

Appendix A

Photometric Analysis

Fresno City College Softball

Fresno,CA

Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
A1-A2	60'	60'	3	TLC-LED-900	2.67 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
		40'	1	TLC-RGBW	0.64 kW	B
B1	60'	60'	2	TLC-LED-1200	2.34 kW	A
		60'	3	TLC-LED-900	2.67 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
		50'	1	TLC-LED-600	0.58 kW	A
B2	60'	60'	1	TLC-LED-1200	1.17 kW	A
		60'	4	TLC-LED-900	3.56 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
		50'	1	TLC-LED-900	0.89 kW	A
C1-C2	60'	60'	1	TLC-LED-1200	1.17 kW	A
		60'	2	TLC-LED-1500	2.86 kW	A
		60'	2	TLC-LED-900	1.78 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
6			38		34.05 kW	

Circuit Summary

Circuit	Description	Load	Fixture Qty
A	Softball	32.77 kW	36
B	Egress	1.28 kW	2

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	4
TLC-LED-1200	LED 5700K - 75 CRI	1170W	136,000	>120,000	>120,000	>120,000	5
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>120,000	>120,000	>120,000	18
TLC-RGBW	LED 5700K - 75 CRI	640W	28,500	>120,000	>120,000	>120,000	2
TLC-LED-600	LED 5700K - 75 CRI	580W	65,600	>120,000	>120,000	>120,000	1
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	8

Light Level Summary

Calculation Grid Summary

Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
1st Base Bullpen	Horizontal	34.1	22	41	1.84	1.55	A	36
3rd Base Bullpen	Horizontal	31.2	22	38	1.74	1.42	A	36
Blanket Grid	Horizontal	5.22	0	70	0.00		A,B	38
Bleachers 1st Base	Horizontal	13	2	22	14.25	6.50	B	2
Bleachers	Horizontal	12.3	8	18	2.26	1.54	B	2
E Yale Ave Spill	Horizontal	1.20	0.07	3.26	47.85	17.20	A,B	38
E Yale Ave Spill	Max Candela (by Fixture)	4191	2213	6868	3.10	1.89	A,B	38
E Yale Ave Spill	Max Vertical Illuminance Metric	1.35	0.15	3.32	22.05	9.03	A,B	38
N College Ave Spill	Horizontal	0	0	0	0.00		A,B	38
N College Ave Spill	Max Candela (by Fixture)	1.99	0	11.8	0.00		A,B	38
N College Ave Spill	Max Vertical Illuminance Metric	0	0	0	0.00		A,B	38
Property Blanket Grid	Horizontal	0.05	0	3	0.00		A,B	38
Property Blanket Grid	Perpendicular	0.05	0	3	0.00		A,B	38
Softball (Infield)	Horizontal Illuminance	71.2	57	86	1.51	1.25	A	36
Softball (Outfield)	Horizontal Illuminance	54.2	42	64	1.53	1.29	A	36
Spill	Horizontal	0	0	0.01	0.00		A,B	38
Spill	Max Candela (by Fixture)	185	0	896	0.00		A,B	38
Spill	Max Vertical Illuminance Metric	0.01	0	0.03	0.00		A,B	38

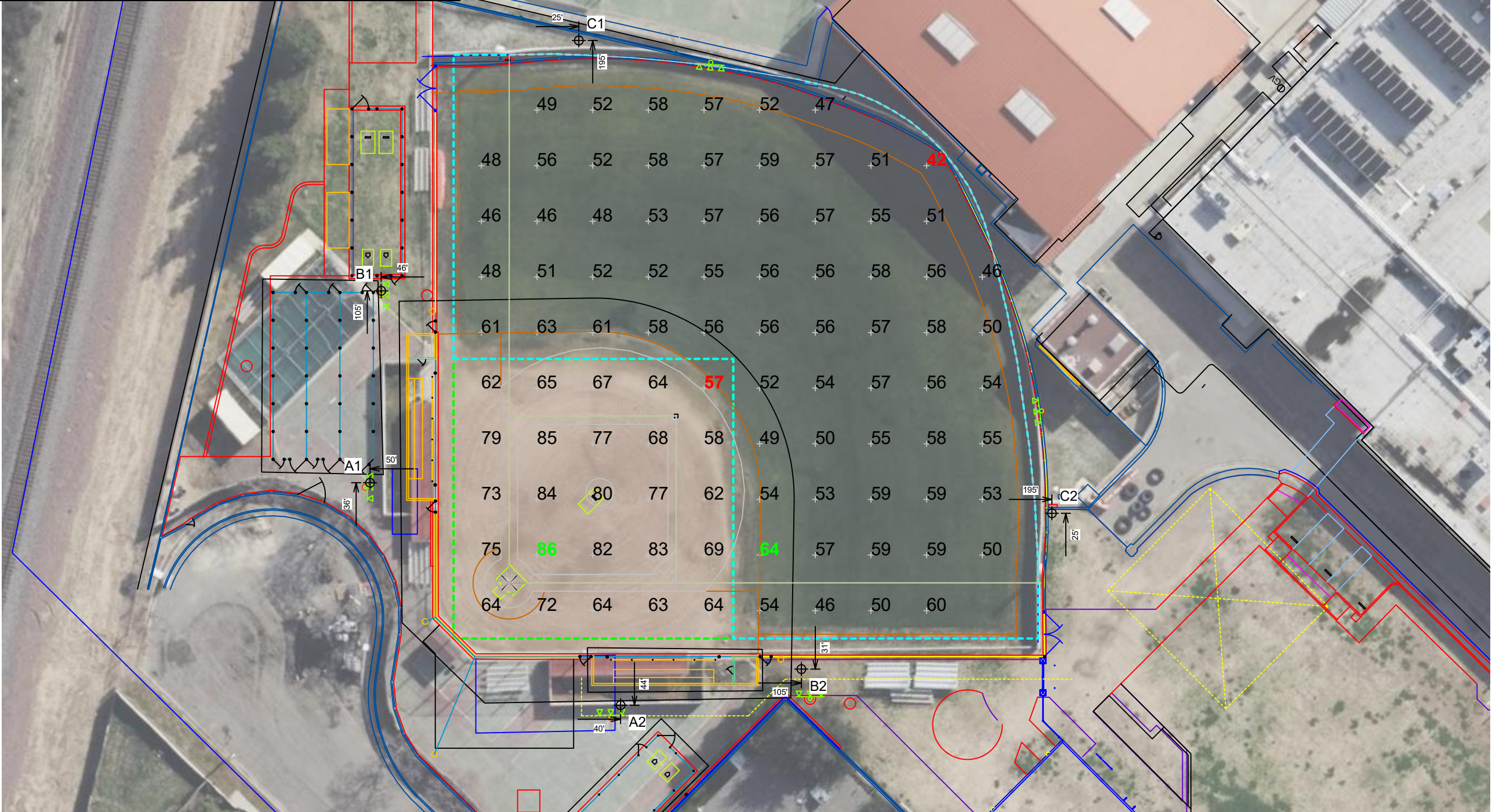
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EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				40'	TLC-RGBW	1	0	1
				60'	TLC-LED-900	3	3	0
1	B1	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-600	1	1	0
				60'	TLC-LED-1200	2	2	0
				60'	TLC-LED-1200	1	1	0
1	B2	60'	-	60'	TLC-LED-1200	1	1	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-900	1	1	0
				60'	TLC-LED-900	4	4	0
2	C1-C2	60'	-	60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1500	2	2	0
6	TOTALS					38	36	2

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				40'	TLC-RGBW	1	0	1
				60'	TLC-LED-900	3	3	0
1	B1	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-600	1	1	0
				60'	TLC-LED-1200	2	2	0
				60'	TLC-LED-1200	1	1	0
1	B2	60'	-	15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-900	1	1	0
				60'	TLC-LED-900	4	4	0
				60'	TLC-LED-1200	1	1	0
2	C1-C2	60'	-	60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1500	2	2	0
6	TOTALS					38	36	2



SCALE IN FEET 1 : 40

A horizontal scale bar with alternating black and white segments. It is marked with '0'', '40'', and '80'' at the ends.

ENGINEERED DESIGN By: Bryce Miles · File #211320E · 20-Jul-22

Fresno, CA

Name:	Softball
Size:	Irregular 190' / 220' / 190'
Spacing:	20.0' x 20.0'
Height:	3.0' above grade

MAINTAINED HORIZONTAL FOOTCANDLES		
	Infield	Outfield
Guaranteed Average:	70	50
Scan Average:	71.22	54.19
Maximum:	86	64
Minimum:	57	42
Avg / Min:	1.25	1.29
Guaranteed Max / Min:	2	2
Max / Min:	1.51	1.53
UG (adjacent pts):	1.31	1.27
CU:	0.64	
No. of Points:	25	68

Applied Circuits:	A
No. of Luminaires:	36
Total Load:	32.77 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 $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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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	A1-A2	60'	-	15.5'	TLC-BT-575	1	0	1
				40'	TLC-RGBW	1	1	0
				60'	TLC-LED-900	3	0	3
2	TOTALS					10	2	8

Fresno City College Softball
Fresno, CA

GRID SUMMARY	
Name:	Bleachers 1st Base
Size:	Irregular 190' / 220' / 190'
Spacing:	10.0' x 10.0'

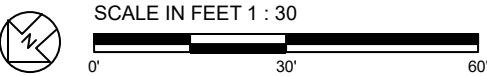
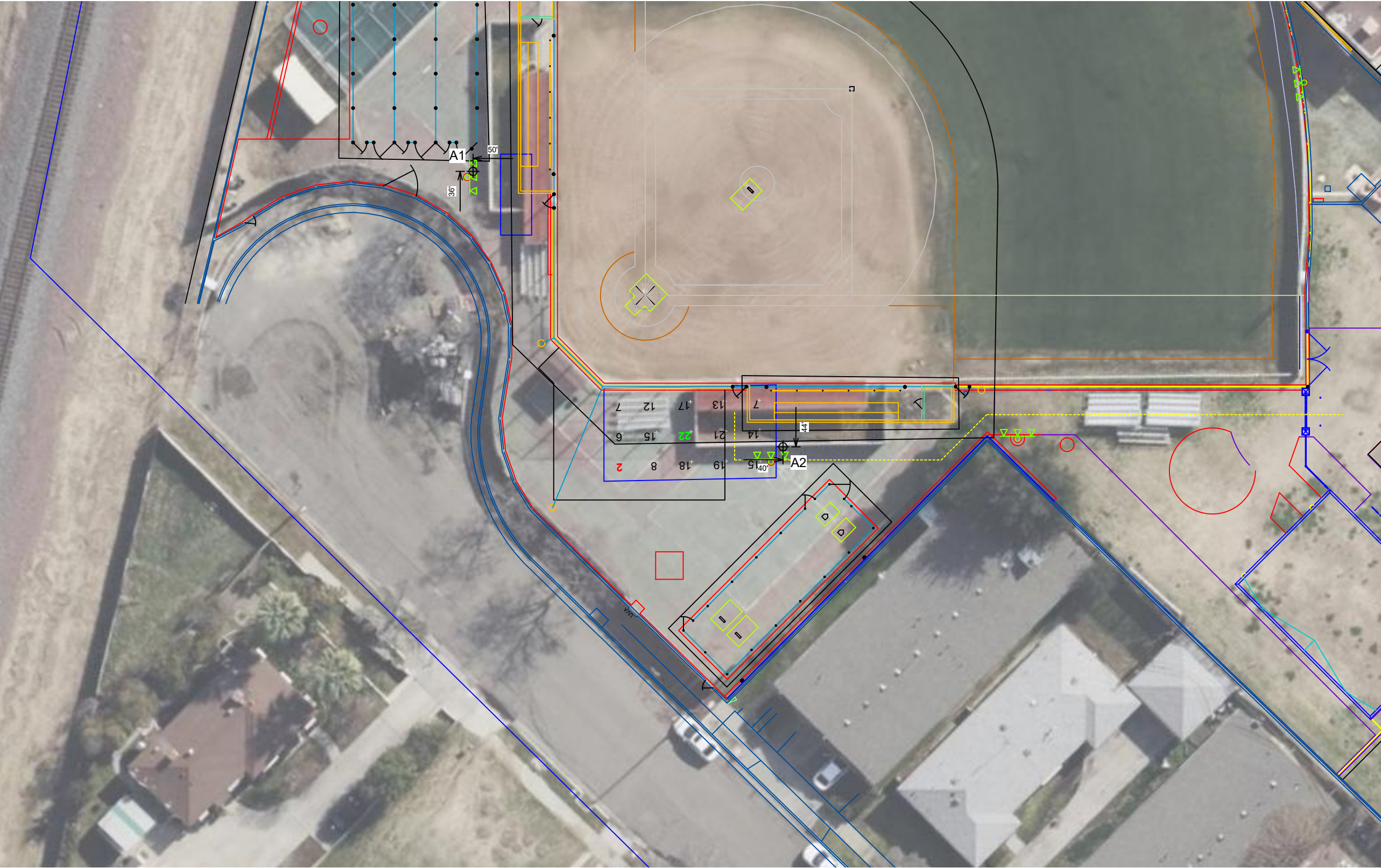
ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average:	12.99
Maximum:	22
Minimum:	2
Avg / Min:	8.55
Max / Min:	14.25
UG (adjacent pts):	5.51
CU:	0.34
No. of Points:	15
LUMINAIRE INFORMATION	
Applied Circuits:	B
No. of Luminaires:	2
Total Load:	1.28 kW

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.



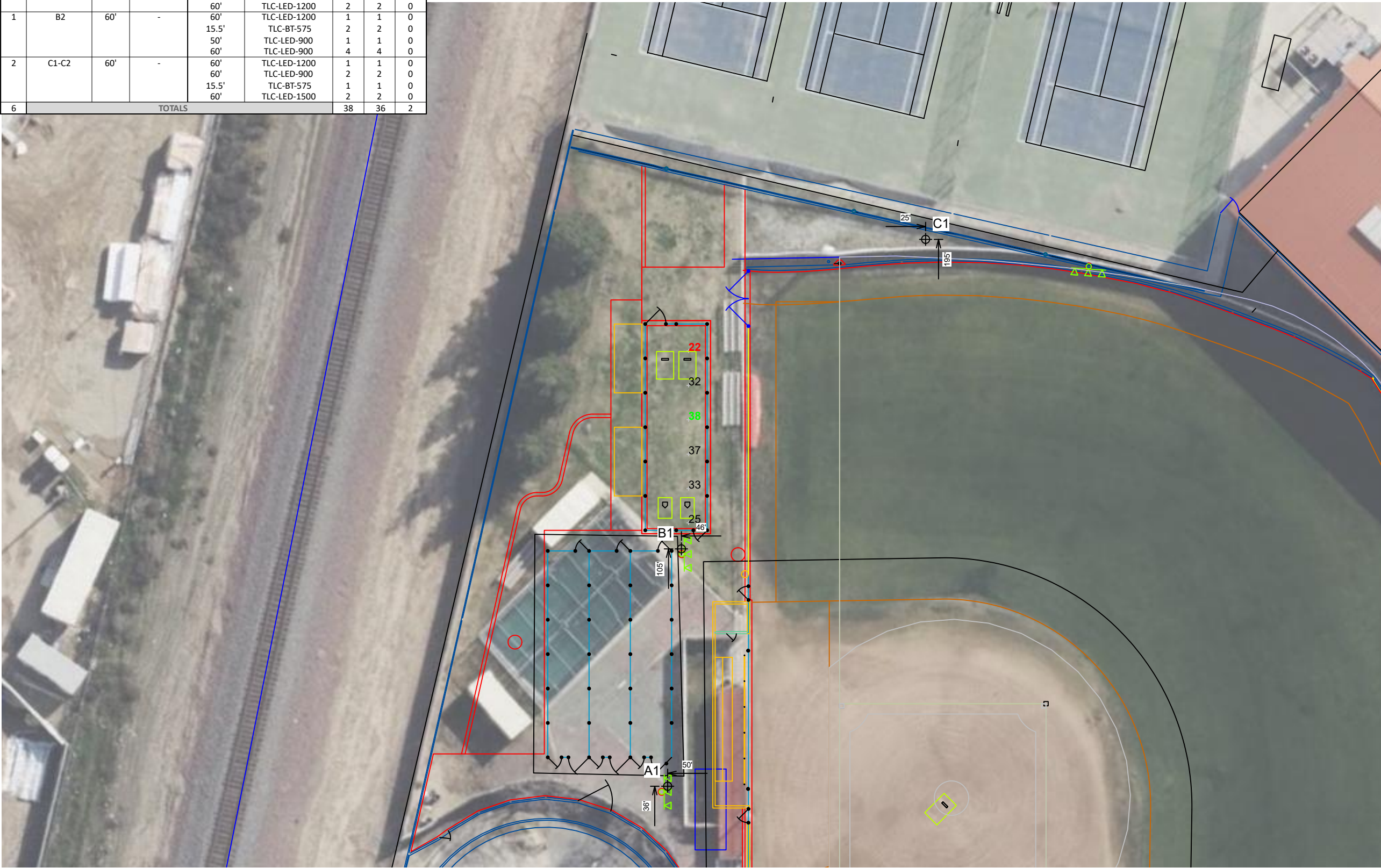
Pole location(s) ⚡ dimensions are relative to 0,0 reference point(s) ⊗



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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	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				40'	TLC-RGBW	1	0	1
				60'	TLC-LED-900	3	3	0
1	B1	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-600	1	1	0
				60'	TLC-LED-1200	2	2	0
1	B2	60'	-	60'	TLC-LED-1200	1	1	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-900	1	1	0
				60'	TLC-LED-900	4	4	0
2	C1-C2	60'	-	60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1500	2	2	0
6	TOTALS					38	36	2



Fresno City College Softball

Fresno, CA

GRID SUMMARY	
Name:	3rd Base Bullpen
Size:	Irregular 190' / 220' / 190'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average:	31.22
Maximum:	38
Minimum:	22
Avg / Min:	1.42
Max / Min:	1.74
UG (adjacent pts):	1.45
CU:	0.01
No. of Points:	6
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	36
Total Load:	32.77 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.

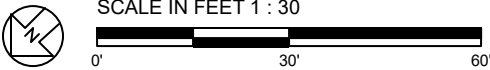
Installation Requirements: Results assume $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY



ENGINEERED DESIGN By: Bryce Miles · File #211320E · 20-Jul-22

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	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				40'	TLC-RGBW	1	0	1
				60'	TLC-LED-900	3	3	0
1	B1	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-600	1	1	0
				60'	TLC-LED-1200	2	2	0
1	B2	60'	-	60'	TLC-LED-1200	1	1	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-900	1	1	0
				60'	TLC-LED-900	4	4	0
2	C1-C2	60'	-	60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1500	2	2	0
6	TOTALS					38	36	2



Fresno City College Softball

Fresno,CA

GRID SUMMARY	
Name:	1st Base Bullpen
Size:	Irregular 190' / 220' / 190'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average:	34.13
Maximum:	41
Minimum:	22
Avg / Min:	1.53
Max / Min:	1.84
UG (adjacent pts):	1.41
CU:	0.01
No. of Points:	6
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	36
Total Load:	32.77 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.

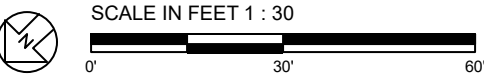
Installation Requirements: Results assume $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY



ENGINEERED DESIGN By: Bryce Miles · File #211320E · 20-Jul-22

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	A1-A2	60'	-	15.5'	TLC-BT-575	1	0	1
				40'	TLC-RGBW	1	1	0
				60'	TLC-LED-900	3	0	3
2	TOTALS					10	2	8

Fresno City College Softball

Fresno, CA

GRID SUMMARY

Name: Bleachers
Size: Irregular 190' / 220' / 190'
Spacing: 10.0' x 10.0'

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Scan Average:	12.34
Maximum:	18
Minimum:	8
Avg / Min:	1.58
Max / Min:	2.26
UG (adjacent pts):	2.26
CU:	0.09
No. of Points:	6

LUMINAIRE INFORMATION

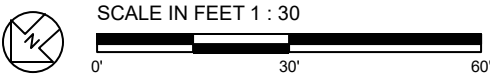
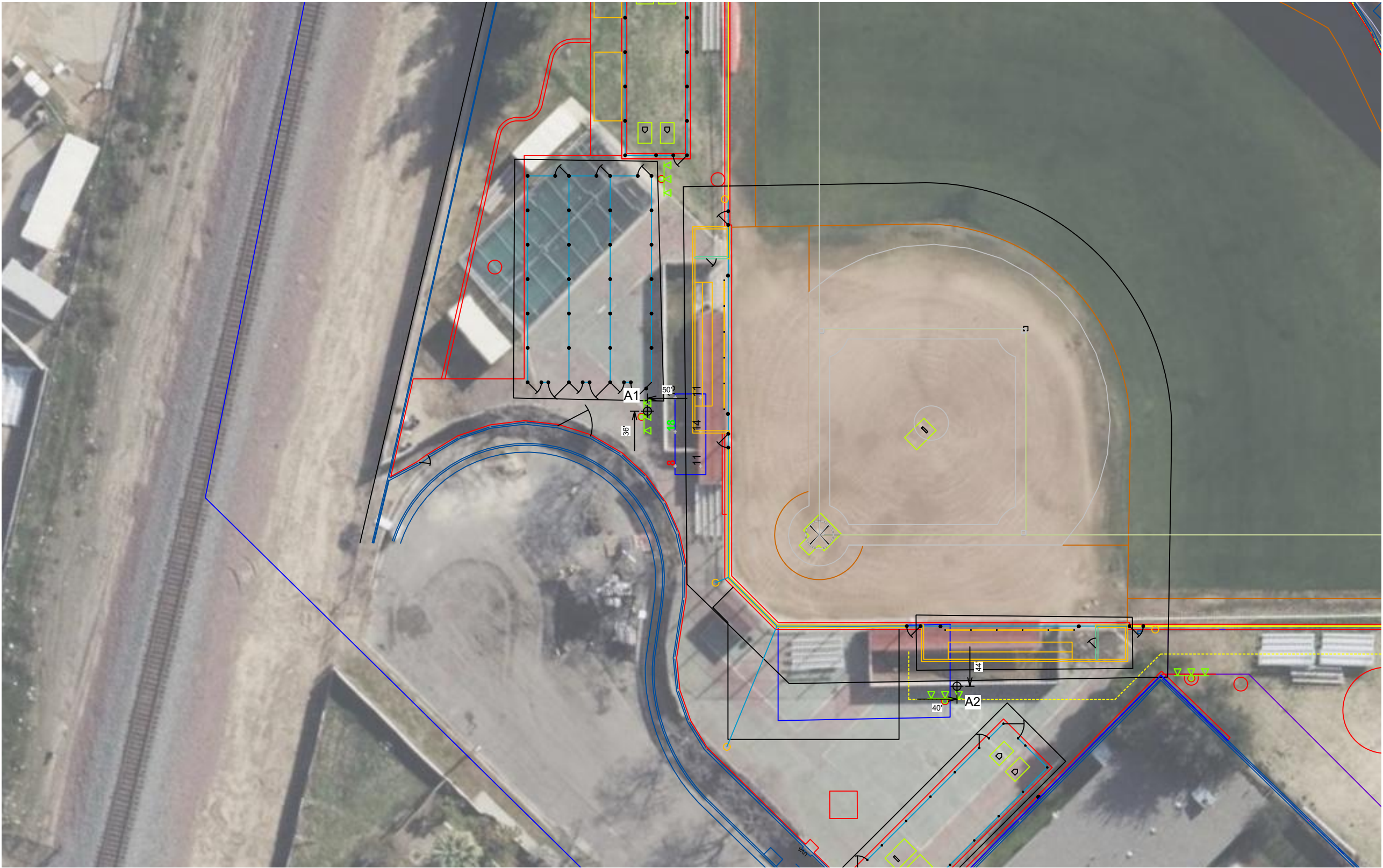
Applied Circuits:	B
No. of Luminaires:	2
Total Load:	1.28 kW

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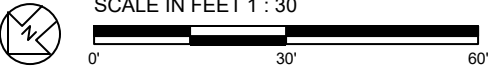
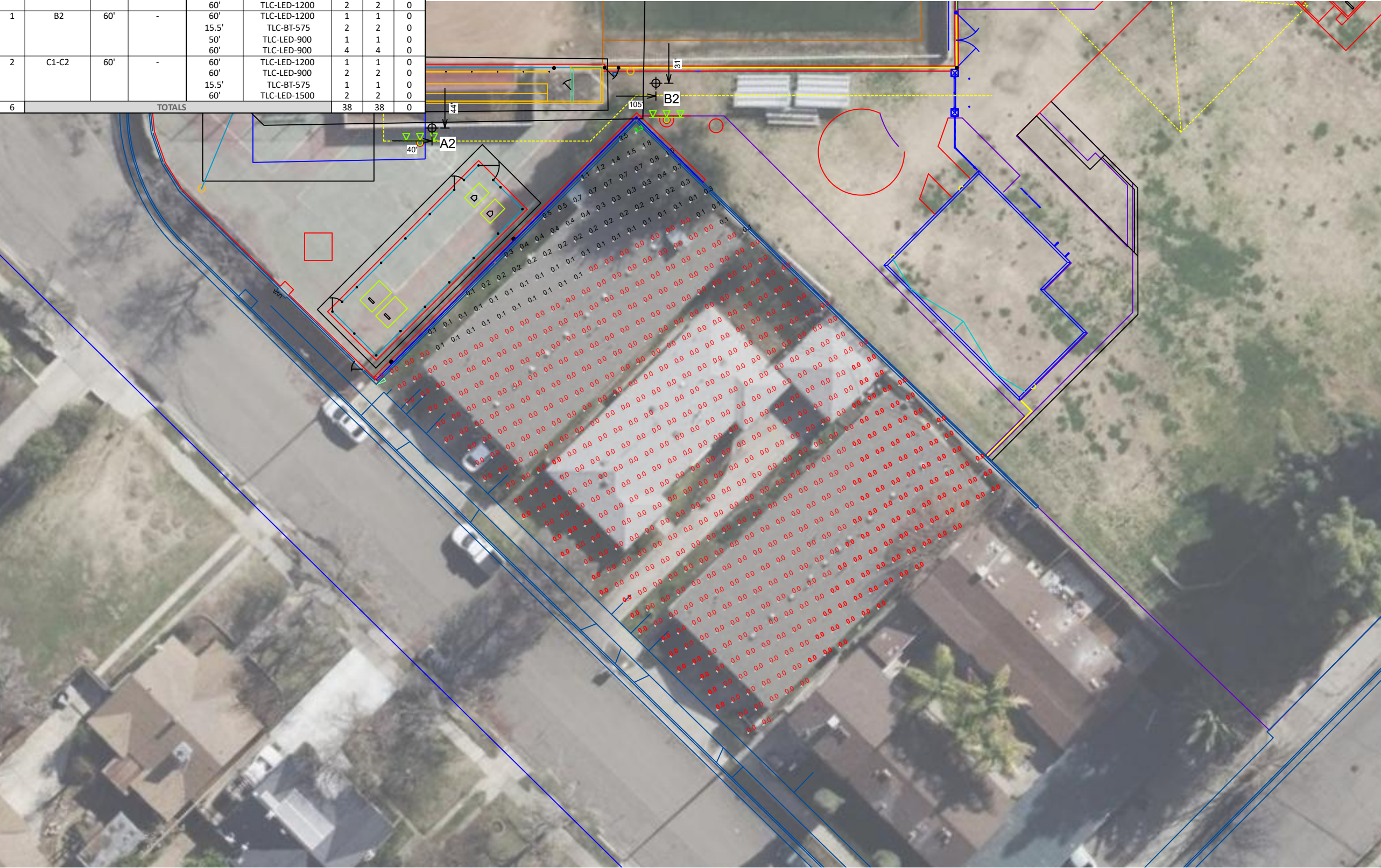
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				40'	TLC-RGBW	1	1	0
				60'	TLC-LED-900	3	3	0
1	B1	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-600	1	1	0
				60'	TLC-LED-1200	2	2	0
1	B2	60'	-	60'	TLC-LED-1200	1	1	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-900	1	1	0
				60'	TLC-LED-900	4	4	0
2	C1-C2	60'	-	60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1500	2	2	0
6	TOTALS					38	38	0



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

Fresno City College Softball

Fresno,CA

GRID SUMMARY	
Name:	Property Blanket Grid
Size:	Irregular 190' / 220' / 190'
Spacing:	5.0' x 5.0'
Height:	8.0' above grade

ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
	Entire Grid
Scan Average:	0.05
Maximum:	3
Minimum:	0
Avg / Min:	-
Max / Min:	-
UG (adjacent pts):	81.42
CU:	0.00
No. of Points:	638
LUMINAIRE INFORMATION	
Applied Circuits:	A, B
No. of Luminaires:	38
Total Load:	34.05 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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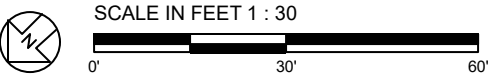
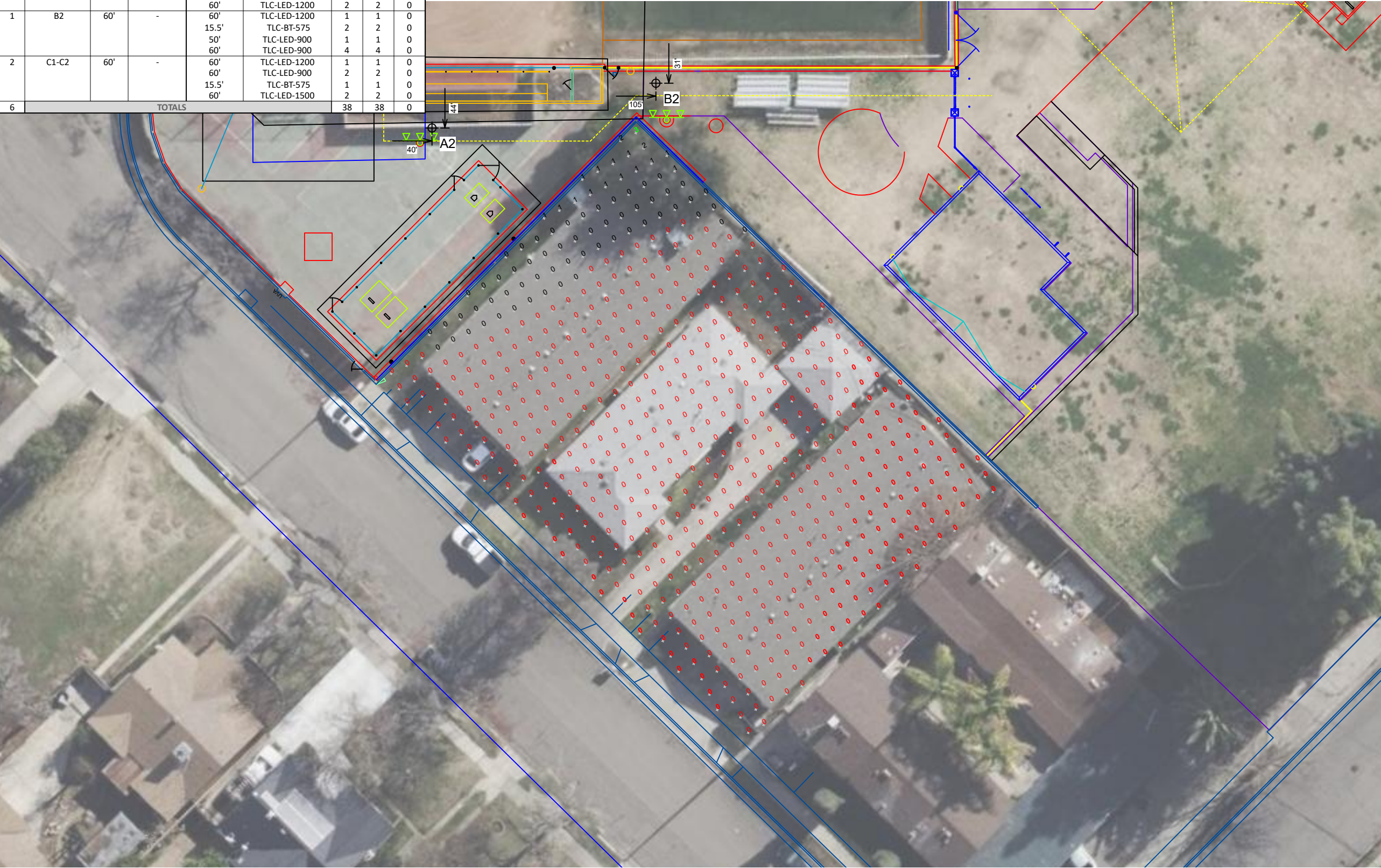


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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				40'	TLC-RGBW	1	1	0
				60'	TLC-LED-900	3	3	0
1	B1	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-600	1	1	0
				60'	TLC-LED-1200	2	2	0
1	B2	60'	-	60'	TLC-LED-1200	1	1	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-900	1	1	0
				60'	TLC-LED-900	4	4	0
2	C1-C2	60'	-	60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1500	2	2	0
6	TOTALS					38	38	0



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

Fresno City College Softball

Fresno,CA

GRID SUMMARY

Name: Property Blanket Grid
Size: Irregular 190' / 220' / 190'
Spacing: 5.0' x 5.0'
Height: 8.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

Entire Grid

Scan Average: 0.05

Maximum: 3

Minimum: 0

Avg / Min: -

Max / Min: -

UG (adjacent pts): 81.42

CU: 0.00

No. of Points: 638

LUMINAIRE INFORMATION

Applied Circuits: A, B

No. of Luminaires: 38

Total Load: 34.05 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 $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

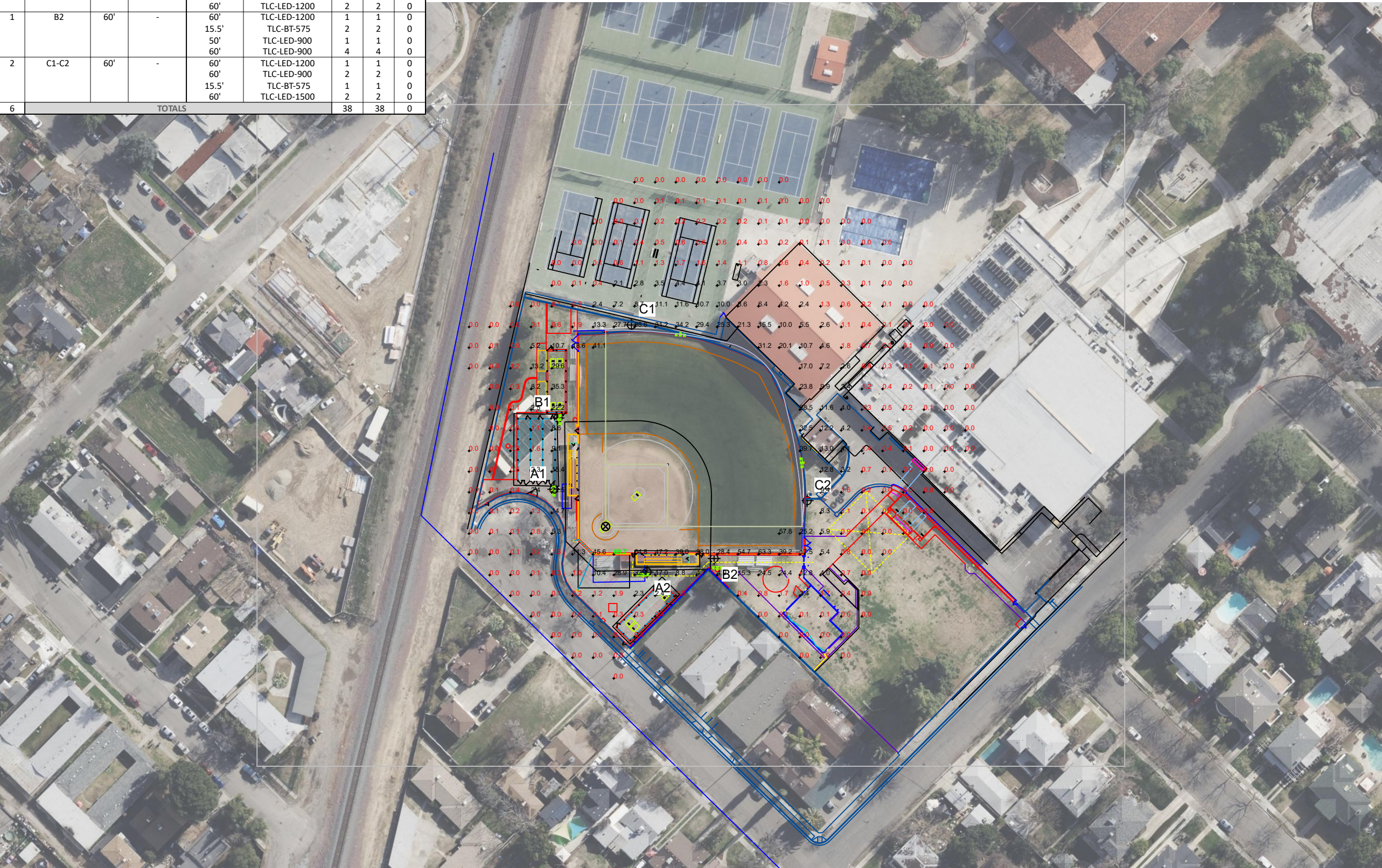


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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				40'	TLC-RGBW	1	1	0
				60'	TLC-LED-900	3	3	0
1	B1	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-600	1	1	0
				60'	TLC-LED-1200	2	2	0
1	B2	60'	-	60'	TLC-LED-1200	1	1	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-900	1	1	0
				60'	TLC-LED-900	4	4	0
2	C1-C2	60'	-	60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1500	2	2	0
6	TOTALS					38	38	0



Fresno City College Softball

Fresno,CA

GRID SUMMARY

Name: Blanket Grid
Spacing: 20.0' x 20.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

Entire Grid
Scan Average: 5.22
Maximum: 70
Minimum: 0
Avg / Min: -
Max / Min: -
UG (adjacent pts): 919.74
CU: 0.18
No. of Points: 346

LUMINAIRE INFORMATION

Applied Circuits: A, B
No. of Luminaires: 38
Total Load: 34.05 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 $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

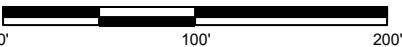


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ILLUMINATION SUMMARY



SCALE IN FEET 1 : 100



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	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				40'	TLC-RGBW	1	1	0
				60'	TLC-LED-900	3	3	0
1	B1	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-600	1	1	0
				60'	TLC-LED-1200	2	2	0
				60'	TLC-LED-1200	1	1	0
1	B2	60'	-	60'	TLC-LED-1200	1	1	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-900	1	1	0
				60'	TLC-LED-900	4	4	0
2	C1-C2	60'	-	60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1500	2	2	0
6	TOTALS					38	38	0



A horizontal bar representing a bridge, divided into three sections. The left section is black, the middle section is white, and the right section is black. The total length is 240 feet, with the middle white section being 120 feet long. The segments are labeled 0', 120', and 240'.

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

Fresno, CA

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

HORIZONTAL FOOTCANDLES

Entire Grid	
Scan Average:	0.0019
Maximum:	0.01
Minimum:	0.00
No. of Points:	28

LUMINAIRE INFORMATION

Applied Circuits:	A, B
No. of Luminaires:	38
Total Load:	34.05 kW

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

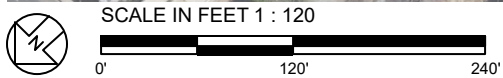


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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				40'	TLC-RGBW	1	1	0
				60'	TLC-LED-900	3	3	0
1	B1	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-600	1	1	0
				60'	TLC-LED-1200	2	2	0
1	B2	60'	-	60'	TLC-LED-1200	1	1	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-900	1	1	0
				60'	TLC-LED-900	4	4	0
2	C1-C2	60'	-	60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1500	2	2	0
6	TOTALS					38	38	0



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

Fresno, CA

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

MAX VERTICAL FOOTCANDLES	
Scan Average:	Entire Grid 0.0060
Maximum:	0.03
Minimum:	0.00
No. of Points:	28
LUMINAIRE INFORMATION	
Applied Circuits:	A, B
No. of Luminaires:	38
Total Load:	34.05 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.

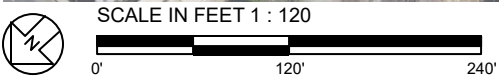
Installation Requirements: Results assume $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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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	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				40'	TLC-RGBW	1	1	0
				60'	TLC-LED-900	3	3	0
1	B1	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-600	1	1	0
				60'	TLC-LED-1200	2	2	0
1	B2	60'	-	60'	TLC-LED-1200	1	1	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-900	1	1	0
				60'	TLC-LED-900	4	4	0
2	C1-C2	60'	-	60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1500	2	2	0
6	TOTALS					38	38	0



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Fresno City College Softball

Fresno, CA

GRID SUMMARY

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

ILLUMINATION SUMMARY

CANDELA (PER FIXTURE)

Entire Grid
Scan Average: 185.3279
Maximum: 896.45
Minimum: 0.00
No. of Points: 28

LUMINAIRE INFORMATION

Applied Circuits: A, B
No. of Luminaires: 38
Total Load: 34.05 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 $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



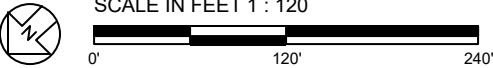
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ILLUMINATION SUMMARY

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	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				40'	TLC-RGBW	1	1	0
				60'	TLC-LED-900	3	3	0
1	B1	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-600	1	1	0
				60'	TLC-LED-1200	2	2	0
1	B2	60'	-	60'	TLC-LED-1200	1	1	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-900	1	1	0
				60'	TLC-LED-900	4	4	0
2	C1-C2	60'	-	60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-1500	2	2	0
6	TOTALS					38	38	0



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Fresno City College Softball

Fresno, CA

GRID SUMMARY	
Name:	E Yale Ave Spill
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
HORIZONTAL FOOTCANDLES	
Scan Average:	Entire Grid 1.2038
Maximum:	3.26
Minimum:	0.07
No. of Points:	6
LUMINAIRE INFORMATION	
Applied Circuits:	A, B
No. of Luminaires:	38
Total Load:	34.05 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 $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



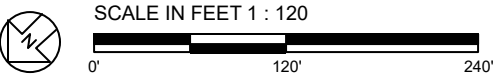
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ILLUMINATION SUMMARY

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	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				40'	TLC-RGBW	1	1	0
				60'	TLC-LED-900	3	3	0
1	B1	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-600	1	1	0
1	B2	60'	-	60'	TLC-LED-1200	2	2	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-900	1	1	0
2	C1-C2	60'	-	60'	TLC-LED-900	4	4	0
				60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
2	C1-C2	60'	-	60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
				15.5'	TLC-BT-575	1	1	0
6	TOTALS			60'	TLC-LED-1500	2	2	0
						38	38	0



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Fresno City College Softball

Fresno, CA

GRID SUMMARY	
Name:	E Yale Ave Spill
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
MAX VERTICAL FOOTCANDLES	
Scan Average:	Entire Grid 1.3545
Maximum:	3.32
Minimum:	0.15
No. of Points:	6
LUMINAIRE INFORMATION	
Applied Circuits:	A, B
No. of Luminaires:	38
Total Load:	34.05 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 $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



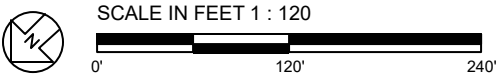
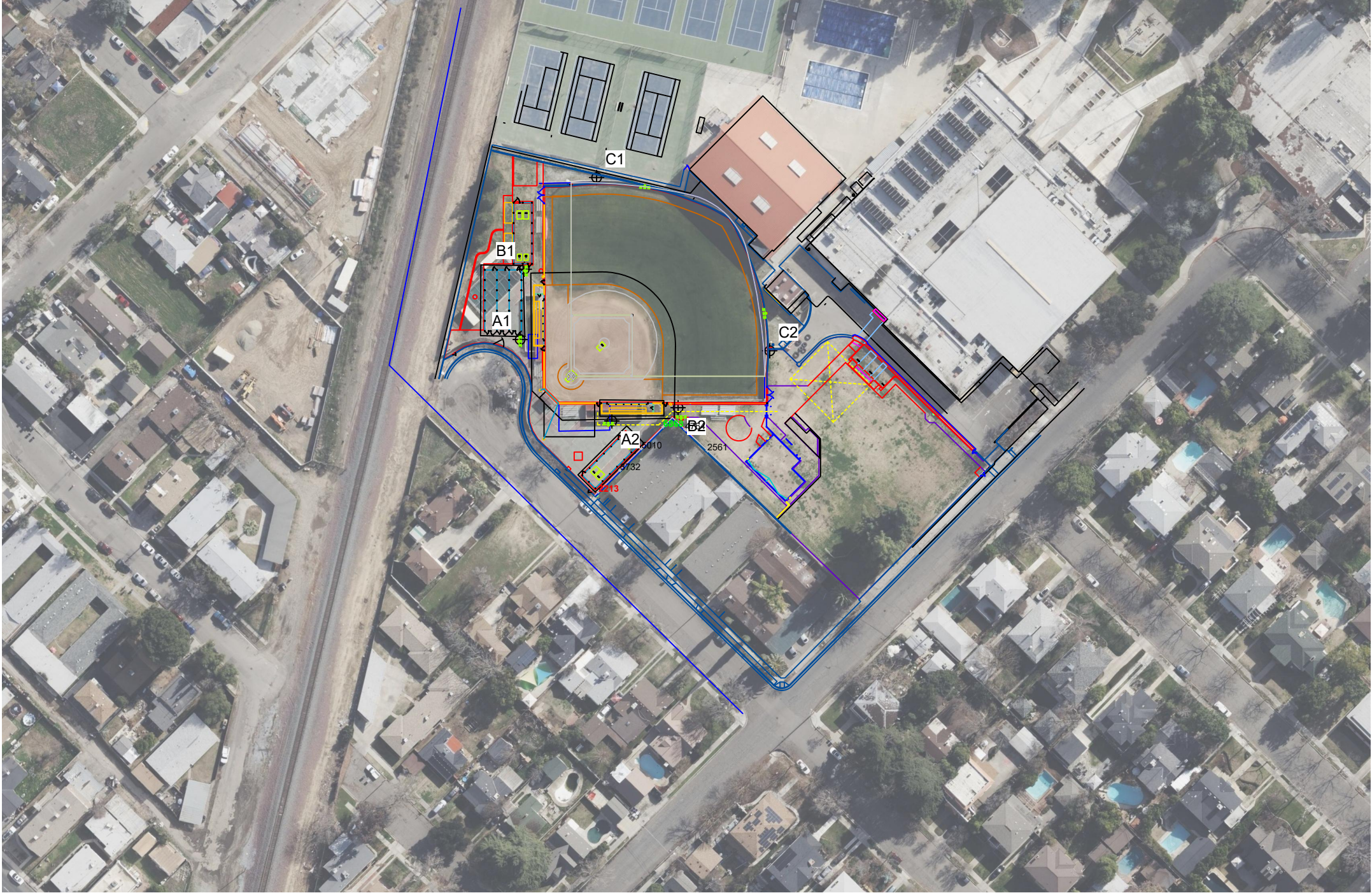
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ILLUMINATION SUMMARY

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	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				40'	TLC-RGBW	1	1	0
				60'	TLC-LED-900	3	3	0
1	B1	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-600	1	1	0
1	B2	60'	-	60'	TLC-LED-1200	2	2	0
				15.5'	TLC-BT-575	1	1	0
				50'	TLC-LED-900	1	1	0
2	C1-C2	60'	-	60'	TLC-LED-900	4	4	0
				60'	TLC-LED-900	1	1	0
				15.5'	TLC-BT-575	1	1	0
6	TOTALS			60'	TLC-LED-1200	2	2	0
				60'	TLC-LED-900	2	2	0



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Fresno City College Softball

Fresno, CA

GRID SUMMARY

Name: E Yale Ave Spill
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY

CANDELA (PER FIXTURE)

Entire Grid
Scan Average: 4191.2485
Maximum: 6867.86
Minimum: 2213.08
No. of Points: 6

LUMINAIRE INFORMATION

Applied Circuits: A, B
No. of Luminaires: 38
Total Load: 34.05 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 $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



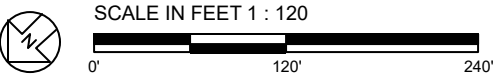
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ILLUMINATION SUMMARY

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	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				40'	TLC-RGBW	1	1	0
				60'	TLC-LED-900	3	3	0
1	B1	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-600	1	1	0
1	B2	60'	-	60'	TLC-LED-1200	2	2	0
				15.5'	TLC-BT-575	1	1	0
				50'	TLC-LED-900	1	1	0
2	C1-C2	60'	-	60'	TLC-LED-900	4	4	0
				60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
2	C1-C2	60'	-	60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
				15.5'	TLC-BT-575	1	1	0
6	TOTALS			60'	TLC-LED-1500	2	2	0
						38	38	0



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Fresno City College Softball

Fresno, CA

GRID SUMMARY

Name: N College Ave 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: 22

LUMINAIRE INFORMATION

Applied Circuits: A, B
No. of Luminaires: 38
Total Load: 34.05 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 $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



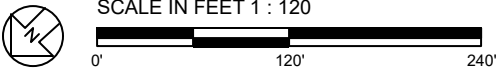
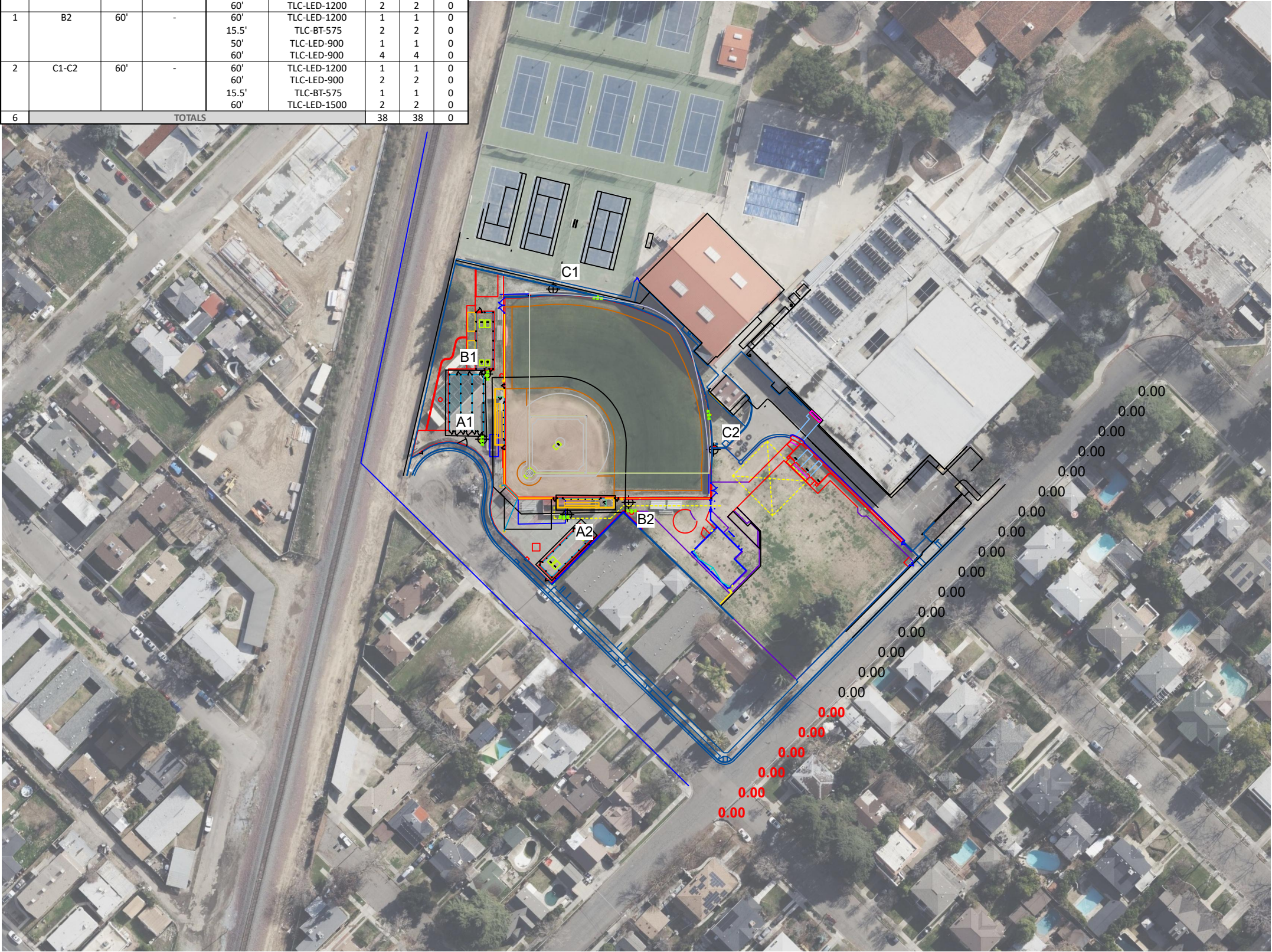
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ILLUMINATION SUMMARY

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	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				40'	TLC-RGBW	1	1	0
				60'	TLC-LED-900	3	3	0
1	B1	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-600	1	1	0
1	B2	60'	-	60'	TLC-LED-1200	2	2	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-900	1	1	0
2	C1-C2	60'	-	60'	TLC-LED-900	4	4	0
				60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
2	C1-C2	60'	-	60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
				15.5'	TLC-BT-575	1	1	0
6	TOTALS			60'	TLC-LED-1500	2	2	0
						38	38	0



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Fresno City College Softball

Fresno, CA

GRID SUMMARY

Name: N College Ave 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: 22

LUMINAIRE INFORMATION

Applied Circuits: A, B
No. of Luminaires: 38
Total Load: 34.05 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) ⊗

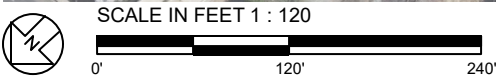


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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A1-A2	60'	-	15.5'	TLC-BT-575	1	1	0
				40'	TLC-RGBW	1	1	0
				60'	TLC-LED-900	3	3	0
1	B1	60'	-	60'	TLC-LED-900	3	3	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-600	1	1	0
1	B2	60'	-	60'	TLC-LED-1200	2	2	0
				15.5'	TLC-BT-575	2	2	0
				50'	TLC-LED-900	1	1	0
2	C1-C2	60'	-	60'	TLC-LED-900	4	4	0
				60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
2	C1-C2	60'	-	60'	TLC-LED-1200	1	1	0
				60'	TLC-LED-900	2	2	0
				15.5'	TLC-BT-575	1	1	0
6	TOTALS			60'	TLC-LED-1500	2	2	0
						38	38	0



ENGINEERED DESIGN By: Bryce Miles · File #211320E · 20-Jul-22

Fresno City College Softball

Fresno, CA

GRID SUMMARY	
Name:	N College Ave Spill
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
CANDELA (PER FIXTURE)	
Scan Average:	Entire Grid 1.9870
Maximum:	11.82
Minimum:	0.00
No. of Points:	22
LUMINAIRE INFORMATION	
Applied Circuits:	A, B
No. of Luminaires:	38
Total Load:	34.05 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 $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY

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



Fresno City College Softball

Fresno, CA

EQUIPMENT LAYOUT

INCLUDES:

· Softball

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

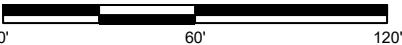
Pole				Luminaires		
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE
2	A1-A2	60'	-	15.5'	TLC-BT-575	1
				40'	TLC-RGBW	1
				60'	TLC-LED-900	3
1	B1	60'	-	60'	TLC-LED-900	3
				15.5'	TLC-BT-575	2
				50'	TLC-LED-600	1
1	B2	60'	-	60'	TLC-LED-1200	2
				15.5'	TLC-BT-575	1
				50'	TLC-LED-900	1
2	C1-C2	60'	-	60'	TLC-LED-900	4
				60'	TLC-LED-1200	1
				15.5'	TLC-LED-900	2
				15.5'	TLC-BT-575	2
				60'	TLC-LED-1500	1
6	TOTALS					38

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-LED-1200	7.0	6.6	6.1	5.2	4.2	4.0	3.0
TLC-LED-900	5.3	5.0	4.6	4.0	3.2	2.9	2.3
TLC-RGBW	4.5	4.3	3.8	3.3	2.7	-	1.9
TLC-LED-600	3.4	3.2	3.0	2.6	2.0	1.9	1.5
TLC-BT-575	3.4	3.2	2.9	2.5	2.0	1.8	1.5



SCALE IN FEET 1 : 60



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



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EQUIPMENT LAYOUT