WASTEWATER SYSTEM AND POTABLE WATER SUPPLY PERMIT

LAWS/REGULATIONS INVOLVED

10 V.S.A. Chapter 64, Potable Water Supply and Wastewater System Permit
Wastewater System and Potable Water Supply Rules, Effective November 6, 2023

Permittee(s): **Orien Lee Tulp**
7583 South Sourdough Drive
Morrison, CO 80465

Patricia J. Tulp
115 Bishop Hollow Road
Media, PA 19063

Permit Number: **WW-5-9483(R)**

This permit affects the following properties in Wolcott, Vermont:

Lot	Parcel	SPAN	Acres	Book(s)/Page(s)#
1	06062.	777-247-10846	11.88	Book:39 Page(s):7-9

This application, consisting of subdividing an existing parcel to create Lot 1 of 5.30± acres, to be improved with a 3-bedroom single-family residence, Lot 2 of 3.00± acres, to be improved with a 3-bedroom single-family residence, and Lot 3 of 3.58± acres, to be improved with a 4-bedroom single-family residence, located off Brookview Lane in Wolcott, Vermont, is hereby approved under the requirements of the regulations named above subject to the following conditions. Any person aggrieved by this permit may appeal to the Environmental Court within 30 days of the date of issuance of this permit in accordance with 10 V.S.A. Chapter 220 and the Vermont Rules of Environmental Court Proceedings.

1. GENERAL

1.1. The permittee is responsible for recording this permit in the Wolcott Land Records within 30 days of issuance of this permit and prior to the conveyance of any lot subject to the jurisdiction of this permit.

1.2. The permittee is responsible for recording the design and installation certifications and other documents that are required to be filed under these Rules or under a permit condition in the Wolcott Land Records.

1.3. This permit shall supersede **WW-5-9483**, thereby rendering it null and void.

1.4. Each assign or successor in interest shall be shown a copy of the Wastewater System and Potable Water Supply Permit and the stamped plan(s) prior to the conveyance of a lot.

1.5. The landowner is responsible for establishing any easement(s) shown on the approved plans. The land deeds that establish and transfer ownership of the approved lot(s) shall allow future owner(s) the right to construct, maintain, and repair the wastewater and/or potable water supply systems approved herein. If the landowner does not properly execute said easement(s), this permit becomes null and void for any subject lot conveyed without easement(s).

1.6. By acceptance of this permit, the permittee agrees to allow representatives of the State of Vermont access to the property covered by the permit, at reasonable times, for the purpose of ascertaining compliance with the Vermont environmental and health statutes and regulations, and permit conditions.

1.7. The Drinking Water and Groundwater Protection Division relied upon the Vermont Licensed Designer's certification that the design-related information submitted is true and correct and complies with the Wastewater System and Potable Water Supply Rules. This permit may be revoked if it is determined the design of the wastewater system or potable water supply does not comply with these rules.

1.8. This permit does not relieve the landowner from obtaining all other approvals and permits from other State Agencies or Departments, or local officials prior to construction.

2. SUBDIVISION AND CONSTRUCTION

2.1. Subdivision and construction shall be completed as shown on the plans and/or documents prepared by Arjay West, with the stamped plans listed as follows:

Title	Sheet #	Plan Date	Revision
Property Sketch	1 of 4	03/04/2024	None.
Site Plan & Wastewater System Design	2 of 4	03/04/2024	None.
Detail Sheet: Lot 1	3 of 4	03/04/2024	None.
Detail Sheet: Lots 2 & 3	4 of 4	03/04/2024	None.

2.2. Construction of wastewater systems or potable water supplies, or buildings or structures (as defined by the Wastewater System and Potable Water Supply Rules), or campgrounds, not depicted on the stamped plans, or identified in this permit, is not allowed without prior approval by the Drinking Water and Groundwater Protection Division.

2.3. No buildings, roads, water pipes, sewer services, earthwork, re-grading, excavation, or other construction that might interfere with the operation of a wastewater system or a potable water supply are allowed on or near the site-specific wastewater system, wastewater replacement area, or potable water supply depicted on the stamped plans. Adherence to all isolation distances that are set forth in the Wastewater System and Potable Water Supply Rules is required.

3. INSPECTIONS

3.1. No permit issued by the Secretary shall be valid for a substantially completed potable water supply and wastewater system until the Secretary receives a signed and dated certification from a qualified Vermont Licensed Designer (or where allowed, the installer) on a Secretary-approved form that states:

"I hereby certify that, in the exercise of my reasonable professional judgment, the installation-related information submitted is true and correct and the potable water supply and wastewater system were installed in accordance with the permitted design and all permit conditions, were inspected, were properly tested, and have successfully met those performance tests."

or which satisfies the requirements of §1-311 of the referenced rules.

3.2. Prior to the use of a potable water supply, the permittee shall test the water for Arsenic, Escherichia coli (E. coli), Fluoride, Lead, Manganese, Nitrate as N, Nitrite as N, Total Coliform Bacteria, Uranium, Adjusted Gross Alpha Particle Activity, Chloride, Sodium, Iron, Odor and pH. The Lead sample shall be a first-draw. All water quality tests shall be conducted at a laboratory certified by the Vermont Department of Health (a list of which can be found on the VDH website). Results of the water tests shall be submitted to the Vermont Department of Health prior to use or within 60 days of the submission of the Installation Certification required in Condition 3.1, whichever comes first.

4. DESIGN FLOW

4.1. The following table provides the flows that the wastewater system and potable water supply are designed to accept based on existing and proposed lot and building uses. The design flows in gallons per day (gpd) in the following table are derived from section 1-803 of the Rules:

Lot	Building	Building Use / Design Flow Basis	Wastewater (gpd)	Water (gpd)
1	Proposed	Residential Living Unit with 3-bedrooms (based on 6-person occupancy)	420	420
2	Proposed	Residential Living Unit with 3-bedrooms (based on 6-person occupancy)	420	420
3	Proposed	Residential Living Unit with 4-bedrooms (based on 7-person occupancy)	490	490

4.2. The table above reflects the designed capacity for wastewater systems and potable water supplies derived from the uses documented in the permit application. If additional capacities are needed, a permit amendment will be required for the total design flows.

5. WASTEWATER SYSTEM

5.1. Prior to construction or site work, a designer shall flag the proposed leachfields, and the owner shall maintain the flags until commencement of construction of the system.

5.2. Should a wastewater system fail and not qualify as a minor repair or for an exemption, the landowner shall engage a qualified Licensed Designer to evaluate the cause of the failure and submit an application to the Drinking Water and Groundwater Protection Division, and obtain approval thereof, prior to correcting the failure.

5.3. This permit does not relieve the permittee of the obligations of Title 10, Chapter 48, Subchapter 4, for the protection of groundwater.

6. POTABLE WATER SUPPLY

6.1. Prior to construction or site work, a designer shall flag the center of the proposed potable water sources and the owner shall maintain the flag until commencement of construction of the source.

6.2. Should a potable water supply fail and not qualify as a minor repair or for an exemption, the landowner shall engage a qualified Licensed Designer to evaluate the cause of the failure and submit an application to the Drinking Water and Groundwater Protection Division, and obtain approval thereof, prior to correcting the failure.

Julia S. Moore, Secretary
Agency of Natural Resources

By: _____ Dated April 16, 2024
Robert Pelosi
Environmental Analyst VI
Montpelier Regional Office
Drinking Water and Groundwater Protection Division

cc: Arjay West

NOTES:

THE WASTEWATER DESIGNS FOR THIS PROJECT ARE MOUND TYPE DISPOSAL SYSTEMS DESIGNED TO HANDLE 100% OF THE PROJECT FLOW IN ACCORDANCE WITH SUBCHAPTER 1-1801(b)(2).

THIS IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO BE USED AS ONE.

BOUNDARY INFORMATION TAKEN FROM A SURVEY TITLED "A TOTAL STATION SURVEY, TULP SUBDIVISION" BY WILLARD L. GRAY, L.L.S. DATED OCTOBER 6, 2003.

THIS PROJECT DESIGN DOES NOT INCLUDE THE USE OF A GARBAGE DISPOSAL. IF A GARBAGE DISPOSAL IS USED IN THIS PROJECT, THE SEPTIC TANK SHALL BE SIZED A MINIMUM OF 50% LARGER (PER SUBCHAPTER 1-1801(a)(14)).

IT IS THE PROPERTY OWNERS/CONTRACTORS RESPONSIBILITY TO CONTACT DIGSAFE (if applicable). CONTACT DIGSAFE AT 811 OR 1(888)344-7233 OR AT www.digsafe.com.

IT IS THE PROPERTY OWNERS RESPONSIBILITY TO COMPLETE WATER SYSTEM DISINFECTION PER ERP'S SUBCHAPTER 1-1218 AND WATER QUALITY TESTING PER ERP'S SUBCHAPTER 1-1113.

NOTIFICATION OF ADJACENT PROPERTY OWNERS WHO MAY BE AFFECTED BY THE INSTALLATION OF THIS WASTEWATER SYSTEM AND/OR WATER SUPPLY TO COMPLETED ERP'S SUBCHAPTER 1-307.

TYPICAL ISOLATION DISTANCES

(unless otherwise labelled)

-ITEM- OFFSET TO:	WASTEWATER TANKS	SEWER LINE	IN GROUND LEACHFIELD	AT GRADE LEACHFIELD STONE	AT GRADE LEACHFIELD SOIL COVER	MOUND LEACHFIELD BASAL AREA (sand fill)	MOUND LEACHFIELD SOIL COVER
CURTAIN DRAINS (downslope of leachfield)	15'	N/A	25'	75'	50'	75'	50'
CURTAIN DRAINS (upslope of leachfield)	15'	N/A	25'	35'	35'	35'	35'
DITCH WITH SEEPS (downslope of leachfield)	25'	N/A	75'	75'	50'	75'	50'
DITCH WITH SEEPS (upslope of leachfield)	25'	N/A	35'	35'	15'	35'	10'
DITCH WITH NO SEEPS	N/A	N/A	25'	25'	15'	25'	10'
STRUCTURE W/ PERIMETER DRAIN (downslope of leachfield)	15'	N/A	75'	75'	50'	75'	50'
STRUCTURE W/ PERIMETER DRAIN (upslope of leachfield)	15'	N/A	20'	20'	15'	20'	10'
STRUCTURE W/O PERIMETER DRAIN (downslope of leachfield)	10'	N/A	20'	35'	35'	35'	35'
STRUCTURE W/O PERIMETER DRAIN (upslope of leachfield)	10'	N/A	20'	20'	20'	20'	20'
POTABLE WATER SOURCE (IN BEDROCK)	50'	50'	OUTSIDE WELLHEAD PROTECTION ZONE				
POTABLE WATER SUPPLY, NON BEDROCK	50'	75'					
PUBLIC WATER SOURCES	50'	50'					
PROPERTY LINE	10'	10'	25	25	15' (PROPERTIES 1/2 ACRE OR LARGER) 25' (PROPERTIES LESS THAN 1/2 ACRE)	25	15' (PROPERTIES 1/2 ACRE OR LARGER) 25' (PROPERTIES LESS THAN 1/2 ACRE)
ROADWAY, DRIVEWAY, PARKING LOT	5'	N/A	15	15		15	
SLOPES OVER 30%	10	N/A	25	25	25	25	25
SURFACE WATER(LAKES/PONDS/STREAMS), NORMAL HIGH WATER	25'	10	50	50	50'	50	50
STORMWATER (conveyance/treatment/control)	25'	10	50	50	50	50	50
TREES	10'	10'	10'	10'	10'	10'	10'
WATER MAINS	50'	SCCT 1-1007	50'	50'	15' (PROPERTIES 1/2 ACRE OR LARGER) 25' (PROPERTIES LESS THAN 1/2 ACRE)	50	15' (PROPERTIES 1/2 ACRE OR LARGER) 25' (PROPERTIES LESS THAN 1/2 ACRE)
WATER SERVICE LINES/PIPES, PRESSURE	25	SCCT 1-1007	25	25		25'	
WATER SERVICE LINES/PIPES, SUCTION	50'	SCCT 1-1007	100'	100	25	100'	25
WATER SOURCE, NONPOTABLE	50'	10'	100'	100'	25	100'	25
WATER STORAGE TANK, BELOW GRADE	50'	50'	50'	50'	25'	50'	25'

BASIS OF DESIGN

PROPOSED SINGLE FAMILY RESIDENCES

LOT 1: PROPOSED 3 BEDROOM SINGLE FAMILY RESIDENCE

WATER SUPPLY: PROPOSED INDIVIDUAL DRILLED WELL

3 BEDROOMS X 140 GPD EACH ..... = 420 GPD

DESIGN FLOW ..... = 420 GPD
DESIGN RATE ..... = 0.58 GPM
INSTANTANEOUS PEAK DEMAND ..... = 9 GPM

(NOTE: WELL PUMP SHALL BE SIZED TO MEET INSTANTANEOUS PEAK DEMAND REQUIREMENTS)

WASTEWATER SYSTEM: PROPOSED INDIVIDUAL MOUND SYSTEM

3 BEDROOMS X 140 GPD EACH ..... = 420 GPD

LOT 2: PROPOSED 3 BEDROOM SINGLE FAMILY RESIDENCE

WATER SUPPLY: PROPOSED INDIVIDUAL DRILLED WELL

3 BEDROOMS X 140 GPD EACH ..... = 420 GPD

DESIGN FLOW ..... = 420 GPD
DESIGN RATE ..... = 0.58 GPM
INSTANTANEOUS PEAK DEMAND ..... = 9 GPM

(NOTE: WELL PUMP SHALL BE SIZED TO MEET INSTANTANEOUS PEAK DEMAND REQUIREMENTS)

WASTEWATER SYSTEM: PROPOSED INDIVIDUAL MOUND SYSTEM

3 BEDROOMS X 140 GPD EACH ..... = 420 GPD

LOT 3: PROPOSED 4 BEDROOM SINGLE FAMILY RESIDENCE

WATER SUPPLY: PROPOSED INDIVIDUAL DRILLED WELL

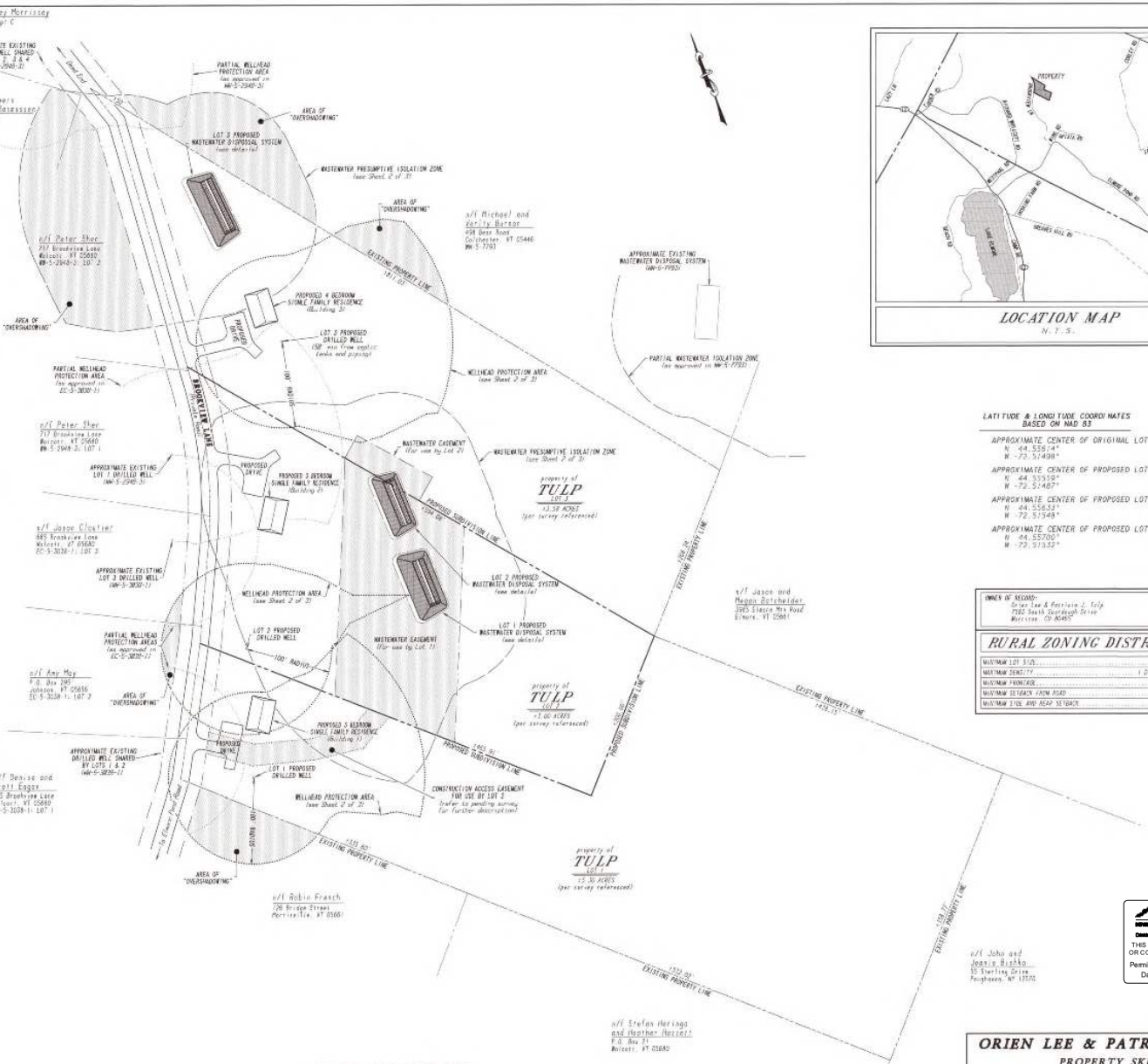
3 BEDROOMS X 140 GPD EACH ..... = 420 GPD
1 DEN/ROOM X 70 GPD ..... = 70 GPD
TOTAL = 490 GPD

DESIGN FLOW ..... = 490 GPD
DESIGN RATE ..... = 0.68 GPM
INSTANTANEOUS PEAK DEMAND ..... = 9 GPM

(NOTE: WELL PUMP SHALL BE SIZED TO MEET INSTANTANEOUS PEAK DEMAND REQUIREMENTS)

WASTEWATER SYSTEM: PROPOSED INDIVIDUAL MOUND SYSTEM

3 BEDROOMS X 140 GPD EACH ..... = 420 GPD
1 DEN/ROOM X 70 GPD ..... = 70 GPD
TOTAL = 490 GPD

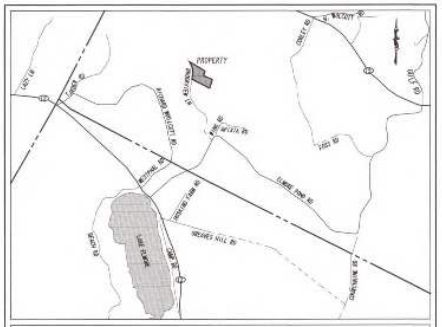


PROPERTY SKETCH

1" = 60'

SCALE 1" = 60'

180' 120' 60' 0 120'



LOCATION MAP

N.T.S.

LATITUDE & LONGITUDE COORDINATES BASED ON NAD 83

APPROXIMATE CENTER OF ORIGINAL LOT
N 44.55514°
W -72.51498°

APPROXIMATE CENTER OF PROPOSED LOT 1
N 44.55558°
W -72.51487°

APPROXIMATE CENTER OF PROPOSED LOT 2
N 44.55631°
W -72.51548°

APPROXIMATE CENTER OF PROPOSED LOT 3
N 44.55700°
W -72.51532°

OWNER OF RECORD:
Orien Lee & Patricia J. Tulp
7580 South Sourbough Drive
Montrose, CO 81401

RURAL ZONING DISTRICT

MINIMUM LOT SIZE	2 ACRES
MAXIMUM DENSITY	1 UNIT ACRES
MINIMUM FRONTAGE	150
MINIMUM SETBACK FROM ROAD	25
MINIMUM SIDE AND REAR SETBACK	25

VERMONT
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Drinking Water & Groundwater Protection Division
THIS IS SUBJECT TO PROVISIONS OR CONDITIONS LISTED IN PERMIT
Permit #: WW-5-9483
Date: 04/10/2024

I HEREBY CERTIFY THAT, IN THE EXERCISE OF MY REASONABLE PROFESSIONAL JUDGMENT, THE OPINION RELATED INFORMATION SUBMITTED WITH THIS APPLICATION IS TRUE AND CORRECT AND THE DESIGN INCLUDED IN THE APPLICATION FOR A PERMIT COMPLIES WITH THE VERMONT WASTEWATER SYSTEM AND POTABLE WATER SUPPLY RULES.

STATE OF VERMONT
LICENSED
NO. 12.0126370
PROFESSIONAL ENGINEER

ORIEN LEE & PATRICIA J. TULP

PROPERTY SKETCH

BROOKVIEW LANE

WOLCOTT, VERMONT

OUTBACK DESIGN COMPANY INC.
PO BOX 446
JOHNSON, VERMONT
05656
(802) 635 - 7904

PROJECT NO: 3206-1
DRAWN BY = DCR
DATE = 03/04/24
SHEET # 1 OF 4

INVERT ELEVATIONS CHART

Calculated Based on 1190 Assumed Elevation at: 1131.3'

-ITEM-	INVERT ELEVATION
LOT 1 BUILDING OUTLET	1135.4' MINIMUM
LOT 1 SEPTIC TANK INLET	1126.1
LOT 1 SEPTIC TANK OUTLET	1128.9
LOT 1 PUMP STATION INLET	1128.7
LOT 1 PUMP STATION OUTLET	1135.9
LOT 1 UPPER LATERAL PIPE	1137.5
LOT 1 UPPER LATERAL LEACHFIELD STONE	1131.0
LOT 2 BUILDING OUTLET	1133.0 MINIMUM
LOT 2 SEPTIC TANK INLET	1130.7
LOT 2 SEPTIC TANK OUTLET	1132.4
LOT 2 PUMP STATION INLET	1132.3
LOT 2 PUMP STATION OUTLET	1139.3
LOT 2 UPPER LATERAL PIPE	1137.1
LOT 2 UPPER LATERAL LEACHFIELD STONE	1130.6
LOT 3 BUILDING OUTLET	1136.9' MINIMUM
LOT 3 SEPTIC TANK INLET	1128.6
LOT 3 SEPTIC TANK OUTLET	1130.3
LOT 3 PUMP STATION INLET	1128.2
LOT 3 PUMP STATION OUTLET	1133.4
LOT 3 UPPER LATERAL PIPE	1140.4
LOT 3 UPPER LATERAL LEACHFIELD STONE	1139.9

NOTES:

BUILDING OUTLET BASED ON 12" COVER OVER SEPTIC TANK.

MAXIMUM COVER OVER SEPTIC TANK TO BE PER MANUFACTURER SPECIFICATION.

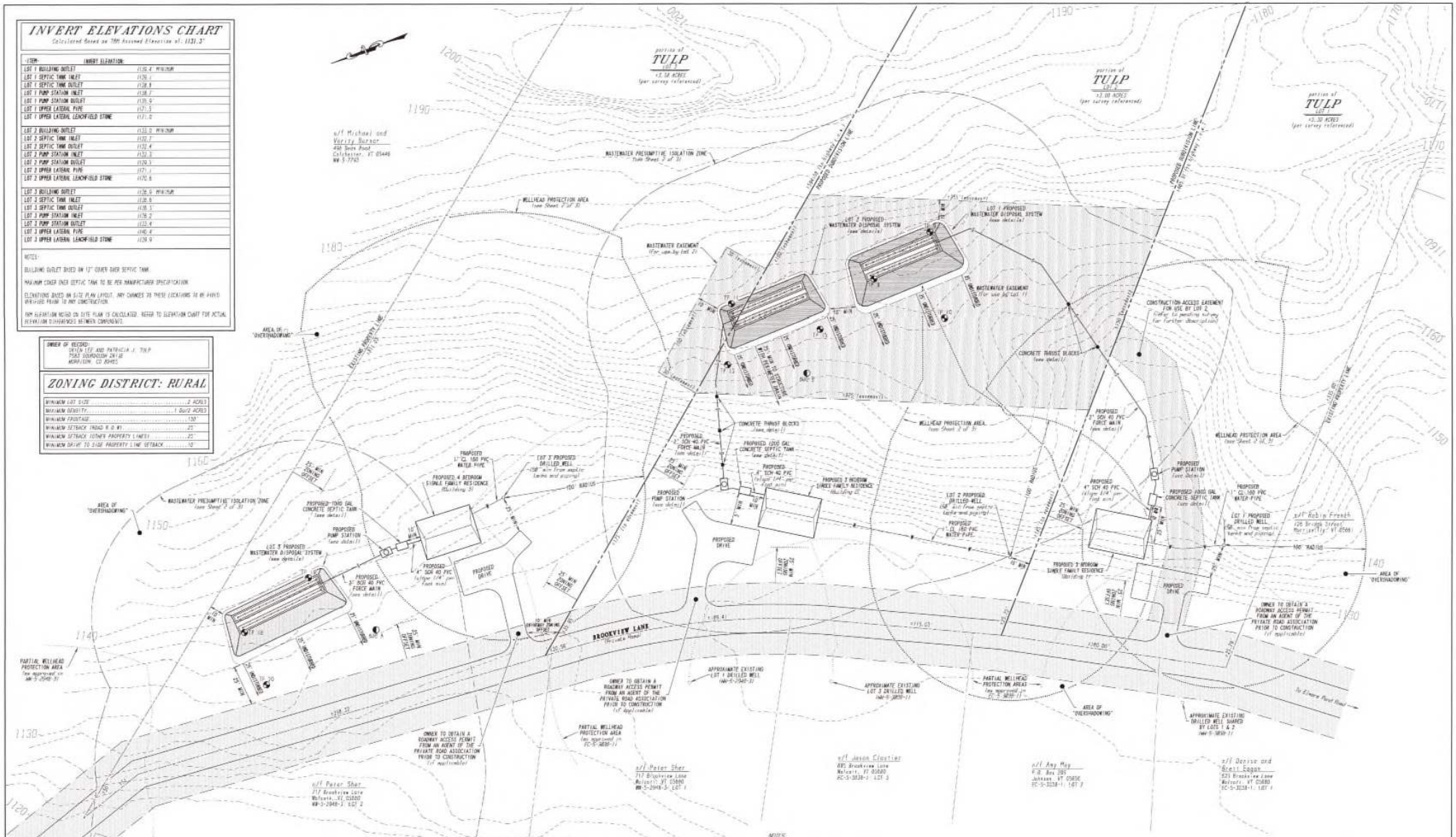
ELEVATIONS BASED ON SITE PLAN LAYOUT. ANY CHANGES TO THESE LOCATIONS TO BE FIELD VERIFIED PRIOR TO ANY CONSTRUCTION.

THE ELEVATION NOTED ON SITE PLAN IS CALCULATED. REFER TO ELEVATION CHART FOR ACTUAL ELEVATION DIFFERENCES BETWEEN COMPONENTS.

OWNER OF RECORD:
ORIEN LEE AND PATRICIA J. TULP
7583 SOURDOUGH DRIVE
MORRISON, CO 80465

ZONING DISTRICT: RURAL

MINIMUM LOT SIZE	2 ACRES
MAXIMUM DENSITY	1 DU/2 ACRES
MINIMUM FRONTAGE	150'
MINIMUM SETBACK (ROAD R.O.W)	25'
MINIMUM SETBACK (OTHER PROPERTY LINES)	25'
MINIMUM DRIVE TO SIDE PROPERTY LINE SETBACK	10'



SITE MAP
1" = 30'

NOTES:

ELEVATIONS TAKEN FROM VCGI MAPPING.

THE WASTEWATER DESIGNS FOR THIS PROJECT ARE MOUND TYPE DISPOSAL SYSTEMS DESIGNED TO HANDLE 100% OF THE PROJECT FLOW IN ACCORDANCE WITH SUBCHAPTER 1-3(B)(1)(2).

THIS IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO BE USED AS ONE.

BOUNDARY INFORMATION TAKEN FROM A SURVEY TITLED "A TOTAL STATION SURVEY, TULP SUBDIVISION" BY WILLARD L. GONE, L.L.S. DATED OCTOBER 6, 2003.

THIS PROJECT DESIGN DOES NOT INCLUDE THE USE OF A GARBAGE DISPOSAL. IF A GARBAGE DISPOSAL IS USED ON THIS PROJECT, THE SEPTIC TANK SHALL BE SIZED A MINIMUM OF 50% LARGER OVER SUBCHAPTER 1-3(B)(a)(14).

IT IS THE PROPERTY OWNERS/CONTRACTORS RESPONSIBILITY TO CONTACT DIGSAFE (if applicable). CONTACT DIGSAFE AT 811 OR (888)344-7233 OR AT www.digsafe.com

IT IS THE PROPERTY OWNERS RESPONSIBILITY TO COMPLETE WATER SYSTEM DISINFECTION PER EPW'S SUBCHAPTER 1-1210 AND WATER QUALITY TESTING PER EPW'S SUBCHAPTER 1-1113.

NOTIFICATION OF ADJACENT PROPERTY OWNERS WHO MAY BE AFFECTED BY THE INSTALLATION OF THIS WASTEWATER SYSTEM AND/OR WATER SUPPLY TO COMPLETED EPW'S SUBCHAPTER 1-3(B)

I HEREBY CERTIFY THAT, IN THE CAPACITY OF MY RESPONSIBLE PROFESSIONAL, REGARDING THE DESIGN RELATED INFORMATION SUBMITTED WITH THIS APPLICATION IS TRUE AND CORRECT AND THE DESIGN INCLUDED IN THE APPLICATION FOR A PERMIT COMPLIES WITH THE VERMONT WASTEWATER SYSTEM AND POTABLE WATER SUPPLY RULES.

STATE OF VERMONT
NO. 02.0126318
REGISTERED PROFESSIONAL ENGINEER

VERMONT
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Drinking Water & Groundwater Protection Division
THIS IS SUBJECT TO PROVISIONS OR CONDITIONS LISTED IN PERMIT
Permit #: WW-5-9483
Date: 04/10/2024

ORIEN LEE & PATRICIA J. TULP

SITE PLAN & WASTEWATER SYSTEM DESIGN

BROOKVIEW LANE

WOLCOTT, VERMONT

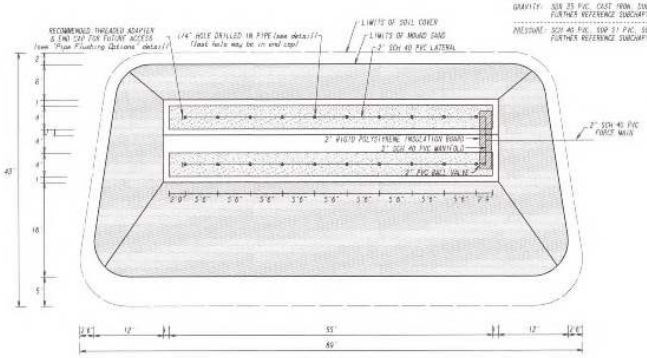
OUTBACK DESIGN COMPANY INC.
PO BOX 446
JOHNSON, VERMONT
05656
(802) 635 - 7904

PROJECT NO: 3206-1
DRAWN BY = DCR
DATE = 03/04/24
SHEET # 2 OF 4

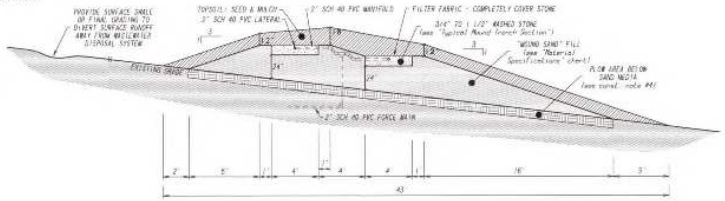
ALTERNATIVE PIPING OPTIONS

GRAVITY: SDR 35 PVC, COST FROM DUCTILE IRON
FURTHER REFERENCE SUBCHAPTER 1-1022

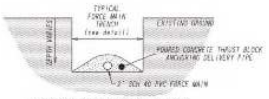
PRESSURE: SCH 40 PVC, SDR 21 PVC, SDR 26 PVC
FURTHER REFERENCE SUBCHAPTER 1-1009



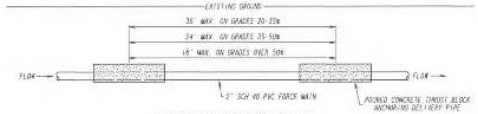
MOUND PLAN
LOT 1
1" = 10'



MOUND SECTION
LOT 1
1" = 5'



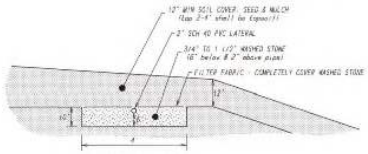
CROSS SECTION VIEW



SIDE SECTION VIEW

CONCRETE THRUST BLOCK DETAIL
N.T.S.

VERMONT
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Drinking Water & Groundwater Protection Division
THIS IS SUBJECT TO PROVISIONS OR CONDITIONS LISTED IN PERMIT
Permit #: WW-5-9483
Date: 04/10/2024

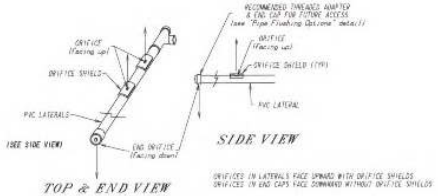


TYPICAL MOUND TRENCH SECTION
N.T.S.

MATERIAL SPECIFICATIONS

MOUND SAND: MATERIAL MEETING ONE OF THE TEXTURES BELOW IS ACCEPTABLE - REFER TO SUBCHAPTER (-1021(g))

SIEVE NUMBER	MOUND FILL #1	PERCENT PASSING BY WEIGHT MOUND FILL #2	MOUND FILL #3
4		95-100%	
8		80-100%	
3/8	85-100%		85-100%
16		50-85%	
30		25-60%	
40	25-75%		30-50%
50		10-30%	
80	0-30%		
100	0-10%	2-10%	
200	0-5%		0-3%

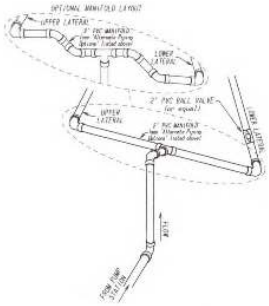


TOP & END VIEW

SIDE VIEW

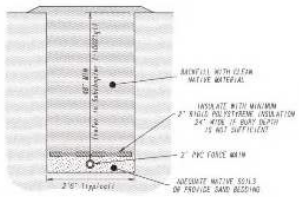
ORIFICES IN LATERALS FACE UPWARD WITH ORIFICE SHIELDS
ORIFICES IN END CAPS FACE DOWNWARD WITHOUT ORIFICE SHIELDS

TYPICAL PRESSURE DISTRIBUTION LATERALS
N.T.S.



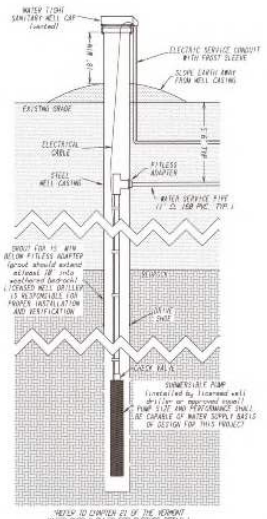
"DIFFERENTIAL HEAD IN NETWORK TO BE SET OF DESIGNED AND INSTALLED AT PRESSURE TEST"

FORCE MAIN ENTRANCE DETAIL
N.T.S.



"ADDITIONAL SITE REVIEW REQUIRED IF BEDROCK IS ENCOUNTERED"

FORCE MAIN TRENCH DETAIL
N.T.S.



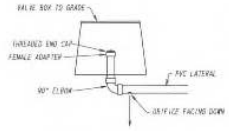
"REFER TO CHAPTER 21 OF THE VERMONT WATER SUPPLY RULES FOR FURTHER DETAIL."

TYPICAL INDIVIDUAL DRILLED WELL
N.T.S.

- REMOVE SOIL COVER TO EXPOSE FILTER FABRIC
- CUT FABRIC OVER END CAP & DISPLACE STONE
- REMOVE THREADED END CAP FOR FLUSH CYCLE
- REPLACE END CAP & TIGHTEN TO BE WATER TIGHT
- REPLACE STONE AND PROVIDE SEPARATE OVERLAY OF FABRIC TO COVER CUT
- REPLACE SOIL COVER TO ORIGINAL CONDITION

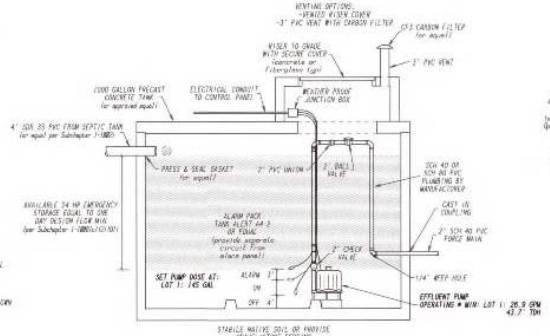
END CAP REMOVAL

-OR-



FLUSHING CAP

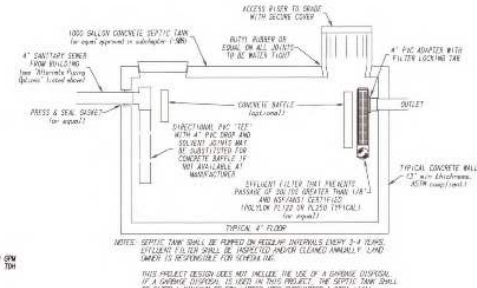
PIPE FLUSHING OPTIONS
N.T.S.



•BUTYL RUBBER OR EQUAL ON ALL JOINTS TO BE WATER TIGHT•

•PUMP CRITERIA BASED ON PUMP STATION LOCATED AS SHOWN ON THE DRAWINGS. ANY CHANGE IN LOCATION MAY REQUIRE RECALCULATION OF PUMP CRITERIA•

PUMP STATION DETAIL
N.T.S.



NOTES: SEPTIC TANK SHALL BE PUMPED ON REGULAR INTERVALS (EVERY 3-4 YEARS). EFFLUENT FILTER SHALL BE INSPECTED AND/OR CLEANED ANNUALLY. LAND OWNER IS RESPONSIBLE FOR SCHEDULING.

THIS PROJECT DESIGN DOES NOT INCLUDE THE USE OF A GARBAGE DISPOSAL. IF A GARBAGE DISPOSAL IS USED IN THIS PROJECT, THE SEPTIC TANK SHALL BE SIZED A MINIMUM OF 50% LARGER (PER SUBCHAPTER 1-1009(a)(14)).

SEPTIC TANK & EFFLUENT FILTER DETAIL
N.T.S.

MOUND SYSTEM CONSTRUCTION NOTES

1. STAKE OUT MOUND IN ACCORDANCE WITH SITE PLAN AND DESIGNERS INSTRUCTIONS.
2. ALL ABOVE GROUND VEGETATION WITHIN TEN FEET OF SEPTIC SYSTEM SHALL BE CLOSELY CUT AND REMOVED. TREE STUMPS SHALL BE CUT FLUSH WITH THE GROUND AND ROOTS LEFT IN PLACE.
3. PUMP STATION DISCHARGE LINE FROM PUMP TO THE POINT OF CONNECTION WITH THE DISTRIBUTION PIPE HEADER SHALL BE INSTALLED.
4. CONSTRUCTION SHALL NOT TAKE PLACE DURING TIMES WHEN SOILS ARE WET OR DAMP. PLOW AREA TO A DEPTH OF EIGHT INCHES, PARALLEL WITH THE CONTOURS. PLOW IN A DIRECTION THAT WILL TARGET THE SOIL UNDERPIPE. NO VEHICLES ARE ALLOWED ON THE PLOWED GROUND. DESIGNER SHALL REVIEW THE SITE AT THIS TIME.
5. PLACE MOUND SAND FILL ON THE PLOWED AREA. CONSTRUCTION EQUIPMENT IS NOT ALLOWED ON THE PLOWED GROUND UNTIL AT LEAST SIX INCHES OF MOUND SAND FILL HAS BEEN ADDED.
6. BUILD MOUND SAND FILL TO THE TOP ELEVATION OF THE MOUND AS SHOWN IN THE MOUND DETAILS AND LEVEL WITH HAND TOOLS.
7. EXCAVATE TRENCHES/BED (A) DEEP TO ACCOMMODATE TEN INCHES OF STONE AND HAND LEVEL.
8. PLACE 6 INCHES OF STONE IN TRENCHES, HAND LEVEL AND INSTALL DISTRIBUTION PIPING IN THE STONE AS SHOWN IN THE DETAILS. LEAVE DISTRIBUTION PIPES FREE AT THE HEADER CONNECTION FOR TESTING PURPOSES. PROVIDE SUFFICIENT WATER IN PUMP STATION/SPHON CHAMBER FOR TESTING PURPOSES. PROVIDE ELECTRICITY(if required) TO OPERATE PUMP. CONTACT DESIGNER FOR CONSTRUCTION INSPECTION.
9. COVER THE ENTIRE MOUND WITH SOIL FILL AND TOPSOIL AS SHOWN ON THE PLANS. THEN COVER WITH GRASS SEED AND MULCH TO PREVENT EROSION.

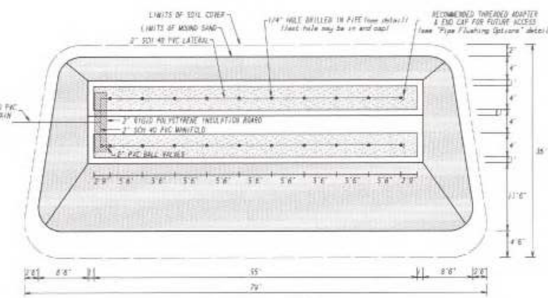
NOTE: SEPTIC TANK SHALL BE PUMPED AT REGULAR INTERVALS (every 3-4 years). LAND OWNER IS RESPONSIBLE FOR SCHEDULING.

STATE OF VERMONT
152.0126878
LICENSED PROFESSIONAL ENGINEER

ORIEN LEE & PATRICIA J. TULP
DETAIL SHEET: LOT 1
BROOKVIEW LANE
WOLCOTT, VERMONT

OUTBACK DESIGN COMPANY INC.
PO BOX 446
JOHNSON, VERMONT
05656
(802) 635 - 7904

PROJECT NO: 3206-1
DRAWN BY = DCR
DATE = 03/04/24
SHEET # 3 OF 4

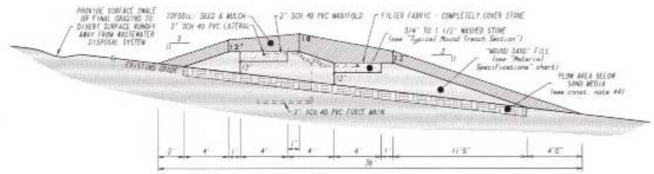


MOUND PLAN
LOT 2
1" = 10'

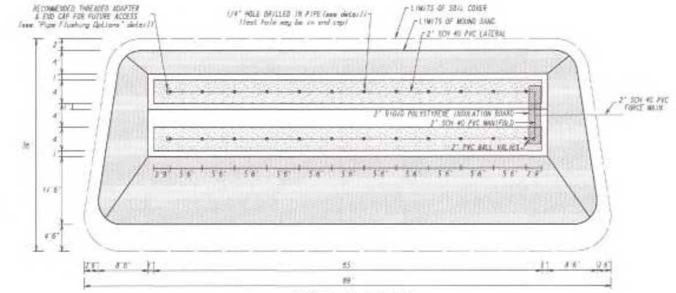
ALTERNATIVE PIPING OPTIONS

GRAVITY: SDR 35 PVC, CAST IRON, DUCTILE IRON. FURTHER REFERENCE SUBCHAPTER 1-1002

PRESSURE: SCH 40 PVC, SDR 21 PVC, SDR 26 PVC. FURTHER REFERENCE SUBCHAPTER 1-1000



MOUND SECTION
LOT 2 & LOT 3
1" = 5'



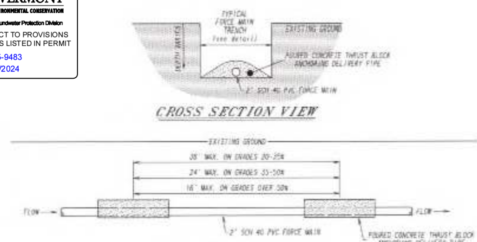
MOUND PLAN
LOT 3
1" = 10'

MATERIAL SPECIFICATIONS

MOUND SAND: MATERIAL MEETING ONE OF THE TEXTURES BELOW IS ACCEPTABLE – REFER TO SUBCHAPTER 1-921(g)

SIEVE NUMBER	PERCENT PASSING BY WEIGHT MOUND FILL #1	MOUND FILL #2	MOUND FILL #3
4		95-100%	
8		80-100%	
3/8	85-100%		85-100%
16		50-85%	
30		25-60%	
40	25-75%		30-50%
50		10-30%	
60	0-20%		
100	0-10%	2-10%	
200	0-5%		0-5%

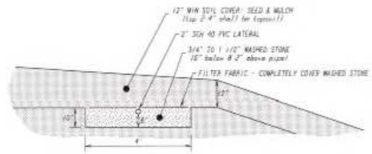
VERMONT
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Drinking Water & Groundwater Protection Division
THIS IS SUBJECT TO PROVISIONS OR CONDITIONS LISTED IN PERMIT
Permit #: WW-5-9483
Date: 04/10/2024



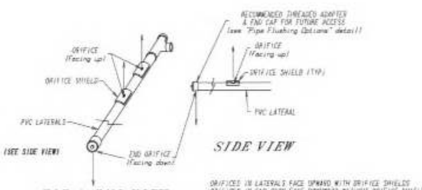
CROSS SECTION VIEW

SIDE SECTION VIEW

CONCRETE THRUST BLOCK DETAIL
N.T.S.



TYPICAL MOUND TRENCH SECTION
N.T.S.

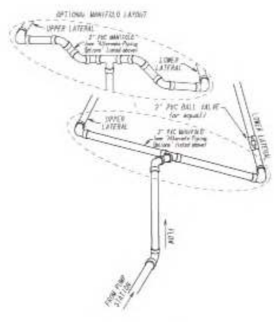


TOP & END VIEW

SIDE VIEW

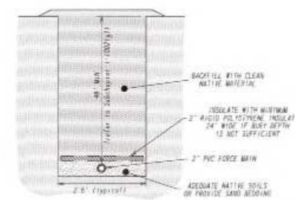
ORIFICES IN LATERALS FACE UPWARD WITH ORIFICE SHIELDS
ORIFICES IN END CAPS FACE DOWNWARD WITHOUT ORIFICE SHIELDS

TYPICAL PRESSURE DISTRIBUTION LATERALS
N.T.S.



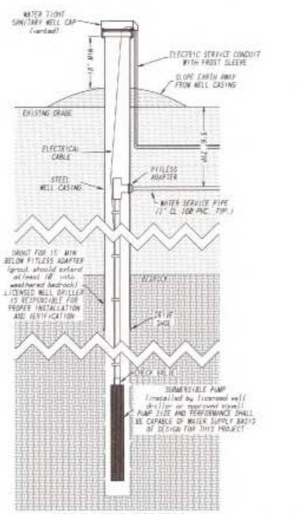
"DIFFERENTIAL HEAD IN NETWORK TO BE SET BY DESIGNER AND INSTALLER AT PRESSURE TEST"

FORCE MAIN ENTRANCE DETAIL
N.T.S.



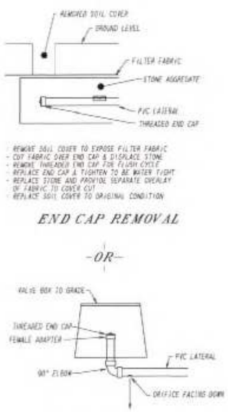
"ADDITIONAL SITE REVIEW REQUIRED IF BEDROCK IS ENCOUNTERED"

FORCE MAIN TRENCH DETAIL
N.T.S.



"REFER TO CHAPTER 21 OF THE VERMONT WATER SUPPLY RULES FOR FURTHER DETAIL"

TYPICAL INDIVIDUAL DRILLED WELL
N.T.S.

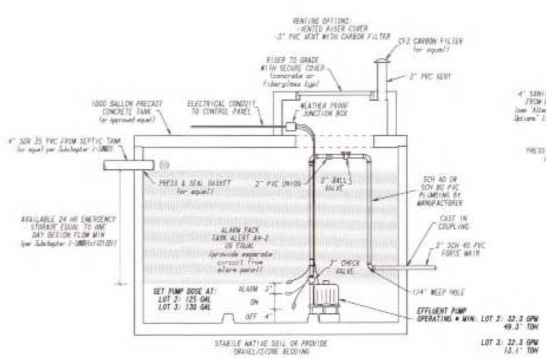


END CAP REMOVAL

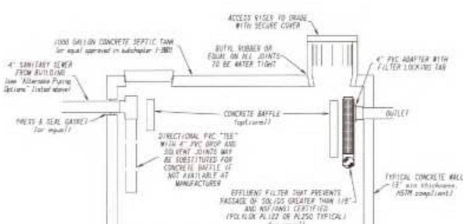
–OR–

FLUSHING CAP

PIPE FLUSHING OPTIONS
N.T.S.



PUMP STATION DETAIL
N.T.S.



NOTES: SEPTIC TANK SHALL BE PUMPED ON REGULAR INTERVALS EVERY 3-4 YEARS. EFFLUENT FILTER SHALL BE INSPECTED AND/OR CLEANED ANNUALLY. LAND OWNER IS RESPONSIBLE FOR SCHEDULING.

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SEPTIC TANK & EFFLUENT FILTER DETAIL
N.T.S.

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3. PUMP STATION DISCHARGE LINE FROM PUMP TO THE POINT OF CONNECTION WITH THE DISTRIBUTION PIPE HEADER SHALL BE INSTALLED.
4. CONSTRUCTION SHALL NOT TAKE PLACE DURING TIMES WHEN SOILS ARE WET OR DAMP. PLOW AREA TO A DEPTH OF EIGHT INCHES, PARALLEL WITH THE CONTOURS. PLOW IN A DIRECTION THAT WILL THROW THE SOIL UPSLOPE. NO VEHICLES ARE ALLOWED ON THE PLOWED GROUND. DESIGNER SHALL REVIEW THE SITE AT THIS TIME.
5. PLACE MOUND SAND FILL ON THE PLOWED AREA. CONSTRUCTION EQUIPMENT IS NOT ALLOWED ON THE PLOWED GROUND UNTIL AT LEAST SIX INCHES OF MOUND SAND FILL HAS BEEN ADDED.
6. BUILD MOUND SAND FILL TO THE TOP ELEVATION OF THE MOUND AS SHOWN IN THE MOUND DETAILS AND LEVEL WITH HAND TOOLS.
7. EXCAVATE TRENCHES/BED IN ORDER TO ACCOMMODATE TEN INCHES OF STONE AND HAND LEVEL.
8. PLACE 8 INCHES OF STONE IN TRENCHES, HAND LEVEL AND INSTALL DISTRIBUTION PIPING IN THE STONE AS SHOWN IN THE DETAILS. LEAVE DISTRIBUTION PIPES FREE AT THE HEADER CONNECTION FOR TESTING PURPOSES. PROVIDE SUFFICIENT WATER IN PUMP STATION/SIPHON CHAMBER FOR TESTING PURPOSES. PROVIDE ELECTRICITY(if required) TO OPERATE PUMP. CONTACT DESIGNER FOR CONSTRUCTION INSPECTION.
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DETAIL SHEET: LOTS 2 & 3
BROOKVIEW LANE
WOLCOTT, VERMONT

OUTBACK DESIGN COMPANY INC. PO BOX 446 JOHNSON, VERMONT 05656 (802) 635 - 7904	PROJECT NO: 3206-1
	DRAWN BY = DCR
	DATE = 03/04/24
	SHEET # 4 OF 4