

MEMORANDUM

To: Chairman Burt and
Members of the Harbor & Coastal Zone Management Commission

From: Leonard Jackson Associates PE PLLC
JMC PLLC
Evans Associates Environmental Consulting, Inc.
Cuddy & Feder LLP

Date: July 1, 2021

Re: Harbor & Coastal Zone Management Commission Application
1165 Greacen Point Road, Village of Mamaroneck, New York

This memorandum is respectfully submitted on behalf Elisabeth and William Fedyna (the “Applicants”), the owners of residential property located at 1165 Greacen Point Road in the Village of Mamaroneck, New York (the “Premises”), in furtherance of the Harbor & Coastal Zone Management Commission (“HCZMC”) consistency review application submitted on April 3, 2020.¹

In response to comments from the Commissioners at the June 16, 2021 HCZMC public hearing on this Application, the Applicants are providing the memorandum from its technical and legal team detailing the project’s consistency specifically with Policy 11 of the Village of Mamaroneck Local Waterfront Revitalization Program (“LWRP”).

Background

As this Commission is aware, the Applicants are proposing to demolish the existing uninhabitable single-family home and construct a modest new residence, garage and driveway, which will be fully zoning-compliant (the “Project”). Public sewer is not currently available at the site and given that the existing septic system is failing, the residence will be served by a new septic system that fully conforms with the Westchester County Department of Health (“DOH”) standards. As such, 420 cubic yards of net fill is proposed within the AE Flood Zone in order to install the new septic system approved by the DOH on May 25, 2021.²

¹ The Consistency Review is related to the pending wetlands permit application that was submitted to the Planning Board on April 3, 2020.

² We note that at the June 16, 2021 HCZMC public hearing on the Project, Maser Consulting confirmed that any configuration or design of a septic system on this site would require positive net fill, including renovation of the existing failing system. The fill is required to raise the grade where the proposed absorption fields will be located. Five (5) feet of separation is required between the bottom of the absorption system and groundwater, rock or impervious soils per the Westchester County Health Department Rules and Regulations for the Design and Construction of Residential Subsurface Sewage Treatment Systems and

Consistency with LWRP Policy 11

LWRP Policy 11 provides:

Buildings and other structures will be sited in the coastal area so as to minimize damage to property and the endangering of human lives caused by flooding and erosion.

As discussed in further detail herein, and to supplement the exhaustive record in this matter, the Project involves residential redevelopment fully compliant with floodplain development standards on property that is situated on Delancey Cove, entirely within an AE Zone and not within a high hazard area. The Project proposes stormwater management infrastructure, wetland buffer plantings and elevating the proposed building to reduce erosion, improve water quality and eliminate flood damage. Therefore, the Applicants respectfully submit that the Project has been sited to minimize damage to property and the endangering of human lives caused by flooding and erosion, consistent with LWRP Policy 11.

Property Location & Flood Zone Classification

The existing Premises is located within the AE Flood Zone with a Base Flood Elevation of 13.0 NAVD, as classified by the Federal Emergency Management Agency (“FEMA”) Flood Maps. The first floor of the existing house is at elevation 13 and the existing garage is at elevation 10. The home and the site are entirely positioned within the 100-year flood plain.

The Premises is situated in Delancey Cove, an inlet of the Long Island Sound. Properties within Delancey Cove are protected against wave action and its destructive forces, hence the Tidal Flood Zone designation within the cove is “AE”, as compared to a “VE” Zone, which does entail wave action. No portion of the Premises is located within a coastal high-hazard (“VE”) Flood Zone.

The Premises is not located within the Coastal Erosion Hazard Area (“CEHA”), which means it is not in an area determined by the New York State Department of Environmental Conservation (“NYS DEC”) to be subject to serious coastal erosion. The property is not located within a regulated Floodway.

Residential Redevelopment & Floodplain Construction Standards

The Project proposes the redevelopment of an existing residential property and will not create a new development to attract additional uses or individuals to the property beyond the occupation of a single-family home. Consistent with Policy 11, the Applicants are proposing a replacement

Drilled Wells in Westchester County, New York, accordingly 3.5 feet of run of bank sand and gravel is required.

home which is sited such that it will fully comply with the Village's Flood Code, NYS DEC and FEMA residential construction standards.

To comply with Village, NYS DEC and FEMA standards, the lowest elevation of the proposed framing member for the first floor of the proposed home must be at an elevation of 15 and the proposed garage, which is not considered habitable space, must be raised to an elevation of 13. Accordingly, the proposed home has a first floor at elevation 16.00 and the garage has an elevation of 13. This is a significant improvement from the existing residential structure, where the lowest floor is not elevated above the Base Flood Elevation and does not meet local or Federal standards for structures within a floodplain. The redevelopment will enhance the safety of the occupants of the home, not only by raising the dwelling itself, but by also raising all mechanical systems to at least 3 feet above the Base Flood Elevation. Flood vents will be constructed in the crawlspaces to alleviate hydraulic pressure on the foundation. As such, the redesigned home will minimize damage to property caused by flooding and erosion, certainly compared to the existing home.

No Increase in Tidal Flood Elevation

The Project will not result in an increase in Base Flood Elevation, which is the tidal flood elevation of the Long Island Sound, during a 100-year event. The effect of placement of fill within an open area subject to tidal flooding of the Long Island Sound cannot be measured because tides are "global" in nature. Any potential increase in Base Flood Elevation must factor in the size and volume of the water body. As such, the quantity of fill that would be required to change the Base Flood Elevation of the Long Island Sound is immeasurable given the vast volume of water comprising the Sound.³ Accordingly, the Project cannot have any effect the 100-year tidal flood elevations.

No Impact on Flooding Conditions at Neighboring Properties

The Project will not adversely impact flooding conditions on neighboring properties because, as previously discussed herein, the addition of approximately 420 cubic yards of fill to the site cannot measurably raise any flood elevations, increase any flood velocities or redirect any flows toward neighboring properties.

Given that the Project site is not located within a VE Zone, there is not currently, nor will the Project result in, any wave runup, ramping or deflection of floodwaters that would cause damage to life or property. Properties classified within the AE Zone, including the Project site, are protected against wave action and its destructive forces.

Flooding within a Tidal AE Flood Zone occurs during the peak of a tidal cycle. Tidal cycles usually entail about 6 hours between low and high tides. The rise and fall of floodwaters over a 6-hour

³ The Long Island Sound at any one time has a volume of approximately 18 trillion gallons of water and is approximately 1,300 square miles. To raise the Base Flood Elevation by 0.1 inches, approximately 11.1 million yards of fill would have to be added to properties abutting the Long Island Sound and then only if the Long Island Sound were considered an enclosed static body of water unaffected by its continuity with the Atlantic Ocean of which it actually is a part of.

period yields imperceptible lateral and vertical velocities, hence there is no “deflection” of floodwaters from one property to another. Fill within an open tidal area cannot impact the high tide elevation of a body of water as large as the Long Island Sound. Accordingly, the Project will have no impact on the flooding conditions on the site, adjacent properties or the neighborhood.

No Endangerment of Human Lives

The proposed fill will not endanger human lives during a flood or prevent emergency responders from accessing Greacen Point Road, the subject property or neighboring lots. As previously detailed, the Premises is not located within the CEHA and is not subject to high velocity waters. The proposed fill will not impact the roadway or inhibit the ability of any first responders to access 1165 Greacen Point Road or any other homes located on Greacen Point Road, because it will not increase the Base Flood Elevation or create wave runoff, ramping or deflection of flood waters.

The existing site is already developed. By reconstructing the residence in accordance with the current Village, NYS DEC, FEMA and NYS Building Code requirements and guidelines, the proposed new home will decrease the risk of the inhabitants incurring bodily injury or property damage from flooding. Further, given the slow rise and fall of floodwaters in the AE Zone where the Project is located, the 6-hour tidal cycles provide a window of several hours for residents to safely leave the Premises, if they so choose, during a major flooding event.

Therefore, there will be no additional threats to public safety, nor will the Project endanger human lives.

Proposed Stormwater Management Measures

The construction of stormwater measures on site will provide runoff detention during stormwater events that will decrease erosion potential by lowering the velocity of stormwater runoff. Additionally, runoff volume will be reduced by the retention of rainwater for irrigation.

Proposed Wetlands Restoration

The discussion of Policy 11 in the proposed 2017 LWRP update recommends that sheltered shorelines, such as the ones on the Premises, utilize appropriate protection features such as natural wetland grasses.⁴ As further discussed in the Wetlands Analysis prepared by Beth Evans, PWS, Evans Associates Environmental Consulting, Inc., dated August 31, 2020 (“Wetland Analysis”), enclosed in the Applicants’ September 2, 2021 submission as Exhibit A, the Project will significantly improve the functional values of the wetlands by restoring portions of the high marsh and salt meadow that are currently maintained as lawn. The proposed wetland restoration and plantings will naturally filter the water from the existing lawn area back to Delancey Cove while also acting as an appropriate natural protective feature, as recommended in the LWRP.

⁴ LWRP, November 2017 Draft, page 54. Note the current LWRP (1985) does not include a discussion of objectives for Policy 11.

Additionally, the Project proposes no change in impervious area within the wetland or wetland buffer. Indeed, the net fill proposed as part of this redevelopment is less than the amount of net fill that would be required solely to repair the existing failing septic system. The majority of the proposed cut on site is achieved by lowering the slab of the crawl space under the proposed home and garage to elevation 9.00, this affords us the ability to lower this grade to the maximum extent possible and still achieve a gravity flow from crawl space back into Delancey Cove, be simply reoccupying the existing structure we are not achieve this cut.

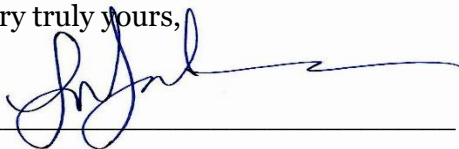
Conclusion

In summary, the Project will not affect tidal flood elevations and therefore will not impact flooding conditions on the site, neighboring properties or the surrounding area on Greacen Point Road. Given this, the Project is sited such that it will not endanger human lives because the proposed fill will have no impact on flooding conditions. In fact, the Project improves the safety of the habitants of the home on the Premises by fully complying with all applicable floodplain development standards. The Project will also reduce the erosion potential of stormwater runoff by reducing runoff velocity and volume and will restore portions of the existing wetland to naturally filter water. The Applicants respectfully submit that the Project furthers the objectives outlined in LWRP Policy 11 and is therefore consistent with those goals.


This Project site is uniquely sited to improve safety, reduce erosion and improve runoff water quality through the redevelopment of the existing home within a protected cove in an AE Tidal Flood Zone.

We look forward to appearing before the HCZMC on July 21st. Thank you for your time and consideration in this matter.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'Leonard Jackson', written over a horizontal line.

Leonard Jackson, PE, Leonard Jackson Associates PE PLLC

A handwritten signature in blue ink, appearing to read 'Jim Ryan', written over a horizontal line.

Jim Ryan, RLA, JMC PLLC



David Lombardi, PE, JMC PLLC

Beth Evans, PWS, CPESC, CPSWQ, Evans Associates Environmental Consulting, Inc.

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cc: Frank Tivolacci, Building Inspector
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Thomas Ruane, Esq., HCZMC Attorney
Client