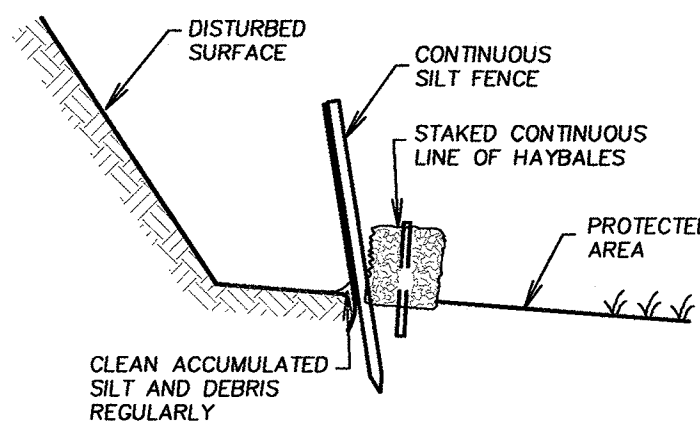
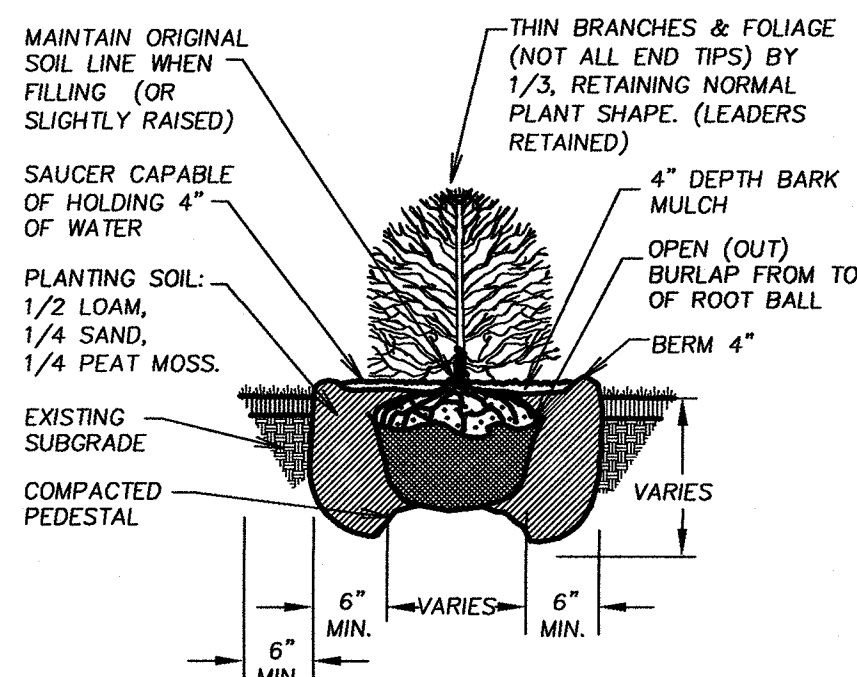


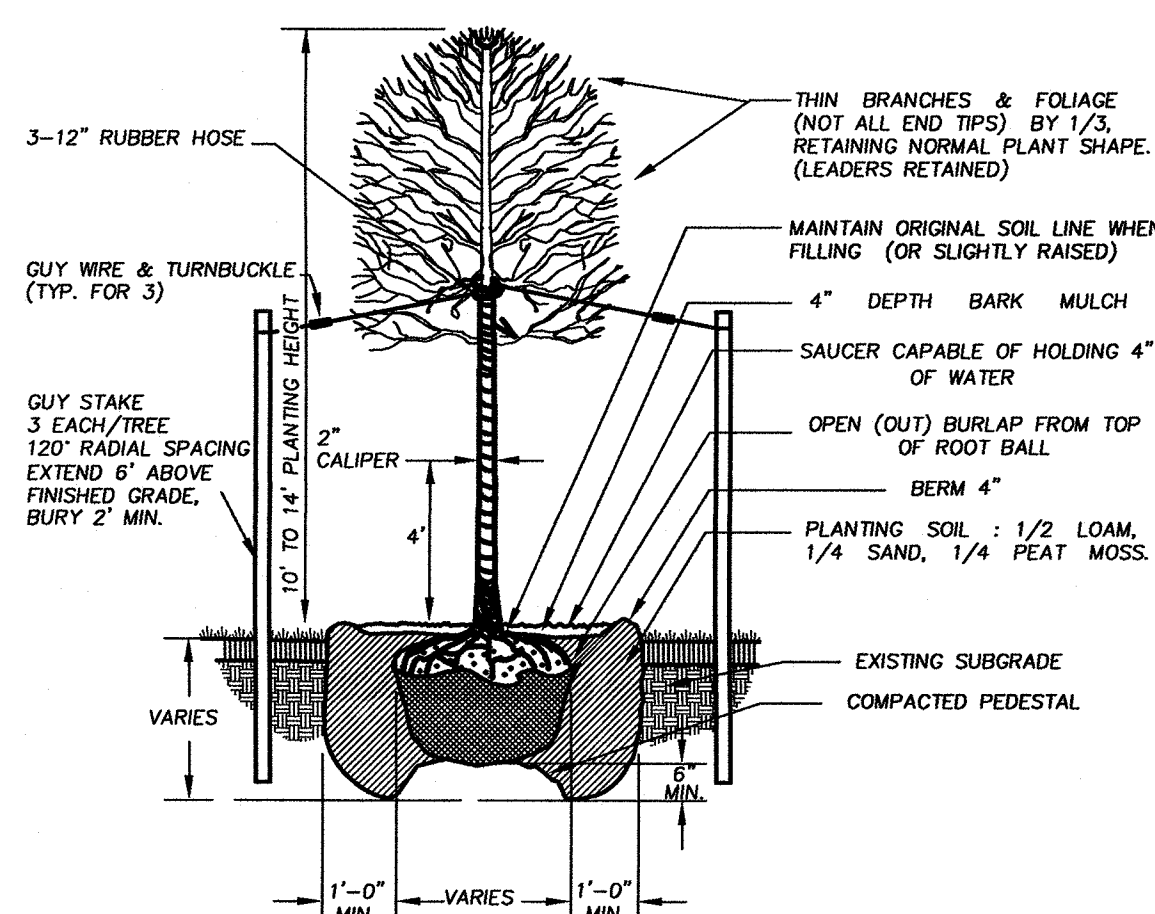
RECHARGE TRENCH
NOT TO SCALE



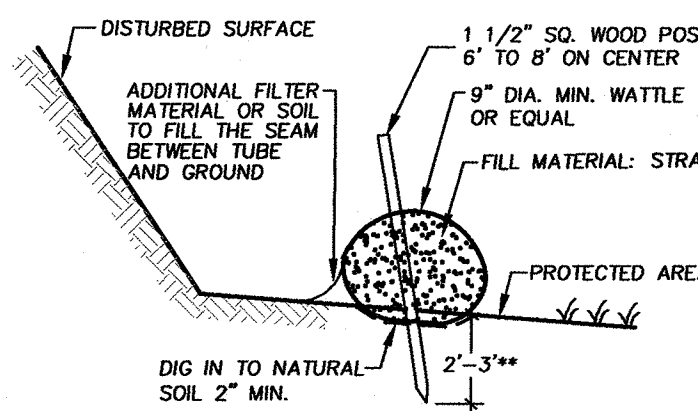
SILTATION BARRIER
(NOT TO SCALE)



SHRUB PLANTING DETAIL
NOT TO SCALE

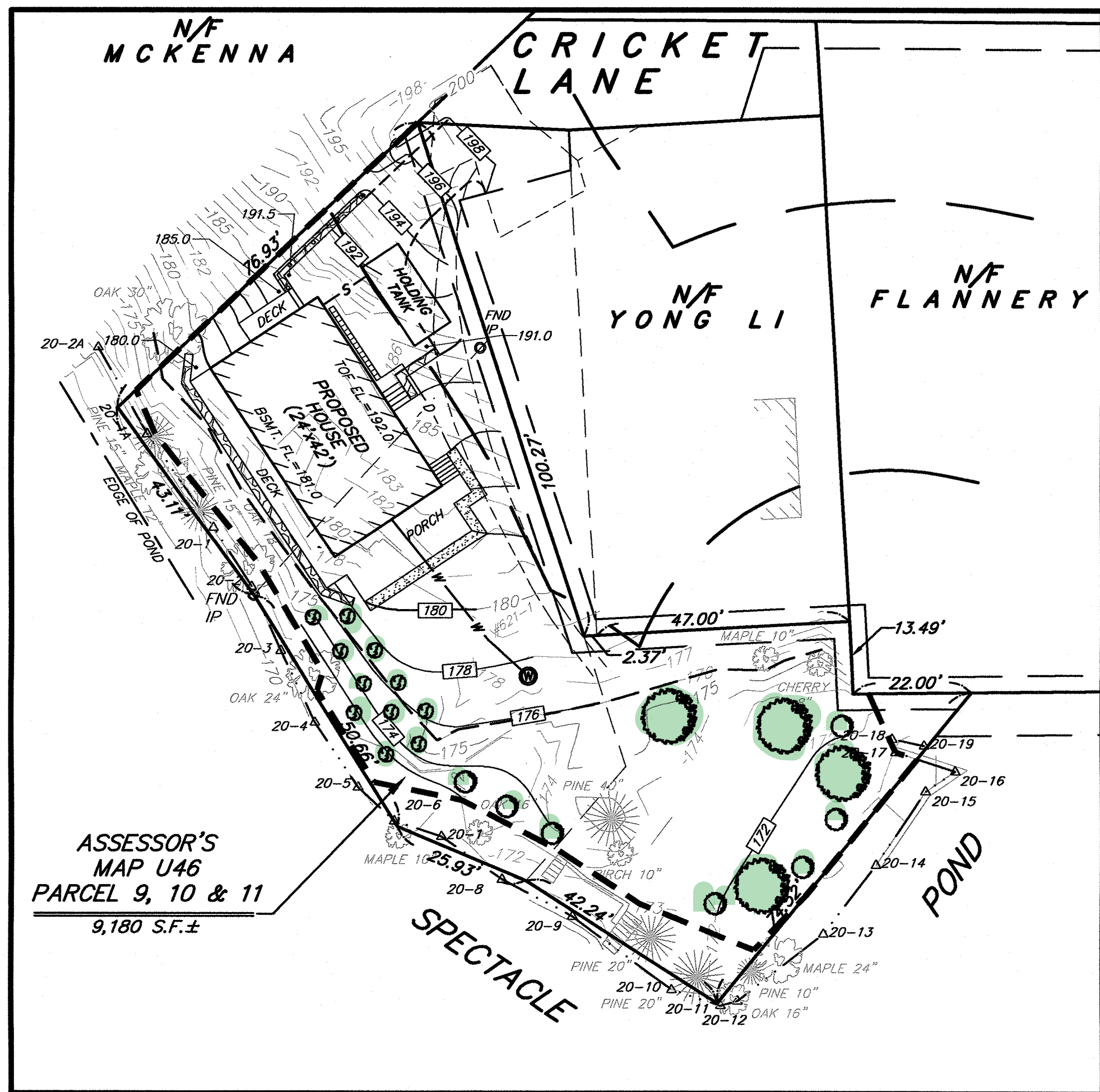


DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE



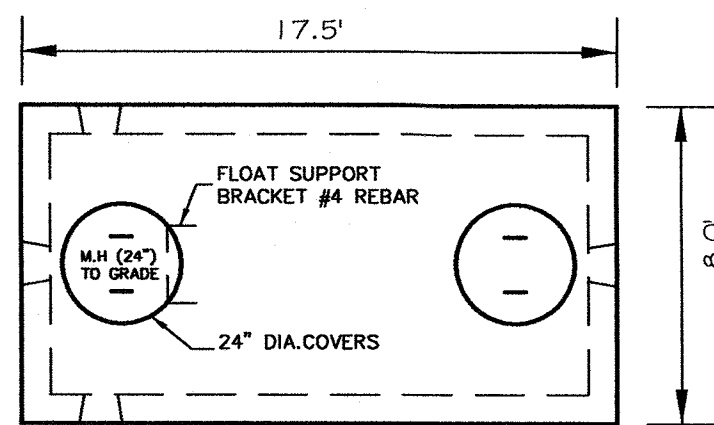
SILTATION BARRIER
WATTLE DETAIL
NOT TO SCALE

WATTLE NETTING SHALL BE MADE OF NATURAL MATERIAL; PLASTIC IS PROHIBITED.
ACCUMULATED SEDIMENT SHOULD BE REMOVED, OR A NEW WATTLE INSTALLED, WHEN IT REACHES APPROXIMATELY ONE-HALF OF THE WATTLE DIAMETER.
IF SHEET FLOWS ARE BYPASSING OR BREACHING THE WATTLE DURING STORM EVENTS, IT MUST BE REPAIRED IMMEDIATELY AND BETTER SECURED, EXPANDED ENLARGED OR AUGMENTED WITH ADDITIONAL EROSION AND SEDIMENT CONTROL PRACTICES.
AN ADDITIONAL 25 FEET OF WATTLES SHALL BE STORED IN A DRY SPACE ON SITE FOR EMERGENCY PURPOSES.

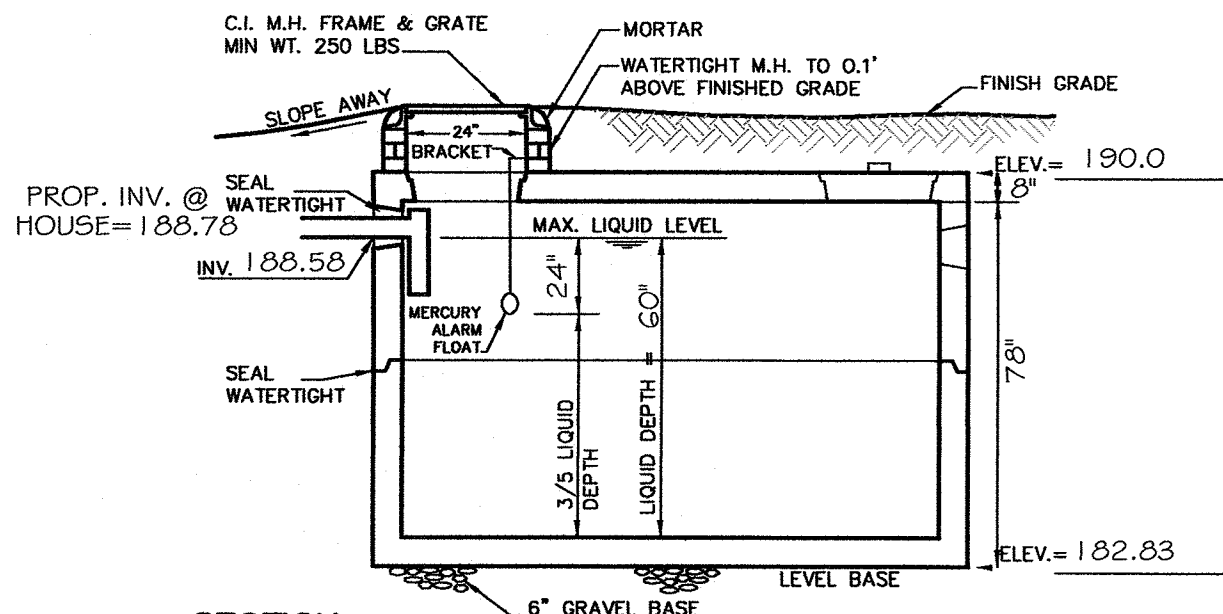


PLANTING PLAN DETAIL
1" = 20'

RECOMMENDED PLANTING SCHEDULE				
SYM.	COMMON NAME	SCIENTIFIC NAME	HEIGHT RANGE	QUANTITY
⊗	Common Juniper	<i>Juniperus communis</i>	15-18"	11
⊙	Early azalea	<i>Rhododendron roseum</i>	24-40"	7
⊕	Red Maple	<i>Acer rubrum</i>	2" Cal.	2
⊖	Northern Red Oak	<i>Quercus rubra</i>	2" Cal.	2



PLAN VIEW



SECTION
4,000 GALLON HOLDING TANK (H-20)
NOT TO SCALE

ENGINEER SPECIFIED TANK BY:
E.F. SHEA CONCRETE PRODUCTS, INC.
7773 SALEM STREET (RTE 62), WILMINGTON, MA 01887
978-658-2645

TANK TO BE VENTED THROUGH BUILDING PLUMBING SYSTEM AS REQUIRED BY BUILDING CODE.

TANK TO HAVE ALL JOINTS SEALED WATERTIGHT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

CONSTRUCTION MATERIALS AND DIMENSIONS TO CONFORM TO TITLE 5, AASHTO HS 20-44 LOADING.

TANK DIMENSIONS MAY VARY, DEPENDING UPON MANUFACTURER'S STANDARD, AS LONG AS LIQUID VOLUME CONFORMS WITH REQUIRED LIQUID CAPACITY.

TANK LOCATION MUST BE ACCESSIBLE YEAR ROUND.

ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED.

ALARM SPECIFICATIONS

ALARM TO BE SIGNALLED BY SELF CONTAINED MERCURY FLOAT SWITCH AT 3/5 TANK CAPACITY.

ALARM TO BE LOCATED INSIDE BUILDING AT VISIBLE LOCATION.

ALARM TO BE AUDIO/VISUAL WITH MANUAL RESET ON AUDIO ONLY.

ALL WORK TO CONFORM WITH STATE AND LOCAL CODES.

NO JUNCTION BOXES SHALL BE PLACED WITHIN TANK OR OUTSIDE HOUSE.

ALARM SHALL BE SEPARATE-FUSED CIRCUIT.

CONSTRUCTION SEQUENCE

- INSTALL SILTATION/EROSION CONTROL BARRIER (STRAW WATTLES ON THE PERIMETER OF PROJECT AND THE HAY BALES AND SILT FENCE BETWEEN THE DWELLING AND THE POND).
- PRE-CONSTRUCTION MEETING AND INSPECTION WITH THE LITTLETON CONSERVATION COMMISSION.
- RAZE EXISTING DWELLINGS AND REMOVE TREES AND PULL STUMPS REQUIRED TO CONSTRUCT THE IMPROVEMENTS TO THE SITE.
- RE-GRADE AND COMPACT SITE FOR WELL INSTALLATION EQUIPMENT ACCESS.
- EXCAVATE TEMPORARY SLURRY BASIN AND INSTALL SLURRY BASIN EROSION CONTROL.
- INSTALL WELL.
- GRADE LAND WITHIN THE 50' BUFFER ZONE, AND IMMEDIATELY STABILIZE BETWEEN THE PROPOSED DWELLING AND POND WITH JUTE NETTING (NOTE: JUTE NETTING SHALL NOT CONTAIN ANY PLASTIC).
- EXCAVATE FOUNDATION HOLE, PLACING EXCAVATED SOILS IN STOCKPILE AREA AS IDENTIFIED ON THE PLAN WITH 24" SILT FENCE AROUND THE BASE.
- CONSTRUCT FOUNDATION WALLS, FOOTING DRAIN AND INTERLOCKING CONCRETE BLOCK RETAINING WALL.
- BACKFILL FOUNDATION, INTERLOCKING CONCRETE BLOCK RETAINING WALL.
- CONSTRUCT ROOF DRAINAGE RECHARGE TRENCHES.
- COMPLETE CONSTRUCTION OF DWELLING AND SEWAGE DISPOSAL SYSTEM (HOLDING TANK).
- COMPLETE CONSTRUCTION OF DRIVEWAY.
- PERFORM LANDSCAPING AND INSTALLATION OF MITIGATION PLANTINGS

DESIGN CRITERIA

FLOWS: 2 BEDROOM AT 110 GPD = 220 GPD

HOLDING TANK: PROPOSED 4,000 GAL. TANK

ABSOLUTE MIN. PER TITLE 5 POLICY = 2,000 GAL. TANK
CALCULATED MIN.: 110 GPD X 5.0 = 1,100 GAL. TANK

ESTIMATED FREQUENCY OF REMOVAL (PUMPING)

18 DAYS PER TITLE 5 ESTIMATION OF FLOWS.
NOTE: ALTHOUGH TITLE 5 ESTIMATIONS SHOW A FREQUENCY OF PUMPING EVERY 18 DAYS, CONSERVATIVE USE OF ALL WATER GENERATING FACILITIES WILL YIELD A LESS FREQUENT PUMPING SCHEDULE.

TIGHT TANK OPERATION AND MAINTENANCE PLAN

FREQUENCY OF PUMPING: THE TANK SHALL BE PUMPED WHEN THE CAPACITY REACHES THREE FIFTHS OF THE TOTAL CAPACITY (2400 GALLONS). THIS POINT SHALL BE SIGNALLED BY THE ALARM FLOAT SWITCHES DETAILED ON THE PROPOSED PLAN. TITLE 5 ESTIMATES THAT THIS PEAK FREQUENCY WILL BE EVERY 18 DAYS, HOWEVER, CONSERVATIVE USE OF ALL WATER GENERATING FACILITIES WILL YIELD A LESS FREQUENT PUMPING SCHEDULE.

METHOD OF DISPOSAL: THE WASTE IS TO BE DISPOSED OF AT A WASTE WATER TREATMENT FACILITY LICENSED TO ACCEPT DOMESTIC WASTE WATER.

MAINTENANCE: THE WASTE HAULER IS TO VISUALLY INSPECT THE TANK FOR STRUCTURAL INTEGRITY AT EACH PUMPING. HE WILL REPORT ANY OBSERVED IRREGULARITIES TO THE FACILITY OWNER WHO WILL INVESTIGATE AND FOLLOW UP AS NEEDED.

THE FLOAT SWITCHES AND ALARM SYSTEM ARE TO BE INSPECTED AT LEAST ONCE EACH YEAR, AND TESTED MONTHLY. IF THE TANK REACHES THREE FIFTHS CAPACITY (2400 GALLONS) AND THE ALARM PROPERLY ACTIVATES, THIS IS CONSIDERED TO BE A SUCCESSFUL TEST.

NO PERMANENT STRUCTURES ARE TO BE PLACED SUCH THAT THEY WILL INTERFERE WITH ACCESS TO THE TANK.

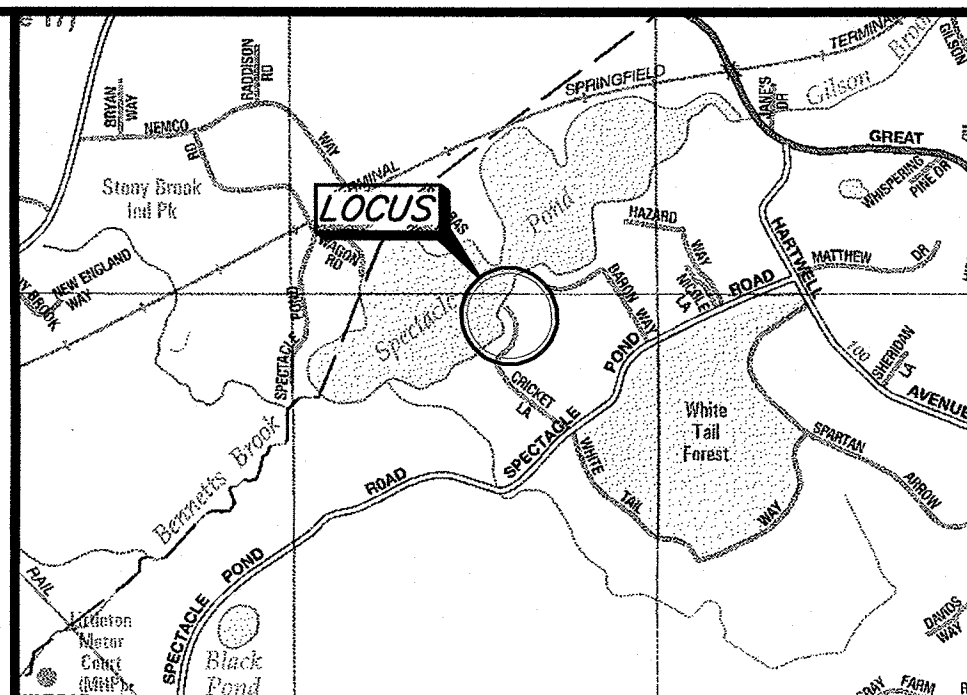
THE LOCAL BOARD OF HEALTH MAY ADD ADDITIONAL ITEMS TO THIS OPERATION AND MAINTENANCE PLAN IF IT FEELS THEY ARE NEEDED TO PROTECT PUBLIC HEALTH AND THE ENVIRONMENT.

WETLAND PROTECTION ACT (C131 S40)

PRIOR TO INITIATING ANY ALTERATIONS (REMOVAL OF VEGETATION, EXCAVATIONS, GRADING, ETC.) WITHIN 100' OF WETLANDS (PONDS, BROOKS, SWAMPS, ETC.) OR WITHIN 200' OF AN AREA SUBJECT TO THE RIVER'S ACT (PERENNIAL FLOWING RIVER, BROOK OR STREAM), A REQUEST FOR DETERMINATION OF APPLICABILITY OR A NOTICE OF INTENT UNDER THE WETLANDS PROTECTION ACT (310 CMR 10.00) SHOULD BE FILED WITH THE TOWN'S CONSERVATION COMMISSION. LOCAL BYLAWS MAY ALSO APPLY.

OBSERVATION TEST HOLE DATA
BY DANIEL B. WOLFE, D.E.R.A., INC.
WITNESSED BY JIM GARRETT (WABOH)
6/10/2021

120-1 - ELEV. = 178.5'
Ap 0' - 6" FINE SANDY LOAM 10YR 3/2
Bw 6' - 27" FINE SANDY LOAM 10YR 5/6
C 27' - 103' M-C SAND 10YR 5/3
NO MOTTLE
NO GROUNDWATER OBSERVED
NO REFUSAL
E.S.H.W.T. > 103' (169.9)



LOCUS MAP
NOT TO SCALE

NOTES

THE EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY WAS COMPLETED BY DAVID E. ROSS IN APRIL AND OCTOBER OF 2020.

THE PROPERTY LINES AS SHOWN ARE TAKEN FROM PLAN ENTITLED 'PLAN OF LAND IN LITTLETON MASS.' DATED APRIL 24, 1946, BY JOSEPH C. SHAW RECORDED IN THE MIDDLESEX (SOUTH DISTRICT) REGISTRY OF DEEDS BOOK 6986 PAGE 196.

PRIOR TO THE ISSUANCE OF A CERTIFICATE OF COMPLIANCE FOR THE SYSTEM, THE SYSTEM OWNER SHALL RECORD AND/OR REGISTER IN THE APPROPRIATE REGISTRY OF DEEDS AND/OR LAND REGISTRATION OFFICE, A NOTICE DISCLOSING THE USE OF HOLDING TANK.

A NOTICE IS REQUIRED WITH THE REGISTRY OF DEEDS DISCLOSING A BEDROOM COUNT DEED RESTRICTION FOR TWO BEDROOMS.

CONTRACTOR SHALL GRADE TO ENSURE PROPER DRAINAGE AND TO AVOID CREATING PONDING AREAS.

OWNER OF RECORD: PETER McANESPIE
#26 CRICKET DEED BOOK: 73861 PAGE: 459
#28 CRICKET DEED BOOK: 73893 PAGE: 213
#30 CRICKET DEED BOOK: 75619 PAGE: 106

OWNER IS RESPONSIBLE FOR OBTAINING BUILDING PERMITS ASSOCIATED WITH RETAINING WALLS AND FENCES AS REQUIRED BY STATE OR LOCAL REGULATIONS.

OWNER SHALL VERIFY EFFECTIVE ZONING REGULATIONS PRIOR TO CONSTRUCTION.

THE DESIGN ENGINEER IS NOT RESPONSIBLE FOR ANY GROUNDWATER OR STORMWATER RUN-OFF THAT MAY ENTER THE BUILDING DUE TO IMPROPER GRADING.

THE DESIGN ENGINEER SHALL BE NOTIFIED PROMPTLY OF ANY PLAN DEFICIENCIES FOUND DUE TO UNFORESEEN SUBSURFACE CONDITIONS OR OTHER REASONS THAT MIGHT AFFECT THE FUNCTION OF THIS DESIGNED SYSTEM.

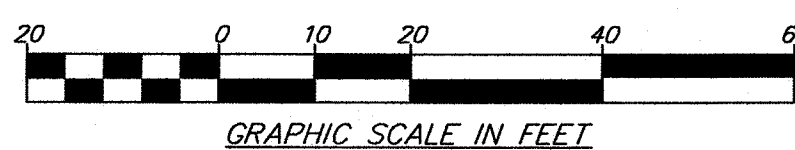
CONTRACTOR SHALL NOTIFY 'DIG SAFE' PRIOR TO ANY EXCAVATION. 1-888-DIG-SAFE (344-7233)

HOLDING TANK: MANHOLE COVERS MUST BE CONCRETE OR OTHER SOLID MATERIAL. PLASTIC MANHOLE COVERS ARE NOT ALLOWED IN ACCORDANCE WITH LITTLETON BOARD OF HEALTH REGULATION 33.

THE PURPOSE OF THIS PLAN IS TO RECONSTRUCT A SINGLE FAMILY DWELLING IN PLACE OF THREE EXISTING HOMES AND REPLACE THE EXISTING SEWAGE DISPOSAL SYSTEM.

VARIANCE REQUIRED:

15.21 (1) MINIMUM DISTANCES REQUIRE THAT THE HOLDING TANK BE SETBACK A MINIMUM OF 10 FEET FROM A PROPERTY LINE. THE PROPOSED HOLDING TANK IS SETBACK 5.6 FEET FROM THE PROPERTY LINE.

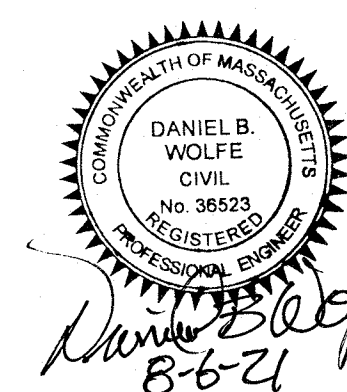


GRAPHIC SCALE IN FEET

SURV:	MSB/JDS	CALC:	JPG	DRAFT:	BJD
REV:	815-8	DEED:	73333-213 73861-459 75619-106	CHECK:	DBW

REVISIONS

8/6/21: REV. PER CON COM COMMENTS



SHEET TITLE:
SEWAGE DISPOSAL SYSTEM
HOLDING TANK

DESIGNED FOR:
PETER McANESPIE

ADDRESS:
#26, #28 & 30 CRICKET LANE
LITTLETON, MA

LOT NO.:	ASSESSOR MAP:	ASSESSOR PARCEL:
	U46	9, 10 & 11

DAVID E. ROSS
ASSOCIATES, INC.

CIVIL ENGINEERS - LAND SURVEYORS
ENVIRONMENTAL CONSULTANTS

6 Lancaster County Road
P.O. Box 795
Harvard, MA 01451-0795
978-772-6232
FAX 978-772-6258
www.davidross.com

SCALE: 1"=20' DATE: JULY, 2021

REF.: PLAN NO.: L-14345

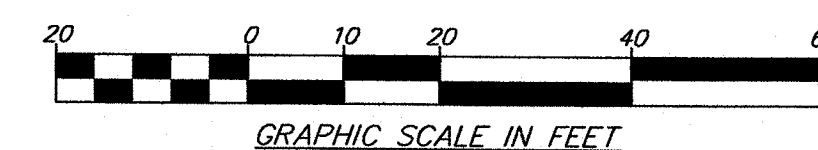
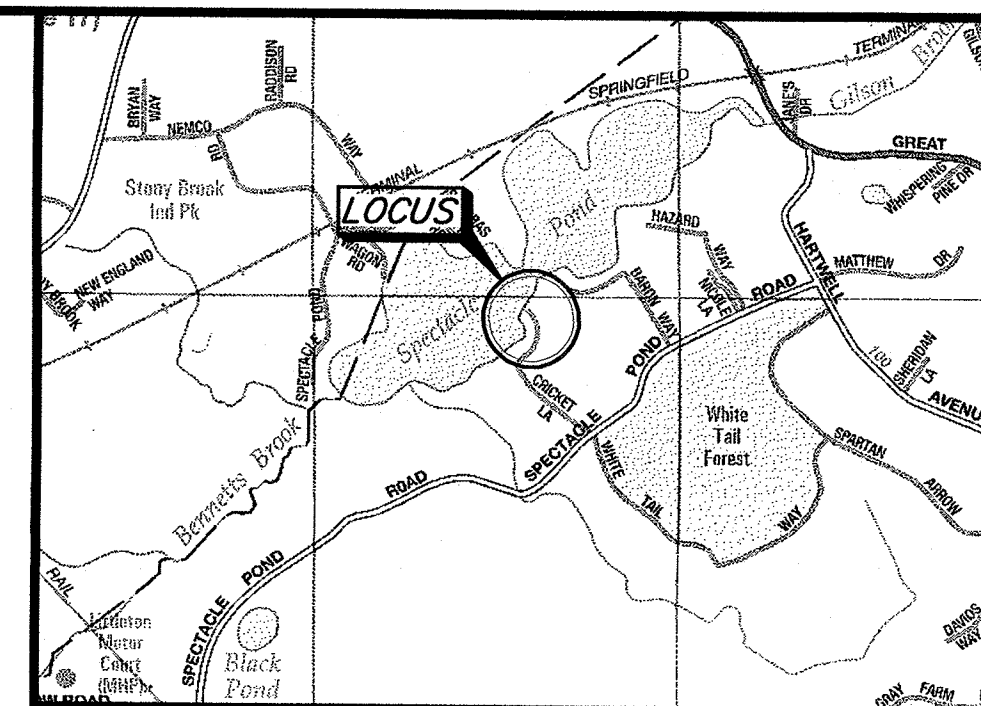
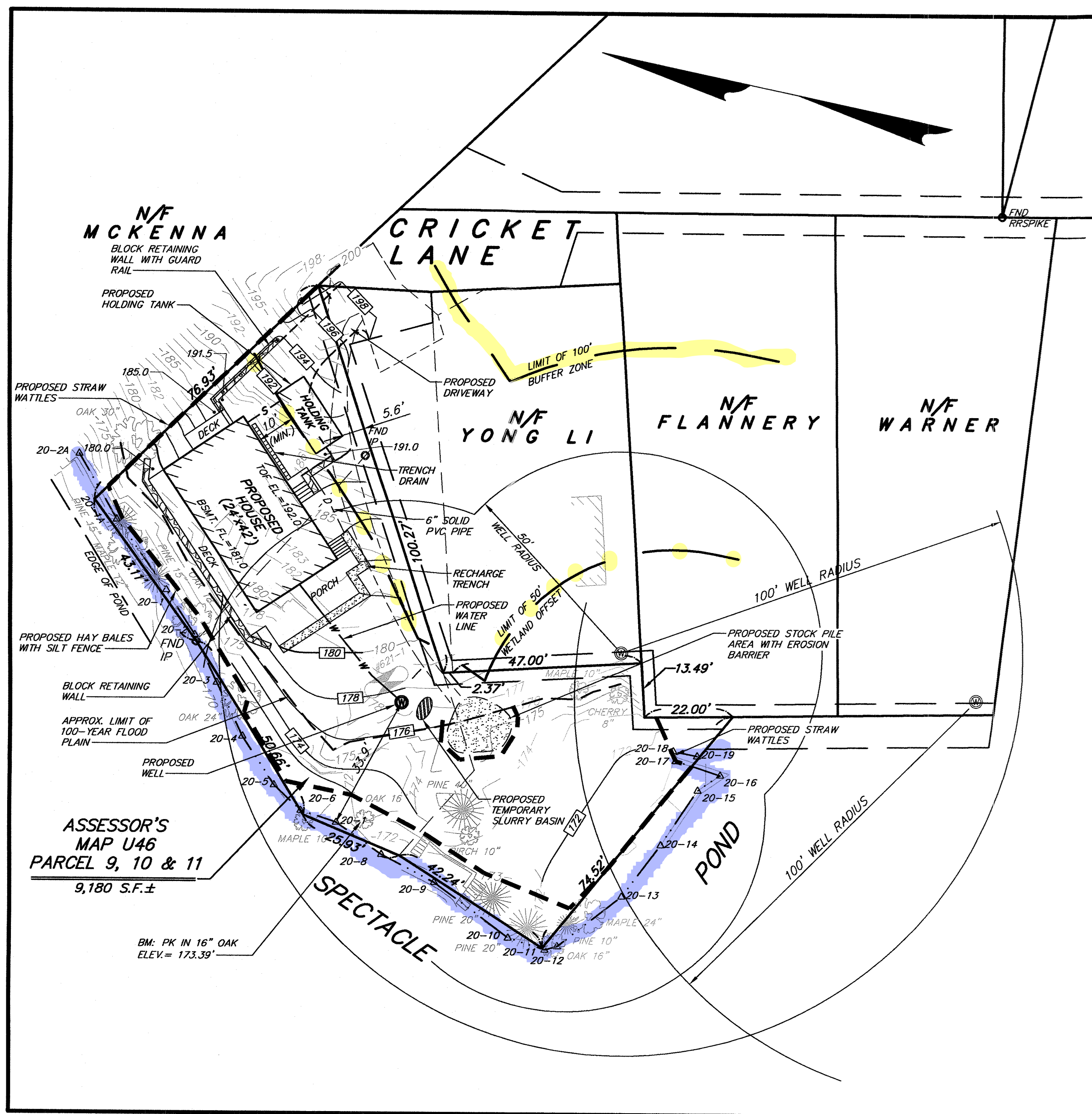
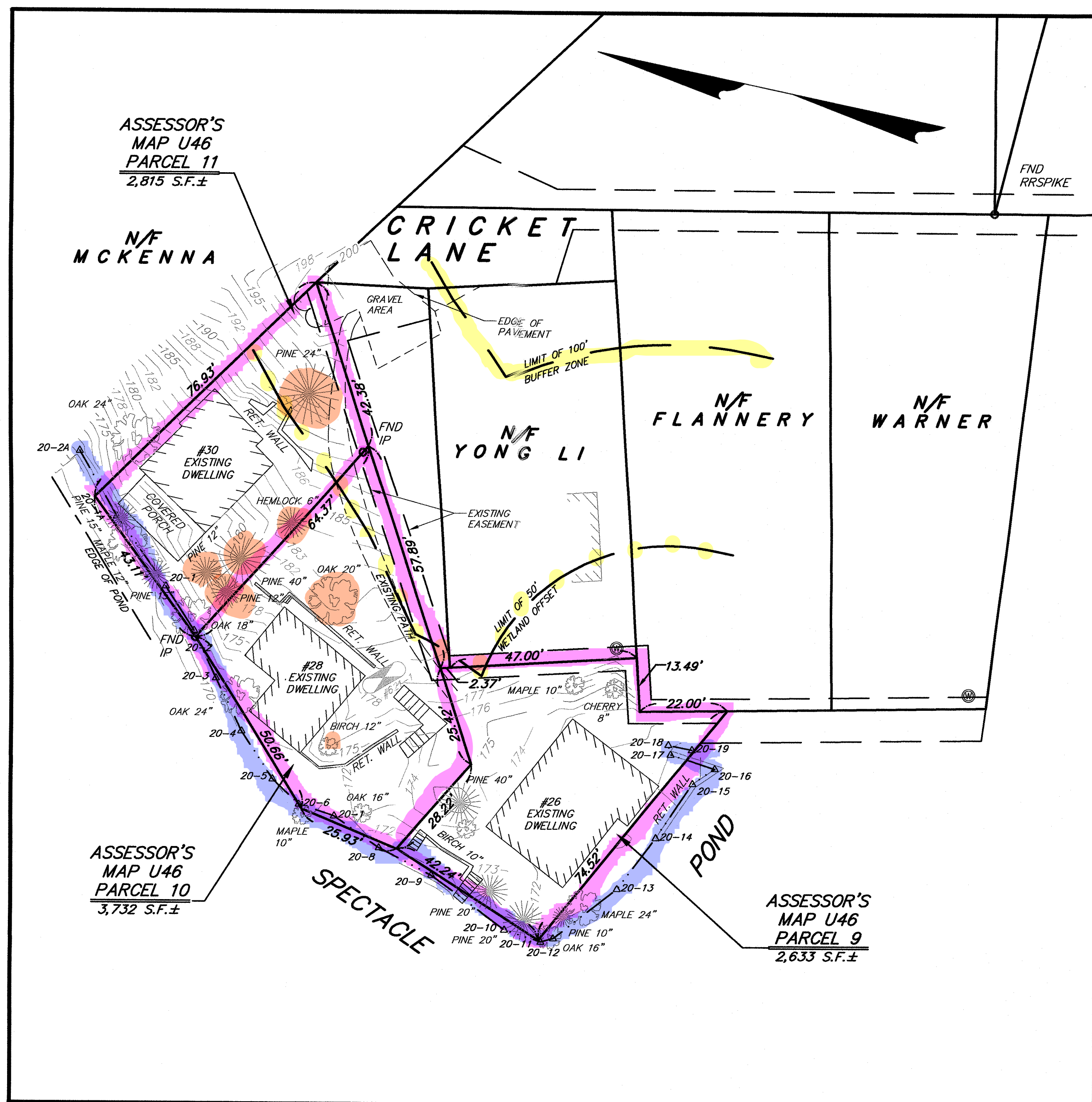
JOB NO.: 33242 SHEET NO.: 1 of 2

LEGEND

- 300 --- EXISTING CONTOUR
- 300 --- PROPOSED CONTOUR
- ⊠ PERCOLATION TEST HOLE
- ⊠ OBSERVATION TEST HOLE
- S — SEWER LINE
- W — WATER LINE
- EDGE OF WETLANDS
- ⊙ EXISTING TREE TO REMAIN (PROPOSED SITE PLAN)

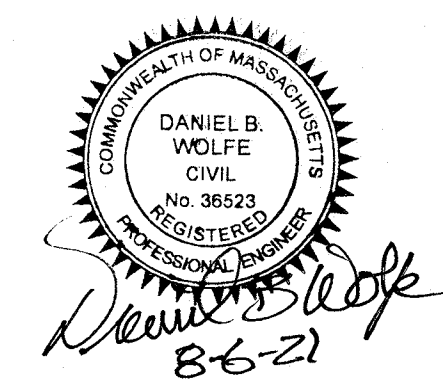
ZONING REQUIREMENTS					
"R" RESIDENTIAL DISTRICT					
DESCRIPTION	REQUIRED	EXISTING (#26)	EXISTING (#28)	EXISTING (#30)	PROVIDED
LOT AREA	40,000 S.F.	2,633 S.F.±*	3,732 S.F.±*	2,815 S.F.±*	9,180 S.F.±*
MIN. LOT FRONTAGE	150'	0'	0'	0'	0'
MIN. FRONT SETBACK	25'	N/A	N/A	N/A	N/A
MIN. SIDE SETBACK	15'	0.9'	11.8'	1.7'	4.1'
MIN. REAR SETBACK	15'	14.4'	1.6'	3.7'	12.0'

*PRE-EXISTING, NON-CONFORMING



SURV.: MSB/JDS	CALC.: JPG	DRAFT: BJD
NE: 815-8	DEED: 73353-213 73061-409 75619-106	CHECK: DBW

REVISIONS	
8/6/21: REV. PER CON COM COMMENTS	



SHEET TITLE: SEWAGE DISPOSAL SYSTEM HOLDING TANK

DESIGNED FOR: PETER McANESPIE

ADDRESS: #26, #28 & 30 CRICKET LANE LITTLETON, MA

LOT NO.:	ASSESSOR MAP: U46	ASSESSOR PARCEL: 9, 10 & 11
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978-772-6232 FAX 978-772-6258 www.davidross.com

SCALE: 1"=20'	DATE: JULY, 2021
REF.:	PLAN NO.: L-14345
JOB NO.: 33242	SHEET NO.: 2 of 2