

STATE OF MONTANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
CERTIFICATE OF SUBDIVISION PLAT APPROVAL
(Section 76-4-101 et seq.)

TO: County Clerk and Recorder
Flathead County
Kalispell Montana

E.Q. # 22-2163

THIS IS TO CERTIFY THAT the plans and supplemental information relating to the subdivision known as **COS Neitzke Family Transfer**, as being Tract 1 of Certificate of Survey 21035, located in the W 1/2 of the SE 1/4 of Section 19 of Township 27 North, Range 21 West, P.M.M., Flathead County, Montana as found in the records of the Flathead County Clerk & Recorder,

consisting of two (2) tracts, one of which (Tract 1) have been reviewed by personnel of the Water Quality Division, and,

THAT Tract 2 is exempt from review in accordance with MCA 76-4-102(23), as a tract 20 acres or greater exclusive of public roadways, and,

THAT the documents and data required by ARM Chapter 17 Section 36 have been submitted and found to be in compliance therewith, and,

THAT the approval of the COS is made with the understanding that the following conditions shall be met:

THAT the tract sizes on the COS to be file with the county clerk and recorder will not be further altered without approval, and,

THAT Tract 1 shall be used for one living unit, and,

THAT Tract 1 shall have an individual water system, and,

THAT when the existing individual water supply system is in need of extensive repairs or replacement it shall be replaced by a well drilled to a minimum depth of 25 feet constructed in accordance with the criteria established in Title 17, Chapter 36, Sub-Chapters 1, 3, and 6 ARM and the most current standards of the Department of Environmental Quality, and,

THAT, a total coliform analysis must be conducted when the well is put into use as a drinking water supply. The analysis must be performed by a laboratory certified by the department of public health and human services for analysis of water samples for public water systems with reports submitted to Madison County Environmental Health, and,

THAT data provided indicates an acceptable water source at a depth of approximately 300-1,000 feet, and,

THAT Tract 1 shall have an individual wastewater treatment system, and,

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COS Neitzke Family Transfer
Flathead County, Montana
E.Q. # 22-2163

THAT the individual wastewater treatment system will consist of a septic tank, dose tank/chamber, effluent filter, and pressure-dosed, subsurface drainfield of such size and description as will comply with Title 17, Chapter 36, Sub-Chapters 1, 3, and 6 ARM, the most current standards of the Department of Environmental Quality, and shall be constructed and installed in accordance with the attached design specifications or equivalent, and,

THAT the individual wastewater treatment system serving Tract 1 meets Category #1 of ARM 17.30.716 "Categories of Activities that Cause Non-significant Changes in water Quality". A 100 ft. provisional mixing zone has been assigned for the purpose of well setbacks as shown on the Lot layout, and,

THAT the pressure-dosed subsurface drainfield shall have an absorption area of sufficient size to provide for an application rate of 0.4 gpd/square foot and,

THAT the bottom of the drainfield shall be at least four feet above the water table, and,

THAT no sewage treatment system shall be constructed within 100 feet of the maximum highwater level of a 100-year flood of any stream, lake, watercourse, or irrigation ditch, nor within 100 feet of any domestic water supply source, and,

THAT the stormwater design for control of the increased runoff from the living unit and driveway area, requires the installation of a retention pond or swale with a minimum volume of 798 cubic feet be constructed and located down grade of the proposed living unit in accordance with the approved plans, and,

THAT the operation and maintenance of water supply, sewage treatment system, and stormwater facilities shall be the responsibility of the lot owner, and,

THAT water supply system, sewage treatment system and storm drainage systems will be located as shown on the approved plans and lot layout, and,

THAT the developer and/or owner of record shall provide the purchaser of property with a copy of the COS, approved location of water supply, sewage treatment system and storm drainage structures as shown on the attached lot layout, and a copy of this document, and,

THAT instruments of transfer for this property shall contain reference to these conditions, and,

THAT plans and specifications for any proposed sewage treatment systems will be reviewed and approved by the county health department and will comply with local regulations and ARM, Title 17, Chapter 36, Subchapters 3 and 9, before construction is started.

THAT departure from any criteria set forth in the approved plans and specifications and Title 17, Chapter 36, Sub-Chapters 1, 3, and 6 ARM when erecting a structure and appurtenant facilities in said subdivision without Department approval, is grounds for injunction by the Department of Environmental Quality.

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COS Neitzke Family Transfer
Flathead County, Montana
E.Q. # 22-2163

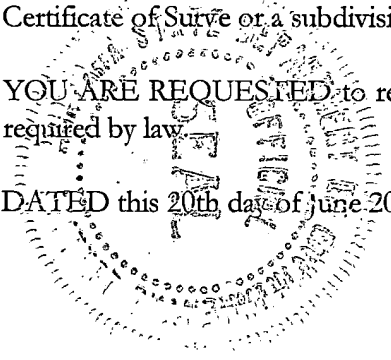


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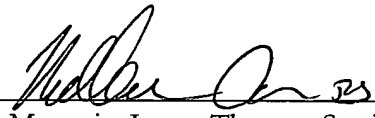
Pursuant to Section 76-4-122 (2)(a), MCA, a person must obtain the approval of both the State under Title 76, Chapter 4, MCA, and local board of health under section 50-2-116(1)(i), before filing a Certificate of Survey or a subdivision plat with the County Clerk and Recorder.

YOU ARE REQUESTED to record this certificate by attaching it to the COS filed in your office as required by law.

DATED this 20th day of June 2022.



CHRIS DORRINGTON
DIRECTOR

By: 
For Margarite Juarez Thomas, Section Supervisor
Public Water Supply and Subdivision Section
Engineering Bureau
Water Quality Division
Department of Environmental Quality

Owner's Name: Matt & Casie Neitzke

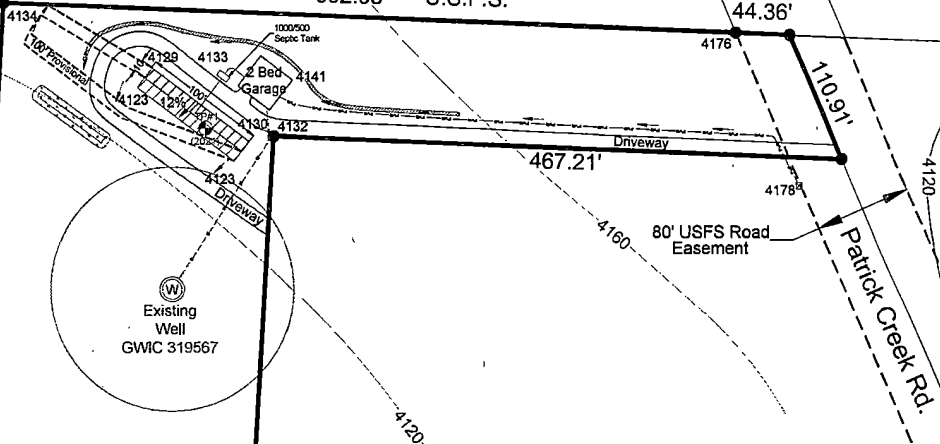


Tract 4 of
 COS 7257

COS Neitzke Family Transfer
 W1/2, NW1/4, SE1/4, Section 19, T27N R21W, P.M.,M.
 Flathead County, Montana

602.03' U.S.F.S.

Groundwater Flow
 1/3 - Topographic Slope



Existing Well
 GWIC 319567

APPROVED
 Montana Department of
 Environmental Quality

Mikel Siemens
 Reviewer Date
 ED#22-2163

Tract 1
 7.417 Acres

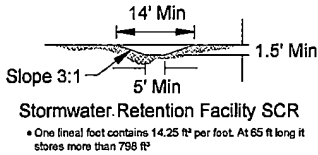
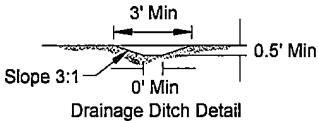
Tract 2 of COS
 Neitzke Family Transfer
 22.444 Acres

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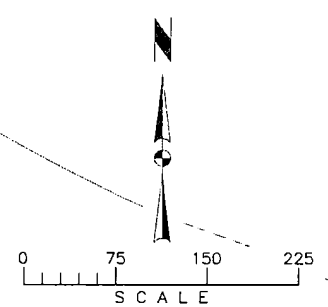
MT DEQ PUBLIC WATER
 & SUBDIVISIONS

Groundwater impacts within 500-ft of
 groundwater wells did not identify significant
 sources of contamination, per Figure 2 Site Map.



LEGEND

- Primary Drainfield
- Replacement Drainfield
- Primary Mixing Zone
- Replacement Mixing Zone
- Structure
- Stormwater Retention
- Drainage Ditch (9% Slope)
- Subject Property Line
- Water Main
- Easement
- Proposed Sewer Line
- Power
- Well Locations
- Test Pit Location
- Stormwater Flow



1236.24' U.S.F.S.

1113.78'

125.00' Δ-33°07'55"
 R-385.00'
 L-222.63'

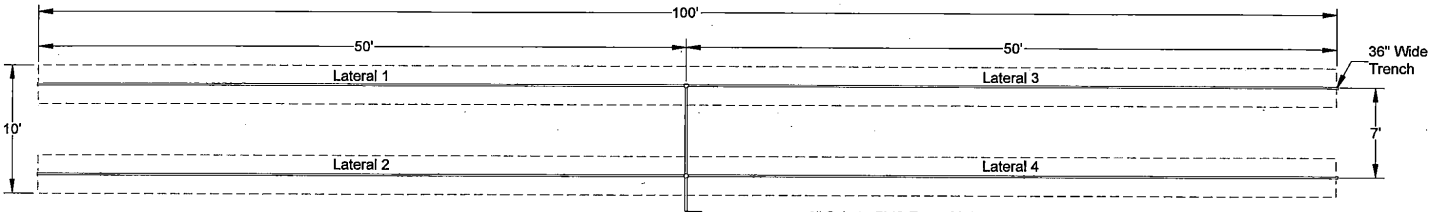
Tract 1 of
 COS 21120

Core Water Consulting
 LLC
 490 E. Montana St, Ste 2
 Kalispell, MT 59901
 (406) 890-2073

Sheet Title	Lot Layout	Scale	As Noted
Project Title	Neitzke Family Transfer - COSA 1494 Patrick Creek Rd	Date	05/11/2022
Revisions:		Project Manager	Mikel Siemens
LotLayout.pdf		File	Neitzke COSA.dwg
		Figure	3



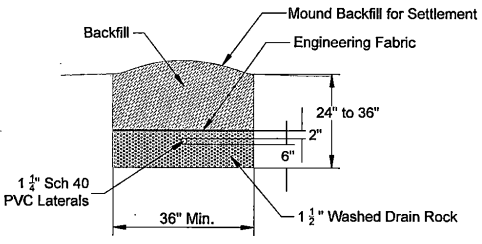
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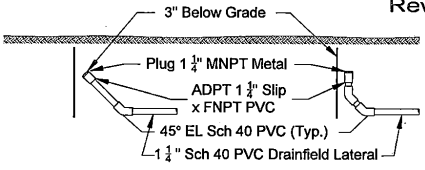
DRAINFIELD DETAIL
 Not to Scale

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 Montana Department of
 Environmental Quality

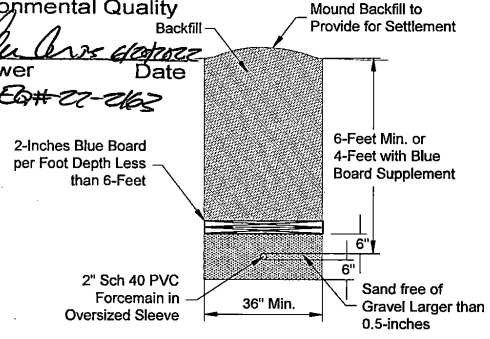
Reviewer: *Halle Cross*
 Date: *06-22-2022*
 EG# *22-262*



TYPICAL TRENCH DETAIL
 Not to Scale



LATERAL CLEAN-OUT DETAIL
 Not to Scale

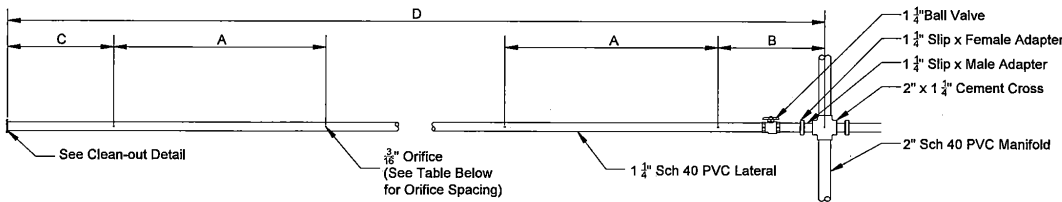


DRAINFIELD FORCEMAIN DRIVEWAY CROSSING DETAIL
 Not to Scale

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ORIFICE SPACING

Laterals	A	B	C	D	# of Orifices per Lateral
1 thru 4	60"	30"	30"	50"	10

LATERAL DETAIL
 Not to Scale

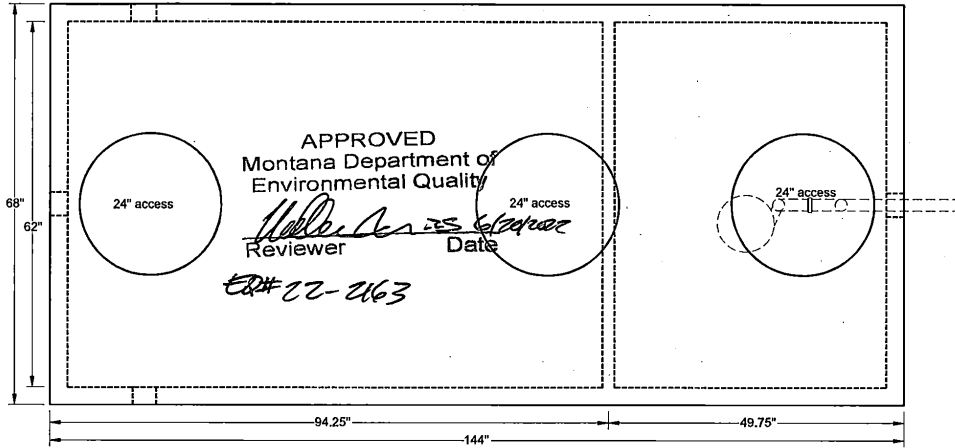
NOTE:
 Orifices shown in up position during pump test.
 Normal operational position is downward.

Core Water Consulting
 490 E. Montana St., Ste 2
 Kalispell, MT 59901
 (406) 890-2073

Sheet Title Drainfield Details	Scale Not to Scale
Project Title Neitzke - COSA Patrick Creek - Kalispell	Date 06/10/2022
Revisions: Drainfielddetails.pdf	Project Manager Mikel Siemens File Sanitary Tank.dwg Figure B



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PLAN VIEW
 Not to Scale

PUMP FLOAT SETTINGS			
MARK	DIMENSION	DRAWDOWN	DESCRIPTION
A	16		Pump Off
B	26	110.5 Gal.	Pump On
C	28		High Water Alarm
D	18	198.9 Gal.	Reserve (above Alarm)

500 gal. Dose Tank has 132.6 gal/ft

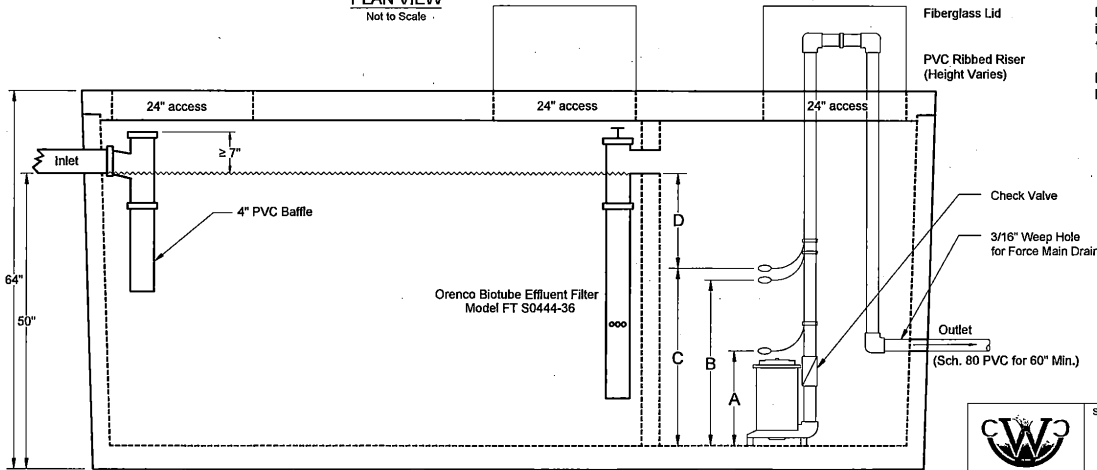
PUMP SPECIFICATIONS	
Manufacturer	Ashland
Model No.	EP45
H.P.	0.5
RPM	3450
Phase	Single
Discharge Size	2" NPT
Pump Requirements	63 GPM @ 20' Head
Pump Set Elevation	4123.0

NOTES:

Pump control to be SJE Rhombus Double Float Set.
 Alarm system to be Indoor Tank Alert 1.

Force main from pump chamber to drainfield shall be installed without a low spot so the force main can drain to the drainfield.

Force main from the pump to a minimum of five (5) feet beyond the pump chamber shall be schedule 80 PVC.



Glacier Precast 1000/500 Gal Septic/Pump Chamber
 PROFILE VIEW
 Not to Scale

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490 E. Montana St, Ste 2
 Kalispell, MT 59901
 (406) 890-2073

Sheet Title	Septic Tank Details	Scale	Not to Scale
Date	06/10/2022	Project Manager	Mikel Siemens
Project Title	Neitzke - COSA Patrick Creek - Kalispell	File	SepticTank.dwg
Revisions:		Figure	A



Stormwater Maintenance Plan

Individual owners shall maintain their own storm drain facilities as identified in the latest COSA. The storm drainage plan consists of storage retention facilities. Maintenance shall be ongoing and at a minimum shall include:

- 1) Inspect the storage facilities each year in the fall.
- 2) Retention areas shall be graded as necessary to maintain the minimum configuration storage capacity.
- 3) Storage facilities shall be inspected and maintained, repaired or replaced as necessary to keep facilities functioning as planned for the secondary residence in the garage.

APPROVED
Montana Department of
Environmental Quality

William A. ...
Reviewer Date

EA# 22-2163

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