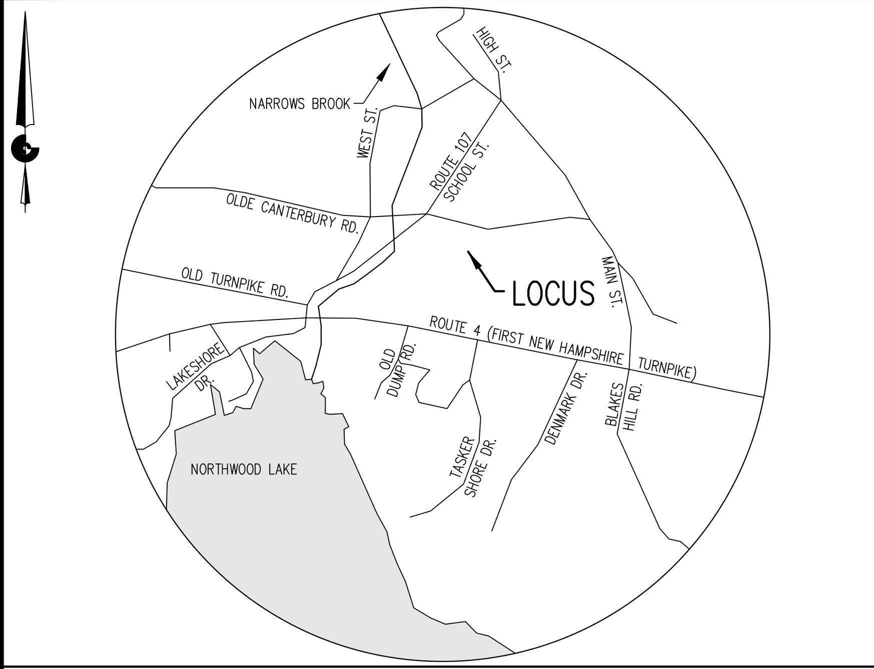


LOCATION PLAN
1"=1000' +/-

SCOPE OF WORK

1. THIS PLAN INDICATES THE PROPOSED DEVELOPMENT OF AN EXISTING HAY FIELD INTO AN ELDERLY HOUSING DEVELOPMENT. THE SCOPE OF WORK AND CONSTRUCTION SEQUENCE ARE AS FOLLOWS:
   a. INSTALL ALL EROSION CONTROL BMP'S AS SHOWN ON THE PLAN PRIOR TO DISTURBING THE SITE.
   b. GRADE SITE TO SUBGRADE OF ROAD, AND SHAPE PONDS . NO STORMWATER FLOWS ARE TO BE DIRECTED TO THE PONDS PRIOR TO STABILIZATION OF THE CONTRIBUTING AREAS.
   c. INSTALL UTILITIES.
   d. CONSTRUCT BUILDINGS AS INDICATED ON PLANS.
   e. STABILIZE SURFACES (PAVE AND ACHIEVE VEGETATION OF NON-PAVED AREAS).
   f. COMPLETE CONSTRUCTION OF STORMWATER BMP'S TO RECEIVE FLOWS.
   g. REMOVE EROSION CONTROL BMP'S AS APPROPRIATE.

SEPTIC NOTES:

1. SITE IS SERVICED BY A PRIVATE ON SITE WELL. TRANSIENT NON-COMMUNITY WATER SYSTEM TO BE PERMITTED WITH NHDES.
2. DO NOT INSTALL SYSTEM ON FROZEN GROUND.
3. SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH NHDES ENV-Wq 1000.
4. MAINTENANCE:
   4.1. SEPTIC TANKS AND PUMP STATIONS TO BE INSPECTED AT LEAST ONCE A YEAR AND PUMPED OR CLEANED A MINIMUM OF EVERY THREE YEARS OR MORE FREQUENTLY IF NEEDED. ALWAYS CLEAN IF COMBINED THICKNESS OF SLUDGE AND SCUM EQUALS MORE THAN 1/4 OF THE LIQUID LEVEL IN THE TANK.
   4.2. FOLLOW THE MANUFACTURERS REQUIREMENTS FOR INSPECTIONS AND CLEANING OF THE ADVANCED ONSITE SITE SOLUTIONS, LLC CLEAN SOLUTIONS PRE-TREATMENT SYSTEM.

SEPTIC DESIGN CALCULATIONS AND NOTES:

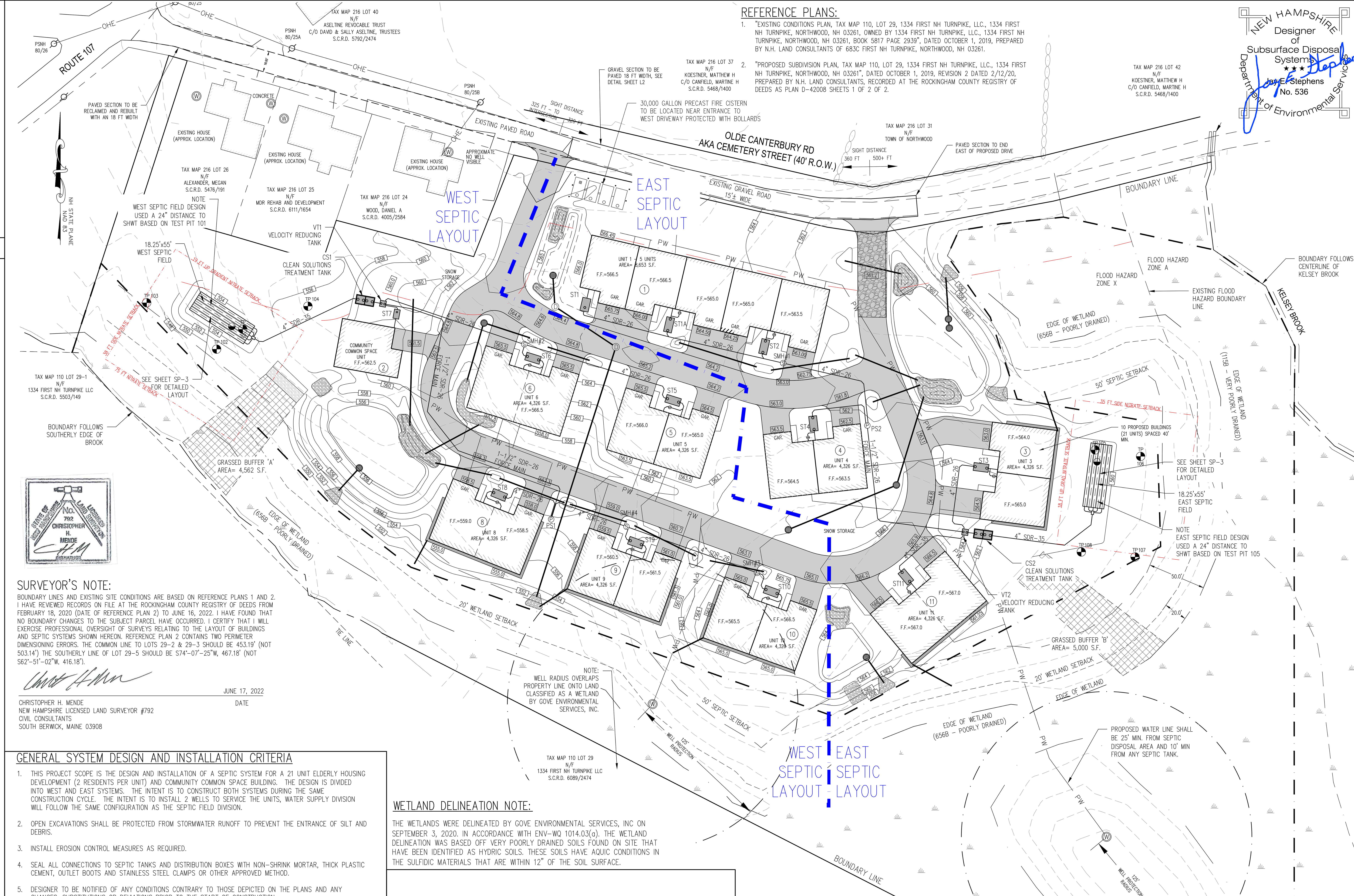
1. THIS PLAN REPRESENTS THE DESIGN OF A NEW SEPTIC SYSTEM FOR THE PROPOSED ELDERLY HOUSING DEVELOPMENT. THE DEVELOPMENT INCLUDES 21 – 2 BEDROOM AGE RESTRICTED UNITS IN DUPLEX AND TOWNHOUSE BUILDINGS. THERE IS ONE COMMUNITY USE BUILDING (2,100 SF) THAT WILL HAVE A RESTROOM
2. DESIGN FLOWS ARE BASED ON NHDES SEPTIC DESIGN RULES OF ENV-WQ 1000, TABLE 1008-1 UNIT DESIGN FLOW FIGURES: SENIOR HOUSING 125 GPD/2 BEDROOM UNIT, MAXIMUM 2 PERSON OCCUPANY. THE COMMUNITY ROOM DESIGN FLOWS ARE BASED ON 10 GPD PER USER, ASSUME 25 USERS. DESIGN FLOWS ARE TO BE DIVIDED INTO TWO DISPOSAL AREAS.
3. DISPOSAL AREAS DESIGNED TO UTILIZE
   3.1. WEST DISPOSAL AREA ACCEPTS FLOW FROM 10 SENIOR HOUSING UNITS AND THE COMMUNITY BUILDING: 10 X 125 + 10 X25 = 1,500 GPD
   3.2. EAST DISPOSAL AREA ACCEPTS FLOW FROM 11 SENIOR HOUSING UNITS: 11 X 125 = 1,375 GPD
4. PRECAST SEPTIC TANKS, DISTRIBUTION BOXES AND PUMP STATION ARE TO BE SUPPLIED BY SHEA CONCRETE (OR EQUAL APPROVED BY THE ENGINEER) AS INDICATED ON THE PLANS. ALL TANKS SHALL COATED TO PREVENT LEAKING AND HAVE WATERTIGHT SEALS AT ALL OUTLETS. WORK SHALL BE FROM APPROVED SHOP DRAWINGS. TANKS TO HAVE PRECAST RISERS TO PREVENT GROUND WATER AND ODOR ISSUES. ALL TANKS TO MEET ENV-Wq 1010 SPECIFICATIONS.
5. SEPTIC TANKS ARE SIZED FOLLOWING THE REQUIREMENTS OF ENV-WQ 1010. MINIMUM SEPTIC TANK SIZE SHALL BE 1,250 GALLONS FOR A DUPLEX UNIT.
6. NO GARBAGE GRINDERS ARE TO BE USED WITHOUT INCREASING SEPTIC TANKS SIZE INDICATED ON THESE PLANS BY 50%.
7. PRE TREATMENT TO BE AS INDICATED PER DETAILS PROVIDED ON SHEETS BY ADVANCED ONSITE SOLUTIONS.
8. PUMP STATION: GENERAL CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL
   8.1. NEW DUPLEX STATION – PUMPS TO BE CAPABLE OF A MINIMUM GPM AT VERTICAL HEAD AS NOTED ON PLAN SHEET SP-2
   8.2. PUMPING DOSE SHALL BE A MINIMUM OF 200 GALLONS
   8.3. MINIMUM RUN TIME SHALL BE 5 MINUTES
   8.4. PUMPS AND ALARMS SHALL BE ON SEPARATE ELECTRICAL CIRCUITS
   8.5. AUDIBLE AND VISUAL ALARMS SHALL BE LOCATED IN CONSPICUOUS LOCATION(S)
   8.6. STATION SHALL HAVE FLARED BASE TO PREVENT FLOTATION, TO BE REVIEWED DURING SHOP DRAWING PROCESS
   8.7. FLOOD PROOF COVERS ON PUMP CHAMBERS
   8.8. PUMP CHAMBER VENT INTO ADJACENT STRUCTURES ROOF VENT SYSTEM

LOT LOADING CAPACITY CALCULATION:

TOTAL LOT AREA =	623,688 SF
DEDUCT – VERY POOLY DRAINED SOIL =	185,344 SF
DEDUCT – WELL RADII ON LOT EXCLUDING VP DRAINED SOILS =	77,458 SF
TOTAL AREA USED FOR LOT LOADING CALCULATIONS = (8.28 AC)	360,886 SF
GROUP 3 SOILS WITH A/B SLOPES (6.84 AC) – SOIL FACTOR 1.6 =	8,550 GPD
GROUP 5 SOILS WITH A/B SLOPES (1.44 AC) – SOIL FACTOR 3.0 =	960 GPD
TOTAL LOT LOADING CAPACITY =	9,510 GPD
PROPOSED PROJECT DESIGN LOADING =	2,875 GPD

REVIEWED AND APPROVED
IN ACCORDANCE WITH THE
REQUIREMENTS OF THE
NH DEPT OF ENVIRONMENTAL SERVICES
WATER DIVISION
Date: 10/6/2022
#eSA2022100604

NEW HAMPSHIRE
Designer
of
Subsurface Disposal
Systems
Michael Mariano
No. 941
Department of Environmental Services
9/16/2022



REFERENCE PLANS:

1. "EXISTING CONDITIONS PLAN, TAX MAP 110, LOT 29, 1334 FIRST NH TURNPIKE, LLC., 1334 FIRST NH TURNPIKE, NORTHWOOD, NH 03261, OWNED BY 1334 FIRST NH TURNPIKE, LLC., 1334 FIRST NH TURNPIKE, NORTHWOOD, NH 03261, BOOK 5817 PAGE 2939", DATED OCTOBER 1, 2019, PREPARED BY N.H. LAND CONSULTANTS OF 683C FIRST NH TURNPIKE, NORTHWOOD, NH 03261.
2. "PROPOSED SUBDIVISION PLAN, TAX MAP 110, LOT 29, 1334 FIRST NH TURNPIKE, LLC., 1334 FIRST NH TURNPIKE, NORTHWOOD, NH 03261", DATED OCTOBER 1, 2019, REVISION 2 DATED 2/12/20, PREPARED BY N.H. LAND CONSULTANTS, RECORDED AT THE ROCKINGHAM COUNTY REGISTRY OF DEEDS AS PLAN D-42008 SHEETS 1 OF 2 OF 2.

STATE OF NEW HAMPSHIRE
No. 792
CHRISTOPHER H. MENDE
LICENSED LAND SURVEYOR
SIGNATURE

SURVEYOR'S NOTE:

BOUNDARY LINES AND EXISTING SITE CONDITIONS ARE BASED ON REFERENCE PLANS 1 AND 2. I HAVE REVIEWED RECORDS ON FILE AT THE ROCKINGHAM COUNTY REGISTRY OF DEEDS FROM FEBRUARY 18, 2020 (DATE OF REFERENCE PLAN 2) TO JUNE 16, 2022. I HAVE FOUND THAT NO BOUNDARY CHANGES TO THE SUBJECT PARCEL HAVE OCCURRED. I CERTIFY THAT I WILL EXERCISE PROFESSIONAL OVERSIGHT OF SURVEYS RELATING TO THE LAYOUT OF BUILDINGS AND SEPTIC SYSTEMS SHOWN HEREON. REFERENCE PLAN 2 CONTAINS TWO PERIMETER DIMENSIONING ERRORS. THE COMMON LINE TO LOTS 29-2 & 29-3 SHOULD BE 453.19' (NOT 503.14') THE SOUTHERLY LINE OF LOT 29-5 SHOULD BE S74°-07'-25"W, 467.18' (NOT S62°-51'-02"W, 416.18').

JUNE 17, 2022
DATE

CHRISTOPHER H. MENDE
NEW HAMPSHIRE LICENSED LAND SURVEYOR #792
CIVIL CONSULTANTS
SOUTH BERWICK, MAINE 03908

GENERAL SYSTEM DESIGN AND INSTALLATION CRITERIA

1. THIS PROJECT SCOPE IS THE DESIGN AND INSTALLATION OF A SEPTIC SYSTEM FOR A 21 UNIT ELDERLY HOUSING DEVELOPMENT (2 RESIDENTS PER UNIT) AND COMMUNITY COMMON SPACE BUILDING. THE DESIGN IS DIVIDED INTO WEST AND EAST SYSTEMS. THE INTENT IS TO CONSTRUCT BOTH SYSTEMS DURING THE SAME CONSTRUCTION CYCLE. THE INTENT IS TO INSTALL 2 WELLS TO SERVICE THE UNITS, WATER SUPPLY DIVISION WILL FOLLOW THE SAME CONFIGURATION AS THE SEPTIC FIELD DIVISION.
2. OPEN EXCAVATIONS SHALL BE PROTECTED FROM STORMWATER RUNOFF TO PREVENT THE ENTRANCE OF SILT AND DEBRIS.
3. INSTALL EROSION CONTROL MEASURES AS REQUIRED.
4. SEAL ALL CONNECTIONS TO SEPTIC TANKS AND DISTRIBUTION BOXES WITH NON-SHRINK MORTAR, THICK PLASTIC CEMENT, OUTLET BOOTS AND STAINLESS STEEL CLAMPS OR OTHER APPROVED METHOD.
5. DESIGNER TO BE NOTIFIED OF ANY CONDITIONS CONTRARY TO THOSE DEPICTED ON THE PLANS AND ANY CHANGES, SUBSTITUTIONS OR DEVIATIONS PRIOR TO THE START OF CONSTRUCTION.
6. INSTALLER SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE AND ELEVATIONS OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THIS PLAN SET PRIOR TO THE START OF CONSTRUCTION. THE DESIGNER TO BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND TO BE IN INTERFERENCE WITH THE SYSTEM'S CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION SHALL BE TAKEN BEFORE PROCEEDING WITH THE WORK. INSTALLER SHALL CONTACT DIG-SAFE SYSTEM, INC 1-800-225-4977 BEFORE STARTING INSTALLATION.
7. IN THE EVENT OF SYSTEM FAILURE, ALL SOILED MATERIAL SHALL BE REMOVED. THE EFFLUENT DISPOSAL AREA SHALL BE RECONSTRUCTED IN THE SAME LOCATION USING SUITABLE CLEAN MATERIALS
8. ALL WORK TO BE INSPECTED AND APPROVED BY STATE AND/OR LOCAL MUNICIPAL AUTHORITIES AS REQUIRED BEFORE BACKFILLING.

(EDA) LEACH FIELD SIZING:

LEACHFIELD DESIGN UTILIZES FLOWS IN EXCESS OF MINIMUM NHDES FLOWS FOR SENIOR HOUSING. LEACH FIELD DESIGN IS BASED ON A FLOW OF 2,500 GPD.

BOTH EDA'S ARE DESIGNED TO THE SAME DESIGN FLOW.

PER GEOMAT DESIGN MANUAL FOR NH, APRIL 2017, TABLES 1 & 2

PERC RATE: 14 MINUTES PER INCH AT 18 INCHES ADJACENT TO WEST EDA TEST PIT 101
PERC RATE: 14 MINUTES PER INCH AT 18 INCHES ADJACENT TO EAST EDA TEST PIT 105

WITH PERC RATE OF 14 MINUTES PER INCH AND PRE-TREATMENT: 2,500 GPD / 2.96 GPD PER SQUARE FOOT = 845 SQUARE FEET REQUIRED (TABLE 2)

845 SF / 3.25 SF PER LF OF GEOMAT 3900 = 260 LF REQUIRED (TABLE 1)

PROVIDED: 275 LF IN FIVE 50FT ROWS WITH 6 INCH SPACING BETWEEN ROWS. EACH EDA IS 18.25 FT X 55 FT

WETLAND DELINEATION NOTE:

THE WETLANDS WERE DELINEATED BY GOVE ENVIRONMENTAL SERVICES, INC ON SEPTEMBER 3, 2020. IN ACCORDANCE WITH ENV-WQ 1014.03(a). THE WETLAND DELINEATION WAS BASED OFF VERY POORLY DRAINED SOILS FOUND ON SITE THAT HAVE BEEN IDENTIFIED AS HYDRIC SOILS. THESE SOILS HAVE AQUIC CONDITIONS IN THE SULFIDIC MATERIALS THAT ARE WITHIN 12" OF THE SOIL SURFACE.

WEST SEPTIC FIELD #1 SCHEDULE

TANK NUMBER	RIM	TOP TANK ELEV.	BOT TANK ELEV.	INV. IN	INV. OUT	FIN. FL. ELEV.	TANK SIZE (GAL)	PIPE OUT
ST10	565.80	564.75	558.25	563.50	563.25	566.5/565.5	2500	4" SDR-26
ST9	560.00	559.25	552.75	558.00	557.75	561.5/560.5	2500	4" SDR-26
ST8	558.50	557.25	550.75	556.00	555.75	559.0/558.5	2500	4" SDR-26
PS1	558.50	558.50	552.00	554.50	554.50	–	(6' DIA)	1-1/2" SDR-26
ST5	565.00	563.25	556.75	562.00	561.75	566.0/565.0	2500	4" SDR-26
ST6	565.50	565.25	558.75	564.00	563.75	566.5	2500	4" SDR-26
ST7	561.50	562.25	556.42	561.00	560.75	562.5	1250	4" SDR-26
VT1	561.00	557.75	551.90	556.50	556.25	–	1000	4" SDR-26
CS1	560.00	557.55	548.85	556.15	555.90	–	5000	4" SDR-35

EAST SEPTIC FIELD #2 SCHEDULE

TANK NUMBER	RIM	TOP TANK ELEV.	BOT TANK ELEV.	INV. IN	INV. OUT	FIN. FL. ELEV.	TANK SIZE (GAL)	PIPE OUT
ST1	565.50	564.70	559.50	563.50	563.25	566.5	1250	4" SDR-26
ST1A	565.00	563.75	557.25	562.50	562.25	566.5/565.0	2500	4" SDR-26
ST2	563.50	562.25	555.75	561.00	560.75	565.0/563.5	2500	4" SDR-26
PS2	562.50	562.50	555.30	558.30	558.30	–	(6' DIA)	1-1/2" SDR-26
ST4	563.00	562.25	555.75	561.00	560.75	564.5/563.5	2500	4" SDR-26
ST3	564.00	561.75	555.25	561.50	561.50	565.0/564.0	2500	4" SDR-26
ST11	566.50	565.75	559.25	564.50	564.25	567.0	2500	4" SDR-26
VT2	564.00	561.25	555.40	560.00	559.75	–	1000	4" SDR-26
CS2	562.00	561.05	552.35	559.65	559.40		5000	4" SDR-35

NOTE:

DESIGN INTENT IS TO MAINTAIN 2FT (MIN.) OF COVER AT SEPTIC TANK INLET.

LEGEND:

6086/432	DEED BOOK PAGE NUMBER
R.C.R.D.	ROCKINGHAM COUNTY REGISTRY OF DEEDS
	UTILITY POLE
OHE	OVERHEAD WIRES
	CATCH BASIN
S	SANITARY SEWER MANHOLE
MH	CONCRETE SANITARY SEWER MANHOLE
AH	PLASTIC SANITARY SEWER ACCESS HATCH
W	DRILLED WELL
	SIGN (DOUBLE POST/SINGLE POST)
FF=560.5'	FINISH FLOOR ELEVATION
565.0	SPOT ELEVATION
	STONE WALL
	LOCUS PARCEL BOUNDARY LINE
	PROPOSED STORMWATER CULVERT
563	EXISTING CONTOUR
561	PROPOSED CONTOUR
	PROPOSED OPEN SPACE
	PROPOSED SILT FENCE/EROSION CONTROL BERM
	PROPOSED ARBORVITAE (8 TOTAL)
	PROPOSED HIGHBUSH CRANBERRY (5 TOTAL)

SOIL MAPPING NOTE:

THE SITE SPECIFIC SOIL SURVEY REPORT HAS BEEN PREPARED BY JAMES GOVE, CSS #004, DATED SEPTEMBER 3, 2020, WITH ADDENDUM FOR ADDITIONAL TEST PITS DATED SEPTEMBER 28, 2020. MAPPING WAS CONDUCTED PER THE STANDARDS OF "SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, SSSNNE SPECIAL PUBLICATION NO. 3, VERSION 5.0, DECEMBER 2017

STATE APPROVALS:

NHDES ALTERATION OF TERRAIN PERMIT #AoT-2008, GRANTED 9-7-2021

NHDES SUBSURFACE BUREAU C.A. #TBD (PENDING)

NEW HAMPSHIRE
Designer
of
Subsurface Disposal
Systems
Jay E. Stephens
No. 536
Department of Environmental Services

THE STATE OF NEW HAMPSHIRE
JAY E. STEPHENS
No. 4050
LICENSED PROFESSIONAL ENGINEER
9/16/2022

CIVIL CONSULTANTS
Engineers
Planners
Surveyors
P.O. Box 100
South Berwick
Maine
03908
207-384-2550
www.civcon.com

NO.	REVISIONS	INT.	DATE
3	ADD LOT LOADING CAPACITY	GRA	9/16/22
2	REVISED PER NHDES COMMENTS	GRA	8/31/22
1	ADD SURVEYOR'S NOTE	JAA	6/17/22

RECORD OWNER:
CHESTNUT & CAPE, INC.
ADDRESS:
30 N. RIVER LAKE RD E.
NORTHWOOD, NH 03261

NORTHWOOD ELDERLY HOUSING DEVELOPMENT
SITE DEVELOPMENT PLAN
OLDE CANTERBURY ROAD
NORTHWOOD, NEW HAMPSHIRE

PREPARED FOR: CURTIS NALEID
CLIENT ADDRESS: 30 N RIVER LAKE RD E, NORTHWOOD, NH 03261

1" = 50'
0' 50'

DATE: 5/03/2022
DRAWN BY: JAA
CHECKED BY: GRA
APPROVED BY: GRA

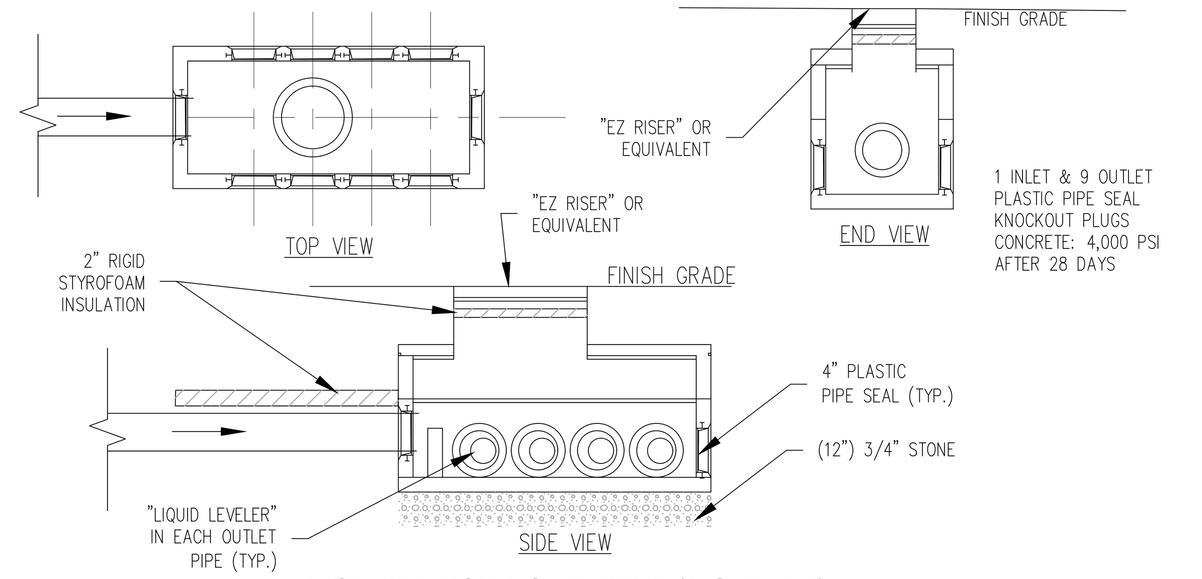
SEPTIC LAYOUT PLAN

PROJECT NO: 20-132.00

SP-1

SHEET: 1 OF 3

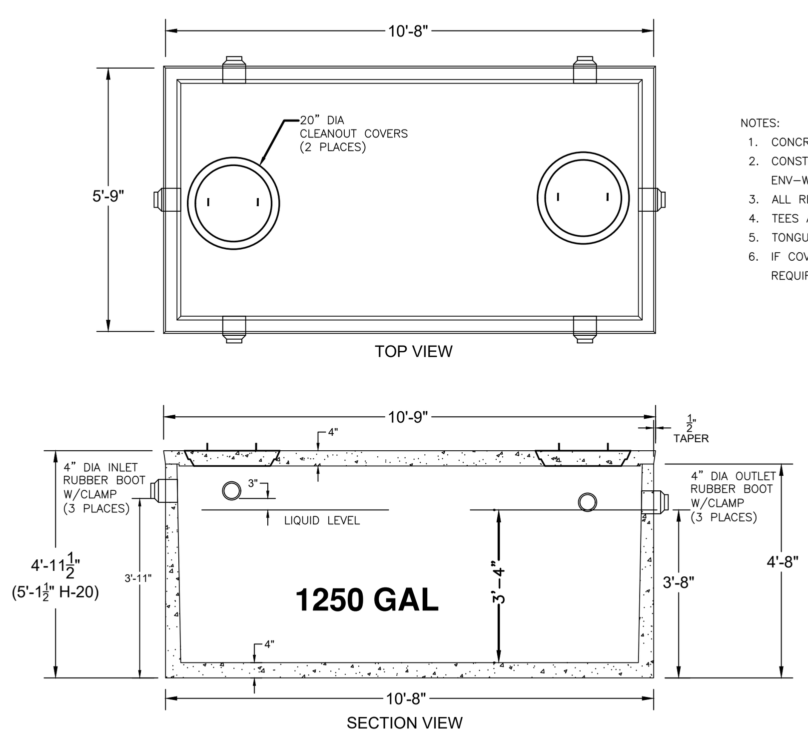
CADD FILE: J:\AAA\2020\2013200\CARLSON\ENG\DWG\2013200-SITEPLAN-OPTION-2.DWG



1 INLET & 9 OUTLET PLASTIC PIPE SEAL KNOCKOUT PLUGS CONCRETE: 4,000 PSI AFTER 28 DAYS

DISTRIBUTION BOX DETAIL (9-OUTLET)

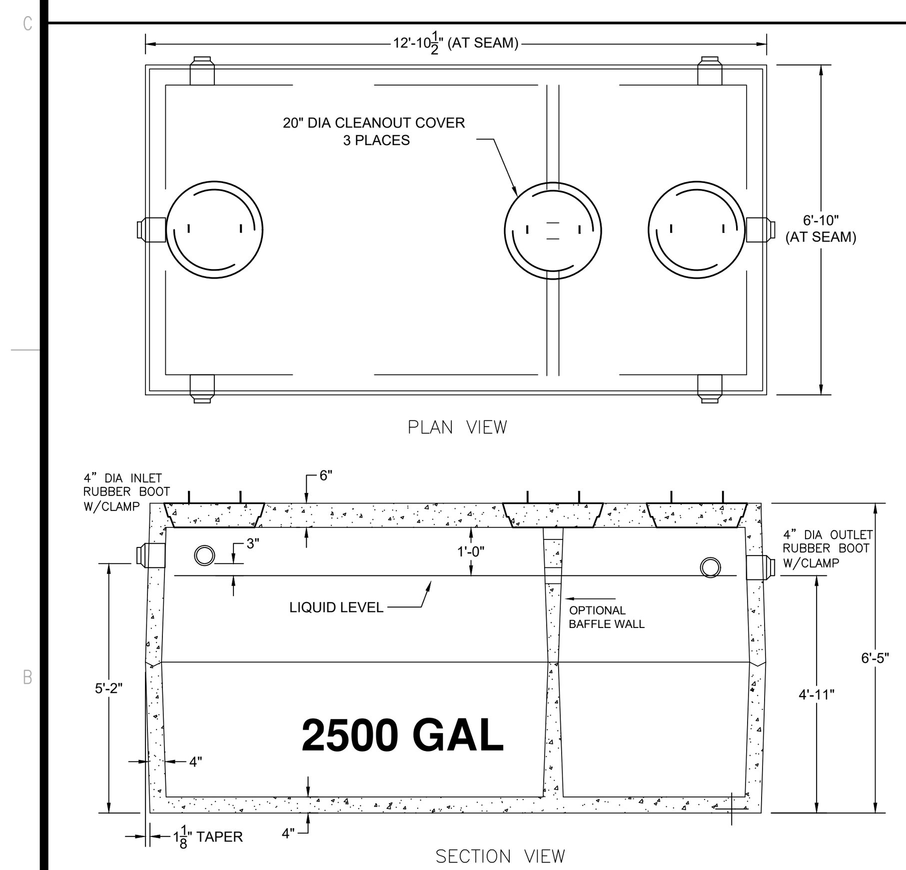
NOT TO SCALE



NOTES:
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF SEPTIC TANK CONFORMS WITH NHDES ENV-WQ1000.
3. ALL REINFORCEMENT PER ASTM C1227.
4. TEES AND GAS BAFFLE TO BE PROVIDED.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK IS REQUIRED. ALSO AVAILABLE IN AASHTO HS-20 LOADING.

1250 GALLON SEPTIC TANK DETAIL

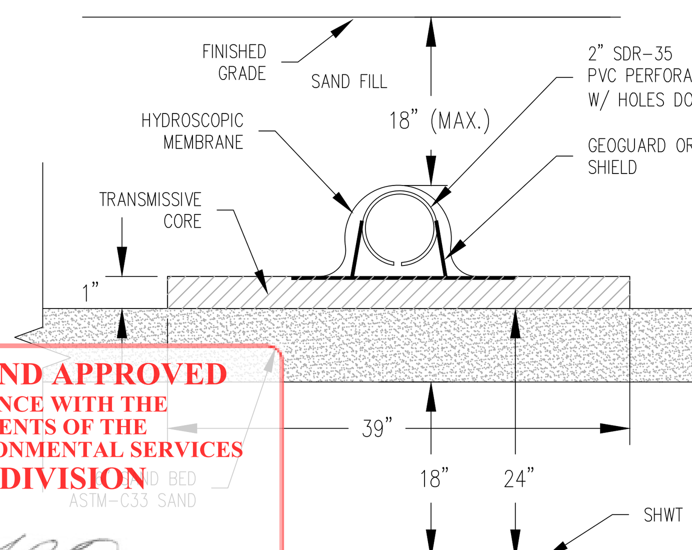
NOT TO SCALE



NOTES:
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. CONSTRUCTION OF SEPTIC TANK CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. TEES AND GAS BAFFLE SOLD SEPARATELY.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.
6. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED. ALSO AVAILABLE IN AASHTO HS-20 LOADING.

2500 GALLON SEPTIC TANK DETAIL

NOT TO SCALE

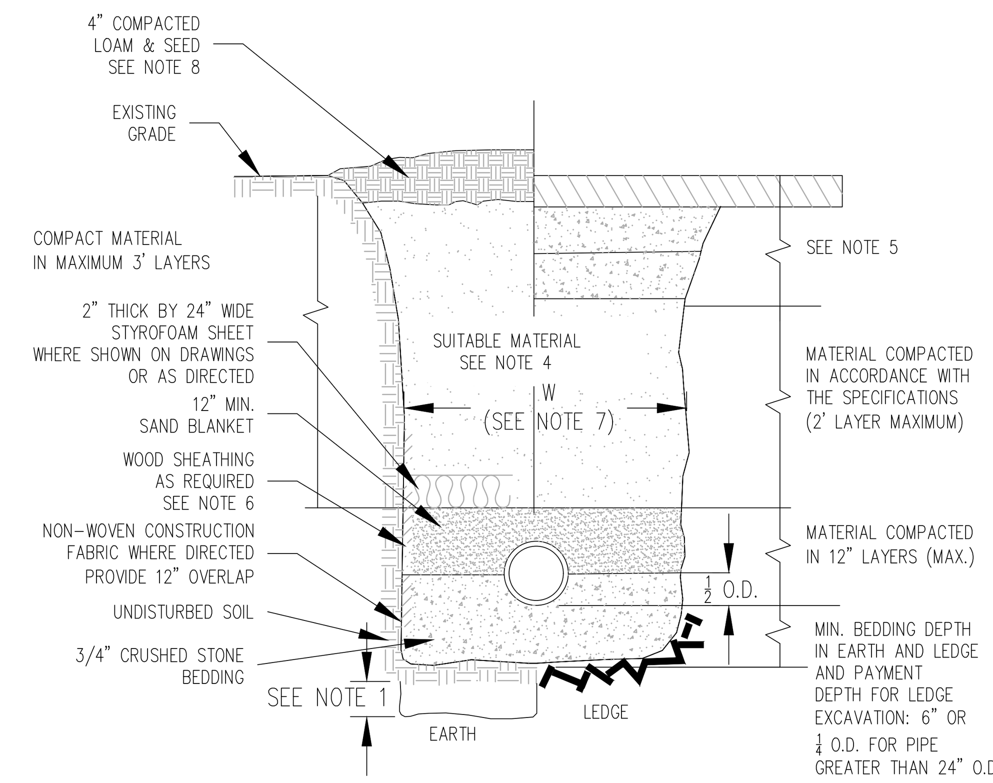


NOTES:
1. SEPTIC FIELD BY GEOMATRIX SYSTEMS, LLC.
2. NHDES REQUIRES ALL GEOMAT LOW PROFILE LEACHING SYSTEM BE PLACED ON A 6" SAND BED OF ASTM C-33 SAND OR PRESBY SAND
3. SEPTIC FIELD INSTALLATION TO BE ACCORDANCE WITH NHDES REGULATIONS AND GEOMATRIX SYSTEMS INSTRUCTIONS.
4. WEST SEPTIC FIELD DESIGN USED TEST PIT 101 AND EAST SEPTIC FIELD DESIGN USED TEST PIT 105. BOTH SEPTIC FIELDS MEET 24" TO THE SHWT FROM THE BOTTOM OF THE FIELD AND 18" TO THE SHWT FROM THE BOTTOM OF SAND BED.

GEOMATRIX SEPTIC FIELD DETAIL

NOT TO SCALE

REVIEWED AND APPROVED
IN ACCORDANCE WITH THE REQUIREMENTS OF THE NH DEPT OF ENVIRONMENTAL SERVICES
WATER DIVISION
Date: 10/6/2022
#eSA2022100604

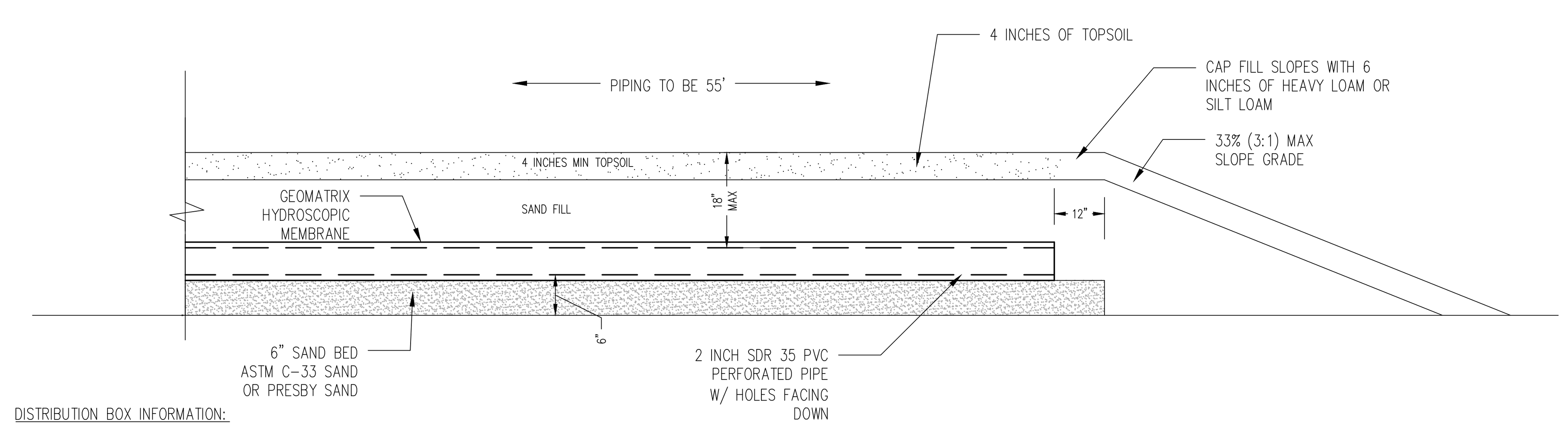


SEWER LINE TRENCH DETAIL

NOT TO SCALE

NOTES:

1. ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE:
   BACKFILL AS AS SHOWN ON THE DRAWINGS.
2. BEDDING:
   WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, GRADED SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH TO 1-1/2 INCH SHALL BE USED.
3. SAND BLANKET:
   CLEAN SAND FREE FROM ORGANIC MATTER, SO GRADED THAT 90-100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #200 SIEVE. BLANKET MAY BE OMITTED FOR CAST-IRON, DUCTILE IRON AND REINFORCED CONCRETE PIPE PROVIDED HOWEVER THAT NO STONE LARGER THAN 2" IS IN CONTACT WITH THE PIPE.
4. SUITABLE MATERIAL:
   IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS. SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS; PIECES OF PAVEMENT; ORGANIC MATTER; TOP SOIL; ALL WET OR SOFT MUCK, PEAT OR CLAY; ALL EXCAVATED LEDGE MATERIAL; ALL ROCK OVER 6" IN LARGEST DIMENSION; AND ANY MATERIAL WHICH IS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION. IN CROSS-COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK OR PEAT. IF HE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER, FOR MAINTENANCE AND POSSIBLY RECONSTRUCTION, WILL BE PRESERVED.
5. BASE COURSE AND PAVEMENT:
   SHALL MEET THE REQUIREMENT OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES - DIVISIONS 300 AND 400 RESPECTIVELY.
6. WOOD SHEETING IF REQUIRED:
   WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION 1 FOOT ABOVE THE TOP OF THE PIPE, WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.
7. W = MAXIMUM ALLOWABLE TRENCH PAYMENT WIDTH
   FOR ROCK EXCAVATION, FOR ORDERED EXCAVATION BELOW GRADE AND HANDLING OF EXCAVATED COMTAMINATED SOILS. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES IN NOMINAL DIAMETER W SHALL BE 24 INCHES PLUS PIPE OUTSIDE DIAMETER (O.D.).
8. FOR CROSS COUNTRY CONSTRUCTION:
   BACKFILL OR FILL SHALL BE MOUNDED TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.

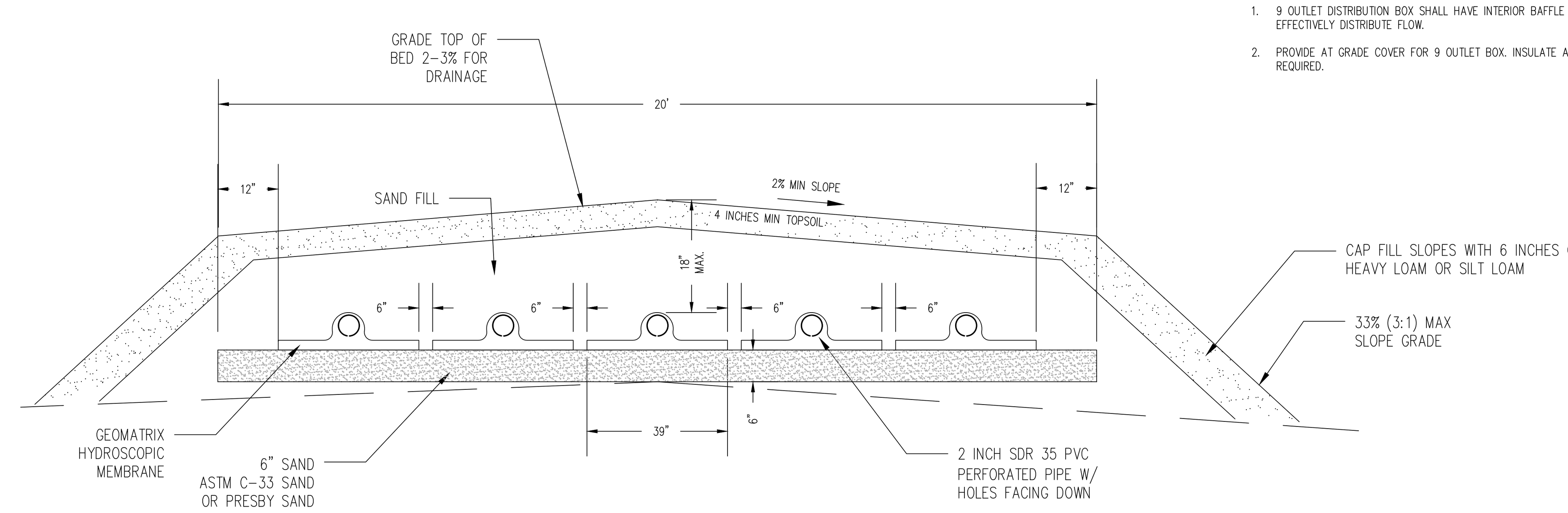


DISTRIBUTION BOX INFORMATION:

FIELD	DISTRIBUTION BOX INV IN.	INV OUT.	2" PVC PIPE INV IN	BED BOTTOM
WEST	553.20	553.10	553.08	553.00
EAST	559.20	559.10	559.08	559.00

SEPTIC FIELD SECTION

NOT TO SCALE



DISTRIBUTION BOX REQUIREMENTS

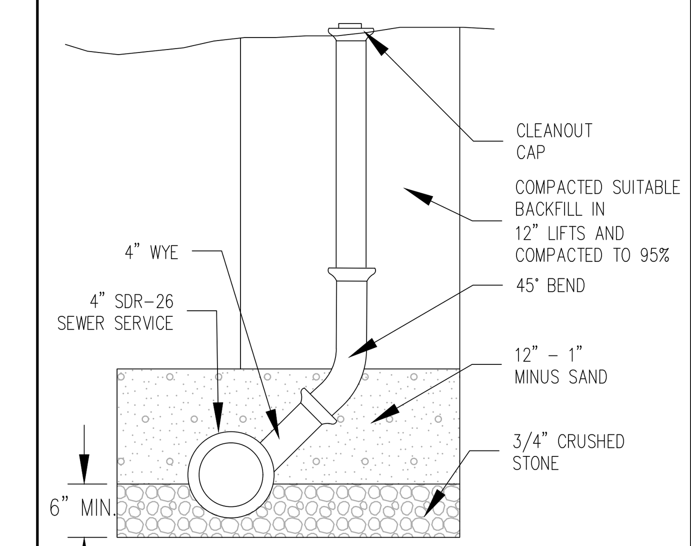
1. 9 OUTLET DISTRIBUTION BOX SHALL HAVE INTERIOR BAFFLE TO EFFECTIVELY DISTRIBUTE FLOW.
2. PROVIDE AT GRADE COVER FOR 9 OUTLET BOX. INSULATE AS REQUIRED.

CONSTRUCTION SEQUENCE:

1. REMOVE TOPSOIL AND EXCAVATE TO ELEVATION SPECIFIED ON PLAN SET.
2. ROTOTILL OR SCARIFY GROUND PRIOR TO INSTALLATION OF STONE AND PIPING.
3. 4 INCH PVC DISTRIBUTION LINES, EACH 55' LONG AND LAID AS LEVEL AS POSSIBLE IN A CLOSED CONTINUOUS NETWORK.
4. 6" ASTM C-33 SAND OR PRESBY SAND SHALL BE PLACED UNDER SYSTEM.
5. INSTALL LOAM AS INDICATED ON DETAIL AND SEED.
6. PROVIDE EROSION CONTROL MEASURES TO PROTECT AREA AND PROMOTE VEGETATION
7. BOTH LEACH FIELDS TO BE INSTALLED IN ACCORDANCE WITH GEOMATRIX, INC. INSTRUCTIONS.

SEPTIC FIELD SECTION

NOT TO SCALE



SEWER SERVICE CLEANOUT

NOT TO SCALE

NEW HAMPSHIRE Designer of Subsurface Disposal Systems Jay E. Stephens No. 536 Department of Environmental Services

STATE OF NEW HAMPSHIRE GEOFFREY R. ALEVA No. 9920 LICENSED PROFESSIONAL ENGINEER

5/3/2022

THE STATE OF NEW HAMPSHIRE JAY E. STEPHENS No. 4050 LICENSED PROFESSIONAL ENGINEER

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P.O. Box 100
South Berwick
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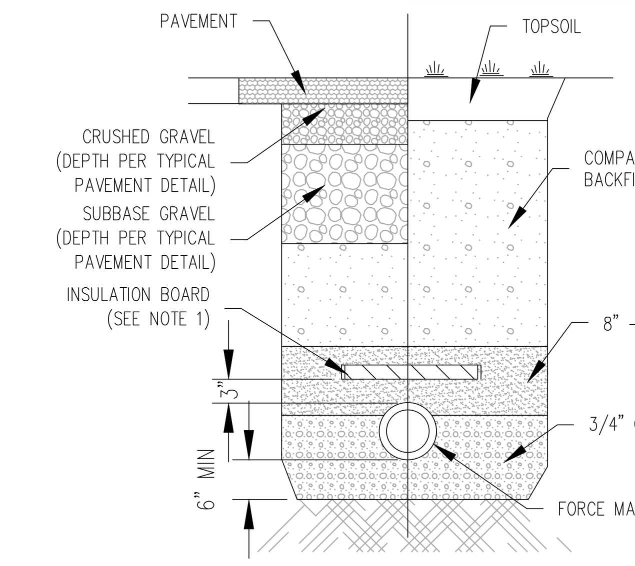
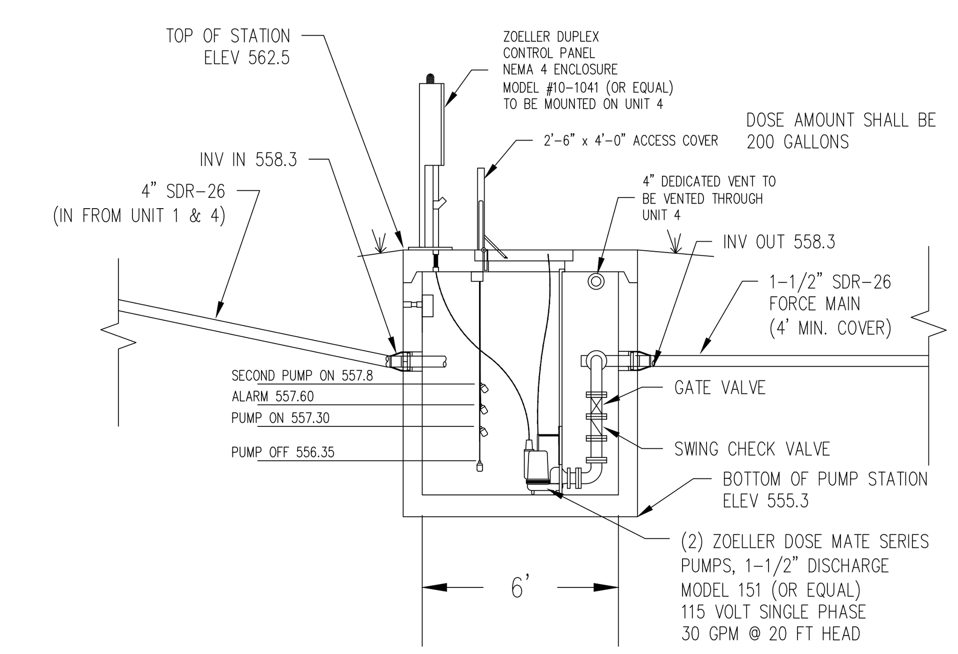


NOTES:
1. 2"x24"x96" RIGID EXTRUDED POLYSTYRENE INSULATION BOARD SHALL BE PLACED IN AREAS WHERE COVER OVER LINE IS LESS THAN 5', OR WHERE SHOWN.
2. SEWER MAINS SHALL HAVE 10' MINIMUM HORIZONTAL SEPARATION FROM WATER MAINS,.

FORCE MAIN TRENCH DETAIL

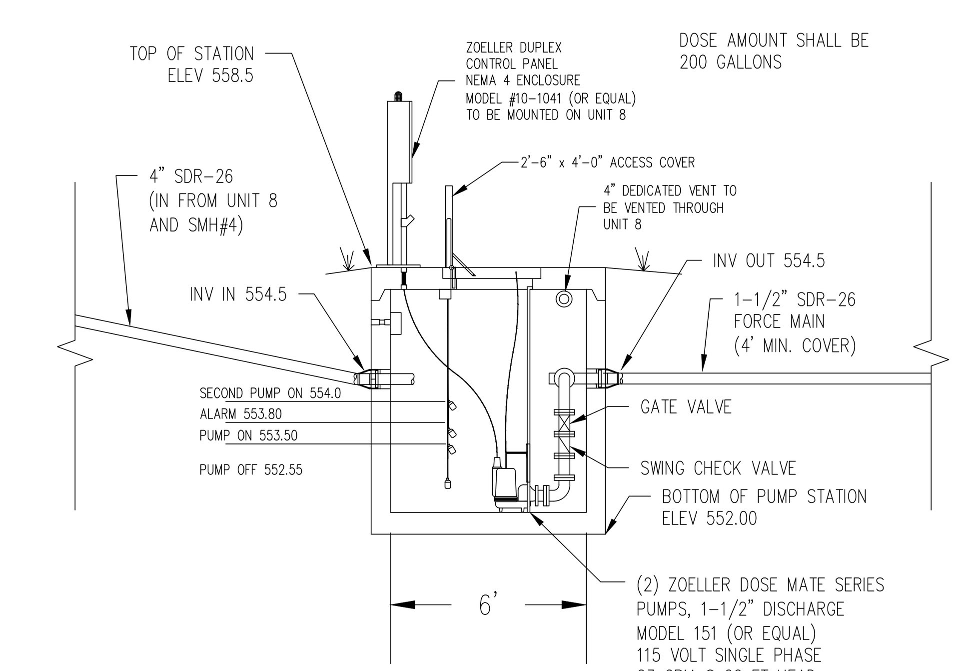
NOT TO SCALE

REVISIONS			
NO.		INT.	DATE



EAST SEPTIC PUMP STATION (PS2) DETAIL

NOT TO SCALE



WEST SEPTIC PUMP STATION (PS1) DETAIL

NOT TO SCALE

STATE APPROVALS:

NHDES ALTERATION OF TERRAIN PERMIT #AoT-1858, GRANTED 9-11-2020

NHDES SUBSURFACE BUREAU C.A. #TBD

RECORD OWNER:
CHESTNUT & CAPE, INC.

ADDRESS:
30 N. RIVER LAKE RD E.
NORTHWOOD, NH 03261

NORTHWOOD ELDERLY HOUSING DEVELOPMENT
SITE DEVELOPMENT PLAN
OLDE CANTERBURY ROAD
NORTHWOOD, NEW HAMPSHIRE

PREPARED FOR: CURTIS NALEID
CLIENT ADDRESS: 30 N RIVER LAKE RD E, NORTHWOOD, NH 03261

1" = 50'
0' 50'

DATE: 5/03/2022
DRAWN BY: NJR/DRC
CHECKED BY: GRA
APPROVED BY: GRA

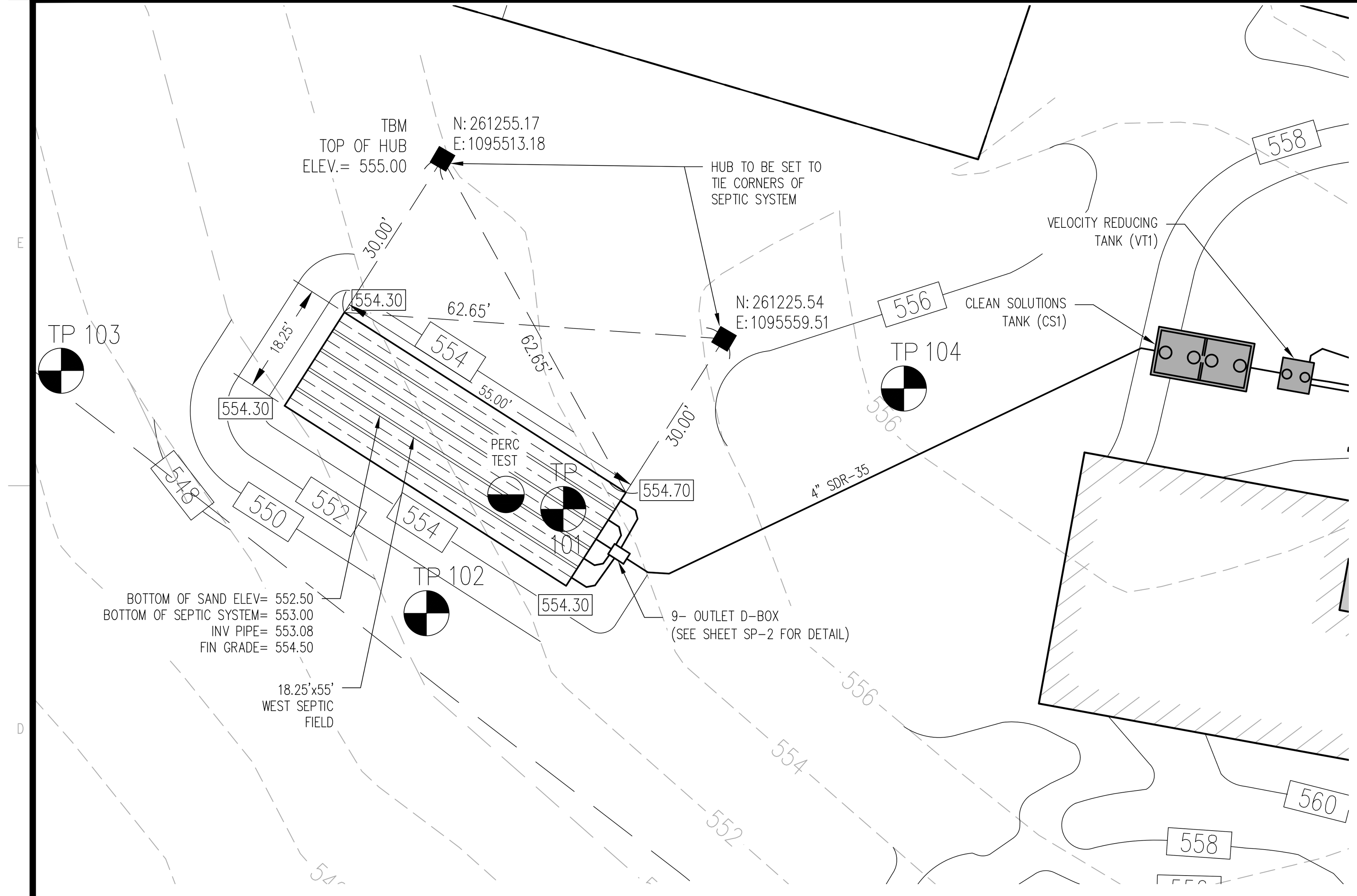
SEPTIC DETAILS

PROJECT NO: 20-132.00

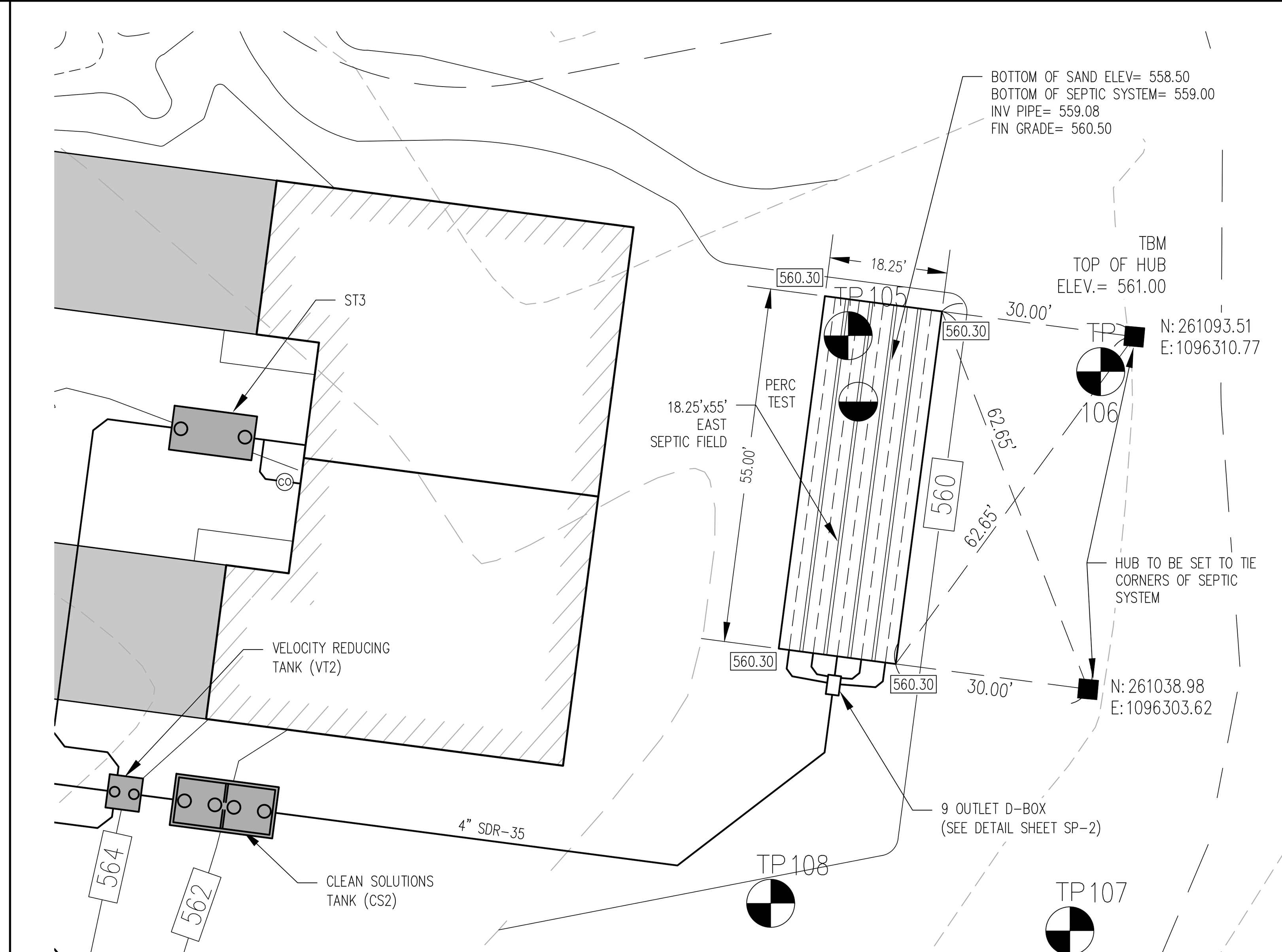
SP-2

SHEET: 2 OF 3

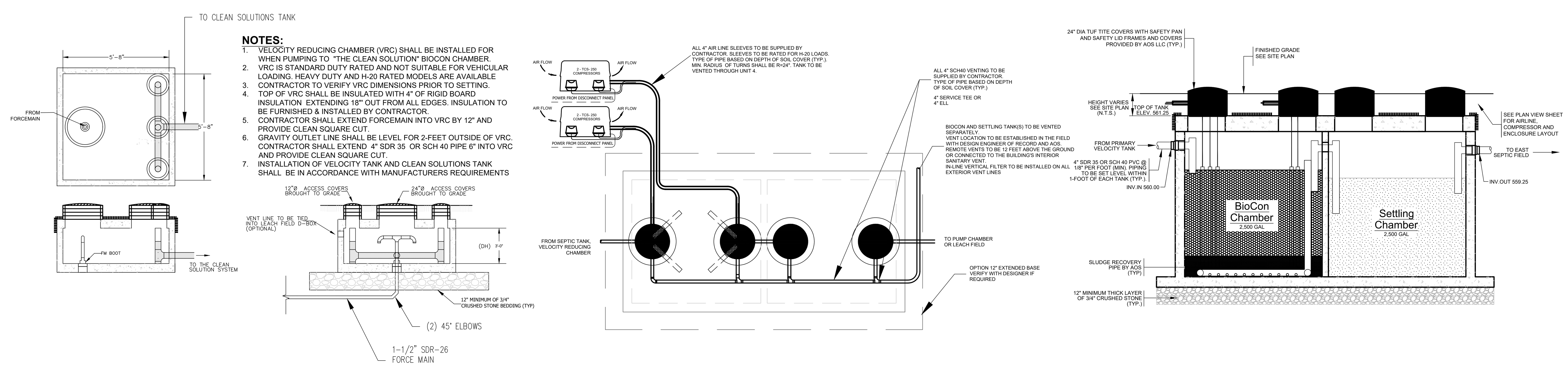
CADD FILE: J:\AAA\2020\2013200\CARLSON\ENG\DWG\2013200-SITEPLAN-OPTION-2.DWG



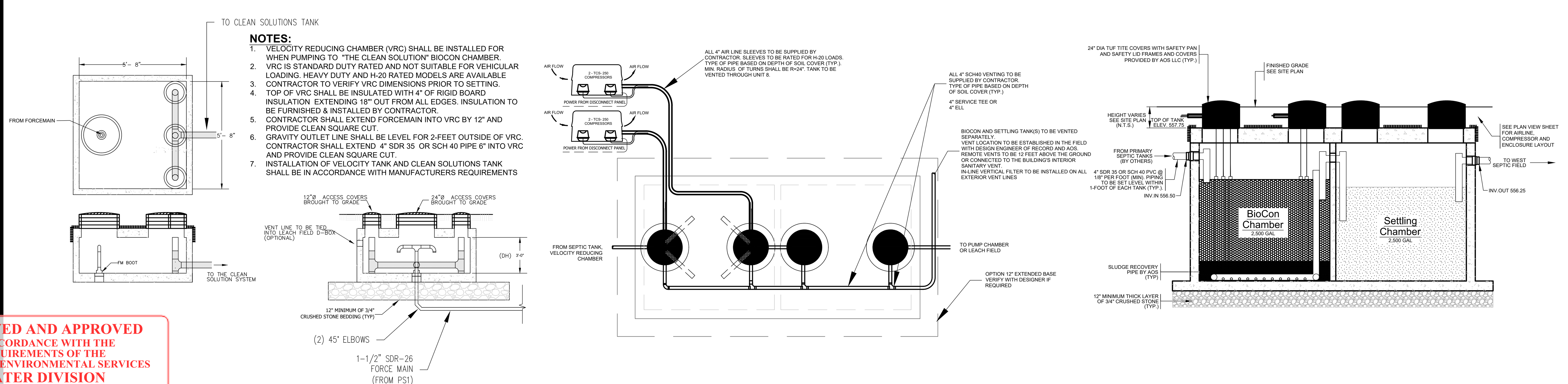
WEST SEPTIC FIELD (EDA) DETAIL
SCALE: 1"=20'



EAST SEPTIC FIELD (EDA) DETAIL
SCALE: 1"=20'



EAST SEPTIC VELOCITY REDUCING TANK (VT2) & CLEAN SOLUTIONS (CS2) TANK DETAILS
NOT TO SCALE



WEST SEPTIC VELOCITY REDUCING TANK (VT1) & CLEAN SOLUTIONS (CS1) TANK DETAILS
NOT TO SCALE

REVIEWED AND APPROVED
IN ACCORDANCE WITH THE REQUIREMENTS OF THE NH DEPT OF ENVIRONMENTAL SERVICES
WATER DIVISION
Date: 10/6/2022
#eSA2022100604

Test Pit 101
00–10" Dark brown (10YR4/3) fine sandy loam; weak fine granular structure; moist, friable.
10–24" Yellowish brown (10YR5/6) fine sandy loam; weak fine granular structure; moist, friable
24–31" Light olive brown (2.5Y5/4) sandy loam; few redox features in 7.5YR5/8 and 10YR6/1; moderate medium platy structure; moist, firm
31–42" Yellowish brown (10YR5/6) sandy loam; few redox features in 7.5YR5/8 and 10YR6/1; moderate medium platy structure; moist, firm
42–60" Light olive brown (2.5Y5/4) sandy loam: many redox features in 7.5YR5/8 and 10YR6/1; moderate medium platy structure; moist, firm
Perc Rate: 14 mpi @ 18 inches

Series: Woodbridge
Estimated seasonal high water table: 24"
Observed water: none
Restrictive layer: 24"
Soil Hydrologic Group: C

Test Pit 102
00–10" Dark brown (10YR4/3) fine sandy loam; weak fine granular structure; moist, friable.
10–20" Strong brown (7.5YR5/8) fine sandy loam; weak fine granular structure; moist, friable.
20–37" Light olive brown (2.5Y5/4) sandy loam; common redox concentrations in 7.5YR5/8 and few depletions in 10YR6/1; moderate medium platy structure; moist, firm
37–60" Yellowish brown (10YR5/6) sandy loam; common redox concentrations in 7.5YR5/8, few in 5YR4/6, and few depletions in 10YR6/1; moderate medium platy structure; moist, firm

Series: Woodbridge
Estimated seasonal high water table: 20"
Observed water: 45"
Restrictive layer: 20"
Soil Hydrologic Group: C

Test Pit 103
00–09" Dark brown (10YR4/3) fine sandy loam; weak fine granular structure; moist, friable.
10–20" Strong brown (7.SYR5/8) fine sandy loam; weak fine granular structure; moist, friable.
20–36" Light olive brown (2.5Y5/4) sandy loam; common redox concentrations in 7.5YR5/8 and few depletions in 10YR6/1; moderate medium platy structure; moist, firm
36–60" Yellowish brown (I0YRS/6) sandy loam; common redox concentrations in 7.5YR5/8, few in 5YR4/6, and few depletions in 10YR6/l; moderate medium platy structure; moist, firm

Series: Woodbridge
Estimated seasonal high water table: 29"
Observed water: none
Restrictive layer: 29"
Soil Hydrologic Group: C

Test Pit 104
00–10" Dark brown (10YR4/3) fine sandy loam; weak fine granular structure; moist, friable.
10–28" Strong brown (7.5YR5/8) sandy loam; weak fine granular structure; moist, friable
28–60" Light olive brown (2.5Y5/4) sandy loam; few redox features in 7.5YR5/8 and 10YR6/3; moderate medium platy structure; moist, firm

Series: Woodbridge
Estimated seasonal hIgh water table: 28"
Observed water: none
Restrictive layer: 28"
Soil Hydrologic Group: C

Test Pit 105
00–07" Dark brown (10YR4/3) fine sandy loam; weak fine granular structure; moist, friable.
07–28" Yellowish brown (10YR5/6) fine sandy loam; weak fine granular structure; moist, friable.
28–42" Yellowish brown (10YR4/6) sandy loam; few redox concentrations in 7.5YR5/8 and 5YR4/4; moderate medium platy structure; moist, firm.
42–60" Yellowish brown (I0YR5/64) sandy loam; redox features as above; moderate medium platy structure; moist, firm
Perc Rate: 14 mpi @ 18 inches

Series: Woodbridge
Estimated seasonal high water table: 28"
Observed water; 42"
Restrictive layer: 28"
Soil Hydrologic Group: C

Test Pit 106
00–08" Dark brown (10YR4/3) fine sandy loam; weak fine granular structure; moist, friable.
08–30" Yellowish brown (I0YR5/6) fine sandy loam; weak fine granular structure; moist, friable
30–60" Light olive brown (2.5Y5/4) sandy loam; common redox concentrations in 7.5YR5/8, few depletions in 10YR6/1; few thin reddish brown (5YR4/6) diagonal streaks; moderate medium platy structure; moist, firm

Series: Woodbridge
Estimated seasonal high water table: 30"
Observed water: none
Restrictive layer: 30"
Soil Hydrologic Group: C

Test Pit 107
00–08" Dark brown (10YR4/3) fine sandy loam; weak fine granular structure; moist, friable.
08–23" Yellowish brown (10YR5/6) fine sandy loam; weak fine granular structure; moist, friable.
23–33" Light olive brown (2.5Y5/4) silt loam loam; common redox features in 7.5YR5/8; massive structure; moist, firm
33–45" Yellowish brown (10YR5/6) and gray (10YR6/l) very fine sandy loam sandy loam; few redox features in 7.5YR5/8 and 10YR6/1; massive structure; moist, firm
45–60" Light olive brown (2.5Y5/4) very fine sandy loam: many redox features in 7.5YR5/8 and 10YR6/1; massive structure; moist, firm.

Series: Belgrade
Estimated seasonal high water table: 23"
Observed water: none
Restrictive layer: 23"
SoilHydrologic Group: C

Test Pit 108
00–13" Dark brown (10YR4/3) fine sandy loam; weak fine granular structure; moist, friable.
13–30" Yellowish brown (IOYR5/6) fine sandy loam; weak fine granular structure; moist, friable. Very stony 4" above Bx horizon
30–60" Light olive brown (2.5Y5/4) sandy loam; few redox features in 7.5YR5/8 and 10YR6/1; moderate medium platy structure; moist, firm.

Series: Woodbridge
Estimated seasonal high water table: 30"
Observed water: 42"
Restrictive layer: 30"
Soil Hydrologic Group: C

NEW HAMPSHIRE
Designer of Subsurface Disposal Systems
Michael Mariano
No. 941
Department of Environmental Services

STATE APPROVALS:

NHDES ALTERATION OF TERRAIN PERMIT #AoT-1858, GRANTED 9-11-2020

NHDES SUBSURFACE BUREAU C.A. #TBD

STATE OF NEW HAMPSHIRE
GEOFFREY ALENA
No. 4920
LICENSED PROFESSIONAL ENGINEER
5/3/2022

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NO.	REVISIONS	INT.	DATE

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CHESTNUT & CAPE, INC.

ADDRESS:
30 N. RIVER LAKE RD E.
NORTHWOOD, NH 03261

NORTHWOOD ELDERLY HOUSING DEVELOPMENT
SITE DEVELOPMENT PLAN
OLDE CANTERBURY ROAD
NORTHWOOD, NEW HAMPSHIRE

PREPARED FOR: CURTIS NALEID
CLIENT ADDRESS: 30 N RIVER LAKE RD E, NORTHWOOD, NH 03261

1" = 20'
0' 20'

DATE: 5/03/2022
DRAWN BY: JAA
CHECKED BY: GRA
APPROVED BY: GRA

SEPTIC FIELD LAYOUT & TEST PIT DESCRIPTIONS

PROJECT NO: 20-132.00

SP-3

SHEET: 3 OF 3

CADD FILE: J:\AAA\2020\2013200\CARLSON\ENG\DWG\2013200-SITEPLAN-OPTION-2.DWG

SITE PLAN

SCALE: 1"=50'

NOTE:
GRAVITY SEWER PIPES TO BE SDR-26 FOR SEWER FLOWING FROM UNITS 1-11 TO VELOCITY TANKS (VT1 & VT2). GRAVITY SEWER FLOWING FROM CLEAN SOLUTIONS TANKS (CS1 & CS2) TO EAST AND WEST SEPTIC FIELDS TO BE SDR-35. ALL FORCE MAIN PIPES TO BE SDR-26.

STATE OF NEW HAMPSHIRE GEOFFREY R. ALEVA No. 9920 LICENSED PROFESSIONAL ENGINEER

5/3/2022

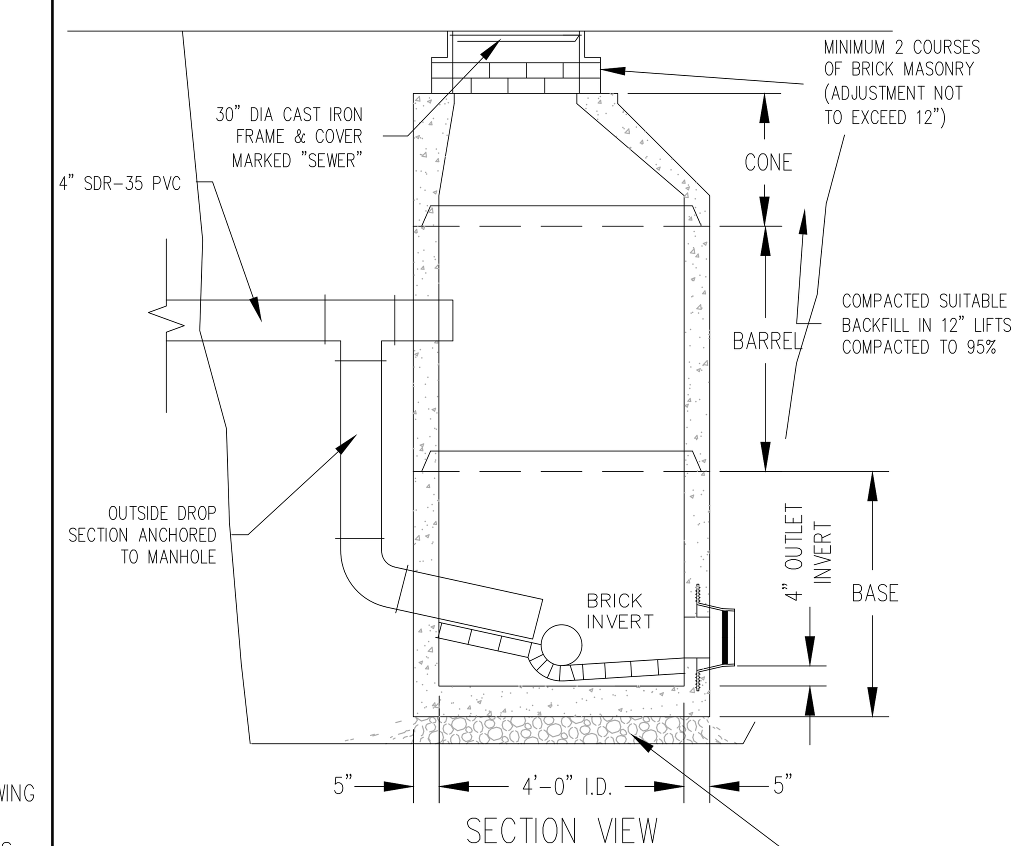
WEST SEPTIC FIELD #1 SCHEDULE

TANK NUMBER	RIM	TOP TANK ELEV.	BOT TANK ELEV.	INV. IN	INV. OUT	FIN. FL. ELEV.	TANK SIZE (GAL)	PIPE OUT
ST10	565.80	564.75	558.25	563.50	563.25	566.5/565.5	2500	4" SDR-26
ST9	560.00	559.25	552.75	558.00	557.75	561.5/560.5	2500	4" SDR-26
ST8	558.50	557.25	550.75	556.00	555.75	559.0/558.5	2500	4" SDR-26
PS1	558.50	558.50	552.00	554.50	554.50	–	(6' DIA)	1-1/2" SDR-26
ST5	565.00	563.25	556.75	562.00	561.75	566.0/565.0	2500	4" SDR-26
ST6	565.50	565.25	558.75	564.00	563.75	566.5	2500	4" SDR-26
ST7	561.50	562.25	556.42	561.00	560.75	562.5	1250	4" SDR-26
VT1	561.00	557.75	551.90	556.50	556.25	–	1000	4" SDR-26
CS1	560.00	557.55	548.85	556.15	555.90	–	5000	4" SDR-35

EAST SEPTIC FIELD #2 SCHEDULE

TANK NUMBER	RIM	TOP TANK ELEV.	BOT TANK ELEV.	INV. IN	INV. OUT	FIN. FL. ELEV.	TANK SIZE (GAL)	PIPE OUT
ST1	565.50	564.70	559.50	563.50	563.25	566.5	1250	4" SDR-26
ST1A	565.00	563.75	557.25	562.50	562.25	566.5/565.0	2500	4" SDR-26
ST2	563.50	562.25	555.75	561.00	560.75	565.0/563.5	2500	4" SDR-26
PS2	562.50	562.50	555.30	558.30	558.30	–	(6' DIA)	1-1/2" SDR-26
ST4	563.00	562.25	555.75	561.00	560.75	564.5/563.5	2500	4" SDR-26
ST3	564.00	561.75	555.25	561.50	561.50	565.0/564.0	2500	4" SDR-26
ST11	566.50	565.75	559.25	564.50	564.25	567.0	2500	4" SDR-26
VT2	564.00	561.25	555.40	560.00	559.75	–	1000	4" SDR-26
CS2	562.00	561.05	552.35	559.65	559.40		5000	4" SDR-35

NOTE:
DESIGN INTENT IS TO MAINTAIN 2FT (MIN.) OF COVER AT SEPTIC TANK INLET.

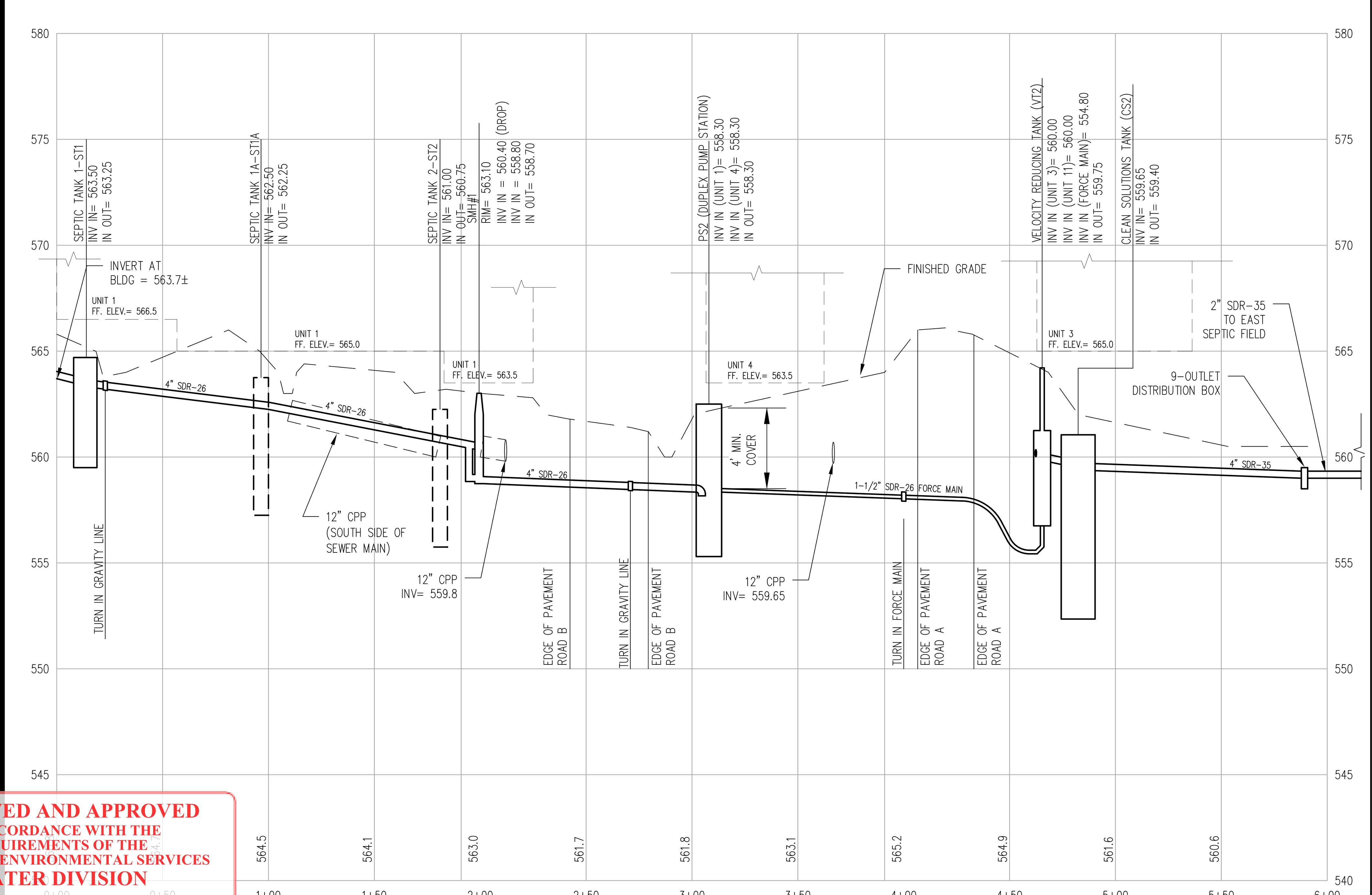


SEWER DROP MANHOLE DETAIL

NOT TO SCALE

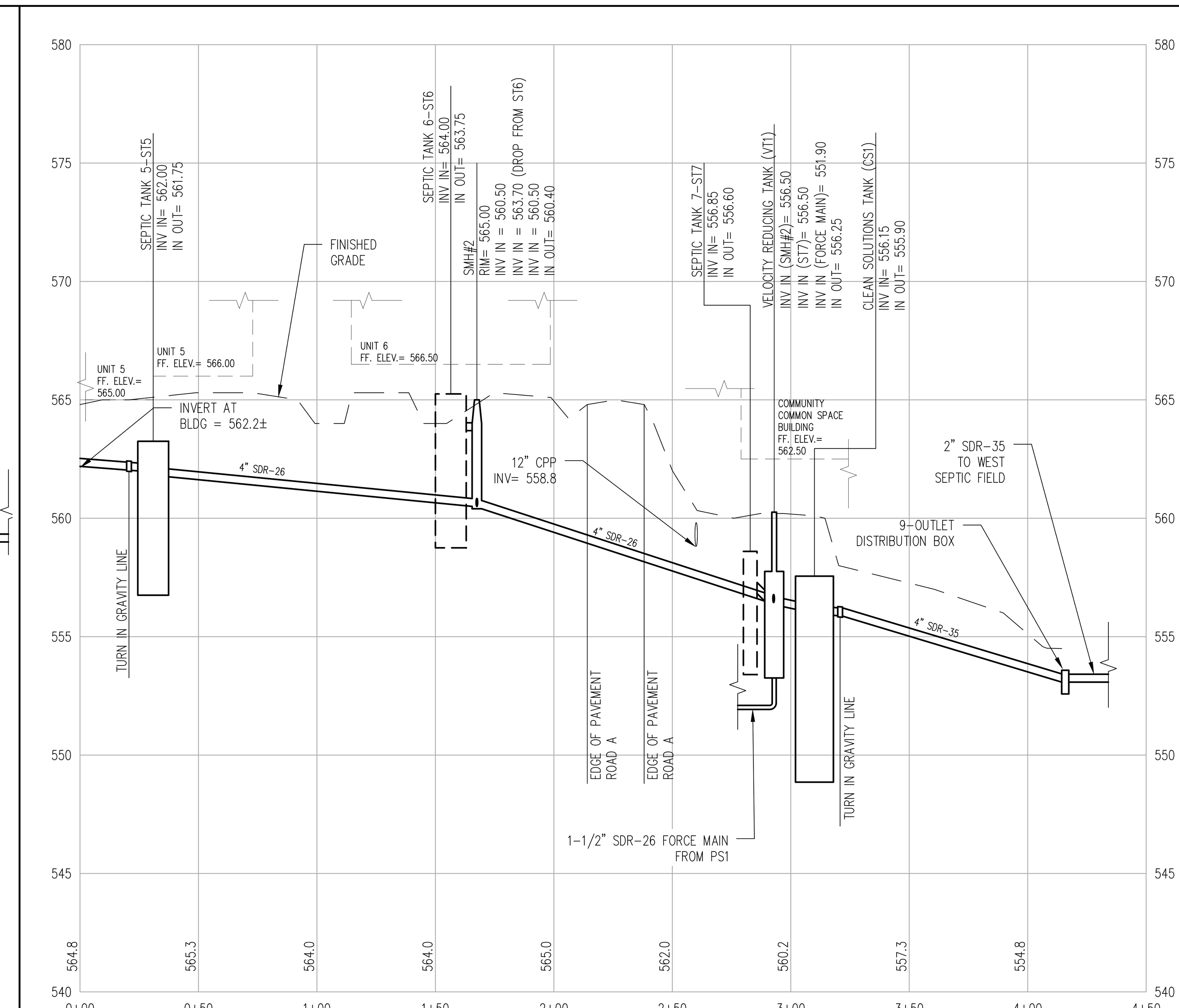
STATE OF NEW HAMPSHIRE JAY E. STEPHENS No. 4050 LICENSED PROFESSIONAL ENGINEER

5/3/2022



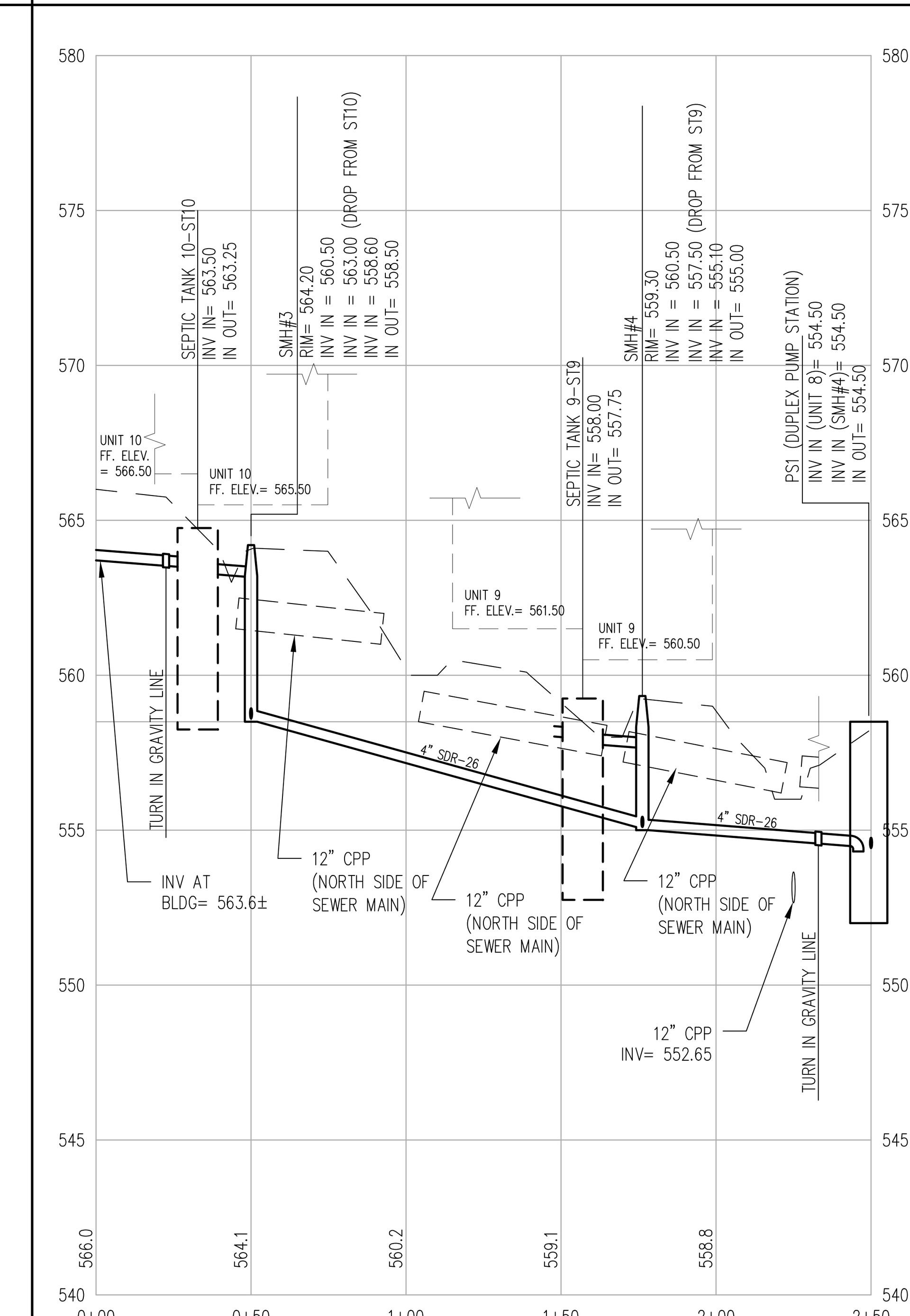
SEWER PROFILE (UNIT 1 TO EAST FIELD)

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



SEWER PROFILE (UNIT 5 TO WEST FIELD)

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



SEWER PROFILE (UNIT 10 TO PUMP STATION 1)

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

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REVISIONS

NO.		INT.	DATE

RECORD OWNER:
CHESTNUT & CAPE, INC.

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30 N. RIVER LAKE RD E.
NORTHWOOD, NH 03261

NORTHWOOD ELDERLY HOUSING DEVELOPMENT
SITE DEVELOPMENT PLAN
OLDE CANTERBURY ROAD
NORTHWOOD, NEW HAMPSHIRE

PREPARED FOR: CURTIS NALEID
CLIENT ADDRESS: 30 N RIVER LAKE RD E, NORTHWOOD, NH 03261

1" = 50'

0' 50'

DATE: 5/03/2022
DRAWN BY: JAA
CHECKED BY: GRA
APPROVED BY: GRA

SEWER
PLAN & PROFILE

PROJECT NO: 20-132.00

SW1

SHEET: 1 OF 1

CADD FILE: J:\AAA\2020\2013200\CARLSON\ENG\DWG\2013200-SITEPLAN-OPTION-2.DWG

REVIEWED AND APPROVED
IN ACCORDANCE WITH THE
REQUIREMENTS OF THE
NH DEPT OF ENVIRONMENTAL SERVICES
WATER DIVISION

Date: 10/6/2022

#eSA2022100604