

5280 SEPTIC, LLC

OWTS ENGINEERING

March 20, 2020

Project No. OWTS-1182

Tac Cobb, TCS Septic
C/O White Feather Trust
15 Penrose Blvd.
Colorado Springs, CO 80906
719.492.6818
taccobb@gmail.com

Onsite Wastewater Treatment System Design
Asphalt Concrete Recycling, LLC
2-Employee Office Trailer
2104 Janitell Road
El Paso County Public Health (EPCPH)

Mr. Cobb,

5280 Septic, LLC is providing an Onsite Wastewater Treatment System (OWTS) design for the subject property. The property is in Colorado Springs, in an area where OWTSs are necessary.

It is the property owner's responsibility to provide the most current set of OWTS design documents to the installer. **Date shown on the OWTS design documents provided to the installer must match the date shown on the permit provided by EPCPH.**

Improvement locations are approximate. It is the property owner's responsibility to define property boundaries and insure all onsite improvements are located within the platted site and out of required easements. All separation distances must meet applicable county health regulations and must be field verified prior to excavation.

LEGAL DESCRIPTION

Tract 6 Ex. N. 10', Ex Sely 15' to County for Road Valley Gardens and Track 10 Ex Sely 15' to County for Road Valley Gardens, County of El Paso, State of Colorado

SITE CONDITIONS

The 5.141-acre property is currently being developed for Asphalt Concrete Recycling, LLC. There is a trailer onsite that will require an OWTS for employee usage, as requested by El Paso County Public Health. There are two employees, working from 8:00am to 5:00pm, Monday through Friday only.

The property is serviced potable water by private delivery in an above ground water storage tank (**Reference Detail 1/W1.0**). There are no on or off-site wells within 250-feet of the STA.

The proposed STA location has approximately 1% slopes from west to east in the proposed STA

No wetlands were observed on site or within 50-feet of the proposed STA location.

5333 JULIAN STREET ■ DENVER, CO 80221
PHONE 303.437.1027
FAX 303.302.1293
5280SEPTIC@GMAIL.COM

A portion of the site is within the 100-year floodplain, per FEMA Map No. 08041C741 G, dated December 7, 2018. Additionally, a portion of the property along Spring Creek is in the floodway. All portions of the proposed OWTS must be installed outside of the floodplain and floodway.

There are no special structural design considerations necessary for the OWTS design or installation.

All OWTS components must meet minimum horizontal setback distances as set forth per EPCPH Regulation, Table 7-1 and 7-2.

Based on conditions present at the time of design and information provided by the property owner, there are no known or reasonably foreseeable land use changes that are expected to affect system performance.

SUBSURFACE CONDITIONS

The subsurface investigation was completed on February 24, 2020, by Geoquest, LLC. Subsurface Investigation Package is attached to this design report; however, 5280 Septic, LLC does not agree with the suggested LTAR of 0.35 GPD/SF. Based upon the soil evaluation, STA sizing is based upon the most limiting layer, Soil Type 4A, Sandy Clay.

Based upon the visual and tactile analysis performed, we recommend the STA be installed as a mounded chamber bed. Minimum infiltrative surface depth is 2-foot above natural grade. The STA shall be covered with a minimum of 1-foot and a maximum of 1.5-foot of cover. A 3H:1V minimum slope is required for the mound. Per the Colorado Department of Public Health and Environment, a 3-foot minimum vertical separation from groundwater to the bottom of the infiltrative surface (bottom of chambers) is required. Redoximorphic features were encountered at 12-inches and 15-inches below grade. Based upon Soil Profile Test Pit No.1, a groundwater elevation of 12-inches below natural grade is used for this design.

STA sizing is based on Soil Type 4A and Treatment Level 1 (mounded STA) with a minimum 3-feet of "secondary sand media" dispersed on an unlined (open bottom) sand filter.¹ **Per El Paso County Public Health Regulation, Table 10-1; a long-term acceptance rate (LTAR) of 0.15 GPD/SF. ft. will be used to design the OWTS.**

DESIGN CALCULATIONS

Calculations are based upon: Factories and plants exclusive of industrial wastewater per employee per eight-hour shift - no showers: 20 GPD / Employee
Short-Term or Transient Visitors: 5 GPD/Visitor (Transient Visitors are estimated at 15 per day)

Design Flow Rate = (20 GPD/Employee x 2 Employees) + (5 GPD/Per Transient Visitor x 15 Visitors/Day) = 40 GPD + 75 GPD = 115 GPD

LTAR (Soil Loading Rate) (Soil Type 4A / Treatment Level 1) = 0.15 GPD/SF

Linear Loading Rate = 3 GPD/LF

Sand Fill Loading Rate = 0.8 GPD/SF

Distribution Cell Width = Linear Loading Rate / Sand Fill Loading Rate = 3 GPD/Sf / 0.8 GPD/SF = 3.75 Feet

Distribution Cell Length = Design Flow Rate / Linear Loading Rate = 115 GPD / 3 GPD/LF = 38 Feet

¹ "Secondary" sand media requirements:

(i) Effective size: 0.15-0.60 mm

(ii) Uniformity coefficient: ≤ 7.0

(iii) Percent fines passing #200 sieve: ≤ 3.0

6' x 40' (2 rows of 8) mounded Infiltrator® Arc™ 36 chamber bed = 16 chambers (15 SF/chamber) = 240 SF

Due to little or no slope on the property, slope calculations for the mound are not included in this design and a minimum 3:1 slope will be maintained for the mound.

Minimum Tank Capacity Required: 1000-gallons + 250 gallons minimum for dosing chamber = 1250-gallons

SITE DATUM

For the purposes of this OWTS design, Benchmark Elevation has been established as 100'-0", located on grade at the sewer outlet location on the office trailer (**Reference Detail 1/W1.0**). All elevations must be field verified. **5280 Septic, LLC must be notified of any discrepancies or problems with grade elevations of proposed components prior to installation of the OWTS.**

COMPONENT	MINIMUM ELEVATION BELOW GRADE*
Pump Tank Invert	96'-9"
Transport Line Outlet from Tank Outlet	96'-6"
STA Manifold	103'-0"
Upper Infiltrative Surface Depth (bottom of chamber)	102'-0"
Lower Infiltrative Surface Depth (bottom of sand)	99'-0"

*Elevations are based upon standard OWTS installation practices. Component elevations may change during installation due to site conditions.

INSTALLATION REQUIREMENTS

A 4-inch diameter (Schedule 40 PVC) sewer line with a double-sweep cleanout shall be installed from the office trailer to the septic tank (**Reference Detail 2/W3.0**). A minimum 2-percent fall must be maintained to the septic tank.

A 1250-gallon, three-compartment, Front Range Precast® concrete septic tank with a high-head pump, Flow Inducer and Float Switch Assembly in the third-compartment shall be installed. Due to high groundwater, the tank must have an anti-buoyancy collar or other anti-buoyancy device. The tank shall be installed a minimum of 2-feet below grade and may not be buried more than 4-feet below grade. Install riser and lid to grade for access and service. **Prior to new tank installation, elevations and distances must be provided to our office to verify pump sizing.**

Effluent will be pressure dosed to a 6-foot by 40-foot pressure dosed, mounded, chamber bed on an unlined (open bottom) sand filter with a minimum 3-feet of "secondary" sand media (**Reference Detail 1/W2.0 and 1/W3.0**). The mound shall have two (2) rows of eight (8) chambers placed on the sand filter bed. Scarify surface of the basal area a minimum of 6-inches. Bed must be level.

A 2-inch diameter (Schedule 40 PVC) pump line will exit the tank and connect to a 1.5-inch diameter (Schedule 40 PVC) level manifold. A vacuum break valve must be installed at the high point, before the manifold, to allow proper drain back following discharge. A 1.5-inch diameter (Schedule 40 PVC) lateral will run the entire length of each chamber row. Laterals must be zip-tied to the underside of the chambers and shall have 3/16-inch diameter orifices facing up at 4-feet O.C. Middle and end orifices must face down with an orifice shield, for lateral drainage. The distal end (after chamber end cap) of each lateral shall end in a long sweeping 90-degree elbow facing up with a ball valve in a 10-inch diameter valve box accessible at grade for flushing (**Reference Detail 1/W4.0**).

One 4-inch diameter (SDR-35 PVC) inspection port will be installed at each corner of the STA. Inspection ports must be capped and installed above grade or below grade in a 10-inch diameter valve box accessible at grade (**Reference Detail 3/W3.0**). Inspection ports shall extend to the bottom of the chamber at two opposite corners and to the bottom of sand media at two opposite corners in each bed.

Construction must be in accordance with El Paso County Public Health Regulation, effective July 7, 2018, Colorado OWTS Regulations, adopted June 30, 2017, the OWTS Construction Permit provided by El Paso County Public Health, and this design.

COMPONENT SPECIFICATIONS

The component manufacturers are typical of applications used by contractors and engineers in this area. **5280 Septic, LLC must approve alternative components prior to installation of the OWTS. Requests must be submitted in writing to our office for approval prior to installation.** Component technical data sheets are available upon request.

COMPONENT	MANUFACTURER	MODEL NO.	COMMENTS
Septic Tank	Front Range Precast®	PCA-000-267	3-Comp. w/ Anti-Buoyancy Collar
Pump	Orenco®	5005DD-SX/CW/DB	Flow inducer w/ float switch assembly
Alarm Panel	Orenco®	S1B-ETM/CT	S-Series Simplex Panel
Tank Riser	Orenco®	R24/24/SX+B+15	Ultra-Rib™
Tank Lid	Orenco®	FL24/I2/G-4BU-B	
Vacuum Break Valve	Geoflow	APVBK100m	May install in riser or valve box
Chambers	Infiltrator®	Arc™ 36	
Orifice Shield	Orenco®	OS-150	
Flushing Assembly	Orenco®	1.5" diameter	(2) 45° or 90° long sweep only

Demand Dosing Requirements: Minimum 20.5 gallons (**Reference Exhibit A**).

Float spacing: $7.8 \text{ gal/inch} \times 9" = 70 \text{ gallons per dose}$

Minimum Design Flow Rate: 21.5 GPM

Minimum Total Dynamic Head: 13.6 feet and 5 feet residual head at last orifice

REVEGETATION REQUIREMENTS

An adequate layer of good quality topsoil capable of supporting re-vegetation shall be placed over the entire disturbed area of the OWTS installation. A mixture of native grass seed that has good soil stabilizing characteristics (but without taproots), provides a maximum transpiration rate, and competes well with successional species shall be provided. No trees or shrubs, or any vegetation requiring regular irrigation shall be placed over the STA. Until vegetation is reestablished, erosion and sediment control measures shall be implemented and maintained on site per county grading standards. The owner of the OWTS shall be responsible for maintaining proper vegetation cover.

OPERATION INFORMATION AND MAINTENANCE

The property owner shall be responsible for the operation and maintenance of the OWTS servicing the property. The property owner is responsible for maintaining service contracts for manufactured units and any other components needing maintenance per El Paso County Public Health.

Landscaping fabrics or plastics should not be used on grade over the STA. No heavy equipment, machinery, or materials should be placed on the backfilled STA. **Livestock should not graze on the STA.** Plumbing fixtures should be checked regularly to ensure that no additional water is being discharged to OWTS. For example, a running toilet or leaky faucet can discharge thousands of gallons of water a day and harm a STA.

The property owner should pump the septic tank every two years, or as needed gauged by measurement of solids in the tank. **Effluent screens should be cleaned at the time of pumping.** Laterals should be flushed annually. Garbage disposal use should be minimized, and non-biodegradable materials should not be placed into the OWTS. Grease should not be placed in drains. Loading from a water softener should not be discharged into the OWTS. **If a water softener or humidifier is used, 5280 Septic, LLC shall be contacted to provide a dry well design.** No hazardous wastes should be directed into the OWTS. Mechanical room drains with continual equipment discharges should not discharge into the OWTS. The OWTS is engineered for domestic waste only. **Due to high acidity rates in condensate, loading from high efficiency HVAC units should not discharge into the OWTS. We recommend discharging condensate lines into a drywell outside of the residence.** No hazardous wastes should be directed into the OWTS.

ELECTRICAL

The electrical components of the alarm system should include a UL listed control panel, designed to meet the requirements of NEC Class I, Division 2, and be rated for wet exterior locations. A licensed electrician should install a new 120 VAC, 20-amp dedicated circuit (or as appropriate for specific pump and alarm) to the outside of the residence near the proposed septic tank location. All associated electrical connections shall be installed per manufactures specifications and conform to the 2017 NEC. The control panel must include an audible alarm system with visual indicator light for high liquid level at minimum and include an audible silence with an automatic reset feature. The panel must have an electronic dose counter to record time of pump run and number of cycles. The panel must be mounted on the trailer in view of the septic tank, a minimum of 48-inches above grade.

ADDITIONAL CONSTRUCTION NOTES

This design includes a pump; therefore, air release valves and weep holes should be installed to allow pump lines to drain to minimize risk of freezing. If pump lines are installed within 36-inches below grade, lines shall be properly bedded and covered with two layers of 2-inch by 24-inch blue board insulation prior to backfill.

INSTALLATION OBSERVATIONS

5280 Septic, LLC must observe the OWTS during construction. The OWTS observation should be performed before backfill, after placement of OWTS components. Septic tanks, distribution devices, pumps, distribution media, and other plumbing, as applicable, must be observed. 5280 Septic, LLC should be notified 48 hours in advance to observe the installation.

LIMITS

The design is based on information submitted. If site conditions encountered are different from conditions described in this report, 5280 Septic, LLC should be notified. All OWTS construction must be in accordance with the applicable county public health regulations. Requirements not specified in this report must follow applicable county public health regulations. The installer should have documented and demonstrated knowledge of the requirements and regulations of the county in which they are working.

Please call with questions.

Sincerely,

5280 Septic, LLC



Annette N. Martin, BA

Reviewed By:



Drew Schneider, P.E

ATTACHMENTS

Subsurface Investigation

Exhibit A: Pump Curve

Liability Clause: *Under no circumstances whatsoever shall the liability of 5280 Septic, LLC, in connection with any contract, directly or indirectly, exceed the total amount paid by the client to 5280 Septic, LLC for the services and/or goods which are the subject of the contract in connection with which the liability arises.*

5333 JULIAN STREET ■ DENVER, CO 80221
PHONE 303.437.1027
FAX 303.302.1293
5280SEPTIC@GMAIL.COM



6825 Silver Ponds Heights #101
Colorado Springs, CO 80908
(719) 481-4560

PROFILE PIT EVALUATION

FOR

TCS SEPTIC

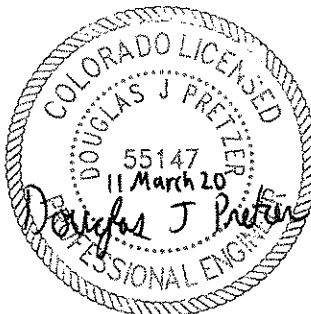
JOB #20-0158

Tract #6,
Valley Gardens Subdivision,
2104 Janitell Road,
El Paso County,
Colorado

Sincerely,

Douglas J Pretzer

Douglas J. Pretzer, P.E.
Civil Engineer



PROFILE PIT FINDINGS

Enclosed are the results of the profile pit for the septic system to be installed at **Tract #6, Valley Gardens Subdivision, 2104 Janitell Road, El Paso County, Colorado**. The location of the test pit was determined by TCS Septic. The commercial structure will be on a public water system. Due to the natural slope of the property, the entire system will feed to the west at approximately 1% at least 20 feet. All applicable portions of the El Paso County Health Department Onsite Wastewater Treatment System Regulations (OWTS) must be complied with for the installation of the treatment system.

The inspection was performed on February 24, 2020, in accordance with Table 10-1 of the **E.P.C.P.H. OWTS Regulations**.

Soil Profile #1:

- 0 to 2"** - Asphalt.
- 2" to 8'** - USDA soil texture sandy loam, soil type 2A, structure shape massive, structure grade 0, non-cemented, LTAR 0.50, dark grayish brown in color, 10 YR 4/2, redoximorphic features at 12 inches.

Soil Profile #2:

- 0 to 2"** - Asphalt.
- 2" to 42"** - USDA soil texture sandy clay loam, soil type 3A, structure shape massive, structure grade 0, non-cemented, LTAR 0.30, very dark grayish brown in color, 10 YR 3/2, redoximorphic features at 15 inches.
- 42" to 8'** - USDA soil texture sandy clay, soil type 4A, structure shape massive, structure grade 0, non-cemented, LTAR 0.15, very dark gray in color, 10 YR 3/1, redoximorphic features throughout.

Groundwater evidence was encountered at the depth of 12 inches in Profile Pit #1 and 15 inches in Profile Pit #2 during the inspection. Bedrock was not encountered during the inspection. No known wells were observed within 100 feet of the proposed system. **All setbacks shall conform to county regulations.**

Due to encountering groundwater evidence, USDA soil type 3A, and the commercial nature of the structure, the septic system to be installed on this site shall be designed by a Colorado Licensed Engineer. Based on the observed conditions, we feel a design based on an LTAR of 0.30 GPD/SF (USDA 3A, treatment soil, treatment level 1) is reasonable. An above grade uniformly pressure dosed soil treatment area is required.

If during construction of the field itself, subsurface conditions change considerably or if the location of the proposed field changes, this office shall be notified to determine whether the conditions are adequate for the system as designed or whether a new system needs to be designed.

Weather conditions at the time of the test consisted of overcast skies with mild temperatures.

PROFILE PIT LOG - Profile Pit #1

JOB#: 20-0158

DATE EVALUATED: 24 Feb 2020

EQUIPMENT USED: BACKHOE

0"-2" **Asphalt**

2"- 8' **Sand**

Fine-very coarse Grained
Low-moderate Density
Low-moderate Moisture Content
Low Clay Content
Low Cohesion
Low Plasticity
Dark Grayish Brown Color
10YR 4/2

USDA Soil Texture: Sandy Loam
USDA Soil Type: 2A
USDA Structure Shape: Massive
USDA Structure Grade: 0
Cementation Class: Non-cemented
Long Term Acceptance Rate (LTAR, Treatment Level 1):0.50
Redox @ 12"

DEPTH (in ft.)	SYMBOL	SAMPLES	WATER %	SOIL TYPE
2				2A
4				
6				
8				
10				
12				
14				

LTAR to be Used for OWTS Sizing: 0.30GPD/SF (USDA Type 3A, Treatment soil, Treatment Level 1)

Depth to Groundwater (Permanent or Seasonal): Seasonal Encountered @ 12"

Depth to Bedrock and Type: Not Encountered

Depth to Proposed Infiltrative Surface from Ground Surface: Above Grade (Uniformly Pressure Dosed)

Soil Treatment Area Slope and Direction: Flat - 1% West

Note: See El Paso County Board of Health Regulation Chapter 8: On-Site Wastewater Treatments Systems (OWTS) Regulations for Additional Information. Refer to Table 10-1 for Corresponding LTAR if Treatment Level 2, 2N, 3, or 3N will be Implemented in the Design of the OWTS. System Sizing Depends on a Number of Factors (i.e. LTAR, # of Bedrooms, Type of Soil Treatment Area (STA), Method of Transfer to the STA (Gravity, Dosed, or Pressure Dosed), and Type of Storage / Distribution Media Used in the STA)

Project: 20-0158

Sheet: 1 of 2

Date: 02 Mar 2020

Scale: 1/4" = 1'

Drawn by: jhr

Checked by: djp

Project Name and Address

TCS Septic

2104 Janitell Road
Valley Gardens
Sch. No. 6428201008
El Paso County, Colorado

GEOQUEST, LLC.

6825 SILVER PONDS HEIGHTS
SUITE 101
COLORADO SPRINGS, CO
80908

OFFICE: (719) 481-4560

FAX: (719) 481-9204

PROFILE PIT LOG - Profile Pit #2

JOB#: 20-0158
DATE EVALUATED: 20 Feb 2020
EQUIPMENT USED: BACKHOE

0"-2" **Asphalt**

2"-42" **Sand**

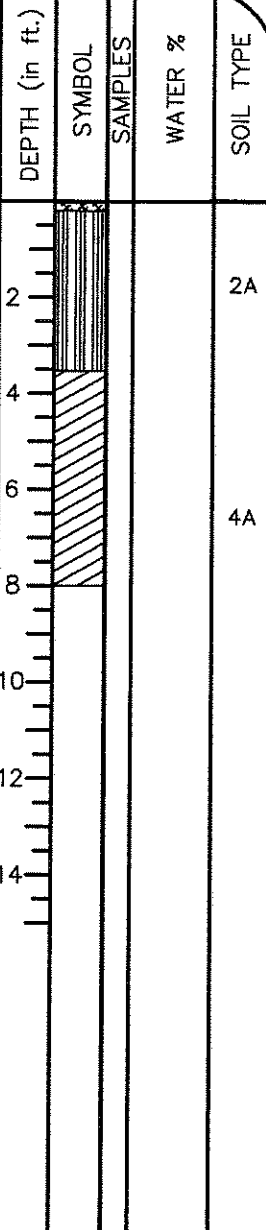
Fine-very coarse Grained
High-very high Density
Low-moderate Moisture Content
Moderate Clay Content
Moderate Cohesion
Moderate Plasticity
Very Dark Grayish Brown Color
10YR 3/2

USDA Soil Texture: Sandy Clay Loam
USDA Soil Type: 3A
USDA Structure Shape: Massive
USDA Structure Grade: 0
Cementation Class: Non-cemented
Long Term Acceptance Rate (LTAR, Treatment Level 1):0.30
Redox @ 15"

42"-8' **Clay**

Fine-coarse Grained
Low Density
Moderate Moisture Content
High Clay Content
High Cohesion
High Plasticity
Very Dark Gray Color
10YR 3/1

USDA Soil Texture: Sandy Clay
USDA Soil Type: 4A
USDA Structure Shape: Massive
USDA Structure Grade: 0
Cementation Class: Non-cemented
Long Term Acceptance Rate (LTAR, Treatment Level 1):0.15
Redox Throughout



LTAR to be Used for OWTS Sizing: 0.30GPD/SF (USDA Type 3A, Treatment soil, Treatment Level 1)

Depth to Groundwater (Permanent or Seasonal): Seasonal Encountered @ 15"

Depth to Bedrock and Type: Not Encountered

Depth to Proposed Infiltrative Surface from Ground Surface: Above Grade (Uniformly Pressure Dosed)

Soil Treatment Area Slope and Direction: Flat - 1% West

Note: See El Paso County Board of Health Regulation Chapter 8: On-Site Wastewater Treatments Systems (OWTS) Regulations for Additional Information. Refer to Table 10-1 for Corresponding LTAR if Treatment Level 2, 2N, 3, or 3N will be Implemented in the Design of the OWTS. System Sizing Depends on a Number of Factors (i.e. LTAR, # of Bedrooms, Type of Soil Treatment Area (STA), Method of Transfer to the STA (Gravity, Dosed, or Pressure Dosed), and Type of Storage / Distribution Media Used in the STA)

Project: 20-0158

Sheet: 2 of 2

Date: 2 Mar 2020

Scale: 1/4" = 1'

Drawn by: jhr

Checked by: djp

Project Name and Address TCS Septic

2104 Janitell Road
Valley Gardens
Sch. No. 6428201008
El Paso County, Colorado

GEOQUEST, LLC.

6825 SILVER PONDS HEIGHTS
SUITE 101
COLORADO SPRINGS, CO
80908

OFFICE: (719) 481-4560
FAX: (719) 481-9204

GEOQUEST LLC

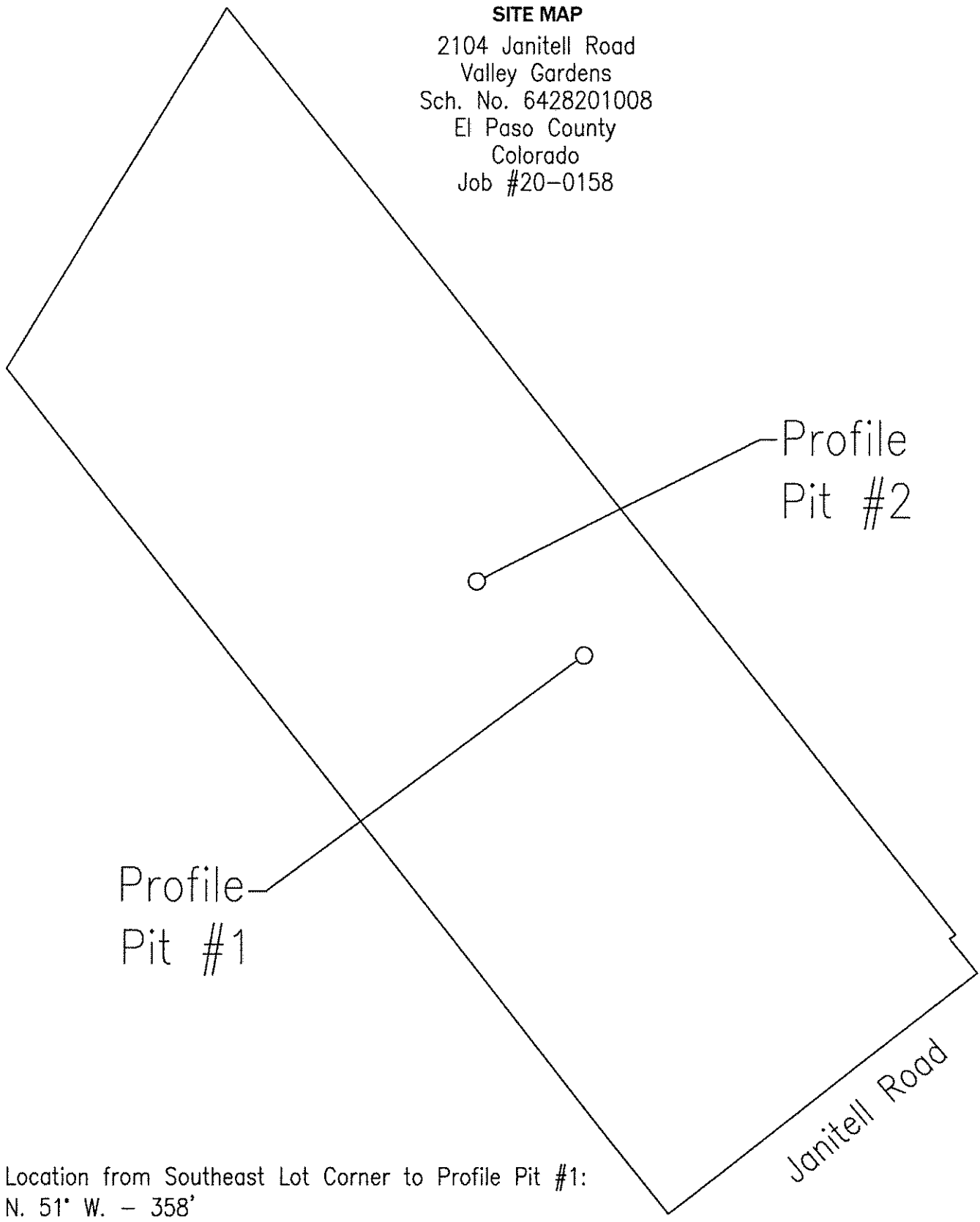
SITE MAP

2104 Janitell Road
Valley Gardens
Sch. No. 6428201008
El Paso County
Colorado
Job #20-0158

Profile
Pit #2

Profile
Pit #1

Janitell Road



Location from Southeast Lot Corner to Profile Pit #1:

N. 51° W. – 358'

Location from Profile Pit #1 to Profile Pit #2:

N. 56° W. – 93'

GPS Coordinates:

Pit 1; N. 38° 48' 18.07" W. 104° 47' 38.81"

Pit 2; N. 38° 48' 18.59" W. 104° 47' 39.79"



0 75 150 225 300
GRAPHIC SCALE IN FEET
SCALE: 1" = 300'

Pump Selection for a Pressurized System - Commerical Project

OWTS-1182 Asphalt Concrete Recycling, LLC / 2104 Janitell Road, El Paso County, CO

EXHIBIT A

Parameters

Discharge Assembly Size	2.00	inches
Transport Length	65	feet
Transport Pipe Class	40	
Transport Line Size	2.00	inches
Distributing Valve Model	None	
Max Elevation Lift	7	feet
Manifold Length	3	feet
Manifold Pipe Class	40	
Manifold Pipe Size	1.50	inches
Number of Laterals per Cell	2	
Lateral Length	42	feet
Lateral Pipe Class	40	
Lateral Pipe Size	1.50	inches
Orifice Size	3/16	inches
Orifice Spacing	4	feet
Residual Head	5	feet
Flow Meter	None	inches
'Add-on' Friction Losses	0	feet

Calculations

Minimum Flow Rate per Orifice	0.97	gpm
Number of Orifices per Zone	22	
Total Flow Rate per Zone	21.5	gpm
Number of Laterals per Zone	2	
% Flow Differential 1st/Last Orifice	1.0	%
Transport Velocity	2.1	fps

Frictional Head Losses

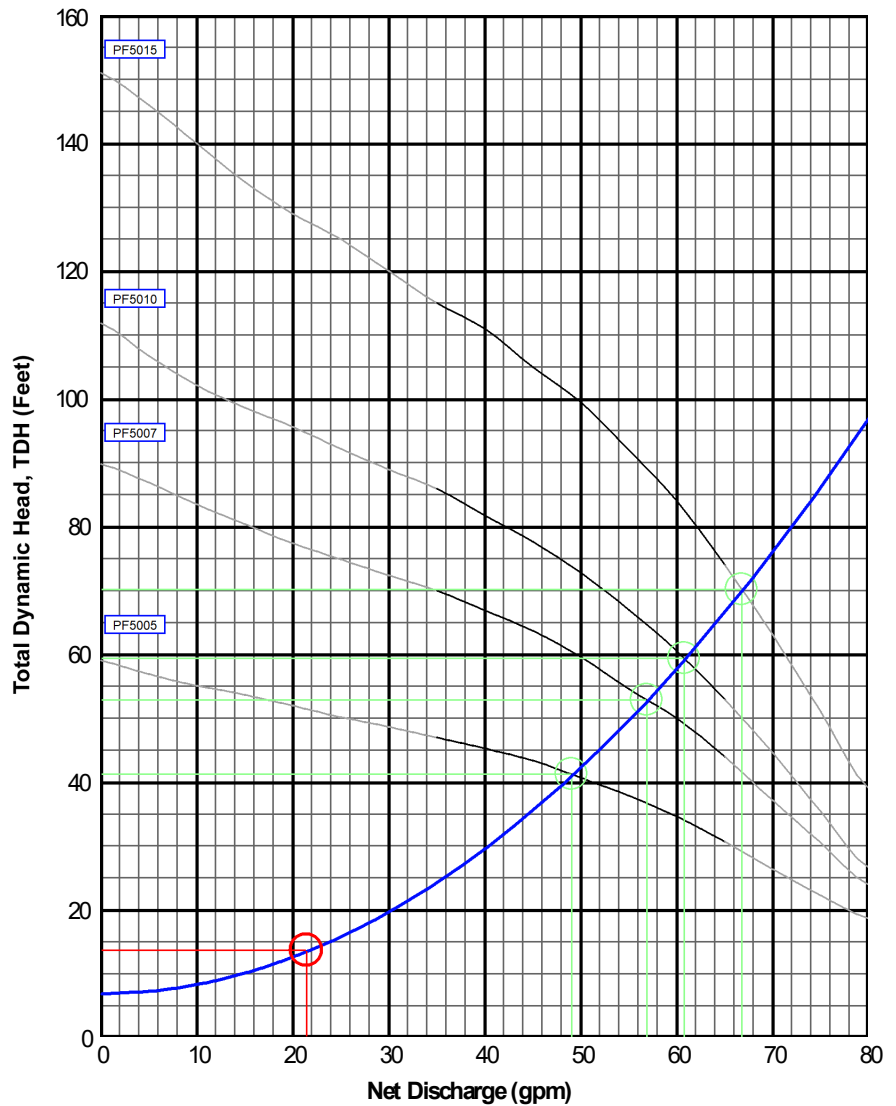
Loss through Discharge	0.9	feet
Loss in Transport	0.5	feet
Loss through Valve	0.0	feet
Loss in Manifold	0.0	feet
Loss in Laterals	0.1	feet
Loss through Flowmeter	0.0	feet
'Add-on' Friction Losses	0.0	feet

Pipe Volumes

Vol of Transport Line	11.3	gals
Vol of Manifold	0.3	gals
Vol of Laterals per Zone	8.9	gals
Total Volume	20.5	gals

Minimum Pump Requirements

Design Flow Rate	21.5	gpm
Total Dynamic Head	136	feet



PumpData

PF5005 High Head Effluent Pump
50 GPM, 1/2 HP
115/230V 1Ø 60Hz, 200/230V 3Ø 60Hz

PF5007 High Head Effluent Pump
50 GPM, 3/4 HP
230V 1Ø 60Hz, 200/230/460V 3Ø 60Hz

PF5010 High Head Effluent Pump
50 GPM, 1 HP
230V 1Ø 60Hz, 200/460V 3Ø 60Hz

PF5015 High Head Effluent Pump
50 GPM, 1-1/2 HP
230V 1Ø 60Hz, 200V 3Ø 60Hz

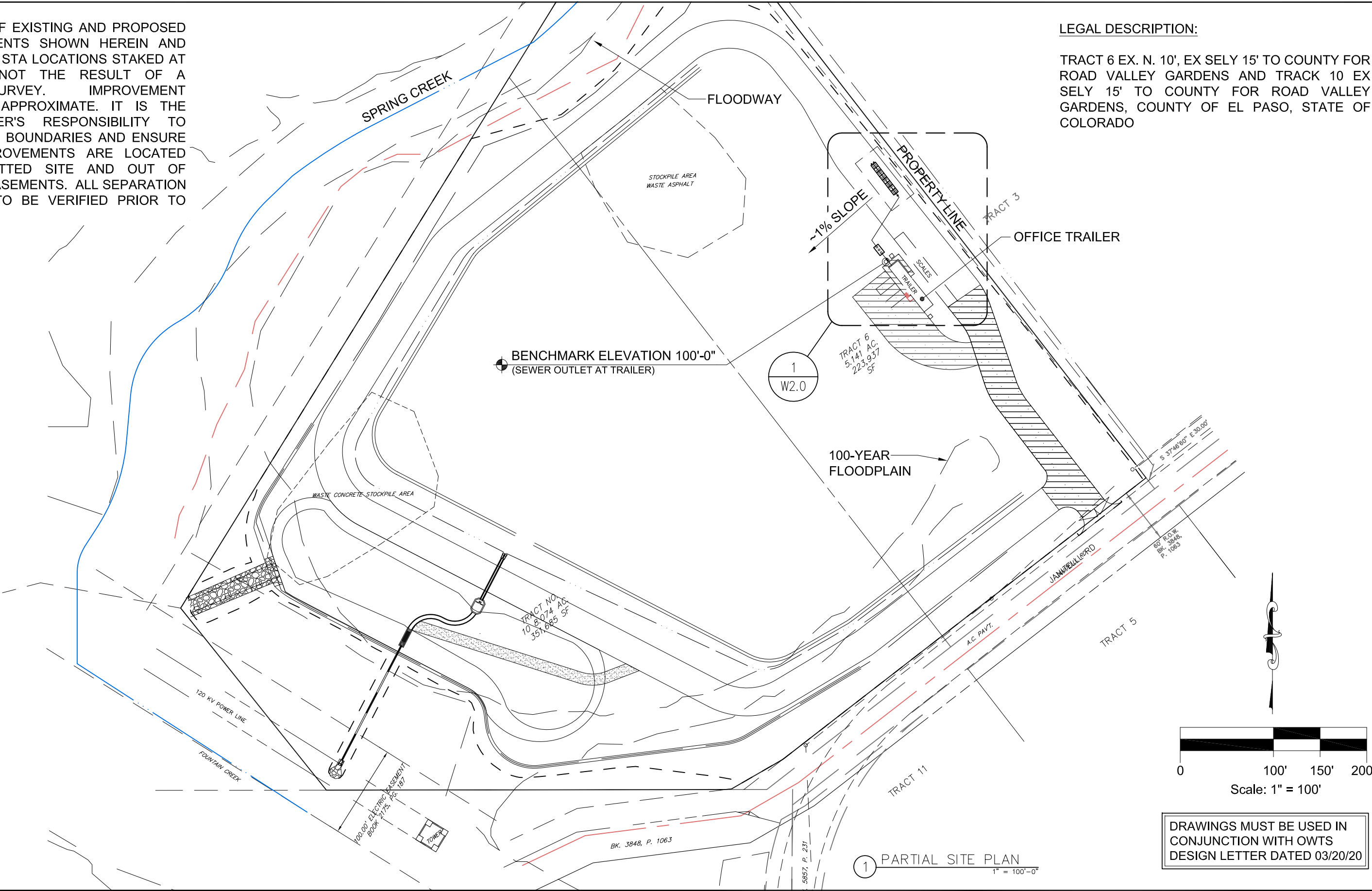
Legend

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

THE LOCATIONS OF EXISTING AND PROPOSED OWTS IMPROVEMENTS SHOWN HEREIN AND THE WELL AND/OR STA LOCATIONS STAKED AT THE SITE ARE NOT THE RESULT OF A PROPERTY SURVEY. IMPROVEMENT LOCATIONS ARE APPROXIMATE. IT IS THE PROPERTY OWNER'S RESPONSIBILITY TO DEFINE PROPERTY BOUNDARIES AND ENSURE ALL ONSITE IMPROVEMENTS ARE LOCATED WITHIN THE PLATTED SITE AND OUT OF INAPPROPRIATE EASEMENTS. ALL SEPARATION DISTANCES ARE TO BE VERIFIED PRIOR TO EXCAVATION.

LEGAL DESCRIPTION:

TRACT 6 EX. N. 10', EX SELY 15' TO COUNTY FOR ROAD VALLEY GARDENS AND TRACK 10 EX SELY 15' TO COUNTY FOR ROAD VALLEY GARDENS, COUNTY OF EL PASO, STATE OF COLORADO



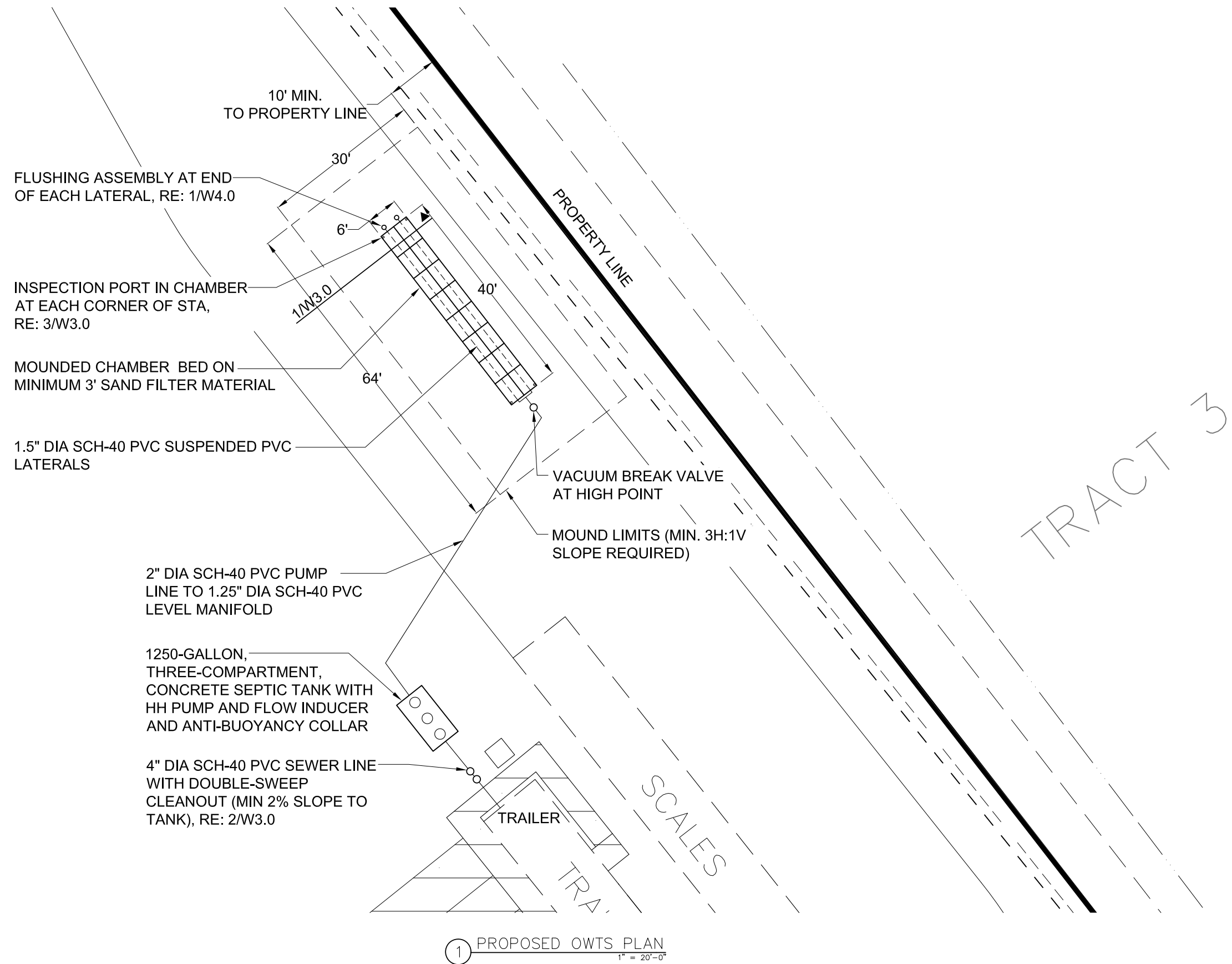
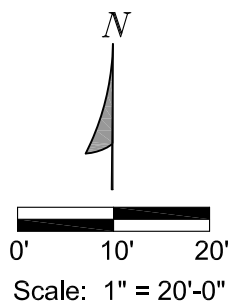
5280
Septic, LLC

5333 Julian Street
Denver, Colorado 80221
Phone 303.437.1027
Fax 303.302.1293
5280septic@gmail.com

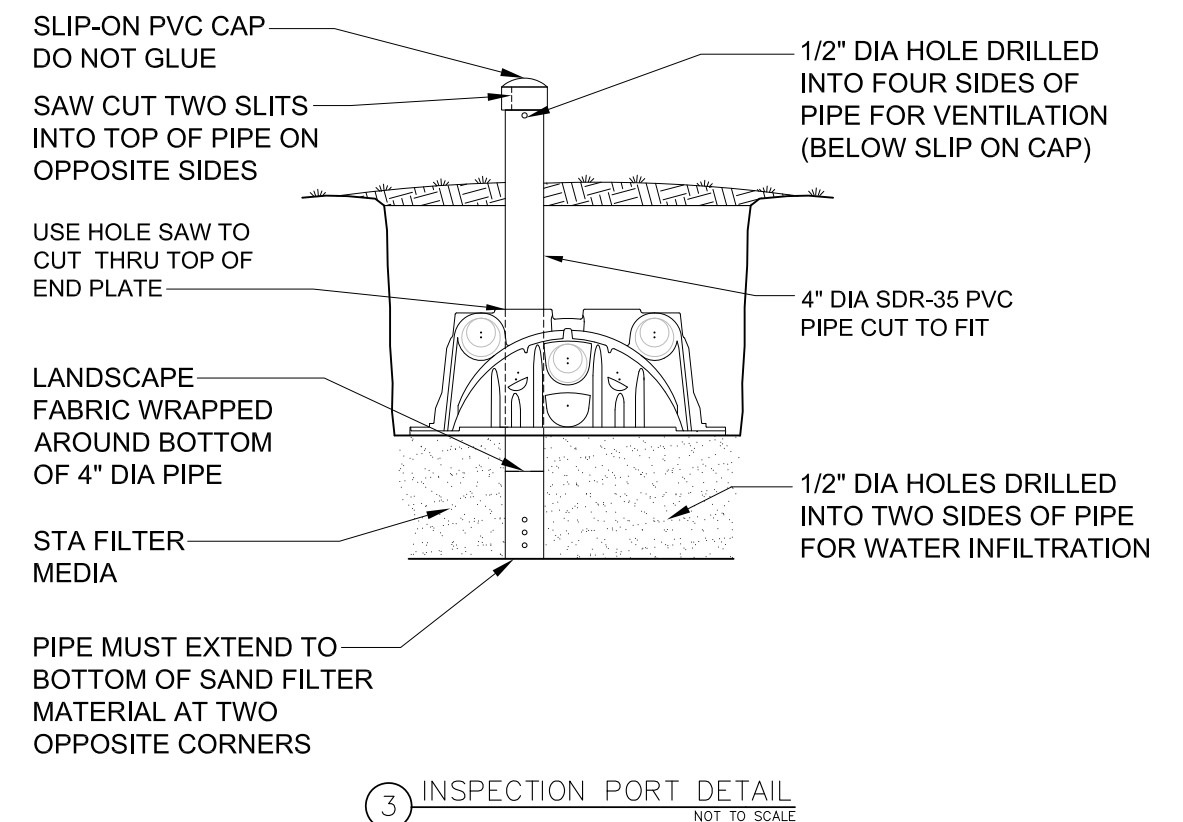
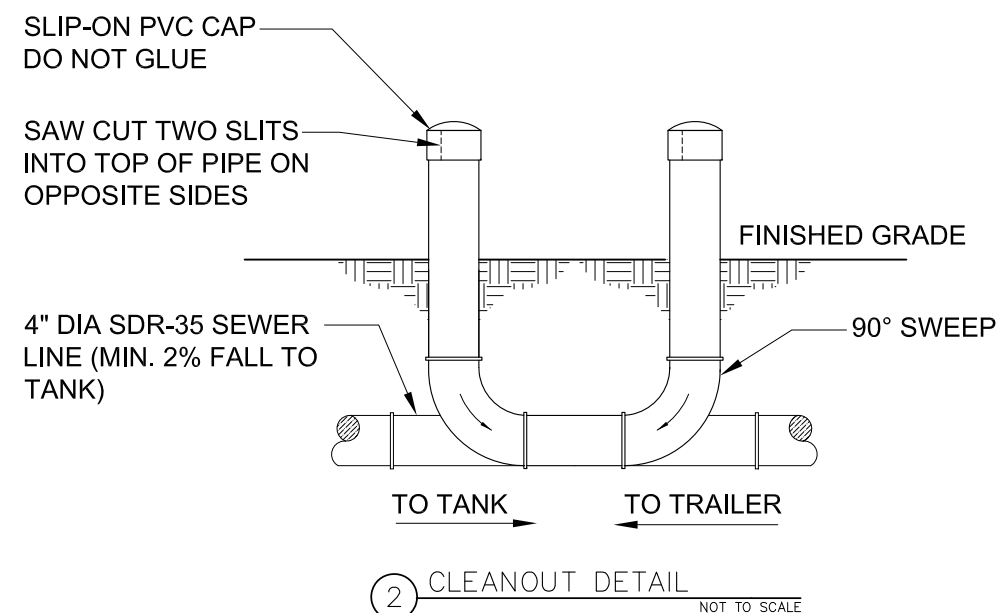
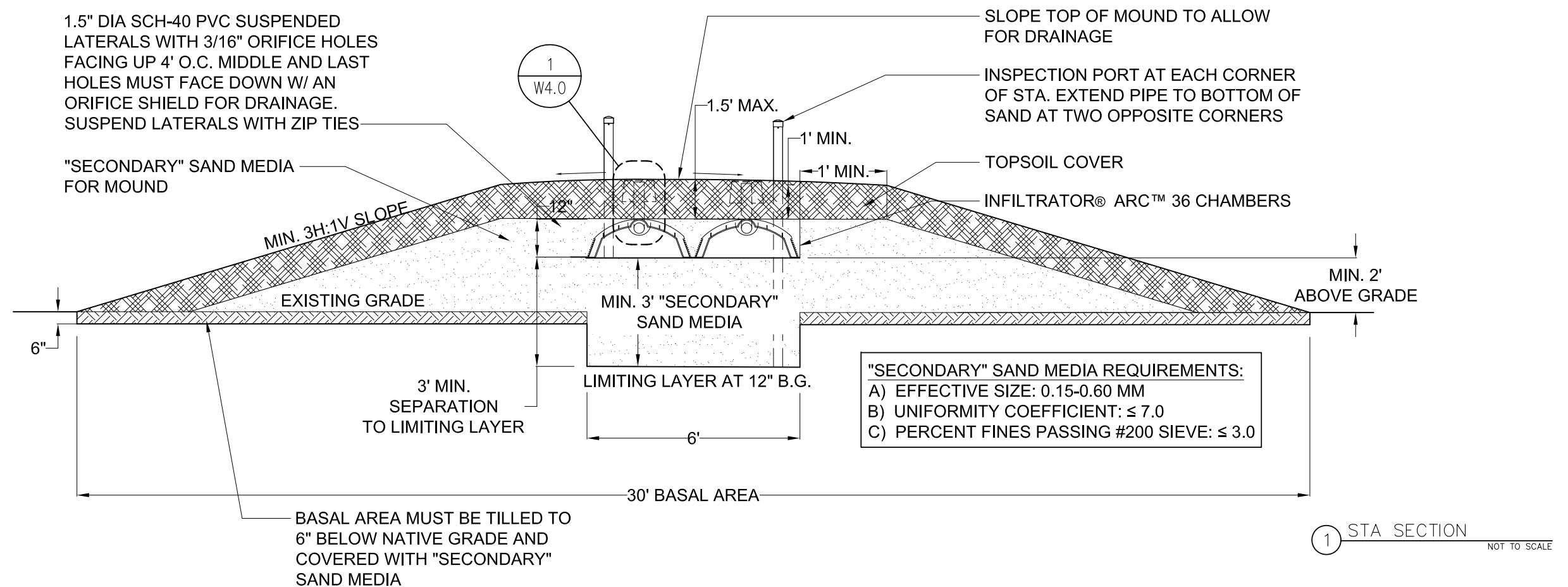
ASPHALT CONCRETE RECYCLING, LLC
2104 Janitell Road
El Paso County, Colorado
Project Number: OWTS-1182

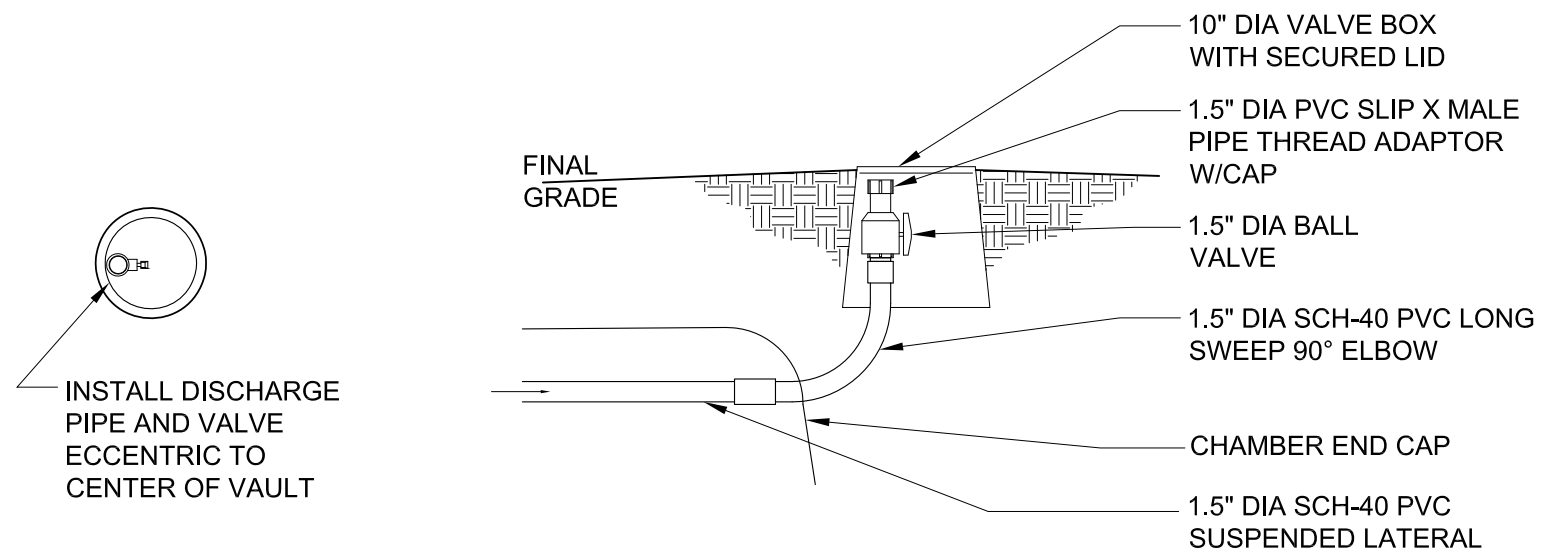
Date: 03/20/2020
Designed By: ANM
Reviewed By: DS
Drawn By: ANM

W1.0
Sheet 1 of 4



1 PROPOSED OWTS PLAN
1" = 20'-0"





FLUSHING ASSEMBLY NOTES:

1. PURPOSE OF FLUSHING ASSEMBLY IS TO ALLOW ACCESS TO THE INSIDE OF THE LATERAL FOR FLUSHING.
2. THE PVC PIPE ACTS AS A MEDIA, ALLOWING A BIOMAT LIKE MATERIAL TO GROW ON THE INSIDE OF THE PIPE. PERIODIC FLUSHING MAINTAINS THE FUNCTION AND OPERATION OF THE LATERAL.
3. THE BALL VALVE SHALL BE POSITIONED ECCENTRIC TO THE CENTER OF THE VAULT TO ALLOW MAXIMUM ACCESS TO THE VALVE HANDLE WHILE MAINTAINING CLEAR FLUSHING ROOM IN THE VAULT FOR THE END OF THE PIPE.

1 FLUSHING ASSEMBLY
NOT TO SCALE