

MEMORANDUM

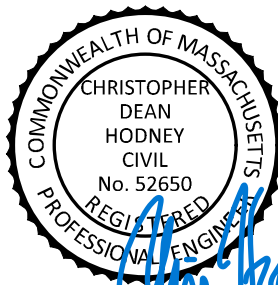
TO: Nicholas Moreno, Boston Conservation Commission
FROM: Chris Hodney, PE, Nitsch Engineering
DATE: December 9, 2020
RE: Isolated Land Subject to Flooding at Morton Street and American Legion Highway
Boston, Massachusetts
Assessor's ID: 1405196970

Per the Commission's request at the November 18, 2020 Public Hearing, Nitsch Engineering performed Isolated Land Subject to Flooding (ILSF) calculations to determine whether the topographic depression contiguous with the delineated Bordering Vegetated Wetland (BVW) qualifies as ILSF for the parcel located at the corner of Morton Street and American Legion Highway in Boston, Massachusetts. Our analysis was conducted in accordance with the Massachusetts Wetlands protection Act Regulations at 310 CMR 10.57 (2) (b) and the Massachusetts Department of Environmental Protection (MA DEP) Wetlands Program Policy 85-2. This memorandum summarizes our findings.

Determining whether an isolated depression qualifies as ILSF and determining the ILSF boundary requires a two-step process. First, it must be determined whether the depression floods during a 1-year, 24-hour storm event to a ¼-acre foot volume with a minimum depth of 6 inches. And if so, the ILSF elevation is then determined by the extent of lateral flooding resulting from a 7-inch storm, 24-hour storm event.

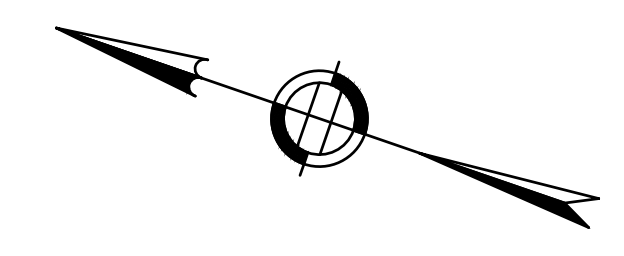
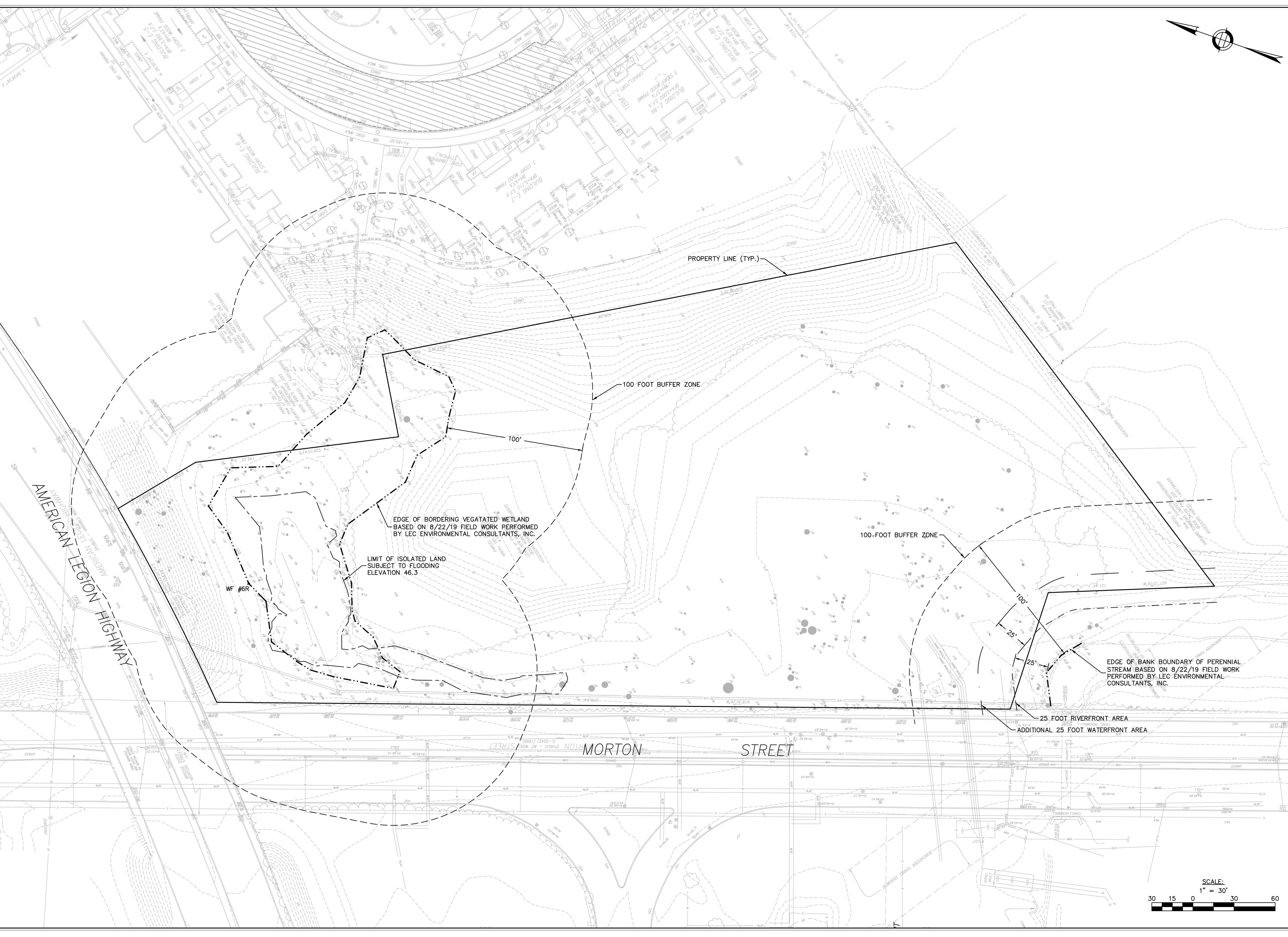
Nitsch Engineering calculates that during the one-year storm, 24-hour storm event, standing water occurs within the topographic depression to a depth greater than six inches and a volume greater than a ¼-acre-foot. The contributing drainage area measures approximately 4.8 acres and the size of the depression measures approximately 0.2 acres. Therefore, the topographic depression qualifies as ILSF.

The ILSF elevation was then determined by calculating the total runoff from the contributing 4.8-acre watershed area that results from the 7-inch, 24-hour storm event, and determining the elevation at which this surface water overflows from the topographic depression. Specifically, there is a saddle point at elevation 46.3 located along Morton Street south of the BVW which serves as a topographic divide to separate the ILSF from the descending terrain that extends toward Canterbury Brook. In other words, it is not possible for flood water within the depression to exceed elevation 46.3 during the 7-inch, 24-hour storm event. Therefore, this elevation defines the perimeter of the ILSF on the site. Nitsch has revised the attached ANRAD Plan revised December 9, 2020 to depict the extent of ILSF on the property.



Chris Hodney 12/9/2020

12/29/2020 3:28 PM
 s:\14017 omitted green soccer field\14017wetland.dwg

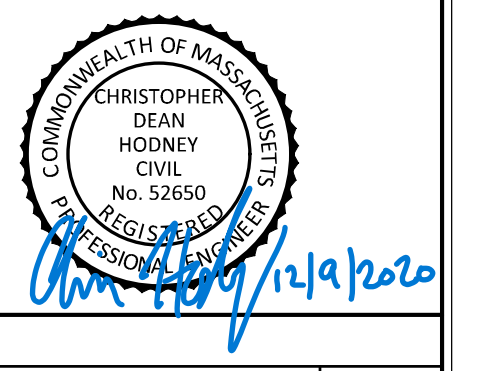


Nitsch Engineering

www.nitscheng.com
 2 Center Plaza, Suite 430
 Boston, MA 02108
 T: (617) 338-0063
 F: (617) 338-6472

- ▶ Civil Engineering
- ▶ Land Surveying
- ▶ Transportation Engineering
- ▶ Structural Engineering
- ▶ Green Infrastructure
- ▶ Planning
- ▶ GIS

ANRAD PLAN
 OLMSTED GREEN SPORTS FIELDS
 ROXBURY, MA
 PREPARED FOR:
NEW BOSTON FUND
 53 STATE STREET - SUITE 500 BOSTON, MA



REV.	COMMENTS	DATE
2	ILSF REVISION	12/09/2020
1	RESOURCE AREA REVISION	11/06/2020

NITSCH PROJECT # 14017
 FILE: 14017WETLAND.DWG
 SCALE: 1"=30'
 DATE: 10/28/2020
 PROJECT MANAGER:
 SURVEYOR: FELDMAN
 DRAFTED BY: CMH
 CHECKED BY: CDH

SHEET:
C-1
 OF REV.

