

CIVIL SITE ASSESSMENT—NITSCH ENGINEERING

EXECUTIVE SUMMARY

Nitsch Engineering has performed research of the existing site conditions and anticipated site permitting requirements for Balmer Elementary School renovation/building project located on Crescent Street in Northbridge, Massachusetts. Nitsch Engineering's research included conversations with Steve Von Barga, Director of Facilities and Operations, and Mike Bedard, Maintenance Supervisor, as well as information gathered during site visits conducted by Sandra A. Brock, PE and Jarrett Zube, EIT, of Nitsch Engineering on July 13, 2017. Information included in this report is also based on compiled record drawings, MassGIS data, and other documentation gathered by Nitsch Engineering and provided to Nitsch Engineering by Dore & Whittier.

The record drawings include the following utility and site plans:

- Plan Set entitled Northbridge Elementary School prepared for J. Williams Beal Son, Granger & Poskus Architects dated 1/4/65—5 sheets.
- Plan Set entitled Northbridge Elementary School prepared for J. Williams Beal Son, Granger & Poskus Architects dated 1/4/65—13 sheets including a site plan.

TERMINOLOGY

Site Condition scale of terms used throughout this report are as follows:

“Excellent”: new or nearly new condition with few or no blemishes or compromises of quality or function.

“Very Good”: highly functional condition with slight wear and tear and/or minor compromises of quality or function.

“Good”: median functional condition with noticeable wear and tear and/or compromises of quality or function.

“Fair”: below median functional condition with significant wear and tear and/or major compromises of quality. Seriously worn parts or elements, minor structural compromise. Possible near-future safety hazard.

“Poor”: nearly— or completely non-functional condition with major wear and tear and/or serious compromises of quality or usability. Missing parts or elements, major structural damage or condition. Immediate safety hazard or danger.

GENERAL SITE DESCRIPTION

NORTHBRIDGE ELEMENTARY SCHOOL

The following is an overview of the site and identified potential deficiencies and/or issues.

Specific Issues

Recommendations/Conditions

Site Description: The site is located on the west side of Cross Street at Pleasant Street. There are three driveway entrances off Cross Street to a parking lot north of the school building and a two driveways that services a loop drop off in front of the building. The Northbridge School District offices are also located on the site in a building south of the school. With their separate driveway entering from Linwood Avenue. There are NO wetlands resource areas indicated on the site on MassGIS. The parcel is 3.7 acre, area	The size of the parcels (total of 3.7 acres) is a constraint.
Utilities: Record plans indicated that the utility services come from Cross Street. The electrical service comes off a drop at a pole in front of the school that enters the site and into a transformer within the drop-off loop landscape island. Electrical then proceeds underground into the building. Record plans indicate an oil tank to the south of the drop off loop in the grass area. Gas, water, drainage and sanitary sewer all connect to utilities in Cross Street.	All new utilities would need to be brought to the site from Cross Street. Capacity of these utilities will need to be confirmed.
Site Access: There are three access points off of Cross Street, as describer above and one off Linwood Avenue to the Southbridge School Offices. One driveway to the parking lot is a dead-end at the parking lot. There is no vehicular access to the rear of the building. There are sidewalks along Cross Street.	The site area is constrained and the site may not be able to accommodate a separate bus and parent drop off, the preferred layout for safety reasons.
Other: The rear of the site abuts a commercial—retail area. Across the Street is a church and the remaining direct abutters are residential in nature. Linwood Street is a mix of residential and commercial uses. There are no play fields on site with very limited open lawn areas for recreation on site.	Article 97 property requires that the State Legislature vote to remove the land from Article 97 in order to construct a school on the property. (See permitting section). MassDOT permits will be required for curb cuts and utility connections (for work in State Highway)



Figure 1: Google Aerial View

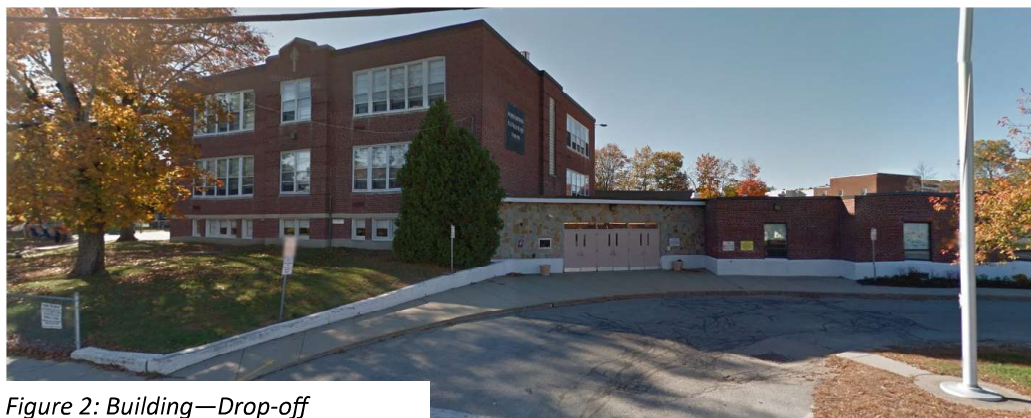


Figure 2: Building—Drop-off



Figure 3: Vicinity map.

SITE PERMITTING

STATE AND FEDERAL SITE PERMITS

Review of the site and State and Federal Site Permit requirements, the following is a preliminary assessment of potential permit requirements.

<i>Permit</i>	<i>Recommendations/Potential Permit</i>
<p>Wetlands Protection Act (310 CMR 10.00) The Wetlands Protection Act ensures the protection of Massachusetts' inland and coastal wetlands, tidal wetlands, great ponds, rivers, and floodplains. It regulates activities in coastal and wetlands areas, and contributes to the protection of ground and surface water quality, the prevention of flooding, and storm damage and the protection of wildlife and aquatic habitat.</p> <p>A review of the Massachusetts Department of Environmental Protection (DEP) wetland layers available on the Massachusetts Geographic Information System (MassGIS), indicates NO wetlands.</p>	<p>Site should be walked by a wetland scientist to confirm no wetland resources areas on the site. Linwood Pond water body that receives runoff from the site has a TMDL. See Figure 5.</p>
<p>Natural Heritage & Endangered Species A review of the 13th Edition of the Massachusetts Natural Heritage Atlas prepared by the Natural Heritage and Endangered Species Program (NHESP), updated 2017, indicates that the High School site is NOT a Priority Habitat of Rare Species or an Estimated Habitat of Rare Wildlife. No such areas appear within close proximity to the site. (See Natural Heritage Endangered Species Program Map.)</p>	<p>No NHESP areas indicated on GIS. No further action required.</p>
<p>Floodplain Based on the Flood Insurance Rate Map (FIRM), information available on MassGIS the site does not fall within a flood hazard zone. (See Map 3A FEMA)</p>	<p>No Further Action is required.</p>
<p>USEPA NPDES Construction activities that disturb more than one acre are regulated under the United States Environmental Protection Agency's (EPA) National Pollution Discharge Elimination System (NPDES) Program. In Massachusetts, the USEPA issues NPDES permits to operators of regulated construction sites.</p>	<p>Regulated projects (an acres or more of site disturbance) are required to develop and implement stormwater pollution prevention plans and submit an online Notice of Intent for a General Construction Permit. The application shall be made a minimum of two weeks before construction by the Owner and the Contractor.</p>

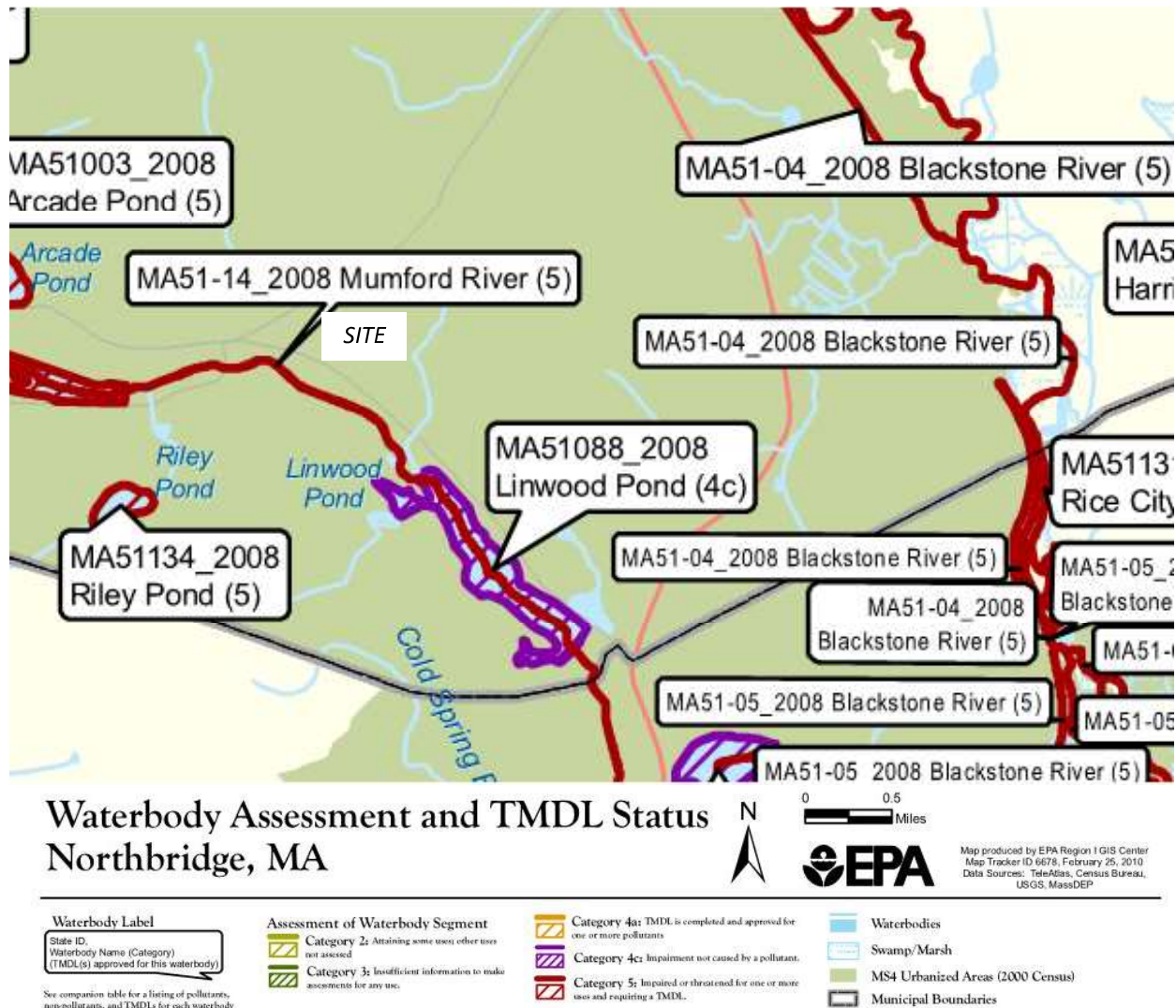


Figure 5: TMDL

LOCAL PERMITS

Review of the Town of Northbridge zoning and other regulations, the following is a preliminary assessment of potential permit requirements.

<i>Permit</i>	<i>Recommendations/Potential Permit</i>
<p>The proposed school falls under the Dover Amendment. Nitsch Engineering has no comment regarding the legal interpretation of the Dover Amendment and how it applies to the permitting process for the school</p> <p>Zoning: Review of the local zoning bylaw (Chapter 173 –Zoning) indicates that Educational Use are “permitted by right” in all Zoning Districts except for Heritage district.</p> <p><i>Site Plan Review— Section 173-49 Site Plan Review states “A site plan for a permitted use shall be reviewed and approved by the Building Inspector.” Section 173-49.1 Site Plan Review by Planning Board states “Any new structure or group of structures under the same ownership on the same or contiguous lots with at least 6,000 square feet of gross square feet or requiring the provision of 10 or more parking spaced under 173-27...”</i></p>	<p>The school is a permitted use for Zone H—Heritage. Because the school falls under the Dover Amendment, Nitsch Engineering defers to counsel on the requirement of site plan review.</p>
<p>Department of Public Works (DPW)</p> <p>Stormwater Connections</p>	<p>Curb Cut Permit is required for a new or altered Curb Cut, to be submitted by the Contractor to DPW.</p> <p>Drainage Connections permit is required for connection to municipal system. The design team will submit water, sewer, and drainage plans for review and comment to the DPW but permits is obtained by the contractor typically.</p>
<p>DPW—Sewer Division</p>	<p>Sanitary Sewer Service permit is required for any new services. Typically obtained by the contractor.</p>
<p>Whitinsville Water Company</p>	<p>Water Service permit is required for any new services. Typically obtained by the contractor.</p>
<p>ARTICLE 97:Article XCVII. Article XLIX of the Amendments to the Constitution (Massachusetts) states “The people shall have the right to clean air and water, freedom from excessive and unnecessary noise, ...” and states “Lands and easements taken or acquired for such purposes shall not be used for other purposes or otherwise disposed of except by laws enacted by two thirds vote, taken by yeas and nays, of each branch of the general court.”</p>	<p>No applicable.</p>

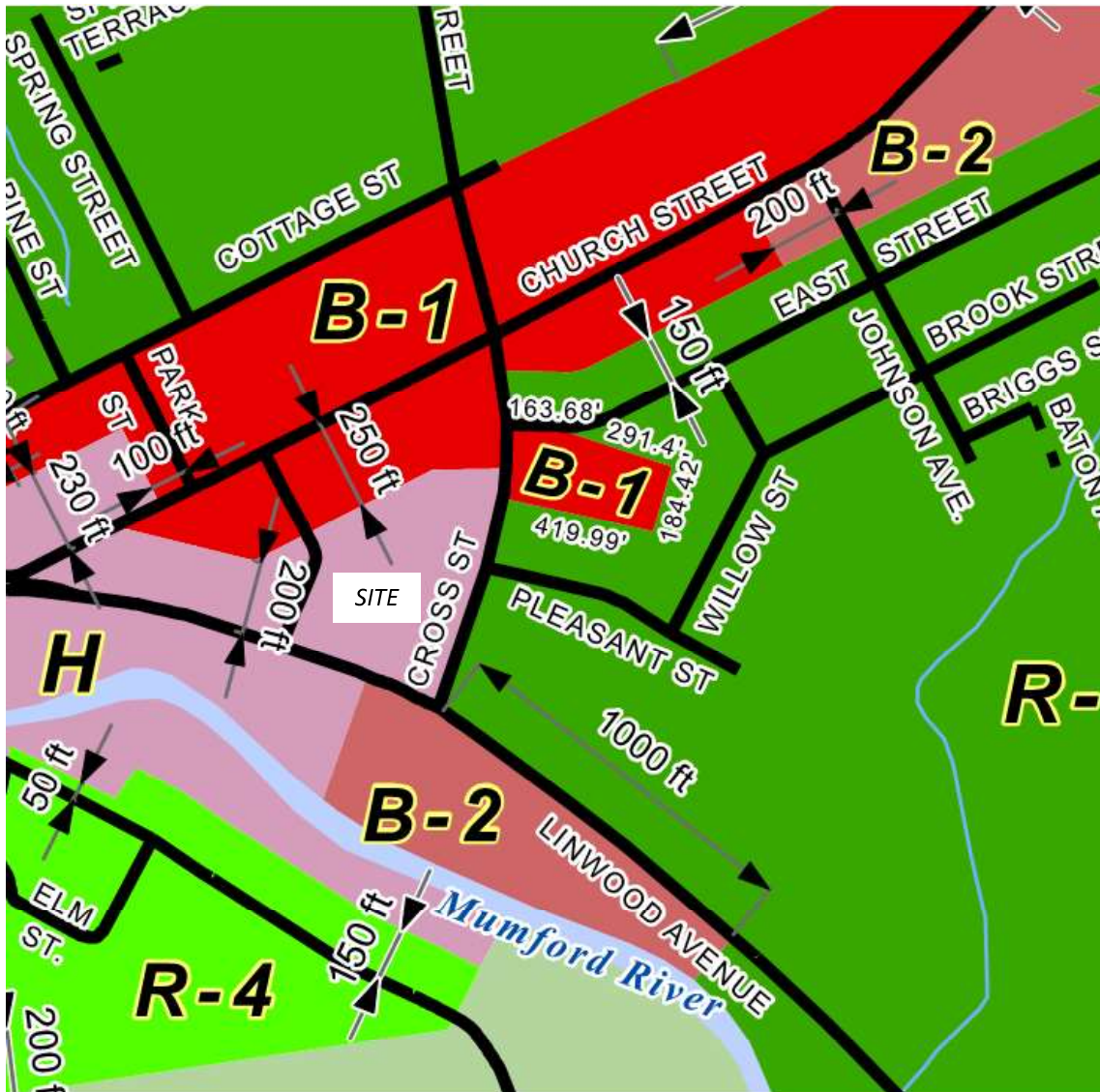


Figure 6: Zoning Plan

