



# ALLEN ENGINEERING & ASSOCIATES, INC.

Civil Engineers, Surveyors  
& Land Development Consultants

---

March 8, 2024

Town of Bellingham Planning Board  
Bellingham Planning Office  
10 Mechanic Street  
Bellingham, MA 02019

Re: **Proposed Lucille's Steakhouse**  
**Stormwater Management Peer Review Comment Responses**  
85 Mendon Street

Dear Planning Board Members:

Allen Engineering & Associates, Inc. is in receipt of comments from BSC Group, dated February 6, 2024, for the above referenced project. On behalf of the Owner/Applicant, MZHM, LLC, we are providing responses and revised plans. Each of the comments is restated in *italicized font*. Responses follow in **bold standard font**.

It should be noted that the proposed project has been reduced in size. Please refer to the revised narrative provided with these comment responses. Additional information is provided regarding the reduction of the building program, parking demand, occupancy, etc. Additional data is also provided in support of the request for a parking reduction Special Permit, as requested by the Planning Board.

On behalf of the Applicant, AEA met with residential abutters

#### *PEER REVIEW ROJECT COMMENTS*

- 1. The Site Preparation Plan (Sheet C-4) shows an approximate stockpiling and staging area. We recommend this be moved outside the buffer to any protected resource areas.*  
**Response: The stockpiling and staging areas has been moved outside of the buffer zone.**
- 2. A snow storage area is shown on the Layout and Materials Plan (Sheet C-5). This storage area is entirely within the 100-foot buffer to bordering vegetated wetland (BVW) and partially within the 50-foot buffer to BVW. We recommend that no snow storage be proposed within the 50-foot buffer and that additional snow storage areas outside the 100-foot buffer be utilized first to allow greater distance for snow melt to travel prior to reaching BVW.*  
**Response: The snow storage has been revised and located entirely outside of the 50-foot zone. Per the request of the Conservation Commission, a split rail fence has been added to prevent snow from being stockpiled any closer to the wetland resource area.**
- 3. Several drainage pipes on the Grading and Drainage Plan (Sheet C-6) are not labeled. All pipe information should be added to the plans.*  
**Response: Pipe labels have been added where missing.**
- 4. We recommend double-grated catch basins be utilized in low spots to help prevent ponding and reduce the likelihood of clogged or blocked inlets in these locations.*  
**Response: Double grate catch basins have been incorporated at the low points as recommended.**



# ALLEN ENGINEERING & ASSOCIATES, INC.

Civil Engineers, Surveyors  
& Land Development Consultants

5. *Several soil logs on Sheet C-6 are incomplete. The missing information should be added.*

**Response: The soil logs have been revised where warranted.**

6. *All catch basins along curb lines should include curb inlets in accordance with the Subdivision Regulations Section 245-13.C.(3).*

**Response: Curb inlets have been added where applicable or feasible**

7. *While several soil test pits were performed in the immediate area of Subsurface Chamber System #2, the nearest test pit to Subsurface Chamber System #1 is approximately 45-feet away. We recommend at least one additional test pit be performed in the area of this system to confirm the soils in this location match the assumptions utilized in design.*

**Response: The Applicant is not opposed to additional testing, but requests that it be deferred to the demolition phase of the project to avoid another mobilization. We feel that this is reasonable in this case, since it is highly unlikely that the results of additional testing will warrant changes. No groundwater was observed on the site to a depth of 11.5 feet, which is consistent with the elevation of the wetland in the rear of the property. The wetland is over 20 feet lower than the main site. Moreover, the natural material beneath the fill is free draining, which typically does not result in a perched groundwater condition. Finally, any fill that is encountered is to be removed and replaced regardless.**

8. *Soil test pits were performed in June 2023, outside the ideal time period for determining estimated seasonal high groundwater. No groundwater or redoximorphic features (mottles) were observed in any of the test pits, so the Applicant has utilized the bottom of the test pits as estimated seasonal high groundwater.*

- a. *We request the Applicant confirm groundwater conditions at the time of test pits using USGS groundwater conditions data.*

**Response: As stated in the response to comment #7 above, the site is over 20 feet above the elevation of the wetland and the natural material below the fill is free draining. Test pits were excavated as deep as the machinery would allow (11.5 feet), so the bottom of the test pit was assumed to be groundwater. However, in order for groundwater to be a factor, it would have to be over 10 feet higher than the wetland elevation. It is quite apparent that groundwater is not a factor for this project.**

- b. *We recommend the Applicant perform a Frimpter analysis or similar comparative analysis to ensure that groundwater estimates are reasonable.*

**Response: See response above.**

9. *As the two Subsurface Chamber Systems may be at least partially constructed in non-native soils (fill), we recommend that all fill be removed from beneath these systems and replaced with soil materials having at least as high an infiltration rate as the native soils below. This requirement should be added to the site plans.*

**Response: We are in agreement with the reviewer. Notes have been added to the grading and drainage plan and the chamber system details accordingly.**

10. *The outlets from each Subsurface Chamber System have been modeled in HydroCAD as 8-inch orifices. However, the details on Sheet C-10 identify them as 6-inch outlets.*

**Response: Sheet C-10 has been revised to reflect the 8" orifices.**

11. *The bottom of stone and bottom of chamber elevations for Subsurface Chamber System #1 shown on Sheet C-10 do not match those in the HydroCAD model.*

**Response: Sheet C-10 has been revised to show the corresponding HydroCAD elevations.**



## ALLEN ENGINEERING & ASSOCIATES, INC.

Civil Engineers, Surveyors  
& Land Development Consultants

---

12. *Rip-rap and pipe apron sizing calculations should be provided to ensure that the drainage system does not cause erosion as required by Stormwater Standard 1.*

**Response: The average velocity at the outfall during the 100-year storm event is only 2.92 feet/second. This represents a velocity not associated with scour conditions, however a rip rap sizing calculation has been added to the drainage analysis.**

13. *The HydroCAD models have only been run for a time span of 5 to 20 hours. These should be run from 0 to 24 hours to ensure that the full duration and volume of each storm event is analyzed.*

**Response: The hydrocad reports have been run for storm spans from 1 to 24 hours as requested.**

14. *Limits of all subcatchments are not clearly shown on the Proposed Drainage Plan. In addition, there appears to be a ninth subcatchment listed on this plan when only eight are modeled. The plan should be updated to reflect each subcatchment appropriately.*

**Response: Subcatchments 5 & 8 have been revised and subcatchment 9 has been eliminated.**

15. *The length and slope of the pipe Reach 2R in the Proposed Drainage HydroCAD does not match that shown on the plans. All pipes should be checked to ensure that the model and plans match.*

**Response: The Hydrocad calculations have been revised to match the design plan.**

16. *Reach 100R in the Proposed Drainage HydroCAD is modeled as a pipe when this is intended as a site summary. This reach should remain undefined to ensure that no changes to flow happen in the model. For example, this reach results in an outflow that exceeds the inflow in the 100-year storm event, which cannot happen in a free discharge condition not under pressure.*

**Response: Reach 100R has been left undefined as suggested.**

17. *All runoff curve numbers (CN's) and infiltration requirements have been based on hydrologic soil group (HSG) B soils. However, an infiltration rate of 2.41 in/hr, representing a HSG A soil has been utilized. While a medium sand material was identified in several test pits as the parent material, the calculations should utilize consistent values for the design.*

**Response: AEA has revised the exfiltration rates from 2.41 inches/hour to 1.1 inches/hour.**

18. *Appropriate calculations and documentation have been provided showing the project meets the TSS removal requirements of Stormwater Standard 4.*

**No response required:**

19. *We concur with the Applicant's statement that Stormwater Standards 5 and 6 are not applicable as the project is not a land use with higher potential pollutant loads and does not discharge to or near a critical area.*

**No response required.**

20. *In the Drainage Analysis narrative, the Applicant states that the project is a redevelopment under Stormwater Standard 7. While portions of the project do qualify as redevelopment, portions of the project are new development. It does appear, however, that the project is attempting to fully comply with all Stormwater Standards.*

**Response: The reviewer is correct. The project is designed to fully comply with the Standards.**



# ALLEN ENGINEERING & ASSOCIATES, INC.

Civil Engineers, Surveyors  
& Land Development Consultants

21. *Information and details for construction period erosion and sedimentation controls have been shown on the site plans. The project will require coverage under the NPDES Construction General Permit (CGP) for Massachusetts. As such, the project specific stormwater pollution prevention plan (SWPPP) should be submitted to the Conservation Commission in accordance with Stormwater Standard 8 prior to the start of construction.*

**Response: Acknowledged. The SWPPP will be furnished to the Conservation Commission when prepared.**

22. *The long-term operation and maintenance plan submitted under Stormwater Standard 9 should be updated to include the following information:*

a. *Inspection and maintenance requirements for the oil/grit chambers and for the pipe outlet protection.*

**Response: AEA has prepared a “stand alone” Operation & Maintenance Plan (see attached). This includes requirements for the oil/grit chambers and the pipe outfalls.**

b. *Good housekeeping practices regarding use of fertilizers, pesticides, etc. as well as snow and ice management requirements. Please see our previous comment regarding snow storage areas.*

**Response: As noted earlier, the plans have been revised to remove the snow storage entirely out of the 50-foot buffer zone to the wetlands.**

c. *An inspection and maintenance log for all stormwater BMP’s should be included.*

**Response: AEA has added this log to the “stand alone” O&M Plan**

23. *The center of Subsurface Chamber System #2 is approximately 95-feet from BVW. The groundwater mounding analysis for this System shows an approximate 0.3-foot mound 95-feet from the system center. We request the Applicant confirm groundwater depth at the wetland line to ensure that the “groundwater mound that forms under the recharge system will not break out above the land or water surface of a wetland” as required in Volume 3, Chapter 1 of the Stormwater Handbook.*

**Response: The applicant has agreed to perform additional soil tests during the demolition phase of the project. This will include a test adjacent to the wetland line. AEA does not anticipate any mounding problems 95 feet away from the stormwater infiltration system.**

Please feel free to contact me at 508 381-3212x109 or [michaeld@allen-ea.com](mailto:michaeld@allen-ea.com) questions regarding this correspondence.

Sincerely,  
**ALLEN ENGINEERING  
& ASSOCIATES, INC.**

Michael J. Dryden, RLA  
Senior Project Manager

Mark E. Allen, PE  
President

Cc: Dominic Rinaldi, BSC Group  
MZHM, LLC