

Albemarle Park LED Phase 2

Newton, MA

Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
A5-A6	70'	70'	2	TLC-LED-600	1.16 kW	E
		70'	1	TLC-LED-900	0.89 kW	E
		16'	1	TLC-BT-575	0.58 kW	E
B5-B6	80'	80'	7	TLC-LED-1200	8.19 kW	E
		16'	1	TLC-BT-575	0.58 kW	E
C5-C6	90'	90'	4	TLC-LED-1200	4.68 kW	E
		90'	1	TLC-LED-900	0.89 kW	E
		16'	1	TLC-BT-575	0.58 kW	E
6			36		35.07 kW	

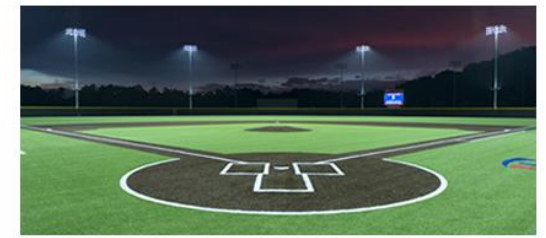
Circuit Summary			
Circuit	Description	Load	Fixture Qty
E	Softball 2 / Soccer 3	35.07 kW	36

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	6
TLC-LED-1200	LED 5700K - 75 CRI	1170W	136,000	>120,000	>120,000	>120,000	22
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>120,000	>120,000	>120,000	4
TLC-LED-600	LED 5700K - 75 CRI	580W	65,600	>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		
Soccer 3	Horizontal Illuminance	32.2	22	44	1.99	1.46	E	36
Softball 2 (Infield)	Horizontal Illuminance	53.3	39	67	1.72	1.37	E	36
Softball 2 (Outfield)	Horizontal Illuminance	33	24	44	1.78	1.37	E	36
Spill @ 150' (Cd)	Max Candela (by Fixture)	14815	0	128545	0.00		A,B,C,D,E	36
Spill @ 150'	Horizontal	0.01	0	0.05	0.00		A,B,C,D,E	36
Spill @ 150'	Max Vertical Illuminance Metric	0.04	0	0.14	0.00		A,B,C,D,E	36
Zero Grid	Horizontal Illuminance	3.14	0	68	0.00		A,B,C,D,E	36

From Hometown to Professional



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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	A5-A6	70'	0'	70'	TLC-LED-600	2	2	0	
				15.5'	TLC-BT-575	1	1	0	
				70'	TLC-LED-900	1	1	0	
2	B5-B6	80'	0'	15.5'	TLC-BT-575	1	1	0	
				80'	TLC-LED-1200	7	7	0	
				90'	TLC-LED-900	1	1	0	
1	C5	90'	0'	15.48'	TLC-BT-575	1	1	0	
				90'	TLC-LED-1200	4	4	0	
				90'	TLC-LED-900	1	1	0	
1	C6	90'	0'	15.5'	TLC-BT-575	1	1	0	
				90'	TLC-LED-1200	4	4	0	
				90'	TLC-LED-900	1	1	0	
6	TOTALS						36	36	0

Albemarle Park LED Phase 2

Newton, MA

GRID SUMMARY

Name: **Softball 2**
 Size: 200'/200'/200' - basepath 60'
 Spacing: 20.0' x 20.0'
 Height: 3.0' above grade

ILLUMINATION SUMMARY

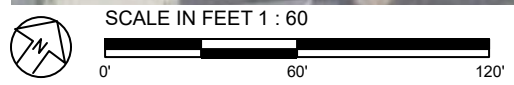
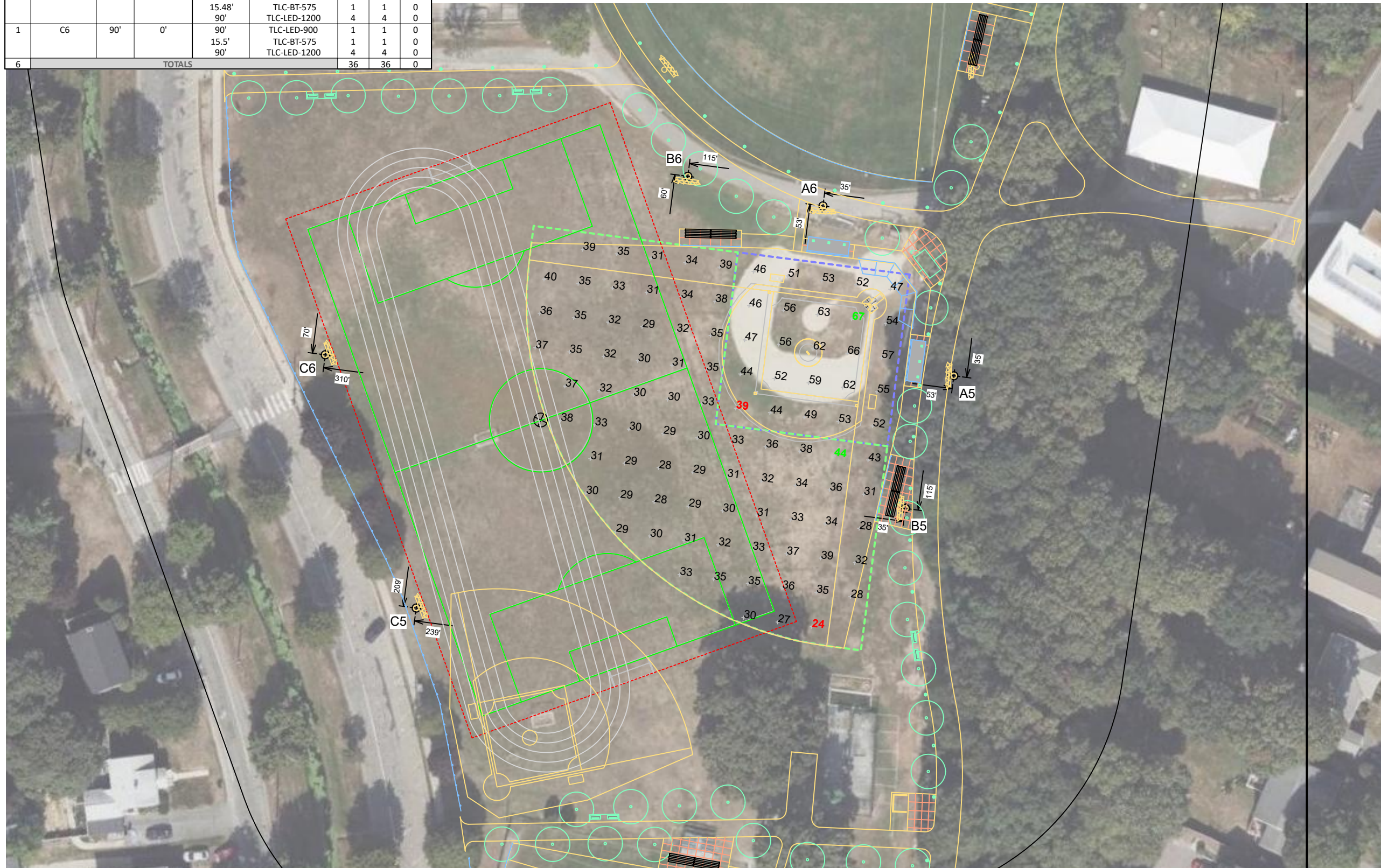
MAINTAINED HORIZONTAL FOOTCANDLES		
	Infield	Outfield
Guaranteed Average:	50	30
Scan Average:	53.28	32.96
Maximum:	67	44
Minimum:	39	24
Avg / Min:	1.37	1.35
Guaranteed Max / Min:	2	2.5
Max / Min:	1.72	1.78
UG (adjacent pts):	1.27	1.42
CU:	0.39	
No. of Points:	25	73
LUMINAIRE INFORMATION		
Applied Circuits:	E	
No. of Luminaires:	36	
Total Load:	35.07 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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EQUIPMENT LIST FOR AREAS SHOWN

Pole		Luminaires							
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
2	A5-A6	70'	.06'	70.06'	TLC-LED-600	2	2	0	
				15.56'	TLC-BT-575	1	1	0	
				70.06'	TLC-LED-900	1	1	0	
2	B5-B6	80'	.06'	15.56'	TLC-BT-575	1	1	0	
				80.06'	TLC-LED-1200	7	7	0	
				90'	TLC-LED-900	1	1	0	
1	C5	90'	0'	15.54'	TLC-BT-575	1	1	0	
				90'	TLC-LED-1200	4	4	0	
				90.06'	TLC-LED-900	1	1	0	
1	C6	90'	.06'	90.06'	TLC-LED-900	1	1	0	
				15.56'	TLC-BT-575	1	1	0	
				90.06'	TLC-LED-1200	4	4	0	
6	TOTALS						36	36	0

Albemarle Park LED Phase 2

Newton, MA

GRID SUMMARY	
Name:	Soccer 3
Size:	300' x 180'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

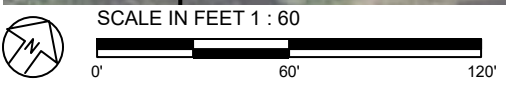
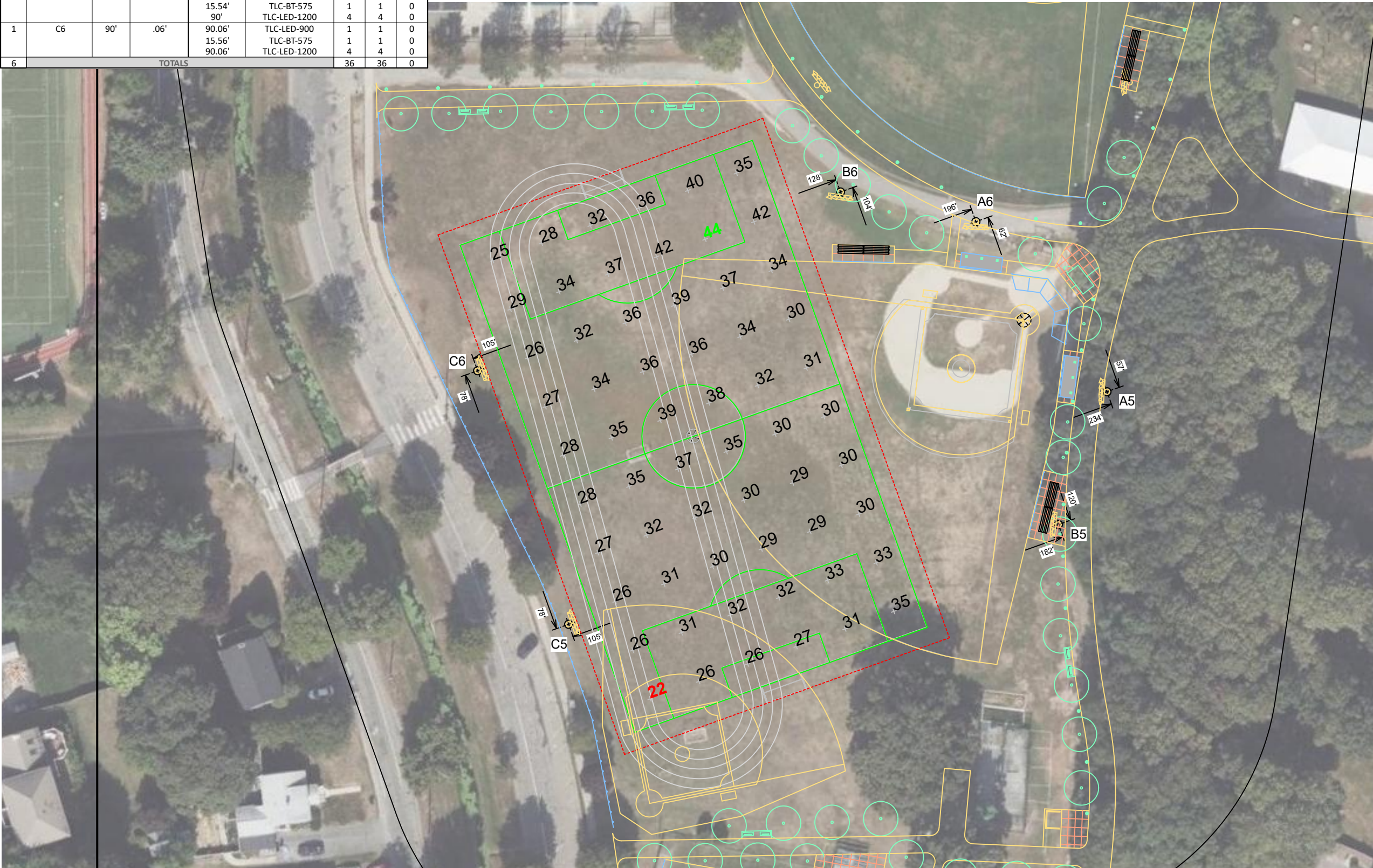
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Guaranteed Average:	30
Scan Average:	32.21
Maximum:	44
Minimum:	22
Avg / Min:	1.46
Guaranteed Max / Min:	2.5
Max / Min:	1.99
UG (adjacent pts):	1.26
CU:	0.45
No. of Points:	60
LUMINAIRE INFORMATION	
Applied Circuits:	E
No. of Luminaires:	36
Total Load:	35.07 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.

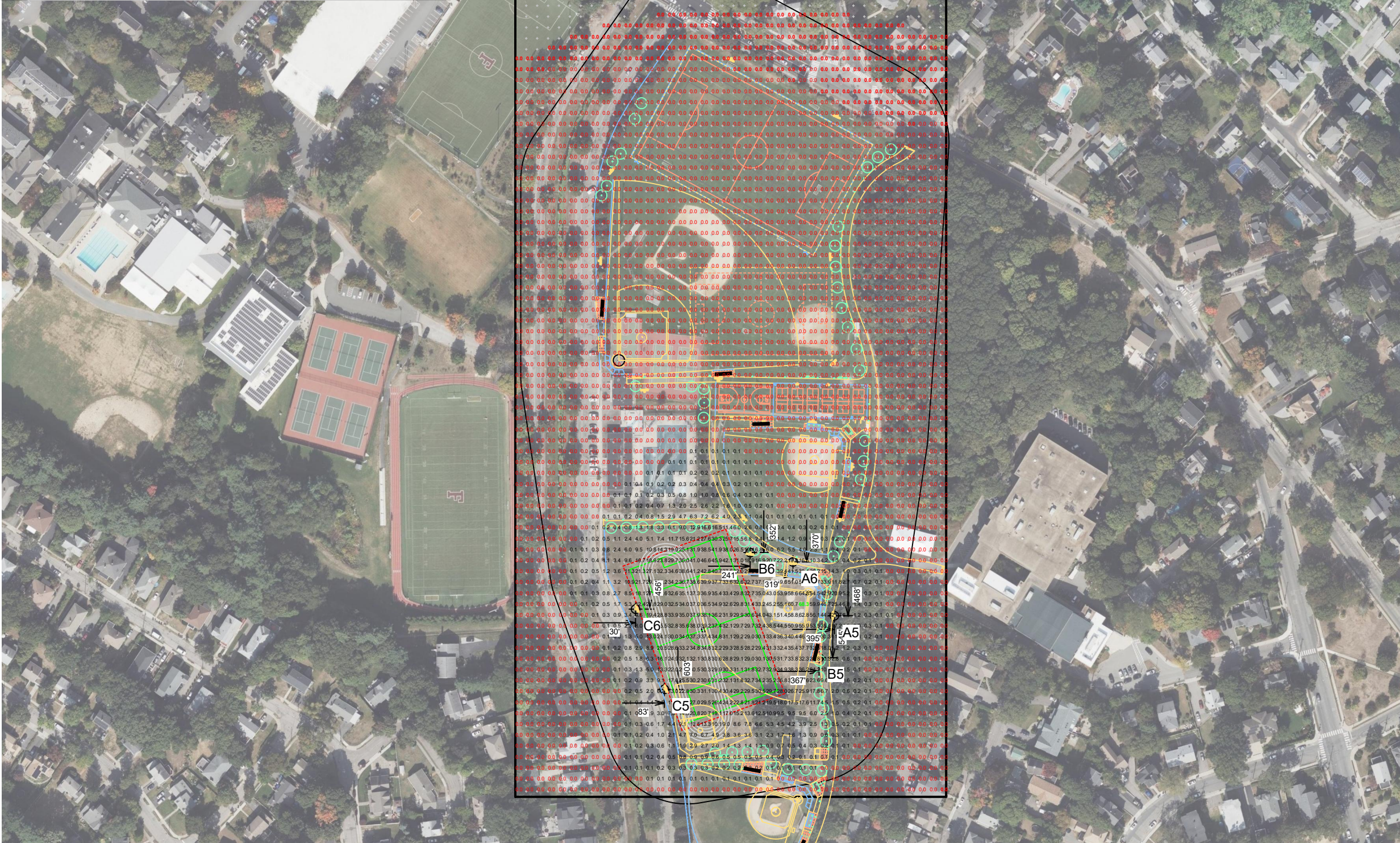
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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



EQUIPMENT LIST FOR AREAS SHOWN											
Pole				Luminaires							
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS			
2	A5-A6	70'	0'	70'	TLC-LED-600	2	2	0			
				15.5'	TLC-BT-575	1	1	0			
				70'	TLC-LED-900	1	1	0			
2	B5-B6	80'	0'	15.5'	TLC-BT-575	1	1	0			
				80'	TLC-LED-1200	7	7	0			
				90'	TLC-LED-900	1	1	0			
1	C5	90'	0'	15.48'	TLC-BT-575	1	1	0			
				90'	TLC-LED-1200	4	4	0			
				90'	TLC-LED-900	1	1	0			
1	C6	90'	0'	15.5'	TLC-BT-575	1	1	0			
				90'	TLC-LED-1200	4	4	0			
				90'	TLC-LED-900	1	1	0			
6	TOTALS								36	36	0



Albemarle Park LED Phase 2

Newton, MA

GRID SUMMARY	
Name:	Zero Grid
Size:	790' x 1500'
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	3.14
Maximum:	68
Minimum:	0
Avg / Min:	-
Max / Min:	-
UG (adjacent pts):	119.55
CU:	0.92
No. of Points:	3000
LUMINAIRE INFORMATION	
Applied Circuits:	A, B, C, D, E
No. of Luminaires:	36
Total Load:	35.07 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.

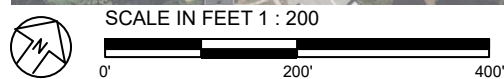
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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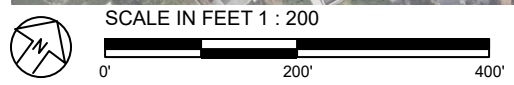
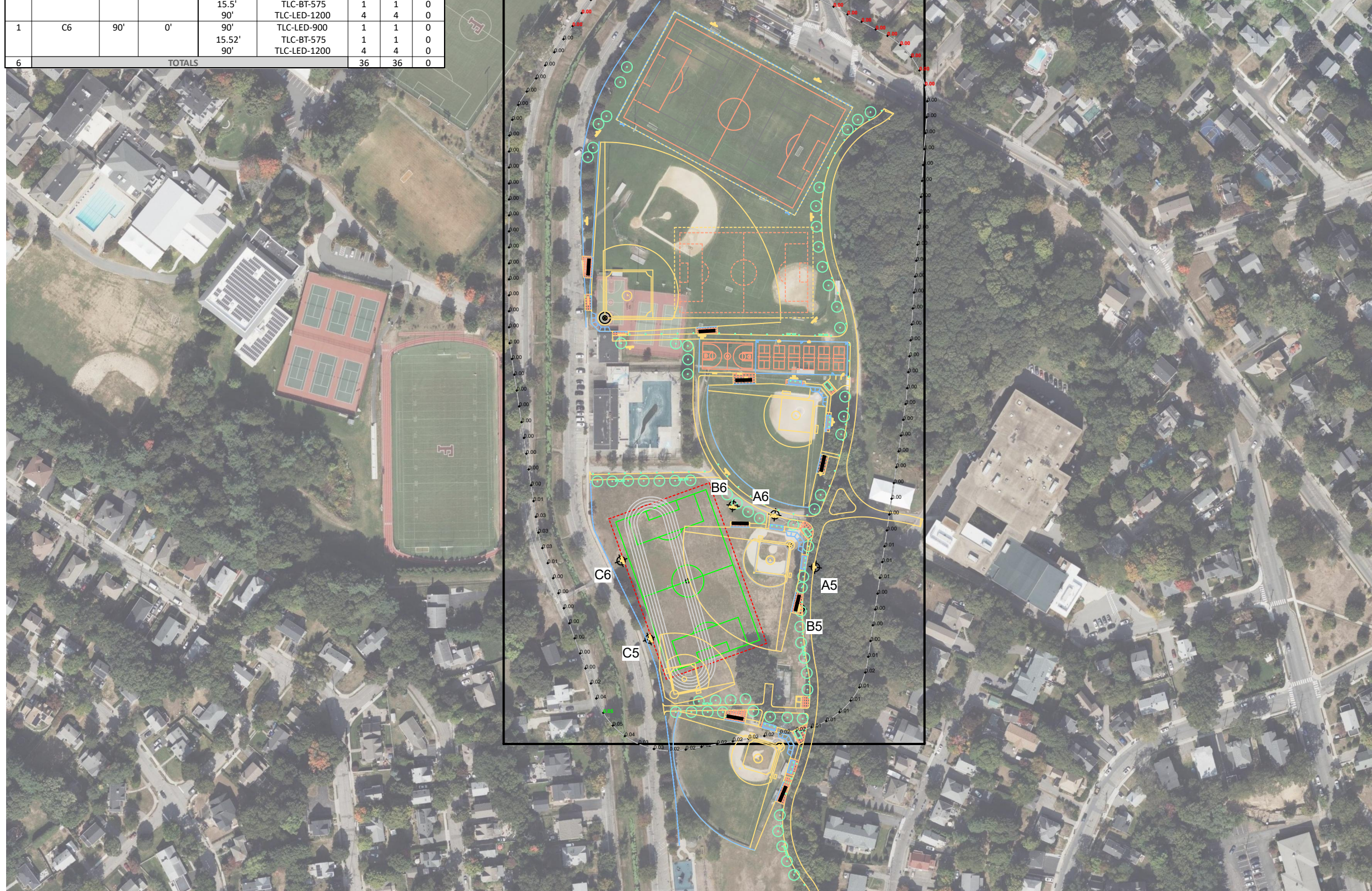
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ILLUMINATION SUMMARY



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	
2	A5-A6	70'	0'	70'	TLC-LED-600	2	2	0	
				15.52'	TLC-BT-575	1	1	0	
				70'	TLC-LED-900	1	1	0	
2	B5-B6	80'	0'	15.52'	TLC-BT-575	1	1	0	
				80'	TLC-LED-1200	7	7	0	
				90'	TLC-LED-900	1	1	0	
1	C5	90'	0'	15.5'	TLC-LED-900	1	1	0	
				90'	TLC-BT-575	1	1	0	
				90'	TLC-LED-1200	4	4	0	
1	C6	90'	0'	90'	TLC-LED-900	1	1	0	
				15.52'	TLC-BT-575	1	1	0	
				90'	TLC-LED-1200	4	4	0	
6	TOTALS					36	36	0	



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

Albemarle Park LED Phase 2

Newton, MA

GRID SUMMARY	
Name:	Spill @ 150'
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
HORIZONTAL FOOTCANDLES	
Scan Average:	Entire Grid 0.0064
Maximum:	0.05
Minimum:	0.00
No. of Points:	129
LUMINAIRE INFORMATION	
Applied Circuits:	A, B, C, D, E
No. of Luminaires:	36
Total Load:	35.07 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.

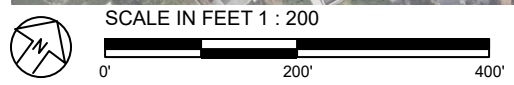
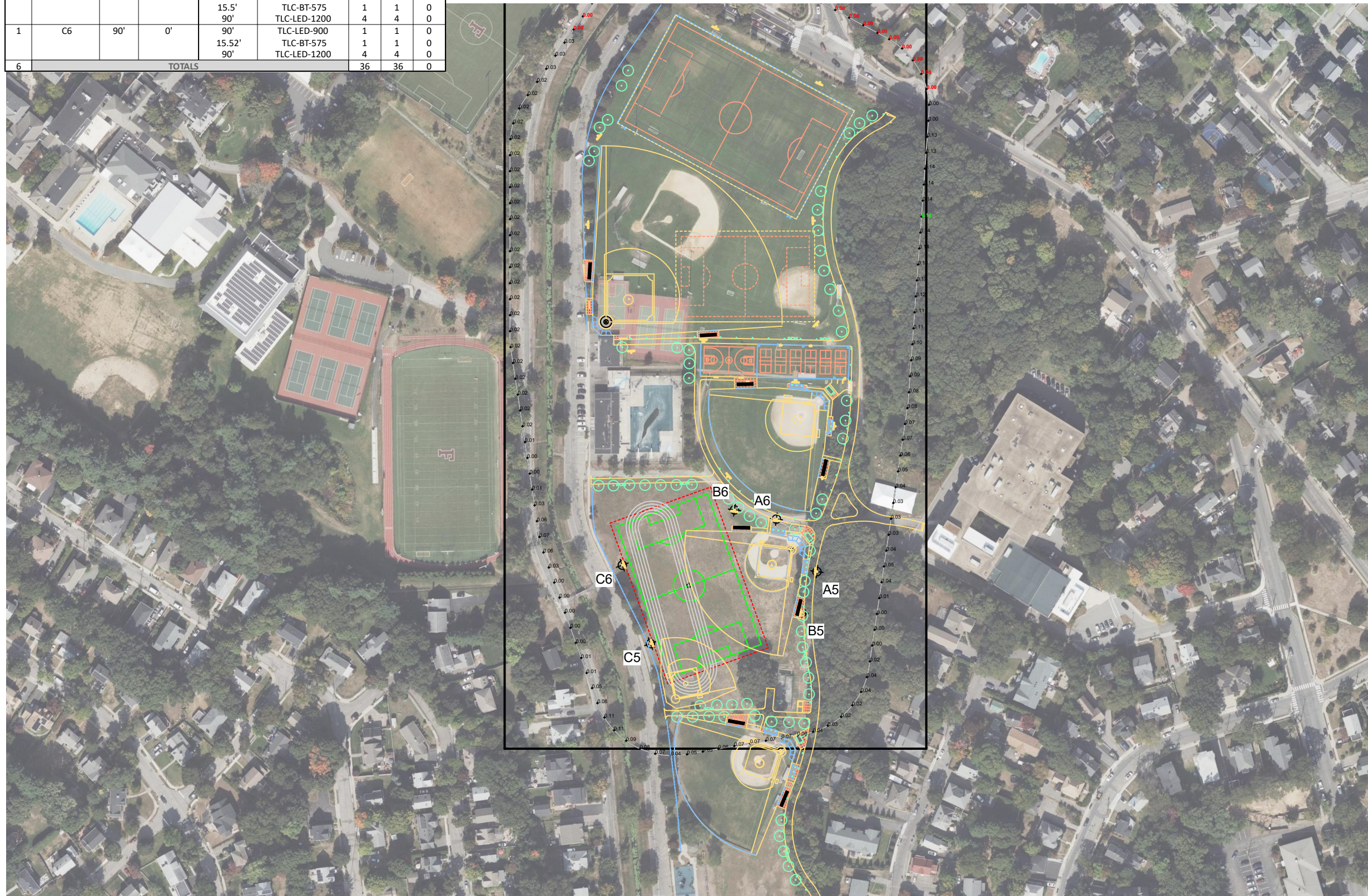
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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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	A5-A6	70'	0'	70'	TLC-LED-600	2	2	0	
				15.52'	TLC-BT-575	1	1	0	
				70'	TLC-LED-900	1	1	0	
2	B5-B6	80'	0'	15.52'	TLC-BT-575	1	1	0	
				80'	TLC-LED-1200	7	7	0	
				90'	TLC-LED-900	1	1	0	
1	C5	90'	0'	15.5'	TLC-LED-900	1	1	0	
				90'	TLC-BT-575	1	1	0	
				90'	TLC-LED-1200	4	4	0	
1	C6	90'	0'	90'	TLC-LED-900	1	1	0	
				15.52'	TLC-BT-575	1	1	0	
				90'	TLC-LED-1200	4	4	0	
6	TOTALS					36	36	0	



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

ENGINEERED DESIGN By: · File #56066994A Phase 2 · 01-Nov-22

Albemarle Park LED Phase 2

Newton, MA

GRID SUMMARY	
Name:	Spill @ 150'
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
MAX VERTICAL FOOTCANDLES	
Scan Average:	Entire Grid 0.0425
Maximum:	0.14
Minimum:	0.00
No. of Points:	129
LUMINAIRE INFORMATION	
Applied Circuits:	A, B, C, D, E
No. of Luminaires:	36
Total Load:	35.07 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.

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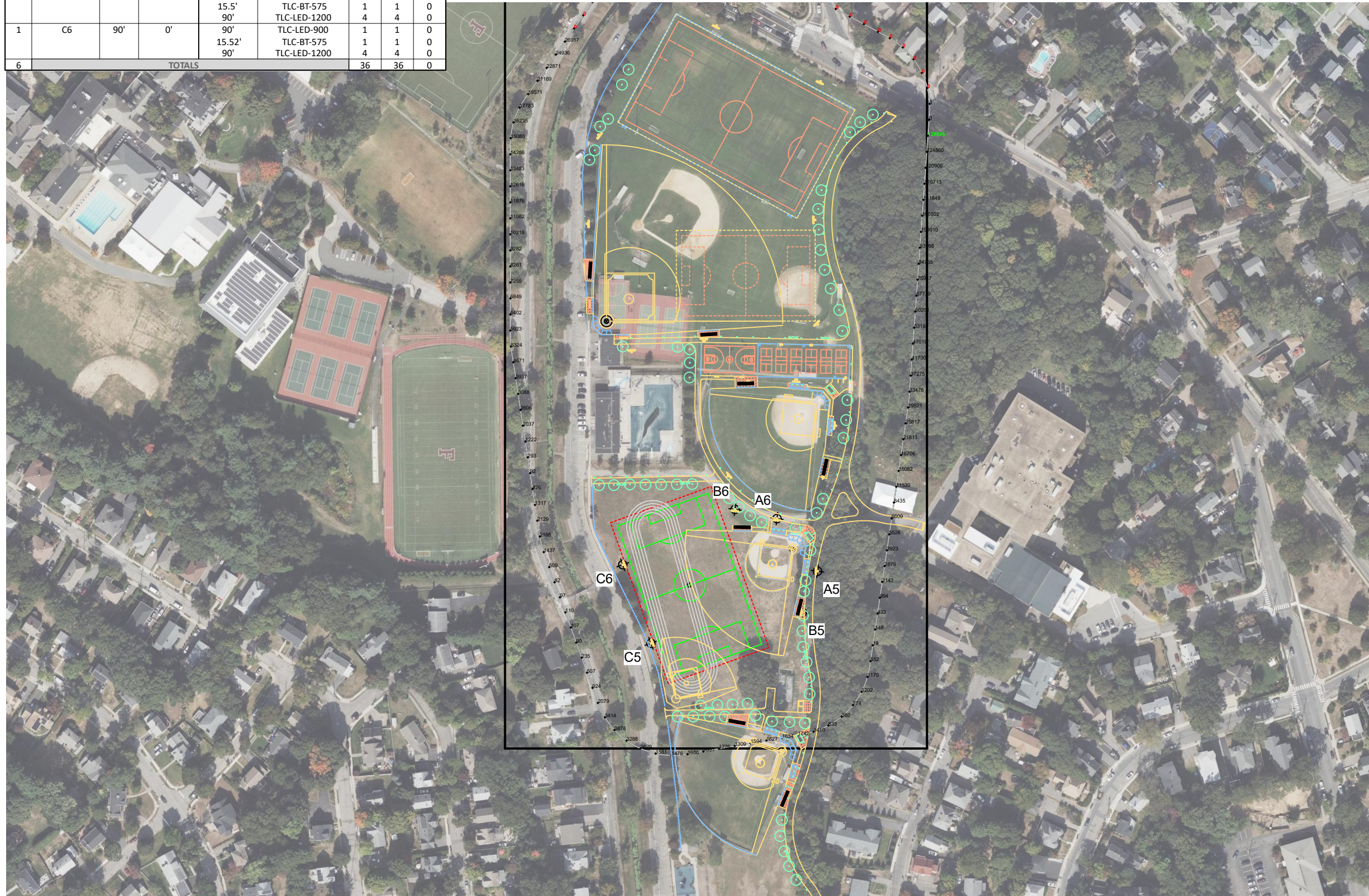


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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
2	A5-A6	70'	0'	70'	TLC-LED-600	2	2	0	
				15.52'	TLC-BT-575	1	1	0	
				70'	TLC-LED-900	1	1	0	
2	B5-B6	80'	0'	15.52'	TLC-BT-575	1	1	0	
				80'	TLC-LED-1200	7	7	0	
				90'	TLC-LED-900	1	1	0	
1	C5	90'	0'	15.5'	TLC-LED-900	1	1	0	
				90'	TLC-BT-575	1	1	0	
				90'	TLC-LED-1200	4	4	0	
1	C6	90'	0'	90'	TLC-LED-900	1	1	0	
				15.52'	TLC-BT-575	1	1	0	
				90'	TLC-LED-1200	4	4	0	
6	TOTALS					36	36	0	



Albemarle Park LED Phase 2

Newton, MA

GRID SUMMARY	
Name:	Spill @ 150' (Cd)
Spacing:	30.0'
Height:	5.0' above grade

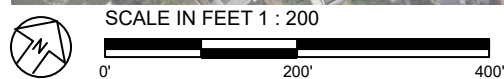
ILLUMINATION SUMMARY	
CANDELA (PER FIXTURE)	
Scan Average:	Entire Grid 14815.3047
Maximum:	128545.30
Minimum:	0.00
No. of Points:	129
LUMINAIRE INFORMATION	
Applied Circuits:	A, B, C, D, E
No. of Luminaires:	36
Total Load:	35.07 kW

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Albemarle Park LED Phase 2

Newton, MA

EQUIPMENT LAYOUT

INCLUDES:

- Soccer 3
- Softball 2
- Zero Grid

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

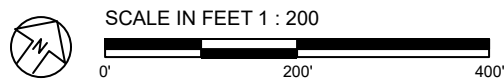
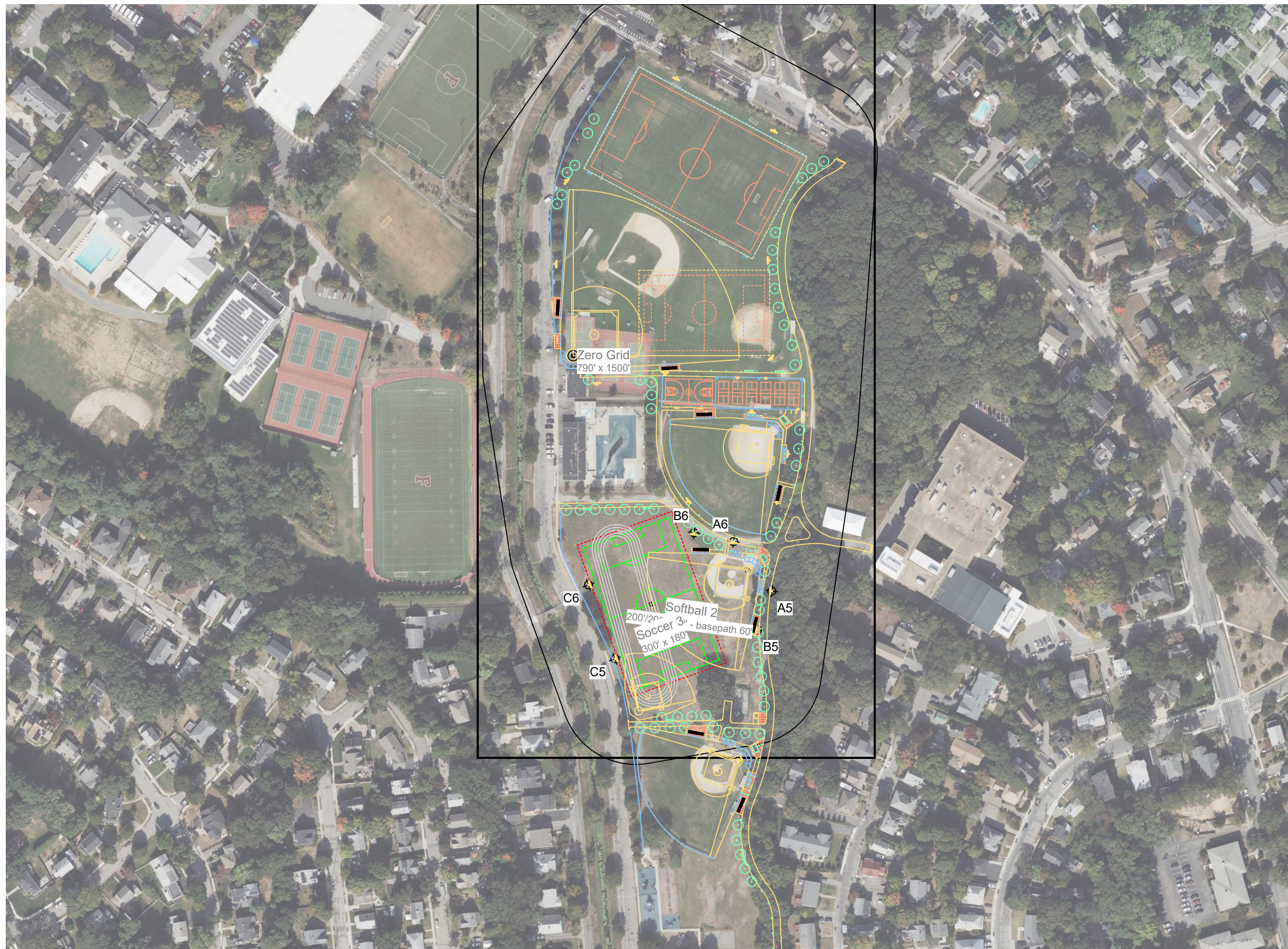
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	Pole		Luminaires		
		SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY/POLE
2	A5-A6	70'	0'	70'	TLC-LED-600	2
				15.5'	TLC-BT-575	1
				70'	TLC-LED-900	1
2	B5-B6	80'	0'	15.5'	TLC-BT-575	1
				80'	TLC-LED-1200	7
1	C5	90'	0'	90'	TLC-LED-900	1
				15.48'	TLC-BT-575	1
				90'	TLC-LED-1200	4
1	C6	90'	0'	90'	TLC-LED-900	1
				15.5'	TLC-BT-575	1
				90'	TLC-LED-1200	4
6	TOTALS					36

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	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	480 (60)
TLC-BT-575	3.4	3.2	2.9	2.5	2.0	1.8
TLC-LED-1200	7.0	6.6	6.1	5.2	4.2	4.0
TLC-LED-900	5.3	5.0	4.6	4.0	3.2	2.9
TLC-LED-600	3.4	3.2	3.0	2.6	2.0	1.9



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

