



Gunnison County, CO
Community Development Office
221 N. Wisconsin St. Ste. D, Gunnison, CO 81230
Phone: (970) 641-0360 FAX: (970) 641-8585
Website: www.gunnisoncounty.org
Email: rricord@gunnisoncounty.org

To: Environmental Health Board Committee Members

From: Rebecca Ricord, Administrative Assistant III

Date: March 2, 2021

**Included in your packet for the Wildlife Conservation Strategic
Committee Meeting:**

March 11, 2021 Agenda

Draft of September 3, 2020 Minutes

Ziegler Public Hearing Packet

Gunnison County Environmental Health Board

Agenda: March 11, 2021

- 1:15 p.m.** Call to order; determine quorum
Approval of Minutes
Unscheduled citizens
- 1:30 p.m.** Darren Ziegler, Public Hearing, for an OWTS on a parcel less than one acre at 80 Alpine Street. OWTS-21-00004

Adjourn

Join Zoom Meeting

<https://zoom.us/j/94378064902?pwd=NfVYS05XZFNzRE16NnNkZ0EwSjdOQT09>

Meeting ID: 943 7806 4902

Passcode: 762689

One tap mobile

+16699009128,,94378064902#,,,,*762689# US (San Jose)

+12532158782,,94378064902#,,,,*762689# US (Tacoma)

Dial by your location

+1 669 900 9128 US (San Jose)

+1 253 215 8782 US (Tacoma)

+1 346 248 7799 US (Houston)

+1 646 558 8656 US (New York)

+1 301 715 8592 US (Washington DC)

+1 312 626 6799 US (Chicago)

Meeting ID: 943 7806 4902

Passcode: 762689

Find your local number: <https://zoom.us/j/94378064902?pwd=NfVYS05XZFNzRE16NnNkZ0EwSjdOQT09>

ADA ACCOMMODATIONS: Anyone needing special accommodations as determined by the *American Disabilities Act* may contact the Community Development Department prior to the day of the hearing.

**Gunnison County Environmental Health Board
Agenda: September 3, 2020**

1:15 p.m. Call to order; determine quorum
Approval of Minutes
Unscheduled citizens

1:30 p.m. Nick Spallone, Brenda Spallone, Michael Spallone, and Kirsten Paulson, Public Hearing, request to install a second OWTS on a single parcel at 449 County Road 818. OWTS-19-00297

Adjourn

LINK TO THE ZOOM MEETING CAN BE FOUND AT:

<https://www.gunnisoncounty.org/144/Community-and-Economic-Development>

On Line Meetings tab

ADA ACCOMMODATIONS: Anyone needing special accommodations as determined by the *American Disabilities Act* may contact the Community Development Department prior to the day of the hearing.

DRAFT

**GUNNISON COUNTY ENVIRONMENTAL HEALTH BOARD
SEPTEMBER 3, 2020**

The September 3, 2020 Gunnison County Environmental Health Board meeting was conducted by Zoom virtual online meeting, Gunnison, CO 81230.

Present Were:

Lucinda Lull, Chairperson
Ashley Bembenek, Vice Chairperson
Bill Barvitski, EH Board Member
Eddy Balch, EH Member
Shea Earley, EH Board Member
Lynn Cudlip, EH Board Member, Alternate
Corey Bryndal, EH Board Member, Alternate

Crystal Lambert, Building and EH Official
Charlie Dominguez, Building and EH Inspector
Rebecca Ricord, Administrative Assistant

Alternate members seated for the day: Board member Lynn Cudlip and Corey Bryndal, Bill Barvitski will recuse himself for the hearing.

Other attendees as listed in text.

Lambert went over the Gunnison County Environmental Health Zoom meeting protocol.

Call to order: A quorum was determined by Lull at 1:26 pm. The meeting was properly noticed and verified by Lambert.

Approval of Minutes: Moved by: Barvitski, **seconded by** Balch to approve the June 18, 2020 meeting minutes as amended. The motion passed unanimously with Board members Lull, Barvitski, Earley, Balch, Bryndal and Cudlip voting yes. Bembenek abstained because she was not present at the meeting.

Unscheduled citizens: None present.

Nick Spallone, Brenda Spallone, Michael Spallone, and Kirsten Paulson, OWTS-19-00297: The Gunnison County Environmental Health Board conducted a Public Hearing. Request to install a second OWTS on a single parcel at 449 County Road 818.

Barvitski recused himself to represent applicant in public hearing.

Chairperson Lull confirmed a quorum and opened the public hearing.

Alternate Board members Cudlip and Bryndal were seated.

Environmental Health Official Crystal Lambert confirmed adequate public notice. The notice was published in the Gunnison Country Times, and the applicant submitted the certified mailing receipts, photo and affidavit of posting on the parcel. It was posted at the new posting location on the Gunnison County Community Development website.

Engineer Bill Barvitski, representing applicants Spallone and Paulson, was present by Zoom. Nick Spallone, applicant, was present by Zoom.

Spallone stated that he has applied to add another septic system on their 42 acre parcel due to logistics of where they want their dwelling to be and where the current system is. The current system is approximately 400 feet away through hay meadow, irrigation ditches and parking areas. They would have to also go around the barn. Believes that the new site will be on higher ground, is a better site for a leach field, and closer to the new dwelling (within 150 feet). They don't cross any ditches, they stay away from the property line and the soils seem good. They are still doing a raised field with respect to the ground water. They had looked at another site but believed that it would have caused more problems because it would have been further, through more hay meadows, irrigated area and ditches. He would like the board to consider the plan they chose as an option.

Barvitski stated that they looked at trying to figure out how to combine into one system but logistically it could not work with the irrigation ditches, the lowland, irrigated fields, the length of pipes that they would need and the maximum burial in tanks of four feet. Logistically it didn't work so that is why they are requesting the variance for two systems on the parcel.

Lambert reported that she was able to visit the site and conduct a site inspection. It was quite a distance from the residence and the barn. There were animals, horses, livestock and irrigation ditches. The irrigation ditches concerned her if they were trying to connect to the current system, where animals could potentially be walking on system components and would need to cross several water ways and the sheer distance. Having two systems on the parcel makes sense to Lambert because they can meet setbacks back to water bodies and all pertinent physical features. They are proposing a raised system, with an online sand filter. It's not a higher-level treatment system so an Operation and Maintenance Agreement would not be required in accordance with the regulations. It seems that they can meet all the requirements of the OWTS regulations, other than no more than one system on a parcel is allowed. During the site visit she went around the barn to the other side and saw the existing system. It's a big tank, with a pump, to a raised field and it's going the other way, opposite of where the new house is going to be. They would have to reroute the plumbing for the existing structure, abandon the fancy system to connect into a new system. Staff is recommending approval of the proposed application.

Bryndal stated that it looks like the pipe will be crossing three separate ditches Lambert stated that that was if they were going to try and connect the barn to the existing system. It seems like there would be more risk to public health, safety and welfare and impacts to water quality if they were to connect both structures to the existing system. The parcel is big enough to accommodate two co-compliant systems.

Bryndal stated that it looks like the only thing holding them back is the difference between the State regulations of two septic systems per parcel or acre and the local county regs. Lambert stated that the State is silent on how many systems are on a site, as long as they comply with the minimum requirements of the regulations. It's Gunnison County's own thing to create a regulation above and beyond what the State says and only allow one system per parcel and if you want two or more then you have to go to the Environmental Health Board and request a variance. That way a group of people are looking at an application for variance and not just staff administratively. Bryndal asked whether this application presents any risks. Lambert stated that she sees no risks, only if the system was going to be shared.

Earley asked why the County regs state that only one system is allowed on a parcel. Lambert stated that it is having a group of people review an application and talk about what the future implications could be, other than one person reviewing and deciding. Earley asked whether the current system on the property is in good repair. Lambert reported that it seems to be in good condition, the field is raised and seems in good condition. The tank risers seemed water tight. Barvitski reported that he physically looked at it and it is a raised system, pump system, and equal distribution. It was designed by an engineer. It's not just a gravity system like the old school systems were. It was installed in 2002. Everything seems to be working as designed. If it was failing they would see leaching out of the raised bed and there isn't anything that shows that.

Cudlip asked about capacity and whether they will be expanding the new residence in the future. Spallone stated that there are no plans to expand on the new structure. That will be their final living dwelling. There is ample

room to expand if they wanted to but there aren't any plans to right now. Cudlip asked whether there are any plans to expand on the existing dwelling. Spalone said that there aren't any plans to expand.

Barvitski reported that he will be leaving the room before discussion on the decision starts.

Lambert reported that staff has not received any public comments in reference to the variance request.

Moved by: Balch, **seconded by** Bryndal to close the public hearing. The motion passed unanimously, with the Board Members Lull, Bryndal, Earley, Balch, Bryndal, Bembenek and Cudlip voting yes.

Barvitski turned off his video and left the room.

EH Determination of Application: Moved by Balch, seconded by Cudlip to approve the application with the conditions that have been listed in the draft decision from staff, for Nick Spallone, Brenda Spallone, Michael Spallone, and Kirsten Paulson (OWTS-19-00297) before the Gunnison County Environmental Health Board. The motion passed unanimously, with Board members Lull, Earley, Balch, Bembenek, Bryndal and Cudlip voting yes.

The Board members agreed they supported the staff requirements as stated.

ENVIRONMENTAL HEALTH BOARD VARIANCE REQUEST ACTION

APPLICANT: Nick Spallone, Brenda Spallone, Michael Spallone, and Kirsten Paulson

DATE: September 3, 2020

SITE LOCATION: 449 County Road 818

ACTION: Request for a variance to the Gunnison County OWTS Regulations for a second OWTS on a parcel

PREPARED BY: Crystal Lambert, Building and Environmental Health Official

PROPOSED PROJECT:

The applicant is requesting a stand-alone OWTS on their parcel to serve a future residence. There is an existing OWTS on the 42.85 acre parcel that serves an existing bathroom in a barn, however, the system is over 350 feet away from the future house site.

GUNNISON COUNTY ENVIRONMENTAL HEALTH OFFICE ACTION:

The application and proposed design plans have been reviewed by the Environmental Health Office for compliance with the OWTS Regulations and the land use requirements of the County. The proposed septic design meets the design criteria of the Gunnison County OWTS Regulations and the minimum horizontal distance requirements from water features, pertinent physical features and property lines are met.

The OWTS application was denied by the Environmental Health Office because *Section 3.A.10.* of the *Gunnison County OWTS Regulations* states that no more than one OWTS shall be permitted for an undivided parcel.

APPLICANT'S REQUEST FOR A VARIANCE:

A request for a Public Hearing with the Environmental Health Board for the consideration of a variance to *Section 3.A.10* of the *Gunnison County OWTS Regulations* has been received and was prepared by Bill Barvitski, PE of Trout Creek Engineering, LLC.

PUBLIC HEARING:

On September 3, 2020, the Gunnison County Environmental Health Board conducted a Public Hearing on this request for a variance.

FINDINGS:

Based on a review of all the information included with the OWTS application, the request for a variance, and staff reports for this project and consideration of any and all testimony and public input received relative to this application, the Gunnison County Environmental Health Board finds that:

1. Action on this request for a variance from the *Gunnison County OWTS Regulations* is property-specific and limited to the circumstances unique to this application.
2. The applicant has demonstrated that the requested variance from the *Gunnison County OWTS Regulations* is warranted by unique site-specific configuration and site size that make compliance with the Regulations technically infeasible.
3. The applicant has provided justification through specific conditions that exist which support a finding that approval of the requested variance will result in no greater risk than that associated with compliance with the requirements of the *Gunnison County OWTS Regulations*.
4. The applicant has demonstrated that approval of the requested variance will not be in violation of any minimum standards established in any other applicable federal or state rule or regulation.
5. The applicant has demonstrated that the proposed OWTS will not be a nuisance or injurious to public health, safety or welfare. The proposed development meets minimum horizontal distance requirements from water features, pertinent physical features and property lines.
6. The applicant has demonstrated that no substantial injury will result from the granting of the requested variance.
7. This review and decision incorporates, but is not limited to, all the documentation submitted to the County and included within the Department file relative to this application; including all exhibits, references and documents.

DECISION:

The Gunnison County Environmental Health Board, having reviewed the proposed application and supporting documentation, site observations and public testimony does approve the requested variance to *Section 3.A.10* of the *Gunnison County OWTS Regulations* for Nicholas Spallone, Brenda Spallone, Michael Spallone, and Kirsten Paulson at their parcel, 449 County Road 818, Tract D, The Messner Family Partnership, LLLP, under OWTS application 19-00297, with the following conditions:

1. The OWTS shall be designed and installed in accordance with the *Gunnison County OWTS Regulations* and the *Gunnison County Land Use Resolution*, including but not limited to setback requirements, design standards, requirements for system components and general technical standards.
2. This approval is founded on each individual requirement. Should the applicant successfully challenge any such finding or requirement, this approval is null and void.

3. This permit may be revoked or suspended if Gunnison County determines that any material fact set forth herein or represented by the applicant was false or misleading, or that the applicant failed to disclose facts necessary to make any such fact not misleading.
4. Approval of this use is based upon the facts presented and implies no approval of similar use in the same or different location and/or with different impacts on the environment and community. Any such future application shall be reviewed and evaluated, subject to its compliance with current regulations, and its impact to the County.

Lull closed the meeting of the Environmental Health Board at 1:59 P.M. **Moved by:** Balch, **seconded by** Bembenek to adjourn meeting. The motion passed unanimously, with Board members Lull, Bryndal, Bembenek, Earley, Balch, and Cudlip voting yes.

/S/ Rebecca Ricord
Administrative Assistant
Gunnison County Community Development Department

DRAFT



**GUNNISON COUNTY, COLORADO
COMMUNITY DEVELOPMENT DEPARTMENT, ENVIRONMENTAL
HEALTH OFFICE STAFF REPORT**

Ziegler

Application No: OWTS-21-00004
 Date application scheduled with EH Board: March 11, 2021
 Prepared by: Crystal Lambert, Building & EH Official

APPLICANT/OWNER:	Darren Ziegler
PROJECT DESCRIPTION:	The applicant is proposing a variance for an OWTS on a parcel less than one acre to serve a future residence. The parcel is currently vacant.
CURRENT STATUS OF OWTS APPLICATION:	The OWTS application was denied by the Environmental Health Office because <i>Section 3.A.9. of the Gunnison County OWTS Regulations</i> states that an OWTS shall not be permitted to be installed on a parcel of land less than once acre in size.
ENVIRONMENTAL HEALTH BOARD ACTION REQUESTED:	A request for a Public Hearing with the Environmental Health Board for the consideration of a variance to <i>Section 3.A.9</i> of the <i>Gunnison County OWTS Regulations</i> has been received and was prepared by the applicant’s representative and system design engineer, Bill Barvitski, PE of Trout Creek Engineering, LLC.
PROPERTY LOCATION:	80 Alpine Street, Lot 19 Block 5 Chair Mountain Ranch 1 Subdivision
AREA DESCRIPTION:	The parcel is 0.33 acres in the Chair Mountain Ranch 1 Subdivision near County Road 3 in the Crystal River Valley approximately 5 miles northwest of the Town of Marble, Colorado.
ATTACHED EXHIBITS:	<ul style="list-style-type: none"> ▪ OWTS application ▪ Aerial view of parcel and surrounding parcels ▪ Engineer Variance Request and Proposed Design Report

	<ul style="list-style-type: none"> ▪ Site plan and system layout ▪ Development Draft Action
ENVIRONMENTAL BOARD TASKS AT PUBLIC HEARING:	<ul style="list-style-type: none"> — Acknowledge receipt of application by applicant name, name of development (if applicable) and date of application — Confirmation of adequate public notice: <ul style="list-style-type: none"> • Posting of legal notice in the County’s official newspaper at least 20 days prior the hearing. • Posting of public hearing notice at the County posting locations. • Mailing of public hearing notice to all owners of properties who own surface rights within 500 feet of each boundary of the entire parcel at least 20 days prior to the hearing. • Posting of the public hearing notice in a conspicuous location at or near the parcel. — Hear applicant presentation — Hear staff comments — Ask questions, identify and consider issues — Hear applicant response and staff response — Continue public hearing or close public hearing.

Variance Request Submittal Analysis		
Variance request submittals shall include the following items:	Applicant Submittal Summary	Staff Comments
Site-specific request identifying the specific criteria from which a variance is being requested. Section 3.M.1.b(1)	The variance is being requested for an OWTS to be permitted to be installed on the referenced parcel which is less than one acre in size.	Per <i>Section 3.A.9 of the Gunnison County OWTS Regulations</i> , an OWTS shall not be permitted to be installed on a parcel of land less than one acre in size. This is a local County requirement above the State minimum. The State of Colorado OWTS Regulations do not contain a requirement for minimum parcel size.
Technical justification by a professional engineer or professional geologist, which indicates the specific conditions which	All the horizontal setback requirements between components of the OWTS and water, physical and health impact	Though this is a small parcel, less than one acre, all of the required setback distances from system components to waterbodies and

<p>exist and/or the measures which will be taken that support a finding that the variance shall result in no greater risk than that associated with compliance with the requirements of the OWTS Regulations. Section 3.M.1.b(2)</p>	<p>features are proposed to be met and there should be no greater risk to public health and safety. Gunnison County has more stringent horizontal distance requirements than the State Regulations and those more stringent setback distances will be met with the proposed system. The proposed system design includes pressurized distribution to an unlined sand bed.</p>	<p>pertinent physical features can be met with the proposed plan. The water service to this parcel, and other parcels in the Subdivision is by a State permitted public water system which eliminates concerns regarding setback distances to water wells.</p>
<p>A discussion of alternatives considered in lieu of the requested variance. Section 3.M.1.b.(3)</p>	<p>There are no alternatives known. The subdivision and this parcel were created prior to creation of the Gunnison County OWTS Regulations.</p>	<p>No known feasible alternatives. The subdivision and parcel predate modern septic regulations and surrounding parcels are developed.</p>
<p>Technical documentation for selected alternative, which may include a testing program, which confirms that the variance does not increase the risk to public health and to the environment. Section 3.M.1.b.(4)</p>		<p>N/A-the applicant is not proposing an alternative system design. The proposed system meets the technical requirements of the OWTS Regulations.</p>
<p>A statement of the hardship that created the necessity for the variance. Section 3.M.1.b.(5)</p>		<p>The small, less than one acre, parcel was created prior to modern septic regulations requiring a minimum of one-acre.</p>

Section 3.M.2.: Prohibitions on the granting of variance requests

Prohibitions on the granting of variance requests:	Staff comments:
No variance shall be issued where the property can accommodate a conforming OWTS. Section 3.M.2.a.	The OWTS will conform to the technical, design and setback distance requirements of the OWTS Regulations. The variance request is for a system on a parcel less than one acre.
No variance shall be issued to mitigate an error in construction involving any element of property improvements. Section 3.M.2.b.	N/A
No variance shall be allowed on the grounds of cost of compliance. Section 3.M.2.c.	N/A
No variance shall be issued if it will result in a setback reduction to an offsite physical feature that does not conform to the minimum setbacks defined in Table 7-1 of this regulation without proof of compliance of Section 3.M.5. Section 3.M.2.d.	The minimum setbacks to on-site and off-site physical features appear to be met with the proposed development plan.
No variance shall be issued if it reduces the separation to ground water or bedrock based on the level of treatment in Table 7-2. Section 3.M.2.e.	N/A
No variance from the horizontal setback from a well shall be issued unless it also meets the variance requirements of the Board of Examiners of Water Well Construction and Pump Installation Contractors. Section 3.M.2.f.	N/A
No variance shall be issued for the installation of a higher level treatment system based on sizing or separation reductions without the Department having a maintenance and oversight program. Section 3.M.2.g.	N/A

Staff Recommendation on the application for a variance to the *Gunnison County OWTS Regulations*:

It appears that the proposed OWTS design meets the design criteria and setback distance requirements of the Gunnison County OWTS Regulations. The existing public water service eliminates concern regarding setback distances to water wells. Staff recommends approval of the Ziegler application for a variance to the Gunnison County OWTS Regulations, Section 3.A.9, to install the proposed OWTS on Lot 19, Block 5 of the Chair Mountain Ranch Subdivision.



Gunnison County, CO
Community Development Department
 221 N. Wisconsin St. Ste. D, Gunnison, CO 81230
 Phone: (970) 641-0360
 Website: <https://www.gunnisoncounty.org/144/Community-and-Economic-Development>
 Email: planning@gunnisoncounty.org

**ON-SITE WASTEWATER TREATMENT SYSTEM (OWTS)
 PERMIT APPLICATION**

Application Fee- Residential New- Due at Submittal: \$860.00
 Application Fee- Commercial New or Replacement- Due at Submittal: \$965.00
 Application Fee- Residential Repair- Due at Submittal: \$330.00
 Application Fee- Residential and Commercial Tank Replacement Only- Due at Submittal: \$155.00
 Application Fee- System Alteration or Expansion- Due at Submittal: \$520.00

Application Received Date: _____
 Application Fee Paid: _____

SUBMIT ALL PERMIT PACKET INFORMATION TO PLANNING@GUNNISONCOUNTY.ORG

OWNER: Meaghan & Darren Ziegler
MAILING ADDRESS: 2215 County Road 154 Unit 206, Glenwood Springs CO 81601
DAY PHONE: _____ **CELL PHONE:** 970-618-0564
EMAIL ADDRESS: zielgerconsultant@gmail.com

LICENSED SEPTIC CONTRACTOR: T.B.D.
MAILING ADDRESS: _____
DAY PHONE: _____ **CELL PHONE:** _____
EMAIL ADDRESS: _____

PRIMARY PROJECT CONTACT PERSON: Bill Barvitski - Trout Creek Engineering
DAY PHONE: 970-642-4110 **CELL PHONE:** _____

DESCRIPTION OF PARCEL (legal description, site address): Lot 19, Block 5 Chair Mountain Ranch

PARCEL SIZE: 0.33 ACRES

HAVE YOU APPLIED FOR A LAND USE CHANGE PERMIT? _____

- Is this application for a secondary residence?
- Do you need a lot cluster? (Do you own adjacent lots that are less than one acre, if so you may need a lot cluster)

WHAT TYPE OF PERMIT ARE YOU REQUESTING?

- New
- Alteration
- Repair

Project Description (Please identify all existing buildings/development and all proposed buildings/development on the parcel.)

A New OWTS for a new Residence within a subdivision. A Variance request through EH Board will be required

Description of Proposed Development

- Single-Family Residence
- Multi-Family Residence
- Commercial; describe use: _____
- Other: _____

Number of Bedrooms: 2 **Number of Baths:** 2 **Number of Kitchens:** 1

For commercial note the square footage, number of seats if it is a food/bar establishment, number of rooms for hotel/motel/B-N-B facility, number of employees. _____

Type of System Proposed (For engineered systems, provide the design, stamped and signed by a Colorado Licensed Professional Engineer)

- Conventional Septic System Design
- Engineered System; Engineer Name: Bill Barvitski Phone: 642-4110
- Other: _____

Description of the Proposed and/or Exiting Water Source. Description of proposed/existing water source; if such proposed source is by well, copy of the well permit may be required to verify the location of the well; and, if such source is a central system, documentation from the operator of that system that water will be supplied: Central Water system.

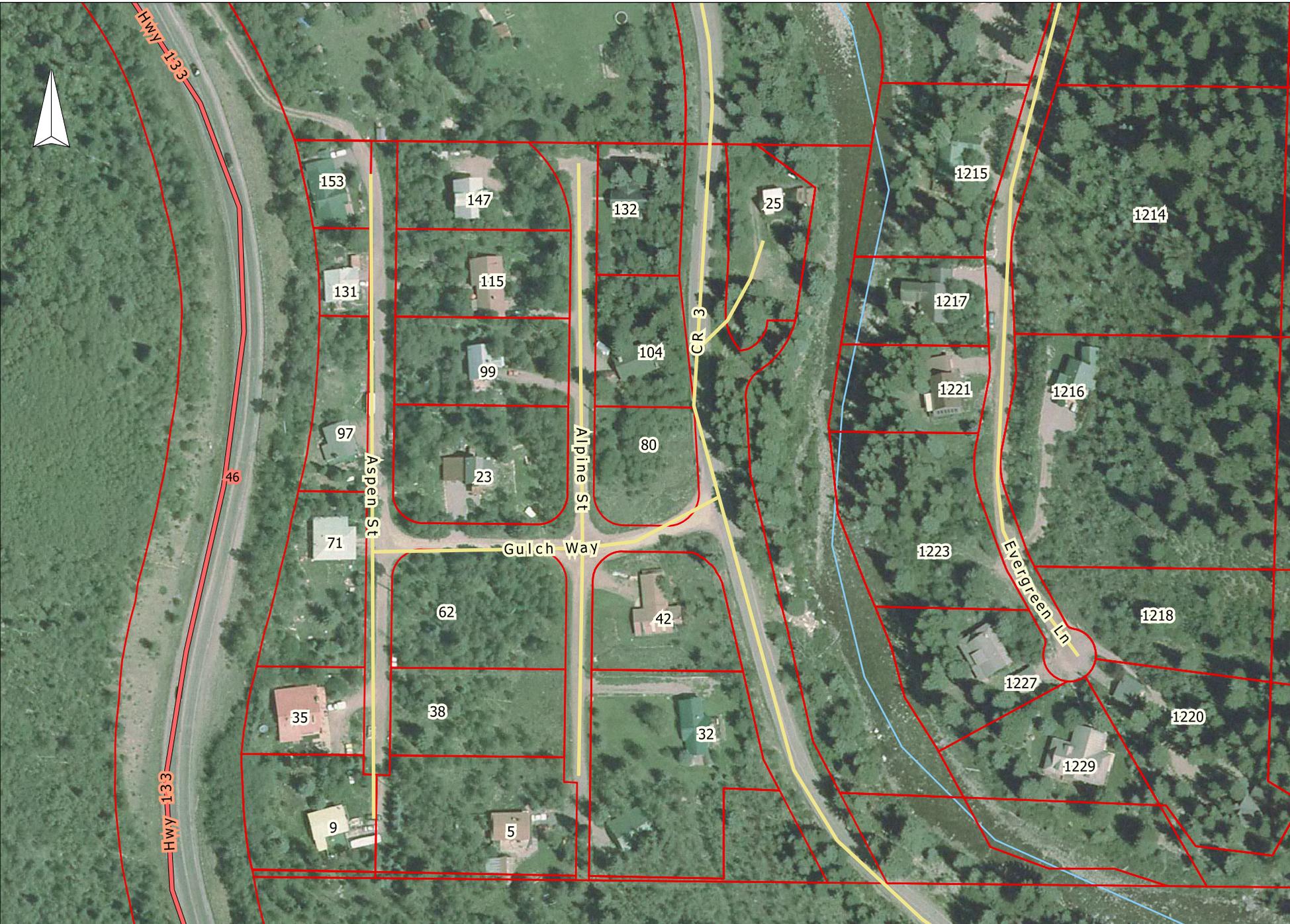
THE FOLLOWING INFORMATION IS NEEDED FOR THE SUBMITTAL OF ALL OWTS APPLICATIONS:

- Report from Site and Soils Evaluation and Site Plan.** The report from the Site and Soil Evaluation in accordance with Section 5-110: *Report and Site Plan* of the *Gunnison County OWTS Regulations* (see page 9 for description).
- Vicinity Map.** General area map showing the location of the proposal on a typical U.S. Geological Survey map, U.S. Forest Service map or County parcel map, available from the Gunnison County Geographic Information Services Department or the Gunnison County Assessor's Office.
- System Design.** The system design document shall contain all plan details necessary for permitting, installation and maintenance and shall include a brief description of the facility and its proposed use, basis and calculations of design flow, and influent strength in accordance with Section 5-111: *Design Document* of the *Gunnison County OWTS Regulations* (see page 10 for description).
- A copy of the recorded **Warranty Deed** is required for proof of ownership. This may be obtained from the Recorder's Office, located on the first floor of the Blackstock's Government Center. The Recorder's Office can be reached by phone at 970-641-2038.
- Letter of Consent.** If applicable, a letter from the property owner acknowledging a person other than the owner may apply for permits.
- Copy of **Well Permit**, if applicable
- Application Fee. **Fees** are determined by type of OWTS permit and proposed use. *See fee schedule.

**GUNNISON COUNTY PUBLIC WORKS
ACCESS DETERMINATION**

SIGNATURE OF OWNER OR CONTRACTOR: Bill Barvitski Digitally signed by Bill Barvitski
Date: 2021.01.18 10:25:24 -0700

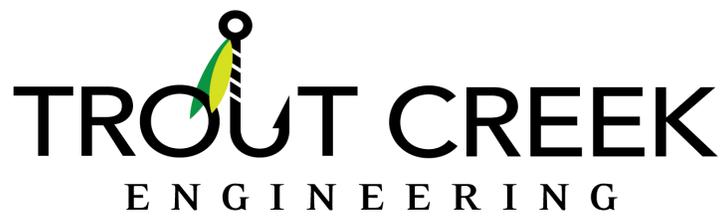
DATE: 01/18/2021



Scale = 1:1800

The data herein is general in nature and not assumed to be complete nor accurate in its entirety and is therefore to be used with all discretions necessary. The data portrayed should not be relied upon to establish legal title, boundary lines, the precise location of improvements, ownership, maintenance, easements or public right-of-ways.

Tuesday, February 23, 2021



TROUT CREEK

ENGINEERING

100 North Main Street
Gunnison, CO 81230
970-642-4110

O.W.T.S. Variance Request

For: Zielger
80 Alpine Street
Lot 19, Block 5 Chair Mtn. Ranch
Gunnison County, Colorado

Prepared By: Trout Creek Engineering L.L.C.
100 North Main Street
Gunnison, Colorado 81230
970-642-4110

I. Summary

The applicant is requesting a variance through the Gunnison County Environmental Health Board to allow an O.W.T.S. be installed on the 0.33 acre parcel within the existing Gunnison County platted and filed subdivision of Chair Mountain Ranch. The owner is interested in constructing a 2- bedroom residence on this lot, if this O.W.T.S. variance is granted.

Gunnison County O.W.T.S. Regulations Section 3.A.9.a states *“An OWTS shall not be permitted to be installed on a parcel of land less than one acres in size.”*

The Following is being submitted in reference to Gunnison County Regulation 3.M.1.b

Variance Procedure:

1. This variance is being requested for the installation of an O.W.T.S. to be installed on the Gunnison County platted and filed parcel of less than one acre in size.
2. It is in my professional opinion that the installation of an O.W.T.S. on the above referenced property will result in no greater risk than that associated with compliance with the requirements of the Gunnison County Regulations. Colorado Department of Public Health and Environment Regulation #43 was adopted, by the State of Colorado and required local boards of health, within 1 year, to update their local regulations which must be as stringent as that

regulation. Within this State Regulation #43 there is no criteria which identifies a minimum parcel size requirement. Gunnison County had elected to make this requirement within their O.W.T.S. Regulations. It is in my professional opinion that if this were a serious risk to public health and safety then the State of Colorado would have had this similar requirement within Regulation #43. It is in my professional opinion that if ALL horizontal setback distance requirements between components of the O.W.T.S. to the physical features as identified under Table 7-1 can be met, then there should be no greater risk to public health and safety. Gunnison County's O.W.T.S. regulation has, already in place, a more stringent horizontal distances requirement than Regulation #43 which was, I believe, intended to reassure that the public health and safety as well as the environment is protected. All the horizontal setback requirements, as indicated in the Gunnison County O.W.T.S. Regulations can and will still be met if this variance is to be granted. The proposed design of the system is a pressurized "equally distributed" system over an unlined sand filter.

3. This subdivision had been platted and filed within Gunnison County prior to the OWTS regulations requiring the minimum parcel size.
4. There are no alternatives. Without this variance this platted lot will become undevelopable.
5. It should be known that other residences located within this platted subdivision are served using On-Site Wastewater Treatment System's.
6. It should be known that the water supply to this property and the other properties within this platted subdivision is by central water service. There will be no need to drill and install a well for this property.

Thank you

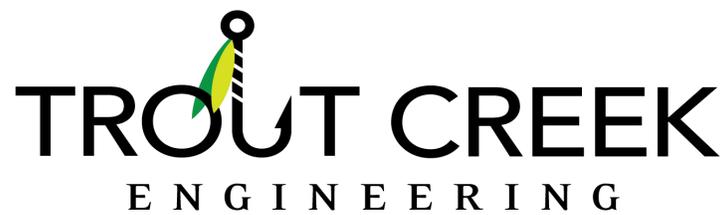


Bill Barvitski, P.E.

Trout Creek Engineering L.L.C.

970-642-4110

bill@troutcreekengineering.com



TROUT CREEK

ENGINEERING

100 North Main Street
Gunnison, CO 81230
970-642-4110

O.W.T.S. Design Report

For: Ziegler Residence
Lot 19, Block 5 Chair Mountain Ranch – Near Marble
Gunnison County, Colorado

Prepared By: Trout Creek Engineering L.L.C.
100 North Main Street
Gunnison, Colorado 81230
970-642-4110

I. Design Condition and Soils:

This OWTS design addresses providing an On-site Wastewater Treatment System for a future 2 bedroom residence. A site visit and profile holes were completed on December 2, 2020. The soils are identified as Soil Type 3, Clay Loam. High ground water was not found in the profile hole at a depth of 6'. It is recommended due to the soil type to install an unlined sand filter for the proposed soil treatment area. Dispersal of the effluent to the surface of the unlined sand filter must be by a pressurized distribution system for equal distribution.

II. Legal Description:

Parcel #: 291707301004
Account #: R015637
0.33 Acres
Lot 19, Block 5 Chair Mountain Ranch 1

III. Design Calculations:

➤ ***Wastewater Flow Calculations: Table 6-1***

Future Residence

- 2 Bedrooms

Total Design Flows:

- Table 6-1: 2 bedrooms = 300 gal/day

➤ ***Septic Tank Size: Table 9-1***

- Install 1500 gallon 2 compartment septic tank with an Orenco PF3005 effluent pump within the second chamber

➤ ***System Sizing:*** Soil Type 3, Pressure Dosed Bed, Infiltrator Chambers

- **10.C.4** - Flow = 300 GPD; L.T.A.R.
 - 11.C.3.b.2 “Maximum hydraulic loading rate for TL1 effluent applied to “Secondary Sand Media” in an unlined sand filter is 0.8 gal./sq.ft./day, OR the long term acceptance rate of the receiving soil for TL3 (Table 10-1) whichever results in the larger area.
 - Secondary Sand L.T.A.R. = 0.8
 - Receiving soil Type 3 (TL3) L.T.A.R. = 0.65
 - **USE L.T.A.R. of 0.65 gal./sq.ft./ day**
- $300 / 0.65 = 461.54 \text{ ft}^2$
- It is the responsibility of the installer to provide, to the Public Health Official, a gradation of the sand media to qualify as a “Secondary” sand media. The gradation date must be dated no more than one month prior to the installation date. However, a gradation of the actual material placed in the excavation is recommended. If this gradation cannot be met the Engineer SHALL be notified as the size of the soil treatment area must be adjusted prior to the installation of any components.
 - “Secondary” sand media requirements:
 - Effective Size: 0.15-0.60 mm
 - Uniformity Coefficient: ≤ 7.0
 - Percent fines passing #200 sieve: ≤ 3.0

- **Table 10-2** (pressure Dosed, Bed) = 1.0
 - $461.54 \text{ ft}^2 \times 1.0 \text{ ft}^2 = 461.54 \text{ ft}^2$
- **43.10.D** – Table 10-3 Soil type 3 (Not Type R) Chambers= 0.7
 - $461.54 \text{ ft}^2 \times 0.7 = 323.1 \text{ ft}^2$
- Number of Infiltrator Chambers (Quick 4 Standard)
 - $323.1 \text{ ft}^2 / 12 \text{ ft}^2 = 26.9$ (**Use 28**)
- Orenco PF3005 Effluent Pump & Distribution Lateral Calculations
- Draw Down Per inch (1500T-2CP-HH)
 - 10.34 gallons (per inch)
- Pump Rate = 35.2 g.p.m.
- 12" Draw Down = 124.08 gallons
- Pump time @ 35.2 g.p.m. = 3.5 minutes
- Average pump cycles per day: $300 / 124.08 = 2.4$
- See Attached Orifice calculation and pump curve
 - Orifice Size = 5/32"
 - Orifice Spacing = 2.0' (2'-0")
- Distal Head Pressure = 5'-0"
- See Attached Orenco Pump Chart

➤ ***Design:***

Install 24 total Infiltrator Quick 4 "Standard" chambers with end caps in a single bed. Install a minimum of 3'-0" "Secondary" sand media under the entire bed with a minimum of 12" additional width of sand, around the perimeter, at the top infiltrative surface. Pressure dosed system with 4 laterals at 24 feet long. Install 1500- gallon septic tank (Valley Precast item# 1500T-2CP-HH) with an Orenco PF3005 effluent pump installed in the 2nd chamber of the tank (see construction drawings).

IV. Construction Drawing Date:

Attached is a drawing titled "Ziegler Residential O.W.T.S." for the proposed new residence located within the Gunnison County Environmental Health District, dated December 10, 2020 which sets forth the details for construction of the system.





Pump Selection for a Pressurized System - Single Family Residence Project

ZIEGLER

Parameters

Discharge Assembly Size	1.25	inches
Transport Length	20	feet
Transport Pipe Class	40	
Transport Line Size	1.25	inches
Distributing Valve Model	None	
Max Elevation Lift	5	feet
Manifold Length	9	feet
Manifold Pipe Class	40	
Manifold Pipe Size	1.25	inches
Number of Laterals per Cell	4	
Lateral Length	24	feet
Lateral Pipe Class	40	
Lateral Pipe Size	1.25	inches
Orifice Size	5/32	inches
Orifice Spacing	2	feet
Residual Head	5	feet
Flow Meter	None	inches
'Add-on' Friction Losses	0	feet

Calculations

Minimum Flow Rate per Orifice	0.68	gpm
Number of Orifices per Zone	52	
Total Flow Rate per Zone	35.2	gpm
Number of Laterals per Zone	4	
% Flow Differential 1st/Last Orifice	0.9	%
Transport Velocity	7.6	fps

Frictional Head Losses

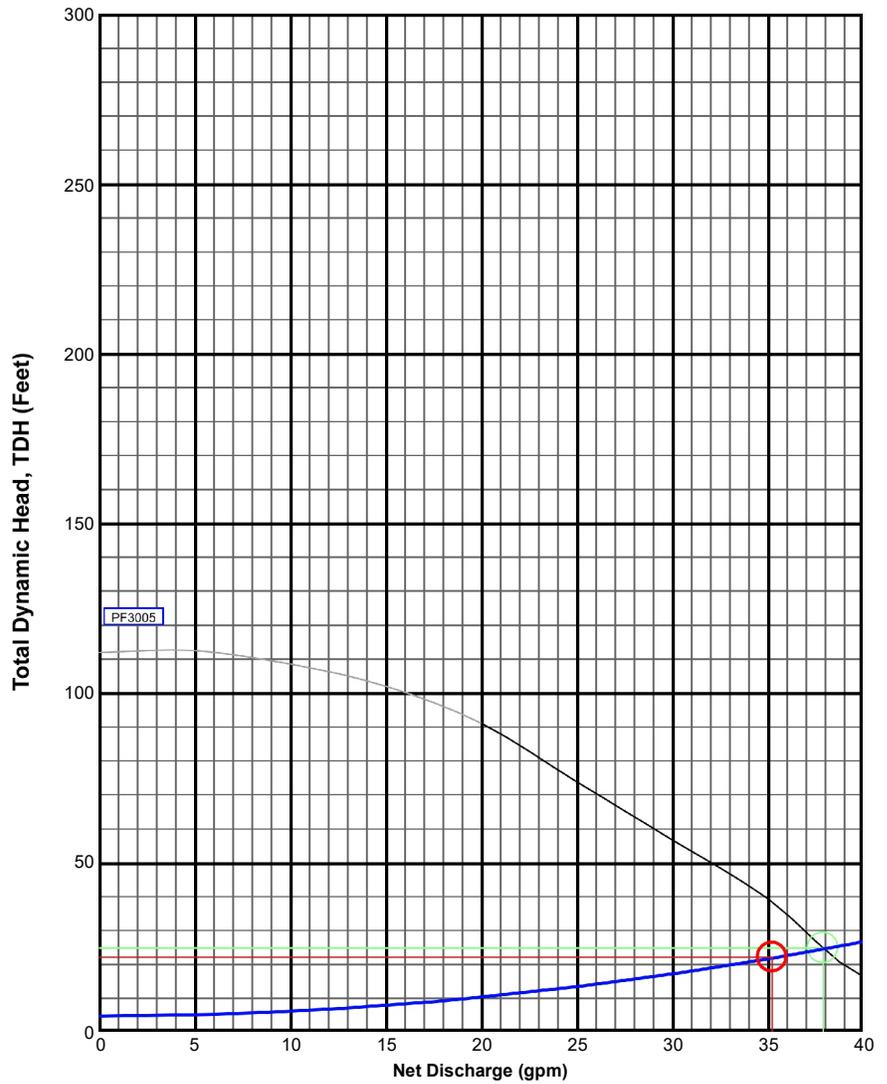
Loss through Discharge	8.7	feet
Loss in Transport	2.9	feet
Loss through Valve	0.0	feet
Loss in Manifold	0.4	feet
Loss in Laterals	0.1	feet
Loss through Flowmeter	0.0	feet
'Add-on' Friction Losses	0.0	feet

Pipe Volumes

Vol of Transport Line	1.6	gals
Vol of Manifold	0.7	gals
Vol of Laterals per Zone	7.5	gals
Total Volume	9.7	gals

Minimum Pump Requirements

Design Flow Rate	35.2	gpm
Total Dynamic Head	22.2	feet



PumpData

PF3005 High Head Effluent Pump
 30 GPM, 1/2HP
 115/230V 1Ø 60Hz, 200V 3Ø 60Hz

Legend

System Curve:	
Pump Curve:	
Pump Optimal Range:	
Operating Point:	
Design Point:	



1500 Gallon Top Seam - 2CP with High Head Pump

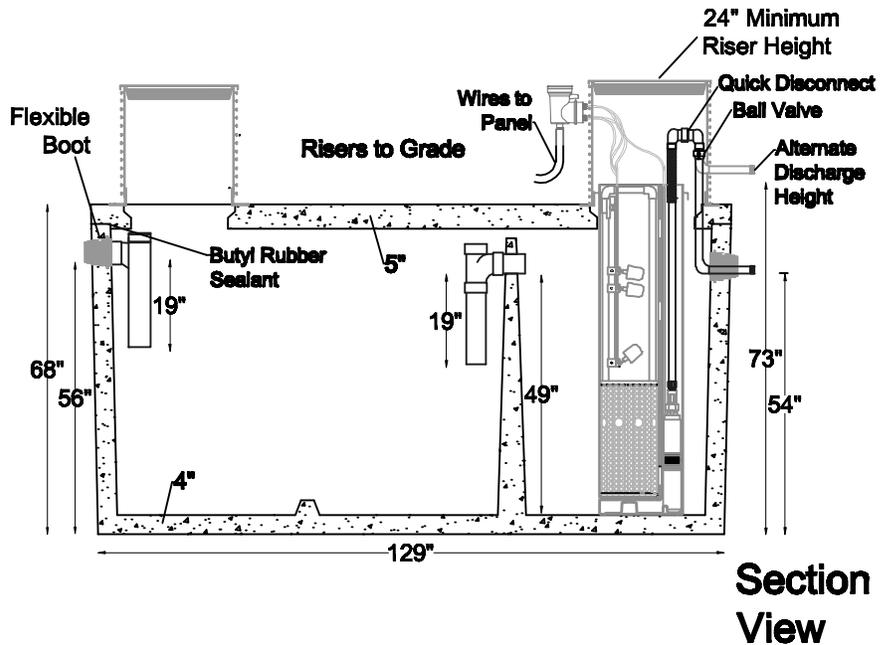
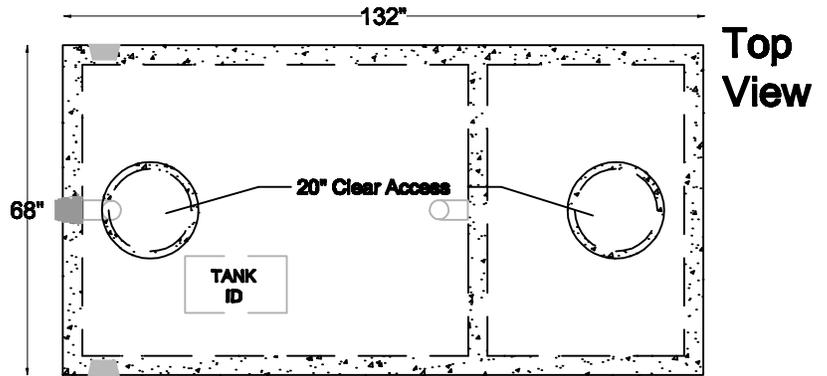
Item #
1500T-2CP-HH

DESIGN NOTES

- Design per performance test per ASTM C1227
- Top surface area 62.33 ft²
- f'c @ 28 days; concrete = 6,000 PSI Min.

Installation:

- Tank to be set on 5" min. sand bed or pea gravel
- Tank to be backfilled uniformly on all sides in lifts less than 24" and mechanically compacted
- Excavated material may be used for backfill, provided large stones are removed
- Excavation should be dewatered and tank filled with water prior to being put in service for installation with water table less than 2' below grade
- Meets C1644-06 for resilient connectors
- Inlet and Outlet identified above pipe
- Delivered complete with internal piping
- Control Panel to be mounted in sight line of tank
- 4' Maximum bury depth



ALLOWABLE BURY (Based on Water Table)	
WATER TABLE	ALLOWABLE EARTH FILL
0' - 0"	3' - 0"
1' - 0"	3' - 0"
2' - 0"	4' - 0"
3' - 0"	4' - 0"
DRY	4' - 0"

Pump:

- Lowers TSS and improves effluent quality to field
- Complete installation (wiring, panel, mounting and start-up procedures)
- Complete warranty

***Service contracts available for maintenance**

Digging Specs	Invert		Dimensions			Net Capacity			Net Weight		
	Inlet	Outlet	Length	Width	Min. Height	Inlet Side	Outlet	Total	Lid	Tank	Total
13' Long x 8' Wide											
56" below inlet	56"	54" or 73"	132"	68"	92"	1002 gal	507 gal	1509 gal	3600 lbs	11180 lbs	14980 lbs



Phone: 719-395-6764
Fax: 719-395-3727
Website: www.valleyprecast.com
Email: frontdesk@valleyprecast.com



INFILTRATOR®
systems inc.

Quick4®
CHAMBER SYSTEMS

The Quick4® Standard Chamber

Quick4® Series



The Quick4® Standard Chamber fits in a 36" wide trench and is ideal for curved or straight systems. It features the patent-pending Contour Swivel Connection™ which permits turns up to 15°, right or left. The MultiPort™ endcap allows multiple piping options and eliminates pipe fittings. The chamber's four-foot length provides optimal installation flexibility.

Chamber Benefits:

- Advanced contouring connections swivel up to 15°, right or left
- Latching mechanism allows for quick installation
- Four-foot chambers are easy to handle and install
- The Quick4 Standard Chamber supports wheel loads of 16,000 lbs/axle with only 12" of cover
- Certified by the International Association of Plumbing and Mechanical Officials (IAPMO)



MultiPort Endcap Benefits:

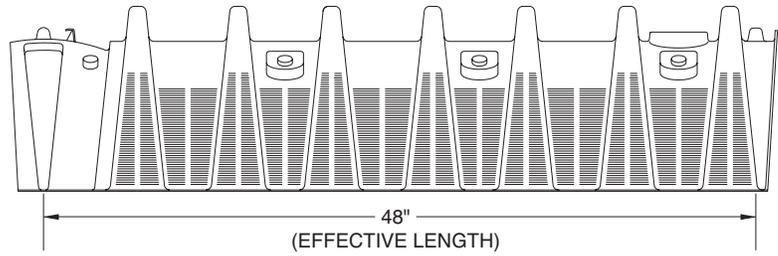
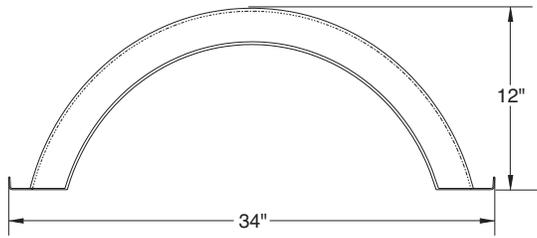
- Tear-out seals on inlet ports provide a tight fit to the pipe
- Eight molded-in inlets/outlets allow for maximum piping flexibility
- Eliminates pipe fittings
- Fits on either end of the Quick4 Standard Chamber

APPROVED in _____

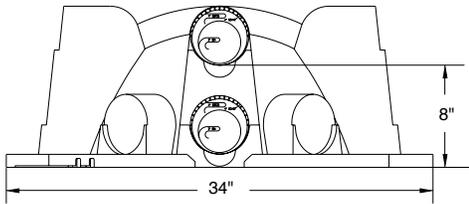
Quick4® Series

Because installations are faster with Quick4 chambers, you save on heavy equipment operation and labor.

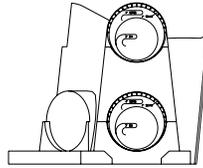
Quick4 Standard Chamber



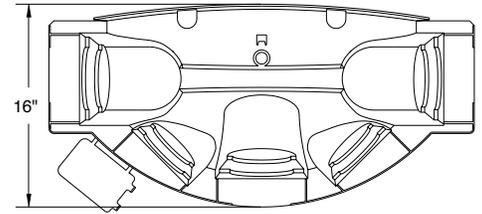
MultiPort EndCap



FRONT VIEW

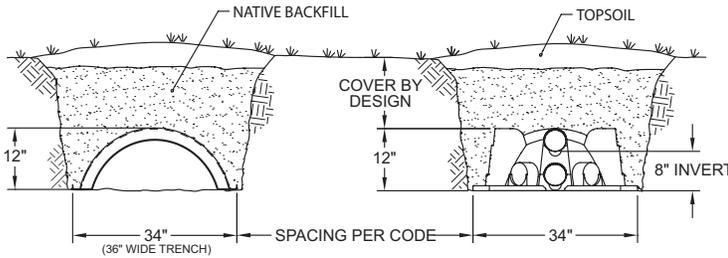


SIDE VIEW



TOP VIEW

Typical Trench View



INFILTRATOR SYSTEMS, INC. STANDARD LIMITED WARRANTY

(a) The structural integrity of each chamber, endcap and other accessory manufactured by Infiltrator ("Units"), when installed and operated in a leachfield of an onsite septic system in accordance with Infiltrator's instructions, is warranted to the original purchaser ("Holder") against defective materials and workmanship for one year from the date that the septic permit is issued for the septic system containing the Units; provided, however, that if a septic permit is not required by applicable law, the warranty period will begin upon the date that installation of the septic system commences. To exercise its warranty rights, Holder must notify Infiltrator in writing at its Corporate Headquarters in Old Saybrook, Connecticut within fifteen (15) days of the alleged defect. Infiltrator will supply replacement Units for Units determined by Infiltrator to be covered by this Limited Warranty. Infiltrator's liability specifically excludes the cost of removal and/or installation of the Units.

(b) THE LIMITED WARRANTY AND REMEDIES IN SUBPARAGRAPH (a) ARE EXCLUSIVE. THERE ARE NO OTHER WARRANTIES WITH RESPECT TO THE UNITS, INCLUDING NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE

(c) This Limited Warranty shall be void if any part of the chamber system is manufactured by anyone other than Infiltrator. The Limited Warranty does not extend to incidental, consequential, special or indirect damages. Infiltrator shall not be liable for penalties or liquidated damages, including loss of production and profits, labor and materials, overhead costs, or other losses or expenses incurred by the Holder or any third party. Specifically excluded from Limited Warranty coverage are damage to the Units due to ordinary wear and tear, alteration, accident, misuse, abuse or neglect of the Units; the Units being subjected to vehicle traffic or other conditions which are not permitted by the installation instructions; failure to maintain the minimum ground covers set forth in the installation instructions; the placement of improper materials into the system containing the Units; failure of the Units or the septic system due to improper siting or improper sizing, excessive water usage, improper grease disposal, or improper operation; or any other event not caused by Infiltrator. This Limited Warranty shall be void if the Holder fails to comply with all of the terms set forth in this Limited Warranty. Further, in no event shall Infiltrator be responsible for any loss or damage to the Holder, the Units, or any third party resulting from installation or shipment, or from any product liability claims of Holder or any third party. For this Limited Warranty to apply, the Units must be installed in accordance with all site conditions required by state and local codes; all other applicable laws; and Infiltrator's installation instructions.

(d) No representative of Infiltrator has the authority to change or extend this Limited Warranty. No warranty applies to any party other than the original Holder.

The above represents the Standard Limited Warranty offered by Infiltrator. A limited number of states and counties have different warranty requirements. Any purchaser of Units should contact Infiltrator's Corporate Headquarters in Old Saybrook, Connecticut, prior to such purchase, to obtain a copy of the applicable warranty, and should carefully read that warranty prior to the purchase of Units.

Quick4® Standard Chamber Specifications	
Size	34"W x 53"L x 12"H (864 mm x 1346 mm x 305 mm)
Effective Length	48" (1219 mm)
Louver Height	8" (203 mm)
Storage Capacity	43 gal (163 L)
Invert Height	8" (203 mm)



4 Business Park Road
P.O. Box 768
Old Saybrook, CT 06475
860-577-7000 • Fax 860-577-7001
1-800-221-4436
www.infiltratorsystems.com

U.S. Patents: 4,759,661; 5,017,041; 5,156,488; 5,336,017; 5,401,116; 5,401,459; 5,511,903; 5,716,163; 5,588,778; 5,839,844 Canadian Patents: 1,329,959; 2,004,564 Other patents pending. Infiltrator, Equalizer, Quick4, and SideWinder are registered trademarks of Infiltrator Systems Inc. Infiltrator is a registered trademark in France. Infiltrator Systems Inc. is a registered trademark in Mexico. Contour, MicroLeaching, PolyTuff, ChamberSpacer, MultiPort, PosiLock, QuickCut, QuickPlay, SnapLock and StraightLock are trademarks of Infiltrator Systems Inc. PolyLok is a trademark of PolyLok, Inc. TUF-TITE is a registered trademark of TUF-TITE, INC. Ultra-Rib is a trademark of IPEX Inc.

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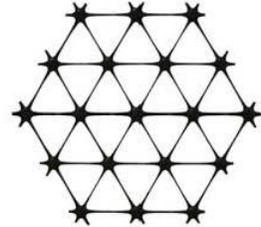
Q25 0813

TriAx® TX140 Geogrid

Product Specification

General

1. The geogrid is manufactured from a punched polypropylene sheet, which is then oriented in three substantially equilateral directions so that the resulting ribs shall have a high degree of molecular orientation, which continues at least in part through the mass of the integral node.
2. The properties contributing to the performance of a mechanically stabilized layer include the following:



<u>Index Properties</u>	Longitudinal	Diagonal	Transverse	General
Rib pitch (2), mm (in)	40 (1.60)	40 (1.60)		
Mid-rib depth (2), mm (in)		1.2 (0.05)	1.2 (0.05)	
Mid-rib width (2), mm (in)		1.1 (0.04)	1.1 (0.04)	
Rib shape				rectangular
Aperture shape				triangular
<u>Structural Integrity</u>				
Junction efficiency (3), %				93
Aperture stability (4), kg-cm/deg @ 5.0kg-cm (2)				3.00
Radial stiffness at low strain (5), kN/m @ 0.5% strain				225
(lb/ft @ 0.5% strain)				(15,430)
<u>Durability</u>				
Resistance to chemical degradation (6)				100%
Resistance to ultra-violet light and weathering (7)				100%

NOTES:

- 1) Unless indicated otherwise, values shown are minimum average roll values determined in accordance with ASTM D4759-02. Brief description of test procedures are given in the following notes.
- 2) Nominal dimensions.
- 3) Load transfer capability determined in accordance with GRI-GG2-87 and GRI-GG1-87 and expressed as a percentage of ultimate tensile strength.
- 4) In-plane torsional rigidity measured by applying a moment to the central junction of a 225 mm x 225 mm specimen restrained at its perimeter in accordance with the U.S. Army Corps of Engineers methodology for measurement of Torsional Rigidity, (Kinney, T. C. Aperture stability Modulus ref 3.3.1.2000).
- 5) Radial stiffness is determined from tensile stiffness measured in any in-plane axis from testing in accordance with ASTM D6637-01.
- 6) Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments in accordance with EPA 9090 immersion testing.
- 7) Resistance to loss of load capacity or structural integrity when subjected to 500 hours of ultraviolet light and aggressive weathering in accordance with ASTM D4355-05.

TX geogrid comes in a roll measuring 13.1 feet wide by 246 feet long.
Valley Precast, Inc. will cut to the length needed per customer request.



Phone: 719-395-6764
Fax: 719-395-3727
Website: www.valleyprecast.com
Email: frontdesk@valleyprecast.com

ENVIRONMENTAL HEALTH BOARD VARIANCE REQUEST ACTION

APPLICANT: Darren Ziegler

DATE: March 11, 2021

SITE LOCATION: 80 Alpine Street, Lot 19 Block 5 Chair Mountain Ranch 1 Sub.

ACTION: Request for a variance to the Gunnison County OWTS Regulations for an OWTS on a parcel less than one-acre

PREPARED BY: Crystal Lambert, Building and Environmental Health Official

PROPOSED PROJECT:

The applicant is requesting a variance to the Gunnison County OWTS Regulations for an OWTS on a parcel less than one acre to serve a future residence. The parcel is currently vacant.

GUNNISON COUNTY ENVIRONMENTAL HEALTH OFFICE ACTION:

The application and proposed design plans have been reviewed by the Environmental Health Office for compliance with the OWTS Regulations and the land use requirements of the County. The proposed septic design meets the design criteria of the Gunnison County OWTS Regulations and the minimum horizontal distance requirements from water features, pertinent physical features and property lines are met.

The OWTS application was denied by the Environmental Health Office because *Section 3.A.9. of the Gunnison County OWTS Regulations* states that an OWTS shall not be permitted to be installed on a parcel of land less than once acre in size.

APPLICANT'S REQUEST FOR A VARIANCE:

A request for a Public Hearing with the Environmental Health Board for the consideration of a variance to *Section 3.A.9 of the Gunnison County OWTS Regulations* has been received and was prepared by the applicant's representative and system design engineer, Bill Barvitski, PE of Trout Creek Engineering, LLC.

PUBLIC HEARING:

On March 11, 2021, the Gunnison County Environmental Health Board conducted a Public Hearing on this request for a variance.

FINDINGS:

Based on a review of all the information included with the OWTS application, the request for a variance, and staff reports for this project and consideration of any and all testimony and public input received relative to this application, the Gunnison County Environmental Health Board finds that:

1. Action on this request for a variance from the *Gunnison County OWTS Regulations* is property-specific and limited to the circumstances unique to this application.
2. The applicant has demonstrated that the requested variance from the *Gunnison County OWTS Regulations* is warranted by unique and existing site-specific configuration and site size that make compliance with the Regulations technically infeasible.
3. The applicant has provided justification through specific conditions that exist which support a finding that approval of the requested variance will result in no greater risk than that associated with compliance with the requirements of the *Gunnison County OWTS Regulations*.
4. The applicant has demonstrated that approval of the requested variance will not be in violation of any minimum standards established in any other applicable federal or state rule or regulation.
5. The applicant has demonstrated that the proposed OWTS will not be a nuisance or injurious to public health, safety or welfare. The proposed development meets minimum horizontal distance requirements from water features, pertinent physical features and property lines.
6. The applicant has demonstrated that no substantial injury will result from the granting of the requested variance.
7. This review and decision incorporates, but is not limited to, all the documentation submitted to the County and included within the Department file relative to this application; including all exhibits, references and documents.

DECISION:

The Gunnison County Environmental Health Board, having reviewed the proposed application and supporting documentation, site observations and public testimony does approve the requested variance to Section 3.A.9 of the *Gunnison County OWTS Regulations* for Darren Ziegler at his parcel, 80 Alpine Street, Lot 19, Block 5 Chair Mountain Ranch 1 Subdivision, under OWTS application 21-00004, with the following conditions:

1. The OWTS shall be designed and installed in accordance with the *Gunnison County OWTS Regulations* and the *Gunnison County Land Use Resolution*, including but not limited to setback requirements, design standards, requirements for system components and general technical standards.
2. This approval is founded on each individual requirement. Should the applicant successfully challenge any such finding or requirement, this approval is null and void.
3. This permit may be revoked or suspended if Gunnison County determines that any material fact set forth herein or represented by the applicant was false or misleading, or that the applicant failed to disclose facts necessary to make any such fact not misleading.
4. Approval of this use is based upon the facts presented and implies no approval of similar use in the same or different location and/or with different impacts on the environment and community. Any such future application shall be reviewed and evaluated, subject to its compliance with current regulations, and its impact to the County.