

CROWELL ENGINEERING

981 LONG POND ROAD
PLYMOUTH, MA 02360
crowelleng@gmail.com
774-283-0443

September 19th, 2023

Duxbury Conservation Commission
878 Tremont Street
Duxbury, MA 02332

RE: 50 Railroad Ave-106/742/004
The Winsor at Millbrook Village
50 RR Ave Dux LLC, Matt Walsh
Notice of Intent

Dear Board Members,

This project involves subdividing the DuxPlex lot, providing 62,463 sf for a residential condominium. All the zoning setbacks meet the Neighborhood Business-2 requirements. The project fronts Railroad Ave on the western side and goes 334' to Alden Street to the south. We are proposing 12 residential units for a total of 34 bedrooms.

The wetlands were delineated by John Zimmer back in June of 2020 and reconfirmed in August 2023. There is an intermittent stream in the back of the lot. Mr. Zimmer confirmed that there was no flow when he revisited in August 2023.

The wetlands enter the intermittent stream and goes under Alden Street via a culvert and heads towards the Bluefish River. The proposed drainage system handles the drainage on and off site without increasing the runoff rate entering the wetlands. The existing watershed comes from across Railroad Ave, heads west and flows downhill from elevation 19 to +/-13 at the wetlands.

We are collecting storm runoff from Railroad Ave and across the street via two proposed catch basins. The basins go to a Stormceptor where suspended solids, gas and oil are separated from the flow before entering a wet basin. The wet basin stores the storm runoff and releases it at a rate just below the existing runoff rate. We have a pipe and stone infiltration system beneath the driveway which handles a portion of the onsite drainage. All infiltration basins are 50' from the wetlands.

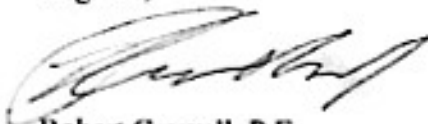
We ask for a variance to allow the berms and a portion of Basin 1 to fall within the 25 foot no touch zone. We are collecting runoff from the street and across the street that is currently going to a catch basin located 35' north of Alden Street. In many storm events, that basin floods. Our proposed drainage system will help improve this existing condition. Our drainage system reduces the rate of runoff to the wetlands, however it increases the volume. We performed a Wetland Drainage Analysis and reviewed the peak heights at the culvert at Alden Street. The 2-year storm event showed no increase in height. The 10, 25 & 100-year storm events showed a

slight decrease in height, even though we increased the volume entering the wetlands. The basins help store the runoff and slowly release it into the wetlands. It is all about the timing. There are no adverse effects downstream of this project.

A silt sock is to be placed around the entire project. A stone construction entrance is to be made of $\frac{1}{4}$ -1 1/2" stone. Conservation is to be notified for inspection prior to commencement of the following work:

- Trees and brush to be cut/stumped.
- Survey building locations.
- Install drainage in street.
- Work with the Water Department to bring water on site.
- Install gas and electric utilities.
- Install foundations.
- Begin building construction.
- Earthwork, form berms of basins and rough grading.
- Install pipe and stone infiltration system.
- Fine tune grading.
- Install granite curbing.
- Install driveway basecoat.
- Maintain siltation barriers.
- Loam and seed berms.
- Landscaping.

Regards,



Robert Crowell, P.E.
Crowell Engineering