

Date: February 1, 2024 Job No.: 10520.07  
To: Ms. Breeka Lí Goodlander  
Mr. Gregory Rondeau  
Cc: Amy Love, Mike Maglio  
From: Matt Crowley  
Subject: **515 West Central Field Changes**

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BETA has reviewed updated materials for the proposed field change for the project located at 515 West Central Street in Franklin, MA and offers the following comments:

- The proposed pervious pavement detail is generally consistent with the Stormwater Handbook. Comments specific to the porous pavement are as follows:
  - The designer should confirm the proposed porous pavement thickness of 3" is suitable to support waste collection vehicle and fire apparatus loads. Porous pavement has a lower load-bearing capacity than conventional pavement. *G&H: The applicant has coordinated with BETA and revised the porous pavement detail to specify a 4" pavement thickness, placed in 2" lifts, to be consistent with the UNH Porous Pavement spec. BETA2: BETA defers to the Engineer of Record to confirm pavement has adequate load-bearing capacity – no further comment.*
  - The bottom of the reservoir course should be flat, and it is recommended to raise the subdrain from the reservoir bottom to promote recharge when groundwater levels stabilize or are lower during the dry season. *G&H: The plans have been revised to provide a flat bottom, and the subdrain raised to promote recharge when conditions allow. BETA2: Design revised – issue resolved.*
  - The Operation and Maintenance Plan should be updated to reference the porous pavement and include specific maintenance requirements (e.g. power washing and vacuum sweeping). The approved O&M includes proprietary documentation for the porous concrete that is no longer applicable. *G&H: The O&M has been revised to remove proprietary maintenance guidance, and specific maintenance guidelines have been added for the proposed porous pavement. BETA2: The O&M has been updated to provide some general maintenance provisions; however, additional information included in the Stormwater Handbook should be included to ensure long-term functionality of the system, such as the prohibition of winter sanding and regular assessments during/following storm events. Also, in accordance with the Handbook, signage should be posted to identify the porous pavement areas. The Board may elect to include these provisions as a condition of approval and BETA recommends and additional condition that prohibits the replacement of the porous pavement with an impervious surface unless specifically permitted to do so.*
- Subdrains from the porous pavement area will be directed to the existing infiltration basin near the front of Lot 2 (Wendy's). If the proposed modification is approved, the existing basin should be monitored during dry periods to ensure a permanent pool is not created. If the storage volume of the pond is affected, additional calculations or corrective measures may be required to ensure the site remains in compliance with the approved stormwater objectives. *G&H: The applicant does not object to this requirement. BETA2: BETA recommends for the Commission/Board to include*

**a condition that requires monthly monitoring of the basin for a period of three months following connection of the subdrain to the closed drainage system. Monitoring should take place 72 hours after storm events and should generally be conducted when groundwater levels are high (March – May).**

- BETA did not perform a detailed review of all stormwater documentation; however, the updated HydroCAD model input was noted to be consistent with the approved 2021 model, except for the proposed cover type change for the porous pavement area. While the stormwater objectives of the approved project are still anticipated to be met, the designer should ensure summary tables are fully representative of the HydroCAD output and the narrative and calculations are clear and consistent throughout each section. *G&H: G&H has coordinated with BETA and revised the drainage analysis narrative and HydroCAD output for consistency and clarity. BETA2: The narrative has been revised in sufficient detail to confirm that applicable stormwater standards will be met – issue resolved.*
- A letter dated November 8, 2023, from Mark Santora, PE, (the Engineer of Record (EOR)) has been provided in response to BETA's limited draft retaining wall design comments. The EOR has indicated that comments have been satisfactorily addressed and BETA defers final structural design and review to the EOR and permit granting authority. *G&H: No response required. BETA2: Wall revisions were previously approved by the Board/Commission – comment no longer applicable.*
- It is BETA's understanding that the critical path for construction is the proposed retaining wall. The Commission and Board may choose to act on this aspect of the project alone at their discretion. *G&H: No response required. BETA2: Wall revisions were previously approved by the Board/Commission – comment no longer applicable.*