MONUMENT GLAMPING OWTS

18045 HWY 83, COLORADO SPRINGS, CO 80908

3 ROCKS ENGINEERING & SURVEYING
430 Main Street
Cañon City, CO 81212
719.430.5333
www.3rocksengineering.com

FOR MUNICIPAL USE:

OWNER: CHRIS JEUB
MONUMENT RIDGE LTD, LLC
(719) 660-5781

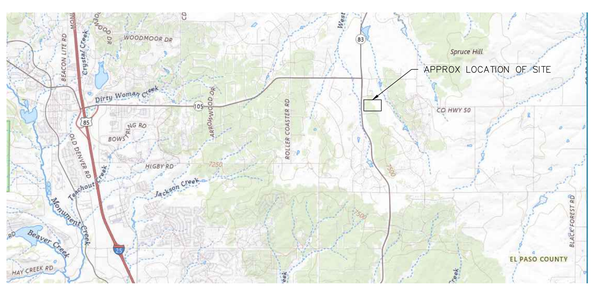
PROJECT ENGINEER: ALEX EWERS, P.E. 53341
(719) 430-5333
alexe@3rocksengineering.com

100% CONSTRUCTION DOCUMENTS
September 6, 2024

SCOPE OF WORK: The scope of work in these plans includes a design for an OWTS (On-Site Wastewater Treatment System) for an existing 3-bedroom residence and 24 glamping sites.

SOIL OBSERVATION PIT # 1								
DATE OF OBSERVATION	7/30/2024					NOTES	NO ROCK CONTENT BY VISUAL OBSERVATION	
COORDINATES /LOCATION		SLOPE		LANDSCAPE POSITION		SOILS EVALUATOR	MORGAN HEGGIE, SEPTEMBER 2022 CPOW CERTIFIED	
DEPTH (IN)	SOIL TYPE, TEXTURE & LTAR (GAL PER DAY PER SQ FT)	PRESENCE OF R TYPE SOILS (ROCKY SOILS)	MATRIX COLOR(S)	MOTTLE COLOR(S)	REDOX KIND(S)	STRUCTURE SHAPE	STRUCTURE GRADE	CONSISTENCE
0-6	TOPSOIL	NONE						
6-48	2A, SANDY LOAM, 0.5	NONE			NONE	MASSIVE		LOOSE
48-96	2A, SANDY LOAM, 0.5	NONE			NONE	MASSIVE		LOOSE

SOIL OBSERVATION PIT # 2								
DATE OF OBSERVATION	7/30/2024					NOTES:	NO ROCK CONTENT BY VISUAL OBSERVATION	
COORDINATES /LOCATION		SLOPE		LANDSCAPE POSITION		SOILS EVALUATOR	MORGAN HEGGIE, SEPTEMBER 2022 CPOW CERTIFIED	
DEPTH (IN)	SOIL TYPE, TEXTURE & LTAR (GAL PER DAY PER SQ FT)	PRESENCE OF R TYPE SOILS (ROCKY SOILS)	MATRIX COLOR(S)	MOTTLE COLOR(S)	REDOX KIND(S)	STRUCTURE SHAPE	STRUCTURE GRADE	CONSISTENCE
0-6	TOPSOIL	NONE						
6-48	2A, SANDY LOAM, 0.5	NONE			NONE	MASSIVE		LOOSE
48-96	2A, SANDY LOAM, 0.5	NONE			NONE	MASSIVE		LOOSE



VICINITY MAP
(NOT TO SCALE)

N

ABBREVIATIONS:
APPROX = APPROXIMATE
ASPH = ASPHALT
BLDG = BUILDING
CONC = CONCRETE
C&G= CURB AND GUTTER
ø=DIAMETER
E = EASTING
EL = ELEVATION
EX = EXISTING
GPD= GALLONS PER DAY
GPH= GALLONS PER HOUR
IRR = IRRIGATION
N. = NORTHING
NDDS= NON-PRESSURIZED DRIP DISPERSAL SYSTEM
O.C.=ON CENTER SPACING
OWTS= ON-SITE WASTEWATER TREATMENT SYSTEM
PL = PROPERTY LINE
PROP = PROPOSED
PVC = POLYVINYL CHLORIDE PIPE
ROW = RIGHT OF WAY
SCH= SCHEDULE
SDR= STANDARD DIMENSIONAL RATIO
SQ.FT= SQUARE FEET
TP=SOIL OBSERVATION TEST PIT
TYP = TYPICAL
W/= WITH

*NOT ALL ABBREVIATIONS MAY BE PRESENT IN THIS DRAWING

LINE TYPE KEY:
- 4" PVC SCH 40 (ASTM F891 DWV)
- 1.5" PVC SCH 40 (ASTM D1785)
- PROPERTY LINE
- PROPERTY BOUNDARY OFFSET
- WELL OFFSET
- EX MAJOR CONTOURS
- EX MINOR CONTOURS
- PROP MAJOR CONTOURS
- PROP MINOR CONTOURS
- EX EASEMENT
- EX. WS LINE
- EX TELECOMM LINE
- EX FENCE
- EX. ELEC LINE

DESIGN CRITERIA

SERVICED LOCATIONS: 24 PROPOSED GLAMPING SITES AND EXISTING RESIDENCE
TYPE: PRESSURIZED TRENCH SYSTEM

DESIGN FLOW AND TANKAGE:
SYSTEM - 1,650 GPD
GLAMPING SITES ARE RATED AT 50 GPD PER GLAMPING TENT (50 GPD PER CAMPGROUND CAMPSITE) ACCORDING TO TABLE 6-2, AND A SINGLE FAMILY 3-BEDROOM RESIDENCE IS RATED AT 450 GPD.
TANKAGE: (1) 2,000 GAL SEPTIC TANK, (1) 1,500 GAL SEPTIC TANK, AND (1) 1,000 GAL TANK AS A DISCHARGE TANK.

APPLIED LTAR:
0.5 GPD/SQ. FT. FOR TL1 WASTEWATER

SIZING ADJUSTMENTS:
0.7 FOR CHAMBERS
0.8 FOR PRESSURIZED TRENCH SYSTEM

TOTAL REQUIRED INFILTRATIVE SURFACE:
1848 SQ. FT.
160 QUICK 4 CHAMBERS

ADDITIONAL REMARKS:
AN OPERATIONS AND MAINTENANCE IS REQUIRED BY EL PASO COUNTY TO MONITOR THAT SEPTIC TANK EFFLUENT QUALITY MEETS THE REG 43 DEFINITION FOR TL1 WASTE WATER

SHEET INDEX	
NUMBER	TITLE
C1	COVER
C2	EX CONDITIONS & DEMO PLAN
C3	SITE PLAN
C4	OWTS DESIGN AND DETAILS
C5	TANK DETAILS

SEPARATION REQUIREMENTS ACCORDING TO TABLE 7-1 OF EL PASO COUNTY OWTS REGULATIONS					
	WELL, OR POTABLE WATER CISTERN	POTABLE WATER LINES	STRUCTURE WITH BASEMENT, CRAWL SPACE, OR FOOTING DRAINS	STRUCTURE W/OUT BASEMENT, CRAWL SPACE, OR FOOTING DRAINS	PROPERTY LINES
STA TRENCH	100	5	20	10	10
SEWER OR EFFLUENT LINES	50	5	0	0	10
SEPTIC TANK	50	10	5	5	10

NOTES

1. GENERAL NOTES
 1.1. DESIGN IS BASED UPON IMPROVEMENT SURVEY PLAT BY APEX LAND SURVEYING AND MAPPING. TOPOGRAPHY BASED UPON CWCB LIDAR DATA. DO NOT USE TOPOGRAPHICAL DATA FOR VERTICAL CONSTRUCTION STAKING.
 1.2. JURISDICTIONAL AUTHORITY IS EL PASO COUNTY. PERMIT MUST BE OBTAINED BEFORE BEGINNING CONSTRUCTION.
 1.3. THESE PLANS ARE THE RESULT OF INTERPRETATION OF THE ENGINEER'S ANALYSIS OF THE EXISTING SOIL CONDITIONS AS FOUND ON SITE FROM THE OPEN HOLE INSPECTION AND SUBSEQUENT ANALYSIS OF THE SOIL SAMPLES. FAILURE TO THOROUGHLY FOLLOW PLANS, ENGINEER'S RECOMMMENDATIONS, MANUFACTURER'S GUIDELINES FOR TANK INSTALLATION, AND THE EL PASO COUNTY OWTS REGULATIONS CAN RESULT IN PREMATURE SOIL TREATMENT AREA FAILURE. POOR CONTRACTOR PRACTICES, ABUSE OF SYSTEM, OR FAILURE TO PERFORM SCHEDULED MAINTENANCE CAN CAUSE PREMATURE FAILURE OF SOIL TREATMENT AREA.
 1.4. THESE PLANS ARE NOT A CONSTRUCTION MANUAL. FOR SUCCESSFUL SEPTIC SYSTEM INSTALLATION CONTRACTOR MUST REVIEW THE EL PASO COUNTY OWTS REGULATIONS, BE CERTIFIED FOR INSTALLATION, AND FOLLOW GENERAL CONTRACTOR BEST PRACTICES.
 1.5. CONTACT ENGINEER IN CASE OF ANY UNCLEAR INFORMATION IN THESE PLANS.
 1.6. CONTRACTOR IS RESPONSIBLE FOR READING THE ENTIRETY OF THE PLANS. FAILURE TO UNDERSTAND THE SCOPE OF THE PROJECT WILL NOT RESULT IN SUFFICIENT GROUNDS FOR CUTTING CORNERS AND POOR INSTALLATION PRACTICES. CONSTRUCTION THAT DOES NOT MATCH THE DESIGN SHALL BE CORRECTED BY THE INSTALLER AT THE INSTALLER'S EXPENSE.
2. CONSTRUCTION AND CONTRACTOR
 2.1. FOLLOW INFILTRATOR WATER TECHNOLOGIES DOCUMENTS ON INSTALLATION OF QUICK 4 STANDARD CHAMBERS
 2.2. CONTRACTOR REQUIRED TO LOCATE ALL UTILITIES PRIOR TO EXCAVATION.
 2.3. COMPACTION OF SOIL INFILTRATIVE AREA TO BE AVOIDED DURING CONSTRUCTION (AVOID TRAFFIC AND STORAGE OF MATERIALS). IT IS RECOMMENDED TO STAKE OFF SOIL TREATMENT AREA (STA) FOOTPRINT DURING CONSTRUCTION AND PLACE PERMANENT SIGNS AFTER CONSTRUCTION. CONTRACTOR SHALL NOT DRIVE WHEELED MACHINERY OVER BOTTOM OF THE INFILTRATIVE SURFACE. IT IS RECOMMENDED TO PLACE CHAMBERS AND THEN BACKFILL WITH TRACKED MACHINERY. CONSTRUCTION SHOULD PROCEED ONLY WHEN THE SOIL IS SUFFICIENTLY DRY TO RESIST COMPACTION AND SMEARING DURING EXCAVATION. (TAKE A SAMPLE OF SOIL FROM THE BOTTOM OF INFILTRATIVE SURFACE AND IF WHEN ROLLED BETWEEN THE FINGERS FORMS A WIRE INSTEAD OF CRUMBLING, THE SOIL IS TOO WET). TRAFFIC OVER THE STA WILL CAUSE AND SUBSEQUENT FAILURE. TOP SOIL TO BE EXCAVATED AND STOCKPILED FOR LATER USE. RESEED SOIL TREATMENT AREA WITH NATIVE VEGETATION (SHALLOW ROOT).
 2.4. SLOPE FINISHED GRADE ABOVE LEACH FIELD 3-4% TO MAXIMIZE RUNOFF FROM PRECIPITATION. AVOID IRRIGATION ON STA.
 2.5. QUICK 4 PLUS CHAMBERS PROPOSED FOR EFFLUENT DISTRIBUTION. PLACE CHAMBERS ACCORDING TO THE SECTION VIEW.
3. SANITARY LINES
 3.1. GRAVITY SEWER LINES (4" PVC SCH 40 ASTM F891 DWV PIPE) SHALL BE INSTALLED WITH SLOPE NO LESS THAN ⅛" PER FOOT (~1%) AND NO GREATER THAN 1.8" PER FOOT (~15%). THERE SHALL BE A MINIMUM 36" OF COVER ON SEWER LINES. INSTALL CLEANOUTS AT ANY CHANGE OF DIRECTION OF 45° OR GREATER OR IF NO OTHER CLEANOUT EXISTS WITHIN 40' OF THE BEND. SWEEPING 90'S MUST BE USED OR BENDS LIMITED TO 45° MUST BE PROVIDED. CLEANOUTS MUST BE PROVIDED AT INTERVALS OF NO MORE THAN 100'. 10' LATERAL SEPARATION IS REQUIRED FROM POTABLE WATER LINES AND 2' VERTICAL SEPARATION WITH SANITARY CROSSING UNDER.
 3.2. IF ANY TWO SEWER LINES CONNECT, THEY SHALL CONNECT THROUGH 45° Y FITTINGS AND A 2-WAY CLEANOUT MUST BE PROVIDED BEFORE THE CONNECTION
 3.3. CONTACT ENGINEER IMMEDIATELY IF ANY VARIANCE IS SOUGHT FROM THIS PLAN.
4. OFFSET REQUIREMENTS
 4.1. HORIZONTAL INFLUENCE AREA (ACCORDING TO CDPHE WQSA POLICY 6)
  4.1.1. THERE ARE NO OTHER EXISTING SYSTEMS KNOWN ON SITE THAT WILL INFLUENCE THE PROPOSED SYSTEM.
 4.2. OFFSET REQUIREMENTS ACCORDING TO EL PASO COUNTY OWTS REGULATIONS ARE GIVEN IN THE TABLE (SHEET C1).
 4.3. CONTRACTOR TO VERIFY ALL SETBACKS ARE MET BEFORE CONSTRUCTION.
5. SEPTIC TANKS AND PUMP TANK
 5.1. THE TANKS ARE NOT TRAFFIC RATED UNLESS CLEARLY SPECIFIED. PLACE BOULDERS OR FENCE AROUND PERIMETER OF TANKS TO AVOID DAMAGE. INSTALL TANK ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
6. PRESSURE DOSED SYSTEM
 6.1. ELECTRICAL WIRING, SPLICE BOX SET UP, AND CONTROL PANEL SET UP ARE ALL OUTSIDE THE SCOPE OF THESE PLANS. ALL OF THESE SHALL BE DONE BY A CERTIFIED AND COMPETENT ELECTRICIAN.
7. OPERATION AND MAINTENANCE (O&M)
 7.1. OPERATION AND MAINTENANCE IS OUTSIDE OF THE SCOPE AND RESPONSIBILITY OF 3 ROCKS ENGINEERING. IT IS HIGHLY RECOMMENDED TO INSPECT SLUDGE AND SCUM LEVELS ONCE A YEAR IN BOTH COMPARTMENTS OF SEPTIC TANK. DUE TO MOSTLY ANAEROBIC CONDITIONS IN A SEPTIC TANK, NOT ALL SOLIDS WILL BE DIGESTED BY THE BACTERIA AND THEREFORE SOLIDS WILL HAVE TO BE PUMPED OUT AS DETERMINED BY INSPECTION. A GOOD INTERVAL FOR PUMPING SLUDGE FROM TANK IS WHENEVER SCUM AND SLUDGE LEVELS SURPASS 25% OF WORKING CAPACITY OF TANK.
 7.2. PULL ORENCO BIOTUBE FT SERIES FILTER AT LEAST ONCE A YEAR AND RINSE SOLIDS INTO PRIMARY TREATMENT TANK. IT IS RECOMMENDED TO PLACE A SIGN AT EACH SERVICED LOCATION WITH INSTRUCTIONS FOR USERS TO PREVENT FLUSHING OF CHEMICALS, MEDICINES, AND ANY OTHER MATERIAL/SUBSTANCE THAT COULD CAUSE PREMATURE FAILURE OF STA
 7.3. O&M PROVIDER SHOULD CHECK ACTUATION OF THE AUTOMATIC DISTRIBUTION VALVE (THE CLEAR TUBING SHOULD SHOW ACTUATION BETWEEN ZONES). VALVES WILL BUILD UP SLIME OVER TIME AND WILL HAVE TO BE CLEANED AT AN INTERVAL TO BE DETERMINED BY INSPECTION DURING THE FIRST YEAR OF OPERATION. FAILURE TO CLEAN THE VALVE WILL RESULT IN THE CAM LOCKING INTO ONE ZONE AND CAN CAUSE SYSTEM FAILURE.

COLORADO LICENSED
ALEXANDER W. EWERS
53341
09/06/2024
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

MONUMENT GLAMPING OWTS
18045 HWY 83, COLORADO SPRINGS, CO 80908

V1.0-30% SD-08/30/2024
V2.0-100% CD-09/06/2024

PROJECT ENG: AWE
QA/QC: PBG
Drawn by: MPH
Prj # 24.144
Date: 07/26/2024

COVER

C1/5

p:\2024\24.144-monument glamping ii otws\h-dwgs\civil\monument glamping owts.dwg 9/6/2024 2:37:36 PM MORGAN HEGGIE

LEGEND

DEMO HATCH

EX ADJACENT PROPERTY LINES

COLORADO HWY 83

EX UNDERGROUND CABLE SIGN

EX UNDERGROUND TELEPHONE

EX UNDERGROUND ELECTRIC

EX OVERHEAD ELECTRIC

EX BARBED WIRE FENCE

EX GRAVEL ROAD

EX METAL GARAGE

EX WOOD FENCE

EX UNDERGROUND CABLE

EX GRAVEL DRIVEWAY

EX MAILBOXES

EX STUCCO GARAGE

EX ELECTRIC BOX

EX WOOD DECK AND WELL

EX ELECTRIC BOX

EX RESIDENCE

20' ELECTRIC EASEMENT

EX UNDERGROUND FIBER OPTIC SIGN

16.71 INGRESS/EGRESS EASEMENT

EX GAS

EX GAS METERS

EX STORM CULVERTS

EX OWTS STA TO BE ABANDONED

EX OWTS TANK TO BE ABANDONED

EX PROPERTY BOUNDARY

EX WOOD FENCE

EX GRAVEL DRIVEWAY

7370 7371 7372 7373 7374 7375 7376 7377 7380 7385 7390 7395 7400 7405 7410 7415 7420 7425 7430 7435 7440

N

0 20' 40'

SCALE: 1" = 40'

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ISSUED DATES

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V2.0-100% CD-09/06/2024

PROJECT ENG: AWE
QA/QC: PBG
DRAWN BY: MPH
PRJ # 24.144
DATE: 07/26/2024

C2/5

EX CONDITIONS & DEMO PLAN

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NOTES:

1. CIVIL SITE LAYOUT, DESIGN AND OTHER CIVIL INFRASTRUCTURE IS BY OTHERS. THIS INFORMATION IS SHOWN HERE FOR REFERENCE

EX ADJACENT PROPERTY LINES
COLORADO HWY 83
EX UNDERGROUND CABLE SIGN
EX UNDERGROUND TELEPHONE
EX UNDERGROUND ELECTRIC
EX OVERHEAD ELECTRIC
EX METAL GARAGE
EX BARBED WIRE FENCE
EX GRAVEL ROAD
APPROX LOCATION OF PROP PARKING
EX WOOD FENCE
EX UNDERGROUND CABLE
APPROX LOCATION OF TP#1
EX MAILBOXES
EX GRAVEL DRIVEWAY
1000 GAL FRONT RANGE PRECAST DISCHARGE TANK
EX STUCCO GARAGE
EX ELECTRIC BOX
PROP CLEANOUT WITHIN 5' OF EACH GLAMPING SITE
PROP UNISEX BATHROOM
SPACE FOR POTENTIAL ATU
PROP STA
EX WOOD DECK AND WELL
EX ELECTRIC BOX
20' ELECTRIC EASEMENT
1500 GAL FRONT RANGE PRECAST TANK
50' OFFSET FROM WELL TO SEWER LATERAL
EX UNDERGROUND FIBER OPTIC SIGN
EX RESIDENCE
PROP GLAMPING SITES
2000 GAL FRONT RANGE PRECAST TANK
16.71 INGRESS/EGRESS EASEMENT
PROP GRAVEL DRIVEWAY
EX GAS
APPROX LOCATION OF TP#2
EX GAS METERS
10' OFFSET FROM PROPERTY BOUNDARY
EX WOOD FENCE
EX GRAVEL DRIVEWAY
EX STORM CULVERTS
100' OFFSET FROM WELL TO STA
EX PROPERTY BOUNDARY

N

0 20' 40'
SCALE: 1" = 40'

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C3/5

SITE PLAN

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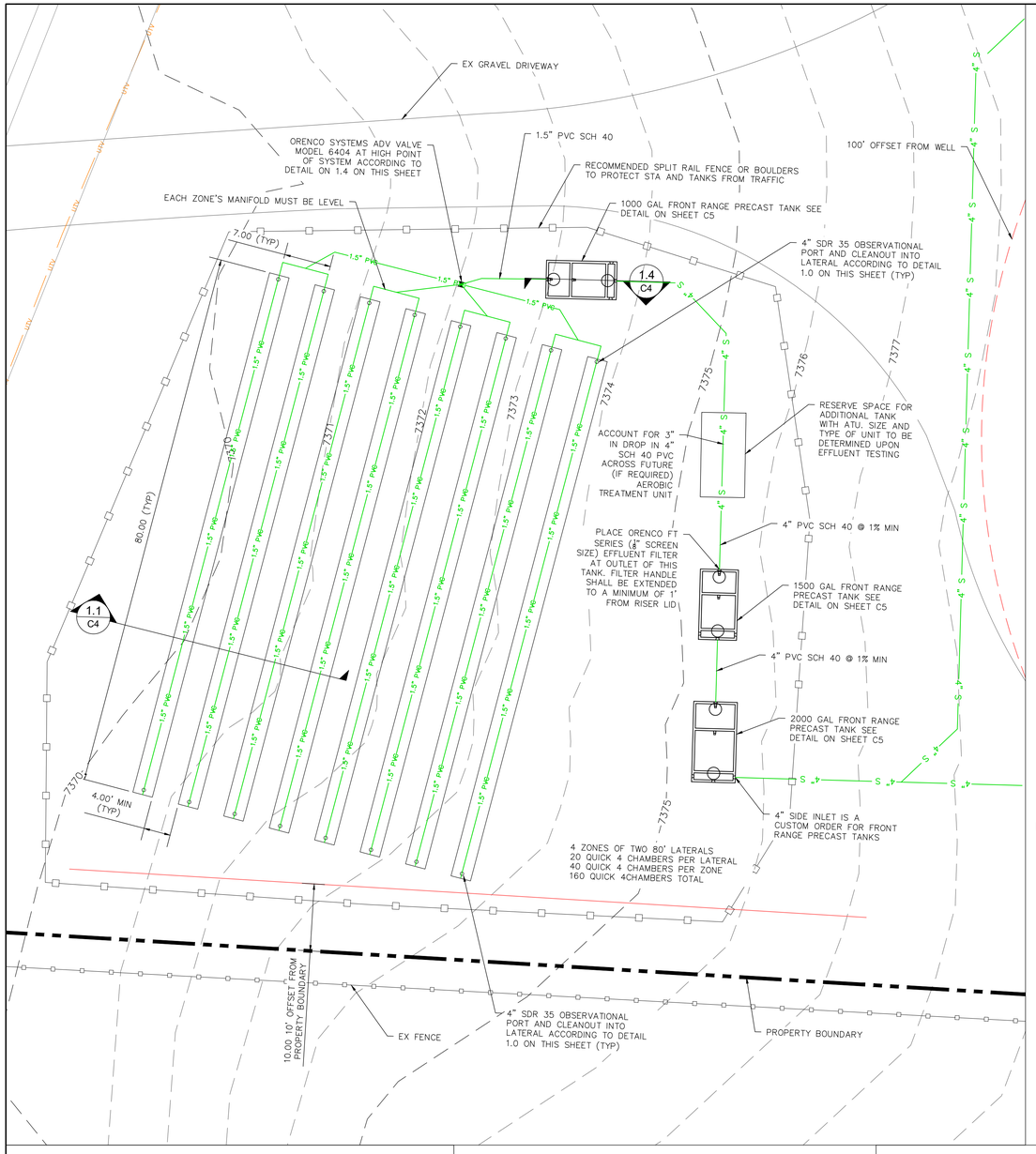
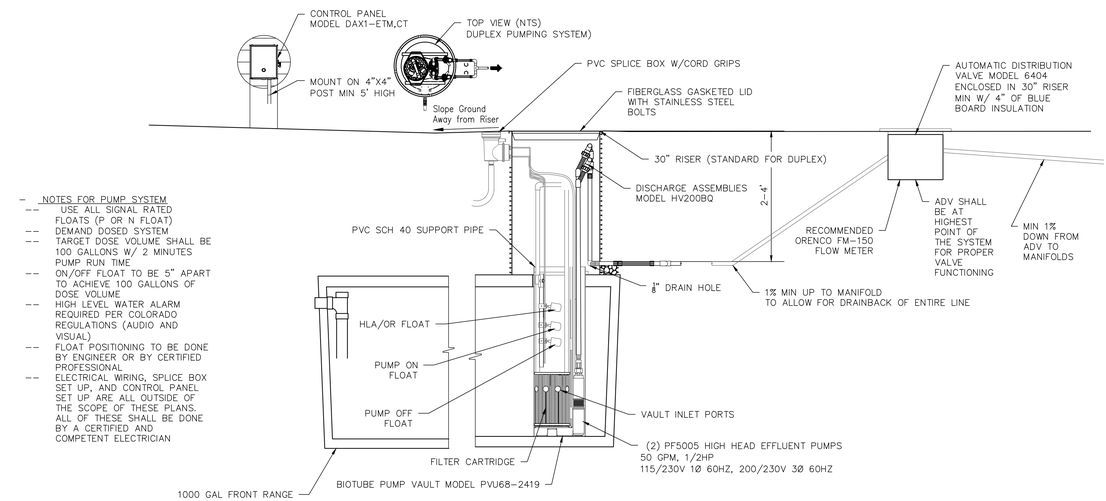


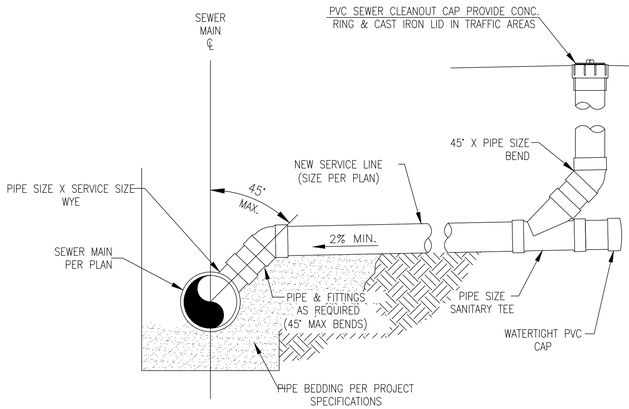
1.4 C4 PUMP TANK SECTION VIEW-DEMAND DOSED SYSTEM
NTS



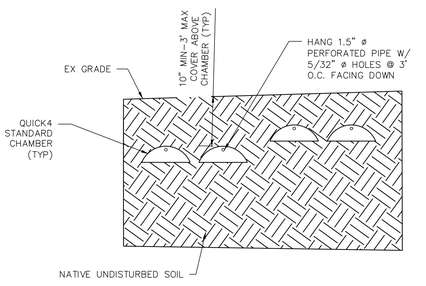
NOTES FOR PUMP SYSTEM
- USE ALL SIGNAL RATED FLOATS (P OR N FLOAT)
- DEMAND DOSED SYSTEM
- TARGET DOSE VOLUME SHALL BE 100 GALLONS W/ 2 MINUTES PUMP RUN TIME
- ON/OFF FLOAT TO BE 5" APART TO ACHIEVE 100 GALLONS OF DOSE VOLUME
- HIGH LEVEL WATER ALARM REQUIRED PER COLORADO REGULATIONS (AUDIO AND VISUAL)
- FLOAT POSITIONING TO BE DONE BY ENGINEER OR BY CERTIFIED PROFESSIONAL
- ELECTRICAL WIRING, SPLICE BOX SET UP, AND CONTROL PANEL SET UP ARE ALL OUTSIDE OF THE SCOPE OF THESE PLANS. ALL OF THESE SHALL BE DONE BY A CERTIFIED AND COMPETENT ELECTRICIAN

NDW-TD-EPS-HV-03
Rev. 1.0 (08/10)

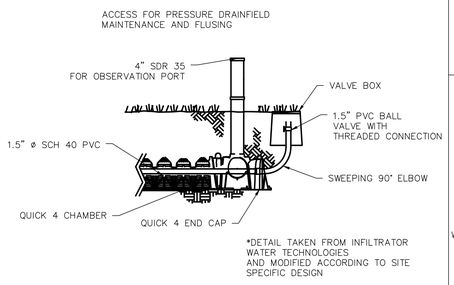
*DETAIL TAKEN FROM ORENCO SYSTEMS WEBSITE AND MODIFIED ACCORDING TO SITE SPECIFIC DESIGN



S 3 SEWER SERVICE TAP DETAIL

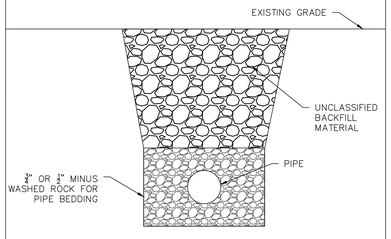


1.1 C4 INFILTRATION PROFILE VIEW
NTS



*DETAIL TAKEN FROM INFILTRATOR WATER TECHNOLOGIES AND MODIFIED ACCORDING TO SITE SPECIFIC DESIGN

1.2 C4 FLUSHING ASSEMBLY DETAIL
NOT TO SCALE



1.3 C4 PIPE BEDDING DETAIL
NTS

NOTES:
1. COMPACTION SHALL BE 90% MAXIMUM DRY DENSITY FOR PIPE IN GRAVEL ROADWAYS AND LANDSCAPE AREAS, FOLLOW ASTM D-698

Pump Selection for a Pressurized System - Single Family Residence Project

Parameters

Discharge Assembly Size	2.00	inches
Transport Length Before Valve	12	feet
Transport Pipe Class	40	
Transport Line Size	1.50	inches
Distributing Valve Model	6404	
Transport Length After Valve	24	feet
Transport Pipe Class	40	
Transport Pipe Size	1.50	inches
Max Elevation Lift	5	feet
Manifold Length	7	feet
Manifold Pipe Class	40	
Manifold Pipe Size	1.50	inches
Number of Laterals per Cell	8	
Lateral Length	80	feet
Lateral Pipe Class	40	
Lateral Pipe Size	1.50	inches
Orifice Size	5/32	inches
Orifice Spacing	3	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	54	
Total Flow Rate per Zone	37.1	gpm
Number of Laterals per Zone	2	
% Flow Differential 1st/Last Orifice	5.5	%
Transport Velocity Before Valve	5.9	fps
Transport Velocity After Valve	5.9	fps

Frictional Head Losses

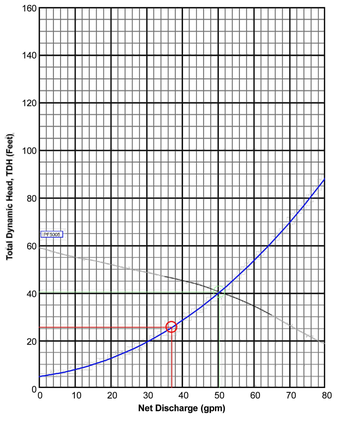
Loss through Discharge	2.7	feet
Loss in Transport Before Valve	0.9	feet
Loss through Valve	9.3	feet
Loss in Transport after Valve	1.9	feet
Loss in Manifold	0.2	feet
Loss in Laterals	0.6	feet
Loss through Flowmeter	0.0	feet
'Add-on' Friction Losses	0.0	feet

Pipe Volumes

Vol of Transport Line Before Valve	1.3	gals
Vol of Transport Line After Valve	2.5	gals
Vol of Manifold	0.7	gals
Vol of Laterals per Zone	16.9	gals
Total Vol Before Valve	1.3	gals
Total Vol After Valve	20.2	gals

Requirements

	37.1	gpm
	25.6	feet



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

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

N
0 5' 10'
SCALE: 1" = 10'

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DATE: 07/26/2024

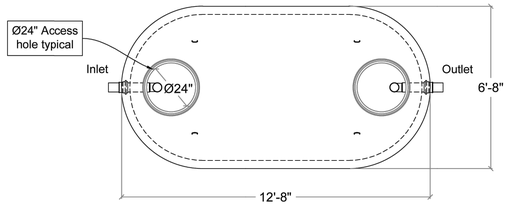
C4/5
OWTS DESIGN AND DETAILS

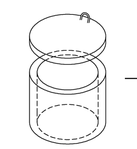
p:\2024\24.144-monument glamping ii otws\1-dwgs\civil\monumentglampingowts.dwg 9/6/2024 2:37:39 PM MORGAN HEGGIE

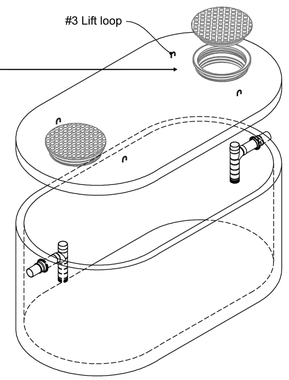
2000 Gal. Single Compartment Septic Tank

FLXX ® FLXX ®

PLAN







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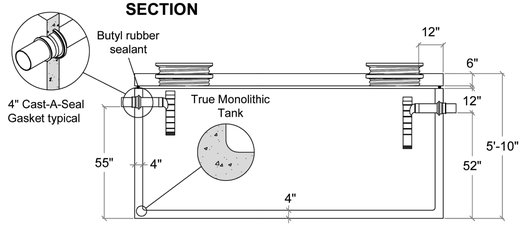

- Monolithic tank meets ASTM C-1227 Spec. for water and wastewater structures.
- Butyl rubber sealant meets Fed. Spec. SS-S-210A. (Provided with tank)
- All plumbing shown in diagram is 4" SDR 35. (Provided with tank)
- Follow standard practice for installation of underground precast concrete structures. (See page 2 for ASTM C-891 Summary)

Part #	Capacity (gallons)	Approximate Weights		
		Tank	Lid	Total
PCA-000-257	2000	11,690 lbs	5,145 lbs	16,835 lbs

Note: N.T.S.

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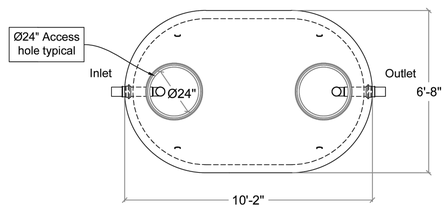
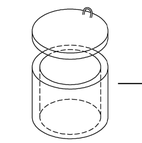
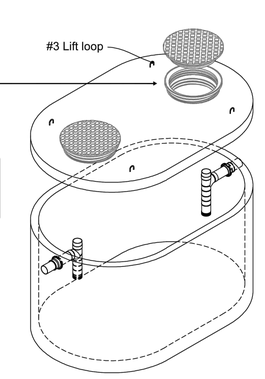
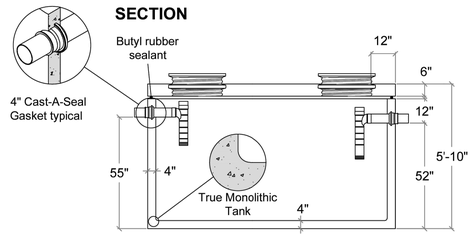
PLAN







SECTION



- Monolithic tank meets ASTM C-1227 Spec. for water and wastewater structures.
- Butyl rubber sealant meets Fed. Spec. SS-S-210A. (Provided with tank)
- All plumbing shown in diagram is 4" SDR 35. (Provided with tank)
- Follow standard practice for installation of underground precast concrete structures. (See page 2 for ASTM C-891 Summary)

Part #	Capacity (gallons)	Approximate Weights		
		Tank	Lid	Total
PCA-000-255	1535	9,615 lbs	3,900 lbs	13,515 lbs

Note: N.T.S.

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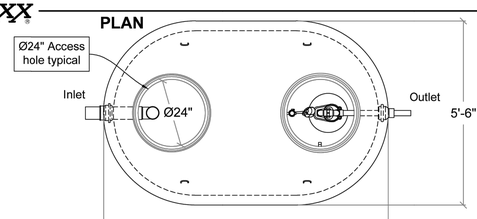
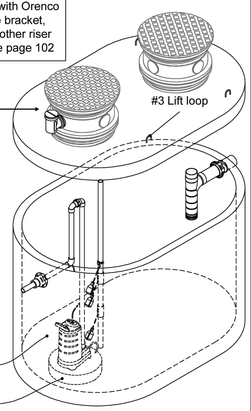
PLAN

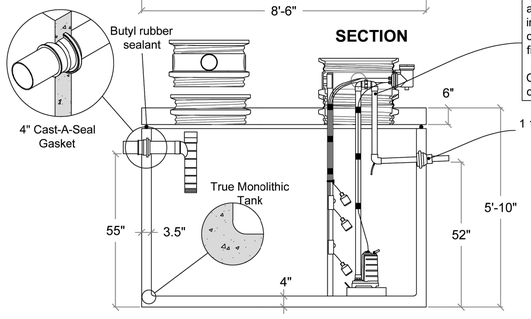




Effluent pump (per specification) / alarm box, float tree, control switches installed and pump plumbed to stub out including preassembled pipes and fittings.

Connections to electrical source by others.

SECTION



- Monolithic tank meets ASTM C-1227 Spec. for water and wastewater structures.
- Butyl rubber sealant meets Fed. Spec. SS-S-210A. (Provided with tank)
- All plumbing shown in diagram is 4" SDR 35. (Provided with tank)
- Follow standard practice for installation of underground precast concrete structures. (See page 2 for ASTM C-891 Summary)

Part #	Discharge / Cycle	Approximate Weights		
		Tank	Lid	Total
PCA-000-298	21.5 Gal. / Vertical inch.	6,995 lbs	2,550 lbs	9,545 lbs

Note: N.T.S.

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NOTES:

1. 2" MIN–4" MAX OF COVER OVER LIP OF TANK
2. INSTALL TANK ACCORDING TO MANUFACTURER'S GUIDELINES
3. BEDDING SHALL BE NO LESS THAN EITHER 6" SAND OR 3" ROCK (LEVELED AND COMPACTED).
4. BACKFILL SHALL BE CLASS 6 ROAD BASE MATERIAL IN 6" LIFTS COMPACTED TO STANDARD 95% PROCTOR DENSITY

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MONUMENT GLAMPING OWTS

18045 HWY 83, COLORADO SPRINGS, CO 80908

ISSUED DATES

V1.0–30% SD–08/30/2024
V2.0–100% CD–09/06/2024

PROJECT ENG: AWE
QA/QC: PBG
DRAWN BY: MPH
PRJ # 24.144
DATE: 07/26/2024

C5/5

TANK DETAILS

p:\2024\24.144-monument glamping II c:\ws\7-dwgs\civil\monument glamping\owts.dwg 9/6/2024 2:37:43 PM MORGAN HEGGIE