

DEVELOPMENT IMPACT STATEMENT

MARCY STREET WOBURN, MA

OCTOBER 6, 2023

PREPARED FOR:
COMMONWEALTH REALTY FOUNDATION, L.L.C.
200 WEST CUMMINGS PARK
WOBURN, MA 01801

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1.0 Existing Conditions

1.1 Project Location

The project site is the undeveloped portion of Marcy Street, which is located between Albany Street and Henshaw Street south of Erie Street, and the undeveloped land along the northeast end of the street. The site is comprised of the Marcy Street right of way and the parcels of land shown on assessor's map 54, block 10, lots 01, 02, 07, and 08. The land is located in the Residence 2 (R-2) zoning district.

1.2 Site Description and Present Uses

Marcy Street is a 40-foot wide right of way running west to east between Albany Street and Henshaw Street. The roadway has been partially constructed with 26 feet of pavement for a length of approximately 160 feet from the centerline of Albany Street. The roadway does not connect to Henshaw Street and there is no curbing and no sidewalks. The road currently provides access to one residence on the south side of the street.

Land on the northwestern end of Marcy Street is a developed residential building lot and the land northeastern end is currently undeveloped.

1.3 Utilities

Public utilities available to the site include overhead electric and telecommunications along the eastern side of Albany Street. Cellular telephone service from several different carriers is also available at the site.

An 8-inch water main is located in southern side of Marcy Street and terminates at a hydrant approximately 125 feet from the centerline of Albany Street. An 8-inch sanitary sewer main is located in the center of Marcy Street terminating at a manhole approximately 128 feet from the centerline of Albany Street.

1.4 Environmental Resources

There are no wetland resource areas or rivers on or within 200 feet of the subject property. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) 25017C0426E, effective date June 4, 2010, the site does not lie within a Zone A special flood hazard area.

The site is not located within Zone II ground water protection zone or a Zone A or B surface water protection zone. According to the 2008 map there are no Priority Habitats of Rare Species or Estimated Habitats of Rare Wildlife located on or near the subject property.

2.0 Proposed Development

The proposed development is to extend the paved roadway of Marcy Street approximately 74 feet to provide access to the undeveloped land on the north side of the street. The land to the north will be combined to form one residential building lot.

2.1 Project Description

The extension of the roadway will be constructed with 26 feet of pavement with grassed shoulders and no curbing or sidewalks which will match the existing roadway. The extended roadway will provide physical access to the one residential building lot at the northeast end of Marcy Street. The lot will be developed with a single family residential home.

It is estimated that the additional home would generate an increase of approximately 10 vehicle trips per weekday. This increase will have a negligible effect on the current level of service in the neighborhood.

2.2 Utilities

Public utilities available to the site are discussed in Section 1.6. Electric and telecommunications service will be extended underground along the northerly side of Marcy Street to the building site from the utility pole located at the northeast corner of the intersection of Albany Street and Marcy Street.

2.2.1 Water

The existing water main will not need to be extended to service the new home. A 1-inch copper water service will be connected to the existing water main. The connection will be made prior to the hydrant connection.

Water design flows are provided in 314 CMR 7.15. The development will add 4 new bedrooms to the system, which would increase the current demand in the system by 440 gallons per day. This increase is not expected to have an impact on the service in the area.

2.2.2 Sewer

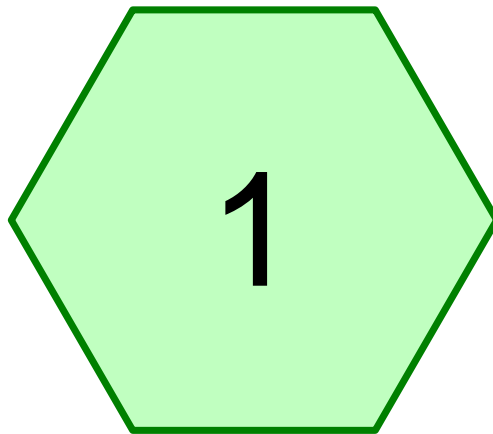
The existing sewer main will not need to be extended to service the new home. A new 6-inch PVC sewer service will be connected to the existing main. The connection will be made at the existing manhole at the end of the main.

Utilizing the water demand calculations, the new home will add 440 gallons per day to the system. This increase is not expected to have an impact on the service in the area.

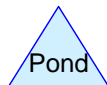
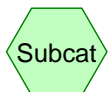
2.3 Storm Water Management

The existing drainage system consists of two leaching catch basins located at the end of the existing paved roadway. The extension of the roadway will utilize these basins to collect runoff from the additional 1,924 square feet pavement. The additional pavement will generate a peak runoff rate of 0.28 cubic feet per second in the 24-hour 100-year storm event. Drainage calculations were performed using HydroCAD® computer modelling software and are provided in Appendix A.

Appendix A
Drainage Calculations



Marcy Ext



Marcy Street Extension

Marcy Street Extension
Type III 24-hr 2-Year Storm Rainfall=3.20"

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Summary for Subcatchment 1: Marcy Ext

Runoff = 0.14 cfs @ 12.07 hrs, Volume= 0.011 af, Depth> 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Storm Rainfall=3.20"

Area (sf)	CN	Description
1,924	98	Paved roads w/curbs & sewers, HSG C
1,924		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Marcy Street Extension

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Marcy Street Extension

Type III 24-hr 10-Year Storm Rainfall=4.50"

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Summary for Subcatchment 1: Marcy Ext

Runoff = 0.20 cfs @ 12.07 hrs, Volume= 0.016 af, Depth> 4.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Storm Rainfall=4.50"

Area (sf)	CN	Description
1,924	98	Paved roads w/curbs & sewers, HSG C
1,924		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Marcy Street Extension

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Marcy Street Extension

Type III 24-hr 25-Year Storm Rainfall=5.40"

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Summary for Subcatchment 1: Marcy Ext

Runoff = 0.24 cfs @ 12.07 hrs, Volume= 0.019 af, Depth> 5.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Storm Rainfall=5.40"

Area (sf)	CN	Description
1,924	98	Paved roads w/curbs & sewers, HSG C
1,924		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Marcy Street Extension

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Marcy Street Extension

Type III 24-hr 100-Year Storm Rainfall=6.50"

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Summary for Subcatchment 1: Marcy Ext

Runoff = 0.28 cfs @ 12.07 hrs, Volume= 0.023 af, Depth> 6.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Storm Rainfall=6.50"

Area (sf)	CN	Description
1,924	98	Paved roads w/curbs & sewers, HSG C
1,924		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,