

SURVEYOR NOTES:

OWNER OF RECORD:
STEPHEN R. LEVINE
BOOK 19523, PAGE 573

ZONING DISTRICT
RH

INSTALL EROSION CONTROLS
AROUND DOWNSTREAM PORTION
OF PROJECT LIMITS PRIOR TO
START OF WORK. MAINTAIN AND
DO NOT REMOVE UNTIL LAND IS
RESTORED TO STANDING GRASS.

STORMTECH SC-310 SYSTEM, TYP. SEE
DETAILS THIS SHEET. CONTRACTOR TO
INSTALL SYSTEM 10FT FROM PROPERTY
LINES AND BUILDING FOUNDATION

NOTE: CONTRACTOR TO PROVIDE
ADDITIONAL EROSION CONTROL
MEASURES AS NEEDED

PROPOSED FIRE
SERVICE SIZE 180
NEW 1" COPPER WATER, TYP.
NEW 6" SDR 35 PVC, TYP.

12"x24" FRENCH DRAIN ALONG
EDGE OF DRIVEWAY, TYP.

REFER TO LANDSCAPE PLAN
BY OTHERS FOR DEFINITIVE
TREE LOCATIONS, TYP.

CONSTRUCTION ENTRANCE TO BE LOCATED
AT THIS LOCATION AND TO CONSIST OF 8"
DEEP 3/4" CRUSHED STONE, TYP.

EXISTING SEWER TO BE FIELD VERIFIED BY
CONTRACTOR. CONTRACTOR TO WORK WITH
TOWN TO MARK OUT LOCATION.
CUT AND CAP EX. SEWER SERVICE AT MAIN

MARSHLAND STREET

EXISTING WATER TO BE FIELD VERIFIED BY
CONTRACTOR. CONTRACTOR TO WORK WITH
TOWN TO MARK OUT LOCATION.
CUT AND CAP EX. WATER SERVICE AT CORP.

DRAINAGE CALCULATIONS:

1/2" STORM MITIGATION REQUIREMENT
TOTAL AREA (PROPOSED CONDITIONS) = 13,145 SF
1/2" VOLUME OVER AREA
13,145 SF X 1/2 INCH X (1 FT / 12 INCH) = 248 CF

STORMTECH SC-310 STORAGE VOLUME

TOTAL STORAGE = CHAMBER STORAGE + STONE STORAGE = 822 CF

GENERAL NOTES:

- SEE GENERAL NOTES ON TITLE SHEET
- THIS PLAN SET IS BASED ON A SURVEY PLAN BY RICHARD J. MEDE, P.L.S. TITLED "CERTIFIED PLOT PLAN, 27 MARSHLAND STREET, HAVERHILL, MA (WINDSEX COUNTY)", DATED MARCH 21, 2026. THIS PLAN SHALL NOT BE USED TO ESTABLISH PROPERTY LINES UNLESS IT CONTAINS A P.L.S. STAMP.
- IF CONDITIONS DO NOT MATCH INFORMATION, IE ELEV, GW ELEVATIONS, SURVEY DISCREPANCIES, ETC., CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.
- GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING THESE DIMENSIONS PRIOR TO CONSTRUCTION AND NOTING IF DISCREPANCIES OCCUR BETWEEN BUILDING PLANS
- CONTRACTOR MUST CALL ENGINEERING SOLUTIONS GROUP LLC PRIOR TO CONSTRUCTION. DRAINAGE SYSTEM SHALL BE CALLED FOR INSPECTION PRIOR TO BACKFILL AND 48-HOUR ADVANCED NOTICE PROVIDED.
- ALL GUTTERS DRAINING TO INFILTRATION SYSTEM SHALL HAVE DEBRIS GUARDS. ALL PIPES TO SYSTEM SHALL HAVE A MINIMUM SLOPE OF 2%.
- BED ALL SEWER PIPE IN 3" CRUSHED STONE 6" AROUND.
- ALL SEWER WORK WITHIN 10 FT OF THE FOUNDATION SHALL BE DESIGNED BY THE PLUMBER IN ACCORDANCE WITH THE LOCAL AND STATE PLUMBING CODES & IN ACCORDANCE WITH LOCAL INSPECTOR/FOUNDATION DESIGNER DETAILS. 4" SCH 40 PVC AND DI SLEEVES ARE COMMONLY USED. NO PIPES SHALL BE PLACED UNDER THE FOOTING WITHOUT STEPPING THE FOOTING BELOW THE PIPE. 4X6 FERNICO TO OVER SCOPE.
- CONTACT ENGINEER PRIOR TO STORMWATER SYSTEM INSTALLATION. TOWN INSPECTION AND ENGINEER INSPECTION REQUIRED AT VARIOUS PHASES: SUB GRADE, STONE, SYSTEM INSTALLATION AND POST INSTALLATION AFTER DOWNSPOUTS CONNECTED.
- CONTRACTOR TO CONFIRM CONSISTENCY WITH BUILDING PLAN SECTION HEIGHTS AND COORDINATE WITH BUILDING DEPARTMENT TO ENSURE CONFORMANCE PRIOR TO CONSTRUCTION AND VERIFY POST CONSTRUCTION.
- POOL, FENCING, AND WALLS SHALL BE DESIGNED BY THE CONTRACTORS PROFESSIONALS AND ARE NOT DESIGNED HEREIN.
- CONTRACTOR TO ENSURE BUILDING DIMENSIONS FROM FINAL PLANS MATCH FOUNDATION SURVEY LAYOUT (INCLUDING IN THE FIELD) BEFORE PROCEEDING. THIS SHOULD BE CHECKED PRIOR TO POURING CONCRETE.
- DOWNSPOUTS SHALL BE COLLECTED VIA PVC PIPE. 4" PVC PERMITTED VERTICALLY. HORIZONTAL PIPING SHALL BE 6" PVC. MINIMUM 2% SLOPE, MINIMUM 6" COVER AT STARTING POINT. NOT PERMITTED UNDER DRIVEWAY OR PATIOS. SEE DOWNSPOUT DRAIN SYSTEM DETAIL.
- UTILITY ROUTING SHOWN IS CONSIDERED PRELIMINARY AND SUBJECT TO HAVERHILL DPW REVIEW.

CATCHMENT AREA BREAKDOWN CHART

	EXISTING (S.F.)	PROPOSED (S.F.)
DWELLING/STRUCTURES	1,357	3,284
ASPHALT DRIVEWAY & OTHER IMPERVIOUS	800	1,362
PERVIOUS WALKWAY / PATIOS	0	655
GRASS/ LAWN	10,988	7,986
TOTAL	13,145	13,145

INCREASED IMPERVIOUS AREA = 2,489 S.F.

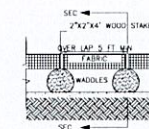
SUBSURFACE INFILTRATION SYSTEM:

(3) 2x2 STORMTECH SC-310 (TYP)
CHAMBERS SURROUNDED IN
12" CRUSHED STONE ON SIDES
12" CRUSHED STONE ON ENDS
12" CRUSHED STONE ON TOP
12" CRUSHED STONE ON BOTTOM

AVG. SURFACE ELEV=140.50
TOP STONE=139.6
TOP CHAMBER=138.6
6" PVC INV=137.27
BOT CHAMBER=137.27
BOT STONE=136.27
ESGHW=134.27

PIPE ENTIRE PROPOSED ROOF TO STORMTECH SYSTEMS

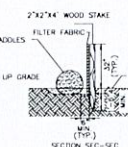
RATE APPLIED FOR PROPOSED SYSTEM (RAWLS 1.02 IN/HR-FINE SANDY LOAM)



NOTES:

- UV RESISTANT POLYPROPYLENE SILT FENCE WITH A MINIMUM HEIGHT OF 2.5 FT SHALL BE USED
- ATTACH FABRIC TO STAKES WITH APPROVED METHOD
- USE SILT FENCE AND COMPOST FILTER TUBES WHERE INDICATED OR AS DIRECTED BY THE ENGINEER
- A MINIMUM OF (2) WOOD OR METAL STAKES PER FILTER TUBE. INSTALL STAKES A MINIMUM OF 12" INTO FIRM GROUND.
- REMOVE SILT FENCE AND FILTER TUBES IN THE DIRECTION OF THE TOWN ONLY
- DO NOT DRIVE STAKES THROUGH WOODS
- INSTALL AT PROJECT PERMITTER PRIOR TO START OF WORK. ALL NEARBY CATCH BASINS SHOULD HAVE SILT SACKS INSTALLED, INSPECTED AND CLEANED

COMPOST WOODPILE TUBES & SILT FENCE FOR EROSION CONTROL



SECTION SEC-SEC

ENGINEERING SOLUTIONS GROUP LLC
MARBLEHEAD, MA 01945

CONCEPTUAL
CIVIL SITE PLAN

27 MARSHLAND ST.
HAVERHILL, MA

DATE: 10/15/26
DRAWN BY: BTC
CHECKED BY: SED

SHEET
3
OF 5

SHEET SIZE 22X34