



September 8, 2025

Andy Mefford, PE
Professional Consultants Inc.
3115 S. Russell Street
Missoula, MT 59801

RE: Seventh-Day Adventist Church & School Public Water System and Public SWTS, EQ#24-2506

Andy:

The design reports, construction plans, specifications and supporting information for the Seventh-Day Adventist Church & School Public Water System and Public Subsurface Wastewater Treatment System Project were received on May 15, 2024. The design documents were submitted under the seal of **Andy Mefford PE#16208**. The Joint Application was received on August 27, 2024. Additional information requested by the Department was received on September 26, 2024, December 31, 2024, March 5, 2025, and June 19, 2025. The submittal was reviewed in accordance with the Department of Environmental Quality design standards in Circular DEQ-3, 2023 edition and DEQ-4, 2023 edition.

Public Water System

This project approval includes the drilling of public well GWIC #336385 to serve a church and school with an average day demand of 725 gpd and a peak instantaneous demand of 33.3 gpm (domestic). For this project, the well is equipped with a submersible pump capable of 35 gpm at 70' of TDH or approved equal. Additionally, two WellXTrol 255, or approved equal, captive air tanks are installed to prevent water hammer and excessive pump cycling. The public water system will include all appurtenances, controls and valves as shown on the plans and indicated in the specifications.

A deviation to DEQ-3, Standard 3.2.4.1.f. was requested and approved to allow an 8-hour pump test with drawdown approximately 0.02 ft.

Wastewater:

The project consists of an average design flow of 725 gpd and the installation of an effluent filter, a minimum 1,500 -gallon combination septic tank from the school and an existing 1,000 gallons septic tank from the church followed by a gravity subsurface drainfield. The subsurface drainfield shall have an absorption area of sufficient size to provide for an application rate of 0.8 gpd/square and will be constructed and installed as shown on the plans and indicated in the specifications and will comply with Title 17, Chapter 36, Sub-Chapters 1, 3, and 6 ARM and the most current standards of the Department of Environmental Quality and Sanders County and shall be constructed in accordance with the approved plans and specifications, and,

The bottom of the drainfield shall be located at least four feet above the water table and shall not be constructed within 100 feet of the maximum level of a 100-year flood of any stream, lake, watercourse or

irrigation ditch, nor within 100 feet of any domestic water supply source or 50 feet of any well used for any other purposes including irrigation.

Plans and specifications for the Seventh-Day Adventist Church & School Public Water System, Public Subsurface Wastewater Treatment System Project are hereby approved. One copy of the plans and specifications bearing the approval stamp of the Department of Environmental Quality is enclosed. A second set will be retained for Department record. The third set will be provided to the County Public Health Department.

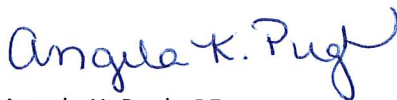
Approval is given with the understanding that any deviation from the approved plans and specifications will be submitted to the Department for review and approval. The project may not be placed into service until the project engineer or designer certifies by letter to the Department that the activated portion of the project was constructed in substantial accordance with the plans and specifications approved by the Department and there are no deviations from the design standards other than those previously approved by the department. Within 90 days after the completion of construction, a complete set of certified "as-built" drawings must be signed and submitted to the Department.

It is further understood that construction of this project must be completed within three years of this approval date. If more than three years elapse before completing construction, plans and specifications must be resubmitted and approved before construction begins.

Department approval of this project covers only those portions of the plans and specifications that are subject to the Department's review authority under the Public Water Supply Laws (MCA 75-6) and the Administrative Rules promulgated thereunder (ARM 17.38). This approval does not cover items found within the plans and specifications that are outside of the Department's review authority, including but not limited to, electrical work, architecture, site grading or water and sewer service connections.

Thank you for your efforts regarding this submittal. If you have any further questions or concerns, please feel free to contact me at (406) 595-0491 or angela.pugh@mt.gov.

Sincerely,



Angela K. Pugh, PE
DEQ Engineering Bureau

Enclosures: One set of approved subsurface wastewater treatment plans

cc: County Public Health Department
File: EQ#24-2506

PUBLIC WATER SUPPLY OPERATION AND MAINTENANCE MANUAL

Non-Transient Non-Community Public Water Supply

For
Trout Creek 7th Day Adventist Church
Sanders County, Montana

Prepared by:



Professional Consultants Inc.
Unmatched Experience. Uncompromising Standards.

3115 S. Russell Street
Missoula, MT 59801
(406) 728-1880

September 2025

PCI Project No. 9522-24

APPROVED
Montana Department of
Environmental Quality

Angela K. Ryb 9/8/25
Reviewer Date

EQ#24-2506

**TROUT CREEK 7TH DAY ADVENTIST CHURCH,
SANDERS COUNTY, MONTANA
OPERATION AND MAINTENANCE MANUAL
(MUST BE REVISED AFTER SYSTEM CONSTRUCTION)**

Prepared by:
Professional Consultants, Inc.
3115 S. Russell Street
P.O. Box 1750
Missoula, MT 59801
(406) 728-1880

Proposed by:
Trout Creek 7th Day Adventist Church
PO Box 1903
Thompson Falls, Mt, 59873
(406)-544-5551

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General Operation and Maintenance Procedures	1
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General Operation and Maintenance Procedures

THIS OPERATION AND MAINTENANCE MANUAL IS A DRAFT COPY FOR SUBMISSION WITH THE PUBLIC WATER PLANS AND SPECIFICATIONS. CERTAIN PORTIONS CANNOT BE COMPLETED UNTIL SYSTEM CONSTRUCTION. A FINAL COPY WILL BE AVAILABLE AFTER COMPLETION OF CONSTRUCTION.

Introduction

This manual has been written to provide specific operation and maintenance procedures for the operation of the Trout Creek 7th Day Adventist Church PWS. This system will serve 2 structures being a school and a church. The total people served is expected to be around 70. The new system includes one new well (6" diameter casing) with a 1.0 HP 4" TRI-SEAL (35 gpm performance) submersible pump, approximately 70-foot Sch. 80 PVC drop pipe, approximately 100 feet of transmission pipe from well to pump house, approximately 20 feet of galvanized iron pipe (in pump house), ball valves, threaded gate valves, a hose bib, a smooth nose sample tap, a pressure gauge, two hydropneumatic tanks with valves, unions, and on/off pressure switches, and a flow meter. This manual was created with the assumption that the owner will hire operation and maintenance personnel to service the water system.

Operator

If an operator or an approved alternate operator is hired to operate and maintain the water system, he/she must be certified by the Montana Water and Wastewater Operator Certification Program, DEQ- Community Services Bureau, P.O. Box 200901, Helena, MT 59602-0901 (406) 444-3434.

Start-up and Operation

System start-up will occur after the following:

- The well is disinfected in accordance with ARM 36.21.662(1) and two (2) or more water samples are tested for microbiological quality. Samples must be taken more than 72 hours after disinfection.
- All pipes, tanks, and other equipment that can convey or store potable water shall be disinfected in compliance with AWWA C651.
- Water pipe shall be pressure tested and leakage tested as required by MDEQ and MPWSS.
- Final inspection and certification by Engineer.

The operation of this system must ensure compliance with all applicable requirements of the Montana Department of Environmental Quality (MDEQ), Administrative Rules of Montana (ARM), and Montana Code Annotated (MCA). According to MDEQ, the system must be operated in a manner that:

- Maintains compliance with drinking water standards (ARM Title 17, Chapter 38, Sub-Chapter 2).

- Allows effective operation of the system in accordance with the approved plans and specifications. The as-built/record drawings are in Section 4.
- Supplies adequate water, both in terms of quantity and quality.
- Complies with operating conditions presented in the engineer's report.

In addition, this public water system is to be operated and maintained in accordance with the manufacturer's instructions, unless otherwise outlined in this document. The controls for this system are located in the pump house. The control system will automatically run the submersible well pump based on pressure in the system. The operator, or alternate operator, should become familiar with how this control system works.

Record Keeping

The maintenance of accurate and complete records is the responsibility of the system operator, or alternate operator. All entries should be made in ink, and the records should be maintained in the pump house so they are available for review at all times. Copies of these records should be made and stored off-site for back-up documentation.

The following documents must be kept and maintained for the life of the system:

- Correspondence regarding the system
- Monitoring schedules, dates, and results, if necessary
- Water meter Readings
- Maintenance contracts
- Maintenance records
- Monitoring and maintenance invoices
- Operation and Maintenance Manual

Sampling and Analyses Program

All water systems must comply with drinking water standards (ARM Title 17, Chapter 38, Sub-Chapter 2) for all sources, entry points and distribution systems.

Suggested Contacts for Emergencies

Emergency Services: 911

Northwestern Energy

Electrical: 888-467-2353

Gas: 888-467-2427

Trout Creek Rural Fire Department

Station: 406-827-4747

Sanders County Health Department – Environmental Health

Office: (406) 827-6961

Contractor

to be inserted

DRAFT

Maintenance and Monitoring Schedule

Maintenance

Monthly (to be performed by operation and maintenance personnel)

- read and record water meter readings
- inspect exposed well casing, cap, and screen; make sure these parts are intact
- check submersible pump run times
- all leaks shall be repaired immediately

Periodically (to be performed by operation and maintenance personnel)

- read system pressures
- inspect pump house cleanliness to avoid contamination

Annual (to be performed by operation and maintenance personnel)

- check and ensure proper functioning of all valves and other moving parts. Maintenance may be required based on manufacturers recommendations.

Monitoring

Monthly

- Coliform Bacteria water quality samples (BAC-T's) from distribution.

Annual

- Nitrates + Nitrites water quality samples at entry point.

Every Three-Year Compliance Period

- Inorganic Compounds (IOC), Volatile Organic Compounds (VOC), and Synthetic Organic Compound (SOC).

PUBLIC WATER SUPPLY SYSTEM

[illegible]

Product Specifications

DRAFT

As-built/Record Drawings

DRAFT

Operation and Maintenance Manual
Seventh Day Adventist Church
Located near Trout Creek, Sanders County, Montana
September 2025

Introduction

This wastewater treatment system is to be operated and maintained in accordance with the manufacturer's instructions, unless otherwise outlined in this document.

The property owner of Tract A of COS 73, Seventh Day Adventist Church, is responsible for the maintenance and operation of the system's components (septic tank, sewer service lines, etc) or retain qualified person(s) to conduct all necessary maintenance and operation of the system.

For more information refer to the documentation below:

Contact Information

Service Representative: Andrey Bokav (425) 208-5894
Septic Tank Pumper: Sorlie Septic Services (406) 827-0888
Local Sanitarian: Currently Vacant
Design Engineers: Professional Consultants Inc. (Missoula) (406) 728-1880

APPROVED
Montana Department of
Environmental Quality
Angela K. Ryl 9/18/25
Reviewer Date
EQ# 24-2506

System Summary

The system will have a 1,000 gallon and a 1,500 gallon septic tank to serve the individual buildings primary treatment needs. The effluent outfalls from these tanks will Y together before flowing to a distribution box. The drainfield will be gravity-fed; therefore, there will be a distribution box to distribute effluent throughout the entire drainfield area.

The drainfield will consist of 4 laterals with lengths of 85 feet. Each lateral will be constructed of 4 inch perforated drain pipe.

For a detailed summary of the system, refer to ENGINEERING DESIGN REPORT.

Operation and Maintenance

Maintenance Schedule

Monthly

- Visually inspect drainfield and tank for problems
- Inspect high water level float and alarm settings and operation

Annually

- Effluent filters should be inspected and replaced as recommended by a manufacturer

Every three to five years

- Inspect and pump septic tank
- The cleanouts on the drainfield laterals should be exposed, inspected and flushed

Maintenance Guide

Refer to "A Montana Homeowner's Guide to Septic Systems" by the Montana Department of Environmental Quality, Solid Waste Section, Septic Tank Pumper Program and manufacturer's instructions for operation and maintenance procedures.

Owner's Manual and O&M Manual

- Routine maintenance responsibilities will include the following:
 - The tank must be inspected every year and be pumped every four years at a minimum.
 - Effluent filters must be cleaned according to the manufacturer's specifications.
- Intermittent use and extended periods of no-use are not anticipated. In the event of non-use, the routine maintenance must be completed before continuing the use of the system.
- Visual inspections of the absorption field are recommended regularly.
- Safety concerns can be found in the manufacturer's documents attached.

As-built Plans

- The contractor or owner must call Professional Consultants, Inc within 48 hours of construction completion to conduct inspections of the facilities. PCI will provide As-Built plans to Montana Department of Environmental Quality to be added to this document.

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PLAT HF IN NWNW
BONNAVILLA 26X60 COS 3535
15 ACRES
S21, T24N, R31W

TRACT A OF COS 73
5 ACRES
S21, T24N, R31W

LOT 1 OF FOREST ESTATES
3 ACRES
S21, T24N, R31W

PLAT B IN NENW
2.64 ACRES
S21, T24N, R31W

PLAT J IN NENW
2.36 ACRES
S21, T24N, R31W

FOREST ESTATE
LOT 5
11.55 ACRES

LEGEND

	ASPHALT ROAD	(P)	PROPOSED FACILITIES
	GRAVEL DRIVEWAY AND PARKING AREA	(E)	EXISTING FACILITIES
	SOIL TEST PIT	PRE	PUBLIC ROAD EASEMENT
	PRIMARY DRAINFIELD (85 FT X 23 FT)		BUILDING FOOTPRINT
	REPLACEMENT AREA (91 FT X 30 FT)		100 SOURCE SPECIFIC MIXING ZONE
	SEPTIC TANK		
	WELL WITH 100-FT RADIUS ISOLATION ZONE		

MDEQ LOT LAYOUT NOTES:

- KNOWN EXISTING, PREVIOUSLY APPROVED, OR PROPOSED WELLS, WASTEWATER SYSTEMS AND MIXING ZONES ON OR WITHIN 100' OF THE SUBDIVISION HAVE BEEN SHOWN ON THIS LOT LAYOUT.
- ALL SETBACKS PURSUANT TO ARM 17.36.323 ARE MET.
- ALL KNOWN SOURCES OF CONTAMINATION WITHIN 500' OF THE PROPOSED WATER SOURCE ARE SHOWN.
- LAKES, STREAMS, IRRIGATION DITCHES, WETLANDS AND SPRINGS PRESENT WITHIN 100' OF THE SUBDIVISION PERIMETER ARE SHOWN ON THIS LOT LAYOUT.
- ARM 17.30.518 SOURCE SPECIFIC MIXING ZONES OF 100 FT ARE REQUESTED FOR PROPOSED WASTEWATER TREATMENT SYSTEM ON THIS LOT LAYOUT.

PROJECT #: 9522-24

DRAWN:	DAVID ALLEN	CHECKED:	JANET MYERS, PE
REVISION:		REVISION:	
REVISION:		REVISION:	
REVISION:		REVISION:	
REVISION:		REVISION:	

7TH DAY ADVENTIST CHURCH PUBLIC WASTEWATER SYSTEM

S21, T24N, R31W TROUT CREEK, SANDERS CO., MT

Professional Consultants Inc.
SANDERS COUNTY, MONTANA
315 RUSSELL ST. PO BOX 1750
SANDERS, MT 59061
PHONE 406-782-1880
EMAIL PC@PCCONSULTANTS.COM

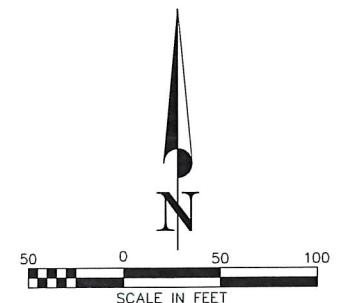
AUG. 8, 2025

SITE
LAYOUT

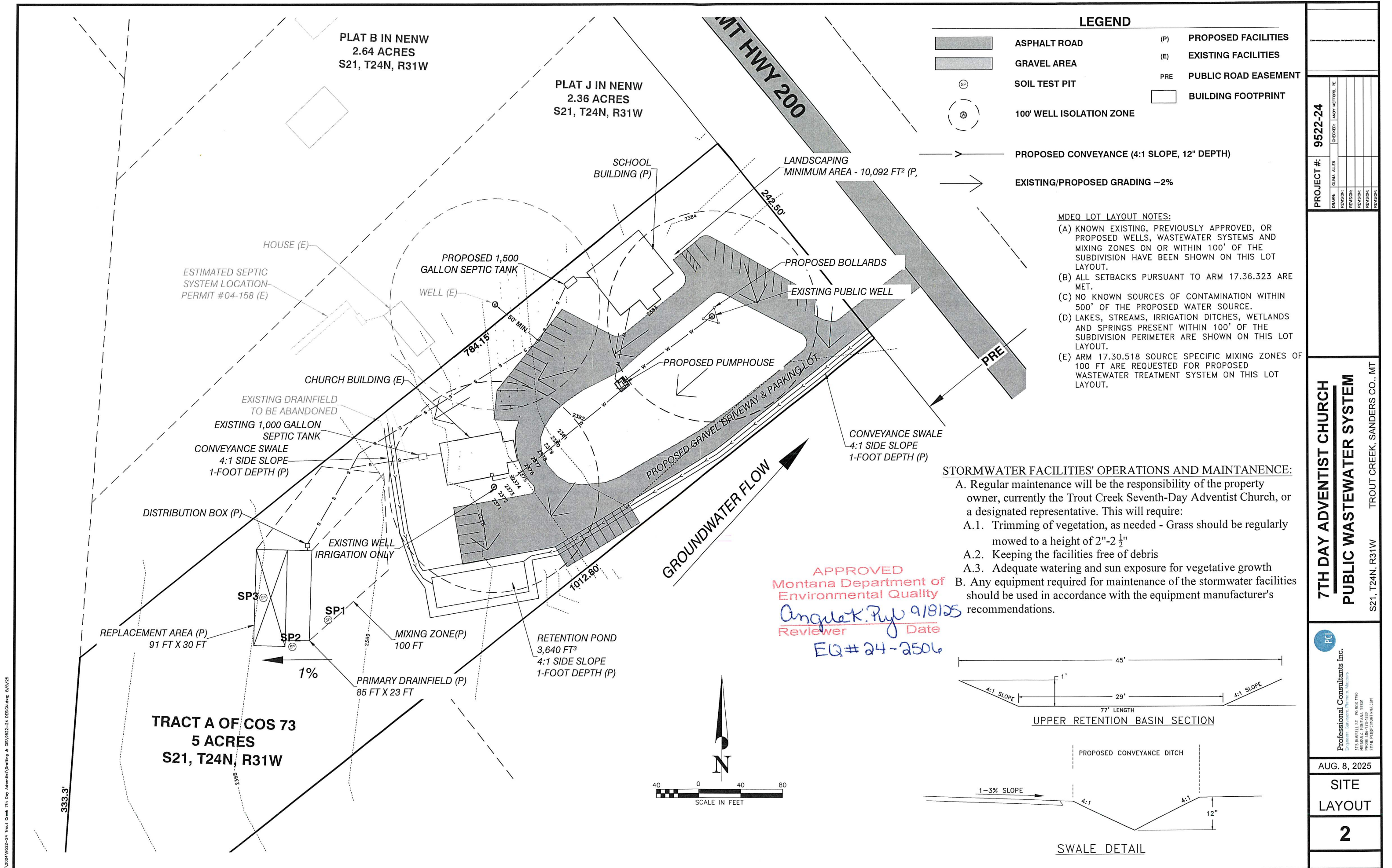
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APPROVED
Montana Department of
Environmental Quality
Angela K. Ryle 9/8/25
Reviewer Date

EQ#24-2506



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APPROVED
Montana Department of
Environmental Quality
Angela K. Ryf 9/18/25
Reviewer Date
EQ# 24-2506

1. DEQ 3.2 - WELL SHALL BE CONSTRUCTED BY A WATER WELL CONTRACTOR LICENSED IN THE STATE OF MONTANA. WELL SHALL BE CONSTRUCTED IN ACCORDANCE WITH TITLE 37, CHAPTER 43, MCA AND TITLE 36, CHAPTER 21, ARM.

2. DEQ 3.2.2.1 - THE WELL SHALL BE DISINFECTED IN ACCORDANCE WITH ARM 36.21.662(1) PRIOR TO AND AFTER PLACEMENT OF PERMANENT PUMPING EQUIPMENT. MORE THAN 72 HOURS AFTER DISINFECTION, TWO OR MORE WATER SAMPLES MUST BE SUBMITTED TO A LABORATORY CERTIFIED BY THE DEPT OF PUBLIC HEALTH AND HUMAN SERVICES FOR MICROBIOLOGICAL ANALYSIS WITH SATISFACTORY RESULTS REPORTED TO MDEQ PRIOR TO PLACING THE WELL INTO SERVICE.

3. DEQ 3.2.2.2 - THE WELL SHALL BE EXAMINED FOR APPLICABLE PHYSICAL AND CHEMICAL CHARACTERISTICS BY TESTS OF A REPRESENTATIVE SAMPLE IN A LABORATORY CERTIFIED BY THE DEPT OF PUBLIC HEALTH AND HUMAN SERVICES FOR MICROBIOLOGICAL ANALYSIS WITH SATISFACTORY RESULTS REPORTED TO MDEQ. SAMPLES MUST BE COLLECTED AT THE CONCLUSION OF THE TEST PUMPING PROCEDURE PRIOR TO DISINFECTION AND EXAMINED AS SOON AS PRACTICAL. SAMPLE RESULTS FOR CONSTITUENTS OF ARM 17 38.216, INCLUDING NITRATE/NITRATE AND TDS, MUST BE SUBMITTED TO MDEQ FOR REVIEW AND APPROVAL TO DEMONSTRATE COMPLIANCE WITH TITLE 17, CHAPTER 38, SUB-CHAPTER 2, ARM, PRIOR TO PLACING THE WELL INTO SERVICE. FIELD DETERMINATIONS OF PHYSICAL AND CHEMICAL CONSTITUENTS OR SPECIAL SAMPLING PROCEDURES MAY BE REQUIRED BY MDEQ.

4. DEQ 3.2.4.1 - YIELD AND D/WDOWN TESTS MUST BE PERFORMED ON THE WELL AFTER CONSTRUCTION OR SUBSEQUENT TREATMENT AND PRIOR TO PLACEMENT OF THE PERMANENT PUMP. TEST PUMP CAPACITY AT MAXIMUM ANTICIPATED DRAWDOWN, MUST BE AT LEAST 1.5 TIMES THE QUANTITY ANTICIPATED AND PROVIDE A CONTINUOUS CONSTANT RATE OF PUMPING 1.5 TIMES THE DESIGN PUMP CAPACITY FOR AT LEAST 24 HOURS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN HE IS READY TO PROCEED WITH TESTING, AND SHALL FURNISH AND INSTALL ALL NECESSARY EQUIPMENT CAPABLE OF PUMPING THE WELL AND MEASURING THE PUMP RATE AT A MINIMUM FLOW RATE TO BE SPECIFIED BY THE ENGINEER (1.5 X DESIGN RATE) FOR A PERIOD OF 24 HOURS, OR UNTIL A STABILIZED DRAWDOWN HAS BEEN MAINTAINED FOR AT LEAST EIGHT (8) HOURS. PUMP TEST PERIOD MAY NEED TO BE AS LONG AS 72 HOURS, AS REQUIRED BY DNRC. DATA OF THE FOLLOWING AT ONE-HOUR INTERVALS OR LESS AS MAY BE REQUIRED BY DNRC: PUMP RATE, PUMP HEAD, WATER LEVEL, SURFACE WATER LEVEL, PUMP ELECTRICAL DATA, AND LEVELS, AND TIME OF STARTING AND ENDING EACH TEST CYCLE. CONSULT ENGINEER PRIOR TO BIDDING. DATA COLLECTION MUST BEGIN AT TIME ZERO. THE TEST MAY BE TERMINATED IF STABILIZED DRAWDOWN OCCURS FOR AT LEAST EIGHT HOURS DURING THE TEST. STABILIZED DRAWDOWN IS DEFINED AS A WATER LEVEL THAT DOES NOT FLUCTUATE PLUS OR MINUS 0.5 FEET FOR EVERY 100 FEET OF DRAWDOWN AT THE DESIGN PUMPING RATE. WHEN SUFFICIENT HISTORICAL INFORMATION IS AVAILABLE, A STEP DRAWDOWN TEST MAY BE APPROVED BY MDEQ.

5. DEQ 3.2.4.2 - TEST RESULTS WILL BE SUBMITTED TO MDEQ. IN ADDITION, THE AQUIFER PUMP TESTING RESULTS SHALL BE SUBMITTED TO THE MONTANA BUREAU OF MINES AND GEOLOGY (MBMG) ON THE MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION FORM 633 AS CAN BE FOUND ON THE DNRC WEBSITE.

5. DEQ 3.2.4.3 - GEOLOGICAL DATA MUST BE DETERMINED IN ACCORDANCE WITH ARM 36.21.667. SAMPLES MUST BE TAKEN AT 5 INTERVALS AND AS SPECIFIED IN THE ARM. DRILLER SHALL COORDINATE SAMPLING WITH THE ENGINEER. UPON COMPLETION, A COPY OF THE WELL LOG MUST BE SUBMITTED TO THE ENGINEER AND MDEQ., AS APPLICABLE, AND BE SUPPLEMENTED WITH A DRILLER'S LOG, AND ACCURATE GEOLOGICAL LOCATION SUCH AS LATITUDE AND LONGITUDE OR GIS COORDINATES AS DETERMINED BY GPS TO AN ACCURACY OF +/- 25 FEET.

7. SECTION 32.5.5.2 - THE MINIMUM PROTECTED DEPTHS OF DRILLED WELLS MUST PROVIDE WATERTIGHT CONSTRUCTION TO DEQ SUCH AS MAY BE REQUIRED BY MDEQ, TO EXCLUDE CONTAMINATION AND SEAL OFF FORMATIONS THAT ARE OR MAY BE CONTAMINATED OR YIELD UNDESIRABLE WATER. WELLS SHALL HAVE UNPERFORATED CASING TO A MINIMUM DEPTH OF 25 FEET OR CONTINUOUS DISINFECTION MUST BE PROVIDED. IF THE WELL IS DETERMINED TO BE DRAWING FROM A WATER TABLE AQUIFER WITHIN 25 FEET OF THE GROUND SURFACE, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY.

8. DEQ 3.2.5.3 - PERMANENT STEEL CASING SHALL BE IN ACCORDANCE WITH ARM 36.21.640 EQUIPPED WITH A DRIVE SHOE IN ACCORDANCE WITH ARM 36.21.644 WHEN DRIVEN, AND HAVE WELDED JOINTS IN ACCORDANCE WITH ARM 36.21.642.

9. DEQ 3.2.5.4 - PLASTIC WELL CASING MUST BE IN ACCORDANCE WITH ARM 36.21.645 AND ARM 36.21.646.

10. 3.2.5.5 - PACKERS MUST BE OF MATERIAL THAT WILL NOT IMPART TASTE, ODOR, TOXIC SUBSTANCE OR BACTERIAL CONTAMINATION TO THE WELL WATER. PACKERS SHALL NOT BE USED ON ANY WELL UNLESS APPROVED BY THE ENGINEER.

11. DEQ 3.2.5.7 - THE PERMANENT WELL CASING SHALL BE SEALED IN ACCORDANCE WITH ARM 36.21.654 THOUGH 36.21.660 TO A DEPTH OF 25 FEET WITH HEAVY BENTONITE WATER SLURRY OR CEMENT GROUT TO PREVENT SURFACE CONTAMINATION. THE HEAVY BENTONITE WATER SLURRY METHOD IS PREFERRED. THE CASING SHALL BE PROVIDED WITH CENTRALIZERS IN ACCORDANCE WITH ARM 36.21.648. THE TEMPORARY CASING SHALL BE WITHDRAWN AS GROUT IS APPLIED.

12. DEQ 3.2.5.8 - THE UPPER TERMINAL PERMANENT WELL CASING SHALL BE IN ACCORDANCE WITH ARM 36.21.647. THE WELL MUST NOT BE CONSTRUCTED IN AN AREA SUBJECT TO FLOODING. PROVISIONS SHALL BE MADE TO PREVENT DAMAGE OR TAMPERING TO THE WELL. TO PREVENT TAMPERING, SECURE THE WELL CAP WITH A CHAIN AND PAD LOCK. TO PREVENT DAMAGE, INSTALL 4" STEEL BOLLARDS FILLED WITH CONCRETE AND PLACE WITHIN 6" CONCRETE CURBED TRAFFIC ISLAND.

13. DEQ 3.2.5.9 - THE WELL SHALL BE DEVELOPED IN ACCORDANCE WITH ARM 36.21.653.

14. DEQ 3.2.5.10 - TEMPORARY CAPPING REQUIREMENTS MUST BE IN ACCORDANCE WITH ARM 36.21.661.

15. DEQ 3.2.6.1 - IN DRILLED WELLS THAT PENETRATE AN AQUIFER EITHER WITHIN A CONSOLIDATED OR CONFINING FORMATION, SEALING OF THE CASING MUST CONFORM WITH ONE OF THE PROCEDURES DESCRIBED IN DEQ CIRCULAR 3 SECTION 3.2.6.1.

16. DEQ 3.2.6.2 - FLOWING WELLS. WHEN FLOWING WATER IS ENCOUNTERED IN THE WELL, AN UNPERFORATED WELL CASING MUST EXTEND INTO THE CONFINING STRATUM OVERLYING THE ARTESIAN ZONE, THE CASING MUST BE ADEQUATELY SEALED INTO THE CONFINING STRATUM SO AS TO PREVENT SURFACE AND SUBSURFACE LEAKAGE FROM THE ARTESIAN ZONE. IF THE WELL FLOWS AT LAND SURFACE, IT MUST BE EQUIPPED WITH A CONTROL VALVE SO THAT THE FLOW CAN BE COMPLETELY STOPPED. THE WELL MUST BE COMPLETED WITH PACKERS OR APPROPRIATE SEALING MATERIAL THAT WILL ELIMINATE LEAKAGE AROUND THE WELL CASING.

17. DEQ 3.2.6.5 - GRAVEL PACKWELLS. GRAVEL PACK MUST BE WELL ROUNDED PARTICLES, 90 PERCENT SILICEOUS MATERIAL, THAT ARE SMOOTH AND UNIFORM, FREE OF FOREIGN MATERIAL, PROPERLY SIZED, WASHED AND THEN DISINFECTED IMMEDIATELY PRIOR TO OR DURING PLACEMENT. GRAVEL PACK MUST BE PLACED IN ON UNIFORM CONTINUOUS OPERATION, AND PROTECTION FROM LEAKAGE OF GROUT INTO THE GRAVEL PACK OR SCREEN MUST BE PROVIDED. PERMANENT INNER AND OUTER CASINGS MUST MEET REQUIREMENTS OF SECTION 3.2.5.3 AND 3.2.5.4.

1. SCREENS MUST BE CONSTRUCTED OF MATERIALS RESISTANT TO DAMAGE BY CHEMICAL ACTION OF GROUNDWATER OR CLEANING OPERATIONS, HAVE SIZE OF OPENINGS BASED ON SIEVE ANALYSIS OF FORMATION AND/OR GRAVEL PACK MATERIALS, HAVE SUFFICIENT LENGTH AND DIAMETER TO PROVIDE ADEQUATE SPECIFIC CAPACITY AND LOW APERTURE ENTRANCE VELOCITY WHICH MAY NOT EXCEED 0.1 FEET PER SECOND. SCREENS MUST ALSO BE INSTALLED SO THAT THE PUMPING WATER LEVEL REMAINS ABOVE THE SCREEN UNDER ALL OPERATING CONDITIONS. WHERE APPLICABLE, SCREENS MUST BE DESIGNED AND INSTALLED TO PERMIT REMOVAL OR REPLACEMENT WITHOUT ADVERSELY AFFECTING WATER-TIGHT CONSTRUCTION OF THE WELL, AND MUST BE PROVIDED WITH A BOTTOM PLATE OR WASHDOWN BOTTOM FITTING OF THE SAME MATERIAL AS THE SCREEN.

2. HEAVY BENTONITE WATER SLURRY SHALL BE A MIXTURE OF 1/2 POUND BENTONITE PER GALLON OF CLEAR WATER, CEMENT GROUT SHALL BE A MIXTURE OF ONE BAG OF CEMENT CONFORMING TO ASTM C-150 (94 LBS) AND 5-6 GALLONS OF WATER. IF CEMENT GROUT IS USED, A HOLE PLUG SHALL BE USED. HOLE PLUG METHOD SHALL BE SUBMITTED AND APPROVED BY THE ENGINEER PRIOR TO USE ON-SITE. THE MIXTURE, METHOD OF MIXING AND CONSISTENCY OF GROUT SHALL BE APPROVED BY THE ENGINEER.

3. A SUITABLE RETAINER, PACKER OR PLUG SHALL BE PROVIDED AT THE BOTTOM OF THE GROUTED SECTION SO THAT GROUT WILL NOT LEAK THROUGH INTO THE BOTTOM OF THE WELL. THE GROUTING SHALL BE DONE CONTINUOUSLY AND IN SUCH A MANNER AS WILL ENSURE THE ENTIRE FILLING OF THE ANNULAR SPACE IN ONE OPERATION. THE CASING MUST BE PROVIDED WITH SUFFICIENT GUIDES WELDED TO THE CASING TO PERMIT UNOBSTRUCTED FLOW AND UNIFORM THICKNESS OF GROUT.

4. THE CONTRACTOR SHALL TAKE PRECAUTIONS AS ARE NECESSARY OR AS MAY BE REQUIRED PERMANENTLY TO PREVENT CONTAMINATED WATER OR WATER HAVING UNDESIRABLE PHYSICAL OR CHEMICAL CHARACTERISTICS FROM ENTERING THROUGH THE OPENING MADE BY THE CONTRACTOR IN DRILLING THE WELL OR THROUGH THE STRATUM FROM WHICH THE WELL IS TO DRAW ITS SUPPLY. HE SHALL ALSO TAKE ALL NECESSARY PRECAUTIONS DURING THE CONSTRUCTION PERIOD TO PREVENT CONTAMINATED WATER, GASOLINE, ETC., FROM ENTERING THE WELL EITHER THROUGH THE OPENING OR BY SEEPAGE THROUGH THE GROUND. IN THE EVENT THAT THE WELL BECOMES CONTAMINATED THAT WATER CONTAINS UNDESIRABLE PHYSICAL OR CHEMICAL CHARACTERISTICS ENTERS THE WELL, HE SHALL, AT HIS EXPENSE, PERFORM SUCH WORK OR SUPPLY SUCH CASINGS, SEALS, STERILIZING AGENTS OR OTHER MATERIAL AS MAY BE NECESSARY TO ELIMINATE THE CONTAMINATION OR SHUT OFF THE UNDESIRABLE WATER.

5. SLOPE GROUND AWAY FROM WELL HEAD TO PREVENT PONDING AND POSSIBLE CONTAMINATION

6. CLEAN POTABLE WATER SHALL BE USED IN ALL DRILLING FLUIDS AND ADDITIVES USED IN DRILLING OPERATIONS SHALL BE APPROVED BY THE NATIONAL SANITATION FOUNDATION (NSF) OR A SIMILAR ANSI ACCREDITED LABORATORY/ORGANIZATION.

7. UPON COMPLETION OF THE WELL BEFORE CONDUCTING THE YIELD AND DRAWDOWN TESTS, THE CONTRACTOR SHALL DEVELOP THE WELL BY SUCH METHODS AS WILL EFFECTIVELY EXTRACT FROM THE WATER-BEARING FORMATION THE MAXIMUM PRACTICAL QUANTITY OF SAND, DRILLING MUD AND OTHER FINE MATERIALS IN ORDER TO BRING THE WELL TO MAXIMUM YIELD PER FOOT OF DRAWDOWN AND TO A SAND-FREE CONDITION. COMPRESSED AIR, SURGE PLUNGERS, HIGH-VELOCITY JETTING EQUIPMENT AND PUMPS MAY BE USED FOR THE DEVELOPMENT WORK. THIS WORK MUST BE DONE IN SUCH A MANNER THAT DOES NOT CAUSE THE WELL TO BECOME UNSTABLE OR TO LOSE THE SOLE SUPPORT OF THE SOLE BOARD. THE CONTRACTOR SHALL SEAL AROUND THE WELL CASING AND THEREBY REDUCE THE SANITARY PROTECTION OTHERWISE AFFORDED BY SUCH SEAL. DEVELOPMENT OF THE WELL SHALL BE CONTINUED UNTIL WATER PUMPED FROM THE WELL AT THE MAXIMUM TEST PUMPING RATE IS CLEAR AND FREE OF SAND. THE WATER SHALL BE CONSIDERED SAND-FREE WHEN NO SAMPLES CONTAIN MORE THAN 2 PPM OF SAND BY WEIGHT.

8. IN DRILLED WELLS THAT PENETRATE AN AQUIFER OVERLAIN BY UNCONSOLIDATED FORMATIONS SUCH AS SAND AND GRAVEL WITHOUT SIGNIFICANT CLAY BEDS, AN UNPERFORATED WELL CASING MUST EXTEND TO AT LEAST THREE INCHES GREATER THAN THE NOMINAL SIZE OF THE PERMANENT CASING MUST EXCEED TO AT LEAST 25 FEET BELOW LAND SURFACE. THE ANNULAR SPACE BETWEEN THE UPPER DRILL HOLE AND THE WELL CASING MUST BE KEPT AT LEAST ONE-HALF FULL WITH BENTONITE SLURRY THROUGHOUT THE DRIVING OF THE PERMANENT CASING INTO THE AQUIFER. AFTER THE PERMANENT CASING IS SET IN ITS FINAL POSITION, THE REMAINING ANNULAR SPACE MUST BE FILLED TO LAND SURFACE WITH APPROPRIATE SEALING MATERIAL. IF THE OVERSIZED DRILL HOLE IS EXTENDED TO THE SAME DEPTH AS THE PERMANENT CASING, THE BRIDGE MUST BE INSTALLED. THE ANNULAR SPACE MUST BE COMPLETELY FILLED AND SEALED TO LAND SURFACE WITH APPROPRIATE SEALING MATERIAL. IF TEMPORARY CASING IS USED TO MAINTAIN THE OVERSIZED DRILL HOLE, THE ANNULAR SPACE MUST BE KEPT FULL WITH APPROPRIATE SEALING MATERIAL AS THE TEMPORARY CASING IS BEING WITHDRAWN.

9. IN DRILLED WELLS THAT PENETRATE AN AQUIFER OVERLAIN BY CLAY OR OTHER UNCONSOLIDATED DEPOSITS SUCH AS SAND AND GRAVEL IN WHICH SIGNIFICANT (AT LEAST 6 FEET THICK) INTERBEDS OF CLAY ARE PRESENT, THE WELL CASING MUST BE TERMINATED IN SUCH CLAY STRATA, PROVIDED THAT THE CASING BE SEALED IN SUBSTANTIALLY THE SAME MANNER AS IS REQUIRED IN THE CASE OF CONSOLIDATED FORMATIONS.

1. THE WORK TO BE DONE INCLUDES THE FURNISHING OF ALL LABOR, MATERIAL, TRANSPORTATION, TOOLS, SUPPLIES, EQUIPMENT AND APPURTENANCES, UNLESS SPECIFICALLY EXCEPTED, NECESSARY FOR THE COMPLETE AND SATISFACTORY CONSTRUCTION, SANITARY PROTECTION, AND TESTING OF THE PROPOSED WELL.

2. THE OWNER HAS DESIGNATED PCI AS HIS REPRESENTATIVE. THE ENGINEER MAY DESIGNATE A SUB-CONSULTANT, TO BE IDENTIFIED AT THE START OF CONSTRUCTION.

3. DURING CONSTRUCTION IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ACQUIRE NECESSARY UTILITY LOCATES TWO BUSINESS DAYS PRIOR TO CONSTRUCTION AND PROTECT EXISTING UNDERGROUND AND OVERHEAD UTILITY LINES.

4. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SHOULD ANY CONFLICTS EXIST BETWEEN THE PLANS AND WHAT IS FOUND IN THE FIELD.

5. THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS, AT HIS EXPENSE, TO COMPLETE THE PROPOSED WORK AND SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

6. CONTRACTOR SHALL PROTECT ALL ADJACENT IMPROVEMENTS (SIGNS, DRAINFIELDS, ROADWAYS, PARKING LOTS, UTILITIES, ETC) FROM DAMAGE AND EROSION. ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.

7. ALL COMPONENTS OF THIS WATER SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDED INSTALLATION PROCEDURES, UNLESS OTHERWISE SPECIFIED IN THESE PLANS OR BY THE ENGINEER.

8. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, MATERIAL CERTIFICATIONS, O&M AND WARRANTY DOCUMENTS TO THE OWNERS FOR ALL PARTS INSTALLED.

1. THE WELL CONTRACTOR SHALL PROVIDE THE FOLLOWING: TEST PUMP, POWER SOURCE FUEL, FLOW MEASURING METER, PUMP CAPACITY-HEAD CHARACTERISTICS, AND DEPTH OF TEST PUMP SETTING. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE SMOOTH OPERATION OF PUMP THROUGHOUT ALL TESTING.

2. THE ENGINEER SHALL PROVIDE AN ELECTRONIC WATER LEVEL MEASURING DEVICE, AND SHALL BE RESPONSIBLE FOR COLLECTING DATA AS FOLLOWS: STATIC WATER LEVEL, WATER RECOVERY RATE AND LEVEL AND STARTING AND ENDING TIME OF EACH TEST CYCLE. WATER LEVEL MEASUREMENTS SHALL BE TAKEN SO AS TO PROVIDE TEN EVENLY SPACED DATA POINTS PER LOG CYCLE OF TIME, BUT IN NO CASE SHALL IT BE LESS THAN ONE-HOUR INTERVALS. DATA COLLECTION MUST BEGIN AT TIME ZERO. THE TEST MAY BE TERMINATED IF STABILIZED DRAWDOWN OCCURS FOR AT LEAST EIGHT HOURS DURING THE TEST. AS STEP-DOWN TEST SHALL NOT BE SUED UNLESS SPECIALLY APPROVED BY DESIGN ENGINEER.

3. TEST RESULTS MUST BE REPORTED TO MDEQ.



AS-BUILT
JUNE 19, 2025

**7TH DAY ADVENTIST CHURCH
PUBLIC WATER SYSTEM**

S21, T24N, R31W TROUT CREEK, SANDERS CO., MT

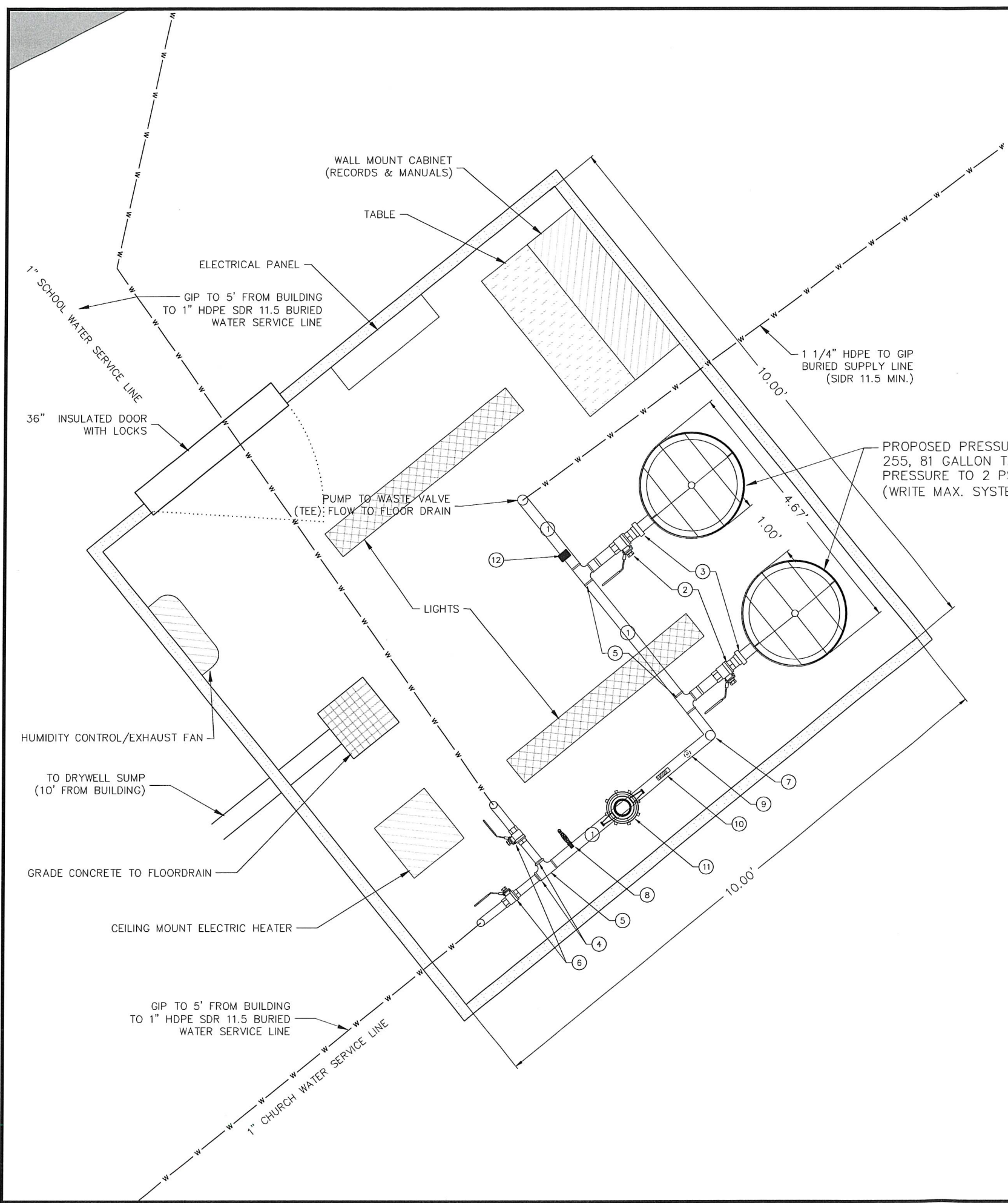
PCI
Professional Consultants Inc.
Engineers, Surveyors, Planners, Magicians
1000 RUSSELL ST. PO BOX 1750
MISSISSAUGA, ONTARIO L4Y 1R1
PHONE 416-728-1810
EMAIL PCI@PCIPONTANA.COM

AUG. 8, 2025

WELL
SPECS

3

F:\2024\9522-24 Trout Creek 7th Day Adventist\Drafting & GIS\9522-24 DESIGN.dwg, 8/16/25



WATER SYSTEM COMPONENTS
(GIP FOR ALL ABOVE GROUND PLUMBING)

1. 1 1/4" GIP
2. 1 1/4" BALL VALVE
3. 1 1/4" UNION
4. 1 1/4" X 1" REDUCER
5. 1 1/4" X 1 1/4" TEE
6. 1" BALL VALVE
7. 1 1/4" 90 UP TO 1 1/4" 90 TO ACHIEVE 18" VERTICAL SEP.
8. SMOOTH NOSE SAMPLE TAP W/ BALL VALVE (MINIMUM 18" ABOVE FLOOR)
9. 1" KUNKLE PRESSURE RELIEF VALVE 0019-E01-MG0080; SET AT 110% MAX. WORKING PRESSURE (66 PSI)
10. 0 - 100 PSI LIQUID-FILLED PRESSURE GAUGE
11. 1" BADGER METER OR EQUAL
12. ON/OFF PRESSURE SWITCH SET TO 40/60
13. 1" GIP SERVICE LINE

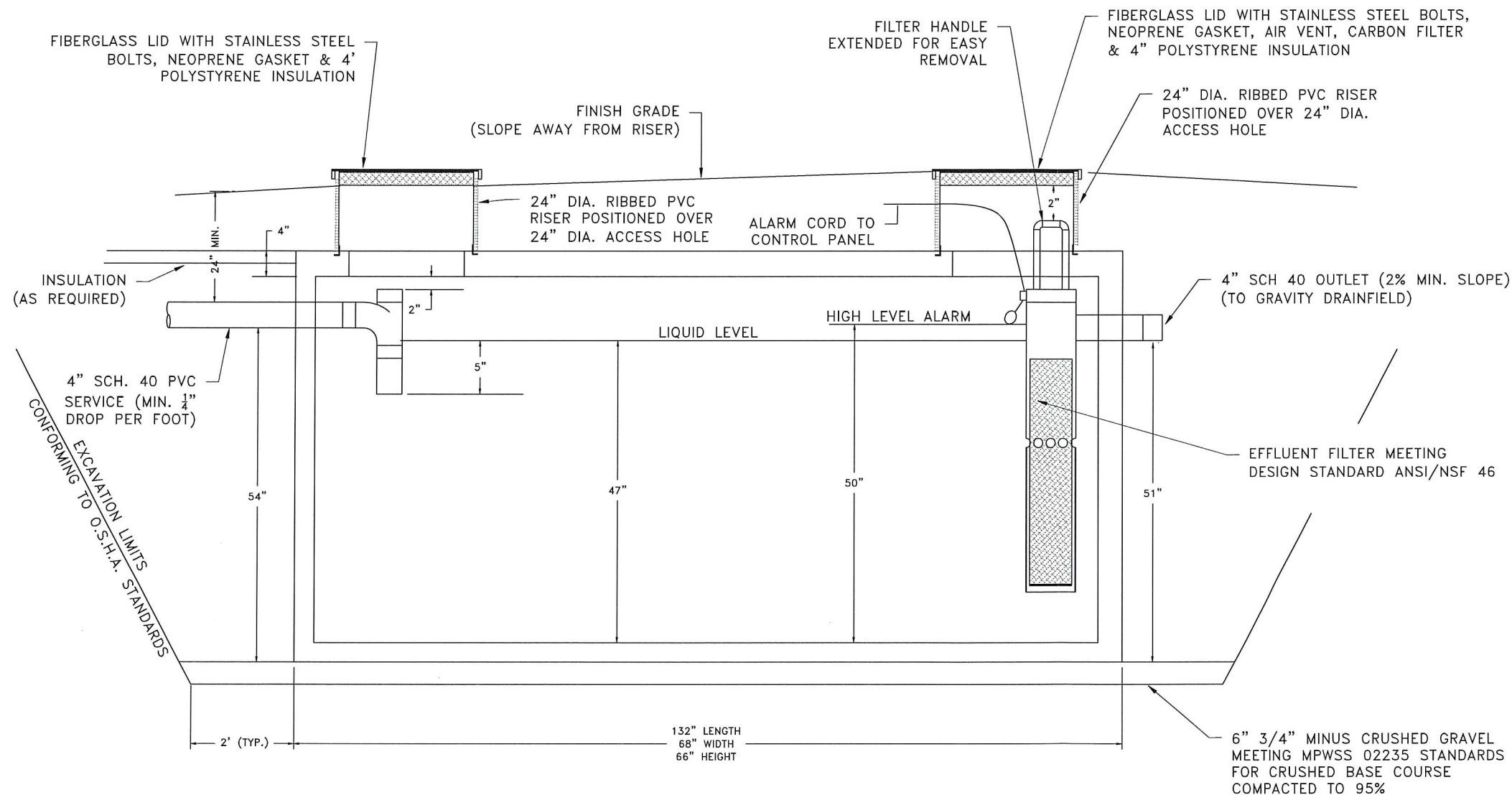
APPROVED
Montana Department of
Environmental Quality
Angela K. Rye 9/18/25
Reviewer Date
EQ# 24-2506

CONSTRUCTION NOTES AND SPECIFICATIONS

1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SHOULD ANY CONFLICTS EXIST BETWEEN THE PLANS AND WHAT IS FOUND IN THE FIELD.
2. THE WELL SHALL BE DISINFECTED IN ACCORDANCE WITH ARM 36.21.662(1) PRIOR TO AND AFTER PLACEMENT OF PERMANENT PUMPING EQUIPMENT. MORE THAN 72 HOURS AFTER DISINFECTION, THE CONTRACTOR SHALL SUBMIT TWO OR MORE WATER SAMPLES TAKEN DIRECTLY FROM THE WELL TO A LABORATORY CERTIFIED BY THE DEPARTMENT OF PUBLIC HEALTH AND HUMAN SERVICES TO BE ANALYZED FOR MICROBIOLOGICAL QUALITY. IN ADDITION, TESTING PHYSICAL AND CHEMICAL CHARACTERISTICS MIGHT BE REQUIRED BY DEQ. IN THIS CASE, THE CONTRACTOR WILL HAVE TO TAKE SAMPLES TO TEST NITRATE/NITRITE AND TOTAL DISSOLVED SOLIDS OR CONDUCTIVITY. THE CONTRACTOR SHALL PROVIDE RESULTS FROM ALL SAMPLING TO THE ENGINEER. SATISFACTORY RESULTS MUST BE CONFIRMED PRIOR TO THE SYSTEM BEING PUT INTO SERVICE.
3. THE WATER SYSTEM WILL BE DISINFECTED PRIOR TO USE BY USING METHODS LISTED IN THE UNIFORM PLUMBING CODE 609.9. THE SYSTEM OR PARTS THEREOF SHALL BE FILLED WITH A WATER-CHLORINE SOLUTION CONTAINING AT LEAST FIFTY (50) PARTS PER MILLION AND SHALL STAND FOR TWENTY-FOUR (24) HOURS; OR, TWO HUNDRED (200) PARTS PER MILLION FOR THREE (3) HOURS. UPON COMPLETION OF DISINFECTION, THE CONTRACTOR SHALL SUBMIT A WATER SAMPLE DRAWN FROM THE POINT IN THE SYSTEM FURTHEST AWAY FROM THE WELL TO A STATE CERTIFIED LABORATORY TO BE ANALYZED FOR MICROBIOLOGICAL QUALITY. THE CONTRACTOR SHALL PROVIDE RESULTS FROM ALL SAMPLING TO THE ENGINEER. SATISFACTORY RESULTS MUST BE CONFIRMED PRIOR TO THE SYSTEM BEING PUT INTO SERVICE.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND PROTECT ALL UTILITY LINES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ONE CALL UTILITY LOCATE (811) AT LEAST 24 HOURS TO PERFORMING ANY EXCAVATION.
5. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, MATERIAL CERTIFICATIONS, O&M AND WARRANTY DOCUMENTS TO THE OWNERS FOR ALL PARTS INSTALLED.
6. FLOOR OF PUMP HOUSE MUST BE AT LEAST 6 INCHES ABOVE NATURAL GROUND SURFACE.
7. ALL COMPONENTS OF THIS WATER SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.
8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL NECESSARY CONSTRUCTION PERMITS, AT THEIR EXPENSE, REQUIRED TO PERFORM THE WORK. THESE PERMITS MAY INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: MDEQ, SANDERS COUNTY, AND STATE OF MONTANA PERMITS.
9. ALL WORK SHALL BE COMPLETED IN A SAFE MANNER AND CONSISTENT WITH O.S.H.A. GUIDELINES.
10. PIPING ASSEMBLY WILL BE STABILIZED BY FLOOR OR WALL BRACING IF NECESSARY. NOT ALL BRACING LOCATIONS ARE INDICATED ON THE PLANS.
11. ALL SIGNS SHALL BE IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICE STANDARDS AND BE IN A GOOD STATE OF REPAIR.
12. THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL AND ABATEMENT AT THEIR EXPENSE.
13. ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING CODES AS APPLICABLE: MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS 5TH EDITION, AS AMENDED; MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY CIRCULAR 3; UNIFORM PLUMBING CODE; UNIFORM BUILDING CODE AND OTHER BUILDING CODES FOR SANDERS COUNTY. IN INSTANCES WHERE A CONFLICT EXISTS BETWEEN THE REFERENCES CODES, CONTACT THE ENGINEER. THE MOST STRINGENT CODE SHALL RULE.
14. HORIZONTAL & VERTICAL SEPARATION BETWEEN WATER AND SEWER SERVICES MUST BE AT LEAST 1.0' FROM EDGE OF PIPE TO EDGE OF PIPE.
15. THE HYDROPNEUMATIC PRESSURE TANKS SHALL BE A WELL-X-TROL WX-255 (81 GALLONS) OR EQUAL.
16. NO UN-PROTECTED TRENCHES OR PITS WILL BE PERMITTED DURING NON-WORKING TIMES SUCH AS OVERNIGHT, WEEKDAYS/WEEKENDS, OR HOLIDAY.
17. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ACCESS TO ALL PROPERTIES ALONG THE ROUTE AT ALL TIMES.
18. CONSTRUCTION COORDINATION WITH THE OWNER(S) IS THE CONTRACTOR'S RESPONSIBILITY.
19. AS-BUILT/RECORD DRAWINGS OF THE WATER SYSTEM, AS INSTALLED, SHALL BE PROVIDED BY THE CONTRACTOR TO THE ENGINEER.
20. AS-BUILT/RECORD DRAWING OF THE WATER SYSTEM SHALL BE PROVIDED BY THE ENGINEER TO THE OWNER AND DEQ.

PROJECT #:	9522-24
CHECKED:	ANDY MEYERS, P.E.
DRAWN:	QUANA ALLEN
REVISION:	
REVISION:	
REVISION:	
REVISION:	
7TH DAY ADVENTIST CHURCH PUBLIC WATER SYSTEM	
TROUT CREEK, SANDERS CO., MT.	
S21, T24N, R31W	
Professional Consultants Inc. Engineers, Surveyors, Planners, Managers 310 BUSSELL ST. PO BOX 7590 SANDERS COUNTY, MONTANA 59801 PHONE 406-378-1380 EMAIL P&C@PCONTI.COM	
JUNE 18, 2025	
PUMP HOUSE	
4	

APPROVED
Montana Department of
Environmental Quality
Angela K. Pyle 9/8/25
Reviewer Date
EQ # 24-2506



1500 GALLON SEPTIC TANK
BASED ON HUNTON PRE-CAST CONCRETE PRODUCT NO. 103

CONSTRUCTION NOTES:

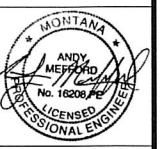
1. SYSTEM DESIGNED FOR COMPONENT LOCATION(S) AS SHOWN ON SITE LAYOUT DRAWING. MOVEMENT OF SYSTEM COMPONENTS OR SUBSTITUTIONS MAY REQUIRE THE DESIGN TO BE ALTERED. CONTACT QUALIFIED INDIVIDUAL FOR MODIFICATIONS TO THE SYSTEM.
2. LATERALS SHALL BE INSTALLED WITH FIRST AND LAST ORIFICES AND 1 ORIFICE EVERY 24 FEET FACING DOWNWARD. ALL OTHER ORIFICES ARE TO BE FACING UPWARD.
3. INSULATION REQUIREMENTS ARE AS FOLLOWS: IF LINE IS 6' OR DEEPER NO INSULATION IS REQUIRED; IF THE SEWER LINE IS >4' BUT <6' INSULATION IS REQUIRED; IF BUILDING SEWER IS LESS THAN 4' INSULATION IS REQUIRED. WHEN INSULATION IS REQUIRED IT SHALL BE 2" CLOSED CELL INSULATION BOARD MEETING AASHTO M230-70 SPECIFICATIONS.
4. GRADE DRAINFIELD AREA TO PREVENT PONDING. SEED OR SOD AREA AS DESIRED BY OWNER. VEHICULAR ACCESS TO AREA IS PROHIBITED.
5. NATIVE BACKFILL SHALL BE FREE DRAINING MATERIAL 3" MINUS IN SIZE. MATERIAL SHALL BE FREE OF CINDERS, ASH, REFUSE, ORGANIC OR FROZEN MATERIAL.
6. ALL ELECTRICAL COMPONENTS SHALL MEET ALL APPLICABLE ELECTRICAL CODES AT THE LOCAL, STATE AND NATIONAL LEVELS.
7. CONTROLS AND WIRING MUST BE CORROSION-RESISTANT AND LISTED BY UNDERWRITERS LABORATORIES, CANADIAN STANDARDS ASSOCIATION, OR OTHER APPROVED TESTING AND/OR ACCREDITING AGENCY AS MEETING THE REQUIREMENTS FOR NATIONAL ELECTRIC CODE (NEC) CLASS 1 DIVISION 2 LOCATIONS.
8. ALL PLUMBING SHALL BE IN ACCORDANCE TO THE MOST CURRENT UNIFORM PLUMBING CODE.
9. SEPTIC TANK AND ASSOCIATED APPURTENANCES MUST BE TRAFFIC BEARING WITH CAST IRON RING AND COVER IF LOCATED IN DRIVEWAY OR OTHER AREA WITH VEHICULAR TRAFFIC.

INSPECTIONS FOR SYSTEM

1. CONTACT PROFESSIONAL CONSULTANTS, INC (406) 728-1880 AT LEAST 48 HOURS IN ADVANCE FOR INSPECTIONS.
2. TANKS MUST BE LEAK TESTED USING ONE OF THE FOLLOWING METHODS:
 - A. VACUUM TESTING: SEAL THE EMPTY TANK AND APPLY A VACUUM TO 4 INCHES (100 MM) MERCURY. THE TANK IS APPROVED IF 90 PERCENT OF VACUUM IS HELD FOR 2 MINUTES; OR
 - B. WATER PRESSURE TESTING: SEAL THE TANK, FILL WITH WATER, AND LET STAND FOR AT LEAST 24 HOURS. REFILL THE TANK. THE TANK IS APPROVABLE IF IT HOLDS WATER.
4. THE INSTALLATION OF THE SYSTEM SHALL BE INSPECTED BY PROFESSIONAL CONSULTANTS, INC.

CONTROL PANEL (RECOMMENDED)

TO BE LOCATED WITH OWNER INPUT, HOWEVER, CONTROL PANEL MUST BE READILY ACCESSIBLE AND ALARM MUST BE ACKNOWLEDGEABLE. PANEL SHOULD BE EQUIPPED TO HANDLE THE FOLLOWING FLOAT:
SEPTIC CHAMBER - ONE (1) REMOTE HIGH WATER LEVEL ALARM.
ALARM LIGHTS ARE TO BE LOCATED IN A VISIBLE LOCATION WITH AN AUDIBLE ALARM.



PROJECT #: 9522-24

7TH DAY ADVENTIST CHURCH
PUBLIC WASTEWATER SYSTEM

TROUT CREEK, SANDERS CO.
S21, T24N, R31W

Professional Consultants Inc.
315 RUSSELL ST. PO BOX 1750
BOZEMAN, MT 59711
PHONE 406-728-1880
EMAIL PCONS@MONTANA.COM

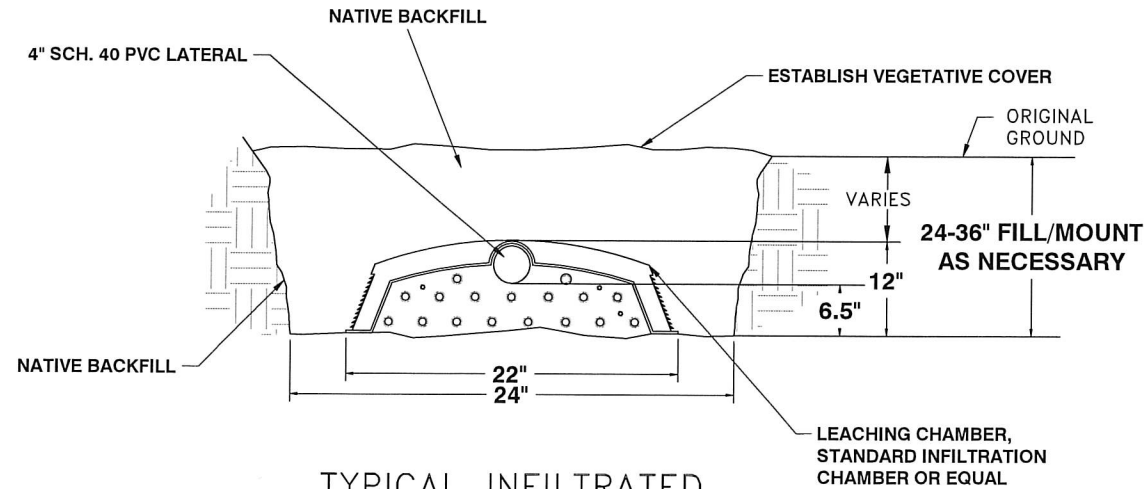
DEC. 31, 2024

SEPTIC
DETAILS

5

DEQ SUBMITTAL

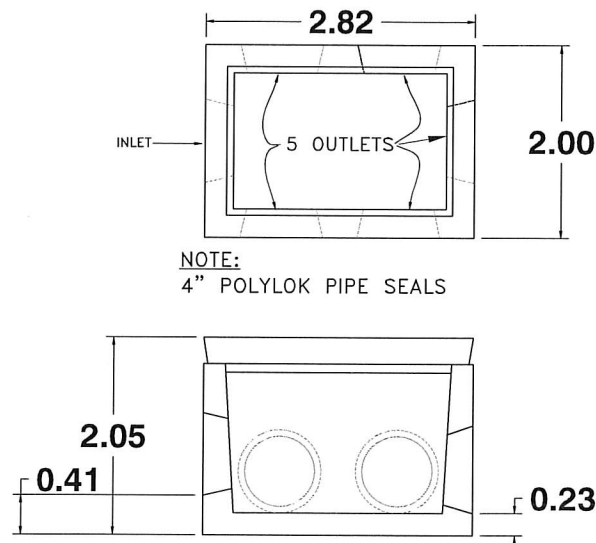
APPROVED
Montana Department of
Environmental Quality
Angela K. Pyle 9/18/25
Reviewer Date
EQ#24-2506



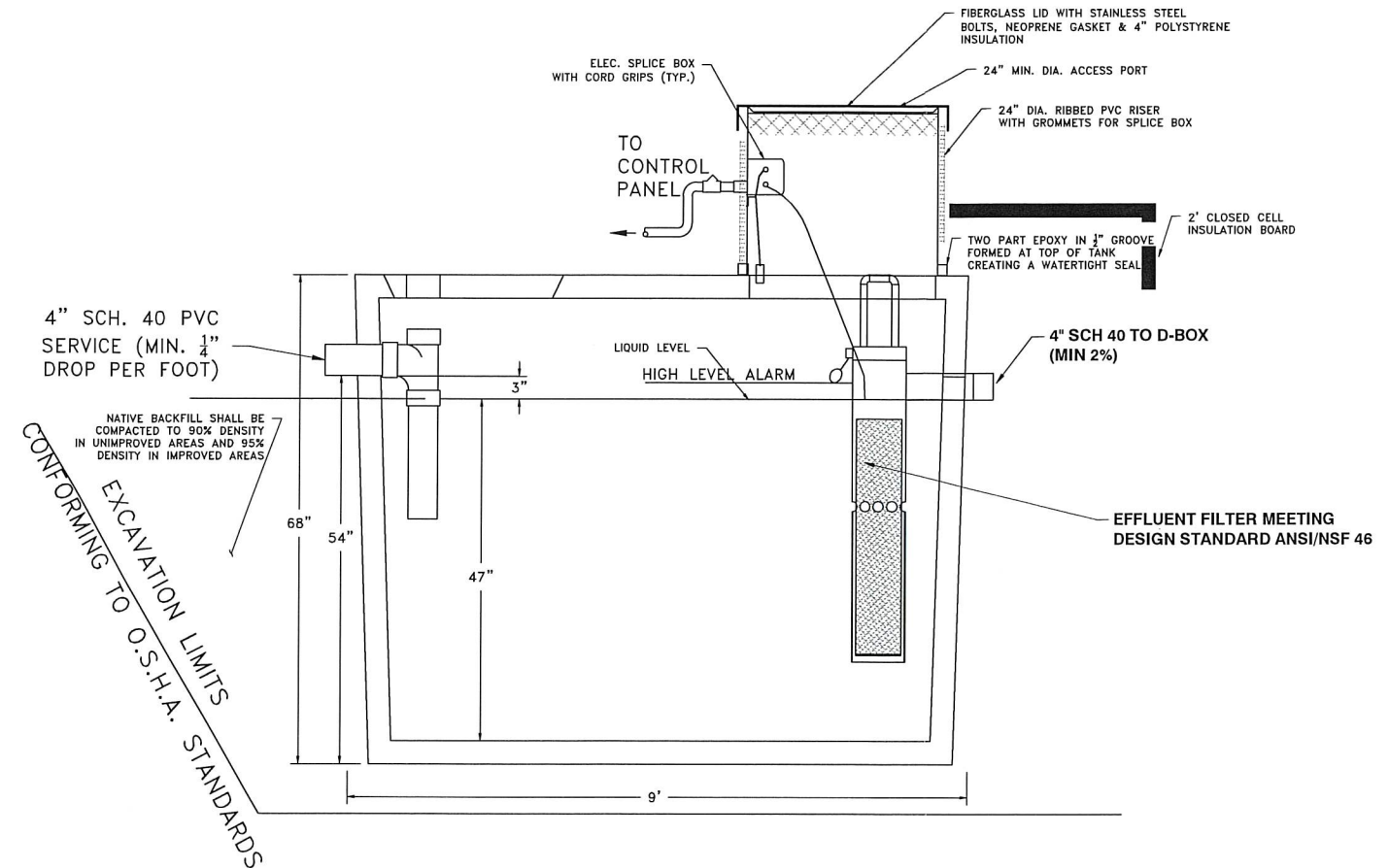
TYPICAL INFILTRATED
TRENCH DETAIL
NOT TO SCALE

DISTRIBUTION BOX MUST:

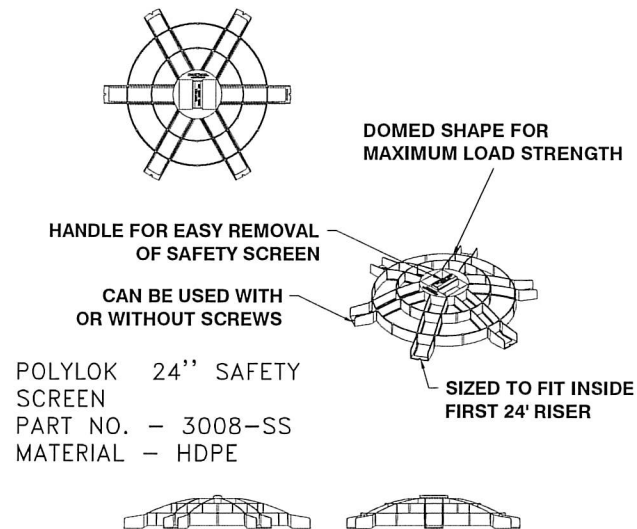
- 1) BE SET LEVEL AND BEDDED
- 2) USE FLOW CONTROL OR BAFFLING DEVICES TO ENSURE EQUAL DISTRIBUTION
- 3) BE WATER TESTED FOR EQUAL DISTRIBUTION
- 4) HAVE EACH OUTLET SERVE AN EQUAL LENGTH OF ABSORPTION TRENCH
- 5) IF CONCRETE, MEET SAME REQUIREMENTS AS SEPTIC TANKS AND HAVE MINIMUM 2-INCH WALL THICKNESS
- 6) HAVE AN ACCESS FOR INSPECTION



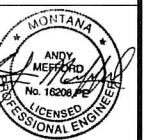
DISTRIBUTION BOX DETAIL
NOT TO SCALE



EXISTING 1,000 SEPTIC TANK
INSTALLED IN 2023



CHILD CATCHER BASKET DETAIL
NOT TO SCALE



PROJECT #: 9522-24

DRAWN: NAME L. CHECKED: NAME L. REVISION: REVISION: REVISION: REVISION:

7TH DAY ADVENTIST CHURCH
PUBLIC WASTEWATER SYSTEM

TROUT CREEK, SANDERS CO.
S21, T24N, R31W

Professional Consultants Inc.
200 W. 1ST ST. SUITE 100
BOZEMAN, MONTANA 59701
PHONE 406-728-3882
EMAIL: PCONS@PCONTANA.COM

DEC. 31, 2024

SEPTIC
DETAILS

6

DEQ SUBMITTAL