

# Staff Report

Devens  
Enterprise  
Commission

**Date:** March 24, 2022

**To:** Devens Enterprise Commission

**From:** Neil Angus, Environmental Planner and Peter Lowitt, Director

**RE:** Bulge/Patton Intersection Realignment Project

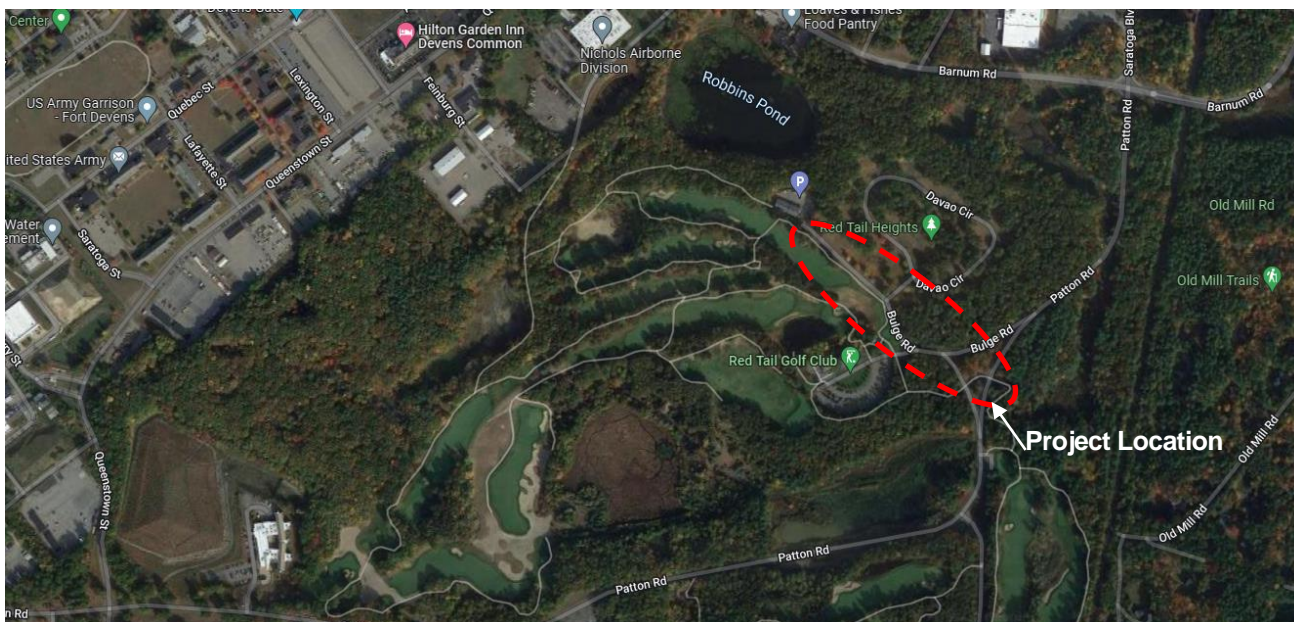
**Owner:** MassDevelopment

**Applicant:** MassDevelopment/Devens Engineering/Weston and Sampson

**Location:** Bulge Road Right-of-Way

**Zoning:** Innovation and Technology Business District; Open Space Recreation District; Zone 2 Water Resources Protection Overlay District.

- 1. Proposed Project:** Devens Engineering is seeking a Wetland Request for Determination of Applicability in order to make drainage improvements, resurface existing roadways, construct sidewalks, and reduce pavement along portions of Bulge Road near its intersection with Patton Road:



The project will re-align existing intersection of Bulge Rd and Patton Road, resurface approximately 1,500 feet of Bulge Road, construct curbing and continuous sidewalk, and implement drainage improvements. The existing intersection of Bulge Road and Patton Road was constructed as “Y” intersection and does not meet current local and state design guidelines. The proposed project will replace this intersection with a standard “T” intersection to address safety issues and improve sight distances. Currently, Bulge Road is operating as a low volume roadway, providing access to the existing golf course and golf course maintenance facility located at road terminus. However, a significant increase in traffic is anticipated from the new construction currently underway at the former Daveo housing area (Scannell Properties ~150,000 sf bio-manufacturing facility).

The drainage improvements will include removal and replacement of the existing drainage network along Bulge Road, replacing old catch basins with deep sump catch basins, equipped with gas and oil trap hoods. Two new infiltration basins will be constructed at the terminus of the proposed drainage network, which will provide peak rate and volume attenuation, groundwater recharge, and water quality treatment, prior to discharging of stormwater runoff into Cold Spring Brook via an existing outfall.

These drainage improvements will not only reduce the amount of pavement, they will improve drainage, capture and treat runoff prior to discharging to wetland resource areas, and greatly improve the safety of this intersection. These improvement will also help bring this system into compliance with the EPA's National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit for Devens.

## 2. Site issues:

While only a small portion of the project is within 100 feet of wetlands, runoff from all the proposed improvements ultimately drains to the nearby wetland resource area. Therefore, staff and the DEC's peer review engineering consultants have reviewed the entire project for compliance with the applicable sections of 974 CMR 3.00 and 4.00 (Site Plan and Stormwater Management), as well as the Devens Green and Complete Streets Policy.

**Additional LID:** The DEC's regulations regarding stormwater management (974 CMR 4.08) require the use of low-impact development techniques for drainage. The proposed project incorporates low-impact development techniques such as roadside drainage swales, porous pavement for sidewalks, and is reducing the overall amount of pavement and capturing and pre-treating the runoff prior to entering the wetland resource areas. There appear to be additional measures that the Applicant could consider:

1. Roadside swales. Sheet C601 cross sections only show swales from Sta. 21+00-22+30. There appears to be ample room to install drainage swales along the south side of the upper portion of the street as well.
2. Plans show Bulge Road being narrowed down to 10' travel lanes but 3' shoulders in some areas seems like an added opportunity for additional impervious surface reduction and slower and safer streets.

### **Landscaping:**

1. The DEC requires vertical granite or cement concrete curbing on all sidewalks that directly abut the road.
2. A stonedust trail connection to the north along the existing roadway that is to be eliminated would connect to the Markley Range Trail. This is an important connection to the rest of the Devens Trail network and is consistent with the Devens Main Post Trails Plan and Devens Open Space and Recreation Plan.
3. All plans need to show existing trees marked for preservation and trees proposed to be removed along with protection for trees to be preserved that are within the limits of work.
4. Landscaping details should also be provided for swales and all exposed areas and clarify which areas are to be maintained mowed areas (minimized) and conservation/meadow seed mixes for areas that require less mowing/meadow areas. Street trees are required on both sides.

### **Peer Review Comments:**

1. Minor stormwater calculation corrections/inconsistencies
2. Additional pre and post erosion and sediment control requirements to control construction-related impacts and ensure proper stabilization of steep slopes that will be disturbed along roadway edges.
3. Erosion and sediment control plans, details and notes in accordance with 974 CMR 3.02(3)(e).
4. Post development maintenance/management details should be provided.

**Endangered Species:** This project area is also located within an Natural Heritage Endangered Species Program Priority Habitat for Endangered Species (Blanding's turtle habitat) and will require authorization from MassWildlife prior to conducting and work in this area.

3. **Application and Process:** Weston and Sampson, on behalf of Devens Engineering, submitted a Level I Permit application package, including the application, MA DEP Wetland Request for Determination of Applicability, Project Description, Wetland Delineation Report, Plans, and Stormwater Report on February 7, 2022. The DEC Director has yet to render any preliminary determination until the above issues are addressed. In accordance with 974 CMR 4.06(6)(c), any determination by the Director is valid only upon ratification by the DEC at a public meeting.
4. **Recommended Action:** A copy of the DEC's peer review letter is attached and was provided to the Applicant on March 8, 2022. Prior to acting on this RDA, the DEC should provide the Applicant an opportunity to respond and make and modifications to the plans as may be necessary and provide any correspondence from NHESP. The DEC should table any action on this RDA until the April 7, 2022 meeting or a date mutually agreeable with the Applicant if they require additional time to respond.

All attachments can be viewed at: <https://www.devensec.com/level2hearingsMar2922.html>