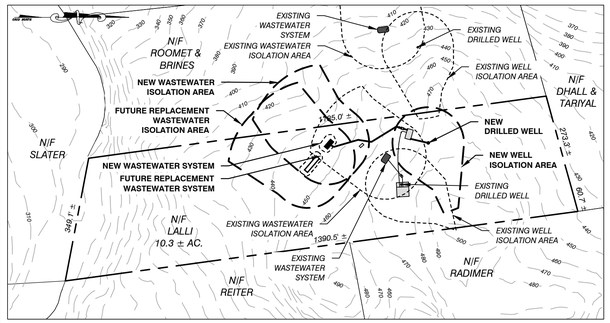


LOCUS MAP
1" = 200'

GENERAL NOTES

1. *UTILITIES SHOWN DO NOT PURPORT TO CONSTITUTE OR REPRESENT ALL UTILITIES LOCATED UPON OR ADJACENT TO THE SURVEYED PREMISES. EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CONFLICTS. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER. THE CONTRACTOR SHALL CONTACT DIG SAFE (888-344-7233) PRIOR TO ANY CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL HIRE A PRIVATE UTILITY LOCATING FIRM TO LOCATE OWNER OWNED UNDERGROUND UTILITIES PRIOR TO START OF ANY EXCAVATION.*
2. *ALL EXISTING UTILITIES NOT INCORPORATED INTO THE FINAL DESIGN SHALL BE REMOVED OR ABANDONED AS INDICATED ON THE PLANS OR DIRECTED BY THE ENGINEER.*
3. *THE CONTRACTOR SHALL MAINTAIN AS-BUILT PLANS (WITH TIES) FOR ALL UNDERGROUND UTILITIES. THOSE PLANS SHALL BE SUBMITTED TO THE OWNER AT THE COMPLETION OF THE PROJECT.*
4. *THE CONTRACTOR SHALL REPAIR/RESTORE ALL DISTURBED AREAS (ON OR OFF THE SITE) AS A DIRECT OR INDIRECT RESULT OF THE CONSTRUCTION.*
5. *ALL GRASSED AREAS SHALL BE MAINTAINED UNTIL FULL VEGETATION IS ESTABLISHED.*
6. *MAINTAIN ALL TREES OUTSIDE OF CONSTRUCTION LIMITS.*
7. *THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK NECESSARY FOR COMPLETE AND OPERABLE FACILITIES AND UTILITIES.*
8. *THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL ITEMS AND MATERIALS INCORPORATED INTO THE SITE WORK. WORK SHALL NOT BEGIN ON ANY ITEM UNTIL SHOP DRAWING APPROVAL IS GRANTED.*
9. *IN ADDITION TO THE REQUIREMENTS SET IN THESE PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL COMPLETE THE WORK IN ACCORDANCE WITH ALL PERMIT CONDITIONS AND ANY LOCAL PUBLIC WORKS STANDARDS.*
10. *THE TOLERANCE FOR FINISH GRADES FOR ALL PAVEMENT, WALKWAYS AND LAWN AREAS SHALL BE 0.1 FEET. UNLESS NOTED OTHERWISE, ALL EXISTING MANHOLE COVERS, VALVES, CURB STOPS AND OTHER ITEMS TO REMAIN SHALL BE ADJUSTED TO THE NEW FINISH GRADE.*
11. *ANY DEWATERING NECESSARY FOR THE COMPLETION OF THE SITEWORK SHALL BE CONSIDERED AS PART OF THE CONTRACT AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.*
12. *THE CONTRACTOR SHALL INSTALL THE ELECTRICAL, CABLE AND TELEPHONE SERVICES IN ACCORDANCE WITH THE UTILITY COMPANIES REQUIREMENTS.*
13. *TREE STUMPS TO BE REMOVED SHALL BE DISPOSED OF AT AN APPROVED OFF-SITE LOCATION.*
14. *IF THERE ARE ANY CONFLICTS OR INCONSISTENCIES WITH THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR VERIFICATION BEFORE WORK CONTINUES ON THE ITEM IN QUESTION.*
15. *THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING TESTING AND INSPECTION SERVICES INDICATED IN THE CONTRACT DOCUMENTS.*
16. *THE CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT AND FIELD ENGINEERING REQUIRED FOR COMPLETION OF THE PROJECT. CIVIL ENGINEERING ASSOCIATES WILL PROVIDE AN AUTOCAD FILE WHERE APPLICABLE.*
17. *THIS PLAN IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO BE USED AS ONE. MONUMENTATION RECOVERED IS CONSISTENT WITH RECORDED DOCUMENTS.*
18. *SITE INFORMATION IS BASED ON A FIELD SURVEY PERFORMED BY CIVIL ENGINEERING ASSOCIATES, INC MARCH 2025. CIVIL ENGINEERING ASSOCIATES, INC. SURVEY ORIENTATION IS "GRID NORTH", VERMONT COORDINATE SYSTEM OF 1983 (HORIZONTAL) AND NAVD88 (VERTICAL) ESTABLISHED FROM GPS OBSERVATIONS ON SITE.*

Test Pitting

March 7th, 2025
J. Larose

TP #1
0'-6" 10YR 3/3 Dark brown, loam, very friable, very loose, granular(3)
6"-24" 10YR 5/3 Brown, loam, very friable, very loose, blocky(3)
No SHWT Ledge@24"
No Seeps Roots@18"

TP #2
0'-6" 10YR 2/2 Very dark brown, very fine sandy loam, very friable, very loose, granular(3)
6"-24" 10YR 3/4 Dark yellowish brown, very fine sandy loam, very friable, very loose, blocky(3)
No SHWT Ledge@24"
No Seeps Roots@18"

TP #3
0'-6" 10YR 2/2 Very dark brown, very fine sandy loam, very friable, very loose, granular(3)
6"-15" 10YR 3/4 Dark yellowish brown, very fine sandy loam, very friable, very loose, blocky(3)
No SHWT Ledge@15"
No Seeps Roots@15"

TP #4
0'-6" 10YR 3/3 Dark brown, loam, very friable, very loose, granular(3)
6'-28" 10YR 5/3 Brown, loam, very friable, very loose, blocky(3)
No SHWT Ledge@28"
No Seeps Roots@18"

TP #5
0'-6" 10YR 3/2 Very dark greyish brown, loam, very friable, very loose, granular(3)
6"-25" 10YR 3/2 Very dark greyish brown, loam, very friable, very loose, blocky(3)
25"-42" 10YR 5/1 Grayish brown, silt loam, very friable, medium compact, blocky(1)
SHWT@25" Ledge@42"
Seeps@36" Roots@18"

TP #6
0'-8" 10YR 2/2 Very dark brown, loam, very friable, loose, granular(3)
8"-20" 10YR 4/3 Brown, very fine sandy loam, very friable, loose, blocky(3)
20"-48" 10YR 5/3 Brown, very fine sandy loam, friable, loose, blocky(3), mottles@30"
SHWT@30" Ledge@48"
No Seeps Roots@30"

TP #7
0'-8" 10YR 2/2 Very dark brown, loam, very friable, very loose, granular(3)
8"-32" 10YR 5/3 Brown, loam, very friable, loose, blocky(1)
32"-48" 10YR 6/4 Light yellowish brown, very fine sandy loam, very friable, loose, blocky(1), mottled
SHWT@32" No Ledge
No Seeps Roots@30"

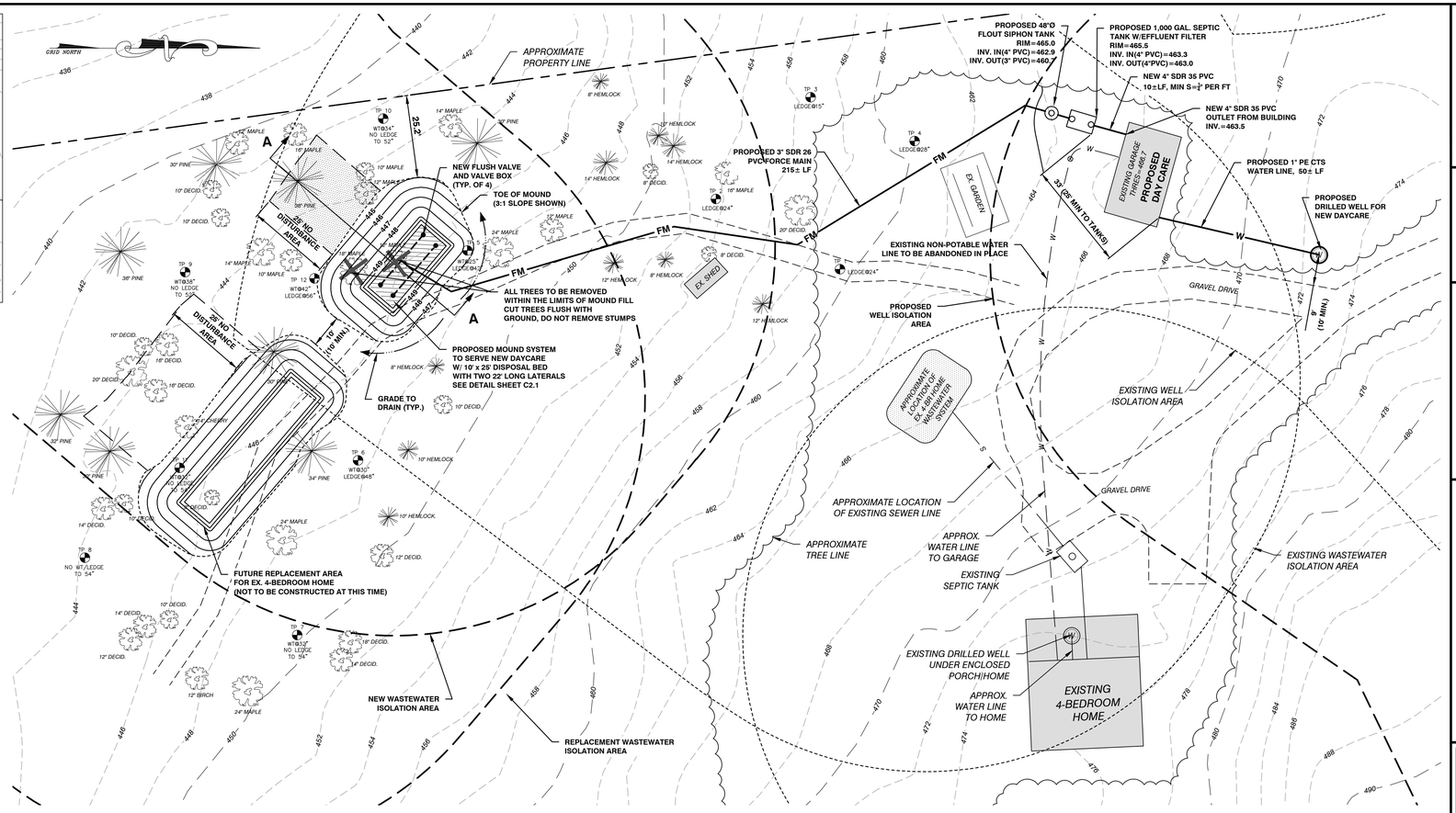
TP #8
0'-8" 10YR 2/2 Very dark brown, loam, very friable, very loose, granular(3)
8"-30" 10YR 5/6 Yellowish brown, very fine sandy loam, very friable, very loose, blocky(3)
30"-52" 10YR 5/3 Brown, very fine sandy loam, very friable, very loose, blocky(3)
No SHWT No Ledge
No Seeps Roots@48"

TP #9
0'-8" 10YR 2/2 Very dark brown, loam, very friable, loose, granular(3)
8"-24" 10YR 4/3 Brown, very fine sandy loam, very friable, loose, blocky(3)
24"-52" 10YR 5/3 Brown, very fine sandy loam, friable, loose, blocky(3), mottles@38"
SHWT@38" No Ledge
No Seeps Roots@36"

TP #10
0'-8" 10YR 2/2 Very dark brown, loam, very friable, loose, granular(3)
8"-24" 10YR 4/3 Brown, very fine sandy loam, very friable, loose, blocky(3)
24"-52" 10YR 5/3 Brown, very fine sandy loam, friable, loose, blocky(3), mottles@34"
SHWT@34" No Ledge
No Seeps Roots@36"

TP #11
0'-8" 10YR 2/2 Very dark brown, loam, very friable, loose, granular(3)
8"-32" 10YR 4/3 Brown, very fine sandy loam, very friable, loose, blocky(3)
32"-54" 10YR 5/3 Brown, very fine sandy loam, friable, loose, blocky(3), mottled
SHWT@32" No Ledge
No Seeps Roots@40"

TP #12
0'-8" 10YR 2/2 Very dark brown, loam, very friable, loose, granular(3)
8"-42" 10YR 4/3 Brown, very fine sandy loam, very friable, loose, blocky(3)
42"-56" 10YR 5/3 Brown, fine sandy loam, friable, loose, blocky(3), mottled
SHWT@42" Ledge@56"
No Seeps Roots@48"



Basis of Design - Daycare

Design Flow
19 Students and Staff @ 13 GPD/person=247 GPD

Bed Design
Design Trench = 10 Ft x 25 Ft Seepage Bed = 250 SF
Design Effluent Loading Rate - 247 GPD/250 SF= 0.99 GPD/LF
Design Linear Loading Rate = 0.99 GPD/SF x 10 FT =9.9 GPD/FT

Disposal Field
Min Required Length of Bed
247 GPD / (10 GPD/LF) = 24.7 Ft, 25 Ft Provided
Required Effective Basal Area = 247 GPD/(0.74 GPD/SF)=334 SF
Basal Area Provided = 628 SF
Use 12" Min Sand below disposal field
Required Separation to Bedrock = 4 FT Min., >4.5 FT provided

Pressure Distribution System
Minimum Required Number of Orifices
25 LF Bed x 10 FT width / (25 GPD/SF) = 10, Use 10
10 ORIFICES x 0.28 GPM(1/8" ORIFICE@1 PSI)=2.8 GPM Min.
Provide Two 2" Distribution Pipes, 15-0" FT long
See Detail for Orifice Sizing and Layout
Fill Volume of Distribution Piping = 7.3 Gal
Minimum Required Dose Volume = 7.3 Gal x 5 = 36.7 Gal
Minimum Number of Doses per Day = 4
Maximum Dose Size = 247 GPD/4 = 61.75 Gal
No Drainback Volume
Use 61 Gallon Dose Volume

Flout Dosing Station
448.05 = Invert of Distribution Piping in Mound (or High Pt of FM)
460.70 = Dosing Siphon Inv. Out (FT)
-12.65 = Elevation Head (FT)

48" Ø Dosing Chamber
Length of SDR 26 PVC Force Main = 215 FT
Diameter of Force Main = 3"
Design Average Flow Rate = 53.7 GPM
Pipe Velocity= 2.4 FPS (2.0 FPS Min)
See submitted Siphon Design Calculations:
Greater than 2.3' of head provided for 10.9 minutes
Maximum 7.98 ft of head provided at 1.5 minutes
Total dose of 61 gallons for 21 minutes

Septic Tank
Minimum Size Required = 1000 Gal min.<= 560 GPD
Use 1,000 GAL Tank, Effluent Filter Required

Water Basis of Design-Daycare

AVERAGE DAILY DEMAND
=247 GPD

DESIGN RATE
=247 GPD/720 MIN. = 0.3 GPM

INSTANTANEOUS PEAK DEMAND
9.3 GPM FIXTURE COUNT

LONG TERM YIELD ANALYSIS IS REQUIRED IF:
(WELL DRILLERS ESTIMATED YIELD X ⅔) < 9.3 GPM

STORAGE IS REQUIRED IF:
PEAK DEMAND > LONG TERM YIELD

IF REQUIRED STORAGE VOLUME IS TO BE DETERMINED BY
SUBCHAPTER 11 (B) (1) OF THE WASTEWATER AND POTABLE WATER SUPPLY RULE

WELL PUMP CAPACITY REQUIRED
=10 GPM MINIMUM

Basis of Design - Ex. Home Replacement Area

Design Flow
4-BR Home =490 GPD

Bed Design
Design Trench = 10 Ft x 50 Ft Seepage Bed = 500 SF
Design Effluent Loading Rate - 490 GPD/500 SF= 0.98 GPD/LF
Design Linear Loading Rate = 0.98 GPD/SF x 10 FT = 9.8 GPD/FT

Disposal Field
Min Required Length of Bed
490 GPD / (10 GPD/LF) = 49 Ft, 50 Ft Provided
Required Effective Basal Area = 490 GPD/(0.74 GPD/SF)=662 SF
Basal Area Provided = 2480 SF
Use 12" Min Sand below disposal field
Required Separation to Bedrock = 4 FT Min., 5.0 FT provided

LEGEND

- APPROXIMATE PROPERTY LINE
- APPROXIMATE SETBACK LINE
- 100 EXISTING CONTOUR
- EXISTING GRAVEL
- E EXISTING ELECTRIC
- S EXISTING GRAVITY SEWER
- W EXISTING WATER
- EXISTING WELL
- EXISTING SHUT OFF
- EXISTING UTILITY POLE
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EDGE OF BRUSH/WOODS
- TP TEST PIT
- PROJECT BENCHMARK
- 100 PROPOSED CONTOUR
- FM PROPOSED FORCEMAIN
- S PROPOSED GRAVITY SEWER
- W PROPOSED WATER
- PROPOSED WELL
- PROPOSED EDGE OF BRUSH/WOODS

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

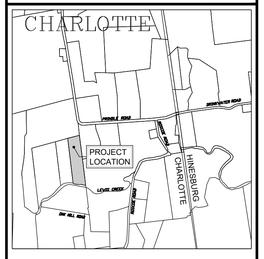
SITE ENGINEER:
CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
P: 802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN JDL
CHECKED JDL
APPROVED JDL

STATE OF VERMONT JAMES D. LARSEN No. 134320 CIVIL LICENSED PROFESSIONAL ENGINEER

CLIENT:
SONJA JANJIC & ALEXANDER LALLI
1968 PRINDLE ROAD
CHARLOTTE, VT 05445

PROJECT:
PROPOSED DAYCARE
1968 PRINDLE ROAD
CHARLOTTE, VT 05445



LOCATION MAP
1" = 2000'

DATE	CHECKED	REVISION
04/07/26	JDL	PLAN REVISIONS FOR WW SUBMITTAL

WASTEWATER SITE PLAN

DATE MAR., 2025
SCALE 1" = 20'
PROJ. NO. 25123

DRAWING NUMBER C1.0

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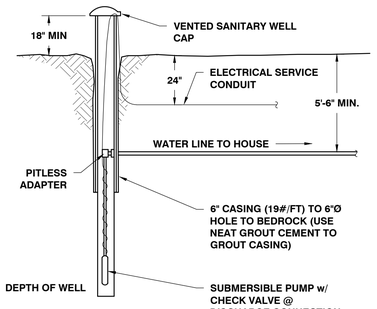


NOTE:

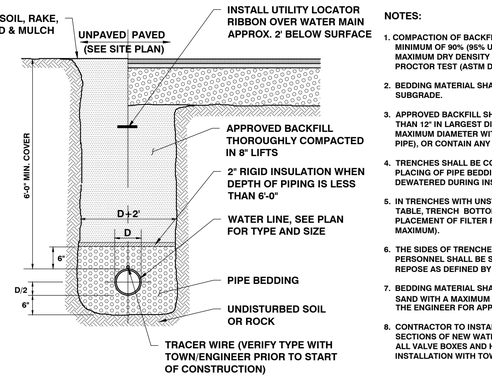
THE WELL SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE VERMONT WATER SUPPLY RULE - CHAPTER 21 (PART II SMALL SCALE WATER SUPPLY SYSTEMS)

DRILLED WELL DETAIL

N.T.S.

W-010 Drilled Well

W-010



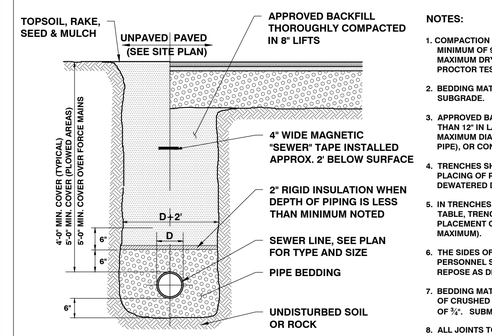
NOTES:

1. COMPACTION OF BACKFILL AND BEDDING SHALL BE A MINIMUM OF 90% (95% UNDER ROADWAY SURFACES) OF MAXIMUM DRY DENSITY DETERMINED IN THE STANDARD PROCTOR TEST (ASTM D698).
2. BEDDING MATERIAL SHALL NOT BE PLACED ON FROZEN SUBGRADE.
3. APPROVED BACKFILL SHALL NOT CONTAIN ANY STONES MORE THAN 12" IN LARGEST DIMENSION (6" IN ROADWAYS, 1 1/2"" MAXIMUM DIAMETER WITHIN 24" OF THE OUTSIDE OF THE PIPE), OR CONTAIN ANY FROZEN, WET, OR ORGANIC MATERIAL.
4. TRENCHES SHALL BE COMPLETELY DEWATERED PRIOR TO PLACING OF PIPE BEDDING MATERIAL AND KEPT DEWATERED DURING INSTALLATION OF PIPE AND BACKFILL.
5. IN TRENCHES WITH UNSTABLE MATERIALS OR HIGH WATER TABLE, TRENCH BOTTOM SHALL FIRST BE STABILIZED BY PLACEMENT OF FILTER FABRIC THEN CRUSHED STONE (3/4" MAXIMUM).
6. THE SIDES OF TRENCHES 4' OR MORE IN DEPTH ENTERED BY PERSONNEL SHALL BE SHEETED OR SLOPED TO THE ANGLE OF REPOSE AS DEFINED BY O.S.H.A. STANDARDS.
7. BEDDING MATERIAL SHALL CONSIST OF CRUSHED STONE, OR SAND WITH A MAXIMUM SIZE OF ¾". SUBMIT A SAMPLE TO THE ENGINEER FOR APPROVAL.
8. CONTRACTOR TO INSTALL TRACER WIRE ALONG ALL SECTIONS OF NEW WATER LINE. TERMINATE TRACER WIRE AT ALL VALVE BOXES AND HYDRANTS. COORDINATE INSTALLATION WITH TOWN AND ENGINEER.

TYPICAL WATER TRENCH DETAIL

N.T.S.

W-001 REVISED 12/08/2016



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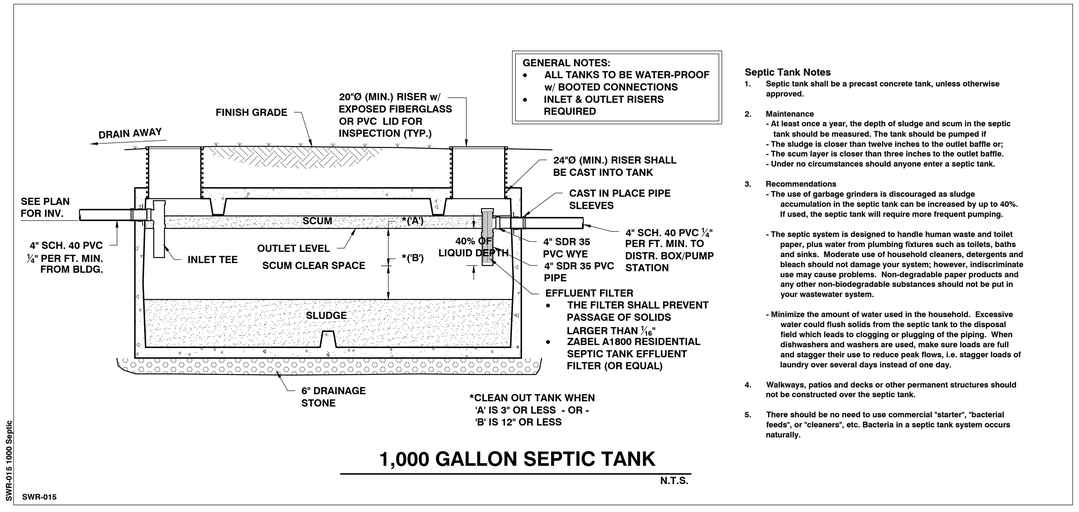
6. THE SIDES OF TRENCHES 4' OR MORE IN DEPTH ENTERED BY PERSONNEL SHALL BE SHEETED OR SLOPED TO THE ANGLE OF REPOSE AS DEFINED BY O.S.H.A. STANDARDS.
7. BEDDING MATERIAL FOR WASTEWATER LINES SHALL CONSIST OF CRUSHED STONE, GRAVEL, OR SAND WITH A MAXIMUM SIZE OF ¾". SUBMIT A SAMPLE TO THE ENGINEER FOR APPROVAL.
8. ALL JOINTS TO BE INSPECTED BY OWNER/ENGINEER/TOWN PRIOR TO BACKFILL.

TYPICAL SEWER TRENCH DETAIL

N.T.S.

SWR-001 Trench

SWR-001 REVISED 12/08/2016



Septic Tank Notes

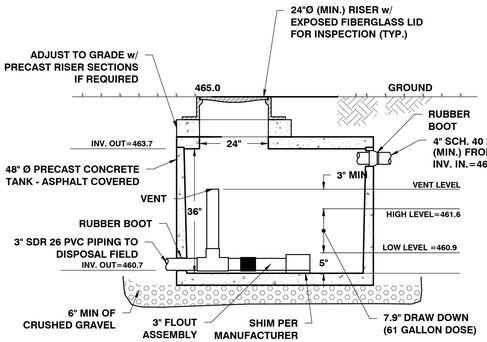
1. Septic tank shall be a precast concrete tank, unless otherwise approved.
2. Maintenance
   - At least once a year, the depth of sludge and scum in the septic tank should be measured. The tank should be pumped if
   - The sludge is closer than twelve inches to the outlet baffle or;
   - The scum layer is closer than three inches to the outlet baffle.
   - Under no circumstances should anyone enter a septic tank.
3. Recommendations
   - The use of garbage grinders is discouraged as sludge accumulation in the septic tank can be increased by up to 40%. If used, the septic tank will require more frequent pumping.
   - The septic system is designed to handle human waste and toilet paper, plus water from plumbing fixtures such as toilets, baths and sinks. Moderate use of household cleaners, detergents and bleach should not damage your system; however, indiscriminate use may cause problems. Non-degradable paper products and any other non-biodegradable substances should not be put in your wastewater system.
   - Minimize the amount of water used in the household. Excessive water could flush solids from the septic tank to the disposal field which leads to clogging or plugging of the piping. When dishwashers and washers are used, make sure loads are full and stagger their use to reduce peak flows, i.e. stagger loads of laundry over several days instead of one day.
4. Walkways, patios and decks or other permanent structures should not be constructed over the septic tank.
5. There should be no need to use commercial "starter", "bacterial feeds", or "cleaners", etc. Bacteria in a septic tank system occurs naturally.

1,000 GALLON SEPTIC TANK

N.T.S.

SWR-015 1000 Septic

SWR-015



***VERIFY SIPHON REQUIREMENTS WITH THE ENGINEER IF FINAL SITE SELECTED IS OTHER THAN SHOWN ON PLAN**

48" DIAMETER FLOUT SIPHON

N.T.S.

PUMP STATION / SEPTIC TANK TESTING

The tanks shall be tested by the following procedure and in conformance with the State of Vermont - Environmental Protection Rules:

1. **Exfiltration Leakage Test: All pipes and other openings into the tank shall be suitably plugged and the plugs braced to prevent blowout. The tank shall then be filled with water to the top of the riser section. A period of time may be permitted, if the Contractor so wishes, to allow for absorption. At the end of this period, the tank shall be refilled to the top of the riser, if necessary, and the measuring time of at least four hours begun. At the end of the test period, the tank shall be refilled to the top of the riser, measuring the volume of water added. This amount shall be converted to gallons per vertical foot depth for 24 hours. The leakage for each tank shall not exceed four gallon/vertical foot/day. If leakage exceeds the allowable rate, repairs shall be made as approved by the Engineer and the tank retested. If the Contractor elects to backfill prior to testing, the testing shall be at his own risk, and it shall be incumbent upon the Contractor to determine the reason for any failure of the test. No adjustment in the leakage allowance will be made for unknown causes such as leaking plugs, absorption, etc. It will be assumed that all loss of water during the test is a result of leaks through the joints or through the concrete. Furthermore, the Contractor shall take any steps necessary to assure the Engineer that the water table is below the bottom of the tank throughout the test.**

OR

2. **Vacuum test in accordance with ASTM C1227-03, Standard Specification for Precast Concrete Septic Tanks, except as noted below:**

   - seal the empty tank and apply a vacuum to 5 inches (100mm) of mercury. The tank is approved if 90% of vacuum is held for 5 minutes.

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
P: 802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN JDL
CHECKED JDL
APPROVED JDL

JACQUES D. LARAIA
No. 13432O
CIVIL
LICENSED PROFESSIONAL ENGINEER
STATE OF VERMONT

CLIENT:

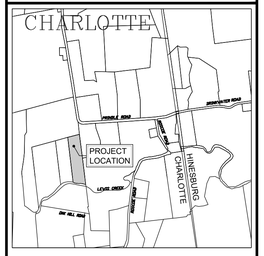
SONJA JANJIC & ALEXANDER LALLI

1968 PRINDLE ROAD CHARLOTTE, VT 05445

PROJECT:

PROPOSED DAYCARE

1968 PRINDLE ROAD CHARLOTTE, VT 05445



LOCATION MAP

1" = 2000'

DATE	CHECKED	REVISION
04/07/25	JDL	PLAN REVISIONS FOR WW SUBMITTAL

WATER AND SEWER DETAILS

DATE *MAR., 2025*
SCALE *AS SHOWN*
PROJ. NO. *25123*

DRAWING NUMBER *C2.0*

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DISPOSAL FIELDS & FORCE MAINS

PART 1 – GENERAL

1.01 Summary

A. Section includes:
   1. Wastewater Disposal Field
   2. Force Main Materials

1.02 References

A. All work shall be done in accordance with the State of Vermont Environmental Protection Rules effective September 29, 2007.

PART 2 – PRODUCTS

2.01 General

A. Disposal Fields: Schedule 40 PVC pipe meeting the requirements of the latest revision of ASTM Specification D–1785. Fittings used in the disposal fields shall be compatible with distribution lines material.

B. Force Mains: PVC pipe shall conform in all respects to the latest revisions of ASTM Specifications D–2241. All pipe fittings shall be SDR 26 (or SCH 40) clearly marked as follows:

   – Manufacturer's Name and Trademark
   – Nominal Pipe Size (as shown on plans)
   – Material Designation

   Joints shall be push–on type using elastomeric gaskets factory installed conforming to ASTM Specification D–3212.

C. Crushed stone shall be clean, durable and no smaller than 3/4" or larger than 1 1/2 inches in diameter.

PART 3 – EXECUTION

3.01 Disposal Field Installation Procedure

A. The wastewater system shall be inspected during critical stages of construction by a qualified consultant. This shall include at a minimum the staking of the disposal field, the trenches after the initial 12 inches of stone and distribution piping is placed, and a final inspection of the entire system. The Contractor will be responsible for contacting the Engineer to set up the inspection schedule.

B. Construction of the system shall not take place when the soil moisture is high in the system area. If the soil at 6 inches below grade can be rolled into the shape of a wire, the soil moisture content is too high for construction to begin.

C. When the trench has been excavated, the sides and bottom shall be raked to scarify any smeared soil surfaces. Construction equipment not needed to construct the system should be kept off the area to be utilized for the absorption trench system to prevent undesirable compaction of the soils.

D. At least 12 inches of washed stone shall be placed in the bottom of the trench.

E. The pressure distribution pipe should be laid level on top of the stone and flushing valves installed at the ends of the pipe. Upon completion of the distribution piping, the qualified consultant shall test the system with clean water. The test shall show that a minimum pressure of three feet of head is present at the ends of the pipe and that the difference in discharge rate between the two orifices with the greatest difference in discharge rates is not greater than 15 percent. After connecting the distribution pipe to the force main, the distribution pipe shall be covered with at least two inches of clean stone aggregate. The stone aggregate shall be covered completely with filter fabric.

F. The distribution pipe shall be covered with at least 3 inches of clean stone aggregate. The stone aggregate shall be covered completely with filter fabric.

G. The filter fabric shall be covered with a minimum of 12 inches of soil but not more than 18 inches, with the upper 4 to 6 inches of soil being loam and the remainder of the fill being of a fine sandy loam to medium sand texture. A vegetated cover free of large brush and trees shall be maintained over the system.

H. The area surrounding the disposal field shall be graded to provide diversion of surface run–off waters if required.

3.02 Testing Report

A. Testing of pressure distribution shall be done in the Engineer's presence. Pressure shall be measured to insure a minimum of 1 psi.

B. The distribution line shall then be carefully placed on the bedding with no slope, orifice shields snapped into place, and covered with at least 2" of crushed stone.

C. All work shall be done in accordance with the State of Vermont Environmental Protection Rules.

D. Force Main

1. General: All force mains shall pass the hydrostatic pressure test and leakage test described herein. Prior to testing, all anchors and braces shall be installed. All concrete thrust blocks and restraints shall be in place and cured at least seven days. All buried pipe shall be backfilled. Suitable test plugs shall be installed and air release valves shall be installed at the high points.
2. Hydrostatic Test: The following procedure shall be used:
   a. All air release valves shall be opened and the pipe shall be filled with water at a rate not to exceed the venting capacity of the air release valves.
   b. The water pressure shall be raised to 150 percent of the designed operating pressure or 60 psi minimum at the highest point.
   c. Failure to hold the designated pressure within 5 psi of the specified test pressure for the two hour period constitutes a failure of the section tested.
3. Leakage Test: The following procedure shall be used:
   a. Leakage shall be defined as the quantity of water that must be supplied into the pipe being tested to maintain pressure within 5 psi of the specified test pressure.
   b. No pipe installation shall be accepted if the leakage is greater than that determined by the following formula:

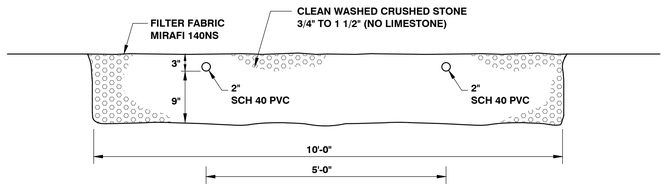
$$L = \frac{ND(P)^{0.5}}{7{,}400} \quad \text{or} \quad L = \frac{SD(P)^{0.5}}{133{,}100}$$

Whichever is less

S = Length of Pipe Testing
L = Allowable Leakage in Gal/Hr
D = Nominal Diameter of Pipe (")
P = Average Test Pressure (psi)
N = Number of Joints in the Pipeline Tested

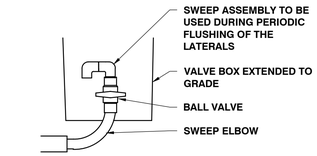
All testing shall be conducted in accordance with AWWA C600–87 or latest revision.

E. Prior to use of the system, the qualified consultant shall submit a written report to the Owner stating that the system has been installed according to the approved plans and permit. The report shall specifically address the inspection of the site preparations and include numerical results of the orifice discharge rate comparison.



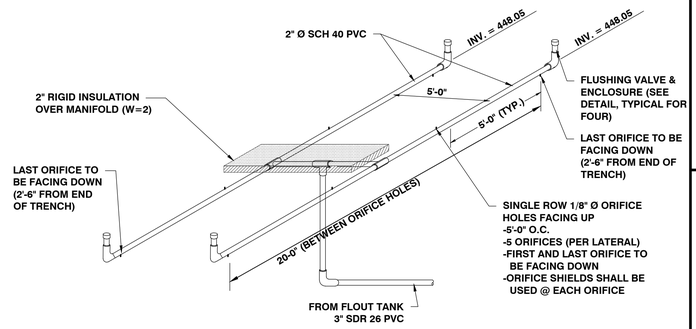
TYPICAL BED SECTION

N.T.S.



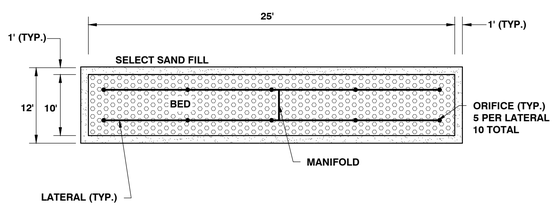
FLUSHING VALVE DETAIL

N.T.S.



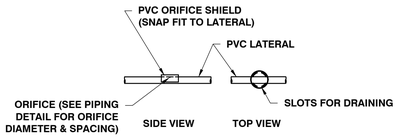
TRENCH PIPING DETAIL

N.T.S.



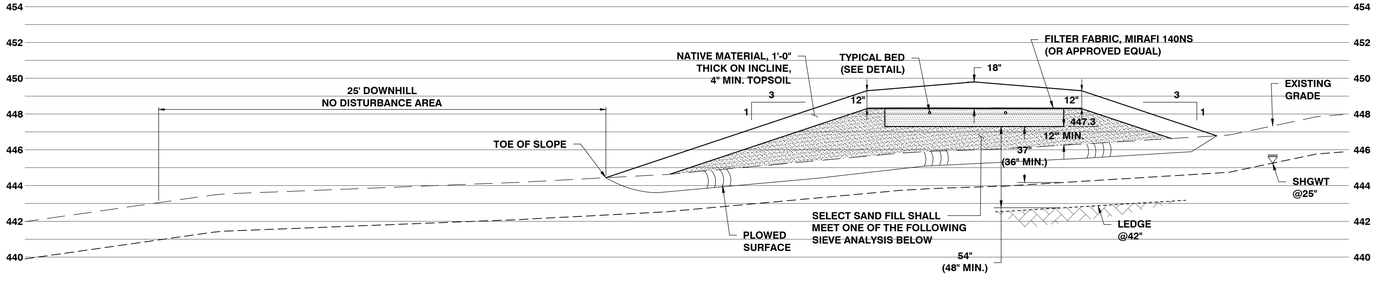
TYPICAL BED PLAN

N.T.S.



ORIFICE SHIELD DETAIL

N.T.S.



SIEVE #	% PASSING
3/8	85–100
40	25–75
60	0–30
100	0–10
200	0–5

SIEVE #	% PASSING
4	95–100
8	80–100
16	50–85
30	25–60
50	10–30
100	2–10

SIEVE #	% PASSING
3/8	85–100
40	30–50
200	0–10

TYPICAL MOUND SECTION AA

1/4" = 1'-0"

SITE ENGINEER:

CIVIL ENGINEERING ASSOCIATES, INC.
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403
P: 802-864-2323 FAX: 802-864-2271 web: www.cea-vt.com

DRAWN JDL
CHECKED JDL
APPROVED JDL

STATE OF VERMONT
JACQUES D. LAROSE
No. 134320
CIVIL
LICENSED PROFESSIONAL ENGINEER

CLIENT:

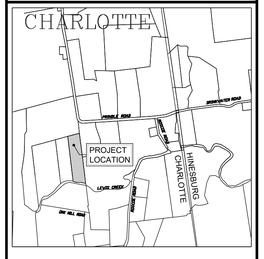
SONJA JANJIC
&
ALEXANDER LALLI

1968 PRINDLE ROAD
CHARLOTTE, VT 05445

PROJECT:

PROPOSED DAYCARE

1968 PRINDLE ROAD
CHARLOTTE, VT 05445



LOCATION MAP

1" = 2000'

DATE	CHECKED	REVISION
04/07/25	JDL	PLAN REVISIONS FOR WW SUBMITTAL

WASTEWATER DETAILS

DATE MAR., 2025
SCALE AS SHOWN
PROJ. NO. 25123

DRAWING NUMBER C2.1

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