OFFICE OF THE PURCHASING AGENT

TOWN OF ARLINGTON
730 Massachusetts Avenue
Arlington, MA 02476

Telephone (781) 316-3003
Fax (781) 316-3019

DATE: December 10, 2019

TO ALL BIDDERS

BID NO. 19-62

SUBJECT: Landscape Architect/Wellington Park & Mill Brook Corridor Revitalization/Phase 3/Design & Permitting

ADDENDUM NO. 1

TO WHOM IT MAY CONCERN:

With reference to the bid request relative to the above subject, please note the following:

ATTACHED DOCUMENTS

1. Pre-proposal site visit attendee list
2. Phase II Notice of Intent
3. Phase II Order of Conditions
4. Phase II Construction Drawings

ADDENDUM MUST BE ACKNOWLEDGED WITH BID SUBMISSION.

All other terms, conditions and specifications remain unchanged.

Very truly yours,

Town of Arlington

Domenic R. Lanzillotti
Purchasing Officer

Wellington Park Phase 3 RFP Pre-Proposal Briefing
December 5, 2019

Name	Firm	Email
Gillian Davies	BSC Group, Inc.	gdavies@bscgroup.com
Ricardo R. Austrich	BSC Group Inc.	raustrich@bscgroup.com
JEANNE LUKENDA	W.J. INC	lukenda@wjinc.com
DUKE BITSKO	HATCH	duke.bitsko@hatch.com
Anthony Spretnjak	ASK+	as@askdesignbuild.com

Notice of Intent

Mill Brook Corridor & Wellington Park Revitalization
Arlington, MA

January 2019

Prepared for:
Town of Arlington

Submitted to:
Arlington Conservation Commission

Weston & Sampson
Five Centennial Drive
Peabody, MA 01960-7985
www.westonandsampson.com
Tel: 978-532-1900
Fax: 978-977-0100

Weston & Sampson SM

5 Centennial Drive, Peabody, MA 01960 (HQ)
Tel: 978.532.1900

Arlington-Mill Brook Corridor & Wellington Park Revitalization
WSE Project No. 2180078

January 23, 2018

Arlington Conservation Commission
730 Massachusetts Ave. Annex
Arlington, MA 02476

Re: NOI Filing
Mill Brook Corridor & Wellington Park Revitalization
35 Grove Street

Dear Members of the Commission:

On behalf of the Town of Arlington, Weston & Sampson Engineers, Inc. is hereby enclosing nine (9) 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 Town of Andover submittal requirements. This submittal is a formal Notice of Intent for the Mill Brook Corridor and Wellington Park Revitalization at 35 Grove Street.

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

Appendix A: Project Description
Appendix B: Alternatives Analysis
Appendix C: Stormwater Report
Appendix D: Project Maps
Appendix E: Contract Specifications
Appendix F: Abutters List / Notice to Abutters
Appendix G: Wetlands Memorandum
Appendix H: Velocity Information
Appendix I: Soil Borings
Appendix J: Habitat Assessment

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

Very truly yours,

WESTON & SAMPSON

Mel Higgins, PWS
Senior Environmental Scientist

APPENDIX 6

LEGAL NOTICE CHARGE AUTHORIZATION

DATE: 1/23/19

TO: legals@wickedlocal.com

I hereby authorize Community Newspapers to bill me directly for the legal notice to be published in the Arlington Advocate newspaper on_____ for a public hearing with the Arlington Conservation Commission to review a project at the following location: 35 Grove Street

Thank you.

Signed: 

Send bill to: Emily Sullivan
730 Massachusetts Avenue
Arlington, MA 02476
(781)-316-3012

esullivan@town.arlington.ma.us

Phone:

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

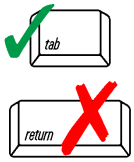
Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Arlington
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):

35 Grove Street — a. Street Address
Arlington — b. City/Town
02476 — c. Zip Code

Latitude and Longitude:
42deg25'13.27"N — d. Latitude
71deg10'3.28"W — e. Longitude

54, 55 — f. Assessors Map/Plat Number
054.0-0001-0001.0, 055.B-0001-0010.0 — g. Parcel /Lot Number

2. Applicant:

Emily — a. First Name
Sullivan — b. Last Name
Town of Arlington — c. Organization
730 Mass Ave — d. Street Address
Arlington — e. City/Town
MA — f. State
02476 — g. Zip Code
(781) 316-3012 — h. Phone Number
i. Fax Number
ESullivan@town.arlington.ma.us — 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):

Mel — a. First Name
Higgins — b. Last Name
Weston & Sampson Engineers — c. Company
5 Centennial Drive — d. Street Address
Peabody — e. City/Town
MA — f. State
01960 — g. Zip Code
(978) 532-1900 — h. Phone Number
i. Fax Number
higginsm@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

Arlington
City/Town

A. General Information (continued)

6. General Project Description:

Mill Brook Corridor & Wellington Park Revitalization

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)

310 CMR 10.53(3)(j) (construction of foot bridges)

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:

Middlesex County
a. County

b. Certificate # (if registered land)

5718
c. Book

57
d. Page Number

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

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

Arlington
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	77 (1. linear feet)	77 (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	3,200 (1. square feet); 0 (3. cubic feet of flood storage lost)	3,200 (2. square feet); 9,450 (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	Mill Brook (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: 300,000 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.
43,957	41,476	2,481

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

Arlington
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	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:
MassDEP File Number
Document Transaction Number
Arlington
City/Town

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

   2018
   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 http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/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.

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

(c) ☐ MESA filing fee (fee information available at http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/mesa/mesa_fee_schedule.htm). 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, http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/mesa/mesa_exemptions.htm; 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@state.ma.us

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@state.ma.us

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.

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

Arlington
City/Town

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

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

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

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

Arlington
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.

Mill Brook Corridor & Wellington Park Revitalization Project
a. Plan Title

Weston & Sampson Engineers
b. Prepared By

c. Signed and Stamped by

d. Final Revision Date

1"=30'
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
Arlington
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.

Emily Sullivan — 1. Signature of Applicant
1/22/2019 — 2. Date

3. Signature of Property Owner (if different)
4. Date

Mel Dias — 5. Signature of Representative (if any)
1/22/19 — 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.

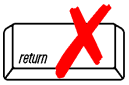
The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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:

a. Street Address | b. City/Town

c. Check number | d. Fee amount

2. Applicant Mailing Address:

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

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

Step 5/Total Project Fee: _____

Step 6/Fee Payments:

Total Project Fee: _____ 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.)

Appendix A

Mill Brook Corridor & Wellington Park Revitalization
Arlington, MA

January 2019

Weston & Sampson

PROJECT DESCRIPTION

Background

The Town of Arlington has experienced recurring flooding problems along Mill Brook since the 1950's. The flooding is attributed to development within the Mill Brook tributary, deteriorating condition of the watercourse, the steepness of the terrain, culverting of the watercourse, and adjacent development near the Brook. In May 2018, the Town received a Municipal Vulnerability Preparedness (MVP) Action grant for improvements to Wellington Park and Mill Brook. The proposed project seeks to improve the park (including invasive species control), site accessibility, and flood storage through various site improvements. Alleviating reoccurring flooding, invasive species control, and improved public access at Wellington Park are the main goals of this project.

While the idea of filing this NOI as an Ecological Restoration project was considered, it was ultimately determined that this project did not meet the definition of an ecological restoration project. Per 310 CMR 10.04, an ecological restoration project "means a project whose primary purpose is to restore or otherwise improve the natural capacity of a resource area to protect and sustain interests identified in MGL c.131 ss40". While part of this project does include this type of work, another portion of the project involves site access and construction of a public pathway. As such, the standard NOI is being submitted for this project.

Site Description

Wellington Park is an approximately 3-acre recreational park in Arlington, MA. The project site is bordered by Grove Street to the east, Mill Brook to the west, private properties to the north, and Town-owned properties to the south.

Approximately 750 linear feet of brook falls within the site extents and is owned by the Town of Arlington. Mill Brook crosses the northern edge of the site and flows from west to east. During fair weather, there is typically 1 ft. of flow in the brook, and the bottom of brook grades drop from approximately El. 64 to El. 54 from west to east on the site. The existing banks are generally armored with grouted riprap. Sections of grouted riprap are eroded along the normal waterline. The banks of the brook transition to a stone and masonry wall on the east side of the park as it approaches the culvert that passes under Grove Street. This stone and masonry wall is in fair condition.

Existing structures in Wellington Park include brick columns at the park entrance on Grove Street, five tennis courts enclosed by fences, and a large climbing structure made up of wood poles, rope line, and supporting guywires. The site also includes a pedestrian footpath, which is informal in some places and made of stone dust in other areas. At the westernmost end of the site, there is an existing wooden footbridge that crosses Mill Brook.

Scope of Work

Before work begins, debris from the brook will be removed and erosion controls (compost filter tubes, anti-tracking pad, and catch basin filter sacks) will be installed. Work will

include the construction of a flood storage area and access path along the southern side of the park. The flood storage area is bounded by the MWRA sewer easement and an offset of 4 feet from the guywire anchors. The proposed excavation would be approximately 4 ft. deep from the existing ground surface and the bottom of new flood storage. The eastern half of the flood storage area would range from approximately 1 to 2 feet lower than the FEMA 100-year floodplain.

The size of the flood storage inlet and outlet is approximately 27 ft. and 50 ft., respectively. The inlet of the flood storage area will be elevated above the existing level of the bottom of the brook, so that the storage area fills during flooding conditions. The inlet, outlet, and flood storage area will create a 2-ft. wide "island" along the brook edge. The side slopes near the inlet of the flood storage area will be reinforced with riprap, while other slopes will be vegetated with plant material that is selected for the wet/dry conditions and slope stabilization. The vegetation will be planted using a rubber mat or a natural mat, depending on the location within the flood storage area and the anticipated velocity flow through the space. Natural stone weirs are proposed in the Mill Brook downstream of the inlet and outlet to channel flow into the flood storage area. The flood storage capacity during the FEMA 100-year event would be approximately 70 cubic yards, depending on final design considerations.

To help divert water into the flood storage area and slow down water velocities, two stone weirs will be created. The height of the inlet by the island is approximately the height of weir. These weirs will consist of a series of 1 – 2-foot diameter boulders placed informally along the bottom of the stream with space between the rocks to allow water to flow as it currently does under normal conditions. These rocks, as well as the rip-rap armoring on the banks, have been sized based on velocity models (see Appendix H for velocity information). When rain events occur and the volume of water increases, these weirs will help to guide water into the flood storage area as well as slow the water down and delay how long it takes for the water to arrive at the downstream culvert, which is a pinch point and is the cause of some of the flooding issues at the park. Under normal flow conditions, water will flow through the weir and not into the channel.

In locations that overlap with the proposed flood storage area (and that do not overlap with the MWRA sewer easement), invasive species will be removed by excavating the topsoil, the plant, and its root system and seeds in the soil. The excavation will extend approximately four feet below ground surface based on nearby subsurface information. This process will involve the use of an excavator and a dump truck. After excavation, this area will be left low so that it can provide additional flood storage capacity in Wellington Park. Based on review of the MWRA Sewer Main Plans, the planned excavations adjacent to the easement are above the sewer main and therefore are not anticipated to undermine or expose the sewer main. An on-site construction representation will be on site during invasive species removal activities and notify MWRA if conditions change in the field.

In all other areas (including the areas that overlap with the MWRA sewer easement), invasive species will be removed using the cut-and-dab method. The plant will be cut as close to the ground as possible using an industrial weed whacker (with a metal blade) or a machete to cut the knotweed. The cut vegetation will be placed inside plastic bags, so seeds do not spread to any non-impacted areas. A glyphosate herbicide (without POEA)

will be applied to the remaining cut surface of the plant as soon as possible after the plant is cut to increase effectiveness. Application methods include a rag, brush, or sponge. The application of herbicide will ideally take place when no rain is forecast for several days afterward (to reduce the risk of treatment washing away).

A pedestrian path from the park entrance to the flood storage area is being proposed. The path will be slightly raised, and then transition to an elevated boardwalk as it approaches the Mill Brook edge and flood storage area to provide a natural feel. The boardwalk will end at the flood storage area but be designed so that the path may extend in the future along the Mill Brook corridor. A portion of the existing stone dust pathway will be converted to porous bituminous concrete pathway.

The existing chain link fence along the brook edge will be removed and replaced with new fencing, boulders and low-maintenance plants. Low-lying plants with erosion control qualities can be chosen so that they facilitate views of the brook.

Educational signage related to flood risk and climate adaptation throughout the park will be added to the site.

Environmental Considerations

Impacted environmental resources include bank, riverfront area and 100-year flood zone. Each of these impact areas are discussed in further detail, below.

An estimated 77 linear feet of bank will be removed to create the flood storage area inlet and outlet. As noted above, the bank has been armored and provided no natural habitat. However, because of bank impacts of 50 or more linear feet, a habitat assessment was conducted and provided in Appendix J. The bank in this area will become the southern edge of the flood storage area. This bank will be mostly vegetated, and as such, will be an improvement to bank habitat than what currently exists at the site.

An estimated 3,200 square feet of work will be within the 100-year flood zone. Because of the nature of this project, the site will gain in flood storage (350 cubic yards, or 9,450 cubic feet, under 100-year flood conditions), thus benefitting the site.

Approximately 44,000 square feet of riverfront area is within the limit of work. This work will include the flood storage area, invasive species removal and pedestrian path. This area is already impacted riverfront area (manicured grass area, with the exception of the Japanese knotweed). By removing the Japanese knotweed and allowing the area to naturally return to a more indigenous setting, the riverfront area will be able to provide a more diverse habitat for local species.

The only change in pervious area is near the tennis court gates, where 189 square feet of stone dust path and vegetation will be converted to concrete pavement for a small seating area. This impervious area is not any closer to Mill Brook than existing impervious area at the site.

Meeting Riverfront Standards for Redevelopment Projects

The area where work will occur (Wellington Park) is considered already altered area (tennis courts, stone dust pathways, manicured lawn). As such, since the limit of work is fully within the riverfront area, work at this site is considered re-development work in riverfront area. Each standard for work in riverfront for redevelopment projects area (per 310 CMR 10.58 (5)) are provided below, followed by an explanation on how the project meets each standard.

(a) At a minimum, proposed work shall result in an improvement over existing conditions of the capacity of the riverfront area to protect the interests identified in M.G.L. c. 131 § 40.

Because work will involve providing additional flood storage to the site and removal of invasive species, this project will result in an improvement over existing conditions of the capacity of the riverfront area to protect the interests identified in M.G.L. c. 131 § 40.

(b) Stormwater management is provided according to standards established by the Department.

Per Appendix C of the Notice of Intent, this project will adhere to the stormwater standards established by the Department.

(c) Within 200 foot riverfront areas, proposed work shall not be located closer to the river than existing conditions or 100 feet, whichever is less, or not closer than existing conditions within 25 foot riverfront areas, except in accordance with 310 CMR 10.58(5)(f) or (g).

The flood storage and footpath work will all be within already altered area (manicured grass and man-made bank). Invasive species management work will be in accordance with 310 CMR 10.58(5)(f) as this area is a degraded riverfront area (invasive species dominated area which does not provide optimal riverfront area habitat.) The project will provide improved habitat with a variety of native species being planted at the site.

(d) Proposed work, including expansion of existing structures, shall be located outside the riverfront area or toward the riverfront area boundary and away from the river, except in accordance with 310 CMR 10.58(5)(f) or (g).

Work will not be outside the riverfront area or toward the riverfront area boundary, however the work will be in accordance with 310 CMR 10.58(5)(f) as much of the work (invasive species maintenance, flood storage and footpath)) is within a degraded riverfront area (manicured lawn and invasive species dominated area, neither of which provide optimal riverfront area habitat).

(e) The area of proposed work shall not exceed the amount of degraded area, provided that the proposed work may alter up to 10% if the degraded area is less than 10% of the riverfront area, except in accordance with 310 CMR 10.58(5)(f) or (g).

The area of proposed work within the riverfront area is 43,957 sf. Total riverfront area on the parcel is 300,000 sf. Thus, 14.7 percent of the site's riverfront area will be altered. The

work will be in accordance with 310 CMR 10.58(5)(f) as much of the work (invasive species maintenance, flood storage and footpath)) is within a degraded riverfront area (manicured lawn and invasive species dominated area, neither of which provide optimal riverfront area habitat).

(f) When an applicant proposes restoration on-site of degraded riverfront area, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c), (d), and (e) at a ratio in square feet of at least 1:1 of restored area to area of alteration not conforming to the criteria. Areas immediately along the river shall be selected for restoration. Alteration not conforming to the criteria shall begin at the riverfront area boundary. Restoration shall include:
1. removal of all debris, but retaining any trees or other mature vegetation;
2. grading to a topography which reduces runoff and increases infiltration;
3. coverage by topsoil at a depth consistent with natural conditions at the site; and
4. seeding and planting with an erosion control seed mixture, followed by plantings of herbaceous and woody species appropriate to the site;

Restoration efforts will include removal of all debris, creation of flood storage area which will allow additional infiltration from streamflow, various native species will be planted to provide a more natural environment.

(g) When an applicant proposes mitigation either on-site or in the riverfront area within the same general area of the river basin, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c), (d), or (e) at a ratio in square feet of at least 2:1 of mitigation area to area of alteration not conforming to the criteria or an equivalent level of environmental protection where square footage is not a relevant measure. Alteration not conforming to the criteria shall begin at the riverfront area boundary. Mitigation may include off-site restoration of riverfront areas, conservation restrictions under M.G.L. c. 184, §§ 31 through 33 to preserve undisturbed riverfront areas that could be otherwise altered under 310 CMR 10.00, the purchase of development rights within the riverfront area, the restoration of bordering vegetated wetland, projects to remedy an existing adverse impact on the interests identified in M.G.L. c. 131, § 40 for which the applicant is not legally responsible, or similar activities undertaken voluntarily by the applicant which will support a determination by the issuing authority of no significant adverse impact. Preference shall be given to potential mitigation projects, if any, identified in a River Basin Plan approved by the Secretary of the Executive Office of Energy and Environmental Affairs.

Not applicable.

(h) The issuing authority shall include a continuing condition in the Certificate of Compliance for projects under 310 CMR 10.58(5)(f) or (g) prohibiting further alteration within the restoration or mitigation area, except as may be required to maintain the area in its restored or mitigated condition. Prior to requesting the issuance of the Certificate of Compliance, the applicant shall demonstrate the restoration or mitigation has been successfully completed for at least two growing seasons.

Per Arlington conservation commission requirements, the area will be monitored for three years to ensure success of planting areas.

Vegetation Removal and Replacement

Per Section 24 of the Arlington Regulations for Wetlands Protection (March 1, 2018), vegetation that is removed within the jurisdiction of the conservation commission must be replaced in-kind. The vegetation to be removed includes invasive species, dead trees (1), and healthy trees (3). There are (7) live trees of poor quality; a determination of removal will be made by an arborist based on hazard condition.

Three (3) healthy trees need to be removed because they are located within the proposed flood storage basin. To replace the healthy trees, three (3) new trees are being proposed to be added to the site. Replacement of the above mentioned vegetation (invasive and trees) will provide a more diverse set of native species, including:

Herbaceous perennials and grasses:
- Yarrow (Achillea millefolium)
- Sideoats grama (Bouteloua curtipendula)
- Lance-leaved coreopsis (Coreopsis lanceolate)
- Wild lupine (Lupinus perennis)
- Little bluestem (Schizachyrium scoparium)

Shrubs:
- New Jersey tea (Ceanothus americanus)

Trees:
- Species to be selected from Town of Arlington preferred plant list

Climate Change Resiliency

Per Section 31 of the Arlington Regulations for Wetlands Protection (March 1, 2018), the Applicant shall consider the project's adaptation to potential climate change impacts by addressing the following:

(1) Describe project design considerations to limit storm and flood damage during extended periods of disruption and flooding as might be expected in extreme weather events. See Vegetative Wetlands Section 21, Land Subject to Flooding Section 23, and Adjacent Upland Resource Area Section 25, of these Regulations. (2) Describe project stormwater surface runoff, which may increase due to storm surges and extreme weather events, and how this will be managed / mitigated to prevent pollution (including nutrients from fertilizers, roadway runoff, etc.) from entering the resource area with consideration of eliminating impervious surfaces as feasible. See Stormwater Management Section 33 of these Regulations.

Adherence to requirement #1: Currently, the park's existing lawn area - specifically the zone to the north of the tennis courts - stays wet after rain events. This area is low-lying and acts as a basin, receiving stormwater that flows from adjacent lawn areas of slightly higher elevation, as well as from flow coming down Prentiss Road. Surface water in this pocket has been observed to drain slowly, likely due to reasons including soil compaction. The prolonged wet condition negatively impacts use of the park by visitors. Two impacts in particular are: (1) the existing lawn areas are used as informal pedestrian paths across the

park and, when wet, reduce pedestrian movement; and (2) the existing stone dust walkway, when wet, is difficult to walk on, and it's compacted and settled condition exacerbates the situation.

To address these impacts of storm events to visitors' use of the park, the project proposes changing the existing stone dust walk to pervious bituminous concrete. The change in material will provide a more stable walking surface overall and, along with a slight raising of the walk grade, will result in a pedestrian pathway that can be used sooner after storm events than the current condition permits. Similarly, the project proposes loaming and seeding of the existing lawn area. Rough grading will loosen compacted soil and, in combination with new loam, will provide an area with improved surface drainage. A new boardwalk (pervious) will extend pedestrian access into the park, from the end of the pervious bit conc walk, westward along the south bank of the brook, toward the existing footbridge. This new boardwalk will allow pedestrian access along a significant portion of the brook's south bank and, as it is raised up slightly from the adjacent lawn area, will be above surrounding wet conditions more often than current conditions permit.

The existing impervious surfaces within the park are the tennis courts; perimeter drains are at the edges of the courts, and the drains are connected to storage directly under them. The tennis courts are outside of this project's limit of work. A small area with benches and receptacles is adjacent to two gated tennis court access points (on the north-east corner of the courts). Currently, this area is surfaced with stone dust and lawn. This project proposes new cast-in-place concrete surfacing for the following reasons: to provide an easy-to-maintain area; to offer a stable walking surface around the benches and receptacles; to reduce heat absorption; and to minimize settlement. This seating area will shed water and dry quickly after a rain event, allowing greater use of this park amenity. The amount of impervious surface being added is 189sf.

This project's limit of work does not extend to the north bank of the brook. Current brook flooding is accommodated mostly by overflow over the north bank; it extends into a vegetated area where no formal pathways exist, thus limiting impacts to current park use.

(2) Describe project vegetation / planting plans and other measures to improve the resiliency of the wildlife habitat of the resource area to withstand potential temperature and rainfall changes (drought and excess) due to climate change. See Vegetation Removal and Replacement Section 24 of these Regulations.

Adherence to requirement #2: The north bank of the brook is wooded. It falls outside of the project limit of work. This area of Town-owned land adjacent to Wellington Park will continue to provide wildlife habitat, shade, and temperature mitigation.

The south bank is lined with existing deciduous trees and tree stumps offering wildlife habitat, shade, and temperature mitigation. Most of the trees and stumps are located between the edge of the brook and an existing chain link fence; the fence will be removed as part of this project. Clearing and grubbing will occur so that overgrown plant material is removed, and the growing condition is improved for the trees to remain. The existing trees (>6" cal) and tree stumps will be kept in place except for when, in consultation with the arborist and owner's representative, it is determined that a tree or stump poses a hazard and removal is recommended. Additionally, there are two trees that have grown into the

fence and they may be impacted by the fence removal process. Each will be evaluated by the arborist and owner's representative prior to construction getting underway.

Existing invasive plant material (addressed in greater detail elsewhere in this application) within the limit of work will be removed; the invasive material will be replaced with no-mow / native grasses. In the area of full-depth invasives removal, a proposed flood storage area will be created. Some of the side slopes within that flood storage area will be reinforced with riprap, while others will be vegetated with plant material that is selected for the wet/dry conditions, as well as for slope stabilization. This new plant material will offer aesthetic, wildlife, and heat mitigation benefits.

Three existing trees located along the south bank will likely need to be removed in order to create the new flood storage area (F.S.A.); however, field verification of the flood storage area limits, its inlet location, and its outlet location will take place to see if any of these three trees can be saved by adjusting the F.S.A. on site.

The arborist and owner's representative will advise on pruning of the existing trees to remain (within the project's limit of work line), in an effort to improve tree health and help ensure this tree canopy continues to contribute positively to aesthetic, wildlife, and heat mitigation opportunities.

Appendix B

Mill Brook Corridor & Wellington Park Revitalization
Arlington, MA

January 2019

Weston & Sampson

Alternatives Analysis

Proposed Concepts for Flood Storage Areas

The goal of the project is to provide flood storage capacity at Wellington Park and serve as a pilot site for projects within Mill Brook corridor. Three options (1, 1A, and 3) were identified that increase flood storage and evaluated the design, permitting, and construction considerations. In recognition of the Arlington Park and Recreation Commission's preferences and recommendations, below-ground flood storage is not included in these three options. It is also important to note these options will not significantly reduce flooding at the site due to the volume of flooding currently experienced on-site and off-site in the area. Instead, the flood storage area will serve as an educational opportunity and a pilot project that demonstrates strategies to increase flood storage in the Mill Brook corridor.

Option 1

This concept includes a flood storage area and access path along the southern side of the park. The flood storage area is approximately the size of the large invasive Japanese knotweed area. The flood storage area extends over both the MWRA sewer easement and the guywire anchors that stabilize the climbing structure. The proposed excavation would be approximately 4 ft. deep from the existing ground surface and the bottom of the new flood storage would be approximately 1 ft. lower than the FEMA 100-year floodplain.

Option 1A

This concept includes a flood storage area and access path along the southern side of the park. The flood storage area is bounded by the MWRA sewer easement and an offset of 3 feet from the guywire anchors. Therefore, the flood storage area only partially overlaps with the large invasive Japanese knotweed area. The proposed excavation would be approximately 4 ft. deep from the existing ground surface and the bottom of new flood storage would be approximately 1 ft. lower than the FEMA 100-year floodplain.

Option 3

This concept includes a flood storage area on the north side of the park with a bridge and access path that crosses Mill Brook. The flood storage area is approximately the size of the smaller invasive species area identified on the north side of the park. Excavation for flood storage and/or providing access to this space would require crossing the MWRA sewer easement. The ground surface is the existing FEMA 100-year floodplain elevation, so excavation below ground surface and above normal water level in the Mill Brook would provide storage for more frequent, less severe flood events.

Design Considerations

The selection of conceptual flood storage options at Wellington Park is impacted by existing site features. These considerations include boundary constraints, stormwater considerations, geotechnical and structural considerations, transportation and accessibility considerations, utility considerations, groundwater considerations, and vegetative considerations, as outlined in the table below.

Table 1. Design Considerations	
Boundary constraints	• Where feasible design should be simplified to reduce need for extensive permitting so that the project can be constructed by June 30, 2019. • Notice of Intent: all three options will require an NOI and coordination with the conservation commission in Arlington. • MWRA permitting: the location of the MWRA sewer easements restrict the size of the flood storage area. An 8(m) permit will be required for any work over the easement, including invasive removal on the south side of Mill Brook. Refer to Utility Considerations. • Army Corps permitting: Alterations to the riverbank that exceed 100 linear feet trigger Army Corps permitting. This will impact the project schedule. • The existing climbing structure will remain undisturbed on-site as requested by the Town of Arlington.
Stormwater considerations	• Stormwater flooding is worsened by existing debris dams. • All proposed flood storage areas will increase flood storage capacity and slow water velocity. • There are existing vegetated areas on site, bordered by boulders, that were intended to help manage stormwater flooding.
Geotechnical and Structural considerations	• Excavation must not come within 3 ft. of the guywire anchors to avoid undermining the climbing structure. • Subsurface explorations (borings) were conducted in September 2018. The subsurface conditions generally included approximately up to 2 ft. of topsoil, overlying up to 2 ft. of sand fill, overlying medium dense to very dense native sand and gravel to the depths explored. The root depth was approximately 4 ft. below ground surface. • There are two areas where the bank is eroded and undermined along the normal waterline. • An abutting property is undermined on the north side of the park and poses a risk of collapsing into the park.
Transportation and accessibility considerations	• The existing footbridge is not ADA compliant and designing access to the bridge would require ADA improvements. • The existing ground surface north west of the tennis courts is typically wet, and future access paths should be raised or elevated to improve functionality and access. • The options should include a safety barrier between the park and Mill Brook. • Designs must preserve MWRA easement access to manholes and pipes for maintenance. Refer to utility considerations.
Utility considerations	• There is a MWRA sewer easement on the north side and south side of Mill Brook. • The current conditions of both pipes are unknown. If flood storage areas are planned to extend into the existing easements, MWRA's engineering team would need to

	initiate an internal review in order to assess if either pipe has been structurally reinforced. MWRA has indicated that, because the northern Akron pipe is older than the RCP, any work impacting the northern easement would be cause for more concern than work over the southern easement. This may delay project timelines. • The MWRA must maintain access to their easement, including their manhole covers.
Groundwater considerations	• Groundwater measurements were estimated during subsurface explorations in September 2018. A monitoring well was constructed in boring B-3 and measured in November 2018. • The proposed excavations for Options 1 and 1A are anticipated to be above groundwater based on preliminary groundwater information. No below ground tanks are proposed. No data were available for groundwater in the vicinity of Option 3.
Vegetative considerations	• The area of invasive Japanese knotweed identified on site overlaps with the proposed flood storage area for Options 1 and 1A. Removal strategies include excavation, cutting down the knotweed and spraying a glyphosate herbicide (without POEA) 6 weeks later, and the more immediate cut-and-dab method. • There are mature trees on site, including two that appear to be healthy and that fall within the extent of the proposed flood storage area for Option 1 and Option 1 A. • The proposed storage areas for all options would experience both dry and wet conditions, which will impact vegetation selection. Where feasible, reconstructed wetlands will be designed.

Recommendations & Next Steps to Finalize Design

Option 1A is the recommended concept for new flood storage along Mill Brook at Wellington Park. This design manages the boundary constraints, including avoiding excavation within the MWRA easement and impacting the existing climbing structure. A 2-ft. wide "island" along the brook edge will remain between the inlet and the outlet. Natural stone weirs are proposed in the Mill Brook downstream of the inlet and outlet to channel flow into the flood storage area. The proposed flood storage excavation would be approximately 4 ft. below the existing ground surface and approximately 1 ft. lower than the FEMA 100-year floodplain. The flood storage capacity during the FEMA 100-year event would be approximately 81-99 cubic yards, depending on final design considerations. Climate change will impact the existing 100-year event, and the total possible flood storage capacity would range from approximate 324-397 cubic yards, depending on final design considerations.

Appendix C

Mill Brook Corridor & Wellington Park Revitalization
Arlington, MA

January 2019

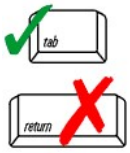
Weston & Sampson

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.

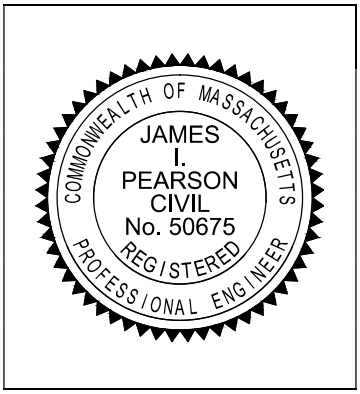
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the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



1/23/2019

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 Design Narrative

To Be Submitted with the Notice of Intent

Applicant/Project Name: Town of Arlington

Project Address: Grove Street, Arlington MA

Application Prepared by:

Firm: Weston & Sampson, Inc.

Registered PE James I. Pearson, PE

Below is an explanation concerning Standards 1-10 as they apply to the Town of Arlington Wellington Park/Mill Brook improvement project:

General:

The Town of Arlington proposes improvements to a portion of the town-owned Wellington Park and the south bank of the adjacent town-owned segment of Mill Brook, located off Grove Street in Arlington, Massachusetts. The proposed work will be implemented in one phase. It will include regrading and installation of walking paths, landscape improvements including benches, receptacles, and educational/interpretive signage, removal of invasive plant materials (with replacement per Town regulations), and a new flood storage area.

Existing lawn areas will require minimal grading, and they will be loamed and seeded. Existing invasive species will be removed and either replaced with no mow/native grasses or replaced with a flood storage area with bio-stabilized and riprap slopes and bottom. The following sections describe the stormwater implications of the proposed renovations, including design considerations and compliance with the Massachusetts Stormwater Standards.

Background:

Prior to the design of the project, the site was surveyed and a series of test pits were excavated across the site. Soil data is available in a separate summary by W&S, dated 2018. Based on the test pits shown in this report, soils generally consist of sandy and gravelly materials.

Land cover across the project area is consistent with its use as an existing park. The site is covered in grassed areas, with pedestrian paths. The park is bounded by Grove Street to the south, Prentiss Road and multi-family residential to the west, and Mill Brook to the immediate north and east.

Stormwater runoff at the site presently consists of runoff from the path into grassed/vegetated areas that provide ample opportunity for infiltration and filtering of stormwater. There are no drainage utilities in the project area.

Standard 1: No New Untreated Discharges

The proposed project will create no new untreated discharges. A new pedestrian path will be installed to replace a similar existing path; it will remain a pervious material. An additional new pervious path is being added. A small (less than 200 square foot) impervious concrete pad for a seating area will be added to the site, abutting a large grassed area.

Standard 2: Peak Rate Attenuation

The pedestrian path that is being enlarged and added to will consist of pervious asphalt. A small (less than 200 square foot) concrete pad for a seating area will be added. Runoff from this small new impervious area will be directed to adjacent grassed areas. Due to its minimal size and lack of connection to a stormwater system it will not cause an increase in peak stormwater discharges from the site.

Standard 3: Recharge

Due to the land cover under proposed conditions being similar to proposed conditions and impervious areas being disconnected, additional recharge does not need to be provided.

Standard 4: Water Quality

The proposed site improvements consist of one disconnected impervious area surrounded by large expanses of grassed park space. As such, no dedicated stormwater quality treatment facilities are required.

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

Not applicable; the project is not subject to higher potential pollutant loads.

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 project consists of the redevelopment of an existing site. All attempts have been made to improve the existing stormwater conditions and meet the Massachusetts Stormwater Standards to the maximum extent practicable. This includes the use of Low Impact Development measures to eliminate the need for structural BMPs on the site.

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

A Construction Period Pollution Prevention and Erosion and Sediment Control plan has been created and is attached to the stormwater report.

Standard 9: Operation and Maintenance Plan

Since the project relies on LID measures for compliance, the normal park maintenance that is planned such as mowing and care for the grass will be implemented. Operations and maintenance recommendations for the pervious walkway material and flood storage area (bio-stabilization banks and rip rap stabilized banks) are provided for the Town's use.

Standard 10: Prohibition of Illicit Discharges

By the nature of the proposed work the site will be a passive use with an absence of structural BMPs. There will be no opportunity for illicit discharges into a stormwater drainage system.

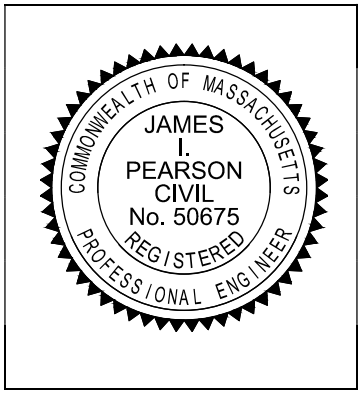
Conclusion

We believe that the project as designed is consistent with the intent of the Massachusetts Stormwater Standards, and that the design utilizes the best approach to minimizing offsite impacts.

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



1/23/2019

Signature and Date

Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan

SECTION 1: Introduction

The Town of Arlington proposes improvements to a portion of the town-owned Wellington Park and the south bank of the adjacent town-owned segment of Mill Brook, located off Grove Street in Arlington, Massachusetts. The proposed work will be implemented in one phase. It will include regrading and installation of walking paths, landscape improvements including benches, receptacles, and educational/interpretive signage, removal of invasive plant materials (with replacement per Town regulations), and a new flood storage area.

Existing lawn areas will require minimal grading, and it will be loamed and seeded. Existing invasive species areas will be removed and either replaced with no mow/native grasses or replaced with a flood storage area with bio-stabilized and riprap slopes and bottom. The following sections describe the stormwater implications of the proposed renovations, including design considerations and compliance with the Massachusetts Stormwater Standards.

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 compost filter tubes. The tubes will be inspected daily, and accumulated silt will be removed as needed.

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 ensure 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 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.

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

There are no storm drains in the work 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 and silt curtain that have 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:
Emily Sullivan
Arlington Conservation Commission
730 Massachusetts Avenue
Arlington, MA 02476
(781) 316-3012

Engineer:
James Pearson, PE
Weston & Sampson Engineers, Inc.
5 Centennial Drive
Peabody, MA 01960
978-532-1900

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 Wetlands Protection and Erosion Control*) has been included as part of Appendix E, 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 on site inspector will be selected to work closely with the

Engineer to insure 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 D

Mill Brook Corridor & Wellington Park Revitalization
Arlington, MA

January 2019

Weston & Sampson

FIGURE 1
Mill Brook-Wellington Park
Arlington, Massachusetts

Locus Map

Work Area

1,800 0 1,800
Scale In Feet

Weston & Sampson

Path: \\wse03.local\WSE\Depts\Water\ERMAP\GIS - Constraints Mapping\Arlington\Mill Brook - Wellington Park\Figure 1- Locus.mxd User: GasparA Saved: 6/7/2018 12:47:23 PM Opened: 1/14/2019 1:21:56 PM

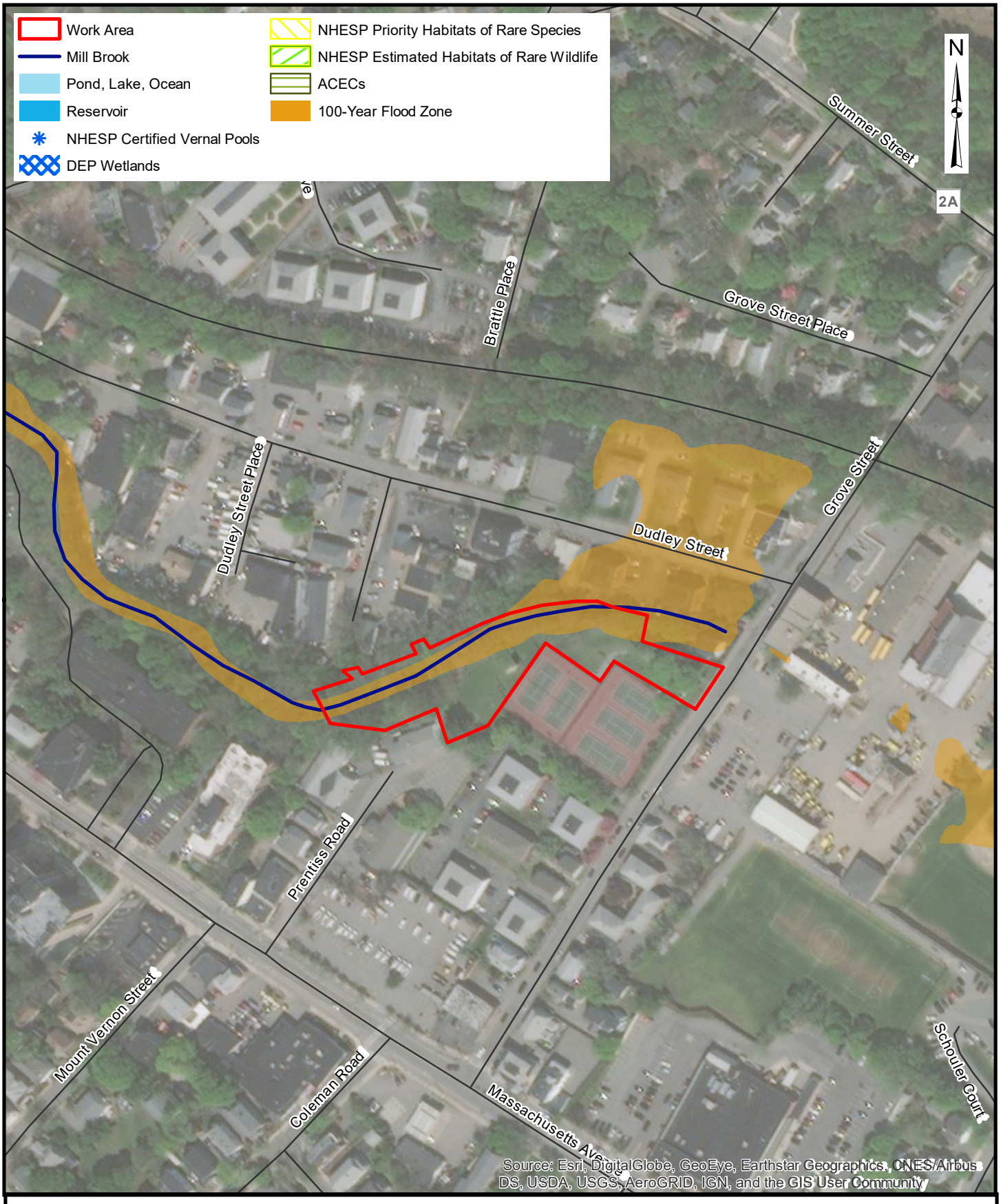


FIGURE 2
Mill Brook-Wellington Park
Arlington, Massachusetts

ENVIRONMENTAL RECEPTORS

300 0 300

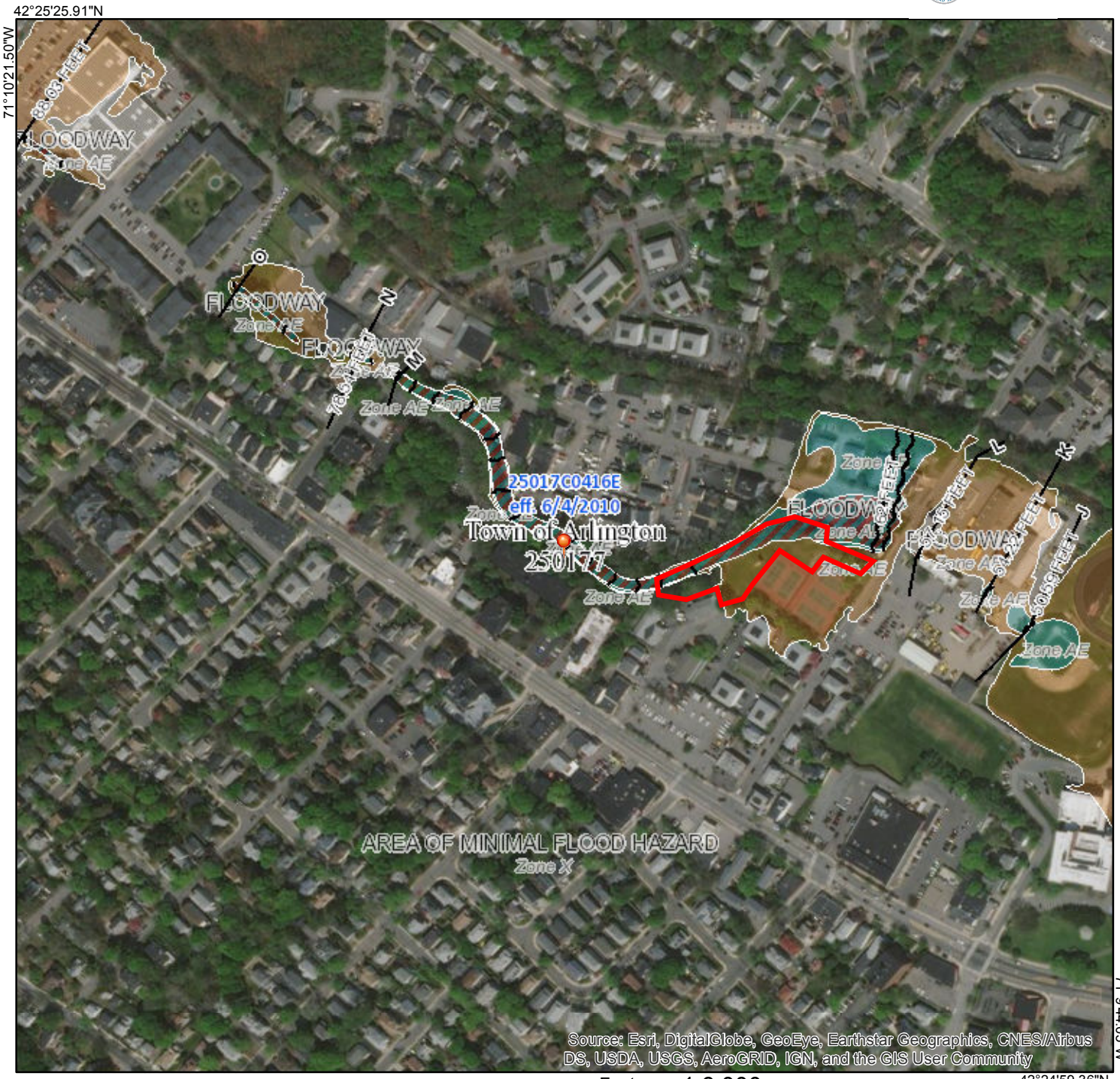
Scale In Feet

Weston & Sampson

Path: \\wse03.local\WSE\Depts\Water\ERMAP\GIS - Constraints Mapping\Arlington\Mill Brook - Wellington Park\Figure 2 - Env Receptor.mxd User: GasparA Saved: 6/7/2018 12:41:08 PM Opened: 1/14/2019 1:16:40 PM

National Flood Hazard Layer FIRMette

FEMA



0 250 500 1,000 1,500 2,000 Feet

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth
- Regulatory Floodway *Zone AE, AO, AH, VE, AR*

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/12/2018 at 2:03:26 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix E

Mill Brook Corridor & Wellington Park Revitalization
Arlington, MA

January 2019

Weston & Sampson

SECTION 01 57 19

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 cross-country areas, river and stream crossings, and 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 00 31 43, PERMITS.

D. Prior to commencement of work, the Contractor shall meet with representatives of the Owner's Representative to develop mutual understandings relative to compliance of the environmental protection program.

1.02 RELATED WORK:

A. Section 00 31 43, PERMITS

B. Section 01 33 23, SUBMITTALS

C. Section 31 00 00, EARTHWORK

D. Section 31 11 00, CLEARING AND GRUBBING

E. Section 31 23 19, DEWATERING

F. Section 31 50 00, SUPPORT OF EXCAVATION

1.03 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 SILT FENCE:

A. The silt fence shall consist of a 3-foot wide continuous length sediment control fabric, stitched to a mesh backing, and stapled to preweathered oak posts installed as shown on the drawings. The oak posts shall be 1-1/4-inches by 1-1/4-inches (Minimum Dimension) by 48-inches and shall be tapered. The bottom edge of the silt fence shall be buried as shown on the drawings.

B. The silt fence shall be DOT Silt Fence PPDM3611, as manufactured by U.S. Silt & Site Supply/Getsco, Concord, NH, or approved equal.

C. Silt fence properties:

Physical Properties	Test Method	Minimum Value
Grab Strength, lbs.	ASTM-D-4632	124
Grab Elongation, %	ASTM-D-4632	15
Mullen burst, psi	ASTM-D-3786	300
Puncture, lbs.	ASTM-D-4833	65
Trapezoidal Tear, lbs.	ASTM-D-4833	65
UV Resistance2, %3	ASTM-D-4355	80@500 hrs.
AOS, US Sieve No.	ASTM-D-4751	30
Flow Rate, gal/min/sq ft	ASTM-D-4491	10
Permittivity,(1/sec)gal/min/sq ft	ASTM-D-4491	0.05 sec^{-1}

2.02 STRAW BALES:

A. Straw bales shall consist of certified seed free stems of agricultural grain and cereal crops and shall be free of grasses and legumes. Standard bales shall be 14-inches high, 18- inches wide and 36- to 40-inches long tied with polypropylene twine and weigh within 5 percent of 7 lbs. per cubic ft.

2.03 STRAW WATTLES:

A. Straw Wattles shall consist of a 100% biodegradable exterior jute or coir netting with 100% wheat straw interior filling as manufactured by Granite Environmental, Inc., Sebastian, Florida (Phone: 888-703-9889; website: www.erosionpollution.com), or approved equal.

2.04 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 Owner's Representative.

PART 3- EXECUTION

3.01 NOTIFICATION AND STOPPAGE OF WORK:

A. The Owner's Representative 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 Owner's Representative 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, brooks, 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. Total easement widths shall be limited to the widths shown.

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 outside of the trench limits. If such disturbance does occur, the Contractor shall take all measures necessary to return these areas to the elevations which existed prior to construction.

D. In areas designated as wetlands, the Contractor shall carefully remove and stockpile the top 24 inches of soil. This topsoil material shall be used as backfill for the trench excavation top layer. The elevation of the trench shall be restored to the preconstruction elevations wherever disturbed by the Contractor's operation.

E. The Contractor shall use a trench box, sheeting or bracing to support the excavation in areas designated as wetlands.

F. Excavated materials shall not be permanently placed or temporarily stored in areas designated as wetlands. Temporary storage areas for excavated material shall be as required by the Owner’s Representative.

G. The use of a temporary gravel roadway to construct the pipeline in the wetlands area is not acceptable. The Contractor will be required to utilize timber or rubber matting to support his equipment in these areas. The timber or rubber matting shall be constructed in such a way that it is capable of supporting all equipment necessary to install the pipeline. The timber or rubber matting shall be constructed of materials and placed in such a way that when removed the material below the matting will not be unduly disturbed, mixed or compacted so as to adversely affect recovery of the existing plant life.

H. During construction, easements within wetlands shall be lined with a continuous line of straw wattles (aka compost filter tube, silt/filter sock).

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 ensure that materials used for temporary vegetation are adaptive to the sediment control. Materials to be used for temporary vegetation shall be approved by the Owner’s Representative.

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 Owner's Representative. Plans showing storage facilities for equipment and materials shall be submitted for approval of the Owner's Representative.

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 hay 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 and in areas within the 100-foot wetland buffer.

D. The Owner's Representative may designate a particular area or areas where the Contractor may store materials used in his operations.

E. Storage areas in cross-country locations shall be restored to pre-construction conditions with the planting of native species of trees and shrubs.

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 Owner's Representative. 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 Owner's Representative. 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 Owner's Representative, trees may possibly be defaced, bruised, injured, or otherwise damaged by the Contractor's equipment or by his blasting or other operations, the Owner's Representative 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 Owner's Representative 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 31 11 00, 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 CLEARING AND GRUBBING:

A. The Contractor shall clear and grub only on the Owner's land or the Owner's easements, and only the area required for construction operations, as approved by the Owner's Representative. Removal of mature trees (4-inches or greater DBH) will not be allowed on temporary easements.

B. The Contractor shall not remove trees in the Owner's temporary easements without permission of the Owner's Representative.

3.09 DISCHARGE OF DEWATERING OPERATIONS:

A. Dewatering operatings shall conform to Section 31 23 19 of these specifications.

3.10 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 Owner's Representative decides it is necessary to use calcium chloride for more effective dust control, the Contractor shall furnish and spread the material, as directed.

B. Calcium Chloride shall not be used for dust control within a drainage basin or in the vicinity of any source of potable water.

3.11 SEPARATION AND REPLACEMENT OF TOPSOIL:

A. Topsoil shall be carefully removed from cross-country areas where excavations are to be made, and separately stored to be used again as required. The topsoil shall be stored in an area acceptable to the Owner's Representative and adequate measures shall be employed to prevent erosion of said material.

3.12 BALED HAY:

A. To trap sediment and to prevent sediment from clogging drainage systems, baled hay shall be used where shown on the drawings. Care shall be taken to keep the bales from breaking apart. The bales should be securely staked to prevent overturning, flotation, or displacement. All deposited sediment shall be removed periodically. Hay bales shall not be placed within a waterway during construction of the pipeline crossing.

3.13 ERECTION AND MAINTENANCE OF SILT FENCE:

A. Where indicated on the drawings or where required by the Owner's Representative, the Contractor shall erect and maintain a temporary silt fence. In areas designated as wetlands, the Contractor shall line the limits of the construction easement with a silt fence. The silt fence shall be used specifically to contain sediment from runoff water and to minimize environmental damage caused by construction.

3.15 CATCH BASIN PROTECTION:

A. Catch basin protection shall be used for every catch basin, shown on the plans or as required by the Owner's Representative, to trap sediment and prevent it from clogging drainage systems and entering wetlands. Siltation sack shall be securely installed under the catch basin grate. Care shall be taken to keep the siltation sack 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.

B. All catch basin protection shall be removed by the Contractor after construction is complete.

3.16 STRAW WATTLES:

A. The wattles will be placed in a shallow trench (2-3 inches deep) and 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.

B. The wattles shall be regularly inspected and before and after every forecasted major weather event. All deposited sediment shall be removed and not allowed to accumulate to the top of the wattles. Wattles damaged during construction shall be repaired or replaced as required by the Owner's Representative at no additional cost to the Owner.

C. The Contractor shall remove all wattles after construction is completed.

END OF SECTION

SECTION 01 74 13

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 Owner's Representative provide adequate material, equipment and labor to cleanup and make safe any and all areas deemed necessary by the Owner's Representative.

1.02 RELATED WORK:

A. Section 01 11 00 CONTROL OF WORK AND MATERIALS

B. Section 01 14 00 SPECIAL PROVISIONS

C. Section 01 57 19 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 Owner's Representative, the Contractor shall within 24 hours clean up those areas, which in the Owner's Representative's opinion are in violation of this section and the above referenced sections of the specifications.

C. If in the opinion of the Owner's Representative, 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 Owner's Representative.

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 Owner's Representative shall approve the condition of the site.

END OF SECTION

SECTION 31 12 00.13

SELECTIVE CLEARING, INVASIVE SPECIES

PART 1 - GENERAL

1.01 WORK INCLUDED:

A. The work of this Section includes the following:

1. Removal of selected living trees and removal of all dead, dying or diseased vegetation from within the project limits in accordance with the contract documents specifications.

2. Removal of invasive species and undesirable undergrowth in accordance with these specifications.

C. Prospective bidders are advised to complete a site visit to review the extent of work required and to confirm existing conditions, access issues, terrain and the general nature of the work of the Section.

D. The Contractor shall coordinate invasive species removal with the Owner and Owner's Representative and shall adhere to the requirements set forth in the Wastewater 8(m) permit attached to these specifications.

1.02 QUALIFICATIONS OF CONTRACTOR:

A. This work shall be limited to individuals, partnerships and corporations who are actively engaged in the field of Invasive Species Management, and who demonstrate competence, experience and financial capability to carry out the terms of this project. Eligible contractors must derive a majority of their income from arboricultural work. The Owner may require proof of these qualifications.

B. Any tree pruning that is required shall conform to Specification Section 31 13 13, TREE PRUNING AND TREE AND STUMP REMOVALS.

1.03 PERSONNEL:

A. Personnel requirements shall conform to Specification Section 31 13 13, TREE PRUNING AND TREE AND STUMP REMOVALS.

1.04 SPECIAL REQUIREMENTS:

A. Trees: Invasive trees to be removed shall be those in the invasive species area shown on the plans or designated by the Owner's Representative/Arborist.

B. Undergrowth: All plants less than 4-inches in diameter, measured at a height of 4 feet 6-inches above the ground, shall be classified as undergrowth. All invasive undergrowth shall be removed from areas shown on the plans, described in the special provisions, or designated by the Owner's Representative; except for those plants designated by the Owner's Representative to be preserved.

C. General: When specified in the special provisions, stumps shall be treated with a herbicide immediately after cutting to prevent sprouting. The herbicide to be used, and the method and rate of application shall be as specified in the special provisions. The Contractor shall follow all applicable instructions, warnings, and safety precautions stated on the manufacturer's label, and shall comply with all laws and regulations governing herbicides that are in effect at the time of use. When work is performed properly in accordance with these specifications, no subsequent recutting of sprouts or seeding growth will be required. All trees and undergrowth cut shall be disposed of in accordance with the applicable requirements of Section 2.03 Demolition of these specifications.

D. Dutch Elm diseased wood shall be disposed of in accordance with provisions of General Laws, Chapter 87, Section 5, and Chapter 132, Sections 8 and 11 as amended; and in accordance with any additional local regulations. All wood shall be removed from the site and be properly disposed of in accordance with state and local regulations.

E. No burning shall be permitted on the project site.

F. Prior to commencing work, the Contractor shall submit a plan to the Owner for legal disposal of removed materials, in conformance with State and Federal regulations.

1.05 STANDARDS AND DEFINITIONS:

A. All standards and definitions shall conform to Specification Section 31 13 13, TREE PRUNING AND TREE AND STUMP REMOVALS.

B. The Owner's Representative will monitor job progress throughout the project and approve all payments. A site walk will be conducted before work begins between the Contractor and the Owner's Representative. Specific trees, undergrowth and invasive species may be identified at this time for removal/eradication.

1.06 EXAMINATION OF SITE AND DOCUMENTS:

A. The Contractor shall be responsible for having a clear understanding of the existing site conditions and shall be responsible for fully carrying out the work of this Section, regardless of actual site conditions encountered.

1.07 ORDER OF WORK:

A. Order of work shall conform to Specification Section 31 13 13, TREE PRUNING AND TREE AND STUMP REMOVALS.

1.08 PROTECTION OF THE VEGETATION TO BE PRESERVED:

A. Protection of the vegetation to be preserved shall conform to Specification Section 31 13 13, TREE PRUNING AND TREE AND STUMP REMOVALS.

B. Any plants that are damaged to such an extent as to destroy their value for landscape purposes shall be cut and disposed of, and grass that is damaged shall be reseeded and remulched as necessary by the Contractor at no cost to the Department when so required by the Owner's Representative.

C. The Contractor shall conduct his operations in such a manner to prevent injury to trees, shrubs, grass, or other types of vegetation that are to remain growing, and also to prevent damage to adjacent property.

D. When any such injuries to trees or shrubs occur, broken branches shall be removed and rough edges of scarred areas shaped and made smooth in accordance with generally accepted horticultural practice.

1.09 USE AND CARE OF THE SITE:

A. The use and care of the site shall conform to Specification Section 31 13 13, TREE PRUNING AND TREE AND STUMP REMOVALS.

PART 2 - PRODUCTS

2.01 EQUIPMENT:

A. Equipment necessary for this Contract shall conform to Specification Section 31 13 13, TREE PRUNING AND TREE AND STUMP REMOVALS.

PART 3 - EXECUTION

3.01 TREE PRUNING AND REMOVALS:

A. The execution of tree pruning and removals shall conform to Specification Section 31 13 13, TREE PRUNING AND TREE AND STUMP REMOVALS.

3.05 SELECTIVE CLEARING

A. The Contractor shall furnish all labor, materials, equipment and transportation required to complete all aspects of the selective clearing and invasive species work in accordance with all local, state, and federal regulations in force at the time of this contract and in accordance with selective clearing and invasive species removal as specified herein.

B. Densely wooded areas shall be thinned to provide space for healthy growth by eliminating thinner, weaker trees and the reduction of number of varieties.

C. The Contractor's attention is called to the requirements for work under this item. The desired appearance to be attained in certain areas of heavy growth may require three or more operations. First, the obvious dead, dying and diseased trees and undergrowth shall be cut and cleared out of the area. This work includes removal of any previously fallen trees, branches, uprooted stumps and other debris as required. Next, the area is to be thinned out, as directed, by removing the less desirable trees and brush which interfere with the growth of the better plant material. Finally, clear out lesser growth which may obscure outstanding trees, tree groups or scenic views.

D. Tree up-branching and shaping under this item will be restricted to trees which have limbs and branches restricting sight distance, extending over roadways, shoulders, turn outs, etc. Up-branching or trimming will be required to produce a 6 meter minimum vertical clearance over all locations described hereinbefore, and the removal of limbs and branches involved in this operation shall be accomplished as outlined hereafter.

3.06 INVASIVE SPECIES REMOVAL:

A. In locations that overlap with the proposed flood storage area (and that do not overlap with the MWRA sewer easement), the Contractor shall excavate approximately four feet below the ground surface in order to remove the topsoil, the plant, and its root system and seeds in the soil. The extent of the knotweed to be excavated is delineated in the Contract Drawings.

B. In all other areas (including the areas that overlap with the MWRA sewer easement), the Contractor shall apply the cut-and-dab method for invasive species removal. The plant shall be cut as close to the ground as possible. Herbicide shall

be applied to the remaining cut surface of the plant as soon as possible after the plant is cut to increase effectiveness. The application of herbicide shall not take place when no rain is forecast for several days afterward to reduce the risk of treatment washing away. The Contractor shall ensure that seeds do not spread to any non-impacted areas and can achieve this by placing cut vegetation into bags. The extent of knotweed to be removed through cut-and-dab is delineated in the Contract Drawings.

C. All equipment and clothing used during removal shall be cleaned to remove seed material before leaving the site and entering areas that do not contain invasive species.

D. Cut and excavated materials shall be disposed of at a legal facility that accepts materials containing invasive species.

END OF SECTION

SECTION 32 93 00

TREES, SHRUBS, GROUNDCOVERS, AND LANDSCAPING

PART 1 - GENERAL

1.01 WORK INCLUDED:

A. This Section includes furnishing all labor, materials, equipment, plants, and incidental materials necessary to perform all operations related to the planting of all trees, shrubs, herbaceous plants, ground covers, and for all appurtenant work, complete in place, maintained, and accepted, in accordance with the Contract Drawings and Specifications.

B. The Contractor shall bear the responsibility and cost of furnishing and applying water or any other substances, as necessary to ensure the sustainability of plant materials, as part of the work of this contract.

1.02 RELATED WORK:

A. Section 32 91 19, LOAMING AND SEEDING

1.03 SUBMITTALS:

In accordance with requirements of the general specifications, the Contractor shall submit the following:

A. Prior to planting, State nursery inspection certificates for all plant materials shall be submitted to the Owner's Representative for review.

B. Samples and six copies of the manufacturer's product data, as applicable, shall be submitted to the Owner's Representative for review and approval for the following materials:

1. Limestone.

2. Fertilizer.

3. Sphagnum Peat Moss.

4. Humus.

5. Organic Compost.

6. Manure.

7. Mulch.

8. Guying and Staking Apparatus.

9. Crepe Wrapping for tree trunks.

10. Anti-transpirant/Anti-desiccant.

11. Insecticides.

12. Herbicides.

13. Fungicides.

PART 2 - PRODUCTS

2.01 PLANT MATERIALS:

A. The Contractor shall furnish and plant all plant materials as shown on the plans and in the quantities and sizes listed thereon. No substitutions shall be permitted without the written approval of the Owner's Representative.

B. Plants larger than those specified in the Plant List may be used if approved by the Owner's Representative. However, use of such oversized plants shall not be considered grounds for any increase in the contract price. If the use of larger plants is approved, the required spread of roots or ball of earth shall be increased in proportion to the size of the plant and plant pits shall be increased as necessary.

C. All plants shall be certified to have passed all required Federal and State inspection laws requiring ensuring freedom from plant diseases and insect infestations. The Contractor shall obtain clearance from applicable governing agencies, as required by law, before planting any plants delivered from outside the state in which they are to be planted.

D. All plants shall be nursery-grown under climatic conditions and environmental stresses similar to those in the locality of the project. All plants shall originate from nurseries that are no more than one Hardiness Zone higher (as established by the Arnold Arboretum, Jamaica Plain, MA) than where the plant is to be installed. Plants also shall conform to the botanical names and standards of size, culture, and quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard for Nursery Stock, ANSI-Z60.1, latest edition. All plants shall be legibly tagged with their proper botanical name.

E. No heeled-in plants or plants from cold storage shall be used. All plants shall be typical of their species or variety and shall have a normal habit of growth. Plants shall be sound, healthy, and vigorous, well branched and densely foliated when in leaf; shall be free of disease, insects, eggs or larvae; and shall have healthy, well-developed root systems. All parts of the plant shall be moist and shall show active green cambium when cut.

F. All nursery plants shall be balled and burlapped or container-grown and shall have been acclimatized for at least one growing season. Container-grown stock shall have been grown in a container long enough for the root system to have developed sufficiently to hold its soil together, firm and whole, after removal from the container. No plants shall be loose in the container. Container-grown plants shall have no girdling roots and shall not be in a root-bound condition. Plants shall remain in their container until planted.

G. Care shall be exercised in digging and preparing field-grown plants for shipment and planting. Balled and burlapped materials shall have solid unbroken balls of earth of sufficient size to encompass all fibrous feeding roots necessary to ensure successful recovery and development of the plants. Balls shall be firmly wrapped in untreated biodegradable burlap and tied securely with wire cages and/or jute twine. Roots or balls of plants shall be adequately protected at all times from sun and drying winds. No plant shall be accepted when the ball of earth surrounding its roots has been badly cracked or broken preparatory to or during planting, or after the burlap, staves, wire cage, rope, or platform in connection with its transplanting have been removed. Soil characteristics (i.e., composition, texture, pH, etc.) of all field-grown plants shall closely match those of the soil where plant materials are to be planted.

H. The height of the trees, measured from the crown of the roots to the top of the top branch, shall not be less than the minimum size designated in the Plant List in the Drawings. The branching height for deciduous trees installed adjacent to or within walks shall be 7 feet minimum, having been pruned to this height at least 1 year prior to transplanting. Except when a clump is designated, the trunk of each tree shall be a single trunk growing from a single, unmutilated crown of roots. No part of the trunk shall be conspicuously crooked as compared with normal trees of the same variety. The trunk shall be free from sunscald, frost cracks, or wounds resulting from abrasions, fire, or other causes. All pruning cuts shall comply with acceptable horticultural practices. No pruning wounds having a diameter of more than 1½-inches shall be present. Any such wounds must show vigorous bark growth on all edges. Evergreen trees shall be branched to within 1 foot of the ground. No tree that has had its leader cut or die shall be accepted.

I. Caliper measurements for tree trunks shall be taken 6-inches above ground for trees up to and including 4-inch caliper size and at 12-inches above ground for larger sizes.

J. Shrubs shall meet the requirements for spread and/or height stated in the Plant List on the Drawings. The measures for height are to be taken from the crown or root flare to the average height of the top of the shrub mass (not the longest branch). The fullness of each

shrub shall correspond to the trade classification "No. 1". Single stemmed or thin plants will not be accepted. The side branches must be generous, well-twigged and the plant as a whole must be well-bushed to the ground. The plants must be in a moist, vigorous condition, free from dead wood, bruises or other root or branch injuries.

K. Herbaceous plants, vines and groundcovers shall be of the size, age and/or condition designated in the Plant List on the Drawings.

L. Plants shall be delivered only after preparations for planting have been completed. Plants shall be handled and packed in a horticulturally approved manner and all necessary precautions shall be taken to ensure that plants arrive on-site in a healthy vigorous condition. Trucks used for transporting plants shall be equipped with covers to protect plants from windburn, desiccation, and overheating during transport. Plants that have not been thoroughly watered shall not be accepted at the planting site. Any plants delivered to the site in a dry or wilted condition shall be rejected and replaced at no expense to the Owner. All plant materials shall be protected, watered and otherwise maintained prior to, during, and upon delivery to the site.

M. Plants shall be subject to inspection and approval by the Owner's Representative at the place of growth, or upon delivery, for conformity to specification requirements as to quality, size, variety, and condition. Inspection and selection of plants before digging shall be at the option of the Owner's Representative. The Contractor, or his representative, shall be present, if requested by the Owner's Representative, for inspection of plants at the Nursery. Such approval shall not impair the right of inspection and rejection upon delivery at the site or during the progress of work, for size and condition of balls and roots, disease, insects and latent defects or injuries. Rejected plants shall be removed immediately from the site. Certificates of inspection of plant materials shall be furnished as may be required by Federal, State and other authorities to accompany shipments.

2.02 LOAM BORROW:

Loam Borrow shall be as specified in Section 32 91 19, LOAMING AND SEEDING.

2.03 SOIL ADDITIVES AND AMENDMENTS:

A. LIMESTONE:

Lime shall be an approved agricultural limestone containing at least 50 percent total oxides (calcium oxide and magnesium oxide). The material will be ground such that 50 percent of the material will pass through a No. 100 mesh sieve and 98 percent will pass a No. 2 mesh sieve. Lime shall be uniform in composition, dry and free-flowing and shall be delivered to the site in the original sealed containers, each bearing the manufacturer's guaranteed analysis.

B. FERTILIZER:

1. Fertilizer shall be a complete, standard commercial fertilizer, homogeneous and uniform in composition, dry and free-flowing, and shall be delivered to the site in the manufacturer's original sealed containers, each bearing the manufacturer's guaranteed analysis and marketed in compliance with State and Federal Laws. All fertilizer shall be used in accordance with the manufacturer's recommendations.

2. Fertilizer for tree, shrub and groundcover plantings shall contain all major plant nutrients and minor trace elements essential to sustain plant growth and shall have the following analysis:

Nitrogen (N)	Phosphorous (P)	Potassium (K)
10%	10%	10%

3. As approved by the Owner's Representative, a slow release root contact fertilizer installed at the time of planting, may be used in place of the above, at the discretion of the Contractor.

C. Organic Compost shall be a standard commercial product comprised of fully decomposed, 100 percent plant-derived, natural organic matter. Its composition shall furnish ample water holding capacity and cation exchange capacity for the retention of plant nutrients. Compost shall be free of sticks, stones, weed seeds, roots, mineral or other foreign matter and delivered air dry. It shall be free from excessive soluble salts, heavy metals, phytotoxic compounds, and/or substances harmful to plant growth and viability. Organic compost shall have an acidity range of 4.5 to 7.0 pH.

D. Sphagnum Peat Moss shall be a standard commercial product. Its composition shall furnish ample water holding capacity and cation exchange capacity for the retention of plant nutrients. Peat moss shall be free of sticks, stones, weeds or weed seeds, roots, mineral or other foreign matter. It shall be free from toxic substances and/or compounds harmful to plant growth and viability. It shall be delivered air dry in standard bales and shall have an acidity range of 3.5 to 5.5 pH.

E. Humus shall be natural humus, reed peat, or sedge peat. Its composition shall furnish ample water holding capacity and cation exchange capacity for the retention of plant nutrients. Humus shall be free of sticks, stones, weeds, roots, mineral or other foreign matter and/or toxic substances harmful to plant growth and viability. It shall be low in wood content, free from hard lumps and excessive amounts of zinc and delivered air dry in a shredded or granular form. The acidity range for humus shall be 5.5 to 7.5 pH, and the organic matter content shall be not less than 85 percent, as determined by loss on ignition. The minimum water holding capacity shall be 200 percent by weight on an oven-dry basis.

F. Manure shall be well-rotted, leached, cow manure not less than 8 months or more than 2 years old. It shall be free of sawdust, shavings, or refuse of any kind and shall not contain more than 25 percent straw. It shall contain no substances harmful to plant growth. The Contractor shall furnish information regarding chemical disinfectants, if any, that may have been used in storage of the manure.

2.04 PLANTING MIXTURE:

Planting mix shall consist of 7 parts loam borrow and 1 part organic compost, humus, sphagnum peat moss, or manure, thoroughly blended.

2.05 WATER:

Water shall be furnished by the Contractor, unless otherwise specified, and shall be suitable for irrigation and free from ingredients harmful to plant growth and viability. The delivery and distribution equipment required for the application of water shall be furnished by the Contractor, at no additional cost to the Owner.

2.06 MULCH:

Mulch shall be fibrous pliable shredded softbark mulch, not exceeding ½-inch in width. It shall be 98 percent organic matter with a pH range between 3.5 and 4.5 and a moisture content not to exceed 35 percent. It shall be free of weeds, weed seeds, debris, and other materials harmful to plant growth and viability. Organic mulch shall be aged no longer than 2 years.

2.07 MATERIALS FOR STAKING, GUYING, AND WRAPPING:

A. Tree stakes shall be sound, untreated 2 x 3 (nominal) x 8-foot length Douglas Fir reasonably free of knots. No paint or stain shall be used in conjunction with tree stakes. Tying material shall be flexible braided nylon webbing, ¾-inch wide and have a tensile strength of 900 pounds. Webbing shall be 'ArborTie', or approved equal.

B. Drive anchors and guy wire assemblies shall be suitable for protecting trees and shall be sized in accordance with the manufacturer's recommendations. No materials shall be used for guying that will girdle, chafe, or otherwise injure trees.

C. Tree wrap shall be duplex, waterproof kraft paper crinkled to 33-1/3 percent stretch, 4 to 6-inch wide strips. Tying materials shall be jute twine, 2-ply for shrubs and trees less than 3-inch caliper; 3-ply for larger plants.

2.08 TREE PAINT:

Tree paint shall not be used.

2.09 ANTI-TRANSPIRANT/ANTI-DESICCANT:

Anti-transpirant or anti-desiccant shall be 'Wilt-Pruf', as manufactured by Nursery Specialty Products, Inc., Groton Falls, NY, or approved equal. It shall be delivered in original sealed manufacturer's containers and used in accordance with the manufacturer's instructions.

Appendix F

Mill Brook Corridor & Wellington Park Revitalization
Arlington, MA

January 2019

Weston & Sampson

APPENDIX 4

ABUTTER NOTIFICATION MODEL

Notification to Abutters Under the
Massachusetts Wetlands Protection Act
And Arlington Wetlands Protection Bylaw

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and the Arlington Wetlands Protection Bylaw, you are hereby notified of the following:

The Conservation Commission will hold a public hearing in the second floor conference room of the Town Hall Annex, 730 Massachusetts Avenue, Arlington, on Thursday, February 7th, 2019 at 7:30pm in accordance with the provisions of the Mass. Wetlands Protection Act (M.G.L. Ch. 131, s. 40, as amended) and the Town of Arlington Bylaws Article 8, Bylaw for Wetland Protection, for a Notice of Intent (or Request for Determination of Applicability) from The Town of Arlington, for Mill Brook Corridor & Wellington Park Revitalization at 35 Grove Street , within 100 feet of a wetland OR 200 feet of a Riverfront OR a floodway, on Assessor's Property Maps: 54 &55 Parcels: 054.0-0001-0001.0 & 055.B-0001-0010.0

A copy of the application and accompanying plans are available for inspection Mon. - Thurs. 8am-4pm and Fri. 8am-noon at the Conservation Commission office, first floor of the Town Hall Annex, 730 Massachusetts Avenue, Arlington, MA 02476.

For more information call the applicant at 781-316-3012 or the Arlington Conservation Commission at 781-316-3012, or the DEP Northeast Regional Office at 978-694-3200.

NOTE: Notice of the Public Hearing will be published at least five (5) business days in advance in *The Arlington Advocate* and will also be posted at least 48 hours in advance in the Arlington Town Hall.

****

The meeting information for your hearing is:

Date: February 7th, 2019

Time: 7:30pm

APPENDIX 5

AFFIDAVIT OF SERVICE

(Return to Conservation Commission)

I, Mel Higgins, being duly sworn, do hereby state as follows: on 1/23/2019, I mailed a "Notification to Abutters" in compliance with the second paragraph of Massachusetts General Laws, Chapter 131, s.40, the DEP Guide to Abutter Notification dated April 8, l994, and the Arlington Wetlands Protection Bylaw, Title V, Article 8 of the Town of Arlington Bylaws in connection with the following matter: Mill Brook Corridor & Wellington Park Revitalization.

The form of the notification, and a list of the abutters to whom it was provided and their addresses, are attached to this Affidavit of Service.

Signed under the pains and penalties of perjury, this 23 day of January,

Mel Higgins
Name

Office of the
Board of Assessors
Robbins Memorial Town Hall
Arlington, MA 02476
(781) 316-3050
Assessors@town.arlington.ma.us

Abutters List
Date: January 15, 2019

Subject Property Address: 0 LOT GROVE ST Arlington, MA
Subject Property ID: 54-1-1

Search Distance: 100 Feet Conservation

I hereby certify that this list has been prepared in accordance with Chapter 40A, Section 11 of Massachusetts General Law and Town of Arlington By-Laws.

Mary C. Feeley
Robert E. Greeley

Board of Assessors

Prop ID: 54-1-1
Prop Location: 0 LOT GROVE ST Arlington, MA
Owner: TOWN OF ARLINGTON PARK
Co-Owner: ETHEL WELLINGTON PARK
Mailing Address:
730 MASS AVE
ARLINGTON, MA 02476

Prop ID: 54-1-19.A
Prop Location: 16-20 GROVE ST Arlington, MA
Owner: LOMBARD LEON E & SHIRLEY/TRS
Co-Owner: 20 GROVE STREET REALTY TRUST
Mailing Address:
20 GROVE ST
ARLINGTON, MA 02476

Prop ID: 54-1-21.A
Prop Location: 24-26 GROVE ST Arlington, MA
Owner: LOMBARD LEON E JR/TRUSTEE
Co-Owner: TARA-LEAH REALTY TR
Mailing Address:
20 GROVE ST
ARLINGTON, MA 02474

Prop ID: 54-1-24.A
Prop Location: 44 GROVE ST Arlington, MA
Owner: PRETZER XAVID
Co-Owner:
Mailing Address:
44 GROVE ST
ARLINGTON, MA 02476

Prop ID: 54-1-25.A
Prop Location: 0-LOT DUDLEY ST Arlington, MA
Owner: PRETZER XAVID
Co-Owner:
Mailing Address:
44 GROVE ST
ARLINGTON, MA 02476

Prop ID: 54-1-26
Prop Location: 8 DUDLEY ST Arlington, MA
Owner: ARLINGTON - DUDLEY REALTY LLC
Co-Owner:
Mailing Address:
59 UNION SQUARE
SOMERVILLE, MA 02143

Prop ID: 54-1-27
Prop Location: 14 DUDLEY ST Arlington, MA
Owner: ARLINGTON - DUDLEY REALTY LLC
Co-Owner:
Mailing Address:
59 UNION SQUARE
SOMERVILLE, MA 02143

Prop ID: 54-1-28
Prop Location: 0-LOT DUDLEY ST Arlington, MA
Owner: ARLINGTON - DUDLEY REALTY LLC
Co-Owner:
Mailing Address:
59 UNION SQUARE
SOMERVILLE, MA 02143

Prop ID: 54-2-6
Prop Location: 19 DUDLEY ST Arlington, MA
Owner: NOSTALGIA PROPERTIES LLC
Co-Owner:
Mailing Address:
39 BRIGHTON AVE
BOSTON, MA 02134

Prop ID: 54-3-2.A
Prop Location: 49 GROVE ST Arlington, MA
Owner: TOWN OF ARLINGTON TOWN YARD
Co-Owner: PUBLIC WORKS
Mailing Address:
730 MASS AVE
ARLINGTON, MA 02476

Prop ID: 54-3-2.B
Prop Location: 0-LOT GROVE ST Arlington, MA
Owner: TOWN OF ARLINGTON
Co-Owner: SCHOOL DEPT
Mailing Address:
27 MAPLE STREET
ARLINGTON, MA 02476

Prop ID: 54-3-3.A
Prop Location: 25 GROVE ST Arlington, MA
Owner: SUPPANISANUWONG PICHAI
Co-Owner:
Mailing Address:
25 GROVE ST
ARLINGTON, MA 02476

Prop ID: 54-3-4.A
Prop Location: 17-21 GROVE ST Arlington, MA
Owner: ARLINGTON-GROVE REALTY LLC
Co-Owner:
Mailing Address:
59 UNION SQ
SOMERVILLE, MA 02143

Prop ID: 54.A-1-3.1
Prop Location: 19 PRENTISS RD UNIT 1 Arlington, MA
Owner: ALOSIA REALTY TRUST 1349
Co-Owner: LEONE DAVID A ETAL TRS
Mailing Address:
19 PRENTISS RD UNIT 1
ARLINGTON, MA 02476

Prop ID: 54.A-1-3.2
Prop Location: 19 PRENTISS RD UNIT 2 Arlington, MA
Owner: SUNSHINE NURSERY SCHOOL INC.
Co-Owner:
Mailing Address:
19 PRENTISS RD UNIT 2
ARLINGTON, MA 02476

Prop ID: 55-1-14
Prop Location: 23 DUDLEY ST Arlington, MA
Owner: MALONEY SEAN P/TRUSTEE
Co-Owner: OXBOW REALTY TRUST
Mailing Address:
P. O. BOX 515
LEXINGTON, MA 02420

Prop ID: 55-2-1.A
Prop Location: 32 PRENTISS RD Arlington, MA
Owner: J & G PRENTISS LLC
Co-Owner:
Mailing Address:
32 PRENTISS RD
ARLINGTON, MA 02474

Prop ID: 55-2-3
Prop Location: 22 PRENTISS RD Arlington, MA
Owner: CARNEY JOHN A
Co-Owner:
Mailing Address:
98 RICHFIELD RD
ARLINGTON, MA 02474

Prop ID: 55-2-34
Prop Location: 14 DUDLEY CT Arlington, MA
Owner: LOWRE HOWARD F JR--TRS
Co-Owner: LEOMBRUNO CAMILLO
Mailing Address:
14 DUDLEY CT
ARLINGTON, MA 02476

Prop ID: 55-2-39.A
Prop Location: 36-R DUDLEY ST Arlington, MA
Owner: GREENE BRUCE
Co-Owner: JOHNSON LOUISE M
Mailing Address:
36R DUDLEY STREET
ARLINGTON, MA 02476

Prop ID: 55-2-39.B
Prop Location: 34 DUDLEY ST Arlington, MA
Owner: 34 DUDLEY STREET LLC
Co-Owner:
Mailing Address:
34 DUDLEY STREET
ARLINGTON, MA 02476

Prop ID: 55-2-41
Prop Location: 26 DUDLEY ST Arlington, MA
Owner: SANTINI MARK & GARY--TRS
Co-Owner: SANTINI REALTY TRUST
Mailing Address:
P.O. BOX 93
ARLINGTON, MA 02476

Prop ID: 55-2-5
Prop Location: 16 PRENTISS RD Arlington, MA
Owner: MORIN TIMOTHY & WYNER ERIN
Co-Owner:
Mailing Address:
16 PRENTISS RD
ARLINGTON, MA 02476

Prop ID: 55.B-1-101
Prop Location: 993 MASS AVE UNIT 101 Arlington, MA
Owner: BUCHANAN ELAINE M
Co-Owner:
Mailing Address:
76 BEECH ST UNIT 2
BELMONT, MA 02478

Prop ID: 55.B-1-102
Prop Location: 993 MASS AVE UNIT 102 Arlington, MA
Owner: LIN JANE E
Co-Owner: LEE KEN A
Mailing Address:
993 MASS AVENUE #102
ARLINGTON, MA 02476

Prop ID: 55.B-1-103
Prop Location: 993 MASS AVE UNIT 103 Arlington, MA
Owner: MC KINNON GARRETT
Co-Owner:
Mailing Address:
239 PLEASANT STREET
ARLINGTON, MA 02476

Prop ID: 55.B-1-104
Prop Location: 993 MASS AVE UNIT 104 Arlington, MA
Owner: FABIANO DIANE M
Co-Owner:
Mailing Address:
993 MASS AVE #104
ARLINGTON, MA 02474

Prop ID: 55.B-1-105
Prop Location: 993 MASS AVE UNIT 105 Arlington, MA
Owner: URBAN JULIE A
Co-Owner:
Mailing Address:
993 MASS AVE #105
ARLINGTON, MA 02476

Prop ID: 55.B-1-106
Prop Location: 993 MASS AVE UNIT 106 Arlington, MA
Owner: BOWES ROBERT E
Co-Owner:
Mailing Address:
1010 MASS AVE
ARLINGTON, MA 02476

Prop ID: 55.B-1-107
Prop Location: 993 MASS AVE UNIT 107 Arlington, MA
Owner: SHANNON VIRGINIA A
Co-Owner:
Mailing Address:
993 MASS AVENUE #107
ARLINGTON, MA 02476

Prop ID: 55.B-1-108
Prop Location: 993 MASS AVE UNIT 108 Arlington, MA
Owner: GILL STEPHEN J/TRUSTEE
Co-Owner: STEPHEN J GILL IRREVOCABLE TR
Mailing Address:
11 MIDDLE ST
NATICK, MA 01760

Prop ID: 55.B-1-109
Prop Location: 993 MASS AVE UNIT 109 Arlington, MA
Owner: LENNEY CHRISTOPHER
Co-Owner:
Mailing Address:
993 MASS AVENUE #109
ARLINGTON, MA 02476

Prop ID: 55.B-1-110
Prop Location: 993 MASS AVE UNIT 110 Arlington, MA
Owner: REED MARY ELLEN
Co-Owner:
Mailing Address:
993 MASS AVE #110
ARLINGTON, MA 02476

Prop ID: 55.B-1-111
Prop Location: 993 MASS AVE UNIT 111 Arlington, MA
Owner: OSHEA EILEEN
Co-Owner:
Mailing Address:
993 MASS AVE #111
ARLINGTON, MA 02476

Prop ID: 55.B-1-112
Prop Location: 993 MASS AVE UNIT 112 Arlington, MA
Owner: NARDONE WILLIAM & JEAN M
Co-Owner:
Mailing Address:
993 MASS AVENUE #112
ARLINGTON, MA 02476

Prop ID: 55.B-1-113
Prop Location: 993 MASS AVE UNIT 113 Arlington, MA
Owner: SHEEHAN MEAGHAN
Co-Owner:
Mailing Address:
581 OLD STRAWBERRY HILL RD
CENTERVILLE MA, MA 02632

Prop ID: 55.B-1-114
Prop Location: 993 MASS AVE UNIT 114 Arlington, MA
Owner: IKEMOTO BRIAN Y
Co-Owner:
Mailing Address:
993 MASS AVENUE #114
ARLINGTON, MA 02476

Prop ID: 55.B-1-115
Prop Location: 993 MASS AVE UNIT 115 Arlington, MA
Owner: CLERMONT JACQUELYN M
Co-Owner:
Mailing Address:
993 MASSACHUSETTS AVE #115
ARLINGTON, MA 02476

Prop ID: 55.B-1-117
Prop Location: 993 MASS AVE UNIT 117 Arlington, MA
Owner: CHYI SHYUE-LING
Co-Owner:
Mailing Address:
993 MASS AVENUE #117
ARLINGTON, MA 02476

Prop ID: 55.B-1-118
Prop Location: 993 MASS AVE UNIT 118 Arlington, MA
Owner: CHAN YUKTONG & MARY
Co-Owner:
Mailing Address:
993 MASS AVENUE UNIT 118
ARLINGTON, MA 02476

Prop ID: 55.B-1-119
Prop Location: 993 MASS AVE UNIT 119 Arlington, MA
Owner: KUNSMAN JANET M
Co-Owner:
Mailing Address:
134 WOODSIDE LANE
ARLINGTON, MA 02474

Prop ID: 55.B-1-120
Prop Location: 993 MASS AVE UNIT 120 Arlington, MA
Owner: BAGHDADI REZA
Co-Owner: SOLOUKI SAEIDEH
Mailing Address:
993 MASS AVE UNIT 120
ARLINGTON, MA 02476

Prop ID: 55.B-1-121
Prop Location: 993 MASS AVE UNIT 121 Arlington, MA
Owner: PANTAZOPOULOS NICHOLAS
Co-Owner:
Mailing Address:
993 MASS AVE #121
ARLINGTON, MA 02476

Prop ID: 55.B-1-122
Prop Location: 993 MASS AVE UNIT 122 Arlington, MA
Owner: LIVINGSTONE DAVID J
Co-Owner:
Mailing Address:
993 MASS AVENUE #122
ARLINGTON, MA 02476

Prop ID: 55.B-1-123
Prop Location: 993 MASS AVE UNIT 123 Arlington, MA
Owner: ARLINGTON HOUSING AUTHORITY
Co-Owner:
Mailing Address:
4 WINSLOW ST
ARLINGTON, MA 02476

Prop ID: 55.B-1-124
Prop Location: 993 MASS AVE UNIT 124 Arlington, MA
Owner: BAKER JAMES E
Co-Owner:
Mailing Address:
993 MASS AVE #124
ARLINGTON, MA 02476

Prop ID: 55.B-1-125
Prop Location: 993 MASS AVE UNIT 125 Arlington, MA
Owner: CLABAUGH JERRY A
Co-Owner:
Mailing Address:
993 MASS AVENUE #125
ARLINGTON, MA 02476

Prop ID: 55.B-1-126
Prop Location: 993 MASS AVE UNIT 126 Arlington, MA
Owner: SOUZA PAUL A/TRUSTEE
Co-Owner: BLAIR MICHAEL WARD
Mailing Address:
204 OSCEOLA RD
BELLEAIR, FL 33770

Prop ID: 55.B-1-127
Prop Location: 993 MASS AVE UNIT 127 Arlington, MA
Owner: PASQUALE FRANCO
Co-Owner:
Mailing Address:
993 MASS AVE #127
ARLINGTON, MA 02474

Prop ID: 55.B-1-128
Prop Location: 993 MASS AVE UNIT 128 Arlington, MA
Owner: LAM VINCENT
Co-Owner: ZHAO YAN
Mailing Address:
993 MASS AVE UNIT 128
ARLINGTON, MA 02476

Prop ID: 55.B-1-201
Prop Location: 993 MASS AVE UNIT 201 Arlington, MA
Owner: XU ZHENGHONG
Co-Owner:
Mailing Address:
993 MASS AVE #201
ARLINGTON, MA 02476

Prop ID: 55.B-1-202
Prop Location: 993 MASS AVE UNIT 202 Arlington, MA
Owner: PARATORE JOSEPHINE
Co-Owner:
Mailing Address:
28 CROSS STREET
BELMONT, MA 02478

Prop ID: 55.B-1-203
Prop Location: 993 MASS AVE UNIT 203 Arlington, MA
Owner: DANALEVICH JENNIFER
Co-Owner:
Mailing Address:
278 BROADWAY #2
ARLINGTON, MA 02474

Prop ID: 55.B-1-204
Prop Location: 993 MASS AVE UNIT 204 Arlington, MA
Owner: ILIC KATARINA
Co-Owner:
Mailing Address:
993 MASS AVE UNIT 204
ARLINGTON, MA 02476

Prop ID: 55.B-1-205
Prop Location: 993 MASS AVE UNIT 205 Arlington, MA
Owner: PHIPPS HEATHER M
Co-Owner:
Mailing Address:
993 MASS AVE #205
ARLINGTON, MA 02474

Prop ID: 55.B-1-206
Prop Location: 993 MASS AVE UNIT 206 Arlington, MA
Owner: KAHN ELIZABETH/ TRUSTEE
Co-Owner: BURKE REALTY TRUST
Mailing Address:
2424 EUCLID ST
SANTA MONICA, CA 90405

Prop ID: 55.B-1-207
Prop Location: 993 MASS AVE UNIT 207 Arlington, MA
Owner: ILIC KATARINA
Co-Owner:
Mailing Address:
993 MASS AVE UNIT 204
ARLINGTON, MA 02476

Prop ID: 55.B-1-208
Prop Location: 993 MASS AVE UNIT 208 Arlington, MA
Owner: FLANIGAN ELAINE & JAMES
Co-Owner: TRS/JAMES FLANNIGAN TRUST
Mailing Address:
190 BARLEY NECK ROAD
ORLEANS, MA 02653

Prop ID: 55.B-1-209
Prop Location: 993 MASS AVE UNIT 209 Arlington, MA
Owner: HORAN MATTHEW R
Co-Owner:
Mailing Address:
993 MASS AVE UNIT 209
ARLINGTON, MA 02474

Prop ID: 55.B-1-210
Prop Location: 993 MASS AVE UNIT 210 Arlington, MA
Owner: DALLAS ANN F
Co-Owner:
Mailing Address:
993 MASS AVE #210
ARLINGTON, MA 02476

Prop ID: 55.B-1-211
Prop Location: 993 MASS AVE UNIT 211 Arlington, MA
Owner: DILEO RUTSTEIN HEIDI
Co-Owner: DILEO DENNIS
Mailing Address:
14 LOCKE STREET
WINCHESTER, MA 01890

Prop ID: 55.B-1-212
Prop Location: 993 MASS AVE UNIT 212 Arlington, MA
Owner: WALSH KATHLEEN
Co-Owner:
Mailing Address:
993 MASS AVE #212
ARLINGTON, MA 02476

Prop ID: 55.B-1-213
Prop Location: 993 MASS AVE UNIT 213 Arlington, MA
Owner: GOODCHILD BRUCE L
Co-Owner:
Mailing Address:
993 MASS AVENUE #213
ARLINGTON, MA 02476

Prop ID: 55.B-1-214
Prop Location: 993 MASS AVE UNIT 214 Arlington, MA
Owner: YOUNG WILLIAM F/TRUSTEE
Co-Owner: WILLIAM YOUNG JR TRUST
Mailing Address:
PO BOX 327 DEPT 16
HOUSTON, TX 77001

Prop ID: 55.B-1-215
Prop Location: 993 MASS AVE UNIT 215 Arlington, MA
Owner: KARAASLANIAN JACQUELINE
Co-Owner:
Mailing Address:
993 MASS AVE UNIT 215
ARLINGTON, MA 02476

Prop ID: 55.B-1-216
Prop Location: 993 MASS AVE UNIT 216 Arlington, MA
Owner: PAUL DAVID S
Co-Owner:
Mailing Address:
993 MASS AVE #216
ARLINGTON, MA 02476

Prop ID: 55.B-1-217
Prop Location: 993 MASS AVE UNIT 217 Arlington, MA
Owner: HEALEY MARGARET L
Co-Owner:
Mailing Address:
993 MASS AVE
ARLINGTON, MA 02476

Prop ID: 55.B-1-218
Prop Location: 993 MASS AVE UNIT 218 Arlington, MA
Owner: PINE DANIEL R
Co-Owner:
Mailing Address:
51 STOWECROFT ROAD
ARLINGTON, MA 02476

Prop ID: 55.B-1-219
Prop Location: 993 MASS AVE UNIT 219 Arlington, MA
Owner: RASOGIANNI PANAGIOTA
Co-Owner:
Mailing Address:
993 MASS AVENUE #219
ARLINGTON, MA 02476

Prop ID: 55.B-1-220
Prop Location: 993 MASS AVE UNIT 220 Arlington, MA
Owner: BOWLER ELIZABETH M
Co-Owner:
Mailing Address:
993 MASS AVENUE #220
ARLINGTON, MA 02476

Prop ID: 55.B-1-221
Prop Location: 993 MASS AVE UNIT 221 Arlington, MA
Owner: GUTHRIE LINDA
Co-Owner:
Mailing Address:
993 MASS AVE #221
ARLINGTON, MA 02476

Prop ID: 55.B-1-222
Prop Location: 993 MASS AVE UNIT 222 Arlington, MA
Owner: FREDERICK PAUL R
Co-Owner:
Mailing Address:
993 MASS AVENUE #222
ARLINGTON, MA 02476

Prop ID: 55.B-1-223
Prop Location: 993 MASS AVE UNIT 223 Arlington, MA
Owner: SIRACUSA JAMES M JR
Co-Owner:
Mailing Address:
993 MASS AVE UNIT 223
ARLINGTON, MA 02476

Prop ID: 55.B-1-224
Prop Location: 993 MASS AVE UNIT 224 Arlington, MA
Owner: GOULD MARGARET M--ETAL
Co-Owner: GOULD PATRICK A
Mailing Address:
755 WOODSPRING CT
BEAVERCREEK, OH 45430

Prop ID: 55.B-1-225
Prop Location: 993 MASS AVE UNIT 225 Arlington, MA
Owner: BURKE SARA
Co-Owner:
Mailing Address:
993 MASS AVE #225
ARLINGTON, MA 02476

Prop ID: 55.B-1-226
Prop Location: 993 MASS AVE UNIT 226 Arlington, MA
Owner: ORIA MYRA
Co-Owner:
Mailing Address:
993 MASS AVE #226
ARLINGTON, MA 02476

Prop ID: 55.B-1-227
Prop Location: 993 MASS AVE UNIT 227 Arlington, MA
Owner: KAZDA GEORGE
Co-Owner:
Mailing Address:
1 FRANKLIN ST UNIT 3203
BOSTON, MA 02110

Prop ID: 55.B-1-228
Prop Location: 993 MASS AVE UNIT 228 Arlington, MA
Owner: SWANN JONQUIL FRANCES
Co-Owner:
Mailing Address:
993 MASS AVE UNIT 228
ARLINGTON, MA 02476

Prop ID: 55.B-1-301
Prop Location: 993 MASS AVE UNIT 301 Arlington, MA
Owner: MATTESON MARY BLISS
Co-Owner:
Mailing Address:
993 MASS AVE #301
ARLINGTON, MA 02476

Prop ID: 55.B-1-302
Prop Location: 993 MASS AVE UNIT 302 Arlington, MA
Owner: ZHU HUOHUI
Co-Owner: JI YANMIN
Mailing Address:
20 HAWTHORNE AVENUE
ARLINGTON, MA 02476

Prop ID: 55.B-1-303
Prop Location: 993 MASS AVE UNIT 303 Arlington, MA
Owner: NAJAFABADI MALIHE AHMADI
Co-Owner:
Mailing Address:
993 MASS AVE UNIT 303
ARLINGTON, MA 02476

Prop ID: 55.B-1-304
Prop Location: 993 MASS AVE UNIT 304 Arlington, MA
Owner: MICKEVICH ANNA
Co-Owner:
Mailing Address:
993 MASS AVE #304
ARLINGTON, MA 02476

Prop ID: 55.B-1-305
Prop Location: 993 MASS AVE UNIT 305 Arlington, MA
Owner: BHATTACHAN JONU &
Co-Owner: TULACHAN ANUP
Mailing Address:
993 MASS AVE UNIT 305
ARLINGTON, MA 02474

Prop ID: 55.B-1-306
Prop Location: 993 MASS AVE UNIT 306 Arlington, MA
Owner: HARVEY THOMAS M
Co-Owner:
Mailing Address:
118 FARNHAM STREET
BELMONT, MA 02478

Prop ID: 55.B-1-307
Prop Location: 993 MASS AVE UNIT 307 Arlington, MA
Owner: AGHDAMLIAN LUCIE A
Co-Owner: AGHDAMLIAN ANTRANIK S
Mailing Address:
993 MASS AVENUE #307
ARLINGTON, MA 02476

Prop ID: 55.B-1-308
Prop Location: 993 MASS AVE UNIT 308 Arlington, MA
Owner: CHEAH JENYENG & SUSAN &
Co-Owner: LIANG WENKWAY
Mailing Address:
993 MASS AVENUE #308
ARLINGTON, MA 02476

Prop ID: 55.B-1-309
Prop Location: 993 MASS AVE UNIT 309 Arlington, MA
Owner: WECHSLER MARJORIE
Co-Owner:
Mailing Address:
993 MASS AVE #309
ARLINGTON, MA 02476

Prop ID: 55.B-1-310
Prop Location: 993 MASS AVE UNIT 310 Arlington, MA
Owner: SHEN GRACE
Co-Owner:
Mailing Address:
993 MASS AVE #320
ARLINGTON, MA 02476

Prop ID: 55.B-1-311
Prop Location: 993 MASS AVE UNIT 311 Arlington, MA
Owner: HAMWEY BARBARA
Co-Owner:
Mailing Address:
993 MASS AVENUE #311
ARLINGTON, MA 02476

Prop ID: 55.B-1-312
Prop Location: 993 MASS AVE UNIT 312 Arlington, MA
Owner: CHAVES ANTONIO F-MARIA M
Co-Owner:
Mailing Address:
434 APPLETON STREET
ARLINGTON, MA 02476

Prop ID: 55.B-1-313
Prop Location: 993 MASS AVE UNIT 313 Arlington, MA
Owner: GARCIA FRANCISCO--ETAL
Co-Owner: GARCIA CORALIA M
Mailing Address:
5 COPPERSMITH WAY
LEXINGTON, MA 02476

Prop ID: 55.B-1-314
Prop Location: 993 MASS AVE UNIT 314 Arlington, MA
Owner: GUAN CHENGHE
Co-Owner: ZHANG JING
Mailing Address:
993 MASS AVE #314
ARLINGTON, MA 02476

Prop ID: 55.B-2-101
Prop Location: 995 MASS AVE UNIT 101 Arlington, MA
Owner: BARNES ANGELA/ETAL
Co-Owner: FITTANTE MICHAEL
Mailing Address:
2 BAKER ST
HONOLULU, HI 96818

Prop ID: 55.B-2-102
Prop Location: 995 MASS AVE UNIT 102 Arlington, MA
Owner: DEFEO MATTHEW
Co-Owner:
Mailing Address:
995 MASS AVE
UNIT # 102
ARLINGTON, MA 02476

Prop ID: 55.B-2-103
Prop Location: 995 MASS AVE UNIT 103 Arlington, MA
Owner: TEEHAN EDWARD R JR &
Co-Owner: TEEHAN MARGARET M
Mailing Address:
995 MASS AVENUE #103
ARLINGTON, MA 02476

Prop ID: 55.B-2-104
Prop Location: 995 MASS AVE UNIT 104 Arlington, MA
Owner: CORRICELLI DAVID
Co-Owner:
Mailing Address:
995 MASS AVENUE #104
ARLINGTON, MA 02476

Prop ID: 55.B-2-105
Prop Location: 995 MASS AVE UNIT 105 Arlington, MA
Owner: ROWE EARLE R & LILLIAN M
Co-Owner:
Mailing Address:
100 RUSSET CT APT 102
LINCOLN, MA 01773

Prop ID: 55.B-2-106
Prop Location: 995 MASS AVE UNIT 106 Arlington, MA
Owner: LERNER DEVON A
Co-Owner:
Mailing Address:
48 FLORENCE AVENUE
UNIT 2
ARLINGTON, MA 02476

Prop ID: 55.B-2-201
Prop Location: 995 MASS AVE UNIT 201 Arlington, MA
Owner: ZAVARO GEORGE
Co-Owner: ZAVARO NAHREIN
Mailing Address:
60 BRIGHTON ST
BELMONT, MA 02478

Prop ID: 55.B-2-202
Prop Location: 995 MASS AVE UNIT 202 Arlington, MA
Owner: GARRITY ANNE M--TRUSTEE
Co-Owner: D & G REALTY TRUST
Mailing Address:
995 MASS AVENUE #202
ARLINGTON, MA 02476

Prop ID: 55.B-2-203
Prop Location: 995 MASS AVE UNIT 203 Arlington, MA
Owner: CHIVUKULA SRINIVAS & SUSMITHA
Co-Owner:
Mailing Address:
8 HERON CIR UNIT 8
WALPOLE, MA 02081

Prop ID: 55.B-2-204
Prop Location: 995 MASS AVE UNIT 204 Arlington, MA
Owner: MACDONALD SHARON
Co-Owner:
Mailing Address:
995 MASS AVENUE #204
ARLINGTON, MA 02476

Prop ID: 55.B-2-205
Prop Location: 995 MASS AVE UNIT 205 Arlington, MA
Owner: CICCOLO MICHAEL
Co-Owner: GALLAGHER JASON E
Mailing Address:
54 SAINT MARKS RD
DORCHESTER, MA 02124

Prop ID: 55.B-2-206
Prop Location: 995 MASS AVE UNIT 206 Arlington, MA
Owner: LAN TAO/CHEN KEXI
Co-Owner:
Mailing Address:
8 ALBAMONT ROAD
WINCHESTER, MA 01890

Prop ID: 55.B-2-301
Prop Location: 995 MASS AVE UNIT 301 Arlington, MA
Owner: SU CLEMENT C
Co-Owner: WONG WENDY R
Mailing Address:
995 MASS AVE #301
ARLINGTON, MA 02476

Prop ID: 55.B-2-302
Prop Location: 995 MASS AVE UNIT 302 Arlington, MA
Owner: MCGOLDRICK ROBERTA J
Co-Owner:
Mailing Address:
995 MASS AVE #302
ARLINGTON, MA 02476

Prop ID: 55.B-2-303
Prop Location: 995 MASS AVE UNIT 303 Arlington, MA
Owner: TASHJIAN RONALD S/TRUSTEE
Co-Owner: TASHJIAN NOMINEE TRUST
Mailing Address:
37 BOULDER RIDGE
PLYMOUTH, MA 02360

Prop ID: 55.B-2-304
Prop Location: 995 MASS AVE UNIT 304 Arlington, MA
Owner: CLEVELAND THOMAS /TRUSTEE
Co-Owner: SANDRA CLEVELAND TRUST
Mailing Address:
EDINBURG CENTER/SANDRA CLEVELAND
205 BURLINGTON RD
BEDFORD, MA 01730

Prop ID: 55.B-2-305
Prop Location: 995 MASS AVE UNIT 305 Arlington, MA
Owner: BIRD CHRISTINE W
Co-Owner:
Mailing Address:
995 MASS AVE #305
ARLINGTON, MA 02476

Prop ID: 55.B-2-306
Prop Location: 995 MASS AVE UNIT 306 Arlington, MA
Owner: LEUNG YUK KWAI
Co-Owner:
Mailing Address:
58 BYRON AVE
BROCKTON, MA 02401

Prop ID: 55.B-2-401
Prop Location: 995 MASS AVE UNIT 401 Arlington, MA
Owner: BLOOMQUIST ALAN
Co-Owner:
Mailing Address:
88 APPLETON STREET
QUINCY, MA 02171

Prop ID: 55.B-2-402
Prop Location: 995 MASS AVE UNIT 402 Arlington, MA
Owner: KREIFELDT ALEXANDER G
Co-Owner:
Mailing Address:
995 MASS AVE #402
ARLINGTON, MA 02476

Prop ID: 55.B-2-403
Prop Location: 995 MASS AVE UNIT 403 Arlington, MA
Owner: BARRETT JOHN A
Co-Owner:
Mailing Address:
995 MASS AVENUE #403
ARLINGTON, MA 02476

Prop ID: 55.B-2-404
Prop Location: 995 MASS AVE UNIT 404 Arlington, MA
Owner: SHINE GAETANA/MICHAEL
Co-Owner:
Mailing Address:
995 MASS AVE #404
ARLINGTON, MA 02476

Prop ID: 55.B-2-405
Prop Location: 995 MASS AVE UNIT 405 Arlington, MA
Owner: QUI GEPING
Co-Owner:
Mailing Address:
6 NASSAU DR
WINCHESTER, MA 01890

Prop ID: 55.B-2-406
Prop Location: 995 MASS AVE UNIT 406 Arlington, MA
Owner: BOYCE SUZANNE E
Co-Owner:
Mailing Address:
22 ELMHURST PL
CINCINNATI, OH 45208

Prop ID: 55.B-2-501
Prop Location: 995 MASS AVE UNIT 501 Arlington, MA
Owner: GRUBEL JOANNA
Co-Owner:
Mailing Address:
995 MASS AVE UNIT 501
ARLINGTON, MA 02474

Prop ID: 55.B-2-502
Prop Location: 995 MASS AVE UNIT 502 Arlington, MA
Owner: WEISS JOHN E & EMILY S
Co-Owner:
Mailing Address:
995 MASS AVE UNIT 502
ARLINGTON, MA 02476

Prop ID: 55.B-2-503
Prop Location: 995 MASS AVE UNIT 503 Arlington, MA
Owner: ROPI ELAINE
Co-Owner:
Mailing Address:
995 MASS AVENUE #503
ARLINGTON, MA 02476

Prop ID: 55.B-2-504
Prop Location: 995 MASS AVE UNIT 504 Arlington, MA
Owner: CARLINO JANET
Co-Owner:
Mailing Address:
995 MASS AVENUE #504
ARLINGTON, MA 02476

Prop ID: 55.B-2-505
Prop Location: 995 MASS AVE UNIT 505 Arlington, MA
Owner: LIANG RUITING &
Co-Owner: QIAO JING
Mailing Address:
995 MASS AVE #505
ARLINGTON, MA 02476

Prop ID: 55.B-2-506
Prop Location: 995 MASS AVE UNIT 506 Arlington, MA
Owner: MASTROCOLA DAVID/TRUSTEE
Co-Owner: MARY KATHRYN MASTROCOLA 2016
Mailing Address:
995 MASS AVE UNIT #506
ARLINGTON, MA 02476

Prop ID: 55.C-1-101
Prop Location: 975 MASS AVE UNIT 101 Arlington, MA
Owner: DELANO ROBERT J/TRUSTEE
Co-Owner: ROBERT J DELANO 2012 REVOCABLE
Mailing Address:
975 MASS AVENUE #101
ARLINGTON, MA 02476

Prop ID: 55.C-1-102
Prop Location: 975 MASS AVE UNIT 102 Arlington, MA
Owner: LANDSKOV ERIK L & GEOFFREY
Co-Owner: LANDSKOV DAVID L
Mailing Address:
32 OLDHAM RD
ARLINGTON, MA 02474

Prop ID: 55.C-1-103
Prop Location: 975 MASS AVE UNIT 103 Arlington, MA
Owner: SRETER JULIA I & ESTHER E
Co-Owner: SRETER ALBERT J TRUSTEES
Mailing Address:
33 BEDFORD ST SUITE 4
LEXINGTON, MA 02420

Prop ID: 55.C-1-104
Prop Location: 975 MASS AVE UNIT 104 Arlington, MA
Owner: CHENG TING-WEN
Co-Owner:
Mailing Address:
975 MASS AVE APT 104
ARLINGTON, MA 02476

Prop ID: 55.C-1-105
Prop Location: 975 MASS AVE UNIT 105 Arlington, MA
Owner: KAWATE TOMOHIKO
Co-Owner:
Mailing Address:
975 MASS AVENUE #105
ARLINGTON, MA 02476

Prop ID: 55.C-1-106
Prop Location: 975 MASS AVE UNIT 106 Arlington, MA
Owner: TORPEY MARY L
Co-Owner:
Mailing Address:
975 MASS AVENUE #106
ARLINGTON, MA 02476

Prop ID: 55.C-1-107
Prop Location: 975 MASS AVE UNIT 107 Arlington, MA
Owner: STERN SALLY R
Co-Owner:
Mailing Address:
975 MASS AVENUE #107
ARLINGTON, MA 02476

Prop ID: 55.C-1-108
Prop Location: 975 MASS AVE UNIT 108 Arlington, MA
Owner: LIPTON SHARON R & AMITAI
Co-Owner:
Mailing Address:
975 MASS AVENUE #108
ARLINGTON, MA 02476

Prop ID: 55.C-1-109
Prop Location: 975 MASS AVE UNIT 109 Arlington, MA
Owner: GARSIDE PAUL/TRUSTEE
Co-Owner: L & S REALTY TRUST
Mailing Address:
19 BEVERLY ROAD
ARLINGTON, MA 02476

Prop ID: 55.C-1-201
Prop Location: 975 MASS AVE UNIT 201 Arlington, MA
Owner: JULIER WILLIAM/WALBURGA MABEY
Co-Owner:
Mailing Address:
975 MASSACHUSETTS AVE #201
ARLINGTON, MA 02476

Prop ID: 55.C-1-202
Prop Location: 975 MASS AVE UNIT 202 Arlington, MA
Owner: HODGDON LAWRENCE A JR/TRUSTEE
Co-Owner: HODGDON FAMILY TRUST
Mailing Address:
975 MASS AVENUE #202
ARLINGTON, MA 02476

Prop ID: 55.C-1-203
Prop Location: 975 MASS AVE UNIT 203 Arlington, MA
Owner: ODONOHOE THOMAS A/CATHERINE
Co-Owner:
Mailing Address:
975 MASS AVE #203
ARLINGTON, MA 02474

Prop ID: 55.C-1-204
Prop Location: 975 MASS AVE UNIT 204 Arlington, MA
Owner: COOK CHARLES/TRUSTEE
Co-Owner: CHARLES C COOK TRUST
Mailing Address:
975 MASS AVENUE #204
ARLINGTON, MA 02476

Prop ID: 55.C-1-205
Prop Location: 975 MASS AVE UNIT 205 Arlington, MA
Owner: DAVIDOVITZ MICHAEL/MARA
Co-Owner:
Mailing Address:
975 MASS AVENUE #205
ARLINGTON, MA 02476

Prop ID: 55.C-1-206
Prop Location: 975 MASS AVE UNIT 206 Arlington, MA
Owner: SPRINGS CAROL C
Co-Owner:
Mailing Address:
975 MASS AVENUE #206
ARLINGTON, MA 02476

Prop ID: 55.C-1-207
Prop Location: 975 MASS AVE UNIT 207 Arlington, MA
Owner: DAVIDSON PATRICIA S
Co-Owner:
Mailing Address:
975 MASS AVENUE UNIT 207
ARLINGTON, MA 02476

Prop ID: 55.C-1-208
Prop Location: 975 MASS AVE UNIT 208 Arlington, MA
Owner: ZMIJEWSKI DAVID T
Co-Owner:
Mailing Address:
975 MASS AVENUE #208
ARLINGTON, MA 02476

Prop ID: 55.C-1-209
Prop Location: 975 MASS AVE UNIT 209 Arlington, MA
Owner: WELCH CHERYL A/TRUSTEE
Co-Owner: CHERYL WELCH REVOCABLE LIVING
Mailing Address:
975 MASS AVE #209
ARLINGTON, MA 02476

Prop ID: 55.C-1-301
Prop Location: 975 MASS AVE UNIT 301 Arlington, MA
Owner: WANG LISI
Co-Owner:
Mailing Address:
171 DERBY ST
WEST NEWTON, MA 02465

Prop ID: 55.C-1-302
Prop Location: 975 MASS AVE UNIT 302 Arlington, MA
Owner: MACMILLAN LYNMARIE
Co-Owner:
Mailing Address:
975 MASS AVE #302
ARLINGTON, MA 02476

Prop ID: 55.C-1-303
Prop Location: 975 MASS AVE UNIT 303 Arlington, MA
Owner: DISESSA LORRAINE
Co-Owner:
Mailing Address:
975 MASS AVE #303
ARLINGTON, MA 02476

Prop ID: 55.C-1-304
Prop Location: 975 MASS AVE UNIT 304 Arlington, MA
Owner: MANGANARO DIANE MARIE
Co-Owner:
Mailing Address:
8 BRATTLE LANE
ARLINGTON, MA 02476

Prop ID: 55.C-1-305
Prop Location: 975 MASS AVE UNIT 305 Arlington, MA
Owner: GOULD MURIEL B
Co-Owner:
Mailing Address:
975 MASS AVE UNIT 305
ARLINGTON, MA 02476

Prop ID: 55.C-1-306
Prop Location: 975 MASS AVE UNIT 306 Arlington, MA
Owner: KUIN JAMES
Co-Owner:
Mailing Address:
60 SPRING GROVE RD
ANDOVER, MA 01810

Prop ID: 55.C-1-307
Prop Location: 975 MASS AVE UNIT 307 Arlington, MA
Owner: CHAUDHURI MEERA/ TRUSTEE
Co-Owner: 975 MASS AVE UNIT 307 RLTY TR
Mailing Address:
2279 SEMINOLE RD #1
ATLANTIC BEACH, FL 32233

Prop ID: 55.C-1-308
Prop Location: 975 MASS AVE UNIT 308 Arlington, MA
Owner: MATSUI AKIRA
Co-Owner: MATSUI NAOMI
Mailing Address:
978 MASS AVE #308
ARLINGTON, MA 02476

Prop ID: 55.C-1-309
Prop Location: 975 MASS AVE UNIT 309 Arlington, MA
Owner: HAWKER MARIANNE
Co-Owner:
Mailing Address:
6993 WEST VIRGINIA PL
LAKEWOOD, CO 80226

Prop ID: 55.C-1-401
Prop Location: 975 MASS AVE UNIT 401 Arlington, MA
Owner: GOLDSMITH KEVIN J/TR &
Co-Owner: GOLDSMITH DEBORAH E/TRUSTEE OF
Mailing Address:
975 MASS AVE #401
ARLINGTON, MA 02476

Prop ID: 55.C-1-402
Prop Location: 975 MASS AVE UNIT 402 Arlington, MA
Owner: BASU BIJAY/SANKARI
Co-Owner:
Mailing Address:
975 MASS AVENUE #402
ARLINGTON, MA 02476

Prop ID: 55.C-1-403
Prop Location: 975 MASS AVE UNIT 403 Arlington, MA
Owner: COHN STEPHEN N TRUSTEE
Co-Owner: FIRST RAYMOND FAMILY TRUST
Mailing Address:
23 CAMBRIDGE ST
WINCHESTER, MA 01890

Prop ID: 55.C-1-404
Prop Location: 975 MASS AVE UNIT 404 Arlington, MA
Owner: SCICCHITANO JUDITH M
Co-Owner:
Mailing Address:
975 MASS AVENUE #404
ARLINGTON, MA 02476

Prop ID: 55.C-1-405
Prop Location: 975 MASS AVE UNIT 405 Arlington, MA
Owner: LEE BARBARA Y T /TRUSTEE
Co-Owner: THE BARBARA Y T LEE 2006 TRUST
Mailing Address:
975 MASS AVENUE
UNIT 405
ARLINGTON, MA 02476

Prop ID: 55.C-1-406
Prop Location: 975 MASS AVE UNIT 406 Arlington, MA
Owner: MORAIS ANGELA S
Co-Owner:
Mailing Address:
975 MASS AVENUE #406
ARLINGTON, MA 02476

Prop ID: 55.C-1-407
Prop Location: 975 MASS AVE UNIT 407 Arlington, MA
Owner: MARTIN GWENDOLYN
Co-Owner:
Mailing Address:
975 MASS AVE UNIT 407
ARLINGTON, MA 02476

Prop ID: 55.C-1-408
Prop Location: 975 MASS AVE UNIT 408 Arlington, MA
Owner: DING XIAOJUAN
Co-Owner:
Mailing Address:
975 MASS AVENUE #408
ARLINGTON, MA 02476

Prop ID: 55.C-1-409
Prop Location: 975 MASS AVE UNIT 409 Arlington, MA
Owner: DIMINO MICHAEL /TRUSTEE
Co-Owner: MICHAEL H DIMINO TRUST
Mailing Address:
195 EDENFIELD AVE
WATERTOWN, MA 02472

Prop ID: 55.C-1-501
Prop Location: 975 MASS AVE UNIT 501 Arlington, MA
Owner: HOEFER ROBERT F/TRUSTEE
Co-Owner: ROBERT HOEFER FAMILY TRUST
Mailing Address:
975 MASS AVENUE #501
ARLINGTON, MA 02476

Prop ID: 55.C-1-502
Prop Location: 975 MASS AVE UNIT 502 Arlington, MA
Owner: ALI SULEIMAN
Co-Owner:
Mailing Address:
975 MASS AVE UNIT 502
ARLINGTON, MA 02476-4546

Prop ID: 55.C-1-503
Prop Location: 975 MASS AVE UNIT 503 Arlington, MA
Owner: FREDERICK JOHN B
Co-Owner:
Mailing Address:
975 MASS AVENUE #503
ARLINGTON, MA 02476

Prop ID: 55.C-1-504
Prop Location: 975 MASS AVE UNIT 504 Arlington, MA
Owner: BACHINI REGINA M
Co-Owner:
Mailing Address:
975 MASS AVENUE #504
ARLINGTON, MA 02476

Prop ID: 55.C-1-505
Prop Location: 975 MASS AVE UNIT 505 Arlington, MA
Owner: FOLEY JAMES & KATHLEEN/TRS
Co-Owner: JIM AND KATHY 2008 TRUST
Mailing Address:
975 MASS AVENUE #505
ARLINGTON, MA 02476

Prop ID: 55.C-1-506
Prop Location: 975 MASS AVE UNIT 506 Arlington, MA
Owner: DUNN JULIE B
Co-Owner:
Mailing Address:
975 MASS AVE #506
ARLINGTON, MA 02476

Prop ID: 55.C-1-507
Prop Location: 975 MASS AVE UNIT 507 Arlington, MA
Owner: YANG HONG
Co-Owner: CHEN XI
Mailing Address:
829 ALTAIRE WALK
PALO ALTO, CA 94303

Prop ID: 55.C-1-508
Prop Location: 975 MASS AVE UNIT 508 Arlington, MA
Owner: TOPAZ DONALD I
Co-Owner:
Mailing Address:
975 MASS AVENUE #508
ARLINGTON, MA 02476

Prop ID: 55.C-1-509
Prop Location: 975 MASS AVE UNIT 509 Arlington, MA
Owner: DICIACCIO FRANK N & NANCY
Co-Owner:
Mailing Address:
975 MASS AVE UNIT 509
ARLINGTON, MA 02476

Printed on 01/15/2019 at 10:49 AM

Appendix G

Mill Brook Corridor & Wellington Park Revitalization
Arlington, MA

January 2019

Weston & Sampson

5 Centennial Drive, Peabody, MA 01960 (HQ)
Tel: 978.532.1900

MEMORANDUM

TO: file

FROM: Mel Higgins, PWS

DATE: January 17, 2019

SUBJECT: Wetlands Investigation – Wellington Park – Arlington, MA

A wetland scientist visited Wellington Park in April 2018 to inspect the site for wetland resources in the area. The only resource area noted at the site was Mill Brook, which flows in an easterly direction and is located on the northern edge of the park. The banks consist of man-made masonry and are near vertical. As such, there was no bordering vegetated wetlands between the bank and uplands. Wetland flags were not left in the field because of the obvious "top of bank" location and because the location was at a family park where pink flagging would not be favorably looked upon. Because of the obvious limit of the resource area, flags were not left in the field to show top of bank.

Because Mill Brook is a perennial stream, a 200-foot riverfront area will be associated with it.

Appendix H

Mill Brook Corridor & Wellington Park Revitalization
Arlington, MA

January 2019

Weston & Sampson

WATER VELOCITY MODELING IN MILL BROOK – ARLINGTON, MA

Weston & Sampson estimated hydraulic conditions in the project area by developing a detailed steady-state hydraulic model of the channel and floodplain using the Army Corps of Engineer's HEC-RAS (v.5.0.3) software package. The model consists of a series of twelve cross-sections that extend from upstream of the site down to the Grove Street crossing. Cross-section geometry was initially developed from survey data of existing on-site conditions Three additional model geometries were prepared from design drawings to evaluate potential alternative designs for the project.

HEC-RAS models are also defined by upstream and downstream boundary conditions. The downstream boundary condition was a rating curve, relating water level with discharge rate for the Grove Street crossing. This information was derived from simulation results of the SWMM model that Weston & Sampson developed in support of our previous work on the Mill River. The upstream boundary condition assumed that the slope of the water surface was approximately equal to the slope of the channel as determined from site survey data.

A total of five flooding conditions were considered, ranging from the 2-year event to the 500-year event. These events were defined by the NOAA 14 Atlas design rainfall depths for 24-hour storms. The Mill River flow rates associated with those five events were estimated by interpolating/extrapolating the relationship between rainfall and river flow that was determined by a the detailed rainfall-runoff SWMM model that we developed in our previous work on the Mill River.

Weston & Sampson conducted steady-state simulations of each of the five storm events for both existing conditions and each of the three potential alternative designs. Output from those model simulations, including velocity, energy grade line slope, hydraulic radius, and shear stress were used to calculate the stable particle size at each of the twelve cross-section locations. Stable particle size calculations were performed using three separate methodologies, including Shields; Colorado; and Leopold, Wolman, and Miller.

Weston & Sampson developed riprap designs based on the largest stable particle size of any combination of methodology, alternative geometry, and design storm: 11.1 inches.

During the 1/17/19 conservation commission meeting to discuss the Wellington Park Project, a number of questions related to water/water velocity were asked. Below are the questions and responses.

Question #1: How the rip rap and boulder sizes were determined based on velocities,

Response: Weston & Sampson calculated the stable particle size based on HEC-RAS model outputs for each cross-section location, each alternative geometry, and each design storm up to the 500-year event. Riprap design was based on the largest single value, 11.1 inches.

Question #2: At what storm event might we see water flow into the flood storage basin.

Response: All simulated storm events, including the 2-year flood, were shown to make use of the flood storage basin.

Question #3: How often will water be in the basins (can you give a % of the year?).

Response: Weston & Sampson cannot provide an answer to this question at this point in time. That would require the development of an "unsteady-state" model that is capable of simulating long-term flow patterns.

Question #4: For a few different storm events, show table comparing flow or volume going down the channel and how much will be going into the basin.

Response: Unfortunately, that information would require a more detailed model that separated the storage basin out as its own channel and floodplain, separate from the Mill River. The existing model is not built that way.

Attached the following backup calculations:

1. Incipient Motion – calculation of the stable particle size based on HEC-RAS outputs
2. Inflow Extrapolations – converting Will's older rainfall-flow relationship to estimate river discharge for NOAA 14 precipitation depths
3. Downstream Rating Curve – basically just output from Will's model that defines the relationship between water level and flow rate at Grove Street

Appendix I

Mill Brook Corridor & Wellington Park Revitalization
Arlington, MA

January 2019

Weston & Sampson

Weston & Sampson

BORING NUMBER: **B-1**

CLIENT: Town of Arlington
PROJECT NUMBER: 2180078
PROJECT NAME: Wellington Park Revitalization
PROJECT LOCATION: Arlington, MA

DRILLER: Gary Caouette - Technical Drilling Services
LOGGED / CHECKED BY: NP / RJV
RIG TYPE / DRILLING METHODS: Truck / hollow-stem auger (HSA)
CASING DIAMETER: 4.25" ID
SAMPLING METHODS: Standard penetration test (SPT)
SAMPLER TYPE: Standard 24" long x 2" OD (1-3/8" ID) split-spoon
SAMPLER HAMMER: 140-lb. automatic hammer
OTHER:

BORING LOCATION: See site plan.
GROUND ELEVATION: Not available **DATUM:**
DRILLING START DATE: 9/10/2018 **END DATE:** 9/10/2018

GROUNDWATER OBSERVATIONS

DATE	DEPTH	COMMENTS
9/10/2018	8 ft. +/-	Based on wet samples.

DEPTH (ft.) / Elevation	SAMPLE INFORMATION: TYPE - NO.	DEPTH (ft.)	REC./PEN. (in.)	SPT BLOWS/6"	SPT N-VALUE	% MOISTURE	% FINES (P200)	GRAPHIC LOG	STRATA NAME	MATERIAL DESCRIPTION	COMMENTS
0	S1	0.0	4/24	2 4 7 11	11				TOPSOIL	Medium dense, brown, organic silty SAND, some fine gravel, wood and roots; moist. [TOPSOIL]	
	S2	2.0	7/24	4 4 4 4	8				FILL	Loose, brown, fine to coarse SAND, little fine to coarse gravel, some silt, trace debris (glass, wood), trace roots; moist. [FILL]	
5	S3	4.0	11/24	15 49 20 19	69				GRAVEL	Very dense, brown, sandy GRAVEL, little silt, occasional mottling; moist.	Occasional drill rig chatter on possible cobbles below 4 feet.
	S4	6.0	12/24	12 12 15 17	27					Medium dense, brown, sandy GRAVEL, little silt, trace clay; moist. ▼	
10	S5	8.0	7/24	5 10 9 11	19				SAND	Medium dense, brown, gravelly SAND, some silt, trace clay; wet.	
15	S6	15.0	13/24	11 7 9 15	16					Medium dense, brown and gray, fine to coarse SAND, little fine to coarse gravel, trace silt; wet.	
20	S7	20.0	5/6	120						Very dense, brown and gray, fine to coarse SAND, some fine to medium gravel, trace silt; wet.	
										Split spoon refusal at 20.5 ft. End of boring at 20.5 ft.	

MATERIAL DESCRIPTION (see guide below for soil classification based on constituent percentage)

Mineral Soil	Organic Soil
GRAVEL, SAND, SILT, CLAY: >50%	PEAT: 50-100%
gravelly, sandy, silty, clayey: 35-50%	organic (soil): 15-50%
some: 20-35%	with some organics: 5-15%
little: 10-20%	
trace: 0-10%	

SAMPLE		GRANULAR SOILS		COHESIVE SOILS	
SYMBOL	TYPE	N-Value	Density	N-VALUE	CONSISTENCY
S	Split spoon	0-4	Very Loose	< 2	Very Soft
ST	Shelby tube	4-10	Loose	2-4	Soft
AG	Auger grab	10-30	Med. Dense	4-8	Med. Stiff
NX	Rock core	30-50	Dense	8-15	Stiff
GP	Direct push	> 50	Very Dense	15-30	Very Stiff
				> 30	Hard

GENERAL NOTES:

1. The stratification lines represent the approximate boundary between soil types; actual transitions may be gradual.

2. Water level readings have been made in the drill holes at the times and conditions stated on the boring log. Fluctuations in the level of groundwater may occur due to other factors than those presented at the time measurements are made.

Weston & Sampson

BORING NUMBER: **B-2**

CLIENT: Town of Arlington
PROJECT NUMBER: 2180078
PROJECT NAME: Wellington Park Revitalization
PROJECT LOCATION: Arlington, MA

DRILLER: Gary Caouette - Technical Drilling Services
LOGGED / CHECKED BY: NP / RJV
RIG TYPE / DRILLING METHODS: Truck / hollow-stem auger (HSA)
CASING DIAMETER: 4.25" ID
SAMPLING METHODS: Standard penetration test (SPT)
SAMPLER TYPE: Standard 24" long x 2" OD (1-3/8" ID) split-spoon
SAMPLER HAMMER: 140-lb. automatic hammer
OTHER:

BORING LOCATION: See site plan.
GROUND ELEVATION: Not available **DATUM:**
DRILLING START DATE: 9/10/2018 **END DATE:** 9/10/2018

GROUNDWATER OBSERVATIONS

DATE	DEPTH	COMMENTS
	Not observed	

DEPTH (ft.) / Elevation	SAMPLE INFORMATION: TYPE - NO.	DEPTH (ft.)	REC./PEN. (in.)	SPT BLOWS/6"	SPT N-VALUE	% MOISTURE	% FINES (P200)	GRAPHIC LOG	STRATA NAME	MATERIAL DESCRIPTION	COMMENTS
0	S1	0.0	11/24	3 5 7 5	12				TOPSOIL	Medium dense, brown, organic silty SAND, little gravel, with fine roots; moist. [TOPSOIL]	
	S2	2.0	4/24	2 5 14 12	19				SAND	Medium dense, brown and gray, fine to coarse SAND, little gravel, little silt, with trace organics and occasional fine roots; moist.	
5	S3	4.0	11/24	8 5 5 3	10					Medium dense, brown, gravelly fine to coarse SAND, trace silt, mottling present, with occasional fine roots; moist.	Occasional drill rig chatter on possible cobbles below 4 feet.
	S4	6.0	12/24	18 14 18 25	32				GRAVEL	Dense, brown and gray, sandy fine to coarse GRAVEL, little silt, trace clay, mottling present, with occasional fine roots; moist.	
10										Auger refusal on possible boulder at 10 ft. End of boring at 10 ft.	

MATERIAL DESCRIPTION
(see guide below for soil classification based on constituent percentage)

Mineral Soil	Organic Soil
GRAVEL, SAND, SILT, CLAY: >50%	PEAT: 50-100%
gravelly, sandy, silty, clayey: 35-50%	organic (soil): 15-50%
some: 20-35%	with some organics: 5-15%
little: 10-20%	
trace: 0-10%	

SAMPLE		GRANULAR SOILS		COHESIVE SOILS	
SYMBOL	TYPE	N-Value	Density	N-VALUE	CONSISTENCY
S	Split spoon	0-4	Very Loose	< 2	Very Soft
ST	Shelby tube	4-10	Loose	2-4	Soft
AG	Auger grab	10-30	Med. Dense	4-8	Med. Stiff
NX	Rock core	30-50	Dense	8-15	Stiff
GP	Direct push	> 50	Very Dense	15-30	Very Stiff
				> 30	Hard

GENERAL NOTES:

1. The stratification lines represent the approximate boundary between soil types; actual transitions may be gradual.

2. Water level readings have been made in the drill holes at the times and conditions stated on the boring log. Fluctuations in the level of groundwater may occur due to other factors than those presented at the time measurements are made.

BORING NUMBER: **B-3**

Weston & Sampson SM

CLIENT: Town of Arlington
PROJECT NUMBER: 2180078
PROJECT NAME: Wellington Park Revitalization
PROJECT LOCATION: Arlington, MA

DRILLER: Gary Caouette - Technical Drilling Services
LOGGED / CHECKED BY: NP / RJV
RIG TYPE / DRILLING METHODS: Truck / hollow-stem auger (HSA)
CASING DIAMETER: 4.25" ID
SAMPLING METHODS: Standard penetration test (SPT)
SAMPLER TYPE: Standard 24" long x 2" OD (1-3/8" ID) split-spoon
SAMPLER HAMMER: 140-lb. automatic hammer
OTHER: Grounwater monitoring well installed following completion.

BORING LOCATION: See site plan.
GROUND ELEVATION: Not available **DATUM:**
DRILLING START DATE: 9/10/2018 **END DATE:** 9/10/2018

GROUNDWATER OBSERVATIONS

DATE	DEPTH	COMMENTS
9/10/2018	12.5 ft. +/-	Approximate depth based on wet samples.

DEPTH (ft.) *Elevation*	SAMPLE INFORMATION: TYPE - NO.	DEPTH (ft.)	REC./PEN. (in.)	SPT BLOWS/6"	SPT N-VALUE	% MOISTURE	% FINES (P200)	GRAPHIC LOG	STRATA NAME	MATERIAL DESCRIPTION (see guide below for soil classification based on constituent percentage)	COMMENTS
0	S1	0.0	11/24	5 7 7 7	14				TOPSOIL	Medium dense, brown, organic silty SAND, little gravel, trace fine roots; moist. [TOPSOIL]	
	S2	2.0	10/24	6 7 7 20	14				SAND	Medium dense, brown, fine to medium SAND, some silt, little gravel, trace clay, with trace fine roots; moist.	
5	S3	4.0	11/24	63 43 28 30	71					Very dense, pale brown, gravelly fine to coarse SAND, little silt, trace clay; moist.	Occasional drill rig chatter on possible cobbles below 4 feet.
	S4	6.0	18/24	35 33 57 33	90					Very dense, pale brown, gravelly fine to coarse SAND, little silt, trace clay; moist.	
10	S5	8.0	15/24	24 24 29 33	53					Very dense, pale brown, gravelly fine to coarse SAND, little silt, trace clay; moist. ▼	
15									GRAVEL	Assumed lithology change	
	S6	15.0	17/24	28 21 32 33	53					Very dense, brown, sandy fine to coarse GRAVEL, little silt; wet.	
20	S7	20.0	/24	25 25 29 31	54					Very dense, brown, sandy GRAVEL, little silt; wet.	
										End of Boring at 22 feet. Groundwater monitoring well installed to 20 feet following completion.	

Mineral Soil
GRAVEL, SAND, SILT, CLAY: >50%
gravelly, sandy, silty, clayey: 35-50%
some: 20-35%
little: 10-20%
trace: 0-10%

Organic Soil
PEAT: 50-100%
organic (soil): 15-50%
with some organics: 5-15%

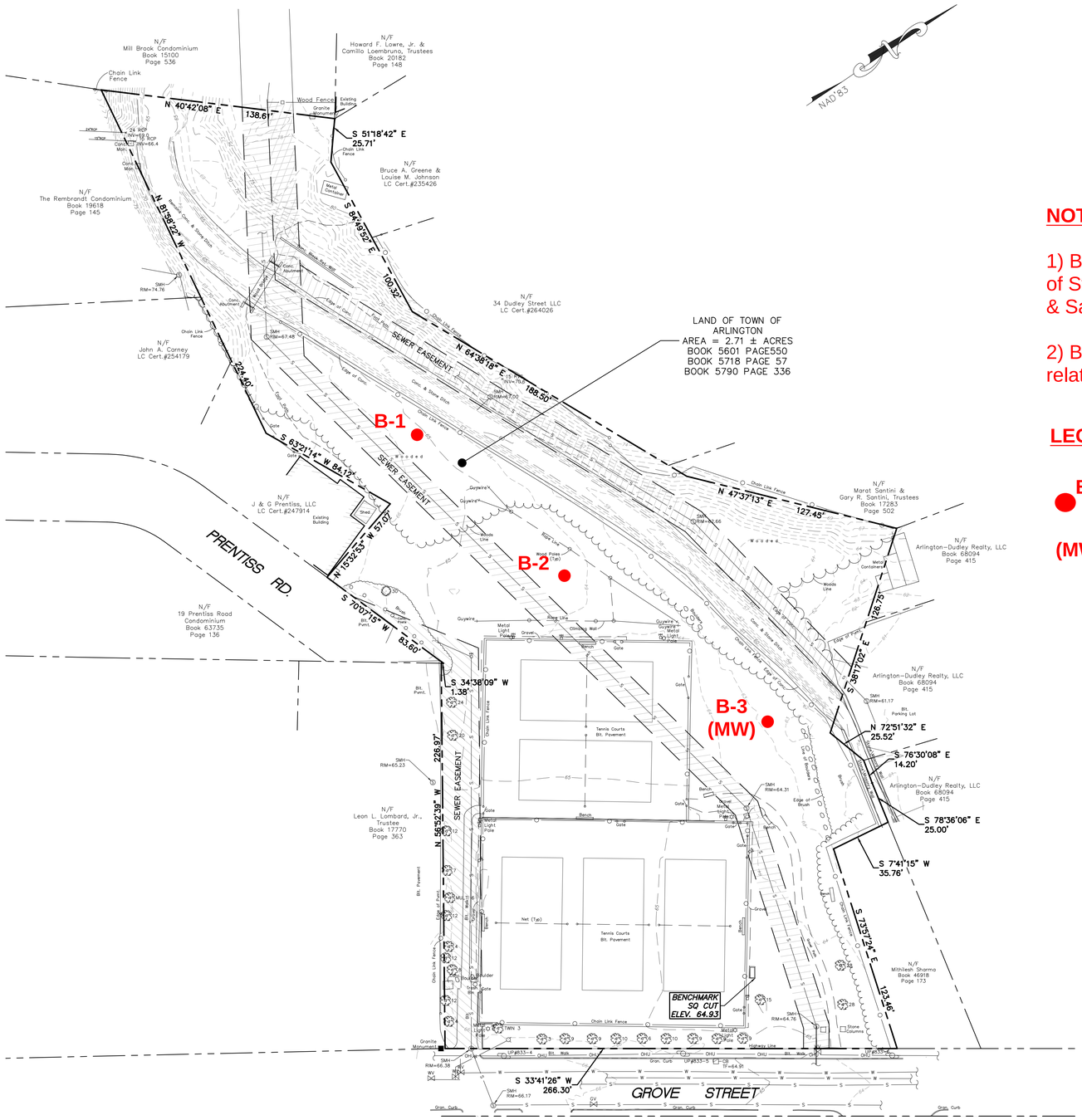
SAMPLE		GRANULAR SOILS		COHESIVE SOILS		GENERAL NOTES:
SYMBOL	TYPE	N-Value	Density	N-VALUE	CONSISTENCY	1. The stratification lines represent the approximate boundary between soil types; actual transitions may be gradual.
S	Split spoon	0-4	Very Loose	< 2	Very Soft	
ST	Shelby tube	4-10	Loose	2-4	Soft	
AG	Auger grab	10-30	Med. Dense	4-8	Med. Stiff	2. Water level readings have been made in the drill holes at the times and conditions stated on the boring log. Fluctuations in the level of groundwater may occur due to other factors than those presented at the time measurements are made.
NX	Rock core	30-50	Dense	8-15	Stiff	
GP	Direct push	> 50	Very Dense	15-30	Very Stiff	
				> 30	Hard	

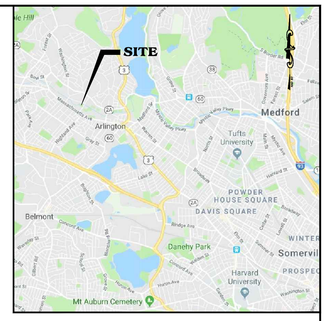
LEGEND

EDGE OF WOODS	ST — STORM SEWER LINE
DECIDUOUS TREE	SS — SANITARY SEWER LINE
CONIFEROUS TREE	W — WATER LINE
SHRUB/BUSH	G — GAS LINE
SIGN	S — SIGNAL WIRE LINE
UTILITY POLE	C — CABLE LINE
LIGHT POLE	FO — FIBER OPTIC LINE
HYDRANT	LPS — LOW PRESSURE SEWER LINE
WATER SHUTOFF	E — ELECTRIC LINE
GAS VALVE	OHU — OVERHEAD UTILITIES
WATER VALVE	T — TELEPHONE LINE
MONUMENT	SANITARY MANHOLE (SMH)
IRON PIN / IRON ROD	DRAINAGE MANHOLE (DMH)
HANDICAP SPACE	CATCHBASIN (CB)
HAND HOLE	METAL POST/BOLLARD (BOL)
PROPERTY LINE	ELECTRIC MANHOLE (MHE)
EASEMENT	UNKNOWN MANHOLE
MAJOR CONTOUR LINE	TELEPHONE MANHOLE (MHT)
MINOR CONTOUR LINE	VENT PIPE
GUY WIRE	COULD NOT OPEN
BOULDER	FLOW DIRECTION

NOTES:

1. BEARINGS REFER TO THE MASSACHUSETTS NAD 83 STATE PLANE COORDINATE SYSTEM (MAINLAND ZONE).
2. ELEVATIONS REFER TO THE 1988 NORTH AMERICAN DATUM (NAVD 88).
3. REFERENCE IS MADE TO THE FOLLOWING MAPS:
   - A. "PLAN OF BUILDING LOTS IN ARLINGTON MASS. BELONGING TO W.M. RICHARDSON", BY JOSIAH HOVEY, SCALE 1" =50', DATED JUNE 1869, RECORDED IN PLAN BOOK 86, PLAN 2 OF THE MIDDLESEX SOUTH REGISTRY OF DEEDS.
   - B. "PLAN OF LOTS BELONGING TO GEORGIANNA HOBBS ARLINGTON, MASS.", BY JAMES ADAM, SCALE 1"=40', DATED FEBRUARY 1906, RECORDED IN PLAN BOOK 200, PLAN 37 OF THE MIDDLESEX SOUTH REGISTRY OF DEEDS.
   - C. "SECTION 80 MILL BROOK VALLEY SEWER NORTH METROPOLITAN SYSTEM ARLINGTON", DATED JULY 1926.
   - D. "PLAN OF LAND IN ARLINGTON MASS.", BY C.H. GANNETT CO., SCALE 1" =30', DATED AUGUST 1927, RECORDED AS PLAN 979 OF 1931 OF THE MIDDLESEX SOUTH REGISTRY OF DEEDS.
   - E. "PLAN OF LAND IN ARLINGTON MASS. TO BE TAKEN FOR PARK PURPOSES", BY JAMES M. KEANE, SCALE 1" =30', DATED FEB. 14, 1933, RECORDED AS PLAN 182 OF 1933 OF THE MIDDLESEX SOUTH REGISTRY OF DEEDS.
   - F. "PLAN SHOWING LAND TO BE TRANSFERRED IN ARLINGTON MASS.", BY JAMES M. KEANE, SCALE 1" =30', DATED FEB. 14, 1933, RECORDED AS PLAN 38 OF 1934 OF THE MIDDLESEX SOUTH REGISTRY OF DEEDS.
   - G. "DENNIS HURLEY PLAN OF LAND GROVE STREET ARLINGTON", BY RALPH ADAMS, SCALE 1" =20', DATED DEC. 9, 1933, RECORDED AS PLAN 20 OF 1934 OF THE MIDDLESEX SOUTH REGISTRY OF DEEDS.
   - H. "SUBDIVISION OF LAND IN ARLINGTON MASS.", BY JOS. J. SULLIVAN, SCALE 1"=20', DATED MAY 1976, RECORDED AS PLAN 761 OF 1946 OF THE MIDDLESEX SOUTH REGISTRY OF DEEDS.
   - I. "SUBDIVISION OF LAND IN ARLINGTON MASS", BY T.F. GEARY, SCALE 1" =20', DATED OCT. 30, 1947, RECORDED AS PLAN 449 OF 1949 OF THE MIDDLESEX SOUTH REGISTRY OF DEEDS.
   - J. LAND COURT PLAN 20878A DATED OCTOBER 1947.
   - K. LAND COURT PLAN 22019A DATED SEPTEMBER 1949.
   - L. "PLAN OF THE RELOCATION OF GROVE STREET ARLINGTON AS ORDERED BY THE COUNTY COMMISSIONERS", SCALE 1" =40', DATED 1964, RECORDED AS PLAN 133 OF 1964 OF THE MIDDLESEX SOUTH REGISTRY OF DEEDS.
   - M. "SECTION 92 MILL BROOK VALLEY RELIEF SEWER NORTH METROPOLITAN SYSTEM ARLINGTON", DATED MAY 1966.
   - N. "THE COMMONWEALTH OF MASSACHUSETTS METROPOLITAN DISTRICT COMMISSION SEWERAGE DIVISION PLAN OF LAND IN ARLINGTON", SCALE 1"=40', DATED MAY 1966, RECORDED AS PLAN 281 OF 1967 OF THE MIDDLESEX SOUTH REGISTRY OF DEEDS.
   - O. "PLAN OF LAND IN ARLINGTON MASS.", BY CURLEY & HANSEN, SCALE 1" =20', DATED MAY 29, 1971, RECORDED AS PLAN 657 OF 1971 OF THE MIDDLESEX SOUTH REGISTRY OF DEEDS.
   - P. LAND COURT PLAN 4481B DATED APRIL 26, 1969.
   - Q. "PLAN OF LAND IN ARLINGTON MASS. SHOWING SEWER & WATER EASEMENT", BY R.L. HIGGINS, SCALE 1" =40', DATED JAN. 1973, RECORDED AS PLAN 65 OF 1973 OF THE MIDDLESEX SOUTH REGISTRY OF DEEDS.
   - R. "PLAN OF LAND IN ARLINGTON MASS.", BY HAYES ENGINEERING INC., SCALE 1"=30', DATED JANUARY 31, 1983, RECORDED AS PLAN 144 OF 1983 OF THE MIDDLESEX SOUTH REGISTRY OF DEEDS.
   - S. "PLAN OF LAND IN ARLINGTON MA. PREPARED FOR ROSE-MAL HERITAGE REALTY TRUST", BY DAVID D. LANATA & ASSOC., INC., SCALE 1" =20', DATED JUNE 24, 1987, RECORDED AS PLAN 1185 OF 1987 OF THE MIDDLESEX SOUTH REGISTRY OF DEEDS.
   - T. LAND COURT PLAN 4481C DATED OCTOBER 11, 2001.
   - U. "SITE PLAN 19 PRENTIS ROAD ARLINGTON MA. 02147", BY PFS LAND SURVEYING, INC., SCALE 1" =10', DATED 12/24/2013, RECORDED AS PLAN 473 OF 2014 OF THE MIDDLESEX SOUTH REGISTRY OF DEEDS.
4. THE PROPERTY IS TOGETHER WITH AND SUBJECT TO SUCH EASEMENTS AND RIGHTS OF RECORD AS MAY APPEAR.
5. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING AND OTHER DATA SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES, GOVERNMENTAL AGENCIES AND/OR OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO WESTON & SAMPSON. THE EXISTENCE, SIZE AND LOCATION OF ALL SUCH FEATURES MUST BE DETERMINED AND VERIFIED IN THE FIELD BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG.





LOCATION MAP
NOT TO SCALE

NOTES:

1) Borings were drilled by Technical Drilling Services of Sterling, Massachusetts, and observed by Weston & Sampson on September 10, 2018.

2) Boring locations are based on field measurements relative to existing site features and are approximate.

LEGEND:

B-1 Designation and approximate location of borings

(MW) Indicates a groundwater monitoring well was installed in the boring upon completion

30 15 0 30 60 90
GRAPHIC SCALE 1" = 30

THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

I CERTIFY THAT THE PROPERTY LINES SHOWN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

Michael G. Wilmes, L.S. 34322 *Date*

REVISIONS	
DATE	DESCRIPTION

MAP OF SURVEY
WELLINGTON PARK
TOWN OF ARLINGTON
COUNTY OF MIDDLESEX — COMMONWEALTH OF MASSACHUSETTS

Weston & Sampson
Weston & Sampson Engineers, Inc.
5 Centennial Drive, Peabody, MA 01960 Tel:(978)532-1900

CAD FILE: Wellington Park_SURV
DATE: Sept. 2018
SHEET 1 OF 1
SCALE: 1"=30'
DRAWING No. #2180067

S:\MA\Arlington, MA\XXX_xxx Wellington Park\CADD\5_Survey\Project Drawings\Wellington Park_SURV.dwg, 9/6/2018 2:20:07 PM

Appendix J

Mill Brook Corridor & Wellington Park Revitalization
Arlington, MA

January 2019

Weston & Sampson

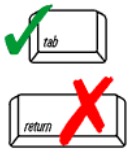
Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands program

Wildlife Habitat Protection Guidance

Appendix A: Simplified Wildlife Habitat Evaluation

Project Information

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



Mill Brook at Wellington Park, Arlington, MA

Project Location (from NOI)

Mel Higgins, PWS | 1/22/19

Name of Person Completing Form | Date

Important Habitat Features

Direct alterations to the following important habitat features in resource areas may be permitted only if they will have no adverse effect (refer to Section V).

- ☐ Habitat for state-listed animal species (receipt of a positive opinion or permit from MNHESP shall be presumed to be correct. Do not refer to Section V).
- ☐ Sphagnum hummocks and pools suitable to serve as nesting habitat for four-toed salamanders
- ☐ Trees with large cavities (≥18" tree diameter at cavity entrance)
- ☐ Existing beaver, mink or otter dens
- ☐ Areas within 100 feet of existing beaver, mink or otter dens (if significant disturbance)
- ☐ Existing nest trees for birds that traditionally reuse nests (bald eagle, osprey, great blue heron)
- ☐ Land containing freshwater mussel beds
- ☐ Wetlands and waterbodies known to contain open water in winter with the capacity to serve as waterfowl winter habitat
- ☐ Turtle nesting areas
- ☐ Vertical sandy banks (bank swallows, rough-winged swallows or kingfishers)

The following habitat characteristics when not commonly encountered in the surrounding area:

- ☐ Stream bed riffle zones (e.g. in eastern MA)
- ☐ Springs
- ☐ Gravel stream bottoms (trout and salmon nesting substrate)
- ☐ Plunge pools (deep holes) in rivers or streams
- ☐ Medium to large, flat rock substrates in streams

None of the above mentioned habitats are located at the work area.
The bank is manmade and provides no natural habitat.

Wildlife Habitat Protection Guidance

Appendix A: Simplified Wildlife Habitat Evaluation

Activities

When any one of the following activities is proposed within resource areas, applicants should complete a Detailed Wildlife Habitat Evaluation (refer to Appendix B).

- ☐ Activities located in mapped "Habitat of Potential Regional or Statewide Importance"
- ☐ Activities affecting certified or documented vernal pool habitat, including habitat within 100' of a certified or documented vernal pool when within a resource area
- ☐ Activities in bank, land under water, bordering land subject to flooding (presumed significant) where alterations are more than twice the size of thresholds
- ☐ Activities affecting vegetated wetlands >5000 sq. ft. occurring in resource areas other than Bordering Vegetated Wetland
- ☐ Activities affecting the sole connector between habitats >50 acres in size
- ☐ Installation of structures that prevent animal movement
- ☐ Activities for the purpose of bank stabilization using hard structure solutions that significantly affect ability of stream channel to shift and meander, or disrupt continuity in cover that would inhibit animal passage
- ☐ Dredging (greater than 5,000 sf)

None of the above mentioned activities will occur as part of this project.

Wellington Park
Arlington, MA
Site Visit
December 10, 2018

Damaged bank

(Note: there is a second area of damaged bank edge further east)

Tree #1
(mature tree)

3’-8” caliper
10’-3” east of stake #6

Tree #2
(tree in good condition)

1’-10” caliper
1’ east of stake #6

Approximate
edge of outlet
(stake #1)

Approximate
edge of outlet
(stake #10)

Approximate
edge of inlet
(stake #8)

Approximate
edge of inlet
(stake #6)

East to Grove Street

West to Pedestrian Footbridge

Note: these photos were taken from the north bank, facing south

Appendix K

Mill Brook Corridor & Wellington Park Revitalization
Arlington, MA

January 2019

Weston & Sampson

General Guidelines

Operation and Maintenance is critical to long-term success. Regular maintenance serves to uphold an expected level of performance and ensures more expensive operations may be avoided long term.

The flood storage area should be maintained to ensure the plant materials and groundcovers are adequately supplied and restored. Maintenance consists of weeding, pruning, trash removal, and the replacement of diseased or declining plants. General guidelines for the maintenance of these areas are as follows:

1. After initial installation, plants shall be watered daily for two weeks.
2. Monthly weeding is recommended for the first year after planting, to allow for establishment of intended vegetation.
3. Dead plant material, trash, and other debris should be removed regularly.
4. Shrubs and trees shall be pruned by experienced personnel to maintain a neat appearance and to remove diseased/dead woody material.
5. Diseased plants and those that do not survive should be removed and replanted. If a species does not thrive over time, consideration should be given to replace all specimens with a more appropriate plant material.
6. Invasive plants should be removed and disposed of at a facility that accepts materials containing invasive species. All equipment and clothing used during removal will be cleaned to remove seed material before leaving the site and entering areas that do not contain invasive species.
7. MWRA access to sewer easement and manholes onsite should be preserved.

The above maintenance procedures generally can be performed utilizing the following tools and practices:

- Rakes, shovels, and trash grabbers can be used to remove debris, trash, leaves, and sediment.
- Flat-bladed shovels are recommended for the removal of accumulated sediment from inlets.
- Pruning shears, loppers, and weed pullers can be used to maintain woody vegetative material and trees. Mowers are recommended in turf areas.
- Watering is especially important during plant establishment, and supplemental watering should be performed during periods of prolonged drought. Drip irrigation, hose-watering, and tree watering bags can be employed to ensure vegetation is adequately watered.
- A vacuum-powered street sweeper may be used to maintain permeable pavements.
- Backhoes and front-end loaders may be necessary if large amounts of sediment have accumulated in the flood storage area.
- Where invasive plants are removed through the cut-and-dab method, the plant should be cut as close to the ground as possible using an industrial weed whacker (with a metal blade) or a machete. The cut vegetation should be placed inside plastic bags, so seeds do not spread to any non-impacted areas. A glyphosate herbicide (without POEA) should be applied to the remaining cut surface of the plant as soon as possible after the plant is cut using a rag, brush, or sponge. This may need to be performed annually until invasive species do not resurface.

Flood Storage Area

The flood storage area shall be inspected every six months during the first year, and afterwards annually and following extreme precipitation events. Inspection shall include all items noted below.

All accumulated sediment and debris in the flood storage area should be removed and disposed of according to local, state and federal regulations. Vegetation in the flood storage areas shall likewise be inspected for degradation. Any accumulated sediment shall be removed, and bare spots should be re-seeded as needed.

Inlets and outlets from the flood storage area shall be inspected for damage. Vegetation, soil or debris that obstructs free flow conditions (i.e. forming a non-engineered barrier) shall be removed. If soil erosion is noted, erosion shall be repaired, and bare spots shall be armored with stone riprap. Accumulated debris that may impede stormwater flow shall be removed, and erosion shall be repaired with supplemental stone riprap.

Inspections and Record Keeping

- An inspection form should be filled out each time maintenance work is performed.
- A binder should be kept that contains all the completed inspection forms and any other related materials.
- A review of all Operation & Maintenance actions should take place annually to ensure that these Stormwater BMPs are being taken care of in the manner illustrated in this Operation & Maintenance Plan.
- All operation and maintenance log forms for the last three years, at a minimum, shall be kept.
- The inspection and maintenance schedule may be refined in the future based on the findings and results of this operation and maintenance program or policy.

Porous Pavement

Permeable pavements are highly susceptible to clogging and subject to neglect. The Town should implement proper maintenance and winter operation activities that will allow the system to function properly through its design life. Porous pavement areas that receive high volumes of sediment will require more frequent maintenance activities. When maintenance of permeable paving areas is required, the cause of the maintenance should be understood prior to commencing repairs so unnecessary difficulties and recurring costs can be avoided. Generally, routine vacuum sweeping and high-pressure washing (with proper disposal of removed material and wash water) can maintain infiltration rates when clogged or crusted material is removed. Signs can also be posted visibly within a permeable paving area to prevent such activities as resurfacing and the use of abrasives. Typical maintenance activities for permeable paving are summarized in the table below.

Typical Maintenance Activities for Permeable Paving	
Activity	**Schedule**
Ensure that paving area is clean of debris	Monthly
Ensure that paving dewaters between storms	Monthly and after storms >0.5 in.
Ensure that the area is clean of sediments	Monthly
Mow upland and adjacent areas, and seed bare areas	As needed
Vacuum sweep frequently to keep surface free of sediments	Typically, 3 to 4 times a year
Inspect the surface for deterioration or spalling	Annual

Scheduling and Seasonal Maintenance Guidelines

Maintenance typically begins with a regular inspection or assessment program. Inspections by trained staff can identify and prioritize maintenance needs. These inspections should occur at least once per year.

A typical maintenance regime is outlined below.

First year after construction and planting of vegetation:

- Temporarily irrigate, apply tree-watering bags, and/or hose-water plants if rainfall is inadequate until plants mature.

Ongoing maintenance/as needed:

- Pruning and weeding to maintain appearance of vegetated green infrastructure practices.
- Replacement landscape stone when erosion and degradation is evident.
- Removal of trash and debris as needed.
- Filter strips mown regularly.
- Test soils and monitor moisture levels if vegetation is declining.
- Replace vegetation as needed to maintain appearance and health of the system.
- Maintenance as needed in response to extreme weather events.

Semi-annually:

- Inspect flood storage area for sediment accumulation and erosion. Remove sediment and repair erosion as necessary.
- Vegetative material should be inspected to monitor for damage, decline, disease and pests. Horticultural/Arboricultural best management practices shall be utilized to respond to the presence of these factors.

Annually in Spring:

- Inspect infiltration surfaces and inflow points for buildup of road sand/salts associated with spring melt. Remove accumulated sediments and replant areas damaged by sand/salt buildup.
- If invasive species grows back, cut the knotweed to ground surface and immediately apply a glyphosate herbicide (without POEA) directly to the cut, commonly referred to as the “cut-and-dab method”. This process would need to be repeated annually until the knotweed is completely gone.

Annually in Fall:

- Thin and remove damaged plant materials and remove accumulation of leafy debris if necessary.

2019 00037908
Bk: 72384 Pg: 538 Doc: ORD
Page: 1 of 18 03/28/2019 10:39 AM

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

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

Provided by MassDEP:

MassDEP File # 091-0305

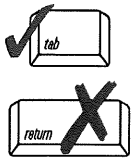
eDEP Transaction # Arlington

City/Town

A. General Information

Please note: this form has been modified with added space to accommodate the Registry of Deeds Requirements

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



1. From: Arlington
Conservation Commission

2. This issuance is for (check one): a. ☒ Order of Conditions b. ☐ Amended Order of Conditions

3. To: Applicant:

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

Town of Arlington (c. Organization)

730 Massachusetts Avenue (d. Mailing Address)

Arlington (e. City/Town) | MA (f. State) | 02476 (g. Zip Code)

4. Property Owner (if different from applicant):

a. First Name | b. Last Name

c. Organization

d. Mailing Address

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

5. Project Location:

35 Grove Street (a. Street Address) | Arlington (b. City/Town)

54, 55 (c. Assessors Map/Plat Number) | 054.0-0001-0001.0, 055.B-0001-0010.0 (d. Parcel/Lot Number)

Latitude and Longitude, if known: 42d25m13.27NMids (d. Latitude) | 71d10m3.28Ws (e. Longitude)

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 5 – Order of Conditions

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

Provided by MassDEP:

MassDEP File # 091-0305

eDEP Transaction #

Arlington
City/Town

A. General Information (cont.)

6. Property recorded at the Registry of Deeds for (attach additional information if more than one parcel):

Middlesex
a. County

b. Certificate Number (if registered land)

5718
c. Book

57
d. Page

7. Dates: 1/23/2019 a. Date Notice of Intent Filed; 2/7/2019 b. Date Public Hearing Closed; 2/7/2019 c. Date of Issuance

8. Final Approved Plans and Other Documents (attach additional plan or document references as needed):

Mill Brook Corridor and Wellington Park Revitalization Project Plan Set
a. Plan Title

Weston & Sampson
b. Prepared By

Cherilyn F. Ruane
c. Signed and Stamped by

1/23/2019
d. Final Revision Date

1"= 30'
e. Scale

See Attached
f. Additional Plan or Document Title

Various
g. Date

B. Findings

1. Findings pursuant to the Massachusetts Wetlands Protection Act:

Following the review of the above-referenced Notice of Intent and based on the information provided in this application and presented at the public hearing, this Commission finds that the areas in which work is proposed is significant to the following interests of the Wetlands Protection Act (the Act). Check all that apply:

a. ☒ Public Water Supply
b. ☐ Land Containing Shellfish
c. ☒ Prevention of Pollution
d. ☐ Private Water Supply
e. ☐ Fisheries
f. ☒ Protection of Wildlife Habitat
g. ☒ Groundwater Supply
h. ☒ Storm Damage Prevention
i. ☒ Flood Control

2. This Commission hereby finds the project, as proposed, is: (check one of the following boxes)

Approved subject to:

a. ☒ the following conditions which are necessary in accordance with the performance standards set forth in the wetlands regulations. This Commission orders that all work shall be performed in accordance with the Notice of Intent referenced above, the following General Conditions, and any other special conditions attached to this Order. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, these conditions shall control.

B. Findings (cont.)

Denied because:

b. ☐ the proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations. Therefore, work on this project may not go forward unless and until a new Notice of Intent is submitted which provides measures which are adequate to protect the interests of the Act, and a final Order of Conditions is issued. **A description of the performance standards which the proposed work cannot meet is attached to this Order.**

c. ☐ the information submitted by the applicant is not sufficient to describe the site, the work, or the effect of the work on the interests identified in the Wetlands Protection Act. Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides sufficient information and includes measures which are adequate to protect the Act's interests, and a final Order of Conditions is issued. **A description of the specific information which is lacking and why it is necessary is attached to this Order as per 310 CMR 10.05(6)(c).**

3. ☐ Buffer Zone Impacts: Shortest distance between limit of project disturbance and the wetland resource area specified in 310 CMR 10.02(1)(a) _____ a. linear feet

Inland Resource Area Impacts: Check all that apply below. (For Approvals Only)

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
4. ☒ Bank	77 a. linear feet	77 b. linear feet	77 c. linear feet	77 d. linear feet
5. ☐ Bordering Vegetated Wetland	_____ a. square feet	_____ b. square feet	_____ c. square feet	_____ d. square feet
6. ☐ Land Under Waterbodies and Waterways	_____ a. square feet	_____ b. square feet	_____ c. square feet	_____ d. square feet
	_____ e. c/y dredged	_____ f. c/y dredged		
7. ☒ Bordering Land Subject to Flooding	3,200 a. square feet	3,200 b. square feet	3,200 c. square feet	3,200 d. square feet
Cubic Feet Flood Storage	0 e. cubic feet	0 f. cubic feet	9,450 g. cubic feet	9,450 h. cubic feet
8. ☐ Isolated Land Subject to Flooding	_____ a. square feet	_____ b. square feet		
Cubic Feet Flood Storage	_____ c. cubic feet	_____ d. cubic feet	_____ e. cubic feet	_____ f. cubic feet
9. ☒ Riverfront Area	43,957 a. total sq. feet	43, 957 b. total sq. feet		
Sq ft within 100 ft	41, 476 c. square feet	41, 476 d. square feet	_____ e. square feet	_____ f. square feet
Sq ft between 100-200 ft	2, 481 g. square feet	2, 481 h. square feet	_____ i. square feet	_____ j. square feet

B. Findings (cont.)

Coastal Resource Area Impacts: Check all that apply below. (For Approvals Only)

	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
10. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below			
11. ☐ Land Under the Ocean	a. square feet	b. square feet		
	c. c/y dredged	d. c/y dredged		
12. ☐ Barrier Beaches	Indicate size under Coastal Beaches and/or Coastal Dunes below			
13. ☐ Coastal Beaches	a. square feet	b. square feet	c. nourishment (cu yd)	d. nourishment (cu yd)
14. ☐ Coastal Dunes	a. square feet	b. square feet	c. nourishment (cu yd)	d. nourishment (cu yd)
15. ☐ Coastal Banks	a. linear feet	b. linear feet		
16. ☐ Rocky Intertidal Shores	a. square feet	b. square feet		
17. ☐ Salt Marshes	a. square feet	b. square feet	c. square feet	d. square feet
18. ☐ Land Under Salt Ponds	a. square feet	b. square feet		
	c. c/y dredged	d. c/y dredged		
19. ☐ Land Containing Shellfish	a. square feet	b. square feet	c. square feet	d. square feet
20. ☐ Fish Runs	Indicate size under Coastal Banks, Inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above			
	a. c/y dredged	b. c/y dredged		
21. ☐ Land Subject to Coastal Storm Flowage	a. square feet	b. square feet		
22. ☐ Riverfront Area	a. total sq. feet	b. total sq. feet		
Sq ft within 100 ft	c. square feet	d. square feet	e. square feet	f. square feet
Sq ft between 100-200 ft	g. square feet	h. square feet	i. square feet	j. square feet

B. Findings (cont.)

* **#23**. 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.5.c (BVW) or B.17.c (Salt Marsh) above, please enter the additional amount here.

23. ☐ Restoration/Enhancement *:

a. square feet of BVW | b. square feet of salt marsh

24. ☐ Stream Crossing(s):

a. number of new stream crossings | b. number of replacement stream crossings

C. General Conditions Under Massachusetts Wetlands Protection Act

The following conditions are only applicable to Approved projects.

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Order.
2. The Order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.
3. This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
4. The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:
   a. The work is a maintenance dredging project as provided for in the Act; or
   b. The time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.
   c. If the work is for a Test Project, this Order of Conditions shall be valid for no more than one year.
5. This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order. An Order of Conditions for a Test Project may be extended for one additional year only upon written application by the applicant, subject to the provisions of 310 CMR 10.05(11)(f).
6. If this Order constitutes an Amended Order of Conditions, this Amended Order of Conditions does not extend the issuance date of the original Final Order of Conditions and the Order will expire on 2/7/2022 unless extended in writing by the Department.
7. Any fill used in connection with this project shall be clean fill. Any fill shall contain no trash, refuse, rubbish, or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles, or parts of any of the foregoing.

C. General Conditions Under Massachusetts Wetlands Protection Act

8. This Order is not final until all administrative appeal periods from this Order have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed.

9. No work shall be undertaken until the Order has become final and then has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of the registered land, the Final Order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done. The recording information shall be submitted to the Conservation Commission on the form at the end of this Order, which form must be stamped by the Registry of Deeds, prior to the commencement of work.

10. A sign shall be displayed at the site not less then two square feet or more than three square feet in size bearing the words,

"Massachusetts Department of Environmental Protection" [or, "MassDEP"]

"File Number 091-0305 "

11. Where the Department of Environmental Protection is requested to issue a Superseding Order, the Conservation Commission shall be a party to all agency proceedings and hearings before MassDEP.

12. Upon completion of the work described herein, the applicant shall submit a Request for Certificate of Compliance (WPA Form 8A) to the Conservation Commission.

13. The work shall conform to the plans and special conditions referenced in this order.

14. Any change to the plans identified in Condition #13 above shall require the applicant to inquire of the Conservation Commission in writing whether the change is significant enough to require the filing of a new Notice of Intent.

15. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Order at reasonable hours to evaluate compliance with the conditions stated in this Order, and may require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.

16. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order and to any contractor or other person performing work conditioned by this Order.

C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

17. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation Commission.

18. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Conservation Commission, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.

19. The work associated with this Order (the "Project")
    (1) ☒ is subject to the Massachusetts Stormwater Standards
    (2) ☐ is NOT subject to the Massachusetts Stormwater Standards

    If the work is subject to the Stormwater Standards, then the project is subject to the following conditions:

    a) All work, including site preparation, land disturbance, construction and redevelopment, shall be implemented in accordance with the construction period pollution prevention and erosion and sedimentation control plan and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Construction General Permit as required by Stormwater Condition 8. Construction period erosion, sedimentation and pollution control measures and best management practices (BMPs) shall remain in place until the site is fully stabilized.

    b) No stormwater runoff may be discharged to the post-construction stormwater BMPs unless and until a Registered Professional Engineer provides a Certification that:
    i. all construction period BMPs have been removed or will be removed by a date certain specified in the Certification. For any construction period BMPs intended to be converted to post construction operation for stormwater attenuation, recharge, and/or treatment, the conversion is allowed by the MassDEP Stormwater Handbook BMP specifications and that the BMP has been properly cleaned or prepared for post construction operation, including removal of all construction period sediment trapped in inlet and outlet control structures;
    ii. as-built final construction BMP plans are included, signed and stamped by a Registered Professional Engineer, certifying the site is fully stabilized;
    iii. any illicit discharges to the stormwater management system have been removed, as per the requirements of Stormwater Standard 10;

C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

iv. all post-construction stormwater BMPs are installed in accordance with the plans (including all planting plans) approved by the issuing authority, and have been inspected to ensure that they are not damaged and that they are in proper working condition;

v. any vegetation associated with post-construction BMPs is suitably established to withstand erosion.

c) The landowner is responsible for BMP maintenance until the issuing authority is notified that another party has legally assumed responsibility for BMP maintenance. Prior to requesting a Certificate of Compliance, or Partial Certificate of Compliance, the responsible party (defined in General Condition 18(e)) shall execute and submit to the issuing authority an Operation and Maintenance Compliance Statement ("O&M Statement) for the Stormwater BMPs identifying the party responsible for implementing the stormwater BMP Operation and Maintenance Plan ("O&M Plan") and certifying the following:

i.) the O&M Plan is complete and will be implemented upon receipt of the Certificate of Compliance, and

ii.) the future responsible parties shall be notified in writing of their ongoing legal responsibility to operate and maintain the stormwater management BMPs and implement the Stormwater Pollution Prevention Plan.

d) Post-construction pollution prevention and source control shall be implemented in accordance with the long-term pollution prevention plan section of the approved Stormwater Report and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Multi-Sector General Permit.

e) Unless and until another party accepts responsibility, the landowner, or owner of any drainage easement, assumes responsibility for maintaining each BMP. To overcome this presumption, the landowner of the property must submit to the issuing authority a legally binding agreement of record, acceptable to the issuing authority, evidencing that another entity has accepted responsibility for maintaining the BMP, and that the proposed responsible party shall be treated as a permittee for purposes of implementing the requirements of Conditions 18(f) through 18(k) with respect to that BMP. Any failure of the proposed responsible party to implement the requirements of Conditions 18(f) through 18(k) with respect to that BMP shall be a violation of the Order of Conditions or Certificate of Compliance. In the case of stormwater BMPs that are serving more than one lot, the legally binding agreement shall also identify the lots that will be serviced by the stormwater BMPs. A plan and easement deed that grants the responsible party access to perform the required operation and maintenance must be submitted along with the legally binding agreement.

f) The responsible party shall operate and maintain all stormwater BMPs in accordance with the design plans, the O&M Plan, and the requirements of the Massachusetts Stormwater Handbook.

C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

g) The responsible party shall:
1. Maintain an operation and maintenance log for the last three (3) consecutive calendar years of inspections, repairs, maintenance and/or replacement of the stormwater management system or any part thereof, and disposal (for disposal the log shall indicate the type of material and the disposal location);
2. Make the maintenance log available to MassDEP and the Conservation Commission ("Commission") upon request; and
3. Allow members and agents of the MassDEP and the Commission to enter and inspect the site to evaluate and ensure that the responsible party is in compliance with the requirements for each BMP established in the O&M Plan approved by the issuing authority.

h) All sediment or other contaminants removed from stormwater BMPs shall be disposed of in accordance with all applicable federal, state, and local laws and regulations.

i) Illicit discharges to the stormwater management system as defined in 310 CMR 10.04 are prohibited.

j) The stormwater management system approved in the Order of Conditions shall not be changed without the prior written approval of the issuing authority.

k) Areas designated as qualifying pervious areas for the purpose of the Low Impact Site Design Credit (as defined in the MassDEP Stormwater Handbook, Volume 3, Chapter 1, Low Impact Development Site Design Credits) shall not be altered without the prior written approval of the issuing authority.

l) Access for maintenance, repair, and/or replacement of BMPs shall not be withheld. Any fencing constructed around stormwater BMPs shall include access gates and shall be at least six inches above grade to allow for wildlife passage.

Special Conditions (if you need more space for additional conditions, please attach a text document):

See Attached Findings and Conditions

20. For Test Projects subject to 310 CMR 10.05(11), the applicant shall also implement the monitoring plan and the restoration plan submitted with the Notice of Intent. If the conservation commission or Department determines that the Test Project threatens the public health, safety or the environment, the applicant shall implement the removal plan submitted with the Notice of Intent or modify the project as directed by the conservation commission or the Department.

D. Findings Under Municipal Wetlands Bylaw or Ordinance

1. Is a municipal wetlands bylaw or ordinance applicable? ☒ Yes ☐ No

2. The Arlington Conservation Commission hereby finds (check one that applies):

   a. ☐ that the proposed work cannot be conditioned to meet the standards set forth in a municipal ordinance or bylaw, specifically:

   _____ (1. Municipal Ordinance or Bylaw) _____ (2. Citation)

   Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides measures which are adequate to meet these standards, and a final Order of Conditions is issued.

   b. ☒ that the following additional conditions are necessary to comply with a municipal ordinance or bylaw:

   Arlington Bylaw for Wetlands Protection (1. Municipal Ordinance or Bylaw) Title V, Art 8 (2. Citation)

3. The Commission orders that all work shall be performed in accordance with the following conditions and with the Notice of Intent referenced above. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, the conditions shall control.

   The special conditions relating to municipal ordinance or bylaw are as follows (if you need more space for additional conditions, attach a text document):

   See Attached Findings and Conditions

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 5 – Order of Conditions
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File #
091-0305
eDEP Transaction #
Arlington
City/Town

E. Signatures

This Order is valid for three years, unless otherwise specified as a special condition pursuant to General Conditions #4, from the date of issuance.

2/7/2019
1. Date of Issuance

Please indicate the number of members who will sign this form.
This Order must be signed by a majority of the Conservation Commission.

7
2. Number of Signers

The Order must be mailed by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate Department of Environmental Protection Regional Office, if not filing electronically, and the property owner, if different from applicant.

Signatures:

☒ by hand delivery on
2/14/2019
Date

☐ by certified mail, return receipt requested, on
Date

F. Appeals

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate MassDEP Regional Office to issue a Superseding Order of Conditions. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request for Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order associated with this appeal will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order, or providing written information to the Department prior to issuance of a Superseding Order.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40), and is inconsistent with the wetlands regulations (310 CMR 10.00). To the extent that the Order is based on a municipal ordinance or bylaw, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no appellate jurisdiction.

G. Recording Information

Prior to commencement of work, this Order of Conditions must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Conditions. The recording information on this page shall be submitted to the Conservation Commission listed below.

Arlington
Conservation Commission

Detach on dotted line, have stamped by the Registry of Deeds and submit to the Conservation Commission.

To:

Arlington
Conservation Commission

Please be advised that the Order of Conditions for the Project at:

35 Grove Street
Project Location

091-0305
MassDEP File Number

Has been recorded at the Registry of Deeds of:

Middlesex
County

5718
Book

57
Page

for:
Property Owner

and has been noted in the chain of title of the affected property in:

Book

Page

In accordance with the Order of Conditions issued on:

Date

If recorded land, the instrument number identifying this transaction is:

Instrument Number

If registered land, the document number identifying this transaction is:

Document Number

Signature of Applicant

DOCUMENTS REVIEWED

1. Notice of Intent for Mill Brook Corridor & Wellington Park Revitalization, Arlington, MA, prepared by Weston & Sampson, for the Applicant: Town of Arlington Recreation Department, dated 1/23/2019.

2. Project Description prepared by Weston & Sampson (Appendix A), dated January 2019.

3. Alternatives Analysis prepared by Weston & Sampson (Appendix B), dated January 2019.

4. Checklist for Stormwater Report and Stormwater Report, prepared by Weston & Sampson, stamped by James I. Pearson PE, dated 1/23/2019.

5. Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan, prepared by Weston & Sampson, not dated.

6. Locus Map, prepared by Weston & Sampson, not dated.

7. Environmental Receptors Map, prepared by Weston & Sampson, not dated.

8. FEMA National Flood Hazard Layer FIRMette, prepared by Weston & Sampson, dated 6/12/2018.

9. Construction Specifications (Environmental Protection, Cleaning Up, Selective Clearing Invasive Species, Trees Shrubs Groundcovers and Landscaping) (Appendix E), prepared by Weston & Sampson, dated January 2019.

10. Wetlands Investigation Memorandum (Appendix G), prepared by Mel Higgins PWS of Weston & Sampson, dated 1/17/2019.

11. Water Velocity Modeling Report (Appendix H), prepared by Weston & Sampson, dated January 2019.

12. Site Borings Report (Appendix I), prepared by Weston & Sampson, dated January 2019.

13. Wildlife Protection Guidance (Appendix J), prepared by Weston & Sampson, dated 1/22/2019.

14. Project Operation and Maintenance Guidance (Appendix K), prepared by Weston & Sampson, dated January 2019.

15. Town of Arlington, Massachusetts Mill Brook Corridor and Wellington Park Revitalization Project Plan Set, prepared by Weston & Sampson, stamped by Cherilyn Ruane RLA, dated 1/23/2019.

PROCEDURAL SUMMARY

The Conservation Commission held a public hearing on the Notice of Intent on February 7, 2019. The Commission closed the hearing on January 7, 2019, deliberated and voted 7-0 to approve the Project with conditions under the Wetlands Protection Act (the "Act") and voted 7-0 to approve the Project with conditions under the Arlington Wetlands Protection Bylaw (the "Bylaw").

FINDINGS OF FACT AND LAW UNDER ARLINGTON WETLANDS PROTECTION BYLAW AND WETLANDS PROTECTION ACT

A. The Project as approved involves building a flood storage channel (approximately 70 cubic yards of storage), resurfacing and elongating the existing park pathway using a porous bituminous concrete and boardwalk, and removing invasive species. The Project Site is located in Wellington Park, at 35 Grove Street, along Mill Brook.

B. The Project Site contains approximately 43,957 square feet of impact in the Riverfront Area, 41,476 square feet of which is within the 100-foot buffer and 2,481 square feet of which is between 100-feet and 200-feet. Approximately 77 linear feet of bank will be altered and replaced. Approximately 3,200 square feet of Bordering Land Subject to Flooding will be altered and replaced. Approximately 9,450 cubic feet of Bordering Land Subject to Flooding will be replaced.

C. The following Resource Areas are present on the site or within 100 feet of the project limit of work: Bank (Act), Buffer Zone (Act) to Bank, Bordering Land Subject to Flooding (Act), 200-foot Riverfront Area (Act), and 100 Year Flood Zone (Act). The Commission finds accurate the delineation of Resource Areas shown on the approved Site Plan.

D. Approximately 70 cubic yards of flood storage will be added within the flood zone.

E. The Project as approved is subject to the Massachusetts Stormwater Standards.

F. The Commission finds the project meets the performance standards for the aforementioned Resource Areas.

G. Based on the testimony at the public hearing, and review of the application materials and the documents listed above submitted during the public hearing, the Commission concludes that the proposed Project will not alter Resource Areas under the Act and Bylaw, the work as conditioned will not have significant or cumulative effects upon the interests of the Wetlands Protection Act or the Resource Area values of the Arlington

Wetlands Bylaw when the conditions imposed are implemented to protect the Resource Area values. With the conditions contained herein, the Project meets the performance standards in the Bylaw Regulations and State Wetlands Regulations, 310 CMR 10.00.

Additional Special Conditions

In addition to the General Conditions (numbered 1 – 20 above), the Project is subject to the following Additional Special Conditions (under both the Act and Bylaw):

Pre-Construction

21. Work permitted by this Order and Permit shall conform to the Notice of Intent, the approved plans and documents (listed above), and oral representations (as recorded in hearing minutes) submitted or made by the Applicant and the Applicant's agents or representatives, as well as any plans and other data, information or representations submitted per these Conditions and approved by the Commission.

22. The provisions of this Order and Permit shall apply to and be binding upon the Applicant and Applicant's assignees, tenants, property management company, employees, contractors, and agents.

23. No work shall begin under this Order until: (a) all other required permits or approvals have been obtained and (b) the appeal period of ten (10) business days from the date of issue of this Order has expired without any appeal being filed and (c) this Order has been recorded in the Registry of Deeds. No work shall be started under this Permit until all other necessary permits or approvals have been obtained.

24. No work shall begin until the project engineering documents, including velocity calculations, are reviewed and approved by the Town Engineer to ensure no negative downstream impacts to Mill Brook. The engineering documents shall also be sent to the Conservation Commission.

25. The Applicant shall ensure that a copy of this Order of Conditions and Permit for work, with any referenced plans, is available on site at all times, and that contractors, site managers, foremen, and sub-contractors understand its provisions.

26. Prior to starting work, the Applicant shall submit to the Commission the names and 24-hour phone numbers of project managers or the persons responsible for site work or mitigation.

27. Before work begins, erosion and sediment controls shall be installed at the limits of the work area. These will include a silt fence and 12 inch straw or silt wattle around the entire work area (hay bales are not allowed and silt socks are preferred).

28. The Applicant shall complete the proposed work during low flow conditions only.

29. The contractor shall contact the Conservation Agent (concomm@town.arlington.ma.us ; 781-316-3012) to arrange for a pre-construction meeting with the on-site project manager to walk through the Order of Conditions, confirm the wash out location, and walk the site to confirm the installation and placement of erosion controls prior to the start of any grading or construction work.

30. The contractor shall provide written Notice of the work start date to the Conservation Agent 48 hours prior to start of work.

31. The Commission, its employees, and its agents shall have the right of entry onto the site to inspect for compliance with the terms of this Order of Conditions and Permit until a Certificate of Compliance has been issued.

Post-Construction

32. When requesting a Certificate of Compliance for this Order of Conditions, the Applicant must submit a written statement from a Massachusetts professional engineer, registered land surveyor, or registered landscape architect certifying that the completed work complies with the plans referenced in this Order, or provide an as-built plan and statement describing any differences.

Dumpsters

33. All dumpsters must be covered at the end of each work day, and no dumpsters will be allowed overnight within the 100 foot Buffer Zone or Adjacent Upland Resource Areas ("AURA") or other Resource Areas.

Stockpiling

34. No uncovered stockpiling of materials shall be permitted overnight within 100 feet of any waterway or water body. Stockpiling shall occur only where noted on approved plans.

Erosion

35. Areas that are disturbed by construction and access activities shall as soon as possible be brought to final grade and reseeded and restabilized, and shall be done so prior to the removal of the erosion control barrier. Erosion control measures shall be installed per the approved plans.

Equipment

36. No heavy equipment may be stored overnight within 50 feet of the wetland and no refueling or maintenance of machinery shall be allowed within the 100-foot Buffer Zone, 200-foot Resource Area, and Adjacent Upland Resource Area or within any Resource Area.

37. Construction entrances shall be used and maintained only where noted on approved plans.

38. Arrangements shall be made for any rinsing of tools, equipment, etc. associated with on–site mixing or use of concrete or other materials such that the waste water is disposed of in the concrete wash out station-at least 50 feet from the resource area. In no case may waste water be discharged into or onto Resource Areas on or adjacent to the site. In no case may waste water be placed in stormdrains. Any spillage of materials shall be cleaned up promptly.

Sweeping

39. Any dirt or debris spilled or tracked onto any paved streets shall be swept up and removed daily.

Dewatering

40. Any dewatering operations shall conform to the following:
    (a) Notify the Conservation Commission that dewatering is required.

(b) Any catch basins, drains, and outfalls to be used in dewatering operations shall be cleaned out before operations begin.

(c) Any water discharged as part of any dewatering operation shall be passed through filters, on-site settling basins, settling tank trucks, or other devices to ensure that no observable sediments or pollutants are carried into any Resource Area, street, drain, or adjacent property.

(d) Measures shall be taken to ensure that no erosion or scouring shall occur on public or private property, or on the banks or bottoms of water bodies, as a result of dewatering operations.

Dewatering shall occur only where noted on approved plans.

Plantings

41. Prior to plant installation, the Applicant shall submit planting plan details to the Conservation Commission for approval. Planting details shall include plant sizes, Latin names, regular names, number of plants, and transported method (containerized, balled-and-burlapped, etc.). All plantings shall be native and be installed and maintained according to the standards of the American Association of Nurserymen (AAN). **This shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition.**

42. The Applicant shall protect all area trees per the Town Wetlands Protection Regulations, Section 24 Vegetation Removal and Replacement, protecting trees through securing (not nailing) 2x4 boards, between 6-8 feet in length, around tree base. The boards shall be installed vertically such that one end is installed directly into the ground.

43. The Applicant shall replace all removed trees per the Town Wetlands Protection Regulations, Section 24 Vegetation Removal and Replacement.

44. The existing mitigation areas A and B outlined in the project plans shall be enhanced through invasive species control and/or native plantings during the project work. If an existing mitigation area needs to be moved, it will be replicated within the site area with native vegetation.

45. All plantings planted and invasive species removed through this project shall be maintained for three years. A monitoring report shall be submitted annually on November 1, 2019, 2020, 2021, and 2022.

Chemicals

46. To avoid adding excess nitrogen runoff, the Applicant shall only treat the lawn area with slow release nitrogen fertilizer. Application of this fertilizer cannot occur in the summer, or after storm events. Lawn fertilizer shall only be applied twice a year, in spring and fall. Only the herbicides and herbicide treatment methods stated within the NOI are approved to treat invasive plants. No other herbicides or treatment methods are approved. New plantings shall only be fertilized once, during the initial planting year. No pesticides or rodenticides shall be used to treat pest management issues. **This shall be a continuing condition that survives the expiration of the permit and shall be included in any Certificate of Compliance as a continuing condition.**

Pervious Surfaces

47. Pervious surfaces shown on the project plans shall be maintained and not be replaced by impervious surfaces. **This shall be a continuing condition that survives the expiration of**

the permit and shall be included in any Certificate of Compliance as a continuing condition.

Stormwater

48. The Applicant shall protect all adjacent catch basins using silt socks.

49. The Applicant shall conduct catch basin sump cleanings as necessary to proximate catch basins at the end of the project work period.

Monitoring

50. The Applicant shall submit a project status report to the Commission every two weeks, beginning once construction starts. Status reports shall include photos of the site and be emailed to the Conservation Agent and forwarded to the Commission.

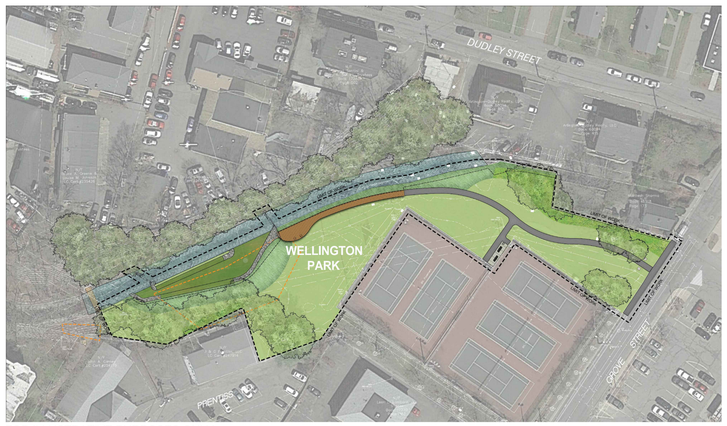
Town of Arlington, Massachusetts

MILL BROOK CORRIDOR & WELLINGTON PARK
REVITALIZATION PROJECT

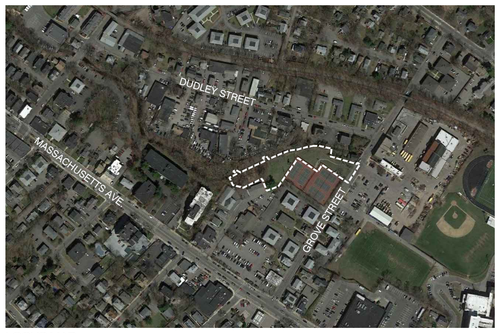
35 Grove Street
Arlington, Massachusetts

TOWN OF ARLINGTON, MASSACHUSETTS

ADAM W. CHAPDELAINE
TOWN MANAGER
730 MASSACHUSETTS AVE
ARLINGTON, MASSACHUSETTS, 02476
PHONE: 781-316-3010



FOR ILLUSTRATIVE PURPOSES ONLY



LOCUS MAP

CONSTRUCTION DOCUMENTS

JANUARY 28, 2019
Prepared By

Weston & Sampson design studio

85 Devonshire St, 3rd Floor, Boston, MA 02109
(617) 412-4480 (800) Sampson
www.westonandsampson.com

SHEET INDEX

LEGEND

- LIMIT OF WORK
- PROPERTY LINE
- APPROXIMATE LIMIT OF INVASIVE SPECIES
- APPROXIMATE RIVERFRONT MITIGATION AREA
- 25' RIVERFRONT BUFFER
- 50' RIVERFRONT BUFFER
- 100' RIVERFRONT BUFFER
- 200' RIVERFRONT BUFFER
- CHAIN LINK FENCE
- OHW — OVERHEAD WIRE
- S — SEWER LINE
- W — WATER LINE
- D — STORM DRAIN LINE
- RETAINING WALL
- EDGE OF WOODS
- EASEMENT
- 65 — MAJOR CONTOUR LINE
- 66 — MINOR CONTOUR LINE
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB/BUSH
- LIGHT POLE
- SEWER MANHOLE
- UTILITY POLE
- ELECTRICAL HAND HOLE
- CATCH BASIN
- GAS VALVE
- WATER VALVE
- B-1 — BORING LOCATION (3)
- GUY WIRE
- BOULDER

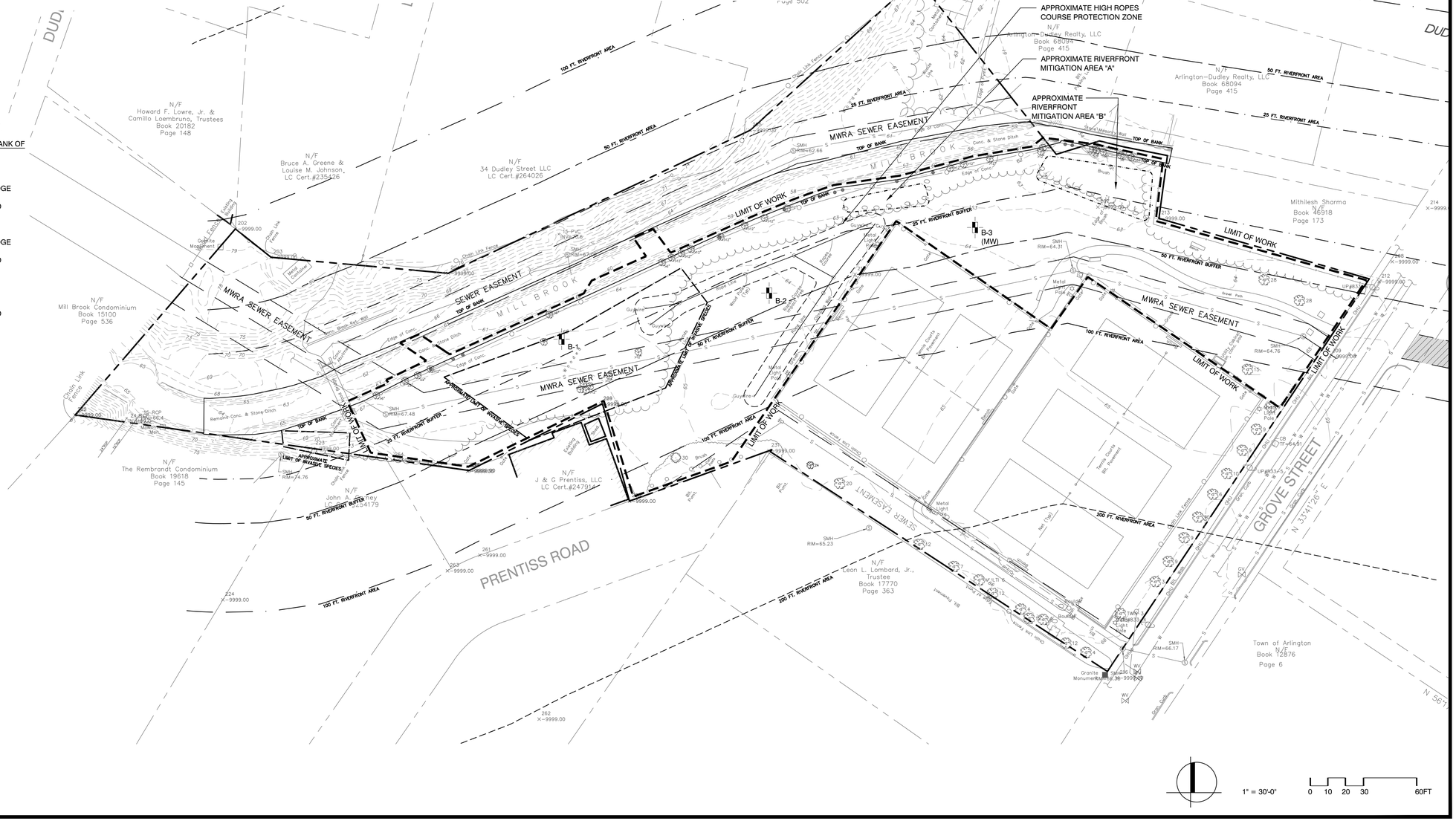
GENERAL NOTES

1. THE FIELD SURVEY WAS PERFORMED BY WESTON & SAMPSON INC., PEABODY, MA IN SEPTEMBER 2018. ANY QUANTITIES SHOWN ON THE PLANS ARE FOR BIDDING PURPOSES ONLY. ALL BIDDERS ARE REQUIRED TO INSPECT THE PROJECT SITE IN ITS ENTIRETY PRIOR TO SUBMITTING THEIR BID, AND BECOME FAMILIAR WITH ALL CONDITIONS AS THEY MAY AFFECT THEIR BID. CONTRACTOR AND SUB-CONTRACTOR SHALL BE FAMILIAR WITH ALL DRAWINGS AND SPECIFICATIONS PRIOR TO COMMENCING THE CONSTRUCTION.
2. UTILITIES SHOWN HEREON ARE COMPILED FROM SURFACE FEATURES, PAINT MARKINGS, AND AVAILABLE RECORD INFORMATION. WESTON & SAMPSON DOES NOT WARRANT THE LOCATION OR EXISTENCE OF SAID UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF SUCH UTILITIES, 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.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL DRAWINGS AND SPECIFICATIONS TO DETERMINE THE EXTENT OF EXCAVATION AND DEMOLITION REQUIRED TO RECEIVE SITE IMPROVEMENTS.
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'S REPRESENTATIVE 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 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 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, THE ERECTION OF TEMPORARY WALKS, STRUCTURES, PROTECTIVE BARRIERS, COVERINGS, 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'S REPRESENTATIVE.
10. EXISTING TREES TO REMAIN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES PER SPECIFICATIONS AND PER TOWN OF ARLINGTON WETLAND BY LAW REGULATIONS FOR TREE PROTECTION. 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 OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL ERECT TEMPORARY BARRIERS FOR THE PROTECTION OF EXISTING TREES DURING CONSTRUCTION.
11. NO FILLING SHALL OCCUR AROUND EXISTING TREES TO REMAIN WITHOUT THE APPROVAL OF THE OWNER OR OWNER'S REPRESENTATIVE.
12. ALL EXISTING DRAINAGE FACILITIES TO REMAIN SHALL BE MAINTAINED AND CLEANED, AS OFTEN AS NECESSARY PER THE SPECIFICATIONS, TO KEEP FREE OF DEBRIS, SOIL, SEDIMENT, AND FOREIGN MATERIAL AND REMAIN 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.
13. THE CONTRACTOR'S STAGING AREA MUST BE WITHIN THE LIMIT OF WORK AND IN AREAS APPROVED BY THE OWNER. ANY OTHER AREAS THAT THE CONTRACTOR MAY WISH TO USE FOR STAGING MUST BE COORDINATED WITH THE OWNER.
14. THE CONTRACTOR SHALL KEEP ALL STREETS AND WALKS THAT ARE NOT RESTRICTED FROM PUBLIC USE DURING CONSTRUCTION BROOM CLEAN AT ALL TIMES. THE CONTRACTOR SHALL USE ACCEPTABLE METHODS AND MATERIALS TO MAINTAIN ADEQUATE DUST CONTROL THROUGHOUT CONSTRUCTION.
15. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OWNER'S REPRESENTATIVE.
16. SEE WRITTEN SPECIFICATIONS FOR HOURS OF CONSTRUCTION OPERATIONS. HOURS AND DAYS OF WORK ARE SUBJECT TO CHANGE BASED ON EVENTS SCHEDULED FOR THE TOWN OF ARLINGTON.
17. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL DEVELOP A PEDESTRIAN MANAGEMENT PLAN THAT INDICATES ALTERNATIVE DIRECTIONS OF PEDESTRIAN TRAFFIC, WHERE IMPACTED DURING CONSTRUCTION ACTIVITIES.
18. THE CONTRACTOR SHALL EMPLOY SPECIAL CARE IN SCHEDULING CONSTRUCTION SO AS TO MINIMIZE DISRUPTION TO SURROUNDING PEDESTRIAN, AND VEHICULAR TRAFFIC.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SWPPP/NOI REPORTING REQUIREMENTS DURING THE ENTIRETY OF CONSTRUCTION.
20. ANY PERMITTING FEES REQUIRED DURING THE COURSE OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR.
21. THE CONTRACTOR IS RESPONSIBLE FOR THE SCHEDULING AND COSTS OF ANY REQUIRED POLICE DETAILS FOR GROVE STREET, PRENTISS ROAD, SITE DELIVERIES, AND PEDESTRIAN MANAGEMENT.

SPECIAL LEGEND & NOTES

EXISTING TREES AND TREE STUMPS ALONG SOUTH BANK OF MILL BROOK:
(<6" CALIPER NOT SHOWN)

- >6" — EXISTING DECIDUOUS TREE AT BROOK EDGE >6" CALIPER APPROXIMATE LOCATION, VERIFY IN FIELD
- >12" — EXISTING DECIDUOUS TREE AT BROOK EDGE >12" CALIPER APPROXIMATE LOCATION, VERIFY IN FIELD
- STUMP OR DEAD TREE AT BROOK EDGE >6" CALIPER APPROXIMATE LOCATION, VERIFY IN FIELD



Project:

TOWN OF ARLINGTON, MA

MILL BROOK CORRIDOR & WELLINGTON PARK REVITALIZATION PROJECT

Weston & Sampson

85 Devonshire Street,
3rd Floor, Boston, MA 02109
617.412.4480 800.SAMPSON
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:

Issued For:

CONSTRUCTION DOCUMENTS

Scale:	AS SHOWN
Date:	JANUARY 28, 2019
Drawn By:	CB, EB
Reviewed By:	JL, CR
Approved By:	CR
W&S Project No:	2180078
W&S File No:	

Drawing Title:

EXISTING CONDITIONS PLAN

Sheet Number:

L1.01

LEGEND

- LIMIT OF WORK
- PROPERTY LINE
- APPROXIMATE LIMIT OF INVASIVE SPECIES REMOVAL
- APPROXIMATE RIVERFRONT MITIGATION AREA
- 25' RIVERFRONT BUFFER
- 50' RIVERFRONT BUFFER
- 100' RIVERFRONT BUFFER
- 200' RIVERFRONT BUFFER
- R&D BITUMINOUS CONCRETE PAVEMENT, COMPLETE (N.I.C.)
- R&D STONE DUST SURFACING, COMPLETE
- STRIP & STOCKPILE TOPSOIL (8" MIN. DEPTH)
- INVASIVE SPECIES REMOVAL (FULL DEPTH METHOD)
- INVASIVE SPECIES REMOVAL (CUT, DAB, AND COVER METHOD, TYPE A: COVER MATCHES EX. GRADES)
- INVASIVE SPECIES REMOVAL (CUT, DAB, AND COVER METHOD, TYPE B: COVER VARIES)
- CLEAR & GRUB VEGETATION
- **BASE BID:** PROTECT PLANTING AREA TO REMAIN: NO WORK
  ADD ALTERNATE #1 & 2: CLEAR & GRUB VEGETATION (SELECTIVE)
- R&D CHAIN LINK FENCE, COMPLETE
- 6' HT. TEMPORARY CONSTRUCTION FENCE, TYP.
- PROPOSED STAGING AND TOPSOIL STOCKPILE LOCATION
- R&D MASONRY AND CONCRETE BROOK STABILIZATION EDGE, COMPLETE, PER ABC POLICY MASSACHUSETTS
- EROSION CONTROL
- TREE PROTECTION AND PRUNE, TYP.
- EX. EXISTING
- R&D REMOVE AND DISPOSE
- R&S REMOVE AND STORE
- SPECS. SPECIFICATIONS

DEMOLITION & SITE PREPARATION NOTES

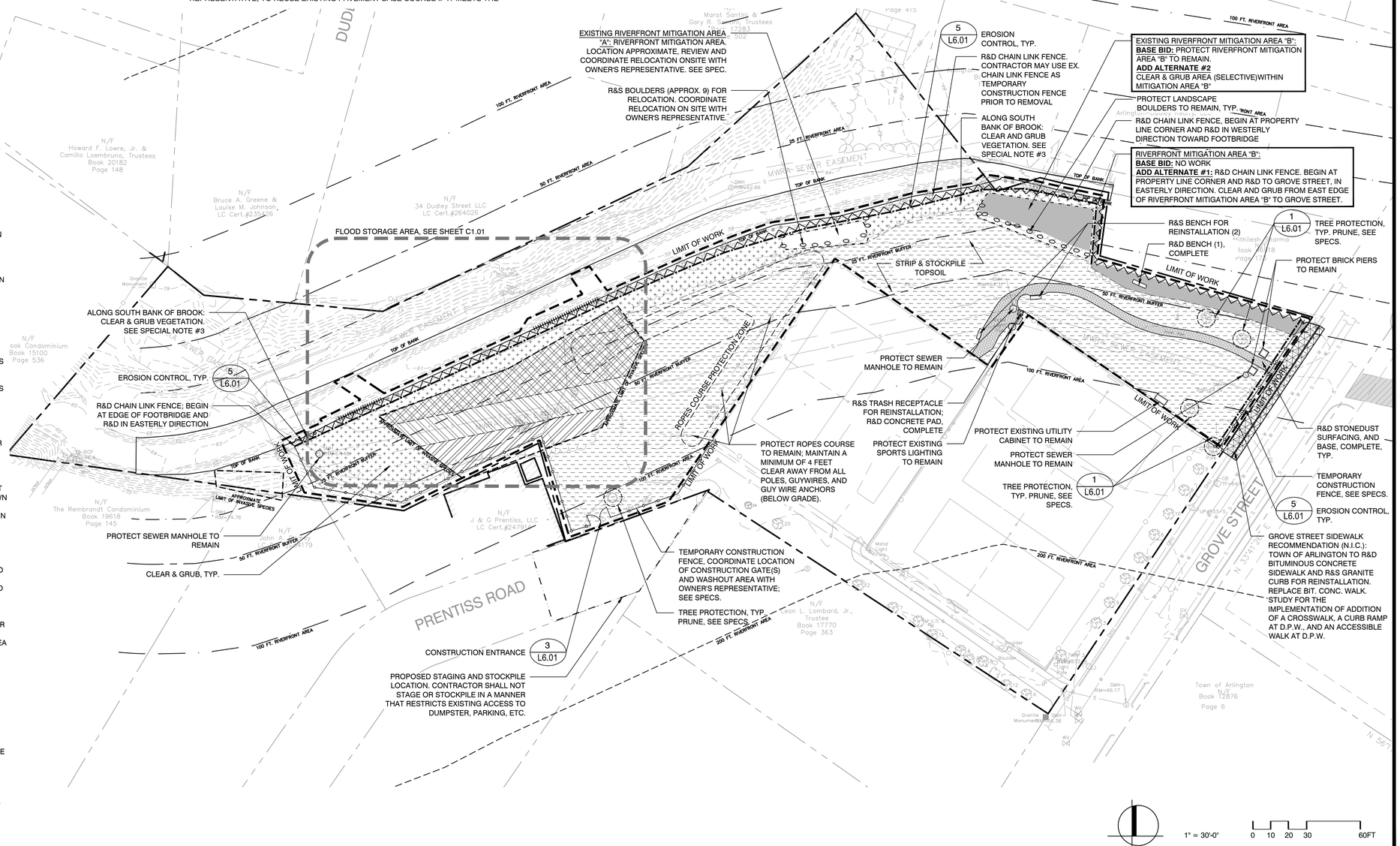
1. THE CONTRACTOR SHALL INCLUDE IN THE BID THE COST OF REMOVING ANY EXISTING SITE FEATURES AND APPURTENANCES NECESSARY TO ACCOMPLISH THE CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS. THE CONTRACTOR SHALL ALSO INCLUDE IN THE BID THE COST NECESSARY TO RESTORE SUCH ITEMS IF THEY ARE SCHEDULED TO REMAIN AS PART OF THE FINAL SITE IMPROVEMENTS. REFER TO PLANS TO DETERMINE REQUIRED EXCAVATION AND DEMOLITION ACTIVITIES, AND TO DETERMINE THE LOCATION OF THE PROPOSED SITE IMPROVEMENTS.
2. THE CONTRACTOR MUST NOTIFY THE OWNER OF ANY WORK TO BE COMPLETED WITHIN THE RIGHT-OF-WAY AT LEAST FORTY-EIGHT HOURS PRIOR TO COMMENCING WORK.
3. 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 REMOVED OFF SITE AT NO ADDITIONAL COST.
4. UNLESS SPECIFICALLY NOTED TO BE REMOVED AND STOCKPILED (R&S) OR REUSED AND RELOCATED (R&R), ALL SITE FEATURES CALLED TO BE REMOVED AND DISPOSED (R&D) SHALL BE REMOVED WITH THEIR FOOTINGS, ATTACHMENTS, BASE MATERIAL, ETC, AND TRANSPORTED FROM THE SITE TO BE DISPOSED OF IN A LAWFUL MANNER AT A TOWN OF ARLINGTON APPROVED DISPOSAL SITE AT NO COST TO THE OWNER.
5. 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'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE CONTRACT/OWNER.
6. DURING EARTHWORK OPERATIONS, THE CONTRACTOR SHALL TAKE CARE NOT TO DISTURB EXISTING MATERIALS TO REMAIN OUTSIDE THE LIMITS OF EXCAVATION AND BACKFILL, AND SHALL TAKE WHATEVER MEASURES NECESSARY, AT THE CONTRACTOR'S EXPENSE, TO PREVENT ANY EXCAVATED MATERIAL FROM COLLAPSING. ALL BACKFILL MATERIALS SHALL BE PLACED AND COMPACTED, AS SPECIFIED, TO THE SUBGRADE REQUIRED FOR THE INSTALLATION OF THE REMAINDER OF THE CONTRACT WORK.
7. IT SHALL BE THE CONTRACTOR'S OPTION, WITH CONCURRENCE OF THE OWNER'S REPRESENTATIVE, TO REUSE EXISTING PAVEMENT BASE COURSE IF IT MEETS THE REQUIREMENTS OF THE SPECIFICATIONS FOR GRAVEL BORROW.
8. ALL ITEMS CALLED FOR REMOVAL SHALL BE REMOVED TO FULL DEPTH INCLUDING ALL FOOTINGS, FOUNDATIONS, AND OTHER APPURTENANCES, EXCEPT IF SPECIFICALLY NOTED OTHERWISE.
9. STRIP & STORE EXISTING TOPSOIL FOR LATER REUSE AS INDICATED ON PLANS WITH APPROPRIATE EROSION AND SEDIMENT CONTROLS. THE CONTRACTOR SHALL PROVIDE TESTING RESULTS THAT THE SOIL IS SUITABLE FOR REUSE IN ACCORDANCE WITH THE SPECIFICATIONS. CONTRACTOR SHALL SECURELY COVER STOCKPILE.
10. LOAM BORROW/TOPSOIL EXCAVATED AND DESIGNATED FOR REUSE SHALL BE SCREENED AND BLENDED WITH SUITABLE AMENDMENT MATERIAL IN ACCORDANCE WITH THE SPECIFICATIONS. ALL EXCESS TOPSOIL EXCAVATED SHALL BE PROPERLY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. AS PER THE SPECIFICATIONS, AND PER TOWN REGULATIONS.
11. THE CONTRACTOR SHALL PROTECT EXISTING TREES TO REMAIN PER SPECIFICATIONS AND TOWN OF ARLINGTON WETLAND BYLAW REGULATIONS FOR TREE PROTECTION. CONTRACTOR SHALL INSTALL A TREE PROTECTION BARRIER AFTER CLEARING TURF AND UNDERBRUSH BY HAND, AND TAKE DUE CARE TO PREVENT INJURY TO TREES DURING CLEARING OPERATIONS.
12. THE STORAGE OF MATERIALS AND EQUIPMENT WILL BE PERMITTED AT LOCATIONS DESIGNATED BY OWNER AND OWNER'S REPRESENTATIVE. PROTECTION OF STORED MATERIALS AND EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
13. THE CONTRACTOR TO TAKE ALL PRECAUTIONS AND MEASURES REQUIRED TO PREVENT DAMAGE TO THE EXISTING PAVEMENT TO REMAIN AS A RESULT OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL REPAIR DAMAGED PAVEMENT AT NO COST TO THE OWNER.
14. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SITE AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PERIOD. HE/SHE HAS THE OPTION TO USE THE EXISTING CHAIN LINK FENCE AS TEMPORARY CONSTRUCTION FENCE PRIOR TO ITS REMOVAL.

EROSION AND SEDIMENT CONTROL NOTES

1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE PUT INTO PLACE PRIOR TO BEGINNING ANY CONSTRUCTION OR DEMOLITION. REFER TO SPECIFICATIONS AND DETAILS FOR TYPE OF EROSION AND SEDIMENT CONTROL.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUAL MAINTENANCE OF ALL EROSION CONTROL DEVICES THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.
3. CONTRACTOR SHALL MEET ALL OF THE STATE OF MASSACHUSETTS D.E.P. REGULATIONS AND THE TOWN OF ARLINGTON WETLAND BYLAW REGULATIONS FOR SEDIMENT AND EROSION CONTROL.
4. EXCAVATED MATERIAL STOCKPILED IN THE AREA DESIGNATED ON THIS PLAN 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 WORK SHALL BE PROTECTED WITH FILTER FABRIC DURING THE ENTIRE DURATION OF CONSTRUCTION. EACH STRUCTURE SHALL BE CLEANED AND CLEARED.
6. THE CONTRACTOR SHALL PROVIDE DUST CONTROL FOR CONSTRUCTION OPERATIONS AS APPROVED BY OWNER.
7. ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC/PRIVATE ROADS. THE CONTRACTOR SHALL PROVIDE A WASHOUT AREA ON SITE.

SPECIAL NOTES:

1. THE CONTRACTOR SHALL CUT, DAB, AND COVER OR PERFORM FULL DEPTH REMOVAL OF INVASIVE SPECIES IN THE AREAS INDICATED ON THE PLAN. SEE SPECIFICATIONS.
2. FOR AREAS CALLED OUT TO HAVE REMOVAL OF INVASIVE SPECIES, THE CONTRACTOR SHALL REMOVE TO DEPTH AS NOTED IN THE SPECIFICATIONS AND DISPOSE OF VEGETATION AND SOIL AT A TOWN OF ARLINGTON APPROVED FACILITY (IN TOWN OR OTHER). SEE SPECIFICATIONS.
3. FOR AREAS CALLED OUT TO HAVE CUT, DAB, AND COVER REMOVAL OF INVASIVE SPECIES:
   TYPE A: COVER SHALL MATCH EXISTING GRADES. SEE GRADING PLAN.
   TYPE B: COVER VARIES. SEE GRADING PLAN.
   SEE SPECIFICATIONS AND 8(M) PERMIT FOR REQUIREMENTS WITHIN MWRA SEWER EASEMENT.
4. CONTRACTOR TO COORDINATE WITH TOWN ARBORIST AND OWNER'S REPRESENTATIVE FOR THE EVALUATION OF CONDITION OF ALL TREES ALONG SOUTH EDGE OF BROOK. CLEAR & GRUB TREES <6" CALIPER, VINES & SHRUB AS IDENTIFIED FOR R&D BY ARBORIST AND APPROVED BY OWNER'S REPRESENTATIVE. PROTECT TREES TO REMAIN AS IDENTIFIED BY TOWN ARBORIST AND APPROVED BY OWNER'S REPRESENTATIVE. R&D ALL TREES IN POOR CONDITION OR POSING A HAZARD AS IDENTIFIED BY TOWN ARBORIST AND APPROVED BY OWNER'S REPRESENTATIVE. PROTECT ALL TREE STUMPS PROVIDING WILDLIFE HABITAT AS IDENTIFIED BY TOWN ARBORIST AND APPROVED BY OWNER'S REPRESENTATIVE. R&D ALL TREE STUMPS POSING A HAZARD AS IDENTIFIED BY TOWN ARBORIST AND APPROVED BY OWNER'S REPRESENTATIVE. CONFIRM WITH TOWN ARBORIST AND OWNER'S REPRESENTATIVE PRIOR TO ANY SITE PREPARATION AND DEMOLITION WORK. PRUNE ALL TREES TO REMAIN PER SPEC, WITH PRIOR COORDINATION WITH AND APPROVAL OF OWNER'S REPRESENTATIVE, TOWN ARBORIST, AND PER TOWN OF ARLINGTON WETLAND BYLAW REGULATIONS.
5. CONTRACTOR TO LOCATE AND FLAG ENTIRE LENGTH OF EXISTING MWRA SEWER EASEMENT WITHIN PROJECT LIMIT OF WORK PRIOR TO ANY SITE PREPARATION AND DEMOLITION ACTIVITIES, AND FOR THE DURATION OF CONSTRUCTION ACTIVITIES. SEE SPECIFICATIONS AND 8 (M) PERMIT FOR REQUIREMENTS WITHIN EASEMENT.
6. ADD ALTERNATES (SEE SPECS):
   #1: R&D CHAIN LINK FENCE. BEGIN AT PROPERTY LINE CORNER AND R&D TO GROVE STREET, IN EASTERLY DIRECTION, CLEAR AND GRUB FROM EAST EDGE OF RIVERFRONT MITIGATION AREA "B" TO GROVE STREET.
   #2: CLEAR AND GRUB AREA (SELECTIVE).
7. LIMITS OF PROPOSED BANK EXCAVATION OF MASONRY AND CONCRETE BROOK STABILIZATION EDGE ARE TO BE MARKED IN THE FIELD PRIOR TO DEMOLITION FOR OWNER'S REPRESENTATIVE OBSERVATION, REVIEW, AND APPROVAL.
8. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION DEWATERING AND SURFACE WATER CONTROL TO ACHIEVE STABLE SUBGRADE CONDITIONS AND CONSTRUCTION IN-THE-DRY. GROUNDWATER LEVEL SHALL BE MAINTAINED 24-INCHES BELOW THE EXCAVATION/BACKFILL LEVEL DURING CONSTRUCTION.
9. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND PROPERLY DISPOSING OF EXCESS FILL, TREES, INVASIVE SPECIES, AND DEMOLITION DEBRIS RESULTING FROM CONSTRUCTION ACTIVITIES AT A PROPER OFF-SITE AREA IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND MASSACHUSETTS REGULATIONS AND POLICIES.



Project:

TOWN OF ARLINGTON, MA

MILL BROOK CORRIDOR & WELLINGTON PARK REVITALIZATION PROJECT

Weston & Sampson
85 Devonshire Street, 3rd Floor, Boston, MA 02109
617.412.4480 800.SAMPSON
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:

Issued For:

CONSTRUCTION DOCUMENTS

Scale:	AS SHOWN
Date:	JANUARY 28, 2019
Drawn By:	CB, EB
Reviewed By:	JL, CR
Approved By:	CR
W&S Project No:	2180078
W&S File No:	

Drawing Title:

SITE PREPARATION & DEMOLITION PLAN

Sheet Number:

L2.01

LEGEND

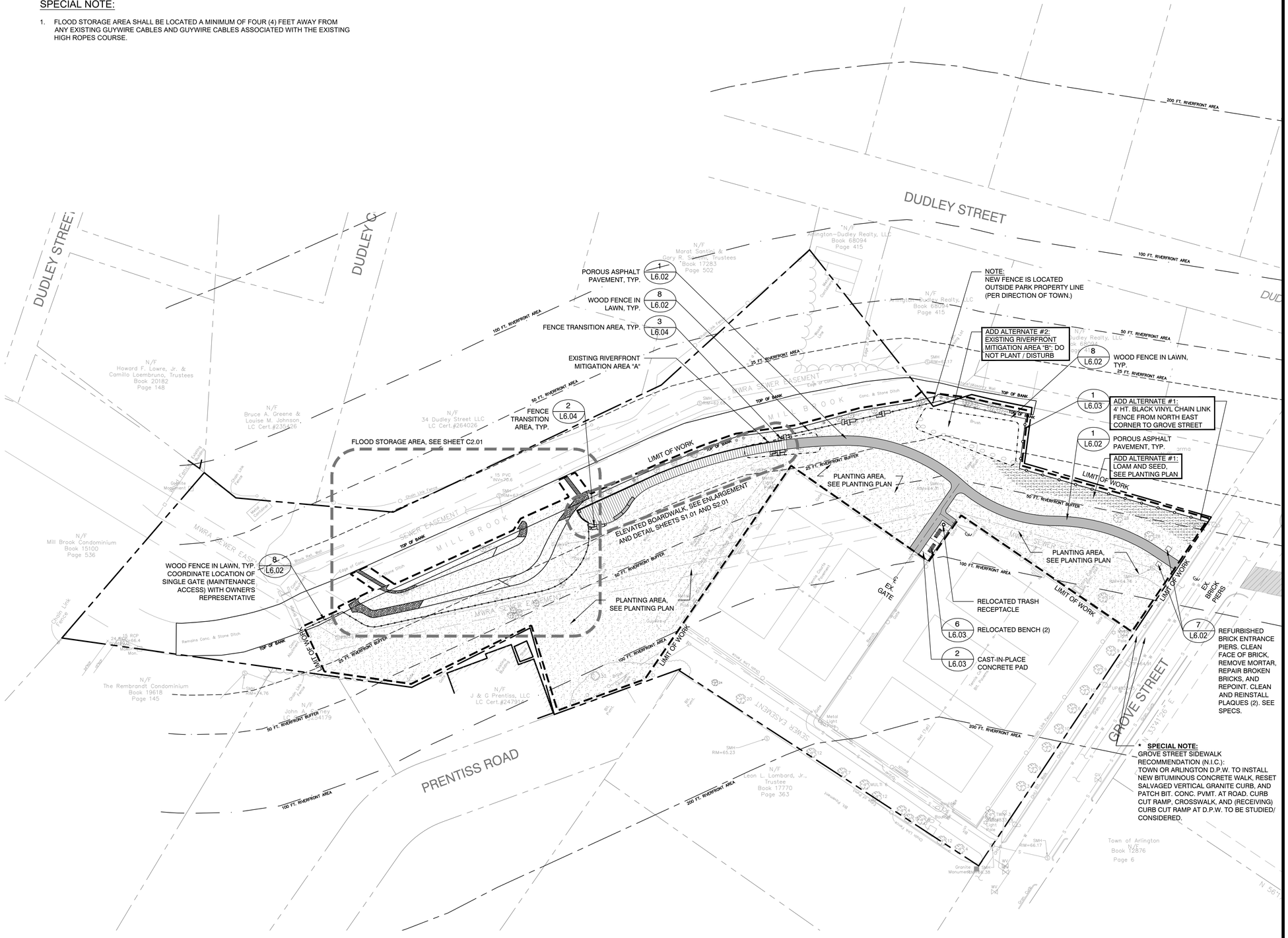
- LIMIT OF WORK
- PROPERTY LINE
- APPROXIMATE RIVERFRONT MITIGATION AREA
- 25' RIVERFRONT BUFFER
- 50' RIVERFRONT BUFFER
- 100' RIVERFRONT BUFFER
- 200' RIVERFRONT BUFFER
- CONCRETE PAVEMENT
- POROUS BITUMINOUS CONCRETE PAVEMENT
- ELEVATED BOARDWALK,
- RIP RAP SLOPE
- PLANTING AREA, SEE PLANTING PLAN
- **ADD ALTERNATE #1:** PLANTING AREA, SEE PLANTING PLAN
- SCORE JOINT (SJ)
- EXPANSION JOINT (EJ)
- WOOD GUARDRAIL IN LAWN
- WOOD GUARDRAIL ON BOARDWALK
- 4' HT. BLACK VINYL CHAIN LINK FENCE
- **ADD ALTERNATE #1:** 4' HT. BLACK VINYL CHAIN LINK FENCE
- STONE WEIR
- RELOCATED TRASH RECEPTACLE
- RELOCATED BENCH
- TYP. SPECS. TYPICAL SPECIFICATIONS

MATERIALS NOTES

1. THE DEPTH OF LOAM BORROW FOR ALL PROPOSED LAWN AREAS SHALL BE 6" MINIMUM. ALL DISTURBED AREAS SHALL BE RESTORED WITH LOAM AND SEED UNLESS OTHERWISE NOTED.

SPECIAL NOTE:

1. FLOOD STORAGE AREA SHALL BE LOCATED A MINIMUM OF FOUR (4) FEET AWAY FROM ANY EXISTING GUYWIRE CABLES AND GUYWIRE CABLES ASSOCIATED WITH THE EXISTING HIGH ROPES COURSE.



Project:

TOWN OF ARLINGTON, MA

MILL BROOK CORRIDOR & WELLINGTON PARK REVITALIZATION PROJECT

Weston & Sampson

85 Devonshire Street,
3rd Floor, Boston, MA 02109
617.412.4480 800.SAMPSON
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:

Issued For:

CONSTRUCTION DOCUMENTS

Scale:	AS SHOWN
Date:	JANUARY 28, 2019
Drawn By:	CB, EB
Reviewed By:	JL, CR
Approved By:	CR
W&S Project No:	2180078
W&S File No:	

Drawing Title:

MATERIALS PLAN

Sheet Number:

L3.01

LEGEND

- LIMIT OF WORK
- PROPERTY LINE
- APPROXIMATE RIVERFRONT MITIGATION AREA
- CONCRETE PAVEMENT
- RIP RAP SLOPE
- BIOSTABLIZED SLOPE
- SCORE JOINT (SJ)
- EXPANSION JOINT (EJ)
- WOOD GUARDRAIL
- 4' HT. BLACK VINYL CHAIN LINK FENCE
- **ADD ALTERNATE #1:** 4' HT. BLACK VINYL CHAIN LINK FENCE
- STONE WEIR
- RELOCATED TRASH RECEPTACLE
- 15' — TYP. DIMENSION
- 26.1' — TYP. ARC DIMENSION
- R3' — RADIUS DIMENSION
- TYP. SPECS. — TYPICAL SPECIFICATIONS

LAYOUT NOTES

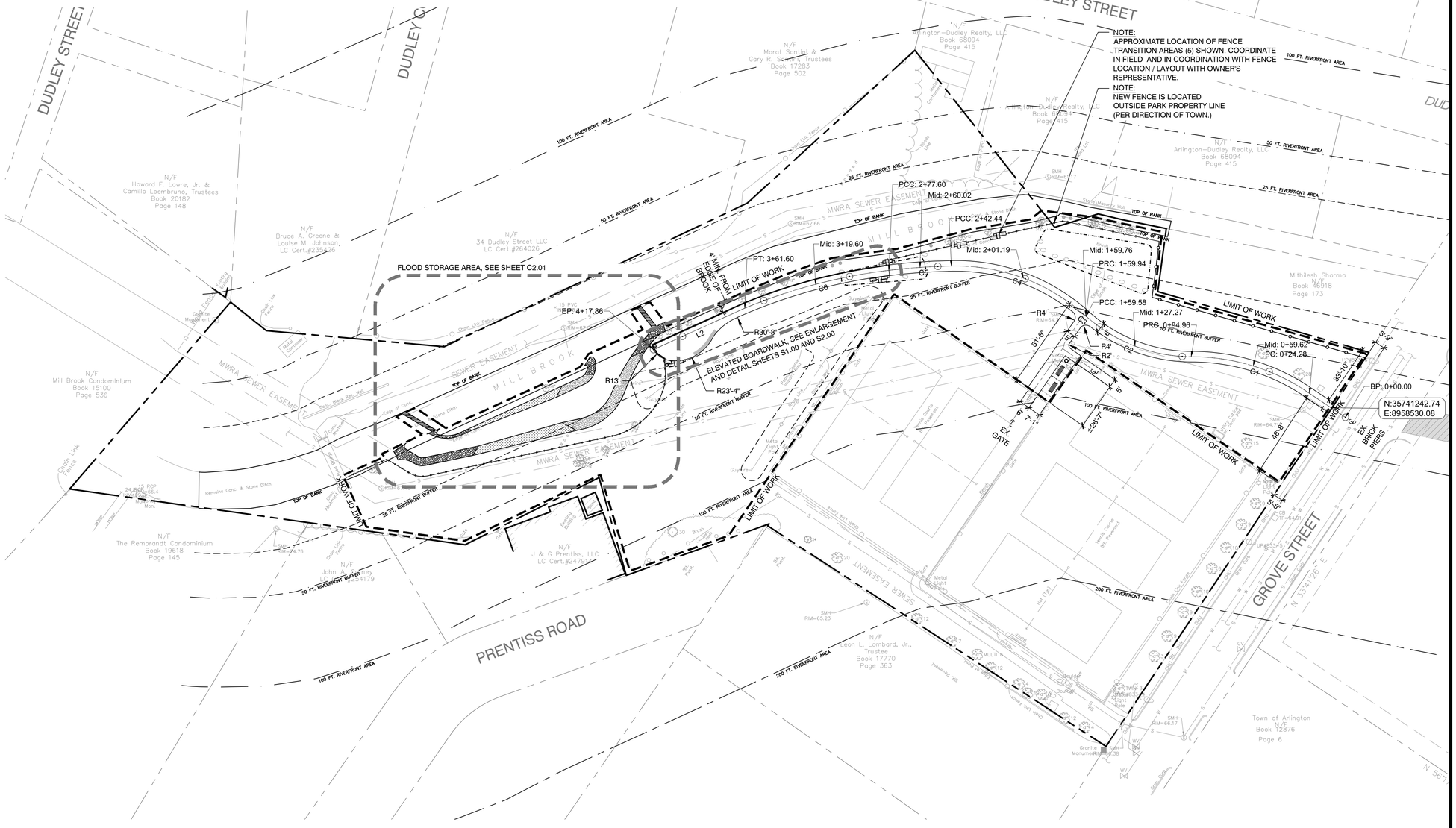
1. COORDINATE ALL LAYOUT ACTIVITIES WITH THE SCOPE OF WORK CALLED FOR BY DEMOLITION, GRADING AND UTILITIES OPERATIONS ENCOMPASSED BY THIS CONTRACT. SET, PROTECT AND REPLACE REFERENCE STAKES AS NECESSARY OR AS REQUIRED BY THE OWNER'S REPRESENTATIVE.
2. ALL LAYOUT LINES, OFFSETS, OR REFERENCES TO LOCATING OBJECTS ARE EITHER PARALLEL OR PERPENDICULAR UNLESS OTHERWISE NOTED WITH ANGLE OFFSETS.
3. 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 AND AT NO ADDITIONAL COST TO THE OWNER.
4. ALL PROPOSED PAVEMENTS SHALL MEET THE LINE AND GRADE OF EXISTING ADJACENT PAVEMENT SURFACES. ALL PATHWAY WIDTHS SHALL BE AS NOTED ON THE LAYOUT AND MATERIALS PLAN.
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON THE GROUND AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER'S REPRESENTATIVE.

SPECIAL NOTE:

1. FLOOD STORAGE AREA SHALL BE LOCATED A MINIMUM OF FOUR (4) FEET AWAY FROM ANY EXISTING GUYWIRE CABLES AND GUYWIRE CABLES ASSOCIATED WITH THE EXISTING HIGH ROPES COURSE.
2. BOARDWALK FOOTINGS SHALL BE LOCATED A MINIMUM OF THREE (3) FEET AWAY FROM THE FLOOD STORAGE AREA.

LINE TABLE			
LINE #	LENGTH	BEGIN	END
L1	24.3	N: 35741237.3222 E: 8958538.124	N: 35741250.8277 E: 8958517.9484
L2	56.3	N: 35741298.7298 E: 8958200.665	N: 35741275.4241 E: 8958149.4601

CURVE TABLE				
CURVE #	RADIUS	LENGTH	BEGIN	END
C1	116.0	70.7	N: 35741250.8277 E: 8958517.9484	N: 35741271.4107 E: 8958451.4734
C2	89.0	64.6	N: 35741271.4107 E: 8958451.4734	N: 35741294.1241 E: 8958392.4816
C3	89.0	0.4	N: 35741294.1241 E: 8958392.4816	N: 35741294.3645 E: 8958392.2143
C4	109.0	82.5	N: 35741294.3645 E: 8958392.2143	N: 35741322.4506 E: 8958316.7263
C5	375.0	35.2	N: 35741322.4506 E: 8958316.7263	N: 35741320.0226 E: 8958281.6592
C6	311.5	84.0	N: 35741320.0226 E: 8958281.6592	N: 35741298.7298 E: 8958200.6650



Project:

TOWN OF ARLINGTON, MA

MILL BROOK CORRIDOR & WELLINGTON PARK REVITALIZATION PROJECT

Weston & Sampson

85 Devonshire Street,
3rd Floor, Boston, MA 02109
617.412.4480 800.SAMPSON
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:

Issued For:

CONSTRUCTION DOCUMENTS

Scale:	AS SHOWN
Date:	JANUARY 28, 2019
Drawn By:	CB, EB
Reviewed By:	JL, CR
Approved By:	CR
W&S Project No:	2180078
W&S File No:	

Drawing Title:

LAYOUT PLAN

Sheet Number:

L3.02

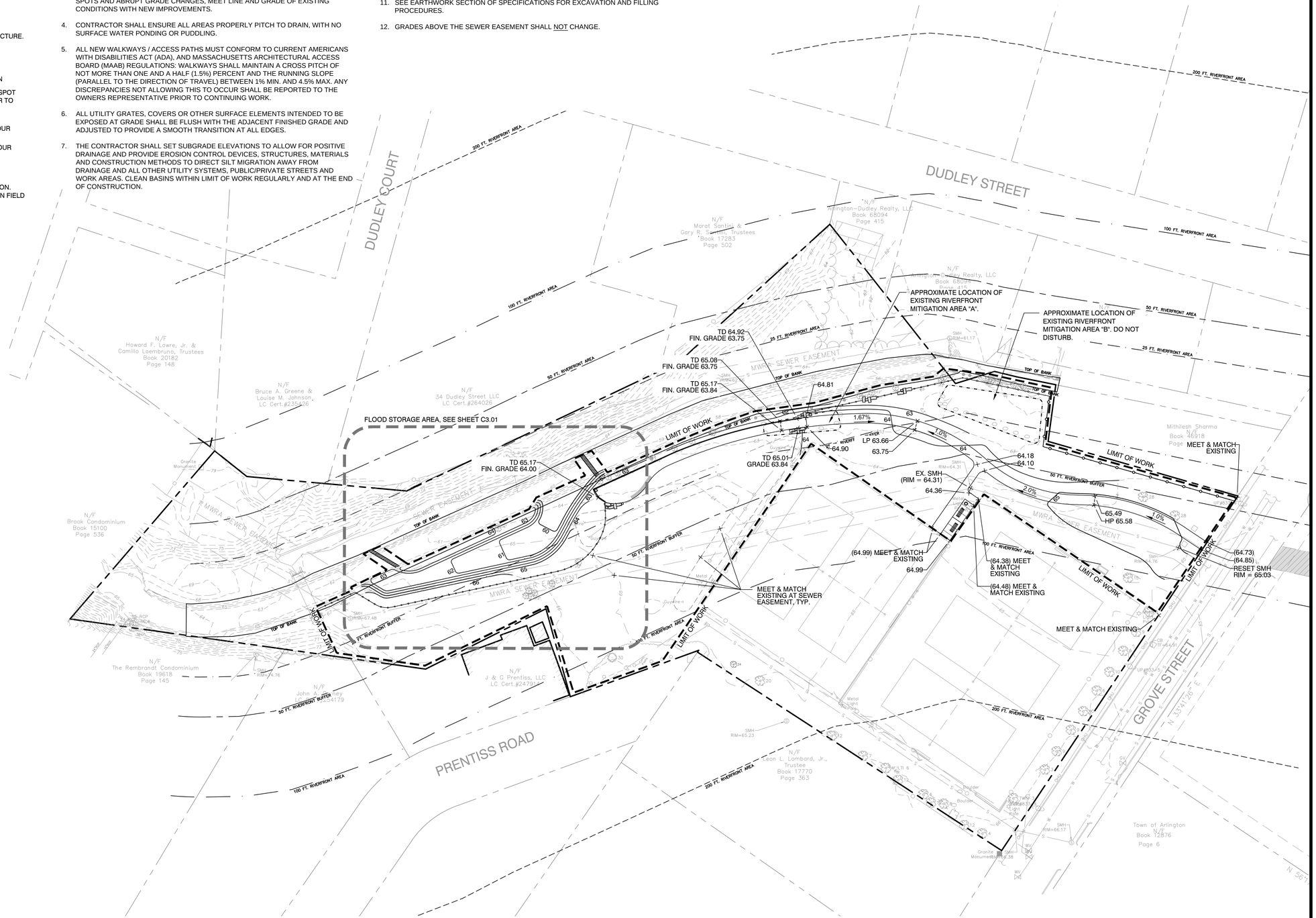
LEGEND

- LIMIT OF WORK
- PROPERTY LINE
- APPROXIMATE RIVERFRONT MITIGATION AREA
- 25' RIVERFRONT BUFFER
- 50' RIVERFRONT BUFFER
- 100' RIVERFRONT BUFFER
- 200' RIVERFRONT BUFFER
- EXISTING DRAINAGE STRUCTURE.
- 12 — EXISTING CONTOURS
- 95.10 + EXISTING SPOT ELEVATION
- (8.25) + EXISTING INTERPOLATED SPOT ELEVATION. CONTRACTOR TO VERIFY IN FIELD
- 64 PROPOSED MINOR CONTOUR (EVERY 1 FOOT)
- 65 PROPOSED MAJOR CONTOUR (EVERY 5 FEET)
- 1.5% PROPOSED SLOPE
- 8.25 + PROPOSED SPOT ELEVATION. CONTRACTOR TO VERIFY IN FIELD
- GRADE BREAK
- RIP RAP SLOPE

TD	TOP OF DECK
BD	BOTTOM OF DECK
TC	TOP OF CURB
BC	BOTTOM OF CURB
LP	LOW POINT
FIN.	FINISHED

GRADING & DRAINAGE NOTES

1. ALL WORK RELATING TO INSTALLATION, RENOVATION OR MODIFICATION OF WATER, DRAINAGE AND/OR SEWER SERVICES SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS OF THE TOWN OF ARLINGTON.
2. THE CONTRACTOR SHALL VERIFY ALL GRADES ON THE GROUND AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER'S REPRESENTATIVE.
3. ALL GRADING IS TO BE SMOOTH AND CONTINUOUS WHERE PROPOSED SURFACE MEETS EXISTING SURFACE, BLEND THE TWO PAVEMENTS AND ELIMINATE ROUGH SPOTS AND ABRUPT GRADE CHANGES, MEET LINE AND GRADE OF EXISTING CONDITIONS WITH NEW IMPROVEMENTS.
4. CONTRACTOR SHALL ENSURE ALL AREAS PROPERLY PITCH TO DRAIN, WITH NO SURFACE WATER PONDING OR PUDDLING.
5. ALL NEW WALKWAYS / ACCESS PATHS MUST CONFORM TO CURRENT AMERICANS WITH DISABILITIES ACT (ADA), AND MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) 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) BETWEEN 1% MIN. AND 4.5% MAX. ANY DISCREPANCIES NOT ALLOWING THIS TO OCCUR SHALL BE REPORTED TO THE OWNERS REPRESENTATIVE PRIOR TO CONTINUING WORK.
6. 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.
7. 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 ALL OTHER UTILITY SYSTEMS, PUBLIC/PRIVATE STREETS AND WORK AREAS. CLEAN BASINS WITHIN LIMIT OF WORK REGULARLY AND AT THE END OF CONSTRUCTION.
8. EXCAVATION REQUIRED WITHIN PROXIMITY OF KNOWN EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
9. 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.
10. WHERE A SPECIFIC LIMIT OF WORK LINE IS NOT OBVIOUS OR IMPLIED, BLEND GRADES TO EXISTING CONDITIONS WITHIN 5 FEET OF PROPOSED CONTOURS.
11. SEE EARTHWORK SECTION OF SPECIFICATIONS FOR EXCAVATION AND FILLING PROCEDURES.
12. GRADES ABOVE THE SEWER EASEMENT SHALL NOT CHANGE.



Project:

TOWN OF ARLINGTON, MA

MILL BROOK CORRIDOR & WELLINGTON PARK REVITALIZATION PROJECT

Weston & Sampson

85 Devonshire Street,
3rd Floor, Boston, MA 02109
617.412.4480 800.SAMPSON
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:

Issued For:

CONSTRUCTION DOCUMENTS

Scale:	AS SHOWN
Date:	JANUARY 28, 2019
Drawn By:	CB, EB
Reviewed By:	JL, CR
Approved By:	CR
W&S Project No:	2180078
W&S File No:	

Drawing Title:

GRADING AND DRAINAGE PLAN

Sheet Number:

L4.01

LEGEND

- LIMIT OF WORK
- PROPERTY LINE
- APPROXIMATE RIVERFRONT MITIGATION AREA
- 25' RIVERFRONT BUFFER
- 50' RIVERFRONT BUFFER
- 100' RIVERFRONT BUFFER
- 200' RIVERFRONT BUFFER
- LOAM & SEED, SEE SPECIFICATIONS
- FLOOD STORAGE PLANTING, SEE PLANT SCHEDULE & SPECIFICATIONS
- NO MOW NATIVE GRASS SEEDING, SEE PLANT SCHEDULE & SPECIFICATIONS
- BASE BID: NO WORK
  ADD ALTERNATE #1: LOAM & SEED
- RIP RAP SLOPE
- EXISTING TREES TO REMAIN

PLANTING NOTES:

1. NEW PLANTING LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. PLANTS SHALL BE LOCATED IN THE FIELD BY THE CONTRACTOR AND VERIFIED BY THE OWNER'S REPRESENTATIVE PRIOR TO PLANTING. NEW PLANTING SHALL BE LOCATED IN AREAS THAT AVOID EXISTING TREE ROOTS AND EXISTING NATIVE SPECIES TO REMAIN.
2. RESTORE ALL DISTURBED AREAS AND LIMITS OF ALL REMOVALS TO LOAM AND SEED UNLESS OTHERWISE NOTED.

PLANT SCHEDULE

FLOOD STORAGE PLANTING

SHRUBS					
ABRV.	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT.**	**NOTES**
CA	23	CEANOTHUS AMERICANUS	NEW JERSEY TEA	#2 CONT.	
HERBACEOUS PERENNIALS AND GRASSES					
ABRV.	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT.**	**NOTES**
AM	52	ACHILLEA MILLEFOLIUM	YARROW	2" PLUG	SPACE 18" O.C.
BC	79	BOUTELOUA CURTIPENDULA	SIDEOATS GRAMA	2" PLUG	SPACE 18" O.C.
CL	91	COREOPSIS LANCEOLATA	LANCE-LEAVED COREOPSIS	2" PLUG	SPACE 12" O.C.
LP	116	LUPINUS PERENNIS	WILD LUPINE	2" PLUG	SPACE 12" O.C.
SS	73	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	2" PLUG	SPACE 18" O.C.

FLOOD STORAGE BASIN BOTTOM PLANT MIX

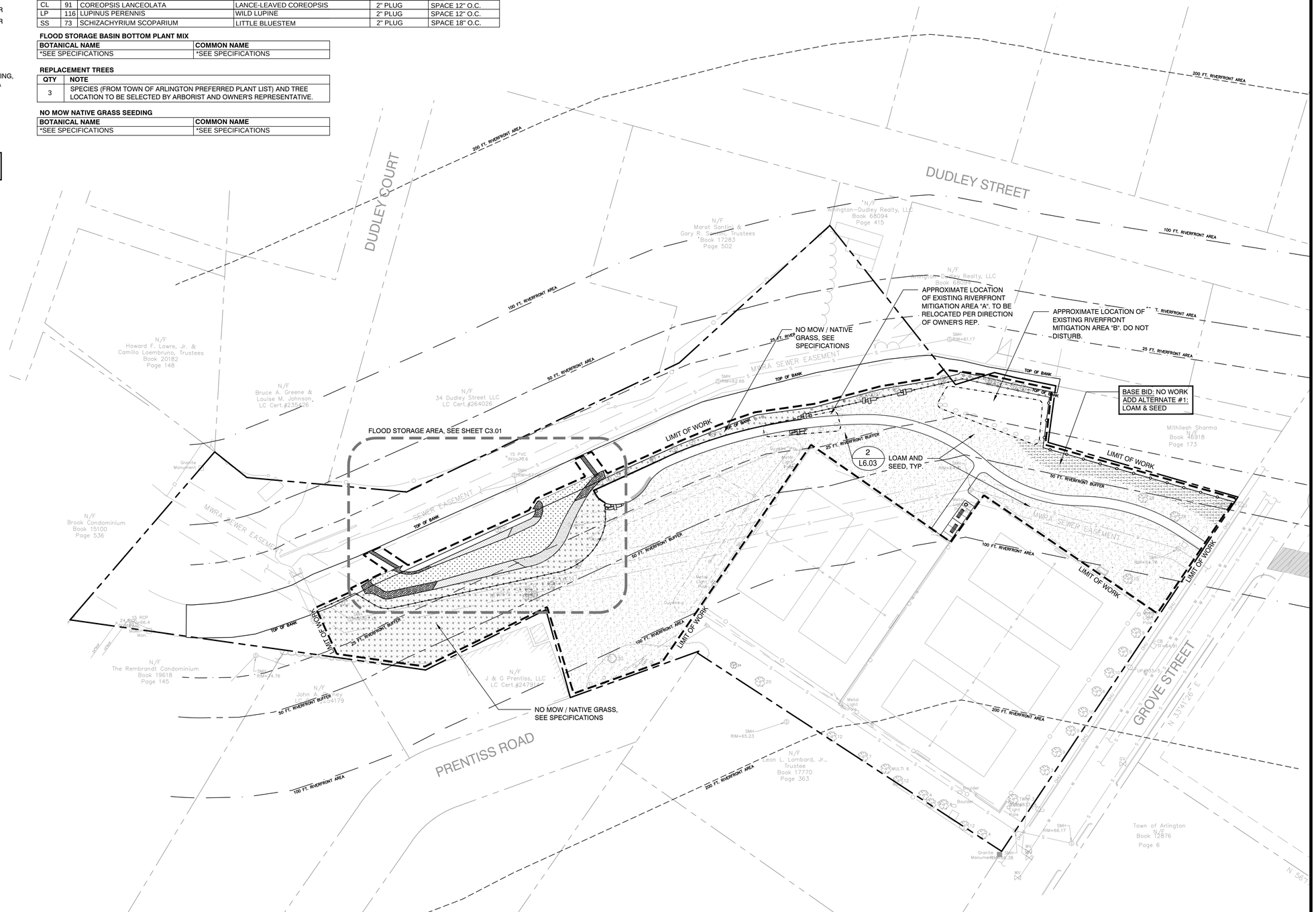
BOTANICAL NAME	COMMON NAME
*SEE SPECIFICATIONS	*SEE SPECIFICATIONS

REPLACEMENT TREES

QTY	NOTE
3	SPECIES (FROM TOWN OF ARLINGTON PREFERRED PLANT LIST) AND TREE LOCATION TO BE SELECTED BY ARBORIST AND OWNER'S REPRESENTATIVE.

NO MOW NATIVE GRASS SEEDING

BOTANICAL NAME	COMMON NAME
*SEE SPECIFICATIONS	*SEE SPECIFICATIONS



1" = 30'-0"

0 10 20 30 60FT

Project:

TOWN OF ARLINGTON, MA

MILL BROOK CORRIDOR & WELLINGTON PARK REVITALIZATION PROJECT

Weston & Sampson

85 Devonshire Street,
3rd Floor, Boston, MA 02109
617.412.4480 800.SAMPSON
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:

Issued For:

CONSTRUCTION DOCUMENTS

Scale:	AS SHOWN
Date:	JANUARY 28, 2019
Drawn By:	CB, EB
Reviewed By:	JL, CR
Approved By:	CR
W&S Project No:	2180078
W&S File No:	

Drawing Title:

PLANTING PLAN

Sheet Number:

L5.01

LEGEND

- LIMIT OF WORK
- PROPERTY LINE
- APPROXIMATE LIMIT OF INVASIVE SPECIES REMOVAL
- STRIP & STOCKPILE TOPSOIL (8" MIN. DEPTH)
- INVASIVE SPECIES REMOVAL (FULL DEPTH METHOD)
- INVASIVE SPECIES REMOVAL (CUT, DAB, AND COVER METHOD, TYPE A: COVER MATCHES EX. GRADES)
- INVASIVE SPECIES REMOVAL (CUT, DAB, AND COVER METHOD, TYPE B: COVER VARIES)
- CLEAR & GRUB VEGETATION
- R&D CHAIN LINK FENCE, COMPLETE
- R&D MASONRY AND CONCRETE BROOK STABILIZATION EDGE, COMPLETE
- EROSION CONTROL

TREE PROTECTION AND PRUNE, TYP.

EX. EXISTING
R&D REMOVE AND DISPOSE
R&S REMOVE AND STORE
SPECS. SPECIFICATIONS

SPECIAL NOTES:

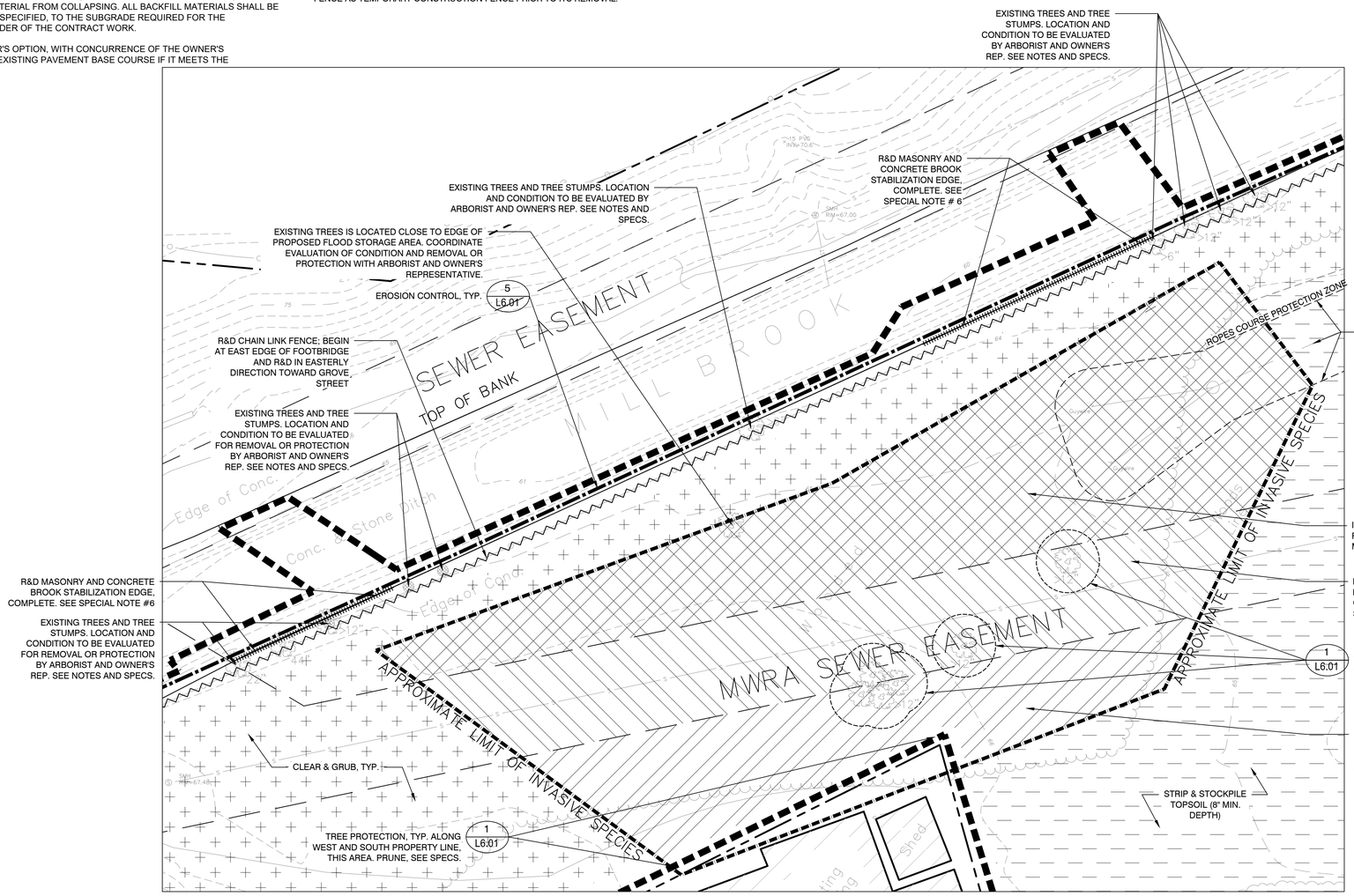
1. THE CONTRACTOR SHALL CUT, DAB, AND COVER OR PERFORM FULL DEPTH REMOVAL OF INVASIVE SPECIES IN THE AREAS INDICATED ON THE PLAN. SEE SPECIFICATIONS.
2. FOR AREAS CALLED OUT TO HAVE REMOVAL OF INVASIVE SPECIES, THE CONTRACTOR SHALL REMOVE TO DEPTH AS NOTED IN THE SPECIFICATIONS AND DISPOSE OF VEGETATION AND SOIL AT A TOWN OF ARLINGTON APPROVED FACILITY (IN TOWN OR OTHER). SEE SPECIFICATIONS.
3. FOR AREAS CALLED OUT TO HAVE CUT, DAB, AND COVER REMOVAL OF INVASIVE SPECIES:
   TYPE A: COVER SHALL MATCH EXISTING GRADES. SEE GRADING PLAN.
   TYPE B: COVER VARIES. SEE GRADING PLAN.
   SEE SPECIFICATIONS AND 8(M) PERMIT FOR REQUIREMENTS WITHIN MWRA SEWER EASEMENT.
4. CONTRACTOR TO COORDINATE WITH TOWN ARBORIST AND OWNER'S REPRESENTATIVE FOR THE EVALUATION OF CONDITION OF ALL TREES ALONG SOUTH EDGE OF BROOK. CLEAR & GRUB TREES <6" CALIPER, VINES & SHRUB AS IDENTIFIED FOR R&D BY ARBORIST AND APPROVED BY OWNER'S REPRESENTATIVE. PROTECT TREES TO REMAIN AS IDENTIFIED BY TOWN ARBORIST AND APPROVED BY OWNER'S REPRESENTATIVE. R&D ALL TREES IN POOR CONDITION OR POSING A HAZARD AS IDENTIFIED BY TOWN ARBORIST AND APPROVED BY OWNER'S REPRESENTATIVE. PROTECT ALL TREE STUMPS PROVIDING WILDLIFE HABITAT AS IDENTIFIED BY TOWN ARBORIST AND APPROVED BY OWNER'S REPRESENTATIVE. R&D ALL TREE STUMPS POSING A HAZARD AS IDENTIFIED BY TOWN ARBORIST AND APPROVED BY OWNER'S REPRESENTATIVE. CONFIRM WITH TOWN ARBORIST AND OWNER'S REPRESENTATIVE PRIOR TO ANY SITE PREPARATION AND DEMOLITION WORK. PRUNE ALL TREES TO REMAIN PER SPEC, WITH PRIOR COORDINATION WITH AND APPROVAL OF OWNER'S REPRESENTATIVE, TOWN ARBORIST, AND PER TOWN OF ARLINGTON WETLAND BYLAW REGULATIONS.
5. CONTRACTOR TO LOCATE AND FLAG ENTIRE LENGTH OF EXISTING MWRA SEWER EASEMENT WITHIN PROJECT LIMIT OF WORK PRIOR TO ANY SITE PREPARATION AND DEMOLITION ACTIVITIES, AND FOR THE DURATION OF CONSTRUCTION ACTIVITIES. SEE SPECIFICATIONS AND 8 (M) PERMIT FOR REQUIREMENTS WITHIN EASEMENT.
6. ADD ALTERNATES (SEE SPECS):
   #1: R&D CHAIN LINK FENCE. BEGIN AT PROPERTY LINE CORNER AND R&D TO GROVE STREET, IN EASTERLY DIRECTION, CLEAR AND GRUB FROM EAST EDGE OF RIVERFRONT MITIGATION AREA "B" TO GROVE STREET.
   #2: CLEAR AND GRUB AREA (SELECTIVE).
7. LIMITS OF PROPOSED BANK EXCAVATION OF MASONRY AND CONCRETE BROOK STABILIZATION EDGE ARE TO BE MARKED IN THE FIELD PRIOR TO DEMOLITION FOR OWNER'S REPRESENTATIVE OBSERVATION, REVIEW, AND APPROVAL.
8. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION DEWATERING AND SURFACE WATER CONTROL TO ACHIEVE STABLE SUBGRADE CONDITIONS AND CONSTRUCTION IN-THE-DRY. GROUNDWATER LEVEL SHALL BE MAINTAINED 24-INCHES BELOW THE EXCAVATION/BACKFILL LEVEL DURING CONSTRUCTION.
9. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND PROPERLY DISPOSING OF EXCESS FILL, TREES, INVASIVE SPECIES, AND DEMOLITION DEBRIS RESULTING FROM CONSTRUCTION ACTIVITIES AT A PROPER OFF-SITE AREA IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND MASSACHUSETTS REGULATIONS AND POLICIES.

DEMOLITION & SITE PREPARATION NOTES

1. THE CONTRACTOR SHALL INCLUDE IN THE BID THE COST OF REMOVING ANY EXISTING SITE FEATURES AND APPURTENANCES 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 SCHEDULED TO REMAIN AS PART OF THE FINAL SITE IMPROVEMENTS. REFER TO PLANS TO DETERMINE REQUIRED EXCAVATION AND DEMOLITIONACTIVITIES, AND TO DETERMINE THE LOCATION OF THE PROPOSED SITE IMPROVEMENTS.
2. THE CONTRACTOR MUST NOTIFY THE OWNER OF ANY WORK TO BE COMPLETED WITHIN THE RIGHT-OF-WAY AT LEAST FORTY-EIGHT HOURS PRIOR TO COMMENCING WORK.
3. 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 REMOVED OFF SITE AT NO ADDITIONAL COST.
4. UNLESS SPECIFICALLY NOTED TO BE REMOVED AND STOCKPILED (R&S) OR REUSED AND RELOCATED (R&R), ALL SITE FEATURES CALLED TO BE REMOVED AND DISPOSED (R&D) SHALL BE REMOVED WITH THEIR FOOTINGS, ATTACHMENTS, BASE MATERIAL, ETC, AND TRANSPORTED FROM THE SITE TO BE DISPOSED OF IN A LAWFUL MANNER AT A TOWN OF ARLINGTON APPROVED DISPOSAL SITE AT NO COST TO THE OWNER.
5. 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'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE CONTRACT/OWNER.
6. DURING EARTHWORK OPERATIONS, THE CONTRACTOR SHALL TAKE CARE NOT TO DISTURB EXISTING MATERIALS TO REMAIN OUTSIDE THE LIMITS OF EXCAVATION AND BACKFILL, AND SHALL TAKE WHATEVER MEASURES NECESSARY, AT THE CONTRACTOR'S EXPENSE, TO PREVENT ANY EXCAVATED MATERIAL FROM COLLAPSING. ALL BACKFILL MATERIALS SHALL BE PLACED AND COMPACTED, AS SPECIFIED, TO THE SUBGRADE REQUIRED FOR THE INSTALLATION OF THE REMAINDER OF THE CONTRACT WORK.
7. IT SHALL BE THE CONTRACTOR'S OPTION, WITH CONCURRENCE OF THE OWNER'S REPRESENTATIVE, TO REUSE EXISTING PAVEMENT BASE COURSE IF IT MEETS THE REQUIREMENTS OF THE SPECIFICATIONS FOR GRAVEL BORROW.
8. ALL ITEMS CALLED FOR REMOVAL SHALL BE REMOVED TO FULL DEPTH INCLUDING ALL FOOTINGS, FOUNDATIONS, AND OTHER APPURTENANCES, EXCEPT IF SPECIFICALLY NOTED OTHERWISE.
9. STRIP & STORE EXISTING TOPSOIL FOR LATER REUSE AS INDICATED ON PLANS WITH APPROPRIATE EROSION AND SEDIMENT CONTROLS. THE CONTRACTOR SHALL PROVIDE TESTING RESULTS THAT THE SOIL IS SUITABLE FOR REUSE IN ACCORDANCE WITH THE SPECIFICATIONS. CONTRACTOR SHALL SECURELY COVER STOCKPILE.
10. LOAM BORROW/TOPSOIL EXCAVATED AND DESIGNATED FOR REUSE SHALL BE SCREENED AND BLENDED WITH SUITABLE AMENDMENT MATERIAL IN ACCORDANCE WITH THE SPECIFICATIONS. ALL EXCESS TOPSOIL EXCAVATED SHALL BE PROPERLY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. AS PER THE SPECIFICATIONS, AND PER TOWN REGULATIONS.
11. THE CONTRACTOR SHALL PROTECT EXISTING TREES TO REMAIN PER SPECIFICATIONS AND TOWN OF ARLINGTON WETLAND BYLAW REGULATIONS FOR TREE PROTECTION. CONTRACTOR SHALL INSTALL A TREE PROTECTION BARRIER AFTER CLEARING TURF AND UNDERBRUSH BY HAND, AND TAKE DUE CARE TO PREVENT INJURY TO TREES DURING CLEARING OPERATIONS.
12. THE STORAGE OF MATERIALS AND EQUIPMENT WILL BE PERMITTED AT LOCATIONS DESIGNATED BY OWNER AND OWNER'S REPRESENTATIVE. PROTECTION OF STORED MATERIALS AND EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
13. THE CONTRACTOR TO TAKE ALL PRECAUTIONS AND MEASURES REQUIRED TO PREVENT DAMAGE TO THE EXISTING PAVEMENT TO REMAIN AS A RESULT OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL REPAIR DAMAGED PAVEMENT AT NO COST TO THE OWNER.
14. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SITE AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PERIOD. HE/SHE HAS THE OPTION TO USE THE EXISTING CHAIN LINK FENCE AS TEMPORARY CONSTRUCTION FENCE PRIOR TO ITS REMOVAL.

EROSION AND SEDIMENT CONTROL NOTES

1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE PUT INTO PLACE PRIOR TO BEGINNING ANY CONSTRUCTION OR DEMOLITION. REFER TO SPECIFICATIONS AND DETAILS FOR TYPE OF EROSION AND SEDIMENT CONTROL.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUAL MAINTENANCE OF ALL EROSION CONTROL DEVICES THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.
3. CONTRACTOR SHALL MEET ALL OF THE STATE OF MASSACHUSETTS D.E.P. REGULATIONS AND THE TOWN OF ARLINGTON WETLAND BYLAW REGULATIONS FOR SEDIMENT AND EROSION CONTROL.
4. EXCAVATED MATERIAL STOCKPILED IN THE AREA DESIGNATED ON THIS PLAN 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 WORK SHALL BE PROTECTED WITH FILTER FABRIC DURING THE ENTIRE DURATION OF CONSTRUCTION. EACH STRUCTURE SHALL BE CLEANED AND CLEARED.
6. THE CONTRACTOR SHALL PROVIDE DUST CONTROL FOR CONSTRUCTION OPERATIONS AS APPROVED BY OWNER.
7. ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC/PRIVATE ROADS. THE CONTRACTOR SHALL PROVIDE A WASHOUT AREA ON SITE.



1 FLOOD STORAGE AREA SITE PREPARATION AND DEMOLITION PLAN
SCALE: 1" = 10'-0"

1" = 10'-0" 0 5 10 20FT

Project:

TOWN OF ARLINGTON, MA

MILL BROOK CORRIDOR & WELLINGTON PARK REVITALIZATION PROJECT

Weston & Sampson
85 Devonshire Street,
3rd Floor, Boston, MA 02109
617.412.4480 800.SAMPSON
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:

Issued For:

CONSTRUCTION DOCUMENTS

Scale:	AS SHOWN
Date:	JANUARY 28, 2019
Drawn By:	CB, EB
Reviewed By:	JL, CR
Approved By:	CR
W&S Project No:	2180078
W&S File No:	

Drawing Title:

FLOOD STORAGE AREA SITE PREPARATION & DEMOLITION PLAN

Sheet Number:

C1.01

LEGEND

- LIMIT OF WORK
- PROPERTY LINE
- WOOD FENCE IN LAWN
- RIP RAP SLOPE
- BIOSTABILIZED SLOPE WITH REVETMENT MAT
- BIOSTABILIZED SLOPE
- RUBBER MAT/PLANTING AREA
- PLANTING AREA
- ENVIRONMENTAL INTERPRETIVE SIGNAGE
- STONE WEIR
- 3'-6" — TYP. DIMENSION
- 26.1' — TYP. ARC DIMENSION
- R3' — RADIUS DIMENSION
- TYP. SPECS. — TYPICAL SPECIFICATIONS

LAYOUT & MATERIALS 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 REQUIRED BY THE OWNER'S REPRESENTATIVE.
2. ALL LAYOUT LINES, OFFSETS, OR REFERENCES TO LOCATING OBJECTS ARE EITHER PARALLEL OR PERPENDICULAR UNLESS OTHERWISE NOTED WITH ANGLE OFFSETS.
3. 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 AND AT NO ADDITIONAL COST TO THE OWNER.
4. ALL PROPOSED PAVEMENTS SHALL MEET THE LINE AND GRADE OF EXISTING ADJACENT PAVEMENT SURFACES. ALL PATHWAY WIDTHS SHALL BE AS NOTED ON THE LAYOUT AND MATERIALS PLAN.
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON THE GROUND AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER'S REPRESENTATIVE.
6. THE DEPTH OF LOAM BORROW FOR ALL PROPOSED LAWN AREAS SHALL BE 6" MINIMUM. ALL DISTURBED AREAS SHALL BE RESTORED WITH LOAM AND SEED UNLESS OTHERWISE NOTED.

SPECIAL NOTE:

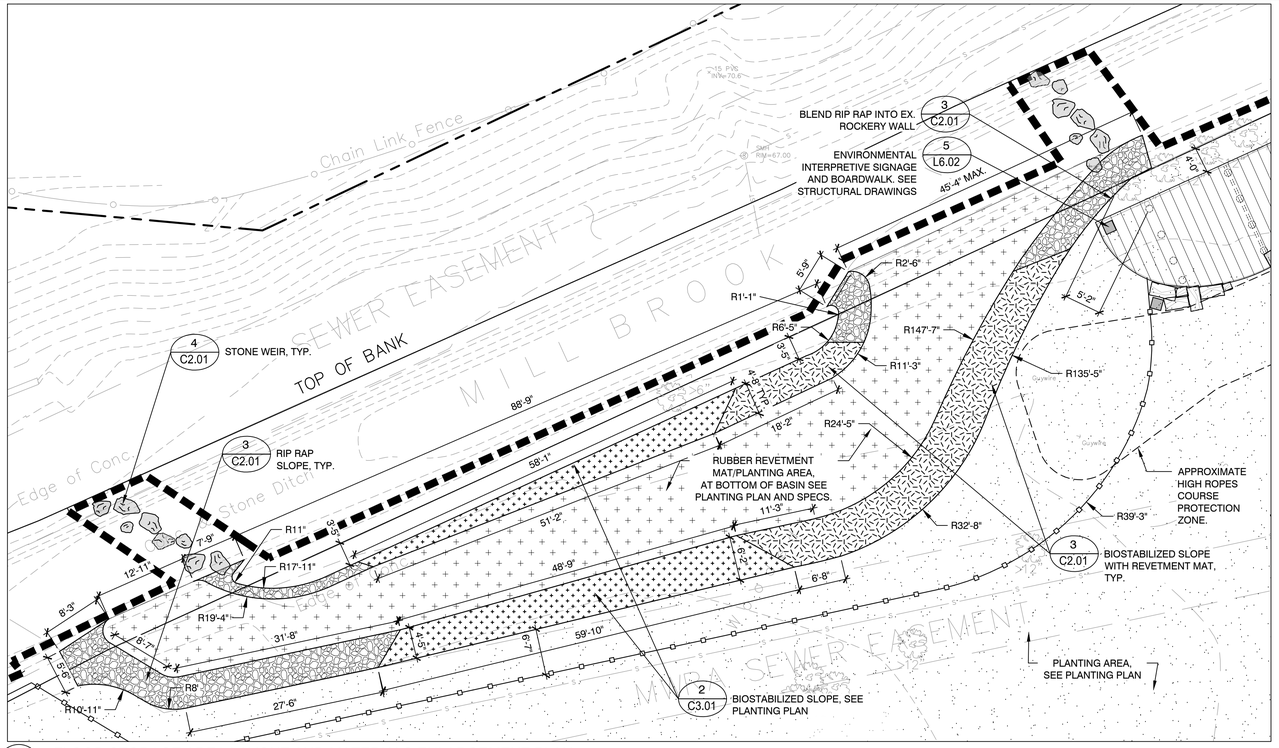
1. FLOOD STORAGE AREA SHALL BE LOCATED A MINIMUM OF FOUR (4) FEET AWAY FROM ANY EXISTING GUYWIRE CABLES AND GUYWIRE CABLES ASSOCIATED WITH THE EXISTING HIGH ROPES STRUCTURE.

FLOOD STORAGE AREA STABILIZATION - BIOSTABILIZATION AT BOTTOM OF STORAGE AREA:

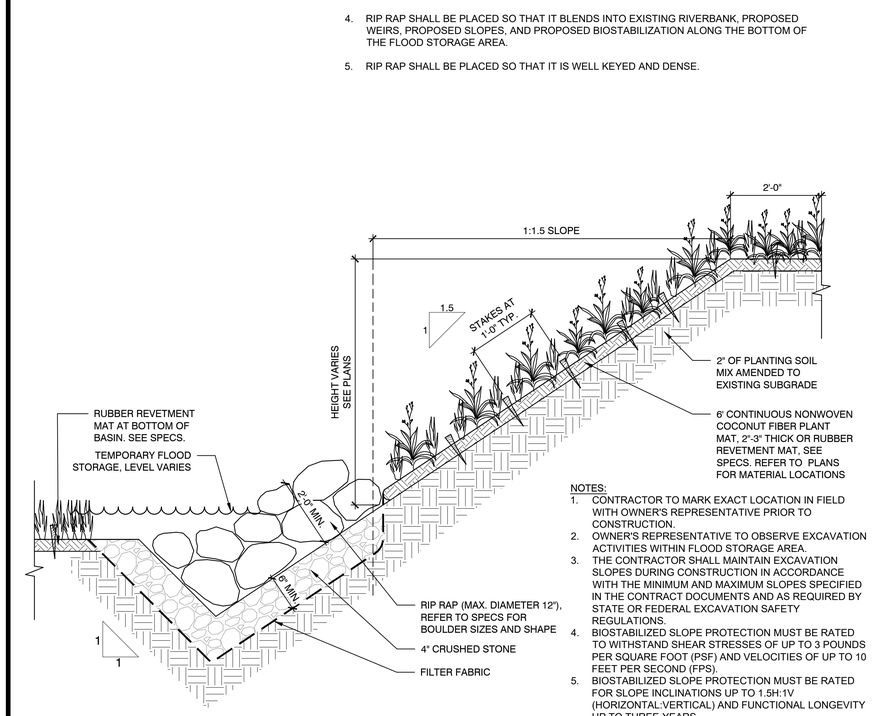
1. CONTRACTOR TO MARK EXACT LOCATION IN FIELD WITH OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
2. OWNER'S REPRESENTATIVE TO OBSERVE EXCAVATION ACTIVITIES WITHIN FLOOD STORAGE AREA.
3. BIOSTABILIZED SLOPE PROTECTION MUST BE RATED TO WITHSTAND SHEAR STRESSES OF UP TO THREE (3) POUNDS PER SQUARE FOOT (PSF) AND VELOCITIES OF UP TO TEN (10) FEET PER SECOND (FPS).
4. BIOSTABILIZED SLOPE PROTECTION MUST BE RATED FOR FUNCTIONAL LONGEVITY UP TO TEN (10) YEARS.

FLOOD STORAGE AREA STABILIZATION - RIP RAP AT BOTTOM OF STORAGE AREA:

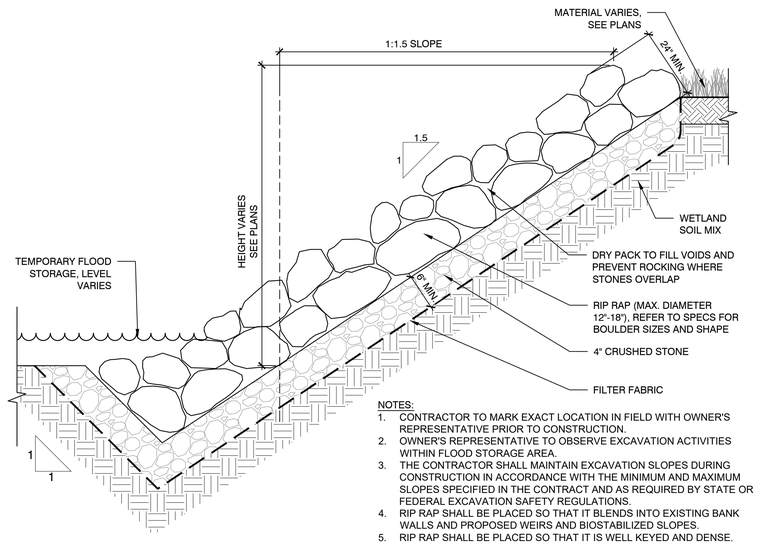
1. CONTRACTOR TO MARK EXACT LOCATION IN FIELD WITH OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
2. OWNER'S REPRESENTATIVE TO OBSERVE EXCAVATION ACTIVITIES WITHIN FLOOD STORAGE AREA.
3. RIP RAP SHALL BE PLACED AT EACH PINCH POINT CREATED BY THE FLOOD STORAGE AREA INLET AND OUTLET.
4. RIP RAP SHALL BE PLACED SO THAT IT BLENDS INTO EXISTING RIVERBANK, PROPOSED WEIRS, PROPOSED SLOPES, AND PROPOSED BIOSTABILIZATION ALONG THE BOTTOM OF THE FLOOD STORAGE AREA.
5. RIP RAP SHALL BE PLACED SO THAT IT IS WELL KEYED AND DENSE.



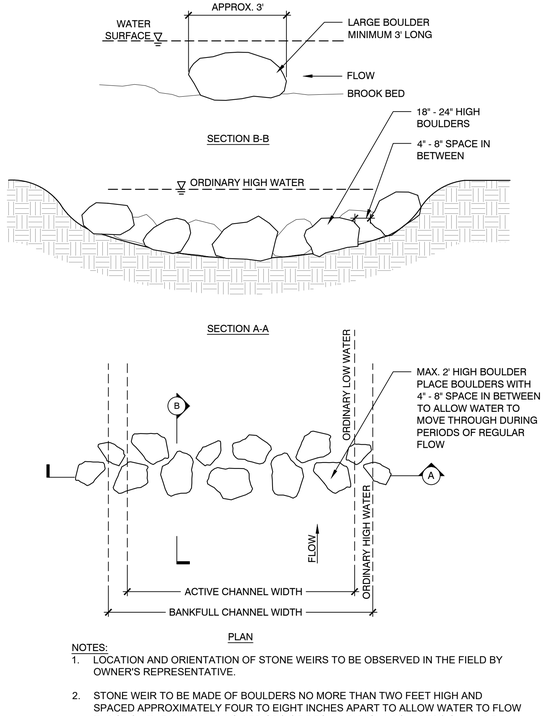
1 FLOOD STORAGE AREA LAYOUT AND MATERIALS ENLARGEMENT PLAN
SCALE: 1" = 10'-0"



2 FLOOD STORAGE AREA BANK STABILIZATION - BIOSTABILIZED SLOPE
SCALE: N.T.S.



3 FLOOD STORAGE AREA BANK STABILIZATION - RIP RAP AT CRITICAL SLOPES
SCALE: N.T.S.



4 STONE WEIR
SCALE: N.T.S.

1" = 10'-0" 0 5 10 20FT

Project:

TOWN OF ARLINGTON, MA

MILL BROOK CORRIDOR & WELLINGTON PARK REVITALIZATION PROJECT

Weston & Sampson

85 Devonshire Street,
3rd Floor, Boston, MA 02109
617.412.4480 800.SAMPSON
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:

Issued For:

CONSTRUCTION DOCUMENTS

Scale:	AS SHOWN
Date:	JANUARY 28, 2019
Drawn By:	CB, EB
Reviewed By:	JL, CR
Approved By:	CR
W&S Project No:	2180078
W&S File No:	

Drawing Title:

FLOOD STORAGE AREA LAYOUT & MATERIALS PLAN & DETAILS

Sheet Number:

C2.01

LEGEND

- LIMIT OF WORK
- PROPERTY LINE
- WOOD FENCE IN LAWN
- EXISTING DRAINAGE STRUCTURE.
- 12 — EXISTING CONTOURS
- 95.10 + EXISTING SPOT ELEVATION
- (8.25) EXISTING INTERPOLATED SPOT ELEVATION. CONTRACTOR TO VERIFY IN FIELD
- 64 PROPOSED MINOR CONTOUR (EVERY 1 FOOT)
- 65 PROPOSED MAJOR CONTOUR (EVERY 5 FEET)
- 1.5% PROPOSED SLOPE
- 8.25 + PROPOSED SPOT ELEVATION. CONTRACTOR TO VERIFY IN FIELD
- STONE WEIR
- RIP RAP SLOPE

TD	TOP OF DECK
BD	BOTTOM OF DECK
TC	TOP OF CURB
BC	BOTTOM OF CURB
LP	LOW POINT
FIN.	FINISHED

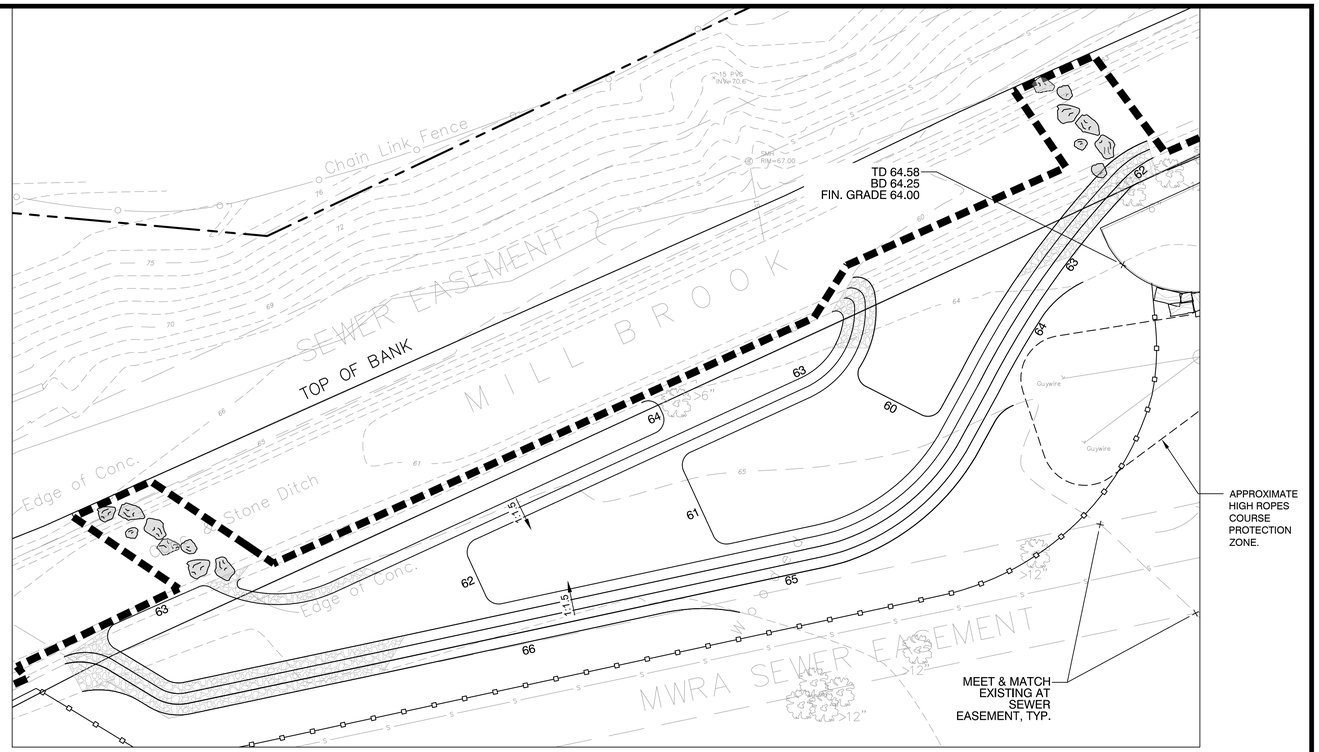
- LOAM & SEED, SEE SPECIFICATIONS
- NO-MOW NATIVE GRASS SEEDING, SEE PLANT SCHEDULE
- RUBBER MAT/WETLAND PLANT MIX, SEE SPECS.
- SHRUB PLANTING (3 / L6.01) (7 / L6.01)

GRADING & DRAINAGE NOTES

1. ALL WORK RELATING TO INSTALLATION, RENOVATION OR MODIFICATION OF WATER, DRAINAGE AND/OR SEWER SERVICES SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS OF THE TOWN OF ARLINGTON.
2. THE CONTRACTOR SHALL VERIFY ALL GRADES ON THE GROUND AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER'S REPRESENTATIVE.
3. ALL GRADING IS TO BE SMOOTH AND CONTINUOUS WHERE PROPOSED SURFACE MEETS EXISTING SURFACE, BLEND THE TWO PAVEMENTS AND ELIMINATE ROUGH SPOTS AND ABRUPT GRADE CHANGES, MEET LINE AND GRADE OF EXISTING CONDITIONS WITH NEW IMPROVEMENTS.
4. CONTRACTOR SHALL ENSURE ALL AREAS PROPERLY PITCH TO DRAIN, WITH NO SURFACE WATER PONDING OR PUDDLING.
5. ALL NEW WALKWAYS / ACCESS PATHS MUST CONFORM TO CURRENT AMERICANS WITH DISABILITIES ACT (ADA), AND MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) 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) BETWEEN 1% MIN. AND 4.5% MAX. ANY DISCREPANCIES NOT ALLOWING THIS TO OCCUR SHALL BE REPORTED TO THE OWNERS REPRESENTATIVE PRIOR TO CONTINUING WORK.
6. 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.
7. 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 CONSTRUCTION.
8. EXCAVATION REQUIRED WITHIN PROXIMITY OF KNOWN EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
9. 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.
10. WHERE A SPECIFIC LIMIT OF WORK LINE IS NOT OBVIOUS OR IMPLIED, BLEND GRADES TO EXISTING CONDITIONS WITHIN 5 FEET OF PROPOSED CONTOURS.
11. SEE EARTHWORK SECTION OF SPECIFICATIONS FOR EXCAVATION AND FILLING PROCEDURES.
12. GRADES ABOVE THE SEWER EASEMENT SHALL NOT CHANGE.

SPECIAL NOTE:

1. FLOOD STORAGE AREA SHALL BE LOCATED A MINIMUM OF FOUR (4) FEET AWAY FROM ANY EXISTING GUYWIRE CABLES/ ANCHORS.



1 FLOOD STORAGE AREA GRADING ENLARGEMENT PLAN
SCALE: 1" = 10'-0"

PLANT SCHEDULE

FLOOD STORAGE PLANTING

ABRV.	QTY	BOTANICAL NAME	COMMON NAME	CONT.	NOTES
SHRUBS					
CA	23	CEANOTHUS AMERICANUS	NEW JERSEY TEA	#2 CONT.	
HERBACEOUS PERENNIALS AND GRASSES					
ABRV.	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT.**	**NOTES**
AM	52	ACHILLEA MILLEFOLIUM	YARROW	2" PLUG	SPACE 18" O.C.
BC	79	BOUTELOUA CURTIPENDULA	SIDEOATS GRAMA	2" PLUG	SPACE 18" O.C.
CL	91	COREOPSIS LANCEOLATA	LANCE-LEAVED COREOPSIS	2" PLUG	SPACE 12" O.C.
LP	116	LUPINUS PERENNIS	WILD LUPINE	2" PLUG	SPACE 12" O.C.
SS	73	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	2" PLUG	SPACE 18" O.C.

FLOOD STORAGE BASIN BOTTOM PLANT MIX

BOTANICAL NAME	COMMON NAME
*SEE SPECIFICATIONS	*SEE SPECIFICATIONS

REPLACEMENT TREES

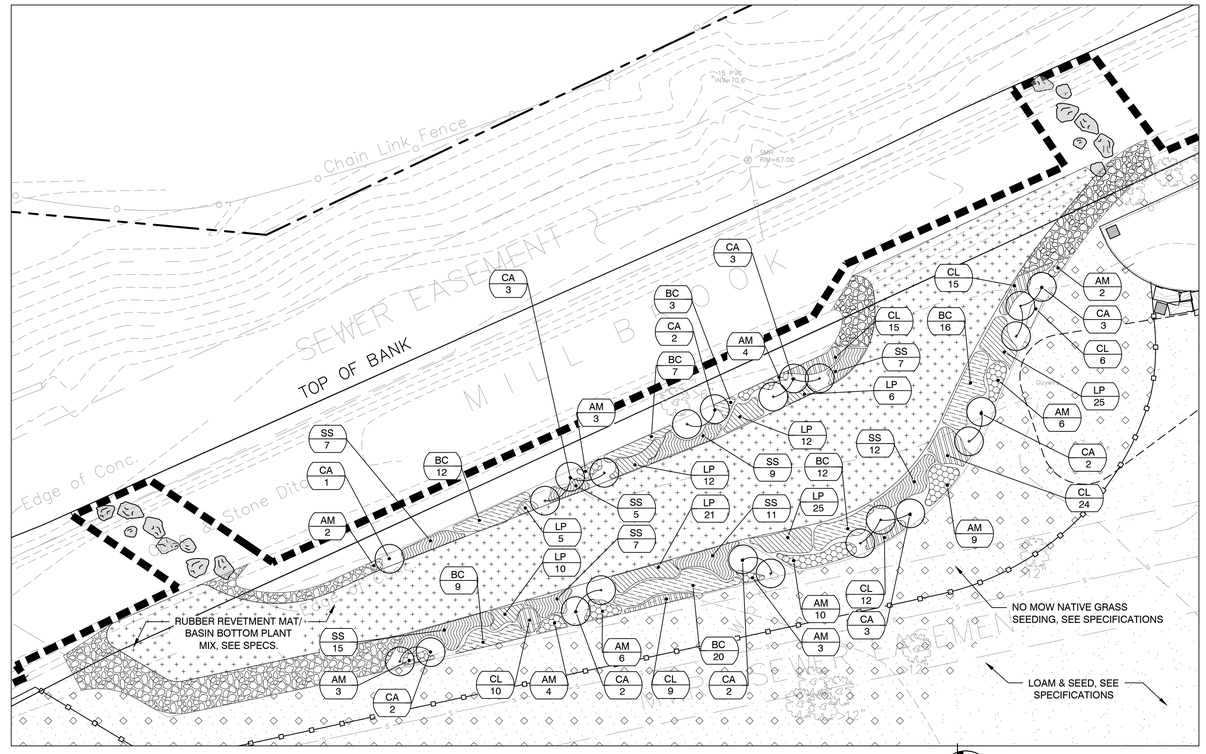
QTY	NOTE
3	SPECIES (FROM TOWN OF ARLINGTON PREFERRED PLANT LIST) AND TREE LOCATION TO BE SELECTED BY ARBORIST AND OWNER'S REPRESENTATIVE.

NO MOW NATIVE GRASS SEEDING

BOTANICAL NAME	COMMON NAME
*SEE SPECIFICATIONS	*SEE SPECIFICATIONS

PLANTING NOTES:

1. NEW PLANTING LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. PLANTS SHALL BE LOCATED IN THE FIELD BY THE CONTRACTOR AND VERIFIED BY THE OWNER'S REPRESENTATIVE PRIOR TO PLANTING. NEW PLANTING SHALL BE LOCATED IN AREAS THAT AVOID EXISTING TREE ROOTS AND EXISTING NATIVE SPECIES TO REMAIN.
2. RESTORE ALL DISTURBED AREAS AND LIMITS OF ALL REMOVALS TO LOAM AND SEED UNLESS OTHERWISE NOTED.



2 FLOOD STORAGE AREA PLANTING ENLARGEMENT PLAN
SCALE: 1" = 10'-0"

1" = 30'-0" 0 10 20 30 60FT

Project:

TOWN OF ARLINGTON, MA

MILL BROOK CORRIDOR & WELLINGTON PARK REVITALIZATION PROJECT

Weston & Sampson

85 Devonshire Street,
3rd Floor, Boston, MA 02109
617.412.4480 800.SAMPSON
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:

Issued For:

CONSTRUCTION DOCUMENTS

Scale:	AS SHOWN
Date:	JANUARY 28, 2019
Drawn By:	CB, EB
Reviewed By:	JL, CR
Approved By:	CR
W&S Project No:	2180078
W&S File No:	

Drawing Title:

FLOOD STORAGE AREA GRADING & PLANTING PLAN

Sheet Number:

C3.01

1.0 GENERAL NOTES

1.1 ALL WORK SHALL CONFORM TO THE 9TH EDITION OF THE MASSACHUSETTS STATE BUILDING CODE AND ITS APPLICABLE REFERENCES.

1.2 THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING, COORDINATING, AND VERIFYING ALL DIMENSIONS AND CONDITIONS IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PORTION OF WORK.

1.3 ALL BOLTS & HARDWARE SHALL BE HOT-DIPPED GALVANIZED U.N.O.

2.0 CONCRETE

2.1 CONCRETE WORK SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318;318R)" AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301)".

2.2 CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4500 PSI AND A MAXIMUM WATER-CEMENT RATIO OF 0.45.

2.3 CEMENT SHALL CONFORM TO ASTM C 150 TYPE I/II.

2.4 SLUMP OF CAST-IN-PLACE CONCRETE SHALL BE 4" +/- 1".

2.5 CONCRETE SHALL BE AIR ENTRAINED TO 6% ± 1.5%

3.0 REINFORCING

3.1 REINFORCEMENT WORK OF DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-02;318R-02)", "ACI DETAILING MANUAL (SP-66-1988)", "CRSI MANUAL OF STANDARD PRACTICE (DA4-90)," AND "STRUCTURAL WELDING CODE REINFORCING STEEL (AWS D1.4-79)" AT MINIMUM OR AS SPECIFIED HEREIN.

3.2 STEEL REINFORCEMENT, UNLESS OTHERWISE NOTED, SHALL CONFORM ASTM A615 GRADE 60.

3.3 MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE 2.0".

3.4 REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS UNLESS OTHERWISE INDICATED.

3.5 REINFORCEMENT SHALL NOT BE TACK WELDED.

3.6 INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO THE SCHEDULED CONCRETE PLACEMENT.

4.0 TIMBER CONSTRUCTION

4.1 THE WORK COVERED UNDER THIS SECTION INCLUDES, BUT IS NOT NECESSARILY LIMITED TO, STRINGERS, BEAMS AND RAIL POSTS.

4.2 ALL VISUALLY GRADED STRUCTURAL LUMBER AND WOOD CONSTRUCTION SHALL CONFORM TO THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" (ANSI/NFPA NDS - LATEST EDITION), ITS SUPPLEMENT, AND COMMENTARY BY THE AMERICAN FOREST & PAPER ASSOCIATION / AMERICAN WOOD COUNCIL.

4.3 TIMBER SHALL MEET THE REQUIREMENTS OF THE SOUTHERN PINE INSPECTION BUREAU INSPECTION RULES, LATEST EDITION FOR SOUTHERN PINE NO. 1 GRADE MINIMUM.

4.4 TIMBER SHALL BE HANDLED CAREFULLY, WITHOUT SUDDEN DROPPING, BREAKING OF OUTER FIBERS, BRUISING OR PENETRATING THE SURFACE WITH TOOLS.

4.5 TIMBER SHALL BE CUT AND FRAMED TO A CLOSE FIT IN SUCH A MANNER THAT THE JOINTS SHALL HAVE AN EVEN BEARING OVER THE ENTIRE CONTACT SURFACE. NO SHIMMING, UNLESS OTHERWISE NOTED, WILL BE PERMITTED IN MAKING JOINTS NOR WILL OPEN JOINTS BE ACCEPTED.

4.6 ALL TIMBERS SHALL BE PRESSURE TREATED (P.T.) WITH A WOOD PRESERVATIVE TO MEET AMERICAN WOOD PROTECTION ASSOCIATION (AWPA) USE CATEGORY 3B. FOR FRAMING IN CONTACT WITH THE GROUND, MEET AWPA USE CATEGORY 4A. FRAMING SHALL NOT BE INCISED.

4.7 FIELD TREAT NEWLY CUT SURFACES OF PRESSURE TREATED TIMBER WITH PRESERVATIVE PER MANUFACTURER'S RECOMMENDATIONS.

4.8 MATERIAL SHALL BE SOUND, WELL SEASONED, AND STRAIGHT GRAINED, FREE FROM SHAKES AND LARGE OR LOOSE KNOTS, AND SHALL HAVE NO DECAYED WOOD, WORM HOLES, OR ANY OTHER DEFECTS WHICH THE OWNER DETERMINES WILL IMPAIR ITS STRENGTH OR DURABILITY.

4.9 PIECES OF EXCEPTIONALLY LIGHT WEIGHT MATERIAL WILL NOT BE ACCEPTED.

4.10 MATERIAL SHALL BE STORED OFF OF THE GROUND IN A MANNER TO PREVENT DAMAGE AND TO PERMIT EASY INSPECTION.

4.11 TIMBER SHALL BE SURFACED FOUR SIDES (S4S) UNLESS OTHERWISE NOTED.

4.12 HOT-DIPPED OR Z MAX (G185) GALVANIZED SIMPSON STRONG-TIE CONNECTIONS OR APPROVED EQUAL SHALL BE UTILIZED AS SPECIFIED WITHIN THESE CONSTRUCTION DOCUMENTS.

4.13 ADHESIVE ANCHOR SYSTEMS SHALL BE UTILIZED AS SPECIFIED WITHIN THESE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR THE ADHESIVE ANCHORING SYSTEM TO THE ENGINEER FOR APPROVAL PRIOR TO PLACING ORDER.

4.14 ANCHOR RODS SHALL BE COUNTER-BORED BY THE CONTRACTOR WHERE REQUIRED SUCH THAT THERE IS NO INTERFERENCE BETWEEN DECK BOARDS OR OTHER FRAMING ELEMENTS.

5.0 DECKING

5.1 THE WORK COVERED UNDER THIS SECTION INCLUDES, BUT IS NOT NECESSARILY LIMITED TO DECKING.

5.2 DECKING SHALL BE FASTENED TO EACH 2X12 STRINGER WITH (2) 14 GAUGE 4" LONG 316 S.S. FLAT HEAD SCREWS .

5.3 SCREW HOLES SHALL BE PRE-DRILLED WITH A 5/32" LEAD HOLE. LEAD HOLE SHALL BE NO LONGER THAN THE SCREW EMBEDMENT.

5.4 LEAD HOLE SHALL BE COUNTER-SUNK TO ASSURE THAT SCREW HEAD IS FLUSH WITH THE FINISHED DECK SURFACE.

5.5 DECK WOOD SHALL BE STORED IN A CLEAN, DRY, WEATHER PROTECTED LOCATION PRIOR TO INSTALLATION. NO DENTED, STAINED, TWISTED, OR DAMAGED MATERIAL SHALL BE INCORPORATED INTO THE WORK.

5.6 DECKING TO HAVE 1/8" GAP BETWEEN ADJACENT BOARDS.

5.7 DECKING TO HAVE 2"X2" TRIMBOARD AROUND PERIMETER ANYWHERE WHERE GUARD IS NOT PROVIDED.

6.0 DESIGN LOADS

LOADS, LOADING CONDITIONS, AND COMBINATIONS SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS STATE BUILDING CODE - 780 CMR, IBC 2015, AND ASCE 7-10 AS APPLICABLE.

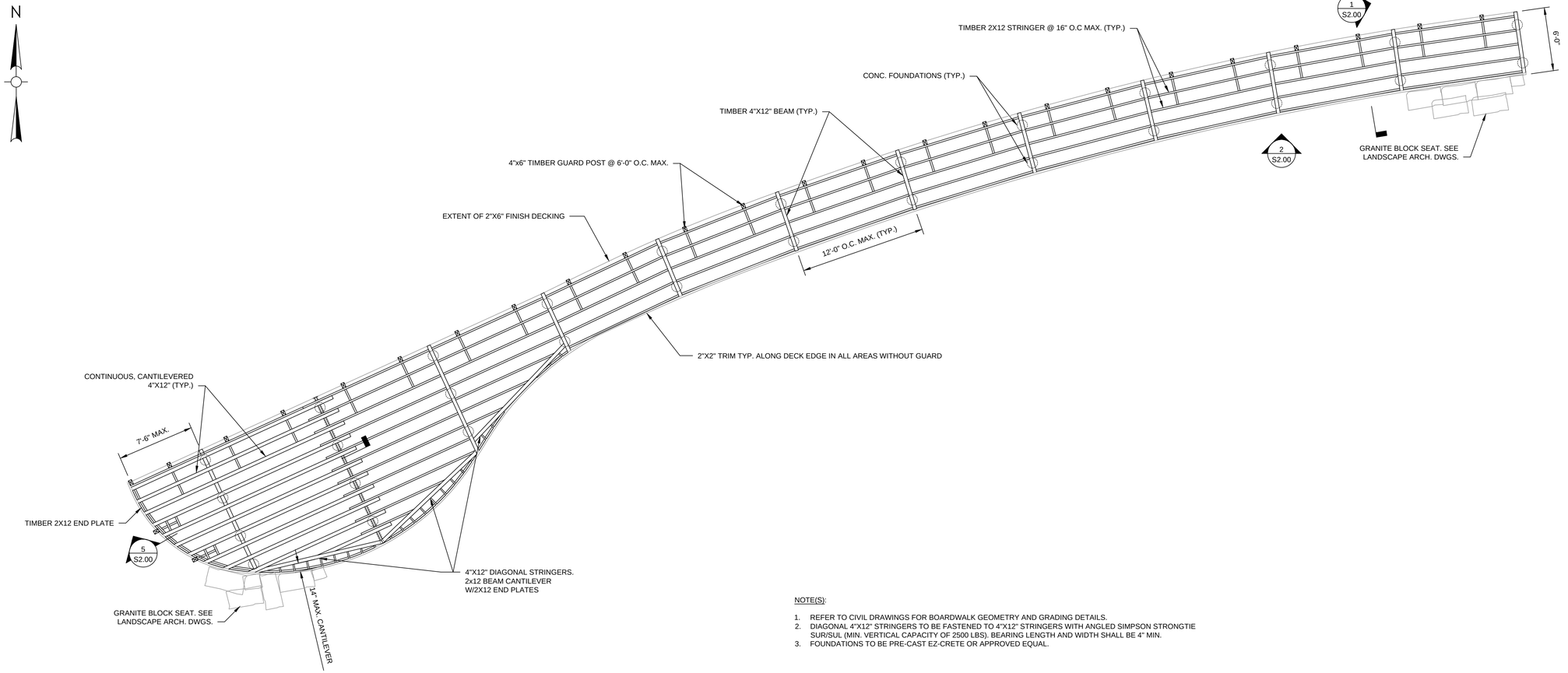
LOADS DESIGNATED BY "PSF" ARE UNIFORM LOADS, THOSE DESIGNATED BY "LB" ARE CONCENTRATED LOADINGS AND SHALL BE APPLIED AS REQUIRED BY THE MA STATE BUILDING CODE.

1. DEAD LOADS
   1.1. SELF-WEIGHT OF ALL ATTACHED ELEMENTS.

2. LIVE LOADS
   2.1. DECK ____ 90 PSF

3. SNOW LOAD
   3.1. GROUND SNOW LOAD, PG ____ 40 PSF
   3.2. WEATHER EXPOSED STRUCTURES
      3.2.1. SNOW EXPOSURE FACTOR, CE ____ 1.0
      3.2.2. SNOW LOAD IMPORTANCE FACTOR, I ____ 1.0
      3.2.3. THERMAL FACTOR, CT ____ 1.2

4. WIND DESIGN DATA
   4.1. BASIC WIND SPEED, V ____ 127 MPH



NOTE(S):

1. REFER TO CIVIL DRAWINGS FOR BOARDWALK GEOMETRY AND GRADING DETAILS.
2. DIAGONAL 4"X12" STRINGERS TO BE FASTENED TO 4"X12" STRINGERS WITH ANGLED SIMPSON STRONGTIE SUR/SUL (MIN. VERTICAL CAPACITY OF 2500 LBS). BEARING LENGTH AND WIDTH SHALL BE 4" MIN.
3. FOUNDATIONS TO BE PRE-CAST EZ-CRETE OR APPROVED EQUAL.

1 PLAN VIEW - FRAMING
SCALE: 3/16"=1'-0"

Project:

TOWN OF ARLINGTON, MA

MILL BROOK CORRIDOR & WELLINGTON PARK REVITALIZATION PROJECT

Weston & Sampson

85 Devonshire Street,
3rd Floor, Boston, MA 02109
617.412.4480 800.SAMPSON
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:

COMMONWEALTH OF MASSACHUSETTS
RICHARD A. CAMPBELL
STRUCTURAL
No. 36256
REGISTERED PROFESSIONAL ENGINEER
Jan 25, 2019

Issued For:

CONSTRUCTION DOCUMENTS

Scale:

Date: JANUARY 25, 2019

Drawn By: NVY

Reviewed By: CJW

Approved By: RAC

W&S Project No: 2180078

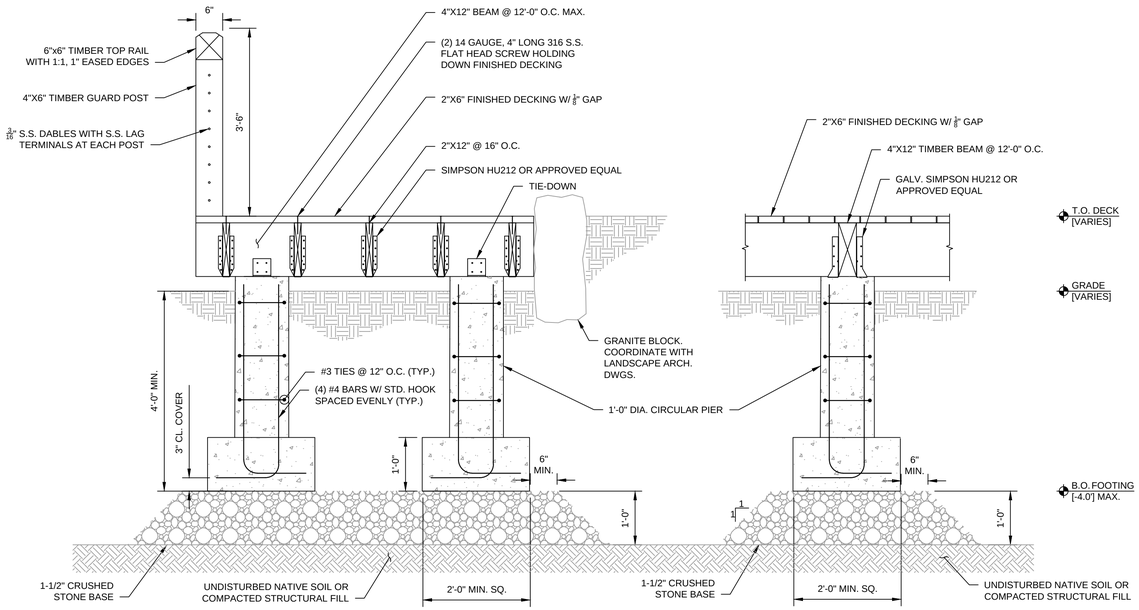
W&S File No:

Drawing Title:

BOARDWALK GENERAL NOTES, PLANS & ELEVATION

Sheet Number:

S1.01



NOTE(S):

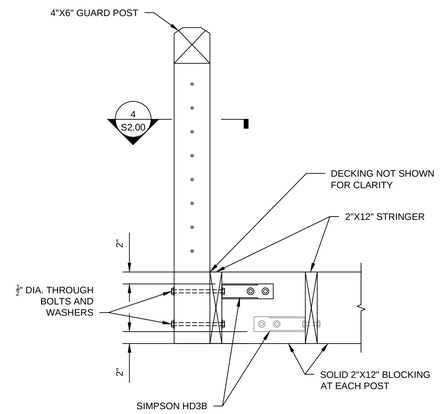
1. B.O. FOOTINGS TO BE 4'-0" BELOW GRADE MIN. THROUGHOUT
2. REFER TO SITE/CIVIL DRAWINGS FOR GRADE ELEVATIONS

1 BOARDWALK SECTION (FACING EAST)
SCALE: 3/4"=1'-0"

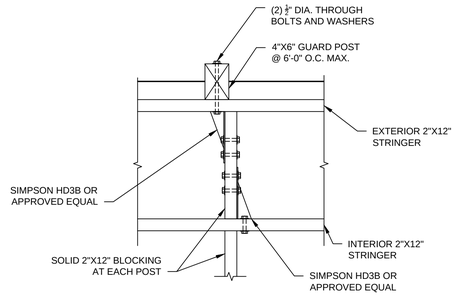
NOTE(S):

1. B.O. FOOTINGS TO BE 4'-0" BELOW GRADE MIN. THROUGHOUT
2. REFER TO SITE/CIVIL DRAWINGS FOR GRADE ELEVATIONS

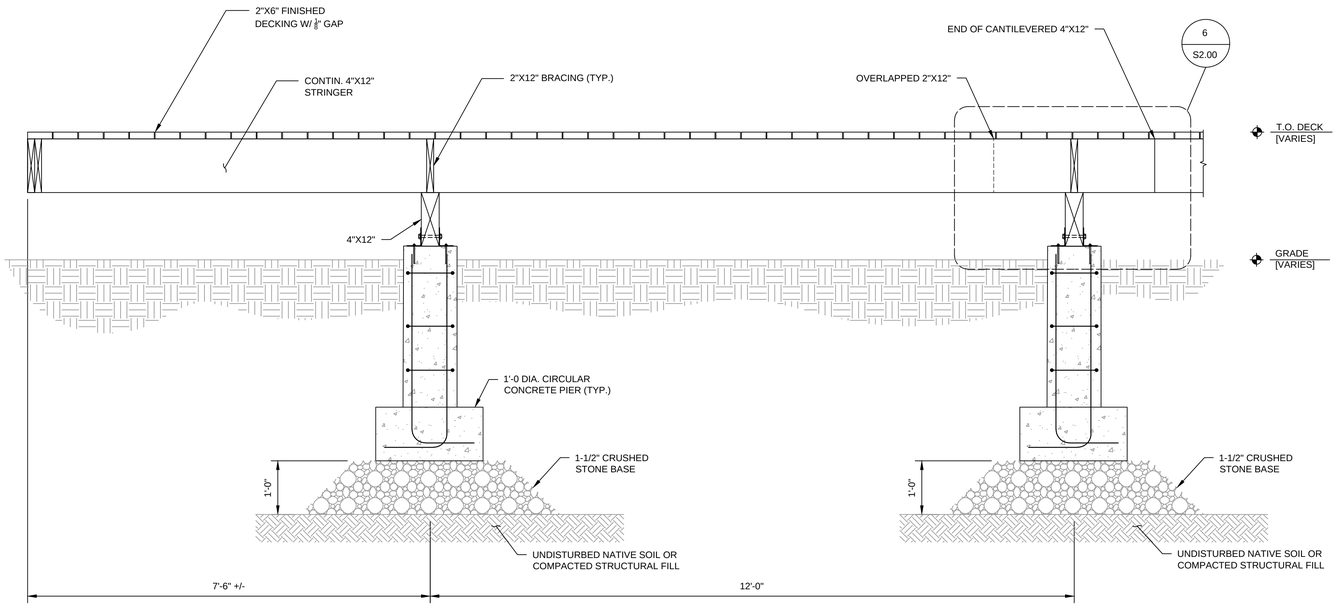
2 BOARDWALK SECTION (FACING NORTH)
SCALE: 3/4"=1'-0"



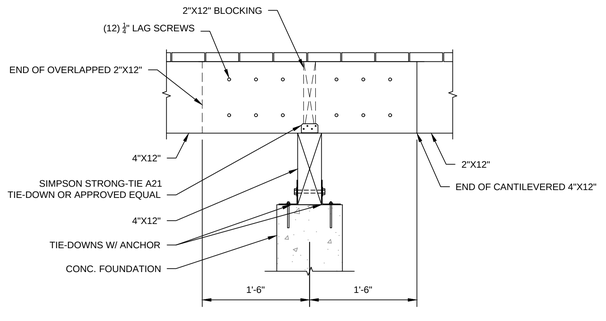
3 TYPICAL GUARD POST ELEVATION
SCALE: 1"=1'-0"



4 GUARD POST DETAIL
SCALE: 1"=1'-0"



5 CANTILEVERED SECTION ELEVATION VIEW
SCALE: 3/8"=1'-0"



NOTE(S):

1. SEE GENERAL NOTES 1.3 FOR ALL HARDWARE.
2. ALL TIE-DOWNS AND ANCHORS ARE TO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. MINIMUM TOTAL TENSILE CAPACITY OF ANCHORS PER SUPPORT IS 4500LBS

6 CANTILEVER TRANSITION CONNECTION DETAIL
SCALE: 1"=1'-0"

Project:

TOWN OF ARLINGTON, MA

MILL BROOK CORRIDOR & WELLINGTON PARK REVITALIZATION PROJECT

Weston & Sampson
85 Devonshire Street,
3rd Floor, Boston, MA 02109
617.412.4480 800.SAMPSON
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:

COMMONWEALTH OF MASSACHUSETTS
RICHARD A. CAMPBELL
STRUCTURAL
No. 36256
REGISTERED PROFESSIONAL ENGINEER
Jan 25, 2019

Issued For:

CONSTRUCTION DOCUMENTS

Scale:

Date: JANUARY 25, 2019
Drawn By: NVY
Reviewed By: CJW
Approved By: RAC

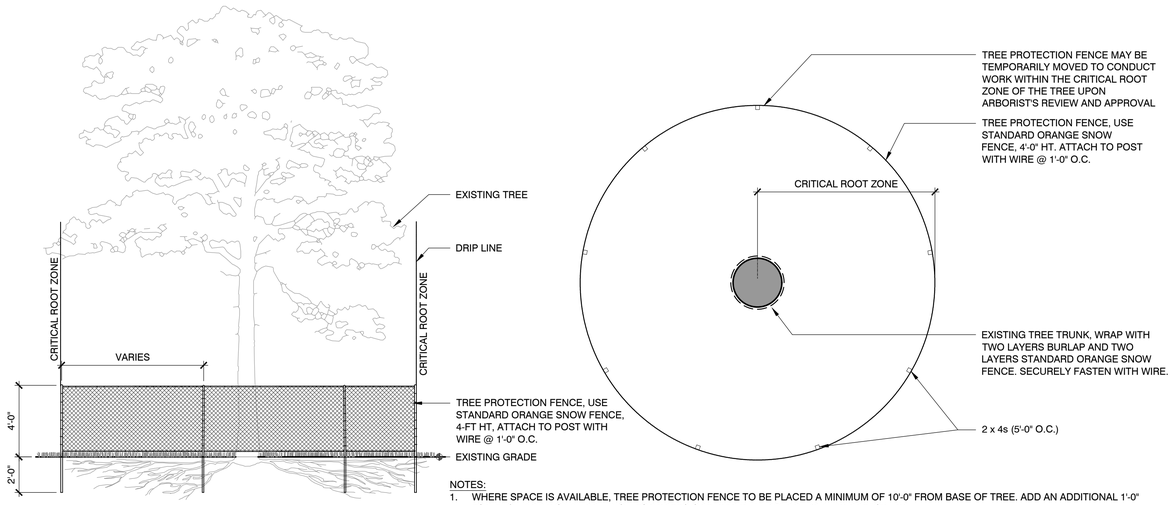
W&S Project No: 2180078
W&S File No:

Drawing Title:

BOARDWALK SECTIONS & DETAILS

Sheet Number:

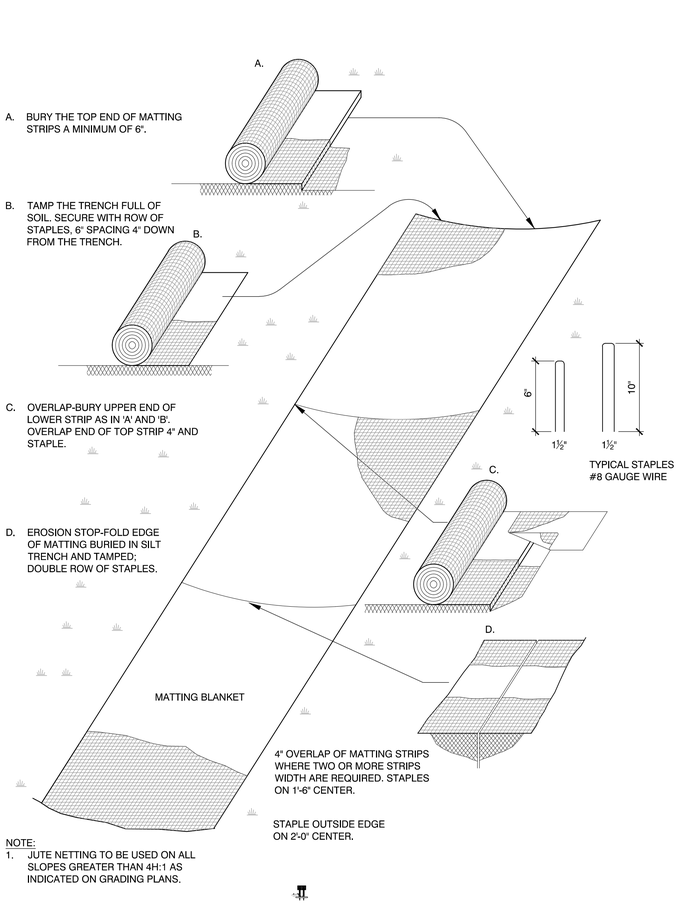
S2.01



NOTES:
1. WHERE SPACE IS AVAILABLE, TREE PROTECTION FENCE TO BE PLACED A MINIMUM OF 10'-0" FROM BASE OF TREE. ADD AN ADDITIONAL 1'-0" FOR EACH ADDITIONAL DBH INCH 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 WITH 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.
5. MAINTAIN FENCE PROTECTION IN SOUND CONDITION UNTIL CONSTRUCTION COMPLETION.
6. A CERTIFIED ARBORIST SHALL DELINEATE LIMIT OF TREE PROTECTION FENCE AS IT RELATES TO THE LIMITS OF THE CRITICAL ROOT ZONE.
7. CRITICAL ROOT ZONE TO BE PROTECTED. ALL WORK NECESSARY WITHIN THE CRITICAL ROOT ZONE SHALL BE PERFORMED BY HAND.

1 TREE PROTECTION

SCALE: N.T.S.



A. BURY THE TOP END OF MATTING STRIPS A MINIMUM OF 6".

B. TAMP THE TRENCH FULL OF SOIL. SECURE WITH ROW OF STAPLES, 6" SPACING 4" DOWN FROM THE TRENCH.

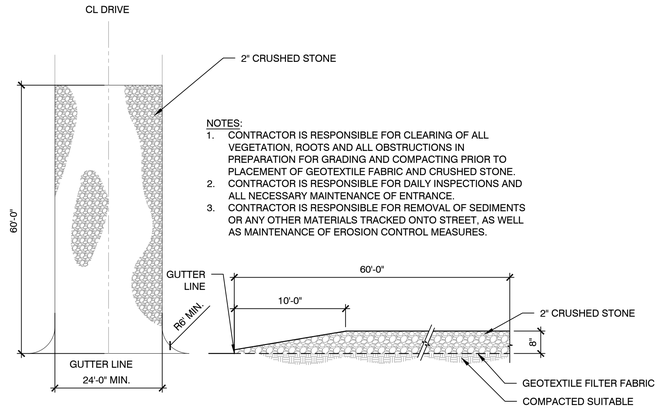
C. OVERLAP-BURY UPPER END OF LOWER STRIP AS IN 'A' AND 'B'. OVERLAP END OF TOP STRIP 4" AND STAPLE.

D. EROSION STOP-FOLD EDGE OF MATTING BURIED IN SILT TRENCH AND TAMPED; DOUBLE ROW OF STAPLES.

NOTE:
1. JUTE NETTING TO BE USED ON ALL SLOPES GREATER THAN 4H:1 AS INDICATED ON GRADING PLANS.

2 EROSION CONTROL MAT

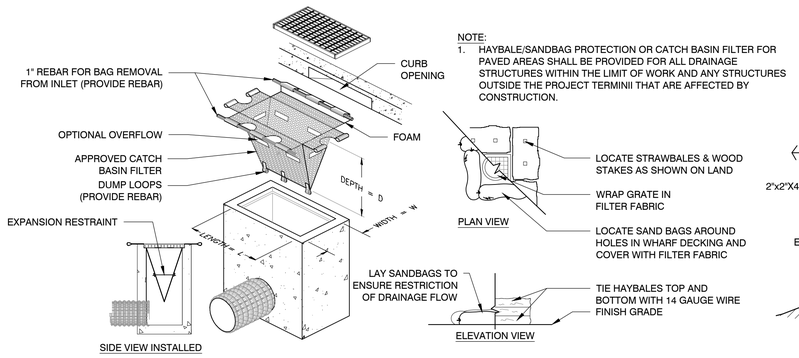
SCALE: N.T.S.



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 IS RESPONSIBLE FOR DAILY INSPECTIONS AND ALL NECESSARY MAINTENANCE OF ENTRANCE.
3. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF SEDIMENTS OR ANY OTHER MATERIALS TRACKED ONTO STREET, AS WELL AS MAINTENANCE OF EROSION CONTROL MEASURES.

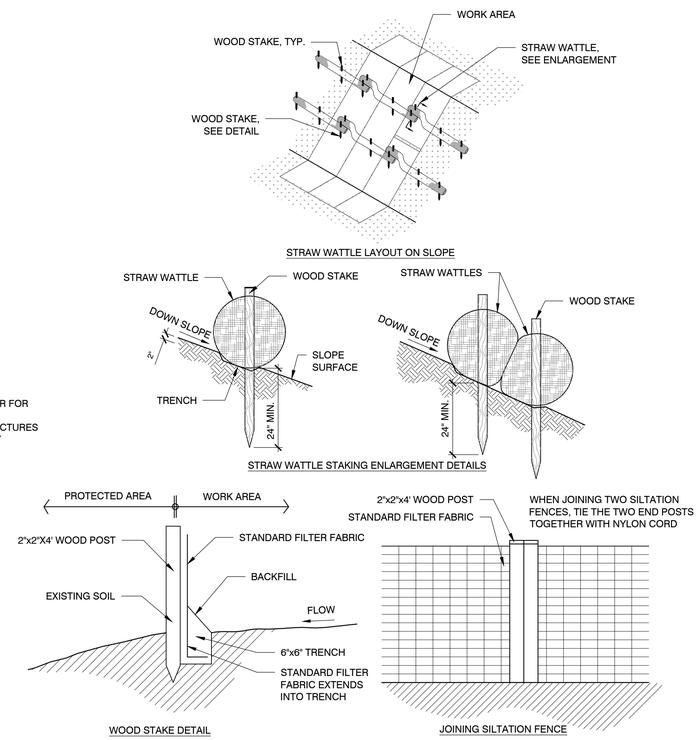
3 CONSTRUCTION ENTRANCE

SCALE: N.T.S.



4 INLET SEDIMENT CONTROL

SCALE: N.T.S.



5 SILTATION - EROSION CONTROL

SCALE: N.T.S.

Project:

TOWN OF ARLINGTON, MA

MILL BROOK CORRIDOR & WELLINGTON PARK REVITALIZATION PROJECT

Weston & Sampson

85 Devonshire Street,
3rd Floor, Boston, MA 02109
617.412.4480 800.SAMPSON
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:

Issued For:

CONSTRUCTION DOCUMENTS

Scale:

Date: JANUARY 28, 2019

Drawn By: CB, EB

Reviewed By: JL, CR

Approved By: CR

W&S Project No: 2180078

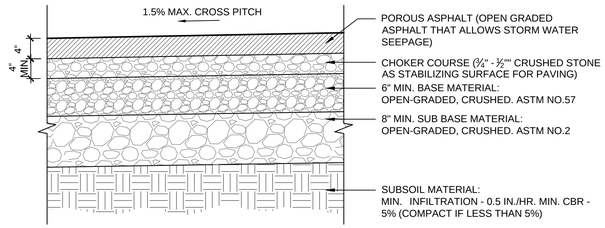
W&S File No:

Drawing Title:

LANDSCAPE DETAILS

Sheet Number:

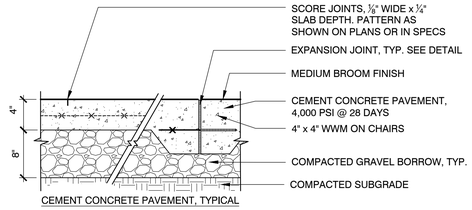
L6.01



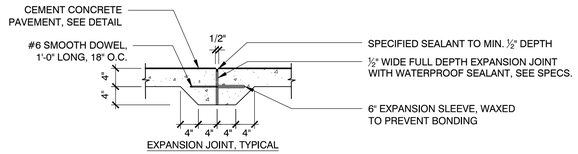
NOTES:
1. ALL AGGREGATE MATERIAL SHALL BE CRUSHED, ANGULAR STONE AND FREE OF FINES.
2. SURFACE SLOPE SHALL BE A MINIMUM OF 1% AND A MAXIMUM OF 5%.
3. THE MINIMUM AGGREGATE THICKNESS ARE AFTER COMPACTION.

1 POROUS BITUMINOUS CONCRETE PAVEMENT

SCALE: N.T.S.



CEMENT CONCRETE PAVEMENT, TYPICAL



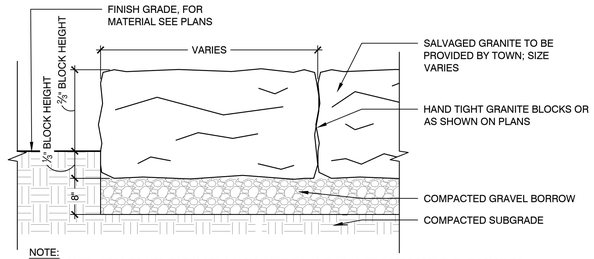
EXPANSION JOINT, TYPICAL

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.

2 CIP CONCRETE PAVEMENT

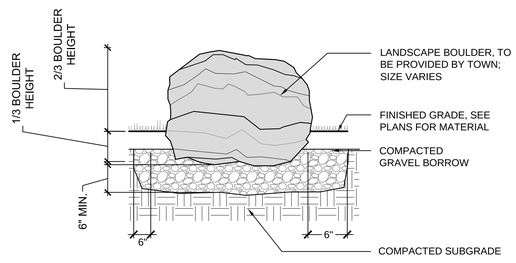
SCALE: N.T.S.



NOTE:
1. CONTRACTOR TO VERIFY EXACT LOCATION IN FIELD WITH OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.

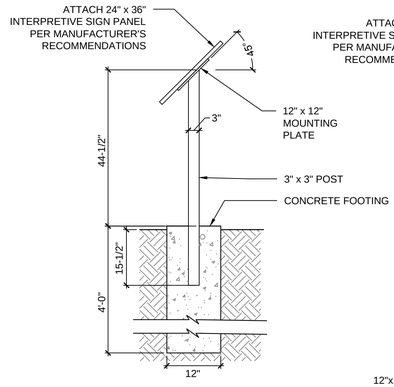
3 SALVAGED GRANITE BLOCK

SCALE: N.T.S.

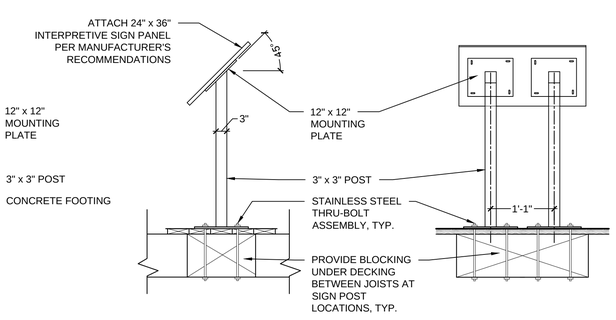


4 LANDSCAPE BOULDER

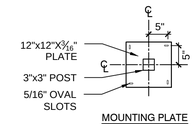
SCALE: N.T.S.



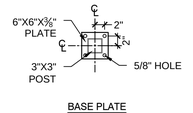
DIRECT BURY



SURFACE MOUNT



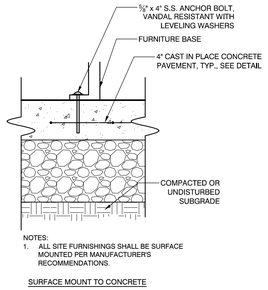
MOUNTING PLATE



BASE PLATE

5 ENVIRONMENTAL INTERPRETIVE SIGNAGE - DOUBLE POST

SCALE: N.T.S.

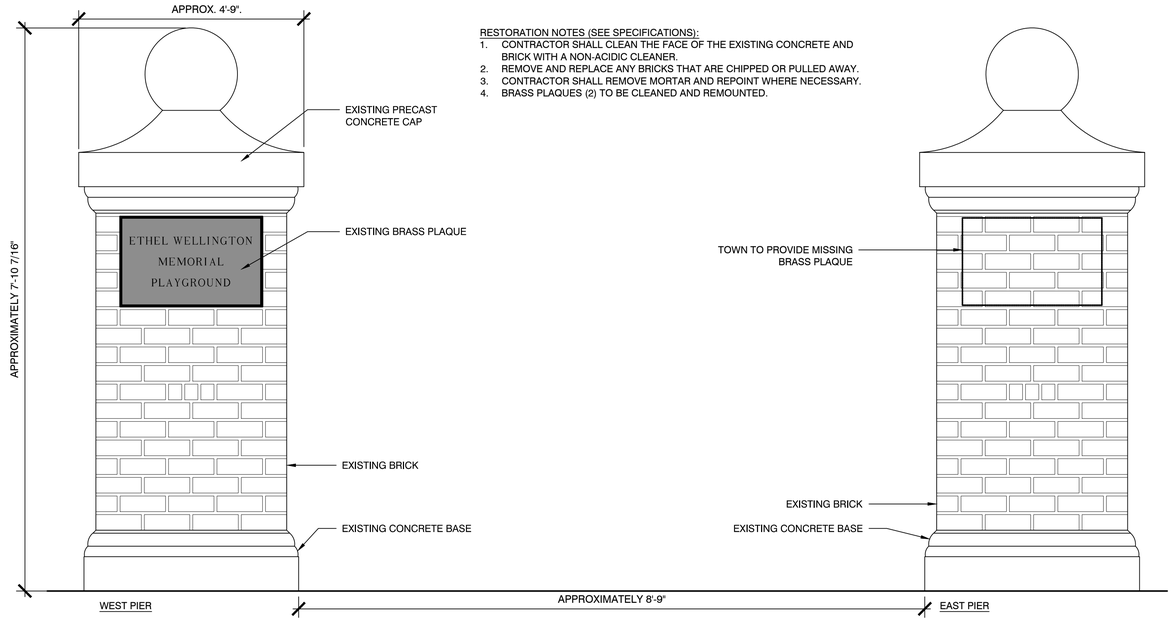


NOTES:
1. ALL SITE FURNISHINGS SHALL BE SURFACE MOUNTED PER MANUFACTURER'S RECOMMENDATIONS.

SURFACE MOUNT TO CONCRETE

6 FURNITURE SURFACE MOUNT

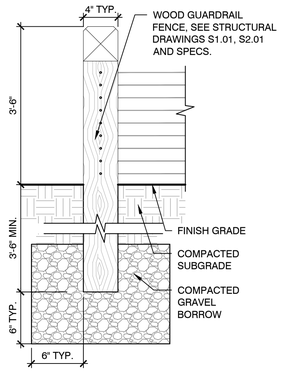
SCALE: N.T.S.



RESTORATION NOTES (SEE SPECIFICATIONS):
1. CONTRACTOR SHALL CLEAN THE FACE OF THE EXISTING CONCRETE AND BRICK WITH A NON-ACIDIC CLEANER.
2. REMOVE AND REPLACE ANY BRICKS THAT ARE CHIPPED OR PULLED AWAY.
3. CONTRACTOR SHALL REMOVE MORTAR AND REPOINT WHERE NECESSARY.
4. BRASS PLAQUES (2) TO BE CLEANED AND REMOUNTED.

7 REFURBISHED BRICK ENTRANCE PIERS

SCALE: N.T.S.



NOTES:
1. FENCE POST SPACING IN LAWN SHALL BE 6' - 8' O.C.

8 WOOD FENCE AT LAWN

SCALE: N.T.S.

Project:

TOWN OF ARLINGTON, MA

MILL BROOK CORRIDOR & WELLINGTON PARK REVITALIZATION PROJECT

Weston & Sampson

85 Devonshire Street,
3rd Floor, Boston, MA 02109
617.412.4480 800.SAMPSON
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:

Issued For:

CONSTRUCTION DOCUMENTS

Scale:

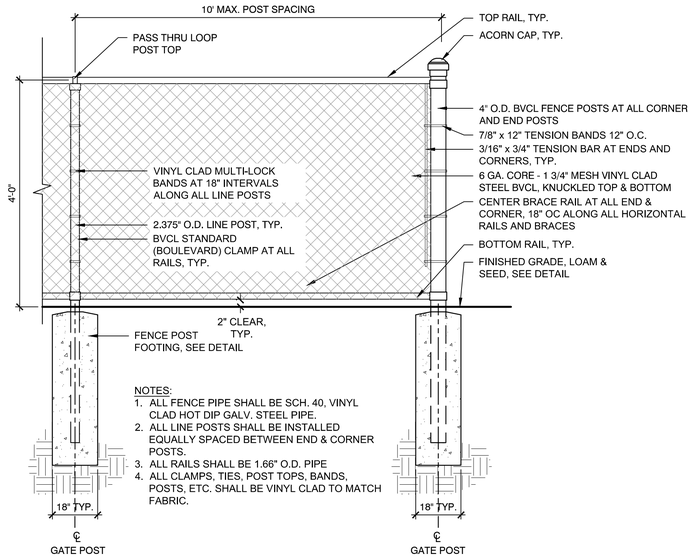
Date:	JANUARY 28, 2019
Drawn By:	CB, EB
Reviewed By:	JL, CR
Approved By:	CR
W&S Project No:	2180078
W&S File No:	

Drawing Title:

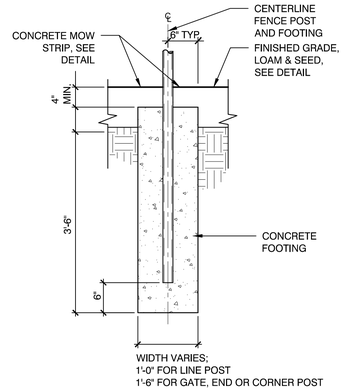
LANDSCAPE DETAILS

Sheet Number:

L6.02

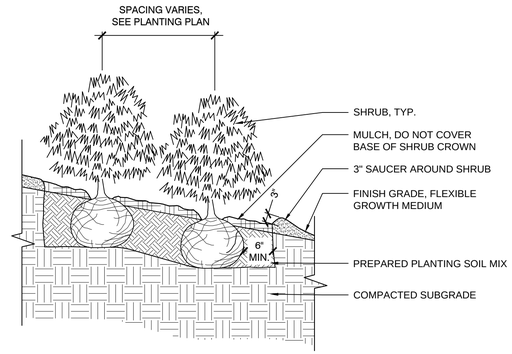


NOTES:
1. ALL FENCE PIPE SHALL BE SCH. 40, VINYL CLAD HOT DIP GALV. STEEL PIPE.
2. ALL LINE POSTS SHALL BE INSTALLED EQUALLY SPACED BETWEEN END & CORNER POSTS.
3. ALL RAILS SHALL BE 1.66" O.D. PIPE
4. ALL CLAMPS, TIES, POST TOPS, BANDS, POSTS, ETC. SHALL BE VINYL CLAD TO MATCH FABRIC.



FENCE POST FOOTING

1 4' HT. BLACK VINYL CHAIN LINK (BVCL) FENCE AND FOOTING
SCALE: NTS

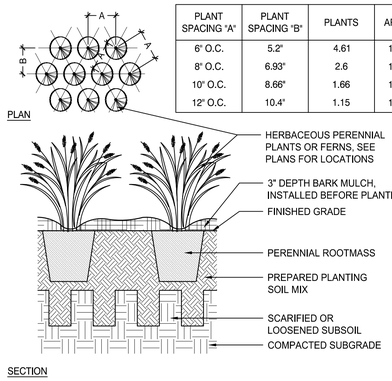


NOTE:
1. SEE GRADING PLAN FOR SLOPE GRADE.
2. ALL MULCH MUST BE DARK IN COLOR. PROVIDE SAMPLE PRIOR TO INSTALLATION TO BE APPROVED BY OWNER'S REPRESENTATIVE.

6 SHRUB PLANTING ON SLOPE
SCALE: N.T.S.

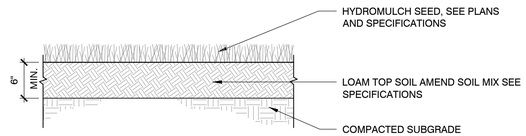
HERBACEOUS PERENNIAL & FERN SPACING TABLE

PLANT SPACING "A"	PLANT SPACING "B"	PLANTS	AREA UNIT
6" O.C.	5.2"	4.61	1 SQ. FT.
8" O.C.	6.93"	2.6	1 SQ. FT.
10" O.C.	8.66"	1.66	1 SQ. FT.
12" O.C.	10.4"	1.15	1 SQ. FT.



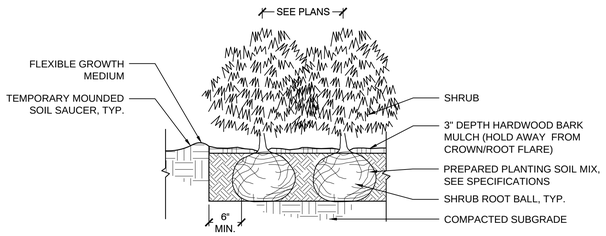
SECTION

NOTES:
1. ALL GROUND COVERS TO BE PLANTED IN TRIANGULAR PATTERN. SEE PLANTING SCHEDULE FOR SPACING.



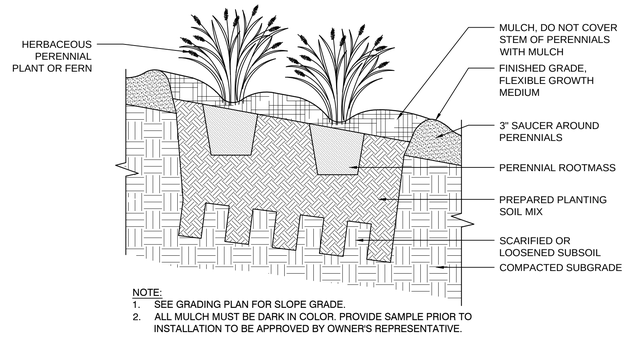
2 LOAM & SEED
SCALE: N.T.S.

4 HERBACEOUS PERENNIAL
SCALE: N.T.S.



NOTES:
1. ALL MULCH MUST BE DARK IN COLOR. PROVIDE SAMPLE PRIOR TO INSTALLATION TO BE APPROVED BY OWNER'S REPRESENTATIVE.

3 SHRUB PLANTING
SCALE: N.T.S.



NOTE:
1. SEE GRADING PLAN FOR SLOPE GRADE.
2. ALL MULCH MUST BE DARK IN COLOR. PROVIDE SAMPLE PRIOR TO INSTALLATION TO BE APPROVED BY OWNER'S REPRESENTATIVE.

5 HERBACEOUS PERENNIAL PLANTING ON SLOPE
SCALE: N.T.S.

Project:

TOWN OF ARLINGTON, MA

MILL BROOK CORRIDOR & WELLINGTON PARK REVITALIZATION PROJECT

Weston & Sampson

85 Devonshire Street,
3rd Floor, Boston, MA 02109
617.412.4480 800.SAMPSON
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:

Issued For:

CONSTRUCTION DOCUMENTS

Scale:

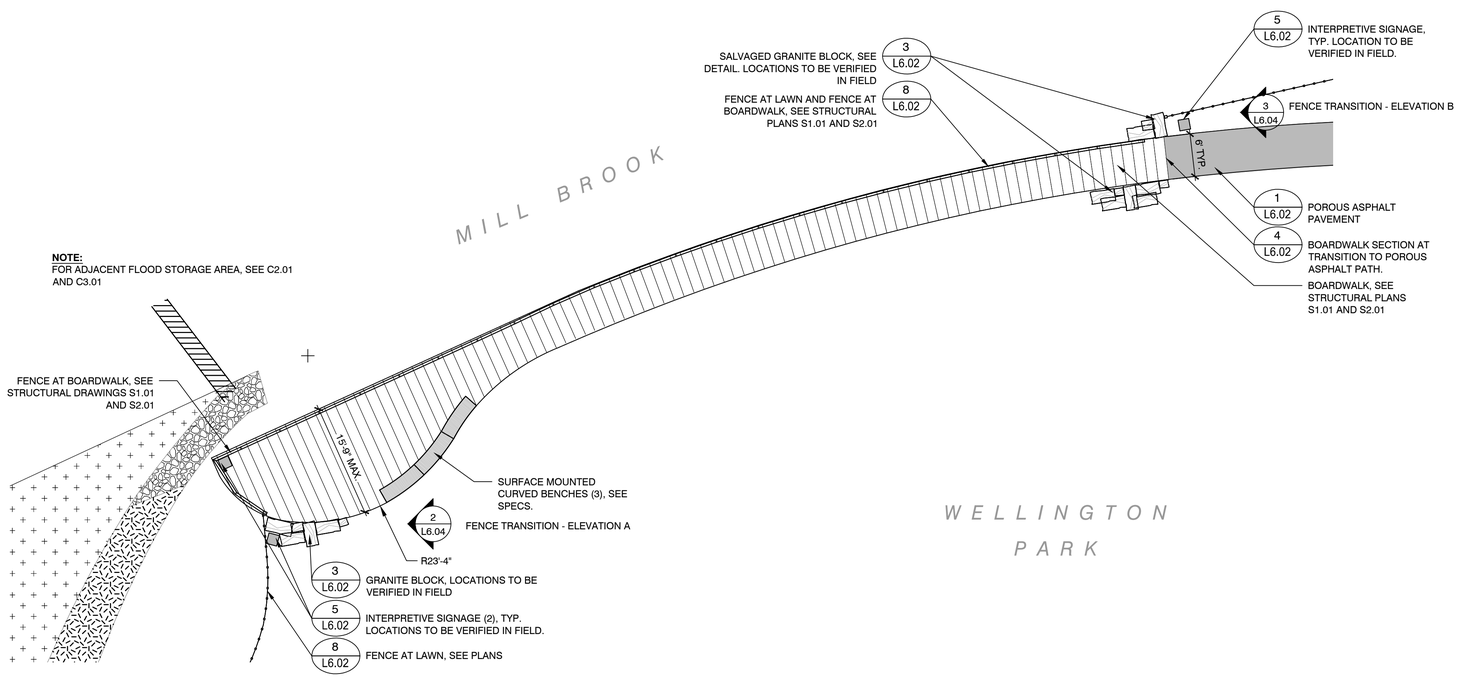
Date:	JANUARY 28, 2019
Drawn By:	CB, EB
Reviewed By:	JL, CR
Approved By:	CR
W&S Project No:	2180078
W&S File No:	

Drawing Title:

LANDSCAPE DETAILS

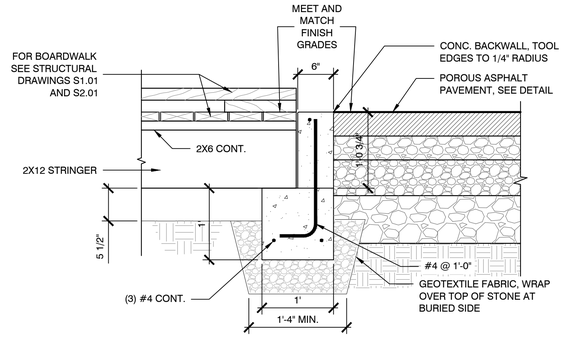
Sheet Number:

L6.03



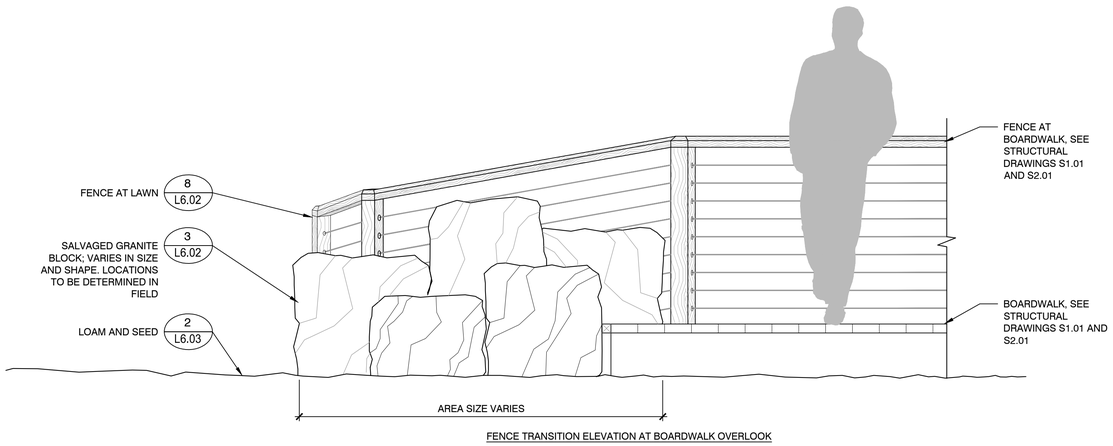
1 BOARDWALK PLAN ENLARGEMENT

SCALE: 1"=10'-0"



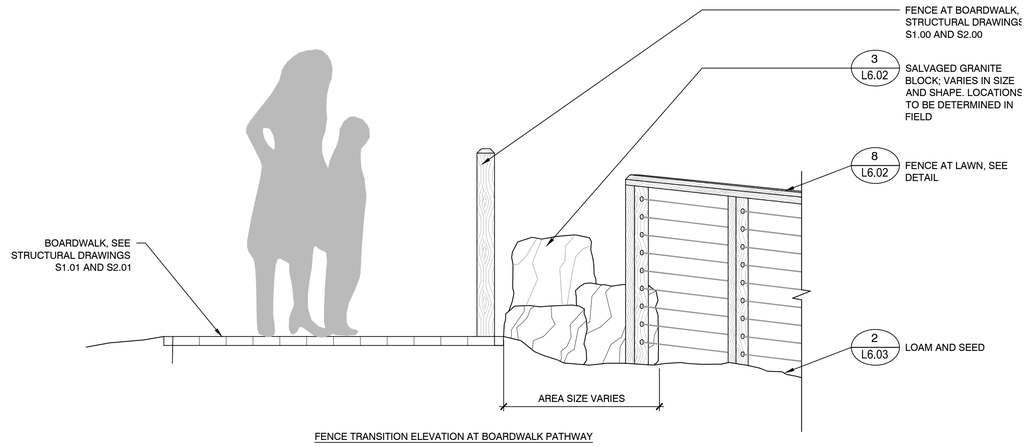
4 BOARDWALK SECTION AT TRANSITION TO POROUS ASPHALT PATH

SCALE: N.T.S.



2 FENCE TRANSITION - ELEVATION A

SCALE: N.T.S.



3 FENCE TRANSITION - ELEVATION B

SCALE: N.T.S.

Project:

TOWN OF ARLINGTON, MA

MILL BROOK CORRIDOR & WELLINGTON PARK REVITALIZATION PROJECT

Weston & Sampson

85 Devonshire Street,
3rd Floor, Boston, MA 02109
617.412.4480 800.SAMPSON
www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:

Issued For:

CONSTRUCTION DOCUMENTS

Scale:

Date:	JANUARY 28, 2019
Drawn By:	CB, EB
Reviewed By:	JL, CR
Approved By:	CR
W&S Project No:	2180078
W&S File No:	

Drawing Title:

LANDSCAPE DETAILS

Sheet Number:

L6.04