

# FIELD LIGHTS FOR MARIN CATHOLIC HIGH SCHOOL

675 SIR FRANCIS DRAKE BLVD. KENTFIELD, CA 94904

BRW PROJECT NO. 215164.00

DATE: MAY 3, 2024

DESIGN REVIEW AND USE PERMIT SUBMITTAL

OWNER MARIN CATHOLIC HIGH SCHOOL, ARCHDIOCESE OF SAN FRANCISCO

1301 POST STREET, SUITE 102 SAN FRANCISCO, CA 94109

(415) 464-3223

ARCHITECT BROWN REYNOLDS WATFORD ARCHITECTS, INC.

1620 MONTGOMERY STREET, SUITE 320 SAN FRANCISCO, CA 94111 (415) 749-2670, FAX (415) 749-2672

EGRESS LIGHTING ENGINEER THE ENGINEERING ENTERPRISE

1305 MARINA VILLAGE PARKWAY ALAMEDA, CA 94501 (510) 769-7600, FAX (510) 769-1261

FIELD LIGHTING ENGINEER MUSCO LIGHTING

3420 COACH LN CAMERON PARK, CA 95682 (530) 672-9500

### PROJECT DESCRIPTION

### INDEX OF DRAWINGS

C1.0 TOPOGRAPHIC SURVEY

## **CODE INFORMATION**

BUILDING: 2022 CALIFORNIA BUILDING CODE

MECHANICAL: 2022 CALIFORNIA MECHANICAL CODE

PLUMBING: 2022 CALIFORNIA PLUMBING CODE

ELECTRICAL: 2022 CALIFORNIA ELECTRICAL CODE

ENERGY: 2022 CALIFORNIA ENERGY CODE

### PROJECT INFORMATION

PROJECT ADDRESS 675 SIR FRANCIS DRAKE BLVD

2022 INTERNATIONAL FIRE CODE

APN NUMBER 022-010-35

FIRE:

ZONE R1/ B2: RESIDENTIAL, SINGLE FAMILY

GENERAL PLAN PF-SF5: LOW DENSITY RESIDENTIAL, PUBLIC LOT

AREA 18.469 ACRES (804,515 SF)

CURRENT USE HIGH SCHOOL

INSTALLATION OF FIELD LIGHTS

D LIGHTS T1.1 TITLE SHEET

A1.0 SITE PLAN

A1.1 ENLARGED SITE PLAN / LIGHT STANDARD LOCATOR

A1.2 EXTERIOR ELEVATION / SITE SECTIONS

E1.1 EXISTING SITE LIGHTING PLAN / PEDESTRIAN EGRESS LIGHTING

MUSCO LIGHTING DESIGN DATED APRIL 29, 2024

E1.2 MUSCO POLE ELEVATION AND LIGHT FIXTURE DETAIL

E1.3 PROJECT SUMMARY

ILLUMINATION SUMMARY - B: Football
ILLUMINATION SUMMARY - C: Track
ILLUMINATION SUMMARY - D: Home Bleachers

E1.4 ILLUMINATION SUMMARY - A: Home Egress ILLUMINATION SUMMARY - B: Away Bleachers ILLUMINATION SUMMARY - C: Away Egress ILLUMINATION SUMMARY - D: Bon Air Road

E.15 ILLUMINATION SUMMARY - A: Bon Air Road
ILLUMINATION SUMMARY - B: Bon Air Road
ILLUMINATION SUMMARY - C: Tidal Marsh Spill
ILLUMINATION SUMMARY - D: Tidal Marsh Spill

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ILLUMINATION SUMMARY - B: Sir Francis Drake Blvd Spill
ILLUMINATION SUMMARY - C: Sir Francis Drake Blvd Spill
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E1.7 ILLUMINATION SUMMARY - A: Creekside Park Spill ILLUMINATION SUMMARY - B: Creekside Park Spill ILLUMINATION SUMMARY - C: Creekside Park Spill ILLUMINATION SUMMARY - D: Blanket Grid

E1.8 EQUIPMENT LAYOUT

13 TOTAL SHEETS

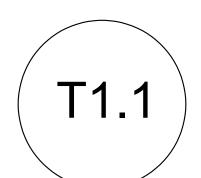




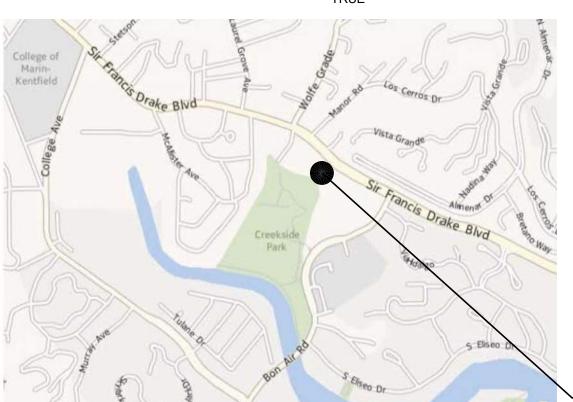
FIELD LIGHTS FOR MARIN CATHOLIC HIGH SCHC 675 SIR FRANCIS DRAKE BLVD KENTFIELD, CA



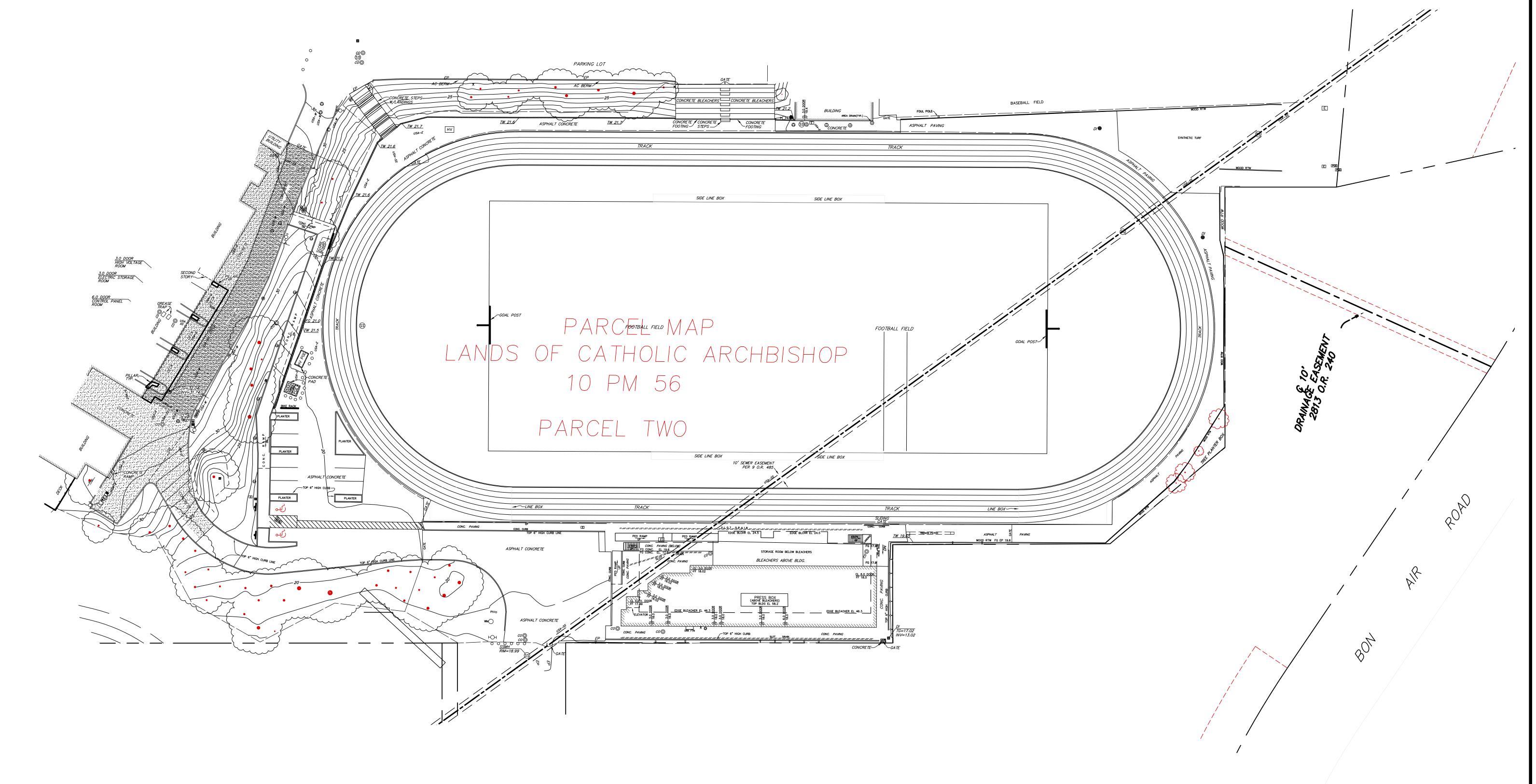
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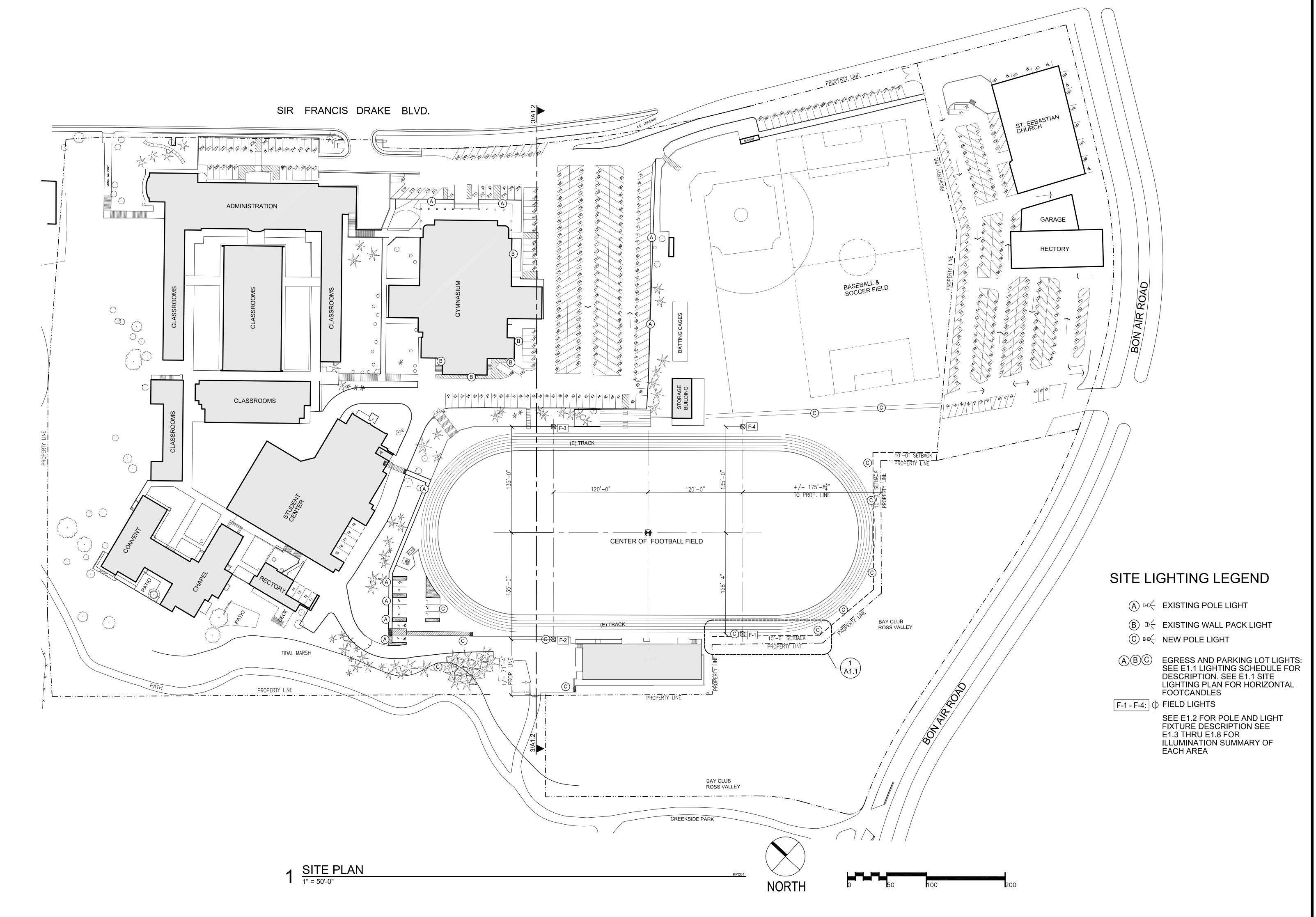
675 SIR FRANCIS DRAKE BLVD KENTFIELD, CA 94904

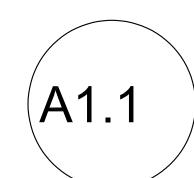


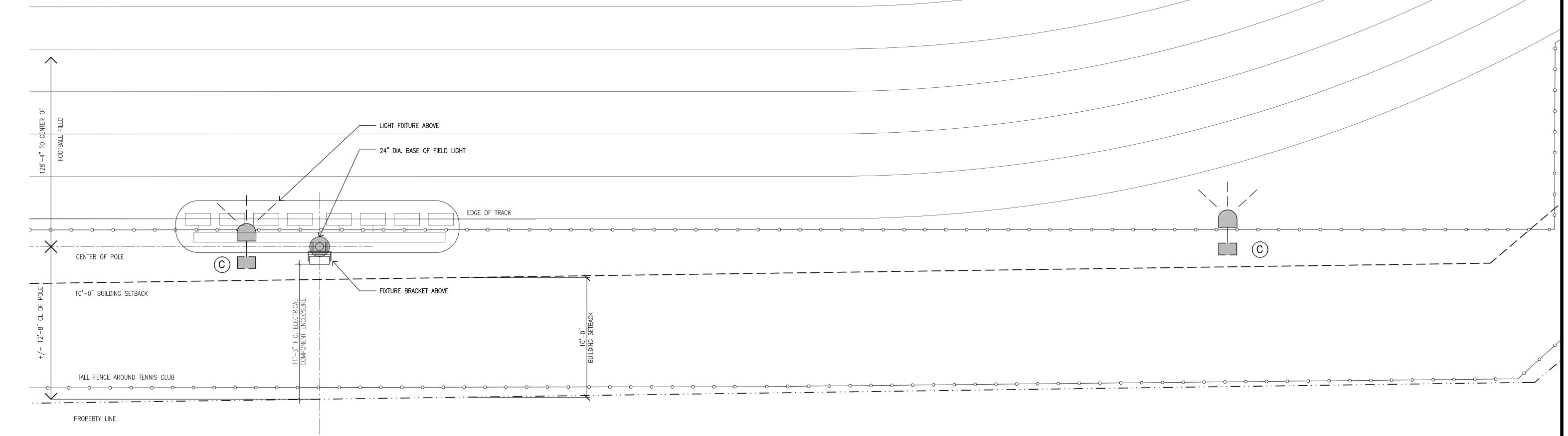




A1.0





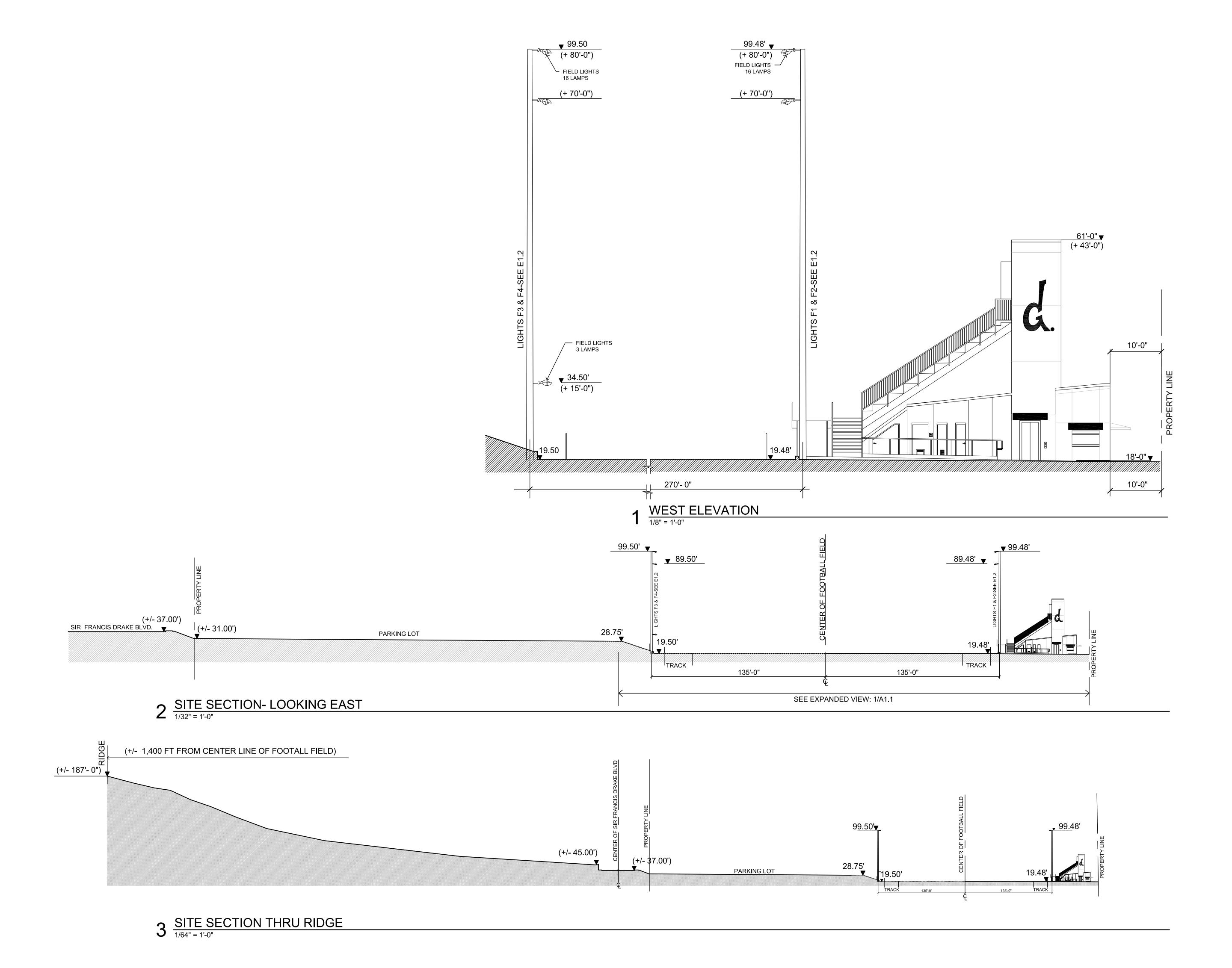


ENLARGED SITE PLAN DETAIL

1/4" = 1'-0"

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A1.2

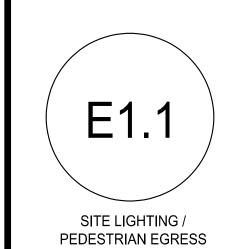


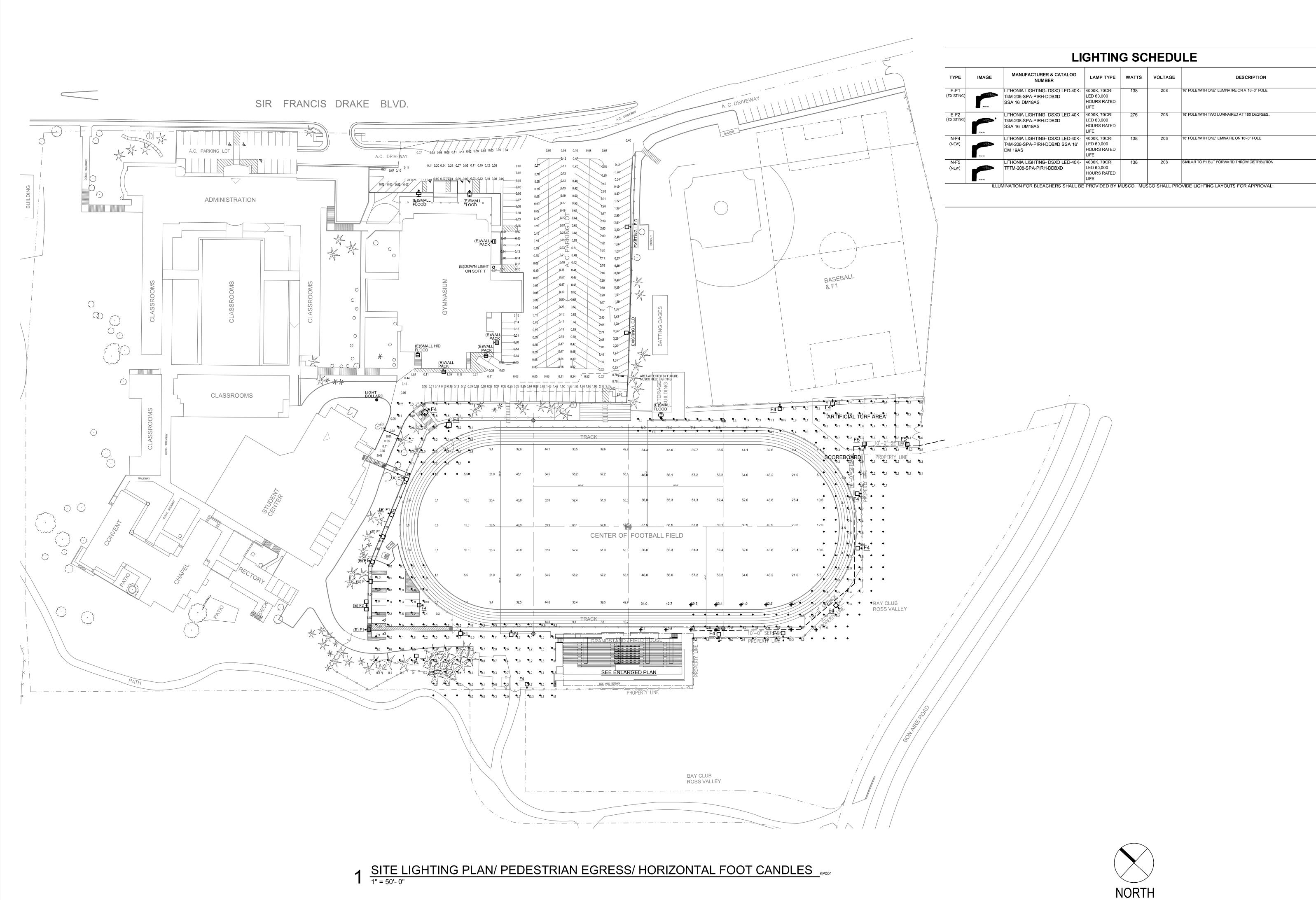




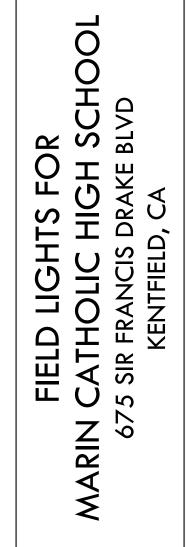


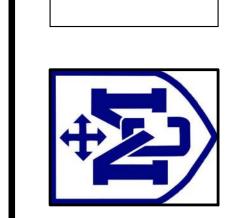
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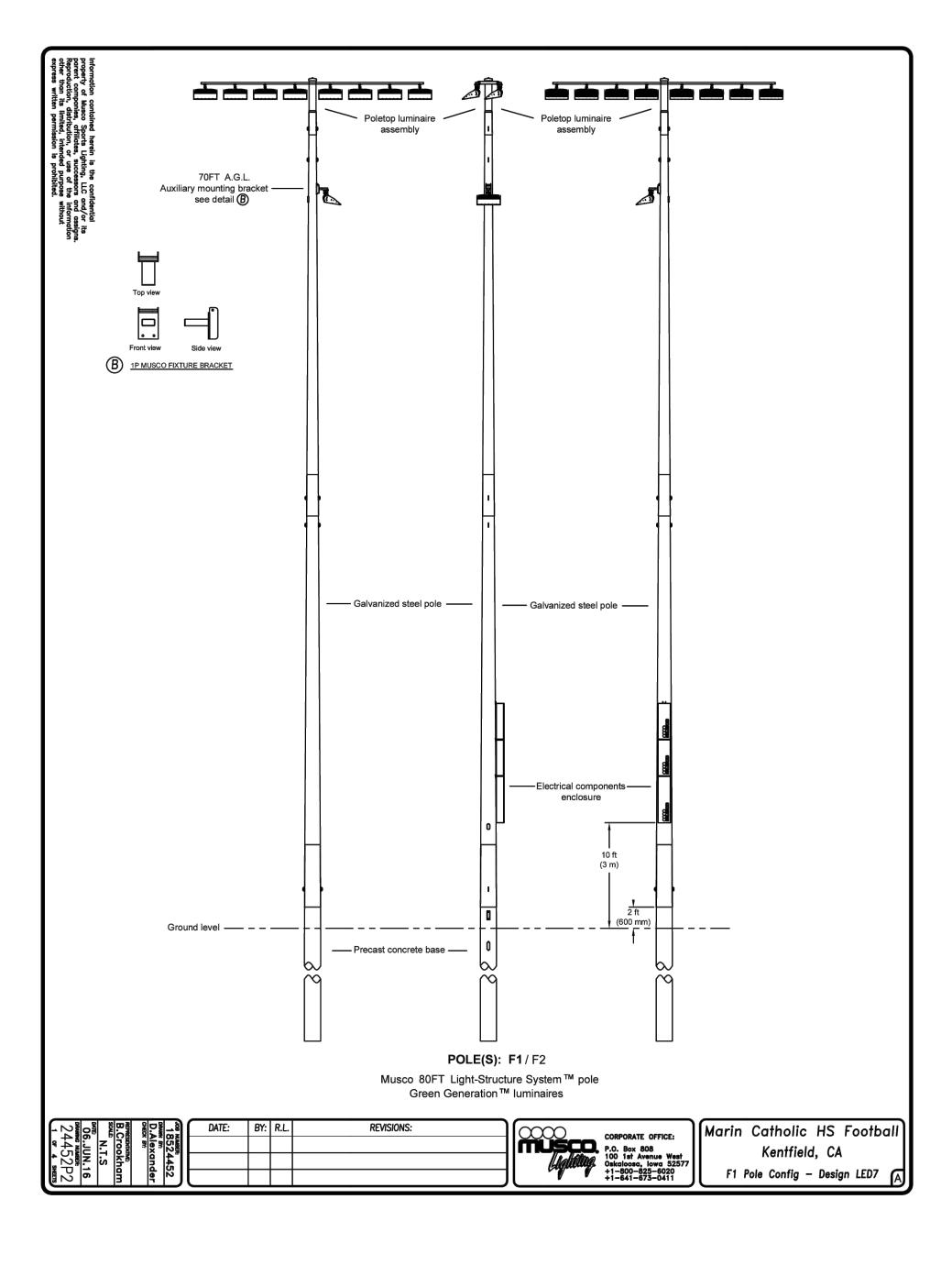


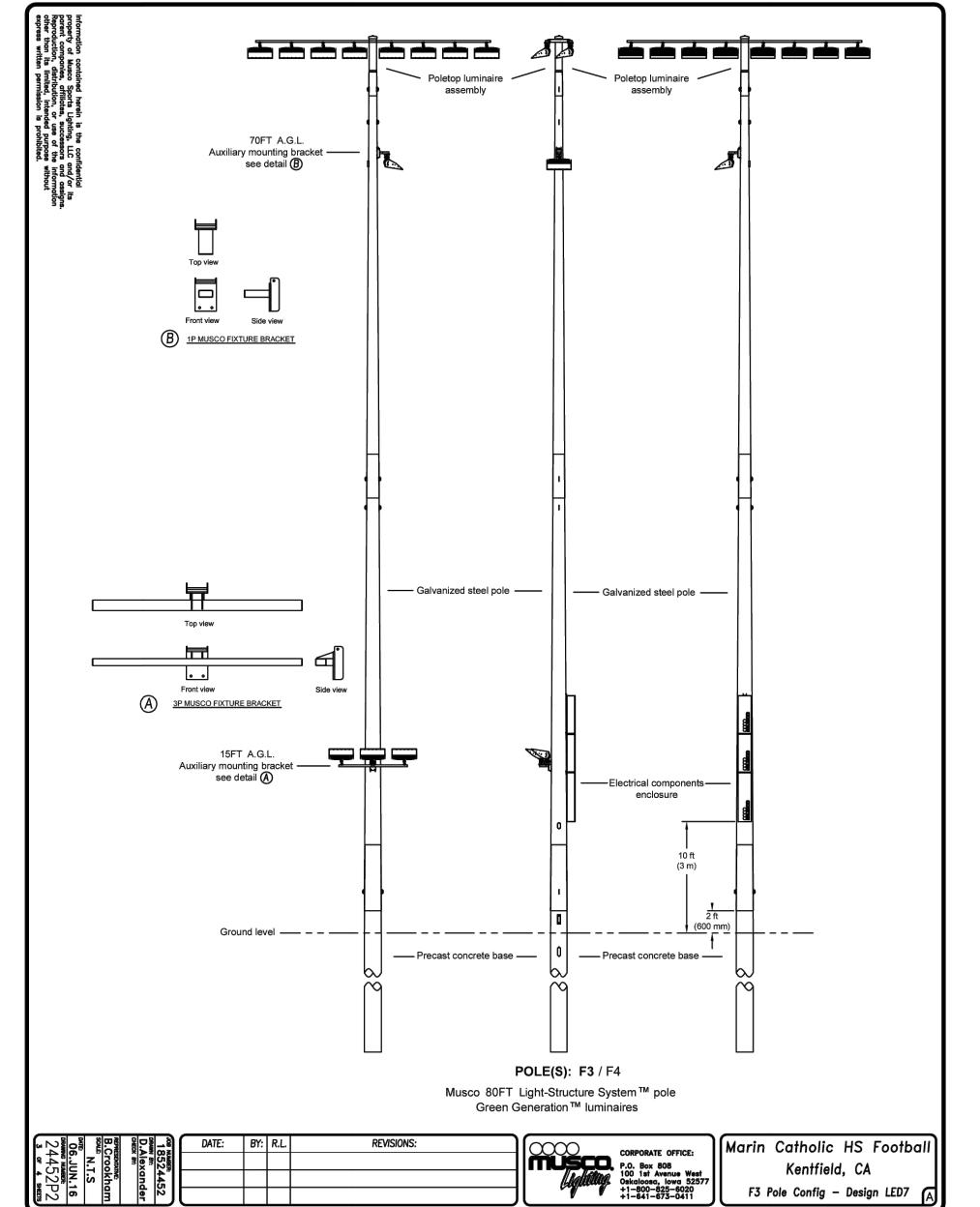




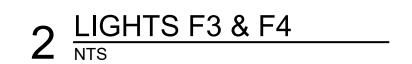
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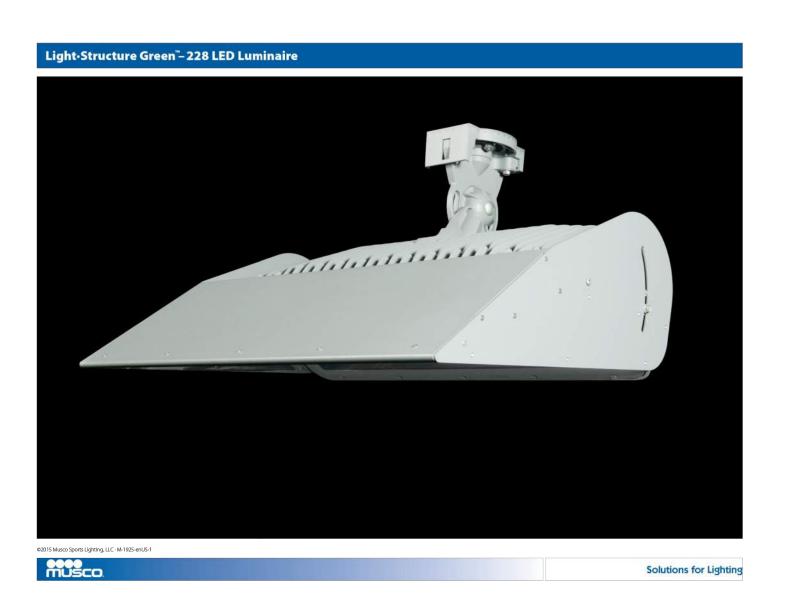






1 LIGHTS F1 & F2





3 LIGHTS FIXTURE

Spacing 30.0' x 30.0'

Maximum 56

Max/Min 1.30

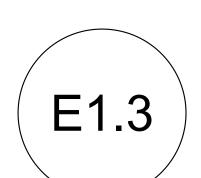
Total Load 44.08 kW

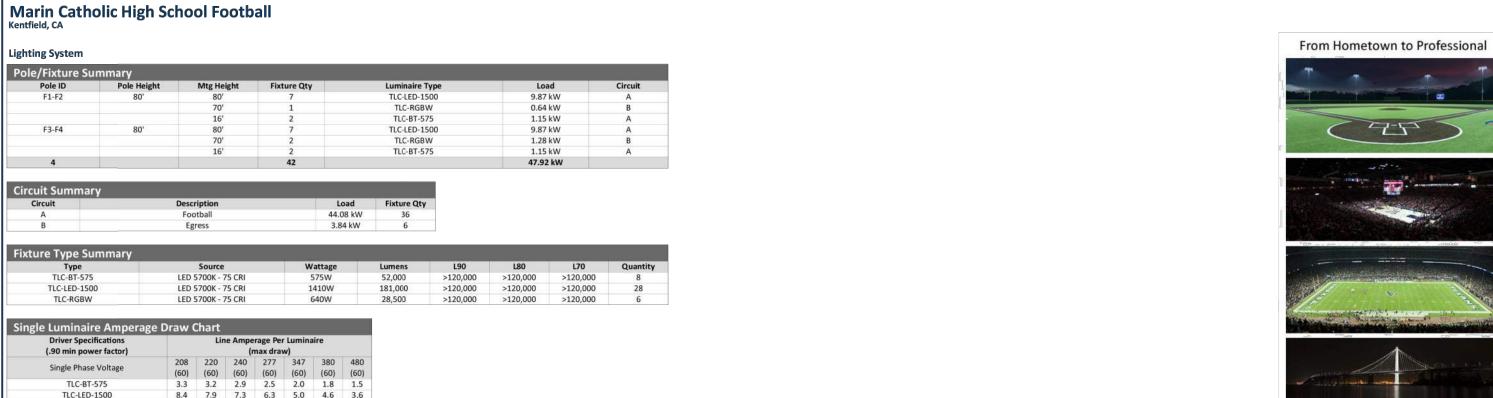
MUSCO

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Height 3.0' above grade







Lighting System

F3-F4

Type TLC-BT-575

TLC-RGBW

TLC-LED-1500

Light Level Summary

TLC-RGBW

Away Bleachers

Away Egress Blanket Grid

Bon Air Rd

Bon Air Rd

Bon Air Rd

Creekside Park Spill

Creekside Park Spill

Creekside Park Spill Football

Home Bleachers

Home Egress

Sir Francis Drake BLVD Spill Sir Francis Drake BLVD Spill

Sir Francis Drake BLVD Spill

Tital Marsh Spill

Tital Marsh Spill

Tital Marsh Spill

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Horizontal Illuminance

Horizontal

Horizontal

Max Candela (by Fixture)

Horizontal Max Candela (by Fixture)

Max Vertical Illuminance Metric

Horizontal Illuminance

Horizontal

Max Candela (by Fixture)

Max Vertical Illuminance Metric

Horizontal

Max Candela (by Fixture)

Max Vertical Illuminance Metric

Horizontal Illuminance

Horizontal Illuminance

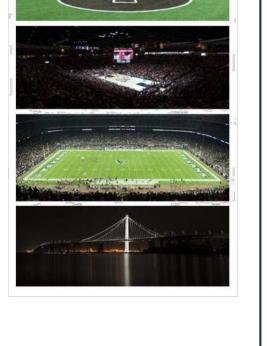
Max Vertical Illuminance Metric

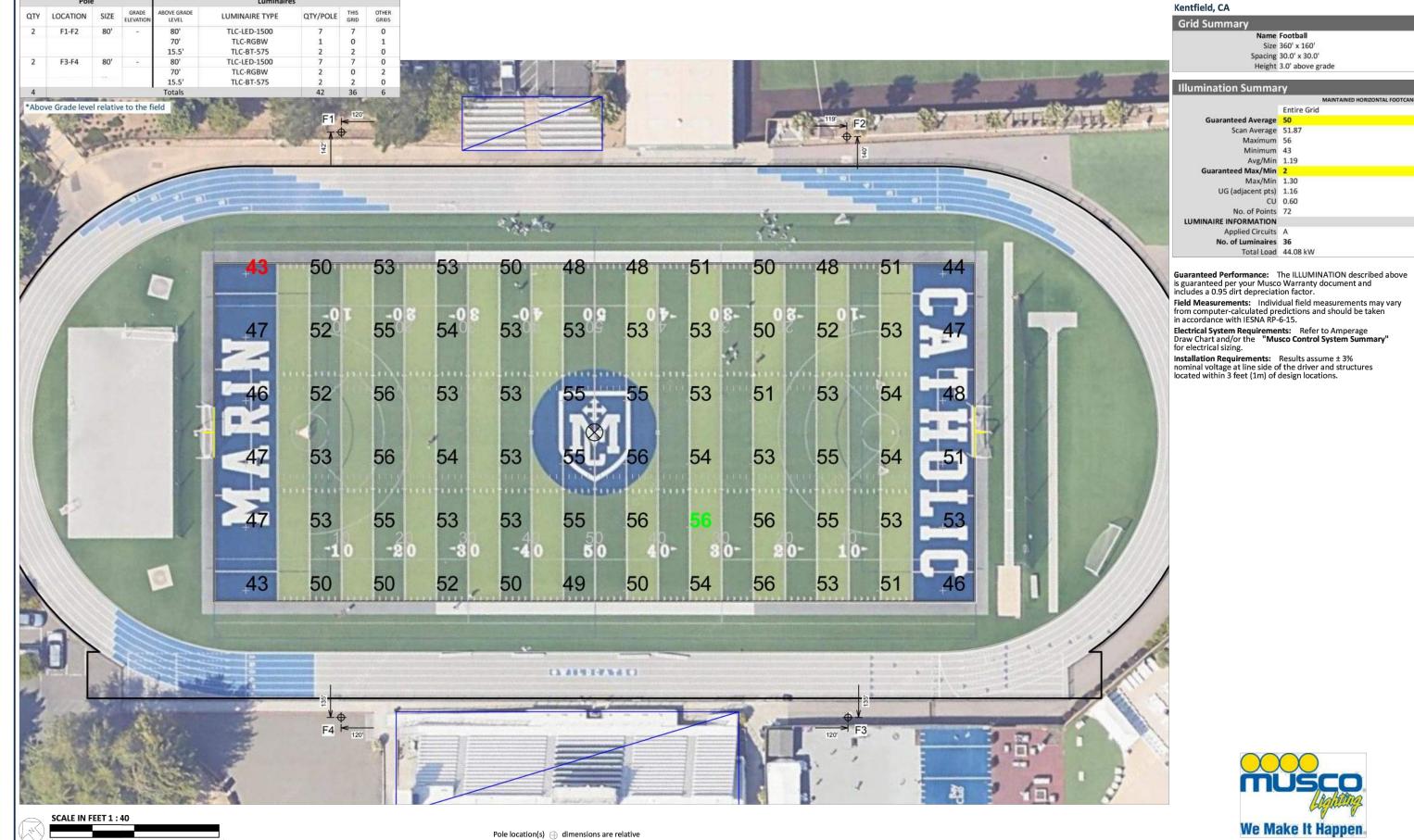
11909.80

2184.33

176.40 13.20

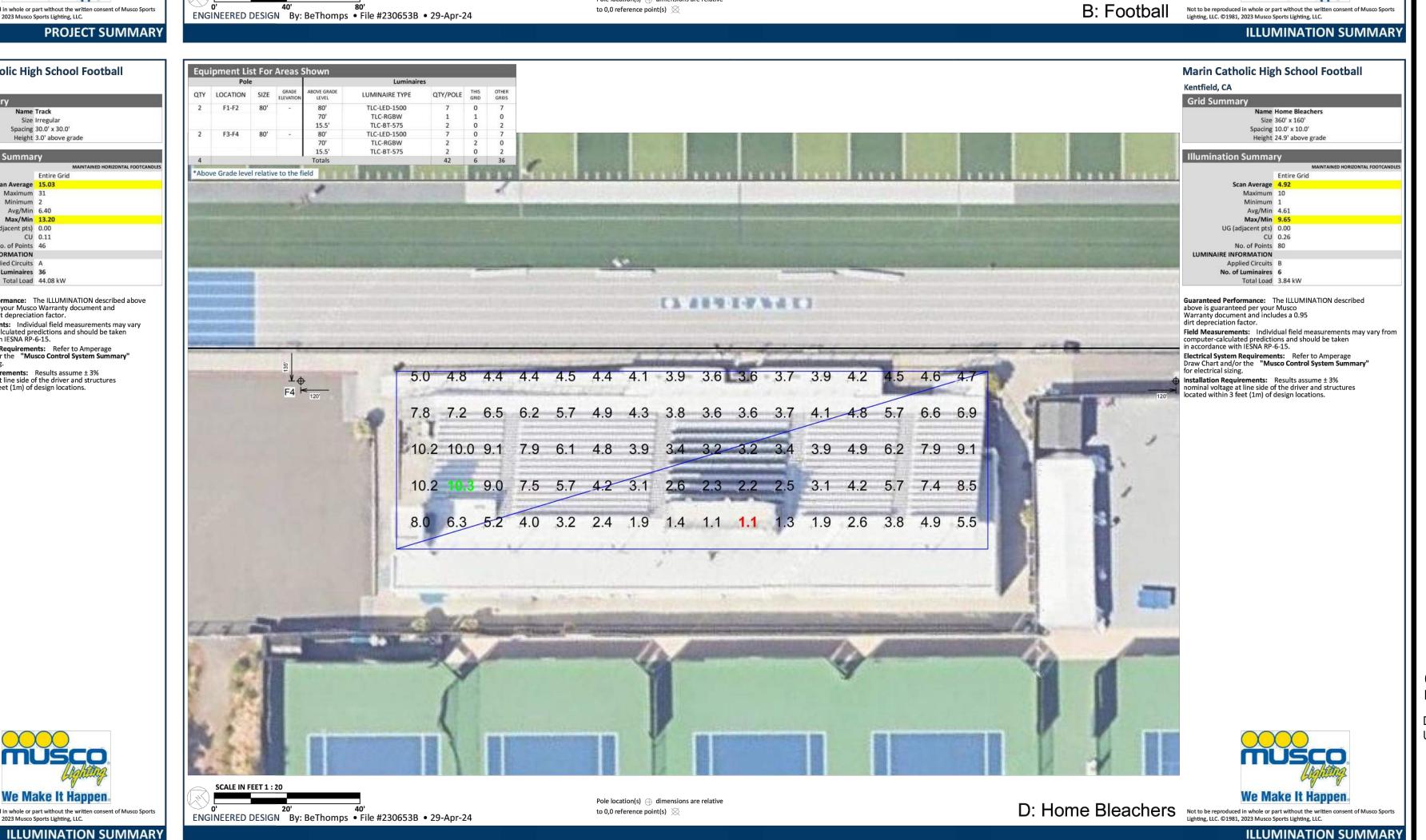
39.73 6.40











Name Away Bleachers Size 360' x 160'

Spacing 10.0' x 10.0'

Scan Average 4.01

UG (adjacent pts) 0.00

No. of Points 21

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

Electrical System Requirements: Refer to Amperage
Draw Charles and/or the "Musco Control System Summary"

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

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

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ILLUMINATION SUMMARY

D: Bon Air Road

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No. of Luminaires 6 Total Load 3.84 kW

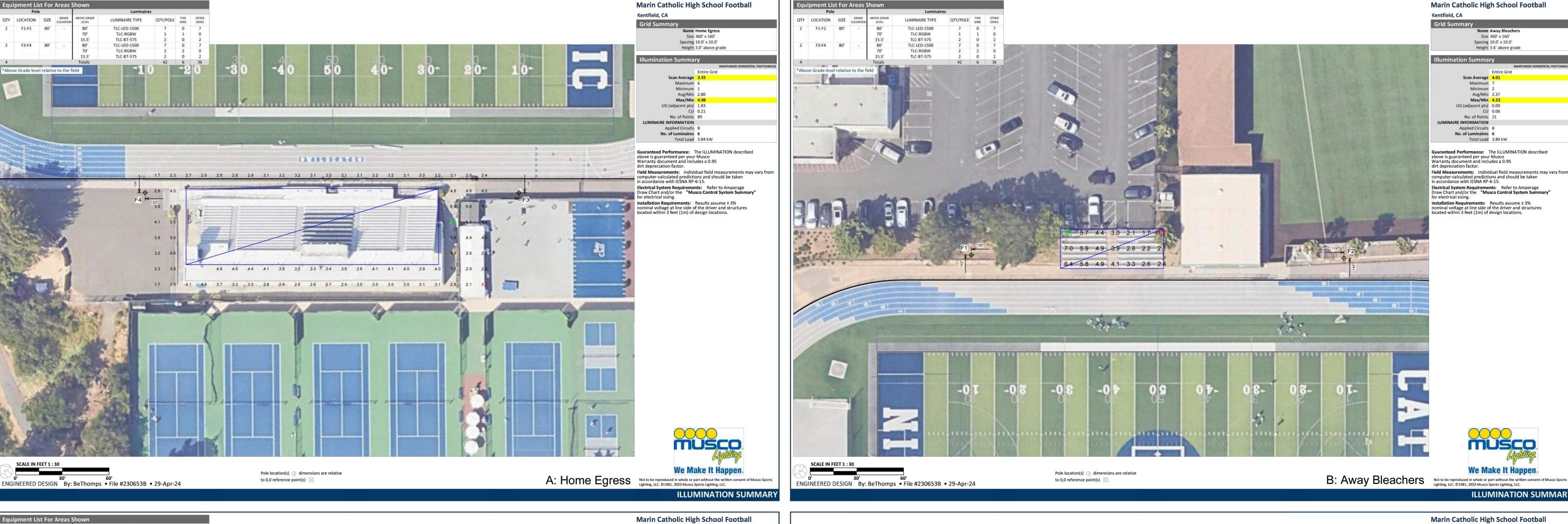
UMINAIRE INFORMATION

for electrical sizing.

Height 3.6' above grade

Kentfield, CA





QTY LOCATION SIZE

2 F1-F2 80'

2 F3-F4 80'

TLC-LED-1500 TLC-RGBW TLC-BT-575 TLC-LED-1500 TLC-RGBW TLC-BT-575

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**1.1** 1.5 2.1 2.5 2.6 2.5 2.2 2.0 1.9 2.0 2.1

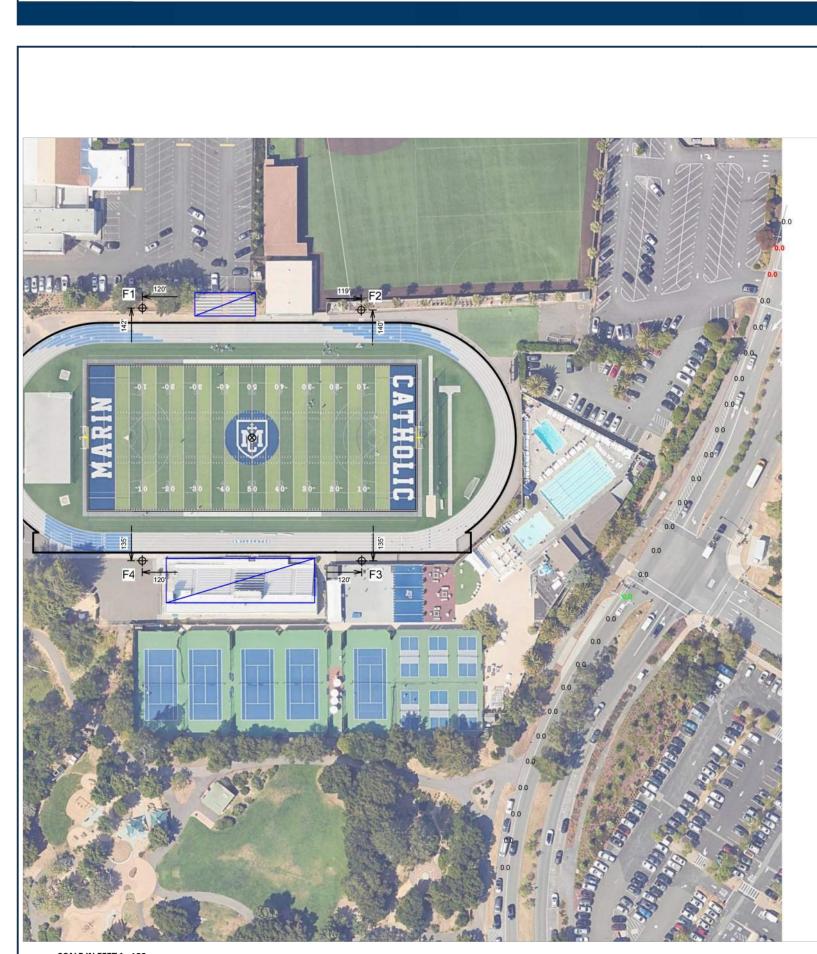
Pole location(s) 

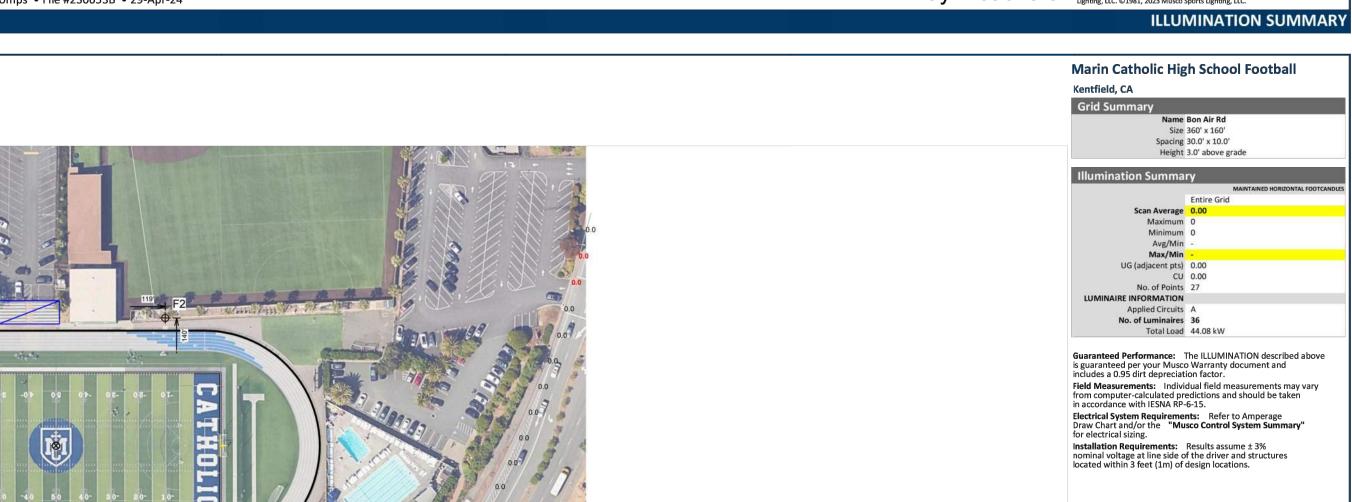
dimensions are relative

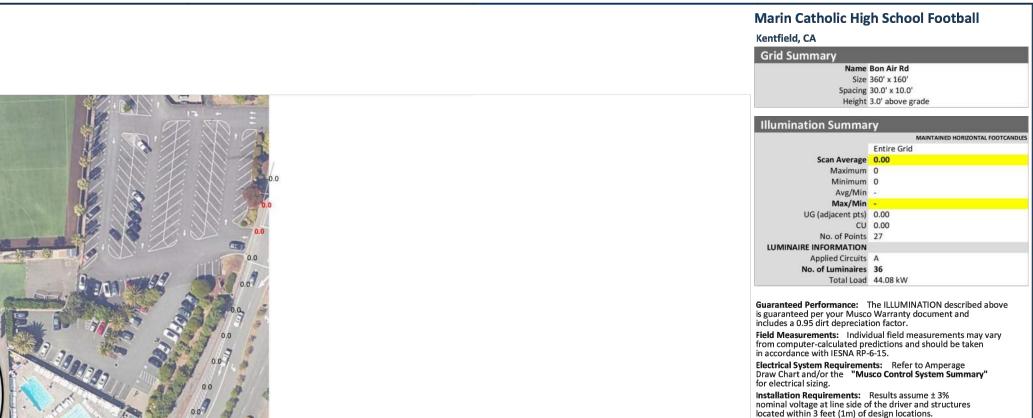
to 0,0 reference point(s)



**ILLUMINATION SUMMARY** 









Pole location(s)  $\oplus$  dimensions are relative

to 0,0 reference point(s) 💢

Name Bon Air Rd Size 360' x 160'

Scan Average 130.81
Maximum 499

Avg/Min -Max/Min -

UG (adjacent pts) 0.00

Applied Circuits A
No. of Luminaires 36
Total Load 44.08 kW

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Marin Catholic High School Football

Scan Average 0.02

No. of Points 13

Applied Circuits A,B
No. of Luminaires 42
Total Load 47.92 kW

MINAIRE INFORMATION

Avg/Min 39.73

Name Tital Marsh Spill

Size 360' x 160'

Spacing 30.0' x 10.0'

Height 3.0' above grade

Entire Grid

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**ILLUMINATION SUMMARY** 

D: Tidal Marsh Spill Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. @1981, 2023 Musco Sports Lighting, LLC.

**ILLUMINATION SUMMARY** 

No. of Points 27
LUMINAIRE INFORMATION

Spacing 30.0' x 10.0' Height 3.0' above grade

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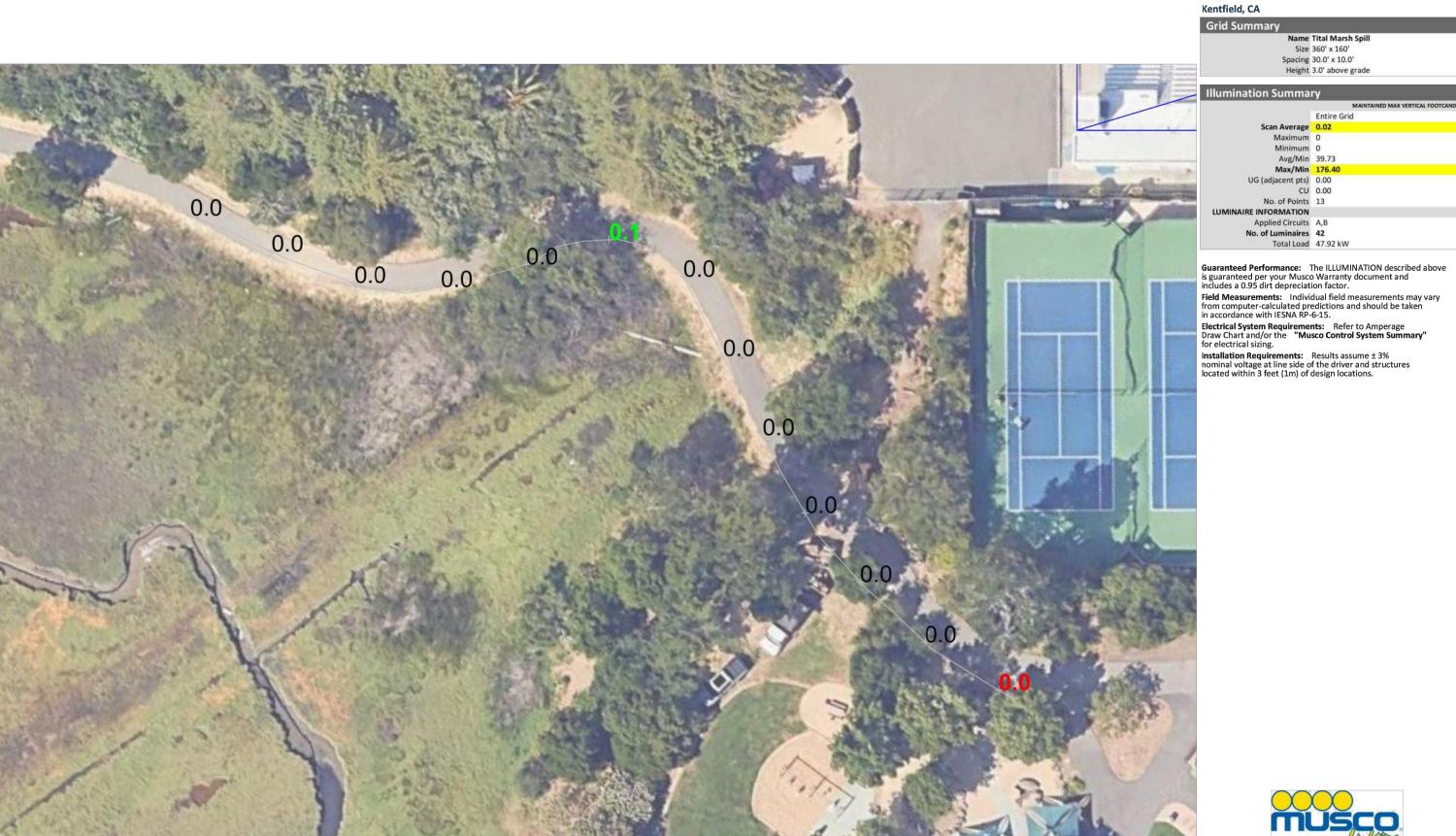


Pole location(s)  $\oplus$  dimensions are relative

to 0,0 reference point(s)

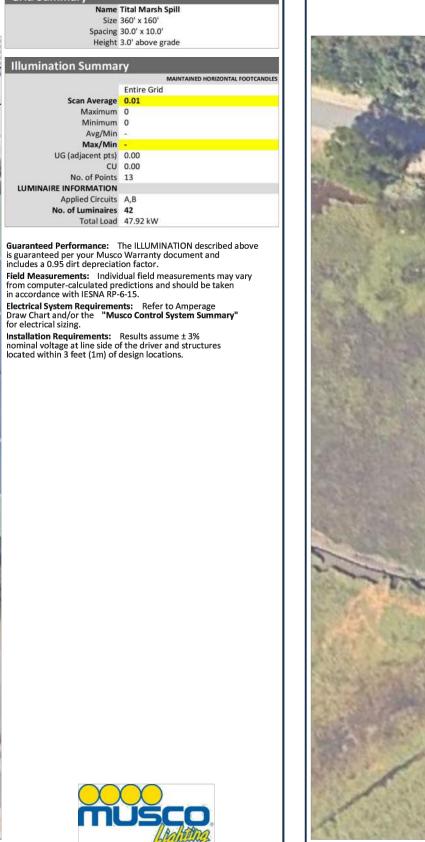
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Pole location(s)  $\oplus$  dimensions are relative

to 0,0 reference point(s)



SCALE IN FEET 1:3

0' 60' ENGINEERED DESIGN By: BeThomps • File #230653B • 29-Apr-24

Kentfield, CA

C: Tidal Marsh Spill Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2023 Musco Sports Lighting, LLC.

**ILLUMINATION SUMMARY** 

Scan Average 0.00

UG (adjacent pts) 0.00 No. of Points 35

Applied Circuits A No. of Luminaires 36

Total Load 44.08 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.

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ILLUMINATION SUMMARY

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Marin Catholic High School Football

Size 360' x 160'

Scan Average 4.28 Maximum 18 Minimum 0 Avg/Min -Max/Min -UG (adjacent pts) 0.00

No. of Points 35
LUMINAIRE INFORMATION

Applied Circuits A

No. of Luminaires 36

Spacing 30.0' x 10.0' Height 3.0' above grade

**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.

**ILLUMINATION SUMMARY** 

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.

Kentfield, CA

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.

LUMINAIRE INFORMATION

Size 360' x 160' Spacing 30.0' x 10.0' Height 3.0' above grade

Name Sir Francis Drake BLVD Spill

Kentfield, CA



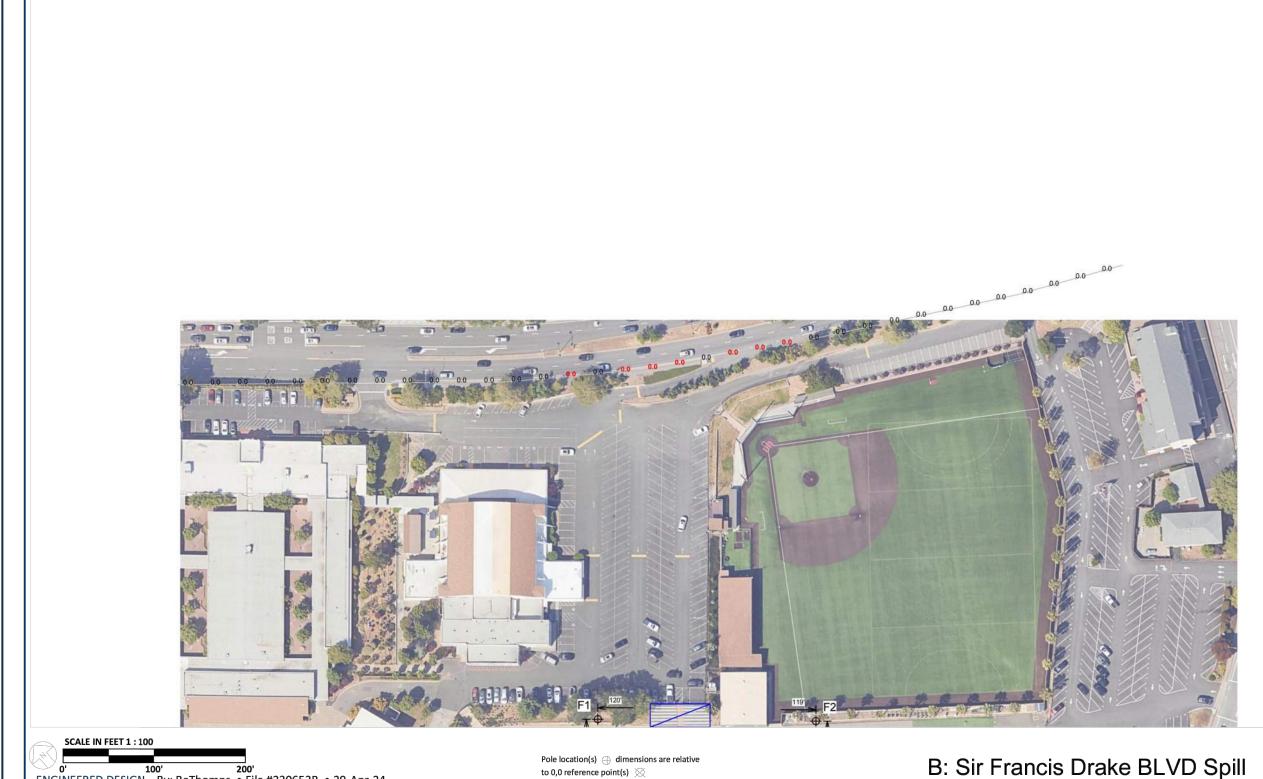
Pole location(s) 

dimensions are relative

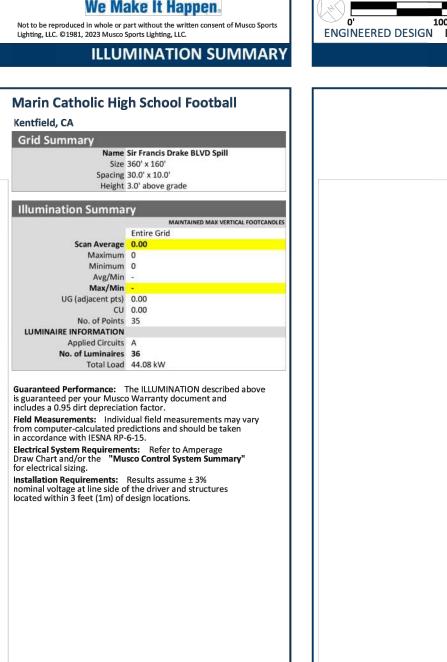
to 0,0 reference point(s) 💢

SCALE IN FEET 1:100

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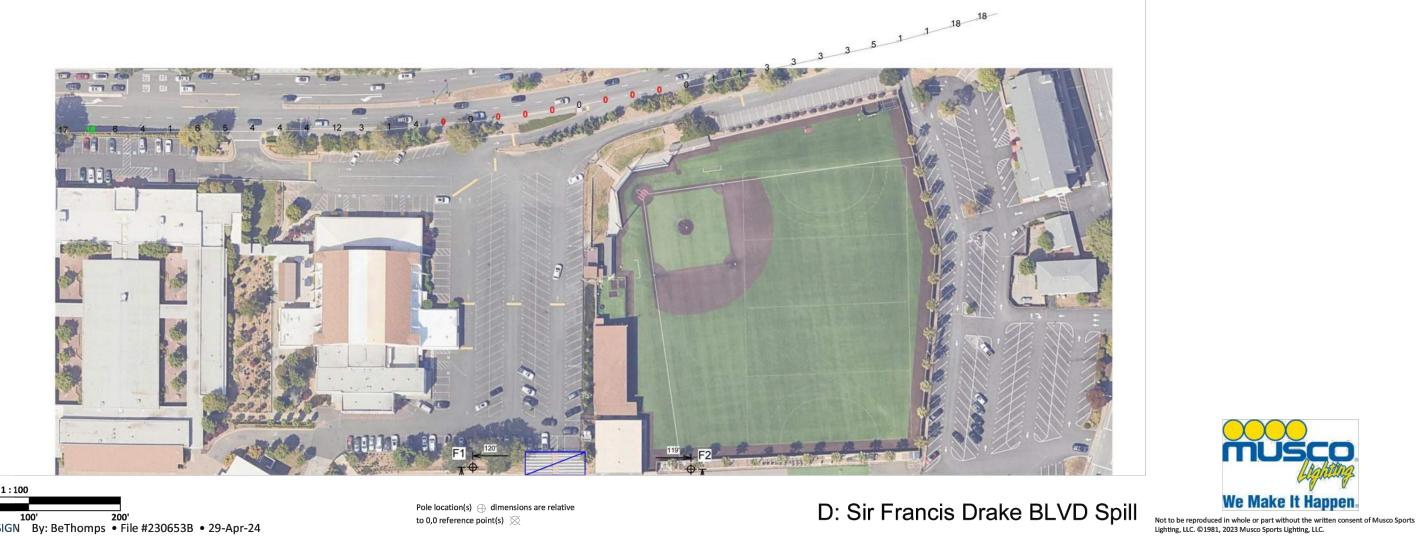








LUMINAIRE INFORMATION



D: Sir Francis Drake BLVD Spill Pole location(s)  $\oplus$  dimensions are relative 0' 100' 200' ENGINEERED DESIGN By: BeThomps • File #230653B • 29-Apr-24 to 0,0 reference point(s)



Spacing 30.0' x 10.0' Height 3.0' above grade

**ILLUMINATION SUMMARY** 

Size 360' x 160'

Spacing 30.0' x 30.0'

Scan Average 13.41

Max/Min 11909.80 UG (adjacent pts) 19.39

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ILLUMINATION SUMMARY

D: Blanket Grid

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Maximum 56

No. of Points 5100

Applied Circuits A

No. of Luminaires 36

UG (adjacent pts) 0.00

No. of Points 30

LUMINAIRE INFORMATION Applied Circuits A
No. of Luminaires 36

Kentfield, CA

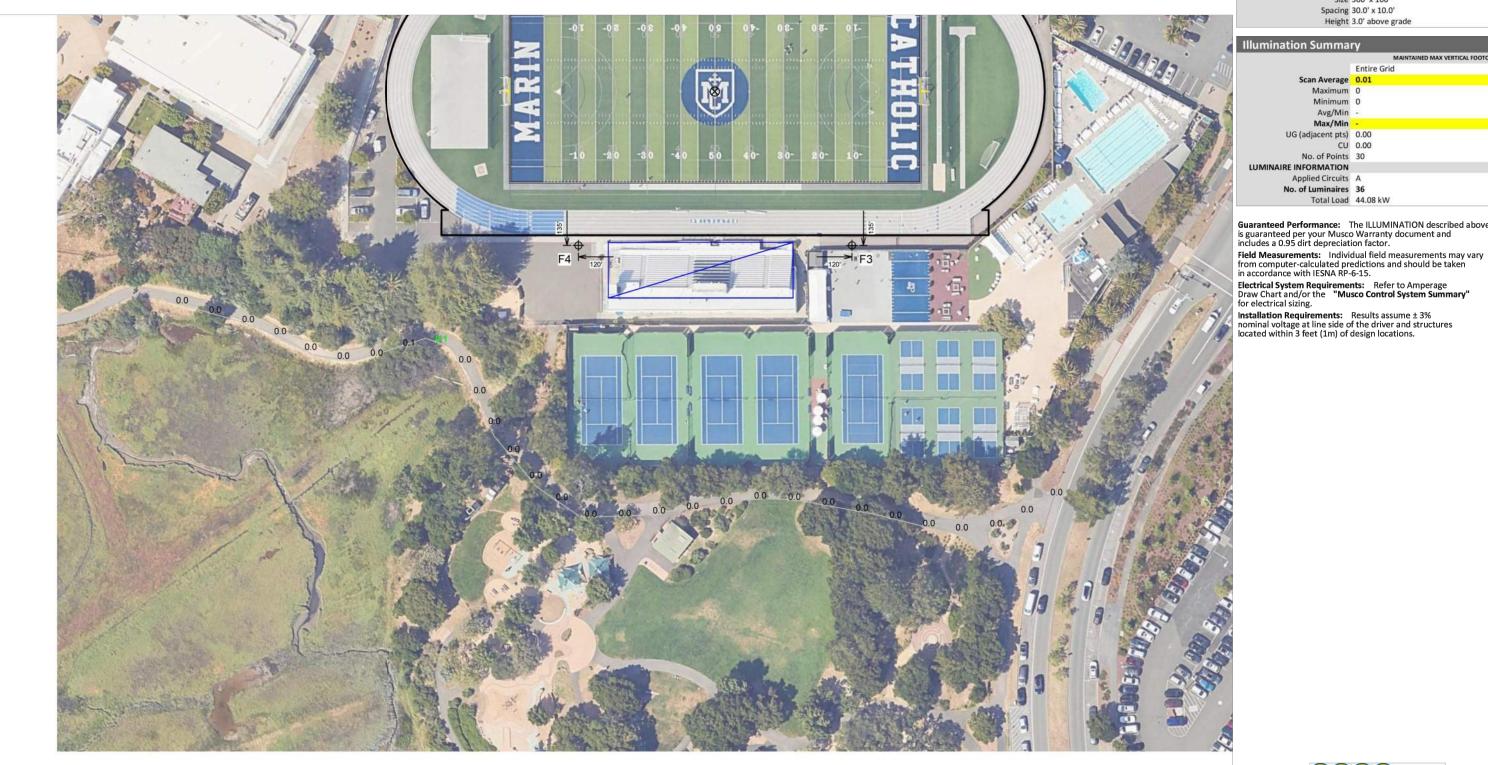


Pole location(s)  $\oplus$  dimensions are relative

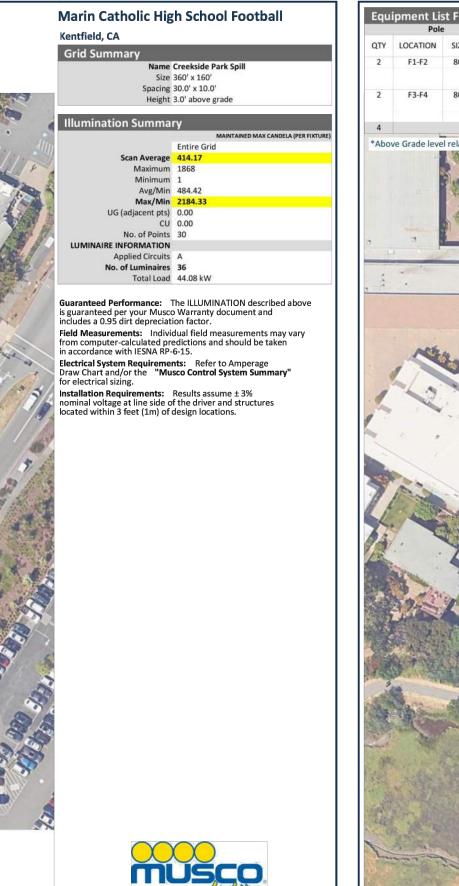
to 0,0 reference point(s)

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ATHOLIC



We Make It Happen. Pole location(s)  $\oplus$  dimensions are relative B: Creekside Park Spill 0' 80' 160' ENGINEERED DESIGN By: BeThomps • File #230653B • 29-Apr-24 Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. @1981, 2023 Musco Sports Lighting, LLC. to 0,0 reference point(s)

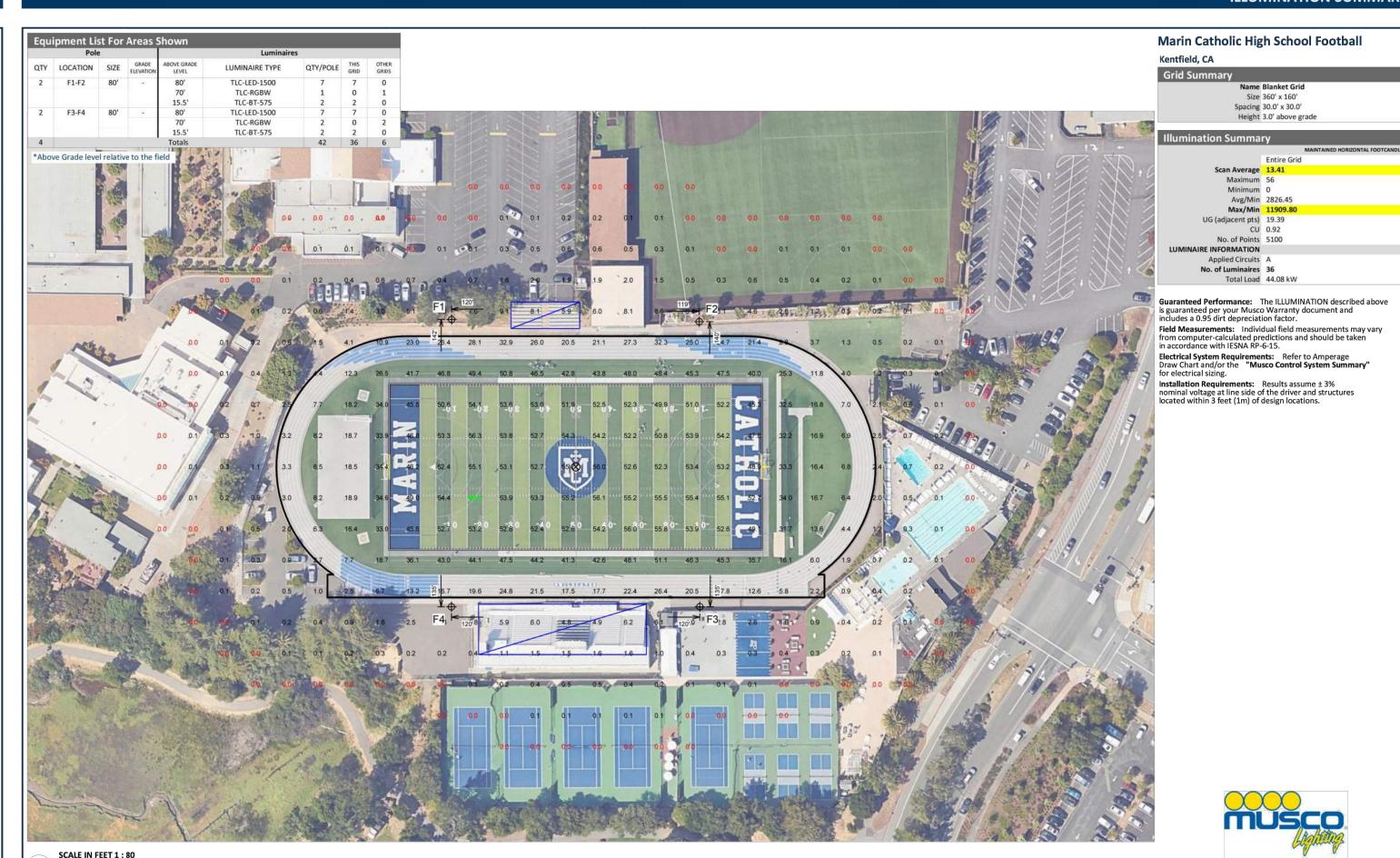


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**ILLUMINATION SUMMARY** 

0' 80' 160' ENGINEERED DESIGN By: BeThomps • File #230653B • 29-Apr-24

C: Creekside Park Spill

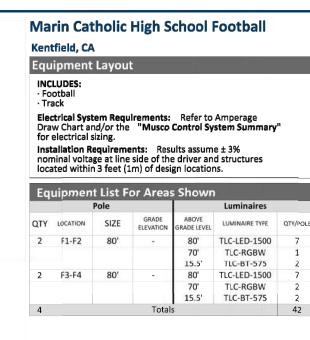


Pole location(s) 

dimensions are relative

to 0,0 reference point(s)





Driver Specifications (.90 min power factor) Single Phase Voltage	Line Amperage Per Luminaire (max draw)					
	208 (60)	(60)	240 (60)	277 (60)	347 (60)	380
TLC-BT-575	3.3	3.2	2.9	2.5	2.0	1.8
TLC LED 1500	8.4	7.9	7.3	6.3	5.0	4.6
TLC-RGBW	4.5	4.3	3.8	3.3	2.7	1.9



Pole location(s)  $\bigoplus$  dimensions are relative to 0,0 reference point(s)  $\boxtimes$ 

0' 300' ENGINEERED DESIGN By: BeThomps • File #230653B • 29-Apr-24



# FIELD LIGHTS FOR MARIN CATHOLIC HIGH SCHOO 675 SIR FRANCIS DRAKE BLVD KENTFIELD, CA



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