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May 27, 2021

Planning Board Town of Holliston 703 Washington Street Holliston, MA 01746

Re: 555 Hopping Brook Road – EDC Response to CMG Stormwater Peer Review 4 Comments 555 Hopping Brook Road - (EDC Job No. 3724)

Attn. Board Members:

The following is a response to a peer review letter provided by CMG Engineering Services, dated May 14, 2021.

## **General Engineering & Drainage Design Comments**

- 1. The Existing Conditions Plan has been updated and includes the current boundary, topographic and record isolated and bordering vegetated wetland boundaries.
- 2. No response necessary.
- 3. The reach is modeled as a smaller channel than the larger culverts and the 100-year runoff passes through without overtopping the channel, this was done because the channel was a more restrictive approach for analysis.
- 4. A copy of the originally approved calculations for the existing stormwater basin is provided.
- 5. The D-series isolated wetland has been evaluated on numerous occasions and has been determined to no longer exhibits wetland characteristics with upland plant species now dominating this small isolated area. The planned roadway and site improvements have always been a part of the site work proposed at 555 Hopping Brook Road and were part of the RDA filed with the Commission 11/27/2019 which included a Negative Determination of Applicability issued on 1/8/2020 by Holliston ConCom. Ultimately an Amended Order will be sought to completely eliminate the D-series area and to protect other higher valued buffer zone area associated with the downstream bordering vegetated wetland areas.
- 6. EDC has provided four locations near the building where the roof leaders will tie into and the pipes are sized to collect the roof runoff and the manning's calculations are provided, however, until the architectural plans are complete, the roof leaders are not shown on the plans.
- 7. EDC has revised the plans to clearly show the labels for the riprap lined swales at the edges of the earth berm. EDC has previously clearly indicated in the table of contents of the stormwater calculations report that on pages 92-93 the

- runoff calculations of the swales, and on page 137, the swales runoff areas are indicated on a plan.
- 8. EDC has added a note on the earth berm section on sheet 29 referencing the riprap swale on sheet 30.
- 9. The hydrology program used for calculating the runoff is "HydroCAD," in the latest addition a lookup table is used for the precipitation tables and is used to import the stormwater events, an image of the rainfall table is provided below. The precipitation amounts are taken from the Northeast Regional Climate Center Precipitation Data for Extreme Precipitation in New York & New England.

ID	State	County	Storm	1-Year	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year
				(inches)						
4135	MA	Holliston Middlesex County	NRCC_D	2.64	3.16	3.99	4.77	6.03	7.21	8.62
4136	MA	Holyoke Hampden County	NRCC_C	2.60	3.11	3.89	4.60	5.74	6.80	8.05

- 10. The reference to the "Rawls" rate is on page 6 of the stormwater report under drawdown time.
- 11. The summary tables for impervious areas to the basins are provided below.

IMPERVIOUS TO	BASIN 10	P	IMPERVIOUS TO		
SUBCATCHMENT	AREA (S.F.)		SUBCATCHMENT	AREA (S.F.)	
10S	447,498	ROOF	235	352,921	ROOF
118	79,970	PAVEMENT	245	199,841	PAVEMENT
125	218,665	PAVEMENT	258	-	
145	-		285	181,690	PAVEMENT
158	20,387	PAVEMENT		734,452	TOTAL IMPERVIOUS
175	25,644	PAVEMENT			
198	21,980	PAVEMENT			
215	-				
225	111,608	ROOF			
275	-				
298	7,650	PAVEMENT			
	933,402	TOTAL IMPERVIOUS			
	162,608	LESS IMPERVIOUS TREATED AT #465			
	770,794	IMPERVIOUS AT #555			

- 12. No response necessary.
- 13. EDC has revised the labeling on the maintenance underdrains for the outlet control structures of the basins.
- 14. EDC has revised the outlet control structure details to match the HydroCAD calculations.
- 15. The top of berm elevation for basin 10P has been revised to elevation 284.0.
- 16. Cross section detail is included on the project detail sheet.
- 17. No response necessary.
- 18. No response necessary.

- 19. Detention basin will be constructed to the limits and grades as indicated and a Certified As-built provided upon completion of construction.
- 20. Test pits were previously excavated and will be re-excavated in the presence of Scott Moles of the Holliston Board of Health on 6/1/21.
- 21. The water quality volumes have been and still are designed for 1-inch of runoff as detailed on page 7 of the stormwater report.
- 22. TSS removal spreadsheets have been and still are located in the stormwater report at pages 132 & 133, as can be seen, the removal prior to the basins forebays is 60% removal.
- 23. No response necessary.
- 24. No response necessary.
- 25. Note added for Riprap sizing for forebays.
- 26. The water quality volumes have been are still are designed for 1-inch of runoff as detailed on page 7 of the stormwater report.
- 27. The LUHPPL box was checked in the stormwater checklist based on the traffic volume.
- 28. The site includes storm water treatment systems that address LUHPPL requirements.
- 29. The water quality volumes have been and still are designed for 1-inch of runoff as detailed on page 7 of the stormwater report.
- 30. The site includes storm water treatment systems that address LUHPPL requirements.
- 31. The site includes storm water treatment systems that address LUHPPL requirements.
- 32. No response necessary.
- 33. No response necessary.
- 34. No response necessary.
- 35. Not sure what the "separate issues" are as they may relate to a SWPPP for the Hopping Brook Definitive Subdivision versus the 555 Hopping Brook Site Plan as the projects are interconnected and not independent as without the Special Permit Approval there is no need for the Site Plan and therefore no need for the Subdivision Modification. At this point we recognize and whole heartedly agree that with the grant of Special Permit Approval a condition must be included that requires a Modification of Definitive Subdivision.
- 36. A Site-specific Inspection Form was previously provided with the SWPPP.

37. An Illicit Discharge Statement was previously provided.

With the application for Special Permit and Modifications of Site Plan for 555 Hopping Brook Road properly before the Board and the administrative review process for both permits exhaustively reviewed, we respectfully request that the Board grant approval of the Site Plan Modifications and Special Permit with conditions as deemed appropriate. Thank you for your consideration of this request.

Very truly yours,

ENGINEERING DESIGN CONSULTANTS, INC.

Peter Bemis

Peter S. Bemis

cc: CRG Integrated Real Estate Solutions