November 28, 2023

Mr. Ryan Clapp
Conservation Agent
Holliston Conservation Commission
703 Washington Street
Holliston, MA 01746

Re: **Definitive Open Space Residential Development (OSRD) Peer Review**
"Bonney Drive Extension" Bonney Drive, Holliston, MA
CMG ID 2023-270

Dear Mr. Clapp,

CMG is providing this letter report detailing our engineering peer review of the "Bonney Drive Extension" Definitive Open Space Residential Development in Holliston, MA (the "Site"). The project Applicant, Murch Prentice Realty Trust is proposing to construct a three (3) lot open space residential development on Assessor's Parcel Map 7 Block 4 Lot 55.D.

The existing property currently consists of approximately 7.75 +/- Acres located within the Agricultural-Residential B (RES-B) and Groundwater Protection Zoning Districts. This project will require Definitive Subdivision Approval, Site Plan Review, and filing a Notice of Intent with the Holliston Conservation Commission.

CMG is in receipt of the following documents:

- "Definitive Open Space Subdivision "Bonney Drive Extension" A 3 Lot Single Family Residential Subdivision, Holliston, MA", prepared by GLM Engineering Consultants, Inc., dated August 29, 2023.

- "Stormwater Management Report – Bonney Drive Extension, Holliston, MA" prepared by GLM Engineering Consultants, Inc., dated September 7, 2023.

CMG is providing this letter summarizing our review comments for the above documents to evaluate the project's compliance with the following regulations for Planning Board consideration:

- Town of Holliston Zoning By-Laws date May 10, 2021, Amendments approved by the Attorney General's office on August 26, 2021.
- Town of Holliston Planning Board Rules and Regulations amended through January 5, 2012.
- MA-DEP Stormwater Management Standards and related Town of Holliston May 2021 Stormwater Management and Land Disturbance Permit regulations

CMG provides the following technical comments for the Board's consideration:

Holliston Zoning By-Law Comments:

1. Section V-H 6.A 2) - Applicant should verify with the Fire Department what size vehicle will need to access the cul-de-sac and provide a truck turning diagram to verify there is adequate pavement width for the required design vehicle. Additionally, CMG will defer to public safety regarding the proposed alignment of the new intersection of Bonney Drive Extension, Bonney Drive, and Hargrave Avenue.

2. Section V-H 8.A (Common Open Space Ownership and Management) CMG is not in receipt of a project narrative to address the proposed Common Open Space Ownership and Management. CMG recommends the applicant submit information regarding conveyance to the Town or a conservation restriction being utilized for the proposed open space.

3. Section V-H 8.B (Common Open Space Ownership and Management) Applicant should address how the open space shall be available for use by the general public.

4. Section V-L 4. 3) b. - For residential developments of single-family detached dwellings, the minimum lot area shall be 40,000 s.f. Proposed Lot 3 consists of a lot area of 38,345 s.f. which is below the required minimum lot area.

Holliston Planning Board Subdivision Rules and Regulations Comments:

5. Section 4.3.1 q – The Plan set appears to account for approximately 50 feet of the existing Bonney Drive right-of-way. Existing centerline profile of Bonney Drive should extend to 100 feet.

6. Section 4.3.1. w – Location of proposed landscaping is not provided. Please note, a tree planting detail is provided on Sheet 9 of 10.

7. Section 5.2.1 i – Proposed driveway intersection sight distances are not provided.

8. Section 5.4.3 – Street lighting is not provided and no waiver is requested.

9. Section 5.4.4 – Proposed underground gas and or electric / cable / telephone utilities layout and/or construction details are not shown on the plan set.

10. Section 5.5.1 - Sidewalks are not shown and a waiver is not requested.

11. Section 5.5.3 – Street sign & stop sign locations, proposed pavement markings, and construction details are not provided.

12. Section 5.5.5 –Street tree locations, tree planting species, and caliper should be included on the plan set.

General Engineering & Drainage Design Comments

13. CMG recommends Applicant's Engineer provide USGS stream stats evaluation to verify whether the mapped stream to the East of the Site is intermittent or perennial.

14. Applicant is proposing drywells to infiltrate the proposed roof areas. CMG recommends the site plans include an overflow device to convey runoff during larger storms. In particular, the 100-year storm appears to have an elevation above the top of the underground infiltration chamber.

15. CMG recommends a stop sign and stop bar be shown at the end of Bonney Drive Extension prior to the intersection with Bonney Drive & Hargrave Avenue. Applicant to confirm this with the Holliston Public Safety Officer / Police Department.

16. CMG recommends the proposed Outlet Structure Detail Basin #1 detail be revised to include a clay core within the proposed earthen berm.

17. Roof drain piping size, material, and layout should be shown if piped directly to the proposed drywell systems.

18. Confirm the double-grate catch basin inlet capacity for CB #5 located at the cul-de-sac is adequate for a 25-year storm event.

19. Title Block references the wrong project on the Pre-development runoff, Post Development runoff, and Catch Basin Drainage Areas plan sheets.

Stormwater Standard 1: *No new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or water of the Commonwealth.*

20. Rational Method calculations are provided in the enclosed Stormwater Management Report. The rainfall intensity for each drainage structure should be consistent throughout the table.

Stormwater Standard 2: *Stormwater management systems shall be designed so that post development peak discharge rates do not exceed pre-development peak discharge rates.*

21. The enclosed HydroCAD model shows 147,953 s.f. for the Pre-Development Drainage Areas and 173,818 s.f. for the Post-Development Areas. These areas should be consistent to better document peak rate discharge attenuation.

22. The enclosed Stormwater Management Report utilizes Type III, 24-hour storm events. Per Section 11.11.2.a of the Town of Holliston Stormwater Management and Land Disturbance Regulations, the peak rate calculations shall utilize NOAA Atlas 14 precipitation rates.

Stormwater Standard 3: *Loss of annual recharge of groundwater shall be eliminated or minimized.*

23. Soil test pits were not conducted within the limits of the proposed stormwater infiltration basin. Additionally, test pits are dated May 14, 1997 and appear inconsistent regarding observed groundwater. CMG recommends two (2) test pits be conducted within the limits of the drainage basin to better determine soil horizons and estimated seasonal high groundwater.

24. Estimated seasonal high groundwater within the limits of the proposed basin is based on groundwater elevations observed on March 30, 2022. It is unclear if these elevations were obtained from soil tests or monitoring well. Please see above comment regarding additional test pits within the footprint of the proposed basin

Stormwater Standard 4: *Stormwater management systems shall be designed to remove 80% of the average annual post construction load of Total Suspended Solids (TSS).*

25. CMG is in agreement with GLM's proposed treatment train, capacity calculations, and water quality volume/ recharge volume calculations. CMG requests GLM include stage-storage tables for the proposed drywells, sediment forebay, and stormwater basin to confirm the documented storage capacities shown in Appendix B of the enclosed Stormwater Management Report.

26. In order to take the 50% TSS removal credit for the grass swale it must be designed in accordance with the MA-DEP Stormwater Management Standards and a construction detail provided.

Stormwater Standard 5: *Land uses with higher potential pollutant loads (LUHPPL), source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable.*

Not applicable – Site is not a LUHPPL.

Stormwater Standard 6: *Stormwater discharges within a Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area.*

27. The proposed site improvements are within a Zone II and the Town of Holliston's Groundwater Protection District. The enclosed Plan Set and Stormwater Management Report adequately address applicable regulations for the critical area.

Stormwater Standard 7: *Redevelopment Projects*

Not Applicable – Site is not a redevelopment project.

Stormwater Standard 8: *Construction period erosion and sedimentation control*

28. The Site is > 1 Acre therefore an EPA NPDES 2022 Construction General Permit (CGP) registration and SWPPP is required to be submitted prior to construction. CMG recommends the Planning Board make this a condition of approval.
29. The enclosed Erosion Control Plan shows a Trap Rock Apron Construction Entrance Detail, but does not show a location for the construction entrance. CMG recommends the location be added to the plan.

Stormwater Standard 9: *Long term operation and maintenance plan*

30. The enclosed Long-Term Operation & Maintenance Plan appears to be in compliance with Standard 9 and Section 11.5.2 of the Town of Holliston's Stormwater Management and Land Disturbance Regulations.

Stormwater Standard 10: *Illicit discharges*

31. The Long-Term O&M Plan includes an "illicit discharge statement" and is in compliance with Standard 10.

If you have any questions or need additional information, please contact me at (508) 864-6802.

Sincerely,
CMG

Robert Lussier, EIT
Project Engineer II

David T. Faist, PE
Principal Engineer