AT ONE COMMON ELEVATION (COORDINATE WITH SITE PLANS - NOT BY POLIGON)
2. ALL FOUNDATIONS MUST BE CENTERED UNDER COLUMNS (UNO).
3. SEE SHEET CWC1.1 FOR CONCRETE REQUIREMENTS.
4. PRIOR TO FORMING AND CASTING FOUNDATIONS, REVIEW FOUNDATION PLAN FOR REQUIRED 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).



FOUNDATION PLAN (DRILLED PIER)
SCALE: 3/8" = 1'-0"



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



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

FOUNDATION REQUIREMENTS VARY PER PROJECT

SEE SHEET CWC1.0 FOR REQUIRED LOAD SCENARIO AND FOUNDATION TYPE (STEP 9 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]	3'-0"	13'-6"	9	#7
2[3]	3'-0"	15'-0"	9	#7

1 EQUALLY SPACED AROUND DRILLED PIER
2 UPLIFT CAPACITY: 24.9 KIPS (FOUNDATION WEIGHT 14.3 KIPS, SKIN FRICTION 10.6 KIPS)
3 UPLIFT CAPACITY: 27.6 KIPS (FOUNDATION WEIGHT 15.9 KIPS, SKIN FRICTION 11.7 KIPS)

DRILLED PIER FOUNDATION

STATE APPROVALS-SITE

4590 PLAZA GOLD DRIVE CIRCLE F
SUITE B
CAMERON PARK, CA 95682
P 530.677.5515

poligon
PORTER

REGISTERED PROFESSIONAL ENGINEER
MARTHA K. MORRIS
NO. S6729
STRUCTURAL
STATE OF CALIFORNIA

STATE APPROVALS-PC

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-119075 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 07/22/2021

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

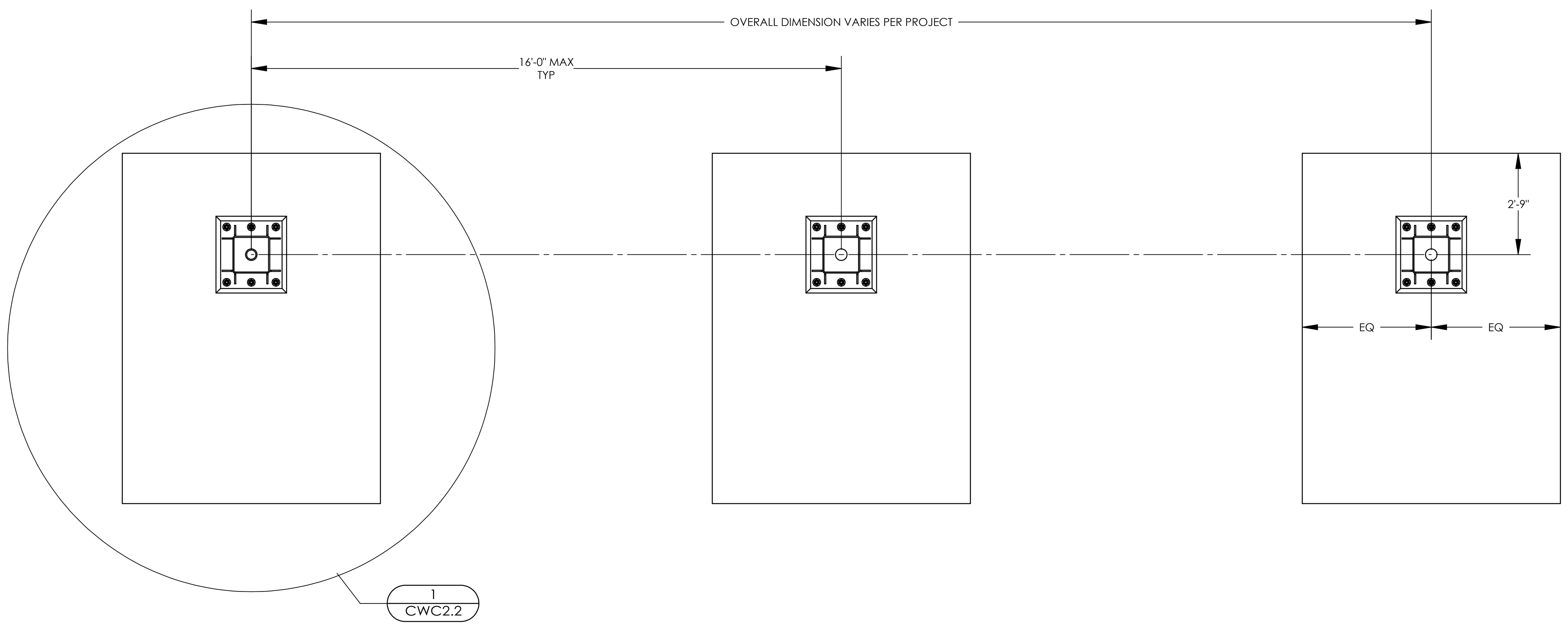
FOUNDATION PLAN
DRILLED PIER

WALKWAY COVER - CWC 10

CWC2.1

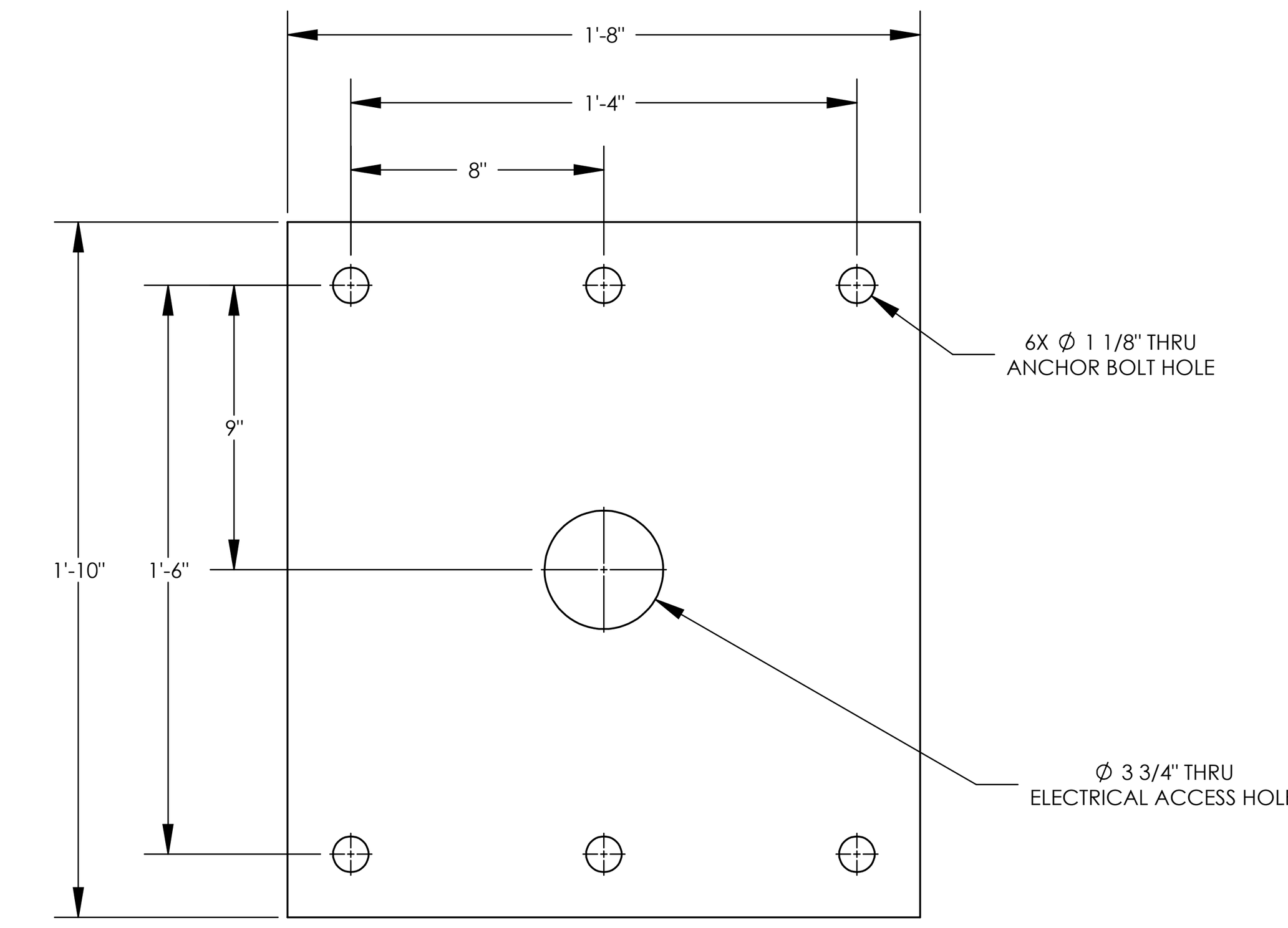
FOUNDATION PLAN NOTES:

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 CWC1.1 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.



FOUNDATION PLAN (SPREAD PAD)

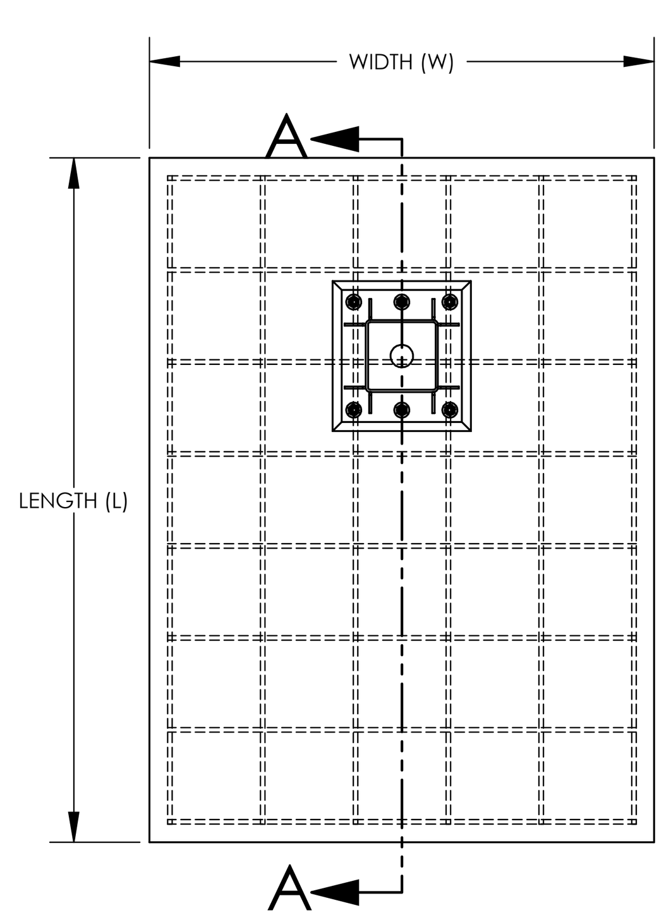
SCALE: 3/8" = 1'-0"



DETAIL 3

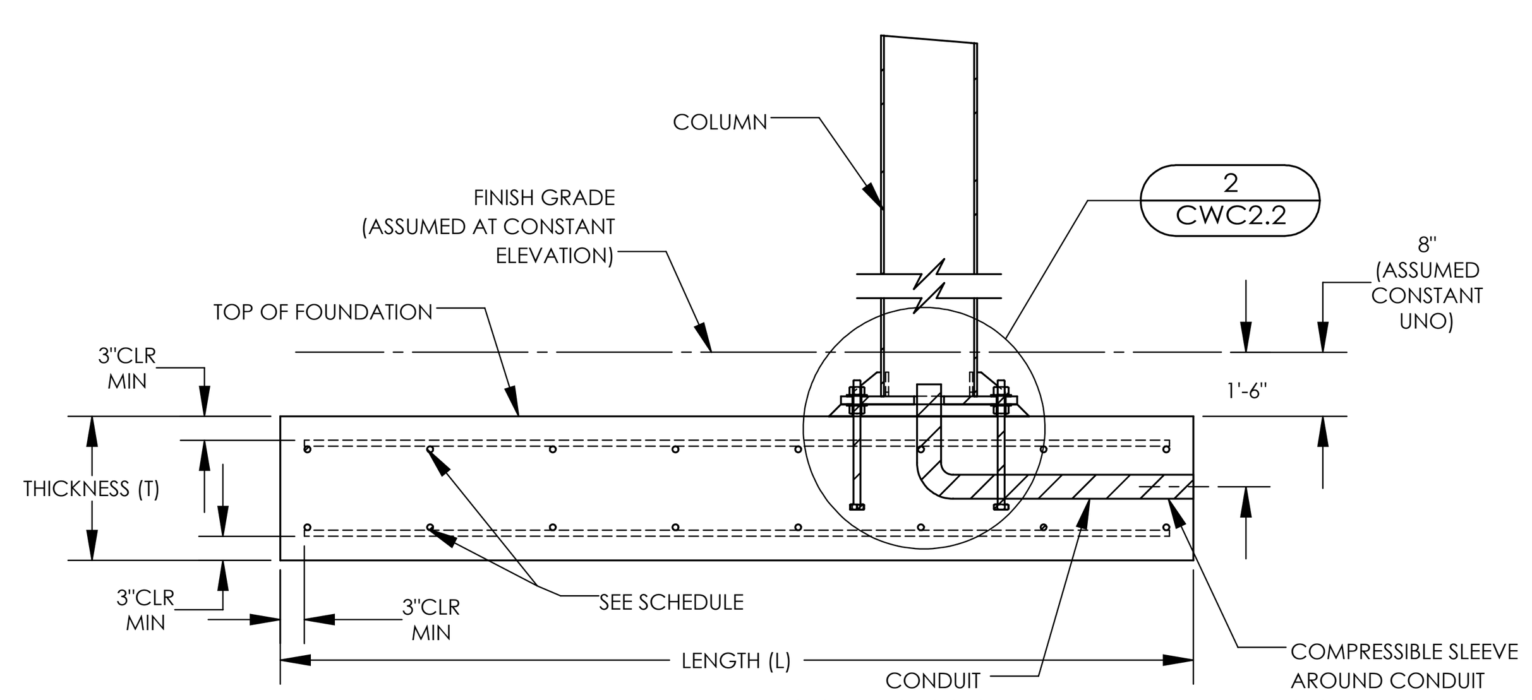
SCALE: 1/4" = 1'-0"

COLUMN BASEPLATE — 3



DETAIL 1

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



SECTION A-A

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

FOUNDATION REQUIREMENTS VARY PER PROJECT

SEE SHEET CWC 1.0 FOR REQUIRED LOAD SCENARIO AND FOUNDATION TYPE (STEP 9 OF 'INSTRUCTIONS')

ONLY REFERENCE COPY OF PC DRAWINGS SUBMITTED FOR THIS PROJECT

SPREAD PAD

SIZE AND REINFORCING REQUIREMENTS

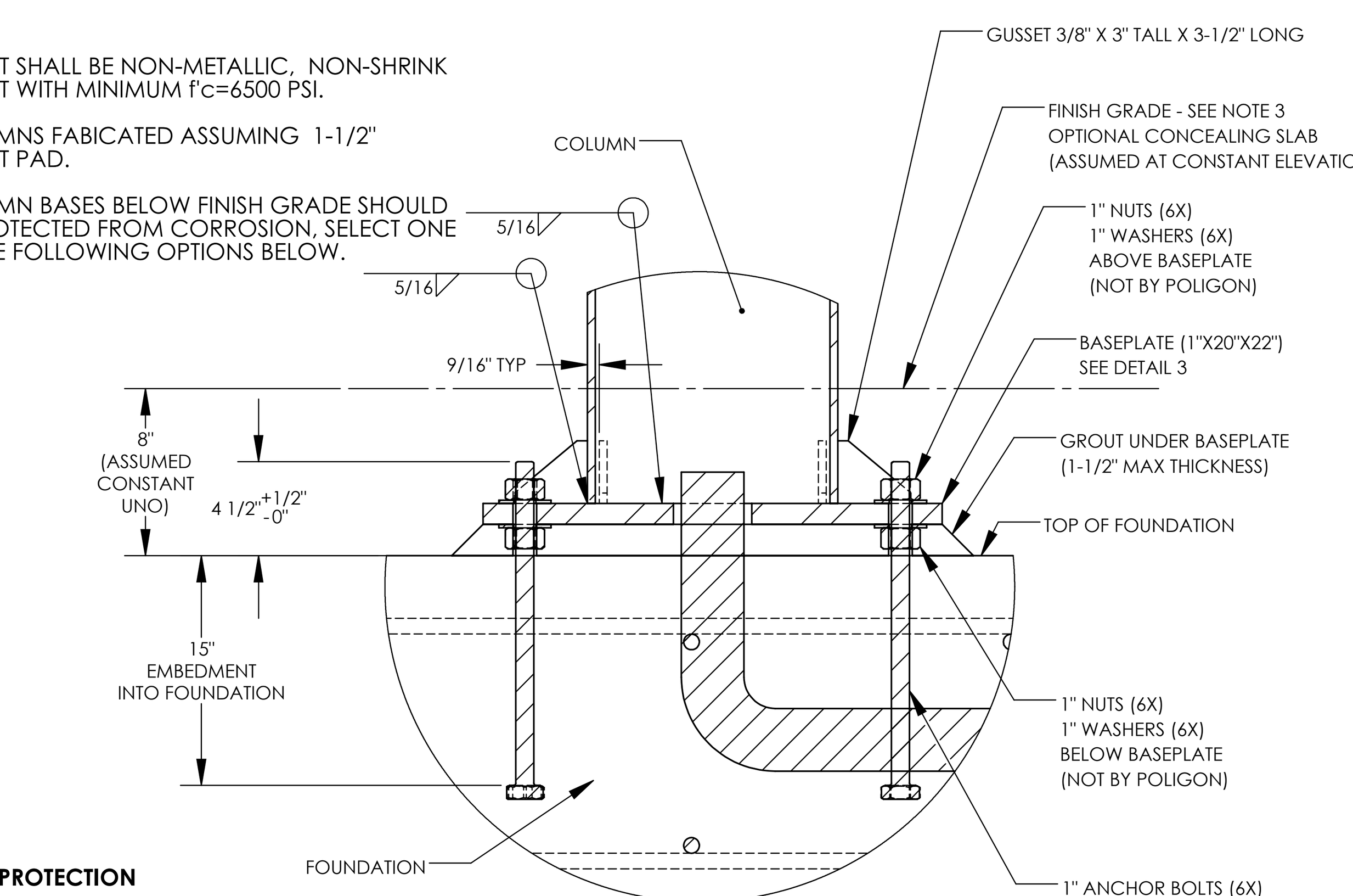
LOAD SCENARIO	WIDTH (W)	LENGTH (L)	THICKNESS (T)	HORIZONTAL REINFORCING[1]	
				QTY	SIZE
1	8'-6"	10'-0"	1'-6"	9	#6
2	9'-6"	11'-6"	1'-6"	10	#6

[1] EQUALLY SPACED EACH WAY, TOP AND BOTTOM

SPREAD PAD FOUNDATION . — 1

NOTES:

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



COLUMN BASE PROTECTION

BELOW SURFACE COLUMN INSTALLATION

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

DETAIL 2

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

COLUMN BASEPLATE AND ANCHOR BOLTS — 2

STATE APPROVALS-SITE

4580 PLATA GOLD DORADO CIRCLE
SUITE B,
CAMERON PARK, CA 95682
530.677.5515

poligon

PORTER CORP

REGISTERED PROFESSIONAL ENGINEER — SAMANTHA K. MOORE — NO. S6729 — STRUCTURAL — STATE OF CALIFORNIA

STATE APPROVALS-PC

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-119075 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 07/22/2021

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

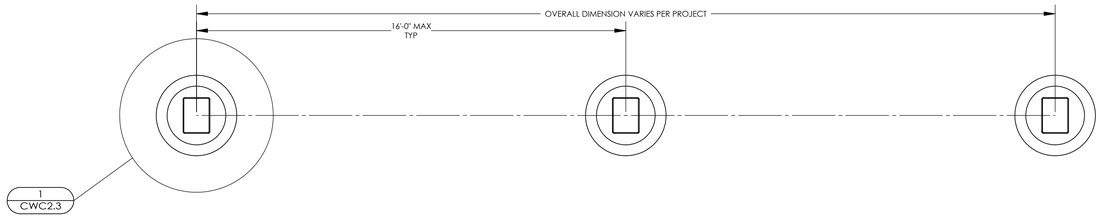
FOUNDATION PLAN
SPREAD PAD

WALKWAY COVER - CWC 15

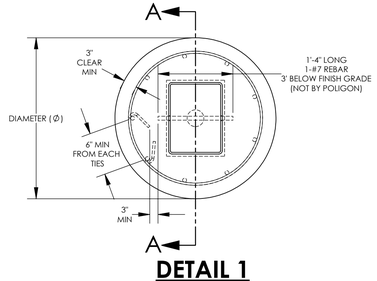
CWC2.2

FOUNDATION PLAN NOTES:

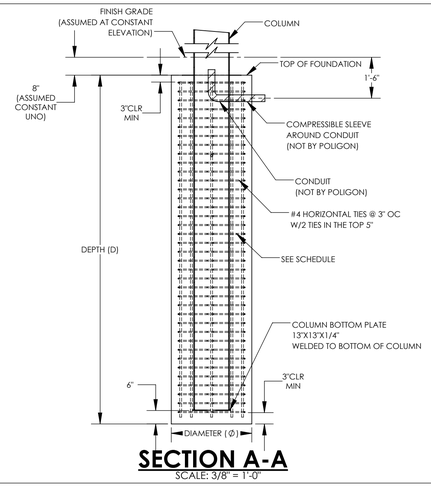
1. TOP OF ALL FOUNDATIONS MUST BE CONSTRUCTED AT ONE COMMON ELEVATION (COORDINATE WITH SITE PLANS - NOT BY POLIGON)
2. ALL FOUNDATIONS MUST BE CENTERED UNDER COLUMNS (UNO).
3. SEE SHEET CWC1.1 FOR CONCRETE REQUIREMENTS.
4. PRIOR TO FORMING AND CASTING FOUNDATIONS, REVIEW FOUNDATION PLAN FOR REQUIRED 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).



FOUNDATION PLAN (DRILLED PIER)
SCALE: 3/8" = 1'-0"



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



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

FOUNDATION REQUIREMENTS VARY PER PROJECT

SEE SHEET CWC 1.0 FOR REQUIRED LOAD SCENARIO AND FOUNDATION TYPE (STEP 9 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]	3'-0"	15'-0"	9	#7
2[3]	3'-0"	17'-0"	9	#7

[1] EQUALLY SPACED AROUND DRILLED PIER

2 UPLIFT CAPACITY: 27.6 KIPS (FOUNDATION WEIGHT 15.9 KIPS, SKIN FRICTION 11.7 KIPS)

3 UPLIFT CAPACITY: 31.3 KIPS (FOUNDATION WEIGHT 18.0 KIPS, SKIN FRICTION 13.3 KIPS)

DRILLED PIER FOUNDATION

STATE APPROVALS-SITE

4590 PLAZA GOLDORADO CIRCLE
SUITE B
CAMERON PARK, CA 95682
P 530.677.5515

poligon
PORTER

REGISTERED PROFESSIONAL ENGINEER
MARTHA K. MOORE
NO. S6729
STRUCTURAL
STATE OF CALIFORNIA

STATE APPROVALS-PC

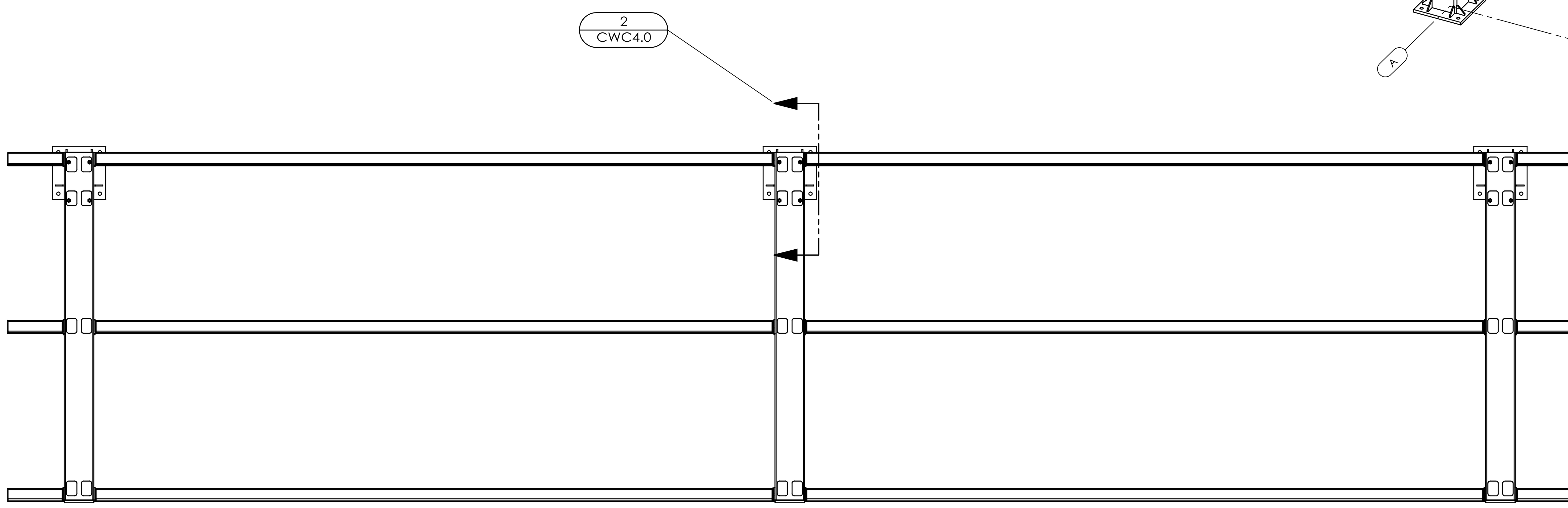
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-119075 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 07/22/2021

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

FOUNDATION PLAN
DRILLED PIER

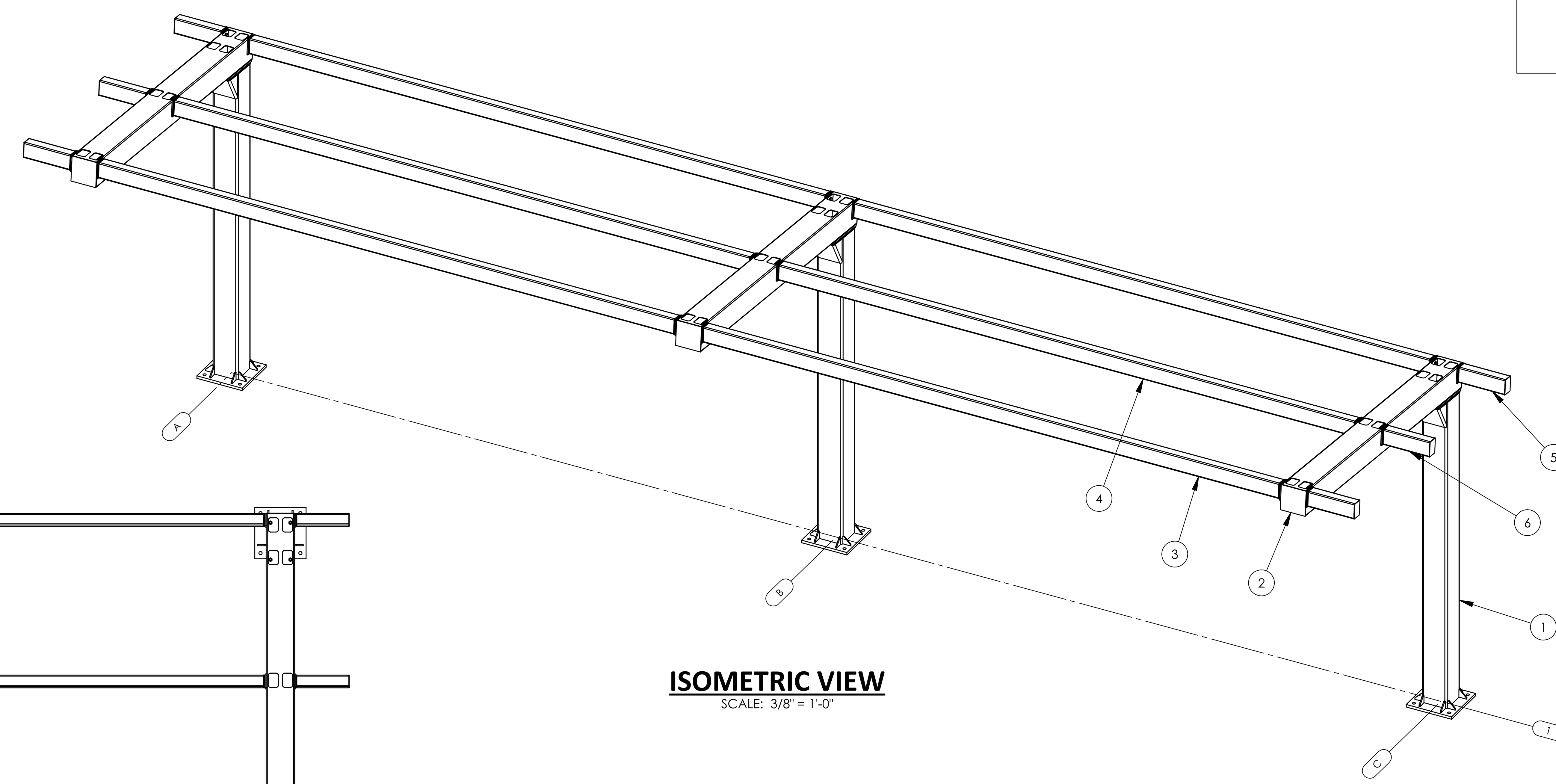
WALKWAY COVER - CWC 15

CWC2.3



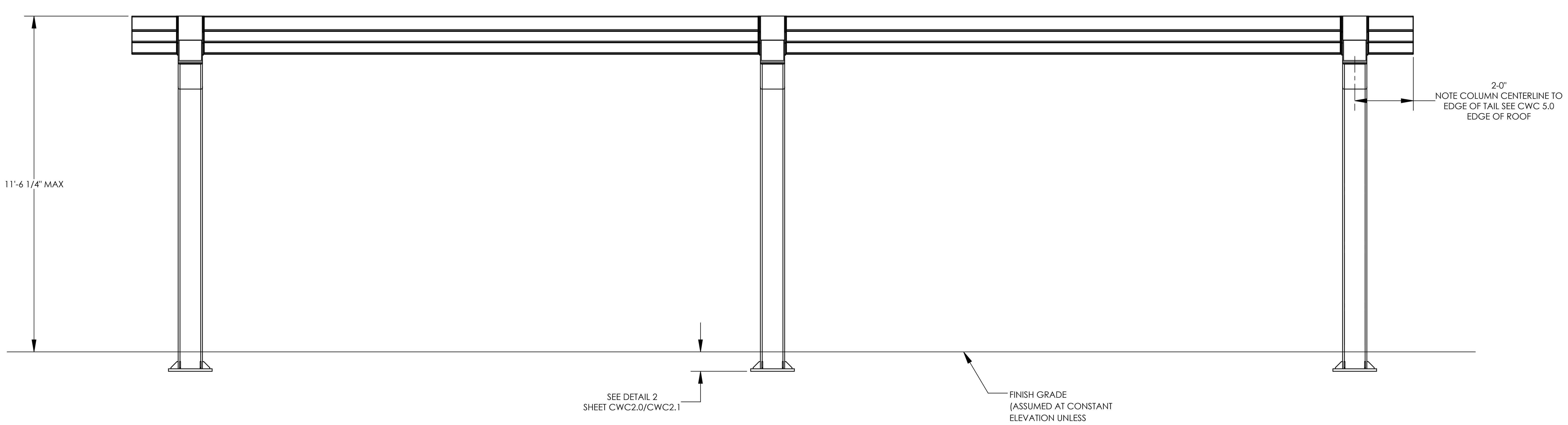
PLAN VIEW

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



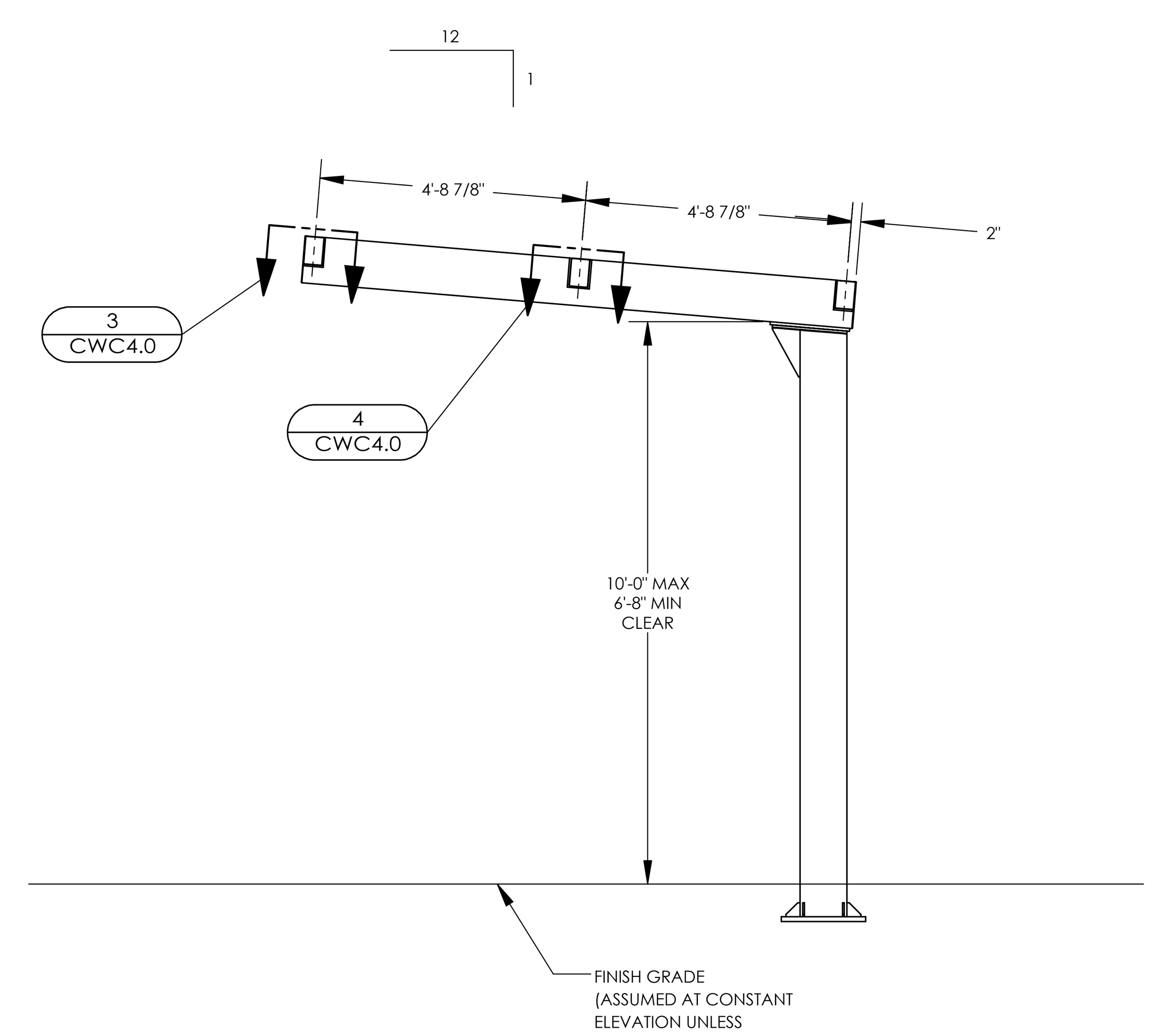
ISOMETRIC VIEW

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



FRONT ELEVATION

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



SIDE ELEVATION

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

ITEM	QTY.	PART NO.	DESCRIPTION	MATERIAL	WEIGHT
6	2	-	PURLIN TAIL ASM	HSS6X4X3/16	21.39
5	4	-	EBEAM TAIL ASM	HSS6X4X3/16	21.39
4	2	-	PURLIN ASM	HSS6X4X3/16	231.20
3	4	-	EBEAM ASM	HSS6X4X3/16	231.20
2	3	-	GABLE BEAM_1 ASM	HSS10X10X3/16	287.49
1	3	-	COL_1 ASM	HSS10X10X3/8	632.65

STATE APPROVALS-SITE

4580 PLAZA GOLDORADO CIRCLE
SUITE B,
CAMERON PARK, CA 95682
530.677.5515

poligon PORTER

REGISTERED PROFESSIONAL ENGINEER · SAMANTHA K. ... · NO. S6729 · STRUCTURAL · STATE OF CALIFORNIA

STATE APPROVALS-PC

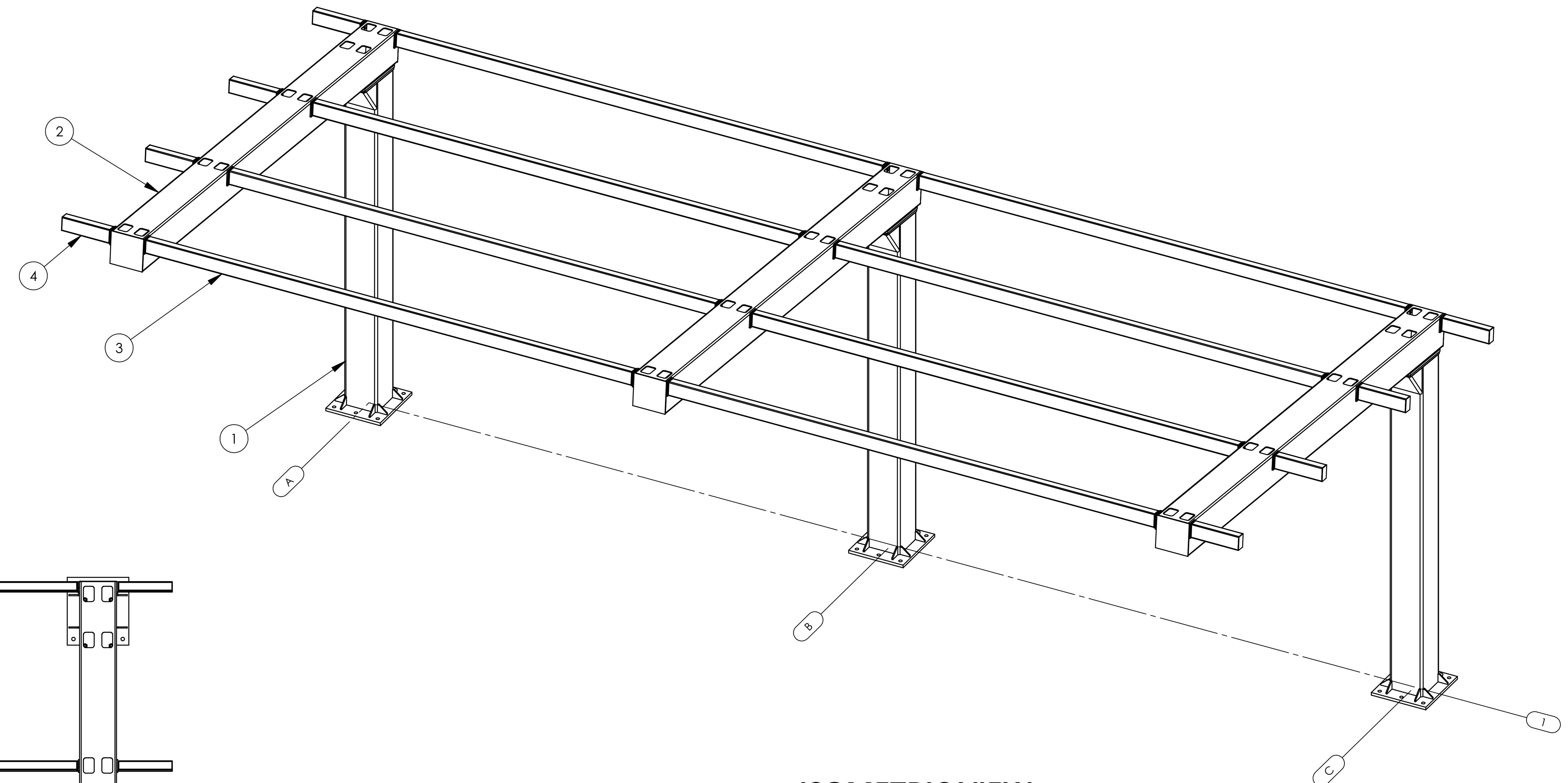
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-119075 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 07/22/2021

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

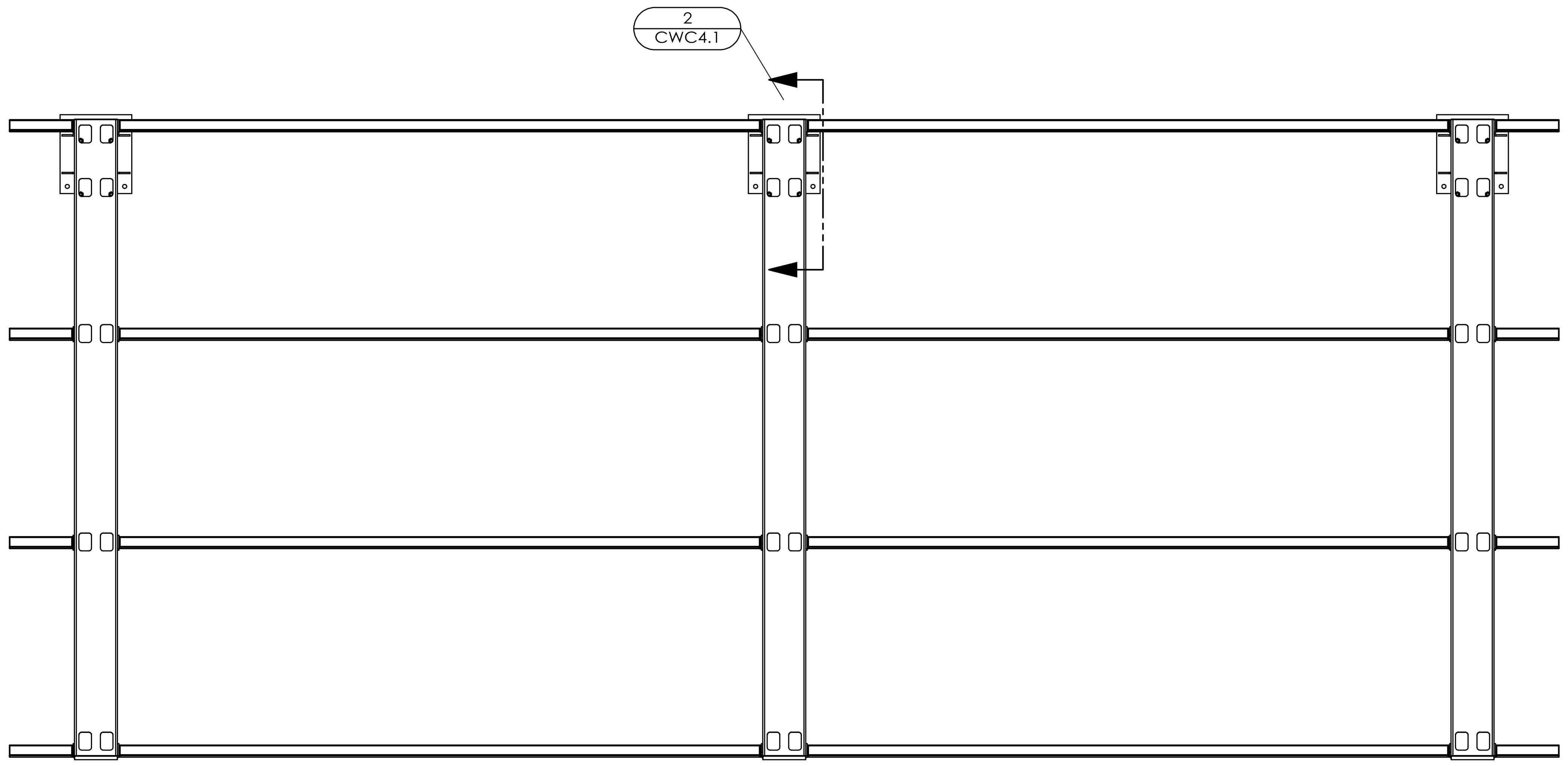
FRAMING PLAN

WLAKWAY COVER - CWC 10

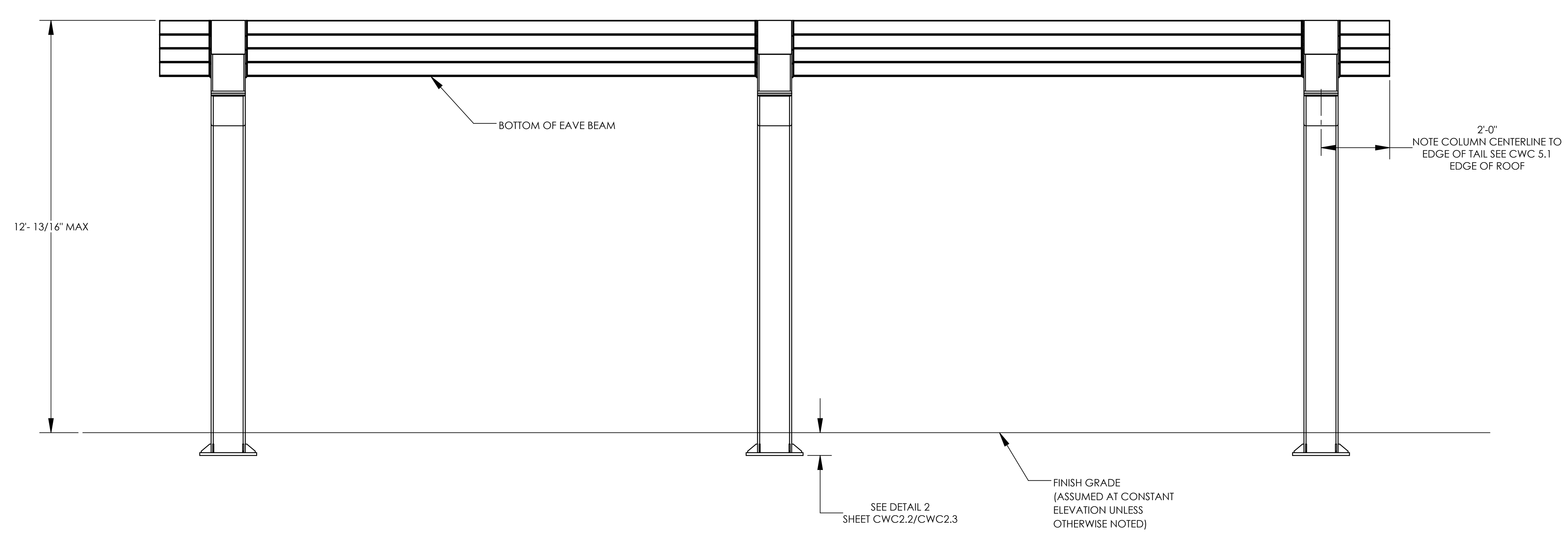
CWC3.0



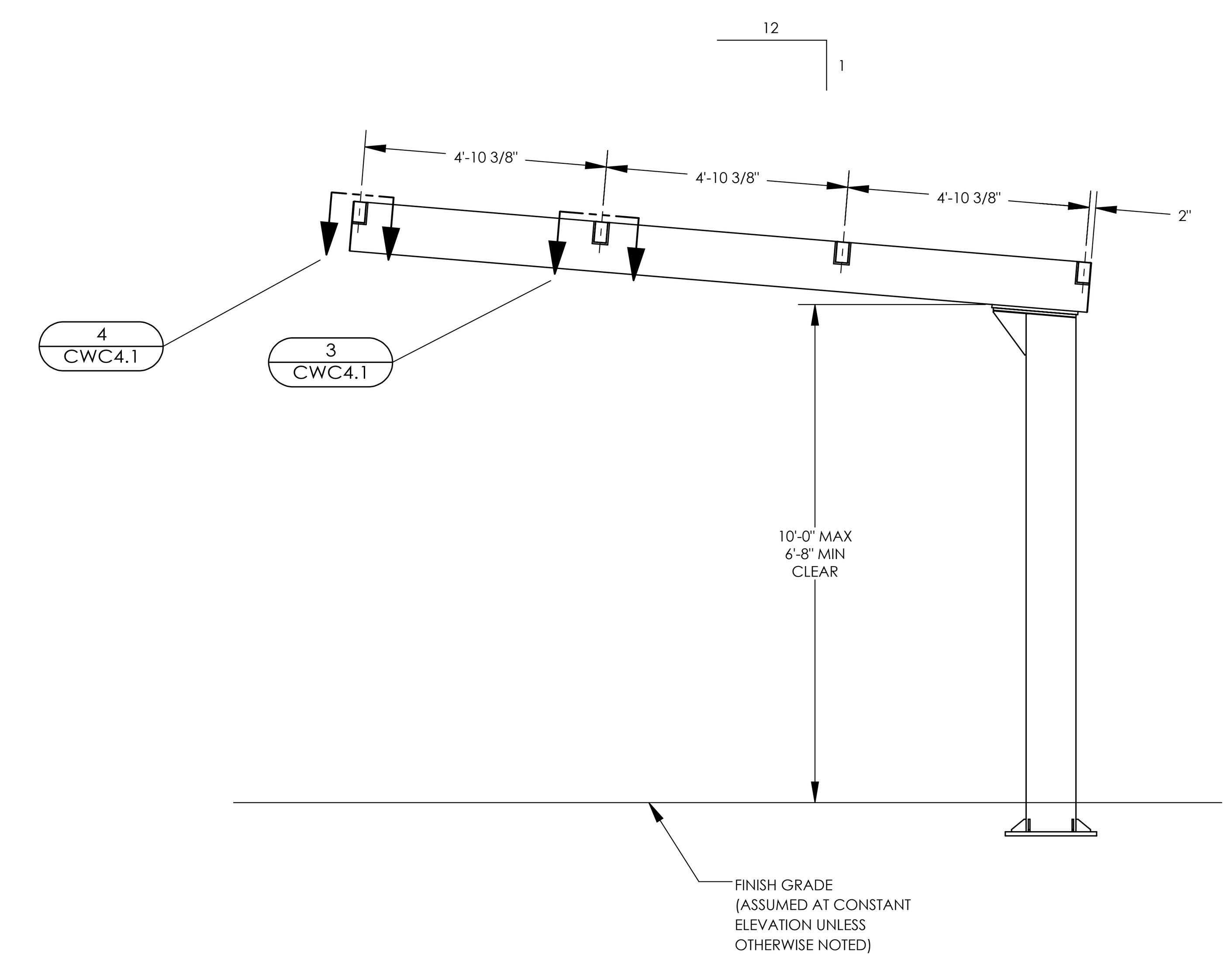
ISOMETRIC VIEW
SCALE: 3/8" = 1'-0"



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



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



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

ITEM	QTY.	PART NO.	DESCRIPTION	MATERIAL	WEIGHT
4	8	-	PURLIN TAIL ASM	HSS6X4X1/8	11.25
3	8	-	PURLIN ASM	HSS6X4X1/8	98.31
2	3	-	GABLE BEAM_1 ASM	HSS12X12X1/4	646.58
1	3	-	COL_1 ASM	HSS12X12X3/8	797.01

STATE APPROVALS-SITE

poligon

PORTER

REGISTERED PROFESSIONAL ENGINEER
SAMANTHA K. NOBLE
NO. S6729
STRUCTURAL
STATE OF CALIFORNIA

STATE APPROVALS-PC

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-119075 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 07/22/2021

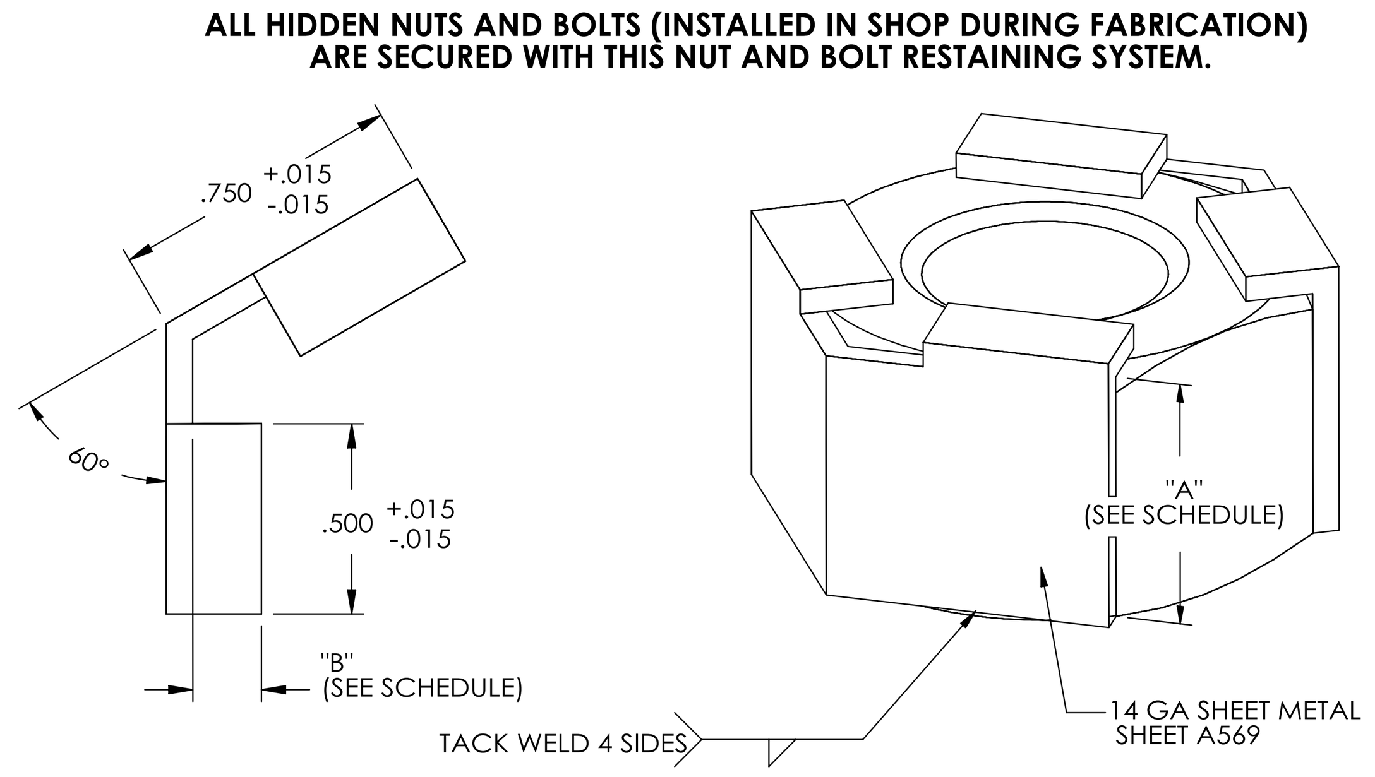
PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

FRAMING PLAN

WALKWAY COVER - CWC 15

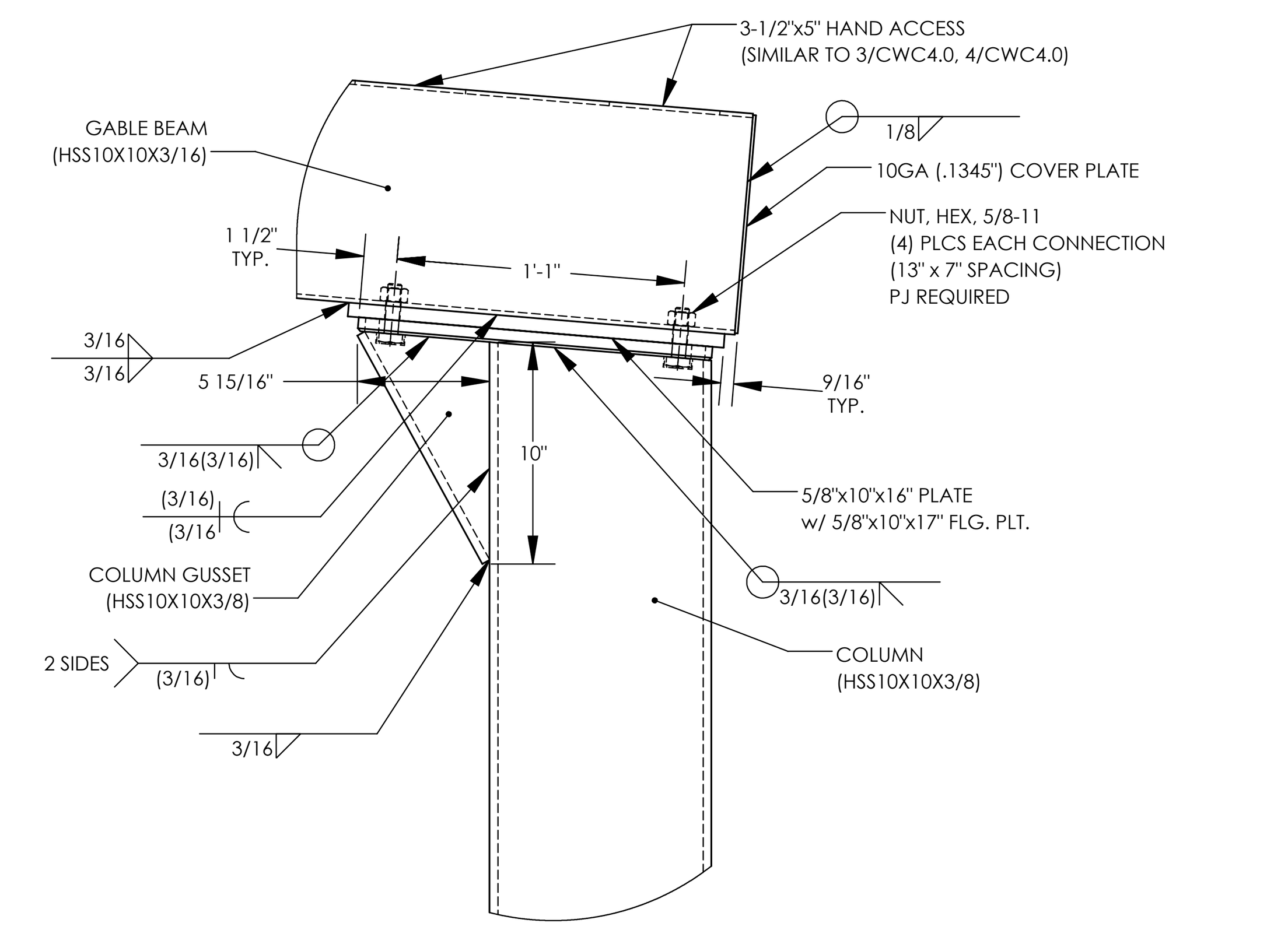
CWC3.1

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

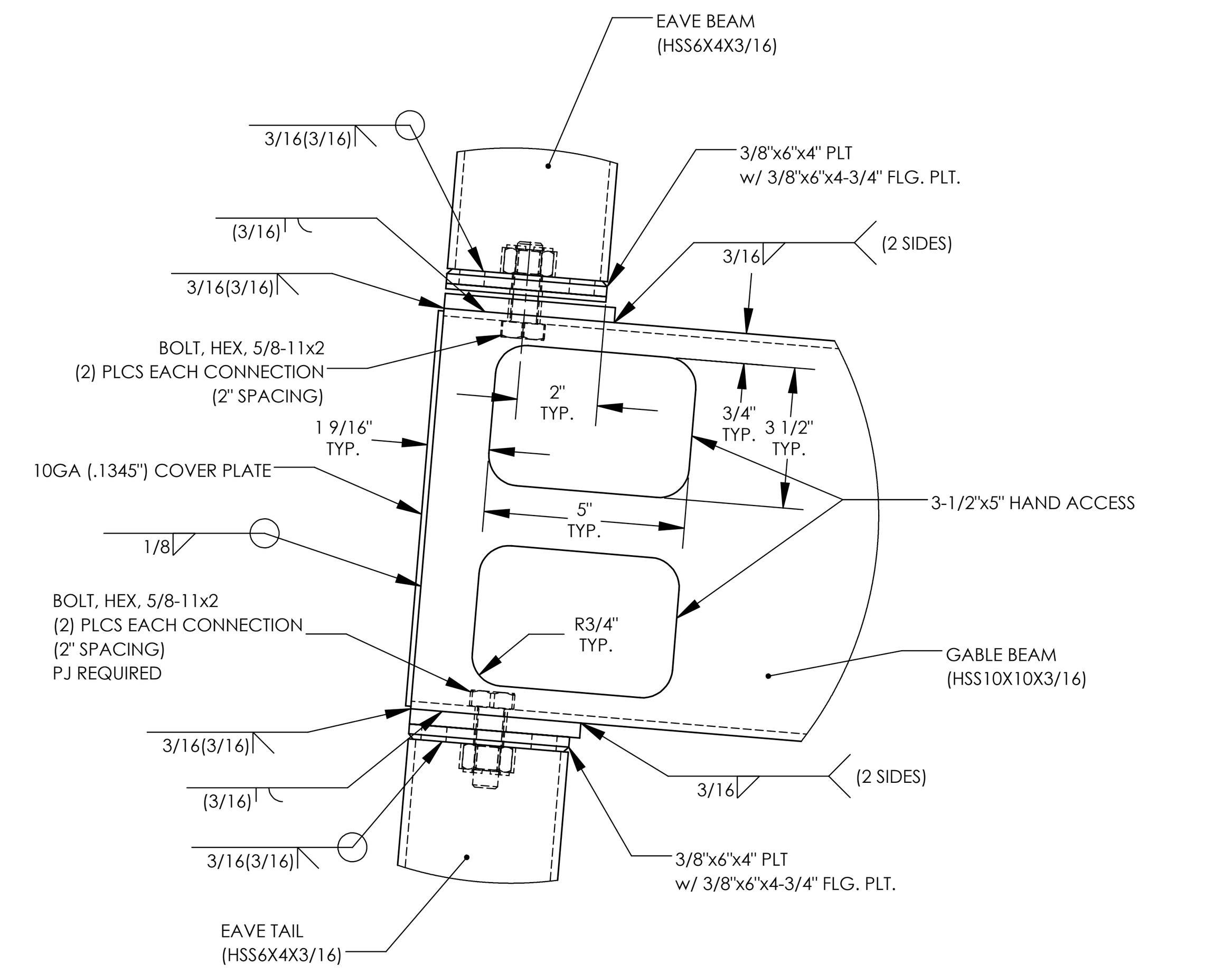


DIMENSION SCHEDULE		
FASTENER	DIM A	DIM B
5/8" NUT	.631 +.000 -.015	.180 +.015 -.015
5/8" BOLT	.403 +.000 -.015	.250 +.015 -.015
3/4" NUT	.758 +.000 -.015	.180 +.015 -.015
3/4" BOLT	.483 +.000 -.015	.375 +.015 -.015
1" NUT	1.012 +.000 -.015	.180 +.015 -.015
1" BOLT	.643 +.000 -.015	.375 +.015 -.015

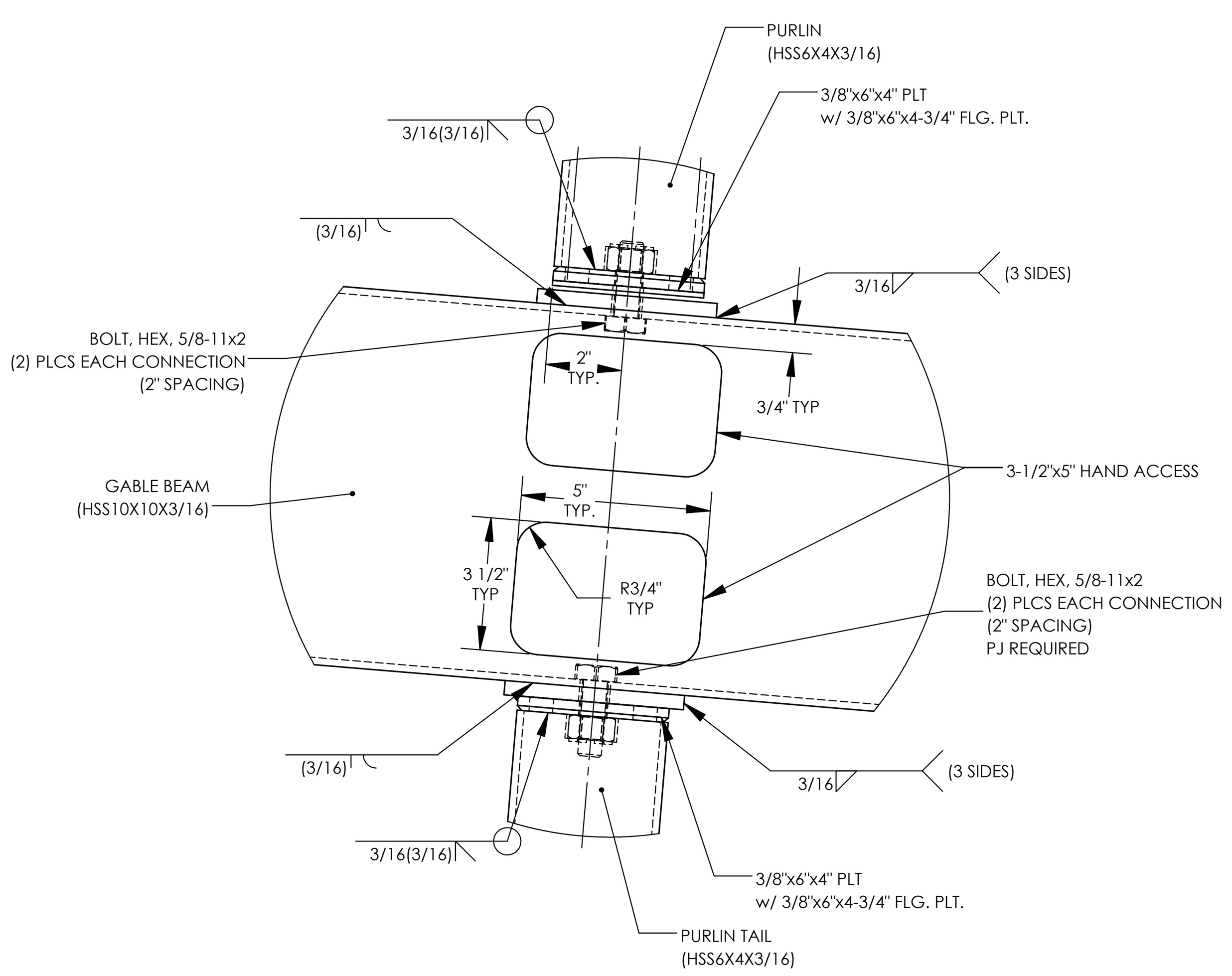
NUT & BOLT RESTRAINING SYSTEM 1



GABLE BEAM CONNECTION @ COLUMN 2



EAVE BEAM AND EAVE TAIL CONNECTION @ GABLE BEAM 3



PURLIN AND PURLIN TAIL CONNECTION @ GABLE BEAM 4

STATE APPROVALS-SITE

poligon

PORTER

STATE APPROVALS-PC

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-119075 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 07/22/2021

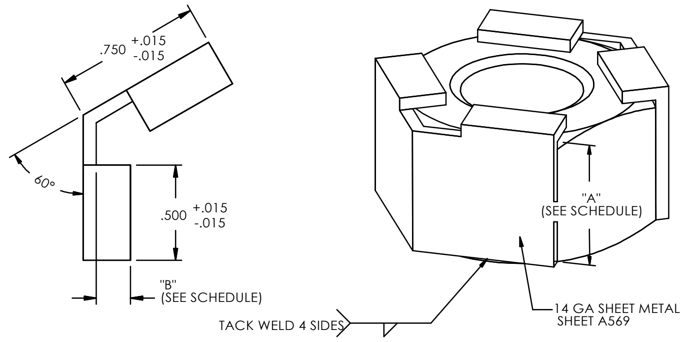
PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

FRAME CONNECTION DETAILS

WALKWAY COVER - CWC 10

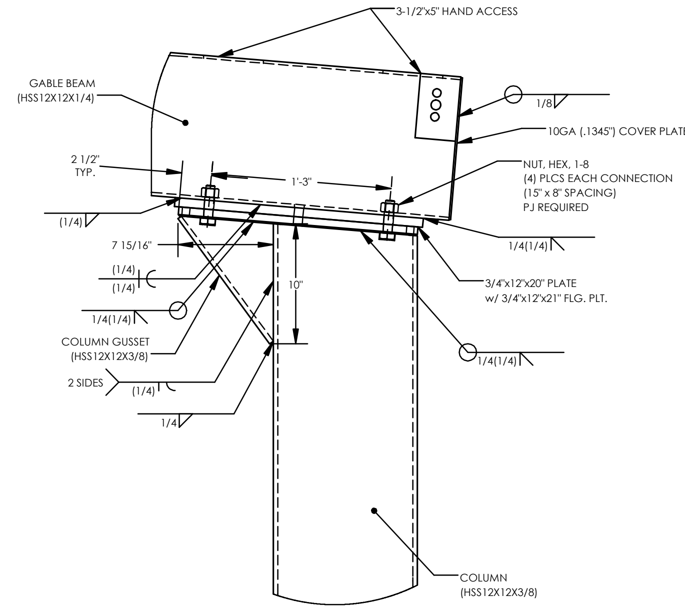
CWC4.0

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

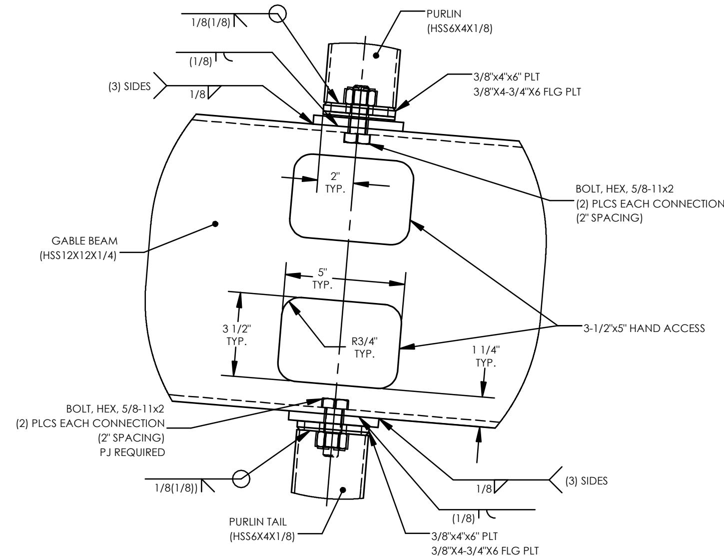


DIMENSION SCHEDULE		
FASTENER	DIM A	DIM B
5/8" NUT	.631 +.000 -.015	.180 +.015 -.015
5/8" BOLT	.403 +.000 -.015	.250 +.015 -.015
3/4" NUT	.758 +.000 -.015	.180 +.015 -.015
3/4" BOLT	.483 +.000 -.015	.375 +.015 -.015
1" NUT	1.012 +.000 -.015	.180 +.015 -.015
1" BOLT	.643 +.000 -.015	.375 +.015 -.015

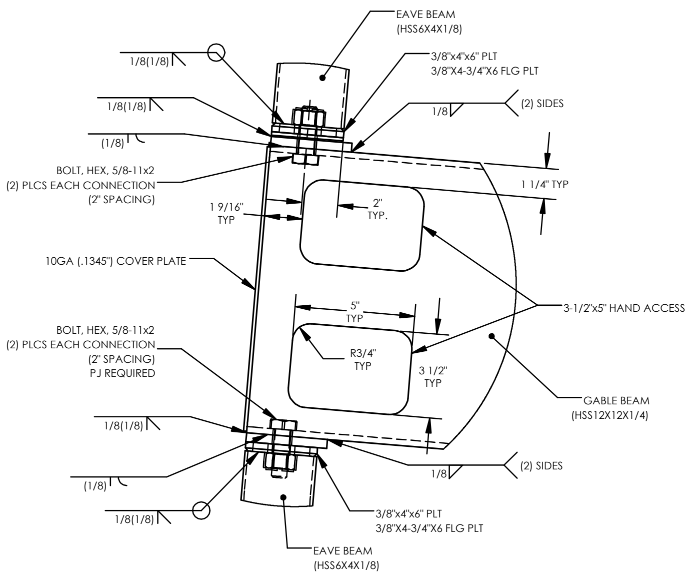
NUT & BOLT RESTRAINING SYSTEM 1



GABLE BEAM CONNECTION @ COLUMN 2



PURLIN AND PURLIN TAIL CONNECTION @ GABLE BEAM 3



EAVE AND EAVE TAIL CONNECTION @ GABLE BEAM 4

STATE APPROVALS-SITE

poligon

PORTER

REGISTERED PROFESSIONAL ENGINEER
SAMANTHA K. MOOSE
NO. S6729
STRUCTURAL
STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-119075 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 07/22/2021

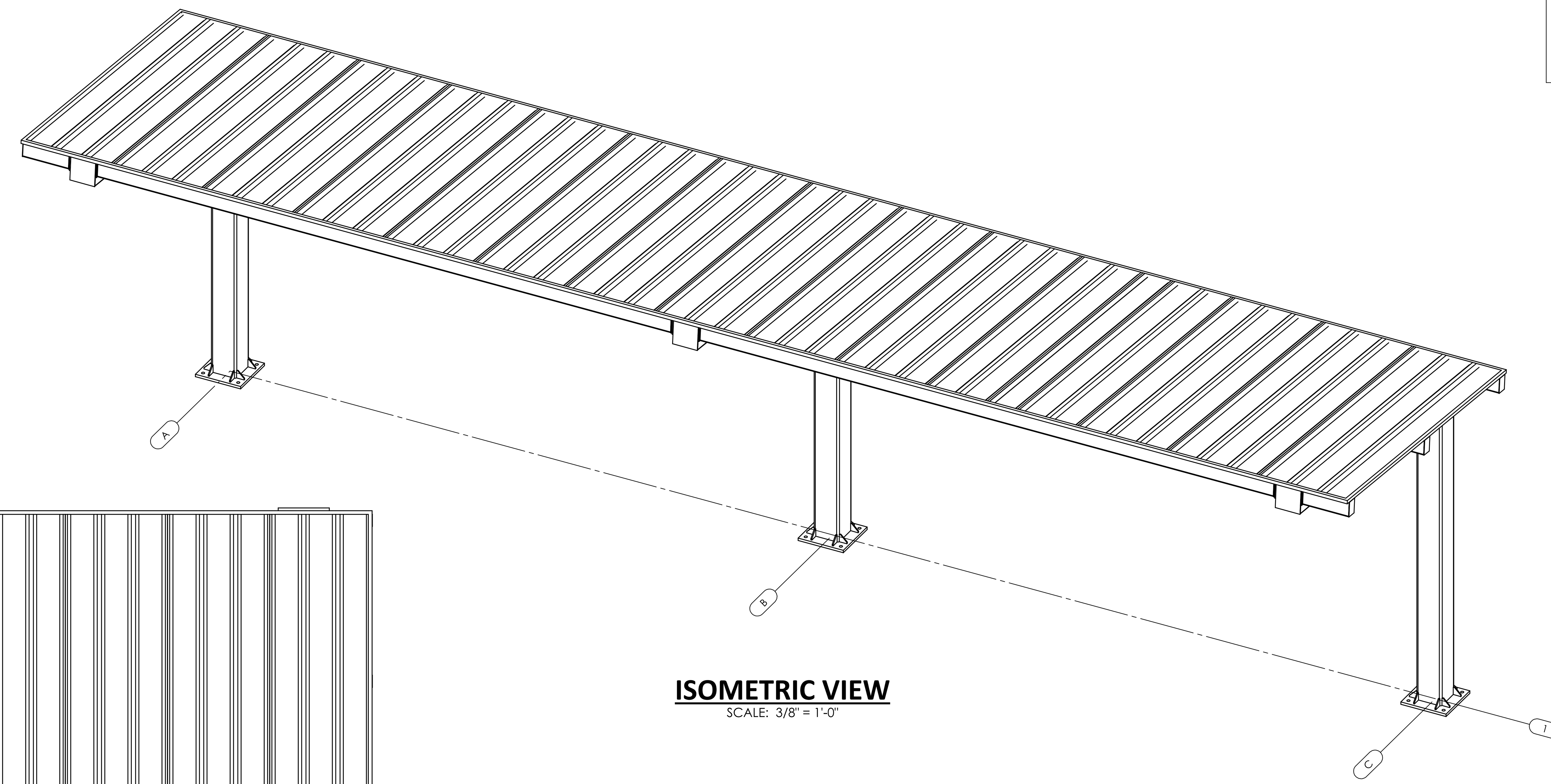
STATE APPROVALS-PC

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

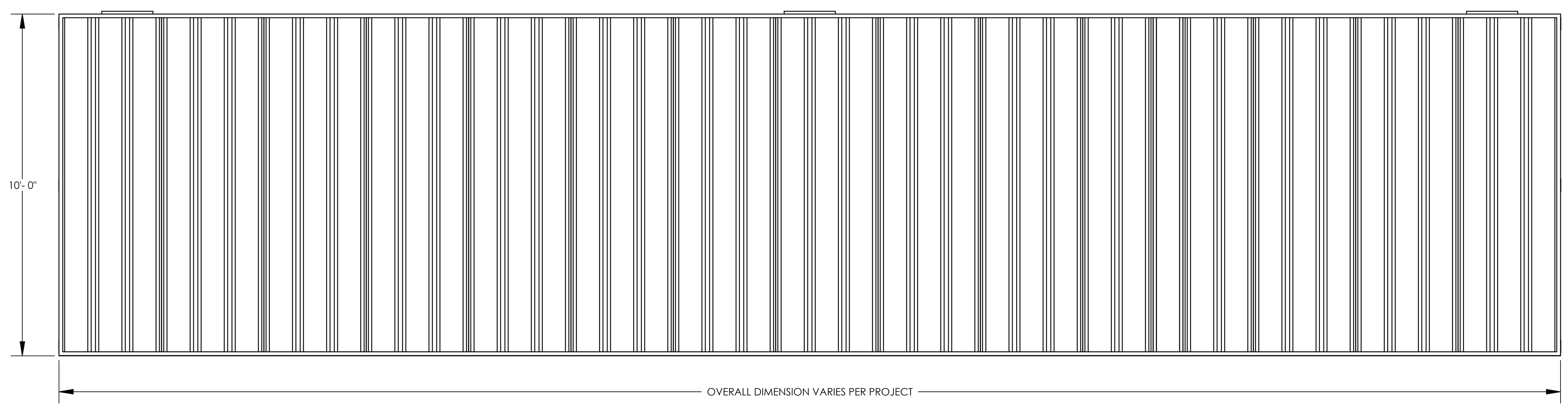
FRAME CONNECTION DETAILS

WALKWAY COVER - CWC 15

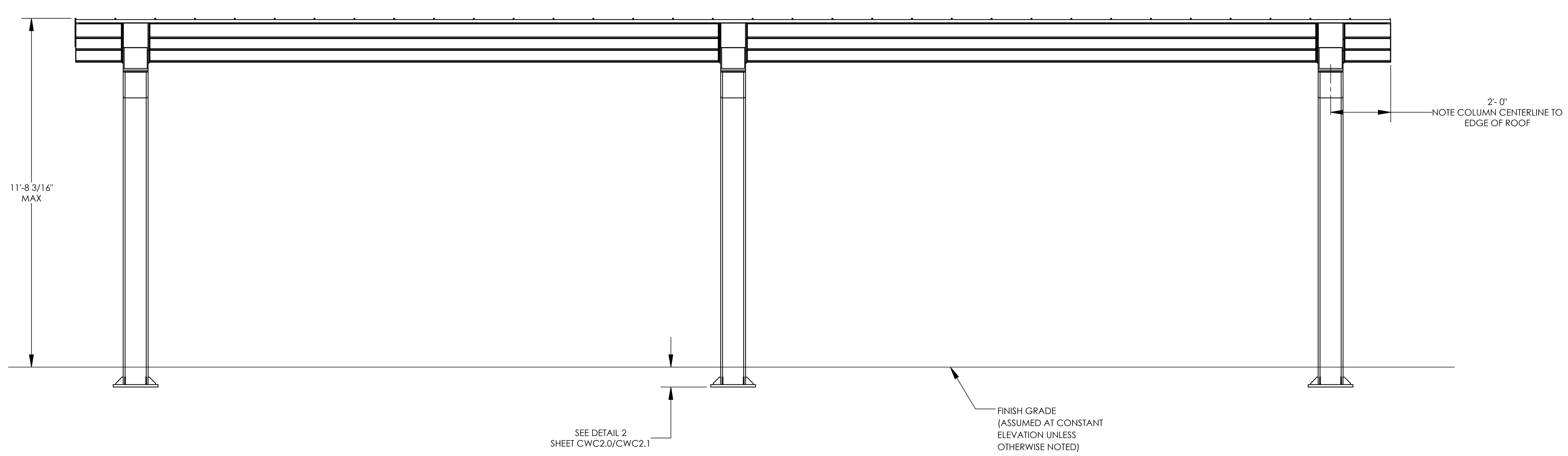
CWC4.1



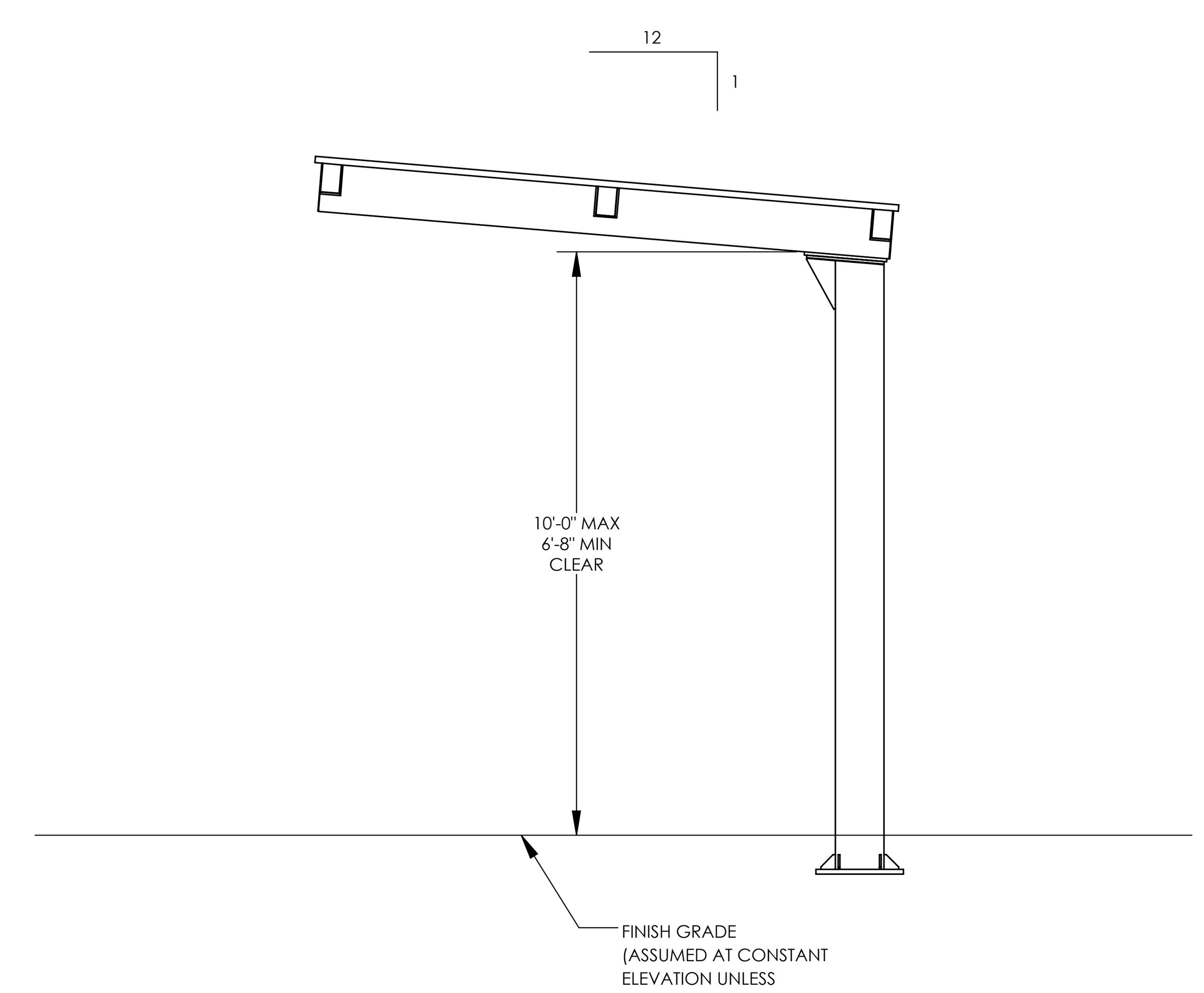
ISOMETRIC VIEW
SCALE: 3/8" = 1'-0"



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



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



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

STATE APPROVALS-SITE

poligon

PORTER

NO. S6729
STRUCTURAL
STATE OF CALIFORNIA

STATE APPROVALS-PC

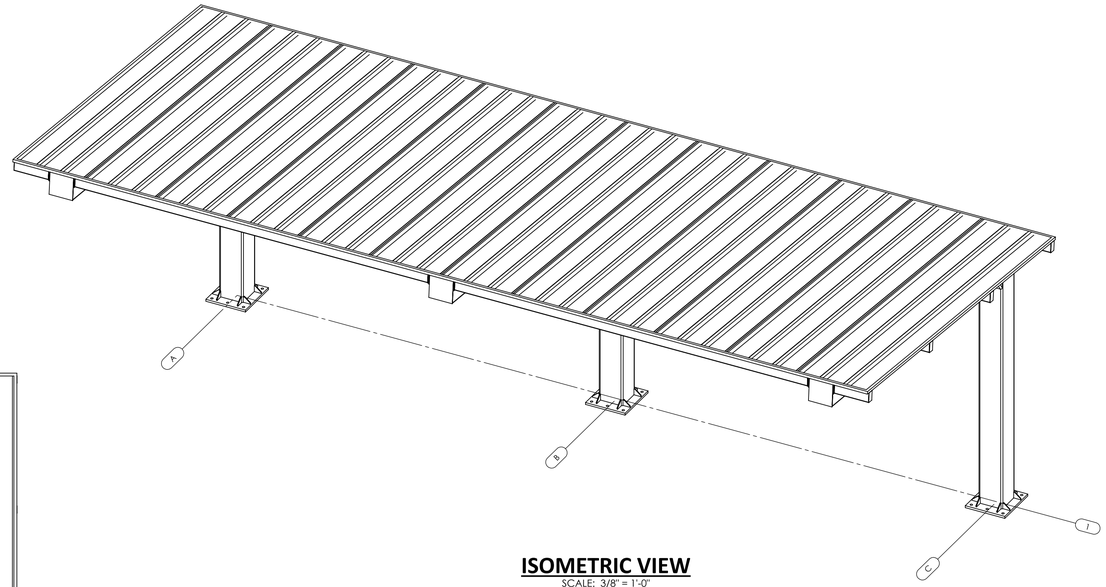
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-119075 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 07/22/2021

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

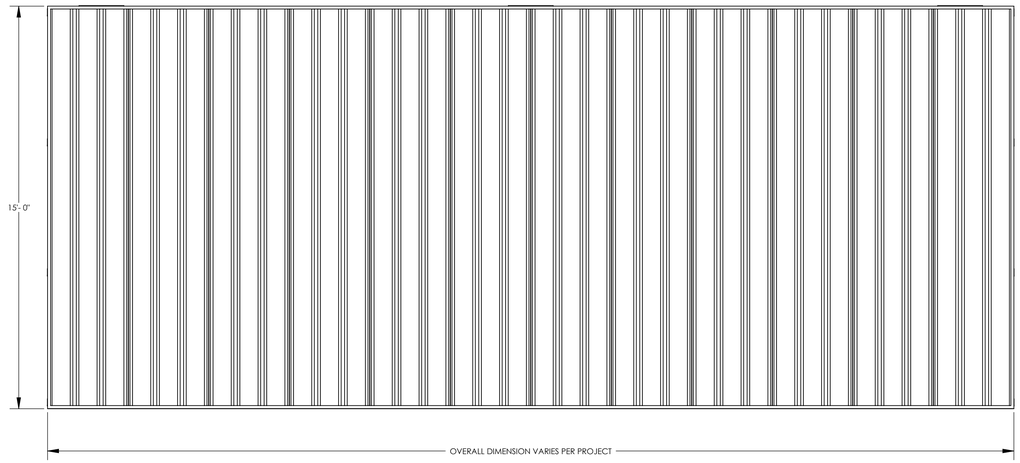
ARCHITECTURAL VIEWS

WALKWAY COVER - CWC 10

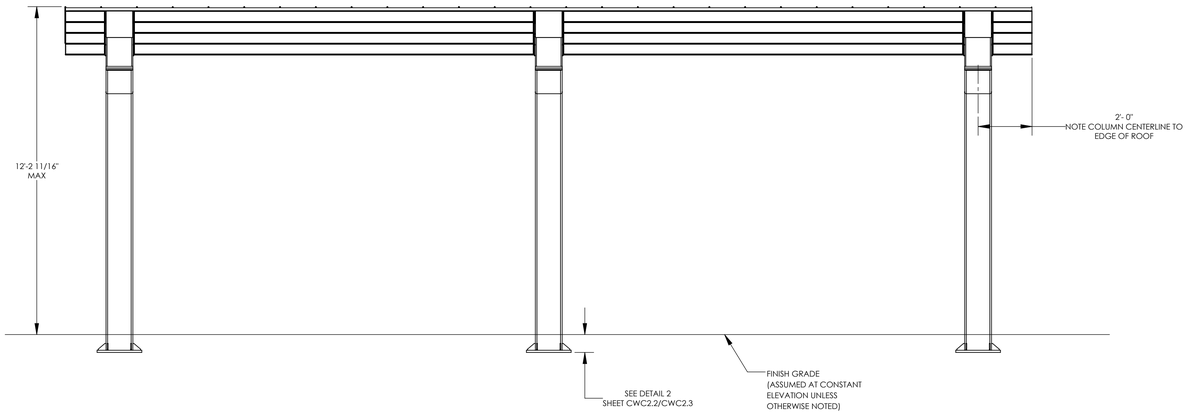
CWC5.0



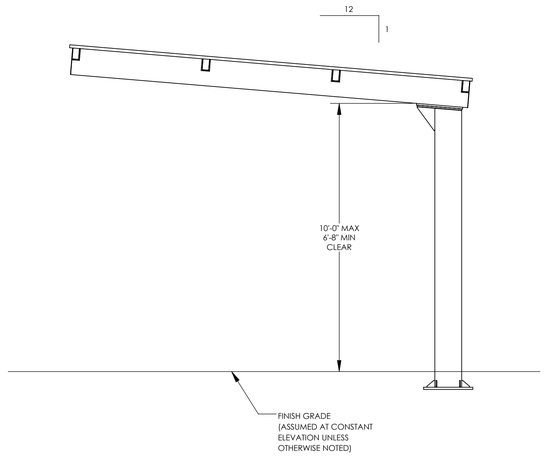
ISOMETRIC VIEW
SCALE: 3/8" = 1'-0"



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



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



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

STATE APPROVALS-SITE

4590 PLAZA GOLDEN RIO CIRCLE
SUITE B
CAMERON PARK, CA 95682
P 530.677.1515

poligon by PORTER

REGISTERED PROFESSIONAL ENGINEER
MARTHA K. MOORE
NO. S6729
STRUCTURAL
STATE OF CALIFORNIA

STATE APPROVALS-PC

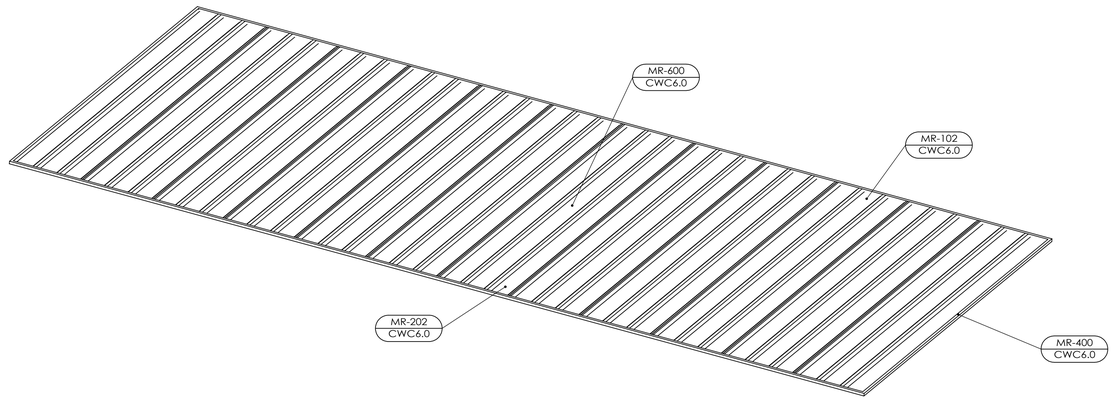
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-119075 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 07/22/2021

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

ARCHITECTURAL VIEWS

WALKWAY COVER - CWC 15

CWC5.1



ISOMETRIC VIEW

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

MULTI-RIB NOTES:

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

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

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

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

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

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

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

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

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

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

STATE APPROVALS-SITE

4590 PLAZA GOLDEN RIO CIRCLE
SUITE B
CAMERON PARK, CA 95682
530.677.5515

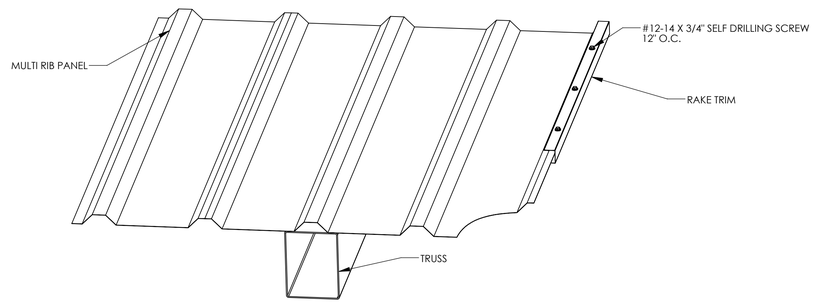
poligon by PORTER

REGISTERED PROFESSIONAL ENGINEER
MARTHA K. MOORE
NO. S6729
STRUCTURAL
STATE OF CALIFORNIA

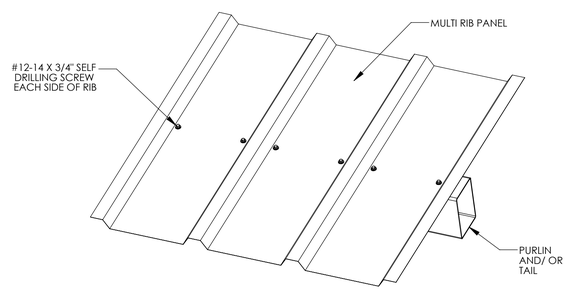
STATE APPROVALS-PC

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-119075 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 07/22/2021

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

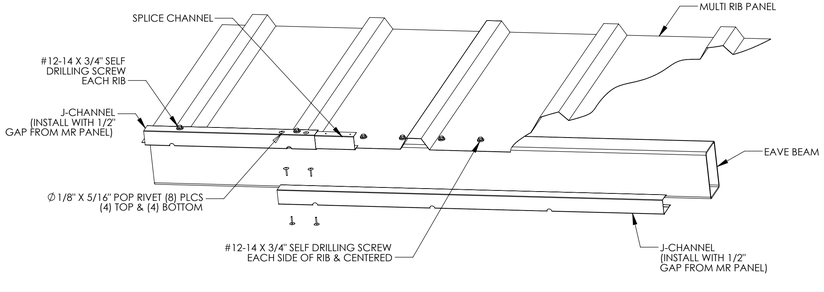


RAKE DETAIL — MR-400

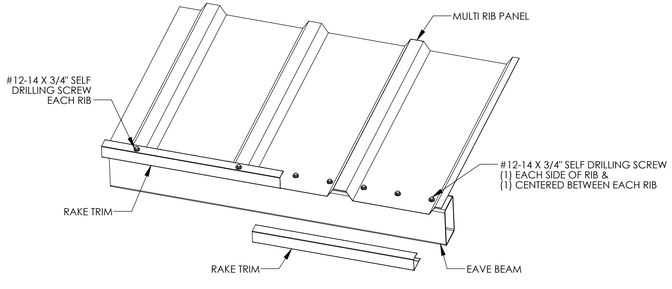


PURLIN DETAIL — MR-600

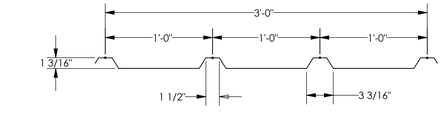
ROOF FASTENER TIGHTENING — MR-950



EAVE DETAIL — MR-102



HIGHSIDE DETAIL (VIEWING FROM ABOVE) — MR-202



GENERAL:
GAGE = 24
Fy = 50 KSI

TOP IN COMPRESSION:
Ix=0.052 IN^4
Se=0.0575 IN^3
Ma=1.723 IN-KIPS

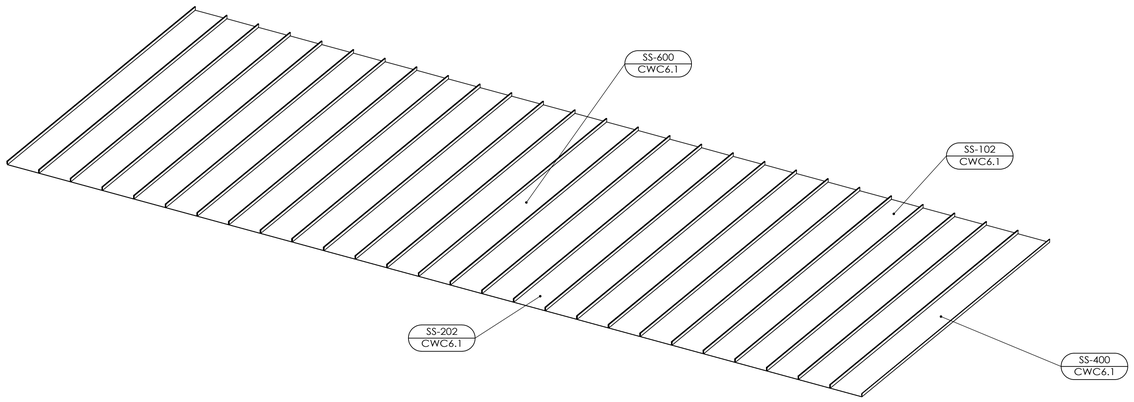
BOTTOM IN COMPRESSION:
Ix=0.031 IN^4
Se=0.0495 IN^3
Ma=1.483 IN-KIPS

MR ROOF DECK SECTION PROPERTIES — MR-951

ROOF CONNECTION DETAILS

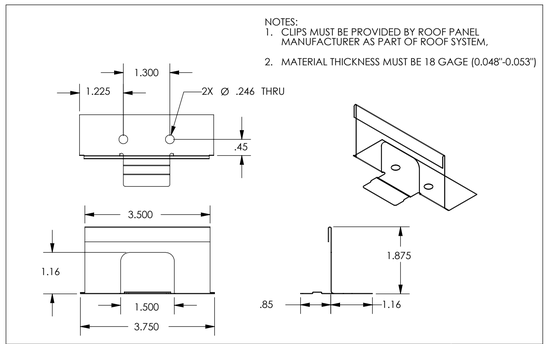
WALKWAY COVER - CWC

CWC6.0



ISOMETRIC VIEW

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



CLIP DETAIL | SS-CLP

2013C

STANDING SEAM INSTALLATION NOTES:

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

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

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

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

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

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

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

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

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

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

STATE APPROVALS-SITE

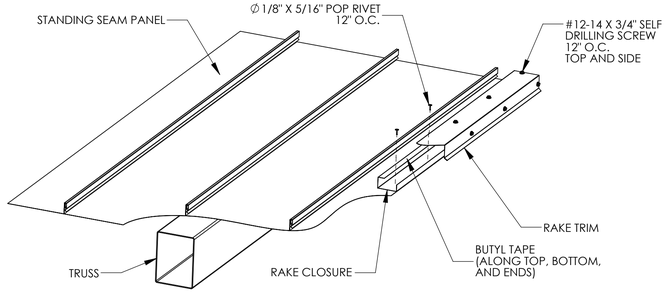
4590 PLAZA GOLDEN RIO CIRCLE
SUITE B
CAMERON PARK, CA 95682
530.677.5515

poligon by PORTER

REGISTERED PROFESSIONAL ENGINEER
KRISTINA K. MORRIS
NO. S6729
STRUCTURAL
STATE OF CALIFORNIA

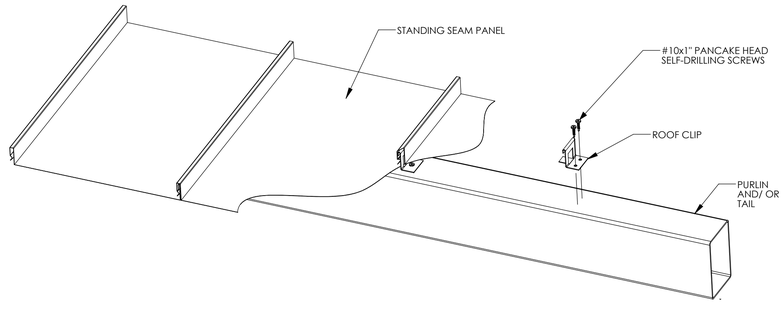
STATE APPROVALS-PC

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-119075 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 07/22/2021



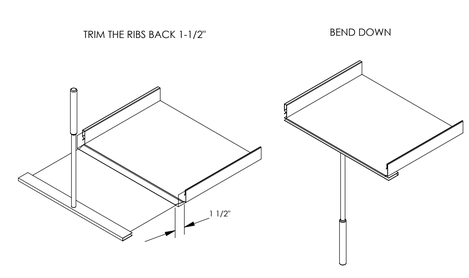
RAKE DETAIL | SS-400

2013C



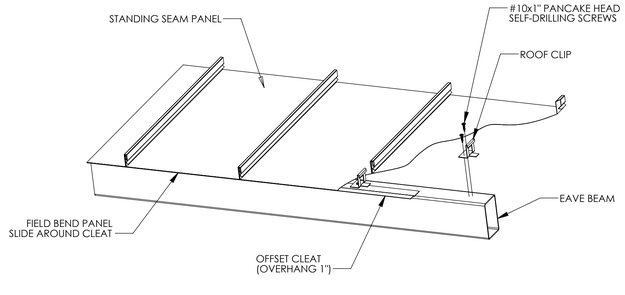
PURLIN DETAIL | SS-600

2013C



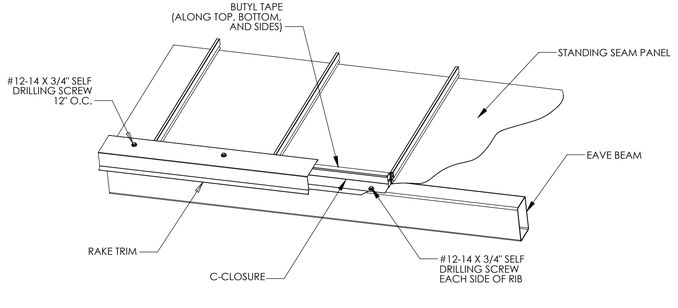
HEMMING DETAIL | SS-HEM

2013B



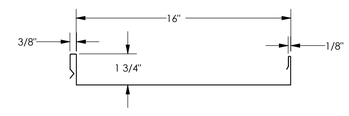
EAVE DETAIL | SS-102

2013C



HIGH SIDE DETAIL (VIEWING FROM ABOVE) | SS-202

2013C



GENERAL:
GAGE = 22
Fy = 50 KSI

TOP IN COMPRESSION:
Ix=0.1200 IN^4
Se=0.0803 IN^3
Ma=2.405 IN-KIPS

BOTTOM IN COMPRESSION:
Ix=0.0570 IN^4
Se=0.0729 IN^3
Ma=1.722 IN-KIPS

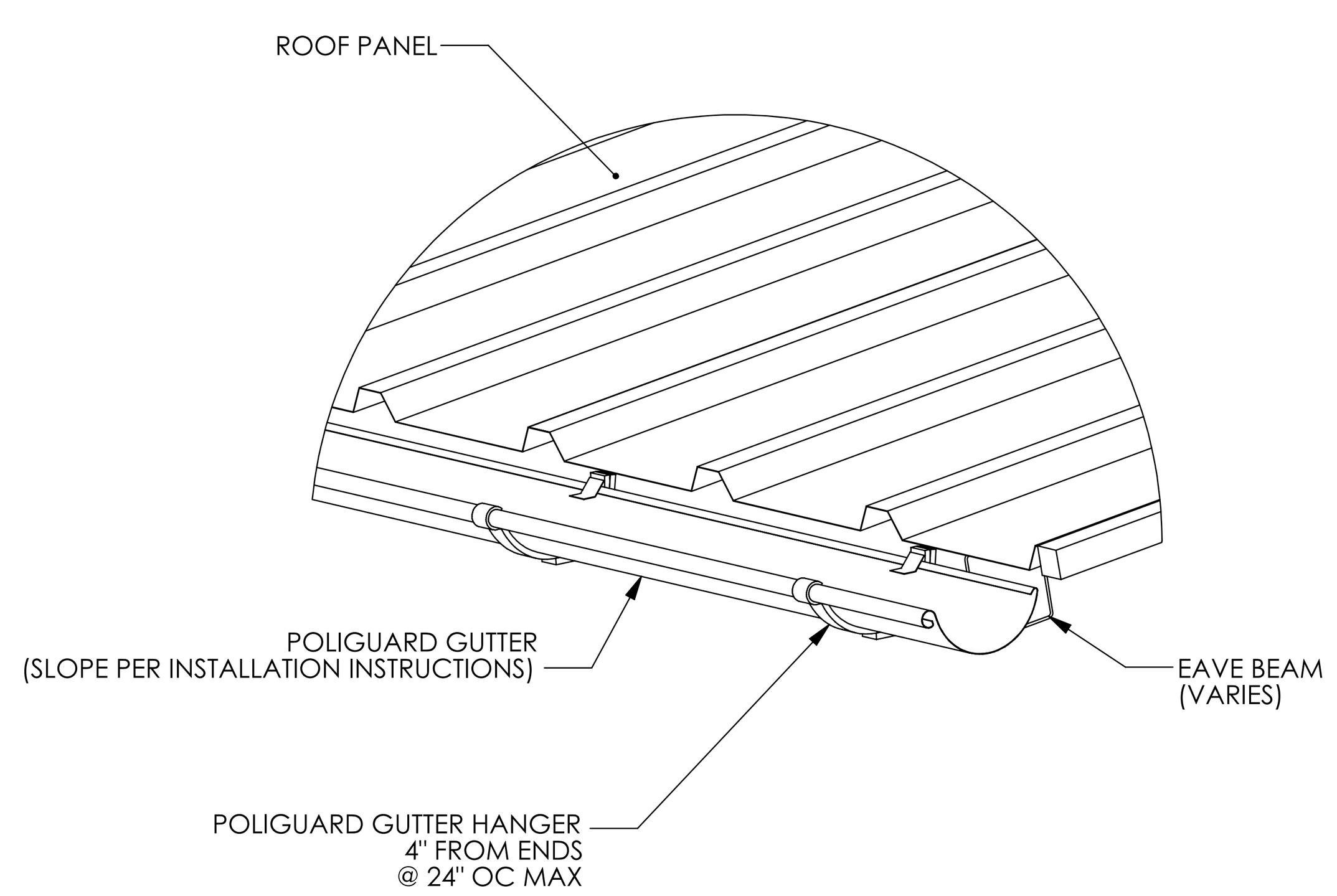
ROOF DECK SECTION PROPERTIES | SS-950

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

ROOF CONNECTION DETAILS

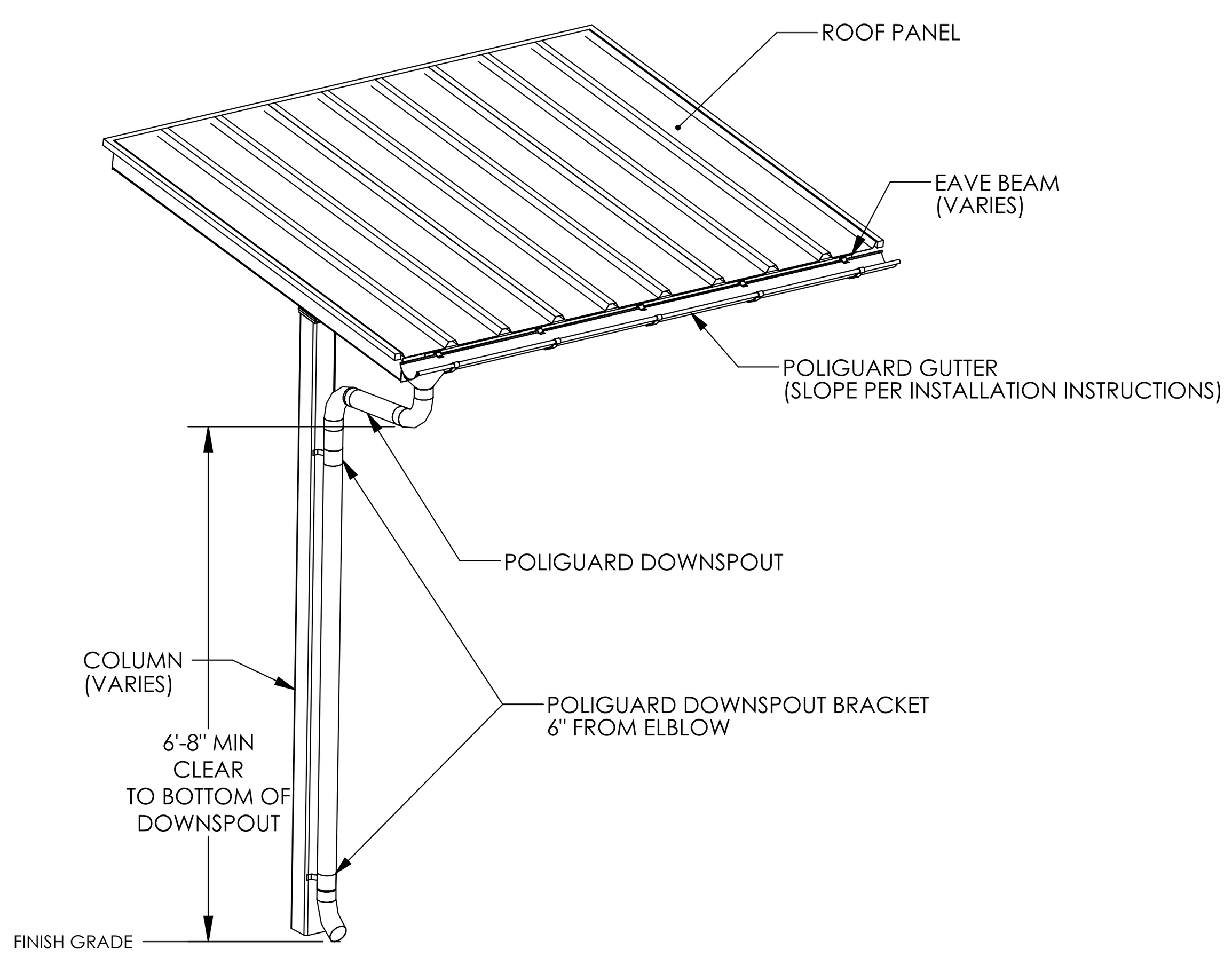
WALKWAY COVER - CWC

CWC6.1



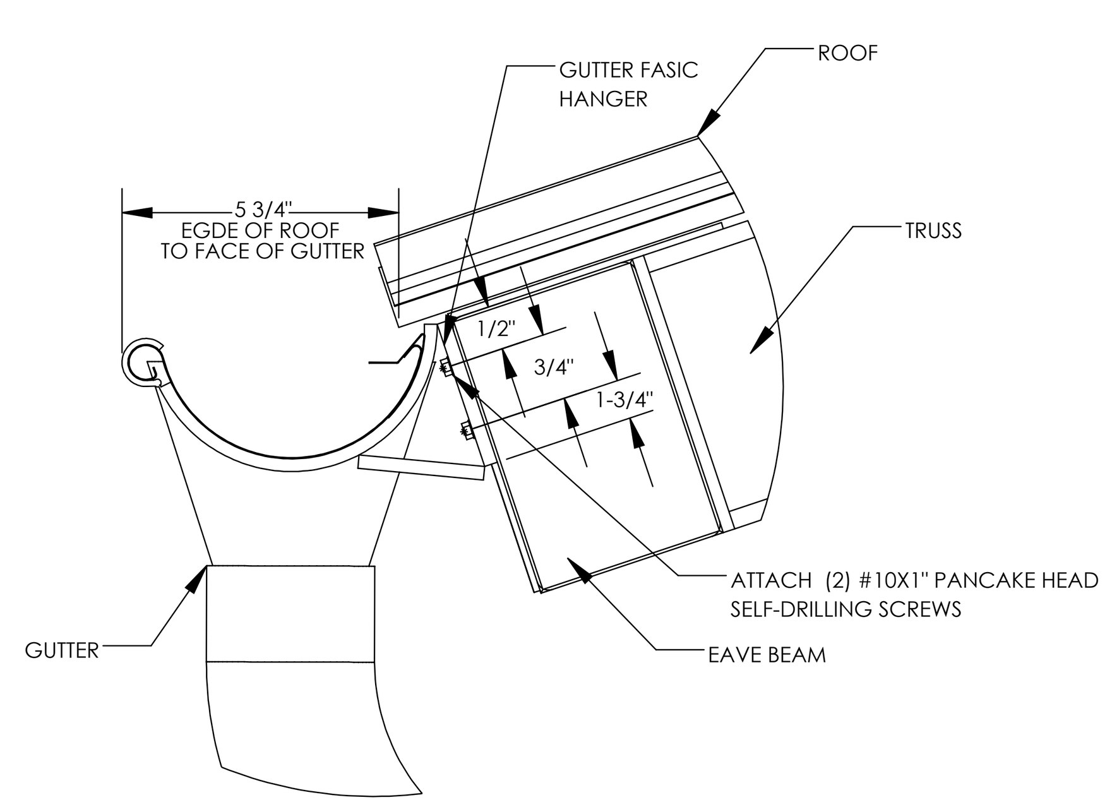
GUTTER DETAIL

GS-100



DOWNSPOUT DETAIL

GS-200

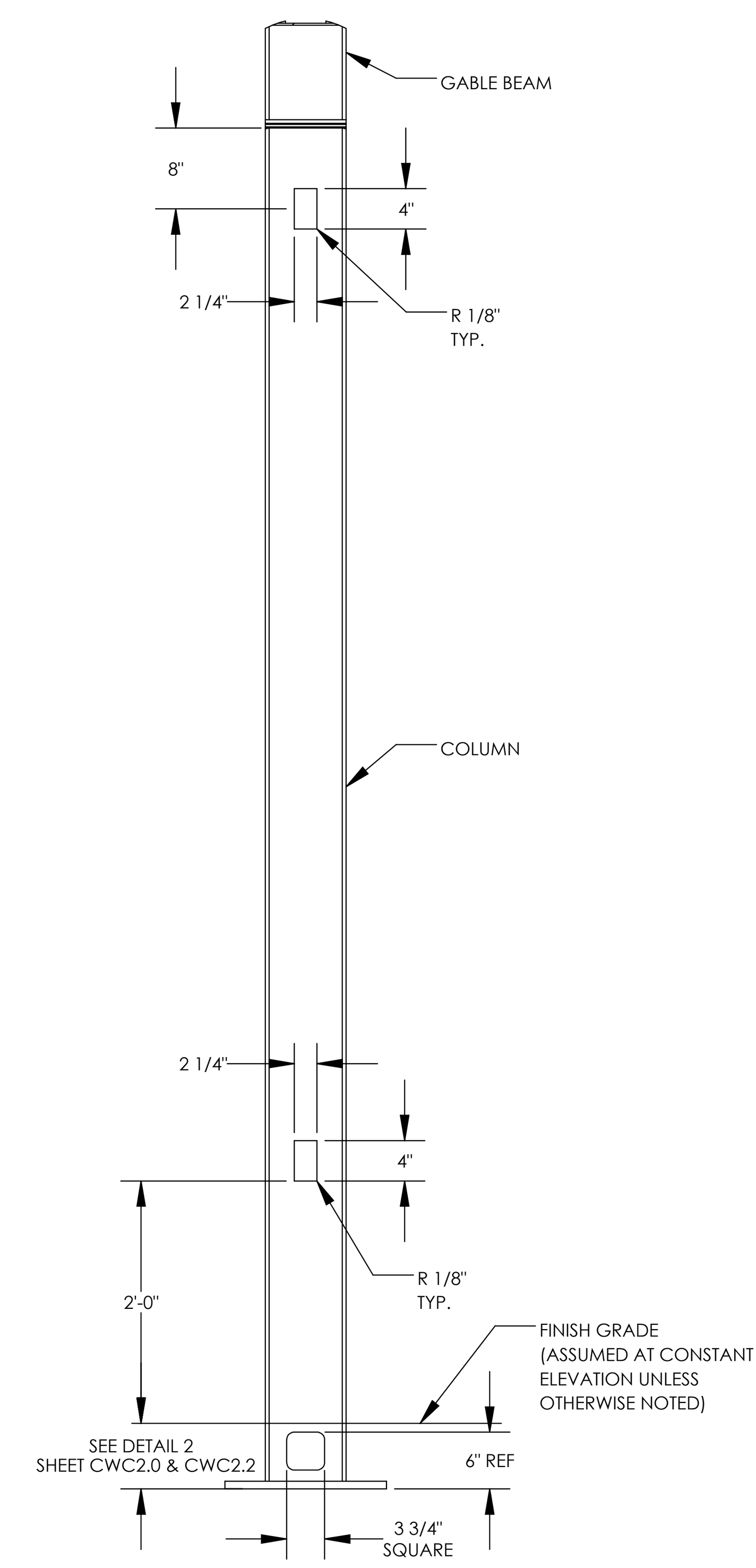


GUTTER DETAIL

GS-300

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 NOTES:

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

STATE APPROVALS-SITE

poligon

PORTER

STATE APPROVALS-PC

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-119075 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 07/22/2021

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

MISC DESIGN OPTIONS

WALKWAY COVER - CWC

CWC7.0

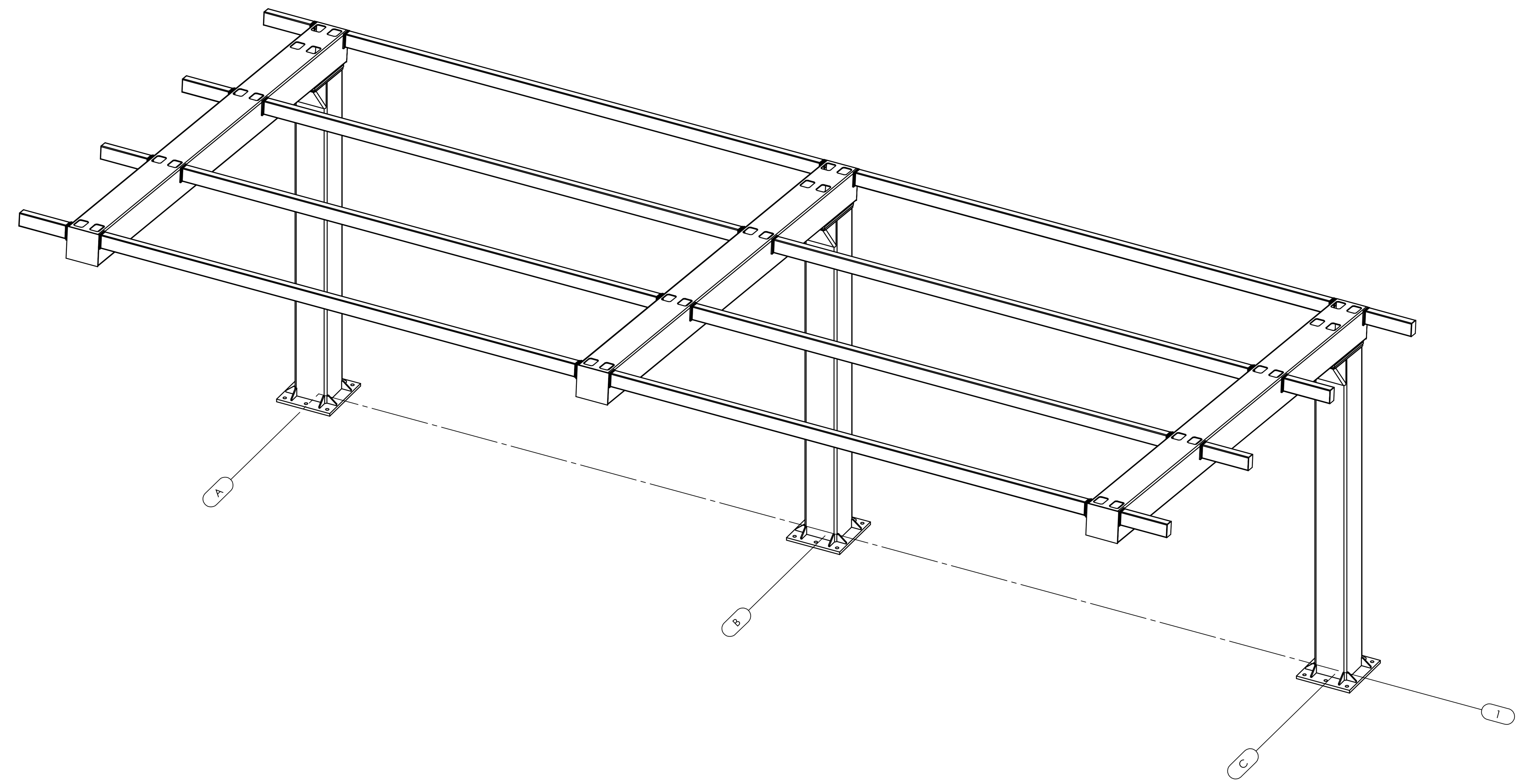
ELECTRICAL CUTOUT AND ACCESS INSTRUCTIONS

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

ELECTRICAL CUTOUT IDENTIFICATION IN COLUMNS
SPECIFIC MEMBERS ______________________________

EXAMPLE:

ELECTRICAL CUTOUT IDENTIFICATION IN COLUMNS
SPECIFIC MEMBERS A1, B1, F1



STATE APPROVALS-SITE

poligon | PORTER

STATE APPROVALS-PC

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-119075 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 07/22/2021

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

ELECTRICAL CUTOUTS

WALKWAY COVER - CWC

CWC7.1

APPROVAL DRAWINGS ARE FOR
(1) 5'-5 1/2" W X 24'-2" H X 9'-2" L
OBSERVATION TOWER WITH ROOF AND BALCONY

DEALER: MAGNOLIA HIGH SCHOOL

JOB NAME: MAGNOLIA HIGH SCHOOL

LOCATION: 2450 W. BALL RD.
ANAHEIM, CA 92804

NOTE: THESE DRAWINGS ARE FOR LAYOUT APPROVAL ONLY, ***NOT FOR PERMIT SUBMITTAL***. P.E. SEALED DRAWINGS, CALCS, & FOUNDATION DESIGN HAVE BEEN PURCHASED, BUT WILL NOT BE PRODUCED UNTIL AFTER LAYOUT IS APPROVED.

APPROVAL SIGNATURE REQUIRED
(APPROVAL IS FOR ALL PAGES IN DRAWING SET)

☐ APPROVED AS SHOWN

☐ APPROVED AS NOTED
(NOTED CHANGES MAY CAUSE REVISION PRIOR TO FABRICATION)

☐ REVISE AND RESUBMIT PRIOR TO FABRICATION

AUTHORIZED SIGNATURE: _____

DATE: _____

IMPORTANT MANUFACTURER'S DISCLAIMERS

THE MANUFACTURER HAS DESIGNED AND ENGINEERED THIS SYSTEM SPECIFICALLY, AS STATED IN THE TOWER NOTES SECTION. VARIATIONS AND/OR MODIFICATIONS TO THE SYSTEM OR COMPONENTS WILL VOID AND NULLIFY ANY AND ALL WARRANTIES, BOTH WRITTEN AND/OR IMPLIED, AND LIABILITY FOR DEFECTS IN THIS SYSTEM AND IT'S COMPONENTS. MANUFACTURER FURTHER ACCEPTS NO RESPONSIBILITY AND/OR LIABILITY FOR OBTAINING OR MAINTAINING AN LOCAL, REGIONAL OR NATIONAL BUILDING PERMITS, INSPECTIONS OR DOCUMENTS THAT MAY BE REQUIRED.

ALL INSPECTIONS TO BE ARRANGED BY AND PAID FOR BY OTHERS AND NOT PK STRUCTURES. PROJECTS THAT ARE NOT APPROVED FOR PRODUCTION WITHIN 30 DAYS FROM DATE ORDER WAS PLACED MAY BE SUBJECT TO PRICE ESCALATION BASED ON FLUCTUATIONS IN THE CURRENT STEEL MARKET.

TOWER NOTES

1. STRUCTURE:
   - A. TOWER LOCATION: 2450 W. BALL RD. - ANAHEIM, CA 92804
   - B. THE STRUCTURE OF THIS TOWER HAS BEEN DESIGNED IN CONFORMANCE WITH THE APPLICABLE BUILDING CODE: 2019 CALIFORNIA BUILDING CODE AS OF THE DATE OF THIS DRAWING USING THE FOLLOWING LOADS:
     - a. LIVE LOADS:
       - a.a. SHIPS LADDER = 100 PSF
       - a.b. WALKWAYS / LANDINGS = 100 PSF.
     - b. MAXIMUM POINT LOADING: 350 LBS.
     - c. SEISMIC: Ss = 1.442 S1 = 0.509 Fa = 1.20 Fv = 1.79 SDS = 1.0 SD1 = 0.609 SDC = D SITE CAT. = D
     - d. WIND LOAD: 95 MPH - EXPOSURE B - RISK CAT. II
     - e. GROUND SNOW LOAD = 0 PSF
     - f. ROOF LIVE LOAD = 20 PSF
2. FOUNDATION RESPONSIBILITY:
   - A. DESIGN WILL BE INCLUDED WITH CALCULATIONS, NON-SHRINK GROUT IS REQUIRED. GROUT AND GROUTING ARE THE RESPONSIBILITY OF OTHERS.
3. STRUCTURAL MATERIAL SPECIFICATIONS:
   - A. FINISHED FLOOR: 2" X 14 GA. GALVANIZED GRIP STRUT PLANKS, FACTORY WELDED TO TOWER STRUCTURE.
   - B. ROOF FRAMING:
     - a. WIDE FLANGE STEEL BEAM SHAPES (ROOF PANEL SUPPORT BEAMS), Fy = 50 KSI, ASTM A572-50 OR A992-50
     - b. ROOF PANEL FRAMES (END, CROSS & SIDE MEMBERS): L 2" X 2" X 1/8", Fy = 50 KSI
     - c. ROOF PANEL WEB MEMBERS: L 1 1/2" X 1 1/2" X 1/8", Fy = 50 KSI
     - d. ROOF EAVE ANGLES: L 2 1/2" X 2 1/2" X 3/16"M Fy = 50 KSI
   - C. TOWER VERTICAL TUBE COLUMNS: Fymin = 46 KSI, ASTM A500 GRADE B (SEE FLOOR PLAN LAYOUT FOR SIZES, SHEET M3)
   - D. TOWER FRAME HORIZONTAL MEMBERS: L 4" X 3" X 1/4", Fy = 50 KSI
   - E. LANDING & BALCONY DECKS: 2" X 14 GA. GALVANIZED GRIP STRUT PLANKS, FACTORY WELDED TO STRUCTURE.
   - F. SHIPS LADDERS: MC10X8.4 STRINGERS WITH 1 1/2" X 14 GA. GALVANIZED GRIP STRUT PLANKS.
   - G. SHIPS LADDER GUARDRAILS / HANDRAILS:
     - a. ALL TUBES EXCEPT VERTICAL POSTS = HSS 1 1/2" X 1 1/2" X 14 GA., ASTM A513, Fymin = 32 KSI.
     - b. VERTICAL POSTS = HSS 1 1/2" X 1 1/2" X 11 GA., ASTM A500 GRADE B, Fymin = 46 KSI.
     - c. 3/4" X 13 GA. FLAT EXPANDED METAL
   - H. GUARDRAIL COMPONENTS: L 4" X 3" X 1/4", Fy = 50 KSI AND L 1 1/2" X 1 1/2" X 1/8" ASTM A512, Fymin = 32 KSI WITH 3/4" X 13 GA. FLAT EXPANDED METAL FRAMES.
   - I. OTHER STRUCTURAL STEEL SHAPES & BASE PLATES: Fy = 36 KSI: ASTM A36
   - J. STRUCTURAL BOLTS: 1/2" Ø , 5/8" Ø, OR LARGER = A325 (REFERENCE DETAILS FOR CALLOUTS).
   - K. ANCHOR BOLTS: SEE TOWER PLACEMENT ON FOUNDATION SHEET M2.
4. BOLT INSTALLATION:
   - A. BOLTS FOR STRUCTURAL CONNECTIONS SHALL BE 1/2" Ø GRADE 5 AND 5/8" Ø OR LARGER A325 / A490 IN BEARING-TYPE CONNECTIONS, TIGHTENED UNTIL SNUG, UNLESS NOTED OTHERWISE. SNUG TIGHT IS THE TIGHTNESS THAT EXISTS WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT AND MAY BE ACHIEVED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A PERSON USING AN ORDINARY SPUD WRENCH. NOTE THAT THE AISC DOES NOT RECOGNIZE TIGHTENING BOLTS TO A SPECIFIED TORQUE AS A SUFFICIENT MEANS OF TIGHTENING THEM. IT DOES HOWEVER RECOGNIZE "TURN OF THE NUT METHOD" AS A SUFFICIENT MEANS TO TIGHTEN BOLTS.
5. SHIPS LADDER SPECIFICATIONS PER 2018 IBC, **SECTION 1011.12 AND 1011.15.2**:
   - A. SEE SHEETS "M15" AND "M16" FOR SHIPS LADDER TREAD WIDTH, TREAD DEPTH, RISER HEIGHT, GUARDRAIL HEIGHT, & HANDRAIL HEIGHT.
   - B. SHIPS LADDER TREAD MATERIAL = 1 1/2" X 14 GA. GALVANIZED GRIP STRUT PLANKS.
6. GUARDRAIL SPECIFICATIONS:
   - A. GUARDRAIL HEIGHT = 42"
7. FINISH:
   - A. ALL STRUCTURAL COMPONENTS: HOT DIP GALVANIZED.
   - B. ROOF SHEETING / FLASHING: PER COLOR CHART.
8. SPECIAL INSPECTION: PER IBC CHAPTER 17 REQUIREMENTS:
   - A. HIGH STRENGTH BOLTING (E1, E2)
     - a. ALL CONNECTIONS ARE BEARING UNLESS NOTED OTHERWISE
   - B. HILTI ADHESIVE ANCHOR INSTALLATION (E1, E2)
     - a. HOLE CLEANING AND INSTALLATION TO HAVE CONTINUOUS INSPECTION
   - C. CAST-IN-PLACE CONCRETE (E1, E2, E3)
     - a. REINFORCING STEEL PLACEMENT
     - b. CONCRETE FIELD SAMPLING AND TESTING
     - c. REVIEW CERTIFIED MILL REPORTS AND DESIGN MIXES
     - d. VERIFY USE OF REQUIRED DESIGN MIX
   - D. SOIL (E1, E2, E34, E5)
     - a. OBSERVATION OF SITE PREPARATION INCLUDING EXCAVATION DEPTH
     - b. VERIFICATION THAT BEARING COMPACTION EXCEEDS AN ALLOWABLE STRESS OF 1,500 PSF
     - c. REVIEW OF COMPACTION TESTING FOR COMPLIANCE WITH CONSTRUCTION DOCUMENTS
   - E. INSPECTOR QUALIFICATIONS
     - a. ACCREDITED ENGINEER / ENGINEERING TECHNOLOGY PROGRAM UNDER THE DIRECT SUPERVISION OF A CALIFORNIA PROFESSIONAL ENGINEER.
     - b. ICC SPECIAL INSPECTOR CERTIFICATION SPECIFIC TO THE PARTICULAR MATERIAL AND TESTING METHODOLOGY.
     - c. AMERICAN CONCRETE INSTITUTE (ACI) CONCRETE CONSTRUCTION SPECIAL INSPECTOR.
     - d. NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) LEVEL III CERTIFICATION SPECIFIC TO THE PARTICULAR MATERIAL AND TESTING METHODOLOGY.
     - e. NICET CERTIFIED ENGINEERING TECHNOLOGIST.

PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM

REVISION: | REVISION: | REVISION: | REVISION: | REVISION: | REVISION:

PLAN NORTH
FOR REFERENCE ONLY

PAGE NAME: COVER SHEET

SHEET M1 OF M17

DEALER: MAGNOLIA HIGH SCHOOL

JOB NAME: MAGNOLIA HIGH SCHOOL

LOCATION: 2450 W. BALL RD. - ANAHEIM, CA 92804

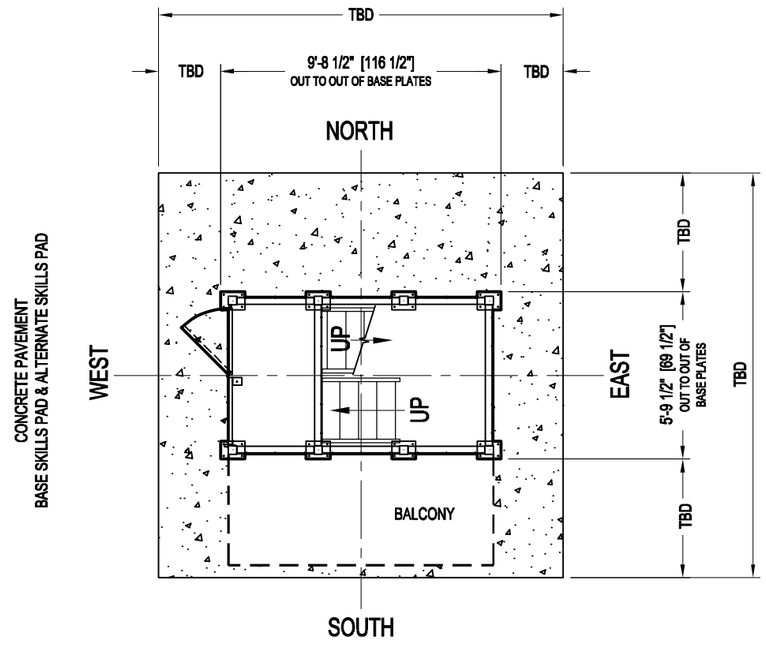
DRAWN BY: MO

DATE: 1-25-22

REVISED DATE:

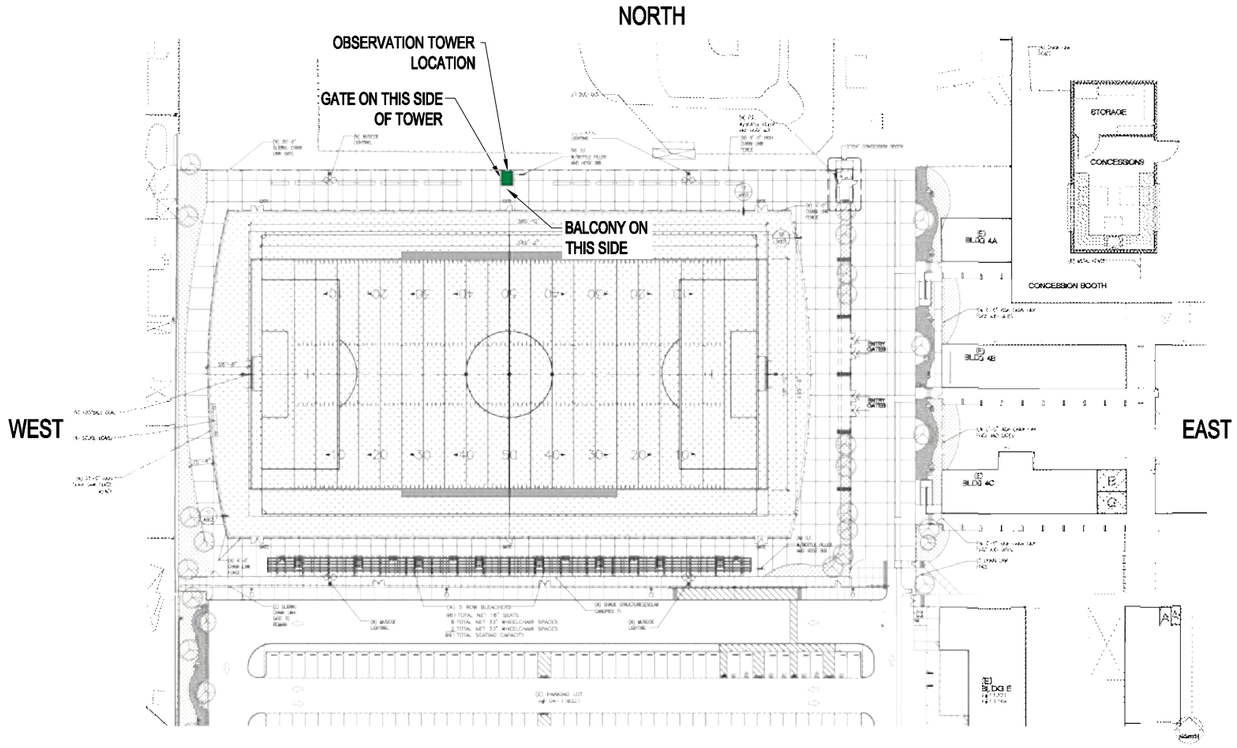
SCALE: 3/16"=1'-0"

ORDER NUMBER: PK35989-10787



SOUTH TRACK CROSSING ROAD

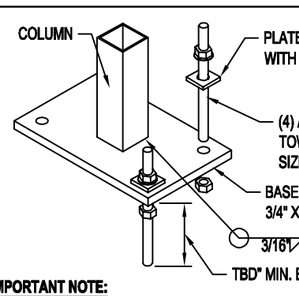
TOWER PLAN ON FOUNDATION PLACEMENT



ENLARGED SITE PLAN — NOVEMBER 3, 2021
HERITAGE GANNON ARCHITECTS — MAGNOLIA HIGH SCHOOL FIELDS, ANAHEIM UNION HIGH SCHOOL DISTRICT — SCALE: 1" = 200'-0"

SOUTH

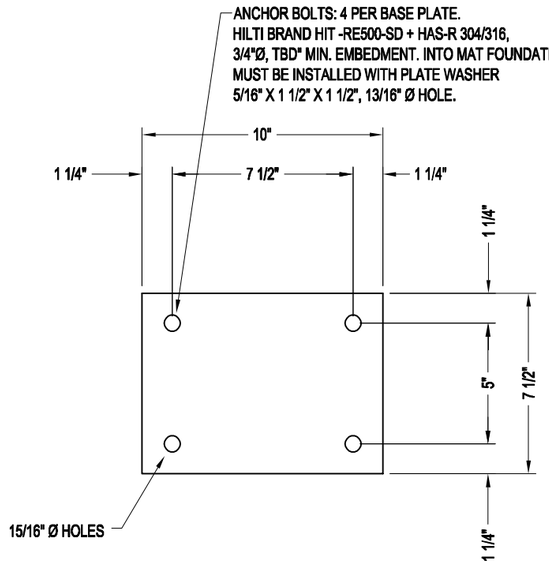
SITE PLAN



IMPORTANT NOTE:

1. BASEPLATES MUST BE IN FULL CONTACT WITH THE CONCRETE OR EXCESSIVE MOVEMENT IN THE TOWER WILL BE EXPERIENCED.
2. NUTS (SUPPLIED) TO BE INSTALLED UNDER BASE PLATES TO LEVEL AND PLUMB THE TOWER.
3. A MINIMUM OF 1" GROUT MUST BE INSTALLED UNDER EACH BASE PLATE.
4. HOLD BASE PLATES UP OFF THE CONCRETE WHILE ANCHORS ARE INSTALLED. USE 2"X4" DUNNAGE THAT CAME WITH SHIPMENT.

BASE PLATE ANCHORING DETAIL
1" SCALE



BASE PLATE: 1" x 7 1/2" x 10"

PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM

REVISION: | REVISION: | REVISION: | REVISION: | REVISION: | REVISION:

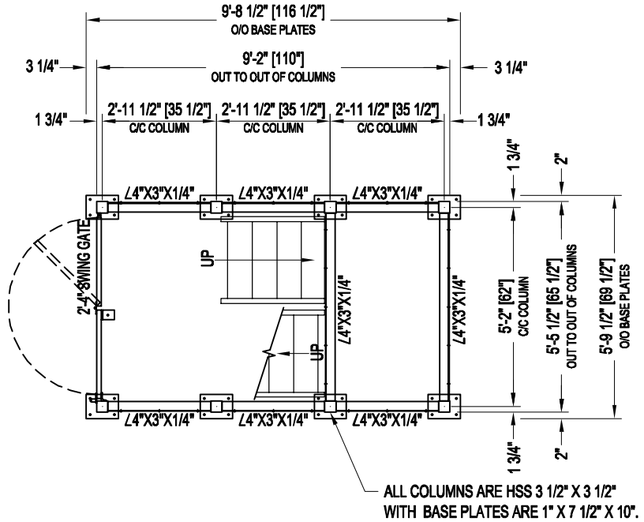
PLAN NORTH
FOR REFERENCE ONLY

PAGE NAME: TOWER PLACEMENT ON FOUNDATION SHEET

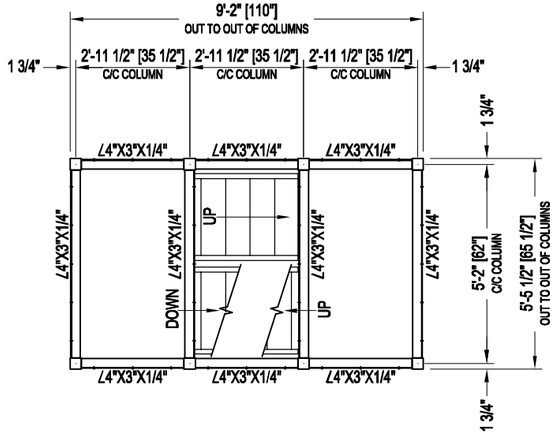
SHEET M2 OF M17

DEALER:
JOB NAME: MAGNOLIA HIGH SCHOOL
LOCATION: 2450 W. BALL RD. - ANAHEIM, CA 92804

DRAWN BY: MO
DATE: 1-25-22
REVISED DATE:
SCALE: 3/16"=1'-0"
ORDER NUMBER: PK35989-10787



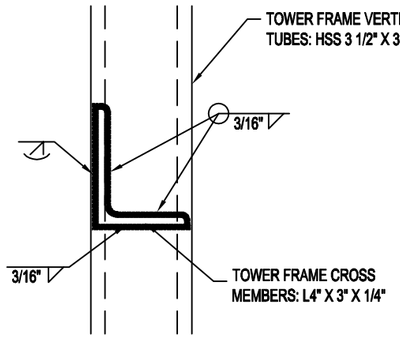
TOWER FLOOR PLAN ON SLAB



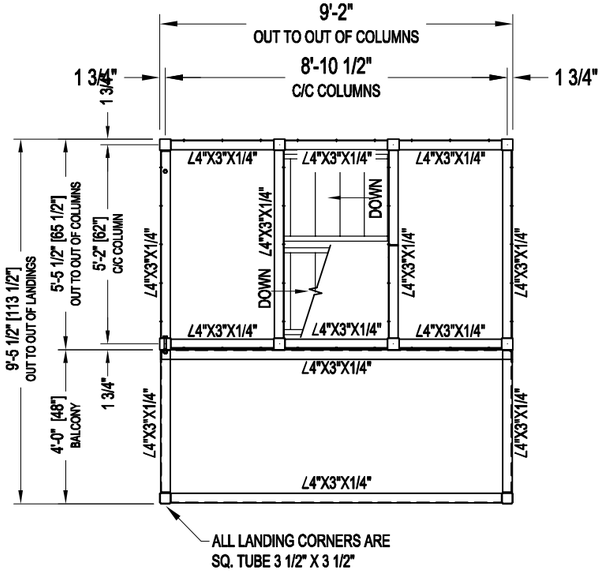
TOWER INTERMEDIATE LANDINGS

AT THE 50", 98", 146", 194", & 242" ELEVATIONS

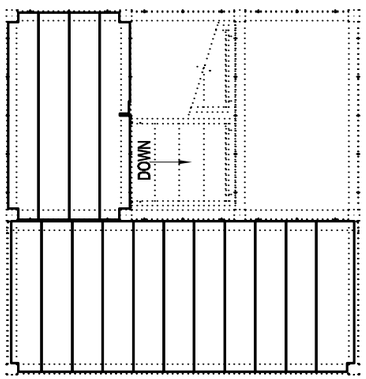
GRIP STRUT FACTORY WELDED TO FRAME AT EACH ELEVATION



TYPICAL WELD DETAIL



TOWER OBSERVATION LEVEL



TOWER TOP LANDING & BALCONY GRIP STRUT LAYOUT

AT THE 290" ELEVATION

GRIP STRUT FACTORY WELDED TO FRAME & BALCONIES

PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM

REVISION:	REVISION:	REVISION:	REVISION:	REVISION:	REVISION:

PLAN NORTH
FOR REFERENCE ONLY

PAGE NAME: TOWER PLAN VIEW SHEET

SHEET M3 OF M17

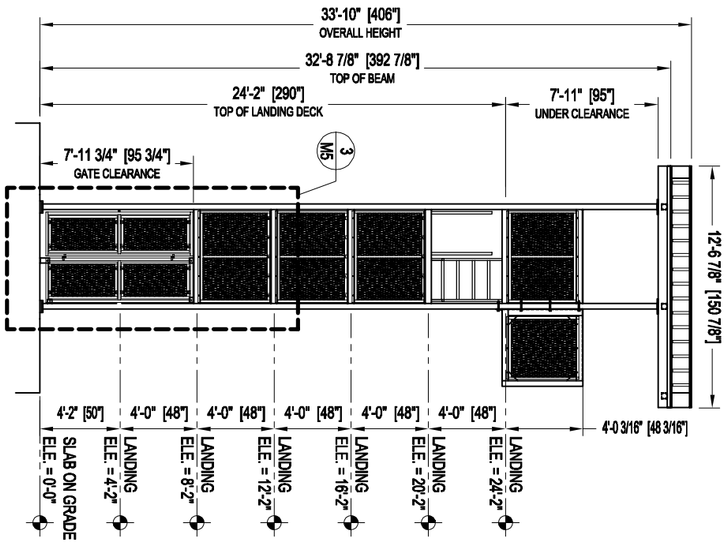
DEALER:

JOB NAME: MAGNOLIA HIGH SCHOOL

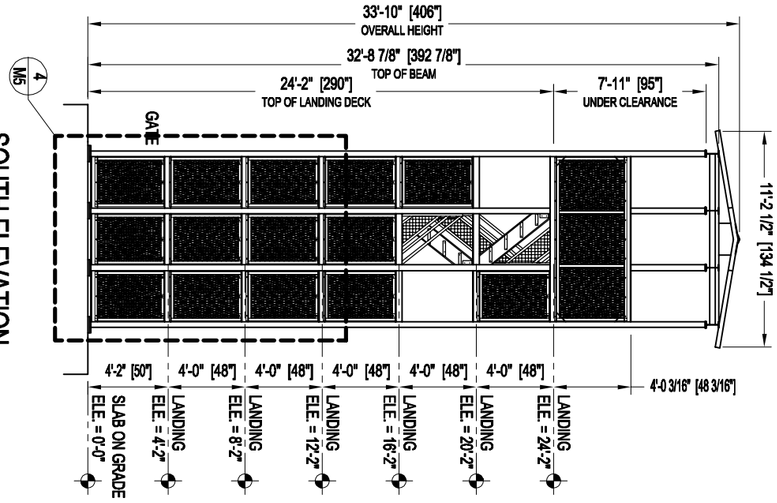
LOCATION: MAGNOLIA HIGH SCHOOL
2450 W. BALL RD. - ANAHEIM, CA 92804

DRAWN BY:	DATE:	REVISED DATE:	SCALE:	ORDER NUMBER:
MO	1-25-22		1/4"=1'-0"	PK35989-10787

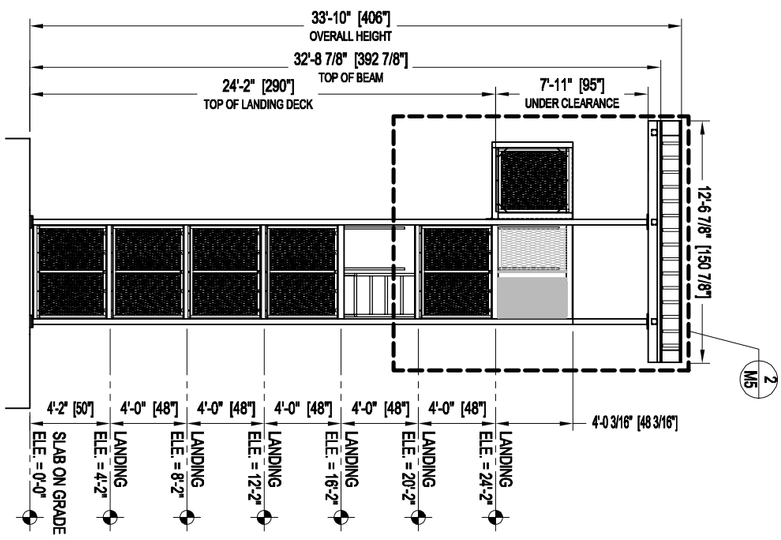
WEST ELEVATION



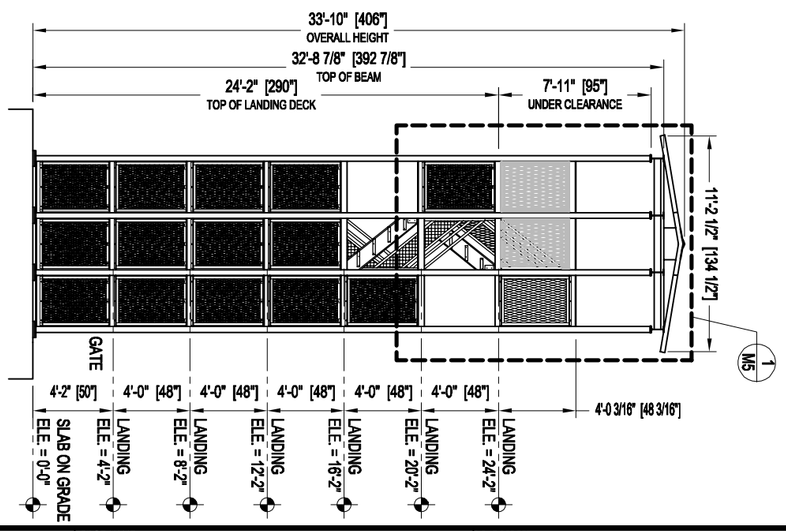
SOUTH ELEVATION



EAST ELEVATION



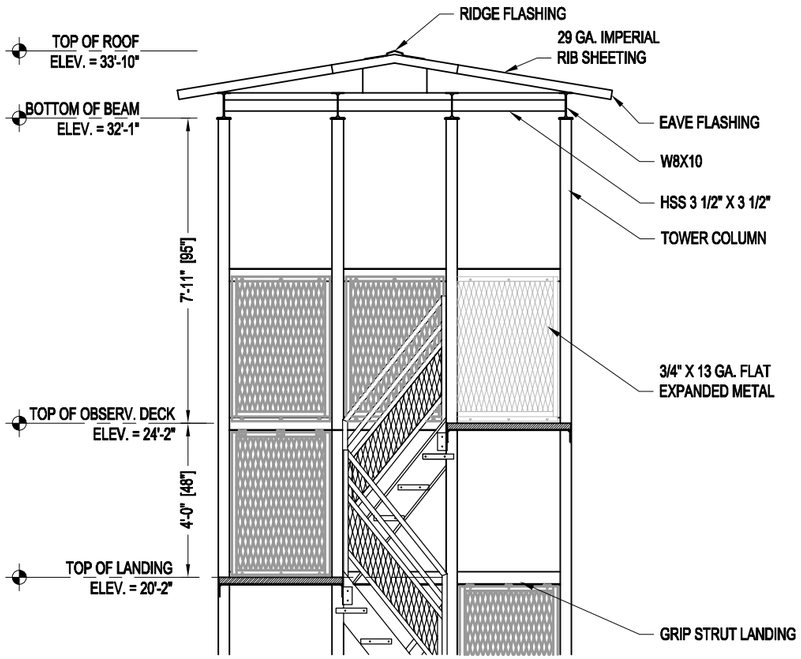
NORTH ELEVATION



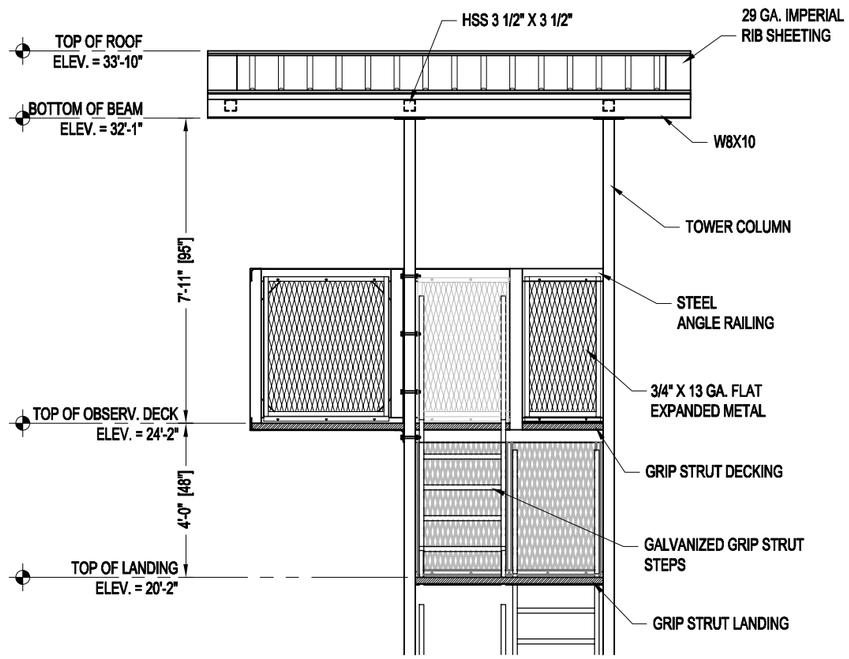
DRAWN BY: MO	DEALER: MAGNOLIA HIGH SCHOOL	PAGE NAME: TOWER ELEVATION VIEW SHEET	REVISION:
DATE: 1-25-22	JOB NAME: MAGNOLIA HIGH SCHOOL		REVISION:
REVISED DATE:	LOCATION: 2450 W. BALL RD. - ANAHEIM, CA 92804		REVISION:
SCALE: 1/8"=1'-0"	PROPRIETARY INFORMATION		REVISION:
ORDER NUMBER: PK35989-10787	THIS DRAWING & THE DESIGN IT COVERS ARE THE EXCLUSIVE PROPERTY OF KELLY GROUP, INC. OF NE. THEY ARE PROVIDED ONLY ON THE USER'S EXPRESS AGREEMENT THAT THEY WILL NOT BE REPRODUCED, COPIED, LOANED, EXHIBITED, CHANGED OR OTHERWISE USED EXCEPT IN THE LIMITED WAY PERMITTED BY CONSENT OF KELLY GROUP, INC. OF NE. TO THE USER OR THEIR AGENTS. KELLY GROUP, INC. NE. MAKES NO REPRESENTATION REGARDING DRAWING SCALE & ACCURACY.	SHEET M4 OF M17	REVISION:

PLAN NORTH FOR REFERENCE ONLY

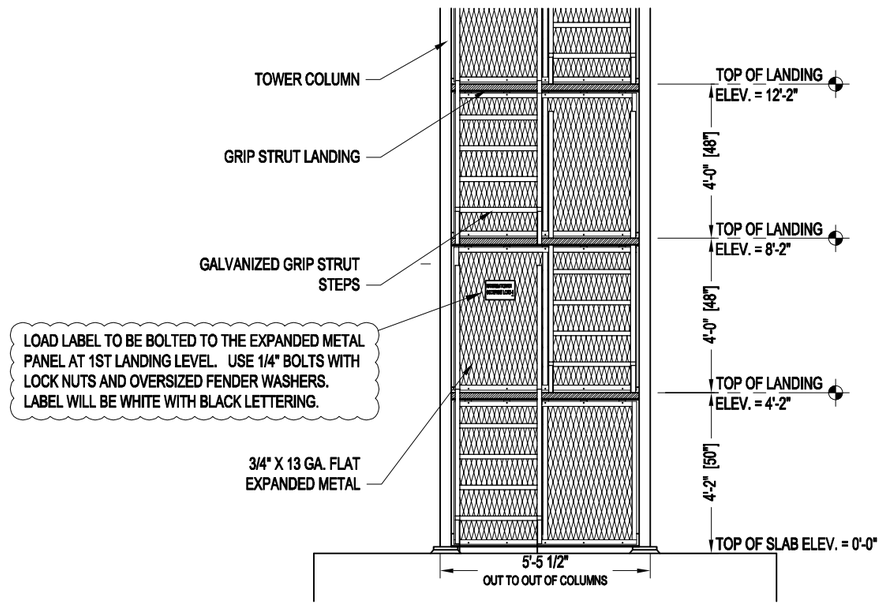
PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM



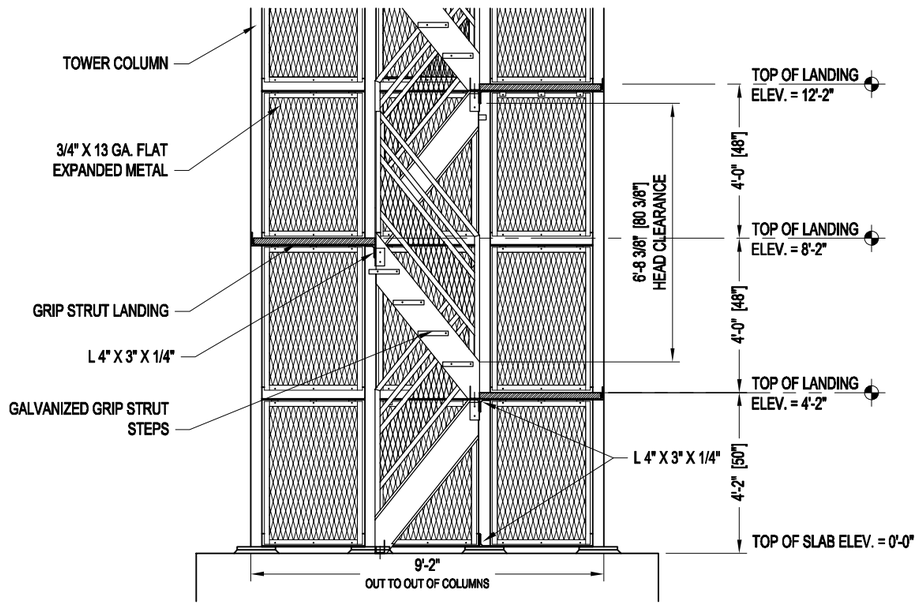
1 TOWER LONGITUDINAL SECTION
DETAIL @ OBSERVATION PLATFORM



2 TOWER TRANSVERSE SECTION
DETAIL @ OBSERVATION PLATFORM



3 TOWER TRANSVERSE SECTION
DETAIL @ GROUND LEVEL



4 TOWER LONGITUDINAL SECTION
DETAIL @ GROUND LEVEL

PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM

REVISION:

PLAN NORTH
FOR REFERENCE ONLY

PAGE NAME: TOWER SECTION DETAILS

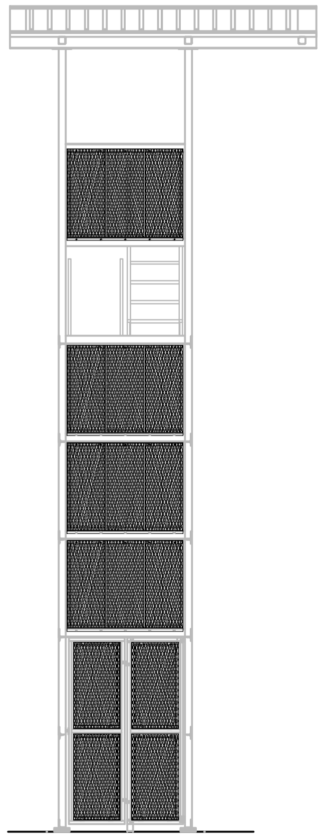
SHEET M5 OF M17

DEALER:

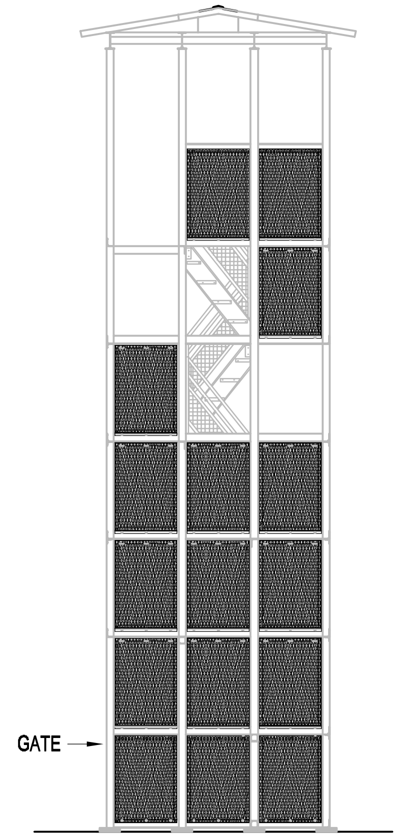
JOB NAME: MAGNOLIA HIGH SCHOOL

LOCATION: MAGNOLIA HIGH SCHOOL
2450 W. BALL RD. - ANAHEIM, CA 92804

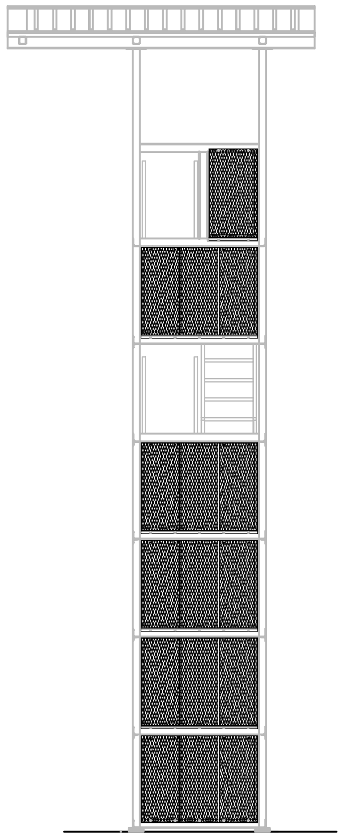
DRAWN BY: MO
DATE: 1-25-22
REVISED DATE:
SCALE: 1/4"=1'-0"
ORDER NUMBER: PK35989-10787



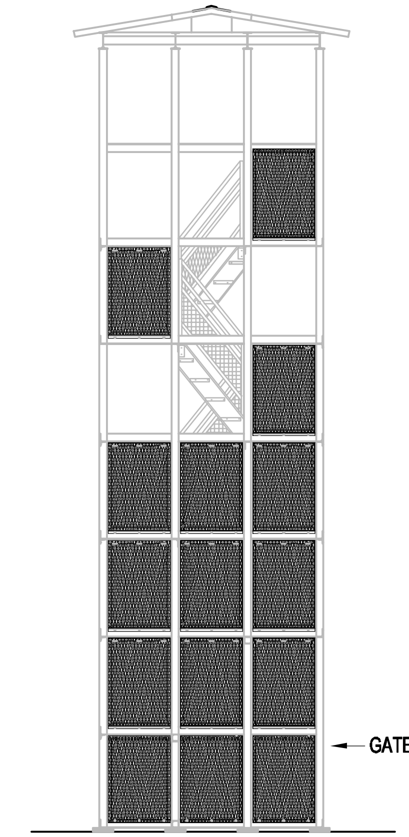
WEST ELEVATION



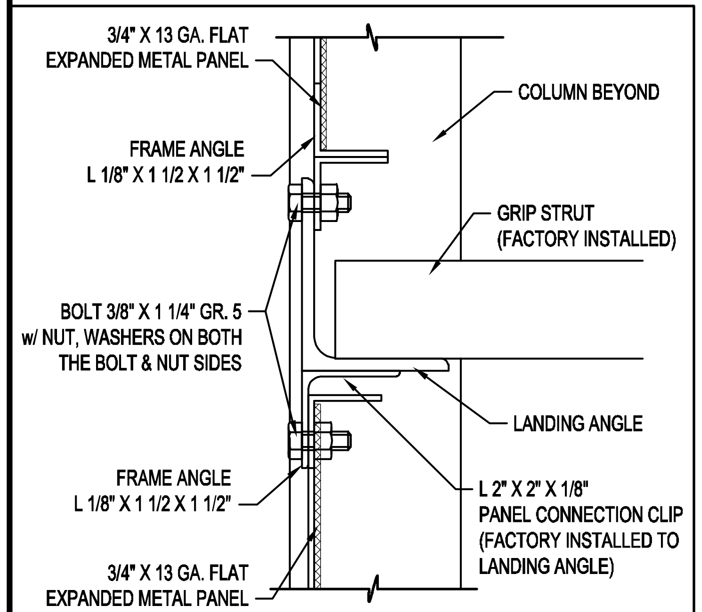
SOUTH ELEVATION



EAST ELEVATION



NORTH ELEVATION



EXPANDED METAL CONNECTION
3" SCALE

PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM

REVISION:
REVISION:
REVISION:
REVISION:
REVISION:
REVISION:

PAGE NAME: TOWER FRAME EXPANDED METAL LAYOUT

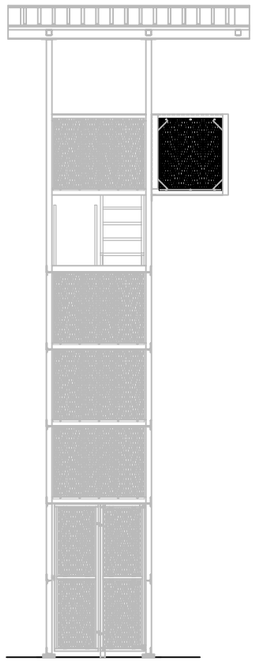
PLAN NORTH
FOR REFERENCE ONLY

SHEET M6 OF M17

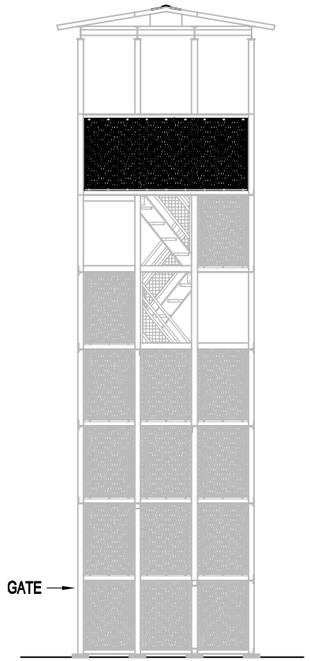
DEALER: MAGNOLIA HIGH SCHOOL
JOB NAME: MAGNOLIA HIGH SCHOOL
LOCATION: 2450 W. BALL RD. - ANAHEIM, CA 92804

PROPRIETARY INFORMATION

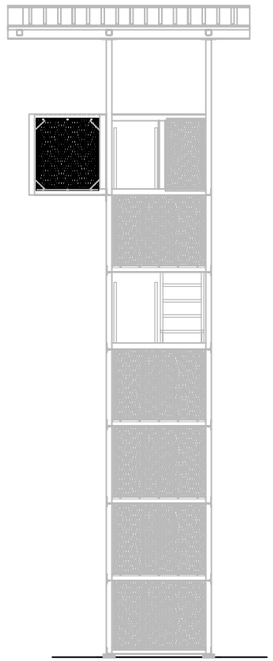
DRAWN BY: MO
DATE: 1-25-22
REVISED DATE:
SCALE: 1/8"=1'-0"
ORDER NUMBER: PK35989-10787



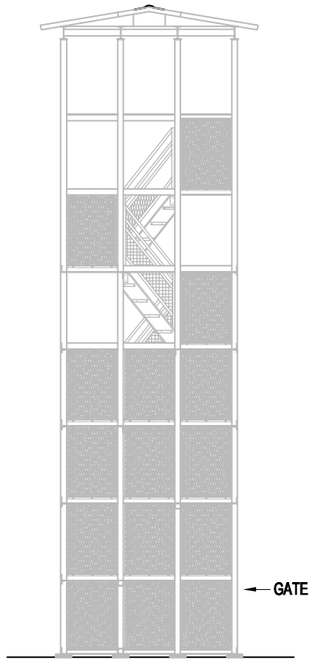
WEST ELEVATION



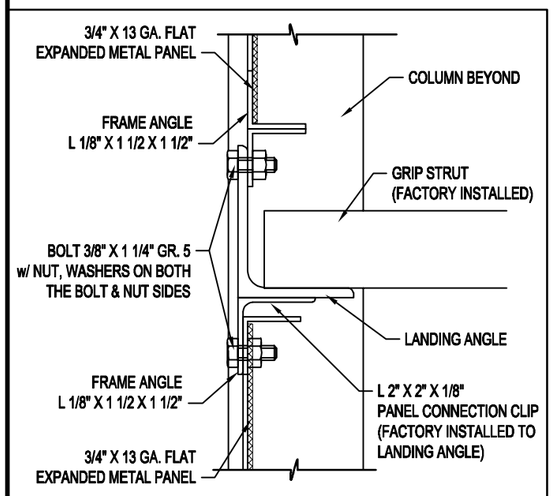
SOUTH ELEVATION



EAST ELEVATION



NORTH ELEVATION



EXPANDED METAL CONNECTION
3" SCALE

PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM

REVISION:
REVISION:
REVISION:
REVISION:
REVISION:
REVISION:

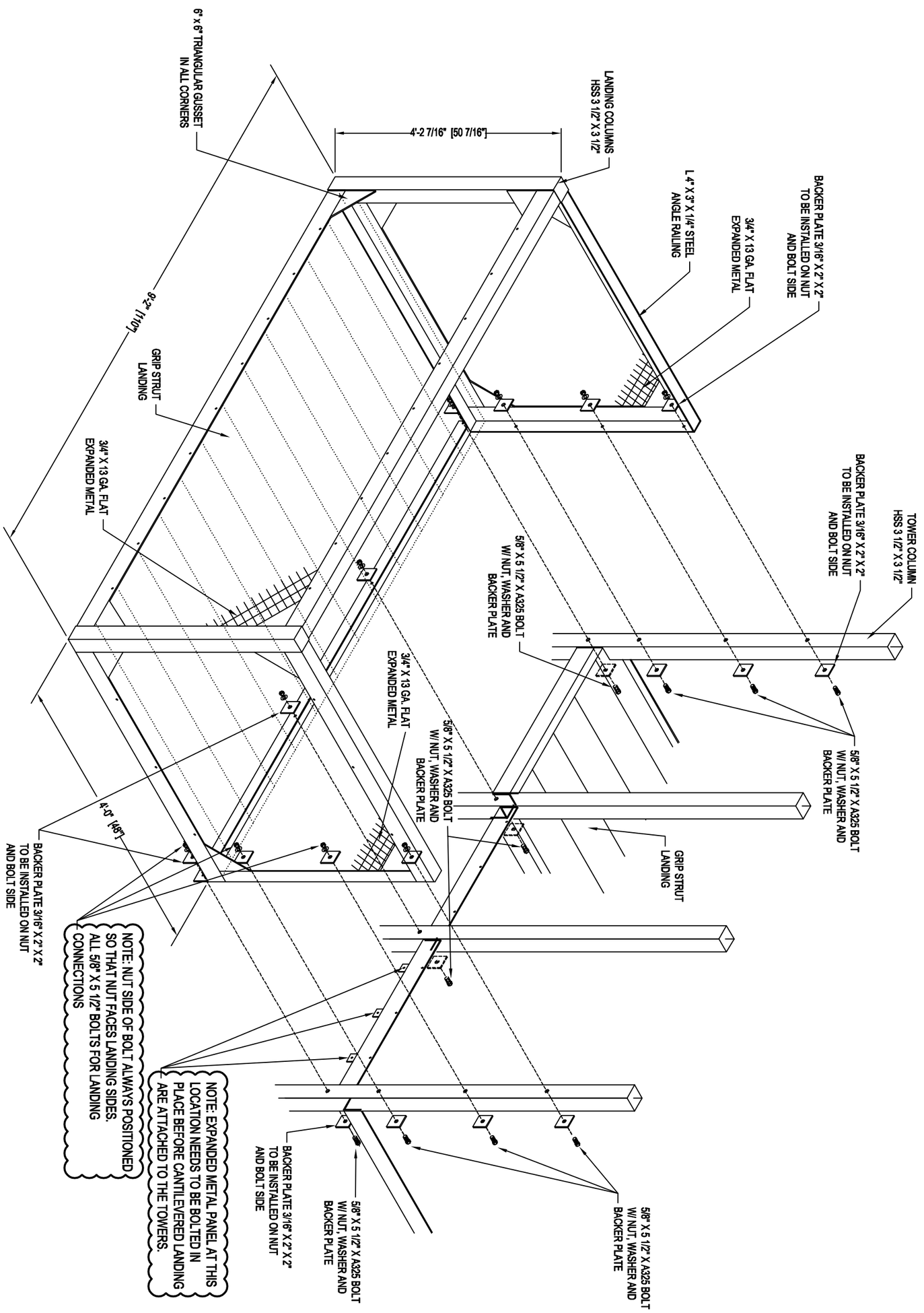
PLAN NORTH
FOR REFERENCE ONLY

PAGE NAME: TOWER FRAME EXPANDED METAL LAYOUT

SHEET M7 OF M17

DRAWN BY: MO
DATE: 1-25-22
REVISED DATE:
SCALE: 1/8"=1'-0"
ORDER NUMBER: PK35989-10787

DEALER:
JOB NAME: MAGNOLIA HIGH SCHOOL
LOCATION: 2450 W. BALL RD. - ANAHEIM, CA 92804

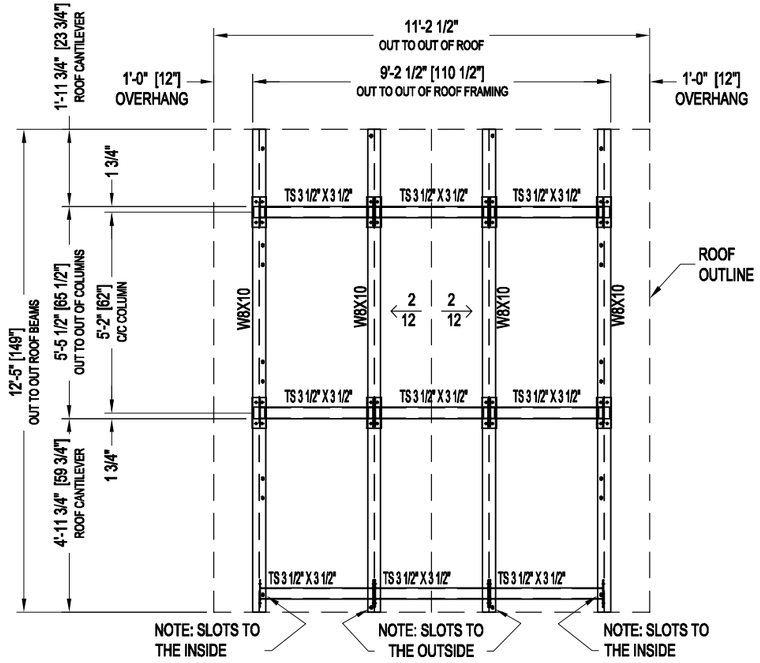


OBSERVATION LANDING TO TOWER CONNECTION DETAIL
1/2" SCALE

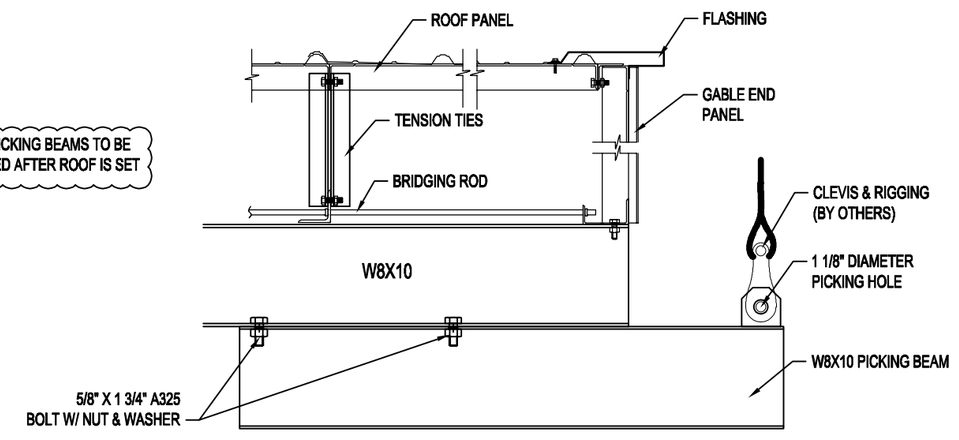
DRAWN BY: MO	DEALER: MAGNOLIA HIGH SCHOOL	PAGE NAME: OBSERVATION / BALCONY LEVEL DETAIL SHEET	REVISION:
DATE: 1-25-22	JOB NAME: MAGNOLIA HIGH SCHOOL		REVISION:
REVISED DATE:	LOCATION: 2450 W. BALL RD. - ANAHEIM, CA 92804		REVISION:
SCALE: 3/16"=1'-0"	PROPRIETARY INFORMATION		REVISION:
ORDER NUMBER: PK35989-10787	THIS DRAWING & THE DESIGN IT COVERS ARE THE EXCLUSIVE PROPERTY OF KELLY GROUP, INC. OF NE. THEY ARE PROVIDED ONLY ON THE USER'S EXPRESS AGREEMENT THAT THEY WILL NOT BE REPRODUCED, COPIED, LOANED, EXHIBITED, CHANGED OR OTHERWISE USED EXCEPT IN THE LIMITED WAY PERMITTED BY CONSENT OF KELLY GROUP, INC. OF NE. TO THE USER OR THEIR AGENTS. KELLY GROUP, INC. NE. MAKES NO REPRESENTATION REGARDING DRAWING SCALE & ACCURACY.	SHEET M8 OF M17	REVISION:

PLAN NORTH FOR REFERENCE ONLY

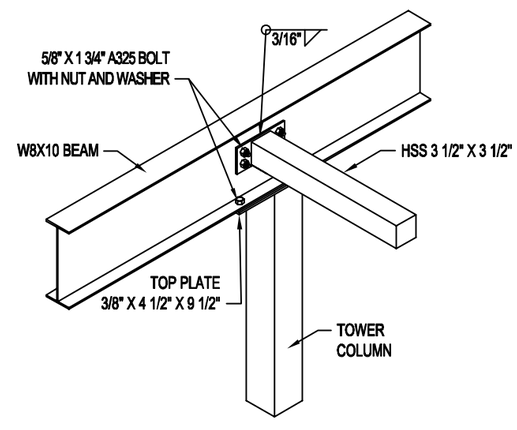
PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM



ROOF SUPPORT BEAM LAYOUT



ROOF STRUCTURE LIFTING DETAIL
1" SCALE



ROOF BEAM / CROSS MEMBERS CONNECTION
1/2" SCALE

PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM

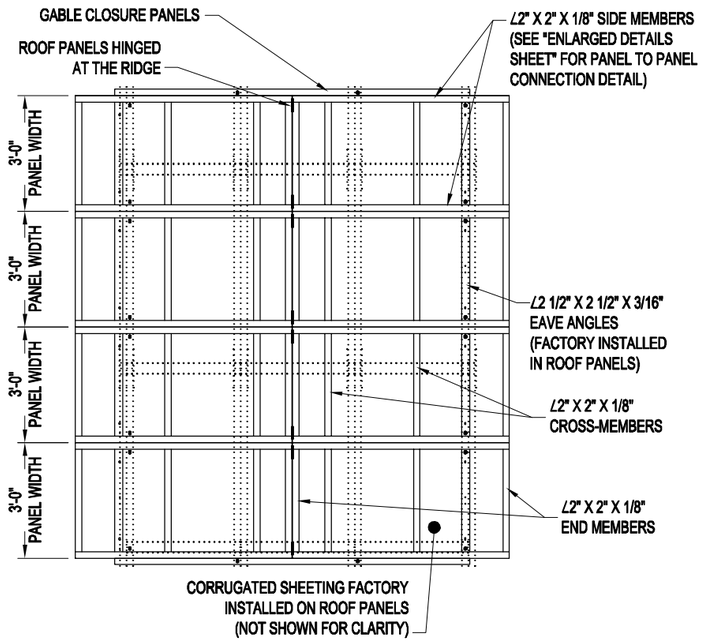
REVISION:
REVISION:
REVISION:
REVISION:
REVISION:
REVISION:

PLAN NORTH
FOR REFERENCE ONLY

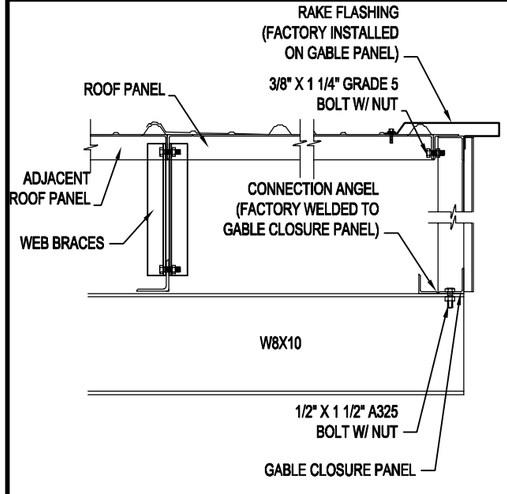
PAGE NAME: ROOF SUPPORT PLAN VIEW LAYOUT SHEET

DEALER:
JOB NAME: MAGNOLIA HIGH SCHOOL
LOCATION: 2450 W. BALL RD. - ANAHEIM, CA 92804

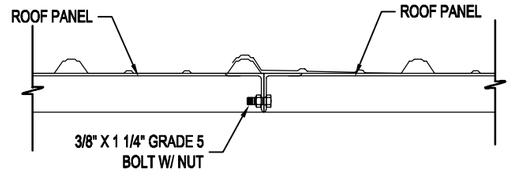
DRAWN BY: MO
DATE: 1-25-22
REVISED DATE:
SCALE: 1/4"=1'-0"
ORDER NUMBER: PK35989-10787



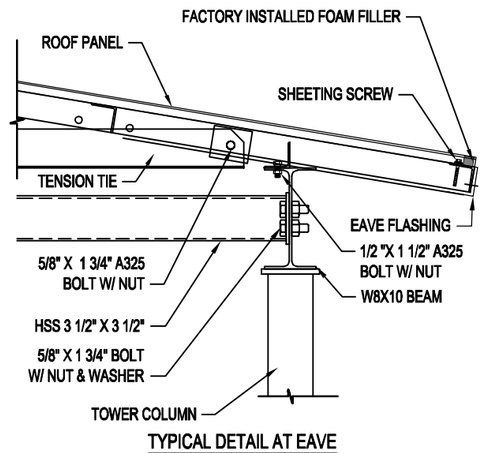
ROOF PANEL PLAN



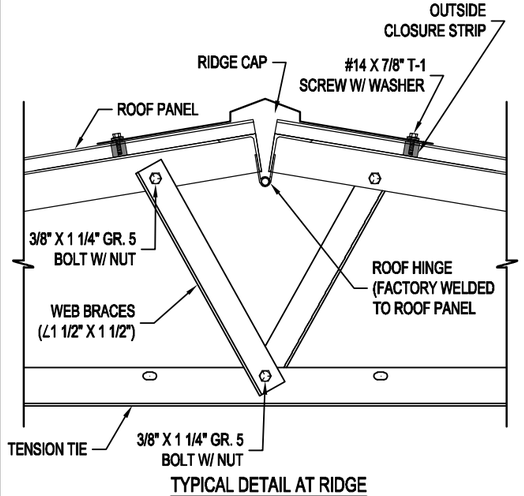
TYPICAL GABLE END CONNECTION
1" SCALE



ROOF PANEL CONNECTION DETAIL
1 1/2" SCALE



TYPICAL DETAIL AT EAVE
1" SCALE



TYPICAL DETAIL AT RIDGE
1 1/2" SCALE

PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM

REVISION:
REVISION:
REVISION:
REVISION:
REVISION:
REVISION:

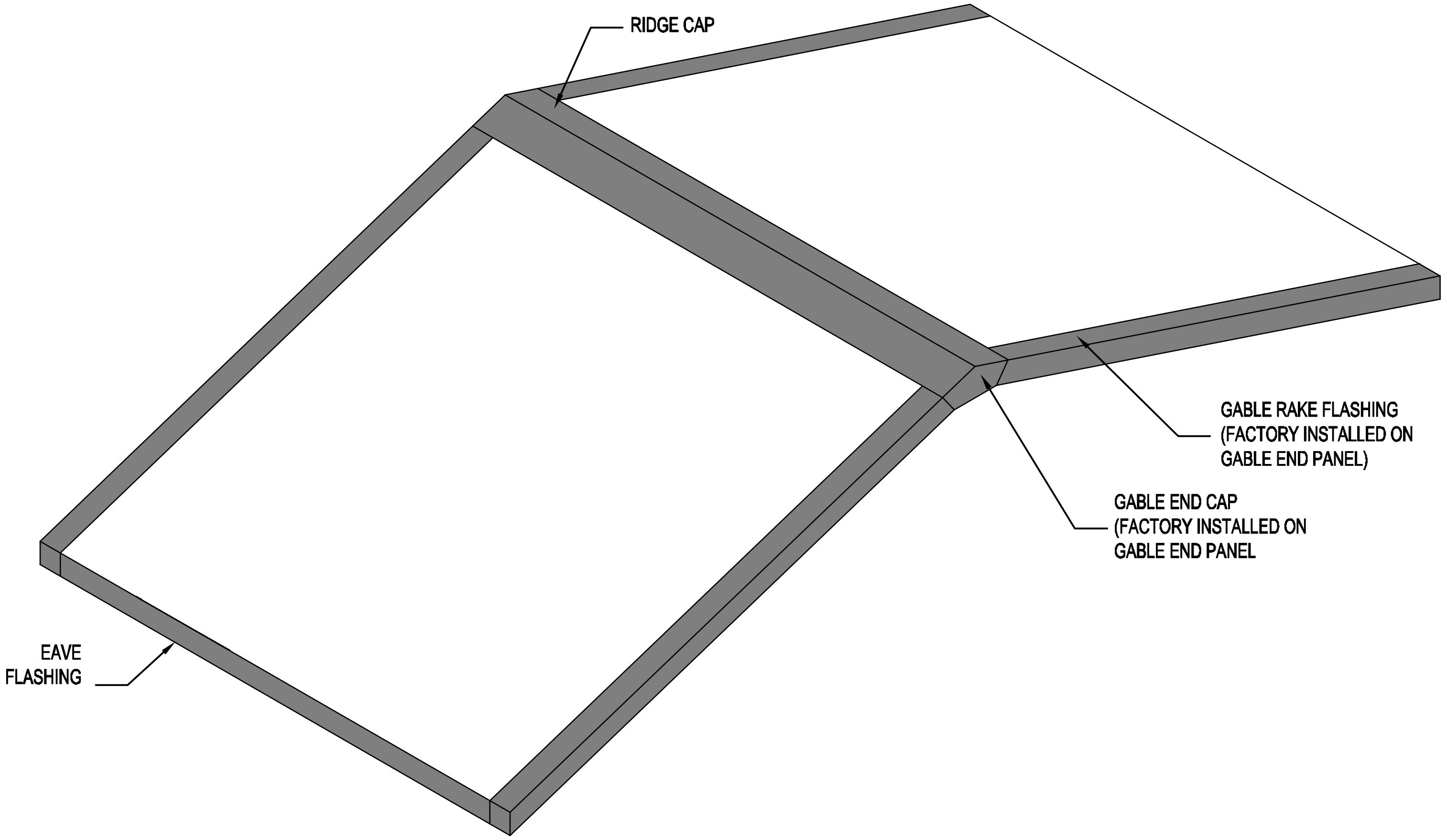
PLAN NORTH
FOR REFERENCE ONLY

PAGE NAME: ROOF PANEL PLAN VIEW LAYOUT SHEET

DEALER:
JOB NAME: MAGNOLIA HIGH SCHOOL
LOCATION: 2450 W. BALL RD. - ANAHEIM, CA 92804

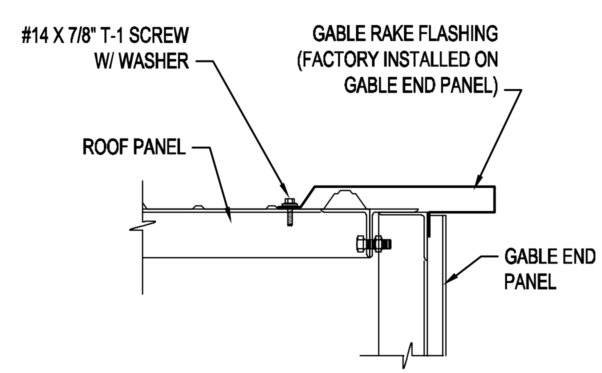
DRAWN BY: MO
DATE: 1-25-22
REVISED DATE:
SCALE: 1/4"=1'-0"
ORDER NUMBER: PK35989-10787

SHEET M10 OF M17

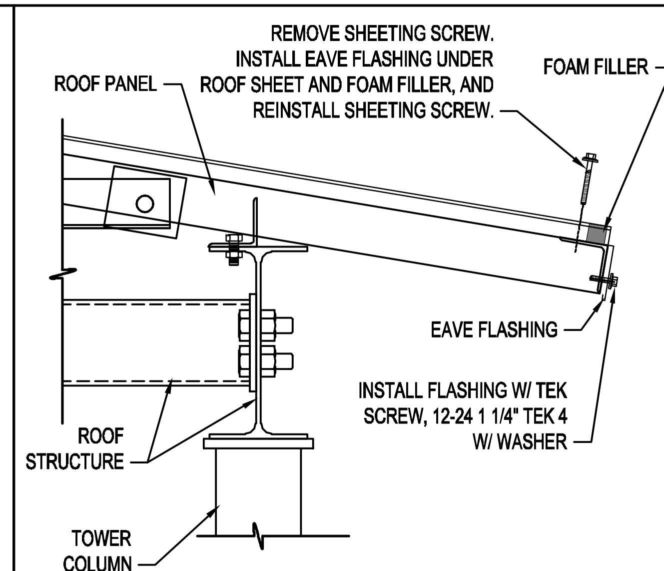


BUILDING FLASHING INSTALLATION LOCATIONS

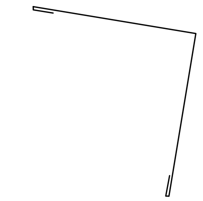
NOTE:
REMOVE PROTECTIVE FILM FROM FLASHING MATERIAL PRIOR TO INSTALLATION IF APPLICABLE



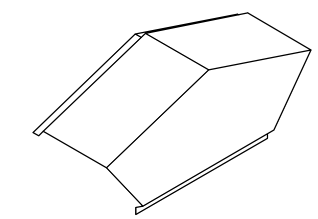
TYPICAL GABLE END FLASHING
1 1/2" SCALE



TYPICAL EAVE FLASHING
1" SCALE

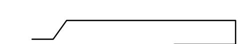


EAVE FLASHING



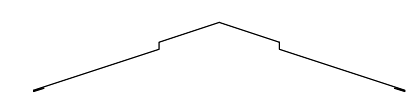
GABLE END CAP

(FACTORY INSTALLED ON GABLE END PANEL)

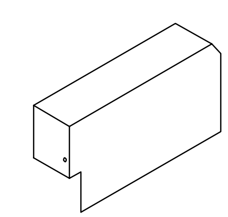


RAKE FLASHING

(FACTORY INSTALLED ON GABLE END PANEL)



RIDGE FLASHING



END CLOSURE CAP

PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM

REVISION: | REVISION: | REVISION: | REVISION: | REVISION: | REVISION:

PAGE NAME: BUILDING FLASHING LAYOUT SHEET

PLAN NORTH
FOR REFERENCE ONLY

SHEET M11 OF M17

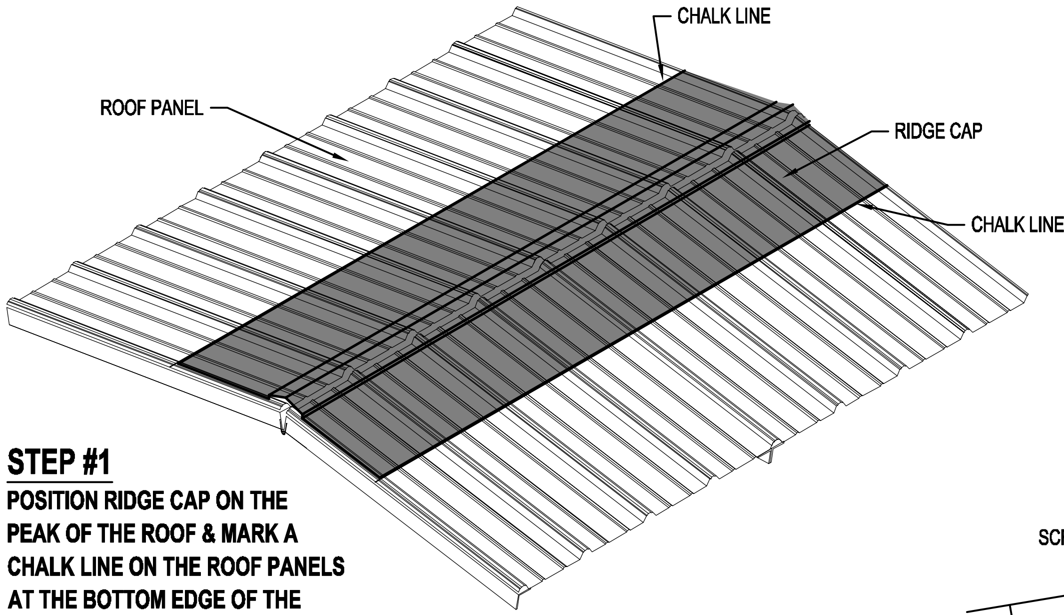
DEALER: MAGNOLIA HIGH SCHOOL
JOB NAME: MAGNOLIA HIGH SCHOOL
LOCATION: 2450 W. BALL RD. - ANAHEIM, CA 92804

PROPRIETARY INFORMATION

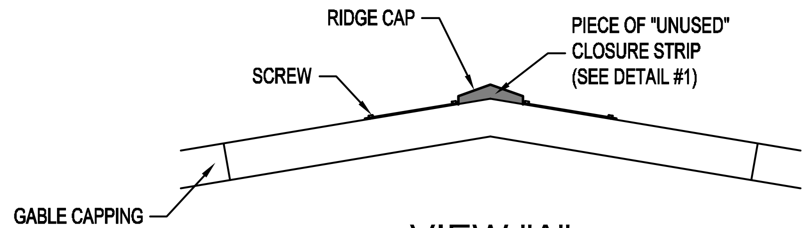
DRAWN BY: MO
DATE: 1-25-22
REVISED DATE:
SCALE: 3/16"=1'-0"
ORDER NUMBER: PK35989-10787

RIDGE CAP INSTALLATION

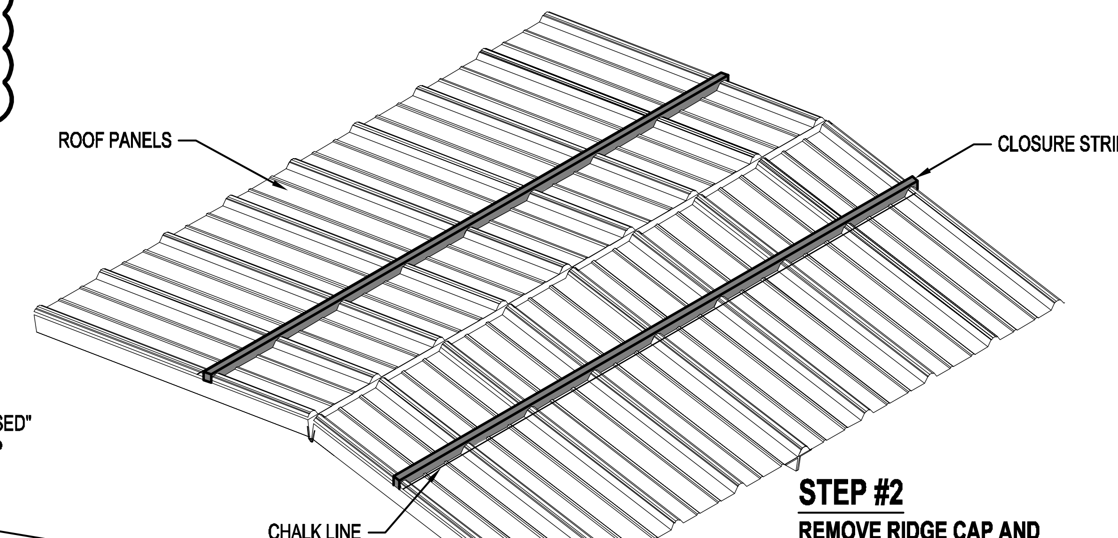
THIS PAGE IS TYPICAL
FOR BOTH INSULATED &
NON-INSULATED BUILDINGS



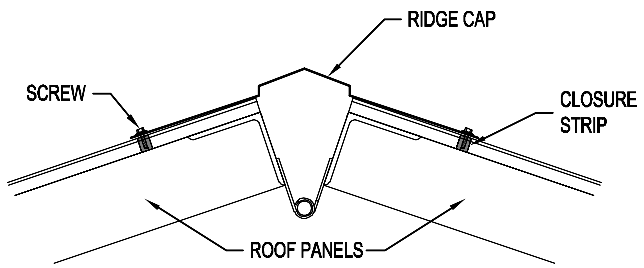
STEP #1
POSITION RIDGE CAP ON THE PEAK OF THE ROOF & MARK A CHALK LINE ON THE ROOF PANELS AT THE BOTTOM EDGE OF THE RIDGE CAP.

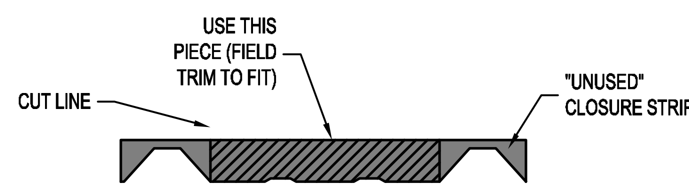


VIEW "A"

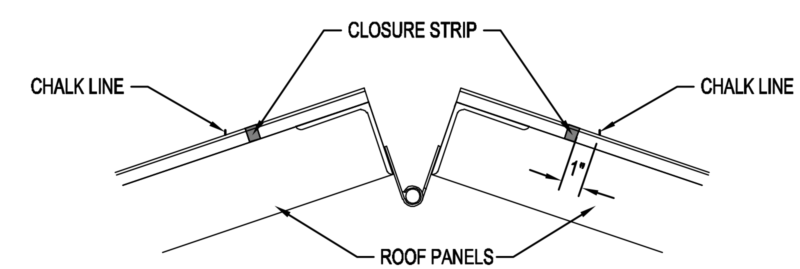


STEP #2
REMOVE RIDGE CAP AND INSTALL THE OUTSIDE CLOSURE STRIPS ABOUT 1" ABOVE THE CHALK LINE WITH THE ADHESIVE SIDE DOWN ON THE ROOF SHEETING.

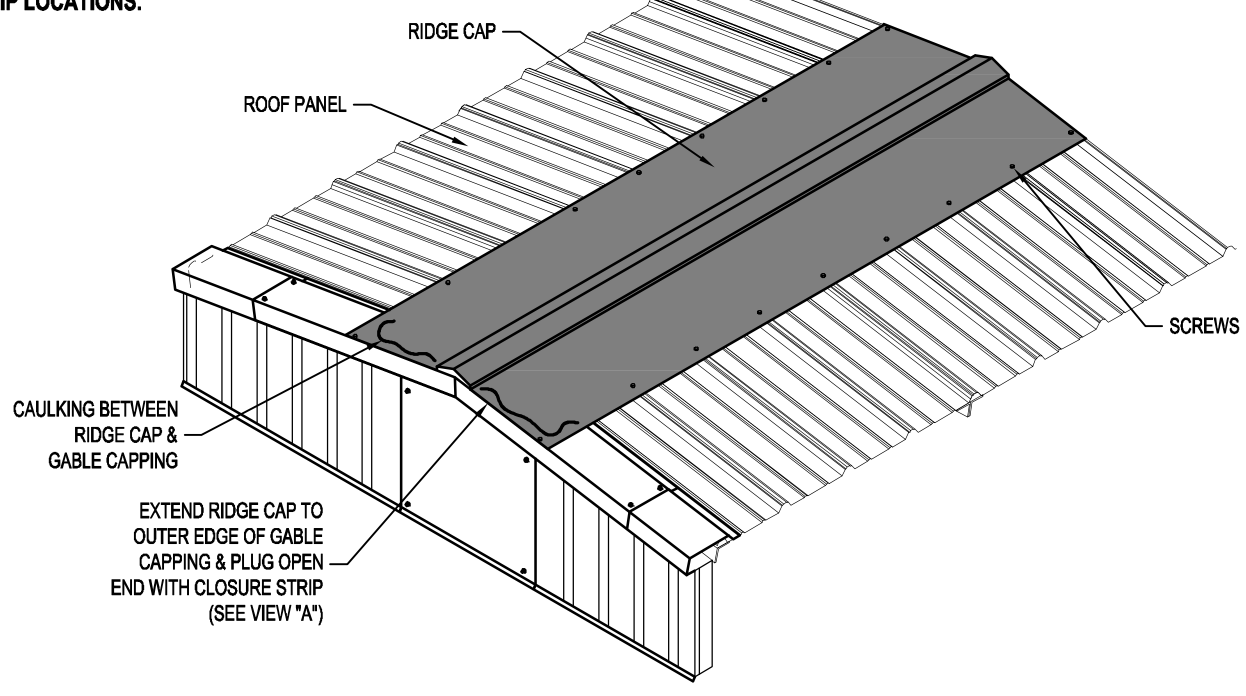


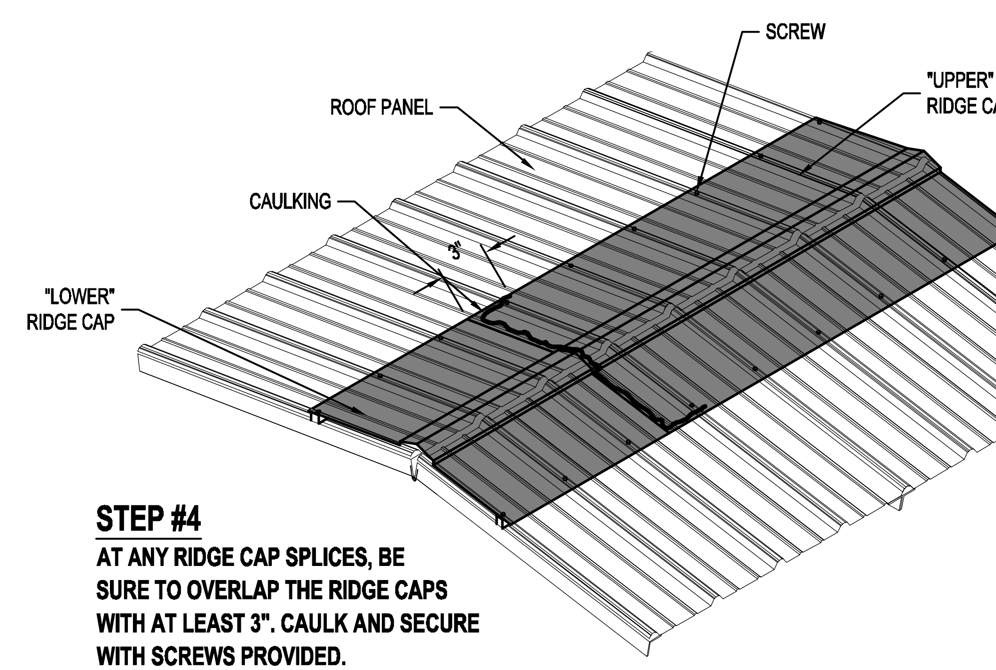


DETAIL #1



STEP #3
ATTACH THE FORMED RIDGE CAP TO THE CORRUGATE ROOF SHEETING USING SCREWS PROVIDED. PLACE SCREWS AT EACH CORRUGATION AT THE CLOSURE STRIP LOCATIONS.





STEP #4
AT ANY RIDGE CAP SPLICES, BE SURE TO OVERLAP THE RIDGE CAPS WITH AT LEAST 3". CAULK AND SECURE WITH SCREWS PROVIDED.

PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM

REVISION: | REVISION: | REVISION: | REVISION: | REVISION: | REVISION:

PLAN NORTH
FOR REFERENCE ONLY

PAGE NAME: RIDGE CAP INSTALLATION

SHEET M12 OF M17

DEALER: MAGNOLIA HIGH SCHOOL
JOB NAME: MAGNOLIA HIGH SCHOOL
LOCATION: 2450 W. BALL RD. - ANAHEIM, CA 92804

PROPRIETARY INFORMATION

DRAWN BY: MO
DATE: 1-25-22
REVISED DATE:
SCALE: 1/2"=1'-0"
ORDER NUMBER: PK35989-10787

STEP #1

AFTER VERTICAL CORNER CAP & EAVE FLASHING HAS BEEN INSTALLED, INSTALL THE END CLOSURE CAP.

STEP #2

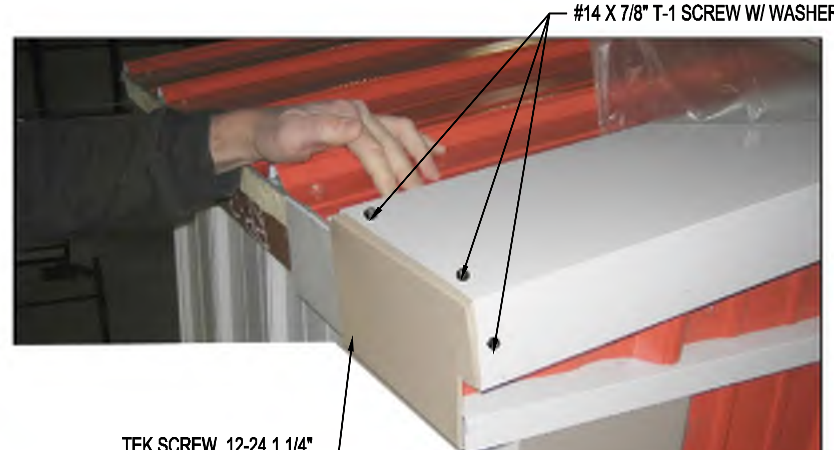
CAULK AROUND THE END CLOSURE CAP AS NECESSARY & INSTALL.
NOTE: CLOSURE CAP GOES UNDER RAKE FLASHING & OVER EAVE FLASHING.

STEP #3

MAKE SURE END CLOSURE CAP HAS BEEN INSTALLED CORRECTLY BEFORE ATTACHING WITH SCREWS.

IMPORTANT

THIS JOINT NEEDS TO BE CAULKED WELL TO PREVENT WATER FROM ENTERING THE BUILDING.



STEP #4

USING SCREWS PROVIDED ATTACH END CLOSURE CAP TO GABLE & EAVE FLASHING.

PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM

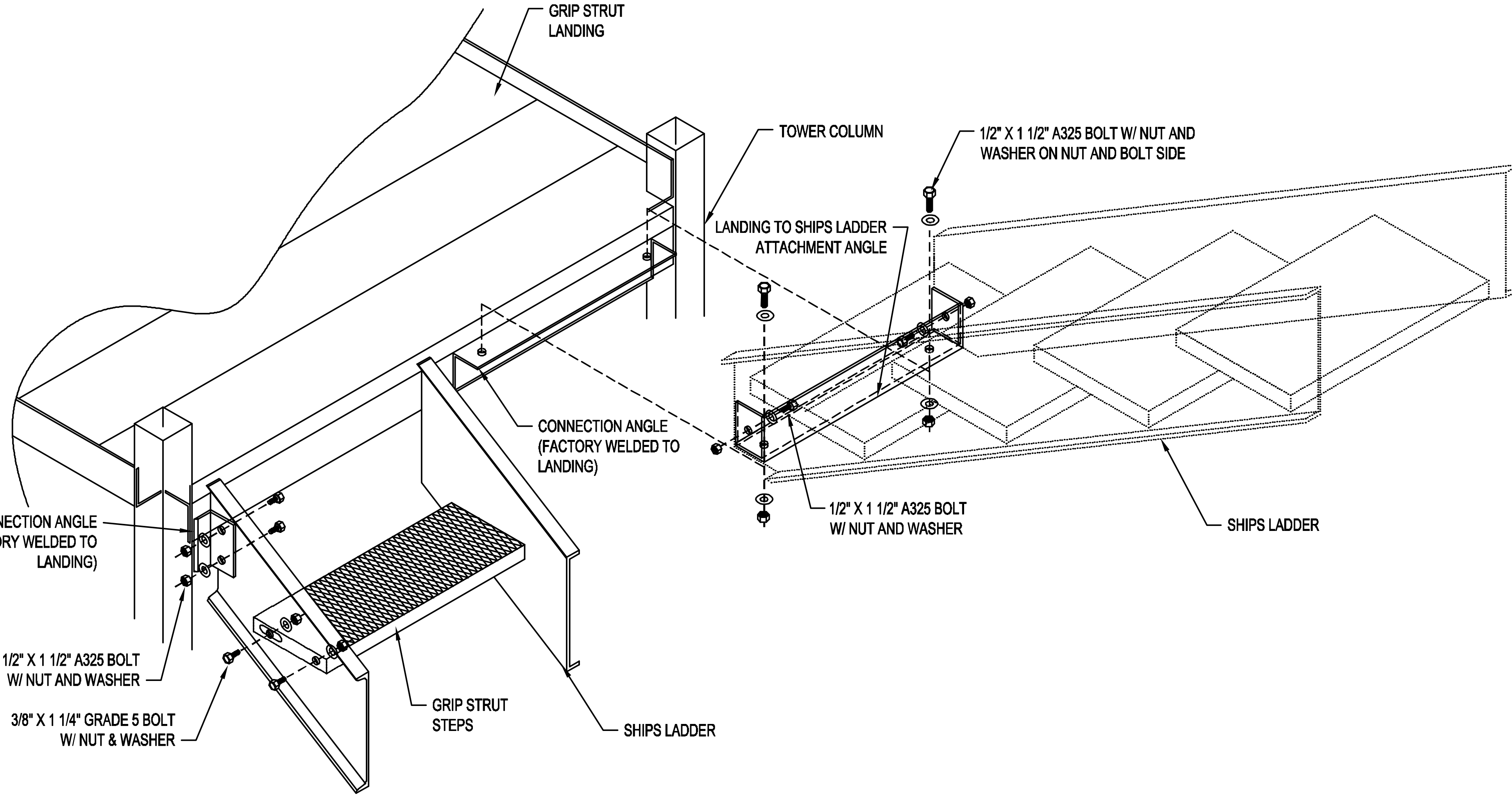
REVISION: | REVISION: | REVISION: | REVISION: | REVISION: | REVISION:

PAGE NAME: EAVE END CLOSURE CAP INSTALLATION INSTRUCTIONS

PLAN NORTH
FOR REFERENCE ONLY

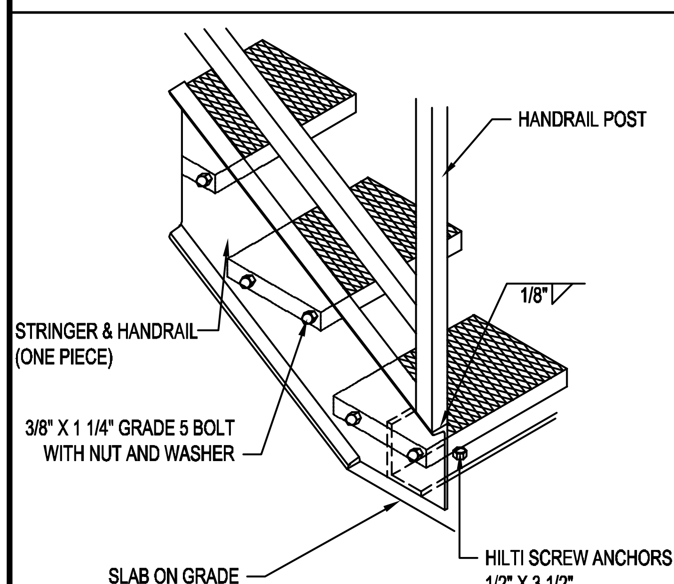
SHEET M13 OF M17

DRAWN BY: MO	DEALER: MAGNOLIA HIGH SCHOOL
DATE: 1-25-22	JOB NAME: MAGNOLIA HIGH SCHOOL
REVISED DATE:	LOCATION: 2450 W. BALL RD. - ANAHEIM, CA 92804
SCALE: 1/2"=1'-0"	
ORDER NUMBER: PK35989-10787	

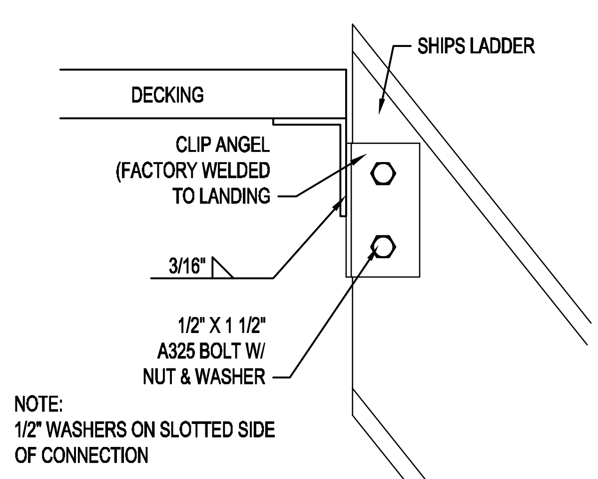


TYPICAL PARTIAL LANDING ISOMETRIC
WITH LANDING TO SHIPS LADDER ATTACHMENT BRACKET

3/4" SCALE

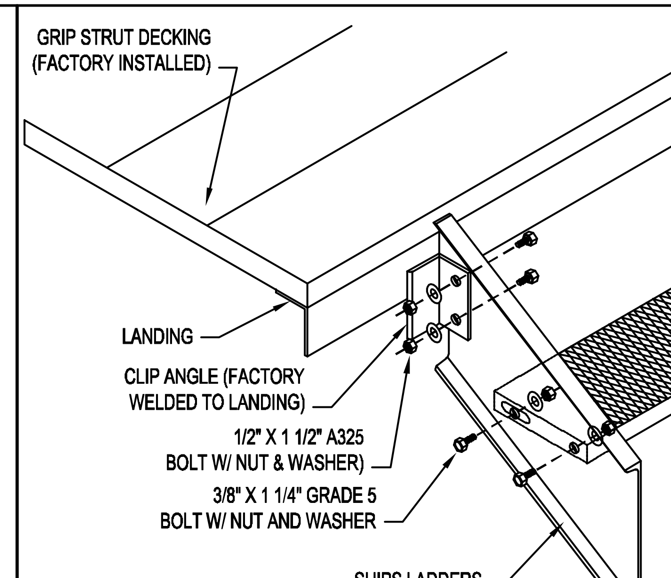


BOTTOM SHIPS LADDER BASE CONNECTION
3/4" SCALE

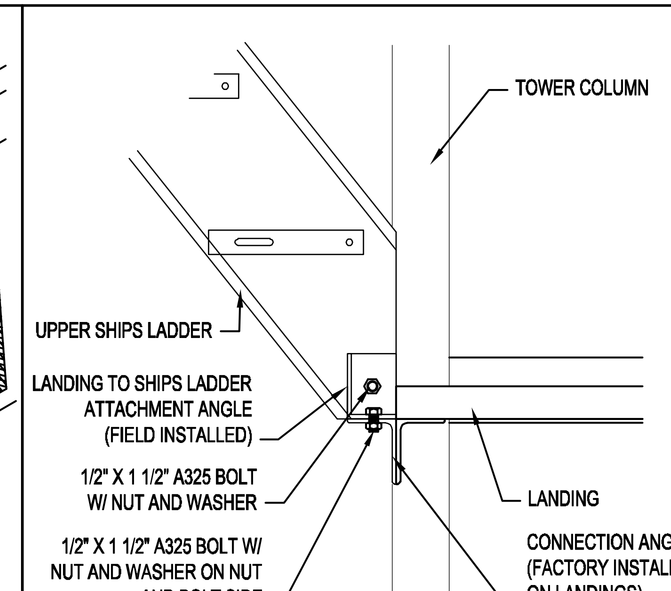


NOTE:
1/2" WASHERS ON SLOTTED SIDE
OF CONNECTION

SHIPS LADDER TO LANDING CONNECTION
1 1/2" SCALE



TYPICAL SHIPS LADDER TO LANDING CONNECTION
3/4" SCALE



UPPER SHIPS LADDER TO LOWER LANDING CONNECTION
1" SCALE

PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM

REVISION: | REVISION: | REVISION: | REVISION: | REVISION: | REVISION:

PLAN NORTH
FOR REFERENCE ONLY

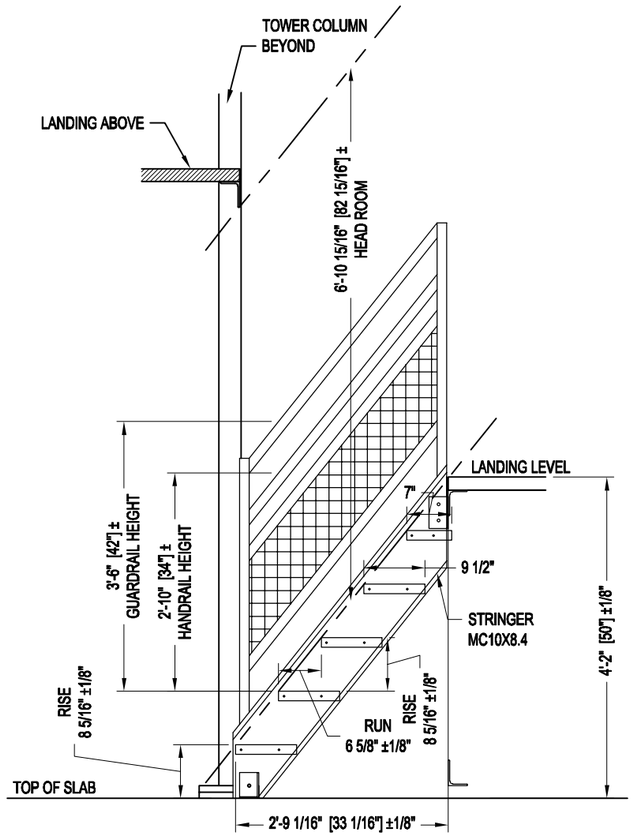
PAGE NAME: INTERMEDIATE LADING DETAIL SHEET

SHEET M14 OF M17

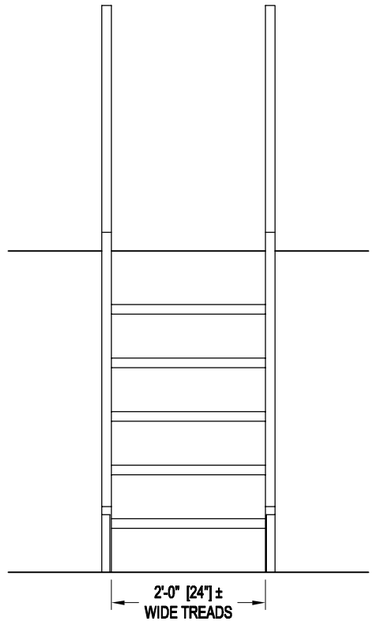
DRAWN BY: MO
DATE: 1-25-22
REVISED DATE:
SCALE: 3/16"=1'-0"
ORDER NUMBER: PK35989-10787

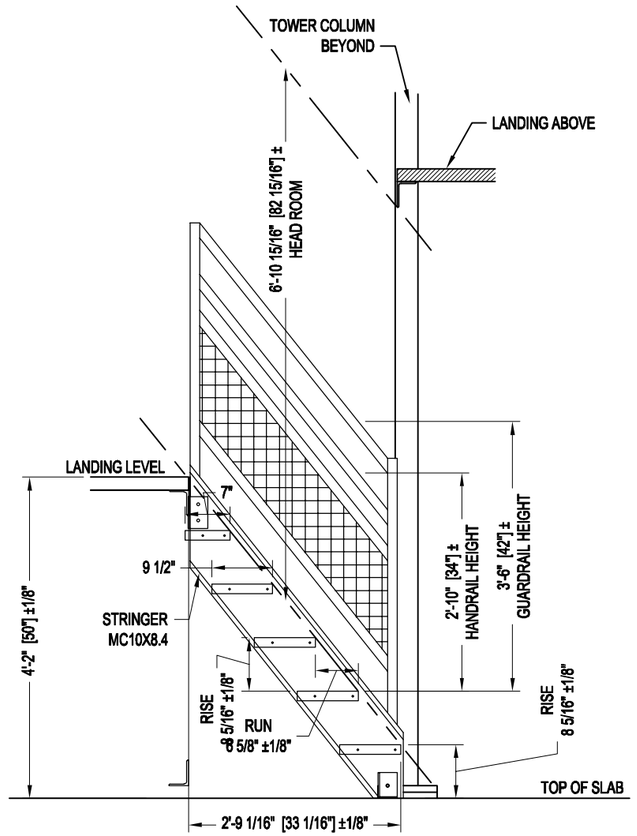
DEALER: MAGNOLIA HIGH SCHOOL
JOB NAME: MAGNOLIA HIGH SCHOOL
LOCATION: 2450 W. BALL RD. - ANAHEIM, CA 92804

PROPRIETARY INFORMATION



LEFT SIDE ELEVATION VIEW





RIGHT SIDE ELEVATION VIEW

SHIPS LADDER AND GUARDRAIL DETAIL FROM SLAB ON GRADE TO LANDING

1/2" SCALE

PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM

REVISION:
REVISION:
REVISION:
REVISION:
REVISION:
REVISION:

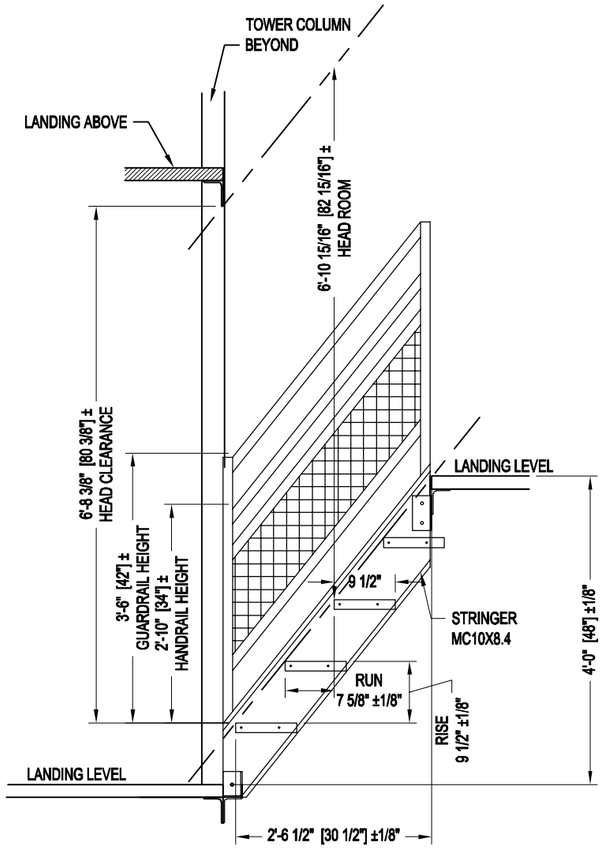
PLAN NORTH
FOR REFERENCE ONLY

PAGE NAME: BASE SHIPS LADDER DETAIL SHEET

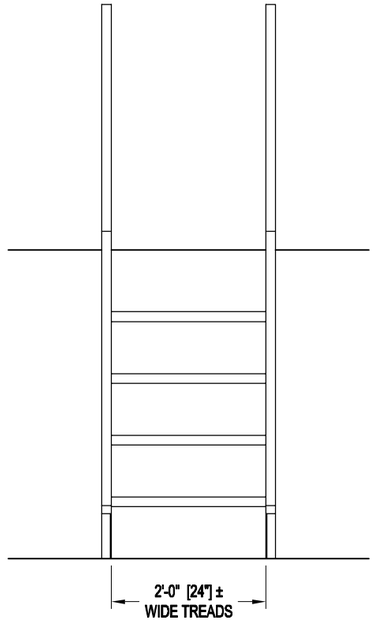
SHEET M15 OF M17

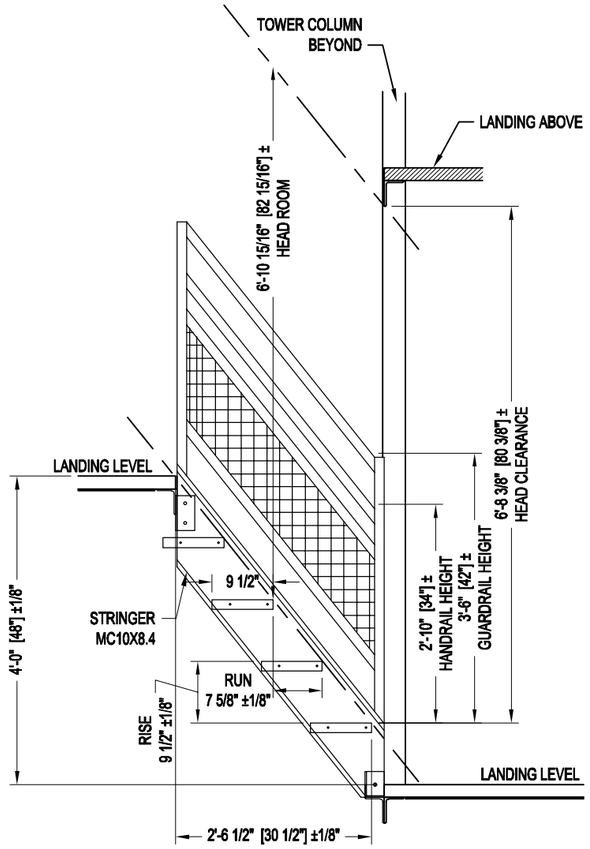
DEALER:
JOB NAME: MAGNOLIA HIGH SCHOOL
LOCATION: MAGNOLIA HIGH SCHOOL
2450 W. BALL RD. - ANAHEIM, CA 92804

DRAWN BY: MO
DATE: 1-25-22
REVISED DATE:
SCALE: 1/2"=1'-0"
ORDER NUMBER: PK35989-10787



LEFT SIDE ELEVATION VIEW





RIGHT SIDE ELEVATION VIEW

SHIPS LADDER AND GUARDRAIL DETAIL FROM LANDING TO LANDING

1/2" SCALE

PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM

REVISION:
REVISION:
REVISION:
REVISION:
REVISION:
REVISION:

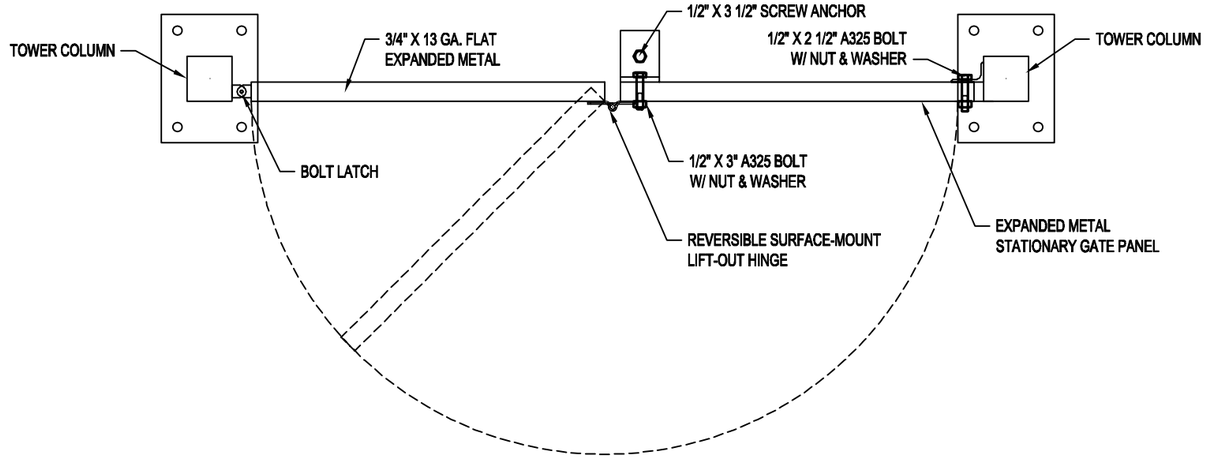
PAGE NAME: INTERMEDIATE SHIPS LADDER DETAIL SHEET

PLAN NORTH
FOR REFERENCE ONLY

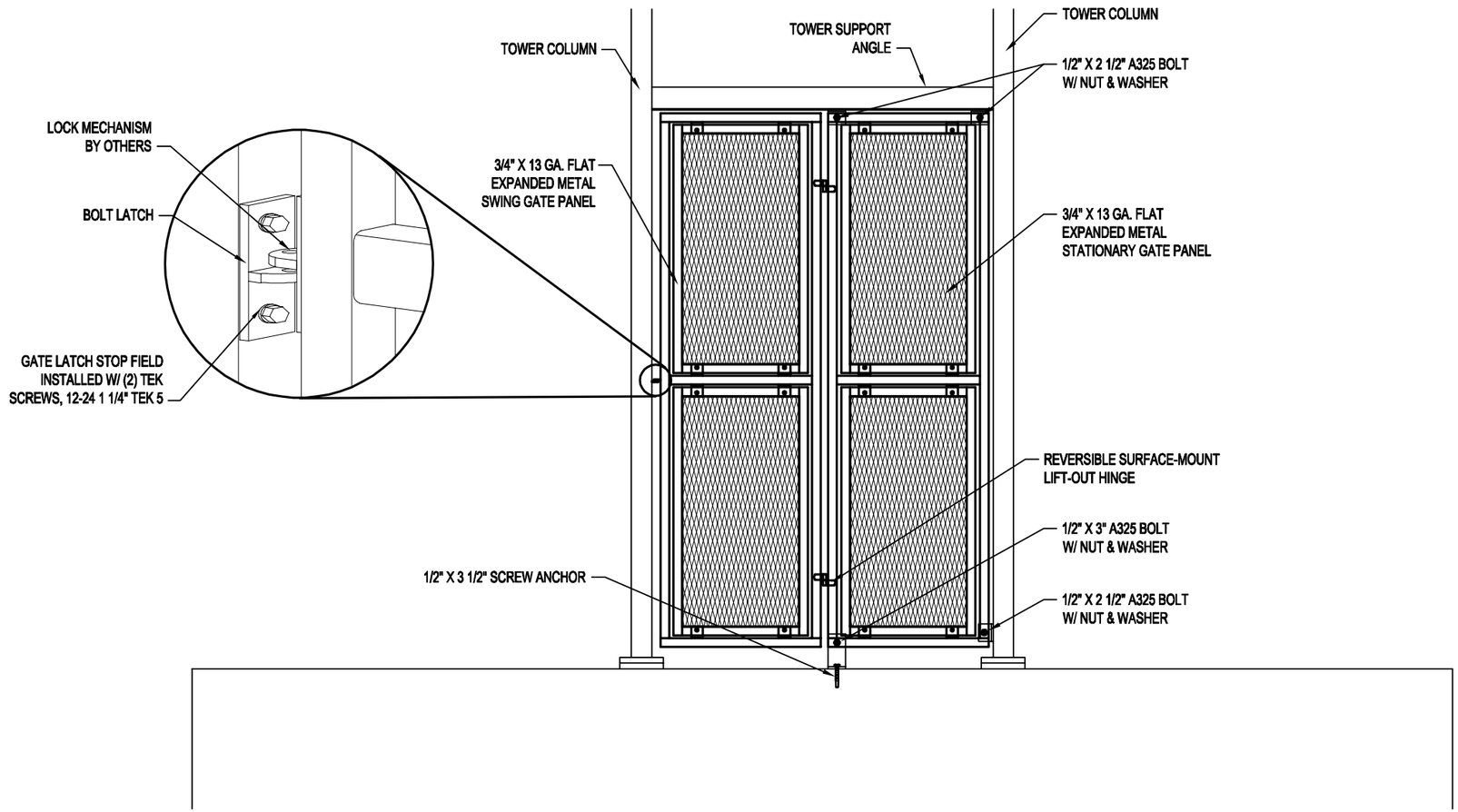
SHEET M16 OF M17

DEALER:
JOB NAME: MAGNOLIA HIGH SCHOOL
LOCATION: MAGNOLIA HIGH SCHOOL
2450 W. BALL RD. - ANAHEIM, CA 92804

DRAWN BY: MO
DATE: 1-25-22
REVISED DATE:
SCALE: 1/2"=1'-0"
ORDER NUMBER: PK35989-10787



SWING GATE TOP VIEW
1" SCALE



SWING GATE PANEL INSTALLATION
1/2" SCALE

PK STRUCTURES™
A PORTA-KING / KELLY KLOSURE ENTERPRISE
1-800-456-5464 - EARTH CITY, MO. 63045
WWW.PORTAKING.COM

REVISION:
REVISION:
REVISION:
REVISION:
REVISION:
REVISION:

PAGE NAME: ACCESS GATE DETAIL SHEET

PLAN NORTH
FOR REFERENCE ONLY

SHEET M17 OF M17

DEALER:
JOB NAME: MAGNOLIA HIGH SCHOOL
LOCATION: 2450 W. BALL RD. - ANAHEIM, CA 92804

DRAWN BY: MO
DATE: 1-25-22
REVISED DATE:
SCALE: 3/16"=1'-0"
ORDER NUMBER: PK35989-10787

NEVCO

TABLE A - SCOREBOARD ASSEMBLY WORKSHEET (1)

Nevco Part No.or Description	Part Height [ft.]	Part Width [ft]	Part Weight [lb]
ADO20-2 Top ID Sign	2	20	88
1607-ETN Scoreboard	6	20	452
Total	8	20	540

TOTAL ASSEMBLY DIMENSIONS & WEIGHT (2)

Total Assembly Height =	8 ft. 0 in.		
Total Assembly Width =	20 ft. 0 in.		
Total Assembly Weight =	540 lbs.		
Distance from Finish Grade to Bottom of Sign =	Scoreboard 1 10 ft. 0 in. Scoreboard 2 7 ft. 0 in.	Total Height = Total Assembly Height + Distance from Finish Grade to Bottom of Sign =	Scoreboard 1 18ft. 0 in. Scoreboard 2 15ft 0 in.

SCOREBOARD ASSEMBLY FOOTNOTES

1. Verify part number, dimensions, and weight with Nevco
2. See Step 3 of Scoreboard Assembly Worksheet Instructions

TABLE B - STRUCTURAL DESIGN VALUES

All values reported are unfactored and strength level, unless noted otherwise

Gravity Design Data	Value
Dead Loads:	
Sign Dead Load	PER SCHEDULE
Snow Loads:	
Ground Snow Load, P_g (Maximum)	30 psf
Deflection Criteria:	
Sign, Wind Load	H/240
Wind Design Data	**Value**
Design Wind Speed (3-sec gust), V_{ULT}	100 mph
Design Wind Speed (3-sec gust), V_{ASD}	77 mph
Risk Category	II
Exposure Category	C
Applicable Internal Pressure Coefficient	± 0.18
Design Wind Pressure(s) for Components & Cladding (Not specifically designed by the Registered Design Professional, and to be modified by applicable factors per ASCE 7)	q_z=21.8xK_z psf K_zVARIES
Earthquake Design Data	**Value**
Risk Category	II
Importance Factor, I_e	1.0
Mapped Spectral Response Accelerations (Maximum)	S_S= 3.73 g S_1= 1.0 g
Site Class	A through E
Spectral Response Coefficients (Maximum)	S_{DS}= 2.49 g S_{D1}= 1.0 g
Seismic Design Category	E
Analysis Procedure Used	Equivalent Lateral Force Procedure (ASCE 7, 12.8)
Basic Seismic-Force Resisting System	Non-Building Structure, ASCE 7-10 Chapter 15
Response Modification Factor, Signs and Billboards Table 15.4-2	R= 3.0
Seismic Response Coefficient	C_s= 0.83
Design Base Shear	V= C_S W_D
Flood Design	
When the scoreboard is located in a flood zone other than Zone X, a letter stamped and signed from a Geotechnical Engineer is needed to validate allowable soil values specified in the PC are still applicable.	
Geotechnical Design Data	**Value**
Geotechnical Design Based on: 2019 California Building Code, Chapter 18A, Table 1806.A.2 (Class 5 Material)	
Allowable Soil Bearing Pressure (DL + LL)	1,500 psf
Design Passive Pressure, P_p (Tabular value has been increased per CBC Section 1806A.3.4 for pier design)	100 pcf
Design Skin Friction, f_s	100 psf

TABLE C - SITE SPECIFIC SEISMIC AND WIND VALUES

EARTHQUAKE DESIGN DATA	
Mapped Spectral Response Accelerations (Maximum)	S_S= ______ g S_1= ______ g
Site Class	D
Spectral Response Coefficients (Maximum)	S_{DS}= ______ g S_{D1}= ______ g
Wind Design Data	**Value**
Design Wind Speed (3-sec gust), V_{ULT}	______ mph
Exposure Category	C

TABLE D - SITE FLOOD ZONE

THIS SECTION NOT REQUIRED IF SITE IS IN FLOOD ZONE X

Geotechnical Engineer:______________________________

Letter Dated:______________________________

SCOREBOARD ASSEMBLY WORKSHEET (TABLE A, C & D) INSTRUCTIONS

STEP 1: DETERMINE DESIRED SCOREBOARD ASSEMBLY. FILL OUT SCOREBOARD ASSEMBLY TABLE (TABLE A BELOW). PROVIDE NEVCO PART NUMBERS, PART HEIGHT, PART WIDTH, AND PART WEIGHTS.

STEP 2: DETERMINE TOTAL ASSEMBLY HEIGHT, WIDTH, AND WEIGHT

STEP 3: BASED ON TOTAL ASSEMBLY WIDTH, DETERMINE THE NUMBER OF REQUIRED COLUMNS.
SEE SHEETS SB1.X FOR 1 COLUMN ASSEMBLY OPTIONS
SB2.X FOR 2 COLUMN ASSEMBLY OPTIONS
SB3.X FOR 3 COLUMN ASSEMBLY OPTIONS
SB4.X FOR 4 COLUMN ASSEMBLY OPTIONS

STEP 4: PICK FOUNDATION TYPE (CAISSON WITH EMBEDDED COLUMN, CAISSON WITH BOLTED COLUMN, OR MAT FOOTING) AND BRACED OR UNBRACED COLUMN OPTION. MARK APPLICABLE SHEET ON SHEET INDEX, SB0.1

STEP 5: MARK APPLICABLE CHECK BOX ON DETAIL 'A' OF SELECTED COLUMN/FOUNDATION OPTION

STEP 6: FILL IN SITE SPECIFIC SEISMIC AND WIND VALUES TABLE C ON SB0.1.

STEP 7: FILL IN SITE SPECIFIC FLOOD ZONE AS REQUIRED, TABLE D ON SB0.1

STEP 8: VERIFY ALL APPLICABLE SHEETS ARE MARKED ON SHEET INDEX, SB0.1. INCLUDE ONLY MARKED SHEETS AS PART OF DSA SUBMITTAL

SITE SPECIFIC SUBMITTAL REQUIREMENTS

SEE DSA POLICY PL 07-02 FOR ADDITIONAL INSTRUCTIONS REGARDING USE AND APPLICATION OF THIS PRE-CHECK DOCUMENT. ALL SITE SPECIFIC SUBMITTALS SHALL INCLUDE:

1. COMPLETED DSA 1 APPLICATION AND FILING FEE AND COPY OF THE PRE-CHECK DOCUMENT WITH APPLICABLE DESIGN OPTION MARKED ON THE MARQUEE, TWO COLUMN, THREE COLUMN OR FOUR COLUMN ASSEMBLY SCHEDULES.
2. SITE PLAN OF FACILITY IDENTIFYING ALL STRUCTURES BY DSA APPLICATION NUMBER. LOCATION OF SCOREBOARD SHALL BE IDENTIFIED. ELECTRICAL PANEL SERVING THE SCOREBOARD SHALL BE LOCATED AND IDENTIFIED.
3. WHERE WIRELESS CONTROLLERS ARE NOT SPECIFIED, AN ACCESSIBLE PATH OF TRAVEL AND ACCESSIBLE SEATING FOR THE SCOREBOARD OPERATOR SHALL BE IDENTIFIED AND PROVIDED.
4. PROVIDE AN ELEVATION OF PROPOSED SCOREBOARD IDENTIFYING ALL INSTALLED DISPLAY COMPONENTS, SIGNAGE, TRUSSES, AND ADDITIONAL COMPONENTS IN THE PRE-CHECK DOCUMENT. ALL ELEMENT WEIGHTS SHALL BE SPECIFIED.
5. THE APPLICABLE SHEETS SHALL BE IDENTIFIED BY MARKING APPROPRIATE CHECK BOX ON THIS SHEET.
6. THE APPLICABLE CONFIGURATION SHALL BE IDENTIFIED BY MARKING APPROPRIATE CHECK BOX ON THE 'A' DETAILS ON THE APPLICABLE SHEET.
7. PROVIDE CUT SHEETS OF THE BOARDS, BOXES, AND EQUIPMENT TO BE MOUNTED ON THE STRUCTURE. CUT SHEETS SHALL INCLUDE WEIGHTS AND DIMENSIONS
8. SITE SPECIFIC SEISMIC DESIGN CRITERIA SHALL BE PROVIDED IN THE DRAWINGS.
9. SITE SPECIFIC BASIC DESIGN WINDSPEED AND SITE EXPOSURE SHALL BE PROVIDED ON THE DRAWINGS.
10. STEEL COATING SPECIFICATIONS FOR WEATHER PROTECTION IF DIFFERENT THAN NOTED ON SB0.3
11. A GEOHAZARD REPORT IS NOT REQUIRED PER IR A-4.13. IF A SCOREBOARD IS LOCATED IN A FLOOD ZONE OTHER THAN ZONE X, A LETTER STAMPED AND SIGNED BY A GEOTECHNICALENGINEER IS REQUIRED VALIDATING THE ALLOWABLE SOIL VALUES.
12. PROVIDE A SITE SPECIFIC DESIGN FOR STRUCTURES THAT DO NOT MEET THE MINIMUM SETBACK REQUIREMENTS.
13. PROVIDE A SITE SPECIFIC DESIGN FOR STRUCTURES LOCATED IN AN AREA WITH LIQUEFIABLE SOIL OR SITE CLASS F.

SHEET INDEX

CODE INFORMATION

2019 CALIFORNIA BUILDING STANDARDS CODE (TITLE 24, CCR):

2019 ADMINISTRATIVE CODE, PART 1, TITLE 24 CODE OF REGULATIONS (CCR)
2019 CALIFORNIA BUILDING CODE VOLUMES 1 &2, PART 2, TITLE 24 CCR
2019 CALIFORNIA ELECTRICAL CODE, PART 3, TITLE 24 CCR
2019 CALIFORNIA MECHANICAL CODE, PART 4, TITLE 24 CCR
2019 CALIFORNIA PLUMBING CODE, PART 5, TITLE 24 CCR
2019 CALIFORNIA ENERGY CODE, PART 6, TITLE 24 CCR
2019 CALIFORNIA FIRE CODE, PART 9, TITLE 24 CCR
2019 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24 CCR
2019 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 CCR

REFERENCED CODE SECTIONS FOR APPLICABLE STANDARDS:
2019 CALIFORNIA BUILDING CODE, CHAPTER 35
2019 CALIFORNIA FIRE CODE, CHAPTER 80

GENERAL REQUIREMENTS

1. THE ARCHITECT OR PROFESSIONAL ENGINEER IN GENERAL RESPONSIBLE CHARGE SHALL SIGN AND SEAL ALL DRAWINGS AND SPECIFICATIONS PER TITLE 24, PART 1, SECTIONS 4-316(E) AND 4-317 (H).
2. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA, OR CONSTRUCTION CHANGE DOCUMENTS APPROVED BY THE DIVISION OF THE STATE ARCHITECT (DSA), AS REQUIRED BY TITLE 24, PART 1, SECTION 4-338.
3. THE DISTRICT SHALL EMPLOY A CLASS 2 PROJECT INSPECTOR WHEN OVERALL STRUCTURE HEIGHT IS 35 FEET OR GREATER, OTHERWISE A CLASS 3 PROJECT INSPECTOR MAY BE USED. THE PROJECT INSPECTOR SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK , AND SHALL SUBMIT VERIFIED REPORTS ON A DSA-6 FORM. THE DUTIES OF THE PROJECT INSPECTION ARE DEFINED IN TITLE 24, PART 1, SECTION 4-342.
4. ALL SCOREBOARD CONTROLS SHALL BE FULLY ACCESSIBLE VIA WIRELESS CONTROL OR COMPLETE DESIGN SHALL BE DEMONSTRATED IN THE SITE-SPECIFIC APPLICATION.
5. ALL ASSEMBLIES SHALL HAVE ELECTRICAL DISCONNECT PER CEC 600.6 AND BE ELECTRICALLY GROUNDED PER CEC 600.7, SEE DETAIL B/SB5.1
6. IN FLOOD ZONES, LOCATION OF ELECTRICAL ELEMENTS SHALL CONFORM TO ASCE 24, SECTION 7.2 PER DSA PR-14-01 SECTION 1.2.1.

GENERAL NOTES AND MATERIAL SPECIFICATIONS

SEE PAGE, SB0.3, FOR ALL MATERIAL SPECIFICATIONS AND NOTES.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP. 04-120799 INC:
REVIEWED FOR
SS ☒ FLS ☒ ACS ☒
DATE: 11/24/2021

SSG
structural engineers

11.20.20

NEVCO
301 East Harris Avenue, Greenville, Illinois 62246
Phone: (618) 664-0360
www.nevco.com

APPROVED
DIV. OF THE STATE ARCHITECT
APP. 04-119647 PC
REVIEWED FOR
SS ☒ FLS ☒ ACS ☒ HS ☐
DATE 05/04/2021

DSA STAMP

PRE-CHECK (PC) DOCUMENT
CODE: 2019

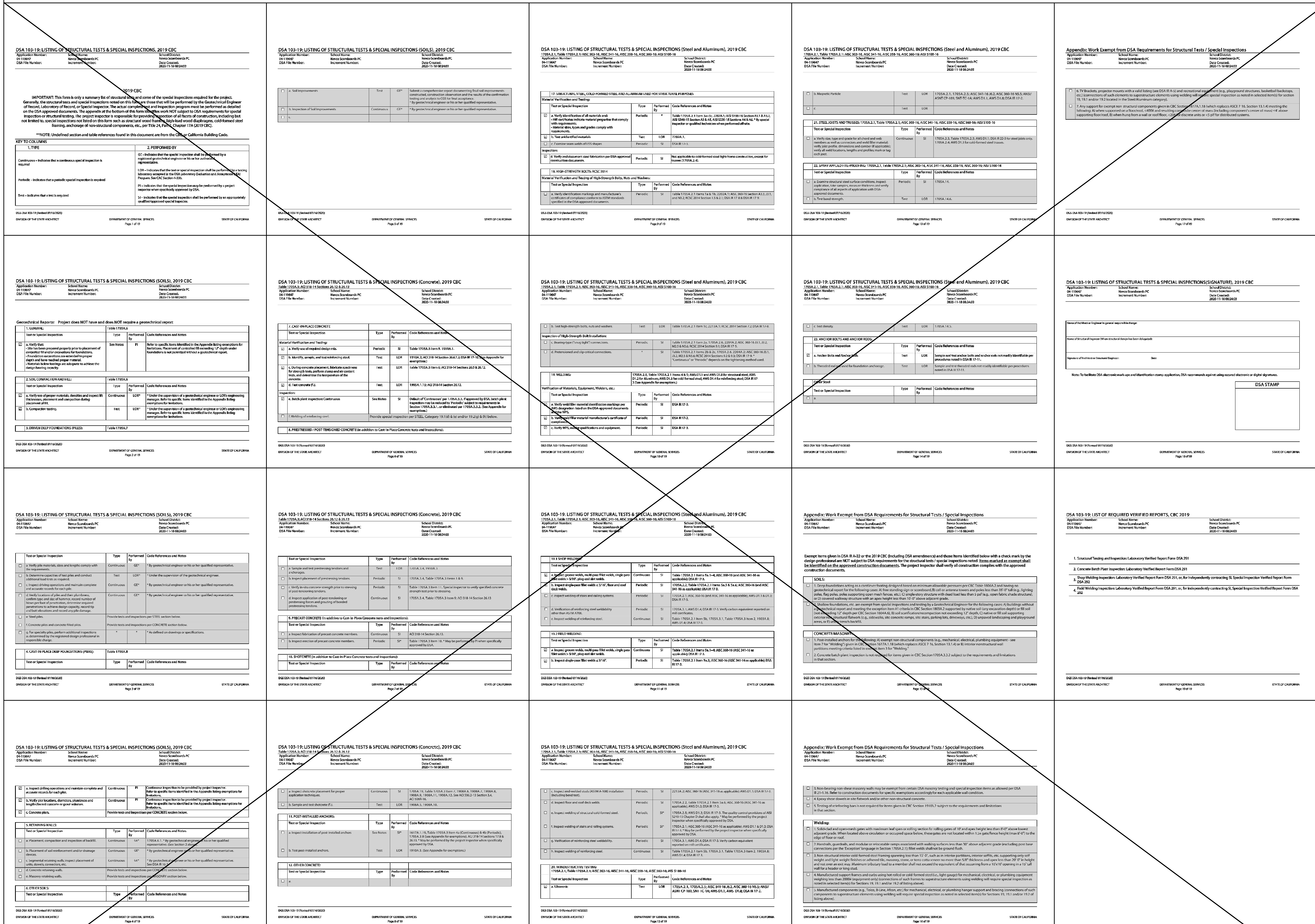
A separate project application for construction is required.

COVER SHEET

SHEET INFORMATION

DATE	03.25.2021
DRAWN	JMK
CHECKED	MEP
SSG JOB #	S20284
SHEET	SB0.1

EXAMPLE DSA 103 - TESTING AND INSPECTIONS



NOTE: THE DSA 103 SHOWN INCLUDES MINIMUM SPECIAL INSPECTION REQUIREMENTS AND IS PROVIDED AS EXAMPLE. A FINAL DSA 103 FORM SHALL BE SUBMITTED BY THE DESIGN PROFESSIONAL OF RECORD AS PART OF THE SITE SPECIFIC SUBMITTAL REQUIREMENTS. THE DESIGN PROFESSIONAL OF RECORD IS RESPONSIBLE FOR REVIEWING PROJECT SPECIFIC SPECIAL INSPECTION REPORTS. SSG STRUCTURAL ENGINEERS OR NEVCO ARE NOT RESPONSIBLE FOR PROVIDING THE PROJECT DSA 103 OR REVIEWING SPECIAL INSPECTION REPORTS. DSA 103 CAN BE FOUND AT:
https://forms.dgs.ca.gov/content/forms/af/dgs/dsa/form-103/public/dsa-form-103-19.html

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
DATE: 11/24/2021

SSG
structural engineers
San Luis Obispo • Fresno • Bakersfield

SEOR SEAL
DATE SIGNED: 11.20.20

NEVCO
301 East Harris Avenue, Greenville, Illinois 62246
Phone: (618) 664-0360
www.nevco.com

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-119647 PC
REVIEWED FOR
SS ☒ FLS ☒ ACS ☒ CG ☐
DATE: 05/04/2021

DSA STAMP

PRE-CHECK (PC) DOCUMENT
CODE: 2019

A separate project application for construction is required.

EXAMPLE DSA 103 - TESTING AND INSPECTIONS

SHEET INFORMATION

DATE	03.25.2021
DRAWN	JMK
CHECKED	MEP
SSG JOB #	S20284
SHEET	SB0.2

STRUCTURAL NOTES

GENERAL NOTES

1. The following notes, typical details and schedules shall apply to all phases of this project unless otherwise shown or noted.
2. Specific notes and details shall take precedence over general notes and typical details.
3. All materials and workmanship shall conform to the minimum standards of the 2019 edition Title 24 of the California Building Code (CBC) and such other regulating agencies exercising authority over any portion of the work. The contractor shall have a current copy of the CBC on the job site.
4. The "Contract or Construction Documents" shall consist of these notes, details, schedules, plans, and drawings.
5. All specifications, including but not limited to materials and products, shall be those put forth in the "Contract or Construction Documents". No substitutions shall be permitted to be used or assumed to be used in the bidding or construction process without written approval by the Structural Engineer of Record.
6. The contractor shall examine the "Contract or Construction Documents" and shall notify the Architect or Structural Engineer of Record of any discrepancies he may find before proceeding with the work.
7. All information on existing conditions shown on drawings are based on best present knowledge available, but without guarantee of accuracy. The Contractor shall verify and be responsible for all dimensions and conditions at the site and shall notify the Architect or Structural Engineer of Record of any discrepancies between actual site conditions and information shown on or in the "Contract or Construction Documents" before proceeding with work.
8. The Contractor shall immediately notify the Architect or Structural Engineer of Record of any condition which in his opinion might endanger the stability of the structure or cause distress of the structure.
9. All work shall conform to the best practice prevailing in the various trades comprising work. The Contractor shall be responsible for coordinating the work of all trades.
10. These "Contract or Construction Documents" 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.
11. Inspection and approval for fabricator's shops used for fabrication of structural load bearing members, components, materials or assemblies shall conform to CBC Section 1704A.2.5.
    A. Labeling (as required or specified) shall be provided in accordance with CBC Section 1703A.5.
    B. Evaluation and follow-up inspection services (as required or specified), shall conform to CBC Section 1703A.6.
12. The Contractor shall provide temporary bracing and shoring for all structural members as required for structural stability of the structure during all phases of construction.
13. The Contractor shall take all steps necessary to ensure proper alignment of the structure after the installation of all structural and finish materials. This shall include any necessary preloading of the structure to determine final position of the completed work.
14. Observation visits to the project site by field representatives of Architect and/or Structural Engineer of Record (support services) shall not include inspections of safety or protective measures, nor construction procedures, techniques or methods. Any support services performed by Architect or Structural Engineer of Record during any phase of construction, shall be distinguished from continuous and detailed inspection services (as required by any regulating governmental agency, e.g. the Authority Having Jurisdiction) provided by others. these support services, whether of material or work, are performed solely for the purpose of assisting in quality control and in achieving conformance with contract documents, but do not guarantee Contractor's performance and shall not be construed as supervision of construction.
15. These notes, details, drawings and specifications (Contract or Construction Documents) do not carry necessary provisions for construction safety. These documents and all phases of construction hereby contemplated are to be governed, at all times, by applicable provisions of the current California Occupational Safety and Health Act.
16. Where any conflict occurs between the requirements of federal, state and local laws, codes, ordinances, rules and regulations, the most stringent shall govern.
17. Written dimensions shall have precedence over scaled dimensions.
18. Drawings (notes, schedules, details and plans) shall have precedence over Structural Calculations.
19. In the event that certain features of the construction are not fully shown on the drawings or called for in the General Notes or Specifications, then their construction shall be of the same character as for similar conditions that are shown or called for.
20. ASTM designation and all standards refer to the latest amendments.
21. These structural "Contract or Construction Documents" shall not be modified without prior written approval of the Structural Engineer of Record.
22. Only structural working drawings approved by the Authority Having Jurisdiction are permitted to be used for construction on this project. All other drawings or documents are obsolete and are not permitted on the job site, nor shall they be used for any construction purposes. Contractors using unapproved drawings or documents are solely responsible for all work not performed in accordance with the "approved" drawings.
23. A Division of the State Architect 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, Part 1, Title 24 California Code of Regulations.

FOUNDATION NOTES

1. Basis: See Structural Design Values Chart, Sheet SB0.1 Table B
2. Unexpected soil conditions: Allowable values and foundation design are based upon the minimum values provided in Table 1806A.2 of the 2019 California Building Code. See SB0.1 for values
3. Excavate to required depths and dimensions (as indicated in drawings), cut square and smooth with firm level bottoms. Care shall be taken not to over-excavate foundation at lower elevation and prevent disturbing of soils around higher elevation.
4. Footings shall be poured in neat excavations, without side forms whenever possible.
5. Carry all foundations to required depths into compacted fill or natural soil (as per Structural Plans and Details).
6. All foundation excavations shall be inspected and approved by the Inspector of Record or Geotechnical Engineer prior to forming and placement of reinforcing or concrete.
7. Foundations shall not be poured until all required reinforcing steel, sleeves, inserts, conduits, pipes, etc. and formwork is properly placed and inspected by the Authority having Jurisdiction.
8. The sides and bottoms of excavations which are to have concrete contact must be moistened several times just prior to pouring upon them.
9. De-water footings, as required, to maintain dry working conditions.

REINFORCING STEEL

1. All reinforcing steel shall be deformed intermediate grade bars conforming to ASTM A615, Grade 60 (f_y = 60 ksi) unless noted otherwise.
2. Reinforcing steel shall not be welded, unless specifically noted otherwise.
3. To hold reinforcing bars in their true position and prevent displacement, standard tie and anchorage devices must be provided. Placing of reinforcement shall conform to ACI 318-14 Section 26.6.2.
4. Shop drawings for fabrication of any reinforcing steel shall be approved by Contractor and submitted to Project Specific Architect or Project Specific Structural Engineer of Record, for their review, prior to fabrication.
5. Refer to typical details for minimum splice length and minimum radius of bend of reinforcing steel.
6. All reinforcing steel splices shall be staggered 24", unless specifically noted or detailed otherwise.
7. All reinforcing bar bends shall be made cold.
8. Fabrication, erection and placement of reinforcing steel shall conform to Concrete Reinforcing Steel Institute of Standard Practice.
9. Reinforcing steel shall be clean of rust, grease or other material likely to impair bond.

CONCRETE

1. All concrete shall have a minimum ultimate compressive strength (f'_c) as outlined below at 28 days. All concrete shall be regular weight (unless specifically noted otherwise).
    A. Concrete for footings: 4,500 psi w/c = 0.45 max. (see note 2)
3. Maximum Fly Ash content shall be 15%, by weight, of total cementitious materials and shall conform to ASTM C618.
4. All concrete work shall comply with CBC Chapter 19A and ACI 318-14 and latest edition of ACI Manual of Concrete Practice.
5. Special Inspection (as required or specified) shall conform to CBC Chapter 17A.
6. Cement shall be portland cement Type V and shall conform to ASTM C150.
7. Aggregates shall conform to ASTM C33, provide aggregates from a single source.
8. Water shall conform to ASTM C94 and be potable.
9. Where not specifically detailed, the minimum concrete cover on reinforcing steel shall be:
    A. Concrete cast against and permanently exposed to earth or weather: 3"
10. All reinforcing steel, anchor bolts, dowels, inserts and any other hardware to be set in concrete shall be well secured in position prior to pouring of concrete.
11. Vibrate all concrete as it is placed, with a mechanical vibrator operated by experienced personnel. The vibrator shall be used to consolidate the concrete, not transport it. Reinforcing and forms shall not be vibrated.
12. Formwork design and removal shall conform to ACI 318-14 Section 26.11. Remove forms in accordance with the following minimum schedule:
    A. Side forms of footings: Minimum 48 hours
    B. Column and pier forms: 72 hours & 70% of design strength
15. Concrete shall not free fall more than six feet. Use tremie, pump or other approved methods.
16. Concrete shall be maintained in a moist condition for a minimum of 5 days after placement.
17. The Contractor may use concrete admixtures as a construction means and methods to execute "Contract or Construction Documents". Use of admixture is solely the responsibility of the Contractor.
18. Mix designs shall be prepared by an approved testing laboratory, signed by a licensed engineer and shall be submitted to the Project Specific Design Professional of Record for approval. SSG is not responsible for review or approval of site specific concrete mix design.
19. Only one grade of concrete shall be allowed on project site at any one time
20. Concrete strength shall be verified by standard cylinder tests (in accordance with CBC Section 1905A.1.16) made by an approved testing laboratory.
21. Concrete placed when the air temperature has fallen to, or is expected to fall below 40° shall conform to ACI 318-14 Section 26.5.4, and ACI 306R-16.
22. Concrete placed during hot weather shall conform to ACI 318-14 Section 26.5.5, and ACI 305R-14.
23. Conduits and sleeves placed within structural concrete shall not be tied directly to structural reinforcement.
    A. 1" concrete cover shall be maintained around all reinforcement.
24. No stakes shall be permitted within the footing section.

DRILLED CAISSON/PIER AND GRADE BEAM NOTES

1. Excavations for drilled caissons/pier shall be performed in compliance with local grading codes and ordinances as well as CBC Chapters 18A and 33A.
2. Provide Special Inspection in accordance with CBC Section 1705A.8 and Table 1705A.8.
3. Excavations for all drilled caissons/piers shall be approved by the Project Geotechnical Engineer or Project Special Inspector prior to placing of concrete.
4. Reinforcement for drilled caissons/pier shall be approved by the Structural Engineer of Record prior to placing in caisson/pier excavation.
5. De-water caisson/pier footings and building excavation as required to maintain dry working conditions.
6. Caisson/piers are to be poured within 24 hours after completion of drilling operation. Shoring requirements shall be determined by contractor. Contractor shall be provide fall protection and safety barriers at and near the drilled hole as required by OSHA and the Authority Having Jurisdiction.
7. The Contractor shall be responsible for all shoring, bracing, etc. necessary to support cut and/or fill banks, and existing structures during excavation, and the forming and placement of concrete.
8. Bottom of caissons/piers shall be thoroughly cleaned prior to placement of concrete.

STRUCTURAL STEEL AND WELDING

1. All structural steel construction shall conform to AISC 360-16 and AISC 341-16.
    A. Fabrication of all structural steel shall be done in the shop of an approved fabricator. Inspection and approval for fabricator's shops used for fabrication of structural load bearing members, components, materials or assemblies shall conform to CBC Section 1704A.2.5.
2. All structural steel shall conform to the following specifications:
    A. Angles, channels, plates, bars, rounds, and other miscellaneous shapes: Shall conform to ASTM A36 and shall have a minimum yield stress (F_y) of 36 ksi.
    B. Wide-flange shapes: Shall conform to ASTM A992 and shall have a minimum yield stress (F_y) of 50 ksi.
    C. Structural tubes: Shall be ASTM A500, Grade B, and shall have a min. yield stress (F_y) of 46 ksi.
3. All structural steel fasteners shall conform to the following specifications:
    A. Bolts shall conform to ASTM A307
    B. Anchor Bolts shall conform to ASTM F1554, Grade as noted in drawings
    C. Carbon steel nuts shall conform to ASTM A563
    D. Stainless steel nuts shall conform to ASTM F594
    E. Washers shall conform to ASTM F436
4. Special Inspection shall be provided for all structural steel and welding, in accordance with CBC Chapter 17A.
5. All structural steel shall be fabricated, erected and welded in accordance with AISC Specifications for Structural Steel Buildings (AISC 360-10) and Code of Standard Practice for Steel Buildings and Bridges (AISC 303-10).
6. All welding shall be done by qualified and certified welders.
7. Shop drawings for the fabrication of any structural steel shall be approved by the Contractor and submitted to Project Specific Architect or Project Specific Structural Engineer of Record for their review, prior to fabrication.
8. No holes other than those specifically detailed shall be allowed through structural steel members. Burning of holes is not permitted.
9. All welding shall conform to 'AWS D1.1' specifications for welding. (E-70XX Electrodes).
10. Where fillet weld size is not indicated, use 'AWS' minimum size based on the thickness of the thinner part being welded, as specified in AISC Specifications for Structural Steel Buildings (AISC 360-10), Section J2.2.
11. All butt welds to be complete joint penetration, unless specifically noted otherwise.
12. Welder qualification requirements, welding procedure and welding electrodes for all structural steel (except structural sheet steel, see steel decking) shall conform to CBC Sections 1705A.2.1 and 2204A.1.
13. Provide 3" minimum concrete cover around all structural steel below grade.
14. Structural steel embedded into concrete shall be uncoated.
15. Structural steel shall be hot-dip galvanized (minimum ASTM A123 or A153 Class D) or painted with zinc-rich primer, undercoat, and finish coat; or equivalent paint system.
16. All exposed steel fasteners, including cast-in-place anchor bolts/rods, shall be stainless steel (Type 304 minimum), hot-dip galvanized (ASTM A153, Class D minimum or ASTM F2329), or protected with corrosion-preventive coating that demonstrated no more than 2% of red rust in minimum 1,000 hours of exposure in salt spray test per ASTM B117. Zinc plated fasteners do not comply with this requirement.

ABBREVIATIONS

A.B.	Anchor Bolt	HORIZ.	Horizontal
ABV.	Above	HSS	Hollow Steel Section
ACI	American Concrete Institute	HT.	Height
ADJ.	Adjacent	ICC	International Building Code
AHJ	Authority Having Jurisdiction	ICC	International Code Council
AISC	American Institute of Steel Construction	ID	Inside Diameter
AOR	Architect of Record	IN.	Inch, Inches
APPROX.	Approximate(ly)	INT.	Interior
ASCE	American Society of Civil Engineers	ksi	Kips per Square Inch
ARCH.	Architect, Architecture	LL	Live Load
ASTM	American Society of Testing and Materials	MAX.	Maximum
ATR	All Thread Rod	MB	Machine Bolt
AWS	American Welding Society	MFR.	Manufactured, Manufacturer
B.O.	Bottom of ______	MIN.	Minimum
BOT.	Bottom	MPH	Miles per Hour
b/t	Between	N/R	Not Required
CAC	California Administrative Code	N.T.S.	Not to Scale
CBC	California Building Code	o.c.	On Center
CIP	Cast-in-place	o/	Over
CJP	Complete Joint Penetration	OD	Outside Diameter
℄	Centerline	PEN.	Penetration
CLR.	Clear	PL.	Plate
COL.	Column	PJP	Partial Joint Penetration
CONC.	Concrete	psi	Pounds per Square Inch
CONN.	Connection	PSF	Pounds per Square Foot
CONST.	Construction	REBAR	Reinforcing Bar
CONT.	Continue, Continuous	REINF.	Reinforcement
Ø	Diameter	REQ'D	Required
DBL.	Double	S.F.	Square Feet
DET.	Detail	SHT.	Sheet
DL	Dead Load	SIM.	Similar
DSA	Division of State Architect	SMS	Sheet Metal Screw
DWGS.	Drawings	SQ.	Square
EA.	Each	STAGG'D	Staggered
E.F.	Each Face	STD.	Standard
ELEC.	Electric, Electrical	STL.	Steel
ELEV.	Elevation	SEOR	Structural Engineer of Record
EMBED.	Embedded, Embedment	T&B	Top and bottom
EOR	Engineer of Record	THR'D	Threaded
EQ.	Equal	T.O.	Top of ______
EQUIP.	Equipment	TYP.	Typical
E.S.	Each Side	U.N.O.	Unless Noted Otherwise
E.W.	Each Way	VERT.	Vertical
EXT.	Exterior	VIF	Verify in Field
FAB.	Fabricated	w/	With
FDN.	Foundation	w/c	Water/Cement Ratio
F.G.	Finish Grade	WSS	Welded Steel Stud
F.O.	Face of ______	WT.	Weight
FRMG.	Framing		
FT.	Foot,Feet		
FTG.	Footing		
GA.	Gauge		
GALV.	Galvanized		
GEOR	Geotechnical Engineer of Record		

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP. 04-120759 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DEPARTMENT OF GENERAL SERVICES
DATE: 11/24/2021

SSG
structural engineers
San Luis Obispo • Fresno • Bakersfield
ssgse.com
805.439.2110

REGISTERED PROFESSIONAL ENGINEER
MICHAEL E. PAROLINI
No. 5405
STRUCTURAL
STATE OF CALIFORNIA
SEOR SEAL
DATE SIGNED: 11.20.20

nevco
301 East Harris Avenue, Greenville, Illinois 62246
Phone: (618) 664-0360
www.nevco.com

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-119647 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 05/04/2021
DSA STAMP

PRE-CHECK (PC) DOCUMENT
CODE: 2019

A separate project application for construction is required.

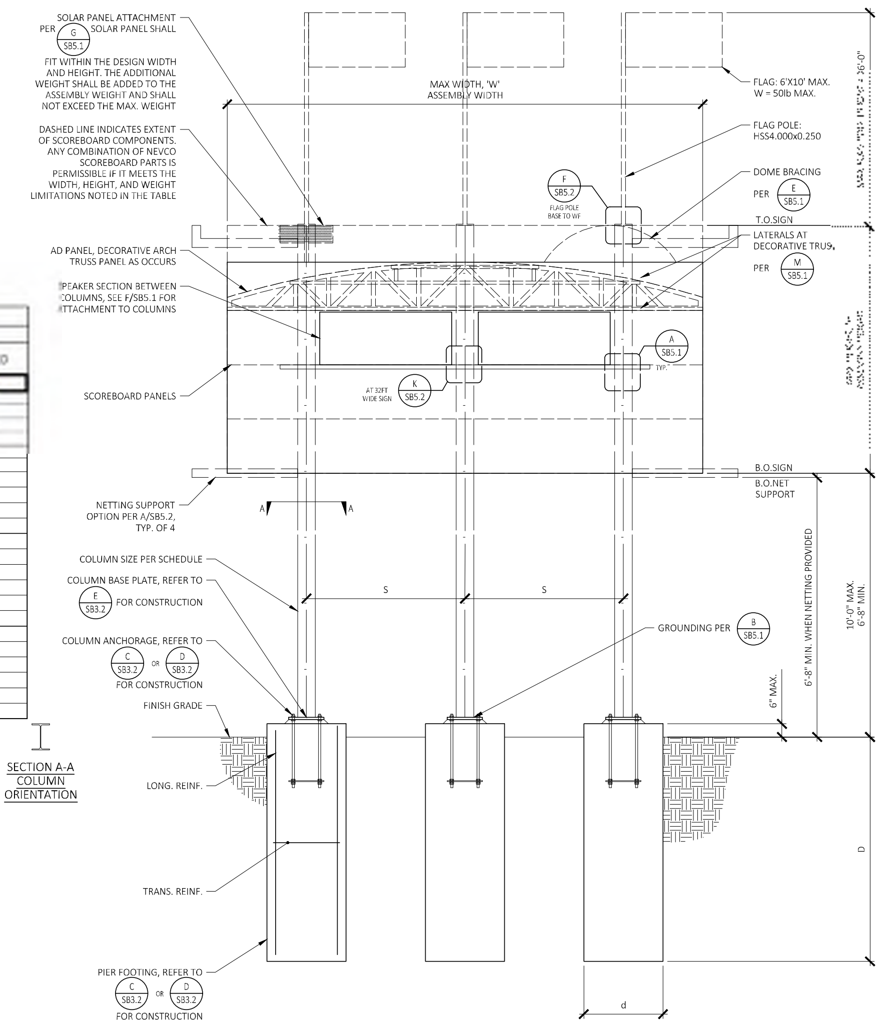
STRUCTURAL NOTES & SPECIAL INSPECTIONS

SHEET INFORMATION

DATE	03.25.2021
DRAWN	JMK
CHECKED	MEP
SSG JOB #	S20284
SHEET	SB0.3

THREE COLUMN ASSEMBLY																	
ASSEMBLY CRITERIA						PIER FOOTING CRITERIA (2)				BASE PLATE				ANCHOR RODS				
ASSEMBLY WIDTH, W	CHECK OPTION THIS APPLICATION	MAX. WEIGHT	ASSEMBLY HEIGHT, H	COLUMN SPACING, S	COLUMN SIZE	PIER DIAMETER, d	DEPTH, D	LONG. REINF.	TRANS. REINF.(1)	THICKNESS, t	WIDTH, B	LENGTH, L	WELD	QUANTITY & DIAMETER	GRADE	EDGE DISTANCE, X	GROUT HEIGHT	EMBED
20'-0"		[illegible]	≤ 8'-0"	8'0"	W10x33	36"Ø	[illegible]	8 - #6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2"	48"
		[illegible]	≤ 12'-0"	8'0"	[illegible]	36"Ø	[illegible]	8 - #6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2"	48"
		[illegible]	≤ 16'-0"	8'0"	W14x61	42"Ø	[illegible]	8 - #8	[illegible]	[illegible]	24"	[illegible]	[illegible]	[illegible]	F1554 - GR.55	[illegible]	2"	64"
		[illegible]	≤ 20'-0"	8'0"	[illegible]	48"Ø	[illegible]	14 - #8	[illegible]	[illegible]	24"	30"	[illegible]	[illegible]	F1554 - GR.55	3"	2"	64"
		[illegible]	≤ 24'-0"	8'0"	[illegible]	48"Ø	[illegible]	14 - #8	[illegible]	[illegible]	24"	30"	CJP	[illegible]	F1554 - GR.55	3"	2"	64"
24'-0"		3,460 lbs.	≤ 12'-0"	8'-0"	W14x48	36"Ø	10'-6"	8 - #8	#4 @ 6" o.c.	1¼"	20"	20"	7/16	(6) - 1⅛"Ø	F1554 - GR.55	2¼"	2"	64"
		4,610 lbs.	≤ 16'-0"	8'-0"	W14x61	48"Ø	10'-9"	12 - #8	#4 @ 6" o.c.	1½"	24"	24"	7/16	(6) - 1¼"Ø	F1554 - GR.55	2½"	2"	64"
		5,760 lbs.	≤ 20'-0"	8'-0"	W16x77	48"Ø	12'-0"	14 - #8	#4 @ 6" o.c.	1½"	24"	24"	9/16	(6) - 1¼"Ø	F1554 - GR.105	2½"	2"	64"
		6,920 lbs.	≤ 24'-0"	8'-0"	W18x97	48"Ø	13'-3"	14 - #8	#4 @ 6" o.c.	1¾"	24"	30"	CJP	(6) - 1½"Ø	F1554 -GR.55	3"	2"	64"
		8,060 lbs.	≤ 28'-0"	8'-0"	W18x119	48"Ø	14'-3"	14 - #8	#4 @ 6" o.c.	2"	24"	30"	CJP	(6) - 1½"Ø	F1554 - GR.55	3"	2"	64"
28'-0"		2,690 lbs.	≤ 8'-0"	10'-0"	W10x33	36"Ø	9'-6"	8 - #6	#4 @ 4½" o.c.	1¼"	20"	20"	5/16	(4) - 1⅛"Ø	F1554 - GR.55	2¼"	2"	48"
		4,040 lbs.	≤ 12'-0"	10'-0"	W14x48	48"Ø	9'-9"	8 - #8	#4 @ 6" o.c.	1¼"	24"	24"	7/16	(6) - 1¼"Ø	F1554 - GR.55	2½"	2"	64"
		5,380 lbs.	≤ 16'-0"	10'-0"	W16x67	48"Ø	11'-6"	14 - #8	#4 @ 6" o.c.	1¾"	24"	30"	½	(4) - 1½"Ø	F1554 - GR.55	3"	2"	64"
		6,720 lbs.	≤ 20'-0"	10'-0"	W16x89	48"Ø	12'-6"	14 - #8	#4 @ 6" o.c.	2"	24"	30"	CJP	(6) - 1½"Ø	F1554 - GR.55	3"	2"	64"
		8,070 lbs.	≤ 24'-0"	10'-0"	W18x106	48"Ø	13'-9"	14 - #9	#4 @ 6" o.c.	2"	24"	30"	CJP	(6) - 1½"Ø	F1554 - GR.55	3"	2"	64"
		9,400 lbs.	≤ 28'-0"	10'-0"	W18x130	48"Ø	15'-0"	14 - #9	#4 @ 6" o.c.	2"	24"	30"	CJP	(6) - 1½"Ø	F1554 - GR.105	3"	2"	64"
32'-0"		3,080 lbs.	≤ 8'-0"	12'-0"	W10x33	36"Ø	10'-0"	8 - #6	#4 @ 4½" o.c.	1¼"	20"	20"	⅜	(6) - 1⅛"Ø	F1554 - GR.55	2¼"	2"	48"
		4,610 lbs.	≤ 12'-0"	12'-0"	W14x61	48"Ø	10'-3"	8 - #8	#4 @ 6" o.c.	1½"	24"	24"	⅜	(6) - 1¼"Ø	F1554 - GR.55	2½"	2"	64"
		6,150 lbs.	≤ 16'-0"	12'-0"	W16x67	48"Ø	11'-9"	14 - #8	#4 @ 6" o.c.	1¾"	24"	30"	½	(4) - 1½"Ø	F1554 - GR.55	3"	2"	64"
		7,680 lbs.	≤ 20'-0"	12'-0"	W18x86	48"Ø	13'-0"	14 - #8	#4 @ 6" o.c.	1¾"	24"	30"	CJP	(6) - 1½"Ø	F1554 - GR.55	3"	2"	64"
		9,220 lbs.	≤ 24'-0"	12'-0"	W18x119	48"Ø	14'-6"	14 - #9	#4 @ 6" o.c.	2"	24"	30"	CJP	(6) - 1½"Ø	F1554 - GR.55	3"	2"	64"
		10,750 lbs.	≤ 28'-0"	12'-0"	W18x143	54"Ø	15'-6"	14 - #9	#4 @ 6"o.c.	2¼"	30"	36"	CJP	(6) - 2"Ø	F1554 - GR.55	4"	2½"	64"

NOTES:
1. CONTRACTOR OPTION TO PROVIDE TIES OR SPIRAL REINFORCING. SEE C/SB3.2 FOR TIE OPTION, SEE D/SB3.2 FOR SPIRAL OPTION.
2. CONTRACTOR IS RESPONSIBLE FOR CASING PIERS AND DRILLING SEQUENCING TO PROTECT PIER EXCAVATION



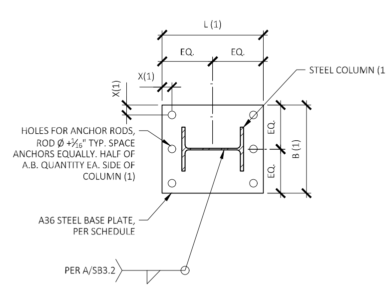
SECTION A-A COLUMN ORIENTATION

ELEVATION

THREE COLUMN SCOREBOARD INSTALLATION

N.T.S.

A

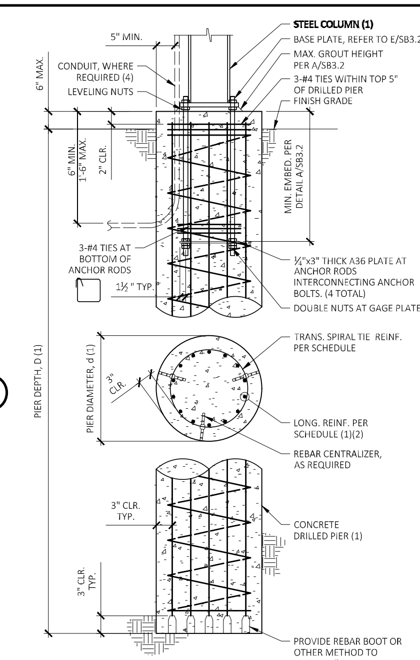


NOTES: (#)
1. SEE SCOREBOARD ELEVATION, A/SB3.2

BASE PLATE

N.T.S.

E

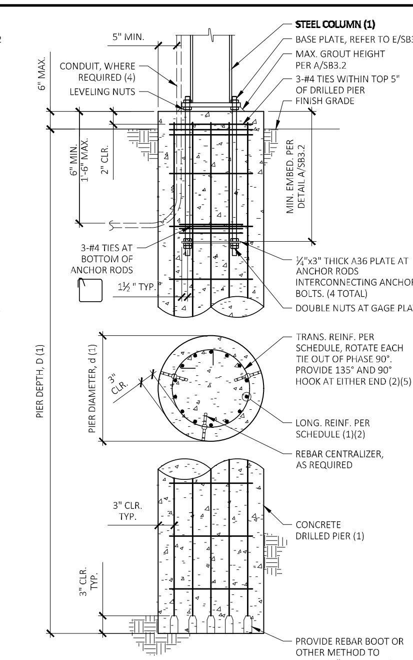


NOTES: (#)
1. SEE ELECTRONIC SIGN ELEVATION, A/SB3.2
2. SEE DETAILS B/SB3.2 FOR REINFORCEMENT TIE REQUIREMENTS
3. DO NOT SPLICE REINFORCEMENT.
4. LOCATION OF CONDUIT APPROACH SHOWN GRAPHICALLY ONLY FOR REFERENCE, VERIFY ACTUAL CONDITIONS IN FIELD. (2)-2" NOMINAL CONDUIT MAX. SPACE CONDUIT 6"o.c. MIN.
5. TIE SHALL OVERLAP ITSELF A MINIMUM OF 6" AND HOOK AT VERTICAL BARS. MAXIMUM OF THREE VERTICAL BAR SPACINGS BETWEEN HOOKS

CONCRETE DRILLED PIER

N.T.S.

D

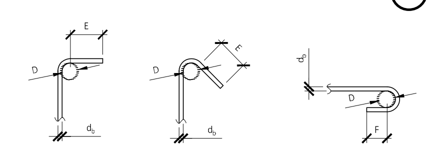


NOTES: (#)
1. SEE ELECTRONIC SIGN ELEVATION, A/SB3.2
2. SEE DETAILS B/SB3.2 FOR REINFORCEMENT TIE REQUIREMENTS
3. DO NOT SPLICE REINFORCEMENT.
4. LOCATION OF CONDUIT APPROACH SHOWN GRAPHICALLY ONLY FOR REFERENCE, VERIFY ACTUAL CONDITIONS IN FIELD. (2)-2" NOMINAL CONDUIT MAX. SPACE CONDUIT 6"o.c. MIN.
5. TIE SHALL OVERLAP ITSELF A MINIMUM OF 6" AND HOOK AT VERTICAL BARS. MAXIMUM OF THREE VERTICAL BAR SPACINGS BETWEEN HOOKS

CONCRETE DRILLED PIER

N.T.S.

C


90° BEND

135° BEND

180° BEND

Bar Size	Dimension of Standard Bends		
	D	E	F (6d_b) (3" min.)
#4	2"Ø	3"	3"

TIE AND STIRRUP BENDS

N.T.S.

B

SSG structural engineers

NEVCO

301 East Harris Avenue, Greenville, Illinois 62246
Phone: (618) 664-0360
www.nevco.com

DSA STAMP

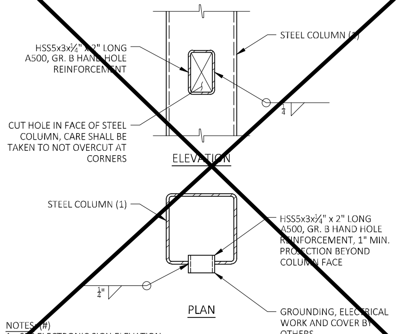
PRE-CHECK (PC) DOCUMENT CODE: 2019

A separate project application for construction is required.

THREE COLUMN CAISSON - BOLTED

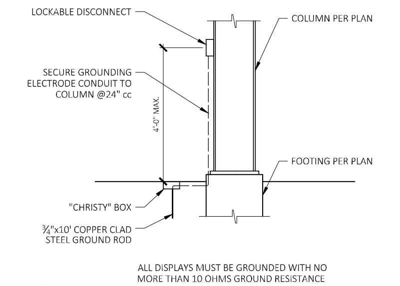
SHEET INFORMATION

DATE	03.25.2021
DRAWN	JMK
CHECKED	MEP
SSG JOB #	S20284
SHEET	SB3.2



NOTES: (#)
1. SEE ELECTRONIC SIGN ELEVATION

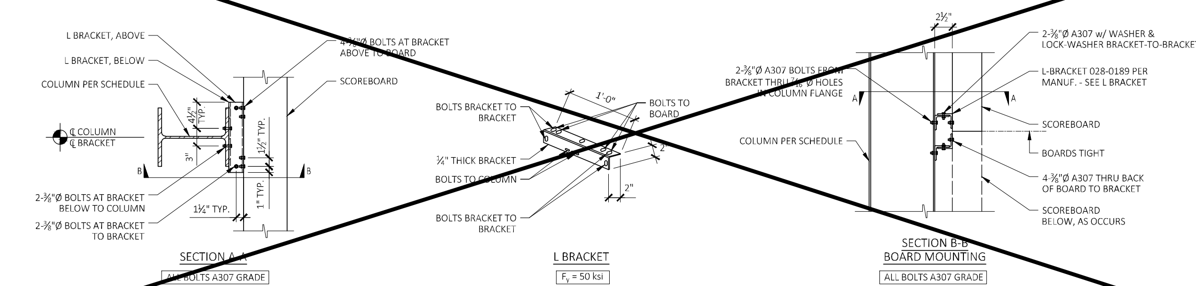
CONDUIT HAND HOLE
(H)
N.T.S.



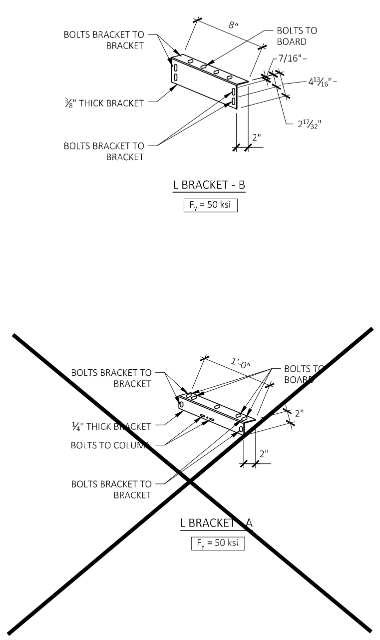
ALL DISPLAYS MUST BE GROUNDED WITH NO MORE THAN 10 OHMS GROUND RESISTANCE

NOTES:
1. ALTERNATE: IT IS PERMISSIBLE TO UTILIZE THE UFER GROUNDING METHOD. DETAILS FOR UFER GROUNDING SHALL BE INCLUDED AS PART OF THE SITE SPECIFIC SUBMITTAL.

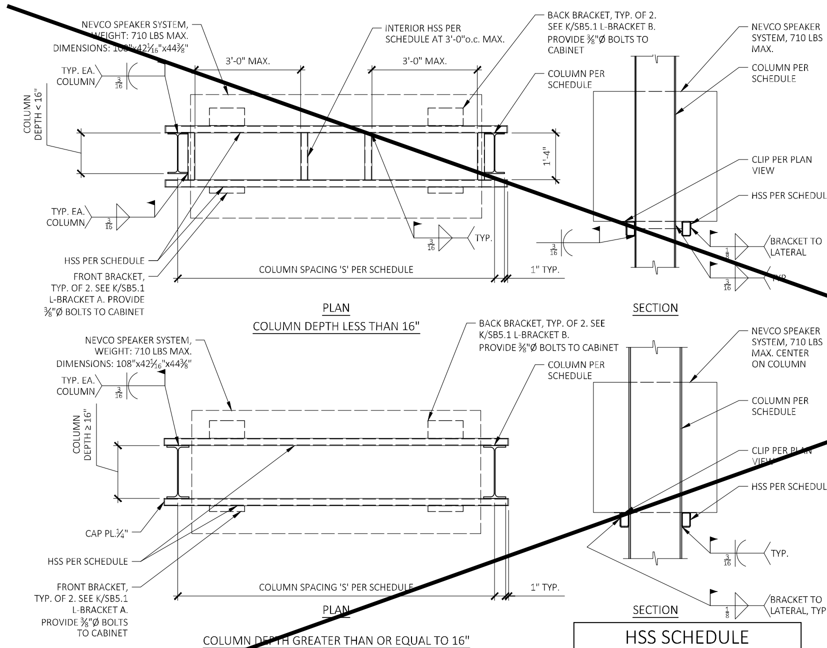
GROUNDING DETAIL
(B)
N.T.S.



SCOREBOARD PART ATTACHMENTS
(A)
N.T.S.



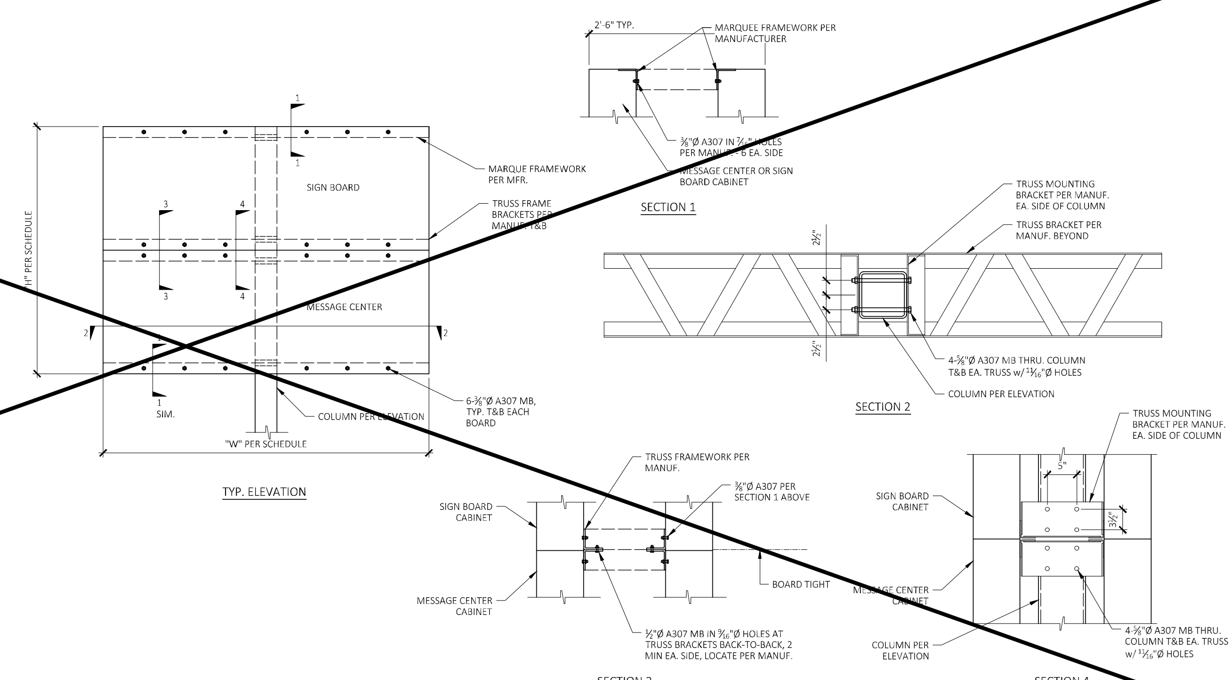
L BRACKETS
(K)
N.T.S.



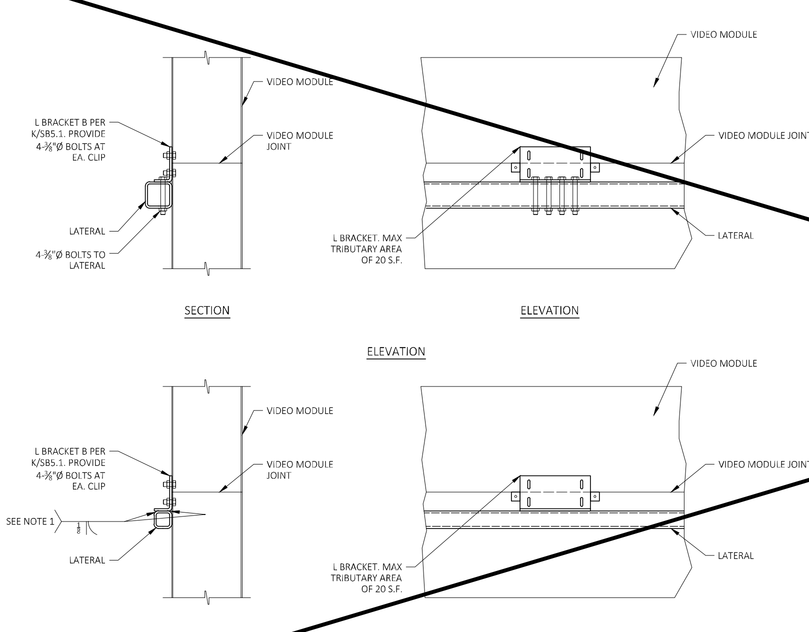
HSS SCHEDULE

COLUMN SPACING, S	HSS SIZE
10'-0"	HSS4x3x¼
12'-0"	HSS4x3x¼
14'-0"	HSS4x3x¼

SPEAKER ATTACHMENT
(F)
N.T.S.

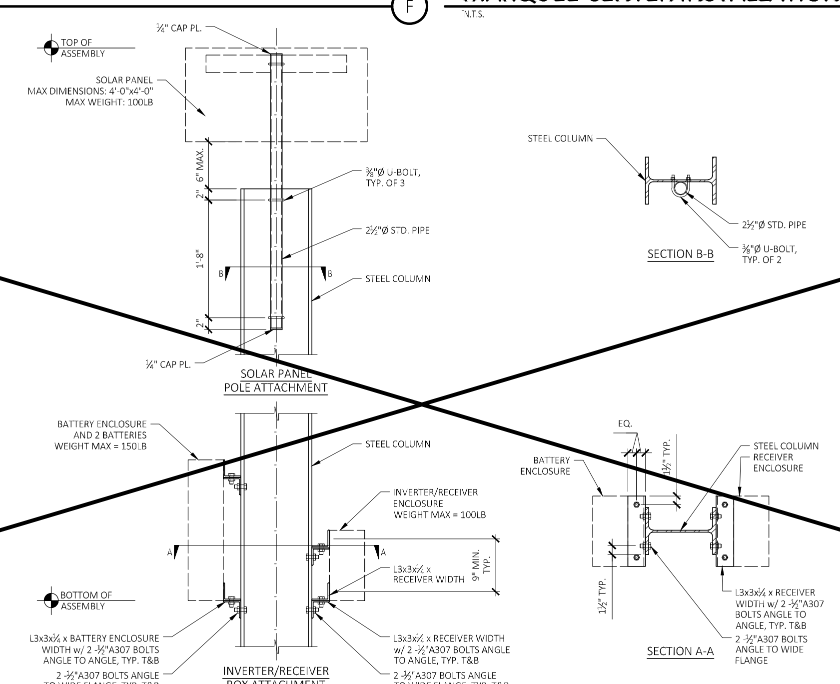


MARQUEE CENTER INSTALLATION
(D)
N.T.S.



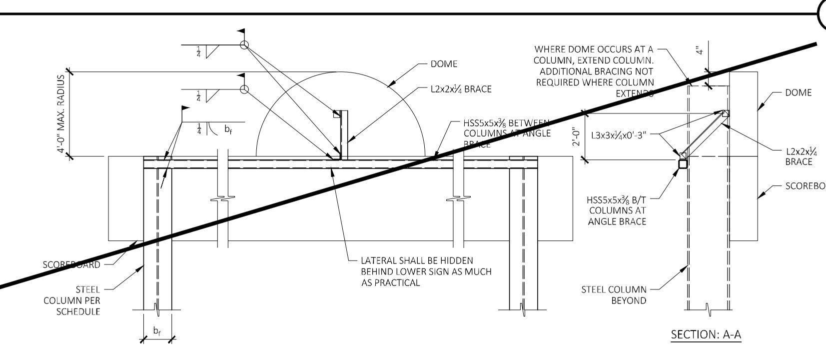
NOTES:
1. PROVIDE FILLET WELD WHERE LATERAL WIDTH EXCEEDS BRACKET WIDTH

VIDEO BOARD BRACKET ATTACHMENT
(J)
N.T.S.



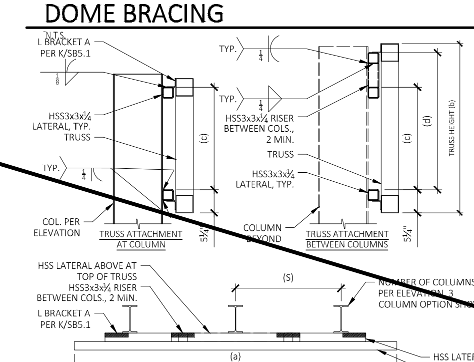
NOTES:
1. THE SOLAR PANEL, BATTERIES AND ENCLOSURE, AND INVERTER/RECEIVER DIMENSIONS SHALL FIT WITHIN THE PERMITTED EXTENT OF SCOREBOARD AS INDICATED IN THE SCOREBOARD ELEVATION AND SCHEDULE.
2. THE SOLAR PANEL, BATTERIES AND ENCLOSURE, AND INVERTER/RECEIVER WEIGHT ALONG WITH ALL OTHER SCOREBOARD COMPONENTS SHALL NOT EXCEED THE WEIGHT INDICATED IN THE SCOREBOARD SCHEDULE.

SOLAR PANEL/BATTERY/ INVERTER/RECEIVER ATTACHMENT
(G)
N.T.S.



NOTES: (#)
1. SEE SCOREBOARD ELEVATION AND NOTES

DOME BRACING
(E)



NOTES:
1. SEE K/S5.2 FOR ALTERNATE LATERAL ATTACHMENT

TRUSS ATTACHMENT CHART

TRUSS WIDTH (a)	TRUSS HEIGHT (b)	LATERAL HEIGHT (c)	LATERAL HEIGHT (d)	COLUMN SPACING (S)	ESTIMATED WEIGHT	NUMBER OF COLUMNS
18'-0"	3'-0"	28 13/32"	31 5/8"	10'-0"	145 lbs.	2
16'-0"	3'-8 ½"	34 ½"	36 ½"	8'-0"	136 lbs.	2
18'-0"	4'-0"	38 3/16"	40 3/16"	10'-0"	165 lbs.	2
12'-0"	2'-6"	18 11/16"	20 11/16"	8'-0"	90 lbs.	2
10'-0"	2'-6"	18 7/8"	20 7/8"	8'-0"	64 lbs.	2
8'-0"	2'-6"	18 7/8"	20 7/8"	6'-0"	58 lbs.	2
14'-0"	2'-0"	18 1/8"	20 1/8"	8'-0"	78 lbs.	2
28'-0"	4'-0"	30 11/32"	42 7/32"	10'-0"	257 lbs.	3
24'-0"	4'-0"	27 ½"	42 9/16"	8'-0"	220 lbs.	3
24'-0"	3'-0"	19 15/16"	30 15/32"	8'-0"	185 lbs.	3
20'-0"	4'-0"	25 5/8"	44 ¾"	9'-0"	110 lbs.	3
32'-0"	4'-0"	24 11/16"	41 5/32"	8'-0"	294 lbs.	4
36'-0"	4'-0"	15 ½"	39 9/16"	10'-0"	331 lbs.	4
40'-0"	4'-0"	28 7/8"	41 1/8"	10'-0"	367 lbs.	4

TRUSS ATTACHMENT
(M)
N.T.S.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
DATE: 11/24/2021

SSG structural engineers
San Luis Obispo • Fresno • Bakersfield
ssgsi.com
805.439.2110

SEOR SEAL
DATE SIGNED: 11.20.20

NEVCO
301 East Harris Avenue, Greenville, Illinois 62246
Phone: (618) 664-0360
www.nevco.com

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-119647 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑ CG ☐
DATE: 05/04/2021

DSA STAMP

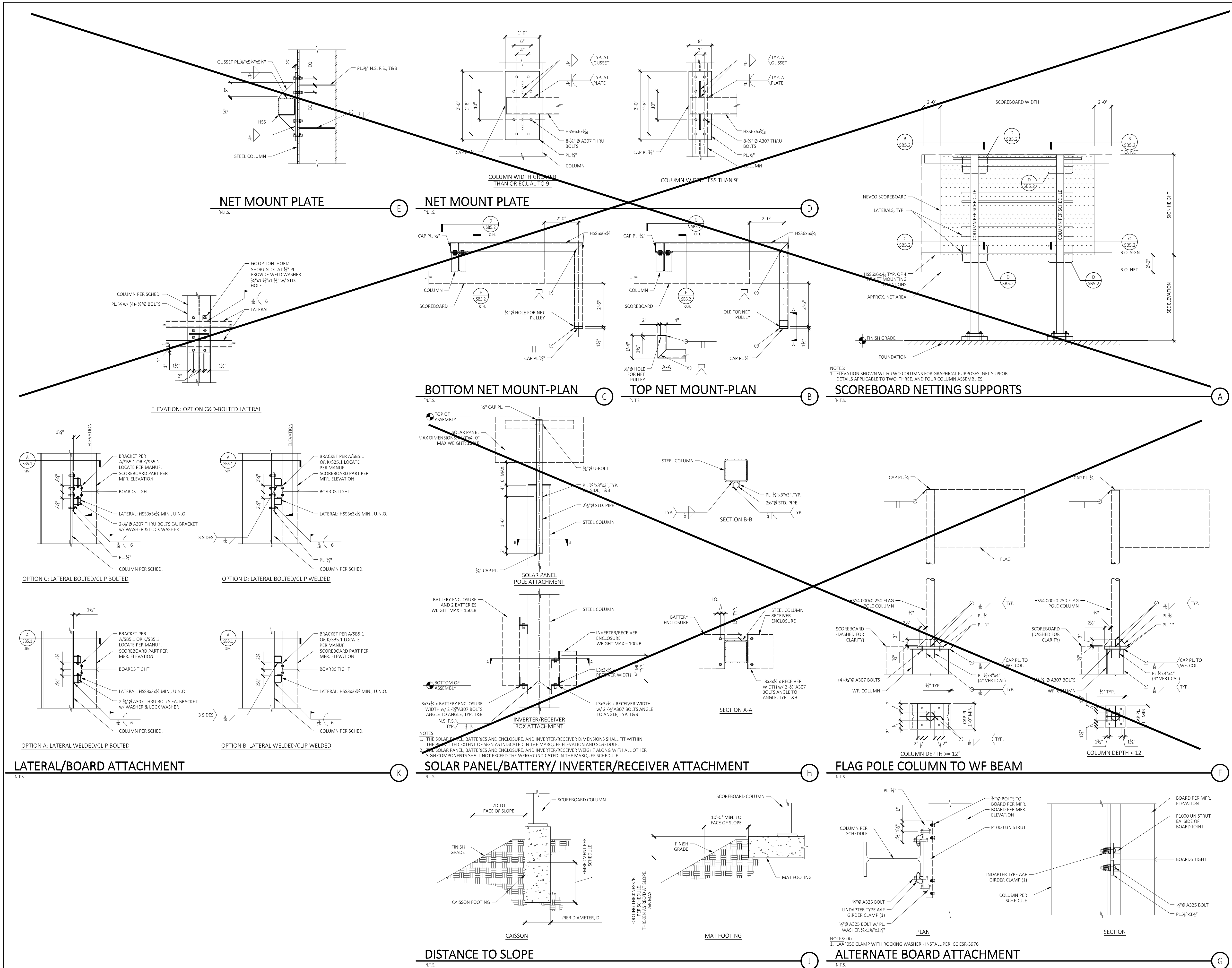
PRE-CHECK (PC) DOCUMENT
CODE: 2019

A separate project application for construction is required.

ATTACHMENT DETAILS

SHEET INFORMATION

DATE	03.25.2021
DRAWN	JMK
CHECKED	MEP
SSG JOB #	S20284
SHEET	SB5.1


NET MOUNT PLATE
N.T.S.
E
NET MOUNT PLATE
N.T.S.
D
COLUMN WIDTH GREATER THAN OR EQUAL TO 9"
COLUMN WIDTH LESS THAN 9"
ELEVATION: OPTION C&D-BOLTED LATERAL
BOTTOM NET MOUNT-PLAN
N.T.S.
C
TOP NET MOUNT-PLAN
N.T.S.
B
SCOREBOARD NETTING SUPPORTS
N.T.S.
A
NOTES:
1. ELEVATION SHOWN WITH TWO COLUMNS FOR GRAPHICAL PURPOSES. NET SUPPORT DETAILS APPLICABLE TO TWO, THREE, AND FOUR COLUMN ASSEMBLIES.
OPTION C: LATERAL BOLTED/CLIP BOLTED
OPTION D: LATERAL BOLTED/CLIP WELDED
OPTION A: LATERAL WELDED/CLIP BOLTED
OPTION B: LATERAL WELDED/CLIP WELDED
LATERAL/BOARD ATTACHMENT
N.T.S.
K
SOLAR PANEL POLE ATTACHMENT
SECTION B-B
INVERTER/RECEIVER BOX ATTACHMENT
SECTION A-A
NOTES:
1. THE SOLAR PANEL, BATTERIES AND ENCLOSURE, AND INVERTER/RECEIVER DIMENSIONS SHALL FIT WITHIN THE PERMITTED EXTENT OF SIGN AS INDICATED IN THE MARQUEE ELEVATION AND SCHEDULE.
2. THE SOLAR PANEL, BATTERIES AND ENCLOSURE, AND INVERTER/RECEIVER WEIGHT ALONG WITH ALL OTHER SIGN COMPONENTS SHALL NOT EXCEED THE WEIGHT INDICATED IN THE MARQUEE SCHEDULE.
SOLAR PANEL/BATTERY/ INVERTER/RECEIVER ATTACHMENT
N.T.S.
H
COLUMN DEPTH >= 12"
COLUMN DEPTH < 12"
FLAG POLE COLUMN TO WF BEAM
N.T.S.
F
CAISSON
MAT FOOTING
DISTANCE TO SLOPE
N.T.S.
J
PLAN
SECTION
NOTES:
1. LAAF050 CLAMP WITH ROCKING WASHER - INSTALL PER ICC ESR-3976
ALTERNATE BOARD ATTACHMENT
N.T.S.
G

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP. 04-120759 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DEPARTMENT OF GENERAL SERVICES
DATE: 11/24/2021

SSG structural engineers
San Luis Obispo • Fresno • Bakersfield
ssgse.com
805.439.2110

REGISTERED PROFESSIONAL ENGINEER
MICHAEL E. PAROLINI
No. 5405
STRUCTURAL
STATE OF CALIFORNIA
DATE SIGNED: 11.20.20
SEOR SEAL

NEVCO
301 East Harris Avenue, Greenville, Illinois 62246
Phone: (618) 664-0360
www.nevco.com

APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-119647 PC
REVIEWED FOR
SS ☑ FLS ☑ ACS ☒ CG ☐
DATE: 05/04/2021
DSA STAMP

PRE-CHECK (PC) DOCUMENT
CODE: 2019

A separate project application for construction is required.

OPTIONAL SCOREBOARD FEATURE ATTACHMENT DETAILS

SHEET INFORMATION

DATE	03.25.2021
DRAWN	JMK
CHECKED	MEP
SSG JOB #	S20284
SHEET	SB5.2