EPA United States Environmental Protection Agency

Region 6 - Enforcement & Compliance Assurance Division

INSPECTION REPORT

Inspection Date(s):	O6/08/2023	
Media Program:	Water	
Regulatory Program(s)	NPDES	
Company Name:	Oshara Mutual Domestic Wastewater Association	
Facility Name:	Oshara Village Water Reclamation Facility	
Facility Physical Location:	No. 2 Willow Back Road	
(city, state, zip code)	Santa Fe, New Mexico 87507	
Mailing address:	11 Craftsman Road	
(city, state, zip code)	Santa Fe, New Mexico 87507	
County/Parish:	Santa Fe	
Facility Phone Number	505-690-2002	
Facility Contact:	Loren Allen	Consultant Operator
	loren.allenenvironmental@gmail.com	
FRS Number:	110064637601	
Identification/Permit Number:	NM0030813	
Media Identifier Number:	NA	
NAICS:	221320	
SIC:	4952	
Personnel participating in inspection:		
David Esparza	EPA/R6-ECDWM	Environmental Engineer
EPA Lead Inspector Signature/Date	DAVID ESPARZA Digitally signed by DAVID ESPARZA Date: 2023.08.24 06:47:39 -06'00'	
	David Esparza	Date
Supervisor Signature/Date	ROBERTO BERNIER Digitally signed by ROBERTO BERNIER Date: 2023.08.24 08:34:06 -05'00'	
	Roberto Bernier	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

EPA Region 6 inspector David Esparza, PE, arrived at Oshara Village Water Reclamation Facility (WRF) at 10:00 AM on June 8, 2023, for an unannounced inspection. The Facility was unoccupied, and no facility staff was available. I did speak to Mr. Loren Allen, the contract operator for the Facility be telephone (505-690-2002) later the same afternoon. I discussed with Mr. Allen the purpose of my onsite visit and that it was an EPA inspection to determine Ohara's compliance under the Clean Water Act (CWA). The compliance evaluation inspection (CEI) was conducted under the authority of the National Pollutant Discharge Elimination System (NPDES) permit program, in accordance with the CWA. The generation of this report is based on information supplied by Oshara representatives, observations made by the United States Environmental Protection Agency (US EPA) inspector, and records and reports maintained by the permittee, and the US EPA. An exit briefing was not held due to the above stated reasons.

FACILITY DESCRIPTION

The Oshara Village WRF is a minor discharger with a design flow capacity of 0. 0.03 MGD (million gallons per day) and a current average flow of 0.012 MGD. The WRF facility is located at No. 2 Willow Back Road, adjacent to Richards Avenue and approximately 1,500-feet north of the Santa Fe Community College, Santa Fe County, New Mexico (depicted in Aerial Image #1 below).

Aerial Image #1: Overall view of the Oshara Village Water Reclamation Facility location. Aerial from Google Earth Maps.

The WRF is an advanced Sequencing Batch Reactor (SBR) treatment facility which has three (3) major tanks: anoxic equalization tank, SBR tank, and effluent equalization chlorine contact tank. Ancillary equipment includes one (1) lift station that conveys raw influent to the facility from dwelling units (DW) in Oshara Village. At the headworks, influent flows through a 12-inch-wide bar screen with 1-inch openings to catch rags and debris. A 4-inch magnetic flow meter measures the influent flow at the WRF. From the headworks, influent travels by gravity into the conditioning sludge storage tank, the first or initial tank in the system. Here, the solids and grit are allowed to settle, like a primary clarifier. This tank provides an area to concentrate the sludge.

Thence, the influent travels to an anoxic equalization tank that is used to retain and equalize peak influent flows and provide denitrification. Within the anoxic basin, two (2) pumps transfer the wastewater to the SBR tank. The SBR tank has an aspirating jet aerator that delivers oxygen to the system. Each cycle of treatment consists of fill/react, interact/react, settle, and decant phases. The phases of treatment are controlled by a Programmable Logic Controller, or PLC, that the operator can adjust manually to provide optimum treatment in each phase.

Disinfection of the wastewater is achieved through a chlorine contact tank. Sodium hypochloride is dosed into the decant pipe during the decant phase, then it is dechlorinated with sodium thiosulfate before entering the Arroyo Hondo through a 10-inch closed conduit with a rip rap area below the conduit to minimize erosion and provide velocity dissipation. The disinfected effluent is metered by an ultrasonic flow meter and Palmer Bowles Flume as well.

Sludge is removed from the sludge tank with a vacuum truck and transported to the Santa Fe Wastewater Treatment Plant (NM0022292) for final disposal. Rags and debris from the bar screen are transported to the Ranchland Utility WWTP (NM0030368) in Rancho Viejo for disposal.

The WWTP also maintains a groundwater discharge permit issued by the New Mexico Environment Department (NMED) Groundwater Quality Bureau under permit number (DP-1532).

Section II - OBSERVATIONS

I observed the following and/or the following information was provided and/or stated:

- No facility staff were onsite and the major components of the WWTP are located within a locked building or beneath locked hatchways.
- A Fluidyne manufactured and supplied PLC, which is connected to a Mission Communications unit that sends out emails for alarm conditions and other process controls.
- There are two (2) back-up generators onsite, but it is not clear which one (1) can operate the WRF and lift station as stated in the Request for Information (RFI) response.
- The WRF did have perimeter fencing, but not around the adjacent wet well or lift station.
- The overall housekeeping of the WWTP grounds and ancillary appurtenances exhibited considerable vegetative overgrowth.
- Oshara does have and did provide a copy of their written policies and procedures to address potential sanitary sewer overflow events (SSOs) and maintains minimal standard operating

procedures (SOPs) pertaining to facility operations and maintenance (O&M), inclusive of daily visual checks of the WRF treatment processes and lift station.

- Effluent totalizing flow meter readings are recorded daily.
- The WRF clarified their hours of operation; their offices are open from 8:00am - 5:00pm, with 24/7 for emergencies, though they did not delineate current staffing levels.
- The WRF clarified the type of electronic monitoring utilized in operating the WWTP (i.e., SCADA, PLC, etc.) and how the operator is alerted to a WRF situation/event. There is a Fluidyne manufactured and supplied PLC, which is connected to a Mission Communications unit that sends out emails for alarm conditions and other process controls.

Section III – AREAS OF CONCERN

I observed the following and/or the following information was provided and/or stated:

- A review of the submitted Integrated Compliance Information System (ICIS) Discharge Monitoring Reports (DMR) data for the period October 31, 2019, through June 30, 2023, indicates numerous NPDES permit excursions with respect to Total Suspended Solids (TSS) and 5-day Biological Oxygen Demand (BOD_5) (**Appendix 2 ICIS E90 Effluent Violations**).

The following additional areas of concern (AOCs) were identified:

- Extensive vegetative overgrowth throughout the facility area was visible, which could potentially attract rodents and/or vermin; thus, causing undermining of the facility structures.
- There are two (2) back-up generator onsite, but their operational status is unknown.
- No facility personnel were onsite and locked doors prevented ready access.

EPA Region 6 David Esparza did not conduct a closing conference at the Oshara Village Water Reclamation Facility as no facility staff were on-site.

Section IV – FOLLOW UP

The following information was received by EPA on June 16, 2023, in response to a Request for Information (RFI), after exiting the Facility on June 8, 2023:

- Electronic copy of Oshara's Sanitary Sewer Overflow (SSO) protocol and a statement regarding previous SSO events.
- Electronic copy of Oshara's Standard Operating Procedures (SOPs)
- Electronic copy of the facility Site Map delineating the total area footprint, locations/volumes of any on-site fuel storage tanks, delineation of processes (i.e., headworks, EQ basins, chlorination, etc.), all associated ancillary equipment and outfall(s).
- Identification of the quantity and location of any lift stations (LS), wet wells etc.
- Electronic copies of calibration and maintenance records for your ultrasonic flow meter, inclusive of serial numbers (S/N) for the previous three (3) years.
- Electronic copies of your flow measurement record for the previous 1-year period.
- Clarification of which of the two (2) generators observed are utilized for back-up power,

and how often they (it) are exercised. Additionally, clarification if the back-up generator can operate the entire WWTP or only a portion of it. This is shown on the site plan. Yes, the generator can operate the entire WWTP including the lift station.

- Electronic copies of your analytical analysis reports for the previous two (2) years, both internal and external.

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – 6 photos taken 6/08/2023.
Appendix 2 – ICIS E90 Effluent Violations
Appendix 3 – Oshara Village WRF Site Plan Drawings

Appendix 1

Photograph Log

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

Location: Oshara Village Water Reclamation Facility		
City: Santa Fe	County/Parish: Santa Fe	State: New Mexico

View of the Water Reclamation Facility treatment process equipment located in below ground locked hatchways along the approximate south side of the locked building. Note: the back-up generator, the extensive vegetative overgrowth and inside view of perimeter fencing. (DSCN2540) Photographed by D. Esparza

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: Oshara Village Water Reclamation Facility		
City: Santa Fe	County/Parish: Santa Fe	State: New Mexico

Note the additional back-up generator, the extensive vegetative overgrowth and outside view of perimeter fencing looking approximately Northeast. (DSCN2542) Photographed by D. Esparza

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: Oshara Village Water Reclamation Facility		
City: Santa Fe	County/Parish: Santa Fe	State: New Mexico

View of the Operators Building and electrical transformer looking approximately South and indicated on Frachetti Site Plan (**Appendix 3 Oshara Village Site Plan**). What is not defined or described is the poly-tank. (DSCN2546) Photographed by D. Esparza

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Location: Oshara Village Water Reclamation Facility		
City: Santa Fe	County/Parish: Santa Fe	State: New Mexico

View of the adjacent wet well located at the approximate Northwest corner of the Operators Building. Note: the lack of perimeter fencing and vegetative overgrowth. (DSCN2551) Photographed by D. Esparza

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

Location: Oshara Village Water Reclamation Facility		
City: Santa Fe	County/Parish: Santa Fe	State: New Mexico

View of the Oshara Village WRF individual lift station located approximately 600-feet Northwest the WRF Facility. Note: the lack of perimeter fencing and the locked hatchway. (DSCN2552) Photographed by D. Esparza

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 6

Location: Oshara Village Water Reclamation Facility		
City: Santa Fe	County/Parish: Santa Fe	State: New Mexico

View of the Oshara Village WRF individual lift station electrical box. Note: the exposed wiring (no conduit). (DSCN2556) Photographed by D. Esparza

Appendix 2

Review

of the

ICIS

E90 Effluent Violations

E90 Effluent Violations

NM0030813

OSHARA VILLAGE WRF

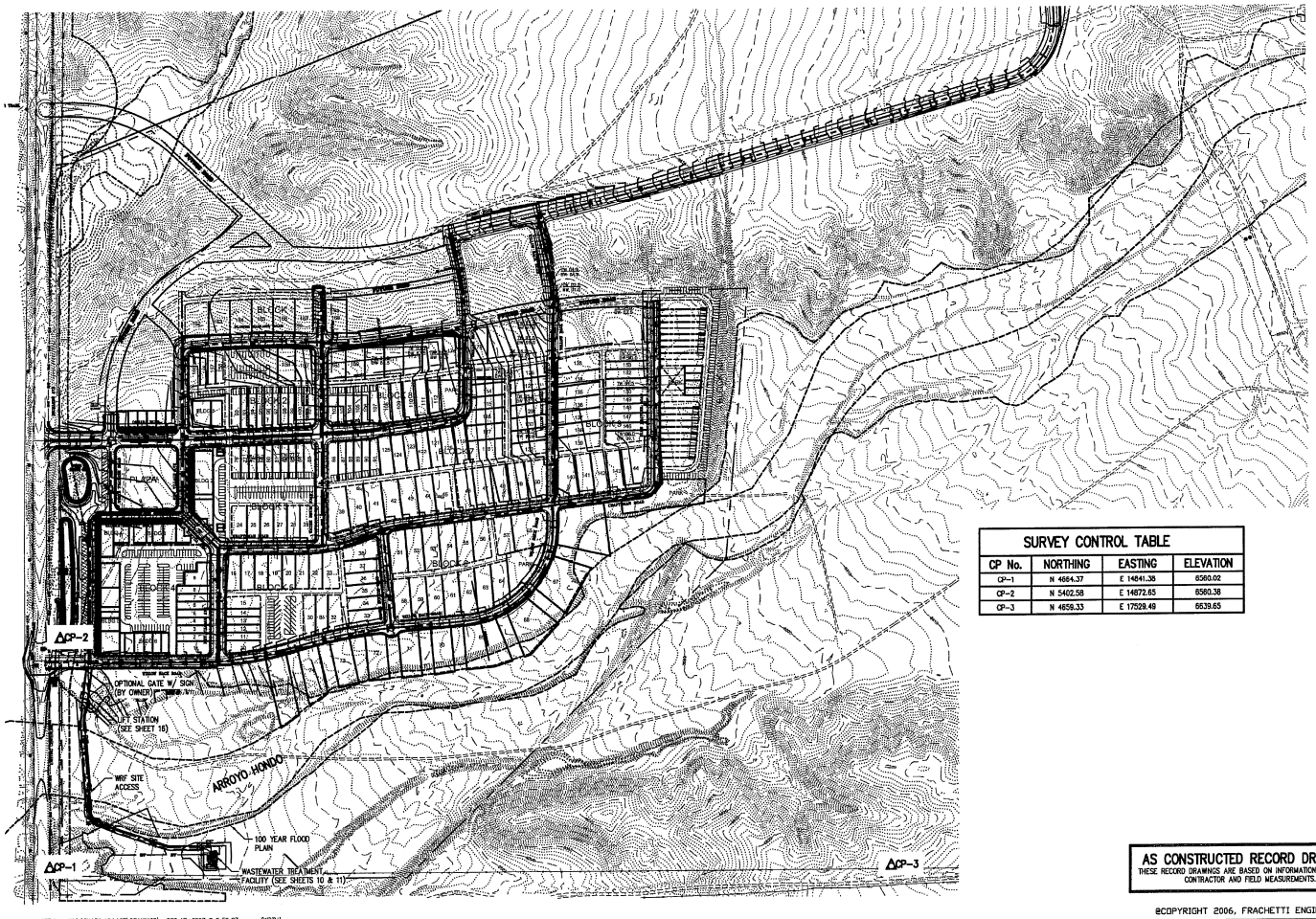
Monitoring Period End Date	Perm Feature ID	Limit Set Designator	Parameter Desc	Statistical Base Short Desc	Limit Unit Short Desc	Limit Value	DMR Value Qualifier Code	DMR Value	Reported Number of Excursions
10/31/2019	001	A	Solids, total suspended	30DA AVG	mg/L	30.	=	35.	1
02/29/2020	001	A	BOD, 5-day, 20 deg. C	30DA AVG	mg/L	30.	=	36.	1
02/29/2020	001	A	Solids, suspended percent rem	MO AV MN	%	85.	=	84.	1
02/29/2020	001	A	Solids, total suspended	30DA AVG	mg/L	30.	=	65.	1
02/29/2020	001	A	Solids, total suspended	7 DA AVG	mg/L	45.	=	65.	1
03/31/2020	001	A	Solids, suspended percent rem	MO AV MN	%	85.	=	66.	1
04/30/2020	001	A	Solids, suspended percent rem	MO AV MN	%	85.	=	83.	1
04/30/2020	001	A	Solids, total suspended	30DA AVG	lb/d	7.51	=	8.02	1
04/30/2020	001	A	Solids, total suspended	30DA AVG	mg/L	30.	=	58.	1
04/30/2020	001	A	Solids, total suspended	7 DA AVG	mg/L	45.	=	58.	1
02/28/2021	001	A	BOD, 5-day, 20 deg. C	30DA AVG	mg/L	30.	=	42.	1
08/31/2022	001	A	BOD, 5-day, 20 deg. C	30DA AVG	mg/L	30.	=	41.	1
06/30/2023	001	A	BOD, 5-day, 20 deg. C	30DA AVG	mg/L	30.	=	32.6	1

Appendix 3

Oshara Village WRF
Site Plan
Drawings


Lift Station
Oshara Village
WWTP
Outfall
-106.000 35.610 Degrees
Santa Fe County, Growth Management Department; Pict

SET NO. _____



OSHARA PLAN SET.dwg W:\OSHARA VILLAGE\DRAWINGS\ DEC 17, 2007 @ 2:50:07 pm - (NOTH)

OSHARA VILLAGE
WASTEWATER RECLAMATION FACILITY
SANTA FE, NEW MEXICO

Frachetti Engineering P.C.
DENVER, CO
(303) 703-3434

OVERALL SITE PLAN

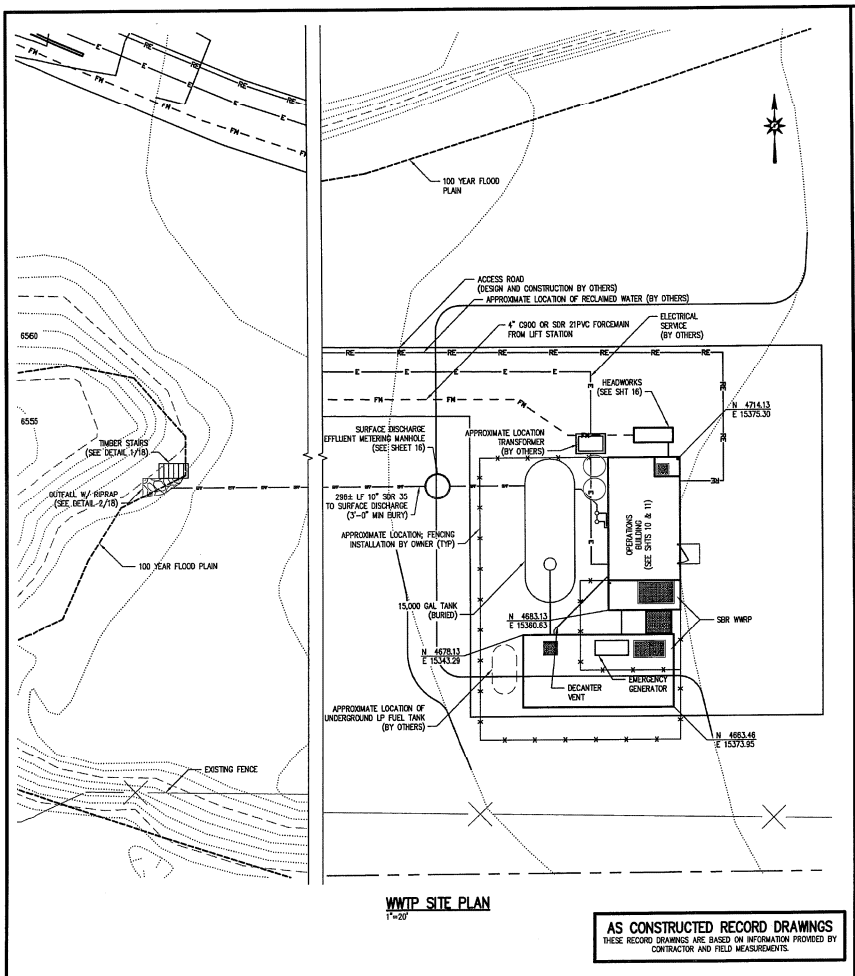
DESIGNED BY AS
DRAWN BY KDS
CHECKED BY KDF
DATE AUG 2006

REVISIONS
REV NO. | DESCRIPTION

JOB NO.

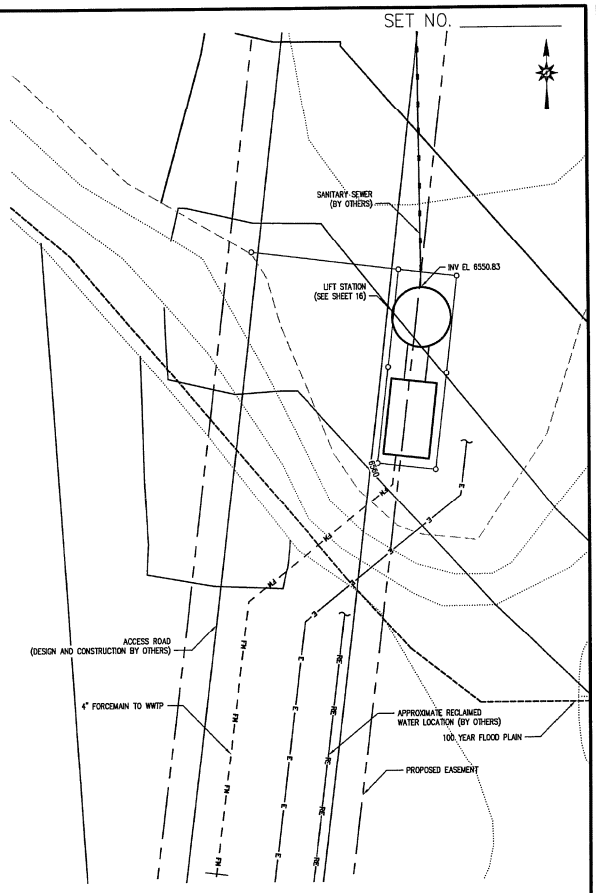
SHEET NO.
6

19



WWTP SITE PLAN
1"=20'

AS CONSTRUCTED RECORD DRAWINGS
THESE RECORD DRAWINGS ARE BASED ON INFORMATION PROVIDED BY CONTRACTOR AND FIELD MEASUREMENTS.



LIFT STATION SITE PLAN
1"=10'

OSHARA PLAN SET.dwg W:\OSHARA VILLAGE\DRAWINGS\ DEC 17, 2007 @ 2:20:07 pm - (KOTH)

OSHARA VILLAGE
WASTEWATER RECLAMATION FACILITY
SANTA FE, NEW MEXICO

Frachetti Engineering PC
DENVER, CO
(303) 393-1664

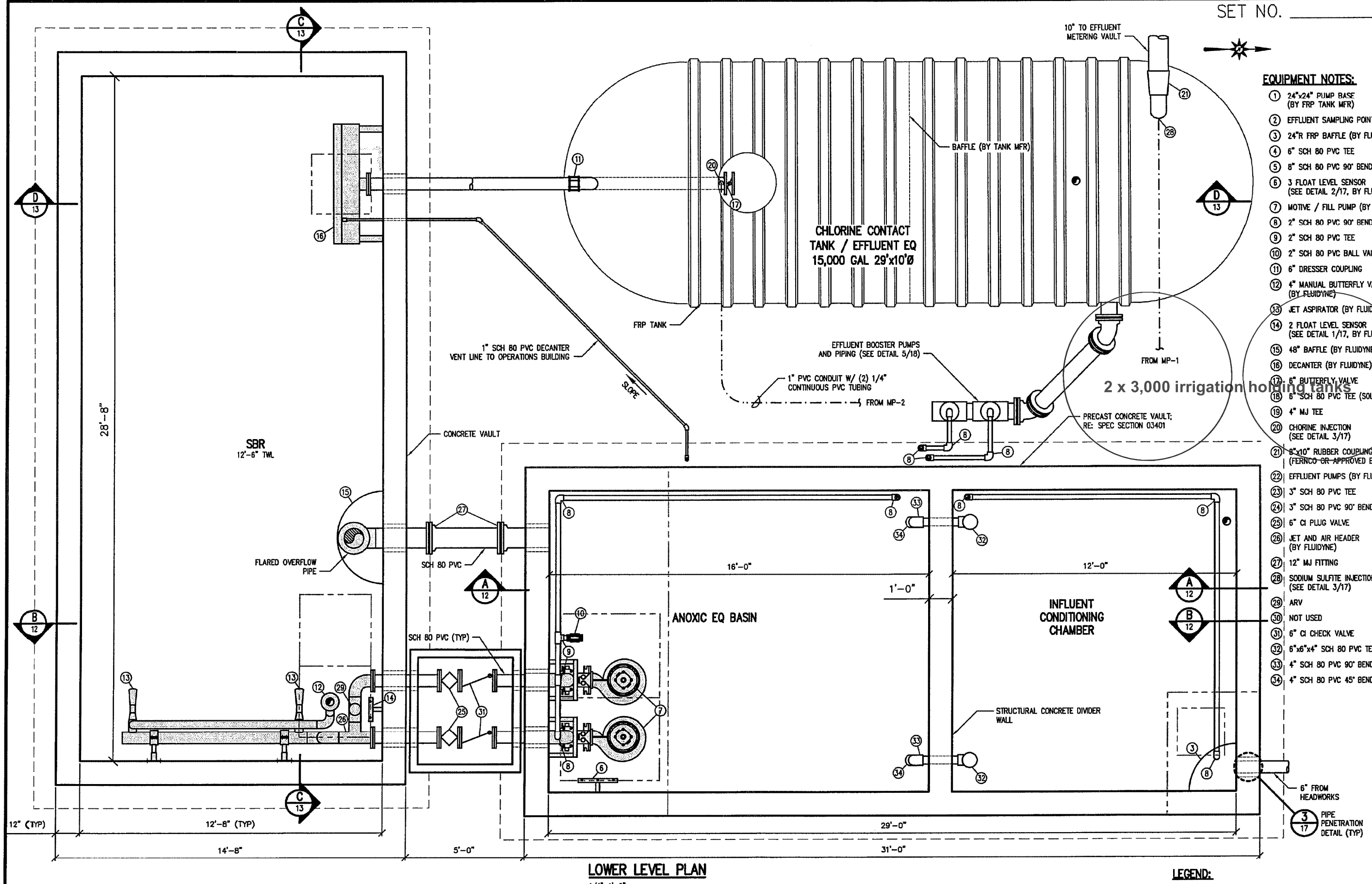
SITE PLAN

DRAWING BY: AG
CHECKED BY: KOTH
DATE: JULY 2008

REVISIONS
NO. DESCRIPTION

JOB NO.

SHEET NO.
7


10" TO EFFLUENT METERING VAULT
BAFFLE (BY TANK MFR)
CHLORINE CONTACT TANK / EFFLUENT EQ 15,000 GAL 29'x10'Ø
FRP TANK
1" SCH 80 PVC DECANTER VENT LINE TO OPERATIONS BUILDING
SLOPE
EFFLUENT BOOSTER PUMPS AND PIPING (SEE DETAIL 5/18)
1" PVC CONDUIT W/ (2) 1/4" CONTINUOUS PVC TUBING
FROM MP-2
FROM MP-1
2 x 3,000 irrigation holding tanks
PRECAST CONCRETE VAULT; RE: SPEC SECTION 03401
CONCRETE VAULT
SBR
12'-6" TWL
28'-8"
FLARED OVERFLOW PIPE
SCH 80 PVC
SCH 80 PVC (TYP)
ANOXIC EQ BASIN
16'-0"
1'-0"
12'-0"
INFLUENT CONDITIONING CHAMBER
STRUCTURAL CONCRETE DIVIDER WALL
6" FROM HEADWORKS
PIPE PENETRATION DETAIL (TYP)
12" (TYP)
12'-8" (TYP)
14'-8"
5'-0"
29'-0"
31'-0"

SET NO. ____________

EQUIPMENT NOTES:

1. 24"x24" PUMP BASE (BY FRP TANK MFR)
2. EFFLUENT SAMPLING POINT
3. 24"R FRP BAFFLE (BY FLUIDYNE)
4. 6" SCH 80 PVC TEE
5. 8" SCH 80 PVC 90° BEND
6. 3 FLOAT LEVEL SENSOR (SEE DETAIL 2/17, BY FLUIDYNE)
7. MOTIVE / FILL PUMP (BY FLUIDYNE)
8. 2" SCH 80 PVC 90° BEND
9. 2" SCH 80 PVC TEE
10. 2" SCH 80 PVC BALL VALVE
11. 6" DRESSER COUPLING
12. 4" MANUAL BUTTERFLY VALVE (BY FLUIDYNE)
13. JET ASPIRATOR (BY FLUIDYNE)
14. 2 FLOAT LEVEL SENSOR (SEE DETAIL 1/17, BY FLUIDYNE)
15. 48" BAFFLE (BY FLUIDYNE)
16. DECANTER (BY FLUIDYNE)
17. 6" BUTTERFLY VALVE
18. 6" SCH 80 PVC TEE (SOLVENT WELD)
19. 4" MJ TEE
20. CHORINE INJECTION (SEE DETAIL 3/17)
21. 8"x10" RUBBER COUPLING (FERNCO OR APPROVED EQUAL)
22. EFFLUENT PUMPS (BY FLUIDYNE)
23. 3" SCH 80 PVC TEE
24. 3" SCH 80 PVC 90° BEND
25. 6" CI PLUG VALVE
26. JET AND AIR HEADER (BY FLUIDYNE)
27. 12" MJ FITTING
28. SODIUM SULFITE INJECTION (SEE DETAIL 3/17)
29. ARV
30. NOT USED
31. 6" CI CHECK VALVE
32. 6"x6"x4" SCH 80 PVC TEE
33. 4" SCH 80 PVC 90° BEND
34. 4" SCH 80 PVC 45° BEND

LOWER LEVEL PLAN

1/4"=1'-0"

LEGEND:

PIPING AND EQUIPMENT BY FLUIDYNE

AS CONSTRUCTED RECORD DRAWINGS

THESE RECORD DRAWINGS ARE BASED ON INFORMATION PROVIDED BY CONTRACTOR AND FIELD MEASUREMENTS.

OSHARA PLAN SET.dwg W:\OSHARA VILLAGE\DRAWINGS\ DEC 17, 2007 @ 2:50:07 pm - (KEITH)

OSHARA VILLAGE
WASTEWATER RECLAMATION FACILITY
SANTA FE, NEW MEXICO

Frachetti Engineering INC. DENVER, CO

WWRP LOWER LEVEL PLAN

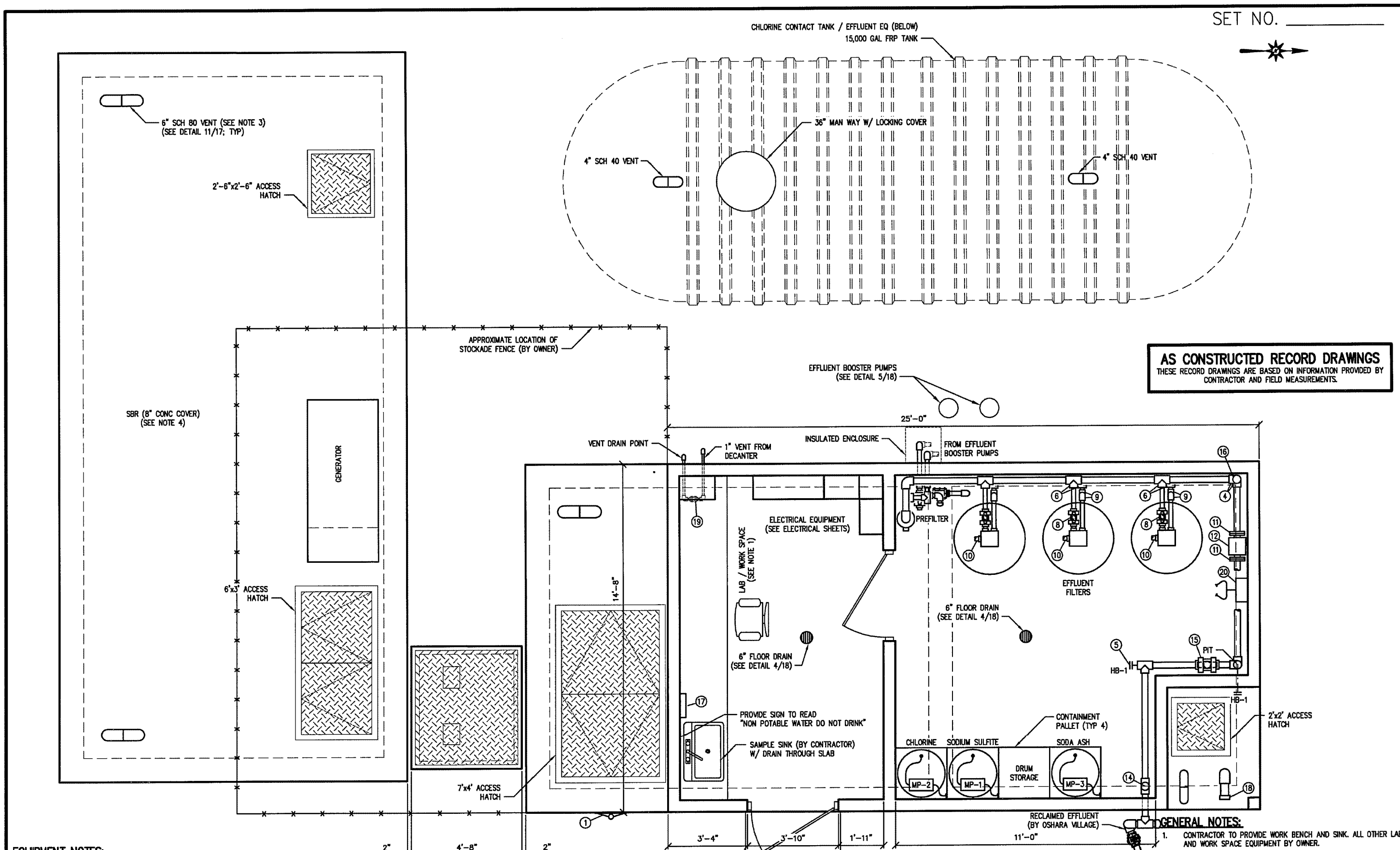
DESIGNED BY RWF
DRAWN BY RFR
CHECKED BY RWF
DATE JUNE 2006

REV. NO. | REV. DATE | REV. DESCRIPTION

JOB NO.

SHEET NO. 10 OF 19

SET NO. ______



CHLORINE CONTACT TANK / EFFLUENT EQ (BELOW)
15,000 GAL FRP TANK
36" MAN WAY W/ LOCKING COVER
4" SCH 40 VENT
4" SCH 40 VENT
6" SCH 80 VENT (SEE NOTE 3)
(SEE DETAIL 11/17; TYP)
2'-6"x2'-6" ACCESS HATCH
APPROXIMATE LOCATION OF STOCKADE FENCE (BY OWNER)
SBR (8" CONC COVER)
(SEE NOTE 4)
GENERATOR
6'x3' ACCESS HATCH
EFFLUENT BOOSTER PUMPS
(SEE DETAIL 5/18)
25'-0"
INSULATED ENCLOSURE
FROM EFFLUENT BOOSTER PUMPS
VENT DRAIN POINT
1" VENT FROM DECANTER
ELECTRICAL EQUIPMENT
(SEE ELECTRICAL SHEETS)
PREFILTER
LAB / WORK SPACE
(SEE NOTE 1)
14'-8"
EFFLUENT FILTERS
6" FLOOR DRAIN
(SEE DETAIL 4/18)
6" FLOOR DRAIN
(SEE DETAIL 4/18)
PIT
HB-1
HB-1
2'x2' ACCESS HATCH
PROVIDE SIGN TO READ
"NON POTABLE WATER DO NOT DRINK"
SAMPLE SINK (BY CONTRACTOR)
W/ DRAIN THROUGH SLAB
CONTAINMENT PALLET (TYP 4)
CHLORINE
SODIUM SULFITE
SODA ASH
DRUM STORAGE
MP-2
MP-1
MP-3
7'x4' ACCESS HATCH
RECLAIMED EFFLUENT
(BY OSHARA VILLAGE)
2"
4'-8"
2"
3'-4"
3'-10"
1'-11"
11'-0"
4'-0"x4'-0"x4" THK CONCRETE ENTRY

UPPER LEVEL PLAN
1/4"=1'-0"

EQUIPMENT NOTES:

1. WALL MOUNT DAVIT CRANE BASS; THERN MODEL 510W (DAVIT CRANE BY OWNER)
2. 2" BALL VALVE (BY FLUIDYNE)
3. 2" AUTOMATIC BALL VALVE (BY FLUIDYNE)
4. 3" SCH 80 PVC 90° BEND
5. SAMPLE TAP / HB (SEE DETAIL 6/18)
6. 3" SCH 80 PVC TEE W/ 2" BUSHING
7. 3"x2" SCH 80 PVC BUSHING
8. 2" SCH 80 PVC TRUE UNION BALL VALVE
9. 2" SCH 80 PVC 90° BEND
10. WASTE DRAIN FROM PRESSURE FILTERS (SEE DETAIL DRAIN DETAIL 4/18 SIM)
11. 3" SCH 80 PVC FLANGED ADAPTER
12. 3" MAG METER
13. NOT USED
14. SAMPLE TAP FOR TURBIDITY METER FIELD ROUTE TO TRABITY METER (SEE DETAIL 6/18 SIM)
15. 3" SCH 80 PVC TRUE UNION BALL VALVE
16. AIR RELEASE VALVE (SEE DETAIL 8/17)
17. TURBIDITY METER W/ DRAIN FIELD ROUTE TO SAMPLE SINK
18. 4" QUICK CONNECT (SLUDGE DRAWOFF)
19. 1" MOTORIZED VALVE
20. WALL MOUNTED EYE WASH STATION

GENERAL NOTES:

1. CONTRACTOR TO PROVIDE WORK BENCH AND SINK. ALL OTHER LAB AND WORK SPACE EQUIPMENT BY OWNER.
2. CONTRACTOR TO INSULATE ALL EXTERIOR PIPING ABOVE 3'-0" BURY
3. ALL VENTS AND ACCESS HATCH TO BE PAINTED; COLOR PER OWNER
4. ALL EXTERIOR EXPOSED CONCRETE SURFACES TO BE ACID STAINED (EARTH TONE) BY OWNER
5. ALL ELECTRICAL EQUIPMENT NOT MOUNTED ON WALL SHALL BE PLACED ON A 4" CONCRETE PAD

AS CONSTRUCTED RECORD DRAWINGS
THESE RECORD DRAWINGS ARE BASED ON INFORMATION PROVIDED BY CONTRACTOR AND FIELD MEASUREMENTS.

OSHARA PLAN SET.dwg W:\OSHARA VILLAGE\DRAWINGS\ DEC 17, 2007 @ 2:50:07 pm - (KEITH)

OSHARA VILLAGE
WASTEWATER RECLAMATION FACILITY
SANTA FE, NEW MEXICO

Frachetti Engineering

WWRP UPPER LEVEL PLAN

REV No. | REV DATE | REV DESCRIPTION

JOB NO.

SHEET NO. 11 OF 19