City of Boston Environment

NOTICE OF INTENT APPLICATION FORM
Boston Wetlands Ordinance
City of Boston Code, Ordinances, Chapter 7-1.4

Boston File Number

MassDEP File Number

A. GENERAL INFORMATION

1. Project Location

244 Medford Street (a. Street Address) | Boston (b. City/Town) | 02129 (c. Zip Code)

020273500 (f. Assessors Map/Plat Number) | (g. Parcel /Lot Number)

2. Applicant

Ryan (a. First Name) | Woods (b. Last Name) | Boston Parks and Recreation Department (c. Company)

1010 Massachusetts Avenue, 3rd Floor (d. Mailing Address)

Boston (e. City/Town) | MA (f. State) | 02118 (g. Zip Code)

617-635-4505 (h. Phone Number) | (i. Fax Number) | ryan.woods@boston.gov (j. Email address)

3. Property Owner

(a. First Name) | (b. Last Name) | (c. Company)

(d. Mailing Address)

(e. City/Town) | (f. State) | (g. Zip Code)

(h. Phone Number) | (i. Fax Number) | (j. Email address)

❑ Check if more than one owner

(If there is more than one property owner, please attach a list of these property owners to this form.)

4. Representative (if any)

Alexandra (a. First Name) | Gaspar (b. Last Name) | Weston & Sampson Engineers (c. Company)

55 Walkers Brook Dr Suite 100 (d. Mailing Address)

Reading (e. City/Town) | MA (f. State) | 01867 (g. Zip Code)

978-532-1900 (h. Phone Number) | (i. Fax Number) | gaspara@wseinc.com (j. Email address)

5. Is any portion of the proposed project jurisdictional under the Massachusetts Wetlands Protection Act M.G.L. c. 131 §40?

☒ Yes ☐ No

If yes, please file the WPA Form 3 - Notice of Intent with this form

6. General Information

The project proposes the replacement of the existing athletic fields at Charlestown High School. See Appendix A for additional information.

7. Project Type Checklist

a. ☐ Single Family Home
b. ☐ Residential Subdivision
c. ☐ Limited Project Driveway Crossing
d. ☐ Commercial/Industrial
e. ☐ Dock/Pier
f. ☐ Utilities
g. ☐ Coastal Engineering Structure
h. ☐ Agriculture – cranberries, forestry
i. ☐ Transportation
j. ☒ Other

8. Property recorded at the Registry of Deeds

Suffolk — a. County
090 — b. Page Number
14782 — c. Book
d. Certificate # (if registered land)

9. Total Fee Paid

exempt — a. Total Fee Paid
b. State Fee Paid
c. City Fee Paid

B. BUFFER ZONE & RESOURCE AREA IMPACTS

Buffer Zone Only - Is the project located only in the Buffer Zone of a resource area protected by the Boston Wetlands Ordinance?

☐ Yes ☒ No

1. Coastal Resource Areas

Resource Area	Resource Area Size	Proposed Alteration*	Proposed Migitation
❑ *Coastal Flood Resilience Zone*	Square feet	Square feet	Square feet
☒ *25-foot Waterfront Area*	39,450 Square feet	366 Square feet	0 Square feet
❑ *100-foot Salt Marsh Area*	Square feet	Square feet	Square feet
❑ *Riverfront Area*	Square feet	Square feet	Square feet

2. Inland Resource Areas

Resource Area	Resource Area Size	Proposed Alteration*	Proposed Migitation
❑ *Inland Flood Resilience Zone*	Square feet	Square feet	Square feet
❑ *Isolated Wetlands*	Square feet	Square feet	Square feet
❑ *Vernal Pool*	Square feet	Square feet	Square feet
❑ *Vernal Pool Habitat (vernal pool + 100 ft. upland area)*	Square feet	Square feet	Square feet
❑ *25-foot Waterfront Area*	Square feet	Square feet	Square feet
❑ *Riverfront Area*	Square feet	Square feet	Square feet

C. OTHER APPLICABLE STANDARDS & REQUIREMENTS

1. What other permits, variances, or approvals are required for the proposed activity described herein and what is the status of such permits, variances, or approvals?

A Ch91 Request for Adminstrative Review has been submitted. Status is still in review.

2. Is any portion of the proposed project located in Estimated Habitat of Rare Wildlife as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the Massachusetts Natural Heritage Atlas or go to http://www.mass.gov/dfwele/dfw/nhesp/nhregmap.htm.

❑ Yes ☒ No

If *yes*, the project is subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18).

A. Submit Supplemental Information for Endangered Species Review

☐ Percentage/acreage of property to be altered:

(1) within wetland Resource Area _____ percentage/acreage

(2) outside Resource Area _____ percentage/acreage

☐ Assessor's Map or right-of-way plan of site

3. Is any portion of the proposed project within an Area of Critical Environmental Concern?

❑ Yes ☒ No

If yes, provide the name of the ACEC: _____

4. Is the proposed project subject to provisions of the Massachusetts Stormwater Management Standards?

☒ *Yes. Attach a copy of the Stormwater Checklist & Stormwater Report as required.*
- ❑ *Applying for a Low Impact Development (LID) site design credits*
- ☒ *A portion of the site constitutes redevelopment*
- ❑ *Proprietary BMPs are included in the Stormwater Management System*

❑ *No. Check below & include a narrative as to why the project is exempt*
- ❑ *Single-family house*
- ❑ *Emergency road repair*
- ❑ *Small Residential Subdivision (less than or equal to 4 single family houses or less than or equal to 4 units in a multifamily housing projects) with no discharge to Critical Areas*

5. Is the proposed project subject to Boston Water and Sewer Commission Review?

❑ Yes ☒ No

D. SIGNATURES AND SUBMITTAL REQUIREMENTS

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the Wetlands Protection Ordinance.

Signature of Applicant — Date: 8/18/22

Signature of Property Owner (if different) — Date

Signature of Representative (if any) — Date: 8/24/22

PROJECT DESCRIPTION

Background

The existing synthetic turf fields and the running track located at the Charlestown High School and Community Center, 244 Medford Street, Charlestown, MA 02129 are approximately 12 years old and have reached the end of their useful and safe life cycle. The City of Boston' Parks and Recreation Department is planning to replace the synthetic turf fields and running track surfaces, in addition to strategically improving the stormwater infiltration rates within each synthetic turf field area. Stormwater infiltration tests were performed in June 2022 and determined that areas of the subsurface drainage stone below each field was performing below the acceptable field performance thresholds and should be addressed under this project scope. The life cycle maintenance replacement of these fields and running track are critical to player safety and playability. Additionally, this project plays a critical role in providing recreational space while other larger improvements at are being made at nearby Ryan Playground in the next 5 years.

Site Description

Charlestown High School is located at 244 Medford St in the Charlestown neighborhood. The project area is It is surrounded mostly by residential housing with Charlestown High School located across Medford Street to the south and the Community Center to the west. The Little Mystic Channel is located to the east of the fields and the property is bound by Terminal Street to the North

Scope of Work

Both the existing synthetic turf football and softballs fields maintenance replacement will include removal of the existing field infill materials, the synthetic turf carpet, and focused subsurface drainage stone refurbishment within each synthetic turf field footprint. Following the removal of the existing carpet and infill material, new synthetic turf carpet and infill will be installed in kind. The running track surface will be milled, removed, and replaced in kind with new running track surface layer to be able to provide a safe and high performing running surface suitable for athletic competitions and neighborhood use. Additionally, two new drinking fountains with bottle filling stations and shaded dugout canopies are to be added within the project areas, as well as ancillary repairs to chain link fencing and other sport field related amenities. All activities required for the replacement of the existing fields, running track, and related improvements are are to remain within the existing footprints of the fields with no permanent work is to be completed beyond the limits of the track and field areas or within the jurisdictional setbacks.

The anticipated means and methods to perform this work is typical in that the contractor will vacuum out the existing infill and remove the existing turf. The track surfacing will be milled and removed. All materials will be stockpiled or removed immediately outside the jurisdictional setbacks and properly disposed of. Following the removal of the infill, the field carpet, and track surfacing, additional stormwater infiltration tests will be performed within the field area limits to identify more precisely those areas of the subsurface drainage stone that are underperforming. It is anticipated that up to twelve inches of drainage stone will be strategically removed and replaced with new drainage stone. The minimal requirements for new subsurface drainage stone are 50-inches per hour minimally. The drainage stone layer will be rolled, and the subsurface stone layer elevations will be adjusted throughout the field areas to ensure proper drainage of the new finished carpet and infill. Other strategic

and limited repairs to the perimeter curb and track permitter drain system are anticipated, as they are showing signs of general wear and tear and should be repaired and or replaced to ensure continued proper drainage of the field moving forward. Boston Parks and Recreation is responsible for all operations and maintenance of the fields and surrounding stormwater drain system including the catch basins. Cleanout and maintenance protocols are in place and will remain in place following the completion of this project.

The synthetic carpet is rolled onto the drainage stone subsurface and adhered to the perimeter curb. Following the placement of the carpet, it will be infilled with a 50/50 mix of sand and EPDM virgin crumb rubber. Upon completion of the replacement of the synthetic turf field, and EPDM track surface will be placed atop the existing asphalt pavement subbase and color seal coated with the proper markings.

The synthetic turf is comprised is a 2 ¼"-2 ½" extruded plastic filament adhered to a woven and or non-woven backing placed directly atop of the subbase drainage stone layer and infilled with an equal parts (50/50) EPDM virgin rubber granular infill and silica sand infill to a two-inch depth using a spreader. Typical infiltration rates within the synthetic turf carpet profile are to be 20-inches minimally.

Additional improvements that are to be performed under this project's scope includes the installation of two (2) total drinking fountains and bottle filler stations. This work will include the trenching within existing pavement and replacement of the pavement in kind following the installation and connection to both an existing water service at the building and a new water service within Terminal Street. The work associated with the installation of the drinking fountains is outside the jurisdictional setbacks.

There will be no trees removed to perform this scope of work that has been outlined herein. Any tree that is within proximity of work to be conducted will be protected using snow fence at the dripline of the tree and no material storage or equipment is permitted to work within the critical root zone of the tree unless authorized by the owner or the project engineer. All equipment for the removal and installation of the field surfacing shall be performed using lightweight

Environmental Considerations

This proposed project will include work within the 100' resource buffer (*15,800 sf*) and Land Subject to Coastal Storm Flowage (*10,022 sf*), resources regulated under both the Massachusetts Wetlands Protection Act (WPA) and the City of Boston Wetland Regulations. In addition, work will occur within the 25' Waterfront Area (*366 sf*), a resource protected by the city. Below please find Boston's redevelopment performance standards for LSCSF as well as discussion of the buffer zone and waterfront area provisions of the Act and the Ordinance and how the work conforms

Boston Wetland Reg. Redevelopment Performance Standards: Land Subject to Coastal Storm Flowage

2. Notwithstanding the provisions of Section XVII(E), the Commission may permit work or activity that constitutes a Redevelopment, provided that the work or activity shall conform to the following criteria:
    i. At a minimum, proposed work or activity shall result in an improvement over existing conditions of the capacity of LSCSF to protect at least one of the Resource Area Values described in Section XVII(A) and adaptations to or mitigation against the impacts of SLR on the project and the area of the proposed work or activity.
    W&S Response: This project will result in an improvement over existing conditions because the work will improve the ability of the area to receive floodwaters by increasing the stormwater infiltration of the field. In improving the sites ability to store flood waters, we are protecting a resource area value noted in Section XVII (A).
    ii. Stormwater management is provided according to the performance standards established in 310 Code Mass. Regs. 10.05(6)(k), as applicable to the proposed work or activity, including such performance standards as are applicable to proposed Redevelopment.
    W&S Response: This project will improve stormwater drainage and flow characteristics as updating the field subsurface drainage stone later will improve stormwater infiltration. See Appendix B for stormwater report.
    iii. The proposed work or activity shall not inhibit any planned flood resilience, adaptation, or mitigation solutions and shall not inhibit the ability to enact such solutions in a timely and practical manner as referenced by Climate Ready Boston or any successor initiative of the City.
    W&S Response: This project will not inhibit any planned flood resilience, adaptation, or mitigation solutions. This project will improve resilience as the site will be better equipped to handle flood waters following construction.

3. Notwithstanding the provisions of Section XVII(E)(12), the provisions of Section XVII(E)(9),(10), (11), and (13) shall apply to proposed Redevelopment.

    W&S Response: See notes regarding standards 9, 10, 11, and 13 below.

9. Notwithstanding Sections XVII(E)(1) through (8), the Commission may, in its sole discretion, permit the following activities provided that the applicant demonstrates to the satisfaction of the Commission that best available measures, as defined by the Ordinance, are utilized to minimize or eliminate adverse impacts on the critical characteristics of and Resource Area Values protected by LSCSF described in Section XVII(A) herein, and provided further that all other performance standards for overlapping or overlaying wetland resource areas are met:

    i. Limited projects as specified in the Act at 310 Code Mass. Regs. 10.24(7);46

ii. Beach and bank nourishment and restoration projects, including fencing, native plantings, and other projects designed to increase resource area stabilization and decrease erosion.
iii. Pedestrian walkways for public shoreline access and nonmotorized use.
iv Improvements necessary to maintain or improve the structural integrity or stability of an existing coastal engineering structure, as that term is defined by the Ordinance.
v. Projects which will protect, restore, rehabilitate, or create a wetland resource area.
vi. Projects that are approved, in writing, or conducted by the Commonwealth of Massachusetts Division of Marine Fisheries that are specifically intended to increase the productivity of land containing shellfish, including aquaculture, or to maintain or enhance marine fisheries.
vii. Projects that are approved, in writing, or conducted by the Commonwealth of Massachusetts Division of Fisheries and Wildlife that are specifically intended to enhance or increase wildlife habitat.
viii. Projects that are designed and intended to reduce the risk of coastal flooding, inland flooding, extreme weather events, SLR, and other adverse impacts of climate change, including, but not limited to, strategies and plans described in Climate Ready Boston or any successor initiative of the City,
ix. Flood mitigation projects designed and intended to have no significant adverse effect on the ability of LSCSF to protect from storm damage and flood control, and
x. Projects involving the installation of scientific testing and monitoring equipment provided that it is temporary in nature and will not alter LSCSF.

W&S Response: This project does not fall under any of these activities.

10. In the interest of storm damage prevention, flood control, and prevention of pollution, should the Commission permit activity or work in LSCSF that is part of new construction or constitutes substantial improvement to an existing structure, the Commission may condition the permitted activity or work so that any critical building systems, infrastructure, or equipment is located two (2) feet above the anticipated BFE expected to occur within the next 50 years based on the best available data and projections of SLR. 47

i. In the event that the proposed work or activity is temporary, then any critical building systems, infrastructure, or equipment shall be located two (2) feet above the anticipated BFE at the conclusion of the project's determined duration of the temporary work.
ii. At a minimum, the anticipated BFE shall be based on the best available and most recent data and projections for SLR made available by the City or any of its agencies, boards, commissions, or quasi-City agencies, including, but not limited to, data and information made available through the Climate Ready Boston initiative or any successor initiative.
iii. In the event that elevating or relocating critical building systems, infrastructure, or equipment is not practicable, as determined by the Commission, the Commission may require the Applicant to employ other

floodproofing strategies such as floodwalls or shields, and the Applicant shall, at a minimum, secure such equipment with anchors or tie-downs to prevent flotation.

W&S Response: Noted

11. When any proposed work or activity in LSCSF is located within an ACEC, the proposed work or activity shall have no adverse impact upon the Resource Area Values described in Section XVII(A) and shall fully mitigate any impacts resulting from the proposed work or activity.

W&S Response: There is no ACEC on the project sited.

13. Notwithstanding the provisions of Section XVII(E)(2) through (X), no project may be permitted which will have any adverse impact on specified habitat sites of rare vertebrate or invertebrate species indicated on the most recent Estimated Habitat Map of State-listed Rare Wetlands Wildlife (if any) published by the Massachusetts NHESP.

W&S Response: There is no NHESP habitat on the project site.

City of Boston Wetlands Ordinance: 25' Waterfront Area

Approximately 366 square feet of work will occur within the 25' Waterfront Area, a resource protected by the City of Boston Wetland Ordinance. The work in this area includes removal of the existing turf and the placement of the new synthetic turf carpet. The entirety of the limit of work will be lined with erosion control, preventing significant damage to the 25' Waterfront Area resource. The 25' Waterfront Area will be restored to existing condition following project completion.

MA Wetlands Protection Act & City of Boston Wetlands Ordinance: 100' Buffer

Approximately 15,800 square feet of work will occur within the 100' Buffer to coastal bank. Work within the buffer will include replacement of the synthetic turf field. Erosion control will line the work area to prevent adverse effects to the buffer zone. The buffer zone will be restored to existing condition following project completion.

Climate Change Discussion

This project is considered a life cycle maintenance of existing fields replacement in kind project. We are aware that the Coastal Resilience Solutions for East Boston and Charlestown (Phase II) Plan has recently been published and provides an outlook for coastal flooding and a timeline for implementation. The plan identifies 15.5 ft-NAVD88 (22 ft-BCB) as the design elevation for Charlestown. The design flood elevation is based on the 2070 1% annual chance of flood. According to flood models for Charlestown used in the report, the periphery of the site closest to the Little Mystic Channel can be inundated during present day 1% events. This is consistent with FEMA mapping. A majority of the site is outside the present 1% flood extents. By 2070, most of the site is likely to be flooded during a 1% event.

According to the Plan, the coastal resilience solution for this is intended to provide effective flood risk reduction in the long-term while enhancing public access and providing opportunities for new waterfront amenities and long-term ecological restoration. The preferred solution for this area will include an elevated Harborwalk to be integrated into a coastal barrier in the DBA. This work is expected as part of the 2050-time horizon for implementation according to the implementation timeline. Knowing the field surfacing is considered a material that has a life cycle and performance expectancy of 8-12 years, the next replacement cycle of fields is anticipated to occur between 2030 and 2034 and in alignment with the possible implementation strategies of the Phase II Plan.

Climate change initiatives, while considered are not planned to be fully implemented or possible at this time. As part of the larger climate resilient initiative scheduled to take place at Ryan Playground in 2023, the Boston Parks and Recreation Department must take the Ryan Playground athletic fields offline for multiple seasons to perform that work, therefor the replacement of these synthetic turf fields at Charlestown High School / Community Center, that we are presenting herein, must be available for use and in a safe playing condition prior to the commencement of the Ryan Playground work.

We are not altering the existing conditions of the current flood pathways, and therefore there will not be a change to the coastal flowage, nor will this project cause impact to adjacent properties.

Due to the lifespan of synthetic fields, we also anticipate that increased precipitation and future stormwater will not be different than what exists today and should be incorporated into the project when a coastal barrier is designed, which will impact existing drainage.

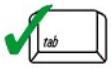
It is possible the fields may become inundated during storm events prior to the next replacement, the synthetic turf material is considered resilient, durable, and able to handle the inundation of coastal storm events and provide a much quick recovery time for use following the conclusion of the event. The project is also installing drinking fountains and dugout shelters at the softball field to provide areas of refuge and recovery during the hottest seasons of the year.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

A. Introduction

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the Massachusetts Stormwater Handbook. The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.[1] This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8[2]
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

[1] The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

[2] For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature

8/26/2022
Signature and Date

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

☐ New development

☒ Redevelopment

☐ Mix of New Development and Redevelopment

Checklist for Stormwater Report

Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- ☒ No disturbance to any Wetland Resource Areas
- ☐ Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- ☐ Reduced Impervious Area (Redevelopment Only)
- ☒ Minimizing disturbance to existing trees and shrubs
- ☐ LID Site Design Credit Requested:
  - ☐ Credit 1
  - ☐ Credit 2
  - ☐ Credit 3
- ☐ Use of "country drainage" versus curb and gutter conveyance and pipe
- ☐ Bioretention Cells (includes Rain Gardens)
- ☐ Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- ☐ Treebox Filter
- ☐ Water Quality Swale
- ☐ Grass Channel
- ☐ Green Roof
- ☐ Other (describe): Replacement of an existing artificial turf field in-kind, no changes to existing drainage and no increases to site disburbance

Standard 1: No New Untreated Discharges

- ☒ No new untreated discharges — No changes to existing onsite drainage system which consists of field underdrains and surface catch basins.
- ☐ Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- ☐ Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.

Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation No changes to surfacing or drainage onsite, project is a maintenance project replacing existing artificial field, standard not applicable

☐ Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.

☐ Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.

☐ Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge No new impervious areas being added onsite, items below do not apply.

☐ Soil Analysis provided.

☐ Required Recharge Volume calculation provided.

☐ Required Recharge volume reduced through use of the LID site Design Credits.

☐ Sizing the infiltration, BMPs is based on the following method: Check the method used.

☐ Static ☐ Simple Dynamic ☐ Dynamic Field[1]

☐ Runoff from all impervious areas at the site discharging to the infiltration BMP.

☐ Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:

- ☐ Site is comprised solely of C and D soils and/or bedrock at the land surface
- ☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
- ☐ Solid Waste Landfill pursuant to 310 CMR 19.000
- ☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.

☐ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.

☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

[1] 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.

Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

☐ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.

☐ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality No new impervious areas being added onsite, items below do not apply.

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
- Provisions for storing materials and waste products inside or under cover;
- Vehicle washing controls;
- Requirements for routine inspections and maintenance of stormwater BMPs;
- Spill prevention and response plans;
- Provisions for maintenance of lawns, gardens, and other landscaped areas;
- Requirements for storage and use of fertilizers, herbicides, and pesticides;
- Pet waste management provisions;
- Provisions for operation and management of septic systems;
- Provisions for solid waste management;
- Snow disposal and plowing plans relative to Wetland Resource Areas;
- Winter Road Salt and/or Sand Use and Storage restrictions;
- Street sweeping schedules;
- Provisions for prevention of illicit discharges to the stormwater management system;
- Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
- Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
- List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.

☐ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.

☐ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:

- ☐ is within the Zone II or Interim Wellhead Protection Area
- ☐ is near or to other critical areas
- ☐ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
- ☐ involves runoff from land uses with higher potential pollutant loads.

☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.

☐ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.

Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

☐ The BMP is sized (and calculations provided) based on:

- ☐ The ½" or 1" Water Quality Volume or
- ☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.

☐ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.

☐ A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs) Not a LUHPPL, items below do not apply.

☐ The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.

☐ The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted ***prior to*** the discharge of stormwater to the post-construction stormwater BMPs.

☐ The NPDES Multi-Sector General Permit does ***not*** cover the land use.

☐ LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.

☐ All exposure has been eliminated.

☐ All exposure has ***not*** been eliminated and all BMPs selected are on MassDEP LUHPPL list.

☐ The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas No critical areas, items below do not apply.

☐ The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.

☐ Critical areas and BMPs are identified in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

☒ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:

- ☐ Limited Project
- ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
- ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
- ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
- ☐ Bike Path and/or Foot Path
- ☒ Redevelopment Project
- ☐ Redevelopment portion of mix of new and redevelopment.

☐ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.

☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
- Construction Period Operation and Maintenance Plan;
- Names of Persons or Entity Responsible for Plan Compliance;
- Construction Period Pollution Prevention Measures;
- Erosion and Sedimentation Control Plan Drawings;
- Detail drawings and specifications for erosion control BMPs, including sizing calculations;
- Vegetation Planning;
- Site Development Plan;
- Construction Sequencing Plan;
- Sequencing of Erosion and Sedimentation Controls;
- Operation and Maintenance of Erosion and Sedimentation Controls;
- Inspection Schedule;
- Maintenance Schedule;
- Inspection and Maintenance Log Form.

☒ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has ***not*** been included in the Stormwater Report but will be submitted ***before*** land disturbance begins.

☐ The project is ***not*** covered by a NPDES Construction General Permit.

☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.

☒ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan No new drainage infrastructure proposed, items below do not apply.

☐ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:

- ☐ Name of the stormwater management system owners;
- ☐ Party responsible for operation and maintenance;
- ☐ Schedule for implementation of routine and non-routine maintenance tasks;
- ☐ Plan showing the location of all stormwater BMPs maintenance access areas;
- ☐ Description and delineation of public safety features;
- ☐ Estimated operation and maintenance budget; and
- ☐ Operation and Maintenance Log Form.

☐ The responsible party is ***not*** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:

- ☐ A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
- ☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

☐ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;

☒ An Illicit Discharge Compliance Statement is attached;

☐ NO Illicit Discharge Compliance Statement is attached but will be submitted ***prior to*** the discharge of any stormwater to post-construction BMPs.

Stormwater Report

To Be Submitted with the Notice of Intent

Applicant/Project Name: City of Boston Parks and Recreation Department

Project Address: 244 Medford St (Charlestown High School) Boston, MA

Application Prepared by:

Firm: Weston & Sampson, Inc.

Registered PE James Pearson, P.E.

Below is an explanation concerning Standards 1-10 as they apply to the Boston Parks and Recreation Department Charlestown High School Field Replacement Project:

General:

The existing synthetic turf fields and the running track located at the Charlestown High School and Community Center, 255 Medford Street, Charlestown, MA 02129 are approximately 12 years old and have reached the end of their useful and safe life cycle. The City of Boston' Parks and Recreation Department is planning to replace the synthetic turf fields playing surface and running track surfaces, in addition to strategical improving the stormwater infiltration rates within each synthetic turf field area. Stormwater infiltration tests were performed in June 2022 and determined that areas of the subsurface drainage stone below each field was performing below the acceptable field performance thresholds and will be addressed under this project scope by replacing the subsurface stone. These typical life cycle maintenance replacements these fields and running track are critical to player maintaining safety and playability.

Both the existing synthetic turf football and softballs field maintenance replacement will include removal of the existing field infill materials, the synthetic turf carpet, and focused subsurface drainage stone refurbishment within each synthetic turf field footprint. Following the removal of the existing carpet and infill material, new synthetic turf carpet and infill will be installed in kind. The running track surface will be milled, removed, and replaced in kind with new running track surface layer to be able to provide a safe and high performing running surface suitable for athletic competitions and neighborhood use. All activities require for the replacement of the existing fields and running track are to remain within the existing footprints of each item with no work to be completed beyond.

Since the proposed project is a replacement "in-kind" of existing artificial turf fields, no new drainage infrastructure is proposed. Existing underdrains beneath the fields will be re-used, and surface runoff will continue to be collected by the existing system of catch basins/area drains and pipes. No history of flooding, overflow to the harbor, or drainage problems have been reported at the site.

Standard 1: No New Untreated Discharges

The proposed project will create no new untreated discharges. No new impervious area will be created during this project.

Standard 2: Peak Rate Attenuation

Since there will be no increase in impervious area, post-development (post-improvement) peak discharge rates will not exceed pre-development (pre-improvement) peak discharge rates.

To ensure that the work incorporates the performance standards recommended in the DEP's Stormwater Management Policy, necessary erosion and sedimentation control measures will be utilized during construction. These measures will include compost filter tubes as depicted on the site plans.

Standard 3: Recharge

As noted in the Standard 2 explanation, the impervious area in the work area will not be increased at the completion of the project. Therefore, recharge rates will not change in the work area at the end of the project.

Standard 4: Water Quality

The proposed work will not change water quality at the site. There will be no increase in stormwater flow, and the design will not increase soil erosion. During the project, appropriate BMPs will be used to minimize sedimentation and soil erosion.

Standard 5: Land Uses with Higher Potential Pollutant Loads (LUHPPLs)

Not Applicable. There are no LUHPPLs in the work area.

Standard 6: Critical Areas

There will be no new discharge to critical areas.

Standard 7: Redevelopments and Other Projects Subject to the Standards Only to the Maximum Extent Practicable

This is a re-development project which will minimize disturbance to existing trees and shrubs.

Standard 8: Construction Period Pollution Prevention and Erosion and Sediment Control

A detailed Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan is included. To ensure that the work incorporates the performance standards recommended in the DEP's Stormwater Management Policy, necessary erosion and sedimentation control measures will be utilized during construction. These measures will include compost filter tubes as depicted on the site plans.

Standard 9: Operation and Maintenance Plan

An operations and maintenance plan is not needed since there will not be any new stormwater management systems put in place in the project work area.

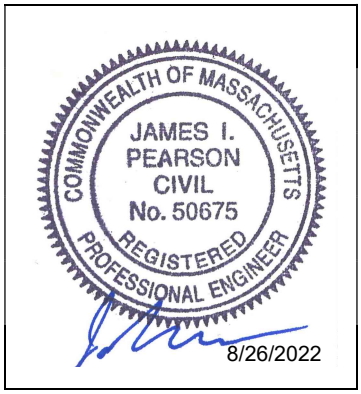
Standard 10: Prohibition of Illicit Discharges

To the best of our knowledge and belief, there are no existing illicit discharges occurring from the project site. No illicit discharges are proposed as part of this project.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including any relevant soil evaluations, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan, the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature



8/26/2022

Signature and Date

D. SIGNATURES AND SUBMITTAL REQUIREMENTS

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the Wetlands Protection Ordinance.

Signature of Applicant — Date: 8/18/22

MW

Signature of Property Owner (if different) — Date: 9/9/22

Signature of Representative (if any) — Date: 8/24/22

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

1. Signature of Applicant	2. Date 9/9/22
3. Signature of Property Owner (if different)	4. Date
5. Signature of Representative (if any)	6. Date

For Conservation Commission:
Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:
One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:
If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

PROJECT DESCRIPTION

Background

The existing synthetic turf fields and the running track located at the Charlestown High School and Community Center, 244 Medford Street, Charlestown, MA 02129 are approximately 14 years old and have reached the end of their useful and safe life cycle. The City of Boston' Parks and Recreation Department is planning to replace the synthetic turf fields and running track surfaces, in addition to strategically improving the stormwater infiltration rates within each synthetic turf field area. Stormwater infiltration tests were performed in June 2022 and determined that areas of the subsurface drainage stone below each field was performing below the acceptable field performance thresholds and should be addressed under this project scope. The life cycle maintenance replacement of these fields and running track are critical to player safety and playability. Additionally, this project plays a critical role in providing recreational space while other larger improvements at are being made at nearby Ryan Playground in the next 5 years.

Site Description

Charlestown High School is located at 244 Medford St in the Charlestown neighborhood. The project area is surrounded mostly by residential housing with Charlestown High School located across Medford Street to the south and the Community Center to the west. The Little Mystic Channel is located to the east of the fields and the property is bound by Terminal Street to the North

Scope of Work

Both the existing synthetic turf football and softballs fields maintenance replacement will include removal of the existing field infill materials, the synthetic turf carpet, and focused subsurface drainage stone refurbishment within each synthetic turf field footprint. Following the removal of the existing carpet and infill material, new synthetic turf carpet and infill will be installed in kind. The running track surface will be milled, removed, and replaced in kind with new running track surface layer to be able to provide a safe and high performing running surface suitable for athletic competitions and neighborhood use. Additionally, two new drinking fountains with bottle filling stations and shaded dugout canopies are to be added within the project areas, as well as ancillary repairs to chain link fencing and other sport field related amenities. All activities required for the replacement of the existing fields, running track, and related improvements are are to remain within the existing footprints of the fields with no permanent work is to be completed beyond the limits of the track and field areas or within the jurisdictional setbacks.

The anticipated means and methods to perform this work is typical in that the contractor will vacuum out the existing infill and remove the existing turf. The track surfacing will be milled and removed. All materials will be stockpiled or removed immediately outside the jurisdictional setbacks and properly disposed of. Following the removal of the infill, the field carpet, and track surfacing, additional stormwater infiltration tests will be performed within the field area limits to identify more precisely those areas of the subsurface drainage stone that are underperforming. It is anticipated that up to twelve inches of drainage stone will be strategically removed and replaced with new drainage stone. The minimal requirements for new subsurface drainage stone are 50-inches per hour minimally. The drainage stone layer will be rolled, and the subsurface stone layer elevations will be adjusted throughout the field areas to ensure proper drainage of the new finished carpet and infill. Other strategic

and limited repairs to the perimeter curb and track permitter drain system are anticipated, as they are showing signs of general wear and tear and should be repaired and or replaced to ensure continued proper drainage of the field moving forward. Boston Parks and Recreation is responsible for all operations and maintenance of the fields and surrounding stormwater drain system including the catch basins. Cleanout and maintenance protocols are in place and will remain in place following the completion of this project.

The synthetic carpet is rolled onto the drainage stone subsurface and adhered to the perimeter curb. Following the placement of the carpet, it will be infilled with a 50/50 mix of sand and EPDM virgin rubber. Upon completion of the replacement of the synthetic turf field, and EPDM track surface will be placed atop the existing asphalt pavement subbase and color seal coated with the proper markings.

The synthetic turf is comprised is a 2 ¼"-2 ½" extruded plastic filament adhered to a woven and or non-woven backing placed directly atop of the subbase drainage stone layer and infilled with an equal parts (50/50) EPDM virgin rubber and silica sand infill to a two-inch depth using a spreader. Typical infiltration rates within the synthetic turf carpet profile are to be 2-inches minimally.

Additional improvements that are to be performed under this project's scope includes the installation of two (2) total drinking fountains and bottle filler stations. This work will include the trenching within existing pavement and replacement of the pavement in kind following the installation and connection to both an existing water service at the building and a new water service within Terminal Street. The work associated with the installation of the drinking fountains is outside the jurisdictional setbacks.

There will be no trees removed to perform this scope of work that has been outlined herein. Any tree that is within proximity of work to be conducted will be protected using snow fence at the dripline of the tree and no material storage or equipment is permitted to work within the critical root zone of the tree unless authorized by the owner or the project engineer. All equipment for the removal and installation of the field surfacing shall be performed using lightweight

Environmental Considerations

This proposed project will include work within the 100' resource buffer (*15,800 sf*) and Land Subject to Coastal Storm Flowage (*10,022 sf*), resources regulated under both the Massachusetts Wetlands Protection Act (WPA) and the City of Boston Wetland Regulations. In addition, work will occur within the 25' Waterfront Area (*366 sf*), a resource protected by the city. Below please find Boston's redevelopment performance standards for LSCSF as well as discussion of the buffer zone and waterfront area provisions of the Act and the Ordinance and how the work conforms

Boston Wetland Reg. Redevelopment Performance Standards: Land Subject to Coastal Storm Flowage

2. Notwithstanding the provisions of Section XVII(E), the Commission may permit work or activity that constitutes a Redevelopment, provided that the work or activity shall conform to the following criteria:
    i. At a minimum, proposed work or activity shall result in an improvement over existing conditions of the capacity of LSCSF to protect at least one of the Resource Area Values described in Section XVII(A) and adaptations to or mitigation against the impacts of SLR on the project and the area of the proposed work or activity.

    W&S Response: This project will result in an improvement over existing conditions because the work will improve the ability of the area to receive floodwaters by increasing the stormwater infiltration of the field. In improving the sites ability to store flood waters, we are protecting a resource area value noted in Section XVII (A). In addition, the site will be resilient to heat island effect as we will be planting new trees and protecting those that are existing.

    ii. Stormwater management is provided according to the performance standards established in 310 Code Mass. Regs. 10.05(6)(k), as applicable to the proposed work or activity, including such performance standards as are applicable to proposed Redevelopment.

    W&S Response: This project will improve stormwater drainage and flow characteristics as updating the field subsurface drainage stone later will improve stormwater infiltration. See Appendix B for stormwater report.

    iii. The proposed work or activity shall not inhibit any planned flood resilience, adaptation, or mitigation solutions and shall not inhibit the ability to enact such solutions in a timely and practical manner as referenced by Climate Ready Boston or any successor initiative of the City.

    W&S Response: This project will not inhibit any planned flood resilience, adaptation, or mitigation solutions. This project will improve resilience as the site will be better equipped to handle flood waters following construction.

3. Notwithstanding the provisions of Section XVII(E)(12), the provisions of Section XVII(E)(9),(10), (11), and (13) shall apply to proposed Redevelopment.

    W&S Response: See notes regarding standards 9, 10, 11, and 13 below.

9. Notwithstanding Sections XVII(E)(1) through (8), the Commission may, in its sole discretion, permit the following activities provided that the applicant demonstrates

to the satisfaction of the Commission that best available measures, as defined by the Ordinance, are utilized to minimize or eliminate adverse impacts on the critical characteristics of and Resource Area Values protected by LSCSF described in Section XVII(A) herein, and provided further that all other performance standards for overlapping or overlaying wetland resource areas are met:

i. Limited projects as specified in the Act at 310 Code Mass. Regs. 10.24(7);46
ii. Beach and bank nourishment and restoration projects, including fencing, native plantings, and other projects designed to increase resource area stabilization and decrease erosion.
iii. Pedestrian walkways for public shoreline access and nonmotorized use.
iv Improvements necessary to maintain or improve the structural integrity or stability of an existing coastal engineering structure, as that term is defined by the Ordinance.
v. Projects which will protect, restore, rehabilitate, or create a wetland resource area.
vi. Projects that are approved, in writing, or conducted by the Commonwealth of Massachusetts Division of Marine Fisheries that are specifically intended to increase the productivity of land containing shellfish, including aquaculture, or to maintain or enhance marine fisheries.
vii. Projects that are approved, in writing, or conducted by the Commonwealth of Massachusetts Division of Fisheries and Wildlife that are specifically intended to enhance or increase wildlife habitat.
viii. Projects that are designed and intended to reduce the risk of coastal flooding, inland flooding, extreme weather events, SLR, and other adverse impacts of climate change, including, but not limited to, strategies and plans described in Climate Ready Boston or any successor initiative of the City,
ix. Flood mitigation projects designed and intended to have no significant adverse effect on the ability of LSCSF to protect from storm damage and flood control, and
x. Projects involving the installation of scientific testing and monitoring equipment provided that it is temporary in nature and will not alter LSCSF.

W&S Response: This project falls under item viii as installing a new turf will improve the sites resiliency against coastal flooding. Please see climate change discussion below.

10. In the interest of storm damage prevention, flood control, and prevention of pollution, should the Commission permit activity or work in LSCSF that is part of new construction or constitutes substantial improvement to an existing structure, the Commission may condition the permitted activity or work so that any critical building systems, infrastructure, or equipment is located two (2) feet above the anticipated BFE expected to occur within the next 50 years based on the best available data and projections of SLR. 47

i. In the event that the proposed work or activity is temporary, then any critical building systems, infrastructure, or equipment shall be located two

(2) feet above the anticipated BFE at the conclusion of the project's determined duration of the temporary work.

ii. At a minimum, the anticipated BFE shall be based on the best available and most recent data and projections for SLR made available by the City or any of its agencies, boards, commissions, or quasi-City agencies, including, but not limited to, data and information made available through the Climate Ready Boston initiative or any successor initiative.

iii. In the event that elevating or relocating critical building systems, infrastructure, or equipment is not practicable, as determined by the Commission, the Commission may require the Applicant to employ other floodproofing strategies such as floodwalls or shields, and the Applicant shall, at a minimum, secure such equipment with anchors or tie-downs to prevent flotation.

W&S Response: Noted

11. When any proposed work or activity in LSCSF is located within an ACEC, the proposed work or activity shall have no adverse impact upon the Resource Area Values described in Section XVII(A) and shall fully mitigate any impacts resulting from the proposed work or activity.

W&S Response: There is no ACEC on the project sited.

13. Notwithstanding the provisions of Section XVII(E)(2) through (X), no project may be permitted which will have any adverse impact on specified habitat sites of rare vertebrate or invertebrate species indicated on the most recent Estimated Habitat Map of State-listed Rare Wetlands Wildlife (if any) published by the Massachusetts NHESP.

W&S Response: There is no NHESP habitat on the project site.

Land Subject to Coastal Storm Flowage: Special Considerations for Sea Level Rise and other Impacts of Climate Change

The City of Boston Wetland Regulations (Section XVII.B) outlines several standards regarding sea level rise and climate change. Responses to these standards are outlined below:

1. If LSCSF is affected by proposed work or activity that is significant to the Resource Area Values described in Section XVII(A), the applicant shall take into consideration the impacts of climate change on LSCSF and integrate climate resilience and adaptation strategies to protect the resource area and properties adjacent to said area for the next 50 years. The Ordinance defines Impacts of Climate Change to include, without limitation: extreme heat; the timing, frequency, intensity, and amount of precipitation, storm surges, and rising water levels; increased intensity or frequency of storm events or extreme weather events; and frequency, intensity, and duration of droughts. Consideration should also be given to the depth of flood waters and duration of a flooding event.

W&S Response: While work will be occurring in LSCSF, it is expected that because this work will improve stormwater infiltration, there will be improvement to the area's resiliency against climate change. In addition, the improvements include the installation of two (2) shaded dugouts at the softball field and two (2) drinking fountains with bottle filling capabilities located at both the running track area and the softball field area. All efforts will be made to preserve and protect existing shade trees outside the limit of work. Not existing shade trees are anticipated to be removed or impacted as result of this project's scope. Information regarding the sites resiliency against storm or extreme weather events can be found attached to this submission.

2. SLR, specifically, is defined by the Ordinance as the rise in sea level over time. Due to climate change, the warming of global ocean water and consequent thermal expansion, subsidence, and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets, SLR will continue to accelerate and pose greater risks over time to human safety and infrastructure, and the City of Boston will experience more frequent and increased coastal inundation, elevated storm surge flooding levels, saltwater intrusion to public and private water supply, loss of coastal recreational resources, coastal erosion, and loss of coastal habitats and resources.

   W&S Response: While the project area is likely to continue to experience flooding, this project will result in improved infiltration rates, thus potentially improving drainage capacities from the site and increasing the site's resilience to flooding.

3. All applicants proposing work or activities in LSCSF must include in the NOI a narrative that describes the Impacts of Climate Change on LSCSF that are reasonably expected to occur within the next 50 years based on the best available data and projections of the future Impacts of Climate Change. In the event that the proposed work or activity is temporary in nature, the narrative must describe the Impacts of Climate Change on the site and surrounding resource areas for the determined duration of the temporary work. At a minimum, the Impacts of Climate Change narrative may rely on available and most recent data and projections of Impacts of Climate Change made available by the Department and the Climate Ready Boston initiative or any successor initiative and must meet the requirements set forth in the Commission's filing guidelines. The NOI shall propose specific mitigation against and/or adaptation to the Impacts of Climate Change, including but not limited to employing such strategies and details as are suggested through the Climate Ready Boston initiative or other successor initiative of the City, which may include improvements and enhancements to the resource area to protect LSCSF from the Impacts of Climate Change; the incorporation of building or site measures to reduce heat island effect; reduce stormwater runoff as a result of increasing precipitation, sea level rise, and storm surge events; adapt to increasing sea level rise, precipitation, and storm surge events; and prevent the lateral displacement of storm or flood water to surrounding resource areas or properties.

   W&S Response: It is anticipated that this project will result in improvements in the sites resiliency to climate change. Urban heat island (UHI) impacts at and in the vicinity of the site for users will be mitigated through the installation of two (2) shaded dugouts and two (2) drinking fountains with bottle filling capabilities and the

preservation of all existing trees. While this site will continue to flood with sea level rise, improved drainage with the proposed turf at the site will allow the site to better handle this flooding. The maximum peak intensity for the present day and near term (2030) 100-yr rainfall storm is lower than the peak infiltration rates from the site under proposed conditions, therefore overall improving drainage issues at the site.

4. In determining whether to permit proposed work or activities in LSCSF, the Commission shall consider current and anticipated SLR expected to occur within the next 50 years, the Applicant's inclusion of resilience and adaptation planning in the design and proposed construction of the project, and any adverse impacts the project may have on LSCSF and wetland resource areas within LSCSF as they currently exist and as are reasonably expected to exist based on projected impacts of SLR to such resource areas expected to occur within the next 50 years. An Applicant's failure to take into account Impacts of Climate Change and incorporate mitigation, resiliency, and/or adaptation to the Impacts of Climate Change shall be an independent basis for the Commission to determine that a NOI is incomplete or will otherwise adversely impact the Resource Area Values protected by the Ordinance and these Regulations.

   W&S Response: See below for Climate Change Discussion where impacts from future SLR are discussed.

City of Boston Wetlands Ordinance: 25' Waterfront Area

Approximately 366 square feet of work will occur within the 25' Waterfront Area, a resource protected by the City of Boston Wetland Ordinance. The work in this area includes removal of the existing turf and the placement of the new synthetic turf carpet. Below please find text that responds to the Boston Wetland Protection Ordinance Section C:

"The Commission therefore may require that any person filing an application (hereinafter, the Applicant) restore or maintain a strip of continuous, undisturbed, or restored vegetative cover or waterfront public access throughout the Waterfront Area, unless the Commission determines, based on adequate evidence, that the area or part of it may be altered without harm to the values of the resource areas protected by the Ordinance. Such disturbed areas must be minimized to the greatest extent possible."

W&S Response: The entirety of the limit of work will be lined with erosion control, preventing significant damage to the 25' Waterfront Area resource. Work within this area will consist only of replacing existing turf carpet with new turf carpet. In its current state, the 25' Waterfront Area at this site consists mostly of paved walkway and turf. While there will be impacts within the 25' Waterfront Area, it will be restored to existing condition following project completion.

MA Wetlands Protection Act & City of Boston Wetlands Ordinance: 100' Buffer

Per 310 CMR 10.02(2)(b) "any activity other than minor activities identified in 310 CMR 10.02(2)(b)2. proposed or undertaken within 100 feet of an area specified in 310 CMR 10.02(1)(a) (hereinafter called the Buffer Zone) which, in the judgment of the issuing authority, will alter an Area Subject to Protection under M.G.L. c. 131, § 40 is subject to regulation under M.G.L. c. 131, § 40 and requires the filing of a Notice of Intent"

W&S Response: Approximately 15,800 square feet of work will occur within the 100' Buffer to coastal bank. Work within the buffer will include replacement of the synthetic turf field.

Below please find text that responds to the Boston Wetland Protection Ordinance Section C:

"The Buffer Zone is presumed important to the protection of the resource areas because activities undertaken in close proximity to resource areas have a reasonable probability of adverse impact upon the wetland or other resource, either immediately, as a consequence of construction, or over time, as a consequence of daily operation or existence of the activities. These adverse impacts from construction and use can include, without limitation, erosion, siltation, loss of groundwater recharge, degraded water quality, loss of wildlife habitat, degradation of wetland plant habitat, alteration of hydrology, soil contamination, and proliferation of invasive plants."

W&S Response: Efforts will be made to protect the 100' Buffer resource area. To prevent erosion and siltation, erosion control will be utilized around the entire project perimeter. Currently, the site is utilized as athletic fields and is not located in BVW, this suggests that there is currently no wildlife habitat or wetland plant habitat on site. No water quality degradation is anticipated as part of this work.

Based on record plans and on-site observations, the stormwater currently and in the proposed project condition infiltrates into the field area and is collected through the existing network of subsurface lateral drains and stormwater collection pipes. Surface stormwater sheet flow is collected through catch basins that connect into previously existing and same network of pipes that daylight at two separate outfalls with tide/flap gates at the Little Mystic River. The existing catch basins include deep sumps and cleanout locations for TSS removal.

Climate Change Discussion

This project is considered a life cycle maintenance of existing fields replacement in kind project. We are aware that the Coastal Resilience Solutions for East Boston and Charlestown (Phase II) Plan has recently been published and provides an outlook for coastal flooding and a timeline for implementation. The plan identifies 15.5 ft-NAVD88 (22 ft-BCB) as the design elevation for Charlestown. The design flood elevation is based on the 2070 1% annual chance of flood as determined from the Massachusetts Coast Flood Risk Model (MC-FRM). According to flood models for Charlestown used in the report, the periphery of the site closest to the Little Mystic Channel can be inundated during present day 1% events. This is consistent with FEMA mapping. A majority of the site is outside the present 1% flood extents. By 2070, most of the site is likely to be flooded during a 1% event.

According to the Plan, the coastal resilience solution for this is intended to provide effective flood risk reduction in the long-term while enhancing public access and providing opportunities for new waterfront amenities and long-term ecological restoration. The preferred solution for this area will include an elevated Harborwalk to be integrated into a coastal barrier in the DBA. This work is expected as part of the 2050 planning horizon for

implementation according to the implementation timeline. Knowing the field surfacing is considered a material that has a life cycle and performance expectancy of 8-12 years, the next replacement cycle of fields is anticipated to occur between 2030 and 2034 and in alignment with the possible implementation strategies of the Phase II Plan.

Climate change initiatives, while considered are not planned to be fully implemented or possible at this time. As part of the larger climate resilient initiative scheduled to take place at Ryan Playground in 2023, the Boston Parks and Recreation Department must take the Ryan Playground athletic fields offline for multiple seasons to perform that work, therefor the replacement of these synthetic turf fields at Charlestown High School / Community Center, that we are presenting herein, must be available for use and in a safe playing condition prior to the commencement of the Ryan Playground work.

We are not altering the existing conditions of the current flood pathways at the site, and therefore there will not be exacerbating coastal storm flowage, nor will this project cause impact to adjacent properties.

Due to the lifespan of synthetic fields, we also anticipate that increased precipitation and future stormwater will not be different under proposed conditions than what exists today and should be incorporated into the project when a coastal barrier is designed, which can impact existing drainage.

It is possible the fields may become inundated during storm events prior to the next replacement, the synthetic turf material is considered resilient, durable, and able to handle the inundation of stormwater and coastal storm events and provide a much quick recovery time for use following the conclusion of the event. The project is also installing drinking fountains and dugout shelters at the softball field to provide areas of refuge and recovery during the hottest seasons of the year.

Stormwater Report

To Be Submitted with the Notice of Intent

Applicant/Project Name: City of Boston Parks and Recreation Department

Project Address: 244 Medford St (Charlestown High School) Boston, MA

Application Prepared by:

Firm: Weston & Sampson, Inc.

Registered PE James Pearson, P.E.

Below is an explanation concerning Standards 1-10 as they apply to the Boston Parks and Recreation Department Charlestown High School Field Replacement Project:

General:

The existing synthetic turf fields and the running track located at the Charlestown High School and Community Center, 255 Medford Street, Charlestown, MA 02129 are approximately 14 years old and have reached the end of their useful and safe life cycle. The City of Boston' Parks and Recreation Department is planning to replace the synthetic turf fields playing surface and running track surfaces, in addition to strategical improving the stormwater infiltration rates within each synthetic turf field area. Stormwater infiltration tests were performed in June 2022 and determined that areas of the subsurface drainage stone below each field was performing below the acceptable field performance thresholds and will be addressed under this project scope by replacing the subsurface stone. These typical life cycle maintenance replacements these fields and running track are critical to player maintaining safety and playability.

Both the existing synthetic turf football and softballs field maintenance replacement will include removal of the existing field infill materials, the synthetic turf carpet, and focused subsurface drainage stone refurbishment within each synthetic turf field footprint. Following the removal of the existing carpet and infill material, new synthetic turf carpet and infill will be installed in-kind. The running track surface will be milled, removed, and replaced in kind with new running track surface layer to be able to provide a safe and high performing running surface suitable for athletic competitions and neighborhood use. All activities require for the replacement of the existing fields and running track are to remain within the existing footprints of each item with no work to be completed beyond.

Since the proposed project is a replacement "in-kind" of existing synthetic turf fields, no new drainage infrastructure is proposed other than strategically improve infiltration below portions of the synthetic field areas where testing indicates less than 10-inches / per hour by replacing the drainage stone only. Existing subsurface drainage beneath the fields will be re-used, and surface runoff will continue to be collected by the existing system of catch basins that contain deep sumps and existing pipes. No history of flooding, overflow to the harbor, or drainage problems have been reported at the site.

Standard 1: No New Untreated Discharges

The proposed project will create no new untreated discharges. No new impervious area will be created during this project.

Standard 2: Peak Rate Attenuation

Since there will be no increase in impervious area, post-development (post-improvement) peak discharge rates will not exceed pre-development (pre-improvement) peak discharge rates.

To ensure that the work incorporates the performance standards recommended in the DEP's Stormwater Management Policy, necessary erosion and sedimentation control measures will be utilized during construction. These measures will include compost filter tubes as depicted on the site plans.

Standard 3: Recharge

As noted in the Standard 2 explanation, the impervious area in the work area will not be increased at the completion of the project. Therefore, recharge rates will not change in the work area at the end of the project.

Standard 4: Water Quality

The proposed work will not change water quality at the site. There will be no increase in stormwater flow, and the design will not increase soil erosion. During the project, appropriate BMPs will be used to minimize sedimentation and soil erosion.

Based on the known information, stormwater catchment system to remain in place ties into two existing outfalls with tide gates at the Little Mystic River. The existing deep sump catch basins provide locations for TSS removal.

Not withstanding the existing stormwater system to remain in place and continue to collect subsurface infiltration water within the synthetic turf field areas as well as collect surface flow, this project does not include areas of vehicular traffic and is comprised of landscape areas, synthetic turf fields, and paved pedestrian walks where stormwater runoff is collected by the deep sump catch basins.

Standard 5: Land Uses with Higher Potential Pollutant Loads (LUHPPLs)

Not Applicable. There are no LUHPPLs in the work area.

Standard 6: Critical Areas

There will be no new discharge to critical areas.

Standard 7: Redevelopments and Other Projects Subject to the Standards Only to the Maximum Extent Practicable

This is a re-development project which will not disturb existing trees and other landscape areas.

Standard 8: Construction Period Pollution Prevention and Erosion and Sediment Control

A detailed Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan is included. To ensure that the work incorporates the performance standards recommended in the DEP's Stormwater Management Policy, necessary erosion and sedimentation control measures will be utilized during construction. These measures will include compost filter tubes as depicted on the site plans.

Standard 9: Operation and Maintenance Plan

An operations and maintenance plan for the synthetic turf fields has been provided. Please note under this projects scope of work, existing perimeter trench drains at the running track and catch basins will be cleaned out of all debris. Following the completion of the project the on-site catch basins as connection to both the fields subsurface drain system and surface runoff are to be cleaned out semi-annually or as needed.

As previously discussed, there will not be any new stormwater management systems put in place in the project work area and the existing stormwater management system of catch basins, and subsurface drainage system is to remain in place but will be cleaned out under this scope of work.

Standard 10: Prohibition of Illicit Discharges

To the best of our knowledge and belief, there are no existing illicit discharges occurring from the project site. No illicit discharges are proposed as part of this project.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including any relevant soil evaluations, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan, the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature

Signature and Date

INTRODUCTION

Thank you for purchasing a **FieldTurf** synthetic grass field.

You have purchased the best performance synthetic grass field available.

We are proud of our **FieldTurf** fields and we are convinced that you will share our feelings and pride once your players experience its superior playing characteristics.

FieldTurf is a third generation of synthetic grass. The qualities of a **FieldTurf** field far exceed previous generations.

Your **FieldTurf** surface is made up of specially manufactured synthetic grass, combined with a formulated infill mixture of specially graded silica and cryogenically ground rubber which is brushed into the spaces between the grass fibers. The grass fibers act jointly with the infill mix to form a very safe, resilient, shock absorbing and long lasting sports playing surface.

By following the maintenance procedures outlined in this manual, your **FieldTurf** field will be kept in optimum condition and the superior playing characteristics of your **FieldTurf** field will bring you the satisfaction you seek in a **FieldTurf** field.

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8088 Montview, TMR- Montreal | Quebec Canada H4P 2L7
Tel: (514) 340 -9311| Fax: (514) 340-9374 | US Toll-Free: (800) 724-2969
Website: http//www.fieldturf.com | Email: info@fieldturf.com

6.0 *FIELD PROTECTION SYSTEMS*
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- 6.2 Medium Events
- 6.3 Heavy Duty Events
- 6.4 Installation and Removal of the Field Event Equipment

7.0 *CLEANING OF FOOTWEAR*

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1.0 ROUTINE MAINTENANCE

1.1 Approved activities

Your **FieldTurf** surface has been designed for the following approved and permitted activities;

- Football
- Baseball/Softball
- Lacrosse
- Physical exercises
- Marching band
- Military marching drills
- Soccer
- Field Hockey
- Rugby
- Physical education
- Light pedestrian traffic
- Maintenance and service vehicles equipped with pneumatic rubber turf tires

The following activities are permitted on **FieldTurf**:

- Javelin (only **rubber** tip)
- Discus
- Hammer
- Shot put

However care should be taken to ensure a proper "landing space" is available. The "landing space" should be an area off the **FieldTurf** surface or the landing area must be covered to avoid displacement of infill upon landing. The field can be covered with a piece of AstroTurf or a vinyl tarp to ensure the **FieldTurf** surface is not damaged in any way.

1.2 PROHIBITIONS ON THE FIELD

Your **FieldTurf** field should be kept free from glass, cigarettes, fireworks and any sharp objects that will risk damage to the field and injury to players. Your **FieldTurf** field should also be kept free from debris, leaves, paper and wind-blown material. It is imperative that your **FieldTurf** field be a designated **non-smoking** area.

1.3 "SETTLING IN" OF THE FIELD

After installation, the field surface will feel softer than anticipated. Full penetration of the infill between the grass fibers and its subsequent settling into a uniform playing surface will occur naturally over time with normal weathering (rainfall) and initial use of the field. Depending on climatic conditions, this "settling in" period usually reaches its optimum, after 2 to 3 months of use. After this period of time the field will stabilize to perform according to design specifications.

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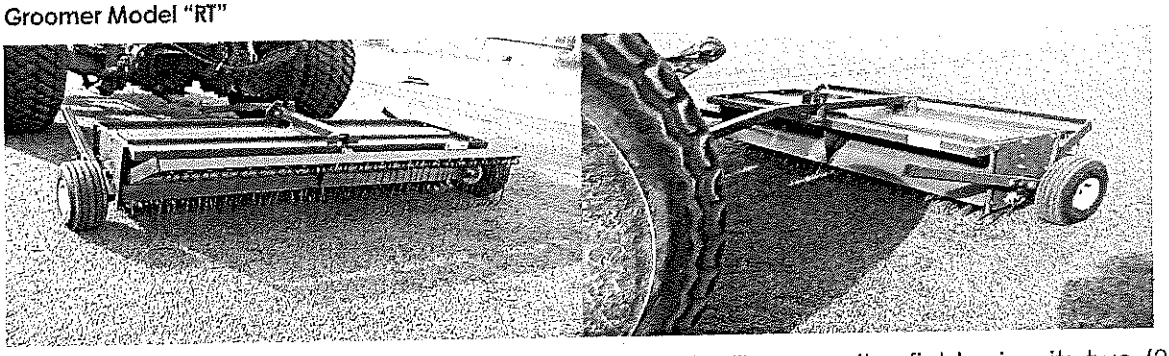
1.4 GROOMING THE FIELD

In order to maintain optimum performance and appearance of your field, the following maintenance procedures must be performed on a regular basis using the recommended maintenance equipment.

Groomer Model "RT"



The **Groomer Model "RT"** is a custom made unit that will groom the field using its two (2) specific features individually or in tandem. One feature of this unit comprises a reel equipped with spiked wheels designed to penetrate the infill in order to loosen the infill without damaging the grass fibers. Another feature of the unit is comprised of light raking tines attached to the rear of the unit. The tines are designed to groom the exposed grass fibers to keep them from matting down excessively. The benefit of this unit is to maintain the designed long-term performance characteristics of the field with the least amount of abrasion to the surface.

Surface Grooming

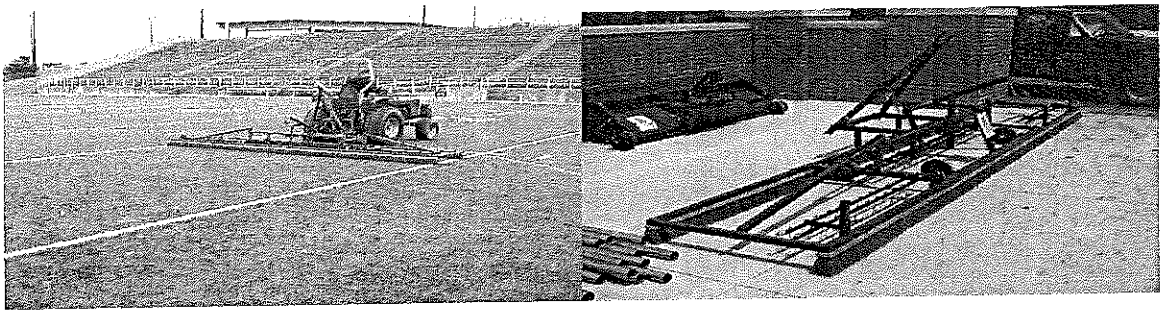
Every 4 to 8 weeks, groom the field by dragging **only** the **rake** (tine) portion of the **Groomer Model "RT"** over the field surface. The rake should be dragged in two directions, at right angles to each other. This will groom the exposed grass fibers and keep them from matting down excessively.

Infill Grooming

Every 6 to 8 weeks, groom the field by pulling the spiked wheel portion and the tines of the **Groomer Model "RT"** over the field surface. The spiked wheels will penetrate into the infill to loosen it and help restore its optimum playing characteristics. This equipment should be pulled in two directions at right angles to each other. The **Groomer Model "RT"** unit can be pulled with a small lawn tractor or similar vehicle equipped with pneumatic turf tires.

The **Groomer Model "RT"** is equipped with adjustable, pneumatic tires, which will allow raising or lowering the spiked wheel portion of the unit. When not in operating mode on the field, lower the wheels in the transportation mode to raise the spikes to avoid damaging the equipment and surrounding surfaces.

Groomer Model HDT-15



The **HDT-15** is a 15' wide groomer designed primarily for the rapid maintenance of football and soccer fields. The purpose of the **HDT-15 Groomer** is to straighten the flattened exposed fibers and to loosen the top portion of the infill. For football fields, the **HDT-15** can also be handled between the 5-yard lines. The **HDT-15 Groomer** is equipped with rows of tines and brushes used to agitate exposed fibers. The tines and the brushes can be used to groom the field independently or in tandem as required.

Surface Grooming

Every 4 to 6 weeks, groom the field by pulling **only** the **tine** portion of the Groomer model **HDT-15** over the field surface. This will groom both the exposed fibers and the top layer of the infill. This will prevent the exposed grass fibers from matting down excessively and will loosen the infill in order to optimize drainage and performance.

Every 6 to 8 weeks, groom the field using **only** the **brush** portion of the unit. More frequent application of the brush unit on the **FieldTurf** surface is **not permissible**.

The **HDT-15** unit can be pulled by a conventional tractor equipped with pneumatic turf tires and a 3-point hitch. Raise the unit off of the ground when in transportation mode to avoid damaging the equipment and surrounding surfaces.

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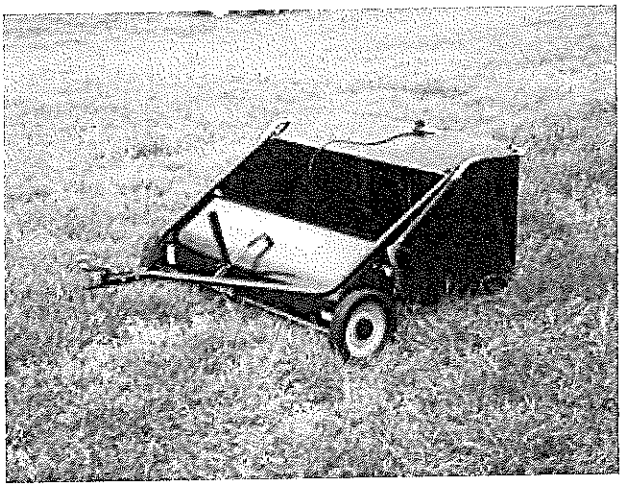
1.5 DEBRIS REMOVAL

Agri-Fab 46" Sweeper



Windblown debris (leaves, paper, etc.) should be removed from the **FieldTurf** field's surface as quickly as possible and on a regular basis.

A lawn sweeper such as the **FieldTurf** 46" Sweeper by Agri-Fab can be used to remove loose surface debris. This lawn sweeper is both economical and efficient. Several sweepers can be combined together in order to sweep a wider path, if required. The sweepers can be pulled by conventional lawn tractors equipped with pneumatic turf tires.

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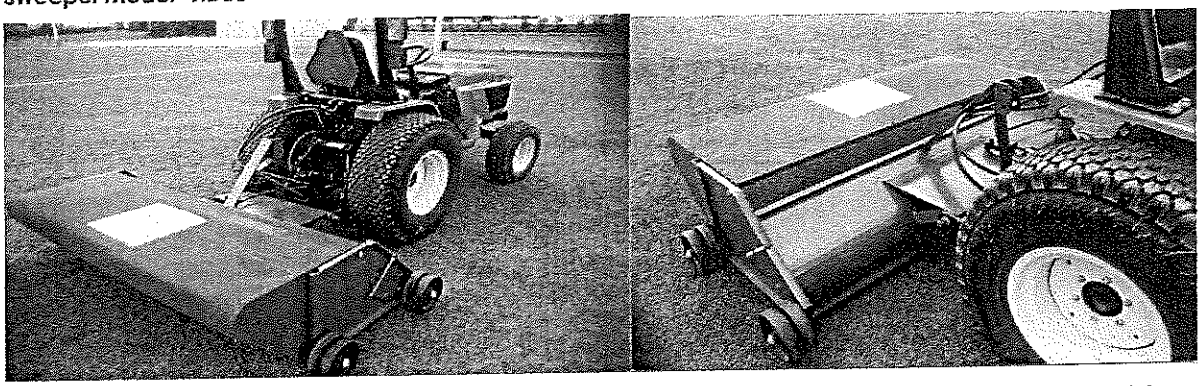
Sweeper Model "HDBS"



A hydraulically operated heavy duty **Sweeper model "HDBS"** was specifically designed for the **FieldTurf** surface in order to remove excessive debris quickly and efficiently. The model **"HDBS" Sweeper** is designed to dig into the field surface in order to remove debris such as sunflower seeds that may be embedded in the infill without damaging the surface.

The model **"HDBS" Sweeper** is equipped with a hopper and screen specifically designed to capture both debris and infill and allow the removed infill to fall back through the screen and onto the field surface.

The hopper should be inspected and cleaned periodically to assure that the screen is not clogged thus preventing the infill from falling back onto the field. Plastic sheets can be placed on the field and used to collect the debris removed from the hopper.

A conventional tractor (16 to 20 hp) equipped with pneumatic turf tires, a 3-point hitch and a hydraulic pump delivering 7 to 9 gallons per minute can be used to pull the model **"HDBS" Sweeper**. Raise the unit off of the ground when in transportation mode to avoid damaging the equipment and surrounding surfaces.

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2.0 REMOVAL OF STAINS AND WEEDS

2.1 REMOVAL OF WEED AND MOSS

FieldTurf's superior artificial grass surface may look like grass, feel like grass and play like grass, however if not properly maintained, much like it's natural cousin, it may still become susceptible to one of grass lovers natural foes: weeds. However rare in occurrence, it is important to prevent weeds and moss from growing on **FieldTurf** as it can affect the playability of the surface. Although routine maintenance will prevent this from happening, weeds may occur at the interface between the synthetic grass and the perimeter curb. Should this occur, weeds should be treated with the **biodegradable** weed killer such as "Round Up", which leaves no residue and more importantly won't negatively affect the fibers or the coloring of your field. If the weed problems should arise, a 3-prong tool can be used to remove weeds and moss from the affected areas. This should be done carefully to not tear the backing and damage the fabric. Moss could grow on the field surface if the following conditions are present:

i. The field surface has not been maintained or groomed over a long period of time.
ii. If there is an unusual amount of shade on the field and the field has been neglected.
iii. If the field surface has been left covered with vinyl tarps over a long period of time.
iv. If there is sufficient moisture and all other conditions for growth are met.

The presence of weed and moss can only occur if the field has been neglected and not maintained. Contact your **FieldTurf** representative for more information.

2.2 REMOVAL OF STAINS

Oil Stains

Oil and all other stains can also be quickly and efficiently removed with **FieldTurf Scrub Detergent**. The scrub detergent also acts to clean and decontaminate the **FieldTurf** surface. Contaminated or stained infill can be easily replaced with new infill as required.

Non-foaming detergents can also be used to remove stains. All cleaning detergents **should be flushed from the affected areas to prevent the field surface from being slippery and posing a potential safety hazard.** In all cases, manufacturer's instructions should be followed when applying any stain removal product.

Gum

Chewing gum and adhesives can be easily removed by using **FieldTurf Gum Remover**. Contact our **FieldTurf Customer Service Department** to order.

Bodily Fluids

A cleaner such as **Fieldturf Scrub** can be used to remove bodily fluids (blood, vomit, etc.) from the field surface. This product differs from a germicidal cleaner in that it digests the host, thus eliminating the source whereas a germicidal cleaner eliminates bacteria but does not eliminate the host material. It is safe and environmentally friendly and may also be used to clean and deodorize the field surface.

It is important to thoroughly flush the cleaning detergent from the affected area to avoid the field surface from being slippery and posing a potential safety hazard.

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3.0 MAINTAINING THE INFILL

3.1 KEEPING THE INFILL LEVEL

Routine grooming of the field will assure that the infill is uniformly distributed at all times over the entire field surface. Intensive and repetitive use of certain areas of the field such as the kicking action of the players may cause the infill material to be displaced. Particularly for soccer fields, these specific areas are:

- Penalty Shots
- Center Spots
- Corner Kick Areas

Uniformity of the infill can be easily maintained by replacing the displaced infill in these specific areas following these steps:

If possible, before proceeding with the infill replacement, make sure the grass and the infill are completely dry.

Step 1: Using a medium stiff bristle brush and/or a garden rake with metal tines, agitate the exposed fibers in the area requiring infill in order to raise the exposed grass fibers into a vertical position.

Step 2: Using a wide, flat shovel, apply and distribute the necessary quantity of pre-mixed infill evenly over the areas needing infill replacement. The infill should be distributed in thin layers in order to avoid matting down the exposed fibers thereby creating more work.

Step 3: Brush the infill into the grass by lightly agitating the fibers again using a medium stiff, bristle brush.

Step 4: Repeat step "2" until the grass is properly infilled to a level of ¾" from the tips of the exposed grass fibers. Once the grass has been infilled to this recommended level, gently agitate the area to assure that the infill settles below the exposed tips of the grass fibers. If the area is blackened, a small mist of water over the area should eliminate any static electricity that may have been caused by the brushing action on the grass fibers. The top of the infill should be at a level of ¾" below the tips of the exposed grass fibers.

Should you require adding infill on specific areas in wet conditions agitate the grass as described above and wet the infill after placing it? This should be done with either a watering can or a garden hose in order for the infill to flow into the grass and settle in. The same infill depth applies here.

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4.0 SNOW REMOVAL

4.1 ADVERSE WEATHER CONDITIONS

Snow and ice generally do not affect the characteristics of the **FieldTurf** surfaces. However, the **FieldTurf** surface may freeze under specific climatic conditions, such as a rapid drop in temperature combined with high moisture content. The following product can be used on **FieldTurf** fields to slightly thaw out the field surface.

i. **Corrosion inhibited Calcium Chloride** may be used to melt ice and snow. Calcium Chloride can be purchased in 44lb (20kg) to 80 lb (40kg) bags as well as in bulk. In pellet or flake form, the product works its way down to the bottom of the snow pile to rapidly and effectively melt the snow or ice. The product is most effective in temperatures down to minus 20°F (minus 29°C).

OR

ii. Warm Calcium chloride brine (33%) can also be used as an easy-to-apply de-icer instead of pellets in certain circumstances.

iii. The application of Urea is NOT PERMITTED due to environmental considerations.

iv. The application of Magnesium Chloride is NOT PERMITTED.

v. For additional information on Corrosion inhibited Calcium Chloride, please visit the following website: http://www.peterschemical.com/Calcium%20Chloride.htm

For more direction, please contact our **FieldTurf Customer Service Department** for an instructional video regarding the removal of snow on a **FieldTurf** surface.

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4.2 SNOW REMOVAL

i. A snow blower can be used to remove snow from the field; however care and certain precautions must be taken to avoid damage to the field surface. Small 60" wide snow blowers mounted on medium-sized tractors are recommended.

ii. A conventional plow mounted on a ¾-ton pickup truck may also be used to remove snow from the field. The plow must be equipped with a rubber edge on the blade to avoid damaging the **FieldTurf** surface. The plowed snow can be loaded into trucks by wheeled loaders and removed from the field.

iii. Snow that is built-up can be effectively removed with a front-end loader by starting in the middle of the field and plowing the snow towards the perimeter of the field.

iv. In case of heavy snowfalls, a mid-sized tractor equipped with a snowplow or snow blower may be used. The plow should be equipped with either a rubber blade along the base of the plow or with skids at each end of the plow blade in order to prevent the metal blade from coming into contact with the field surface. The small amount of snow left on the field can be removed by a snow blower or a plow equipped with a rubber tipped blade. A rotary brush with all nylon bristles may also be used to remove small amounts of snow provided it is used with care not to damage the field surface.

v. Under no circumstances should tires equipped with anti-skid chains be used on the **FieldTurf** surface.

vi. Spinning of wheels is prohibited on the **FieldTurf** surface.

vii. A PVC pipe can be slipped over the bottom of a snow plow's steel blade so that only the pipe will slide on the **FieldTurf** surface (not necessary if this is a rubber blade). This can be accomplished by choosing the pipe diameter that can fit your particular plow blade. After the pipe size has been determined, a single saw cut can be made in order to fit over the plow blade. You can also attach a bungee cord to the pipe in order to hold the pipe in place. **This is the safest method.**

Very little infill will be removed from the field when removing the snow provided that the above-mentioned precautions are taken.

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5.0 VEHICLE CIRCULATION

Your **FieldTurf** field is designed to accommodate vehicle loads without causing damage to the unprotected field surface provided the following conditions and recommendations are followed:

- Typically bases supporting your **FieldTurf** field are designed for a maximum load-bearing capacity of 70 pounds per square inch (70 psi). Vehicles circulating on your field should conform to this load-bearing capacity limit, unless your base has been specially designed to support heavier loads. *Please refer to your internal design criteria to verify the maximum acceptable load, which your field can accommodate.*
- Only vehicles equipped with pneumatic rubber turf tires should be allowed to circulate directly on the field surface.
- Turning should be done in a wide radius to avoid sharp turns.
- Turning of the vehicle should only be done when the vehicle is in motion.
- All vehicles should circulate at slow speeds at all times.
- Abrupt and sudden braking should be avoided.
- Sudden acceleration and spinning of wheels must be avoided at all times.
- Vehicle wheels should be clean at all times to prevent mud or dirt from being deposited on the field surface.
- All vehicles in direct contact with **FieldTurf** surfaces should be inspected for possible leakage of oil or hydraulic fluids prior to accessing the field.
- In order to avoid rutting of the infill and of the underlying base, circulation of vehicles on outdoor saturated fields is not recommended.
- A layer of ¾" thick plywood must be placed over a vinyl tarp covering the field to a minimum distance of 40' to 60' (12 to 20m). The protective cover, against heavy and automobile sized vehicle circulation, should be installed at all entrance and exit points to the field.

Depending on the amount of traffic circulating on your field, the field surface should be maintained (See Section 1.4 Grooming the field) after vehicle circulation.

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6.0 FIELD PROTECTION SYSTEM

If events or venues other than approved activities are to be held on your **FieldTurf** field, the field surface **must** be protected at all times in order to prevent possible damage to your **FieldTurf** field.

The following are recommended field protection systems for various events:

6.1 LIGHT EVENTS (applied loads of less than 40 psi)

- School events (graduation, convocation, etc.)
- Concerts and plays without any heavy stage settings
- Receptions
- Protection against possible punctures from sharp objects (chairs, tables, etc.)
- Low impact trade shows
- Venues, which include food and beverages

FIELD PROTECTION SYSTEMS FOR LIGHT EVENTS

- Reinforced vinyl tarps covered with one layer of plywood
- Reinforced vinyl tarps covered with one layer of lightweight interlocking rigid tiles. There are a number of rigid-tile systems available on the market. Please contact **FieldTurf's** After Sales Department for recommended systems.
- Reinforced vinyl tarps covered with one layer of **FieldTurf** interlocking tiles

6.2 MEDIUM EVENTS (applied loads BETWEEN 40 to 60psi)

- Rock concerts
- Light vehicle traffic (pick up trucks, cars, small tractors, small fork lifts)
- Protection against possible punctures from sharp objects (chairs, tables, etc.)
- Small trade shows/flea markets

FIELD PROTECTION SYSTEMS FOR MEDIUM EVENTS

Reinforced vinyl tarps covered with one layer of ¾" thick plywood
Heavy concentrated loads such as (crane outriggers, support column bases, etc.) should be supported on multiple layers of plywood placed over a heavy-duty reinforced vinyl tarp

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6.3 *HEAVY DUTY EVENTS (APPLIED LOADS OF MORE THAN 60 PSI)*

- Tractor pulls, monster truck rallies, dirt bike events
- Major rock concerts with heavy stage loads
- Heavy vehicle loadings (large forklift trucks, tractor trailers, flat bed trucks, etc.)
- Large trade shows (boat shows, heavy equipment shows, etc.)
- Heavy concentrated loads such as (crane outriggers, support column bases, etc.) should be supported on multiple layers of plywood placed over a heavy-duty reinforced vinyl tarp

FIELD PROTECTION SYSTEMS FOR HEAVY DUTY EVENTS

Heavy duty reinforced vinyl tarps covered with two (2) layers of ¾ "thick plywood. The layers of plywood should be installed in a staggered pattern. We recommend fastening the top layer of plywood to the bottom layer with screws every 2 to 3 foot centers.

6.4 *INSTALLATION AND REMOVAL OF FIELD EVENT EQUIPMENT (DEMOBILIZING)*

It is recommended that heavy vehicle traffic, including forklift trucks, used for installing and removing event equipment circulates on adequate protection comprised of 1 to 2 layers of plywood on reinforced vinyl tarps.

Care should be taken when removing heavy-duty protection systems to avoid damaging your **FieldTurf** surface. The plywood and vinyl tarps should be cleaned of all debris prior to removal from the field. This will reduce the risk of having wood splinters on the **FieldTurf** surface.

Under no circumstance should spikes, anchors, supporting columns, etc. be placed directly on the field surface nor should they be embedded or driven into the **FieldTurf** field.

7.0 CLEANING OF FOOTWEAR

Mud and dirt from cleated shoes can be a major source of soiling and staining of the field surface. In order to avoid this, it is recommended that each player clean his or her footwear prior to accessing the field. Installing cleat brushes at all designated access points to the field can do this. The cleat brush will assure that the footwear is cleaned on all three (3) sides.

8.0 PAINTED LINES AND MARKINGS

The following permanent and temporary paints may be used on a **FieldTurf** surface to be purchased directly from the paint suppliers listed below:

COATING SPECIALTIES GROUP

2849 Product Drive
Rochester Hills, MI 48309
Phone: (248) 299-2607 - Fax: (800) 877-1511

Lynn Woods <lwoods@coatings-specialist.com>
http://www.coatings-specialist.com/

ECO CHEMICAL

1904 3rd Avenue, Suite 935
Seattle, WA 98101
Phone: (800) 677-7930 - Fax: (206) 448-8553

Jeff Fischer <Jeff@ecochemical.com>
http://www.ecochemical.com/

Please contact our **FieldTurf Customer Service Department** for additional information or inquiries.

9.0 MAINTENANCE EQUIPMENT

The following is recommended equipment for routine maintenance (grooming and sweeping) of FieldTurf.

9.1 GROOMERS

Model "RT"

The Model "RT" Groomer is specifically designed to rake (groom) the top surface of **FieldTurf** fields.

Model "HDT-15"

The model "HDT-15" Groomer is designed for quick grooming of the top surface of **FieldTurf** fields.

9.2 SWEEPERS

Model "HDBS"

The model "HDBS" Sweeper is specifically designed for removing excessive surface debris and any debris such as sunflower seeds, peanut shells, etc. that may be embedded in the infill.

The following are the other recommended **FieldTurf** equipment that can be purchased commercially and locally for sweeping of your **FieldTurf** surface.

"Agri-Fab" Sweeper

The "Agri-Fab" Sweeper is a conventional light duty sweeper designed to remove light surface debris from your **FieldTurf** field. This is a complimentary piece of maintenance equipment offered for installs over 10,000 SQF designed for the removal of debris off your **FieldTurf** surface on a regular basis.

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10.0 FIELDTURF PRODUCTS

The following FieldTurf products have been tested and are environmentally safe to use on FieldTurf fields.

10.1 FIELDTURF SCRUB DETERGENT

FieldTurf Scrub is a powerful industrial cleaner and conditioner, which can be used for removal of grease and oil, and is chemically formulated to be compatible with other **FieldTurf** treatment products, such as liquid static conditioners. This product may also be used to clean and decontaminate surrounding surfaces, such as benches, equipment, and other items.

10.2 FIELDTURF STATIC CONTROL

FieldTurf Static Control is specifically formulated for the effective control of electrical static buildup on artificial grass surfaces. The product can be purchased in a liquid or powder form and is safe for applications on **FieldTurf** surfaces without affecting the color and appearance of your **FieldTurf** field.

10.3 FIELDTURF GUM REMOVER

FieldTurf Gum Remover is an effective biodegradable solvent formulated for removing gum, tar, and adhesives from **FieldTurf** surfaces.

Please contact our **FieldTurf Customer Service Department** for additional information or inquiries.

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11.0 FREQUENTLY ASKED QUESTIONS

1- What to do when static electricity occurs on an outdoor FieldTurf surface?

Static electricity is most likely to build up on outdoor and indoor field surfaces under dry and warm atmospheric conditions. Excessive friction applied to field surfaces may also cause static electricity build up. Excessive build up of static electricity on the field surface will cause the black rubber infill particles to cling to the top of the exposed grass fibers thus making the field surface appear darker. For outdoor fields, the application of a water mist over the affected areas will eliminate static electricity build up and allow the rubber particles to immediately drop off from the exposed grass fibers. Natural rainfall and morning dew will also eliminate static electricity build up on **FieldTurf** field surfaces.

2- What to do when static electricity occurs on an indoor FieldTurf surface?

In the case of indoor fields, simply spraying the affected areas with a water mist will eliminate static electricity build up. **FieldTurf** static control product can also be applied over the affected field surface areas. Contact your local **FieldTurf** distributor or our **FieldTurf Customer Service Department** for ordering.

3- How does FieldTurf surface drain?

FieldTurf fields are specifically designed to behave as a permeable system.

4- Can you use Urea to melt snow on FieldTurf fields?

Urea is **not** to be used on **FieldTurf** surfaces to melt snow or ice due to environmental regulations.

5- What is the warranty period of FieldTurf fields?

Your **FieldTurf** field carries an 8-year warranty on materials, installation and performance under normal use of approved activities and provided that routine maintenance and field protection are practiced as outlined in this maintenance manual.

6- How does climate affect FieldTurf surface i.e. snow, rain, and salt water?

Your **FieldTurf** surface is designed to withstand a wide range of climatic and atmospheric conditions, such as ultra-violet rays (UV), snow, ice, and salt water and sea climates without damaging the **FieldTurf** surface. However, it is essential that the field is washed periodically to remove any salt water deposits for the field surface.

7- What footwear can be used on FieldTurf fields?

The superior playing characteristics of your **FieldTurf** surface are directly associated with correct footwear and include: torque release, surface friction and traction. Therefore, **FieldTurf** does NOT recommend the use of screw in metal cleats, or the newly designed V cleat, but does strongly promote the use of standard molded plastic cleats, cleats MUST NEVER be longer than 2 inches. It is important to note that flat-soled shoes are also not permitted on **FieldTurf** fields as they can cause premature wear of the **FieldTurf** fibers.

8- Can bleaching agents be used on FieldTurf fields?

Oxidizing agents such as bleaching agents should **NOT** be used on **FieldTurf** fields. Contact your **FieldTurf** representative for inquiries.

9- What is considered normal use of the field?

Normal and ordinary use is considered as usage up to 1,500 hours per year of regular play and utilization for the sporting activities set out in the warranty. Normal play and ordinary use includes a reasonable number of users or participants and does not include repetitive training and high-intensity drills on the same part of the field, in particular, but not limited to, goal and sideline areas.

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SECTION 32 18 13: SYNTHETIC GRASS INFILL SYSTEM (REPLACEMENT OF EXISTING SYSTEM)

PART 1 - GENERAL

1.01 Work Included

A. Provide all labor, materials, equipment and tools necessary for the complete installation of Synthetic Grass Infill System over a graded stone base as outlined in these specifications and in strict accordance with the manufacturer's written specifications with a specially formulated resilient infill of rounded sand and EPDM (virgin) rubber.

1. Remove and supplement existing gravel subbase and stone leveling course with new material.

2. A drainage system consisting of a flat drains and collector piping is in place and shall be protected and retained.

3. A synthetic grass system with 2.25" to 2.5" long 100% polyethylene fibers, tufted on a 3/8" -3/4" tufting machine. A minimum of 10,800 denier monofilament yarn, and 8,000-10,000 denier low friction parallel slit film yarn specifically designed to reduce abrasion in AB tufting configuration is 3/8" gauge or a combination of minimum 5000 denier slit film and a minimum 7200 denier monofilament in single needle stitching, with a fiber weight of not less than 46 ounces per square yard. The turf shall be of dual fiber construction with multi-structured monofilament and slit-film fibers tufted together in same needle stitching if ½" or ¾" gauge, or AB tufting configuration if 3/8" gauge. The system shall include a single, dimensionally stable, three-component backing, and have a minimum of 20 ounces of urethane secondary backing per square yard and a total weight of 74 ounces per square yard. The finished product shall also include perforations (1/4" holes on 4" centers) to ensure maximum drainage. Systems that are tufted on larger than 1/2" gauge tufting machines, are not perforated or include any type of nylon fiber "thatch zone" shall not be acceptable.

4. A resilient infill system, consisting of a course, rounded, uniformly sized silica sand and graded EPDM (virgin) rubber. (Minimum total weight of 7 lbs. per square foot with a 50/50 sand and rubber ratio – no exceptions). Infill shall be installed to a minimum height of 2 inches providing no more than ½ inch exposed fiber.

B. Approved Manufacturers

1. Sprinturf
2. Fieldturf
3. ACT Global
4. Shaw Sports Turf
5. Greenfield USA
6. AstroTurf
7. Approved Equal

1.02 Qualifications and Submittals

A. Prospective Bidders and / or installers of the turf shall be required to comply with the following:

1. The successful turf contractor must be a member of the Synthetic Turf Council (STC) and Sports Turf Managers Association (STMA).

2. The turf contractor and / or the turf manufacturer must be experienced in the manufacture and installation of this specific type of sand and EPDM (virgin) rubber infill synthetic grass system, for at least five (5) years and provide references of ten (10) specific installations in the last five (5) years.

3. The turf manufacturer shall have a minimum of ten (10) installations in the State of Massachusetts.

4. The turf manufacturer shall have a minimum of Ten (10) NCAA Division 1 game and/or practice fields installed for football or soccer.

5. The turf contractor and/or turf manufacturer must provide in-house competent workmen skilled in this specific type of synthetic grass installation with a minimum of 10 fields installed. The designated supervisory personnel on the project must be certified in writing by the turf manufacturer as competent in the installation of this material, including the gluing of seams and the proper installation of the infill mixture. The manufacturer shall have a representative on site to certify the installation and warranty compliance.

6. All designs, marking, layouts, materials shall conform to current NFHS rules and other standards that may be applicable to this type of synthetic grass installation unless there is a specific exception identified. Submit a full color rendering/drawing indicating all field markings for final approval prior to placing turf order. Failure to do so shall be at the contractor's risk and cost.

B. All bidders of the turf contract must submit to the Engineer the following information:

1. All Contractors shall submit to the Engineer, after the bid, prior to award, a 1' x 1' minimum sample of the exact synthetic turf and infill system that is specified for this project. A sample of the Resilient Performance Base material shall also be submitted.

2. The turf contractor / manufacturer shall submit with the bid, a sample copy of the material warranty demonstrating compliance with the warranty requirements.

3. The turf contractor shall provide evidence - direct from the turf manufacturer corporate headquarters- that the installer is certified by the manufacturer to install this type of synthetic grass installation.

4. Certified copies of independent (third-party) laboratory reports on ASTM tests as follows:
   a) Pile Height, Face or Pile Weight & Total Fabric Weight, ASTM D418 or D5848
   b) Primary & Secondary Backing Weights, ASTM D418 and D5848
   c) Tuft Bind, ASTM D1335
   d) Grab Tear Strength, ASTM D1682 or D5034
   e) Infill Materials, ASTM F3188-16

5. List of Ten (10) similar existing installations that have been installed in Massachusetts including, Owner representative and telephone number(s).

6. The Turf Contractor and Turf Manufacturer (if different from the company) shall provide evidence that their turf system does not violate any other manufacturer's patents, patents allowed or patents pending. Evidence shall be in the form of a written document stating such and signed by the Turf Manufacturers Corporate Headquarters.

7. The Turf Contractor and Turf Manufacturer (if different from the company) shall provide a sample copy of insured, non-pro-rated warranty and NON-CANCELABLE third-party warranty insurance policy with a policy minimum claim limits of at least $350,000 and annual aggregate limit of at least $10,000,000 in order to fully cover the full replacement of the turf system in the event of total failure.

8. Letter stating the products anticipated lifespan.

9. A certified letter and specifications sheet certifying that the products in this section meet or exceed specified requirements including certification from the turf manufacturer that lead or lead chromate, or PFAS/PFOS are not used in the manufacturing of the specified system. Including test results from the time the material leaves the plant indicating such.

   Contractor shall submit certified copies of independent (third party) laboratory reports on the **actual turf** system and its components manufactured for this specific project as follows:

a. Lead Contect – ASTM F2765-09
b. Drainage capability of 10” minimum / hour
c. EPA Method 533 Modified, EPA Method 537 Modified laboratory analysis with isotope dilution, DoD QSM 5.4 Table B-15, or Engineer approved equivalent showing non-detectable concentrations of all PFAS quantified by the analysis method utilized.

10. Warranty must cover full 100% of replacement value of total square footage installed. Minimum $10.00 per square foot.

C. The General Contractor / Site Contractor shall be defined as the contractor who is responsible for the construction of the site components related to and located beneath the turf product, inclusive of but not limited to all cuts and fills as needed to establish an approved subgrade, the dynamic stone drainage system, the flat drains, the perimeter collection system. The turf supplier / installer is a subcontractor to the general contractor. The General Contractor / Site Contractor shall have installed a minimum of five (5) Turf Fields in the last three (3) years and shall provide documentation and contact information for such.

1.03 Shock Attenuation Evaluation:

A. Near the completion of the turf, hire an independent testing laboratory to perform ten (10) in place G max tests in compliance with ASTM F1936 and F355. If any test results exceed 125, modify the infill material ratios as necessary to achieve satisfactory results. Perform additional testing to verify the results as required by the Owner’s Representative.

B. Guarantee: During the eight (8) year guarantee period, the G max rating shall remain less than 165. The Contractor shall contract with an independent testing laboratory to perform three (3) in place G max tests each on site during the first, third, fifth, seventh and eighth years. If any test results meet or exceed 165, modify the infill material ratios as necessary to achieve satisfactory results. Perform additional testing to verify the results as required by the Architect. If the G max rating exceeds 165 after three attempts to repair the high rating, replace the field within 90 calendar days at no cost to the Owner.

1.04 Quality Control

A. Upon delivery of the turf material to the project site, the Contractor shall deliver to the Engineer three (3) copies of notarized letter addressed to the Owner certifying that all products provided by them for incorporation into the system do not contain PFAS as specified by EPA Method 533 Modified, EPA Method 537 Modified laboratory analysis with isotope dilution, DoD QSM 5.4 Table B-15 or Engineer approved equivalent showing non-detectable concentrations of all PFAS quantified by the analysis method utilized in samples of the turf components and do not contain any other hazardous materials exceeding current EPA and CPSC requirements. The testing method utilized must report at least 29 PFAS compounds including the 6 PFAS regulated by the MAssDEP, and on the most current European Union REACH and California Proposition 65 compound lists:

Compound	CAS #	Reference
PFBS	375-73-5	REACH
PFHxS	355-46-4	REACH, MAssDEP
PFHpA	375-85-9	MAssDEP
PFOA	335-67-1	REACH, MAssDEP, Prop 65
PFOS	1763-23-1	MAssDEP, Prop 65
PFOS precursors	various	Prop 65
PFNA	375-95-1	REACH, MAssDEP, Prop 65
PFDA	335-76-2	MAssDEP
PFTrDA	72629-94-8	REACH

As of 9/9/22

Separate samples of the turf can also be completed by a certified laboratory of the City’s choice

1.04 Pre-Installation Meeting:

A. Convene One (1) Week After Bid Opening:

1. An interview shall take place at a time and date to be determined by the Engineer at the district office or other location determined by the Engineer and Owner. Present at this meeting shall be the Engineer, Owner's Representative(s), the Project Manager and Site Superintendent for the Prime Contractor and the Project Manager and Project Foreman for the Turf Installer. The purpose of this meeting will be to review turf product and installation means and methods, to interview and ascertain the experience and competence of the Turf Installer, as well as, the onsite Project Foreman for this project and to review the project schedule. The basis of choosing this particular product shall be in part due to the results of this interview process. Contractor shall submit all required submittals before this meeting.

B. Convene One (1) Week Prior to Stone Blanket Completion:

1. A second meeting shall take place at a location, time and date to be determined by the Engineer. Present at this meeting shall be the Engineer, Owner's Representative(s), and the Project Manager for the Site Contractor. The purpose of this meeting shall be to review and confirm schedule. (with particular attention on the turf installation) and to confirm that the turf product has been ordered by way of notarized copies of the original confirmed Purchase Order and guaranteed delivery date.

1.05 Delivery, Storage, and Protection

A. Deliver products to project site in wrapped condition.

B. Store products under cover and elevated above grade.

C. Protect all products and installation area from vandalism, theft, other construction, etc.

1.06 Warranties

A. The Turf Manufacturer shall provide a Warranty to the Owner that covers defects in materials and workmanship of the turf for a period of eight (8) years from the date of Substantial Completion. The turf manufacturer must verify that their onsite representative has inspected the installation and that the work conforms to the manufacturer's requirements. The turf fabric shall not lose more than an average 2% per year. The manufacturer shall guarantee the availability of replacement material for the synthetic turf system installed for the life of the warranty.

B. The Manufacturer's Warranty shall include general wear and damage caused from UV degradation. The warranty shall specifically exclude vandalism, and acts of God beyond the control of the Owner or the manufacturer.

C. The Turf Manufacturer's Warranty must be supported by an insurance policy of the full eight (8) year period.

D. The Turf Contractor shall provide a Warranty to the Owner that covers defects in the installation workmanship, and further warrant that the installation was done in accordance with both the Manufactures' recommendations and any written directives of the Manufacturer's onsite representative.

E. The synthetic grass turf must maintain an ASTM F355 and ASTM F1936 G-max between 125-165 for the life of the Warranty.

F. Any repairs or service to the field requested by the Owner or Owner’s representative shall be addressed within 14 days from the date of written notification.

G. The Turf Manufacturer shall be 100% responsible for and warranty all products installed as part of his system inclusive of the fibers whether the fibers are manufactured by the turf company or by others.

1.07 Maintenance Service

A. The Turf Contractor will train the Owner's facility maintenance staff in the use of the specified maintenance attachments and equipment to routinely groom and sweep the field. Equipment shall be in good working condition.

1.08 ADA Handicap Accessible

A. Synthetic turf system shall be approved as ADA compliant as determined by Test-Method ASTM 1951-99.

B. Proof of passing must be submitted for approval.

PART 2 - PRODUCTS

2.01 Base Stone and Drainage System **(For information, and as required to supplement existing base stone)**

Sieves	Base Stone-Type 1	Base Stone-Type 2	Finishing Stone
3"			
2"	100		
1 ½"	90-100		
1"	75-100	100	
3/4"	65-95	90-100	
½"	55-85	80-100	100
3/8"	40-75	70-100	85-100
1/4"	25-65	60-90	75-100
US#4	15-60	50-85	60-90
US#8	0-40	30-65	35-75
US#16	0-20	10-50	10-55
US#30	0-10	0-35	0-40
US#60	0-8	0-15	0-15
US#100	0-6	0-8	0-8
US#200	0-5	0-2	0-2

PLEASE NOTE THAT THE BASE STONE AND DRAINAGE STONE SYSTEM IS A SPECIAL MANUFACTURED PRODUCT AND ANY DEVIATION FROM THIS MATERIAL SHALL REQUIRE WRITTEN APPROVAL FROM THE TURF MANUFACTURER'S CORPORATE HEADQUARTERS. THE BASE STONE AND FINISHING STONE PRODUCT IS A 100% CLEANED WASHED QUARRY STONE MIXTURE. GRAVEL AND SAND MIX MATERIAL SHALL NOT BE ALLOWED (NO EXCEPTIONS)

RESTRICTIONS:

A.	To ensure structural stability:	$D_{60}/D_{10} > 5$ and $1 < \frac{D^2_{30}}{D_{10}\ D_{60}} < 3$ Fragmentation must be 100%.
B.	To ensure separation of both stones:	$\frac{D_{85} \text{ of finishing stone}}{\text{D15 of base stone}} > 2$ and $3 < \frac{D_{50} \text{ of base stone}}{\text{D50 of finishing stone}} < 6$
C.	To ensure proper drainage:	Permeability of base stone > 50 in/hr (3.5×10^{-2} cm/sec) Permeability of finishing stone > 10 in/hr (7.0×10^{-3} cm/sec) Porosity of both stones > 25% (When stone is saturated and compacted to 95% Proctor.)

2.02 Perimeter Edge: Concrete Turf Anchor – Refer to details

2.03 Underdrain System **(For information, and as required to supplement existing underdrain system)**

A. ADS AdvanEdge
1. 1 inch by 12 inch flat drain.
2. ADS AdvanEdge end connector with 4 inch ADS pipe.
3. 12-18 inch diameter perforated collector drain pipe.
4. 6 inch diameter solid wall HDPE cleanout with 8 inch by 8 inch by 8 gauge aluminum plate with synthetic surface glued directly to plate.

B. Approved equivalent

2.04 Synthetic Grass Infill System Materials

A. Manufacturer: Subject to compliance with all specified requirements,

1. THE CONTRACTOR SHALL PROVIDE WITH HIS BID, IN THE BID FORM, THE SYNTHETIC GRASS SYSTEM MANUFACTURER AND SYSTEM HIS/HER BID IS BASED ON.

B. The Synthetic Grass Material and EPDM rubber infill shall be in strict accordance with the following:

1. The fiber shall be an 10,800 denier 260 micron minimum thickness monofilament, and 8,000 to 10,000 denier 100 micron minimum thickness parallel slit film 100% polyethylene, low-friction fiber, measuring not less than 2.25 - 2.5 inches high, as manufactured by Bonar Yarns & Fabrics, Tencate, or ITS/Sprinturf. The low friction fiber shall be specifically designed to virtually eliminate abrasion. The fiber shall be a hybrid fiber combo with multi-structured monofilament and slit-film fibers tufted together in same or alternating needle construction per General specification part 1-1.01-A-3.

2. The tufted fiber weight shall not be less than 46 ounces per square yard. The fiber shall be tufted on a 3/8" to 3/4" tufting machine. The overall product weight must not be less than 74 ounces per square yard. The low friction non-abrasive fiber shall be 100% polyethylene, treated with a UV inhibitor. Systems that use polyethylene/ polypropylene blended fibers and systems that include any type of nylon fibers are unacceptable.

3. The carpet shall be delivered in 15' wide rolls. The rolls shall be of sufficient length to go from edge of track to edge of track. Head seams will not be acceptable.

4. All field lines, numbers and markings indicated on the plans shall be permanently installed or painted as indicated in the plans.
5. The fiber shall be Field Green/Rye Green in color to simulate natural grass as closely as possible and treated with UV inhibitor, guaranteed a minimum of eight (8) years.

6. The infill system shall consist of a non-compacting mixture of specifically graded, coarse,

rounded, uniformly sized silica sand and coarse, virgin EPDM rubber. EPDM rubber shall conform to al STC regulation standards for safety. The contractor shall submit to the engineer for approval all SBR product data inclusive of material size and content. Failure to do so shall be at the contractor's risk and cost.

Typ. Part. Size Distr. *Mesh (ASTM E-11)		Typ. Part. Size Distr. *Mesh (ASTM E-11)	
8	-------	8	------
12	0.3%	10	Trace
16	57.8%	12	20%
20	32.6%	16	80%
30	5.1%	20	100%
40	-------	PAN	0%
50	-------		
PAN	0.4%		

Minimum total weight of infill to be 7 lbs./square foot with a 50/50 sand and rubber ratio (NO EXCEPTIONS)
*Represents the typical mean percentage (%) retained on individual sieves

7. Infill shall have no detection of pesticides, heavy metals, and all PFAS compounds quantified by EPA 533 Modified, EPA Method 537 Modified laboratory analysis with isotope dilution, DoD QSM 5.4 Table B-15 or ENGINEER approved equivalent.

2.05 Turf Data

Turf Fabric: Turf fabric with multicolored fiber and UV resistance, complying with the following:

Pile Weight:	Min. 43 oz/sy for 2.25" Min. 46 oz/sy for 2.5"
Face Yarn Type:	100% Polyethylene
Yarn Size:	
Monofilament	10,800 Denier (260 micron minimum thickness)
Slit Film	8,000-10,000 Denier (100 micron minimum thickness)
Pile Height (Finished)	2.25"-2.5"
Color:	Field Green/Rye Green
Construction:	Broadloom Tufted
Stitch Rate:	10/3"
Tufting Gauge:	3/8" to 3/4"
Primary Backing:	Woven and non-woven, fiber reinforced backing (three component system)
Secondary Backing:	20 oz/sy Urethane
Total Product Weight:	73 oz/sy (± 2 oz) Min.
Finished Roll Width:	15'
Finished Roll Length:	Up to 220'
Perforation (Outdoors):	3/16" Holes on Staggered 4" (approximate)
Center Permeability:	20" ± Per Hour

Turf contractor shall provide independent study data on permeability requirements

Infill Composition:	Rounded, Uniformly-Sized Silica Sand and virgin SBR Rubber Mixture (50% rubber / 50% sand by weight)
Field Lines & Markings:	Tufted, Inlaid and Painted

Shall have no detectable concentrations of all PFAS compounds quantified EPA Method 533 Modified, Method 537 Modified laboratory analysis with isotope dilution, DoD QSM 5.4 Table B-15 or Engineer approved equal.

PART 3 - INSTALLATION

3.01 Subgrade / Subbase Approvals

A. Prior to the installation of the Synthetic Grass Infill System, the General/Site Contractor shall provide written certification that all subgrade, subbase, leveling course and slopes and elevations are in compliance with the Contract Documents and meets or exceeds all manufacturer's requirements. This certification shall be prepared by an approved Installer. The finished grade of the subbase shall not vary more than 3/16" in ten (10) feet. A laser grader must be used to meet the requirements.

B. The General/Site Contractor shall also provide an as-built survey of the finished subgrade and also finished leveling course with spot grades every 25 feet on center each way for approval.

C. The General/Site Contractor shall prepare a minimum 25'x25' (twenty five foot by twenty five foot) mock-up of the approved materials for the subbase and leveling course system in order to evaluate porosity and stability prior to installing material over the entire field. If acceptable the mock-up may become part of the finished field.

3.02 Synthetic Grass Infill System

A. Verification of Conditions (by Installer): Examine conditions under which synthetic grass surfacing is to be installed in coordination with Installer of materials and components specified in this Section and notify affected Prime Contractors and Engineer in writing of any conditions detrimental to proper and timely installation. Do not proceed with installation until unsatisfactory conditions have been corrected in a manner acceptable to Installer.

1. When Installer confirms conditions as acceptable to ensure proper and timely installation and to ensure requirements for applicable warranty or guarantee can be satisfied, submit to Architect written confirmation from applicable Installer. Failure to submit written confirmation and subsequent installation will be assumed to indicate conditions are acceptable to Installer.

2. Synthetic Grass Infill System: Provide manufacturer's inspection and certification that surface to receive synthetic turf is ready for installation of synthetic turf system, is perfectly clean in accordance with manufacturer's standards, and will be maintained in acceptable clean condition throughout installation.

3. Infill shall have no detectable pesticides, heavy metals, and all PFAS compounds quantified by EPA Method 533 Modified, EPA Method 537 Modified analysis with isotope dilution, DoD QSM 5.4 Table B-15 or Engineer approved equal.

B. Installation: Install in strict accordance with manufacturer's written specifications and recommendations.

1. Unless otherwise recommended by turf and base manufacturer, lay turf loosely across field, stretched, and attached to perimeter edge detail with sufficient length to permit full cross-field installation without head or cross-seams. (Head and cross-seams shall not be permitted)

2. Per the manufacturer's recommendation, the installation of field lines shall be sewn in or cut and glued. All field line installation shall be covered under the warranty.

3. Provide Infill material properly mixed on site and applied/spread evenly with a large fertilizer type spreader (minimum six (6) foot wide) in strict accordance with manufacturer recommendations. Between each application of infill, the field area shall be brushed with a motorized rotary nylon broom. Minimum infill depth shall be 2.0 inches. Comply with manufacturer's recommendations regarding environmental requirements for installation such as dryness and absence of moisture. Please note that prior to final approval of the field the Engineer shall perform field infill height measurements and also infill weight tests throughout the field to ensure the proper infill height and weight have been met. The infill weight tests shall include removing a square foot of material and weighing accordingly, in the presence of the turf manufacturer / turf installer, at 8 chosen areas throughout the field

of play. Upon completion of the test, the turf manufacturer shall replace the extracted material accordingly. If it is deemed the proper infill weight is not in compliance with the contract documents, the turf manufacturer, at his/her cost, shall import and install added infill material (in the presence of the Engineer) throughout the field until it has been deemed the infill weight is acceptable.

4. Field markings: Apply and install fixed markings as indicated herein and in accordance with the Contract Drawings.

   a) Football: All lines/markings shall be inlaid white as show on the drawings.
   b) Baseball/Softball: All lines/markings shall be inlaid white.
   c) Soccer: All tick marks/markings shall be inlaid yellow.
   d) Boy's Lacrosse: All tick marks shall be inlaid dark blue.
   e) Girl's Lacrosse: All tick marks shall be inlaid light blue.
   f) Field Hockey: All tick marks shall be inlaid red.

   All markings can be sheared/shaved or cut and glued.

5. Provide final cleaning of synthetic grass surfacing installations and maintain area clean and free from debris during installation. Clean surfaces, recesses, enclosures, and similar areas as required leaving area of installation in clean, immaculate condition ready for immediate occupancy and using by Owner.

6. Protect installed synthetic grass from subsequent construction operations. Do not permit traffic over unprotected surfacing.

7. The turf manufacturer shall provide training for the Owner's facility maintenance staff in use of grooming equipment recommended by the manufacturer.

3.03 Maintenance and Warranty

A. The turf installer and/or the turf manufacturer must provide the following:

1. The turf manufacturer shall provide a warranty to the Owner that covers defects in materials and workmanship of the turf for a period of eight years from the date of Substantial Completion. The turf manufacturer must verify that their on-site representative has inspected the installation and that the work conforms to the manufacturer's requirements. The polyethylene yarn manufacturer shall provide an eight (8) year "UV stabilization" warranty.

2. The manufacturer's warranty shall include general wear and damage caused from UV degradation. The warranty shall specifically exclude vandalism, acts of War and acts of God beyond the control of the Owner of the manufacturer.

3. The turf contractor shall provide a warranty to the owner that covers defects in the installation workmanship, and further warrant the installation was done in accordance with both the manufacturer's recommendations and any written directives of the manufacturer's on site representative.

4. All turf warranties shall be limited to repair or replacement of the affected areas and shall include all necessary materials, labor, transportation costs, etc. to complete said repairs. All warranties are contingent on the full payment by the Owner of all pertinent invoices.

-END OF SECTION 32 18 13-

SYNTHETIC GRASS INFILL SYSTEM
(REPLACEMENT OF EXISTING SYSTEM)

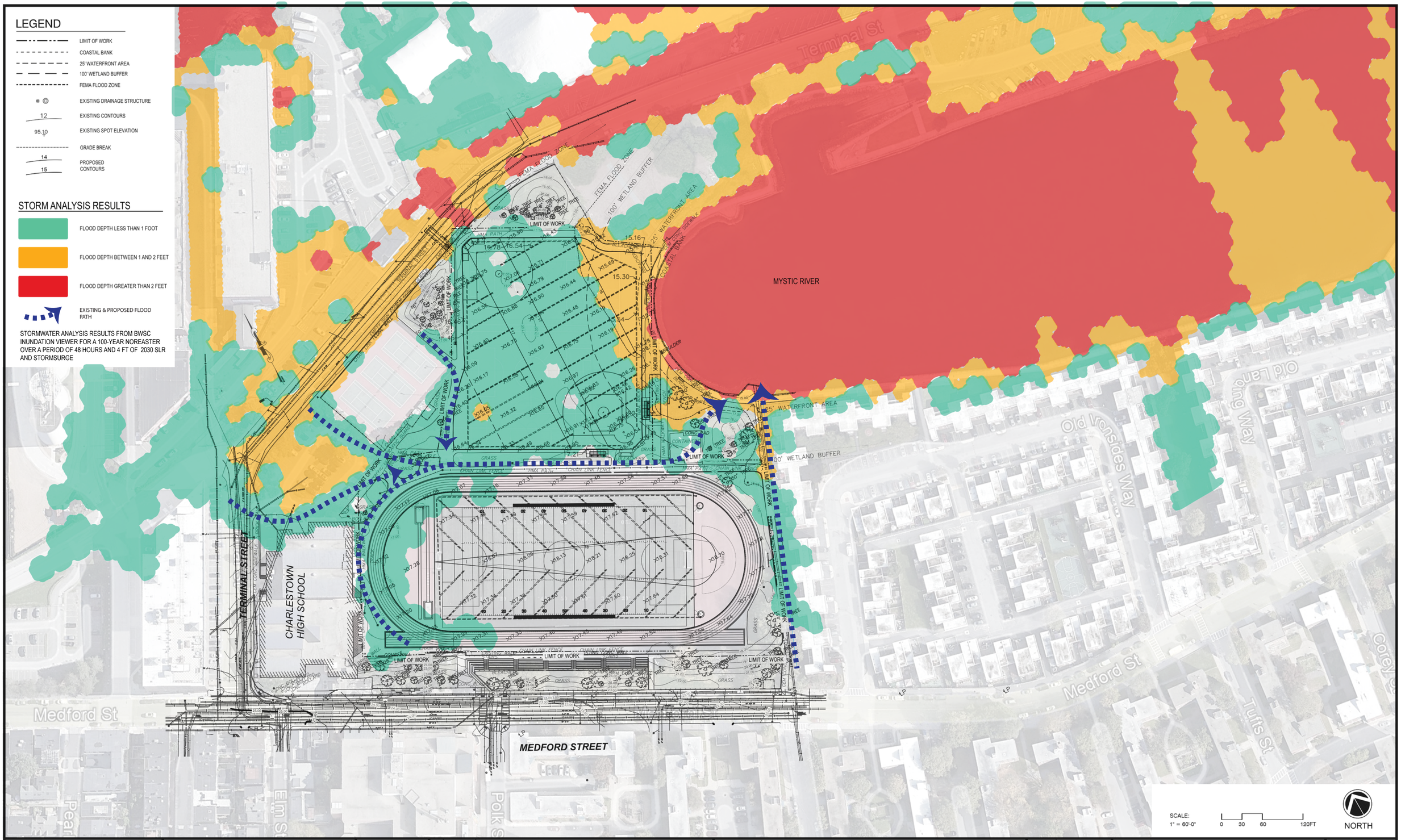
LEGEND

- LIMIT OF WORK
- COASTAL BANK
- 25' WATERFRONT AREA
- 100' WETLAND BUFFER
- FEMA FLOOD ZONE
- EXISTING DRAINAGE STRUCTURE
- 12 — EXISTING CONTOURS
- 95.10 + — EXISTING SPOT ELEVATION
- GRADE BREAK
- 14 / 15 — PROPOSED CONTOURS

STORM ANALYSIS RESULTS

- FLOOD DEPTH LESS THAN 1 FOOT
- FLOOD DEPTH BETWEEN 1 AND 2 FEET
- FLOOD DEPTH GREATER THAN 2 FEET
- EXISTING & PROPOSED FLOOD PATH

STORMWATER ANALYSIS RESULTS FROM BWSC INUNDATION VIEWER FOR A 100-YEAR NOREASTER OVER A PERIOD OF 48 HOURS AND 4 FT OF 2030 SLR AND STORMSURGE



BOSTON PARKS & RECREATION

Prepared By:
Weston & Sampson SM

Consultant Project No. ENG21-0493

No.	Date	Revision

Approved By: Date:

Project Name.:

IMPROVEMENTS TO CHARLESTOWN HIGH SCHOOL ATHLETIC FIELDS
- FOR PERMITTING PURPOSES ONLY -

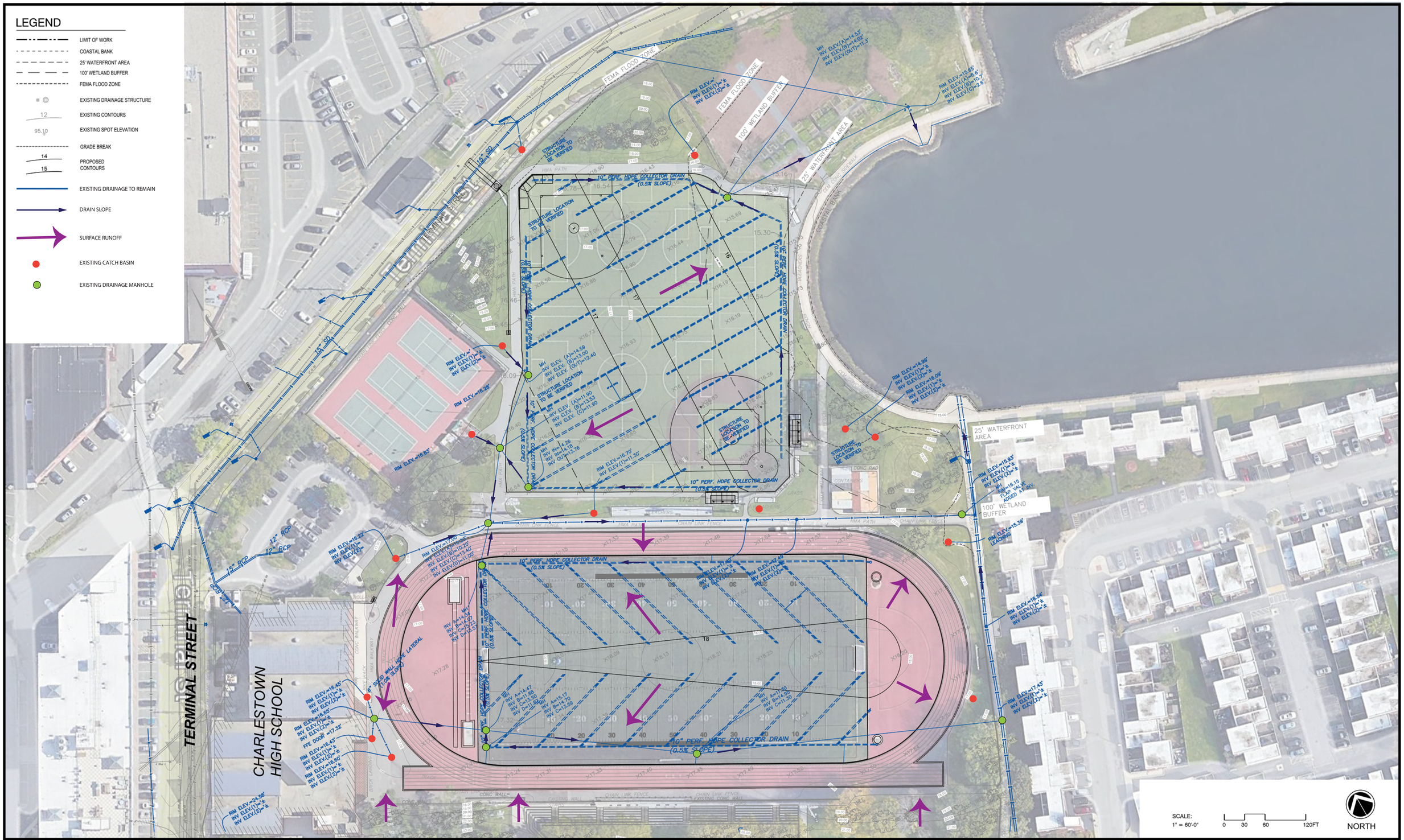
BPRD Project No.	CPRXXXX
Date	AUGUST 19, 2022
Scale	AS SHOWN
Drawn	LC, AG
Checked	BK

Sheet Name.:

FLOOD PATH DIAGRAM

SHEET:

L130



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BPRD Project No.	CPRXXXX
Date	9/19/2022
Scale	AS SHOWN
Drawn	LC, AG
Checked	BK

Sheet Name.:

DRAINAGE FLOW AND SURFACE RUNOFF PLAN

SHEET:

L130

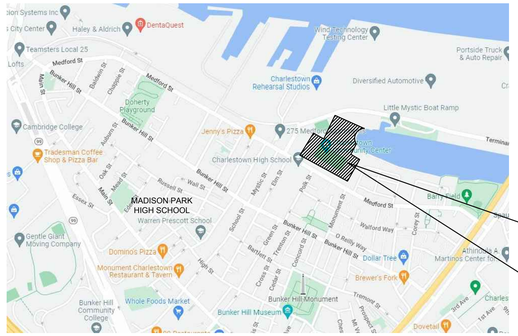
PREPARED BY:

Weston & Sampson℠

85 DEVONSHIRE STREET, 3RD FLOOR
BOSTON, MA 02109
(617) 412-4480

CITY OF BOSTON

THE HONORABLE MICHELLE WU, MAYOR



LOCATION MAP
39 TERMINAL STREET
BOSTON, MA 02129

PARKS AND RECREATION DEPARTMENT
RYAN WOODS, COMMISSIONER

IMPROVEMENTS TO CHARLESTOWN HIGH SCHOOL ATHLETIC FIELDS

BOSTON (CHARLESTOWN), MASSACHUSETTS

AUGUST 2022
- FOR PERMITTING PURPOSES ONLY -

FUNDED BY THE CITY OF BOSTON CAPITAL IMPROVEMENT PROGRAM

DRAWING INDEX

BOSTON PARKS AND RECREATION

Sheet No.: L001

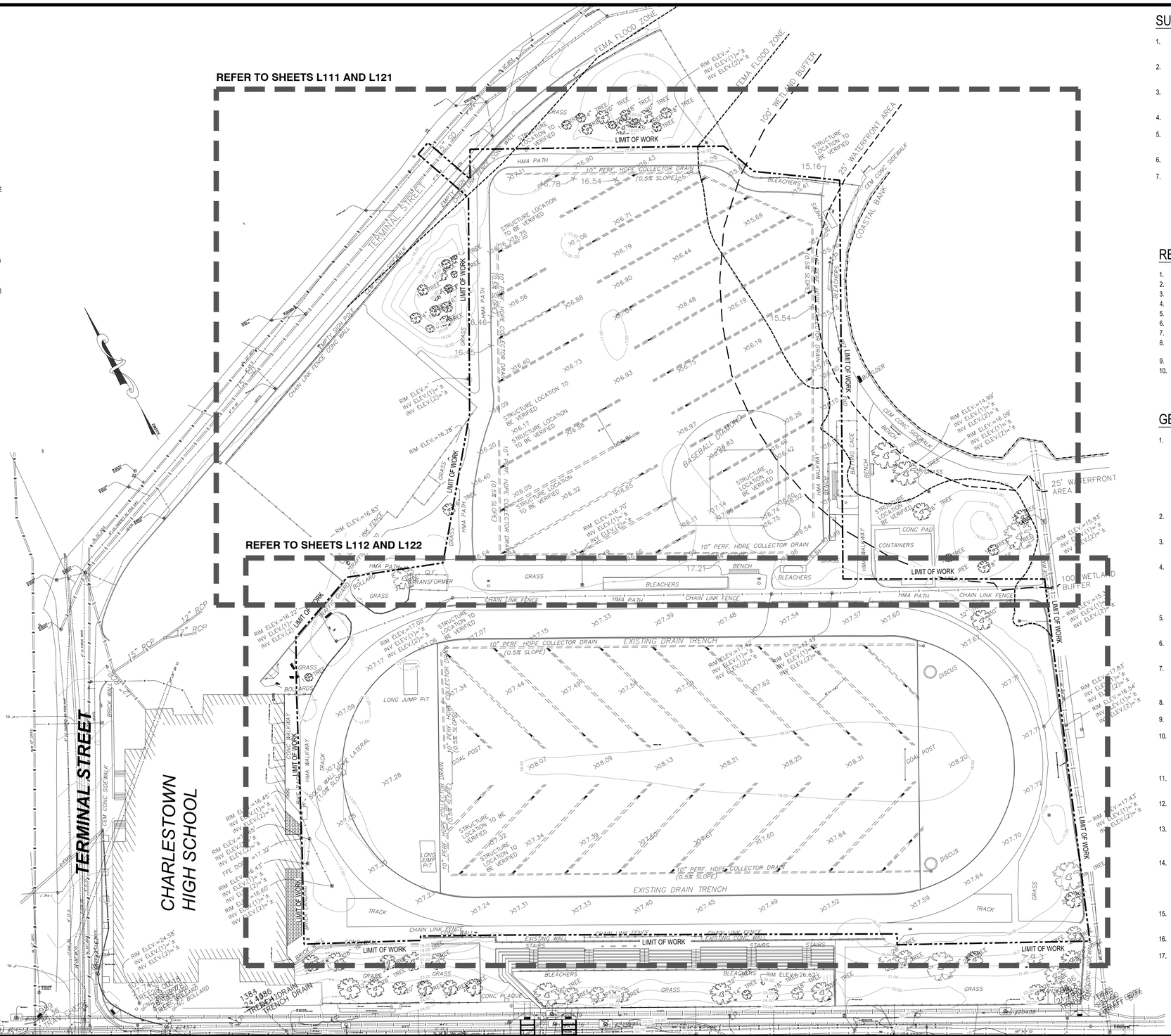
Sheet Name.: COVER SHEET

BPRD Project No.	CPRXXXX
Date	AUGUST 19, 2022
Scale	N/A
Drawn	LC, AG
Checked	BK

Project Name: IMPROVEMENTS TO CHARLESTOWN HIGH SCHOOL ATHLETIC FIELDS - FOR PERMITTING PURPOSES ONLY -

LEGEND

- LIMIT OF WORK
- COASTAL BANK
- 25' WATERFRONT AREA
- 100' WETLAND BUFFER
- FEMA FLOOD ZONE
- STORM SEWER LINE
- SANITARY SEWER LINE
- WATER LINE
- GAS LINE
- SIGNAL WIRE LINE
- CABLE LINE
- FIBER OPTIC LINE
- LOW PRESSURE SEWER LINE
- ELECTRIC LINE
- OVERHEAD UTILITIES
- TELEPHONE LINE
- SANITARY MANHOLE (SMH)
- DRAINAGE MANHOLE (DMH)
- CATCHBASIN (CB)
- METAL POST/BOLLARD (BOL)
- ELECTRIC MANHOLE (MHE)
- UNKNOWN MANHOLE
- TELEPHONE MANHOLE (MHT)
- DECIDUOUS TREE
- SIGN
- UTILITY POLE
- LIGHT POLE
- HYDRANT
- WATER SHUTOFF
- GAS VALVE
- WATER VALVE
- HAND HOLE
- ELEC. METER
- GAS METER
- MAJOR CONTOUR LINE
- MINOR CONTOUR LINE



SURVEY NOTES

1. THE SITE TOPOGRAPHY SHOWN IS THE RESULT OF AN ON-THE-GROUND FIELD SURVEY CONDUCTED IN FEBRUARY-MARCH OF 2022 BY FRASER POLYENGINEERING SERVICES (FPES).
2. THE UTILITIES SHOWN ARE BASED ON SURFACE FEATURES LOCATED AT THE TIME OF SURVEY AND PLANS OF RECORD. NOT ALL UTILITIES ARE GUARANTEED TO BE SHOWN. THE UTILITIES ARE NOT WARRANTED TO BE EXACT. CALL DIG SAFE BEFORE YOU DIG.
3. THE WATER, SEWER, STORM DRAIN, ELECTRICAL, GAS, TELEPHONE LINES, EASEMENTS, PARCEL BOUNDARIES SHOWN ARE COMPILED FROM PLANS PROVIDE BY FRAMINGHAM ENGINEERING, PARKS, ASSESSORS, AND GIS DEPARTMENT.
4. NO PROPERTY BOUNDARIES WERE DETERMINED.
5. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS NOT SUBJECT TO ANY FINDINGS SUCH A REPORT MIGHT DISCLOSE.
6. THIS PLAN IS IN U.S. SURVEY FEET.
7. THIS DOCUMENT IS AN INSTRUMENT OF SERVICE OF FRASER POLY-ENGINEERING SERVICES ISSUED TO OUR CLIENT FOR PURPOSES RELATED DIRECTLY AND SOLELY TO FRASER POLY-ENGINEERING SERVICES SCOPE OF SERVICES UNDER CONTRACT TO OUR CLIENT FOR THIS PROJECT. ANY USE OR REUSE OF THIS DOCUMENT FOR ANY REASON BY ANY PARTY FOR PURPOSES UNRELATED DIRECTLY AND SOLELY TO SAID CONTRACT SHALL BE AT THE USER'S SOLE AND EXCLUSIVE RISK AND LIABILITY, INCLUDING LIABILITY FOR VIOLATION OF COPYRIGHT LAWS, UNLESS WRITTEN CONSENT IS PROVIDED BY FRASER POLY-ENGINEERING SERVICES.

REFERENCES:

1. BWSC GIS PLAN TERMINAL ST AT MEDFORD ST WATER
2. BWSC GIS PLAN TERMINAL ST AT MEDFORD ST SEWER
3. BWSC GIS PLAN 240 MEDFORD STREET
4. BWSC AS-BUILT PLAN 11-308-003_TERMINAL_W01 9/23/2014
5. BWSC AS-BUILT PLAN 11-308-003_TERMINAL_W02 9/23/2014
6. BWSC AS-BUILT PLAN 15-308-006_TERMINAL_M03 12/19/2018
7. BWSC AS-BUILT PLAN 15-308-006_TERMINAL_M04 12/19/2018
8. BWSC AS-BUILT PLAN 8 IN WATERLINE AT CHARLESTOWN HIGH SCHOOL 255 MEDFORD STREET UT-AB DWG 1 9/30/2012
9. BWSC CAD PLAN R10075001 TO BWSC 060812
10. BOSTON PARK AND RECREATIONAL DEPARTMENT AS-BUILT PLAN IMPROVEMENTS TO CHARLESTOWN HIGH SCHOOL ATHLETIC FIELD 02/09

GENERAL NOTES

1. LOCATIONS OF ANY UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES AND REPAIRING ANY DAMAGE DONE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE COORDINATION WITH UTILITY COMPANIES AND PUBLIC AGENCIES AND FOR OBTAINING ALL REQUIRED PERMITS AND PAYING ALL REQUIRED FEES. IN ACCORDANCE WITH M.G.L. CHAPTER 82, SECTION 40, INCLUDING AMENDMENTS, CONTRACTORS SHALL NOTIFY ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES IN WRITING PRIOR TO EXCAVATION. CONTRACTOR SHALL ALSO CALL "DIG SAFE" AT (888) 344-7233 NO LESS THAN 72 HOURS, (EXCLUSIVE OF WEEKENDS AND HOLIDAYS), PRIOR TO SUCH EXCAVATION. DOCUMENTATION OF REQUESTS SHALL BE PROVIDED TO PROJECT REPRESENTATIVE PRIOR TO EXCAVATION WORK.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL DRAWINGS AND SPECIFICATIONS TO DETERMINE THE EXTENT OF EXCAVATION AND DEMOLITION REQUIRED TO RECEIVE SITE IMPROVEMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND REVIEWING THE DRAWINGS AND ASSUMES RESPONSIBILITY OF VERIFYING ALL EXISTING CONDITIONS AND MATERIALS SHOWN WITHIN THE PROJECT CONTRACT LIMITS.
4. ANY DISCREPANCIES OR CONFLICTS BETWEEN THE DRAWINGS AND EXISTING CONDITIONS, EXISTING CONDITIONS TO REMAIN, TEMPORARY CONSTRUCTION, PERMANENT CONSTRUCTION AND WORK OF ADJACENT CONTRACTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER BEFORE PROCEEDING. ITEMS ENCOUNTERED IN AREAS OF EXCAVATION THAT ARE NOT INDICATED ON THE DRAWINGS, BUT ARE VISIBLE ON SURFACE, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE REMOVED AT NO ADDITIONAL COST TO THE OWNER.
5. ANY ALTERATIONS TO THESE DRAWINGS MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE GENERAL CONTRACTOR ON "AS-BUILT" DRAWINGS.
6. ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS OUTSIDE THE PROJECT LIMITS, SHALL BE RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR AT NO ADDITIONAL COST TO AND TO THE SATISFACTION OF THE OWNER.
7. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT HIS EMPLOYEES, AS WELL AS PUBLIC USERS FROM INJURY DURING THE ENTIRE CONSTRUCTION PERIOD USING ALL NECESSARY SAFEGUARDS, INCLUDING BUT NOT LIMITED TO, TEMPORARY WALKS, STRUCTURES, PROTECTIVE BARRIERS, COVERING, OR FENCES AS NEEDED.
8. THE CONTRACTOR SHALL SUPPLY THE OWNER WITH THE NAME OF THE OSHA "COMPETENT PERSON" PRIOR TO CONSTRUCTION.
9. FILLING OF EXCAVATED AREAS SHALL NOT TAKE PLACE WITHOUT THE PRESENCE OR PERMISSION OF THE OWNER.
10. EXISTING TREES TO REMAIN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES. NO STOCKPILING OF MATERIAL, EQUIPMENT OR VEHICULAR TRAFFIC SHALL BE ALLOWED WITHIN THE DRIP LINE OF TREES TO REMAIN. NO GUYS SHALL BE ATTACHED TO ANY TREE TO REMAIN. WHEN NECESSARY OR AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL ERECT TEMPORARY BARRIERS FOR THE PROTECTION OF EXISTING TREES DURING CONSTRUCTION.
11. NO CUTTING OR FILLING SHALL OCCUR WITHIN FIVE (5) FEET OF EXISTING TREES TO REMAIN WITHOUT THE APPROVAL OF THE OWNER OR OWNER'S REPRESENTATIVE.
12. ANY QUANTITIES SHOWN ON PLANS ARE FOR COMPARATIVE BIDDING PURPOSES ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE PROJECT SITE TO VERIFY ALL QUANTITIES PRIOR TO SUBMITTING BID.
13. THE GRADING OF ALL SLOPES AND CROSS SLOPES SHALL CONFORM TO THE COMMONWEALTH OF MASSACHUSETTS RULES AND REGULATIONS FOR HANDICAP ACCESS CMR 521, AND THE AMERICANS WITH DISABILITIES ACT (ADA), TITLE 3. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE REQUIRED.
14. ALL EXISTING DRAINAGE FACILITIES TO REMAIN SHALL BE MAINTAINED FREE OF DEBRIS, SOIL, SEDIMENT, AND FOREIGN MATERIAL AND OPERATIONAL THROUGHOUT THE LIFE OF THE CONTRACT. REMOVE ALL SOIL, SEDIMENT, DEBRIS AND FOREIGN MATERIAL FROM ALL DRAINAGE STRUCTURES, INCLUDING BUT NOT LIMITED TO, DRAINAGE INLETS, MANHOLES AND CATCH BASINS WITHIN THE LIMIT OF WORK AND DRAINAGE STRUCTURES OUTSIDE THE LIMIT OF WORK THAT ARE IMPACTED BY THE WORK FOR THE ENTIRE DURATION OF CONSTRUCTION.
15. CONTRACTOR'S STAGING AREA MUST BE WITHIN THE CONTRACT LIMIT LINE. ANY OTHER AREAS THAT THE CONTRACTOR MAY WISH TO USE FOR STAGING MUST BE COORDINATED WITH THE OWNER.
16. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE CITY OF BOSTON PARKS AND RECREATION DEPARTMENT.
17. IN CASE OF CONFLICT WITHIN THE CONTRACT DOCUMENTS THE CITY OWNS "BEST AND MOST."

SCALE:
1" = 40'-0"

0 20 40 80FT

NORTH

BOSTON PARKS & RECREATION

Prepared By:
Weston & Sampson SM

Consultant Project No. ENG21-0493

No.	Date	Revision

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IMPROVEMENTS TO CHARLESTOWN HIGH SCHOOL ATHLETIC FIELDS
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BPRD Project No.	CPRXXXX
Date	AUGUST 19, 2022
Scale	AS SHOWN
Drawn	LC, AG
Checked	BK

Sheet Name.:
EXISTING CONDITIONS PLAN

SHEET:
L100

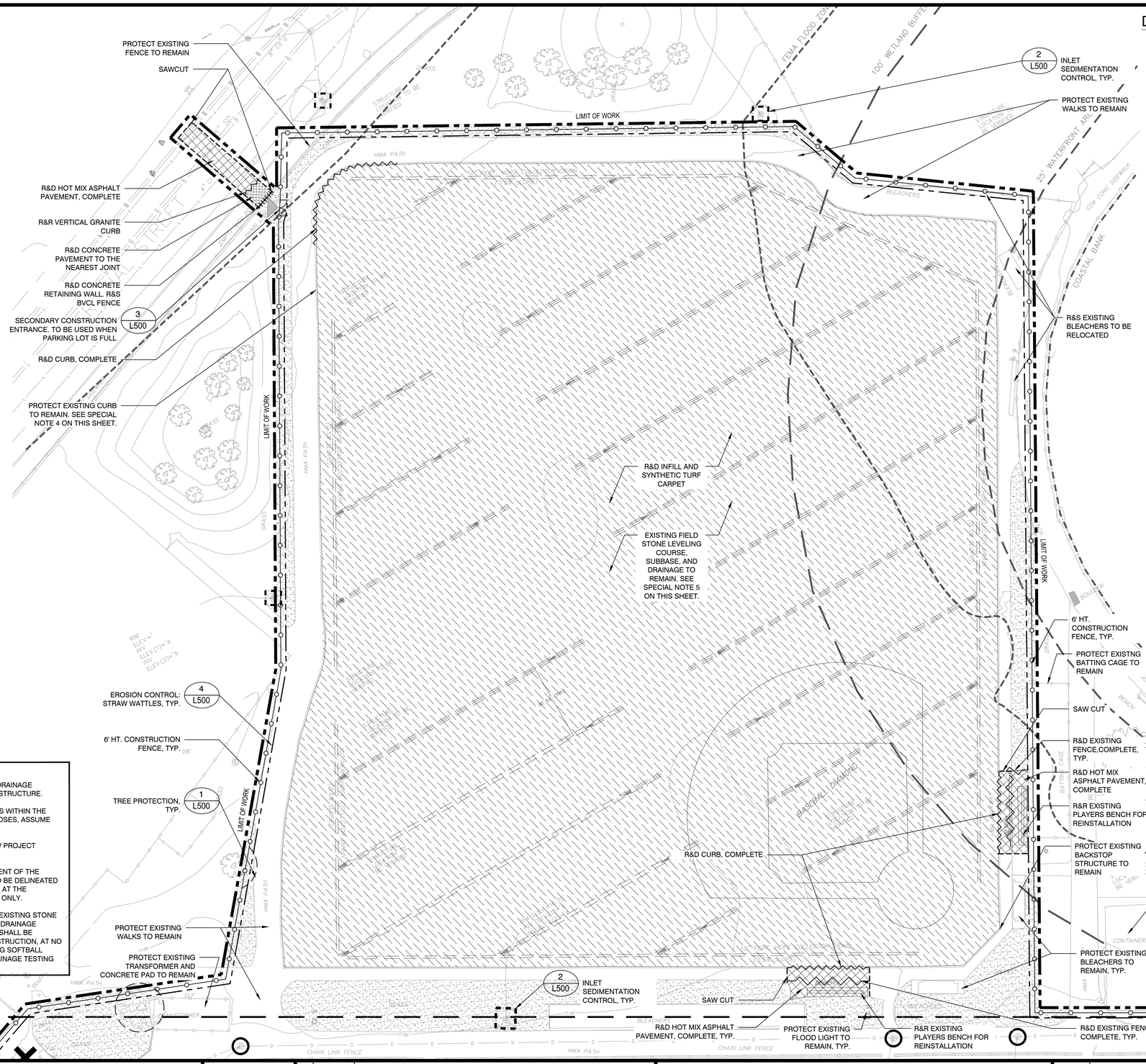
LEGEND

- LIMIT OF WORK
- PROPERTY LINE
- COASTAL BANK
- 25' WATERFRONT AREA
- 100' WETLAND BUFFER
- FEMA FLOOD ZONE
- R&D INFILL AND SYNTHETIC TURF CARPET. SUBBASE AND DRAINAGE TO REMAIN
- R&D TRACK SURFACING, MILL AND OVERLAY HOT MIX ASPHALT TO A DEPTH OF 2"
- R&D TRACK SURFACING AND HOT MIX ASPHALT, FULL DEPTH
- R&D HOT MIX ASPHALT PAVEMENT, FULL DEPTH
- R&D CONCRETE PAVEMENT, FULL DEPTH
- PROTECT EXISTING LAWN TO REMAIN
- SAW CUT
- R&D CONCRETE RETAINING WALL
- REMOVE AND DISPOSE CURB, COMPLETE
- REMOVE AND DISPOSE FENCE, COMPLETE
- EROSION CONTROL- STRAW WATTLES
- REMOVE AND DISPOSE SLOT DRAIN, COMPLETE
- 6' HT. CONSTRUCTION FENCE, TYP.
- INLET SEDIMENTATION CONTROL
- REMOVE AND DISPOSE EXISTING FOOTBALL GOAL POST, COMPLETE.
- REMOVE AND DISPOSE EXISTING SITE FEATURE
- CONSTRUCTION ENTRANCE
- PROTECT EXISTING DRAINAGE STRUCTURE
- TREE PROTECTION

EX.	EXISTING
TYP.	TYPICAL
R&D	REMOVE & DISPOSE
R&S	REMOVE & SALVAGE

SPECIAL NOTES:

1. CONTRACTOR SHALL CLEAR AND WATER JET ALL EXISTING DRAINAGE STRUCTURES WITHIN THE LIMIT OF WORK TO THE NEAREST STRUCTURE.
2. CONTRACTOR SHALL INSPECT ALL EXISTING DRAINAGE LINES WITHIN THE FIELD LIMITS AND REPLACE AS NEEDED. FOR BIDDING PURPOSES, ASSUME 25% OF TOTAL DRAIN LINES TO BE REPLACED.
3. CONTRACTOR SHALL NOT STORE ANY MATERIALS OR ALLOW PROJECT PARKING IN THE PARKING LOT ON SITE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF THE CONCRETE NAILER CURB AT THE SOFTBALL FIELD. LIMITS TO BE DELINEATED IN THE FIELD. ASSUME 25% OF THE EXISTING TOTAL LENGTH AT THE SOFTBALL FIELD TO BE REPLACED. FOR BIDDING PURPOSES ONLY.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF THE EXISTING STONE LEVELING COURSE, SUBBASE, AND DRAINAGE TO MEET THE DRAINAGE REQUIREMENTS INDICATED IN THE SPECIFICATIONS. AREAS SHALL BE DETERMINED THROUGH ADDITIONAL TESTING DURING CONSTRUCTION, AT NO ADDITIONAL COST TO THE OWNER. ASSUME 25% OF EXISTING SOFTBALL FIELD AREA TO BE REPAIRED. SEE SPECIFICATIONS FOR DRAINAGE TESTING RESULTS PERFORMED IN JUNE OF 2022.



SCALE: 1" = 40'-0"

0 20 40 80FT

NORTH

DEMOLITION & SITE PREPARATION NOTES

1. CONTRACTOR SHALL PROVIDE 6' HT CONSTRUCTION FENCE PLACED AT LIMIT OF WORK OR USE EXISTING FENCE IN PLACE UNTIL CONTRACTOR HAS TO REMOVE AND DISPOSE OF IT AS INDICATED ON PLANS. CONTRACTOR IS RESPONSIBLE FOR SECURING THE SITE AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PERIOD.
2. CONTRACTOR MUST NOTIFY OWNER AND CITY OF BOSTON DEPARTMENT OF PUBLIC WORKS OF ANY WORK TO BE COMPLETED WITHIN THE RIGHT OF WAY FORTY-EIGHT HOURS PRIOR TO COMMENCING WORK.
3. CONTRACTOR SHALL PROTECT ALL UTILITY POLES THAT FALL WITHIN LIMIT OF WORK.
4. CONTRACTOR SHALL CLEAR AND WATER JET ALL DRAINAGE STRUCTURES AND LINES WITHIN LIMIT OF WORK AND VERIFY WORKING CONDITION.
5. THE CONTRACTOR SHALL INCLUDE IN THE BID THE COST OF REMOVING ANY EXISTING SITE FEATURES NECESSARY TO ACCOMPLISH THE CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS. THE CONTRACTOR SHALL ALSO INCLUDE IN THE BID THE COST NECESSARY TO RESTORE SUCH ITEMS IF THEY ARE DISTURBED YET SCHEDULED TO REMAIN AS PART OF THE FINAL SITE IMPROVEMENTS. REFER TO PLANS TO DETERMINE EXCAVATION AND DEMOLITION REQUIRED TO RECEIVE PROPOSED SITE IMPROVEMENTS AND TO DETERMINE THE LOCATION OF PROPOSED SITE IMPROVEMENTS.
6. THE OWNER RESERVES THE RIGHT TO REVIEW ALL MATERIALS DESIGNATED FOR REMOVAL AND TO RETAIN OWNERSHIP OF SUCH MATERIALS. IF THE OWNER RETAINS ANY MATERIAL THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OWNER TO HAVE THOSE MATERIALS DELIVERED TO FRANKLIN PARK YARD AT NO ADDITIONAL EXPENSE TO THE OWNER.
7. UNLESS SPECIFICALLY NOTED TO BE SAVED OR REUSED, ALL SITE FEATURES CALLED FOR REMOVAL SHALL BE TRANSPORTED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER AT AN ACCEPTABLE DISPOSAL SITE AT NO COST TO THE OWNER.
8. ALL EXISTING SITE FEATURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PERIOD. ANY FEATURES DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AND OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
9. ALL ITEMS CALLED FOR REMOVAL (COMPLETE) SHALL BE REMOVED TO FULL DEPTH INCLUDING ALL FOOTINGS, FOUNDATIONS, AND OTHER APPURTENANCES, EXCEPT AS SPECIFICALLY NOTED OTHERWISE.
10. CONTRACTOR SHALL INSTALL TREE PROTECTION BARRIER AT DRIPLINE AFTER CLEARING UNDERBRUSH AND TAKE DUE CARE TO PREVENT INJURY TO TREES DURING CLEARING OPERATIONS. TREES TO REMAIN SHALL BE PRUNED.
11. THE STORAGE OF MATERIALS AND EQUIPMENT WILL BE PERMITTED AT LOCATIONS DESIGNATED BY OWNER OR OWNER'S REPRESENTATIVE. PROTECTION OF STORED MATERIALS AND EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THERE SHALL BE NO STORAGE OF MATERIALS OR PARKING OF CONSTRUCTION VEHICLES WITHIN DRIPLINE OF TREES.

EROSION AND SEDIMENT CONTROL NOTES

1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE PUT INTO PLACE PRIOR TO BEGINNING ANY CONSTRUCTION OR DEMOLITION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUAL MAINTENANCE OF ALL EROSION CONTROL DEVICES THROUGHOUT THE DURATION OF THE PROJECT.
3. CONTRACTOR SHALL MEET ALL OF THE COMMONWEALTH OF MASSACHUSETTS D.E.P. AND THE CITY OF BOSTON'S WETLAND ORDINANCE REGULATIONS FOR SEDIMENT AND EROSION CONTROL.
4. EXCAVATED MATERIAL STOCKPILED ON THE SITE SHALL BE SURROUNDED BY A RING OF UNBROKEN SEDIMENT AND EROSION CONTROL FENCE. THE LIMITS OF ALL GRADING AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE APPROVED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THE LIMIT OF CONTRACT SHALL REMAIN TOTALLY UNDISTURBED UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.
5. ALL CATCH BASINS AND DRAIN GRATES WITHIN LIMIT OF CONTRACT SHALL BE PROTECTED WITH FILTER FABRIC/INLET SEDIMENT CONTROL DURING THE ENTIRE DURATION OF CONSTRUCTION.
6. EROSION CONTROL BARRIERS TO BE INSTALLED AT THE TOE OF SLOPES. SEE GRADING & DRAINAGE PLANS, NOTES, DETAILS AND SPECIFICATIONS.
7. ANY AREA OUTSIDE THE PROJECT LIMIT THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO THE OWNER.
8. THE CONTRACTOR SHALL PROVIDE DUST CONTROL FOR CONSTRUCTION OPERATIONS AS APPROVED BY OWNER.
9. ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC/PRIVATE ROADS.

BOSTON PARKS & RECREATION

Prepared By: Weston & Sampson SM

Consultant Project No. ENG21-0493

No.	Date	Revision

Approved By: Date:

Project Name.:

IMPROVEMENTS TO CHARLESTOWN HIGH SCHOOL ATHLETIC FIELDS
- FOR PERMITTING PURPOSES ONLY -

BPRD Project No.	CPRXXXX
Date	AUGUST 19, 2022
Scale	AS SHOWN
Drawn	LC, AG
Checked	BK

Sheet Name.:

SITE DEMOLITION AND PREPARATION ENLARGEMENT PLAN

SHEET:

L111

LEGEND

- LIMIT OF WORK
- PROPERTY LINE
- COASTAL BANK
- 25' WATERFRONT AREA
- 100' WETLAND BUFFER
- FEMA FLOOD ZONE
- R&D INFILL AND SYNTHETIC TURF CARPET, SUBBASE AND DRAINAGE TO REMAIN
- R&D TRACK SURFACING, MILL AND OVERLAY HOT MIX ASPHALT TO A DEPTH OF 2"
- R&D TRACK SURFACING AND HOT MIX ASPHALT, FULL DEPTH
- PROTECT EXISTING LAWN TO REMAIN
- SAW CUT
- REMOVE AND DISPOSE CURB, COMPLETE
- EROSION CONTROL- STRAW WATTLES
- REMOVE AND DISPOSE TRENCH DRAIN, COMPLETE
- 6' HT. CONSTRUCTION FENCE, TYP.
- INLET SEDIMENTATION CONTROL
- REMOVE AND DISPOSE EXISTING FOOTBALL GOAL POST, COMPLETE.
- REMOVE AND DISPOSE EXISTING SITE FEATURE
- CONSTRUCTION ENTRANCE
- PROTECT EXISTING DRAINAGE STRUCTURE
- TREE PROTECTION

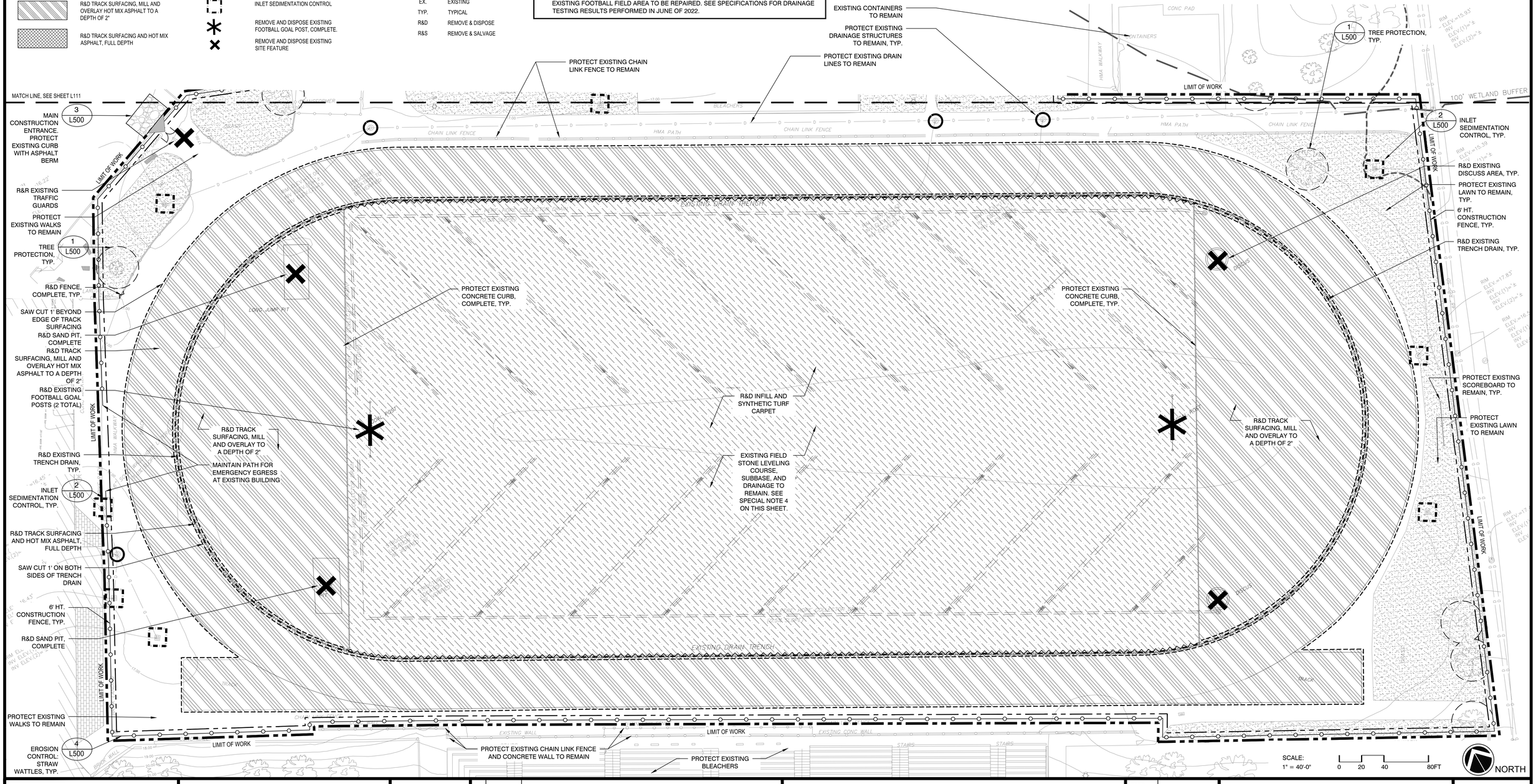
EX.	EXISTING
TYP.	TYPICAL
R&D	REMOVE & DISPOSE
R&S	REMOVE & SALVAGE

SPECIAL NOTES:

1. CONTRACTOR SHALL CLEAR AND WATER JET ALL EXISTING DRAINAGE STRUCTURES WITHIN THE LIMIT OF WORK TO THE NEAREST STRUCTURE.
2. CONTRACTOR SHALL INSPECT ALL EXISTING DRAINAGE LINES WITHIN THE LIMIT OF WORK AND REPLACE AS NEEDED. FOR BIDDING PURPOSES, ASSUME 25% OF TOTAL DRAIN LINES TO BE REPLACED.
3. CONTRACTOR SHALL NOT STORE ANY MATERIALS OR ALLOW PROJECT PARKING IN THE PARKING LOT ON SITE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF THE EXISTING STONE LEVELING COURSE, SUBBASE, AND DRAINAGE TO MEET THE DRAINAGE REQUIREMENTS INDICATED IN THE SPECIFICATIONS. AREAS SHALL BE DETERMINED THROUGH ADDITIONAL TESTING DURING CONSTRUCTION, AT NO ADDITIONAL COST TO THE OWNER. ASSUME 25% OF EXISTING FOOTBALL FIELD AREA TO BE REPAIRED. SEE SPECIFICATIONS FOR DRAINAGE TESTING RESULTS PERFORMED IN JUNE OF 2022.

NOTES:

1. REFER TO SHEET L111 FOR ALL SITE PREPARATION AND DEMOLITION NOTES.



BOSTON PARKS & RECREATION

Prepared By:
Weston & Sampson

Consultant Project No. ENG21-0493

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BPRD Project No.	CPRXXXX
Date	AUGUST 19, 2022
Scale	AS SHOWN
Drawn	LC, AG
Checked	BK

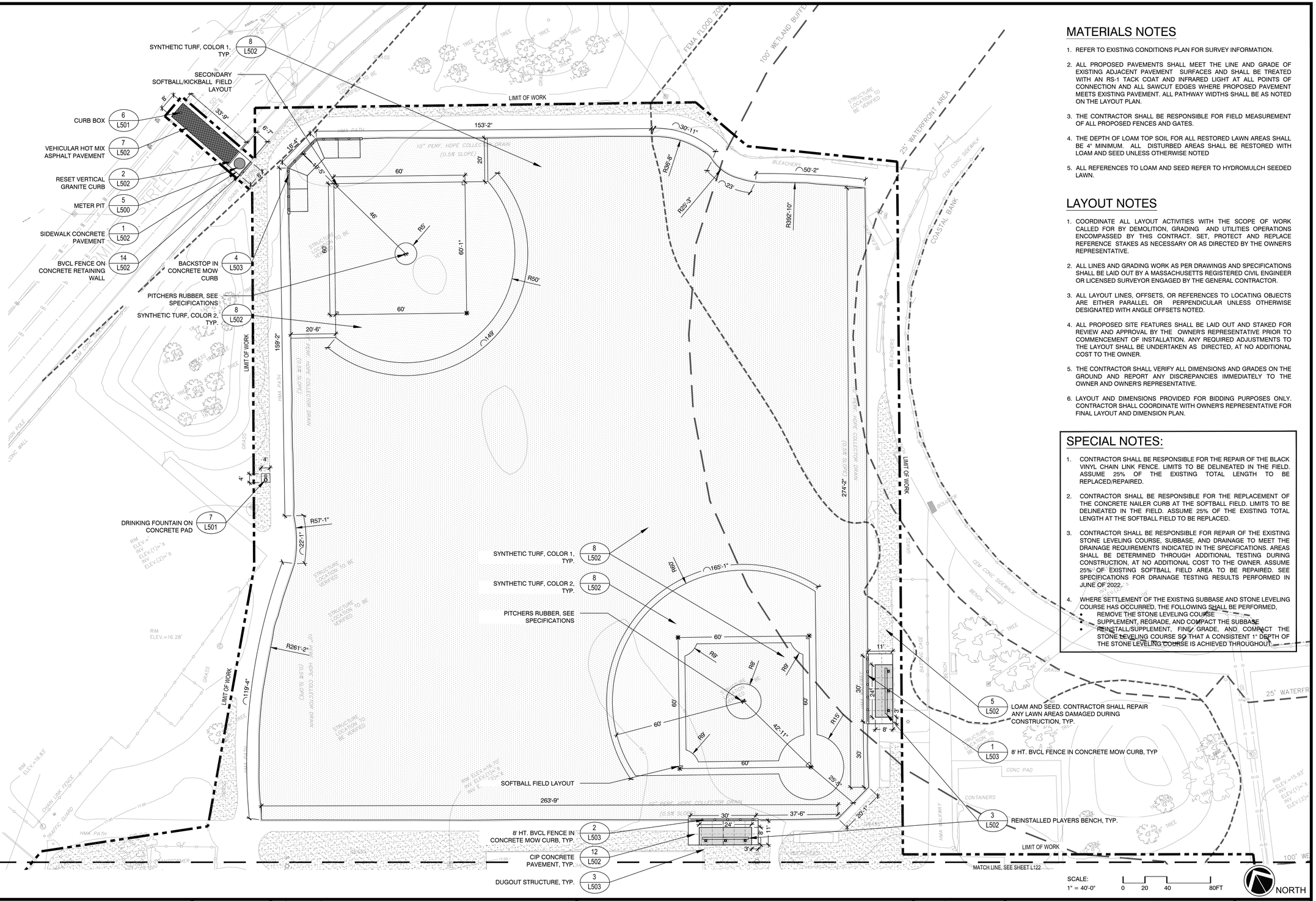
Sheet Name.:
SITE DEMOLITION AND PREPARATION ENLARGEMENT PLAN

SHEET:
L112

LEGEND

- LIMIT OF WORK
- PROPERTY LINE
- COASTAL BANK
- 25' WATERFRONT AREA
- 100' WETLAND BUFFER
- FEMA FLOOD ZONE
- MATCH LINE
- 6-FT HT BLACK VINYL CHAIN LINK FENCE
- SYNTHETIC TURF, COLORS 1 & 2
- RESILIENT TRACK SURFACING ON HOT MIX ASPHALT OVERLAY, COLORS 1 & 2
- HOT MIX ASPHALT PAVEMENT OVERLAY
- CONCRETE PAVEMENT WITH RESILIENT TRACK SURFACING, COLORS 1 & 2
- VEHICULAR HOT MIX ASPHALT PAVEMENT
- SAND
- LOAM AND SEED
- CEMENT CONCRETE PAVEMENT
- CENTER LINE
- SCORE JOINT
- EXPANSION JOINT
- 8' HT. BVCL FENCE
- DUGOUT STRUCTURE
- REINSTALLED PLAYERS BENCH
- BACKSTOP
- TYP. DIMENSION
- TYP. ARC DIMENSION
- TYP. ANGLE DIMENSION
- ALIGN
- PROPOSED TREES

EX.	EXISTING
TYP.	TYPICAL
SPECS.	SPECIFICATIONS
BVCL	BLACK VINYL CHAIN LINK FENCE
CIP	CAST -N-PLACE
PRC	POINT OF REVERSE CURVE
PCC	POINT OF COMPOUND CURVE
PC	POINT OF CURVE
PT	POINT OF TANGENT
BP	BEGINNING POINT
EP	END POINT



MATERIALS NOTES

1. REFER TO EXISTING CONDITIONS PLAN FOR SURVEY INFORMATION.
2. ALL PROPOSED PAVEMENTS SHALL MEET THE LINE AND GRADE OF EXISTING ADJACENT PAVEMENT SURFACES AND SHALL BE TREATED WITH AN RS-1 TACK COAT AND INFRARED LIGHT AT ALL POINTS OF CONNECTION AND ALL SAWCUT EDGES WHERE PROPOSED PAVEMENT MEETS EXISTING PAVEMENT. ALL PATHWAY WIDTHS SHALL BE AS NOTED ON THE LAYOUT PLAN.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD MEASUREMENT OF ALL PROPOSED FENCES AND GATES.
4. THE DEPTH OF LOAM TOP SOIL FOR ALL RESTORED LAWN AREAS SHALL BE 4" MINIMUM. ALL DISTURBED AREAS SHALL BE RESTORED WITH LOAM AND SEED UNLESS OTHERWISE NOTED
5. ALL REFERENCES TO LOAM AND SEED REFER TO HYDROMULCH SEEDED LAWN.

LAYOUT NOTES

1. COORDINATE ALL LAYOUT ACTIVITIES WITH THE SCOPE OF WORK CALLED FOR BY DEMOLITION, GRADING AND UTILITIES OPERATIONS ENCOMPASSED BY THIS CONTRACT. SET, PROTECT AND REPLACE REFERENCE STAKES AS NECESSARY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
2. ALL LINES AND GRADING WORK AS PER DRAWINGS AND SPECIFICATIONS SHALL BE LAID OUT BY A MASSACHUSETTS REGISTERED CIVIL ENGINEER OR LICENSED SURVEYOR ENGAGED BY THE GENERAL CONTRACTOR.
3. ALL LAYOUT LINES, OFFSETS, OR REFERENCES TO LOCATING OBJECTS ARE EITHER PARALLEL OR PERPENDICULAR UNLESS OTHERWISE DESIGNATED WITH ANGLE OFFSETS NOTED.
4. ALL PROPOSED SITE FEATURES SHALL BE LAID OUT AND STAKED FOR REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF INSTALLATION. ANY REQUIRED ADJUSTMENTS TO THE LAYOUT SHALL BE UNDERTAKEN AS DIRECTED, AT NO ADDITIONAL COST TO THE OWNER.
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON THE GROUND AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER AND OWNER'S REPRESENTATIVE.
6. LAYOUT AND DIMENSIONS PROVIDED FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL COORDINATE WITH OWNER'S REPRESENTATIVE FOR FINAL LAYOUT AND DIMENSION PLAN.

SPECIAL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF THE BLACK VINYL CHAIN LINK FENCE. LIMITS TO BE DELINEATED IN THE FIELD. ASSUME 25% OF THE EXISTING TOTAL LENGTH TO BE REPLACED/REPAIRED.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF THE CONCRETE NAILER CURB AT THE SOFTBALL FIELD. LIMITS TO BE DELINEATED IN THE FIELD. ASSUME 25% OF THE EXISTING TOTAL LENGTH AT THE SOFTBALL FIELD TO BE REPLACED.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF THE EXISTING STONE LEVELING COURSE, SUBBASE, AND DRAINAGE TO MEET THE DRAINAGE REQUIREMENTS INDICATED IN THE SPECIFICATIONS. AREAS SHALL BE DETERMINED THROUGH ADDITIONAL TESTING DURING CONSTRUCTION, AT NO ADDITIONAL COST TO THE OWNER. ASSUME 25% OF EXISTING SOFTBALL FIELD AREA TO BE REPAIRED. SEE SPECIFICATIONS FOR DRAINAGE TESTING RESULTS PERFORMED IN JUNE OF 2022.
4. WHERE SETTLEMENT OF THE EXISTING SUBBASE AND STONE LEVELING COURSE HAS OCCURRED, THE FOLLOWING SHALL BE PERFORMED,
   - REMOVE THE STONE LEVELING COURSE
   - SUPPLEMENT, REGRADE, AND COMPACT THE SUBBASE
   - REINSTALL/SUPPLEMENT, FINE GRADE, AND COMPACT THE STONE LEVELING COURSE SO THAT A CONSISTENT 1" DEPTH OF THE STONE LEVELING COURSE IS ACHIEVED THROUGHOUT.

SCALE: 1" = 40'-0" 0 20 40 80FT

NORTH

BOSTON PARKS & RECREATION

Prepared By: Weston & Sampson SM

Consultant Project No. ENG21-0493

No.	Date	Revision

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IMPROVEMENTS TO CHARLESTOWN HIGH SCHOOL ATHLETIC FIELDS
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BPRD Project No.	CPRXXXX
Date	AUGUST 19, 2022
Scale	AS SHOWN
Drawn	LC, AG
Checked	BK

Sheet Name.:

LAYOUT, MATERIALS, AND PLANTING ENLARGEMENT PLAN

SHEET: L121

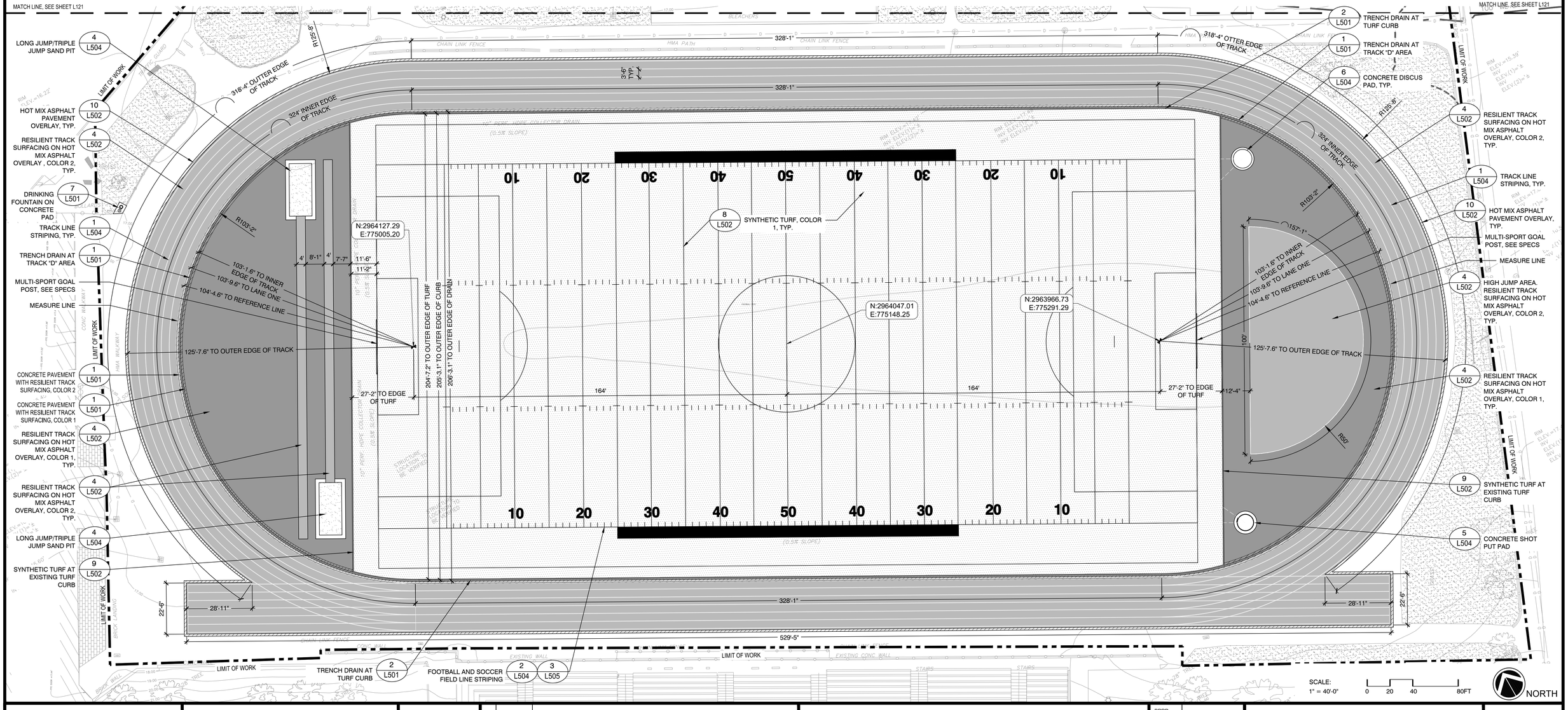
LEGEND

- LIMIT OF WORK
- PROPERTY LINE
- COASTAL BANK
- 25' WATERFRONT AREA
- 100' WETLAND BUFFER
- FEMA FLOOD ZONE
- MATCH LINE
- 6-FT HT BLACK VINYL CHAIN LINK FENCE
- SYNTHETIC TURF, COLORS 1 & 2
- RESILIENT TRACK SURFACING ON HOT MIX ASPHALT OVERLAY, COLORS 1 & 2
- HOT MIX ASPHALT PAVEMENT OVERLAY
- CONCRETE PAVEMENT WITH RESILIENT TRACK SURFACING, COLORS 1 & 2
- SAND
- LOAM AND SEED
- CENTER LINE
- TRENCH DRAIN
- 1'-3" TYP. DIMENSION
- R3" TYP. ARC DIMENSION
- 30.00° TYP. ANGLE DIMENSION
- ALIGN

EX.	EXISTING
TYP.	TYPICAL
SPECS.	SPECIFICATIONS
BVCL	BLACK VINYL CHAIN LINK FENCE
CIP	CAST -N-PLACE
PRC	POINT OF REVERSE CURVE
PCC	POINT OF COMPOUND CURVE
PC	POINT OF CURVE
PT	POINT OF TANGENT
BP	BEGINNING POINT
EP	END POINT

SPECIAL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF THE BLACK VINYL CHAIN LINK FENCE. LIMITS TO BE DELINEATED IN THE FIELD. ASSUME 25% OF THE EXISTING TOTAL LENGTH TO BE REPLACED/REPAIRED.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF THE EXISTING STONE LEVELING COURSE, SUBBASE, AND DRAINAGE TO MEET THE DRAINAGE REQUIREMENTS INDICATED IN THE SPECIFICATIONS. AREAS SHALL BE DETERMINED THROUGH ADDITIONAL TESTING DURING CONSTRUCTION, AT NO ADDITIONAL COST TO THE OWNER. ASSUME 25% OF EXISTING FOOTBALL FIELD AREA TO BE REPAIRED. SEE SPECIFICATIONS FOR DRAINAGE TESTING RESULTS PERFORMED IN JUNE OF 2022.
3. WHERE SETTLEMENT OF THE EXISTING SUBBASE AND STONE LEVELING COURSE HAS OCCURRED, THE FOLLOWING SHALL BE PERFORMED,
   - REMOVE THE STONE LEVELING COURSE
   - SUPPLEMENT, REGRADE, AND COMPACT THE SUBBASE
   - REINSTALL/SUPPLEMENT, FINE GRADE, AND COMPACT THE STONE LEVELING COURSE SO THAT A CONSISTENT 1" DEPTH OF THE STONE LEVELING COURSE IS ACHIEVED THROUGHOUT.
4. FIELD LAYOUTS SHALL BE AS FOLLOWS,
   - FOOTBALL
     - HASH MARKS AND NUMBERS: PAINTED
     - 5 YARD LINES, ENDLINES, AND SIDELINES SHALL BE TUFTED IN AT THE FACTORY
   - SOCCER
     - GOAL BOX, PENALTY MARKER, AND ALL CIRCULAR LINES SHALL BE PAINTED
     - MARKERS FOR FIELD LAYOUT SHALL BE TUFTED IN AT THE FACTORY



BOSTON PARKS & RECREATION

Prepared By: Weston & Sampson

Consultant Project No. ENG21-0493

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BPRD Project No.	CPRXXXX
Date	AUGUST 19, 2022
Scale	AS SHOWN
Drawn	LC, AG
Checked	BK

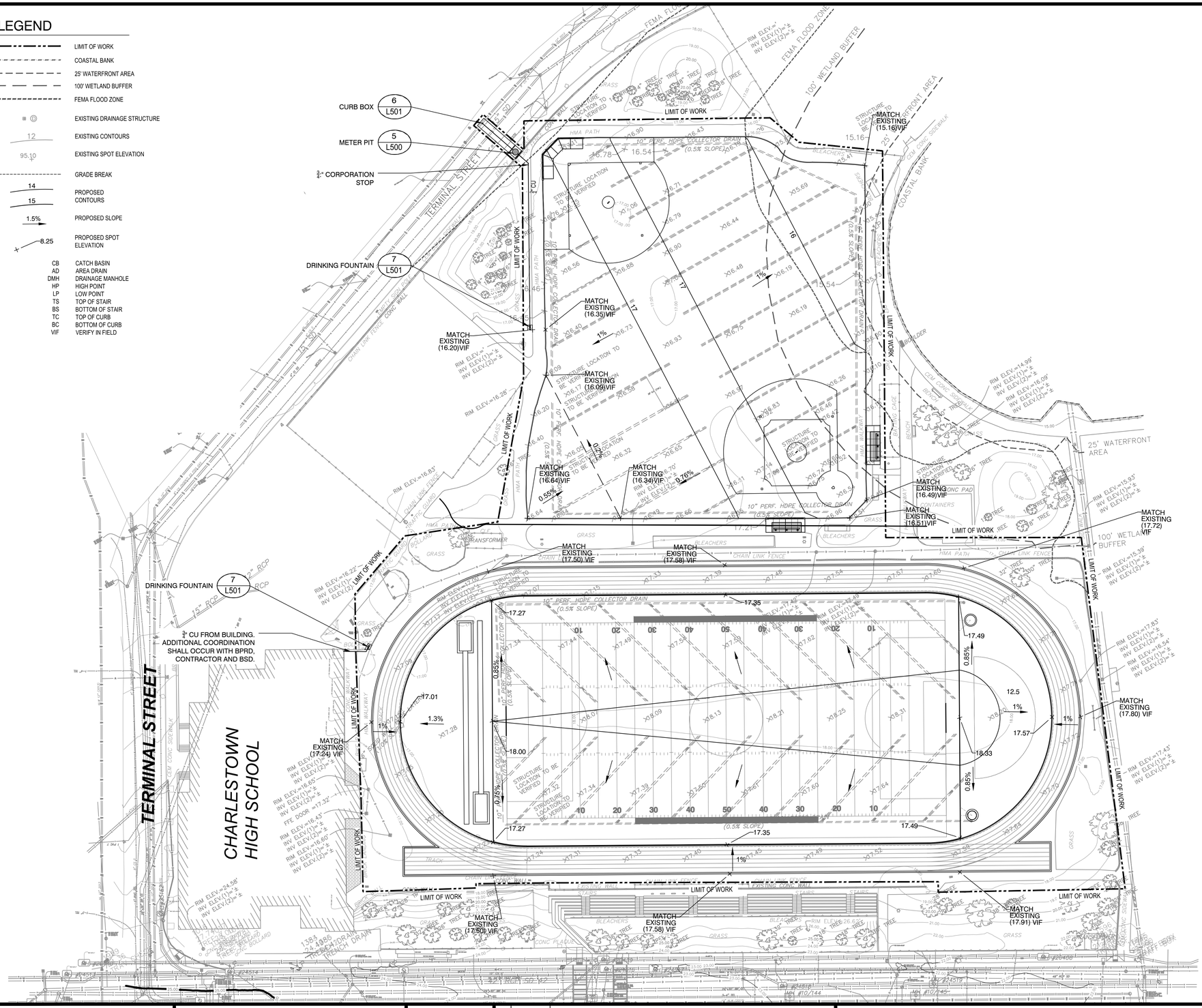
Sheet Name.: **LAYOUT, MATERIALS, AND PLANTING ENLARGEMENT PLAN**

SHEET: **L122**

LEGEND

- LIMIT OF WORK
- COASTAL BANK
- 25' WATERFRONT AREA
- 100' WETLAND BUFFER
- FEMA FLOOD ZONE
- EXISTING DRAINAGE STRUCTURE
- 12 — EXISTING CONTOURS
- 95.10 + — EXISTING SPOT ELEVATION
- GRADE BREAK
- 14 — PROPOSED CONTOURS
- 15 — PROPOSED CONTOURS
- 1.5% — PROPOSED SLOPE
- 8.25 + — PROPOSED SPOT ELEVATION

CB	CATCH BASIN
AD	AREA DRAIN
DMH	DRAINAGE MANHOLE
HP	HIGH POINT
LP	LOW POINT
TS	TOP OF STAIR
BS	BOTTOM OF STAIR
TC	TOP OF CURB
BC	BOTTOM OF CURB
VIF	VERIFY IN FIELD



GRADING AND DRAINAGE NOTES

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, GRADES AND INVERT ELEVATIONS IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER AND OWNER'S REPRESENTATIVE.
2. ALL NEW WALKWAYS MUST CONFORM TO CURRENT AMERICANS WITH DISABILITIES ACT (ADA) REGULATIONS: WALKWAYS SHALL MAINTAIN A CROSS PITCH OF NOT MORE THAN ONE AND A HALF (1.5%) PERCENT AND THE RUNNING SLOPE (PARALLEL TO THE DIRECTION OF TRAVEL) OF 4.5%.
3. MINIMUM CROSS SLOPE ON ALL WALKWAYS WILL BE 1:100 OR 1% TO PROVIDE POSITIVE DRAINAGE. ANY DISCREPANCIES NOT ALLOWING THIS TO OCCUR SHALL BE REPORTED TO THE OWNER PRIOR TO CONTINUING WORK.
4. ALL UTILITY GRATES, COVERS OR OTHER SURFACE ELEMENTS INTENDED TO BE EXPOSED AT GRADE SHALL BE FLUSH WITH THE ADJACENT FINISHED GRADE AND ADJUSTED TO PROVIDE A SMOOTH TRANSITION AT ALL EDGES.
5. THE CONTRACTOR SHALL SET SUBGRADE ELEVATIONS TO ALLOW FOR POSITIVE DRAINAGE AND PROVIDE EROSION CONTROL DEVICES, STRUCTURES, MATERIALS AND CONSTRUCTION METHODS TO DIRECT SILT MIGRATION AWAY FROM DRAINAGE AND OTHER UTILITY SYSTEMS, PUBLIC/PRIVATE STREETS AND WORK AREAS. CLEAN BASINS REGULARLY AND AT THE END OF THE PROJECT.
6. WHERE NEW EARTHWORK MEETS EXISTING EARTHWORK, CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY INTO EXISTING, PROVIDING VERTICAL CURVES OR ROUNDS AT ALL TOP AND BOTTOM OF SLOPES.
7. WHERE A SPECIFIC LIMIT OF WORK LINE IS NOT OBVIOUS OR IMPLIED, BLEND GRADES TO EXISTING CONDITIONS WITHIN 5 FEET OF PROPOSED CONTOURS.
8. RESTORE ALL DISTURBED AREAS AND LIMITS OF ALL REMOVALS TO LOAM AND SEED UNLESS OTHERWISE NOTED.
9. WHERE NEW IMPROVEMENTS MEET EXISTING CONDITIONS, MEET LINE AND GRADE OF EXISTING ADJACENT PAVEMENTS, TYPICAL.

NOTES:

1. CONTRACTOR SHALL CLEAR AND WATER JET ALL EXISTING DRAINAGE STRUCTURES WITHIN THE LIMIT OF WORK TO THE NEAREST STRUCTURE.
2. CONTRACTOR SHALL INSPECT ALL EXISTING DRAINAGE LINES WITHIN THE LIMIT OF WORK AND REPLACE AS NEEDED.
3. THE INTENT IS TO MATCH ALL PREVIOUS TRACK AND FIELD ELEVATIONS AND PITCHES ACHIEVED DURING THE ORIGINAL CONSTRUCTION OF THE PROJECT. TO ACCOMPLISH THIS, AREAS THAT HAVE SETTLED IN RECENT YEARS WILL BE REPAIRED BY SUPPLEMENTING EXISTING SUBBASE AND STONE LEVELING COURSES WITH NEW LIKE MATERIAL AND INCLUDING ALL INHERENT FINE GRADING AND COMPACTION.

SCALE: 1" = 40'-0"

0 20 40 80FT

NORTH

BOSTON PARKS & RECREATION

Prepared By: Weston & Sampson SM

Consultant Project No. ENG21-0493

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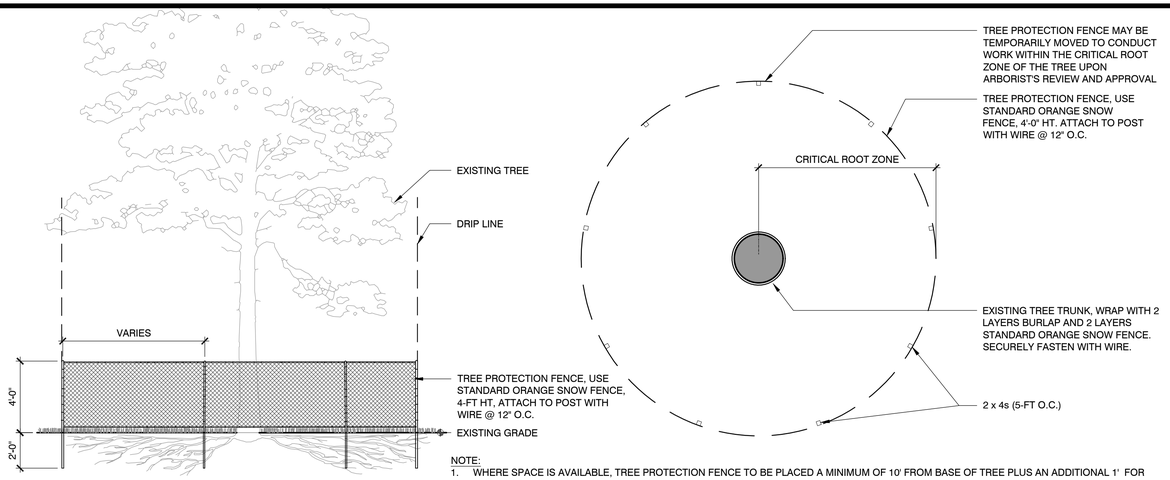
Date	AUGUST 19, 2022
Scale	AS SHOWN
Drawn	LC, AG
Checked	BK

Sheet Name.:

OVERALL GRADING PLAN

SHEET:

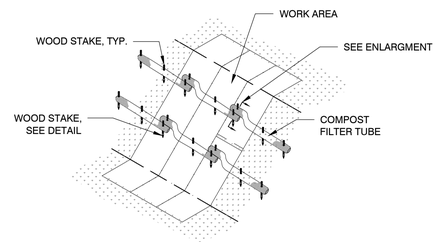
L130



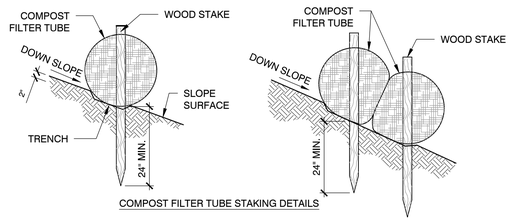
CRITICAL ROOT ZONE TO BE PROTECTED. ALL WORK NECESSARY WITHIN THE CRITICAL ROOT ZONE SHALL BE PERFORMED BY HAND.

NOTE:
1. WHERE SPACE IS AVAILABLE, TREE PROTECTION FENCE TO BE PLACED A MINIMUM OF 10' FROM BASE OF TREE PLUS AN ADDITIONAL 1' FOR EACH ADDITIONAL DBH FOR TREES GREATER THAN 10" DBH (DIA. AT BREAST HT.)
2. ALL WORK DONE WITHIN TREE PROTECTION FENCE IS TO BE DONE BY HAND AND LIGHT EQUIPMENT.
3. ROOTS EXPOSED DURING EXCAVATION SHALL BE NEATLY CUT AND COVERED WITH SOIL IMMEDIATELY.
4. FOR TREES THAT OCCUR IN GROUPS PROVIDE TREE PROTECTION FENCE AROUND ENTIRE AREA. SEE PLAN FOR LOCATIONS.
5. MAINTAIN FENCE PROTECTION IN SOUND CONDITION UNTIL FENCE COMPLETION
6. A CERTIFIED ARBORIST SHALL DELINEATE LIMIT OF TREE PROTECTION FENCE AS THEY RELATE TO THE LIMITS OF THE CRITICAL ROOT ZONE.

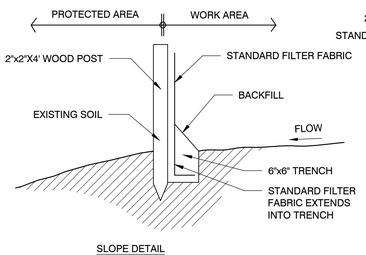
1 TREE PROTECTION
SCALE: N.T.S.



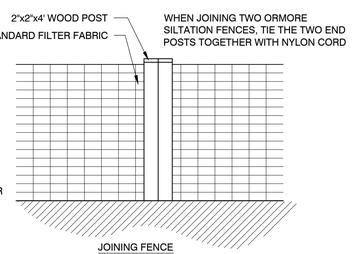
COMPOST FILTER TUBE LAYOUT ON SLOPE



COMPOST FILTER TUBE STAKING DETAILS

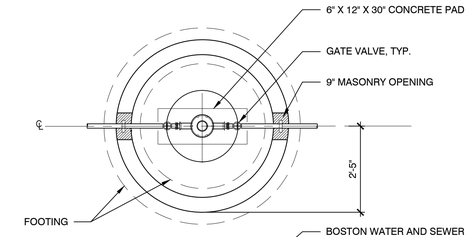


SLOPE DETAIL

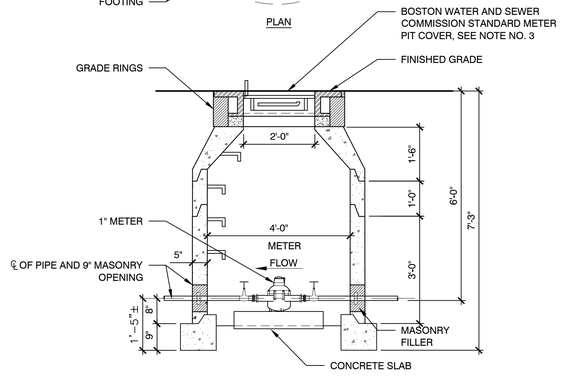


JOINING FENCE

4 EROSION CONTROLS- STRAW WATTLES
SCALE: N.T.S.



PLAN

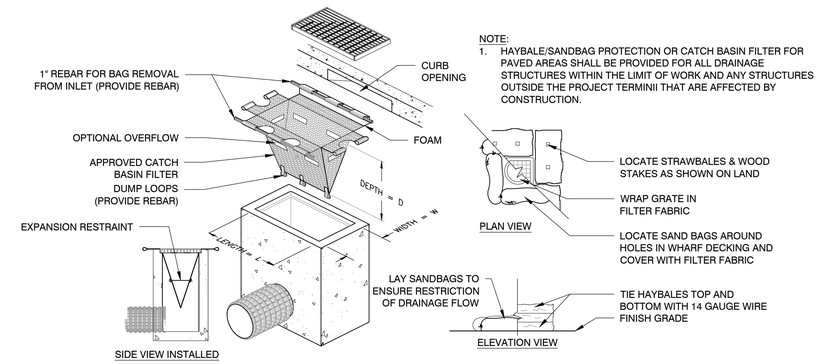


ELEVATION

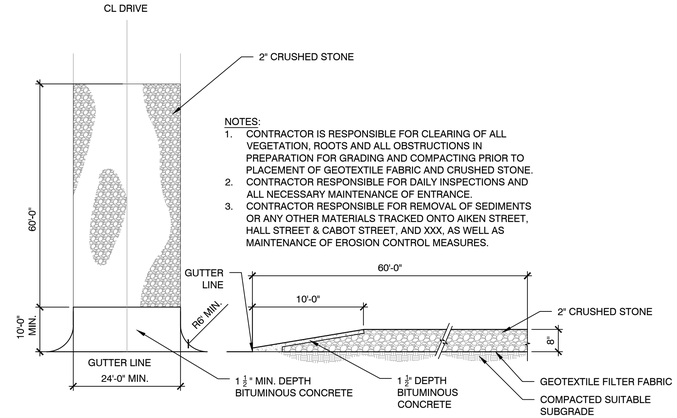
INSTALLATION OF REMOTE READING DEVICES BY COMMISSION

NOTES:
1. CONTRACTOR SHALL NOTIFY BWSC METER DEPT. TO DETERMINE IF METER CONDUIT MUST BE INSTALLED. IF REQUIRED THE CONTRACTOR SHALL SUPPLY THE WIRE AND INSTALL AS SPECIFIED.
2. CONTRACTOR TO PROVIDE 10 $\frac{3}{4}$" SPACING FOR WATER METER.
3. METER PIT COVERS SHALL BE A2424 HALLIDAY PRODUCT OR EQUAL. PEDESTRIAN TRAFFIC COVERS SHALL BE SD300 RATED WITH LIFTING SPRINGS. VEHICULAR TRAFFIC COVERS SHALL BE H20 RATED WITH LIFTING SPRINGS.
4. MAKE FLANGE TO PLAIN END ADAPTER PIECES SLIGHTLY SHORTER THAN REQUIRED TO ALLOW FOR SOME SLIDING OF ADAPTER PIECES INTO MECHANICAL JOINT WALL PIPE WHEN FLANGES AT METER ARE DISCONNECTED FOR REMOVAL OR INSTALLATION OF METER.
5. AFTER INSTALLING MECHANICAL JOINT WALL PIPES WITH CENTER RING FLANGE IN THE MIDDLE OF MASONRY OPENING, AND AFTER ALL PIPING HAS BEEN ALIGNED AND CONNECTED, CAULK THE SPACE BETWEEN WALL PIPE AND MASONRY WITH OAKUM AND A CEMENT MORTAR GROUT.
6. ALL CONCRETE USED IN CONSTRUCTION OF THESE METER PITS TO BE OF 3,000 P.S.I. WITH A MAXIMUM AGGREGATE SIZE OF $\frac{3}{4}$".
7. REINFORCING STEEL BARS ARE TO BE DEFORMED BARS OF NEW BILLET STEEL- GRADE 6.

5 METER PIT
SCALE: N.T.S.

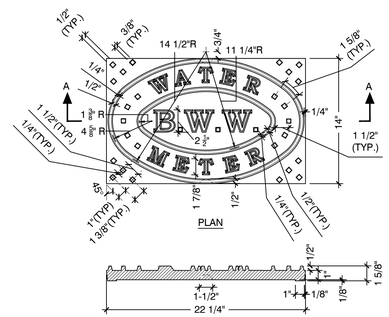


2 INLET SEDIMENT CONTROL
SCALE: N.T.S.



NOTES:
1. CONTRACTOR IS RESPONSIBLE FOR CLEARING OF ALL VEGETATION, ROOTS AND ALL OBSTRUCTIONS IN PREPARATION FOR GRADING AND COMPACTING PRIOR TO PLACEMENT OF GEOTEXTILE FABRIC AND CRUSHED STONE.
2. CONTRACTOR RESPONSIBLE FOR DAILY INSPECTIONS AND ALL NECESSARY MAINTENANCE OF ENTRANCE.
3. CONTRACTOR RESPONSIBLE FOR REMOVAL OF SEDIMENTS OR ANY OTHER MATERIALS TRACKED ONTO AIKEN STREET, HALL STREET & CABOT STREET, AND XXX, AS WELL AS MAINTENANCE OF EROSION CONTROL MEASURES.

3 CONSTRUCTION ENTRANCE
SCALE: N.T.S.



SECTION A-A

NOTE:
1. ALL CASTING SHALL BE MANUFACTURED GROM GRAY IRON CONFORMING TO ASTM A48 CLASS 35B AND/OR AASHTO M105 CLASS 35B.

6 HEAVY METER COVER
SCALE: N.T.S.

BOSTON PARKS & RECREATION

Prepared By: Weston & Sampson

Consultant Project No. ENG21-0493

No.	Date	Revision

Approved By: Date:

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IMPROVEMENTS TO CHARLESTOWN HIGH SCHOOL ATHLETIC FIELDS
- FOR PERMITTING PURPOSES ONLY -

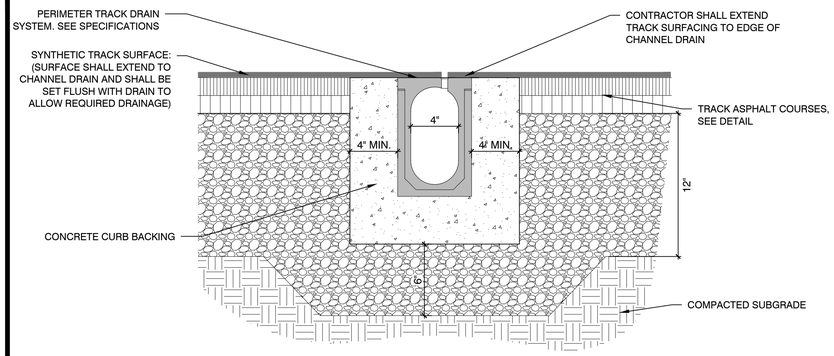
BPRD Project No.	CPRXXXX
Date	AUGUST 19, 2022
Scale	AS SHOWN
Drawn	LC, AG
Checked	BK

Sheet Name.:

CONSTRUCTION DETAILS

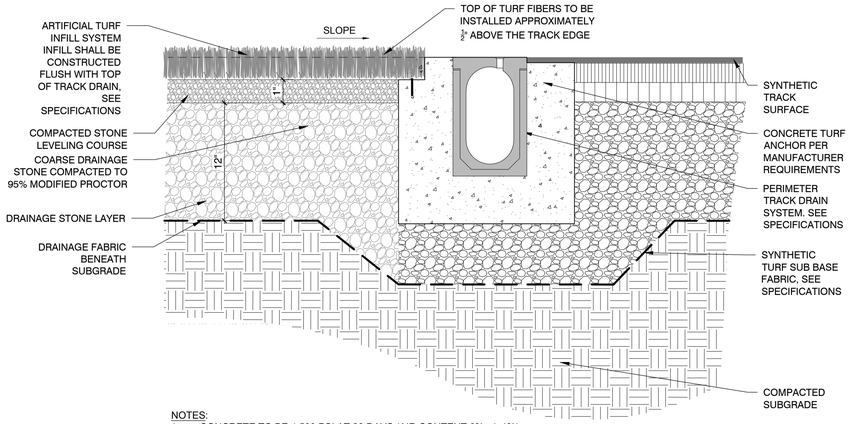
SHEET:

L500



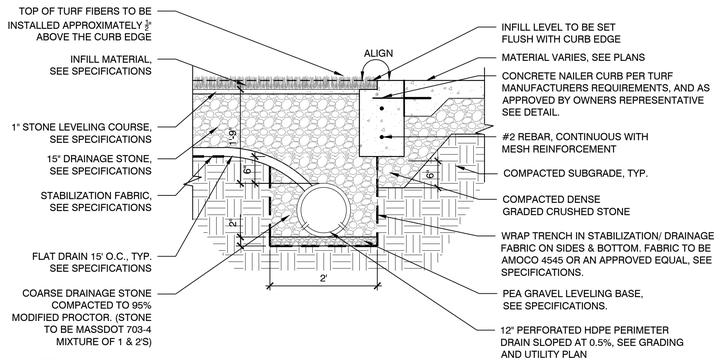
NOTES:
1. THE CONCRETE BACKING SHALL BE CONSTRUCTED SO THAT IT ALLOWS THE TRACK SURFACES TO BE SET FLUSH WITH THE PERIMETER TRACK DRAIN. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION BETWEEN THE TRACK AND BITUMINOUS CONCRETE PAVING CONTRACTOR.

1 TRENCH DRAIN AT TRACK "D" AREA
SCALE: N.T.S.



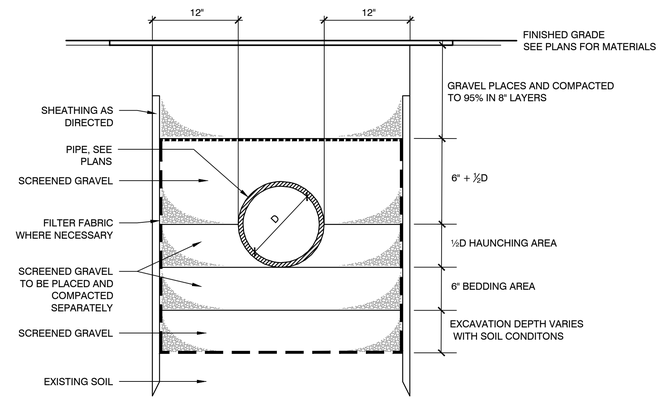
NOTES:
1. CONCRETE TO BE 4,500 PSI AT 28 DAYS (AIR CONTENT 6% +/- 1%) (COARSE AGGREGATE ASTM C-33 SIZE #57)

2 TRENCH DRAIN AT TURF CURB
SCALE: N.T.S.

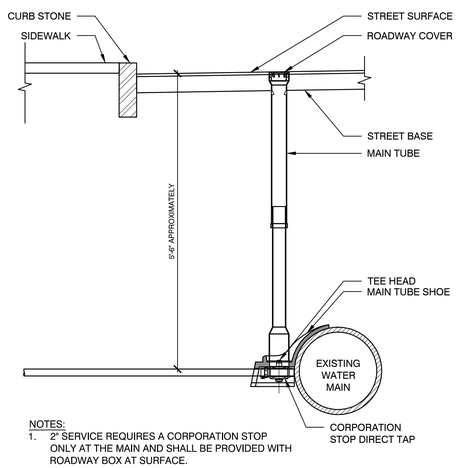


NOTES:
1. FLAT DRAIN TO BE DIRECTLY CONNECTED TO PERIMETER DRAIN. PROVIDE MANUFACTURED FITTINGS TO MAKE THE CONNECTION AS REQUIRED AND APPROVED BY THE OWNER'S REPRESENTATIVE.
2. CONCRETE NAILER CURB TO BE 4,500 PSI AT 28 DAYS, (AIR CONTENT 6% +/- 1%) (COARSE AGGREGATE ASTM C-33 SIZE #57)

3 COLLECTOR DRAIN AT SYNTHETIC TURF- IF NEEDED
SCALE: N.T.S.

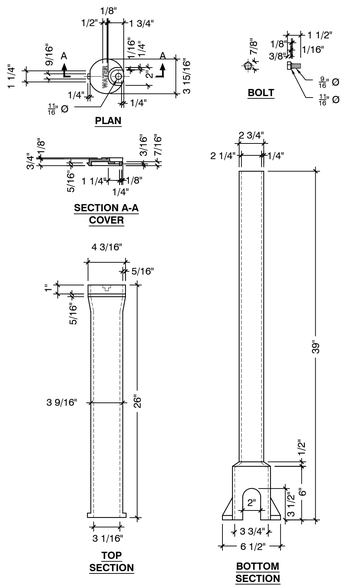


4 DRAINAGE TRENCH - IF NEEDED
SCALE: N.T.S.



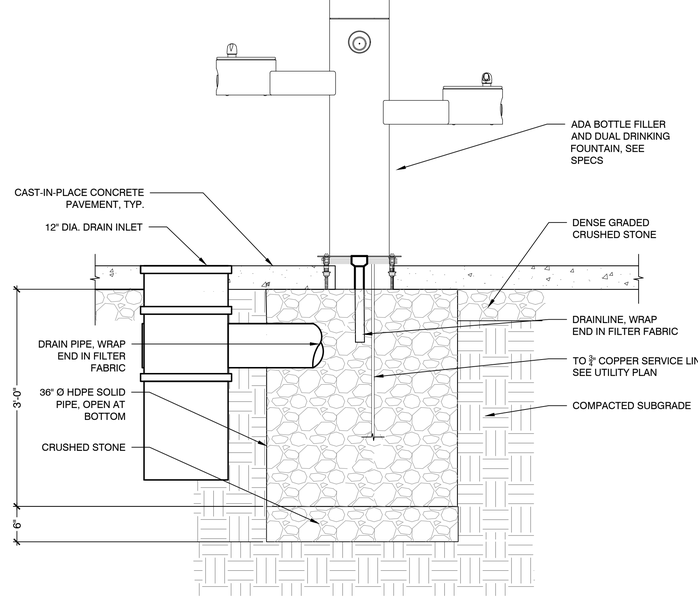
NOTES:
1. 2" SERVICE REQUIRES A CORPORATION STOP ONLY AT THE MAIN AND SHALL BE PROVIDED WITH ROADWAY BOX AT SURFACE.

5 TYPICAL WATER CONNECTION
SCALE: N.T.S.



NOTE:
1. ALL CASTINGS SHALL BE MANUFACTURED FROM GRAY IRON CONFORMING TO ASTM A48 CLASS 35B AND/OR AASHTO M105 CLASS 35B.

6 CURB BOX
SCALE: N.T.S.



7 DRINKING FOUNTAIN
SCALE: N.T.S.

BOSTON PARKS & RECREATION

Prepared By: Weston & Sampson SM

Consultant Project No. ENG21-0493

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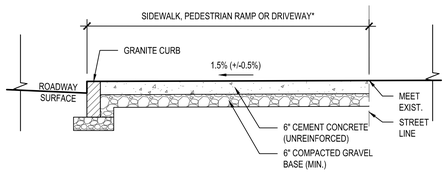
Drawn	LC, AG
Checked	BK

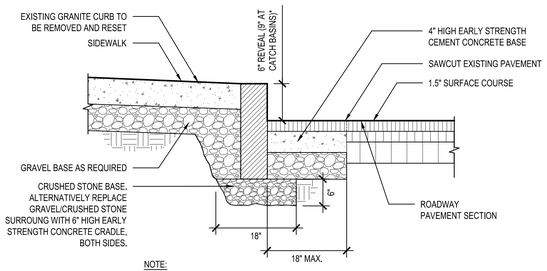
Sheet Name.:
CONSTRUCTION DETAILS

SHEET:
L501



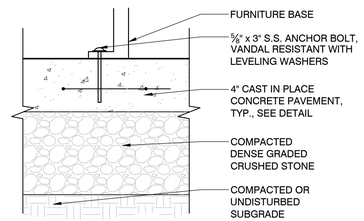
*DETAIL DEPICTS SIDEWALK CONDITIONAL ALTHOUGH THE SAME CROSSSECTION SHALL BE USED FOR CURB RAMPS OR DIRVEWAYS.

1 SIDEWALK CONCRETE PAVEMENT
SCALE: N.T.S.



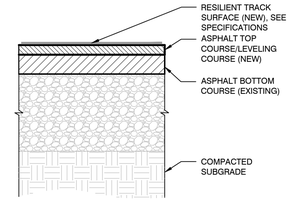
NOTE:
1. "6" REVEAL TYPICAL. REVEAL MAY VARY FROM 3" TO 9" WITH PWD APPROVAL.

2 VERTICAL GRANITE CURB RESET
SCALE: N.T.S.

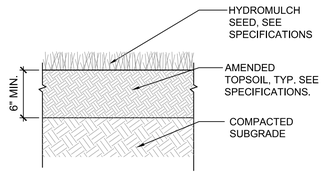


NOTE:
1. ALL SITE FURNISHINGS SHALL BE SURFACE MOUNTED PER MANUFACTURER'S RECOMMENDATIONS.

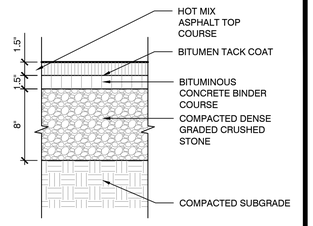
3 FURNITURE SURFACE MOUNT
SCALE: N.T.S.



4 RESILIENT TRACK SURFACING ON HMA OVERLAY
SCALE: N.T.S.

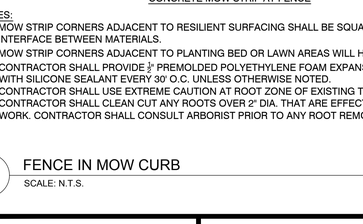


5 LOAM AND SEED
SCALE: N.T.S.



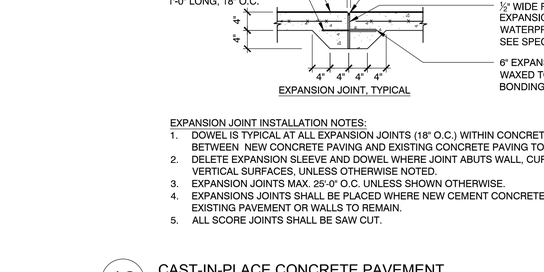
NOTES:
1. CONTRACTOR TO PROVIDE SMOOTH TRANSITION WHERE NEW PAVEMENT ABUTS EXISTING PAVEMENT, TYP.

6 HOT MIX ASPHALT - PEDESTRIAN
SCALE: N.T.S.



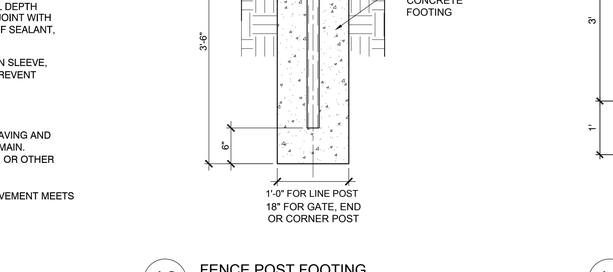
NOTES:
1. CONTRACTOR TO PROVIDE SMOOTH TRANSITION WHERE NEW PAVEMENT ABUTS EXISTING PAVEMENT, TYP.

7 HOT MIX ASPHALT - VEHICULAR
SCALE: N.T.S.



NOTES:
1. SUBGRADE ELEVATIONS TO FOLLOW SAME SLOPE AS FINISHED SURFACE ELEVATIONS WITHIN TURF LIMITS.
2. ABSOLUTELY NO SUBSTITUTIONS SHALL BE ALLOWED FOR BOTH THE STONE LEVELING COURSE AND DRAINAGE STONE WITHOUT A WRITTEN AND SIGNED DOCUMENT DIRECTLY FROM THE TURF MANUFACTURER. DOCUMENT SHALL STATE: THE MATERIAL IS AN ACCEPTABLE MATERIAL TO BE USED DIRECTLY UNDER THEIR TURF FIELD FABRIC AND THAT THE SUBSTITUTION MATERIAL PROVIDES THE SAME CHARACTERISTICS (DRAINAGE, STRUCTURAL INTEGRITY, PLAYABILITY, ETC.) AS THE MATERIALS SPECIFIED. FAILURE TO PROVIDE SUCH A DOCUMENT SHALL BE AT THE RISK AND COST OF THE CONTRACTOR.

8 SYNTHETIC TURF
SCALE: N.T.S.



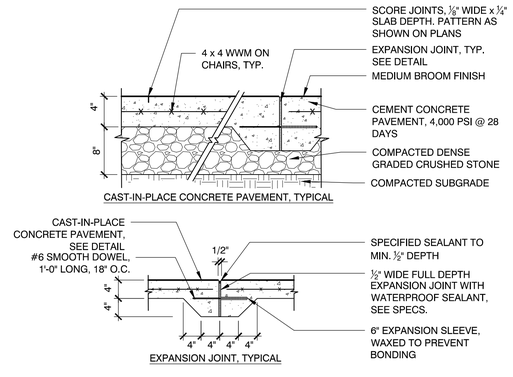
9 SYNTHETIC TURF AT EXISTING TURF CURB
SCALE: N.T.S.

10 RESILIENT TRACK SURFACING AT EXISTING HOT MIX ASPHALT
SCALE: N.T.S.

CONCRETE MOW STRIP AT FENCE

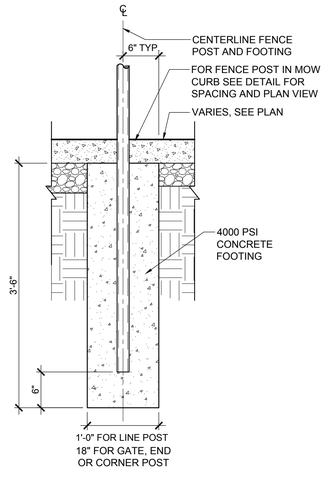
NOTES:
1. MOW STRIP CORNERS ADJACENT TO RESILIENT SURFACING SHALL BE SQUARE TO ENSURE SMOOTH INTERFACE BETWEEN MATERIALS.
2. MOW STRIP CORNERS ADJACENT TO PLANTING BED OR LAWN AREAS WILL HAVE ¾" CHAMFER
3. CONTRACTOR SHALL PROVIDE ¾" PREMOLDED POLYETHYLENE FOAM EXPANSION JOIN, FULL DEPTH WITH SILICONE SEALANT EVERY 30' O.C. UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL USE EXTREME CAUTION AT ROOT ZONE OF EXISTING TREES TO REMAIN. CONTRACTOR SHALL CLEAN CUT ANY ROOTS OVER 2" DIA. THAT ARE EFFECTED BY THE SCOPE OF WORK. CONTRACTOR SHALL CONSULT ARBORIST PRIOR TO ANY ROOT REMOVAL.

11 FENCE IN MOW CURB
SCALE: N.T.S.

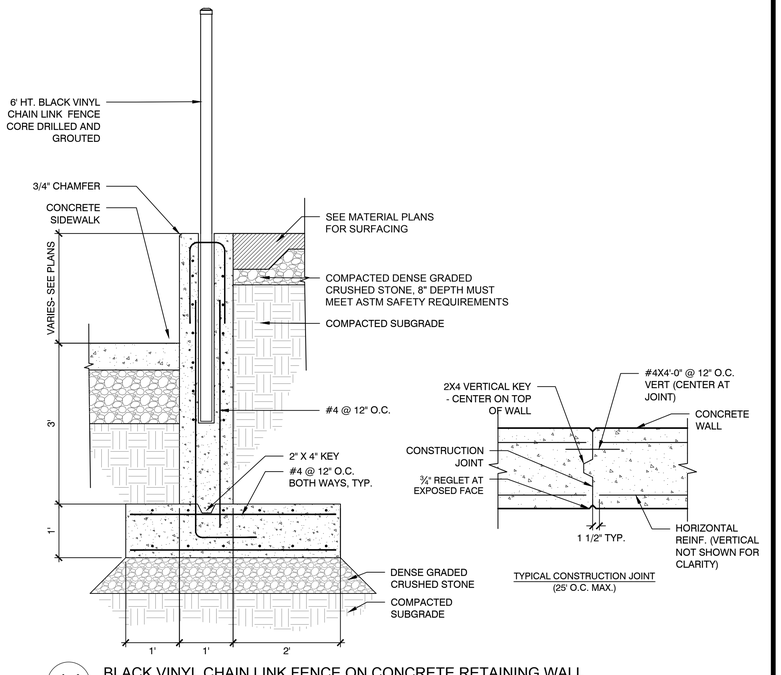


EXPANSION JOINT INSTALLATION NOTES:
1. DOWEL IS TYPICAL AT ALL EXPANSION JOINTS (18" O.C.) WITHIN CONCRETE PAVING AND BETWEEN NEW CONCRETE PAVING AND EXISTING CONCRETE PAVING TO REMAIN.
2. DELETE EXPANSION SLEEVE AND DOWEL WHERE JOINT ABUTS WALL, CURBS, OR OTHER VERTICAL SURFACES, UNLESS OTHERWISE NOTED.
3. EXPANSION JOINTS MAX. 25'-0" O.C. UNLESS SHOWN OTHERWISE.
4. EXPANSIONS JOINTS SHALL BE PLACED WHERE NEW CEMENT CONCRETE PAVEMENT MEETS EXISTING PAVEMENT OR WALLS TO REMAIN.
5. ALL SCORE JOINTS SHALL BE SAW CUT.

12 CAST-IN-PLACE CONCRETE PAVEMENT
SCALE: N.T.S.



13 FENCE POST FOOTING
SCALE: N.T.S.



14 BLACK VINYL CHAIN LINK FENCE ON CONCRETE RETAINING WALL
SCALE: N.T.S.

BOSTON PARKS & RECREATION

Prepared By: Weston & Sampson

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Drawn	LC, AG
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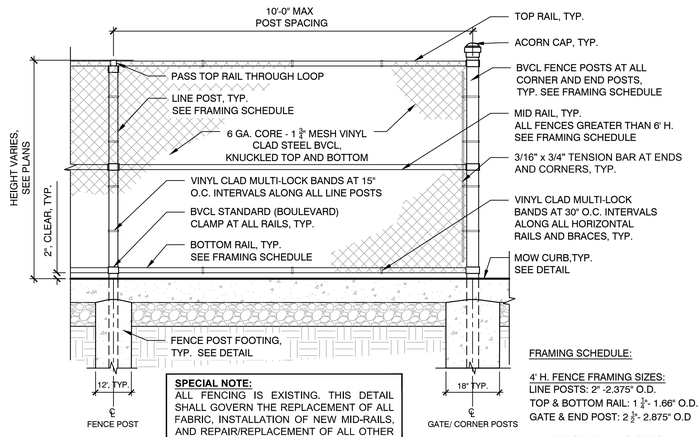
Sheet Name.: **CONSTRUCTION DETAILS**

SHEET: **L502**



SPECIAL NOTE:
ALL FENCING IS EXISTING. THIS DETAIL SHALL GOVERN THE REPLACEMENT OF ALL FABRIC, INSTALLATION OF NEW MID-RAILS, AND REPAIR/REPLACEMENT OF ALL OTHER FENCE COMPONENTS AS REQUIRED.

NOTES:
1. ALL FENCE PIPE SHALL BE SCH, 40, VINYL CLAD HOT DIP GALV. STEEL PIPE.
2. ALL LINE POSTS SHALL BE INSTALLED EQUALLY SPACED BETWEEN END & CORNER POSTS.
3. ALL CLAMPS, TIES, POST TOPS, BANDS, POSTS, ETC. SHALL BE VINYL CLAD TO MATCH FABRIC.
4. REFER TO DETAIL AND SPECS FOR GATE REQUIREMENTS.
5. SEE FRAMING SCHEDULE FOR SIZING.

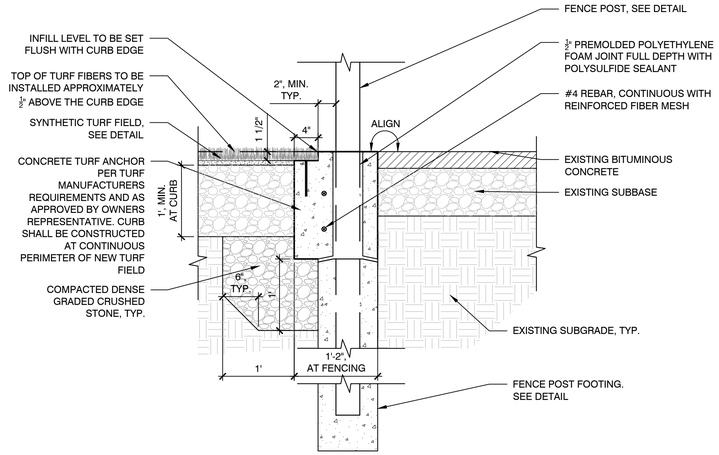
FRAMING SCHEDULE:

4' H. FENCE FRAMING SIZES:
LINE POSTS: 2" -2.375" O.D.
TOP & BOTTOM RAIL: 1 3/8"- 1.66" O.D.
GATE & END POST: 2 3/8"- 2.875" O.D

6' H. FENCE FRAMING SIZES:
LINE POSTS: 2" -2.375" O.D.
TOP & BOTTOM RAIL: 1 3/8"- 1.875" O.D.
GATE & END POST: 3"- 3.5" O.D.

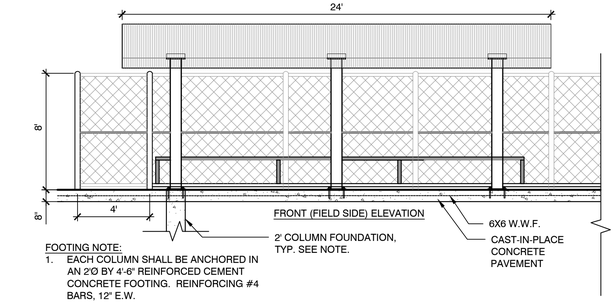
8' H. FENCE FRAMING SIZES:
LINE POSTS: 2.5" -2.875" O.D.
TOP, MID & BOTTOM RAIL: 2"- 2.375" O.D.
GATE & END POST: 3"- 3.5" O.D

1 BLACK VINYL CHAIN LINK FENCE
SCALE: N.T.S.

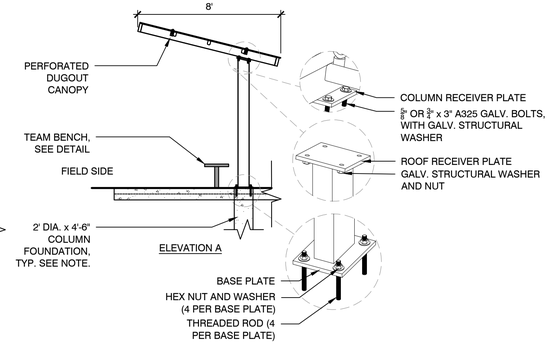


NOTES:
1. CONTRACTOR TO PROVIDE CONTROL JOINTS (PREFORMED OR SAWCUT) 10' O.C. MIN. 1/4" DEEP
2. CONTRACTOR TO PROVIDE EXPANSION JOINTS EVERY 40' O.C.
3. CONCRETE CURB TO BE 4,500 PSI AT 28 DAYS (AIR CONTENT 6% +/- 1%) (COARSE AGGREGATE ASTM C-33 SIZE #57)

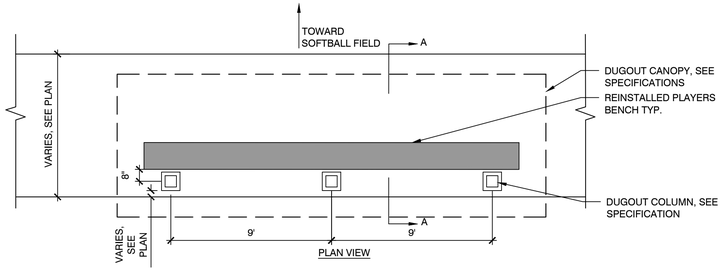
2 FENCE POST AT TURF CURB
SCALE: N.T.S.



FOOTING NOTE:
1. EACH COLUMN SHALL BE ANCHORED IN AN 2'Ø BY 4'-6" REINFORCED CEMENT CONCRETE FOOTING. REINFORCING #4 BARS, 12" E.W.

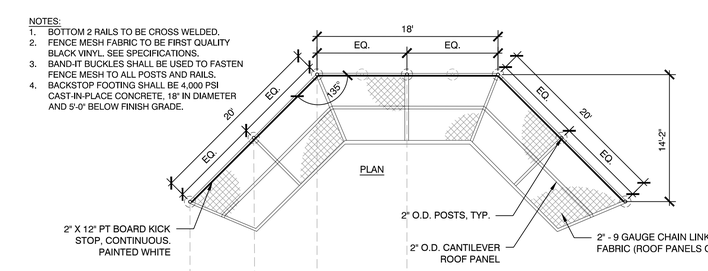


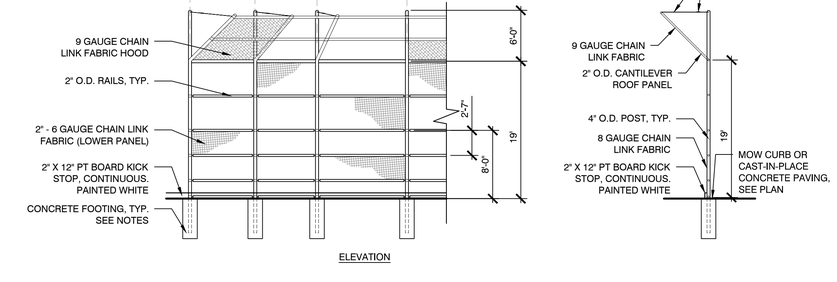
NOTES:
1. CANTILEVER DUGOUT TO BE 8' x 24' - SEE SPECIFICATIONS FOR MORE DETAIL
2. EACH COLUMN SHALL BE ANCHORED IN AN 2'Ø BY 4'-6" REINFORCED CEMENT CONCRETE FOOTING. REINFORCING #4 BARS, 12" E.W.
3. CANOPY TO BE PERFORATED MATERIAL - COORDINATE WITH MANUFACTURER



3 DUGOUT STRUCTURE
SCALE: N.T.S.

NOTES:
1. BOTTOM 2 RAILS TO BE CROSS WELDED.
2. FENCE MESH FABRIC TO BE FIRST QUALITY BLACK VINYL, SEE SPECIFICATIONS.
3. BAND-IT BUCKLES SHALL BE USED TO FASTEN FENCE MESH TO ALL POSTS AND RAILS.
4. BACKSTOP FOOTING SHALL BE 4,000 PSI CAST-IN-PLACE CONCRETE, 18" IN DIAMETER AND 5'-0" BELOW FINISH GRADE.





4 BACKSTOP
SCALE: N.T.S.

BOSTON PARKS & RECREATION

Prepared By:
Weston & Sampson SM

Consultant Project No. ENG21-0493

Commonwealth of Massachusetts — Brian Kenneth Mahoney — Registered Architect

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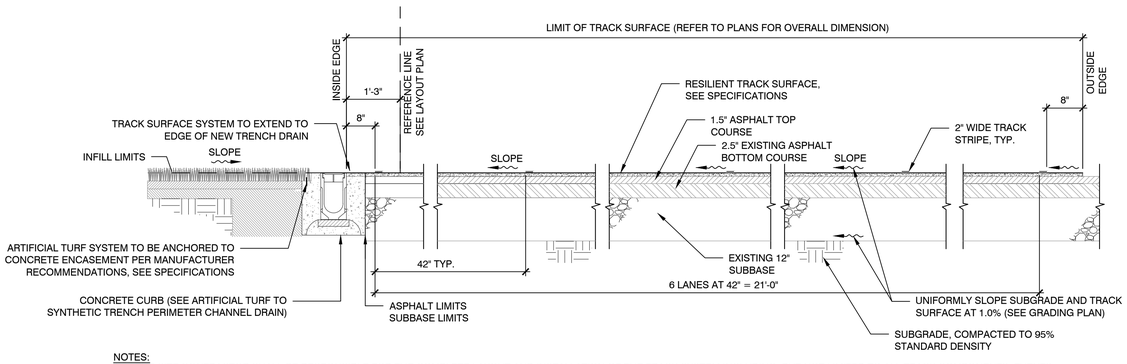
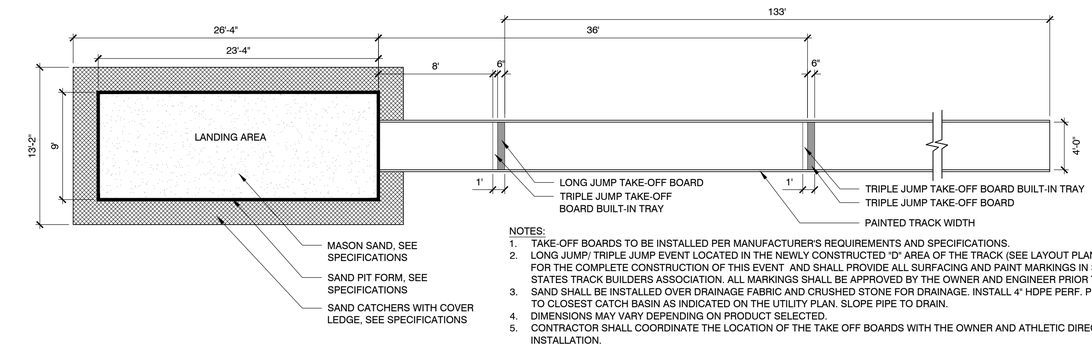
Sheet Name.:
CONSTRUCTION DETAILS

SHEET:
L503



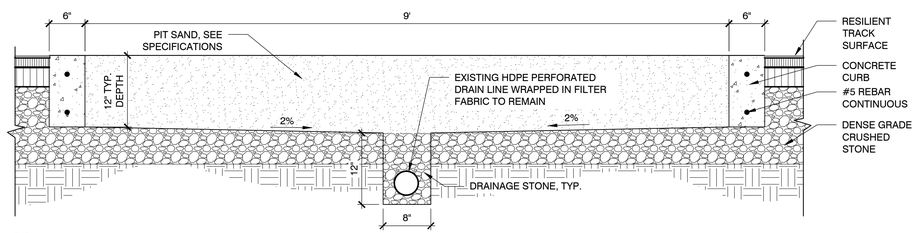
NOTES:
1. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE LAYOUT AND INSTALLATION OF THE TRACK SYSTEM INCLUDING, BUT NOT LIMITED TO ALL TRACK COMPONENTS, EVENTS, SURFACING, CHANNEL DRAIN, CURBING, SURVEY, ETC. THE TRACK SHALL BE FIELD STAKED AND LOCATED BY A PROFESSIONAL LICENSED SURVEYOR EXPERIENCED IN TRACK LAYOUT AND DESIGN.
2. SEE TRACK CROSS SECTION FOR PAVEMENT REQUIREMENTS.

1 RESILIENT TRACK SECTION
SCALE: N.T.S.

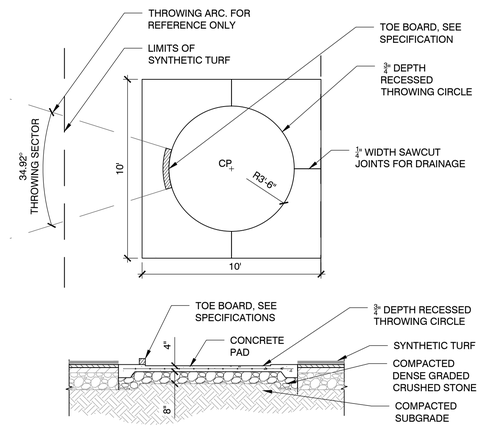


NOTES:
1. TAKE-OFF BOARDS TO BE INSTALLED PER MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS.
2. LONG JUMP/ TRIPLE JUMP EVENT LOCATED IN THE NEWLY CONSTRUCTED "D" AREA OF THE TRACK (SEE LAYOUT PLAN) THE CONTRACT SHALL BE RESPONSIBLE FOR THE COMPLETE CONSTRUCTION OF THIS EVENT AND SHALL PROVIDE ALL SURFACING AND PAINT MARKINGS IN STRICT ACCORDANCE WITH THE UNITED STATES TRACK BUILDERS ASSOCIATION. ALL MARKINGS SHALL BE APPROVED BY THE OWNER AND ENGINEER PRIOR TO APPLICATION.
3. SAND SHALL BE INSTALLED OVER DRAINAGE FABRIC AND CRUSHED STONE FOR DRAINAGE. INSTALL 4" HDPE PERF. PIPE WITHIN CRUSHED STONE AND CONNECT TO CLOSEST CATCH BASIN AS INDICATED ON THE UTILITY PLAN. SLOPE PIPE TO DRAIN.
4. DIMENSIONS MAY VARY DEPENDING ON PRODUCT SELECTED.
5. CONTRACTOR SHALL COORDINATE THE LOCATION OF THE TAKE OFF BOARDS WITH THE OWNER AND ATHLETIC DIRECTOR FOR APPROVAL PRIOR TO INSTALLATION.

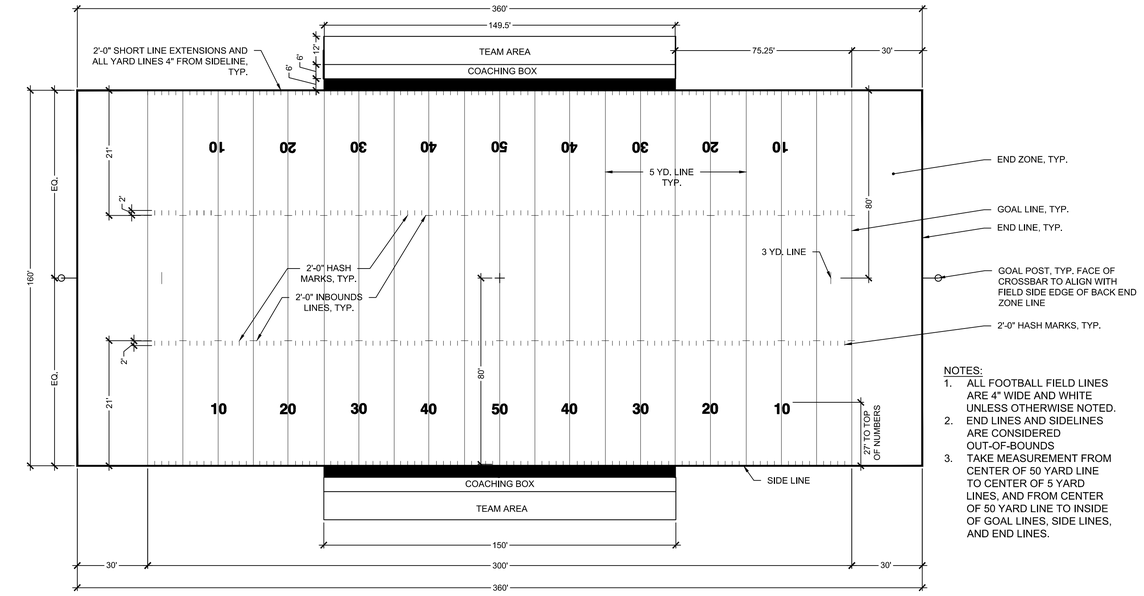
3 LONG JUMP & TRIPLE JUMP PLAN
SCALE: N.T.S.



4 LONG JUMP & TRIPLE JUMP PIT SECTION
SCALE: N.T.S.

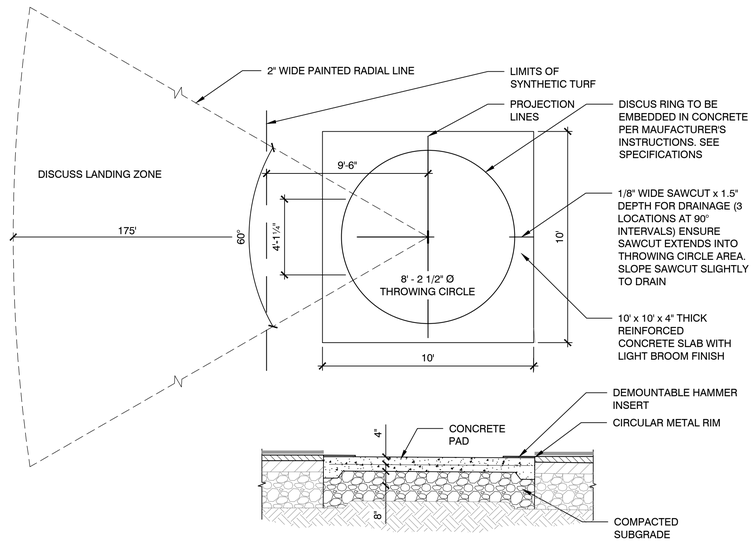


5 SHOT PUT PAD
SCALE: N.T.S.



NOTES:
1. ALL FOOTBALL FIELD LINES ARE 4" WIDE AND WHITE UNLESS OTHERWISE NOTED.
2. END LINES AND SIDELINES ARE CONSIDERED OUT-OF-BOUNDS
3. TAKE MEASUREMENT FROM CENTER OF 50 YARD LINE TO CENTER OF 5 YARD LINES, AND FROM CENTER OF 50 YARD LINE TO INSIDE OF GOAL LINES, SIDE LINES, AND END LINES.

2 FOOTBALL FIELD LAYOUT
SCALE: N.T.S.



6 DISCUS THROW CIRCLE
SCALE: N.T.S.

BOSTON PARKS & RECREATION

Prepared By: Weston & Sampson SM

Consultant Project No. ENG21-0493

No.	Date	Revision

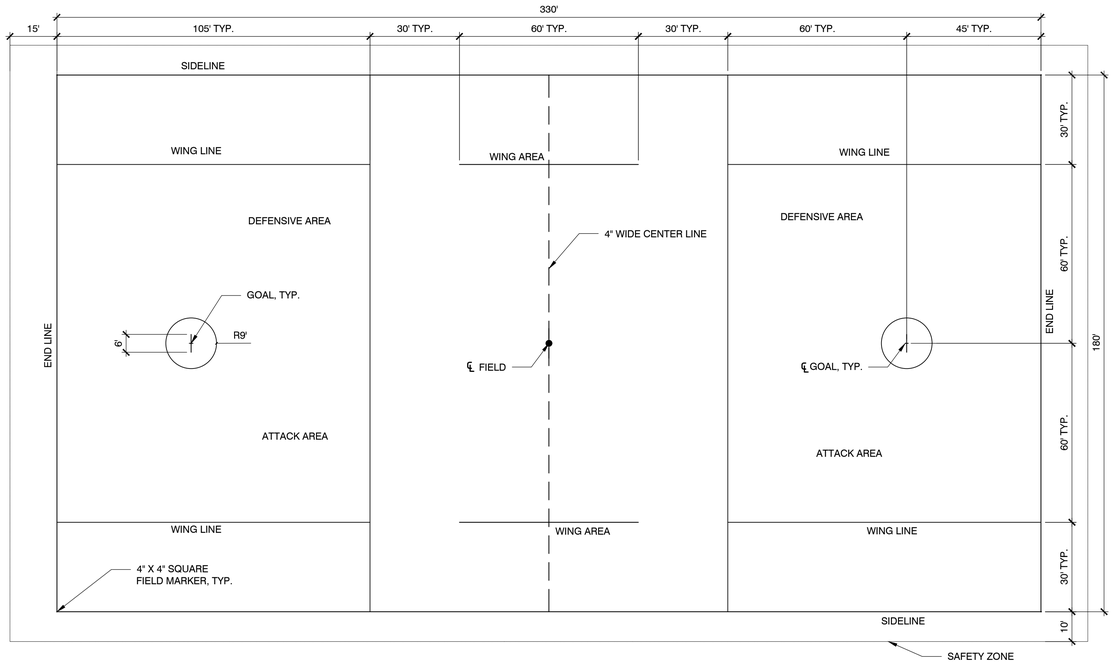
Approved By: Date:

Project Name.: **IMPROVEMENTS TO CHARLESTOWN HIGH SCHOOL ATHLETIC FIELDS - FOR PERMITTING PURPOSES ONLY -**

BPRD Project No.	CPRXXXX
Date	AUGUST 19, 2022
Scale	AS SHOWN
Drawn	LC, AG
Checked	BK

Sheet Name.: **CONSTRUCTION DETAILS**

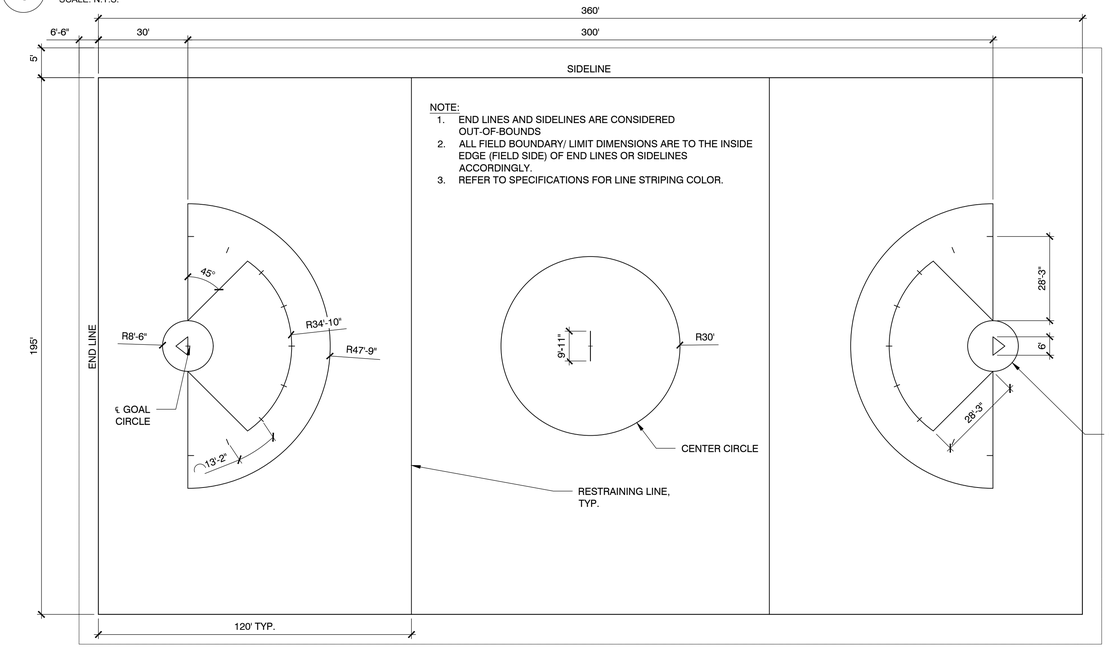
SHEET: **L504**



NOTES:
1. END LINES AND SIDELINES ARE ALL CONSIDERED OUT-OF-BOUNDS.
2. ALL FIELD BOUNDARY/ LIMIT DIMENSIONS ARE TO THE INSIDE EDGE (FIELD SIDE) OF END LINES OR SIDELINES ACCORDINGLY.
3. REFER TO SPECIFICATIONS FOR LINE STRIPING COLOR.

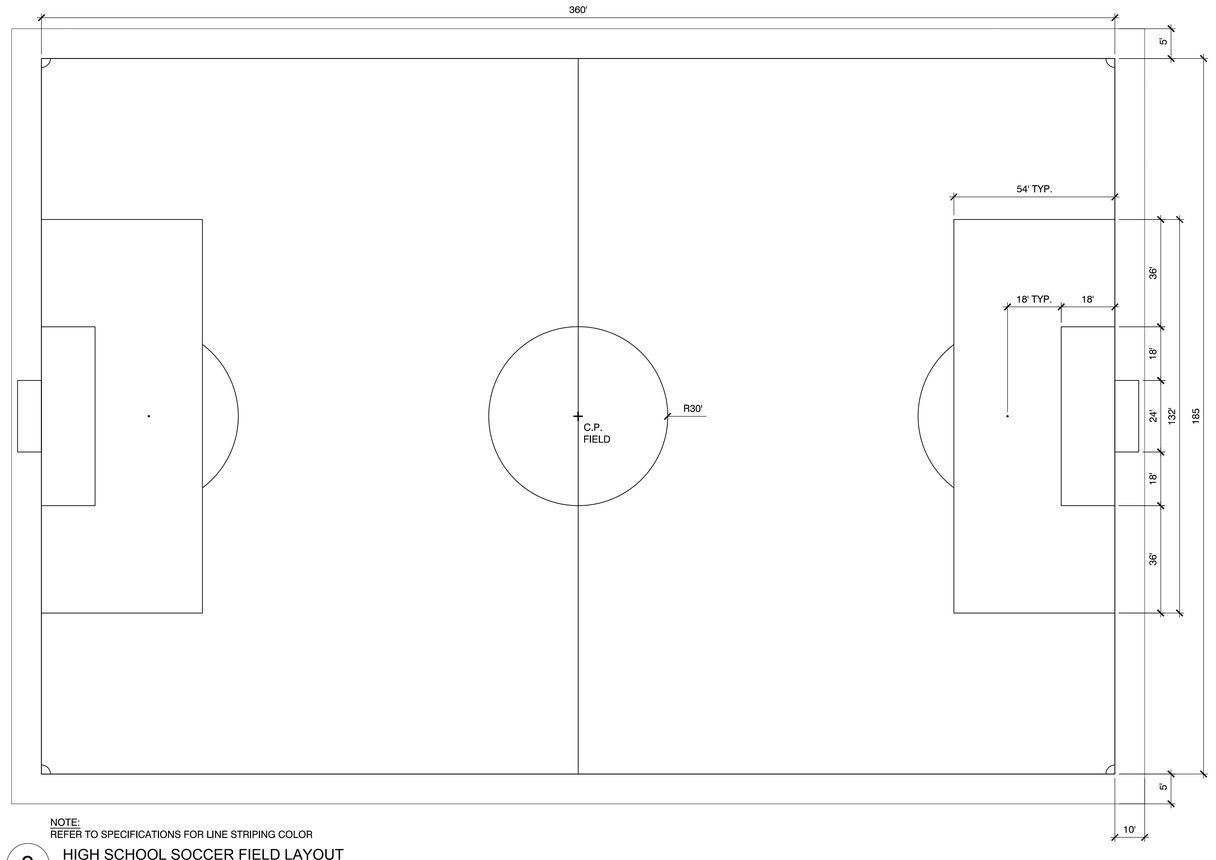
1 HIGH SCHOOL BOYS LACROSSE FIELD LAYOUT

SCALE: N.T.S.



2 HIGH SCHOOL GIRLS LACROSSE FIELD LAYOUT

SCALE: N.T.S.



NOTE:
REFER TO SPECIFICATIONS FOR LINE STRIPING COLOR

3 HIGH SCHOOL SOCCER FIELD LAYOUT

SCALE: N.T.S.

BOSTON PARKS & RECREATION

Prepared By:
Weston & Sampson SM

Consultant Project No. ENG21-0493

No.	Date	Revision

Approved By: Date:

Project Name.:
IMPROVEMENTS TO CHARLESTOWN HIGH SCHOOL ATHLETIC FIELDS
- FOR PERMITTING PURPOSES ONLY -

BPRD Project No.	CPRXXXX
Date	AUGUST 19, 2022
Scale	AS SHOWN
Drawn	LC, AG
Checked	BK

Sheet Name.:
CONSTRUCTION DETAILS

SHEET:
L505

Weston & Sampson SM

westonandsampson.com

55 Walkers Brook Drive, Suite 100
Reading, MA 01867
tel: 978.532.1900

Notice of Intent

August 2022

CHARLESTOWN HIGH SCHOOL FIELD REPLACEMENT

PREPARED FOR:
CITY OF BOSTON PARKS AND RECREATION DEPARTMENT

SUBMITTED TO:
BOSTON CONSERVATION COMMISSION

55 Walkers Brook Drive, Suite 100, Reading, MA 01867
Tel: 978.532.1900

Boston Conservation Commission
1 City Hall Sq, Room 709
Boston MA 02201

Re: NOI Filing
Charlestown High School Field Replacement
244 Medford St.

Dear Members of the Commission:

On behalf of the City of Boston, Weston & Sampson Engineers, Inc. is hereby enclosing two (2)) copies (including original) of the Notice of Intent submittal (including plans) to fulfill the requirements of the Massachusetts Wetlands Protection Act, M.G.L. Chapter 131, Section 40 submittal requirements and the City of Boston submittal requirements. This submittal is a formal Notice of Intent for the Charlestown High School Field Replacement Project.

As part of the filing, we have attached the following:

Appendix A: Project Description
Appendix B: Stormwater Report
Appendix C: Project Maps
Appendix D: Applicable Technical Specifications
Appendix E: Abutters Information
Appendix F: Wetlands Memorandum
Appendix G: Photos

If you have any questions regarding this submittal, please contact me at (978) 532-1900.

Very truly yours,

WESTON & SAMPSON

Alexandra Gaspar
Environmental Scientist

Enter your transmittal number → X289284 (Transmittal Number)

Your unique Transmittal Number can be accessed online:
http://www.mass.gov/eea/agencies/massdep/service/approvals/transmittal-form-for-payment.html

Massachusetts Department of Environmental Protection

Transmittal Form for Permit Application and Payment

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: MassDEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. **Copy 2** must accompany your fee payment. **Copy 3** should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

MassDEP
P.O. Box 4062
Boston, MA
02211

*** Note:**
For BWSC Permits, enter the LSP.

A. Permit Information

1. Permit Code: 4 to 7 character code from permit instructions	2. Name of Permit Category
WPA Form 3	wetlands

athletic field replacement
3. Type of Project or Activity

B. Applicant Information – Firm or Individual

Boston Parks and Recreation Department
1. Name of Firm - Or, if party needing this approval is an individual enter name below:

2. **Last Name** of Individual	3. **First Name** of Individual	4. MI

1010 Massachusetts Ave, 3rd Floor
5. Street Address

6. City/Town	7. State	8. Zip Code	9. Telephone #	10. Ext. #
Boston	MA	02118	617-635-4505	

11. Contact Person	12. e-mail address
Ryan Woods	ryan.woods@boston.gov

C. Facility, Site or Individual Requiring Approval

Charlestown High School
1. Name of Facility, Site Or Individual

244 Medford St
2. Street Address

3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #
Boston	MA	02129		

8. DEP Facility Number (if Known)	9. Federal I.D. Number (if Known)	10. BWSC Tracking # (if Known)

D. Application Prepared by (if different from Section B)*

Weston & Sampson Engineers Inc.
1. Name of Firm Or Individual

55 Walkers Brook Dr Suite 100
2. Address

3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #
Reading	MA	01867	978-532-1900	

8. Contact Person	9. LSP Number (BWSC Permits only)
Alexandra Gaspar	

E. Permit - Project Coordination

1. Is this project subject to MEPA review? ☐ yes ☒ no
   If yes, enter the project's EOEA file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

EOEA File Number

F. Amount Due

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

Special Provisions:

1. ☒ **Fee** Exempt (city, town or municipal housing authority)(state agency if fee is $100 or less).
   There are no fee exemptions for BWSC permits, regardless of applicant status.
2. ☐ Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).
3. ☐ Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).
4. ☐ Homeowner (according to 310 CMR 4.02).

Check Number	Dollar Amount	Date

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

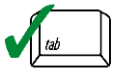
Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Boston
City/Town

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Note: Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

244 Medford St (a. Street Address) | Boston (b. City/Town) | 02129 (c. Zip Code)

Latitude and Longitude: 42.38106 (d. Latitude) | -71.05913 (e. Longitude)

0202735000 (f. Assessors Map/Plat Number) | (g. Parcel /Lot Number)

2. Applicant:

Ryan (a. First Name) | Woods (b. Last Name)

Boston Parks & Recreation Department (c. Organization)

1010 Massachusetts Avenue (d. Street Address)

Boston (e. City/Town) | MA (f. State) | 02118 (g. Zip Code)

617-635-4505 (h. Phone Number) | (i. Fax Number) | ryan.woods@boston.gov (j. Email Address)

3. Property owner (required if different from applicant): ☐ Check if more than one owner

(a. First Name) | (b. Last Name)

(c. Organization)

(d. Street Address)

(e. City/Town) | (f. State) | (g. Zip Code)

(h. Phone Number) | (i. Fax Number) | (j. Email address)

4. Representative (if any):

Alexandra (a. First Name) | Gaspar (b. Last Name)

Weston & Sampson Engineers (c. Company)

55 Walkers Brook Dr Suite 100 (d. Street Address)

Reading (e. City/Town) | MA (f. State) | 01867 (g. Zip Code)

978-532-1900 (h. Phone Number) | (i. Fax Number) | gaspara@wseinc.com (j. Email address)

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

exempt (a. Total Fee Paid) | (b. State Fee Paid) | (c. City/Town Fee Paid)

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Boston
City/Town

A. General Information (continued)

6. General Project Description:

Replacement of the athletic fields at Charlestown High School

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

1. ☐ Single Family Home
2. ☐ Residential Subdivision
3. ☐ Commercial/Industrial
4. ☐ Dock/Pier
5. ☐ Utilities
6. ☐ Coastal engineering Structure
7. ☐ Agriculture (e.g., cranberries, forestry)
8. ☐ Transportation
9. ☒ Other

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. ☐ Yes ☒ No

If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

a. County	b. Certificate # (if registered land)
Suffolk	
c. Book	d. Page Number
14782	090

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

1. ☐ Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
2. ☐ Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Boston
City/Town

B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Bank	1. linear feet	2. linear feet
b. ☐ Bordering Vegetated Wetland	1. square feet	2. square feet
c. ☐ Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. ☐ Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced

f. ☐ Riverfront Area

1. Name of Waterway (if available) - **specify coastal or inland**

2. Width of Riverfront Area (check one):

☐ 25 ft. - Designated Densely Developed Areas only

☐ 100 ft. - New agricultural projects only

☐ 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: _____ square feet

4. Proposed alteration of the Riverfront Area:

a. total square feet _____ b. square feet within 100 ft. _____ c. square feet between 100 ft. and 200 ft. _____

5. Has an alternatives analysis been done and is it attached to this NOI? ☐ Yes ☐ No

6. Was the lot where the activity is proposed created prior to August 1, 1996? ☐ Yes ☐ No

3. ☒ Coastal Resource Areas: (See 310 CMR 10.25-10.35)

Note: for coastal riverfront areas, please complete **Section B.2.f**. above.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Boston
City/Town

B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users: Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ☐ Land Under the Ocean	1. square feet 2. cubic yards dredged	
c. ☐ Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. ☐ Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet 2. cubic yards dredged	
j. ☐ Land Containing Shellfish	1. square feet	
k. ☐ Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above 1. cubic yards dredged	
l. ☒ Land Subject to Coastal Storm Flowage	10,022 1. square feet	

4. ☐ Restoration/Enhancement

If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.

a. square feet of BVW

b. square feet of Salt Marsh

5. ☐ Project Involves Stream Crossings

a. number of new stream crossings

b. number of replacement stream crossings

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 3 – Notice of Intent
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
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Boston
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C. Other Applicable Standards and Requirements

☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

   a. ☐ Yes ☒ No

   If yes, include proof of mailing or hand delivery of NOI to:

   Natural Heritage and Endangered Species Program
   Division of Fisheries and Wildlife
   1 Rabbit Hill Road
   Westborough, MA 01581

   August 2022
   b. Date of map

   If *yes*, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); *OR* complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

   c. Submit Supplemental Information for Endangered Species Review*

      1. ☐ Percentage/acreage of property to be altered:

         (a) within wetland Resource Area _____ percentage/acreage

         (b) outside Resource Area _____ percentage/acreage

      2. ☐ Assessor's Map or right-of-way plan of site

2. ☐ Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

   (a) ☐ Project description (including description of impacts outside of wetland resource area & buffer zone)

   (b) ☐ Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see https://www.mass.gov/ma-endangered-species-act-mesa-regulatory-review).
Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.
** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 3 – Notice of Intent
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
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City/Town

C. Other Applicable Standards and Requirements (cont'd)

(c) ☐ MESA filing fee (fee information available at https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review).
Make check payable to "Commonwealth of Massachusetts - NHESP" and ***mail to NHESP*** at above address

*Projects altering **10 or more acres** of land, also submit:*

(d) ☐ Vegetation cover type map of site

(e) ☐ Project plans showing Priority & Estimated Habitat boundaries

(f) OR Check One of the Following

1. ☐ Project is exempt from MESA review.
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. ☐ Separate MESA review ongoing. a. NHESP Tracking # b. Date submitted to NHESP

3. ☐ Separate MESA review completed.
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

a. ☐ Not applicable – project is in inland resource area only b. ☐ Yes ☒ No

If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

South Shore - Cohasset to Rhode Island border, and the Cape & Islands:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: dmf.envreview-south@mass.gov

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: dmf.envreview-north@mass.gov

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.

c. ☐ Is this an aquaculture project? d. ☐ Yes ☐ No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Boston
City/Town

C. Other Applicable Standards and Requirements (cont'd)

Online Users: Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

   a. ☐ Yes ☒ No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.

   b. ACEC

5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?

   a. ☐ Yes ☒ No

6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?

   a. ☐ Yes ☒ No

7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?

   a. ☒ Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:

      1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)

      2. ☒ A portion of the site constitutes redevelopment

      3. ☐ Proprietary BMPs are included in the Stormwater Management System.

   b. ☐ No. Check why the project is exempt:

      1. ☐ Single-family house

      2. ☐ Emergency road repair

      3. ☐ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

1. ☒ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)

2. ☒ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Boston
City/Town

D. Additional Information (cont'd)

3. ☒ Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4. ☒ List the titles and dates for all plans and other materials submitted with this NOI.

Improvement to Charlestown High School
a. Plan Title

Weston & Sampson Engineers
b. Prepared By

c. Signed and Stamped by

August 2022
d. Final Revision Date

1"40'
e. Scale

f. Additional Plan or Document Title

g. Date

5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. ☒ Attach NOI Wetland Fee Transmittal Form

9. ☒ Attach Stormwater Report, if needed.

E. Fees

1. ☒ Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

2. Municipal Check Number

3. Check date

4. State Check Number

5. Check date

6. Payor name on check: First Name

7. Payor name on check: Last Name

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

1. Signature of Applicant

2. Date 8/18/22

3. Signature of Property Owner (if different)

4. Date

5. Signature of Representative (if any)

6. Date 8/24/22

For Conservation Commission:
Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:
One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:
If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

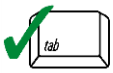
The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

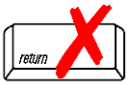
Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.





A. Applicant Information

1. Location of Project:

244 Medford St	Boston
a. Street Address	b. City/Town
Exempt	
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Ryan	Woods
a. First Name	b. Last Name

Boston Parks and Recreation Department
c. Organization

1010 Massachusetts Ave
d. Mailing Address

Boston	MA	02118
e. City/Town	f. State	g. Zip Code

617-635-4505		ryan.woods@boston.gov
h. Phone Number	i. Fax Number	j. Email Address

3. Property Owner (if different):

a. First Name	b. Last Name

c. Organization

d. Mailing Address

e. City/Town	f. State	g. Zip Code

h. Phone Number	i. Fax Number	j. Email Address

B. Fees

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).

Fee should be calculated using the following process & worksheet. ***Please see Instructions before filling out worksheet.***

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract $12.50. To calculate the city/town share of the fee, divide the total fee in half and add $12.50.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
exempt			

Step 5/Total Project Fee:

Step 6/Fee Payments:

Total Project Fee: exempt
a. Total Fee from Step 5

State share of filing Fee:
b. 1/2 Total Fee **less $**12.50

City/Town share of filling Fee:
c. 1/2 Total Fee **plus** $12.50

C. Submittal Requirements

a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection
Box 4062
Boston, MA 02211

b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

City of Boston Environment

NOTICE OF INTENT APPLICATION FORM
Boston Wetlands Ordinance
City of Boston Code, Ordinances, Chapter 7-1.4

Boston File Number

MassDEP File Number

A. GENERAL INFORMATION

1. Project Location

244 Medford Street | Boston | 02129
a. Street Address | b. City/Town | c. Zip Code

0202735000 |
f. Assessors Map/Plat Number | g. Parcel /Lot Number

2. Applicant

Ryan | Woods | Boston Parks and Recreation
a. First Name | b. Last Name | c. Company

1010 Massachusetts Avenue, 3rd Floor
d. Mailing Address

Boston | MA | 02118
e. City/Town | f. State | g. Zip Code

617-635-4505 | | ryan.woods@boston.gov
h. Phone Number | i. Fax Number | j. Email address

3. Property Owner

a. First Name | b. Last Name | c. Company

d. Mailing Address

e. City/Town | f. State | g. Zip Code

h. Phone Number | i. Fax Number | j. Email address

☐ Check if more than one owner

(If there is more than one property owner, please attach a list of these property owners to this form.)

4. Representative (if any)

Alexandra | Gaspar | Weston & Sampson Engineers
a. First Name | b. Last Name | c. Company

55 Walkers Brook Dr Suite 100
d. Mailing Address

Reading | MA | 01867
e. City/Town | f. State | g. Zip Code

978-532-1900 | | gaspara@wseinc.com
h. Phone Number | i. Fax Number | j. Email address

5. Is any portion of the proposed project jurisdictional under the Massachusetts Wetlands Protection Act M.G.L. c. 131 §40?

☐ Yes ☐ No

If yes, please file the WPA Form 3 - Notice of Intent with this form

6. General Information

The project proposes the replacement of the existing athletic fields at Charlestown High School. See Appendix A for additional information

7. Project Type Checklist

a. ☐ Single Family Home
b. ☐ Residential Subdivision
c. ☐ Limited Project Driveway Crossing
d. ☐ Commercial/Industrial
e. ☐ Dock/Pier
f. ☐ Utilities
g. ☐ Coastal Engineering Structure
h. ☐ Agriculture – cranberries, forestry
i. ☐ Transportation
j. ■ Other

8. Property recorded at the Registry of Deeds

Suffolk
a. County

b. Page Number

14782
c. Book

090
d. Certificate # (if registered land)

9. Total Fee Paid

exempt
a. Total Fee Paid

b. WPA Fee Paid

c. Ordinance Fee Paid

B. BUFFER ZONE & RESOURCE AREA IMPACTS

Buffer Zone Only - Is the project located only in the Buffer Zone of a resource area protected by the Boston Wetlands Ordinance?

☐ Yes ☐ No

1. Coastal Resource Areas

Resource Area	Resource Area Size	Proposed Alteration*	Proposed Migitation
☐ *Coastal Flood Resilience Zone*	Square feet	Square feet	Square feet
☑ *25-foot Waterfront Area*	39,450 Square feet	366 Square feet	366 Square feet
☐ *100-foot Salt Marsh Area*	Square feet	Square feet	Square feet
☐ *Riverfront Area*	Square feet	Square feet	Square feet

2. Inland Resource Areas

Resource Area	Resource Area Size	Proposed Alteration*	Proposed Migitation
☐ *Inland Flood Resilience Zone*	Square feet	Square feet	Square feet
☐ *Isolated Wetlands*	Square feet	Square feet	Square feet
☐ *Vernal Pool*	Square feet	Square feet	Square feet
☐ *Vernal Pool Habitat (vernal pool + 100 ft. upland area)*	Square feet	Square feet	Square feet
☐ *25-foot Waterfront Area*	Square feet	Square feet	Square feet
☐ *Riverfront Area*	Square feet	Square feet	Square feet

C. OTHER APPLICABLE STANDARDS & REQUIREMENTS

1. What other permits, variances, or approvals are required for the proposed activity described herein and what is the status of such permits, variances, or approvals?

A Ch91 Request for Administrative Review was submitted. Status is still in review.

2. Is any portion of the proposed project located in Estimated Habitat of Rare Wildlife as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the Massachusetts Natural Heritage Atlas or go to http://www.mass.gov/dfwele/dfw/nhesp/nhregmap.htm.

☐ Yes ☐ No

If *yes*, the project is subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18).

A. Submit Supplemental Information for Endangered Species Review

☐ Percentage/acreage of property to be altered:

(1) within wetland Resource Area _____ percentage/acreage

(2) outside Resource Area _____ percentage/acreage

☐ Assessor's Map or right-of-way plan of site

3. Is any portion of the proposed project within an Area of Critical Environmental Concern?

☐ Yes ☐ No

If yes, provide the name of the ACEC: _____

4. Is the proposed project subject to provisions of the Massachusetts Stormwater Management Standards?

☐ *Yes. Attach a copy of the Stormwater Checklist & Stormwater Report as required.*
- ☐ *Applying for a Low Impact Development (LID) site design credits*
- ☑ *A portion of the site constitutes redevelopment*
- ☐ *Proprietary BMPs are included in the Stormwater Management System*

☐ *No. Check below & include a narrative as to why the project is exempt*
- ☐ *Single-family house*
- ☐ *Emergency road repair*
- ☐ *Small Residential Subdivision (less than or equal to 4 single family houses or less than or equal to 4 units in a multifamily housing projects) with no discharge to Critical Areas*

5. Is the proposed project subject to Boston Water and Sewer Commission Review?

☐ Yes ☐ No

D. SIGNATURES AND SUBMITTAL REQUIREMENTS

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the Wetlands Protection Ordinance.

Signature of Applicant — Date: 8/18/22

Signature of Property Owner (if different) — Date

Signature of Representative (if any) — Date: 8/24/22

Appendix A

PROJECT DESCRIPTION

Background

The existing synthetic turf fields and the running track located at the Charlestown High School and Community Center, 244 Medford Street, Charlestown, MA 02129 are approximately 12 years old and have reached the end of their useful and safe life cycle. The City of Boston' Parks and Recreation Department is planning to replace the synthetic turf fields and running track surfaces, in addition to strategically improving the stormwater infiltration rates within each synthetic turf field area. Stormwater infiltration tests were performed in June 2022 and determined that areas of the subsurface drainage stone below each field was performing below the acceptable field performance thresholds and should be addressed under this project scope. The life cycle maintenance replacement of these fields and running track are critical to player safety and playability

Site Description

Charlestown High School is located at 244 Medford St in the Charlestown neighborhood. The project area is It is surrounded mostly by residential housing with Charlestown High School located across Medford Street to the south and the Community Center to the west. The Little Mystic Channel is located to the east of the fields and the property is bound by Terminal Street to the North

Scope of Work

Both the existing synthetic turf football and softballs fields maintenance replacement will include removal of the existing field infill materials, the synthetic turf carpet, and focused subsurface drainage stone refurbishment within each synthetic turf field footprint. Following the removal of the existing carpet and infill material, new synthetic turf carpet and infill will be installed in kind. The running track surface will be milled, removed, and replaced in kind with new running track surface layer to be able to provide a safe and high performing running surface suitable for athletic competitions and neighborhood use. Additionally, two new drinking fountains with bottle filling stations and shaded dugout canopies are to be added within the project areas, as well as ancillary repairs to chain link fencing and other sport field related amenities. All activities required for the replacement of the existing fields, running track, and related improvements are are to remain within the existing footprints of the fields with no work permanent work is to be completed beyond the limits of the track and field areas or within the jurisdictional setbacks.

Environmental Considerations

This proposed project will include work within the 100' resource buffer (*15,800 sf*) and Land Subject to Coastal Storm Flowage (*10,022 sf*), resources regulated under both the Massachusetts Wetlands Protection Act (WPA) and the City of Boston Wetland Regulations. In addition, work will occur within the 25' Waterfront Area (*366 sf*), a resource protected by the city. Below please find Boston's general performance standards for LSCSF.

Boston Wetland Reg. Performance Standards: Land Subject to Coastal Storm Flowage

Work within LSCSF will include the replacement of the turf field and track. While the Wetlands Protection Act does not outline any performance standards, the City of Boston

Wetland Regulation has assigned standards to LSCSF. Weston & Sampson has addressed these standards below.

1. When the Commission determines that LSCSF overlays or overlaps with other resource areas protected under the Ordinance, the applicable performance standards for each resource area shall be independently as well as collectively applied, and the project shall be conditioned to protect the Resource Area Values of all resource areas affected by the project and the ability of such other resource areas to protect the Resource Area Values described in Section XVII(A).

   W&S Response: This resource area also overlaps with the twenty-five-foot Waterfront Area and one hundred Buffer Zone, which do not have performance standards associated with them. The site will be lined with compost filter tubes to prevent any adverse impacts to LSCSF or these buffer zones. The majority of the twenty-five-foot Waterfront Area consists of existing paved sidewalk.

2. If LSCSF affected by proposed activity or work is significant to the Resource Area Values described in Section XVII(A), such activity shall not have an adverse impact on the subject site, adjacent properties, properties located in the adjacent Coastal Flood Resilience Zone, or any public or private way by increasing the elevation or velocity of flood or storm waters or by increasing flows due to a change in drainage or flowage characteristics.

   W&S Response: This work will not result in adverse impact to the elevation or velocity of flood or storm waters as there will be no change in drainage or flowage characteristics. No fill will be added to the flood zone. This project will improve stormwater drainage and flow characteristics as updating the field subsurface drainage stone later will improve stormwater infiltration.

3. If LSCSF is significant to flood control or storm damage prevention, the proposed activity or work shall not result in flood damage due to filling, which causes lateral displacement of flood waters that, in the judgment of the Commission, would otherwise be confined within said area. The Commission, in its sole discretion, may permit such activity so long as the activity will not have an adverse impact on said area's ability to provide storm damage prevention and flood control; provided, further, that the activity or work incorporate best management practices to reduce or eliminate damage resulting from SLR and coastal storms.

   W&S Response: There is no new fill in the flood zone associated with this project. As such, the project will not have any adverse impacts on the areas ability to provide stormwater drainage prevention and flood control. Grades will not change.

4. If LSCSF receives and holds coastal flood waters, the proposed activity or work shall not impact the ability of the area to receive, hold, and laterally spread flood waters if it causes unnatural redirection, refraction, diffraction, or reflection of coastal flood waters and waves.

   W&S Response: This project may improve the ability of the area to receive floodwaters as the work will increase the stormwater infiltration of the field. As all field surfaces are

being replaced in kind, we do not expect any redirection, refraction, diffraction, or reflection of coastal flood waters.

5. If LSCSF receives coastal flood waters that naturally flow across the landform surface without redirecting or channeling the flow, the proposed activity or work shall not cause flood water to become redirected or channeled or increase in velocity, so as to cause erosion, scour, and increased storm damage to the project's locus and adjacent areas.

   W&S Response: New erosion, scour, and storm damage are not expected because of this project. No fill is being introduced to the flood zone and grades will not be changed.

6. If LSCSF is significant to wildlife and their habitat, proposed activity or work shall not impair the capacity of those portions of LSCSF to provide important wildlife habitat functions.

   W&S Response: There is no NHESP area on this site. In addition, the site is made up of existing recreational fields and facilities and is highly trafficked by the public. For this reason, it is assumed there is not any critical habitat on site.

7. If LSCSF is significant to the prevention of pollution, proposed activity or work shall not have an adverse impact on the characteristic of the LSCSF to remove suspended solids and other contaminants from runoff before entering other wetland resource areas or a body of water.

   W&S Response: This project will not have an adverse impact on the characteristic of the LSCSF to remove suspended solids and other contaminants from runoff

8. Proposed work or activity in LSCSF which results in alteration to vegetative cover, interruptions in the beneficial supply of sediment to other wetland resource areas, or changes to the form or volume of a dune or beach, and such result will have an adverse impact on said dune or beach's ability to provide storm damage prevention and flood control, is prohibited.

   W&S Response: As the site is comprised of existing synthetic turf fields, running track, and paved walkways, the only vegetative cover on site is natural grass landscape areas and synthetic turf fields. There will be no impacts to dune or beach as neither of these resources are within the project area.

9. Notwithstanding Sections XVII(E)(1) through (8), the Commission may, in its sole discretion, permit the following activities provided that the applicant demonstrates to the satisfaction of the Commission that best available measures, as defined by the Ordinance, are utilized to minimize or eliminate adverse impacts on the critical characteristics of and Resource Area Values protected by LSCSF described in Section XVII(A) herein, and provided further that all other performance standards for overlapping or overlaying wetland resource areas are met:

   i. Limited projects as specified in the Act at 310 Code Mass. Regs. 10.24(7);46

ii. Beach and bank nourishment and restoration projects, including fencing, native plantings, and other projects designed to increase resource area stabilization and decrease erosion.
iii. Pedestrian walkways for public shoreline access and nonmotorized use.
iv. Improvements necessary to maintain or improve the structural integrity or stability of an existing coastal engineering structure, as that term is defined by the Ordinance.
v. Projects which will protect, restore, rehabilitate, or create a wetland resource area.
vi. Projects that are approved, in writing, or conducted by the Commonwealth of Massachusetts Division of Marine Fisheries that are specifically intended to increase the productivity of land containing shellfish, including aquaculture, or to maintain or enhance marine fisheries.
vii. Projects that are approved, in writing, or conducted by the Commonwealth of Massachusetts Division of Fisheries and Wildlife that are specifically intended to enhance or increase wildlife habitat.
viii. Projects that are designed and intended to reduce the risk of coastal flooding, inland flooding, extreme weather events, SLR, and other adverse impacts of climate change, including, but not limited to, strategies and plans described in Climate Ready Boston or any successor initiative of the City,
ix. Flood mitigation projects designed and intended to have no significant adverse effect on the ability of LSCSF to protect from storm damage and flood control, and
x. Projects involving the installation of scientific testing and monitoring equipment provided that it is temporary in nature and will not alter LSCSF.

W&S Response: This project does not fall under any of these activities.

10. In the interest of storm damage prevention, flood control, and prevention of pollution, should the Commission permit activity or work in LSCSF that is part of new construction or constitutes substantial improvement to an existing structure, the Commission may condition the permitted activity or work so that any critical building systems, infrastructure, or equipment is located two (2) feet above the anticipated BFE expected to occur within the next 50 years based on the best available data and projections of SLR. 47

    i. In the event that the proposed work or activity is temporary, then any critical building systems, infrastructure, or equipment shall be located two (2) feet above the anticipated BFE at the conclusion of the project's determined duration of the temporary work.
    ii. At a minimum, the anticipated BFE shall be based on the best available and most recent data and projections for SLR made available by the City or any of its agencies, boards, commissions, or quasi-City agencies, including, but not limited to, data and information made available through the Climate Ready Boston initiative or any successor initiative.
    iii. In the event that elevating or relocating critical building systems, infrastructure, or equipment is not practicable, as determined by the Commission, the Commission may require the Applicant to employ other floodproofing strategies such as floodwalls or shields, and the Applicant shall, at a minimum, secure such equipment with anchors or tie-downs to prevent flotation.

W&S Response: Noted

11. When any proposed work or activity in LSCSF is located within an ACEC, the proposed work or activity shall have no adverse impact upon the Resource Area Values described in Section XVII(A) and shall fully mitigate any impacts resulting from the proposed work or activity.

W&S Response: There is no ACEC on the project sited.

12. Section XVII(E)(11) shall supersede the provisions of Section XVII(E)(9)(i) through (viii), but it shall not apply if the presumption set forth in Section XVII(D) is overcome.

W&S Response: Noted

13. Notwithstanding the provisions of Section XVII(E)(2) through (X), no project may be permitted which will have any adverse impact on specified habitat sites of rare vertebrate or invertebrate species indicated on the most recent Estimated Habitat Map of State-listed Rare Wetlands Wildlife (if any) published by the Massachusetts NHESP.

W&S Response: There is no NHESP habitat on the project site.

Climate Change Discussion

This project is considered a life cycle maintenance of existing fields replacement in kind project. Climate change initiatives, while considered are not planned to be fully implemented or possible at this time. As part of the larger climate resilient initiative scheduled to take place at Ryan Playground in 2023, the Boston Parks and Recreation Department must take the Ryan Playground athletic fields offline for multiple seasons to perform that work, therefor the replacement of these synthetic turf fields at Charlestown High School / Community Center, that we are presenting herein, must be available for use and in a safe playing condition prior to the commencement of the Ryan Playground work.

While we are aware that the Coastal Resilience Solutions for East Boston and Charlestown (Phase II) Plan have been recently published and provide a timeline for implementation, knowing the field surfacing is considered a material that has a life cycle and performance expectancy of 8-12 years, the next replacement cycle of fields is anticipated to occur between 2030 and 2034 and in alignment with the possible implementation strategies of the Phase II Plan.

It is possible the fields may become inundated during storm events prior to the next replacement, the synthetic turf material is considered resilient, durable, and able to handle the inundation of coastal storm events and provide a much quick recovery time for use following the conclusion of the event. The project is also providing drinking fountains and dugout shelters at the softball field to provide areas of refuge and recovery during the hottest seasons of the year.

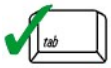
Appendix B

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

A. Introduction

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the Massachusetts Stormwater Handbook. The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.[1] This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8[2]
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

[1] The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

[2] For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature

8/23/2022
Signature and Date

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

☐ New development

☒ Redevelopment

☐ Mix of New Development and Redevelopment

Checklist for Stormwater Report

Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- ☐ No disturbance to any Wetland Resource Areas
- ☐ Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- ☐ Reduced Impervious Area (Redevelopment Only)
- ☐ Minimizing disturbance to existing trees and shrubs
- ☐ LID Site Design Credit Requested:
  - ☐ Credit 1
  - ☐ Credit 2
  - ☐ Credit 3
- ☐ Use of "country drainage" versus curb and gutter conveyance and pipe
- ☐ Bioretention Cells (includes Rain Gardens)
- ☐ Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- ☐ Treebox Filter
- ☐ Water Quality Swale
- ☐ Grass Channel
- ☐ Green Roof
- ☐ Other (describe): _____

Standard 1: No New Untreated Discharges

- ☒ No new untreated discharges
- ☐ Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- ☐ Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.

Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

☐ Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.

☐ Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.

☐ Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

☐ Soil Analysis provided.

☐ Required Recharge Volume calculation provided.

☐ Required Recharge volume reduced through use of the LID site Design Credits.

☐ Sizing the infiltration, BMPs is based on the following method: Check the method used.

☐ Static ☐ Simple Dynamic ☐ Dynamic Field[1]

☐ Runoff from all impervious areas at the site discharging to the infiltration BMP.

☐ Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:

- ☐ Site is comprised solely of C and D soils and/or bedrock at the land surface
- ☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
- ☐ Solid Waste Landfill pursuant to 310 CMR 19.000
- ☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.

☐ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.

☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

[1] 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.

Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

☐ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.

☐ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
- Provisions for storing materials and waste products inside or under cover;
- Vehicle washing controls;
- Requirements for routine inspections and maintenance of stormwater BMPs;
- Spill prevention and response plans;
- Provisions for maintenance of lawns, gardens, and other landscaped areas;
- Requirements for storage and use of fertilizers, herbicides, and pesticides;
- Pet waste management provisions;
- Provisions for operation and management of septic systems;
- Provisions for solid waste management;
- Snow disposal and plowing plans relative to Wetland Resource Areas;
- Winter Road Salt and/or Sand Use and Storage restrictions;
- Street sweeping schedules;
- Provisions for prevention of illicit discharges to the stormwater management system;
- Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
- Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
- List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.

☐ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.

☐ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:

- ☐ is within the Zone II or Interim Wellhead Protection Area
- ☐ is near or to other critical areas
- ☐ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
- ☐ involves runoff from land uses with higher potential pollutant loads.

☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.

☐ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.

Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

☐ The BMP is sized (and calculations provided) based on:

- ☐ The ½" or 1" Water Quality Volume or
- ☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.

☐ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.

☐ A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)

☐ The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.

☐ The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted ***prior to*** the discharge of stormwater to the post-construction stormwater BMPs.

☐ The NPDES Multi-Sector General Permit does ***not*** cover the land use.

☐ LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.

☐ All exposure has been eliminated.

☐ All exposure has ***not*** been eliminated and all BMPs selected are on MassDEP LUHPPL list.

☐ The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

☐ The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.

☐ Critical areas and BMPs are identified in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

☒ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:

- ☐ Limited Project
- ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
- ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
- ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
- ☐ Bike Path and/or Foot Path
- ☒ Redevelopment Project
- ☐ Redevelopment portion of mix of new and redevelopment.

☐ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.

☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
- Construction Period Operation and Maintenance Plan;
- Names of Persons or Entity Responsible for Plan Compliance;
- Construction Period Pollution Prevention Measures;
- Erosion and Sedimentation Control Plan Drawings;
- Detail drawings and specifications for erosion control BMPs, including sizing calculations;
- Vegetation Planning;
- Site Development Plan;
- Construction Sequencing Plan;
- Sequencing of Erosion and Sedimentation Controls;
- Operation and Maintenance of Erosion and Sedimentation Controls;
- Inspection Schedule;
- Maintenance Schedule;
- Inspection and Maintenance Log Form.

☒ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has ***not*** been included in the Stormwater Report but will be submitted ***before*** land disturbance begins.

☐ The project is ***not*** covered by a NPDES Construction General Permit.

☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.

☐ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

☐ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:

- ☐ Name of the stormwater management system owners;
- ☐ Party responsible for operation and maintenance;
- ☐ Schedule for implementation of routine and non-routine maintenance tasks;
- ☐ Plan showing the location of all stormwater BMPs maintenance access areas;
- ☐ Description and delineation of public safety features;
- ☐ Estimated operation and maintenance budget; and
- ☐ Operation and Maintenance Log Form.

☐ The responsible party is ***not*** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:

- ☐ A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
- ☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

☐ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;

☐ An Illicit Discharge Compliance Statement is attached;

☐ NO Illicit Discharge Compliance Statement is attached but will be submitted ***prior to*** the discharge of any stormwater to post-construction BMPs.

Stormwater Report

To Be Submitted with the Notice of Intent

Applicant/Project Name: City of Boston Parks and Recreation Department

Project Address: 244 Medford St (Charlestown High School) Boston, MA

Application Prepared by:

Firm: Weston & Sampson, Inc.

Registered PE James Pearson, P.E.

Below is an explanation concerning Standards 1-10 as they apply to the Boston Parks and Recreation Department Charlestown High School Field Replacement Project:

General:

The existing synthetic turf fields and the running track located at the Charlestown High School and Community Center, 255 Medford Street, Charlestown, MA 02129 are approximately 12 years old and have reached the end of their useful and safe life cycle. The City of Boston' Parks and Recreation Department is planning to replace the synthetic turf fields playing surface and running track surfaces, in addition to strategical improving the stormwater infiltration rates within each synthetic turf field area. Stormwater infiltration tests were performed in June 2022 and determined that areas of the subsurface drainage stone below each field was performing below the acceptable field performance thresholds and should be addressed under this project scope. These typical life cycle maintenance replacements these fields and running track are critical to player maintaining safety and playability

Both the existing synthetic turf football and softballs field maintenance replacement will include removal of the existing field infill materials, the synthetic turf carpet, and focused subsurface drainage stone refurbishment within each synthetic turf field footprint. Following the removal of the existing carpet and infill material, new synthetic turf carpet and infill will be installed in kind. The running track surface will be milled, removed, and replaced in kind with new running track surface layer to be able to provide a safe and high performing running surface suitable for athletic competitions and neighborhood use. All activities require for the replacement of the existing fields and running track are to remain within the existing footprints of each item with no work to be completed beyond.

Standard 1: No New Untreated Discharges

The proposed project will create no new untreated discharges. No new impervious area will be created during this project.

Standard 2: Peak Rate Attenuation

Since there will be no increase in impervious area, post-development (post-improvement) peak discharge rates will not exceed pre-development (pre-improvement) peak discharge rates.

To ensure that the work incorporates the performance standards recommended in the DEP's Stormwater Management Policy, necessary erosion and sedimentation control measures will be utilized during construction. These measures will include compost filter tubes as depicted on the site plans.

Standard 3: Recharge

As noted in the Standard 2 explanation, the impervious area in the work area will not be increased at the completion of the project. Therefore, recharge rates will not change in the work area at the end of the project.

Standard 4: Water Quality

The proposed work will not change water quality at the site. There will be no increase in stormwater flow, and the design will not increase soil erosion. During the project, appropriate BMPs will be used to minimize sedimentation and soil erosion.

Standard 5: Land Uses with Higher Potential Pollutant Loads (LUHPPLs)

Not Applicable. There are no LUHPPLs in the work area.

Standard 6: Critical Areas

There will be no new discharge to critical areas.

Standard 7: Redevelopments and Other Projects Subject to the Standards Only to the Maximum Extent Practicable

This is a re-development project which will minimize disturbance to existing trees and shrubs.

Standard 8: Construction Period Pollution Prevention and Erosion and Sediment Control

A detailed Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan is included. To ensure that the work incorporates the performance standards recommended in the DEP's Stormwater Management Policy, necessary erosion and sedimentation control measures will be utilized during construction. These measures will include compost filter tubes as depicted on the site plans.

Standard 9: Operation and Maintenance Plan

An operations and maintenance plan is not needed since there will not be any new stormwater management systems put in place in the project work area.

Standard 10: Prohibition of Illicit Discharges

By the nature of the proposed work, there will be no illicit discharges. There will be no opportunity for illicit discharges into the system.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including any relevant soil evaluations, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan, the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature

8/23/2022

Signature and Date

Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan

SECTION 1: Introduction

The existing synthetic turf fields and the running track located at the Charlestown High School and Community Center, 255 Medford Street, Charlestown, MA 02129 are approximately 12 years old and have reached the end of their useful and safe life cycle. The City of Boston' Parks and Recreation Department is planning to replace the synthetic turf fields playing surface and running track surfaces, in addition to strategical improving the stormwater infiltration rates within each synthetic turf field area. Stormwater infiltration tests were performed in June 2022 and determined that areas of the subsurface drainage stone below each field was performing below the acceptable field performance thresholds and should be addressed under this project scope. These typical life cycle maintenance replacements these fields and running track are critical to player maintaining safety and playability

Both the existing synthetic turf football and softballs field maintenance replacement will include removal of the existing field infill materials, the synthetic turf carpet, and focused subsurface drainage stone refurbishment within each synthetic turf field footprint. Following the removal of the existing carpet and infill material, new synthetic turf carpet and infill will be installed in kind. The running track surface will be milled, removed, and replaced in kind with new running track surface layer to be able to provide a safe and high performing running surface suitable for athletic competitions and neighborhood use. All activities require for the replacement of the existing fields and running track are to remain within the existing footprints of each item with no work to be completed beyond.

As part of this project, this "Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan" has been created to ensure that no further disturbance to the wetland resource is created during the project.

SECTION 2: Construction Period Pollution Prevention Measures

Best Management Practices (BMPs) will be utilized as Construction Period Pollution Prevention Measures to reduce potential pollutants and prevent any off-site discharge. The objectives of the BMPs for construction activity are to minimize the disturbed areas, stabilize any disturbed areas, control the site perimeter and retain sediment. Both erosion and sedimentation controls and non-stormwater best management measures will be used to minimize site disturbance and ensure compliance with the performance standards of the WPA and Stormwater Standards. Measures will be taken to minimize the area disturbed by construction activities to reduce the potential for soil erosion and stormwater pollution problems. In addition, good housekeeping measures will be followed for the day-to-day operation of the construction site under the control of the contractor to minimize the impact of construction. This section describes the control practices that will be in place during construction activities. Recommended control practices will comply with the standards set in the MA DEP Stormwater Policy Handbook.

2.1 Minimize Disturbed Area and Protect Natural Features and Soil

In order to minimize disturbed areas, work will be completed within well-defined work limits. These work limits are shown on the construction plans. The Contractor shall not disturb native vegetation in the undisturbed wetland area without prior approval from the Engineer. The Contractor will be responsible to make sure that all of their workers and any subcontractors know the proper work limits and do not extend their work into the undisturbed areas. The protective measures are described in more detail in the following sections.

2.2 Control Stormwater Flowing onto and through the project

Construction areas adjacent to wetland resources will be lined with appropriate sediment and erosion control measures.

2.3 Stabilize Soils

The Contractor shall limit the area of land which is exposed and free from vegetation during construction. In areas where the period of exposure will be greater than two (2) months, mulching, the use of erosion control mats, or other protective measures shall be provided as specified.

The Contractor shall take account of the conditions of the soil where erosion control seeding will take place to insure that materials used for re-vegetation are adaptive to the sediment control.

2.4 Proper Storage and Cover of Any Stockpiles

The location of the Contractor's storage areas for equipment and/or materials shall require written approval of the Engineer.

Adequate measures for erosion and sediment control such as the placement of compost filter tubes around the downstream perimeter of stockpiles shall be employed to protect any downstream areas from siltation.

There shall be no storage of equipment or materials in areas designated as wetlands.

The Engineer may designate a particular area or areas where the Contractor may store materials used in his operations.

2.5 Perimeter Controls and Sediment Barriers

Erosion control lines as described in Section 5 will be utilized to ensure that sedimentation does not occur outside the perimeter of the work area.

2.6 Storm Drain Inlet Protection

Inlet protection will be used on all storm drains within the project area.

2.7 Retain Sediment On-Site

The Contractor will be responsible to monitor erosion control measures. Whenever necessary the Contractor will clear sediment from the compost filter tube that has been silted up during construction. Daily monitoring should be conducted using the attached Monitoring Form.

The following good housekeeping practices will be followed on-site during the construction project:

2.8 Material Handling and Waste Management

Materials stored on-site will be stored in a neat, orderly manner in appropriate containers. Materials will be kept in their original containers with the original manufacturer's label. Substances will not be mixed with one another unless recommended by the manufacturer.

Waste materials will be collected and stored in a securely lidded metal container from a licensed management company. The waste and any construction debris from the site will be hauled off-site daily and disposed of properly. The contractor will be responsible for waste removal. Manufacturer's recommendations for proper use and disposal will be followed for materials. Sanitary waste will be collected from the portable units a minimum of once a week, by a licensed sanitary waste management contractor.

2.9 Designated Washout Areas

The Contractor shall use washout facilities at their own facilities, unless otherwise directed by the Engineer.

2.10 Proper Equipment/Vehicle Fueling and Maintenance Practices

On-site vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the risk of leakage. To ensure that leaks on stored equipment do not contaminate the site, oil-absorbing mats will be placed under oil-containing equipment during storage. Regular fueling and service of the equipment may be performed using approved methods and with care taken to minimize chance of spills. Repair of equipment or machinery within the 100' water resources area shall not be allowed without the prior approval of the Engineer. Any petroleum products will be stored in tightly sealed containers that are clearly labeled with spill control pads/socks placed under/around their perimeters.

2.11 Equipment/Vehicle Washing

The Contractor will be responsible to ensure that no equipment is washed on-site.

SECTION 3: Spill Prevention and Control Plan

The Contractor will be responsible for preventing spills in accordance with the project specifications and applicable federal, state and local regulations. The Contractor will identify a properly trained site employee, involved with the day-to-day site operations to be the spill prevention and cleanup coordinator. The name(s) of the responsible spill personnel will be posted on-site. Each employee will be instructed that all spills are to be reported to the spill prevention and cleanup coordinator.

3.1 Spill Control Equipment

Spill control/containment equipment will be kept in the Work Area. Materials and equipment necessary for spill cleanup will be kept either in the Work Area or in an otherwise accessible on-site location. Equipment and materials will include, but not be limited to, absorbent booms/mats, brooms, dust pans, mops, rags, gloves, goggles, sand, plastic and metal containers specifically for

this purpose. It is the responsibility of the Contractor to ensure the inventory will be readily accessible and maintained.

3.2 Notification

Workers will be directed to inform the on-site supervisor of a spill event. The supervisor will assess the incident and initiate proper containment and response procedures immediately upon notification. Workers should avoid direct contact with spilled materials during the containment procedures. Primary notification of a spill should be made to the local Fire Department and Police Departments. Secondary Notification will be to the certified cleanup contractor if deemed necessary by Fire and/or Police personnel. The third level of notification (within 1 hour) is to the DEP or municipality's Licensed Site Professional (LSP). The specific cleanup contractor to be used will be identified by the Contractor prior to commencement of construction activities.

3.3 Spill Containment and Clean-Up Measures

Spills will be contained with granular sorbent material, sand, sorbent pads, booms or all of the above to prevent spreading. Certified cleanup contractors should complete spill cleanup. The material manufacturer's recommended methods for spill cleanup will be clearly posted and on-site personnel will be made aware of the procedures and the location of the information and cleanup supplies.

3.4 Hazardous Materials Spill Report

The Contractor will report and record any spill. The spill report will present a description of the release, including the quantity and type of material, date of the spill, circumstances leading to the release, location of spill, response actions and personnel, documentation of notifications and corrective measures implemented to prevent reoccurrence.

This document does not relieve the Contractor of the Federal reporting requirements of 40 CFR Part 110, 40 CFR Part 117, 40 CFR Part 302 and the State requirements specified under the Massachusetts Contingency Plan (M.C.P) relating to spills or other releases of oils or hazardous substances. Where a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117 or 40 CFR Part 302, occurs during a twenty-four (24) hour period, the Contractor is required to comply with the response requirements of the above mentioned regulations. Spills of oil or hazardous material in excess of the reportable quantity will be reported to the National Response Center (NRC).

SECTION 4: Contact Information/Responsible Parties

Owner/Operator:

City of Boston
Ryan Woods
Parks and Recreation Department
1010 Massachusetts Ave, 3rd Floor
Boston, MA 02118
617-635-4505

Engineer:
James Pearson, PE
Weston & Sampson Engineers, Inc.
55 Walkers Brook Dr, Suite 100
Reading, MA 01867
978-532-1900 ex. 2346

Site Inspector:
TBD

Contractor:
TBD

SECTION 5: Erosion and Sedimentation Control

Erosion and Sedimentation Control Drawings can be found in the attached project plans. In addition a technical specification (*Section 01570 Environmental Protection*) has been included as part of Appendix D, which details all Erosion and Sedimentation controls.

SECTION 6: Site Development Plan

The Site Development Plan is included in the attached plans.

SECTION 7: Operation and Maintenance of Erosion Control

The erosion control measures will be installed as detailed in the technical specification *01570 Environmental Protection*. If there is a failure to the controls the Contractor, under the supervision of the Engineer, will be required to stop work until the failure is repaired.

Periodically throughout the work, whenever the Engineer deems it necessary, the sediment that has been deposited against the controls will be removed to ensure that the controls are working properly.

SECTION 8: Inspection Schedule

During construction, the erosion and sedimentation controls will be inspected daily. Once the Contractor is selected, an onsite inspector will be selected to work closely with the Engineer to ensure that erosion and sedimentation controls are in place and working properly. An Inspection Form is included.

Inspection Form

Inspected By: _____ Date: _____Time:_____

YES	NO	DOES NOT APPLY	ITEM
			Do any erosion/siltation control measures require repair or clean out to maintain adequate function?
			Is there any evidence that sediment is leaving the site and entering the wetlands?
			Are any temporary soil stockpiles or construction materials located in non-approved areas?
			Are on-site construction traffic routes, parking, and storage of equipment and supplies located in areas not specifically designed for them?

Specific location, current weather conditions, and action to be taken:

_____

_____

_____

_____

_____

Other Comments:

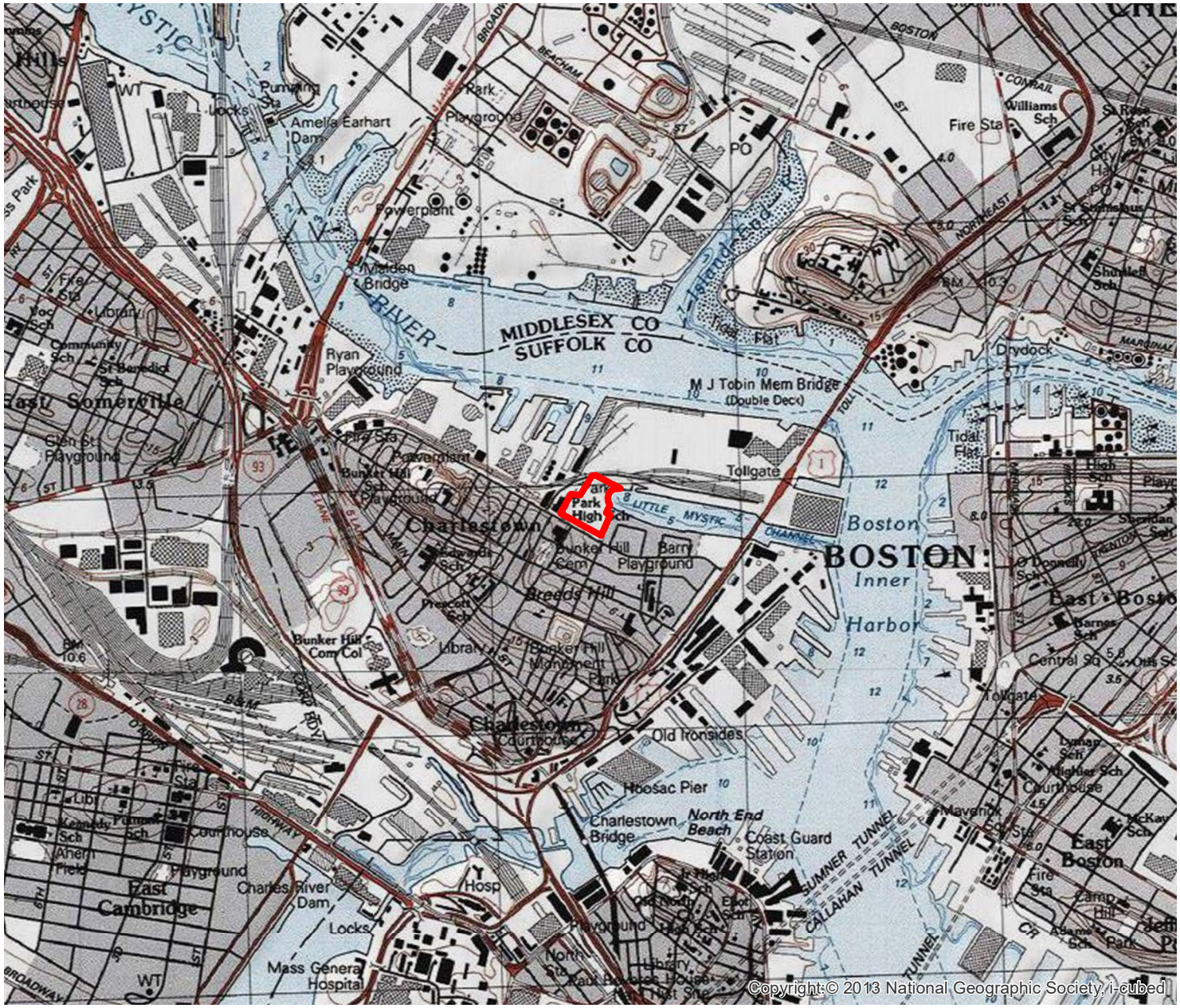
_____

_____

Pending the actions noted above I certify that the site is in compliance with the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan.

Signature: _____ Date: _____

Appendix C



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2,000 1,000 0 2,000
Feet

Data Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs

Legend

Work Area

FIGURE 1

Charlestown High School
Boston, MA

Locus Map

Weston & Sampson

Path: \\wse03.local\WSE\Depts\Water\Water Resources Group\GIS - Constraints Mapping\Charlestown\240 Medford St\Environmental Receptor - MA.mxd **User:** GasparA **Saved:** 2/24/2022 10:08:23 AM **Opened:** 8/23/2022 9:32:59 AM

Data Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs

Legend

- Work Area
- Perennial Stream
- Intermittent Stream
- Marsh/Bog
- Wooded marsh
- Cranberry Bog
- Salt Marsh
- Open Water
- Reservoir (with PWSID)
- Tidal Flats
- Beach/Dune

Ch 91 Jurisdiction

- Public Way
- Marsh Boundary - landward
- Landlocked Tidelands
- Jurisdiction
- Historic High Water
- Marsh Boundary - seaward
- Contemporary High Water
- Inferrred Contemporary High Water
- Inferred Historic High Water

ACECs

- ACECs

NHESP Habitats

- NHESP Estimated Habitats of Rare Wildlife
- NHESP Priority Habitats of Rare Species
- NHESP Certified Vernal Pools
- NHESP Potential Vernal Pools

Outstanding Resource Waters

- Public Water Supply Contributor
- ORW for ACEC
- ORW for both Water Supply and Other

FIGURE 2

Charlestown High School
Boston, MA

Environmental
Resource Map

Weston & Sampson

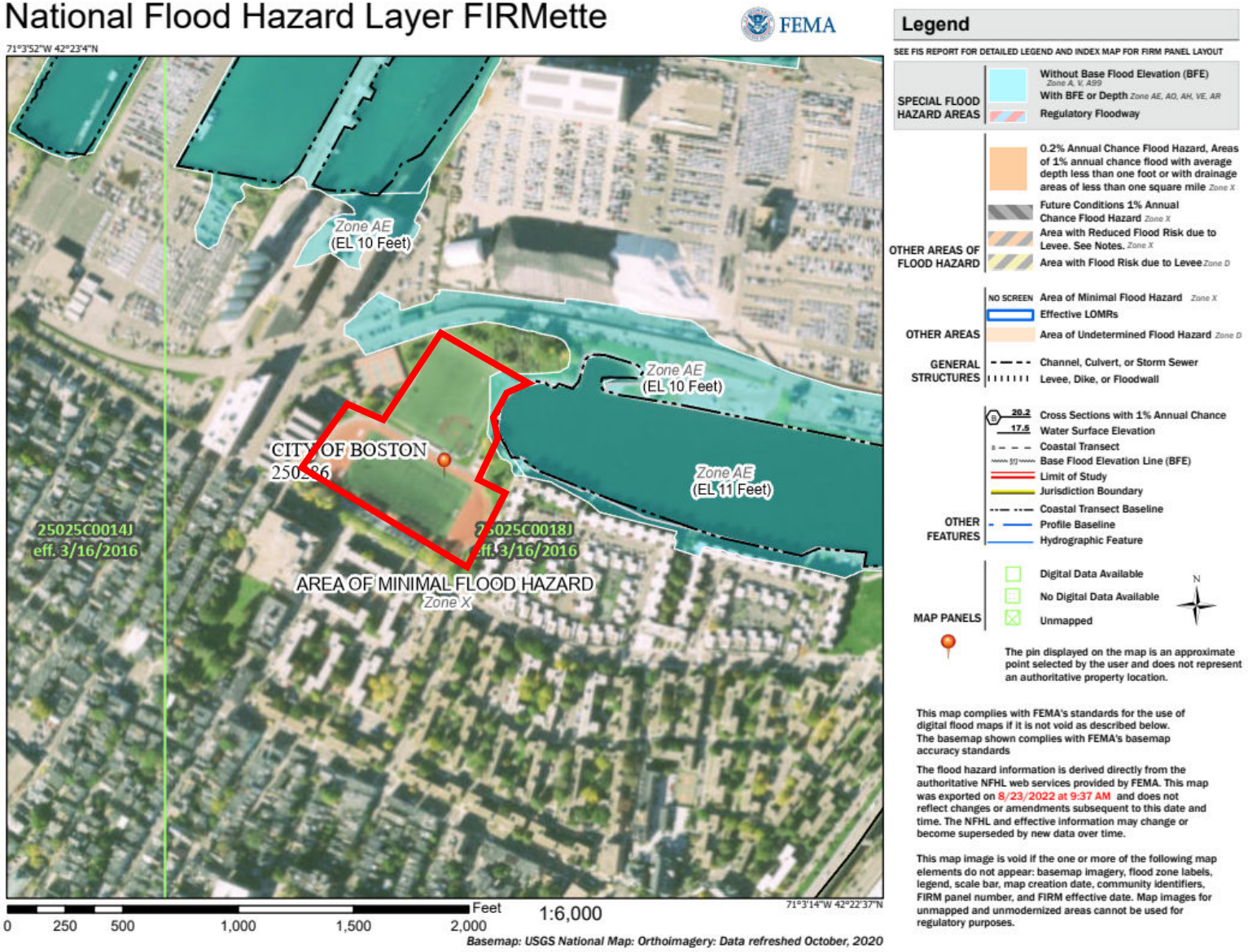

FIGURE 3

Charlestown High School
Boston, MA

FEMA Map

Weston & Sampson

Appendix D

SECTION 01562

DUST CONTROL

PART 1 - GENERAL

1.01 DESCRIPTION:

This section of the specification covers the control of dust via water, complete.

PART 2 - PRODUCTS

2.01 WATER:

A. Water shall not be brackish and shall be free from oil, acid, and injurious alkali or vegetable matter.

PART 3 - EXECUTION

3.01 APPLICATION:

A. Water may be sprinkler applied with equipment including a tank with gauge-equipped pressure pump and a nozzle-equipped spray bar.

B. Water shall be dispersed through the nozzle under a minimum pressure of 20 pounds per square inch, gauge pressure.

END OF SECTION

\\wse03.local\WSE\Projects\MA\Boston MA\Park Overview Engineering Services ENG21-0493\ENG21-0493 Task Order No. 15 (Phase 15) Chalestown High School Turf & Track Replacement\Permitting\NOI\Appendix D Specs\SECTION 01562-Dust Control.docx

SECTION 01570

ENVIRONMENTAL PROTECTION

PART 1 – GENERAL

1.01 DESCRIPTION:

A. The work covered by this section of the specifications consists of furnishing all labor, materials, tools and equipment and performing all work required for the prevention of environmental pollution during and as a result of construction operations under this contract.

B. The requirements set forth in this section of the specifications apply to construction in and adjacent to wetlands, unless otherwise specifically stated.

C. All work under this Contract shall be in accordance with the Conservation Commissions' Orders of Conditions as well as any conditional requirements applied, all of which are attached to Section 00890, PERMITS.

D. Prior to commencement of work, the Contractor shall meet with representatives of the Engineer to develop mutual understandings relative to compliance of the environmental protection program.

1.02 SUBMITTALS:

A. The Contractor shall submit for approval six sets of details and literature fully describing environmental protection methods to be employed in carrying out construction activities within 100 feet of wetlands or across areas designated as wetlands.

PART 2 - PRODUCTS

2.01 CATCH BASIN PROTECTION:

A. To trap sediment and to prevent sediment from clogging drainage systems, catch basin protection in the form of a siltation sack (Siltsack as manufactured by ACF Environmental, Inc. or approved equal) shall be provided as approved by the Engineer.

2.02 COMPOST FILTER TUBES:

A. Silt socks shall be a tubular filter sock of mesh fabric. The fabric will have openings of between 1/8" to ¼" diameter. The mesh material will either photo degrade within one year or be made of nylon with a life expectancy of 24 months. The sock shall be filled with a mix of composted leaf mulch, bark mulch and wood chips that have been composted for at least one year. The sock will have a minimum diameter of 12-inches.

PART 3- EXECUTION

3.01 NOTIFICATION AND STOPPAGE OF WORK:

A. The Engineer will notify the Contractor in writing of any non-compliance with the provisions of the Order of Conditions. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails to act promptly, the Owner may order stoppage of all or part of the work through the Engineer until satisfactory corrective action has been taken. No claim for an extension of time or for excess costs or damage incurred by the Contractor as a result of time lost due to any stop work orders shall be made unless it was later determined that the Contractor was in compliance.

3.02 AREA OF CONSTRUCTION ACTIVITY:

A. Insofar as possible, the Contractor shall confine his construction activities to those areas defined by the plans and specifications. All land resources within the project boundaries and outside the limits of permanent work performed under this contract shall be preserved in their present condition or be restored to a condition after completion of construction at least equal to that which existed prior to work under this contract.

3.03 PROTECTION OF WATER RESOURCES:

A. The Contractor shall not pollute streams, lakes or reservoirs with fuels, oils, bitumens, calcium chloride, acids or other harmful materials. It is the Contractor's responsibility to comply with all applicable Federal, State, County and Municipal laws regarding pollution of rivers and streams.

B. Special measures should be taken to insure against spillage of any pollutants into public waters.

3.04 CONSTRUCTION IN AREAS DESIGNATED AS WETLANDS ON THE DRAWINGS:

A. Insofar as possible, the Contractor shall make every effort to minimize disturbance within areas designated as wetlands or within 100-feet of wetland resource areas.

B. The Contractor shall perform his work in such a way that these areas are left in the condition existing prior to construction.

C. The elevations of areas designated as wetlands shall not be unduly disturbed by the Contractor's operations.

3.05 PROTECTING AND MINIMIZING EXPOSED AREAS:

A. The Contractor shall limit the area of land which is exposed and free from vegetation during construction. In areas where the period of exposure will be greater than two (2) months, temporary vegetation, mulching or other protective measures shall be provided

as specified.

B. The Contractor shall take account of the conditions of the soil where temporary cover crop will be used to insure that materials used for temporary vegetation are adaptive to the sediment control. Materials to be used for temporary vegetation shall be approved by the Engineer.

3.06 LOCATION OF STORAGE AREAS:

A. The location of the Contractor's storage areas for equipment and/or materials shall be upon cleared portions of the job site or areas to be cleared as a part of this project, and shall require written approval of the Engineer. Plans showing storage facilities for equipment and materials shall be submitted for approval of the Engineer.

B. No excavated materials or materials used in backfill operations shall be deposited within a minimum distance of one hundred (100) feet of any watercourse or any drainage facility. Adequate measures for erosion and sediment control such as the placement of baled straw or line of straw wattles or compost filter tubes around the downstream perimeter of stockpiles shall be employed to protect any downstream areas from siltation.

C. There shall be no storage of equipment or materials in areas designated as wetlands.

D. The Engineer may designate a particular area or areas where the Contractor may store materials used in his operations.

3.07 PROTECTION OF LANDSCAPE:

A. The Contractor shall not deface, injure, or destroy trees or shrubs nor remove or cut them without written authority from the Owner. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorages unless specifically authorized by the Engineer. Excavating machinery and cranes shall be of suitable type and be operated with care to prevent injury to trees which are not to be removed, particularly overhanging branches and limbs. The Contractor shall, in any event, be responsible for any damage resulting from such use.

B. Branches, limbs, and roots shall not be cut except by permission of the Engineer. All cutting shall be smoothly and neatly done without splitting or crushing. When there is unavoidable injury to branches, limbs and trunks of trees, the injured portions shall be neatly trimmed and covered with an application of grafting wax or tree healing paint as directed.

C. Where, in the opinion of the Engineer, trees may possibly be defaced, bruised, injured, or otherwise damaged by the Contractor's equipment or by his blasting or other operations, the Engineer may require the Contractor to adequately protect such trees by placing boards, planks, poles or fencing around them. Any trees or landscape feature scarred or damaged by the Contractor's equipment or operations shall be restored as nearly as possible to its original condition at the expense of the Contractor. The Engineer will decide what method of restoration shall be used, and whether damaged trees shall

be treated and healed or removed and disposed of under the provisions of Section 02230, CLEARING AND GRUBBING.

D. Cultivated hedges, shrubs, and plants which could be injured by the Contractor's operations shall be protected by suitable means or shall be dug up, balled and temporarily replanted and maintained. After construction operations have been substantially completed, they shall be replanted in their original positions and cared for until growth is re-established. If cultivated hedges, shrubs, and plants are injured to such a degree as to affect their growth or diminish their beauty or usefulness, they shall be replaced by items of a kind and quality at least equal to that existing at the start of the work.

3.08 DUST CONTROL:

A. During the progress of the work, the Contractor shall conduct his operations and maintain the area of his activities, including sweeping and sprinkling of streets as necessary, to minimize creation and dispersion of dust. If the Engineer decides it is necessary to use calcium chloride for more effective dust control, the Contractor shall furnish and spread the material, as directed. Calcium chloride shall be as specified under Section 01562, DUST CONTROL.

B. Calcium Chloride shall not be used for dust control within a drainage basin or in the vicinity of any source of potable water.

3.09 CATCH BASIN PROTECTION:

A. Catch basin protection shall be used for every catch basin, shown on the plans or as required by the Engineer, to trap sediment and prevent it from clogging drainage systems and entering wetlands. Siltation sacks shall be securely installed under the catch basin grate. Care shall be taken to keep the siltation sacks from breaking apart or clogging. All deposited sediment shall be removed periodically and at times prior to predicted precipitation to allow free drainage flow. Prior to working in areas where catch basins are to be protected, each catch basin sump shall be cleaned of all debris and protected. The Contractor shall properly dispose of all debris at no additional cost to the Owner.

3.10 COMPOST FILTER TUBES:

A. The filter tubes will be staked in the ground using wooden stakes driven at 4-foot intervals. The wooden stakes will be placed at a minimum depth of 24-inches into the ground.

END OF SECTION

SECTION 01740

CLEANING UP

PART 1 - GENERAL

1.01 DESCRIPTION:

The Contractor must employ at all times during the progress of its work adequate cleanup measures and safety precautions to prevent injuries to persons or damage to property. The Contractor shall immediately, upon request by the Engineer provide adequate material, equipment and labor to cleanup and make safe any and all areas deemed necessary by the Engineer.

1.02 RELATED WORK:

A. Section 00700 GENERAL CONDITIONS

B. Section 01110 CONTROL OF WORK AND MATERIALS

C. Section 01140 SPECIAL PROVISIONS

D. Section 01570 ENVIRONMENTAL PROTECTION

PART 2 - PRODUCTS

Not applicable

PART 3 - EXECUTION

3.01 DAILY CLEANUP:

A. The Contractor shall clean up, at least daily, all refuse, rubbish, scrap and surplus material, debris and unneeded construction equipment resulting from the construction operations and sweep the area. The site of the work and the adjacent areas affected thereby shall at all times present a neat, orderly and workmanlike appearance.

B. Upon written notification by the Engineer, the Contractor shall within 24 hours clean up those areas, which in the Engineer's opinion are in violation of this section and the above referenced sections of the specifications.

C. If in the opinion of the Engineer, the referenced areas are not satisfactorily cleaned up, all other work on the project shall stop until the cleanup is satisfactory.

3.02 MATERIAL OR DEBRIS IN DRAINAGE FACILITIES:

A. Where material or debris has washed or flowed into or has been placed in existing watercourses, ditches, gutters, drains, pipes, structures, such material or debris shall be

entirely removed and satisfactorily disposed of during progress of the work, and the ditches, channels, drains, pipes, structures, and work shall, upon completion of the work, be left in a clean and neat condition.

3.03 REMOVAL OF TEMPORARY BUILDINGS, STRUCTURES AND EQUIPMENT:

A. On or before completion of the work, the Contractor shall, unless otherwise specifically required or permitted in writing, tear down and remove all temporary buildings and structures it built; shall remove all temporary works, tools and machinery or other construction equipment it furnished; shall remove all rubbish from any grounds which it has occupied; shall remove silt fences and hay bales used for trapping sediment; and shall leave the roads and all parts of the property and adjacent property affected by its operations in a neat and satisfactory condition.

3.04 RESTORATION OF DAMAGED PROPERTY:

A. The Contractor shall restore or replace, when and as required, any property damaged by its work, equipment or employees, to a condition at least equal to that existing immediately prior to the beginning of operations. To this end the Contractor shall do as required all necessary highway or driveway, walk and landscaping work. Materials, equipment, and methods for such restoration shall be as approved by the Engineer.

3.05 FINAL CLEANUP:

A. Before acceptance by the Owner, the Contractor shall perform a final cleanup to bring the construction site to its original or specified condition. This cleanup shall include removing all trash and debris off of the premises. Before acceptance, the Engineer shall approve the condition of the site.

END OF SECTION

\\Wse03.local\WSE\Projects\MA\Boston MA\Park Overview Engineering Services ENG21-0493\ENG21-0493 Task Order No. 15 (Phase 15) Chalestown High School Turf & Track Replacement\Permitting\NOI\Appendix D Specs\SECTION 01740-Cleaning Up.docx

Appendix E

City of Boston
Environment

CITY of BOSTON
Conservation Commission

AFFIDAVIT OF SERVICE
FOR ABUTTER NOTIFICATION

Under the Massachusetts Wetlands Protection Act
and Boston Wetlands Ordinance

I, Alexandra Gaspar, hereby certify under pains and penalties of perjury that that at least one week prior to the public hearing, I gave notice to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, section 40, and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

A Notice of Intent was filed under the Massachusetts Wetlands Protection Act and/or the Boston Wetlands Ordinance by Weston & Sampson on behalf of the City of Boston Parks & Recreation Dept. for the replacement of the turf field and track at Charlestown High School located at 244 Medford Street.

The Abutter Notification For, the list of abutters to whom it was given, and their addresses are attached to this Affidavit of Service.

_____	8/23/2022
Name	Date

BABEL NOTICE

English:

IMPORTANT! This document or application contains **important information** about your rights, responsibilities and/or benefits. It is crucial that you understand the information in this document and/or application, and we will provide the information in your preferred language at no cost to you. If you need them, please contact us at cc@boston.gov or 617-635-3850.

Spanish:

¡IMPORTANTE! Este documento o solicitud contiene **información importante** sobre sus derechos, responsabilidades y/o beneficios. Es fundamental que usted entienda la información contenida en este documento y/o solicitud, y le proporcionaremos la información en su idioma preferido sin costo alguno para usted. Si los necesita, póngase en contacto con nosotros en el correo electrónico cc@boston.gov o llamando al 617-635-3850.

Haitian Creole:

AVI ENPÒTAN! Dokiman oubyen aplikasyon sa genyen **enfòmasyon ki enpòtan** konsènan dwa, responsablite, ak/oswa benefis ou yo. Li enpòtan ke ou konprann enfòmasyon ki nan dokiman ak/oubyen aplikasyon sa, e n ap bay enfòmasyon an nan lang ou prefere a, san ou pa peye anyen. Si w bezwen yo, tanpri kontakte nou nan cc@boston.gov oswa 617-635-3850.

Traditional Chinese:

非常重要！這份文件或是申請表格包含關於您的權利，責任，和／或福利的重要信息。請您務必完全理解這份文件或申請表格的全部信息，這對我們來說十分重要。我們會免費給您提供翻譯服務。如果您有需要請聯系我們的郵箱 cc@boston.gov 電話# 617-635-3850..

Vietnamese:

QUAN TRỌNG! Tài liệu hoặc đơn yêu cầu này chứa **thông tin quan trọng** về các quyền, trách nhiệm và/hoặc lợi ích của bạn. Việc bạn hiểu rõ thông tin trong tài liệu và/hoặc đơn yêu cầu này rất quan trọng, và chúng tôi sẽ cung cấp thông tin bằng ngôn ngữ bạn muốn mà không tính phí. Nếu quý vị cần những dịch vụ này, vui lòng liên lạc với chúng tôi theo địa chỉ cc@boston.gov hoặc số điện thoại 617-635-3850.

Simplified Chinese:

非常重要！这份文件或是申请表格包含关于您的权利，责任，和／或福利的重要信息。请您务必完全理解这份文件或申请表格的全部信息，这对我们来说十分重要。我们会免费给您提供翻译服务。如果您有需要请联系我们的邮箱 cc@boston.gov 电话# 617-635-3850.

CITY of BOSTON

Cape Verdean Creole:

INPURTANTI! Es dukumentu ó aplikason ten **informason inpurtanti** sobri bu direitus, rasponsabilidadis i/ó benefísius. Ê krusial ki bu intendi informason na es dukumentu i/ó aplikason ó nu ta da informason na língua di bu preferênsia sen ninhun kustu pa bó. Si bu prisiza del, kontata-nu na cc@boston.gov ó 617-635-3850.

Arabic:

مهم! يحتوي هذا المستند أو التطبيق على معلومات مهمة حول حقوقك ومسؤولياتك أو فوائدك. من الأهمية أن تفهم المعلومات الواردة في هذا المستند أو التطبيق. سوف نقدم المعلومات بلغتك المفضلة دون أي تكلفة عليك. إذا كنت في حاجة إليها، يرجى الاتصال بنا على cc@boston.gov أو 617-635-3850.

Russian:

ВАЖНО! В этом документе или заявлении содержится **важная информация** о ваших правах, обязанностях и/или льготах. Для нас очень важно, чтобы вы понимали приведенную в этом документе и/или заявлении информацию, и мы готовы бесплатно предоставить вам информацию на предпочитаемом вами языке. Если Вам они нужны, просьба связаться с нами по адресу электронной почты cc@boston.gov, либо по телефону 617-635-3850.

Portuguese:

IMPORTANTE! Este documento ou aplicativo contém **Informações importantes** sobre os seus direitos, responsabilidades e/ou benefícios. É importante que você compreenda as informações contidas neste documento e/ou aplicativo, e nós iremos fornecer as informações em seu idioma de preferência sem nenhum custo para você. Se precisar deles, fale conosco: cc@boston.gov ou 617-635-3850.

French:

IMPORTANT ! Ce document ou cette demande contient des **informations importantes** concernant vos droits, responsabilités et/ou avantages. Il est essentiel que vous compreniez les informations contenues dans ce document et/ou cette demande, que nous pouvons vous communiquer gratuitement dans la langue de votre choix. Si vous en avez besoin, veuillez nous contacter à cc@boston.gov ou au 617-635-3850.

CITY of BOSTON

CITY of BOSTON
Conservation Commission

City of Boston
Environment

NOTIFICATION TO ABUTTERS
BOSTON CONSERVATION COMMISSION

In accordance with the Massachusetts Wetlands Protection Act, Massachusetts General Laws Chapter 131, Section 40, and the Boston Wetlands Ordinance, you are hereby notified as an abutter to a project filed with the Boston Conservation Commission.

A. **Boston Parks and Recreation** has filed a **Notice of Intent** with the Boston Conservation Commission seeking permission to alter an Area Subject to Protection under the Wetlands Protection Act (General Laws Chapter 131, section 40) and/or the Boston Wetlands Ordinance.

B. The address of the lot where the activity is proposed is **244 Medford St, Boston, MA _ .**

C. The project involves **the replacement of the existing synthetic turf fields and running track surface at Charlestown Highschool**.

D.Copies of the application may be obtained by contacting the Boston Conservation Commission at **CC@boston.gov**.

E. Copies of the application may be obtained from **Weston & Sampson Engineers** by contacting them at **gaspara@wseinc.com** between the hours of **8 AM - 4 PM, Monday-Friday.**

F. In accordance with the Chapter 107 of the Acts of 2022, the public hearing will take place **virtually** at https://zoom.us/j/6864582044. If you are unable to access the internet, you can call 1-929-205-6099, enter Meeting ID 686 458 2044 # and use # as your participant ID.

G.Information regarding the date and time of the public hearing may be obtained from the **Boston Conservation Commission** by emailing **CC@boston.gov** or calling **(617) 635-3850** between the hours of **9 AM to 5 PM, Monday through Friday.**

NOTE: Notice of the public hearing, including its date, time, and place, will be published at least five (5) days in advance in the **Boston Herald.**

NOTE: Notice of the public hearing, including its date, time, and place, will be posted on www.boston.gov/public-notices and in Boston City Hall not less than forty-eight (48) hours in advance. If you would like to provide comments, you may attend the public hearing or send written comments to CC@boston.gov or Boston City Hall, Environment Department, Room 709, 1 City Hall Square, Boston, MA 02201

NOTE: If you would like to provide comments, you may attend the public hearing or send written comments to CC@boston.gov or Boston City Hall, Environment Department, Room 709, 1 City Hall Square, Boston, MA 02201

NOTE: You also may contact the Boston Conservation Commission or the Department of Environmental Protection Northeast Regional Office for more information about this application or the Wetlands Protection Act. To contact DEP, call: the Northeast Region: (978) 694-3200.

NOTE: If you plan to attend the public hearing and are in need of interpretation, please notify staff at CC@boston.gov by 12 PM the day before the hearing.

CITY of BOSTON

LANGUAGE BANK

A member of Ascentria Care Alliance

E-mail: language.services@thelanguagebank.org www.thelanguagebank.org
Phone: (603) 410-6183 ; Fax: 603-410-6186

STATE OF NEW HAMPSHIRE

COUNTY OF HILLSBOROUGH

To Whom It May Concern:

The Language Bank, a professional Interpretation and Translation agency, translated the attached document.

The Language Bank is a member of the American Translators Association (ATA) as an Interpretation and Translation agency.

The attached translation is made from the annexed document into the **Spanish** language and we hereby confirm that the same is a true and complete translation.

Eliana Morado Bassil

Eliana Morado

Coordinator of Fulfilment and Compliance
The Language Bank

Subscribed and sworn before me this 23rd day of August 2022 at Manchester, New Hampshire. My commission expires: April 7th 2026

_____, Notary Public

SMERALDINA BECIROVIC
MY COMMISSION EXPIRES APRIL 7, 2026
NOTARY PUBLIC NEW HAMPSHIRE

CITY of BOSTON Conservation Commission

City of Boston Environment

NOTIFICACIÓN PARA PROPIETARIOS Y/O VECINOS COLINDANTES
COMISIÓN DE CONSERVACIÓN DE BOSTON

De conformidad con la Ley de protección de los humedales de Massachusetts, el Capítulo 131, Sección 40 de las Leyes Generales de Massachusetts y la Ordenanza sobre los humedales de Boston, por la presente queda usted notificado como propietario o vecino colindante de un proyecto presentado ante la Comisión de Conservación de Boston.

A. **Boston Parks and Recreation** ha presentado un **Aviso de Intención** a la Comisión de Conservación de Boston pidiendo permiso para modificar una zona sujeta a protección en virtud de la Ley de protección de los humedales (Leyes generales, capítulo 131, sección 40) y la Ordenanza sobre los humedales de Boston.

B. La dirección del lote donde se propone la actividad es **244 Medford St, Boston, MA .**

C. El proyecto consiste en **la sustitución de los campos de césped sintético y la superficie de la pista de atletismo existentes en Charlestown Highschool**.

D. Se pueden obtener copias de la solicitud comunicándose con la Comisión de Conservación de Boston en **CC@boston.gov**.

E. Las copias de la solicitud pueden obtenerse en **Weston & Sampson Engineers** comunicándose con ellos en **gaspara@wseinc.com** entre las **8 AM y las 4 PM**, **de lunes a viernes**.

F. De acuerdo con el Capítulo 107 de las Actas de 2022, la audiencia pública se llevará a cabo **virtualmente** en https://zoom.us/j/6864582044. Si no puede acceder a Internet, puede llamar al 1-929-205-6099, ingresar ID de reunión 686 458 2044 # y usar # como su ID de participante.

G. La información relativa a la fecha y hora de la audiencia pública puede solicitarse a la **Comisión de Conservación de Boston** por correo electrónico a **CC@boston.gov** o llamando al **(617) 635-3850** entre las **9 AM y las 5 PM, de lunes a viernes.**

NOTA: La notificación de la audiencia pública, incluida su fecha, hora y lugar, se publicará en el **Boston Herald** con al menos cinco (5) días de antelación.

NOTA: La notificación de la audiencia pública, incluida su fecha, hora y lugar, se publicará en www.boston.gov/public-notices y en el Ayuntamiento de Boston con no menos de cuarenta y ocho (48) horas de antelación. Si desea formular comentarios, puede asistir a la audiencia pública o enviarlos por escrito a CC@boston.gov o al Ayuntamiento de Boston, Departamento de Medio Ambiente, Sala 709, 1 City Hall Square, Boston, MA 02201

NOTE: Si desea formular comentarios, puede asistir a la audiencia pública o enviarlos por escrito a CC@boston.gov o al Ayuntamiento de Boston, Departamento de Medio Ambiente, Sala 709, 1 City Hall Square, Boston, MA 02201

NOTE: También puede comunicarse con la Comisión de Conservación de Boston o con la Oficina Regional del Noreste del Departamento de Protección Ambiental para obtener más información sobre esta solicitud o la Ley de Protección de Humedales. Para comunicarse con el DEP, llame a la Región Noreste: (978) 694-3200.

NOTE: Si tiene previsto asistir a la audiencia pública y necesita servicios de interpretación, sírvase informar al personal en CC@boston.gov antes de las 12 PM del día anterior a la audiencia.

CITY of BOSTON

LANGUAGE BANK

A member of Ascentria Care Alliance

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SMERALDINA BECIROVIC
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NOTARY PUBLIC
NEW HAMPSHIRE

CITY of BOSTON
Conservation Commission

City of Boston
Environment

波士顿湿地保护委员会
项目邻近住户通知

根据《马萨诸塞州湿地保护法》、《马萨诸塞州普通法》第 131 章第 40 节以及《波士顿湿地条例》的规定，我们特此向您，即向波士顿湿地保护委员会提出申请的项目的邻近住户，发出以下通知。

A. 波士顿公园和娱乐部已向波士顿湿地保护委员会提出意向书，请求批准改建一块受《湿地保护法》（《普通法》第 131 章第 40 节）和/或《波士顿湿地条例》保护的地块。

B. 拟开展改建活动的地块地址为：**马萨诸塞州波士顿市 Medford 大街 244 号。**

C. 该项目建设以下内容：**Charlestown 高中现有人造草坪和跑道表面的更换。**

D. 可通过波士顿湿地保护委员会取得本申请的副本，电子邮箱是：**CC@boston.gov**.

E. 您可于**周一至周五上午 8 点至下午 4 点**通过 **gaspara@wseinc.com** 联系 **Weston & Sampson 工程师**获取本申请的副本。

F. 根据 2022 年法令第 107 章，公开听证会将在 https://zoom.us/j/6864582044 **线上**举行。如果您无法上网，您可以拨打 1-929-205-6099，输入会议 ID 686 458 2044 #，然后使用#作为您的参与 ID。

G. 您可于**周一至周五上午 9 点至下午 5 点**通过电子邮箱 **CC@boston.gov** 或拨打**(617) 635-3850** 联系**波士顿湿地保护委员会**获取本次公开听证会的日期和时间。

注：公开听证会的通知（包括其举行日期、时间和地点）将提前至少五（5）天在**《波士顿先驱报》**上予以公布。

注：公开听证会的通知（包括其举行日期、时间和地点）将提前至少四十八（48）小时发布在以下网页之上以及波士顿市政厅内：www.boston.gov/public-notices。如果您想提出意见或建议，您可以参加该公开听证会或将书面形式的意见或建议发送至 CC@boston.gov 或邮寄至以下地址：Boston City Hall, Environment Department, Room 709, 1 City Hall Square, Boston, MA 02201。

注：如果您想提出意见或建议，您可以参加该公开听证会或将书面形式的意见或建议发送至 CC@boston.gov 或邮寄至以下地址：Boston City Hall, Environment Department, Room 709, 1 City Hall Square, Boston, MA 02201。

注：您也可以联系波士顿湿地保护委员会或环境保护部东北地区办公室，咨询有关此项申请或《湿地保护法》的更多信息。如要联系环境保护部，请致电：东北地区：(978) 694-3200。

注：如果您准备参加该公开听证会并需要口译服务，则请在听证会举行前一天中午 12 点前通过以下电子邮箱地址告知工作人员：CC@boston.gov。

CITY of BOSTON

OWNER	ADDRESSEE	MAIL_ADDRESS	MAIL_CS	STATE	ZIPCODE
MASSACHUSETTS PORT AUTHORITY		1 HARBORSIDE DR #200S	EAST BOSTON	MA	02128
FOTI JOHN A	C/O JOHN FOTI	100 ABRAMS HILL	DUXBURY	MA	02332
BOSTON AUTOPORT LLC (LESSEE)	C/O DENNIS KRAEZ, RESIDENT AGENT	100 TERMINAL ST	CHARLESTOWN	MA	02129
CROWLEY MATTHEW G		103 ELM ST	CHARLESTOWN	MA	02129
I&I PROPERTIES LLC		113 ELM ST	CHARLESTOWN	MA	02129
FASS ANNA K		114 ELM ST, UNIT 1	CHARLESTOWN	MA	02129
CHORZEMPA AMY M		114 ELM ST, UNIT 2	CHARLESTOWN	MA	02129
JACKSON DAVID M		116 ELM ST	CHARLESTOWN	MA	02129
BURKE MATTHEW		117 ELM ST	CHARLESTOWN	MA	02129
BORNHORST MICHAEL C		118 ELM ST	CHARLESTOWN	MA	02129
EVERS JOSEPH		119 ELM ST	CHARLESTOWN	MA	02129
ALBEN CAITLIN		120 ELM ST	CHARLESTOWN	MA	02129
ONE22 ELM STREET CONDO TRUST	C/O KELLEY CORNELL TS	122 ELM ST	CHARLESTOWN	MA	02129
FOSCHIO JOHN		122 ELM ST #1	CHARLESTOWN	MA	02129
TAYLOR KEVIN L		122 ELM ST #2	CHARLESTOWN	MA	02129
CENTOLA THOMAS M		125 ELM ST	CHARLESTOWN	MA	02129
SCALESE ANTHONY		126 ELM ST #2	CHARLESTOWN	MA	02129
CAHILL FAMILY REALTY TRUST		126 ELM ST	CHARLESTOWN	MA	02129
MARSALLO ANDREW EDWARD		126 ELM ST #3	CHARLESTOWN	MA	02129
CARHILL FAMILY REALTY TRUST		126 ELM ST, UNIT 1	CHARLESTOWN	MA	02129
PRIMAVERA GARY J BE	GARY J PRIMAVERA	14 TAMARACK CIR	NORTH KINGSTON	RI	02852
KELLEY JOHN MICHAEL		1887 OLEANDER CT	CHARLESTON	SC	29414
SUFFOLK/MEDFORD LLC MASS LLC		200 TERMINAL ST	CHARLESTOWN	MA	02129
MELO MANUEL A		24 HORIZON DR	TIVERTON	RI	02878
CITY OF BOSTON		240 MEDFORD ST	CHARLESTOWN	MA	02129
TWO-54-256 MEDFORD ST CONDO		254 MEDFORD ST	CHARLESTOWN	MA	02129
NUNEZ JILL K		254 MEDFORD ST #1	CHARLESTOWN	MA	02129
NUTTER NICOLE MARIE		254 MEDFORD ST #4	CHARLESTOWN	MA	02129
GRUMET DOUGLAS M	C/O DOUGLAS GRUMET	254 MEDFORD ST #5	CHARLESTOWN	MA	02129
KOGUT LAUREN F		254-256 MEDFORD ST # 6	CHARLESTOWN	MA	02129
BEAUCHESNE MARK R		254-256 MEDFORD ST #2	CHARLESTOWN	MA	02129
STEELE SERENA		256 254 MEDFORD ST, UNIT 3	CHARLESTOWN	MA	02129
TAGER CHARLES D		260 MEDFORD ST	CHARLESTOWN	MA	02129
TWO-60 262 MEDFORD ST CONDO	C/O DAVID G CAHILL	260-262 MEDFORD ST	CHARLESTOWN	MA	02129
PARSONS ERIC		262 MEDFORD ST	CHARLESTOWN	MA	02129
THIRTY 3 MYSTIC ST CONDO TR		33 MYSTIC	CHARLESTOWN	MA	02129

IVANYTSKY NATALIA		33 MYSTIC ST #1	CHARLESTOWN	MA	02129
RICHER TYLER J		33 MYSTIC ST #2	CHARLESTOWN	MA	02129
MELE LINDA		33 MYSTIC ST #3	CHARLESTOWN	MA	02129
THIRTY 5 MYSTIC STREET		35 MYSTIC	CHARLESTOWN	MA	02129
ROSKEY LINDSEY		35 MYSTIC ST #1	CHARLESTOWN	MA	02129
SMITH HENRY A		35 MYSTIC ST, UNIT 2	CHARLESTOWN	MA	02129
DOHERTY JOHN		37 MYSTIC ST	CHARLESTOWN	MA	02129
SLOAN DOROTHY E		39 MYSTIC ST	CHARLESTOWN	MA	02129
TOTH ALEXANDER M		407 MAIN STREET UNIT #1	CHARLESTOWN	MA	02129
CITY OF BOSTON		41 MEDFORD	CHARLESTOWN	MA	02129
MCGONAGLE JOSEPH F		41 MYSTIC ST	CHARLESTOWN	MA	02129
CROCKER JOHN P		45 MYSTIC ST	CHARLESTOWN	MA	02129
PIZZUTI DONATO	C/O CHARLESTOWN COMMERCE CTR	50 TERMINAL ST	CHARLESTOWN	MA	02129
115ELMSTREET LLC		53 GREEN ST	CHARLESTOWN	MA	02129
FLEMING JOSEPH D JR ETAL		58 MYSTIC ST	CHARLESTOWN	MA	02129
SIXTY MYSTIC ST CONDO TR		60 MYSTIC ST	CHARLESTOWN	MA	02129
ALPEROVICH MIRIAM		60 MYSTIC ST #3	CHARLESTOWN	MA	02129
CUMMINGS EMILY A		60 MYSTIC ST, UNIT 2	CHARLESTOWN	MA	02129
BLUE CIRCLE ATLANTIC INC	C/O LAFARGE NA TAX DEPT	6211 N ANN ARBOR	DUNDEE	MI	48131
114 ELM STREET CONDOMINIUM TRUST	C/O STEVEN KRIKORIAN TS	73 HERITAGE HILL RD	WINDHAM	NH	03087
CO-OPERATIVES OF CHARLES	C/O DANIEL RYAN (RA)	89 MEDFORD ST	CHARLESTOWN	MA	02129
CITY OF BOSTON		COREY	CHARLESTOWN	MA	02129
MASSACHUSETTS PORT AUTHORITY		MAIN ST	CHARLESTOWN	MA	02129
CITY OF BOSTON		MONUMENT	CHARLESTOWN	MA	02129
BOSTON REDEVELOPMNT AUTH	BOSTON REDEVELOPMENT AUTHORITY	ONE CITY HALL SQUARE	BOSTON	MA	02201
CITY OF BOSTON	BOSTON CITY HALL	ONE CITY HALL SQUARE	BOSTON	MA	02201
CITY OF BOSTON		POLK	CHARLESTOWN	MA	02129

Appendix F

Wetland Delineation Memo

The project site is located adjacent to Little Mystic Channel, a channel associated with the Mystic River. The channel is lined by a concrete wall (see image below). Because of this, we have not performed a formal wetland delineation and have instead used the wall boundary picked up by our survey team as the coastal bank line. Per consultation with the Boston Conservation Commission agent, there is no riverfront area associated with Little Mystic Channel.

Appendix G

Photo 1: Aerial of Project Site

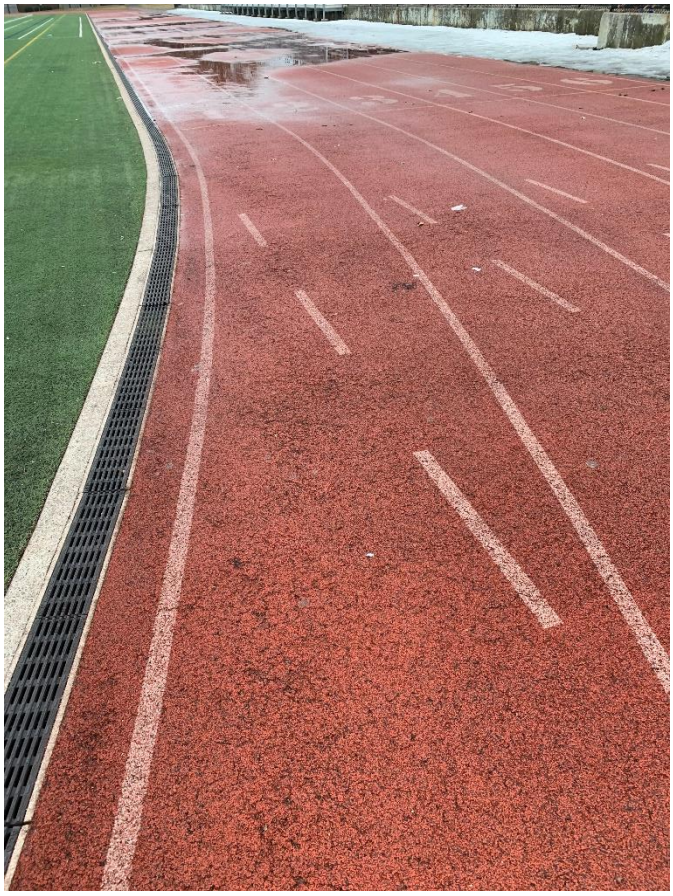

Photo 2: Existing Track

Photo 3: Birdseye View of Site