Newton Parks, Recreation + Culture Department Newton North & Newton South High Schools Sports Lighting Projects School Committee Meeting April 4th, 2022

www.newtonma.gov/fieldprojects

Newton South High School Winkler Stadium

AGENDA



ATHLETIC FIELD CAPITAL PLAN UPDATE – ESTABLISHED NEED AND SOLUTION





BRANDEIS RD FIELD SPORTS LIGHTING DESIGN

WHY ARE THE HIGH SCHOOLS IMPORTANT IN MEETING THE CITY'S GOALS FOR ATHLETIC FIELDS?

- # OF SPORTS HAS INCREASED OVER TIME (E.G., SOCCER, LACROSSE)
- # OF TEAMS: NSHS, NNHS HAVE MORE TEAMS I.E., VARSITY, JV, AND FRESH. SPORTS
- MINIMIZE STUDENT ATHLETE OFF-SITE TRAVEL FOR PRACTICES AND HOME GAMES
- FIELDS ARE SYNTHETIC TURF, CAN HANDLE ADDITIONAL USE
- ONSITE AMENITIES INCLUDE LOCKERS, REST ROOMS, SHOWER/CHANGING AREA
- PARKING IS AVAILABLE
- ATHLETIC TRAINER ONSITE AFTER SCHOOL
- REDUCES DISPLACEMENT OF YOUTH SPORTS ACTIVITY AT OTHER FIELDS IN THE CITY
- ATHLETICS ARE GREAT FOR SOCIAL-EMOTIONAL HEALTH
- KEEPS NEWTON HS COMPETITIVE WITH OTHER NEARBY COMMUNITIES AND PROVIDE GREATER EQUITY
- BOTH STADIUM FIELDS HAVE FUNDRAISING EFFORTS BY THE SCHOOLS

NEWTON SOUTH HS BRANDEIS RD FIELD ATHLETIC NEEDS

ATHLETIC TEAMS & FIELD NEEDS

- 3 GIRLS SOCCER TEAMS (9TH, JV, VARSITY)
- 3 BOYS' SOCCER TEAMS(9TH, JV, VARSITY)
- 2 FOOTBALL TEAMS (JV, VARSITY)
- 3 FIELD HOCKEY TEAMS (9TH, JV, VARSITY)

UP TO 11 PRACTICES/GAMES EACH WEEKDAY TO SCHEDULE

TEAMS ACCESS FIELDS AT 4:15 (AVERAGE FALL SUNSET IS 4:10-4:15)

NEWTON NORTH HS TIGER STADIUM

ATHLETIC NEEDS

FALL ATHLETIC TEAMS & FIELD NEEDS:

- 3 GIRLS SOCCER TEAMS (9TH, JV, VARSITY)
- 3 BOYS' SOCCER TEAMS(9TH, JV, VARSITY)
- 3 FOOTBALL TEAMS (9TH, JV, VARSITY)
- 3 FIELD HOCKEY TEAMS (9TH, JV, VARSITY)
- 2 CROSS COUNTRY TEAMS ON TRACK

WINTER ATHLETIC TEAMS AND NEEDS:

• 2 INDOOR TRACK TEAMS, WEATHER PERMITTING

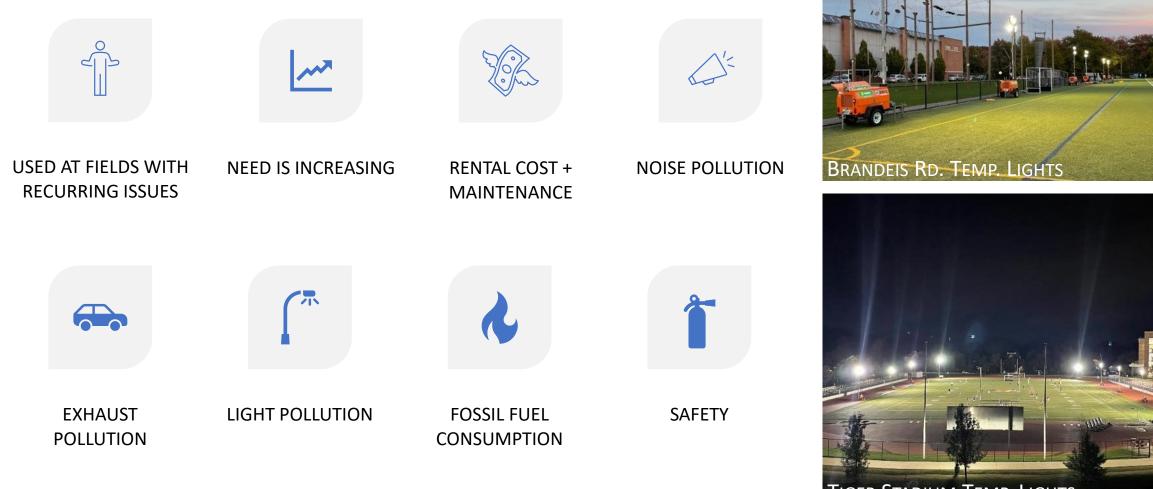
SPRING ATHLETIC TEAMS AND NEEDS:

- 3 GIRLS LACROSSE TEAMS(ALL LEVELS)
- 3 Boys Lacrosse Teams(All levels)
- 2 OUTDOOR TRACK(VARSITY, JV)

UP TO 12 PRACTICES/GAMES EACH WEEKDAY TO SCHEDULE

LATER SCHOOL DISMISSAL TIME: SAME NEEDS, LESS TIME

ISSUES WITH TEMPORARY LIGHTS



TIGER STADIUM TEMP. LIGHTS

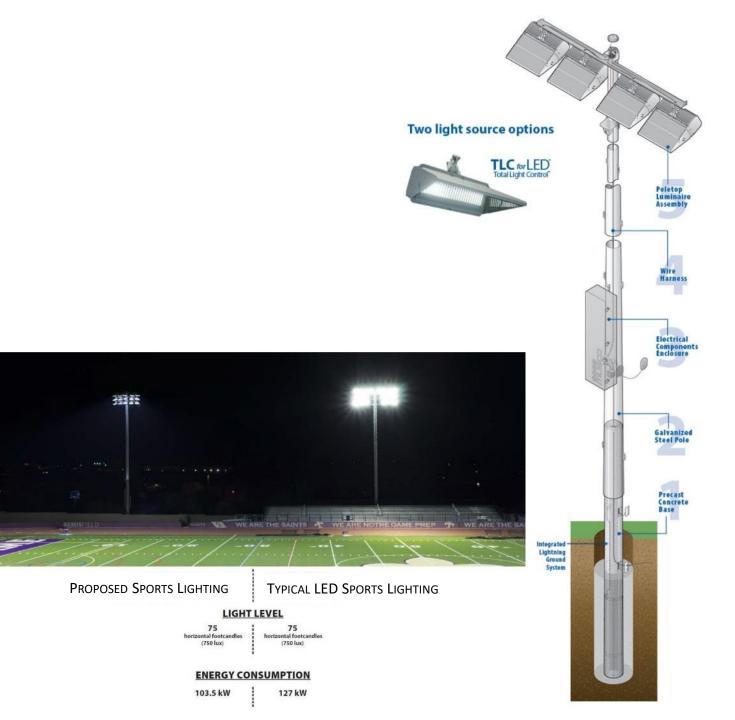
PROPOSED LIGHT SYSTEM

SITE SPECIFIC LIGHTING DESIGN CONSIDERATIONS:

- ALL DESIGNS VARY BY PROJECT OBJECTIVES
- Adjacency and Abutting Properties + City Lighting Ordinance
- MINIMUM SPILLAGE
- Post-Install Lighting Analysis

OVERARCHING GOALS:

- BEST LIGHT QUALITY WHILE MINIMIZING ABUTTER
 IMPACTS
 - LIGHT QUALITY
 - UNIFORMITY, INTENSITY, LOW-SPILLAGE
 - ABILITY TO MEET AND EXCEED THE CITY'S LIGHT SPILLAGE ORDINANCE



LIGHTING SYSTEM STANDARDS:

- LIGHT FIXTURES ARE FACTORY AIMED AND SHIELDED TO ILLUMINATE THE PLAYING SURFACE
- INSTALLATION IS LASER AIMED TO CENTER FIELD
- <u>REMOTE ACCESS</u> FOR MAXIMUM <u>FLEXIBILITY IN SCHEDULING</u>, AND ON/OFF
- Cost effective <u>solution</u> for meeting <u>school and city Athletic Facility and Programming needs</u>
- DESIGNED TO MEET DARK SKIES CERTIFICATION (IDA INTERNATIONAL DARK SKIES ASSOCIATION)

TIGER STADIUM

SPORTS LIGHTING ANALYSIS

WHAT TO KNOW:

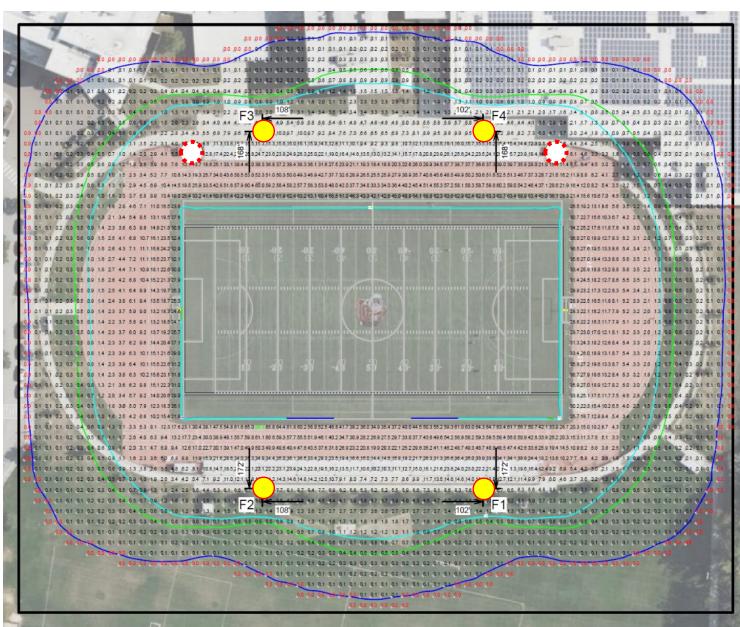
- TOTAL OF <u>4 POLES</u>
- Poles are <u>80 feet tall</u>

BRANDEIS RD FIELD SPORTS LIGHTING ANALYSIS

WHAT TO KNOW:

- Total of <u>6 Poles</u> proposed to reduce lateral spill and impacts to abutters
- POLES ARE <u>60 AND 70 FEET TALL</u>

NNHS TIGER STADIUM LIGHT SPILLAGE LEVEL SUMMARY



WHAT TO KNOW:

- **RED #S = DARKNESS**
- BLUE & GREEN = CITY LIGHTING ORDINANCE THRESHOLD
- PROPOSED POLE LOCATIONS

ALT. POLE LOCATIONS

NSHS BRANDEIS RD FIELD LIGHT SPILLAGE LEVEL SUMMARY

9.7 10 1 10 8 11 4 11 4 11 4 11 5 11 7 12 2 12 3 11 7 11

19 2 15.8 16 9 18.5 19.0 18.4 18.6 19.1 19.2 20.1 20.9 20.0 18.2

2 9 26 5 28 5 28 2 28 7 28 8 29 0 30 4 31 3 32 8 31 6 29 3 27 5 25

S3-

58 55 3.7 2

33.9 23.1 14.5 8.9 5.

21.3 13.67

23.6 16.7 10.8 6.8 4.0 2.3

7.8 193 12.57.6 4.4 25

34 20 12 88 85 84 83 82 81 81

13 07 04 02 01 01

23.51458.9 52 3.0 1.7 1.1 0.7 0.4 02 02 01 01 24.3 158 9.7 57 33 1.9 1.1 0.7 0.4 0.2 0.1 0.1 0.1 24416110261 38 21 12 07 04 02 01 01 0.463 38 22 1.2 0.7 0.4 0.2 0.1 0.1 23 5 15 2 10 4 64 4.0 33 1.3 0.7 0.4 0.2 0.1 0.1

25,2 17,6 11,5 7,2 4,2 2,4 4,4 0,8 0,4 0,2 0,1 0,1 0,1



- **RED #S = DARKNESS**
- PROPOSED POLE LOCATIONS

07 09 11 14 18 23 28 33 37 39 39 39 39 39 38 34 30 25 23 03 05 06 08 10 15 20 26 S1 4 140 50 63 66 68 68 68 68 67 66 62 59 54 48 S2 4 60 62 67 67 68 69 70 70 62 0 0.1 0.1 0.1 0.2 0.2 0.3 0.5 0.7 1.1 1.4 1.9 2.7 3.8 55 6.6 3.0 4.4 6.3 8.8 23.6 25.8 28.0 30.3 31.6 30.3 29.5 28.3 28.4 28.5 29.0 28.3 26.4 24.9 24.4 24 5 04 05 08 11 17 26 42 67 106159

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REAL REAL REAL PROPERTY AND REAL PROPERTY.

8 10.5 11.3 11.8 11.8 11.4 11.3 11.2 11.2 11.3 10.7 10.1 9.7

57 17 6 19 2 20 2 19 4 18 7 18 7 18 2 18 2 18 8 18 4 16 8 15 7

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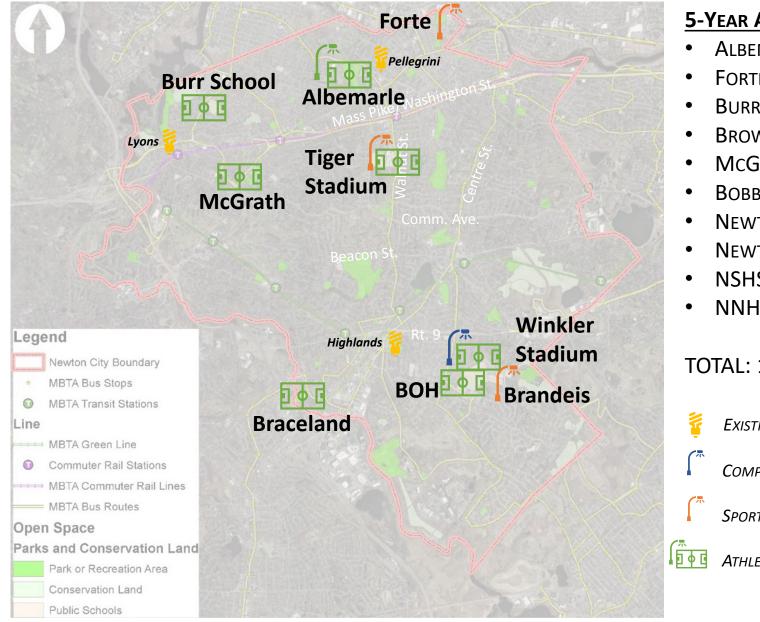
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Questions and Discussion

For additional questions and input please contact: athleticfields@newtonma.gov

For Presentation, please got to www.newtonma.gov/fieldprojects

Newton Highlands Playground, Newton



5-YEAR ATHLETIC FIELD CAPITAL PROJECTS:

- ALBEMARLE PARK
- FORTE PARK RELIGHTING
- **BURR SCHOOL**
- BROWN/OAK HILL FIELDS (BOH)
- McGrath Park
- **BOBBY BRACELAND**
- NEWTON SOUTH BRANDEIS RD. FIELD LIGHTING
- **NEWTON NORTH TIGER STADIUM LIGHTING**
- NSHS SYNTHETIC STADIUM + BRANDEIS TURF REPLACEMENT
- **NNHS Synthetic Turf Replacement**

TOTAL: 10 PROJECTS

- EXISTING SPORTS FIELD LIGHTING (NOT CURRENTLY ON 5-YEAR PROJECT LIST)
- COMPLETED SPORTS FIELD LIGHTING PROJECTS
- SPORTS FIELD LIGHTING PROJECTS: 2022-2023 CONSTRUCTION
- ATHLETIC FIELD/ PARK PROJECTS PLANNING PHASE

Newton Parks, Recreation and Culture Department **Athletic Fields Capital Improvement Plan**