

June 3, 2024

FD 250 Turnpike, LLC  
118 Turnpike Road, Suite 300  
Southborough, MA 01772

Re: Environmental Analysis

250 Turnpike Road, Southborough, MA 01772  
Assessor's Map 277, Lot 27, Parcel 2, 2.A, and 46

Goddard Consulting, LLC, (Goddard) is pleased to submit this "Environmental Analysis" on behalf of FD 250 Turnpike, LLC (the Applicant) in connection with its "Town of Southborough Board of Appeals Comprehensive Permit Application" and supplemental materials, plans and reports submitted therewith (collectively, the Application). The proposed project pursuant to the Application is more particularly described and depicted, in part, in site plans entitled "Site Plan of Land at 250 Turnpike Road" for FD 250 Turnpike, LLC, dated April 15, 2024, prepared by Azimuth Land Design in 18 sheets (Site Plans). For purposes of this letter, see also, the "Drainage Report at 250 Turnpike Road, Southborough, MA" prepared by Azimuth Land Design, LLC, dated April 15, 2024 (Drainage Report), identifying and analyzing proposed stormwater appurtenances required by the proposed development. As described in the Application and the Site Plans, the proposed development consists of a proposed apartment building with 56 units along with associated parking areas, access drive, septic system, and municipal utility connections and infrastructure (the Development) which is proposed on two parcels totaling 9.83 +/- acre (the Development Parcels) of the site (the Property) owned by FD 250 Turnpike, LLC (see Town Assessor's Parcel ID: 277-27-2.A). This Environmental Analysis is being submitted under the Town of Southborough's Zoning Board of Appeals Comprehensive Permit Regulations and Guidelines (CPRG), Section 4.1.12 which states, in part:

*"An "Environmental Analysis" shall be prepared by a qualified Environmental Scientist, with qualifications including training, education, etc., and shall be provided to the Board. The person performing the Environmental Analysis shall (1) have at least a masters degree in ecological science from an accredited college or university, or (2) be another competent professional with at least two years experience in environmental analysis. The Environmental Analysis shall assess the impact of the development on the environment within and adjacent to the development. The analysis shall include, but shall not be limited to, the evaluation of pre-development conditions and post- development impacts on:*

- 4.1.12.1 - Surface and groundwater quality;*
- 4.1.12.2 - Groundwater recharge of upper aquifers and perched groundwater layers;*
- 4.1.12.3 - Wildlife habitats and corridors;*
- 4.1.12.4 - Wetlands and bodies of water, including streams and rivers, both localized and general;*
- 4.1.12.5 - Existing and potential domestic water supplies;*
- 4.1.12.6 - Species of special concern in Massachusetts; and*
- 4.1.12.7 - Road salt and fertilizer loading.*

*The Environmental Analysis shall include proposed mitigation of the post- development impacts identified. Mitigation measures requiring ongoing or periodic maintenance shall be identified and a maintenance plan shall be included with the Environmental Analysis;"*

Hard copies and a digital copy of the Environmental Analysis are to be included with the Application, as noted. If you have any questions, please feel free to contact Goddard Consulting at (508) 393-3784.

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## 1.0 EXISTING AND PROPOSED CONDITIONS

The northern portion of the Property (9.83 acres) is currently developed with 18,281sf three story building with parking areas and related infrastructure. The rear of the Property is comprised of a forested hillside. Several Bordering Vegetated Wetlands (BVW) exists in the northern and central portion of the site. Access to the Property is from the eastbound side of Rte 9. North, East and West of the site is developed with a commercial building located on the eastbound and west bound Turnpike Road. To the south of the Property is residential developments. An additional parcel addressed as 125 Parkerville Road is a part of this project. This parcel is currently developed with a single-family house and associated infrastructure.

The Development consists of the construction of an apartment building having 56 units along with associated parking, driving aisles, septic system, and utility infrastructure. Additionally, stormwater will be managed through two inground detention/infiltration structures, which will infiltrate and detain runoff. Through the use of these two structures, the peak rate of flow from the site will be kept at or below the predevelopment rate of flow. The building will be accessed to the north from Rte. 9 eastbound, then by utilizing an existing access parking lot, and then a proposed +/- 500-foot long paved access driveway. An additional access drive on the eastern portion of the development will connect the site to Parkerville Road.

## 2.0 SURFACE AND GROUNDWATER QUALITY (CPRG 4.1.12.1)

New impervious pavement proposed for the Development is designed to drain to catch basins. These catch basins will capture and move water through underground pipes into two proposed subsurface infiltration structures. Pretreatment of the stormwater runoff created by the new impervious surfaces will be managed through the catch basins before being discharged into the proposed infiltration structures. Roof runoff from proposed buildings will be captured in gutters and transported via drainpipes into the same two proposed subsurface infiltration structures.

The proposed stormwater system has been designed to reduce peak runoff rates from the development through the 100-year storm (see the Drainage Report for details). According to Azimuth Land Design, LLC, the Best Management Practices (BMPs) of the stormwater management system is designed to meet total suspended solid removal requirements within the Massachusetts Department of Environmental Protection (MADEP) Stormwater Handbook

standards. In short, the proposed stormwater management system proposed for the Development complies, in every respect, with the requirements of the Massachusetts Wetlands Protection Act at G.L. c. 30, §§ 61-62H and 310 CMR 10.00, *et. seq.*, (together, the WPA) and the WPA regulations at 310 CMR 10.05(6)(k) and the Water Quality Certification Regulations, 314 CMR 9.06(6)(a), specifically.

The proposed septic systems are located on the Development Parcel, on the southwestern portion of the Property as depicted in the Plans. The Development will be served by a septic system. The plans show the leaching area under the parking southwest of the building and two large septic tanks and a pump chamber in front of the building. Proposed, but not shown on the plans is a force main line from the pump chamber, a manifold between leaching trenches and distribution lines over the trenches. The proposed system is sized to handle the proposed Development based on 310 CMR 15.00, *et. seq.* (Title V) and Development for the proposed bedrooms.

### **3.0 GROUNDWATER RECHARGE OF UPPER AQUIFERS AND PERCHED GROUND WATER LAYERS (CPRG 4.1.12.2)**

The Development will maintain existing drainage watersheds to the best extent practicable to minimize impacts. The proposed stormwater management system includes three subsurface infiltration structures. The project includes the addition of approximately +/- 1.52 acres (66,168sf) of new impervious surfaces according to the Site Plans. Further information is expected to be provided by Azimuth Land Design, LLC regarding the cubic feet of volume that the subsurface structures will hold for groundwater recharge and the quantity of hours it will take to infiltrate stormwater into the groundwater. Four (4) feet of separation to estimated seasonal high groundwater is proposed (reference detail sheet D3 of the Site Plans). Additionally, Azimuth Land Design, LLC has stated that the project design will meet all 10 of DEP's Stormwater Management Standards. The proposed stormwater management system for the Development complies, in every respect, with the requirements of the WPA and the WPA regulations at 310 CMR 10.05(6)(k) and the Water Quality Certification Regulations, 314 CMR 9.06(6)(a) specifically. A waiver is sought for the Southborough Zoning By-Laws § 174-13.5., stormwater permit for development.

### **4.0 WILDLIFE HABITAT AND CORRIDORS (CPRG 4.1.12.3)**

The Development Parcel is primarily forested with upland and wetland areas. These areas include mature upland forest comprised of red oak, red maple, and witch hazel. The Bordering Vegetated Wetlands are comprised of red maple, yellow birch, black birch, winterberry, Japanese barberry, and skunk cabbage. The proposed development retains forested portions of the site, including the forested uplands on the southern portion of the Development Parcel as well as the vegetated wetlands and a considerable amount of its 100-foot Buffer Zone. Wildlife habitat and corridors to the east, west and north of the Development Parcel are limited and sparse due to existing commercial and residential developments on the abutting lands.

### **5.0 WETLAND AND BODIES OF WATER (CPRG 4.1.12.4)**

The Property contains four wetland systems. The Development is subject to a permit under the WPA and is designed to minimize wetland and resource area impacts to the greatest extent possible. Even though the Development is made pursuant to the Application under M.G.L. c. 40B §§ 21-23 and 760 CMR 56.00 *et. seq.* and, as such, is exempted from any otherwise applicable Southborough By-laws, rules and regulations, the majority of the Development will stay outside of the 20-foot No Disturb Area applicable under the Town of Southborough Wetlands Regulations, Chapter

170, Wetlands Protection, adopted January 2, 2002 (the Southborough Wetlands By-Law) as depicted on the Site Plan. All work anticipated by the Development proposed within buffer zones are jurisdictional under the WPA and will be accomplished with the filing of a Notice of Intent application to the Southborough Conservation Commission applying the WPA and not the Southborough Wetlands By-Law from which the Development is exempt.

The Property in general is tributary to the Sudbury River and is within an Outstanding Resource Water area (ORW). Water quality of these identified resource areas (reference the Site Plans) will not be affected by the increase in impervious surfaces anticipated by the Development. According to Azimuth Land Design, LLC, the stormwater management system is designed to remove at least 80% of Total Suspended Solids and is designed in complete compliance with the requirements set forth in the MADEP Stormwater Handbook standards at WPA regulations at 310 CMR 10.05(6)(k) and the Water Quality Certification Regulations, 314 CMR 9.06(6)(a) specifically.

Erosion Controls will be set up along the limit of work to prevent erosion and sedimentation from the Development and the Development Parcel into the wetlands and watershed. A Pollution Prevention Plan will be implemented to inspect the site and erosion controls (reference sheet ESC1-ESC2 of the Site Plans). Additionally, the development will need an EPA Construction General Permit (CGP) as the proposed disturbance and construction area will be greater than 1-acre.

## **6.0 EXISTING AND POTENTIAL DOMESTIC WATER SUPPLIES (CPRG 4.1.12.5)**

There is currently a municipal water service to the Property and the Development anticipates utilizing the Town of Southborough's public water supply. A ~30 wide easement from the 125 Parkeville Road, currently owned by the applicant, to the Development Parcel for utilities and access are depicted on the Site Plans. The proposed water utility conduits, pipes and appurtenances will run underneath this proposed access driveway. The surface and ground water at the Property will not be subject to draw down for use of drinking water, etc. minimizing Development environmental impacts.

## **7.0 SPECIES OF SPECIAL CONCERN IN MASSACHUSETTS (CPRG 4.1.12.6)**

The Property is not mapped as Estimated or Priority Habitat for Rare Wildlife or species of special concern by the Massachusetts Natural Heritage Endangered Species Program.

The Property does not contain any mapped potential or Massachusetts Natural Heritage Endangered Species Program certified vernal pools.

## **8.0 ROAD SALT AND FERTILIZER LOADING (CPRG 4.1.12.7)**

According to Azimuth Land Design, LLC, the stormwater management system is designed to remove at least 80% of Total Suspended Solids. The stormwater management system is designed to meet the requirements set forth in the MADEP Stormwater Handbook standards at WPA regulations at 310 CMR 10.05(6)(k) and the Water Quality Certification Regulations, 314 CMR 9.06(6)(a) specifically. Additional erosion control measures are proposed to ensure no contaminants enter the surface water or groundwater via discharge. The Development is designed to eliminate untreated discharges.

## **9.0 CONCLUSION**

In conclusion, it is the opinion of Goddard that the Development will have minimal impacts to water quality, groundwater recharge, wildlife habitat and species of special concern, or existing and potential water supplies to the Property and is designed in compliance with the WPA and the Massachusetts Stormwater Management Handbook and associated stormwater standards at 310 CMR 10.05(6)(k) and the Water Quality Certification Regulations, 314 CMR 9.06(6)(a), specifically, and other applicable state and federal rules and regulations. The Application and the Development is proposed under M.G.L. c. 40B §§ 21-23 and 760 CMR 56.00 et. seq. and is, accordingly, exempt from all Southborough By-Laws, rules and regulations from which the Development is exempt.

Sincerely,  
Goddard Consulting, LLC



Scott Goddard,  
Principal & PWS