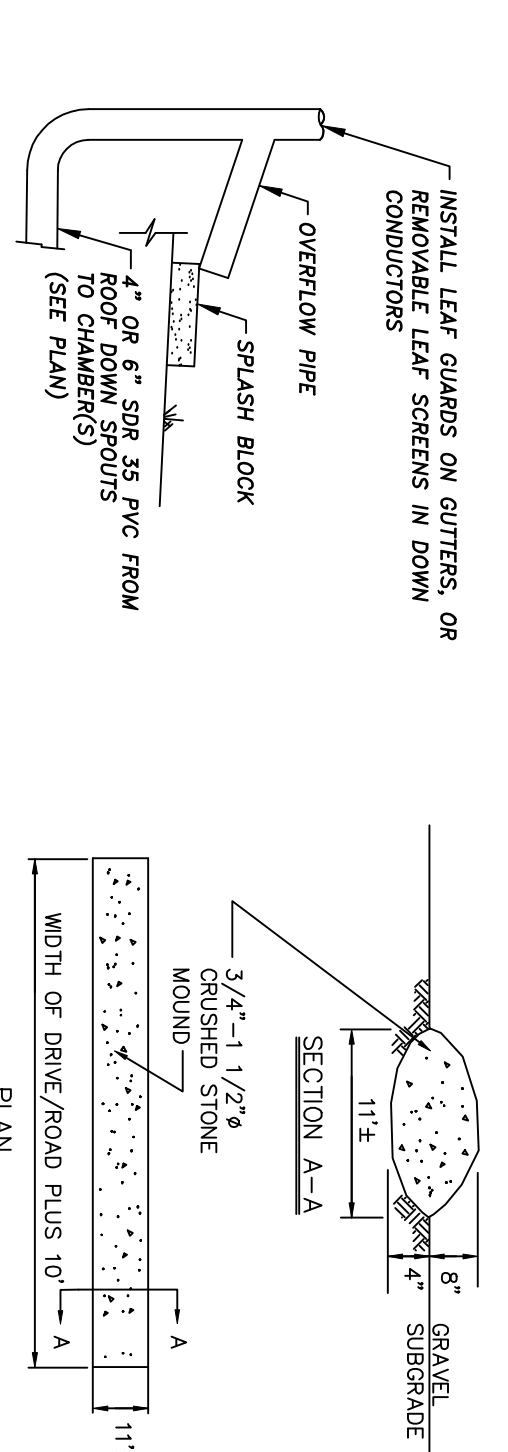
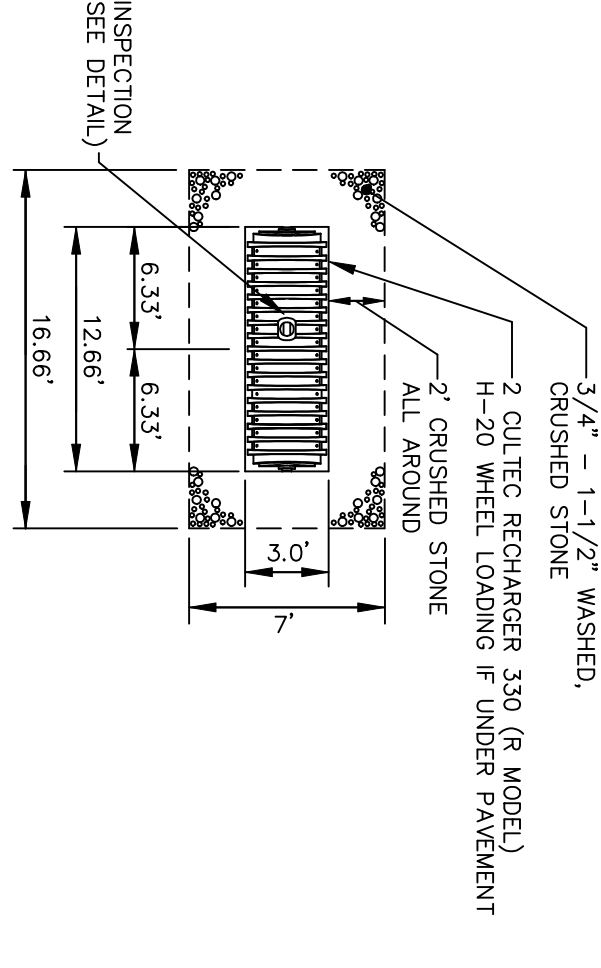


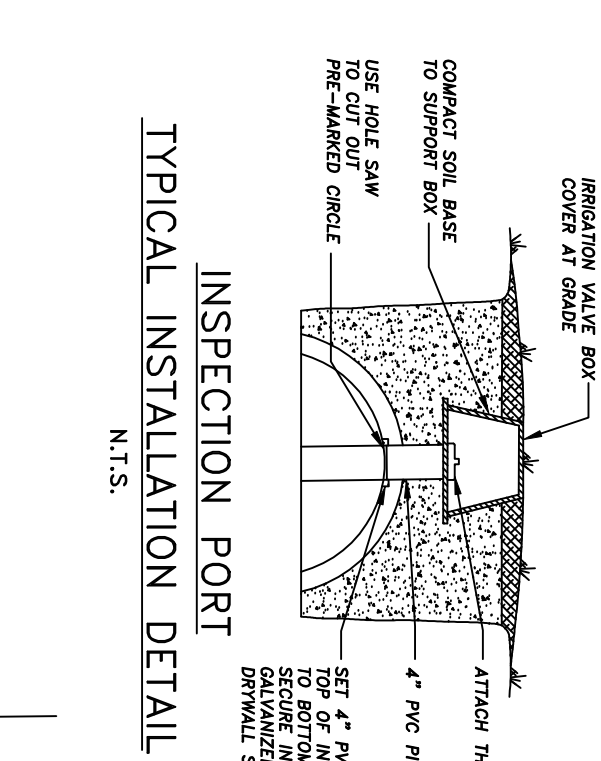
TYPICAL CROSS SECTION
ROOF INFILTRATION SYSTEM
N.T.S.



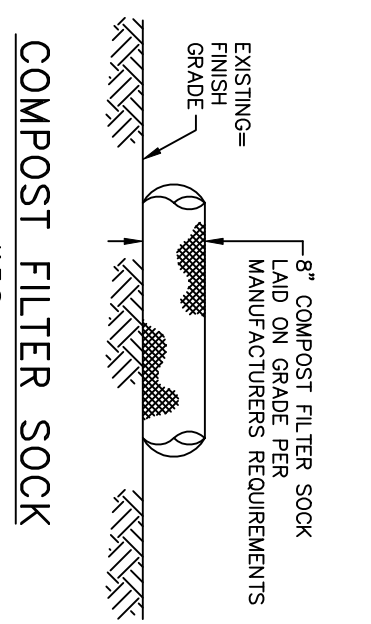
ROOF LEADER DETAIL
STABILIZED CONSTRUCTION ENTRANCE
N.T.S.



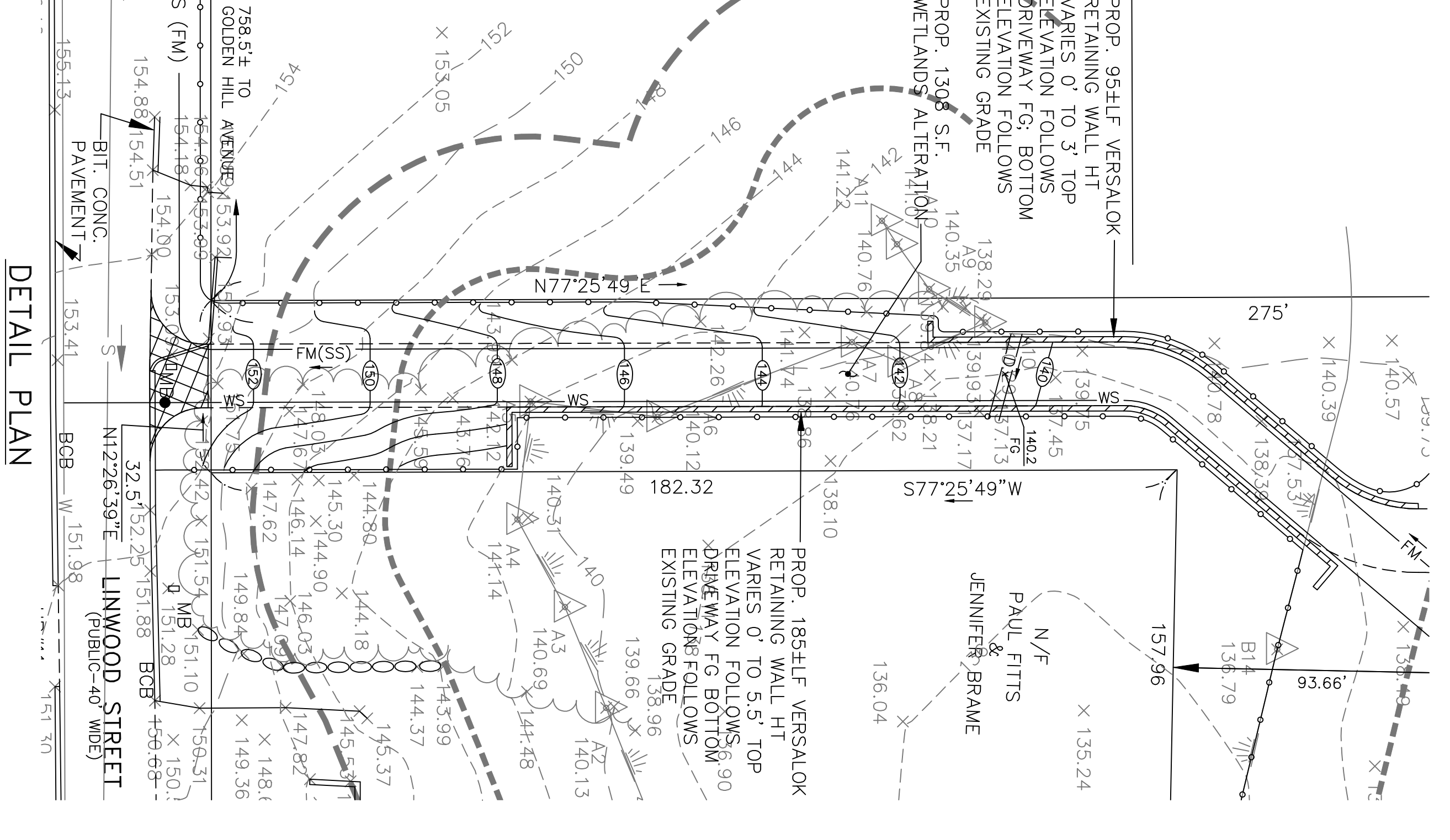
ROOF INFILTRATION SYSTEM
(2 CHAMBERS)
N.T.S.



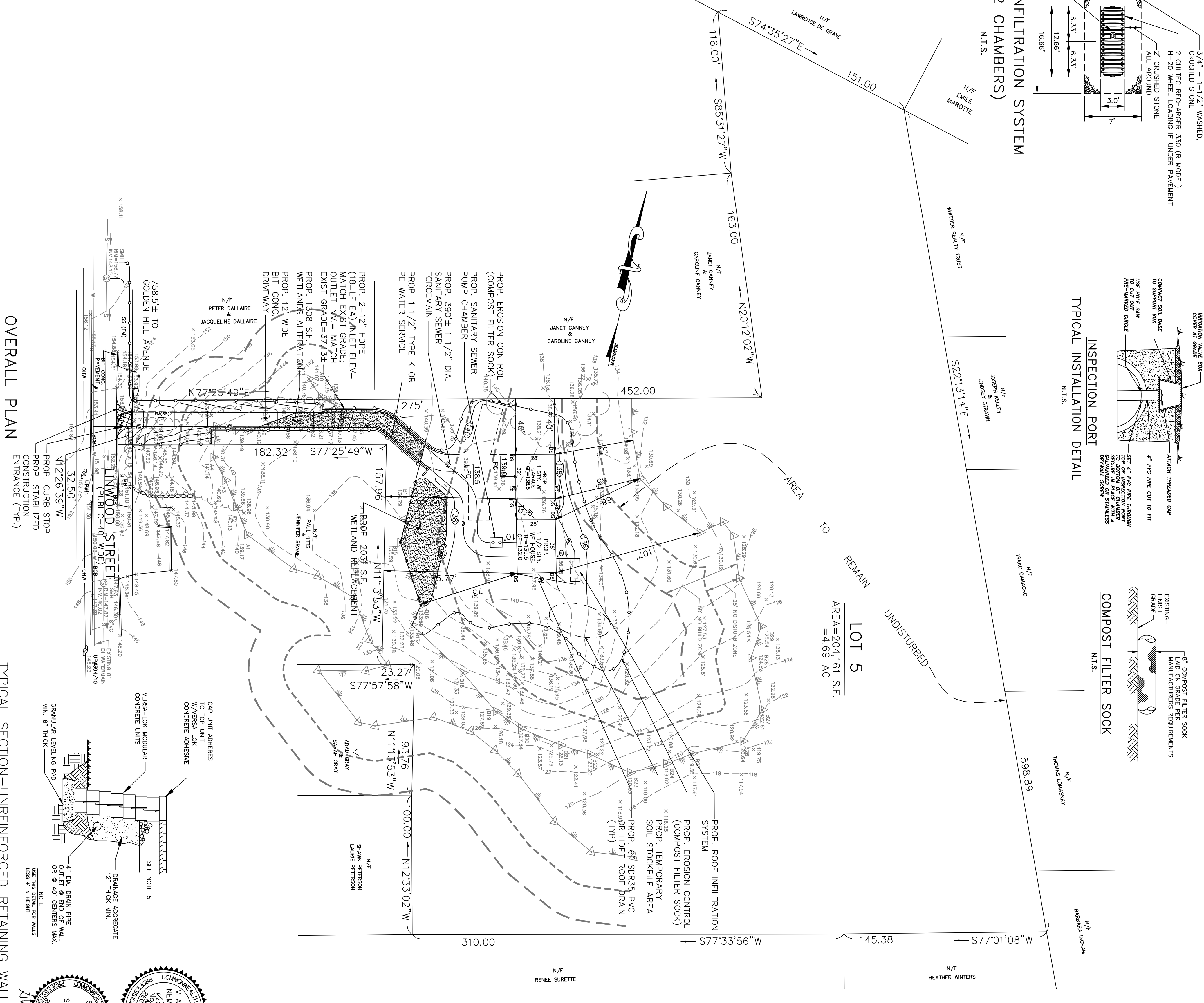
TYPICAL INSTALLATION DETAIL
INSPECTION PORT
N.T.S.



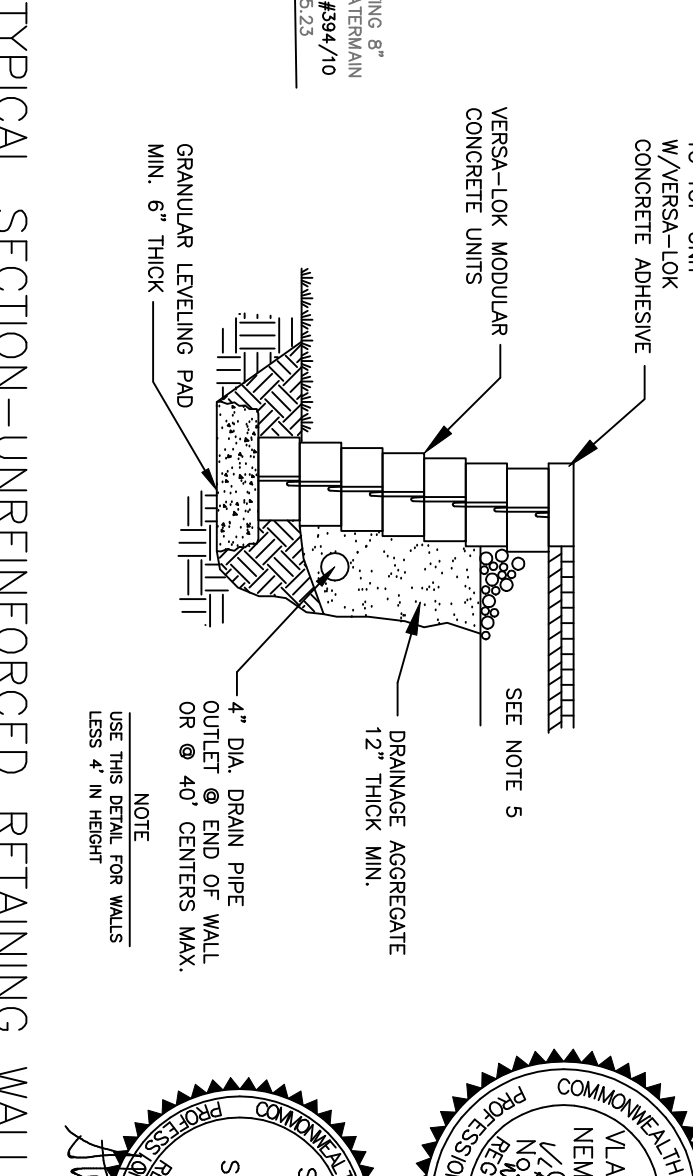
TYPICAL SECTION—REINFORCED RETAINING WALL
COMPOST FILTER SOCK
N.T.S.



DETAIL PLAN
SCALE: 1"=20'



OVERALL PLAN
SCALE: 1"=40'



TYPICAL SECTION—UNREINFORCED RETAINING WALL
N.T.S.

STEPHEN E. STAPINSKI
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SITE DEVELOPMENT PLAN OF LAND
 IN
HAVERHILL, MASSACHUSETTS
 PREPARED FOR
GLEN FOGARTY
 135 PRIMROSE STREET
 HAVERHILL, MA 01830

DATE: MAY 12, 2021
 SCALE: 1"=40'
 0' 40' 80' 120'
 0' 20' 40' 60'

TYPICAL SECTION—REINFORCED RETAINING WALL
 N.T.S.

- NOTES:**
- SEE CITY OF HAVERHILL ASSESSORS MAP 411 BLOCK #138 LOT 5, BOOK 14064 PAGE 597 AND PLAN BOOK 323 PLAN 70 E.S.D.R.D. FOR SITE.
 - TOPGRAPHIC DATUM BASE IS NAVD 88 ESTABLISHED BY G.P.S. BENCHMARK IS SEWER MANHOLE RIM, ELEVATION 155.77; WETLAND DELINEATED BY HORSE ENVIRONMENTAL SERVICES, TNGS080904H, MA (FALL 2018)
 - ZONE DISTRICT: RM
REQUIRES SETBACKS OF FRONT: 25'
SIDE: 15'
REAR: 30'
 - 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.
 - DRIVEWAY TO BE UP TO 12" WIDE 1" TYPE I-1 BITUMINOUS CONCRETE SURFACE COURSE OVER 2" TYPE I-1 BITUMINOUS CONCRETE BINDER COURSE OVER 12" COMPACTED GRAVEL BASE.
 - ROOF RUNOFF CALCULATIONS
STORAGE REQUIRED = 1/2" x 1960 S.F. = 81.68 C.F.
STORAGE PROVIDED = 2 CUTTEC CHAMBERS @ 25.2 OF EA = 50.4 C.F.
VOLUME STONE = ((16.66 x 7 x 2.21) - 50.4 SF) x 4 = 82.9 C.F.
TOTAL STORAGE = 50.4 C.F. + 82.9 C.F. = 133.33 C.F.
133.33 C.F. > 81.66 C.F.
 - HOUSE TO BE SERVICED WITH INDIVIDUAL DOMESTIC FIRE SPRINKLERS.
 - TITLE X FLOWS: 3 BEDROOMS @110 GPD/BEDROOM=330 GPD

LEGEND

N/F	NOW OR FORMERLY	○	STONE WALL
W.F.	WOOD FRAME	○	SEWER MANHOLE
BIT. CONC.	BITUMINOUS CONCRETE	○	UTILITY POLE
BCB	BITUMINOUS CONCRETE BERM	○	WETLAND FIELD FLAG
PROP.	PROPOSED	△	FORCEMAIN
EXIST.	EXISTING	WS	WATER SERVICE
X 152.10	SPOT ELEVATION	—	EROSION CONTROL
—152—	ELEVATION CONTOUR	—	FINISH GRADE
—	EDGE OF WETLAND	—	SEWER PRELINE
—	OVERHEAD WIRES	—	
—	WATERMAIN	—	
S	SEWER PRELINE	—	