

# **APPENDIX B**

## ***Photometric Study***

# Mountain View HS Football

Mountain View, CA

## Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
F1	90'	90'	4	TLC-LED-1500	5.72 kW	A
		90'	6	TLC-LED-900	5.34 kW	A
		80'	1	TLC-LED-400	0.40 kW	B
F2	90'	90'	4	TLC-LED-1500	5.72 kW	A
		90'	6	TLC-LED-900	5.34 kW	A
		80'	1	TLC-LED-400	0.40 kW	B
		80'	1	TLC-LED-900	0.89 kW	B
		80'	1	TLC-LED-900	0.89 kW	B
F3	90'	90'	6	TLC-LED-1500	8.58 kW	A
		90'	2	TLC-LED-900	1.78 kW	A
		80'	1	TLC-LED-400	0.40 kW	B
		80'	1	TLC-LED-900	0.89 kW	B
		80'	1	TLC-LED-900	0.89 kW	B
F4	90'	90'	6	TLC-LED-1500	8.58 kW	A
		90'	2	TLC-LED-900	1.78 kW	A
		80'	1	TLC-LED-400	0.40 kW	B
		80'	1	TLC-LED-900	0.40 kW	B
4			42		46.22 kW	

Circuit Summary			
Circuit	Description	Load	Fixture Qty
A	Football	42.84 kW	36
B	Egress	3.38 kW	6

Fixture Type Summary							
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1500	LED 5700K - 75 CRI	1430W	160,000	>81,000	>81,000	>81,000	20
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>81,000	>81,000	>81,000	18
TLC-LED-400	LED 5700K - 75 CRI	400W	46,500	>81,000	>81,000	>81,000	4

## Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Bleachers	Horizontal Illuminance	0	0	0	0.00		B	6
East Bleachers	Horizontal Illuminance	9.77	7	13	1.83	1.40	A	36
Egress	Horizontal	2.72	0	7	301.85		B	6
Football	Horizontal Illuminance	41	31	47	1.49	1.32	A	36
Path of Egress #1	Horizontal	3.88	1.64	7.53	4.59	2.37	B	6
Path of Egress #2	Horizontal	3.76	1.47	6.93	4.70	2.56	B	6
Property Spill	Horizontal	0.01	0	0.06	0.00		A,B	42
Property Spill	Max Candela (by Fixture)	492	0	1598	0.00		A,B	42
Property Spill	Max Vertical Illuminance Metric	0.01	0	0.08	0.00		A,B	42
Soccer	Horizontal Illuminance	40.1	30	47	1.55	1.34	A	36
Track	Horizontal Illuminance	16.6	1	33	62.63	16.63	A	36
West Bleachers	Horizontal Illuminance	5.91	1	11	7.38	5.91	B	6

## From Hometown to Professional



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
1	F1	90'	6'	96'	TLC-LED-900	6	6	0
				86'	TLC-LED-400	1	0	1
				96'	TLC-LED-1500	4	4	0
1	F2	90'	6'	96'	TLC-LED-900	6	6	0
				86'	TLC-LED-400	1	0	1
				86'	TLC-LED-900	1	0	1
				96'	TLC-LED-1500	4	4	0
1	F3	90'	-	90'	TLC-LED-900	2	2	0
				80'	TLC-LED-400	1	0	1
				80'	TLC-LED-900	1	0	1
				90'	TLC-LED-1500	6	6	0
1	F4	90'	-	90'	TLC-LED-900	2	2	0
				80'	TLC-LED-400	1	0	1
				90'	TLC-LED-1500	6	6	0
4	TOTALS					42	36	6

Mountain View HS Football

Mountain View, 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: 40  
Scan Average: 41.00  
Maximum: 47  
Minimum: 31  
Avg / Min: 1.30  
Guaranteed Max / Min: 2.5  
Max / Min: 1.49  
UG (adjacent pts): 1.27  
CU: 0.58  
No. of Points: 72

LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI  
Luminaire Output: 160,000 / 89,600 lumens  
No. of Luminaires: 36  
Total Load: 42.84 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details.

**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.

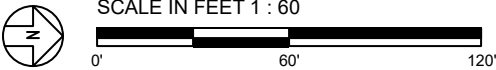
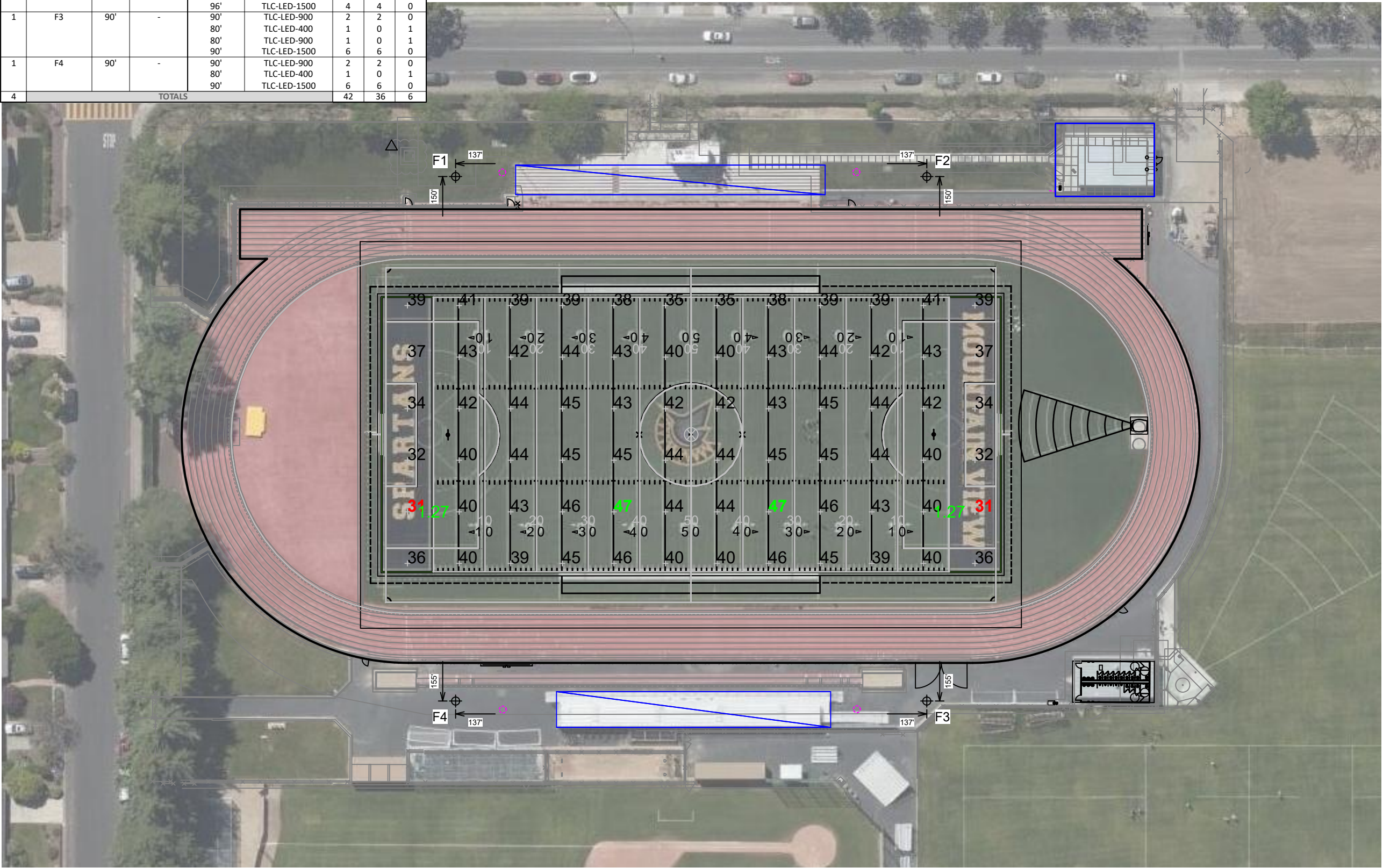
**Installation Requirements:** Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



We Make It Happen.®

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2020 Musco Sports Lighting, LLC.

ILLUMINATION SUMMARY



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



EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	F1	90'	6'	96'	TLC-LED-900	6	6	0
				86'	TLC-LED-400	1	0	1
				96'	TLC-LED-1500	4	4	0
1	F2	90'	6'	96'	TLC-LED-900	6	6	0
				86'	TLC-LED-400	1	0	1
				86'	TLC-LED-900	1	0	1
1	F3	90'	-	96'	TLC-LED-1500	4	4	0
				90'	TLC-LED-900	2	2	0
				80'	TLC-LED-400	1	0	1
1	F4	90'	-	80'	TLC-LED-900	1	0	1
				90'	TLC-LED-1500	6	6	0
				90'	TLC-LED-900	2	2	0
4				80'	TLC-LED-400	1	0	1
				90'	TLC-LED-1500	6	6	0
				90'	TLC-LED-900	2	2	0
4	TOTALS					42	36	6

Mountain View HS Football

Mountain View, CA

GRID SUMMARY

Name: Soccer  
Size: 355' x 195'  
Spacing: 30.0' x 30.0'  
Height: 3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

Entire Grid

Scan Average: 40.14  
Maximum: 47  
Minimum: 30  
Avg / Min: 1.33  
Max / Min: 1.55  
UG (adjacent pts): 1.31  
CU: 0.66  
No. of Points: 84

LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI  
Luminaire Output: 160,000 / 89,600 lumens  
No. of Luminaires: 36  
Total Load: 42.84 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details.

**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.

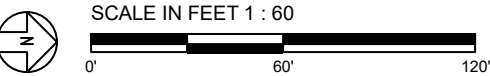
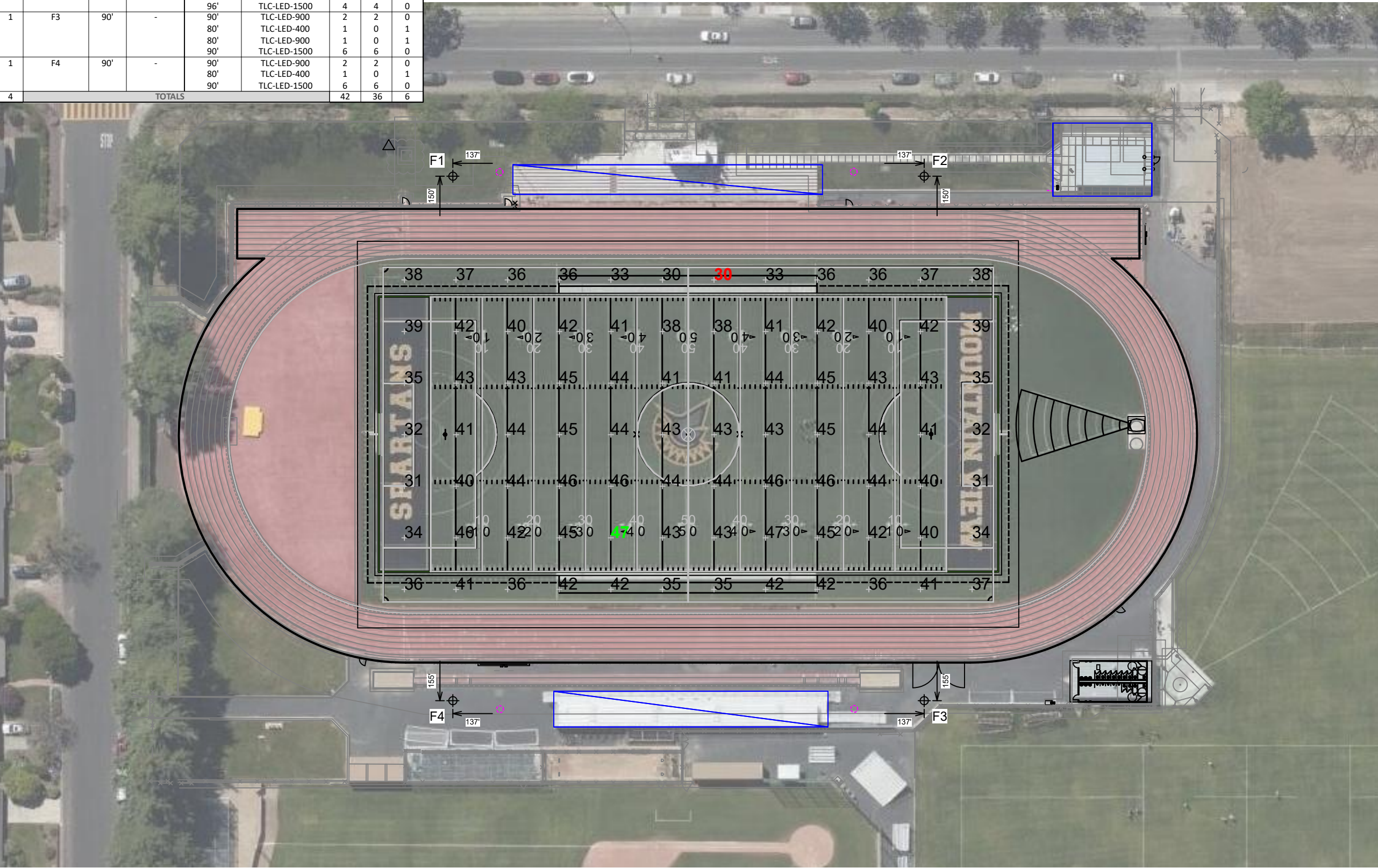
**Installation Requirements:** Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



We Make It Happen®

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2020 Musco Sports Lighting, LLC.

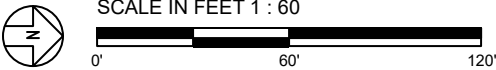
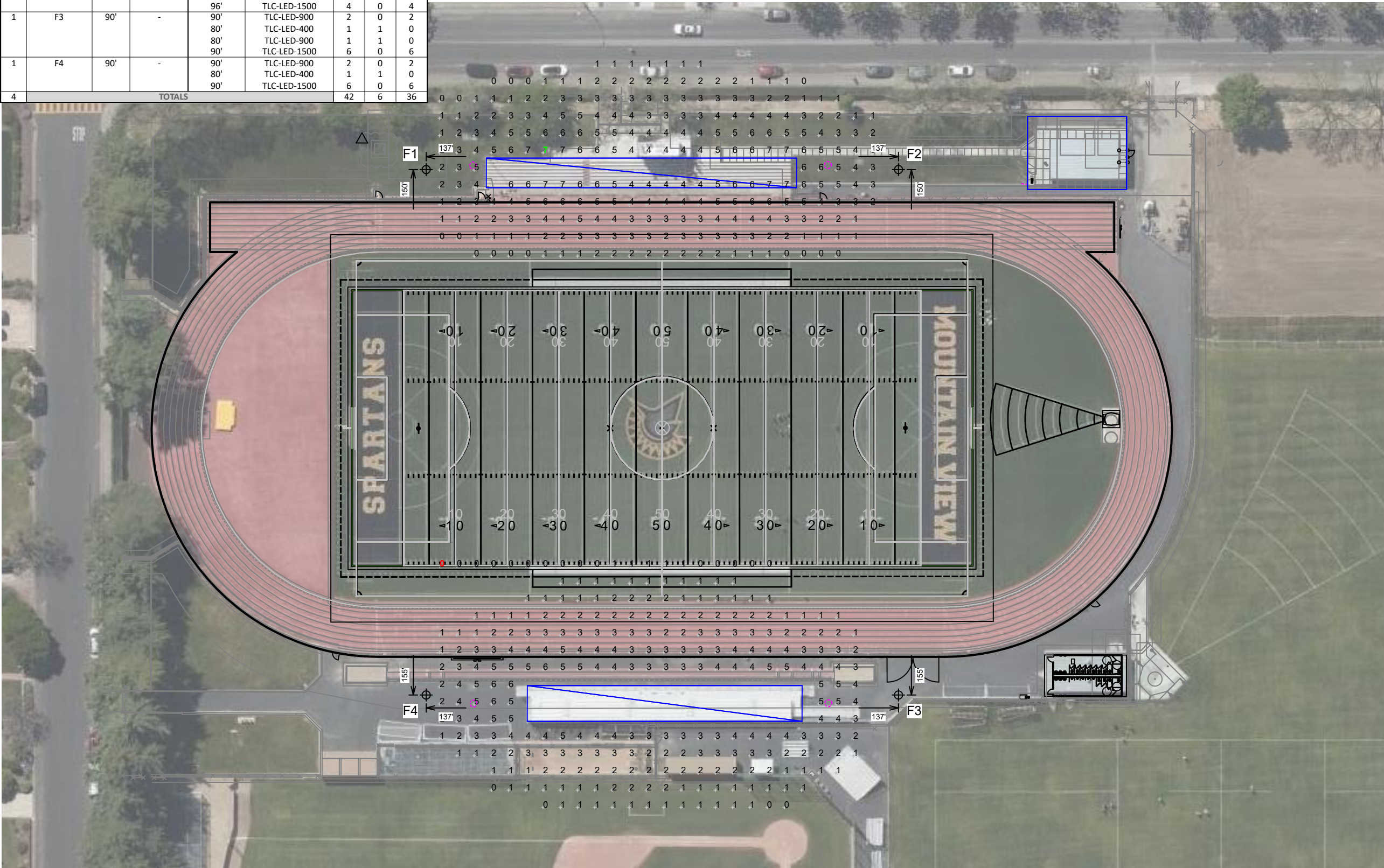
ILLUMINATION SUMMARY



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



EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	F1	90'	6'	96'	TLC-LED-900	6	0	6
				86'	TLC-LED-400	1	1	0
				96'	TLC-LED-1500	4	0	4
1	F2	90'	6'	96'	TLC-LED-900	6	0	6
				86'	TLC-LED-400	1	1	0
				86'	TLC-LED-900	1	1	0
1	F3	90'	-	96'	TLC-LED-1500	4	0	4
				90'	TLC-LED-900	2	0	2
				80'	TLC-LED-400	1	1	0
1	F4	90'	-	80'	TLC-LED-900	1	1	0
				90'	TLC-LED-1500	6	0	6
				90'	TLC-LED-900	2	0	2
4				80'	TLC-LED-400	1	1	0
				6	0	6		
				90'	TLC-LED-1500			
4	TOTALS					42	6	36



**ENGINEERED DESIGN** By: Daniel Lohman • File #155795D • 02-Jan-20

# Mountain View HS Football

## Mountain View, CA

GRID SUMMARY	
Name:	Egress
Size:	360' x 160'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

## ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
<b>Scan Average:</b>	<b>2.72</b>
Maximum:	7
Minimum:	0
Avg / Min:	109.66
<b>Max / Min:</b>	<b>301.85</b>
UG (adjacent pts):	4.28
CU:	0.41
No. of Points:	530

## LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	46,500 / 89,600 lumens
<b>No. of Luminaires:</b>	<b>6</b>
Total Load:	3.38 kW

Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-400	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details

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



# We Make It Happen.

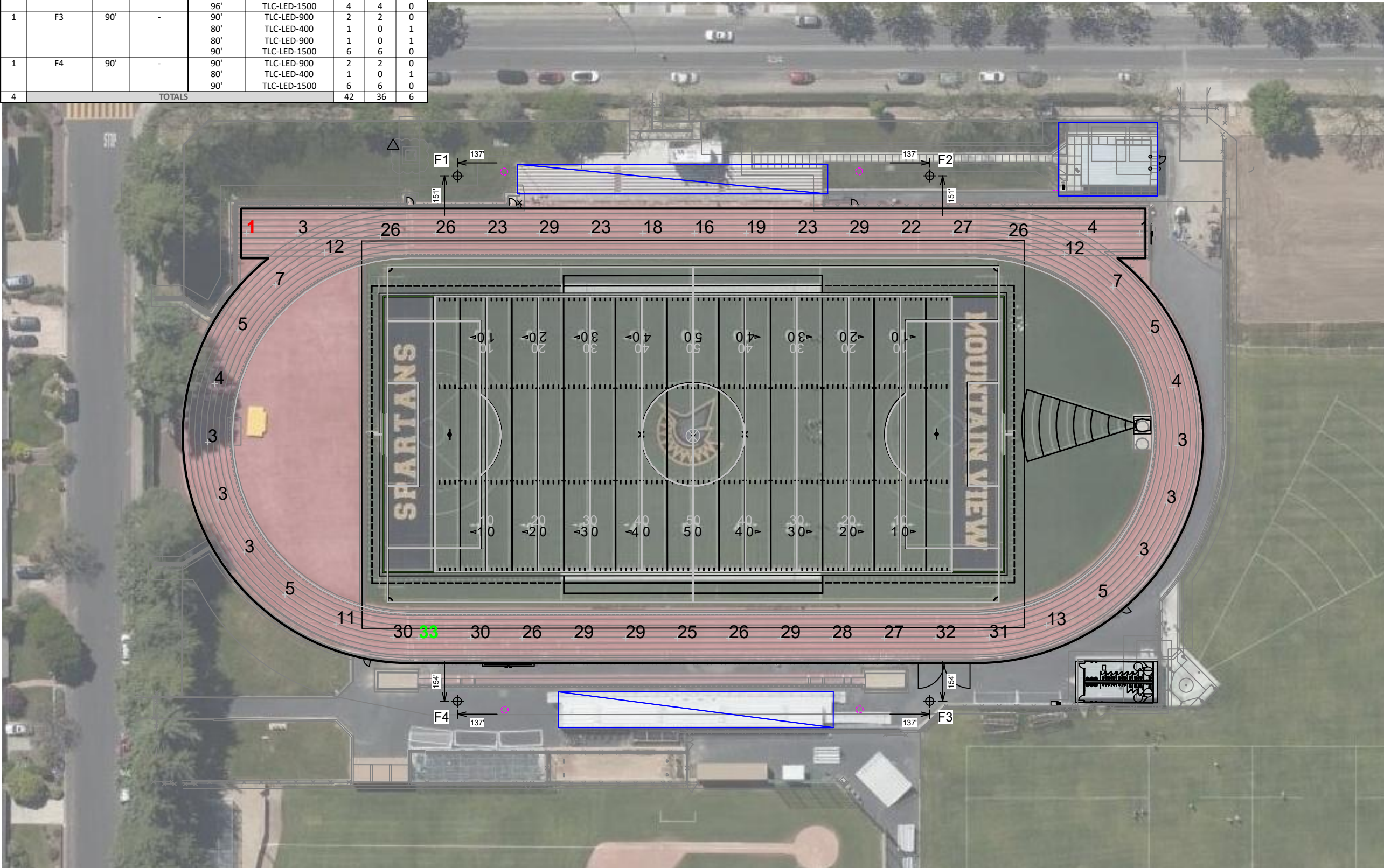
Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2020 Musco Sports Lighting, LLC.

## ILLUMINATION SUMMARY




EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	F1	90'	6'	96'	TLC-LED-900	6	6	0
				86'	TLC-LED-400	1	0	1
				96'	TLC-LED-1500	4	4	0
1	F2	90'	6'	96'	TLC-LED-900	6	6	0
				86'	TLC-LED-400	1	0	1
				86'	TLC-LED-900	1	0	1
1	F3	90'	-	96'	TLC-LED-1500	4	4	0
				90'	TLC-LED-900	2	2	0
				80'	TLC-LED-400	1	0	1
1	F4	90'	-	80'	TLC-LED-900	1	0	1
				90'	TLC-LED-400	1	0	1
				90'	TLC-LED-1500	6	6	0
4	TOTALS					42	36	6

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	F1	90'	6'	96'	TLC-LED-900	6	6	0
				86'	TLC-LED-400	1	0	1
				96'	TLC-LED-1500	4	4	0
1	F2	90'	6'	96'	TLC-LED-900	6	6	0
				86'	TLC-LED-400	1	0	1
				86'	TLC-LED-900	1	0	1
1	F3	90'	-	96'	TLC-LED-1500	4	4	0
				90'	TLC-LED-900	2	2	0
				80'	TLC-LED-400	1	0	1
1	F4	90'	-	80'	TLC-LED-900	1	0	1
				90'	TLC-LED-400	1	0	1
				90'	TLC-LED-1500	6	6	0
4	TOTALS					42	36	6



SCALE IN FEET 1 : 60



0' 60' 120'

Pole location(s)  $\oplus$  dimensions are relative to 0,0 reference point(s)  $\otimes$

## Mountain View, CA

<b>Name:</b>	<b>Track</b>
Size:	Irregular
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

## MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
<b>Scan Average:</b>	<b>16.63</b>
Maximum:	33
Minimum:	1
Avg / Min:	31.20
<b>Max / Min:</b>	<b>62.63</b>
UG (adjacent pts):	0.00
CU:	0.16
No. of Points:	48

## LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	160,000 / 89,600 lumens
No. of Luminaires:	36
Total Load:	42.84 kW

Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details

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

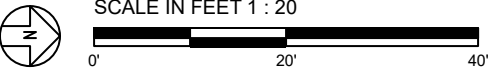
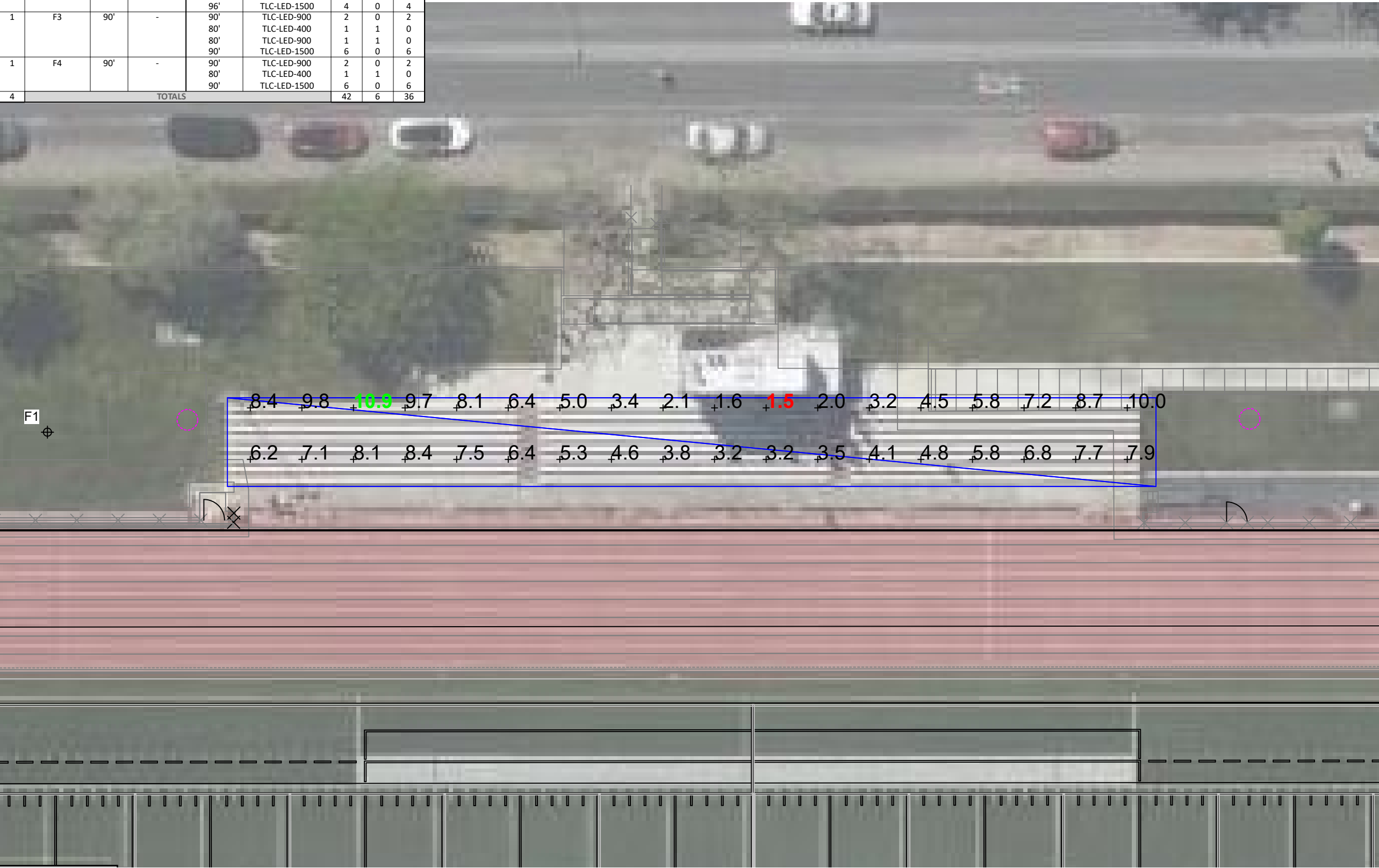


## We Make It Happen.

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2020 Musco Sports Lighting, LLC.

## ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	F1	90'	6'	96'	TLC-LED-900	6	0	6
				86'	TLC-LED-400	1	1	0
				96'	TLC-LED-1500	4	0	4
1	F2	90'	6'	96'	TLC-LED-900	6	0	6
				86'	TLC-LED-400	1	1	0
				86'	TLC-LED-900	1	1	0
				96'	TLC-LED-1500	4	0	4
1	F3	90'	-	90'	TLC-LED-900	2	0	2
				80'	TLC-LED-400	1	1	0
				80'	TLC-LED-900	1	1	0
				90'	TLC-LED-1500	6	0	6
1	F4	90'	-	90'	TLC-LED-900	2	0	2
				80'	TLC-LED-400	1	1	0
				80'	TLC-LED-900	1	1	0
				90'	TLC-LED-1500	6	0	6
4	TOTALS					42	6	36



## Mountain View HS Football

Mountain View, CA

GRID SUMMARY	
Name:	West Bleachers
Spacing:	10.0' x 10.0'
Height:	7.6' above grade

ILLUMINATION SUMMARY			
MAINTAINED HORIZONTAL FOOTCANDLES			
	Entire Grid		
Scan Average:	5.91		
Maximum:	11		
Minimum:	1		
Avg / Min:	4.01		
Max / Min:	7.38		
UG (adjacent pts):	0.00		
CU:	0.06		
No. of Points:	36		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	46,500 / 89,600 lumens		
No. of Luminaires:	6		
Total Load:	3.38 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-400	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

**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.



We Make It Happen.®

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2020 Musco Sports Lighting, LLC.

## ILLUMINATION SUMMARY



EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	F1	90'	6'	96'	TLC-LED-900	6	6	0
				86'	TLC-LED-400	1	0	1
				96'	TLC-LED-1500	4	4	0
1	F2	90'	6'	96'	TLC-LED-900	6	6	0
				86'	TLC-LED-400	1	0	1
				86'	TLC-LED-900	1	0	1
				96'	TLC-LED-1500	4	4	0
1	F3	90'	-	90'	TLC-LED-900	2	2	0
				80'	TLC-LED-400	1	0	1
				80'	TLC-LED-900	1	0	1
				90'	TLC-LED-1500	6	6	0
1	F4	90'	-	90'	TLC-LED-900	2	2	0
				80'	TLC-LED-400	1	0	1
				90'	TLC-LED-1500	6	6	0
4	TOTALS					42	36	6

Mountain View HS Football

Mountain View, CA

GRID SUMMARY	
Name:	East Bleachers
Spacing:	10.0' x 10.0'
Height:	14.4' above grade

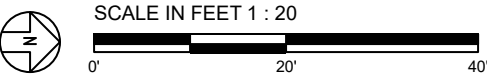
ILLUMINATION SUMMARY			
MAINTAINED HORIZONTAL FOOTCANDLES			
	Entire Grid		
Scan Average:	9.77		
Maximum:	13		
Minimum:	7		
Avg / Min:	1.39		
Max / Min:	1.83		
UG (adjacent pts):	0.00		
CU:	0.01		
No. of Points:	32		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	160,000 / 89,600 lumens		
No. of Luminaires:	36		
Total Load:	42.84 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

**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.



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

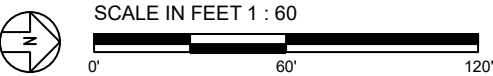
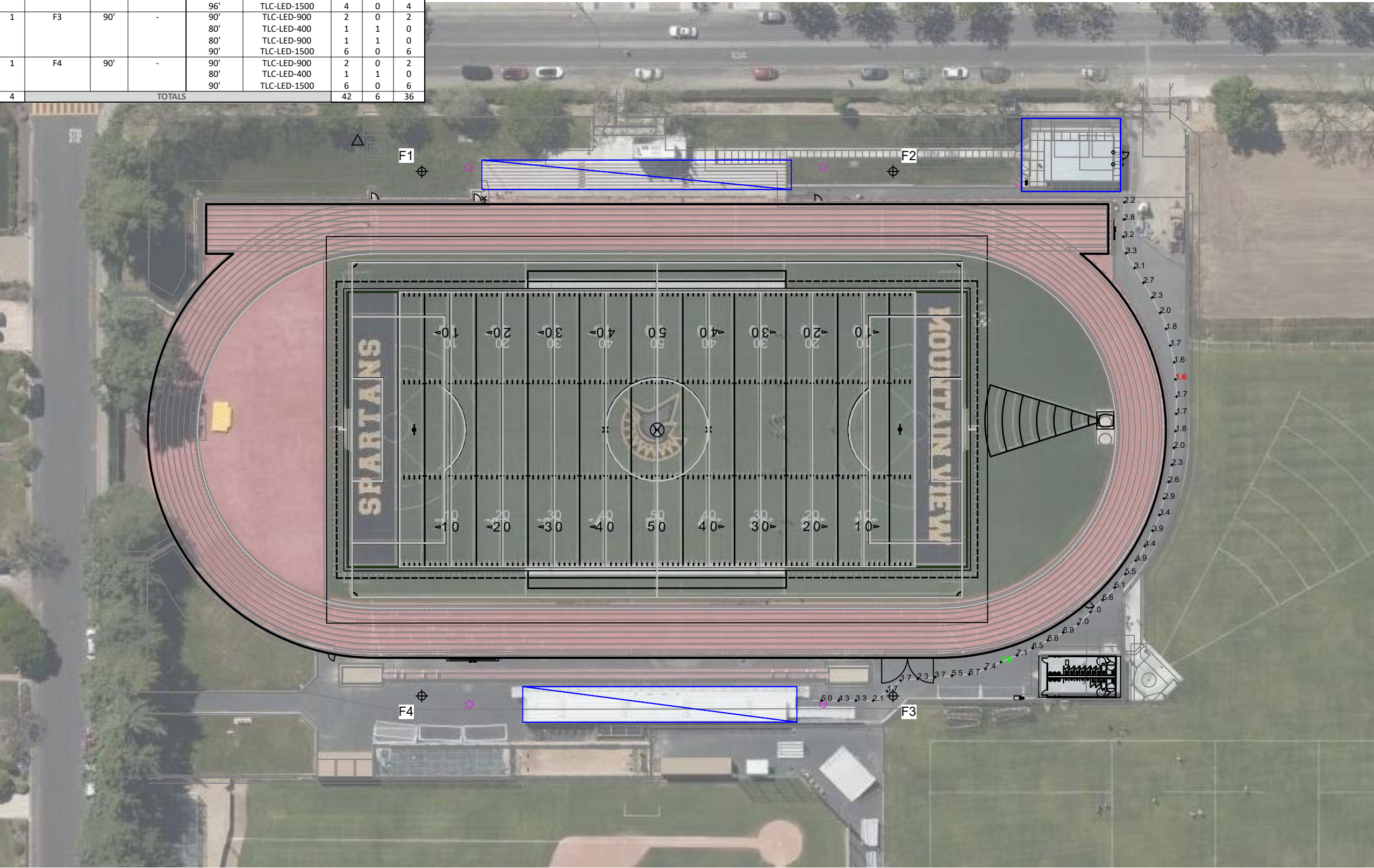


We Make It Happen®

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2020 Musco Sports Lighting, LLC.



EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	F1	90'	6'	96'	TLC-LED-900	6	0	6
				86'	TLC-LED-400	1	1	0
				96'	TLC-LED-1500	4	0	4
1	F2	90'	6'	96'	TLC-LED-900	6	0	6
				86'	TLC-LED-400	1	1	0
				86'	TLC-LED-900	1	1	0
1	F3	90'	-	96'	TLC-LED-1500	4	0	4
				90'	TLC-LED-900	2	0	2
				80'	TLC-LED-400	1	1	0
1	F4	90'	-	80'	TLC-LED-900	1	1	0
				90'	TLC-LED-1500	6	0	6
				90'	TLC-LED-900	2	0	2
4				80'	TLC-LED-400	1	1	0
				80'	TLC-LED-900	1	1	0
				90'	TLC-LED-1500	6	0	6
4	TOTALS					42	6	36



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

## Mountain View HS Football

Mountain View, CA

GRID SUMMARY	
Name:	Path of Egress #1
Spacing:	10.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY			
HORIZONTAL FOOTCANDLES			
		Entire Grid	
Scan Average:	3.8804		
Maximum:	7.53		
Minimum:	1.64		
No. of Points:	44		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	46,500 / 89,600 lumens		
No. of Luminaires:	6		
Total Load:	3.38 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-400	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

**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.



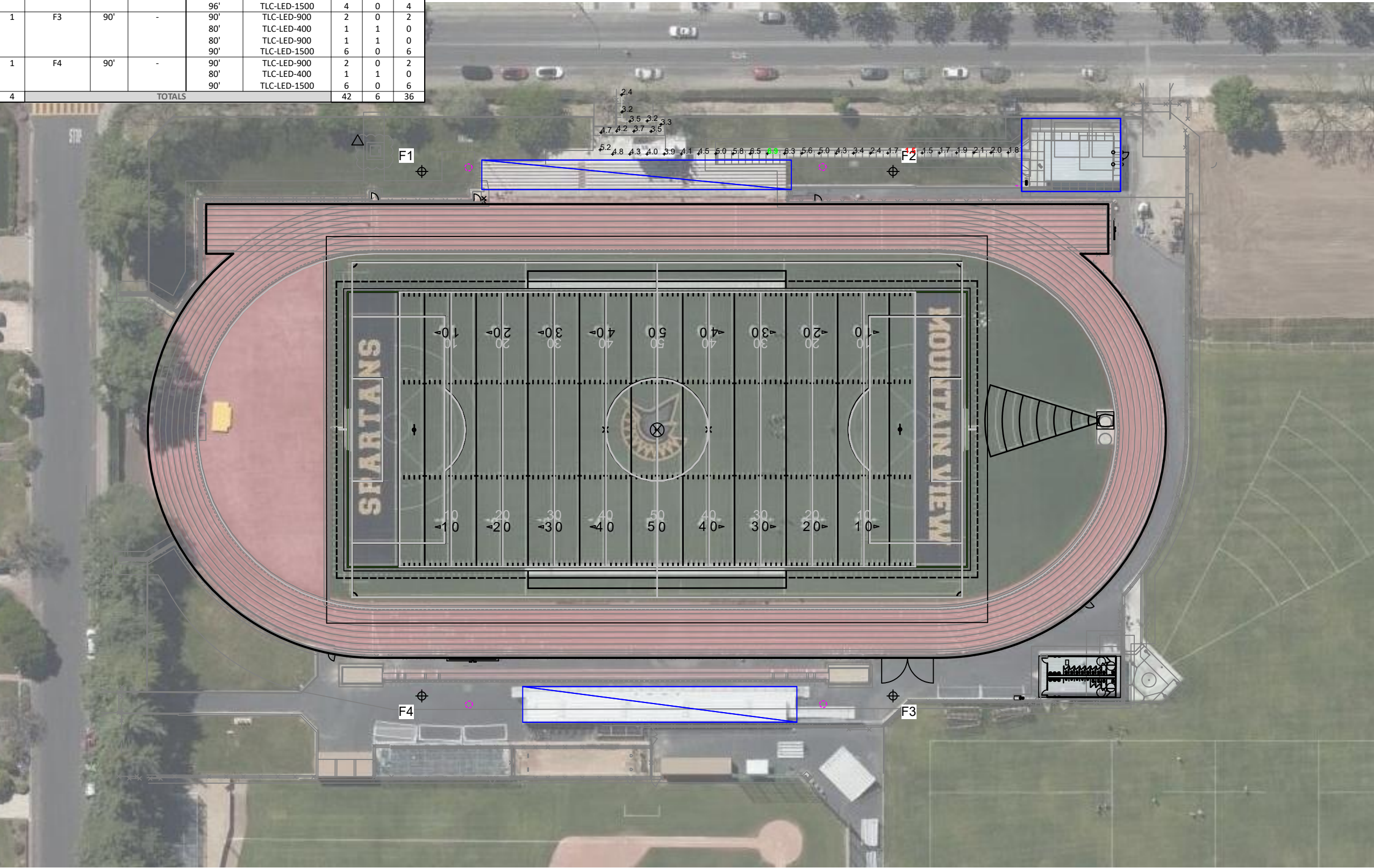
We Make It Happen.®

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2020 Musco Sports Lighting, LLC.

## ILLUMINATION SUMMARY



EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	F1	90'	6'	96'	TLC-LED-900	6	0	6
				86'	TLC-LED-400	1	1	0
				96'	TLC-LED-1500	4	0	4
1	F2	90'	6'	96'	TLC-LED-900	6	0	6
				86'	TLC-LED-400	1	1	0
				86'	TLC-LED-900	1	1	0
				96'	TLC-LED-1500	4	0	4
1	F3	90'	-	90'	TLC-LED-900	2	0	2
				80'	TLC-LED-400	1	1	0
				80'	TLC-LED-900	1	1	0
				90'	TLC-LED-1500	6	0	6
1	F4	90'	-	90'	TLC-LED-900	2	0	2
				80'	TLC-LED-400	1	1	0
				80'	TLC-LED-900	1	1	0
				90'	TLC-LED-1500	6	0	6
4	TOTALS					42	6	36



Mountain View HS Football

Mountain View, CA

GRID SUMMARY	
Name:	Path of Egress #2
Spacing:	10.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY			
HORIZONTAL FOOTCANDLES			
Scan Average:	Entire Grid		
	3.7594		
	Maximum: 6.93		
	Minimum: 1.47		
No. of Points:	34		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	46,500 / 89,600 lumens		
No. of Luminaires:	6		
Total Load:	3.38 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-400	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

**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.

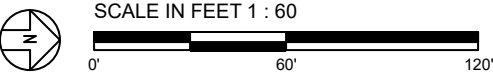
**Installation Requirements:** Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



We Make It Happen.®

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2020 Musco Sports Lighting, LLC.

ILLUMINATION SUMMARY



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





Mountain View HS Football

Mountain View, CA

GRID SUMMARY	
Name:	Property Spill
Spacing:	10.0'
Height:	3.0' above grade

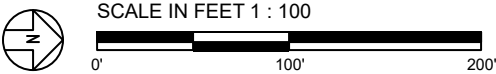
ILLUMINATION SUMMARY			
HORIZONTAL FOOTCANDLES			
Scan Average:	Entire Grid		
	0.0071		
	Maximum: 0.06		
	Minimum: 0.00		
No. of Points:	174		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	160,000 / 89,600 / 46,500 lumens		
No. of Luminaires:	42		
Total Load:	46.22 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000
TLC-LED-400	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

**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) ⊗



We Make It Happen.®

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2020 Musco Sports Lighting, LLC.

ILLUMINATION SUMMARY





# Mountain View HS Football

Mountain View, CA

GRID SUMMARY	
Name:	Property Spill
Spacing:	10.0'
Height:	3.0' above grade

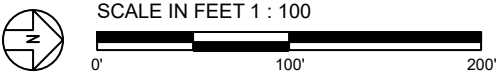
ILLUMINATION SUMMARY			
MAX VERTICAL FOOTCANDLES			
	Entire Grid		
<b>Scan Average:</b>	<b>0.0137</b>		
<b>Maximum:</b>	<b>0.08</b>		
<b>Minimum:</b>	<b>0.00</b>		
<b>No. of Points:</b>	<b>174</b>		
LUMINAIRE INFORMATION			
<b>Color / CRI:</b>	5700K - 75 CRI		
<b>Luminaire Output:</b>	160,000 / 89,600 / 46,500 lumens		
<b>No. of Luminaires:</b>	<b>42</b>		
<b>Total Load:</b>	<b>46.22 kW</b>		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000
TLC-LED-400	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

**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) ⊗



Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2020 Musco Sports Lighting, LLC.





# Mountain View HS Football

Mountain View, CA

GRID SUMMARY	
Name:	Property Spill
Spacing:	10.0'
Height:	3.0' above grade

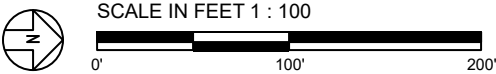
ILLUMINATION SUMMARY			
CANDELA (PER FIXTURE)			
Scan Average:	Entire Grid		
	491.9512		
	Maximum:		
	1597.93		
Minimum:	0.00		
No. of Points:	174		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	160,000 / 89,600 / 46,500 lumens		
No. of Luminaires:	42		
Total Load:	46.22 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000
TLC-LED-400	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

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



ENGINEERED DESIGN By: Daniel Lohman • File #155795D • 02-Jan-20

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



We Make It Happen.®

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2020 Musco Sports Lighting, LLC.

## ILLUMINATION SUMMARY



Mountain View HS Football  
Mountain View, CA

EQUIPMENT LAYOUT

INCLUDES:

- Bleachers
- Football
- Soccer
- Track

**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
1	F1	90'	6'	96'	TLC-LED-900	6
				86'	TLC-LED-400	1
				96'	TLC-LED-1500	4
1	F2	90'	6'	96'	TLC-LED-900	6
				86'	TLC-LED-400	1
				86'	TLC-LED-900	1
				96'	TLC-LED-1500	4
1	F3	90'	-	90'	TLC-LED-900	2
				80'	TLC-LED-400	1
				80'	TLC-LED-900	1
				90'	TLC-LED-1500	6
1	F4	90'	-	90'	TLC-LED-900	2
				80'	TLC-LED-400	1
				90'	TLC-LED-1500	6
4	TOTALS					42

SINGLE LUMINAIRE AMPERAGE DRAW CHART

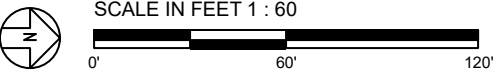
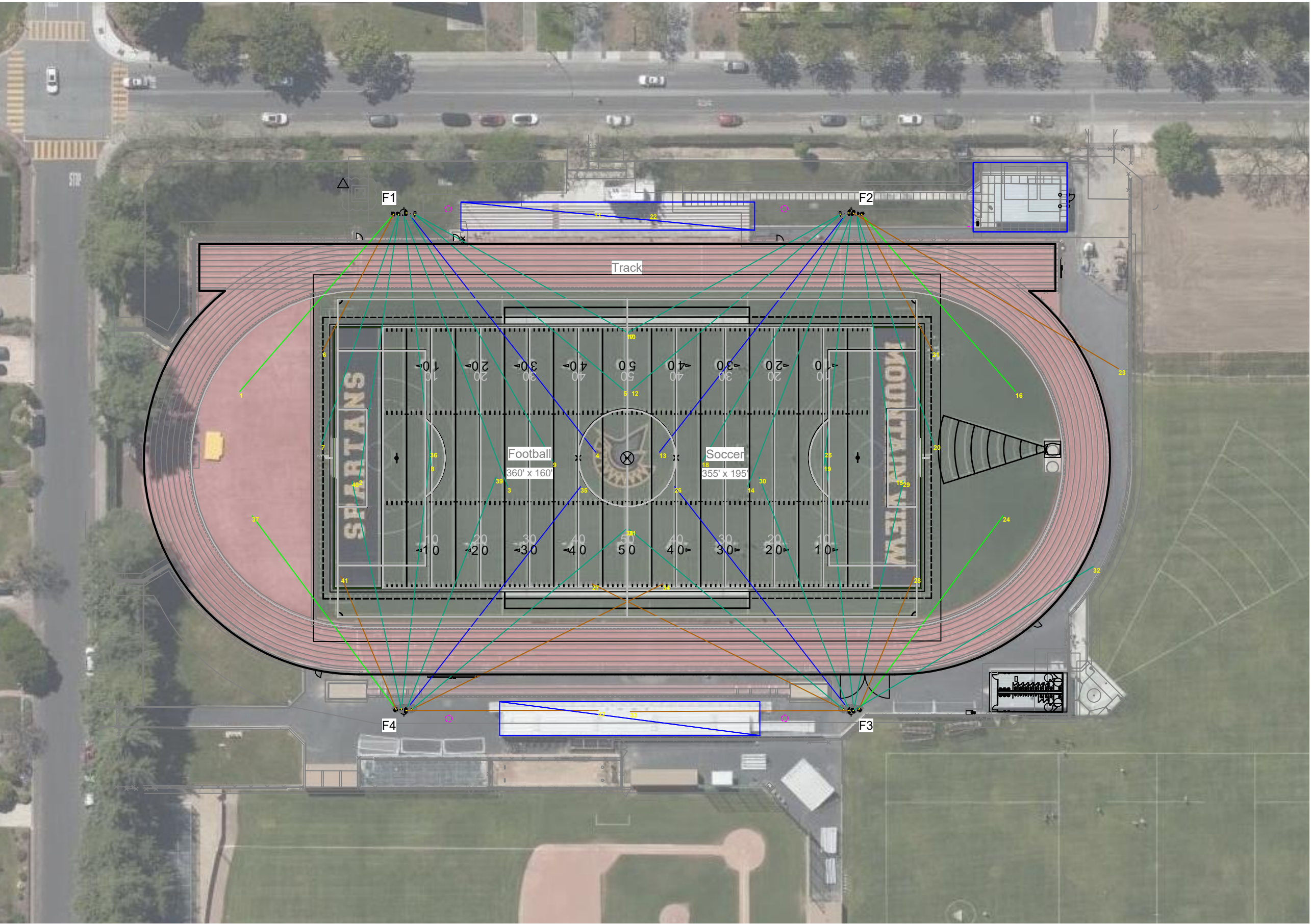
Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)					
	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	480 (60)
Single Phase Voltage						
TLC-LED-1500	8.5	8.1	7.4	6.4	5.1	4.7
TLC-LED-900	5.3	5.0	4.6	4.0	3.2	2.9
TLC-LED-400	2.3	2.2	2.0	1.7	1.4	1.0



We Make It Happen.®

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2020 Musco Sports Lighting, LLC.

EQUIPMENT LAYOUT



ENGINEERED DESIGN By: Daniel Lohman • File #155795D • 02-Jan-20

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