

PGB ENGINEERING, LLC

CIVIL ENGINEERING DESIGN & CONSULTING

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June 19, 2025

Hingham Planning Board
210 Central Street
Hingham, MA 02043

Subject: **33 Cliff Road, Site Plan**

Dear Planning Board Members:

This is to advise that we have reviewed the following documents pertaining to the proposed dwelling at the subject site:

- Site Plan, dated June 10, 2025, prepared by Morse Engineering Co., Inc. (Morse)
- Cut & Fill Plan, dated June 10, 2025, prepared by Morse
- Architectural drawings (4 sheets), dated May 5, 2025, prepared by W.B. Daniels Design
- Landscape plan, dated May 30, 2025
- Stormwater Report & Calculations, dated June 10, 2025, prepared by Morse
- Minor Site Plan Review Application, dated June 10, 2025, prepared by Morse
- Email comments from Mr. Silveira to the Applicant's team

The purpose of our review has been to evaluate conformance with Hingham Zoning By-Laws (ZBL), MassDEP Stormwater Management Standards (SMS) and good engineering practice.

Background

The ±19,712 square foot (s.f.) lot, at 33 Cliff Road, is located within the Residence C zoning district. The site is currently developed with a single-family dwelling, a shed, lawn areas, ledge outcroppings and several trees. There is a salt marsh, a coastal bank and FEMA flood zone, associated with the Weir River at the north side of the property. The Weir River is an Outstanding Resource Water (ORW) and an Area of Critical Environmental Concern (ACEC).

The proposal calls for demolition of the existing dwelling and construction of a new single-family dwelling with attached garage, paved driveway, pervious paver patio and landscaping. Runoff from the roof of the proposed dwelling would be discharged into a shallow grass depression for infiltration, with an overflow weir that would discharge toward the salt marsh. Runoff from the driveway would be collected in a crushed stone trench, which would infiltrate some of the runoff and have an overflow into the grass depression. Existing utilities serving the existing dwelling are proposed to be cut, temporarily capped, and reconnected to the proposed dwelling. Ledge removal is proposed for construction of the dwelling and driveway. A mulch sock is proposed as a perimeter erosion control barrier around the down-gradient limit of work and a stabilized construction entrance is proposed in the location of the proposed driveway. There is a conservation mitigation area identified on the Site Plan and detailed on the Landscape plan. No protected trees within the Tree Yard are proposed to be removed.

Comments

1. A portion of the proposed crushed stone trench is within a cut area. We question whether that portion of the trench will be capable of infiltration. Test holes are recommended.
2. The water quality volume (WQV) calculation indicates that there are 168 cubic feet (c.f.) of WQV storage available in the crushed stone trench and grass depression. With the outlets of each of these best management practices (BMP's) at El. 10.7, the combined WQV is only 124 c.f., and 165 c.f. is required. See attached HydroCAD storage tables for each BMP.
3. The invert of the outlet pipe from the crushed stone trench should be specified on the Site Plan.
4. The outlet weir from the grass depression appears to be stone in the plan view. If it is to be stone, the bottom of the crushed stone should be at the weir design elevation (10.7) and it should be specified on the Shallow Grassed Depression Detail.
5. Inspection and maintenance of the grass depression should be included in the narrative of the Post-Construction Phase Operation & Maintenance Plan.
6. A detail of the stabilized construction entrance should be included on the Site Plan. The extents of the entrance should also be more clearly shown.
7. The Crushed Stone Trench Drain detail shows filter fabric completely surrounding the crushed stone. We do not recommend having filter fabric at the bottom of the crushed stone trench.
8. The Landscape plan shows plantings within the proposed vertical ledge cut adjacent to the proposed driveway. We question whether this is viable.
9. We note that the Weir River is a critical area (ORW / ACEC), which should be noted under Standard #6 in the Summary of Stormwater Standards 1-10.

Please give us a call should you have any questions.

Very truly yours,

PGB Engineering, LLC

By:



Patrick G. Brennan, P.E.



PGB
enc.

Sample

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Rainfall file not specified

Printed 6/19/2025

Stage-Area-Storage for Pond 6P: 33 Cliff Trench

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
9.80	160	0	10.84	160	67
9.82	160	1	10.86	160	68
9.84	160	3	10.88	160	69
9.86	160	4	10.90	160	70
9.88	160	5	10.92	160	72
9.90	160	6	10.94	160	73
9.92	160	8	10.96	160	74
9.94	160	9	10.98	160	76
9.96	160	10	11.00	160	77
9.98	160	12	11.02	160	78
10.00	160	13	11.04	160	79
10.02	160	14	11.06	160	81
10.04	160	15	11.08	160	82
10.06	160	17	11.10	160	83
10.08	160	18	11.12	160	84
10.10	160	19	11.14	160	86
10.12	160	20	11.16	160	87
10.14	160	22	11.18	160	88
10.16	160	23	11.20	160	90
10.18	160	24	11.22	160	91
10.20	160	26	11.24	160	92
10.22	160	27	11.26	160	93
10.24	160	28	11.28	160	95
10.26	160	29	11.30	160	96
10.28	160	31	11.32	160	97
10.30	160	32	11.34	160	99
10.32	160	33	11.36	160	100
10.34	160	35	11.38	160	101
10.36	160	36	11.40	160	102
10.38	160	37	11.42	160	104
10.40	160	38	11.44	160	105
10.42	160	40	11.46	160	106
10.44	160	41	11.48	160	108
10.46	160	42	11.50	160	109
10.48	160	44			
10.50	160	45			
10.52	160	46			
10.54	160	47			
10.56	160	49			
10.58	160	50			
10.60	160	51			
10.62	160	52			
10.64	160	54			
10.66	160	55			
10.68	160	56			
10.70	160	58			
10.72	160	59			
10.74	160	60			
10.76	160	61			
10.78	160	63			
10.80	160	64			
10.82	160	65			

Sample

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Rainfall file not specified

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Stage-Area-Storage for Pond 5P: 33 Cliff Depression

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
10.00	40	0	10.52	122	42
10.01	42	0	10.53	123	43
10.02	43	1	10.54	125	44
10.03	45	1	10.55	126	46
10.04	46	2	10.56	128	47
10.05	48	2	10.57	129	48
10.06	49	3	10.58	131	50
10.07	51	3	10.59	133	51
10.08	53	4	10.60	134	52
10.09	54	4	10.61	136	54
10.10	56	5	10.62	137	55
10.11	57	5	10.63	139	56
10.12	59	6	10.64	140	58
10.13	60	7	10.65	142	59
10.14	62	7	10.66	144	61
10.15	64	8	10.67	145	62
10.16	65	8	10.68	147	63
10.17	67	9	10.69	148	65
10.18	68	10	10.70	150	66
10.19	70	10	10.71	151	68
10.20	71	11	10.72	153	69
10.21	73	12	10.73	155	71
10.22	75	13	10.74	156	73
10.23	76	13	10.75	158	74
10.24	78	14	10.76	159	76
10.25	79	15	10.77	161	77
10.26	81	16	10.78	162	79
10.27	82	17	10.79	164	81
10.28	84	17	10.80	166	82
10.29	86	18	10.81	167	84
10.30	87	19	10.82	169	86
10.31	89	20	10.83	170	87
10.32	90	21	10.84	172	89
10.33	92	22	10.85	173	91
10.34	93	23	10.86	175	92
10.35	95	24	10.87	177	94
10.36	97	25	10.88	178	96
10.37	98	26	10.89	180	98
10.38	100	27	10.90	181	100
10.39	101	28	10.91	183	101
10.40	103	29	10.92	184	103
10.41	104	30	10.93	186	105
10.42	106	31	10.94	188	107
10.43	108	32	10.95	189	109
10.44	109	33	10.96	191	111
10.45	111	34	10.97	192	113
10.46	112	35	10.98	194	115
10.47	114	36	10.99	195	117
10.48	115	37	11.00	197	119
10.49	117	38			
10.50	119	40			
10.51	120	41			