

Spaulding Univ Soccer/Softball

Louisville, KY

Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Group
A1	70'	70'	4	TLC-LED-1150	4.60 kW	C
		70'	6	TLC-LED-1150	6.90 kW	B
A2	70'	70'	4	TLC-LED-1150	4.60 kW	C
B1	70'	70'	6	TLC-LED-1150	6.90 kW	C
		70'	7	TLC-LED-1150	8.05 kW	B
		25'	1	TLC-LED-1150	1.15 kW	C
B2, C1	70'	70'	6	TLC-LED-1150	6.90 kW	C
		25'	1	TLC-LED-1150	1.15 kW	C
S1, S3	70'	70'	7	TLC-LED-1150	8.05 kW	A
S2	70'	70'	6	TLC-LED-1150	6.90 kW	A
S4, S6	70'	70'	7	TLC-LED-1150	8.05 kW	A
		70'	7	TLC-LED-1150	8.05 kW	B
S5	70'	70'	6	TLC-LED-1150	6.90 kW	A
		70'	6	TLC-LED-1150	6.90 kW	B
S7	70'	70'	7	TLC-LED-1150	8.05 kW	B
12			109		125.35 kW	

Group Summary				
Group	Description	Avg Load	Max Load	Fixture Qty
A	Soccer 1	46.0 kW	46.0 kW	40
B	Soccer 2	46.0 kW	46.0 kW	40
C	Softball	33.35 kW	33.35 kW	29

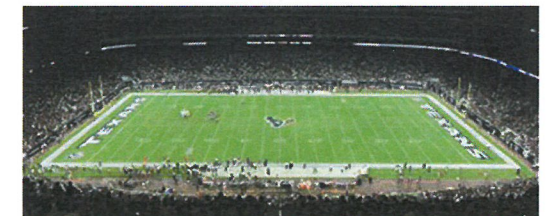
Fixture Type Summary							
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1150	LED 5700K - 75 CRI	1150W	121,000	>51,000	>51,000	>51,000	109

Light Level Summary

Calculation Grid Summary							
Grid Name	Calculation Metric	Illumination				Groups	Fixture Qty
		Ave	Min	Max	Max/Min		
Soccer 1	Horizontal Illuminance	50.8	37.6	58.4	1.55	A	40
Soccer 2	Horizontal Illuminance	50.5	38.4	59.2	1.54	B	40
Softball (Infield)	Horizontal Illuminance	71.6	60.3	84.3	1.40	C	29
Softball (Outfield)	Horizontal Illuminance	52.4	38.9	65.9	1.69	C	29
Spill/Glare - Prop Line	Horizontal Illuminance	2.97	0	15.4	0.00	A,B,C	109
Spill/Glare - Prop Line	Max Candela (by Fixture)	57647	0	286503	0.00	A,B,C	109
Spill/Glare - Prop Line	Max Vertical Illuminance Metric	4.17	0	19.8	0.00	A,B,C	109
Spill/Glare - Roadway	Horizontal Illuminance	0.01	0	0.08	0.00	A,B,C	109
Spill/Glare - Roadway	Max Candela (by Fixture)	1772	0	9686	0.00	A,B,C	109
Spill/Glare - Roadway	Max Vertical Illuminance Metric	0.03	0	0.25	0.00	A,B,C	109

RECEIVED
MAR 2017
PLANNING &
DESIGN SERVICES

From Hometown to Professional

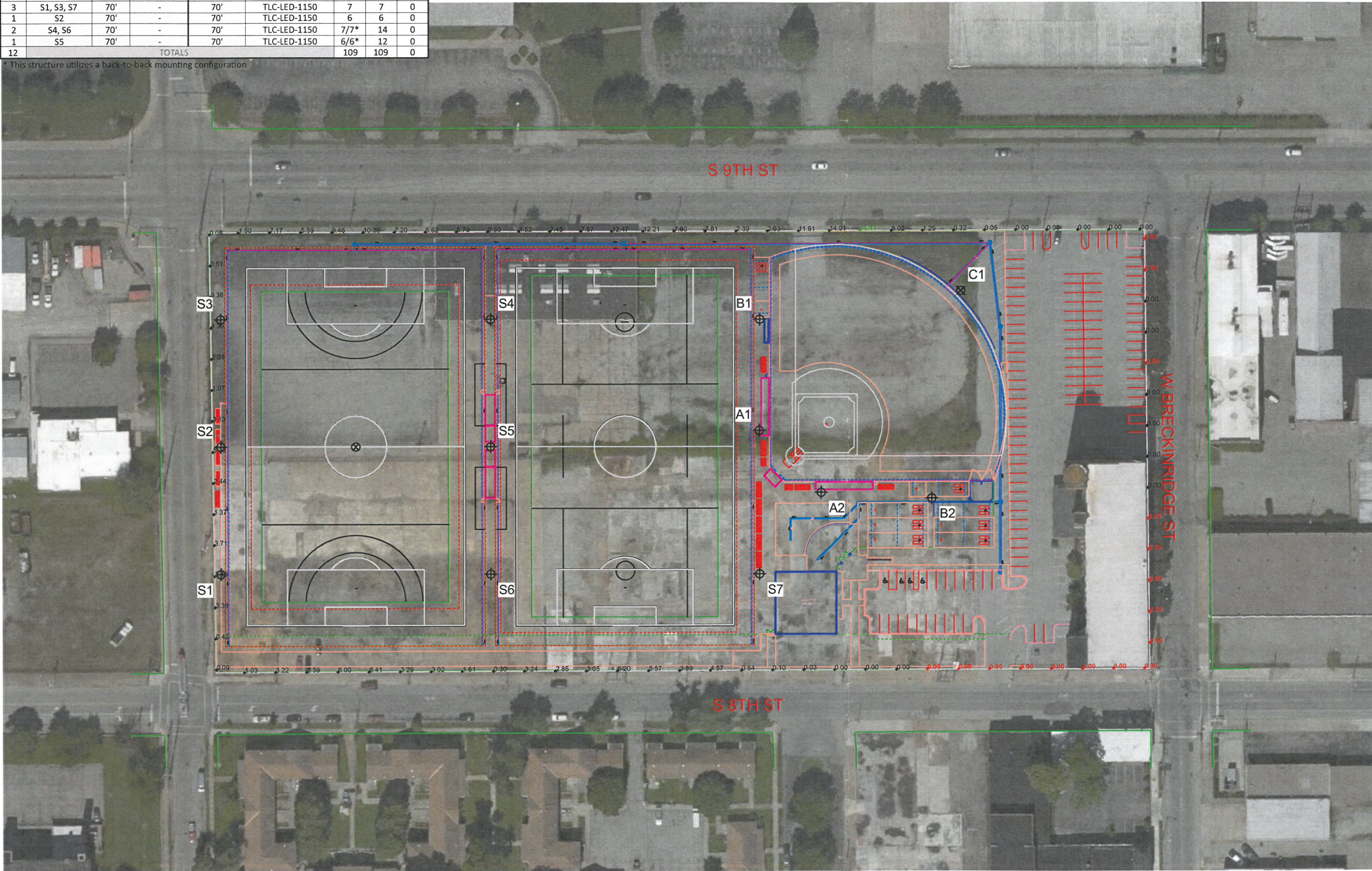


We Make It Happen.

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2017 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	A1	70'	-	70'	TLC-LED-1150	4/6*	10	0	
1	A2	70'	-	70'	TLC-LED-1150	4	4	0	
1	B1	70'	-	25'	TLC-LED-1150	1	1	0	
				70'	TLC-LED-1150	6/7*	13	0	
2	B2, C1	70'	-	25'	TLC-LED-1150	1	1	0	
				70'	TLC-LED-1150	6	6	0	
3	S1, S3, S7	70'	-	70'	TLC-LED-1150	7	7	0	
1	S2	70'	-	70'	TLC-LED-1150	6	6	0	
2	S4, S6	70'	-	70'	TLC-LED-1150	7/7*	14	0	
1	S5	70'	-	70'	TLC-LED-1150	6/6*	12	0	
12	TOTALS						109	109	0

* This structure utilizes a back-to-back mounting configuration



Spaulding Univ Soccer/Softball

Louisville, KY

GRID SUMMARY	
Name:	Spill/Glare - Prop Line
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY			
MAINTAINED HORIZONTAL FOOTCANDLES			
Entire Grid			
Scan Average:	2.9745		
Maximum:	15.411		
Minimum:	0.000		
No. of Points:	89		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	121,000 lumens		
No. of Luminaires:	109		
Total Load:	125.35 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>51,000	>51,000	>51,000
Reported per TM-21-11. See luminaire datasheet for details.			

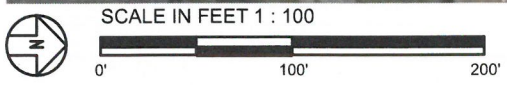
Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

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.

RECEIVED
MAR 13 2017
PLANNING &
DESIGN SERVICES



ENGINEERED DESIGN By: D.Alexander • File #173832A • 31-Jan-17

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

16 CUP 1081



We Make It Happen.

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2017 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	A1	70'	-	70'	TLC-LED-1150	4/6*	10	0	
1	A2	70'	-	70'	TLC-LED-1150	4	4	0	
1	B1	70'	-	25'	TLC-LED-1150	1	1	0	
				70'	TLC-LED-1150	6/7*	13	0	
2	B2, C1	70'	-	25'	TLC-LED-1150	1	1	0	
				70'	TLC-LED-1150	6	6	0	
3	S1, S3, S7	70'	-	70'	TLC-LED-1150	7	7	0	
1	S2	70'	-	70'	TLC-LED-1150	6	6	0	
2	S4, S6	70'	-	70'	TLC-LED-1150	7/7*	14	0	
1	S5	70'	-	70'	TLC-LED-1150	6/6*	12	0	
12	TOTALS						109	109	0

* This structure utilizes a back-to-back mounting configuration

Spaulding Univ Soccer/Softball

Louisville, KY

GRID SUMMARY

Name: Spill/Glare - Roadway
 Spacing: 30.0'
 Height: 3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

Entire Grid
 Scan Average: **0.0104**
 Maximum: **0.084**
 Minimum: 0.000
 No. of Points: 107

LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI
 Luminaire Output: 121,000 lumens
 No. of Luminaires: 109
 Total Load: 125.35 kW

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>51,000	>51,000	>51,000

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.

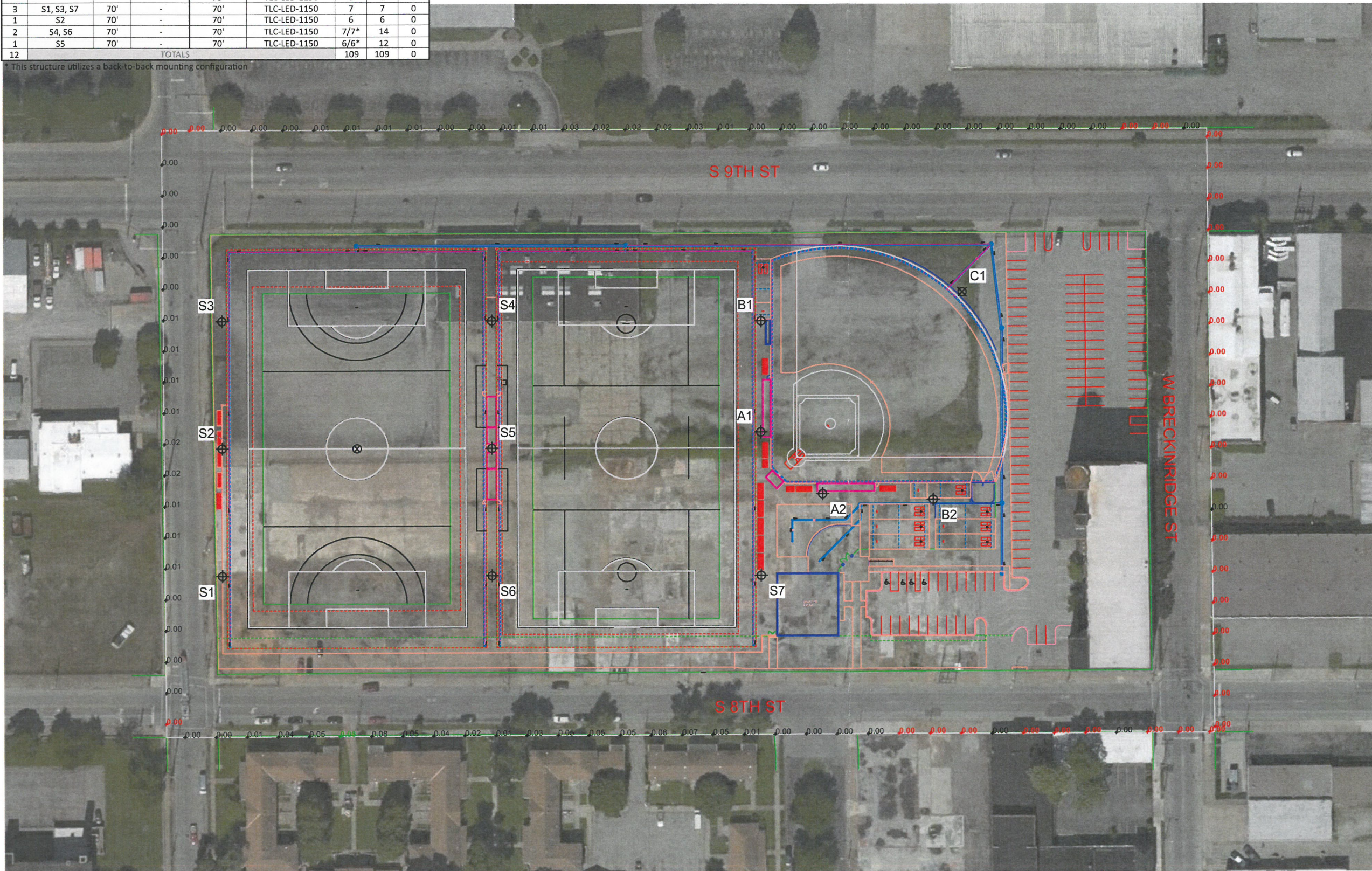
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

RECEIVED
 MAR 13 2017
 PLANNING &
 DESIGN SERVICES



We Make It Happen.

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2017 Musco Sports Lighting, LLC.



SCALE IN FEET 1 : 100



ENGINEERED DESIGN By: D.Alexander • File #173832A • 31-Jan-17

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

16 CUP 1081

ILLUMINATION SUMMARY

Spaulding Univ Soccer/Softball

Louisville, KY

EQUIPMENT LAYOUT

INCLUDES:

- Soccer 1
- Soccer 2
- 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

QTY	LOCATION	Pole		Luminaires			QTY / POLE
		CLASS	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE		
1	A1	LSS70D	-	70'	TLC-LED-1150	4/6*	
1	A2	LSS70B	-	70'	TLC-LED-1150	4	
1	B1	LSS70D	-	25'	TLC-LED-1150	1	
				70'	TLC-LED-1150	6/7*	
2	B2, C1	LSS70C	-	25'	TLC-LED-1150	1	
				70'	TLC-LED-1150	6	
3	S1, S3, S7	LSS70C	-	70'	TLC-LED-1150	7	
1	S2	LSS70C	-	70'	TLC-LED-1150	6	
2	S4, S6	LSS70D	-	70'	TLC-LED-1150	7/7*	
1	S5	LSS70D	-	70'	TLC-LED-1150	6/6*	
12	TOTALS						109

* This structure utilizes a back-to-back mounting configuration

SINGLE LUMINAIRE AMPERAGE DRAW CHART

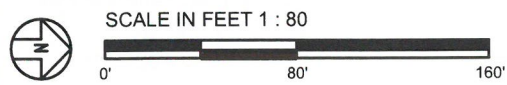
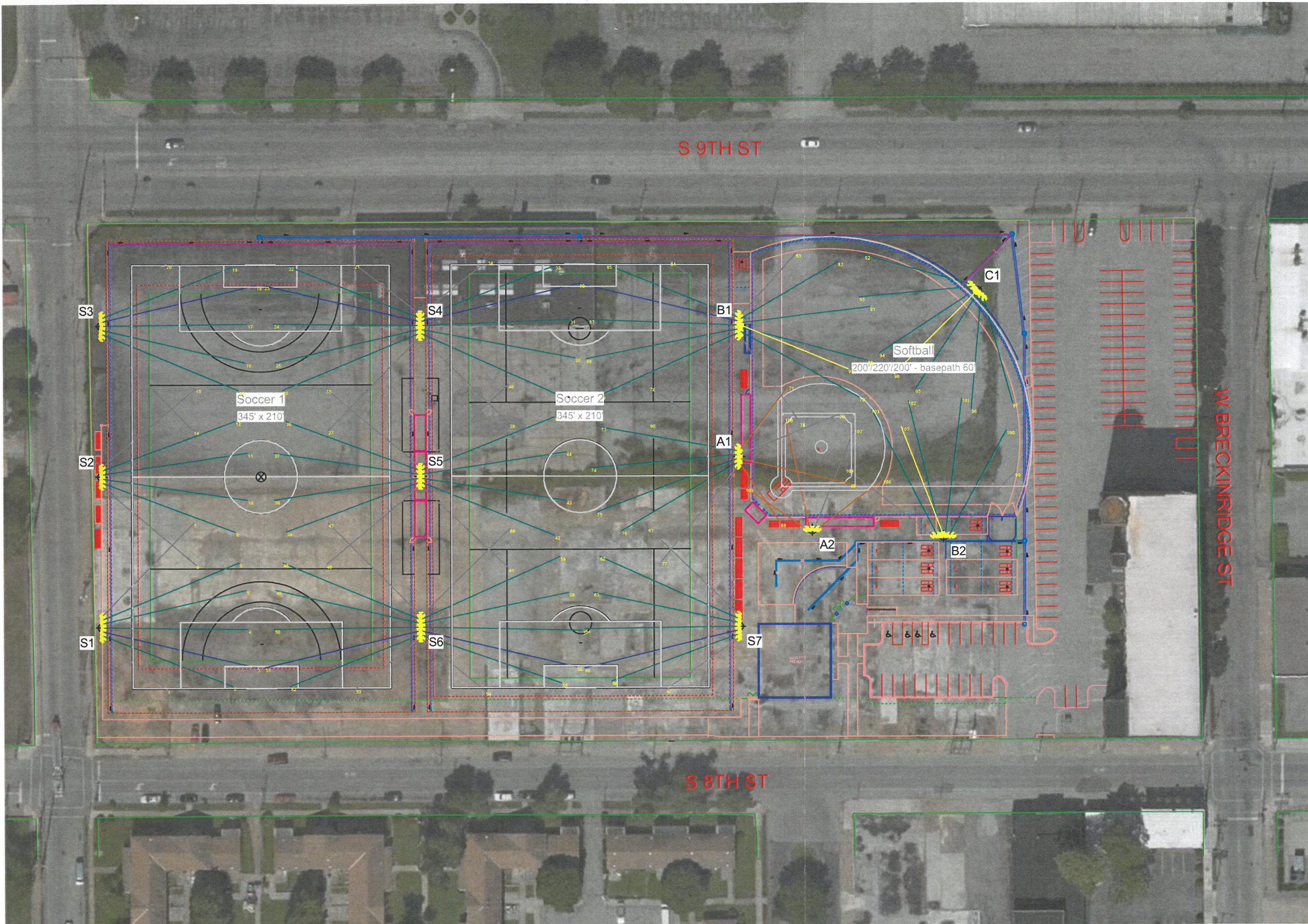
Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)					
	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)
Single Phase Voltage	7.0	6.6	6.1	5.2	4.2	3.8
TLC-LED-1150	7.0	6.6	6.1	5.2	4.2	3.8

RECEIVED
MAR 13 2017
PLANNING &
DESIGN SERVICES



We Make It Happen.

Not to be reproduced in whole or part without the written consent of Musco Sports Lighting, LLC. ©1981, 2017 Musco Sports Lighting, LLC.



ENGINEERED DESIGN By: D.Alexander • File #173832A • 31-Jan-17

Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗
16 CUP 1087