

Larkin, Elizabeth

From: Craig J. Flaherty <C.Flaherty@rednissmead.com>
Sent: Thursday, March 14, 2024 6:38 PM
To: Conklin, Mike; Larkin, Elizabeth
Cc: Joseph Hammer
Subject: 131 Danbury Road March 14 Presentation Slides
Attachments: 131 Danbury - Presentation Slides 2024-03-14.pdf; 131 Danbury - Response to Key Cardinal Comments 2024-03-14.pdf

CAREFUL - From outside - CHECK before you CLICK.

Mike and Liz,

I wanted to make sure you had the attached digital copies of the slides we will be presenting during the public hearing tonight so they are memorialized for the record.

Thank you.

CRAIG J. FLAHERTY, P.E. 

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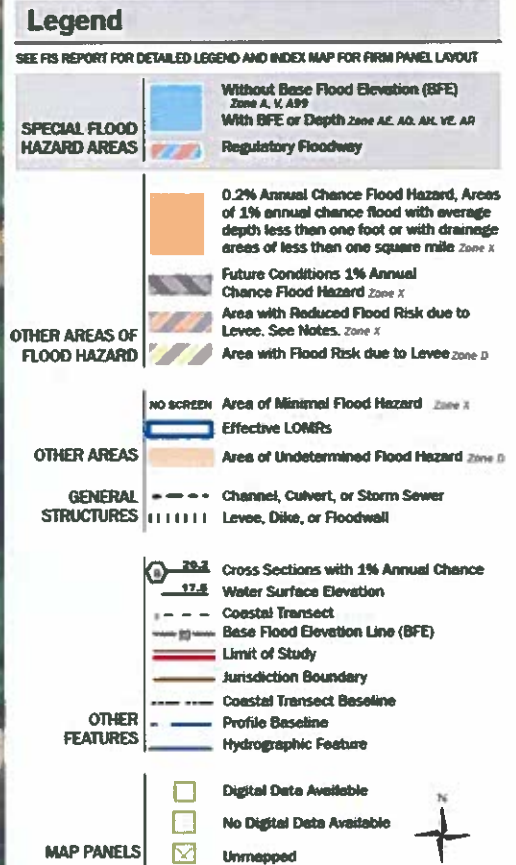
SLRCONSULTING.COM

131 Danbury Road

March 2024



Existing Conditions



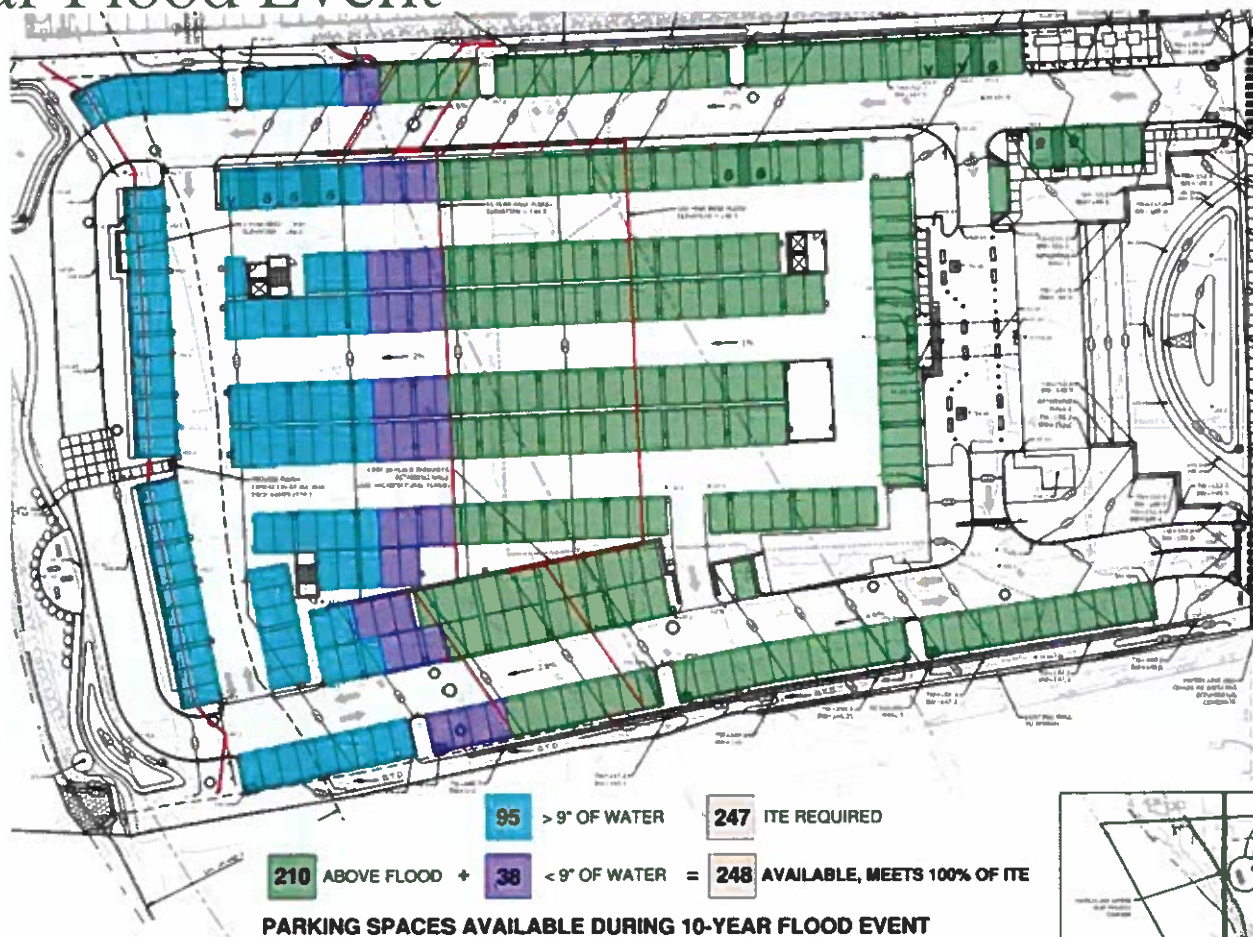


Proposed Parking Spaces

Parking in Regulated Area and Floodplain	Existing	Proposed
Parking Spaces in 100-year Floodplain (includes tandem)	213	212
Parking Spaces in 100 ft Upland Review Area	98	29

Parking Condition	Parking Spaces
ITE Parking Demand	247 spaces
Available Parking: 10-Year Flood Event (less than 9" of water)	248 spaces = 100% of ITE Demand
Available Parking: 100-Year Flood Event (less than 9" of water + garage aisle parking)	197 spaces = 80% of ITE Demand

10-year Flood Event



100-year Flood Event





Regulation Compliance

FEMA National Flood Insurance Program

- "Areas under elevated residential buildings may be enclosed and used solely for parking of vehicles, building access, or storage"
- "Garage attached to a residential structure or in an enclosed area below an elevated building bay have the garage floor slab below the BFE" – FEMA NFIP Terminology Index
- "Parking areas that are at grade or above grade are permitted under elevated buildings provided all other NFIP requirements are met" - NFIP Technical Bulletin 6 (January 2021)

Wilton Floodplain Regulations

- Requirements
 - Floodplain capacity is not diminished by proposed construction
 - Floodplain must have the same **conveyance capacity** and **storage volume** under proposed conditions
- Proposed project complies with **Equal Conveyance and Compensatory Storage** requirements



Site Features – Floodplain Management

■ Elevated Structure

- Additional 60 parking spaces elevated above the floodplain
- All living areas and critical mechanical and electrical systems are above the BFE

■ Dry Ingress and Egress

- Second egress from the parking level added outside the 100-year floodplain, with less than 6" of water in the 500-year flood
- Residents able to enter and leave through the front entrance
- Dry access to building for emergency service personnel and vehicles

■ Flood Preparedness Plan for 131 Danbury Road, Wilton, CT (January 21, 2024) Prepared by Redniss & Mead, Inc.

Objective: alert owners, management, and residents to the natural of potential flooding and provide information to facilitate awareness and preparedness and outline a plan to safely relocate vehicles before severe flood.

- Flood warning procedures
- Permanent signage identifying flood risk
- Reserved upper parking spaces for residents that are away
- Painted lines on garage floor indicating flood levels



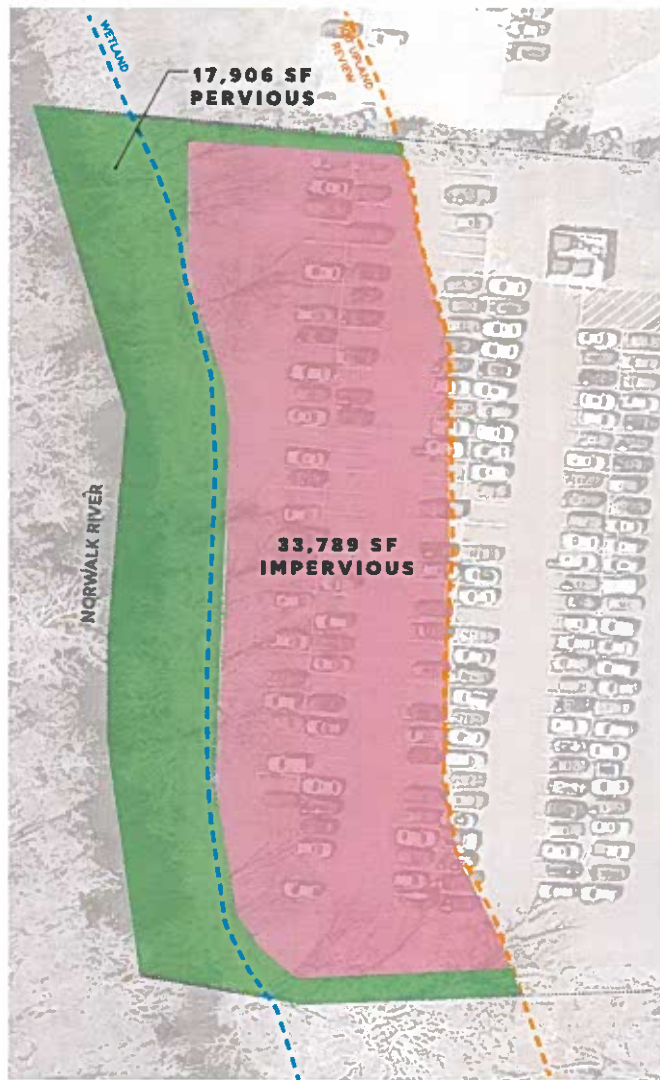
Velocity of Floodwaters



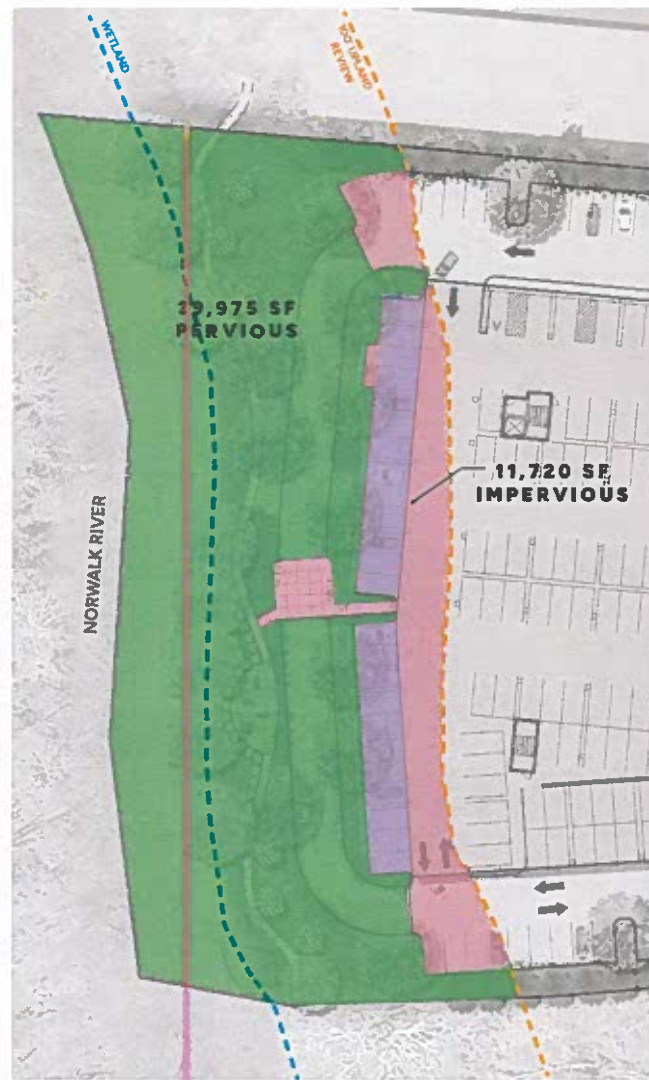
- Predicted Velocity: 3 ft/sec
- Water at a depth of 1.5 feet and velocity of 6 ft/sec will move a vehicle ([FEMA](#))

Per the Project Structural Engineer

- Building columns in the parking garage are required to withstand the impact of slow-moving vehicles



EXISTING



PROPOSED

WHILE IMPERVIOUS COVER OVER THE ENTIRE SITE IS REDUCED BY 9,500 SF,

IMPERVIOUS COVER WITHIN THE REGULATED AREA IS REDUCED BY 22,069 SF

AMS WILTON - WILTON, CT

WETLAND BENEFITS - IMPERVIOUS COVER

UPLAND REVIEW AREA PLANTING



SERVICEBERRY



SWAMP WHITE OAK



NANNYBERRY VIBURNUM



WINTERBERRY



RED TWIG DOGWOOD



LOWBUSH BLUEBERRY



TUFTED HAIR GRASS



LITTLE BLUESTEM



STEEPLEBUSH



BAPTISIA



HAY-SCENTED FERN



MICROBIOTA



GRO-LOW FRAGRANT SUMAC

THE PROPOSED PLAN REMOVES INVASIVE PLANT SPECIES AND PROTECTS LARGE SYCAMORE TREES ALONG THE BANKS OF THE RIVER AND REVEGETATES THE UPLAND REVIEW AREA WITH NATIVE PLANTINGS WHILE - PROVIDING SPACES FOR PEDESTRIANS TO ENJOY THE RIVER!



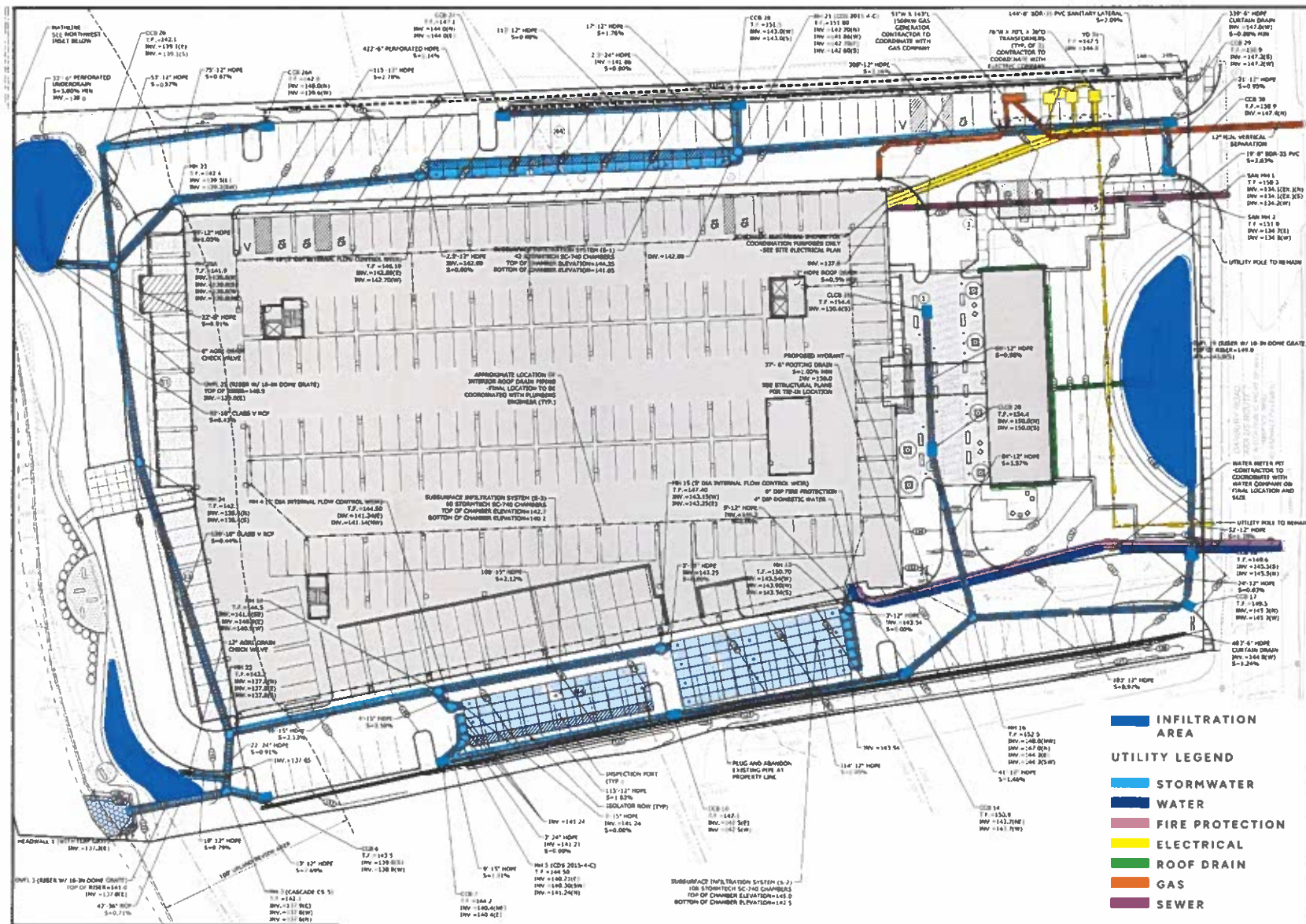
SEATING OVERLOOK



STORMWATER INFILTRATION ELEMENT



RIPARIAN BUFFER



Cardinal Engineering comments dated March 11, 2024

CC-R.4 Closeout: During the hearing on March 6, 2024, the applicant provided additional information on the above cited concern. In addition, the revised Sediment and Erosion Control Plan (revised March 8, 2024) included a construction sequence for the work. The sequence should include when the concrete flume is to be removed. The area is paved so removal of pavement might be a more suitable step than grub & strip topsoil. Coir log detail needed. Timetable of work might be contingent on conditions of the Corps permit. The proposed plans do not adequately describe how the Norwalk River will be protected during construction during flooding events, including small storm events.

Response: There is a minor amount of vegetation removal so items 2 and 5 are appropriate. Reference to the removal of the flume will be added to the sequence.

CONSTRUCTION SEQUENCE FOR DRAINAGE OUTLET:

1. REVIEW WATER LEVEL OF RIVER AND PREDICTED WEATHER FOR THE NEXT WEEK. WORK SHALL BE SCHEDULED WHEN THE RIVER LEVEL IS LOW AND STABLE AND NO RAIN IS PREDICTED FOR THE NEXT WEEK.
 2. INSTALL TURBIDITY CURTAIN.
 3. CLEAR VEGETATION.
 4. INSTALL STAKED COIR LOGS AT RIVERS EDGE.
 5. GRUB AND STRIP TOPSOIL.
 6. REMOVE FLUME.
 7. INSTALL PIPE AND HEADWALL. MAINTAIN HIGH POINT BETWEEN GRADING AND RIVERS EDGE.
 8. COMPLETE GRADING.
 9. INSTALL RIP RAP.
 10. REMOVE STAKED COIR LOGS AT RIVERS EDGE AND REPLACE WITH STRAW WATTLE.
 11. TOPSOIL, SEED AND MULCH PERIMETER AREAS.
 12. INSTALL STRAW WATTLE AT TOE OF SLOPE ALONG RIP RAP.
- NOTE: WORK TO BE COMPLETED IN 3-4 DAYS.

The proposed plans do not adequately describe how the Norwalk River will be protected during construction during flooding events, including small storm events.

Response: The AMS Construction Management Plan will be updated to include a Construction Phase Emergency Operation (Flood Contingency) Plan.

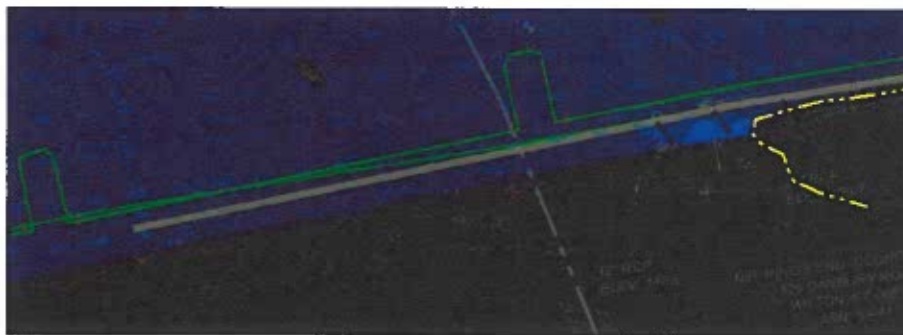
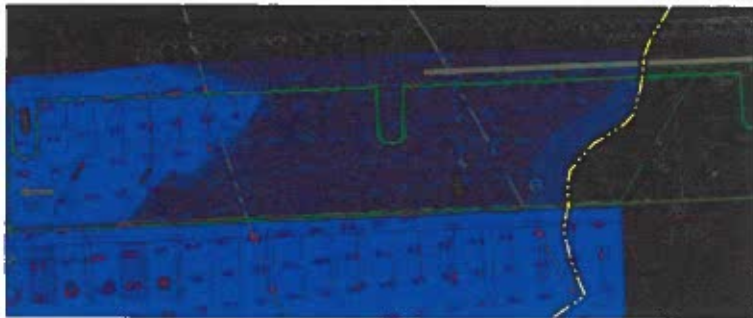
This emergency operation plan is designed to provide the Contractor with guidelines during a flood or a threatening flood period in order to protect the surrounding community.

1. The Contractor shall monitor the weather forecasts and plan construction accordingly.
2. If the weather forecasts should indicate the possibility of a major storm system within 24 to 48 hours, the Contractor shall plan for the possibility of high water levels at the site and the removal of construction equipment and construction materials. Also, the Contractor shall notify the Town and Owner.
3. If a significant rainfall in excess of two inches within a 24 hour period occurs or is predicted to occur by the National Weather Service, the Contractor shall maintain surveillance of the site and be prepared to provide emergency corrective stabilization measures, if necessary, until water levels recede and the construction site is stabilized.
4. If the water level within the channel rises to a potentially unsafe level, the Contractor shall remove all equipment, construction materials and stockpiles from the floodplain, and alert the Owner of a potential emergency.
5. The Contractor shall maintain sufficient equipment and manpower at the site in order to react to a flooding emergency.
6. The Contractor shall submit a detailed Emergency Operations and Flood Contingency Plan before any Work commences. Said plan shall include a detailed narrative describing the various types of emergencies and corresponding actions to be taken in response. Identified on the plans shall be the location where all construction equipment and other supplies will be stored. The Contractor shall certify that personnel are familiar with all provisions of his plan and are able to execute same. The Contractor may use the above plan or prepare a plan of his own. In either case, the Contractor shall submit to the Town an Emergency Operation Plan for approval seven (7) days prior to any work commencing on site.

CC-RPT-1 Close Out: A review of the revised Sheet 20-Interpolated Floodplain Earthwork Plan (revised 3-8-2024) addressed the additional fill in the parking garage, but the fill associated with the retaining walls (approximately 170 LF) was not addressed

Also, plan depicts older layout of parking. Should be based on current plans.

Response: The walls are included in the earthwork calculations. The tick marks do not represent the limits of analysis. Images below show the limits of area included in the earthwork calculations. The earthwork has been completed on the current plan. The other plan submitted and presented to the Commission on March 6th is an alternate plan subject to the Fire Marshal's approval. Furthermore the grading will not be changing with the alternate plan. Just the parking spaces will be moved to the south side along the building.



CC-RPT-2: The additional information on the locations of the cross sections is noted. Boulders still need to be removed from site plan and landscape plan.

Response: The random boulder seating has been removed from the plans. What remains is a small boulder wall adjacent to the seating area. This wall remains part of the plan.

GR-21: Grading inside garage incorrect. Provide 147 contour. Grade between 146 contour and elevation 148 at the eastern end of the garage is steeper than 1%.

Response: Revised minor grading will be incorporated into final plans. This area is located above flood zone so there is no impact on flood compensation calculations.

CC-RPT-2: The additional information on the locations of the cross sections is noted. Boulders still need to be removed from site plan and landscape plan.

Several issues should be resolved as relates to cross section 27.5.

- Proposed cross section 27.5 elevations are not consistent with the revised grading plans dated 2/28/2024. Inside the parking garage at the far easterly end, the elevation is being modeled as 146.0 feet, but that has been changed to 148.0 feet on the latest grading plan. The 146.0 foot elevation is 160 feet west of this location which is closer to the center of the garage. The proposed elevation of the parking garage is approximately 145.4 feet at the location of the existing building's western wall, but cross section 27.5 shows it as 144.8 feet or more than 6 inches lower.
- The proposed building location has not been corrected in the model. As mentioned previously, the proposed building is shown in the model farther away from the river than has been proposed. The building is actually being located 30 to 40 feet closer.
- The bank stations used in latest modeling (142 ft) for XS27.5 are not consistent with site conditions and previous report (137 ft).

Other issues with the river modeling that need to be addressed:

- The bank stations of 141 feet seem very high compared to site conditions for the most downstream site cross section (XS27.25)
- Corrected effective table (the existing conditions table) needs to have water surface elevations for the three site cross sections
- Report should provide information in standard hydraulic report format where the frequencies (e.g. 10 and 100 year events) are separate tables.

Response:

The section through the building, the current grading plan is actually showing grades that are slightly lower than what we had in the model. No change in results.

We moved the building 30' closer to the river, as they suggested. No change in results.

We moved the bank station as suggested. With the banks being near vertical, the change in width is minimal. No change in results.

Lowering the bank station down to a lower elevation on the channel bank, applies to both existing and proposed conditions. No change in results.

The Site is located within the influence of a downstream structure which results in the model not being sensitive to small changes in input.

Norwalk River Profile

