



November 22, 2021

Ms. Emily Wentworth
Senior Planner: Zoning/Special Projects
210 Central Street
Hingham, MA 02043

**RE: 193 Whiting Street, Site Plan
Response to Amory Engineers Peer Review Letter**

Dear Mrs. Wentworth and Members of the Hingham Planning Board;

This letter is being submitted in response to the supplemental peer review comments provided by Amory Engineers, P.C. (AE) via email on October 19, 2021, regarding the proposed project at 193 Whiting Street in Hingham, Massachusetts. Crocker Design Group, LLC (CDG) offers the following responses to each comment below. In addition, the following revised supporting documents are enclosed:

- Site Plans with revision date of 11/19/21
- Stormwater Report with revision date of 11/19/21

Original comments provided by AE indicated below in standard text with CDG's response in **bold text**.

COMMENTS

1. We understand that because the proposed site will reduce the amount of impervious surfaces, proposed stormwater runoff will be less than existing and additional mitigation is not required. As noted above, some mitigation will be provided by recharging the roof runoff. Notes in the Stormwater Management Report indicate that because of "the proximity to the on-site septic system and extensive site remediation history, the design limited the recharge system to clean roof runoff only." The Applicant should explain the remediation constraints further. Otherwise, we believe this could be an opportunity to provide additional mitigation to enhance the quality and lessen the amount of runoff that flows onto Gardner Street.

CDG Response: The grading drainage and utility plan (Sheet C-3) has been updated to show a new subsurface infiltration system that contains nine (9) MC-3500 chambers. Stormwater runoff is captured and conveyed to the infiltration system through a series of deep sump catch basins and pretreated with a proprietary water quality unit. The underground infiltration systems now have the capacity to capture and infiltrate runoff from 5,614 SF (inclusive of the roof and a portion of the parking lot/drives) of the overall

impervious surfaces on site. This represents a substantial improvement over existing conditions, not just in rate reduction but also overall stormwater volume leaving the site.

The revised design sites the new catch basin just outside the minimum 50-foot setback required under Section VII.F.7 of the Hingham Board of Health Supplemental Rules and Regulations for the Disposal of Sanitary Sewage. The positioning of this new catch basin and updated proposed pavement elevations and slopes helps capture as much pavement as possible on that end of the site, and route it toward the new, expanded subsurface infiltration system with Water Quality Unit for pre-treatment.

CDG, in coordination with Jim Murphy, LSP of Tracey Environmental Consulting also evaluated the potential to add a similar subsurface system near the entrance off of Gardner Street. The 2017 RAM Completion Report identified that Monitoring Well MW-101, halfway between the building and Gardner Street, has had LNAPL product in the past, indicating that there is likely heavy contamination remaining in the soils (from the former UST field), including the zone above and below the water table. It is Tracy Environmental's opinion that adding significant/additional stormwater in this area may impact groundwater conditions that are being monitored as part of the ongoing environmental actions from the Site. As a result, a subsurface system has not been proposed in the limited area that exists outside the 50' setback, near the Gardner Street entrance.

Based on the above, it is our opinion that the proposed stormwater upgrades improve the site to the maximum extent practical, as required by the Stormwater Management Standards for redevelopment project. The BMPs employed will result in reduced peak rates and volumes and improve overall stormwater quality through reduced pavement areas, deep sump hooded catch basin, water quality unit and subsurface infiltration system that collects a portion of the site and the entire building roof.

2. There should be cleanouts in the underground roof drain piping to allow for maintenance.

CDG Response: The grading drainage and utility plan (Sheet C-3) has been updated to include cleanouts on the underground roof drainage system as recommended.

3. We recommend a second inspection port on the inlet end of the subsurface infiltration system to allow for easier maintenance.

CDG Response: The grading drainage and utility plan (Sheet C-3) has been updated to show a revised drainage system consisting of 9 MC-3500 ADS chambers with four (4) inspection ports. This system is sized to retain and infiltrate up through the 100-year storm event.

4. A note on the MC-3500 Cross Section Detail on Sheet C-5.2 directs the contractor to notify CDG "if naturally occurring clay is not identified at El. = 140.0±." We believe this is supposed to refer to "loamy sand" and not clay.

CDG Response: The detail sheet (Sheet C-5.2) has been updated to show the note directing the contractor to notify CDG for the MC-3500 Cross Section Detail to state "if naturally occurring loamy sand is not identified at El. = 140.0±" instead of "clay".

5. The Typical Roof Drain detail on Sheet C-5.2 specifies PVC pipe but the pipe is specified to be HDPE in plan on Sheet C-3.

CDG Response: The Typical Roof Drain detail on detail sheet (C-5.2) has been revised to specify HDPE pipe.

6. The proposed slope behind the building, adjacent to the dumpster pad, is proposed to be about 1.5:1 (H:V). Demolition Note 3 on Sheet C-1 indicates that slopes may not exceed 2:1. The note also specifies erosion control blankets on all 2:1 slopes. The 1.5:1 slope should be protected with an erosion control blanket and the note modified accordingly.

CDG Response: The demolition/sediment and erosion control plan (Sheet C-1) has been updated to have Demolition Note 3 state that "slopes may not exceed 1.5:1 and 1.5:1 slope shall be protected with an erosion control blanket".

7. The Construction Entrance detail on Sheet C-1 specifies a minimum length of fifty feet, yet the construction entrance is only thirty-five feet long. Due to the small site, the detail should be modified. A second construction entrance off Gardner Street should also be considered.

CDG Response: The demolition/sediment and erosion control plan (Sheet C-1) has been updated to specify the construction entrance detail to have a minimum length of 35 feet and a second construction entrance was added at the entrance from Gardner Street.

8. The silt sock/silt fence erosion control barrier is not shown along Whiting and Gardner Streets where work is proposed at curb cuts and sidewalks within the right-of-way. We understand that this is due to the erosion controls being in the way of the work. However, temporary erosion controls, which can be easily moved should be specified so that the areas can be protected when work is not actively being performed in those areas.

CDG Response: The demolition/sediment and erosion control plan (Sheet C-1) has been updated to show temporary erosion controls where work is proposed at the sidewalks and proposed reconstructed curb cuts. Also, a note has been added stating that "temporary erosion controls shall be put in place when work within this area is not impeded by such erosion controls and when no work is being performed in this area."

9. If gas service is present and/or proposed, it should be shown on the plans.

CDG Response: Gas service does not exist to the site today, and it is not being proposed as part of this project.

10. There is a 20-ft. by 24-24. Concrete patio proposed off the west side of the building. The purpose of this patio should be identified.

CDG Response: The concrete patio is no longer being proposed and the site layout plan (Sheet C-2) has been updated accordingly. In its place is now a small pad to accommodate a bike rack.

Should you have any questions or require any further information, please do not hesitate to contact David Newhall at dnewhall@crockerdesigngroup.com or 781-919-0808.

Sincerely,
Crocker Design Group LLC



David Newhall, E.I.T.
Project Engineer