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Sudbury Conservation Commission
275 Old Lancaster Road
Sudbury, MA 01776

January 29, 2024

**Subject: Revised Site Plans – MassDEP File #301-1409
Lot 2 Brimstone Lane, Sudbury, MA**

Dear Members of the Commission;

On behalf of the applicant, Carrie Maciel, please find the enclosed Site Plans for the proposed project at Lot 2 Brimstone Lane. The plans have been updated based upon the comments provided by the Commission at the initial public hearing. The enclosed plan had been provided to obtain the Commission's feedback and comments prior to final design, which would require additional soil testing through the Board of Health.

The off-site wetland resources have been delineated along the northerly property line by the project wetland scientist, Oxbow Associates. The associated 100-foot buffer zone and Adjacent Upland Resource Area extends well into the site and the previously proposed septic system area. The plans have been modified based upon the new extent of the buffer zone with the development area clustered in the southeasterly corner of the lot. The Septic system has been shown to the rear of the house outside the buffer zone. This location is conceptual and would require additional testing through the Board of Health to confirm soil conditions in the specific area.

The Stormwater Management System has also been modified based upon Commission feedback to eliminate the surface basin with the buffer zone and Riverfront Area. The updated plans have provided a subsurface drywell located under the proposed driveway. This system has been designed to offset the proposed development and mitigate the peak rate and volume of runoff from the site; provide pre-treatment of runoff; and provide groundwater recharge. The system sizing would also account for any future patio and/or pool that may be proposed in the future at the rear of the house.

100-foot Buffer Zone: The modified plans have reduced the overall site disturbance and clearing areas. Those areas to be disturbed within the 100 foot buffer zone would include vegetated slopes adjacent to the driveway and septic system. These areas would not be intended for future lawn and have been proposed to be re-vegetated with native species and allowed to become a naturalized area.

- Alteration within the 100 foot Buffer Zone = 7,350 square feet
- Areas to be planted and naturalized = 6,350 square feet

200 Foot Riverfront Area: The proposed layout has included areas within the Riverfront for vegetated slopes, most of which to be re-vegetated and naturalized, and a portion of the septic system leach field (135 sq. ft.).

- Total on-site Riverfront Area = 134,106 square feet
- 10% Riverfront Area allowable under 10.58(4)(d)(1) = 13,410 square feet
- Proposed Disturbance Area = 4,150 square feet (3%)
- Areas to be planted and naturalized = 3,350 square feet

The Commission had also requested clarification of the development of the other lots that were part of the original tract as those may relate to the Riverfront Standards and impacts. Those lots had been developed prior to 1996 and the River's Act.

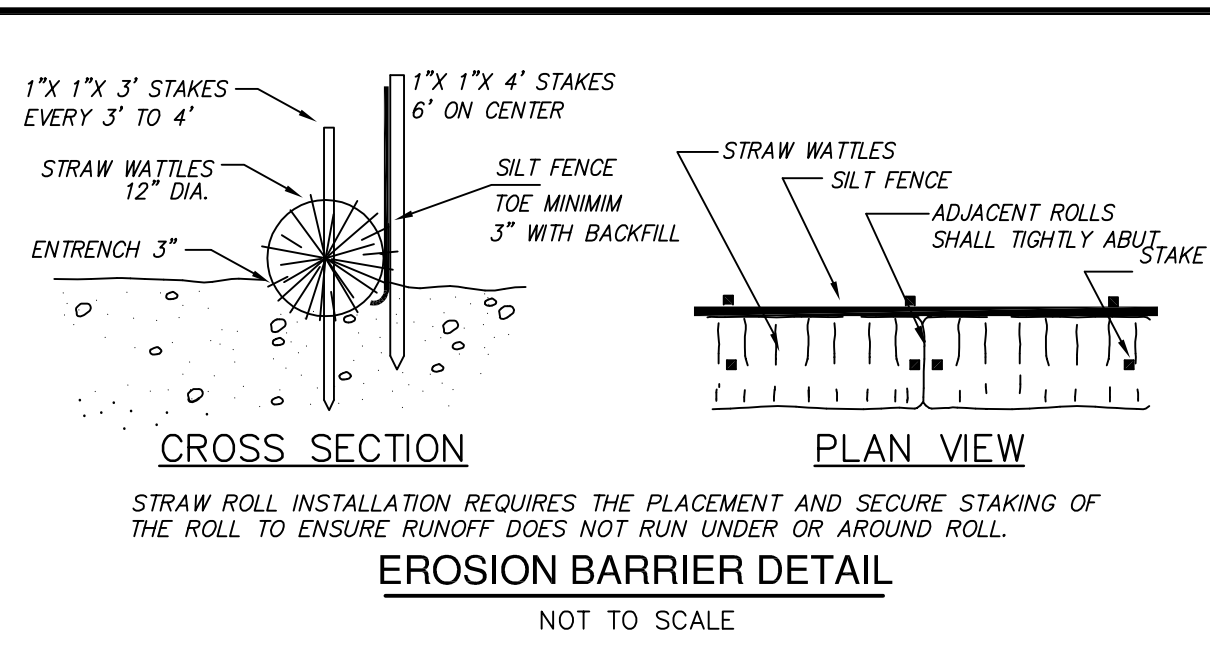
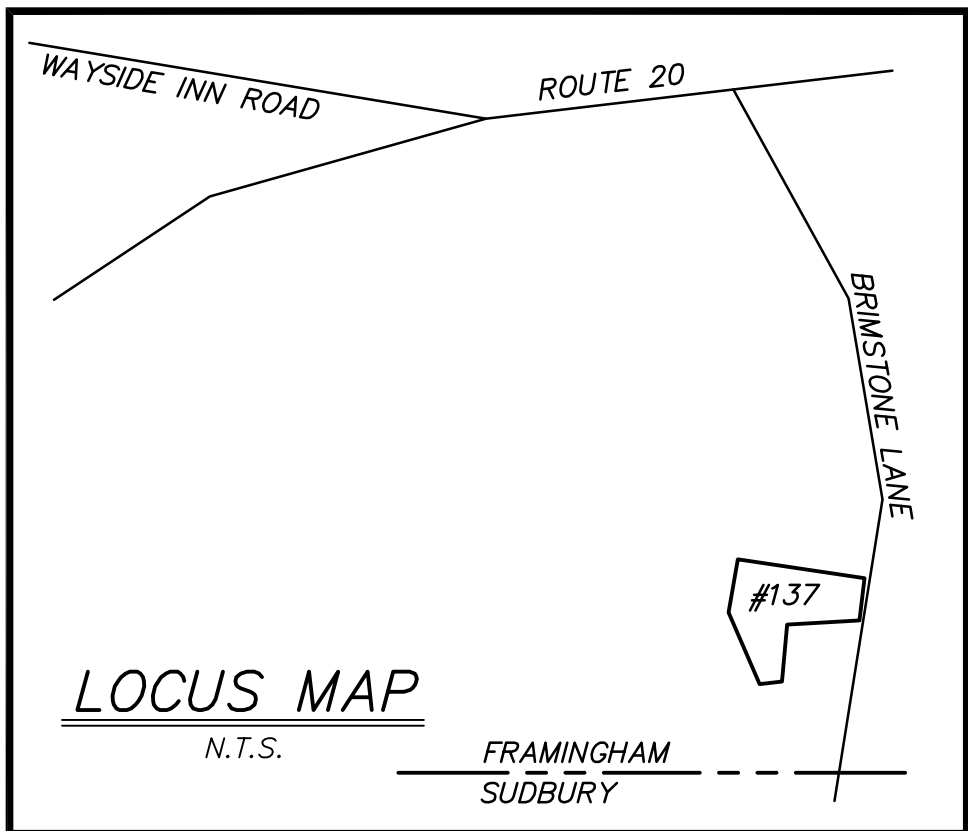
Slope Grading Alternatives: The use of retaining walls was investigated to reduce the slope grading requirements. At the rear of the septic system the top of wall would be elevation 322, and with a natural grade of 314 to 316, the wall height would range from 8 feet to 6 feet along its length. Along the edge of driveway a retaining wall would have a peak height of 12 feet. The height of walls and cost did not appear to fit the scope of a single family home. The use of riprap/stone slopes was also reviewed which would reduce grading, but would not provide the opportunity to re-vegetation with native plantings.

If you have any questions or require any additional information please contact this office at (508) 393-9727.

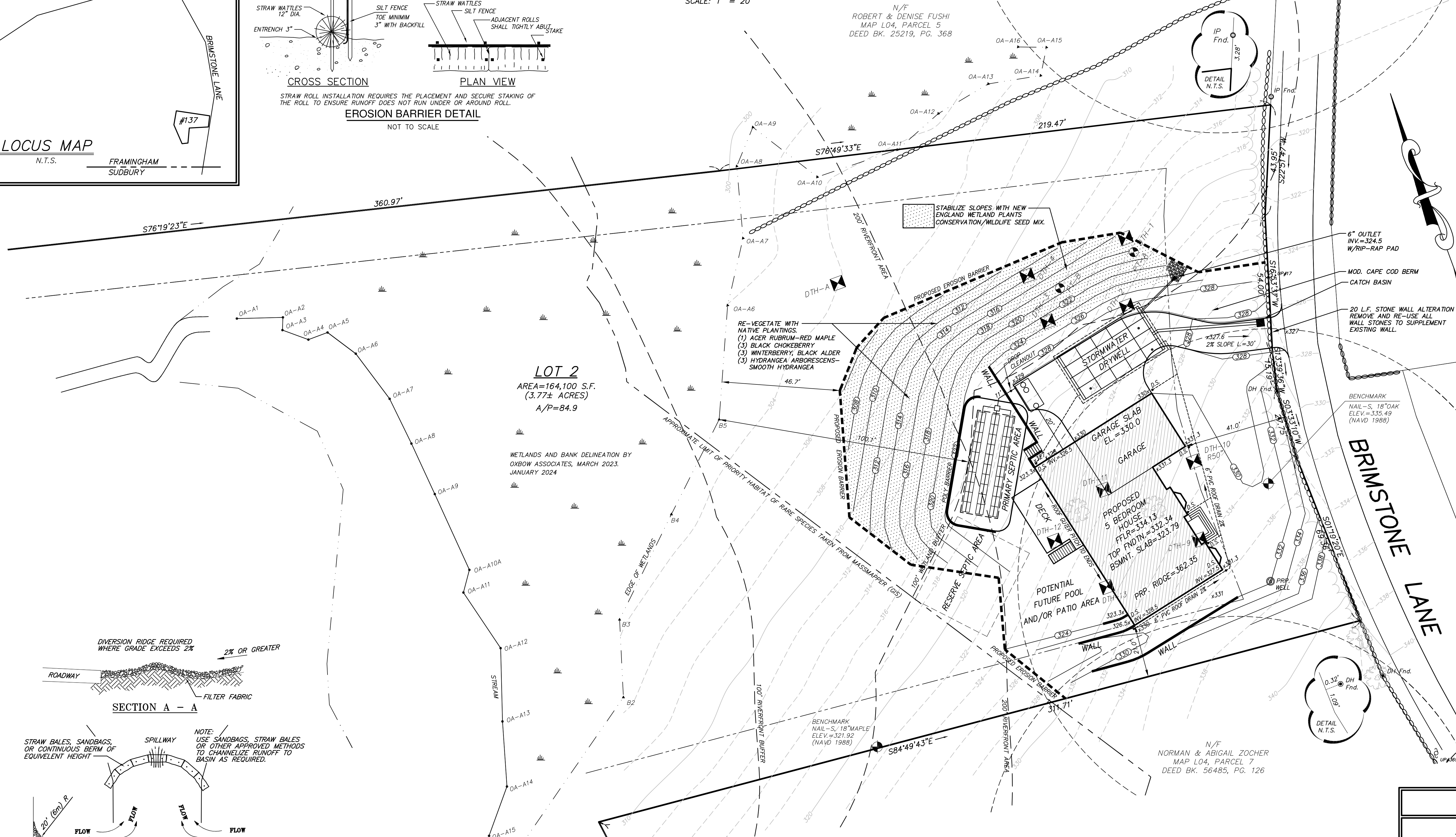
Sincerely,
Connorstone Engineering, Inc.

A handwritten signature in blue ink, appearing to read "Vito Colonna".

Vito Colonna, P.E.



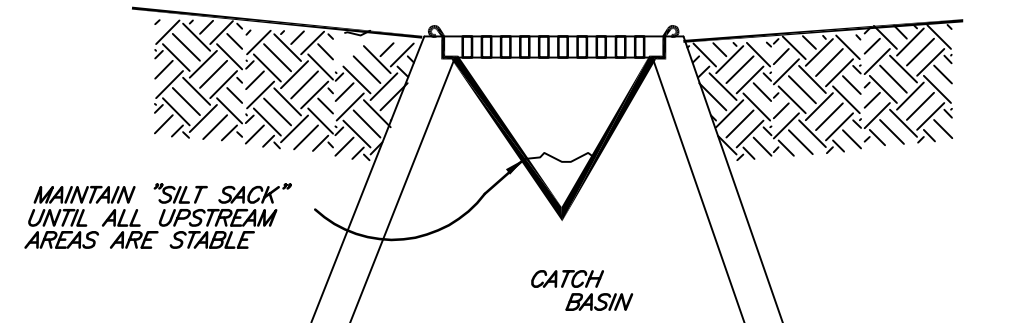
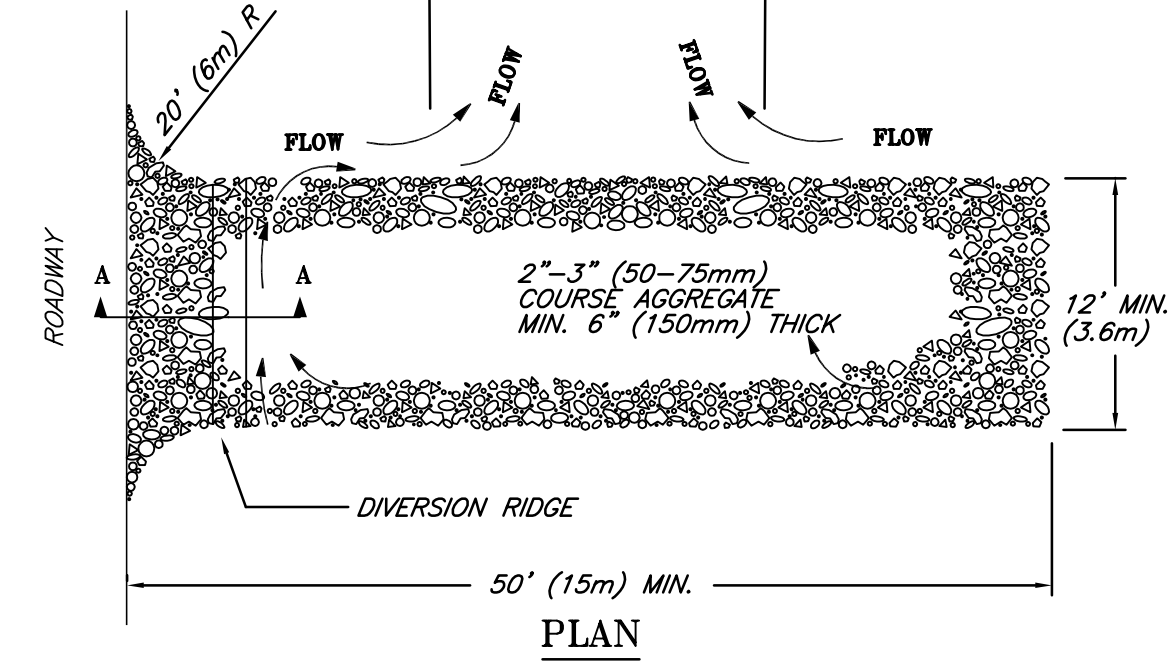
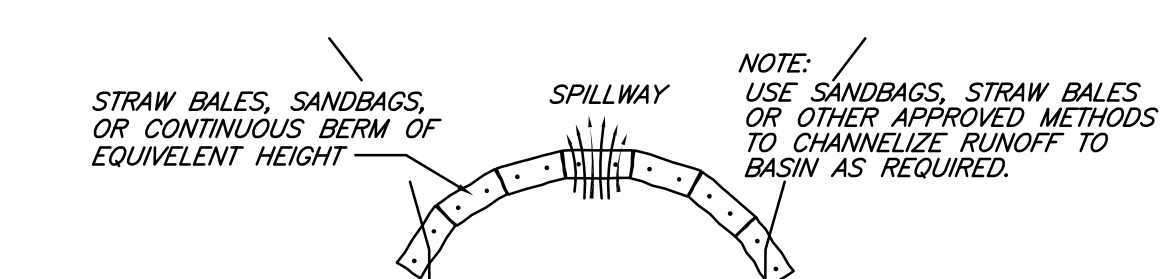
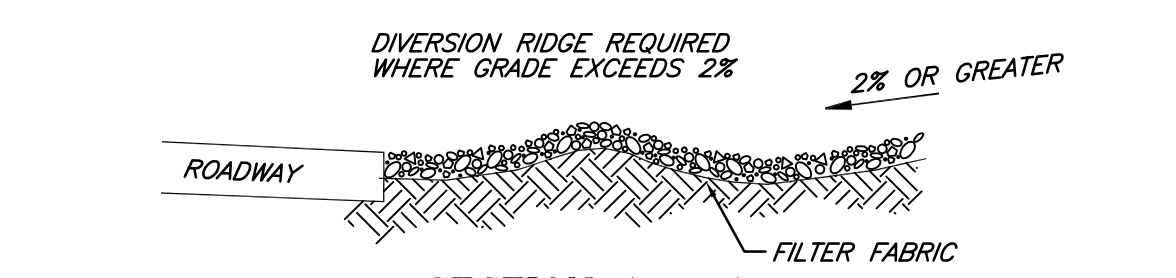
SITE PLAN
SCALE: 1" = 20'



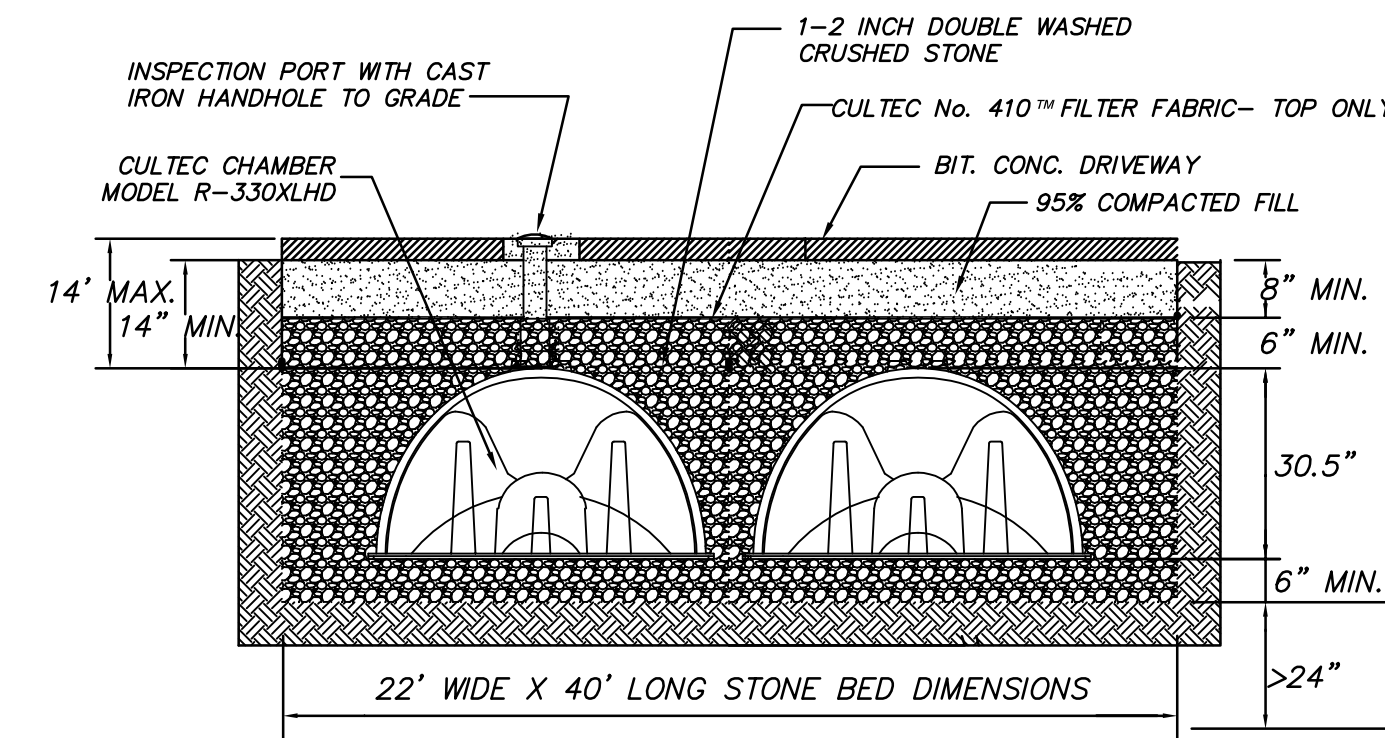
SEDIMENTATION AND EROSION CONTROL NOTES:

- ALL WORK SHALL BE IN ACCORDANCE WITH THE TOWN OF SUDBURY STORMWATER MANAGEMENT BYLAW AND IMPLEMENTING REGULATIONS.
- PRIOR TO INITIATING CONSTRUCTION, ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND DETAIL DRAWINGS. THIS PLAN DEPICTS THE MINIMUM REQUIRED SEDIMENTATION AND EROSION CONTROLS. THE CONTRACTOR SHALL EMPLOY ADDITIONAL MEASURES AS NECESSITATED BY SITE CONDITIONS, OR AS DIRECTED BY THE OWNER, THE OWNER'S REPRESENTATIVE, OR THE CONSERVATION COMMISSION TO ENSURE PROTECTION OF ALL WETLAND RESOURCES AND CONTROL SEDIMENT TRANSPORT. IF SEDIMENTATION OCCURS, THE CONTRACTOR SHALL STOP WORK AND INSTALL ADDITIONAL SEDIMENTATION CONTROL DEVICES IMMEDIATELY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY AND PERMANENT SEDIMENTATION AND EROSION CONTROLS UNTIL WORK IS COMPLETE AND ALL AREAS HAVE BEEN PERMANENTLY STABILIZED. AT SUCH TIME THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SEDIMENTATION AND EROSION CONTROL MEASURES.
- THE CONTRACTOR SHALL INSPECT SEDIMENTATION AND EROSION CONTROLS ON A DAILY BASIS AND IMMEDIATELY AFTER EACH RAINFALL; REPAIRS SHALL BE MADE BY THE END OF THE WORKING DAY. ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR, AS REQUIRED BY THE CONSERVATION COMMISSION OR AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL BE PREPARED TO ALLOW WORK TO WAIT A DAY OR TWO AFTER RAIN EVENTS TO ALLOW SURFACE SOILS TO DRY.
- SOIL STOCKPILES SHALL BE STABILIZED TO PREVENT EROSION. A SEDIMENT BARRIER SHALL BE PLACED AROUND THE BASE OF THE PERIMETER. NO MATERIALS SUBJECT TO EROSION SHALL BE STOCKPILED OVERNIGHT WITHIN 100 FEET OF A WETLAND UNLESS COVERED. EQUIPMENT SHALL NOT BE PARKED WITHIN WETLANDS OR BUFFER AREAS.
- DISTURBED AREAS SHALL BE STABILIZED BY LOAMING AND SEEDING, OR BY ANOTHER APPROVED METHOD, AS SOON AS POSSIBLE AFTER THE FINISHED GRADE HAS BEEN MET. DISTURBED AREAS WITH SLOPES 2:1 (H:V) OR GREATER SHALL BE STABILIZED WITH HYDROSEED AND SOIL TACKIFIER. IF FINAL GRADING DOES NOT OCCUR DURING THE GROWING SEASON, THESE AREAS SHALL BE MULCHED WITH HAY AND SECURED.
- DEWATERING OPERATIONS, IF REQUIRED, SHALL DISCHARGE ONTO STABILIZED AREAS AND ALL DISCHARGE WATER IS TO PASS THROUGH SEDIMENTATION CONTROL DEVICES TO PREVENT IMPACTS UPON WATER BODIES, BORDERING VEGETATED WETLANDS, DRAINAGE SYSTEMS AND ADJUTING PROPERTIES. NO DISCHARGES FROM DEWATERING OPERATIONS SHALL BE DISCHARGED DIRECTLY TO THE DRAINAGE SYSTEM.
- STREET SWEEPING IN THE VICINITY OF THE PROJECT AREA SHALL BE PERFORMED AS NEEDED UNTIL THE PROJECT LIMITS HAVE BEEN STABILIZED. ALL SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS SHALL BE SWEEPED AT THE END OF EACH WORKING DAY.

DTH-1	6/21/23	317.0	DTH-2	6/21/23	320.3
Ap	0-11"	SL 10YR3/2	Ap	0-12"	SL 10YR3/2
Bw	11-20"	LS 10YR6/8	Bw	12-20"	LS 10YR6/8
C1	27-87"	LS 10YR5/4	C1	20-84"	LS 10YR5/4
E.S.H.G.W. - 88" ELEV. - 312.7			E.S.H.G.W. - 60" ELEV. - 315.5		
DTH-3	6/21/23	308.6	DTH-4	6/21/23	311.5
Ap	0-13"	SL 10YR3/2	Ap	0-12"	SL 10YR3/2
Bw	13-29"	LS 10YR6/8	Bw	12-28"	LS 10YR6/8
C1	29-92"	LS 10YR5/4	C1	28-90"	LS 10YR5/4
E.S.H.G.W. - 65" ELEV. - 308.6			E.S.H.G.W. - 61" ELEV. - 306.4		
DTH-8	9/8/17	334.0	DTH-10	9/8/17	FAIL
Ap	0-7"	SL 10YR3/2	Ap	0-8"	SL 10YR3/2
Bw	7-18"	LS 10YR6/8	Bw	8-25"	LS 10YR6/8
C1	18-78"	LS 10YR5/4	C1	25-90"	LS 10YR5/4
E.S.H.G.W. - -- ELEV. - 327.78			REFUSAL @ 50" ELEV. - FAIL		
DTH-11	9/8/17	326.0	DTH-12	9/8/17	324.0
Ap	0-12"	SL 10YR3/2	Ap	0-10"	SL 10YR3/2
Bw	12-33"	LS 10YR6/8	Bw	10-25"	LS 10YR6/8
C1	33-91"	LS 10YR5/4	C1	25-90"	LS 10YR5/4
E.S.H.G.W. - 68" ELEV. - 320.3			E.S.H.G.W. - 63" ELEV. - 318.78		
DTH-13	9/8/17	329.0	DTH-A	6/21/23	304.0
Ap	0-8"	SL 10YR3/2	Ap	0-12"	SL 10YR3/2
Bw	8-25"	LS 10YR6/8	Bw	12-40"	LS 10YR6/8
C1	25-74"	LS 10YR5/4	C1	40-65"	LS 10YR5/4
E.S.H.G.W. - -- ELEV. - 322.8			E.S.H.G.W. - 42" ELEV. - 301.0		



- NOTES:**
- SILT SACKS ARE TO BE INSPECTED WEEKLY DURING CONSTRUCTION AND IMMEDIATELY AFTER STORM EVENTS.
 - IF SILT SACKS ARE MORE THAN 1/3RD FULL THEY SHALL BE EMPTIED IMMEDIATELY. CAPTURED SILT SHALL BE RETAINED ON SITE AND REUSED.
 - SILT SACKS SHALL REMAIN IN PLACE UNTIL ALL VEGETATION IN IMMEDIATE VICINITY IS FULLY ESTABLISHED.



PROPOSED STORMWATER DRYWELL:

- 22'(W) x 40'(L) x 3.5'(T) STONE BED
- 20 Cultec R-330XLHD CHAMBERS
- BOTTOM STONE = 323.0
- BOTTOM CHAMBER = 323.5
- 6" ROOF DRAIN IN = 325.5
- 6" CATCH BASIN IN = 325.0
- 6" OUTLET = 325.0

NOTE: REMOVE TOP/SUBSOIL BELOW DRYWELL TO THE 'C1' LAYER. ANY FILL REQUIRED BELOW THE BOTTOM OF STONE SHALL BE FREE-DRAINING CLEAN SAND PER TOWN REQUIREMENTS.

- NOTES:**
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 - WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
 - WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT

PROPOSED STORMWATER PLAN			
APPLICANT		LOCATION	
CARRIE MACIEL		LOT 2 BRIMSTONE LANE SUDBURY, MA ASSESSORS MAP L04 & PARCEL 08	
NO.	DATE:	REVISION:	BY:
1	1/25/24	ADDITIONAL WETLANDS, REVISE SITE LAYOUT AND GRADING.	REM
CONNORSTONE ENGINEERING			
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS 10 SOUTHWEST CUTOFF, SUITE 7 NORTHBOROUGH, MASSACHUSETTS 01532 PHONE: 508-393-9727 WWW.CSEI.NET			
121 BOSTON POST RD. SUDBURY, MA. 01776 PHONE: 978-443-9566 WWW.SULLIVANCONNORS.COM			
DATE: 11/06/23		SHEET 1 OF 1	