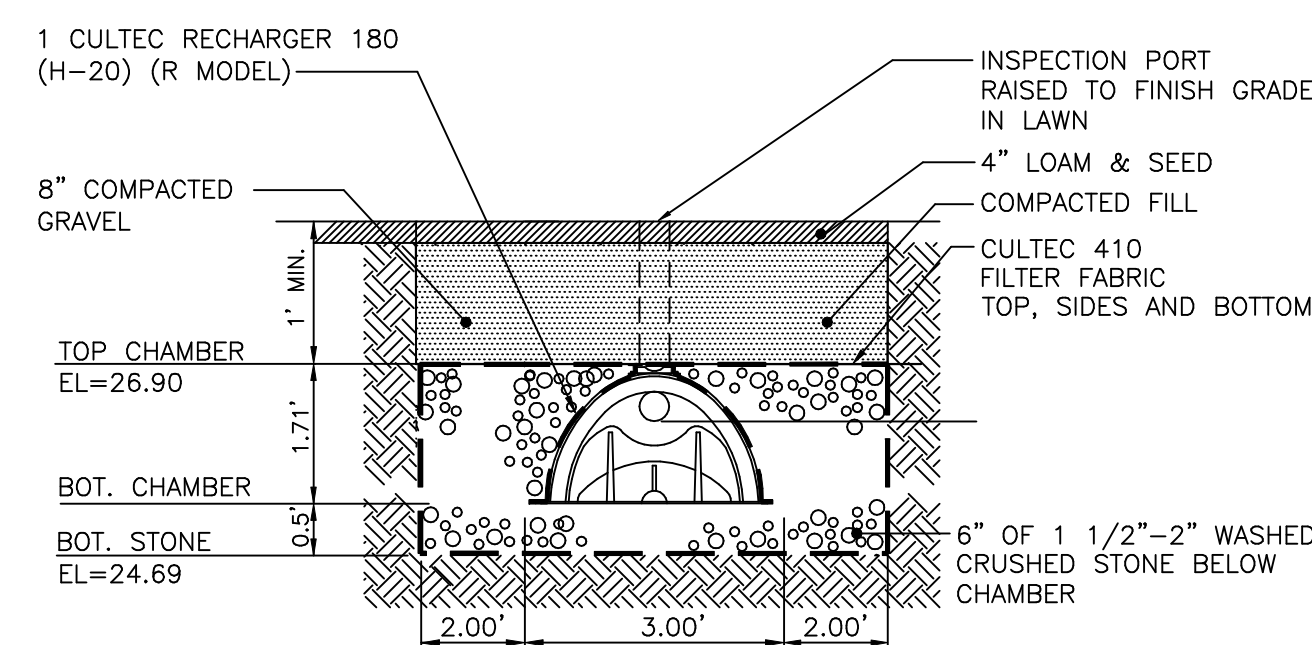


- NOTES

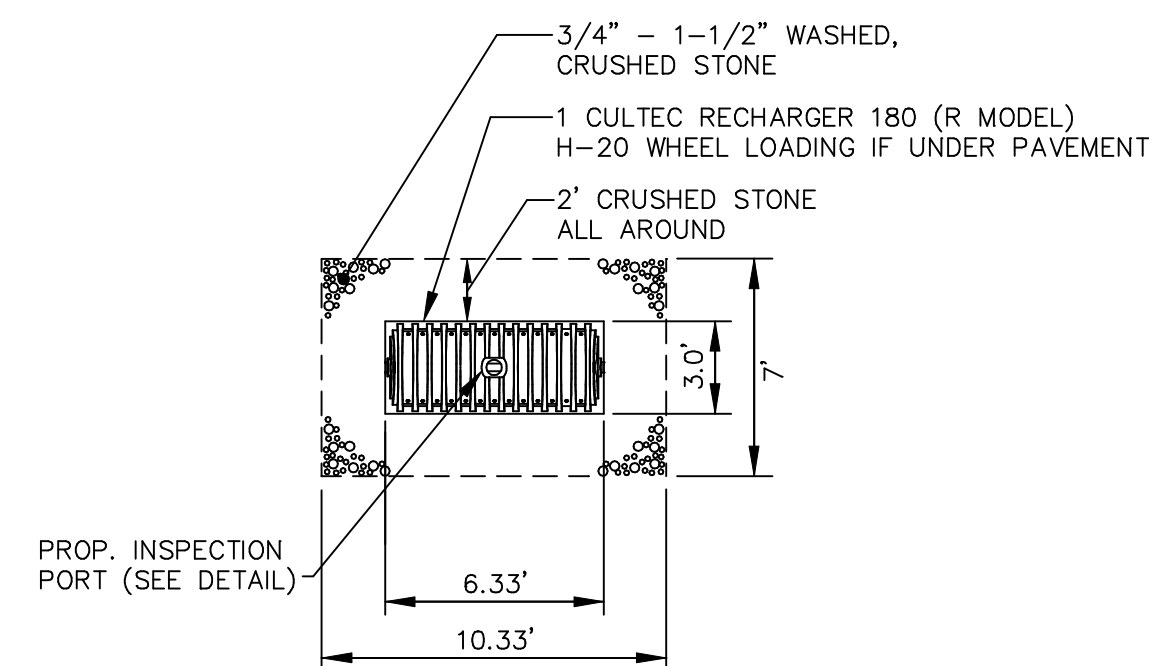
1. PROPERTY LINES TAKEN FROM PLANS AND DEEDS OF RECORD.  
SEE CITY OF HAVERHILL ASSESSORS MAP #728 BLOCK #706 LOT #12  
AND LOT #13 SEE DEED BOOK #36956, PAGE #267 ESDR FOR SITE.  
TOPOGRAPHY FROM FIELD SURVEY USING RTK GPS, DATUM NAVD88.
2. WETLANDS SHOWN FROM PLAN BY CHRISTIANSEN & SERGI, INC. DATED  
APRIL 4, 2012 AND REVISED MAY 8, 2012.
3. ALL WORK SHALL CONFORM TO CITY OF HAVERHILL WATER DEPARTMENT,  
DPW AND OTHER STANDARDS. ALL NON-PAVED DISTURBED AREAS TO BE  
6" MINIMUM LOAM AND SEED.
4. TOPOGRAPHIC DATUM IS NAVD88 ESTABLISHED BY RTK GPS. BENCHMARK  
IS DRAIN MANHOLE RIM LOCATED ON SOUTH KIMBALL STREET, EL.=27.82
5. THE DRIVEWAY RAMP AND SIDEWALK SHALL BE CONSTRUCTED SO AS NOT  
TO CAUSE A DRAINAGE PROBLEM ON THE LOT.
6. DRIVEWAY TO BE UP TO 18' WIDE 1" TYPE I-1 BITUMINOUS CONCRETE  
SURFACE COURSE OVER 2" TYPE I-1 BITUMINOUS CONCRETE  
BINDER COURSE OVER 12" COMPACTED GRAVEL BASE.
7. THIS PROPERTY IS IN ZONE OTHER ZONE X SHOWN ON THE FLOOD INSURANCE  
RATE MAP, COMMUNITY PANEL NO. 25009C0089H, EFFECTIVE DATE JULY 8, 2025  
AND IS PARTIALLY LOCATED IN AN ESTABLISHED 100 YEAR FLOOD PLAIN.
8. ROOF RUNOFF CALCULATIONS  
STORAGE REQUIRED =  $1/2" / 12" \times 884 \text{ S.F.} = 36.83 \text{ C.F.}$   
STORAGE PROVIDED = 1 CULTEC CHAMBER @ 25.2 CF EA = 25.2 C.F.  
VOLUME STONE =  $((10.33 \times 7 \times 2.21) - 25.2) \times 0.4 = 53.84 \text{ C.F.}$   
TOTAL STORAGE = 25.2 C.F. + 53.4 C.F. = 79.04 C.F.  
79.04 C.F. > 36.83 C.F.

LEGEND

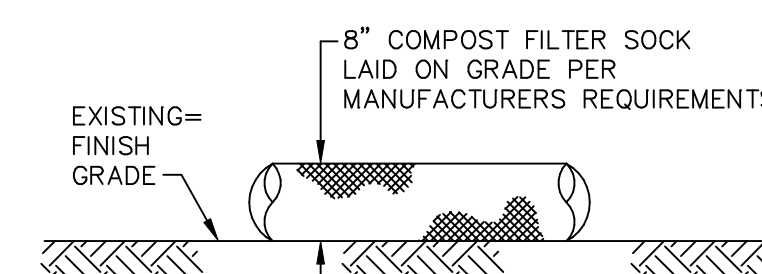
GF		GARAGE FLOOR
FF		FINISH FLOOR
PROP.		PROPOSED
EXIST.		EXISTING
RCP		REINFORCED CONCRETE PIPE
---	24	EXISTING GRADE
— (24) —		PROPOSED GRADE
— W —		WATERMAIN
— D —		DRAIN PIPELINE
— S —		SANITARY SEWER PIPE
— WS —		WATER SERVICE
— RD —		ROOF DRAIN
— SS —		SEWER SERVICE
⊙ SMH		SEWER MANHOLE
⊙ DMH		DRAIN MANHOLE
□ CB		CATCH BASIN
● — ●		PROPOSED COMPOST FILTER SOCK
● DS		DOWNSPOUT
— ↘		PROPOSED SWALE



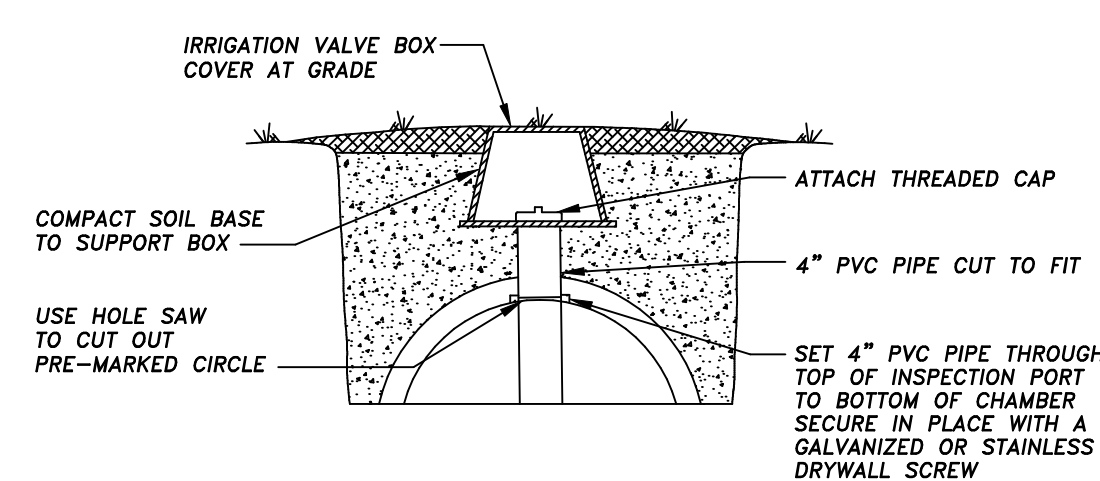
TYPICAL CROSS SECTION  
ROOF INFILTRATION SYSTEM  
N.T.S.



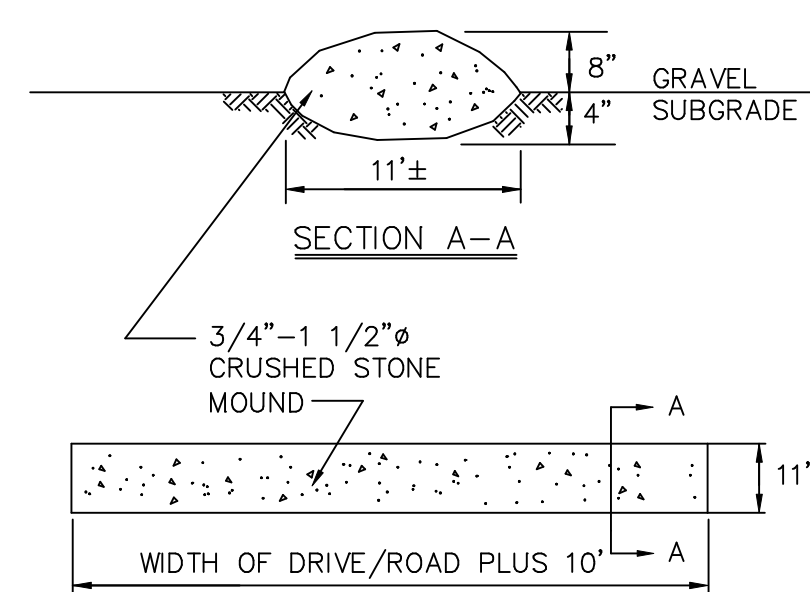
ROOF INFILTRATION SYSTEM  
N.T.S.



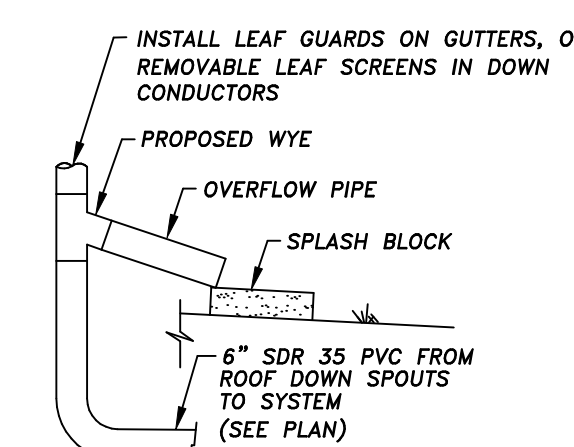
COMPOST FILTER SOCK  
N.T.S.



INSPECTION PORT  
TYPICAL INSTALLATION DETAIL  
N.T.S.



STABILIZED CONSTRUCTION ENTRANCE  
N.T.S.

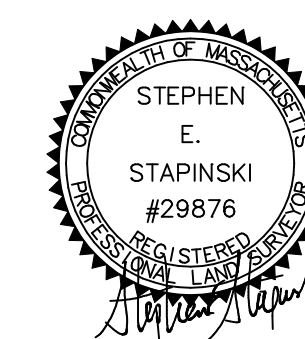


ROOF LEADER DETAIL  
N.T.S.

# SITE DEVELOPMENT PLAN OF LAND

91 SOUTH KIMBALL STREET  
IN  
HAVERHILL, MASSACHUSETTS  
PREPARED FOR  
DANIEL OTERO, JR.  
91 SOUTH KIMBALL STREET  
HAVERHILL, MASSACHUSETTS 01835

SCALE: 1"=20'      DATE: AUGUST 13, 2025  
REVISED: AUGUST 28, 2025



**MERRIMACK ENGINEERING SERVICES**  
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