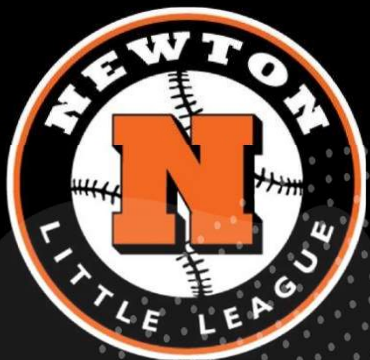


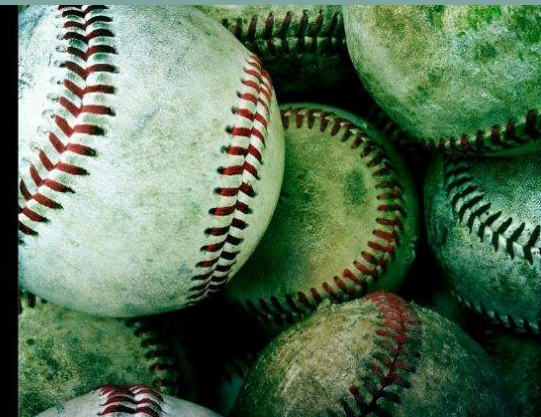
# Proposed Murphy Field Lights Addition

Newton Little League



**NEWTON  
LITTLE LEAGUE**

Welcoming Boys and Girls • Ages 4 –12



# Murphy Field Lights Opportunity

Newton Little League would like to partner with the Newton Parks and Recreation Commission to make important improvements to Murphy Field helping meet PRC goals to expand Newton field utilization into evenings, increase player safety, and meet Newton family requests for field quality.

- NLL has a base of several hundred players and their families that are eager for improvements to baseball fields. NLL proposes adding lighting to Murphy Baseball Field in line with Newton Parks & Recreation renovations at other Newton fields to improve the experience and utilization by players and families.

# Murphy Baseball Field at the Halloran Sports Complex



## Albermarle North

Multi-Use Football, Soccer, Lacrosse, Baseball and Softball  
This area is lighted for night use.

## Albermarle Central

Area consists of 1 Field House, 1 Basketball Court, Two Tennis Courts, The Gath Pool & Bath House, a Children's Wading Pool and Two Softball Fields

## Albermarle South

Area consists of Newton North Little League's Murphy Field (baseball only), Roche Baseball Field, a snack bar/shed, two batting cages, a storage container, a T-Ball Field (out of use) and a Multi-Sport use open area.

Adjacent to Murphy's Outfield Fence is a picnic area, a gazebo, soft-scape playgrounds and swings. Further south is the Newton Ed Center (formerly Horace Mann Elementary School)

Murphy



Murphy Field, Roche Field, R& T-Ball Field

# Proposed Project

**NLL proposes adding infield and outfield lighting to Murphy Baseball Field** at the Halloran Athletic Complex in accordance with the design proposal submitted to PRC by Musco Lighting

- Lighting will include **two infield and two outfield LED lights**
- Project will use the **latest green technology LED lighting** and provides for instant-on / instant-off operation, as well dimmable capabilities
- It will leverage Total Light Control (TLC), **a new technology that is able to achieve pinpoint precision illumination to the playing surface virtually eliminating vertical and horizontal light spillage**, as well as glare from the light fixtures.
- Lights will leverage Smart technology with **remote on/off controls and the ability to implement timers**
- **25 year warranty**
- Musco Estimate: \$190K-\$210K (LED Light Source: \$130,000-\$140,000, Installation \$60,000-\$70,000)
- In conjunction NLL will invest in field improvements to enhance family and player experiences and safety including upgraded bleachers, fencing, netting, bullpen and scoreboard

# Project Benefits

**Murphy Field Lighting Project directly supports the strategic goals articulated by the City and Parks and Recreation of substantially expanding use of fields through lighting and improving safety of fields**

- Addition of lighting will **add ~ 250 hours of available playing time** for league supporting several hundred players and their families on a highly visible and attractive Newton field complex
- Planned league upgrades will **improve player and family experience and increase safety and accessibility**
- **Murphy work has the widespread support of the league and fundraising could be accomplished quickly** providing a quick visible win in highly trafficked area of Newton families . Even without launching a formal campaign it has \$50K in commitments and several interested parties if a near term date can be confirmed

# MUSCO EQUIPMENT LAYOUT



\* A2 Pole location will work around existing tree in conjunction with Urban Forestry

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

- Zero Grid

**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.

## EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	Pole		MOUNTING HEIGHT	Luminaires		QTY / POLE
		SIZE	GRADE ELEVATION		LUMINAIRE TYPE		
1	A1	60'	-	60'	TLC-LED-1200	1	
				15.5'	TLC-LED-600	2	
				60'	TLC-BT-575	1	
1	A2	60'	-	60'	TLC-LED-400	2	
				15.5'	TLC-BT-575	1	
				60'	TLC-LED-600	1	
2	B1-B2	70'	-	15.5'	TLC-BT-575	1	
				70'	TLC-LED-1200	5	
4	TOTALS						22

## 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-LED-900	5.3	5.0	4.6	4.0	3.2	2.9
TLC-LED-1200	7.0	6.6	6.1	5.2	4.2	4.0
TLC-BT-575	3.4	3.2	2.9	2.5	2.0	1.8
TLC-LED-600	3.4	3.2	3.0	2.6	2.0	1.9
TLC-LED-400	2.3	2.2	2.0	1.7	1.4	1.3



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# MUSCO ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN								
QTY	LOCATION	Pole		Luminaires				
		SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	A1	60'	-	60'	TLC-LED-1200	1	1	0
				15.5'	TLC-LED-600	2	2	0
				60'	TLC-BT-575	1	1	0
1	A2	60'	-	60'	TLC-LED-400	2	2	0
				15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-600	1	1	0
2	B1-B2	70'	-	15.5'	TLC-BT-575	1	1	0
				70'	TLC-LED-1200	5	5	0
TOTALS						22	22	0

## Murphy Field Newton, MA

GRID SUMMARY	
Name:	Zero Grid
Size:	500' x 500'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	7.49
Maximum:	65
Minimum:	0
Avg / Min:	-
Max / Min:	-
UG (adjacent pts):	60.26
CU:	0.90
No. of Points:	2500
LUMINAIRE INFORMATION	
Applied Circuits:	A
No. of Luminaires:	22
Total Load:	19.49 kW

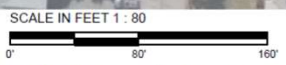


**Guaranteed Performance:** The ILLUMINATIC is guaranteed per your Musco Warranty docs includes a 0.95 dirt depreciation factor.

**Field Measurements:** Individual field measurements from computer-calculated predictions and SH in accordance with IESNA RP-6-15.

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

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



\* blue contour line for .35FC which meets the bi-laws.

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

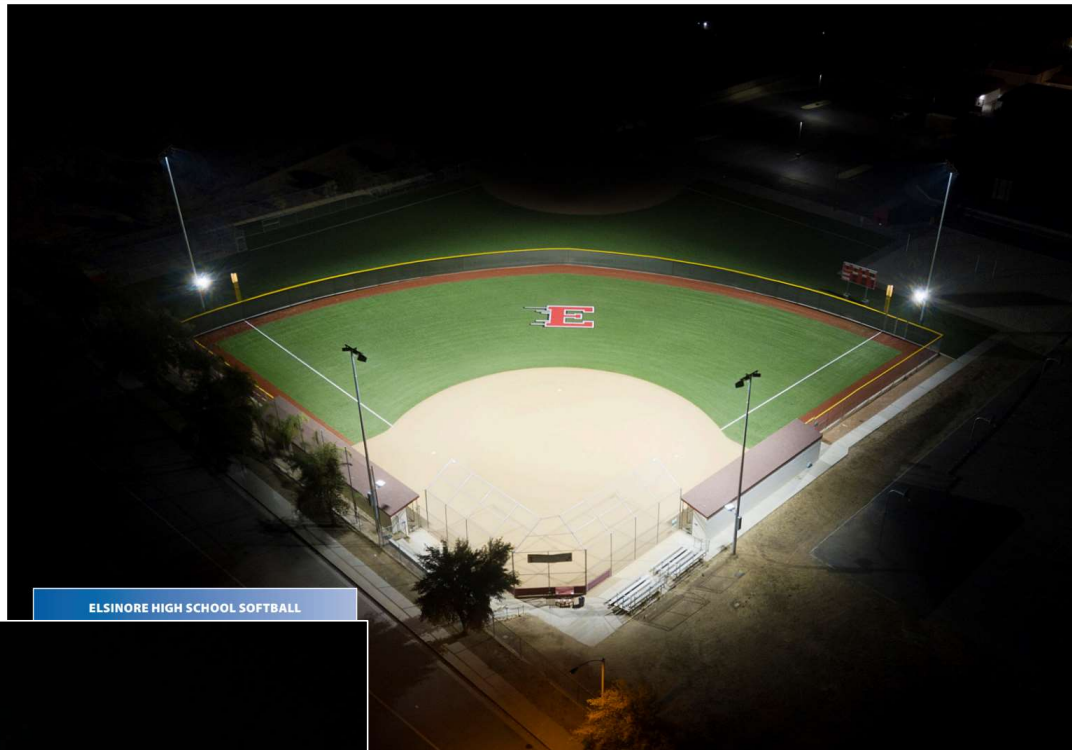


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ILLUMINATION

# Lighting Examples





# MUSCO PROJECT SUMMARY

## Murphy Field

Newton, MA

### Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
A1	60'	60'	1	TLC-LED-1200	1.17 kW	A
		60'	2	TLC-LED-600	1.16 kW	A
		60'	2	TLC-LED-900	1.78 kW	A
A2	60'	16'	1	TLC-BT-575	0.58 kW	A
		60'	2	TLC-LED-400	0.80 kW	A
		60'	1	TLC-LED-600	0.58 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
B1-B2	70'	70'	5	TLC-LED-1200	5.85 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
<b>4</b>			<b>22</b>		<b>19.49 kW</b>	

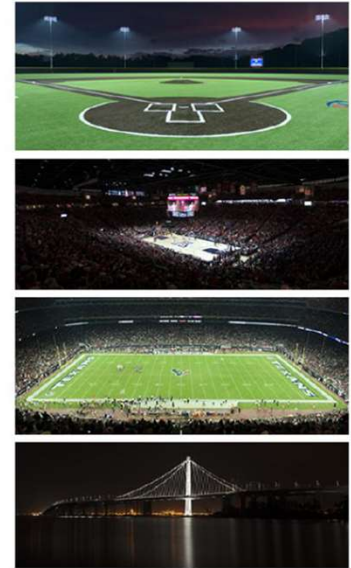
Circuit Summary			
Circuit	Description	Load	Fixture Qty
A		19.49 kW	22

Fixture Type Summary							
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>120,000	>120,000	>120,000	2
TLC-LED-1200	LED 5700K - 75 CRI	1170W	136,000	>120,000	>120,000	>120,000	11
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	4
TLC-LED-600	LED 5700K - 75 CRI	580W	65,600	>120,000	>120,000	>120,000	3
TLC-LED-400	LED 5700K - 75 CRI	400W	46,500	>120,000	>120,000	>120,000	2

### Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Murphy Field Spill (Cd)	Max Candela Metric	931	3.01	2421	805.00	309.40	A	22
Murphy Field Spill	Horizontal Illuminance	0.02	0	0.06	0.00		A	22
Murphy Field Spill	Max Vertical Illuminance Metric	0.05	0	0.16	0.00		A	22
Murphy Field (Infield)	Horizontal Illuminance	50.3	36	63	1.74	1.40	A	22
Murphy Field (Outfield)	Horizontal Illuminance	33.1	20	42	2.06	1.66	A	22
Zero Grid	Horizontal Illuminance	7.49	0	65	0.00		A	22

From Hometown to Professional



# **APPENDIX**

# Murphy Lighting Project Support

Newton Little League will support Murphy lighting project through fundraising and a commitment to additional enhancements to optimize the attractiveness, safety and field experience for families

