



**GLEN ELLYN  
PARK DISTRICT**

# **Newton Park Turf Field Light Project**

**September 22, 2016**

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**[www.gepark.org](http://www.gepark.org)**

# ATHLETIC FIELD OVERVIEW

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Over the past several years, the Park District has reviewed the Athletic demands for fields.

The analysis included usage, demand, inventory and quality.

Nearly 5000 participants annually – this does not include Glenbard West. The High School uses District fields due to their limitations.





# ATHLETIC FIELD OVERVIEW

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The District has three (3) major athletic hubs - Village Green Park, Ackerman Park and Newton Park.

Additionally, there are satellite locations including schools and small parks.

The District determined that it had sufficient inventory but required more organized use, planning and field improvements to officially and effectively make use of the available space.



# ATHLETIC FIELD OVERVIEW

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## - Improvements and Recommendations:

### - Village Green Park Improvements

- baseball fields
- irrigation
- infield mix
- west athletic area

### - Newton Park Improvements

- install synthetic turf at Newton Park Upper Field increasing availability
- remove two (2) baseball fields at Lower Newton adding open green space
- install athletic lighting at Newton Park Upper Field



# ATHLETIC FIELD OVERVIEW

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## - Improvements and Recommendations:

### - Ackerman Park Improvements

- develop Master Plan and begin to implement
- remove two (2) softball fields at Ackerman adding open green space
- replace existing athletic lighting (40 yrs. old) and realign pole location to create more green space while lighting an additional softball field at the same time
- determine in near future, plans to improve soccer fields by creating game quality fields with improved drainage, soil quality and irrigation

**Revise Intergovernmental Agreement (IGA) with District 87 to fully maximize public assets enabling both agencies to better serve its shared constituents.**

# ATHLETIC FIELD OVERVIEW

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The recent efforts have created sufficient opportunities for all of the sports programs including emerging activities such as rugby, lacrosse, field hockey, and flag football - all while improving the quality and safety of the fields.





## **NEXT STEPS**

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- Continue to implement Ackerman Park Master Plan improving soccer field conditions and renovation of softball hub

<http://gepark.org/assets/PDFs/Park%20Plans/2014-Ackerman-Park-Masterplan.pdf>

- Add athletic lights at Newton Upper Field to fully maximize use of synthetic turf field and eliminate the use of portable lighting at Newton Park for athletic programs

# NEWTON PARK HISTORY

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Newton Park is a 25 acre park located on the southeast corner of Fairview Avenue and Exmoor Avenue in southeast Glen Ellyn. It is bordered on the east side by Carleton Avenue and by DuPage Boulevard on the south.

The Park District acquired Newton Park in 1954. Originally named South Park, it was renamed Newton Park in 1973 in honor of Dr. Lewey Quilterfield Newton, who provided, at his own expense, the first Glen Ellyn railroad depot on property he donated for that purpose.

Over the last 60 years, Newton Park has been a critical site for recreation and athletic programs and is one of the largest community parks within the District.



# NEWTON PARK INTRODUCTION

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- Newton Park has served as a major sports hub for the Glen Ellyn community for decades.
- Park amenities include:
  - Synthetic Turf Multi-Use Athletic Field
  - Open Green Space (Lower Newton)
  - Baseball Field
  - Tennis/Pickleball courts
  - Skate Park
  - Basketball Court
  - Playground/Shelter
  - Recreation/concessions building
  - Walking Paths
  - Sled Hill
  - Ice Skating (Outdoor)
  - Four (4) Parking Lots (168 total spaces)



# **NEWTON PARK INTRODUCTION**

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## **- Recent Newton Park Improvements:**

- Tennis/Pickleball Court Resurfacing**
- Additional Open Green Space Created (Lower Newton)**
- Drainage Improvements (Lower Newton)**
- Expanded Irrigation System**
- Ice Rink Improvements**
- Synthetic Turf Multi-Use Athletic Field**
- Sledding Hill Height Increased (10' higher)**
- Caitrin's Rock Memorial**
- Drinking Fountain Improvements**
- Skateboard Park Improvements**
- Over 75 new trees have been planted since 2013**



# **NEWTON PARK INTRODUCTION**

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## **- Future Newton Park Improvements:**

- Parking Lot Improvements**
- Additional Walkways**
- Concession & Bathroom Facility Upgrades**
- Skate Park Improvements**
- Playground Replacement (2022)**
- Additional Trees**

**- There is no plan to install additional synthetic turf fields in Newton Park within the open green space (Lower Newton).**

# **NEWTON PARK INTRODUCTION (edited 9-26-16)**

**- In 2015, conversion of the existing main game field from grass to synthetic turf was completed to help address:**

- Overuse and inability to rest and rotate fields at Ackerman, Newton and Village Green Parks**
- Scheduling of football practices on baseball fields at Village Green Park**
- Insufficient inventory of open, rectangular shape fields to accommodate current and emerging sports including lacrosse, field hockey and rugby**

**- Prior to conversion of the field to turf, Upper Newton Field use was limited to approximately 36 dates in the fall for football (weather permitting).**

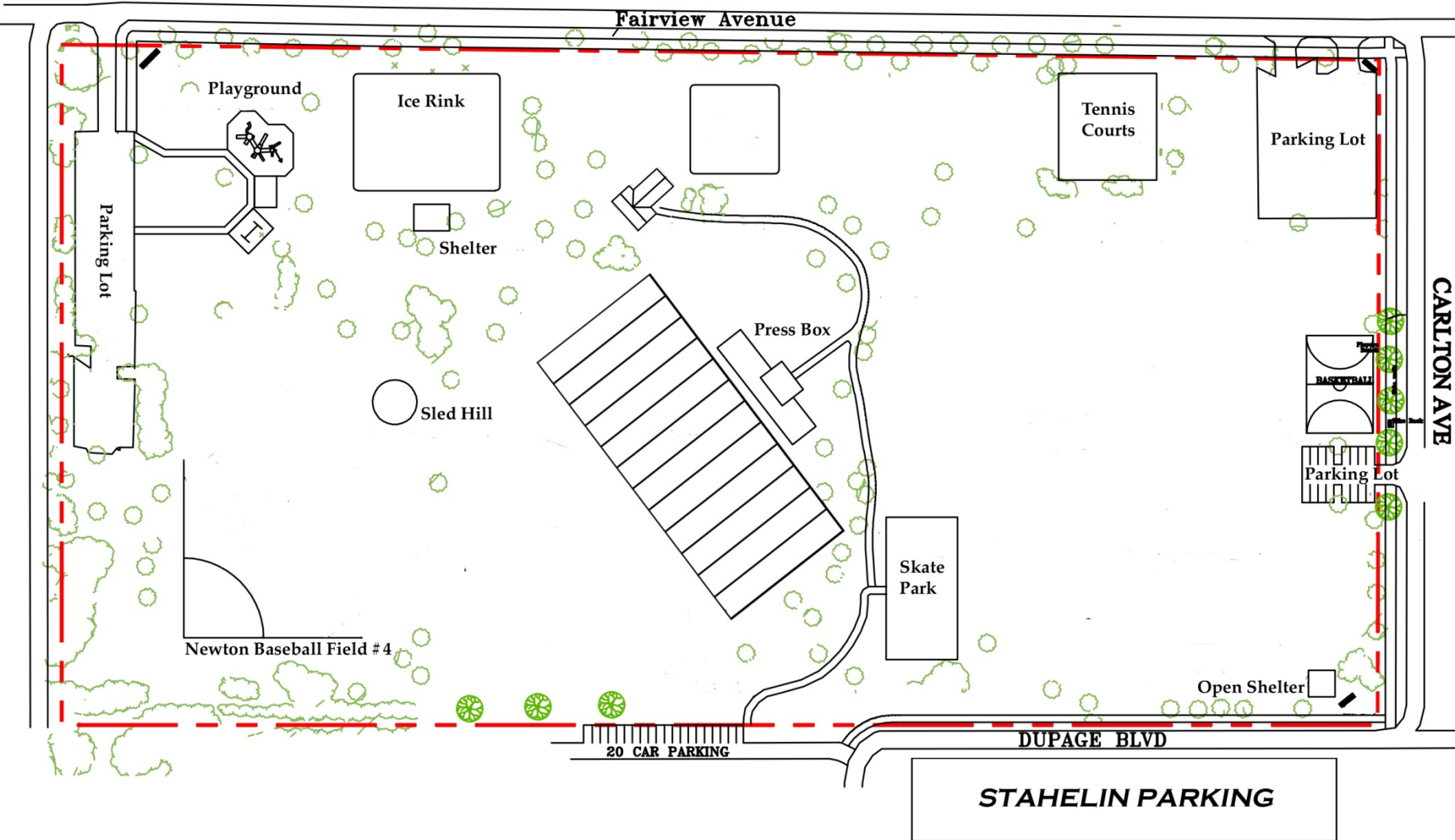
**- Since the fall of 2015, Glenbard West High School and park district programs have utilized Newton Park (lower and/or upper) on approximately 250 days (September 2015-August 2016).**

- Overall park usage reflects an 16.8% increase from 2014. Synthetic turf field use has increased from 36 days to approximately 250 days since 2014.**



# NEWTON PARK INTRODUCTION

## Newton Park Map



# CONSTRAINTS

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## March/April

- Teams are unable to conduct practice at Newton Park during the week due to darkness

## May

- Teams are unable to conduct practice at Newton Park during the week until mid-May

## August/September/October/November

- Teams are unable to conduct a full two hour practice at Newton Park during the week after mid-August

A majority of Park District athletic programs are dependent on the availability of volunteers. Most often, activities cannot begin until 6pm or later due to the volunteer's other commitments.







## BENEFITS

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- The turf field is regarded as a key community asset for our park district programs, participants and families.
  - With the assistance of 500+ volunteers, the park district offers over 10 major sports programs throughout the year.
- Enrollment in outdoor athletic programs currently exceeds 4500 participants per year (not inclusive of summer sports camps, instructional programs, tournaments and school district activities).

# **BENEFITS**

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- Park District programs can be scheduled on the turf to begin at 6pm during the week and after 1pm on Saturdays. High School programs occur after school and Saturday until 1pm.
- With lights, turf usage for practices and games can expand without restriction of shorter days in the spring and fall. This would reduce impact of staging team practices in inappropriate spaces, competing for field space, adversely affecting playing conditions and/or continued use of portable lighting.
- Reduce non-baseball use of Village Green Park to accommodate increased baseball participation in the fall.



# **BENEFITS**

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- Accommodate schedules of volunteer coaches (which programs rely on) to provide the ability to practice after 6pm
- Continue to improve turf conditions of entire Park District athletic field inventory by scheduling activities in appropriate locations
- Provide increased rectangular shape fields for corresponding programs
  - Beginning in September, football is unable to practice on an appropriate field with yard lines and goalposts and uses the outfields of Village Green Park
- Eliminate the use of portable light towers for athletic practices at Newton Park

# TURF SCHEDULE WITHOUT LIGHTS

- Current Turf Field Usage Schedule (without lights)  
**March-May & August -November**

## **Glenbard West High School**

- Monday-Friday 3pm-6pm
- Saturdays 8am-1pm

## **Park District Programs**

- Monday-Friday 6pm-dusk
- Saturdays 1pm-dusk
- Sundays 8am-dusk

## **June-July**

## **Park District Programs**

- Monday-Friday 8am-dusk
- Saturdays 8am-dusk
- Sundays 8am-dusk



# TURF SCHEDULE WITH LIGHTS (edited 9-26-16)

## - Proposed Light Usage Maximum (10:00pm off time):

### Spring

- March	3-5	hours per day	126 total hours per month
- April	2-3.25	hours per day	87.5 total hours per month
- May	1.5-2.75	hours per day	70 total hours per month

### Summer

- June*	1-2.25	hours per day	59.5 total hours per month
- July*	1-2.25	hours per day	59.5 total hours per month

### Fall

- August	2-3	hours per day	75.25 total hours per month
- September	2.5-4	hours per day	101.5 total hours per month
- October	3.5-4.75	hours per day	126 total hours per month
- November	4.5-6	hours per day (first two weeks)	77 total hours per month

\*Summer usage is less likely to be needed



**GLEN ELLYN**  
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# **BEST PRACTICES**

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**[www.gepark.org](http://www.gepark.org)**



# **GOOD NEIGHBOR**

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- The Park District owns and/or manages nearly 300 acres of property. It understands the responsibility of being a “good” neighbor while providing services and programs, facilities and parks consistent with its mission.
- As displayed presently and previously, the District will continue to be respectful and resourceful.

# AMPLIFIED SOUND

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- Use is prohibited except with permission of the park district.
- If approved by the District, usage will be restricted:
  - Between the hours of 9am and 7pm on Saturday and Sunday
  - Between the hours of 3pm and 8pm during the week on very limited and controlled occasions
- Programs and activities that presently have permission to use amplified sound are currently limited to Golden Eagles Football and Cheerleading. Events are below:
  - Jamboree in mid-August
  - Cheerleading Season Kick-off event in mid-August
  - Football games from late-August through early November



# AMPLIFIED SOUND

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- Permission for Golden Eagle Football and Cheerleading to use a public address system at Newton Park has been allowed since the mid-1990's.
- Special events unrelated to the synthetic turf field must receive prior permission from the Park District.

# **PARKING**

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- **Neighborhood parking restrictions (with signage) have been in place since well before installation of the turf field.**
  - No parking at any time on Exmoor Avenue, Fairview Avenue, Carleton Avenue and DuPage Boulevard
  - No parking between the hours of 5pm and 7pm during the months of August through November on Montclair Avenue
  - Park District collaborates with the Glen Ellyn Police Department to ensure enforcement and safety
- **Bus parking for Glenbard West events is limited to the northwest lot (Fairview Avenue & Carleton Avenue).**
- **Overflow parking, if needed, is available at Stahelin Properties to the south of the park off of DuPage Boulevard on evenings and weekends.**
- **Park District will consider other potential parking improvements.**



# LIGHT CURFEW

**All activities in the park shall conclude by 9:30pm with limited exceptions.**

A buffer not to exceed 30 minutes will be enforced and lights will be scheduled to turn off automatically no later than 10pm.



# **LIGHT CURFEW**

- **Scheduling of the lights for the Synthetic Turf Multi-Use Field will correspond with actual activity usage.**
  - If there are no activities planned, the lights will not be scheduled for use
- **Scheduling of the lights for the Sled Hill will mirror the schedule of the lights currently for outdoor ice skating in the winter.**
  - Until 10pm, only when conditions are conducive for use of the Sled Hill
  - Sled hill lights work independent of athletic lights
- **Control-Link System allows for remote scheduling of the lighting.**
  - Includes the ability to turn off lights should activities be cancelled due to inclement weather
  - Only authorized staff will have the ability to override these limits in case of emergency





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# **Newton Park Lighting System**

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**[www.gepark.org](http://www.gepark.org)**

# **LIGHTING SYSTEM**

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## **- Lighting System Includes:**

- Four (4) Poles
- 70' High
- Three Zones (each which is able to be operated independent of the others)
  - Synthetic Turf Multi-Use Field
  - Warm Up Area (adjacent to south west corner of the synthetic turf field)
  - Sled Hill
- Eleven (11) fixtures per pole with two additional lights (20' high) on the west poles for Warm Up and Sled Hill areas.



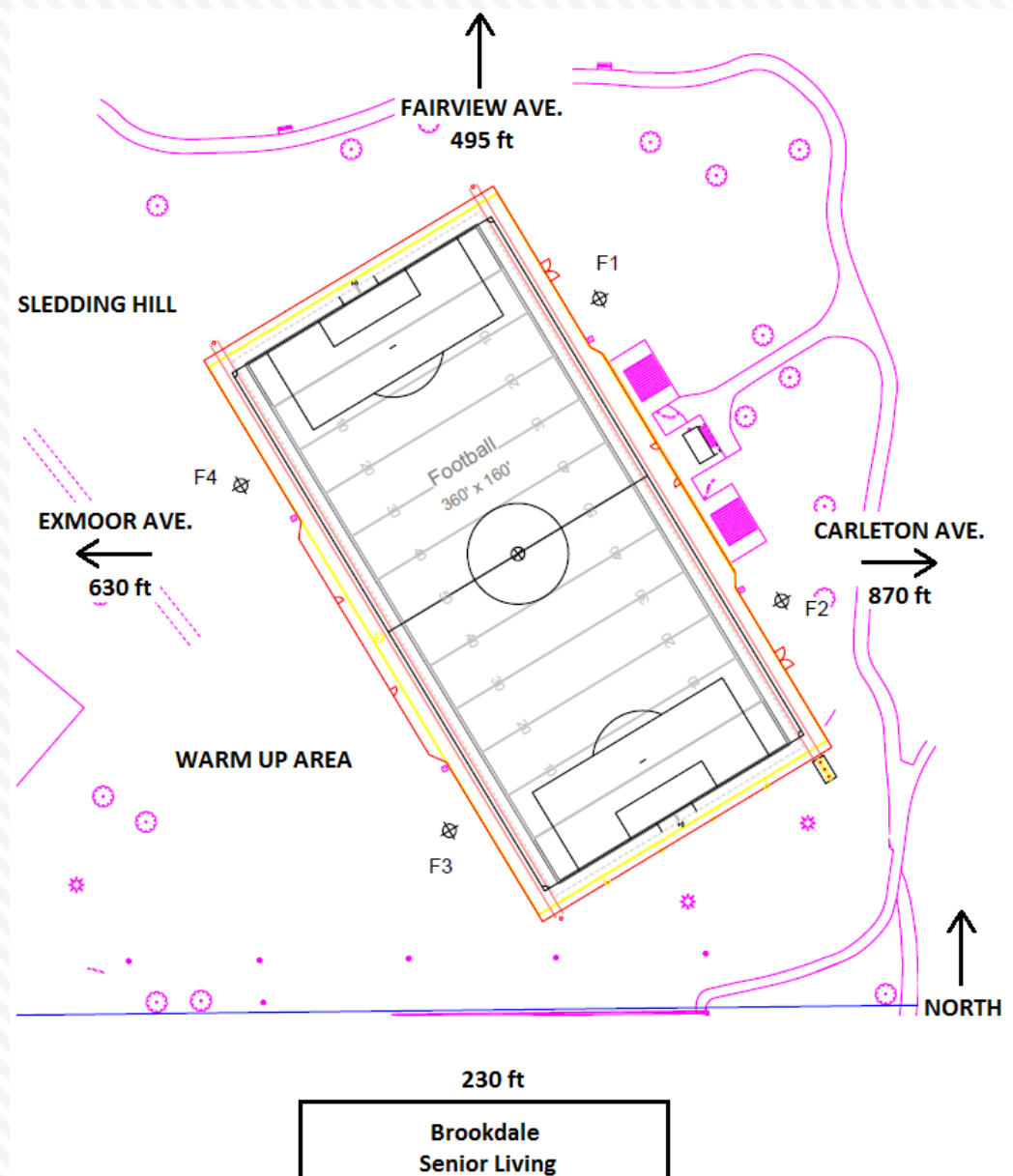
# **LIGHTING TECHNOLOGY**

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## **- Musco – Structure Green LED Lighting:**

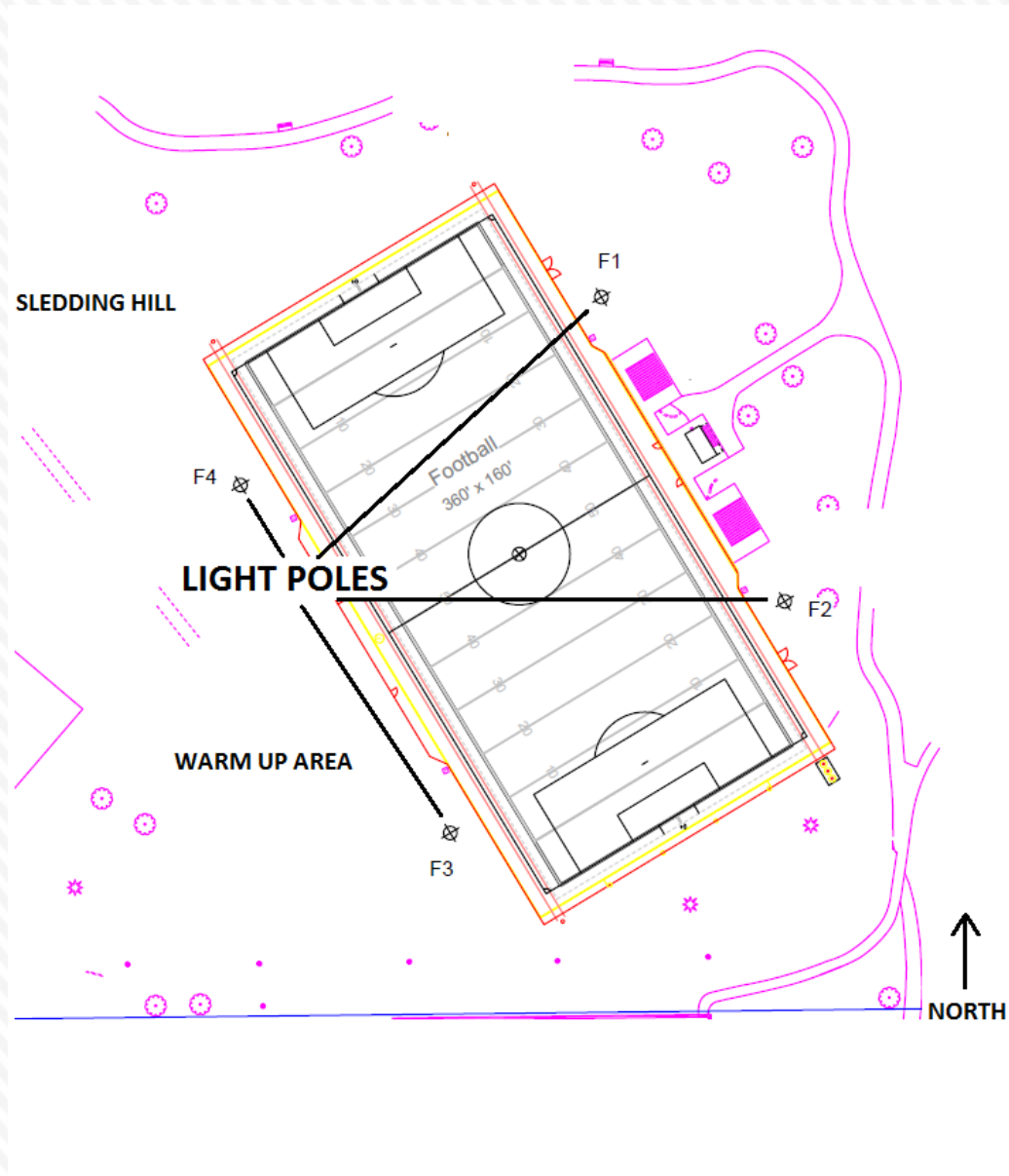
- Reduces Light Spill
- Provides Guaranteed Light Levels
- Reduces Operating Costs
- Ten (10) Year Warranty
- Monitoring System (Control Link)
- Cost: \$220,000

# NEWTON TURF MULTI-USE ATHLETIC FIELD





# NEWTON TURF MULTI-USE ATHLETIC FIELD



# **FOOTCANDLES**

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- Athletic field light levels are measured in Footcandles.

- Footcandle:

Unit of luminance or illumination, equivalent to the illumination produced by a source of one candle at a distance of one foot

- Typical Footcandle Levels:

- Office	30 fc
- Shopping Mall	30 fc
- Class Room	50fc
- Basketball Court (Indoor)	75fc
- Parking Lot	4 fc

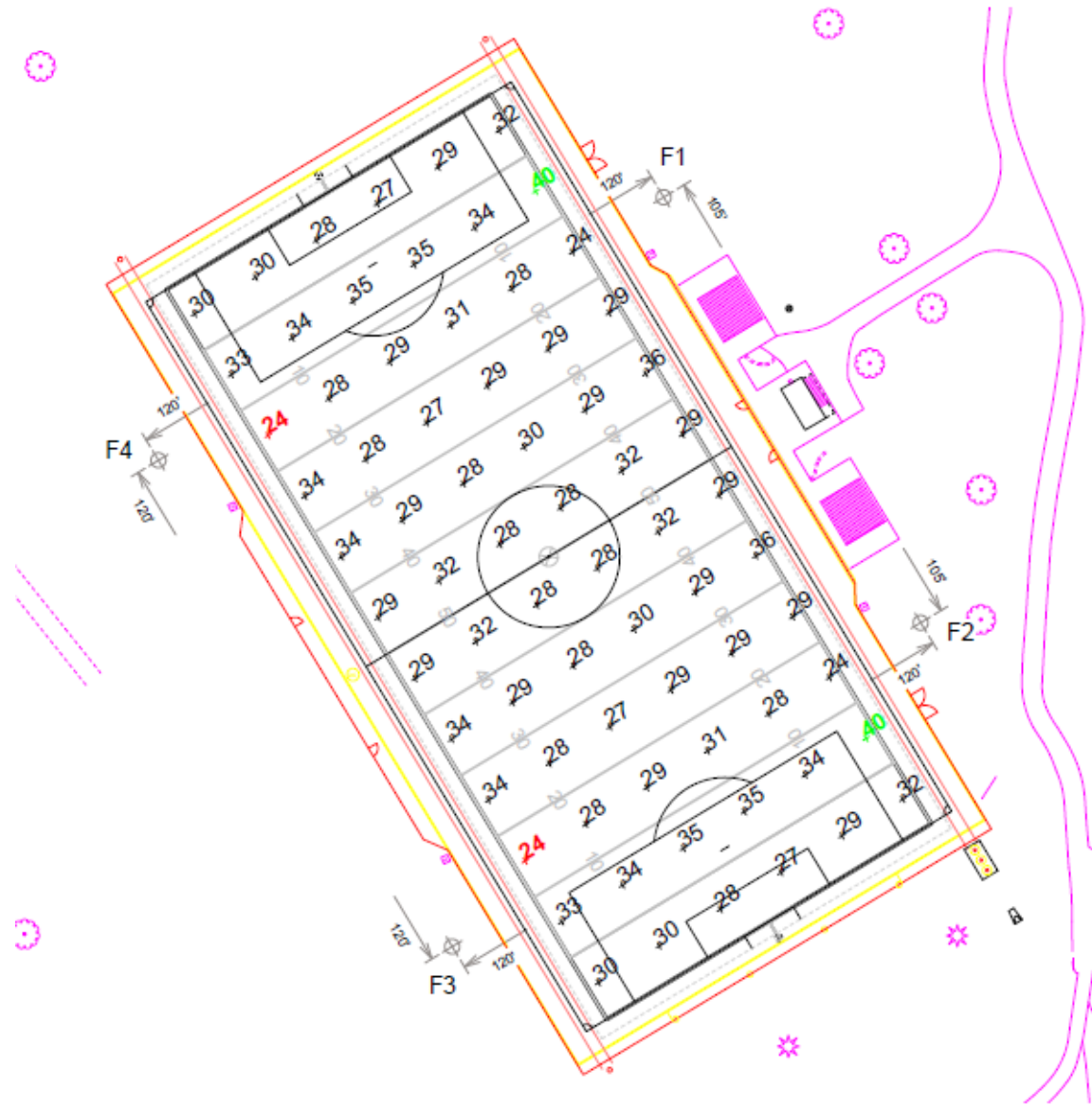


# NEWTON PARK LIGHT LEVELS

## Multi-use Field

High: 40 Foot Candles

Low: 24 Foot Candles

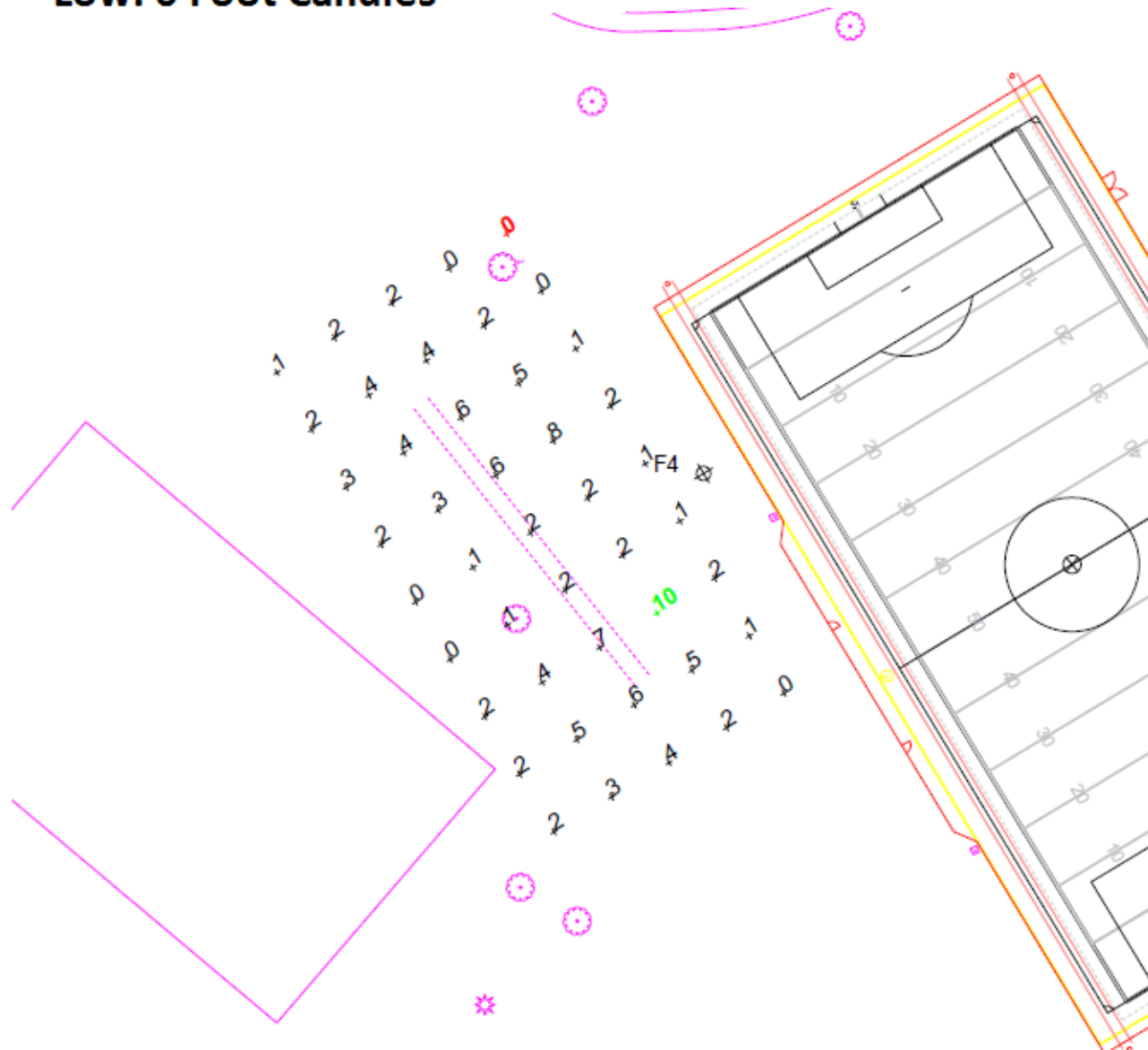


# NEWTON PARK LIGHT LEVELS

## Sledding Hill

High: 10 Foot Candles

Low: 0 Foot Candles



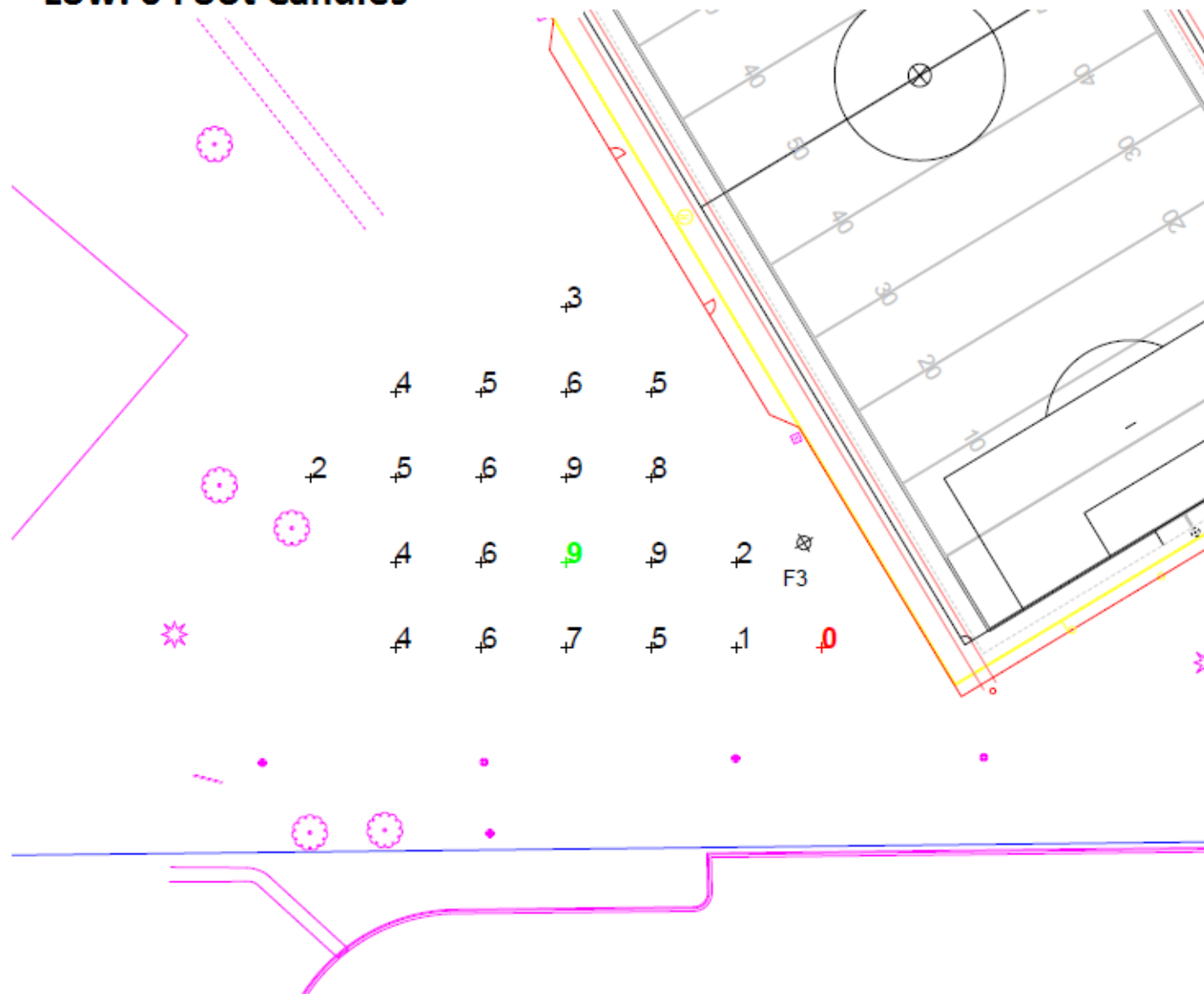


# NEWTON PARK LIGHT LEVELS

Warm Up Area

High: 9 Foot Candles

Low: 0 Foot Candles



# NEWTON PARK LIGHT LEVELS

## GEPD Property Line

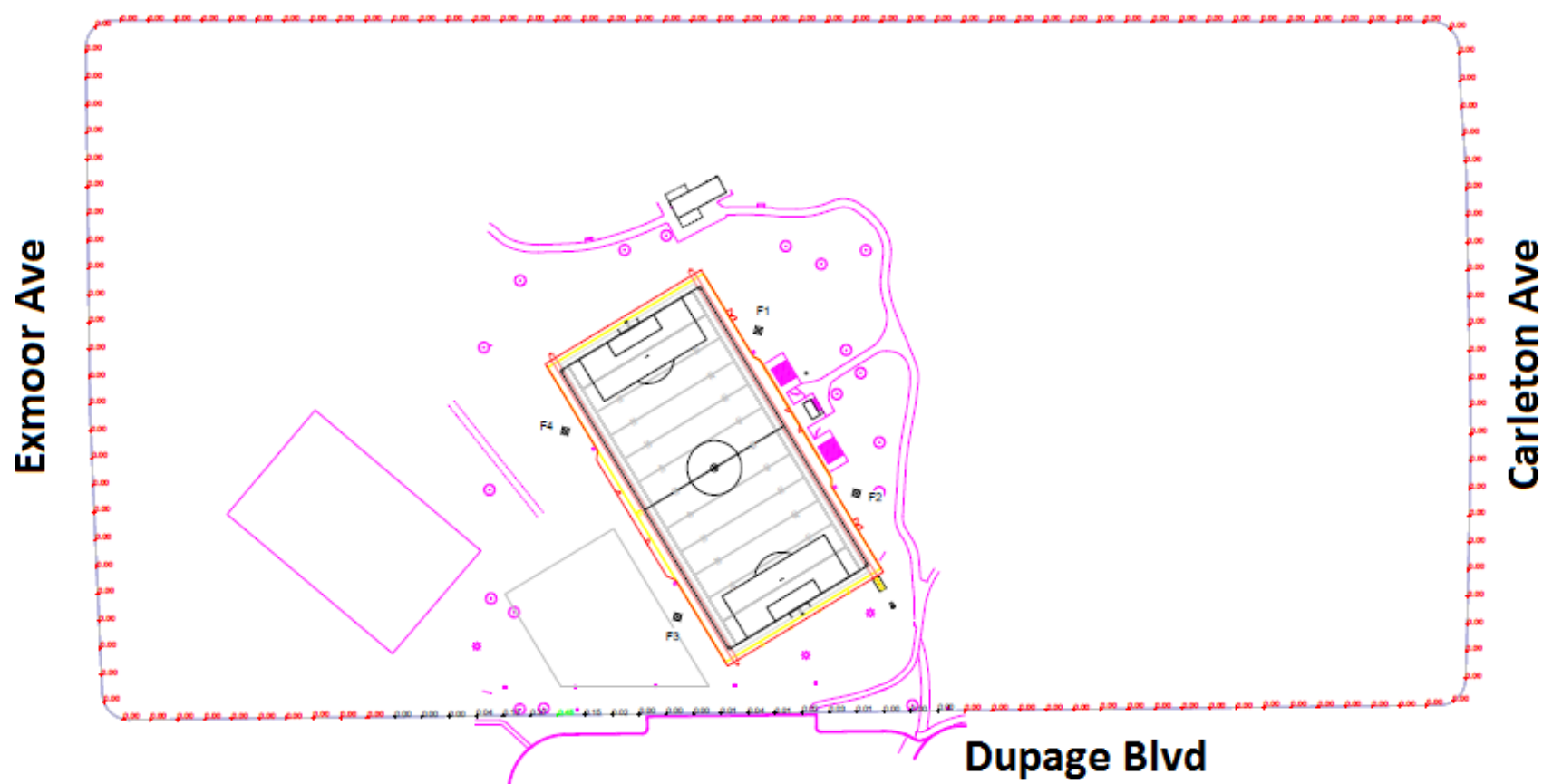
Exmoor Ave: 0 Foot Candles

Fairview Ave: 0 Foot Candles

Carleton Ave: 0 Foot Candles

Dupage Blvd: 1.23 Foot Candles

Fairview Ave





**Highest light reading  
on the property line  
(complies with the  
Village Lighting Code)**

F3

0.01 0.17 0.46 1.13 1.23 0.36 0.05 0.01 0.00 0.01 0.02 0.09 0.05 0.08

**Brookdale  
Senior Living**

# LED LIGHTING VS. HID LIGHTING

- Nashaminy High School, Langhorne, PA

Before — HID Light Source





# LED LIGHTING VS. HID LIGHTING

- Nashaminy High School, Langhorne, PA

After — Musco LED Lighting



50 horizontal footcandles

System Energy Comparison:  
46 kW — 74% reduction from prior equipment

# LED LIGHTING VS. HID LIGHTING

Neshaminy High School — Langhorne, Pennsylvania, USA

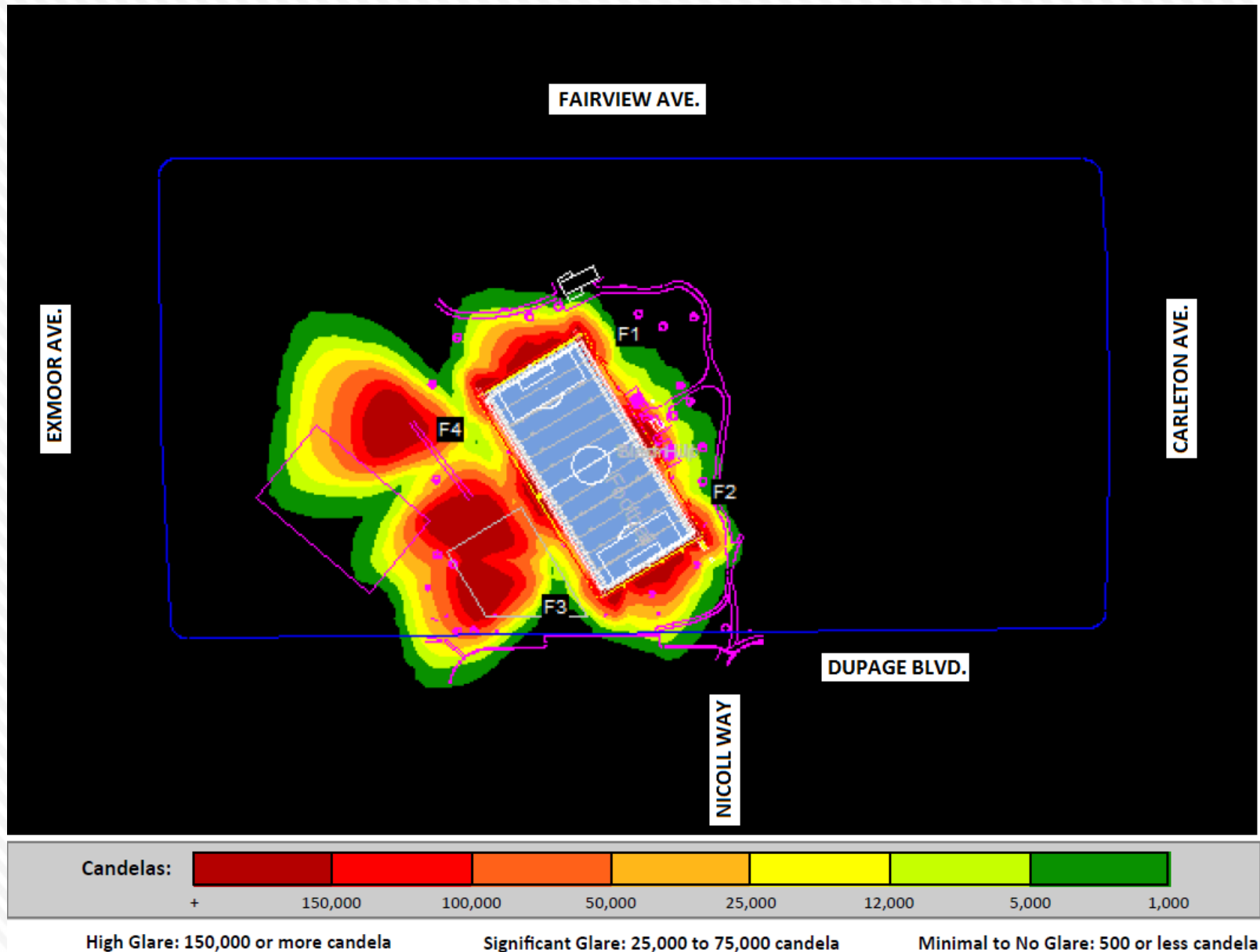
After — Musco LED Lighting



Before — HID Light Source



# GLARE READINGS





# LED LIGHTING VS. HID LIGHTING

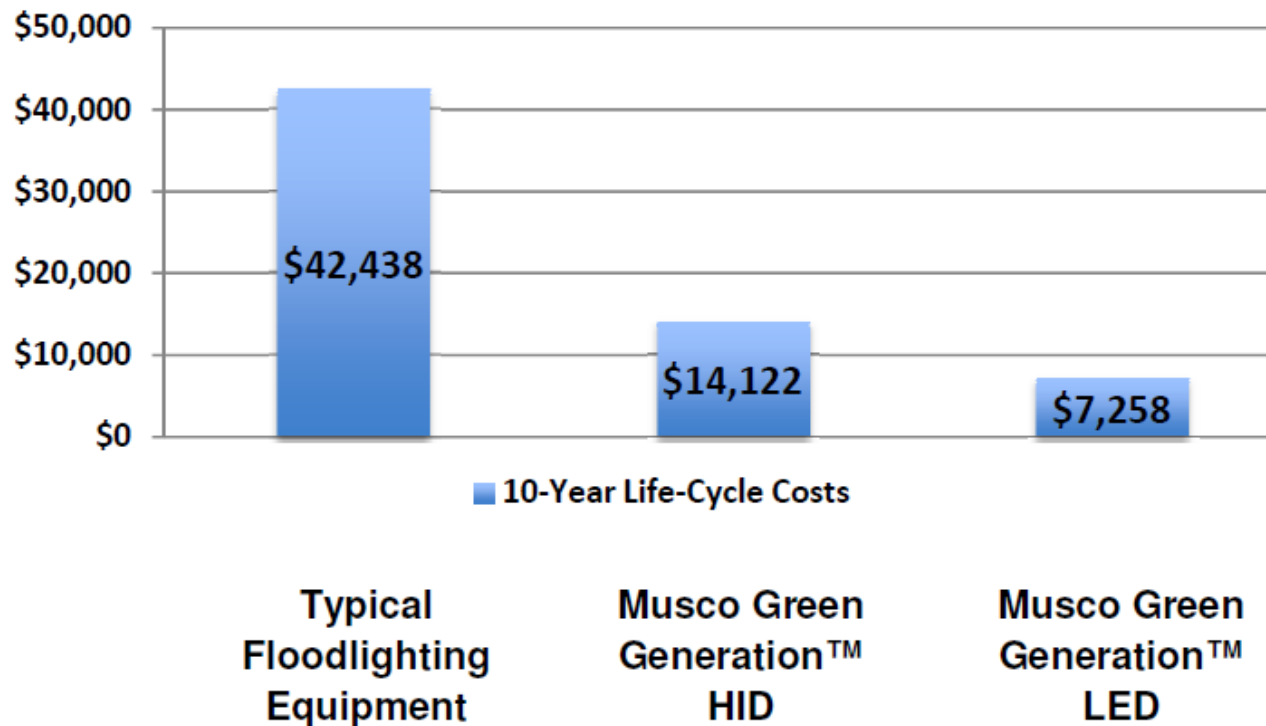
## 10-Year Life-Cycle Cost Comparison

### Newton Park Multipurpose

Football Field

September 14, 2016

Warranty Period: 10 Years



# **LIGHT MONITORING SYSTEM**

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## **- Control-Link®**

- Control-Link® is the reliable, cost-effective system that helps control, monitor, and manage lighting
- Control-Link Central team is staffed 24/7 to assist with scheduling and reporting needs
- Control-Link Central™ provides three options for management and control of your facilities:
  - Directly control fields via website
  - Enter, edit, and update your schedules from a smart phone
  - Contact Control-Link Central's team directly to enter schedules and request last minute changes



**GLEN ELLYN**  
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# **Village of Glen Ellyn Lighting Variance**

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**[www.gepark.org](http://www.gepark.org)**



# VARIANCE

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## - Pole Spacing

- The minimum spacing between poles is four (4) times the mounting height required by Section 10-5-13(M)2(b)1 of the Zoning Code.

## - Pole Height

- The height of the proposed poles may not exceed the height of the principle structure (Concession Building), Section 10-5-13(M)2(c) of the Zoning Code.

## - Illumination Levels

- Complies with the Village Zoning Code

# **VARIANCE**

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## **-Variance Process**

- Meet with Village Planning & Development (Completed)
- Create a Newton Park Lighting Variance packet requesting approval of zoning variations with regard to the installation of 4 light poles at Newton Park (1 month)
- Submit variance packet and await the Village's response (3 weeks)
- Make changes if needed and resubmit variance packet to the Village (2 weeks)
- Once approved the variance request will be place on the agenda for the next available Plan Commission meeting (1 month)
- The Park District will present a formal variance request to the Plan Commission and answer any questions
- If approved the variance request will be placed on the agenda for next available Village Board meeting (3 weeks)
- The Village Board makes the final decision on whether the variance request will be granted



**GLEN ELLYN**  
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# Construction

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[www.gepark.org](http://www.gepark.org)



# **CONSTRUCTION SCHEDULE**

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- **Bidding Project (January 2017)**
  - Formal Bidding Process
  - Cooperative Purchasing
- **Submit Permit Applications (April 2017)**
  - Village of Glen Ellyn
  - ComEd
- **Begin Construction (July 2017)**
- **Project Completion (Before School Starts)**



**GLEN ELLYN**  
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# QUESTIONS

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[www.gepark.org](http://www.gepark.org)