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June 29, 2021

Mr. Douglas Golemme, Chairman Rockland Conservation Commission 242 Union Street Rockland, MA 02370

Re: Site Development Plan, Dyer Street, Rockland, Massachusetts

Dear Mr. Golemme,

This letter is in response to a Stormwater Management Peer Review Letter dated June 22, 2021 from Henry Nover, P.E.

Enclosed herewith are the following:

- Plans entitled "Site Development Plan, Assessor's Map 34, Lots 83, 84, 87, 88, 89 & 90, Dyer Street, Rockland, Massachusetts" prepared by McKenzie Engineering Group, Inc. (MEG) dated October 23, 2020 with a latest revision date of June 29, 2021 (Site Plans).
- Executive Summary Drainage Calculations and Stormwater Management Report prepared by MEG dated October 23, 2020 with a latest revision date of June 29, 2021 (Drainage Report).

The following are responses to the comments that were highlighted in the Stormwater Management Peer Review Letter that warrant further clarification (MEG responses are shown in *blue italics*).

Stormwater Management Comments:

- An infiltration rate of 2.41 inches per hour which is appropriate for loamy sand soils was used in the design of the subsurface infiltration structures. The more restrictive soil type found at these locations was a sandy loam soil. The runoff discharging from the structures and the drawdown time of the retained volume should have been estimated using an infiltration rate of 1.02 inches per hour.
 - The stormwater management design has been revised to use an infiltration rate of 1.02 in./hr. Additional chambers have been added to each subsurface infiltration system, the orifice outlet elevations have been adjusted and the site grading has been revised accordingly. The revised peak rates and volumes are indicated in the enclosed Drainage Report.
- 2. The setback distances of the infiltration structure BMPs meet the Standards for the BVW, property line and building foundations. The setback from the side slopes should either be increased or a barrier be installed to prevent potential breakout on the side slopes during the

larger storm events. MEG should confirm that there are no private potable wells in the vicinity of the infiltration BMPs.

The Grading and Drainage Plan, Sheet C-2 has been revised to specify 40 Mil EPDM Polybarriers between the proposed subsurface infiltration systems and the side slopes where necessary. The Rockland Board of Health has been contacted and there are no potable wells in record within the vicinity of the infiltration BMPs.

- 3. Notation requiring removal of unsuitable soils at the locations of the subsurface infiltration BMPs should be added to the plans. Recommend inspection of the excavation for the infiltration BMPs. Drainage Note #5 has been added to the Grading and Drainage Plan, Sheet C-2 requiring the removal of unsuitable soils within the limits of the subsurface infiltration systems and inspection of the bottom of excavation prior to installation.
- 4. The proposed drainage easement for infiltration system 2 should be expanded to include the outfall.

The drainage easement for has been revised to include the outlet structure.

5. The proposed parking and landscaping interferes with the access easement to infiltration system 2.

The 10 ft. landscaped buffer adjacent to the property line provides adequate width for maintenance access to the subsurface infiltration system. The location of proposed trees along the property line have been revised so they do not interfere with the drainage easement for Subsurface Infiltration System #2.

- 6. Recommend an additional inspection port on infiltration system 2.

 An additional inspection port has been added to Subsurface Infiltration System #2.
- 7. Recommend that a copy of the construction phase inspection reports be submitted to the Conservation Commission.

Comment noted. The construction phase inspection reports will be submitted to the Conservation Commission.

8. Recommend additional plan notation regarding prevention of sediment intrusion into the subsurface infiltration structures.

General Construction Note #1 has been revised on the Erosion and Sediment Control Plan, Sheet ESC-1 to specify that precaution should be taken during construction to prevent sediment intrusion into the subsurface infiltration systems and closed drainage system.

- 9. The reference for the design of the temporary sedimentation basins should be provided.

 Temporary sedimentation basins are designed in accordance with Section 2.2.12 of the 2017 EPA

 Construction General Permit.
- 10. The need for additional diversion swales along abutting property lines is deferred to the Planning Board.

Comment noted.

11. The findings of the hydrologic analysis assume capture of the 100-year storm event. Final design of the roof drain systems should be submitted to the Commission before construction.

Comment noted. Roof drain design will be submitted prior to construction as requested.

Very truly yours,

MCKENZIE ENGINEERING GROUP, INC.

Erik Schoumaker, P.E.

Project Engineer

Bradley C. McKenzie, P.E.

President

CC: Gaspar Investment Inc.

Thomas J. Hastings

Rockland Planning Board

Patrick Brennan, P.E., Amory Engineers P.C.