

New Fairfield High School

New Fairfield, CT

Lighting System

Pole/Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
F1-F2	70'	90'	11	TLC-LED-1500	15.51 kW	A
		36'	2	TLC-BT-575	1.15 kW	A
F3-F4	70'	70'	8	TLC-LED-1500	11.28 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
4			46		58.18 kW	

Circuit Summary			
Circuit	Description	Load	Fixture Qty
A	Football	58.18 kW	46

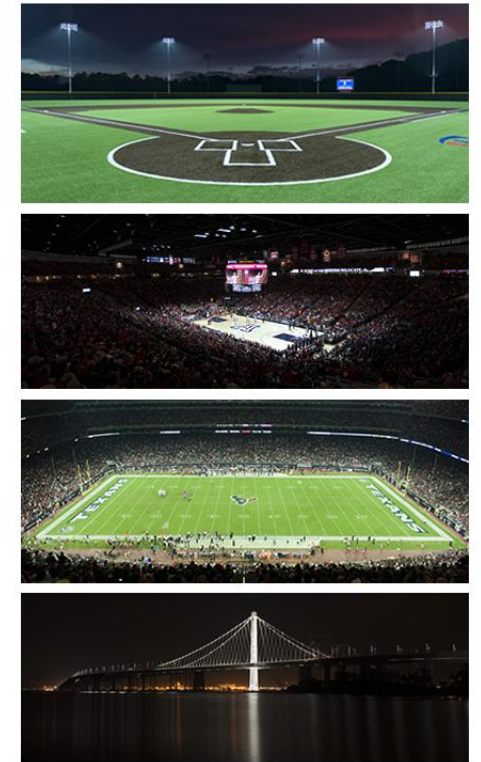
Fixture Type Summary								
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity	
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	8	
TLC-LED-1500	LED 5700K - 75 CRI	1410W	181,000	>120,000	>120,000	>120,000	38	

Single Luminaire Amperage Draw Chart								
Driver Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)							
	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)	
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)	
TLC-BT-575	3.3	3.2	2.9	2.5	2.0	1.8	1.5	
TLC-LED-1500	8.4	7.9	7.3	6.3	5.0	4.6	3.6	

Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Football	Horizontal Illuminance	53.2	36	65	1.78	1.48	A	46
Home Bleachers	Horizontal	27.9	17	36	2.09	1.64	A	46
Road Spill Line	Horizontal Illuminance	0.04	0	0.09	65.46		A	46
Road Spill Line	Max Vertical Illuminance Metric	0.17	0.01	0.33	40.78	16.55	A	46
Road Spill Line (Cd)	Max Candela Metric	4632	778	6018	7.74	5.96	A	46
Soccer	Horizontal Illuminance	53.9	36	66	1.83	1.50	A	46
Track	Horizontal Illuminance	30.9	4	68	18.24	7.73	A	46
Visitor Bleachers	Horizontal	15.9	12	24	2.04	1.33	A	46

From Hometown to Professional



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New Fairfield High School

New Fairfield, CT

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	70'	20'	90'	TLC-LED-1500	11	11	0
				36'	TLC-BT-575	2	2	0
2	F3-F4	70'	-	70'	TLC-LED-1500	8	8	0
				16'	TLC-BT-575	2	2	0
4	Totals					46	46	0



Grid Summary	
Name	Football
Size	360' x 160'
Spacing	30.0' x 30.0'
Height	3.0' above grade

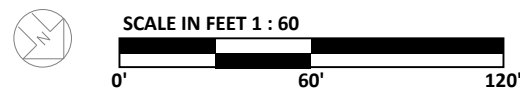
Illumination Summary	
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average	53.18
Maximum	65
Minimum	36
Avg/Min	1.46
Guaranteed Max/Min	2
Max/Min	1.78
UG (adjacent pts)	1.36
CU	0.47
No. of Points	72
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	46
Total Load	58.18 kW

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.



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



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Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	F1-F2	70'	20'	90'	TLC-LED-1500	11	11	0
				36'	TLC-BT-575	2	2	0
2	F3-F4	70'	-	70'	TLC-LED-1500	8	8	0
				16'	TLC-BT-575	2	2	0
4	Totals					46	46	0



Grid Summary	
Name	Soccer
Size	360' x 195'
Spacing	30.0' x 30.0'
Height	3.0' above grade

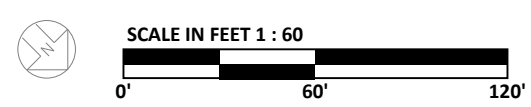
Illumination Summary	
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Guaranteed Average	50
Scan Average	53.88
Maximum	66
Minimum	36
Avg/Min	1.50
Guaranteed Max/Min	2
Max/Min	1.83
UG (adjacent pts)	1.32
CU	0.56
No. of Points	84
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	46
Total Load	58.18 kW

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Pole			Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	F1-F2	70'	20'	90'	TLC-LED-1500	11	11	0
				36'	TLC-BT-575	2	2	0
2	F3-F4	70'	-	70'	TLC-LED-1500	8	8	0
				16'	TLC-BT-575	2	2	0
4	Totals					46	46	0



Grid Summary	
Name	Track
Size	Irregular
Spacing	30.0' x 30.0'
Height	3.0' above grade

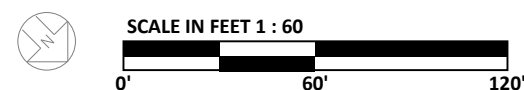
Illumination Summary	
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average	30.92
Maximum	68
Minimum	4
Avg/Min	8.33
Max/Min	18.24
UG (adjacent pts)	0.00
CU	0.18
No. of Points	47
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	46
Total Load	58.18 kW

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Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	F1-F2	70'	20'	90'	TLC-LED-1500	11	11	0
				36'	TLC-BT-575	2	2	0
2	F3-F4	70'	-	70'	TLC-LED-1500	8	8	0
				16'	TLC-BT-575	2	2	0
4	Totals					46	46	0

Grid Summary	
Name	Home Bleachers
Size	360' x 160'
Spacing	10.0' x 10.0'

Illumination Summary		MAINTAINED HORIZONTAL FOOTCANDLES
Entire Grid		
Scan Average	27.92	
Maximum	36	
Minimum	17	
Avg/Min	1.64	
Max/Min	2.09	
UG (adjacent pts)	1.31	
CU	0.01	
No. of Points	54	
LUMINAIRE INFORMATION		
Applied Circuits	A	
No. of Luminaires	46	
Total Load	58.18 kW	

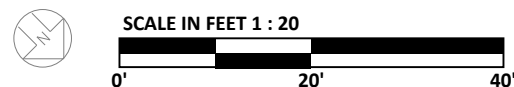


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Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	F1-F2	70'	20'	90'	TLC-LED-1500	11	11	0
				36'	TLC-BT-575	2	2	0
2	F3-F4	70'	-	70'	TLC-LED-1500	8	8	0
				16'	TLC-BT-575	2	2	0
4	Totals					46	46	0

Grid Summary	
Name	Visitor Bleachers
Size	Irregular
Spacing	10.0' x 10.0'
Height	0.0' above grade

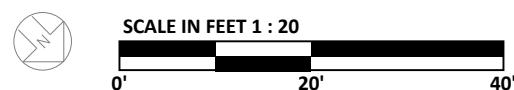
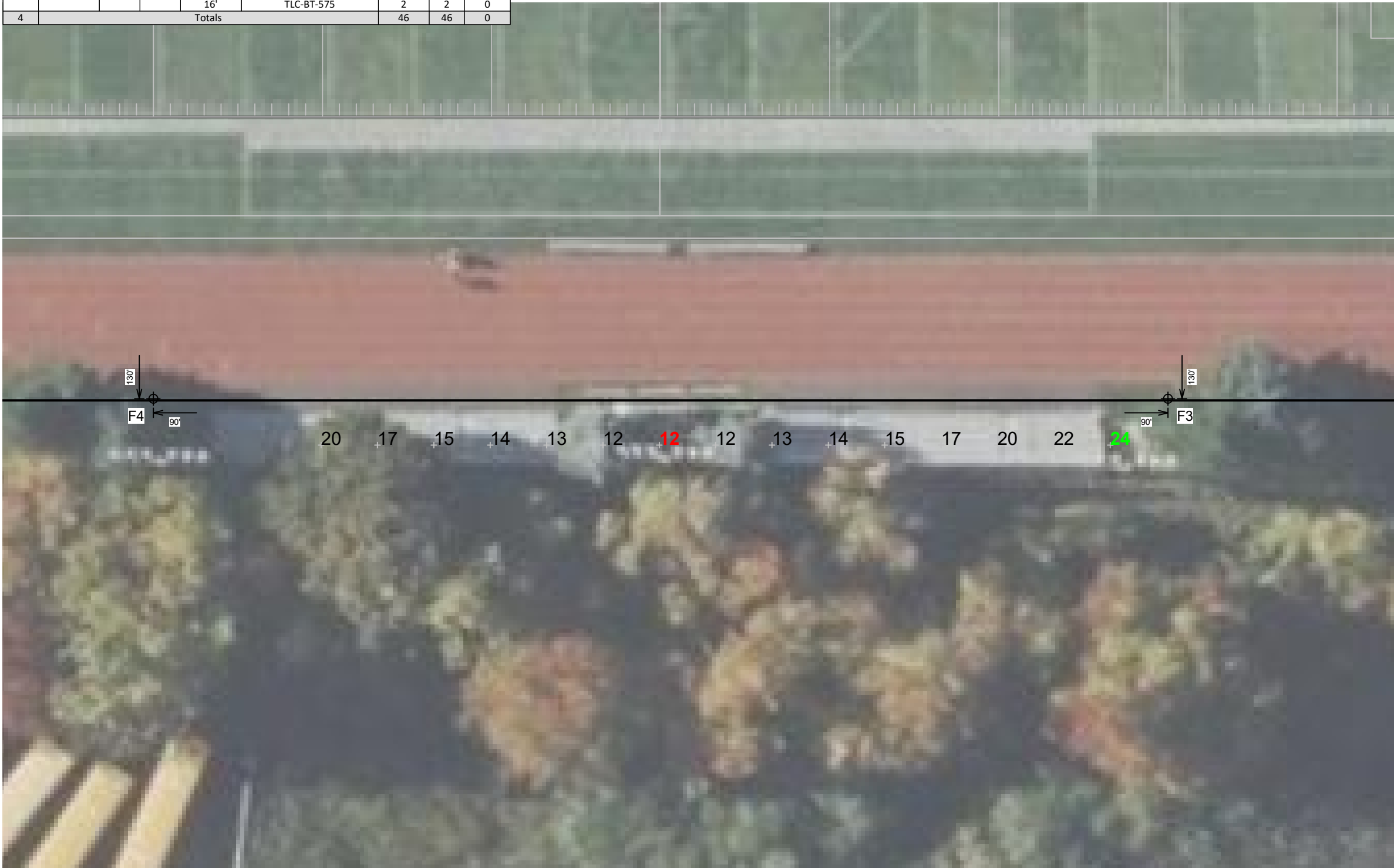
Illumination Summary	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average	15.93
Maximum	24
Minimum	12
Avg/Min	1.35
Max/Min	2.04
UG (adjacent pts)	1.15
CU	0.00
No. of Points	15
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	46
Total Load	58.18 kW

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Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	F1-F2	70'	20'	90'	TLC-LED-1500	11	11	0
				36'	TLC-BT-575	2	2	0
2	F3-F4	70'	-	70'	TLC-LED-1500	8	8	0
				16'	TLC-BT-575	2	2	0
4	Totals					46	46	0

Grid Summary	
Name	Road Spill Line
Spacing	30.0' x 30.0'
Height	3.0' above grade

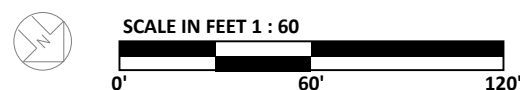
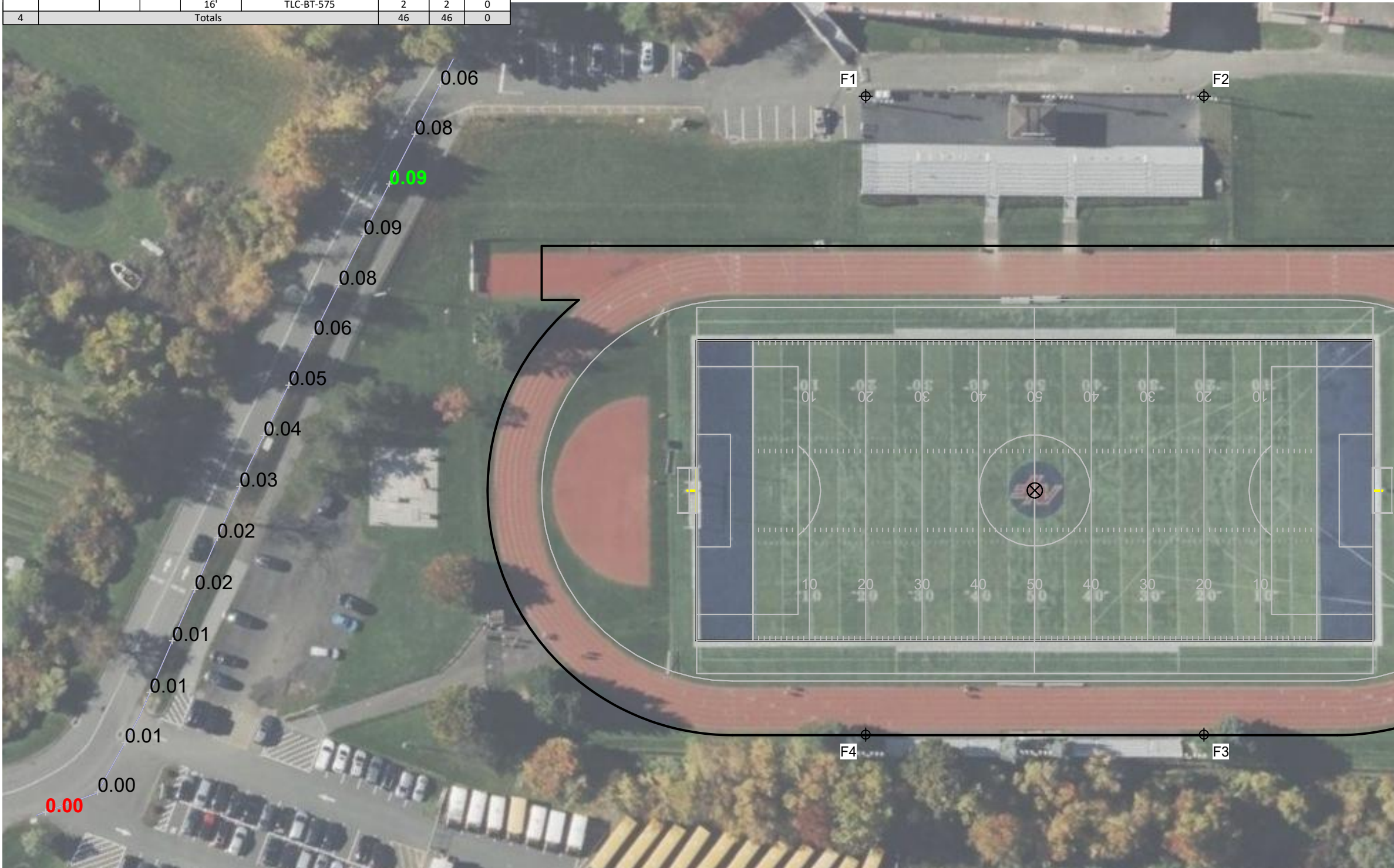
Illumination Summary		MAINTAINED HORIZONTAL FOOTCANDLES
Scan Average	0.0405	Entire Grid
Maximum	0.09	
Minimum	0.00	
CU	0.00	
No. of Points	16	
LUMINAIRE INFORMATION		
Applied Circuits	A	
No. of Luminaires	46	
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Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY/POLE	THIS GRID	OTHER GRIDS
2	F1-F2	70'	20'	90'	TLC-LED-1500	11	11	0
				36'	TLC-BT-575	2	2	0
2	F3-F4	70'	-	70'	TLC-LED-1500	8	8	0
				16'	TLC-BT-575	2	2	0
4	Totals					46	46	0

Grid Summary	
Name	Road Spill Line
Spacing	30.0' x 30.0'
Height	3.0' above grade

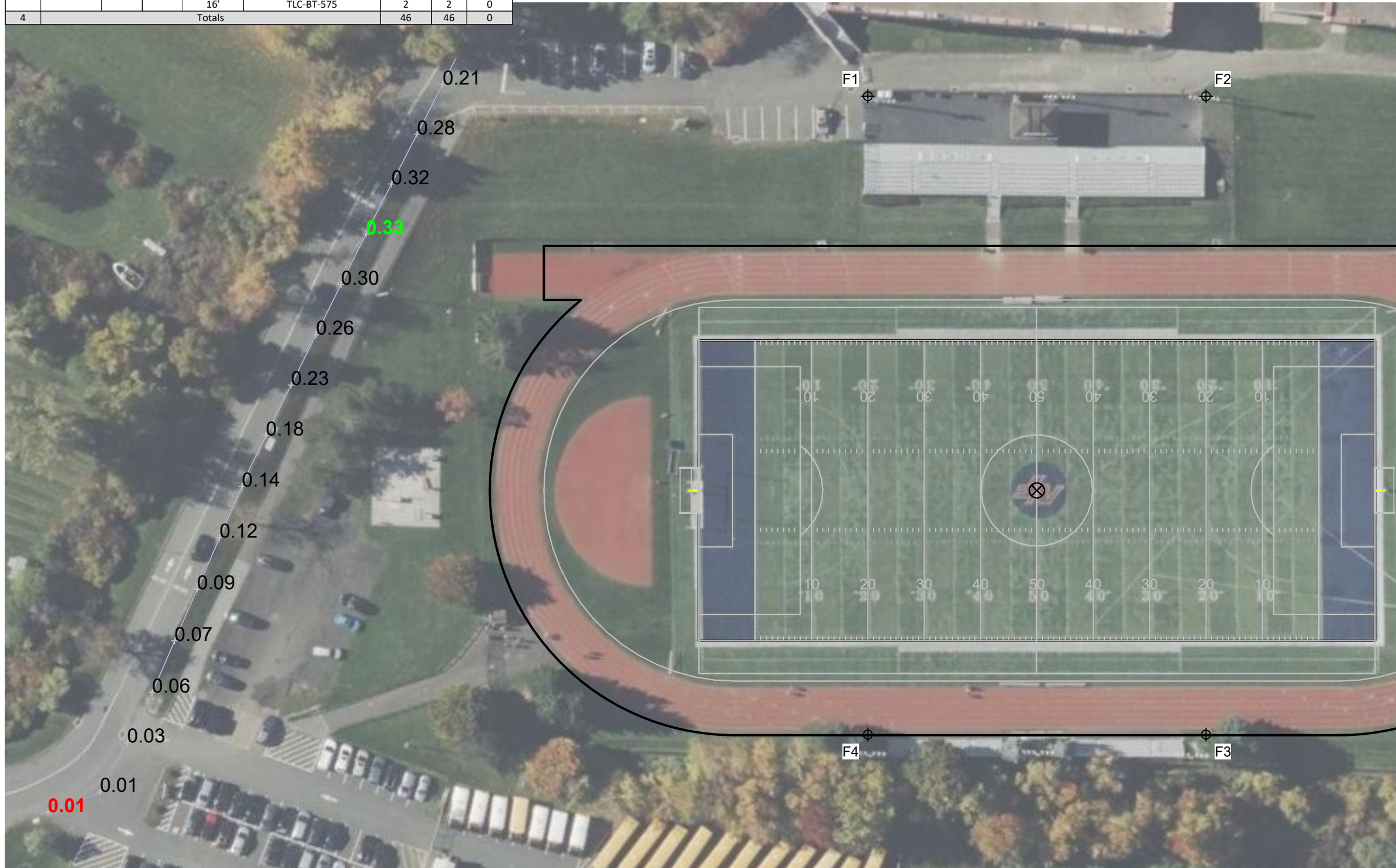
Illumination Summary		MAINTAINED MAX VERTICAL FOOTCANDLES
Scan Average	0.1655	Entire Grid
Maximum	0.33	
Minimum	0.01	
CU	0.00	
No. of Points	16	
LUMINAIRE INFORMATION		
Applied Circuits	A	
No. of Luminaires	46	
Total Load	58.18 kW	

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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	70'	20'	90'	TLC-LED-1500	11	11	0
				36'	TLC-BT-575	2	2	0
2	F3-F4	70'	-	70'	TLC-LED-1500	8	8	0
				16'	TLC-BT-575	2	2	0
4	Totals					46	46	0

New Fairfield High School
New Fairfield, CT

Grid Summary

Name	Road Spill Line (Cd)
Spacing	30.0' x 30.0'
Height	5.0' above grade

Illumination Summary

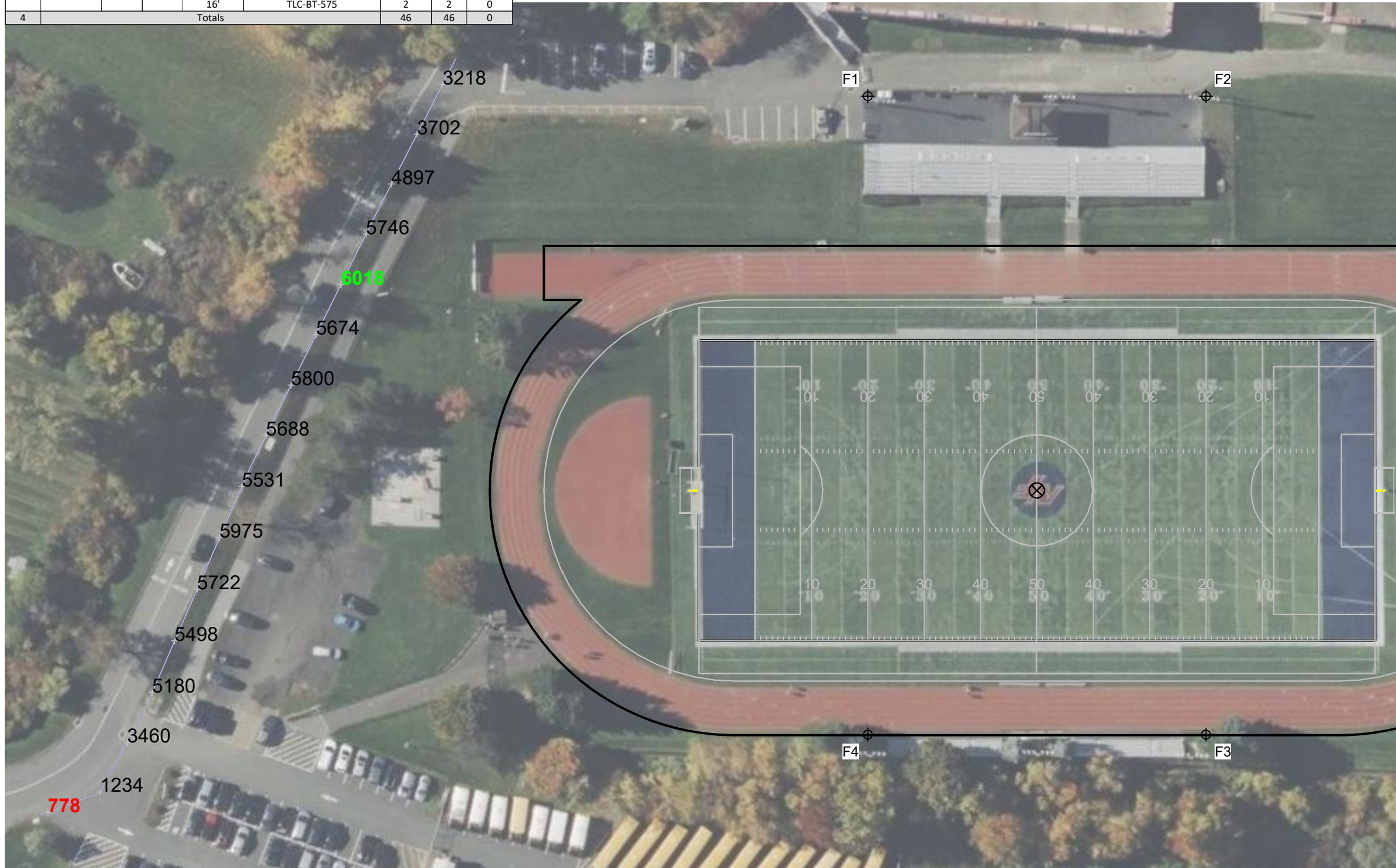
	ENTIRE GRID	MAINTAINED CANDELA (PER FIXTURE)
Scan Average	4632.4932	
Maximum	6018.37	
Minimum	777.52	
CU	0.00	
No. of Points	16	
LUMINAIRE INFORMATION		
Applied Circuits	A	
No. of Luminaires	46	
Total Load	58.18 kW	

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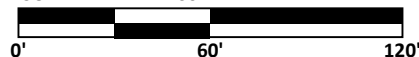
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SCALE IN FEET 1 : 60



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New Fairfield High School

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Equipment Layout

INCLUDES:

- Football
- Soccer
- Track

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Equipment List For Areas Shown

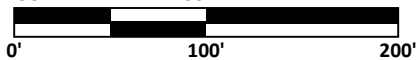
QTY	LOCATION	SIZE	Pole		Luminaires	
			GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY/POLE
2	F1-F2	70'	20'	90'	TLC-LED-1500	11
2	F3-F4	70'	-	70'	TLC-LED-1500	8
				16'	TLC-BT-575	2
4	Totals					46

Single Luminaire Amperage Draw Chart

Driver Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)					
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	480 (60)
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



SCALE IN FEET 1 : 100



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ENGINEERED DESIGN By: • File #189981C • 17-Nov-23



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EQUIPMENT LAYOUT