FACILITY NAME AND PERMIT NUMBER:
City of Rock Island WWTP/WA0501487

RECEIVED
OCT 11 2016
Dept of Ecology
Central Regional Office

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information Packet.

A.1. Facility Information.

Facility Name: City of Rock Island WWTP

Mailing Address: P.O. Box 99 Rock Island WA 98850

Facility Address (not P.O. Box): 201 4th ST. SW Rock Island WA 98850

Location (Latitude/Longitude as decimal degrees (NAD83/WGS84): 47.3702N/120.1348W

Telephone Number: (509) 884-1261

E-mail address: publicworksri@nwi.net

Contact Person: R. Noe Andrade

Title: Public Works Sup./ WWTPO

UBI Number: N/A

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant Name: N/A

Mailing Address:

Telephone Number: ( )

E-mail address:

Contact Person:

Title:

Is the applicant the owner or operator (or both) of the treatment works? ☐ owner ☒ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.
☒ facility ☐ applicant

Can the facility obtain broadband internet access for WQWebDMR (http://www.ecy.wa.gov/programs/wq/permits/paris/webdmr.html)?
☒ yes ☐ no

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES	WA0501487	PSD	N/A
UIC	N/A	Other	
RCRA	N/A	Other	

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
City ofRock Island	874	Separate	Municipal

Total population served 874

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A.5. Indian Country.

a. Is the treatment works located in Indian Country?

☐ Yes ☒ No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

☐ Yes ☒ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate 0.225 mgd

		Two Years Ago	Last Year	This Year
b.	Annual average daily flow rate	0.0440	0.0456	0.0433
c.	Maximum daily flow rate	0.064	0.058	0.056

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

☒ Separate sanitary sewer 100 %

☐ Combined storm and sanitary sewer ____ %

A.8. Discharges and Other Disposal Methods.

a. Does the treatment works discharge effluent to waters of the U.S.? ☒ Yes ☐ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent 1

ii. Discharges of untreated or partially treated effluent 0

iii. Combined sewer overflow points 0

iv. Constructed emergency overflows (prior to the headworks) 0

v. Other ____ 0

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? ☐ Yes ☒ No

If yes, provide the following for each surface impoundment:

Location :
(Latitude/Longitude as decimal degrees (NAD83/WGS84))

Annual average daily volume discharge to surface impoundment(s) ____ mgd

Is discharge ☐ continuous or ☐ intermittent?

c. Does the treatment works land-apply treated wastewater? ☐ Yes ☒ No

If yes, provide the following for each land application site:

Location :
(Latitude/Longitude as decimal degrees (NAD83/WGS84))

Number of acres:

Annual average daily volume applied to site: ____ mgd

Is land application ☐ continuous or ☐ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? ☐ Yes ☒ No

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

N/A

If transport is by a party other than the applicant, provide:

Transporter Name N/A

Mailing Address

Contact Person

Title

Telephone Number ( )

For each treatment works that receives this discharge, provide the following:

Name N/A

Mailing Address

Contact Person

Title

Telephone Number ( )

If known, provide the NPDES permit number of the treatment works that receives this discharge

Provide the average daily flow rate from the treatment works into the receiving facility. mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8. through A.8.d above (e.g., underground percolation, well injection): ☐ Yes ☒ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed by this method:

Is disposal through this method ☐ continuous or ☐ intermittent?

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WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. **If you answered "no" to question A.8.a,** go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

a. Outfall number: 0.001

b. Location: Rock Island (City or town, if applicable) 98850 (Zip Code)

Douglas (County) WA (State)

47.3702N/120.1348W (Latitude) Provide these as decimal degrees (NAD83/WGS84) (Longitude)

c. Distance from shore (if applicable): 100 ft.

d. Depth below surface (if applicable): 15 ft.

e. Average daily flow rate: 0.045 mgd

f. Does this outfall have either an intermittent or a periodic discharge? ☐ Yes ☒ No (go to A.9.g.)

If yes, provide the following information:

Number f times per year discharge occurs: _____

Average duration of each discharge: _____

Average flow per discharge: _____ mgd

Months in which discharge occurs: _____

g. Is outfall equipped with a diffuser? ☒ Yes ☐ No

A.10. Description of Receiving Waters.

a. Name of receiving water: Columbia River

b. Name of watershed (if known): Moses/Coulee WRIA 44

United States Soil Conservation Service 14-digit watershed code (if known): Not known

c. Name of State Management/River Basin (if known): Columbia River

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 17020012

d. Critical low flow of receiving stream (if applicable)
acute N/A cfs chronic N/A cfs

e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of $CaCO_3$

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A.11. Description of Treatment

a. What level(s) of treatment are provided? Check all that apply.

☒ Primary ☒ Secondary

☐ Advanced ☐ Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD5 removal or Design CBOD5 removal >= 85 %

Design SS removal >= 85 %

Design P removal N/A %

Design N removal N/A %

Other _____ _____ %

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe:

Ultraviolet

If disinfection is by chlorination is dechlorination used for this outfall? ☐ Yes ☐ No

d. Does the treatment plant have post aeration? ☐ Yes ☒ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than one and one-half years apart.

Outfall number: 0.001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	7.21	s.u.			
pH (Maximum)	7.76	s.u.			
Flow Rate	0.058	MGD	0.0456	MGD	12
Temperature (Winter)	16.67	Degrees C	11.65	Degrees C	6
Temperature (Summer)	26.2	Degrees C	25.05	Degrees C	6

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
		Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NON CONVENTIONAL COMPOUNDS								
BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD5	117	lbs/day	101	lbs/day	12	SM 5210-B	2 mg/l
	CBOD5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FECAL COLIFORM		1.8	MPN/100 ml	1.8	MPN/ 100 ml	12	SM 9221-E	< 1 per 100ml
TOTAL SUSPENED SOLIDS (TSS)		104	lbs/day	68	lbs/day	12	SM 2540-D	N/A

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:
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BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

0 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

N/A

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

a. The area surrounding the treatment plant, including all unit processes.

b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.

c. Each well where wastewater from the treatment plant is injected underground.

d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within ¼ mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.

e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.

f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where the hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redunancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ☐ Yes ☒ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: N/A

Mailing Address:

Telephone Number: ( )

Responsibilities of Contractor:

B.5. Scheduled improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

N/A

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

☐ Yes ☒ No

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c. If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

N/A

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule MM/DD/YYYY	Actual Completion MM/DD/YYYY
- Begin Construction	/ /	/ /
- End Construction	/ /	/ /
- Begin Discharge	/ /	/ /
- Attain Operational Level	/ /	/ /

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ☐ Yes ☐ No

Describe briefly: N/A

B.6. EFFLUENT TESTING DATA (GREATER THAN OR EQUAL TO 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods (See attachment A). In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: .001

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NON CONVENTIONAL COMPOUNDS							
AMMONIA (as N)	0.41	mg/L	0.35	mg/L	4	SM 4500NH3-G	0.07 mg/L
CHLORINE (TOTAL RESIDUAL, TRC)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DISSOLVED OXYGEN	7.4	mg/L	6.30	mg/L	4	SM 4500-OG	0.01 mg/L
TOTAL KJELDAHL NITROGEN (TKN)	3.8	mg/L	2.5	mg/L	4	SM 4500-P E	0.30 mg/L
NITRATE PLUS NITRITE NITROGEN	6.21	mg/L	5.41	mg/L	4	SM 4500N03 F	0.07 mg/L
OIL and GREASE	3.1	mg/L	2.1	mg/L	4	EPA 1664B	5.00 mg/L
PHOSPHORUS (Total)	3.95	mg/L	2.14	mg/L	4	SM 4500-P E	0.07 mg/L
TOTAL DISSOLVED SOLIDS (TDS)	450	mg/L	430	mg/L	4	SM 2540-C	7 mg/L
OTHER							

END OF PART B.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

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BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

☒ Basic Application Information packet

Supplemental Application Information packet:

☐ Part D (Expanded Effluent Testing Data)

☐ Part E (Toxicity Testing: Biomonitoring Data)

☐ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

☐ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Permittee

Name and Title of Responsible Official: Randy Agnew, City of Rock Island Mayor

Signature: Randy Agnew

Telephone number: (509) 884-1261

E-mail address: mayorri@nwi.net

Date signed: 9-12-16

Co-Permittee (if applicable)

Name and official title: R. Noe Andrade Public Works Sup./WWTPO

Signature: Noe Andrade

Telephone number: (509) 668-0343

E-mail address: publicworksri@nwi.net

Date signed: 9-12-16

Upon request of the permitting authority, you must submit any other information necessary to assure wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO[1]:

Cindy Huwe, Permit Coordinator

Department of Ecology Central Regional Office

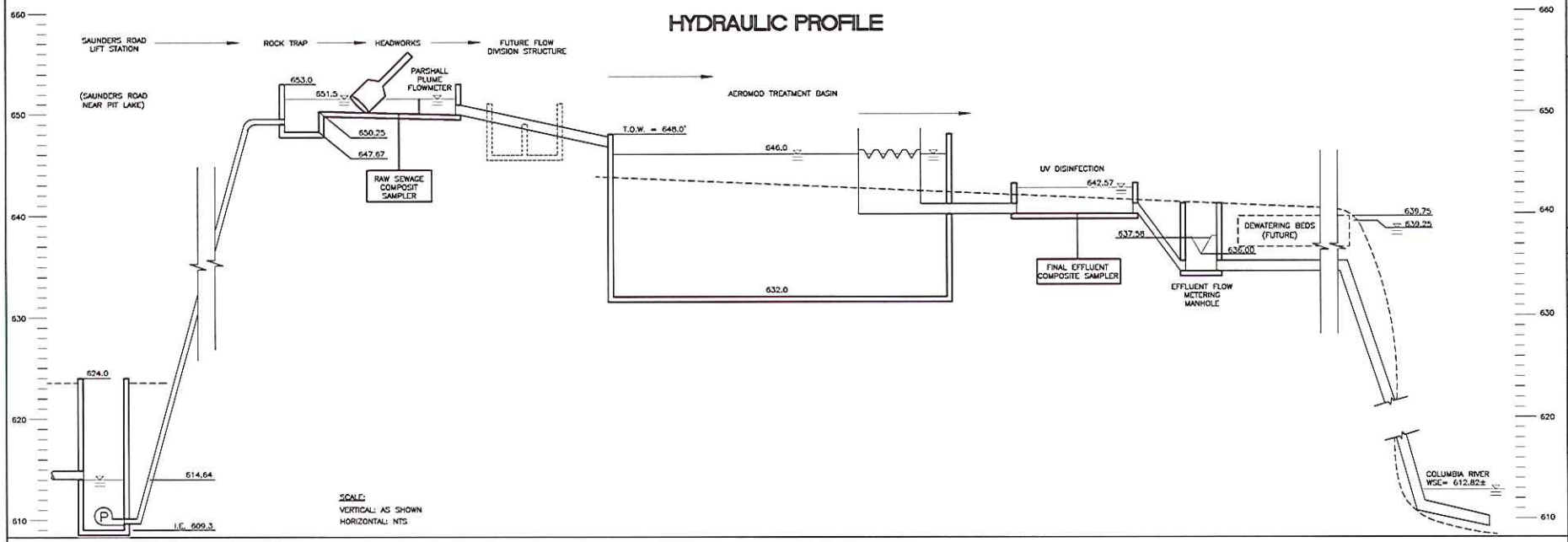
1250 West Alder Street

Union Gap, WA 98909-0009

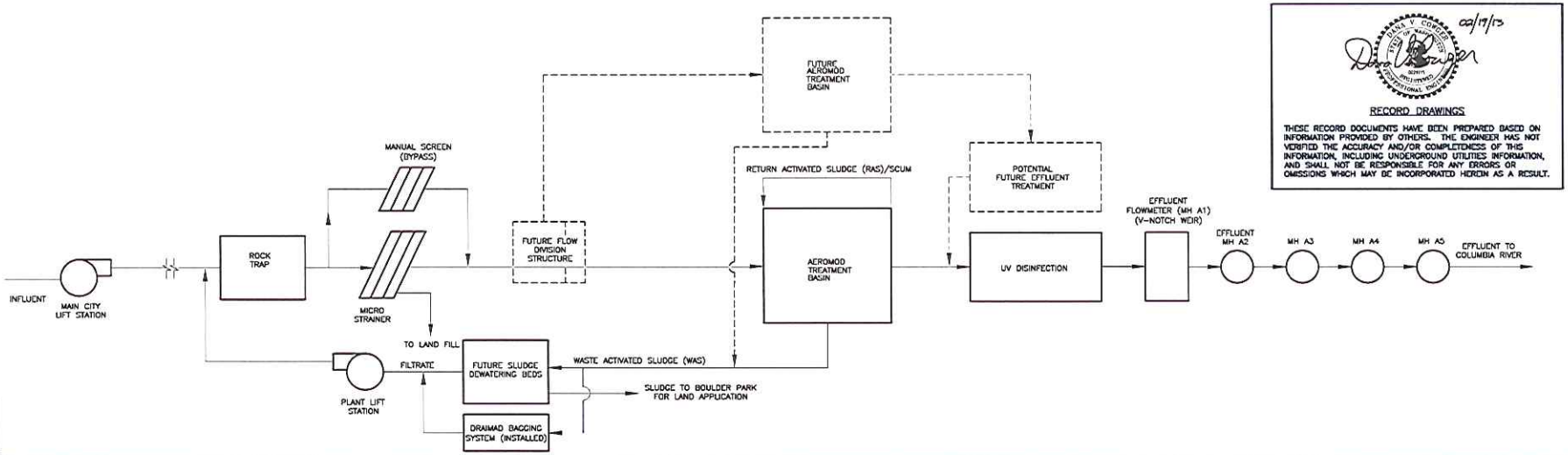
CITY OF
ROCK ISLAND

Rock Island has an Areo-Mod extended aeration wastewater treatment plant. It is currently running at about 20% capacity. Wastewater is fed into the plant form the northwest corner of the plant through a forced main from Saunders Lift Station. The plant receives an average influent flow of about 0.045 MGD and an average effluent flow of 0.032 MGD. Screening is conducted by a micro strainer with an orifice opening of 1/4". Annual removal amounts are negligible for the years of 2012-2016. The plant has 3 blowers; one of the three blowers is always on lead while the others are on standby. Wastewater goes through the plant process with an average SRT of 17-19 days. Disinfection is conducted by a U.V. system with two banks of U.V. bulbs. Sludge wasting is done to drying beds on a weekly basis. Bio solids that get produced get removed and placed on a holding pad until a full load is made up. Full loads consist of about 15-18 cubic yards of solids at about 80% ± percent solids. One or two loads are produce per year. The plant is equipped with an ATS back up system, which is fully capable of keeping up with the whole load of the plant.

HYDRAULIC PROFILE



PROCESS SCHEMATIC



10/17/13

RECORD DRAWINGS

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION, INCLUDING UNDERGROUND UTILITIES INFORMATION, AND SHALL NOT BE RESPONSIBLE FOR any ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.

CONTRACTORS RECORD DRAWING INFORMATION

NO.	DATE	BY	CKD.	APP.	REVISIONS
1	2/19/13	TVS			

VARELA AND ASSOCIATES
ENGINEERING AND MANAGEMENT
DATE 6/17/11

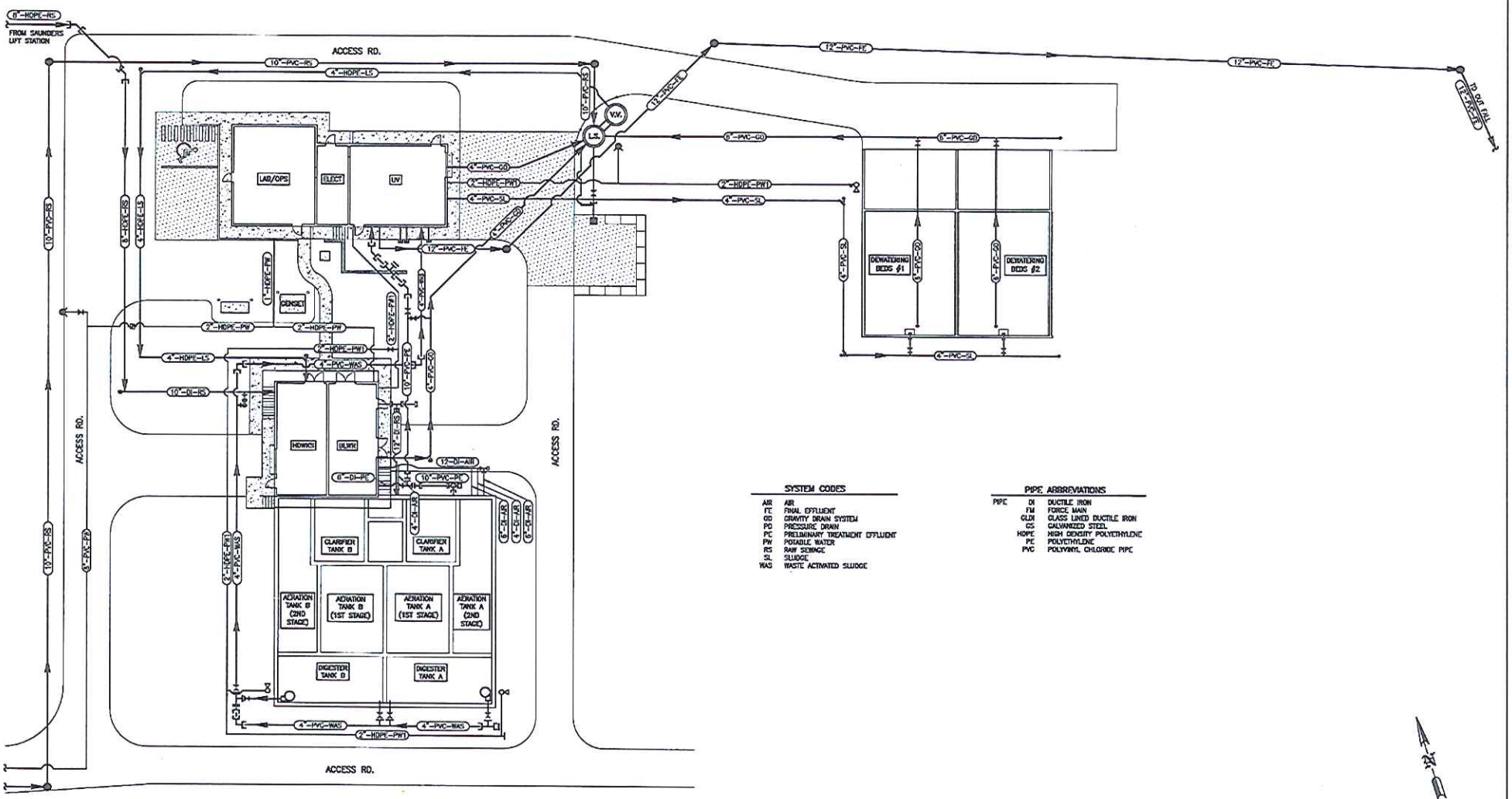
ROCK ISLAND, WASHINGTON
WASTEWATER TREATMENT PLANT

PROCESS SCHEMATIC & HYDRAULIC PROFILE

DESIGNED: DDC
DRAWN: TVS

SHEET X4
04 OF 116

1060508-WWTP-X4



SYSTEM CODES

AIR	AIR
FE	FINAL EFFLUENT
GD	GRAVITY DRAIN SYSTEM
PD	PRESSURE DRAIN
PE	PRELIMINARY TREATMENT EFFLUENT
PW	POTABLE WATER
RS	RAW SEWAGE
SL	SLUDGE
WAS	WASTE ACTIVATED SLUDGE

PIPE ABBREVIATIONS

PIPE	DI	DUCTILE IRON
	FM	FORCE MAIN
	GLDI	GLASS LINED DUCTILE IRON
	GS	GALVANIZED STEEL
	HDPE	HIGH DENSITY POLYETHYLENE
	PE	POLYETHYLENE
	PVC	POLYVINYL CHLORIDE PIPE

SCALE:	AS SHOWN
DESIGNED:	--
DRAWN:	TVP
CHECKED:	
APPROVED:	
PROJ. NO.:	105-03-04
DATE:	9/19/16

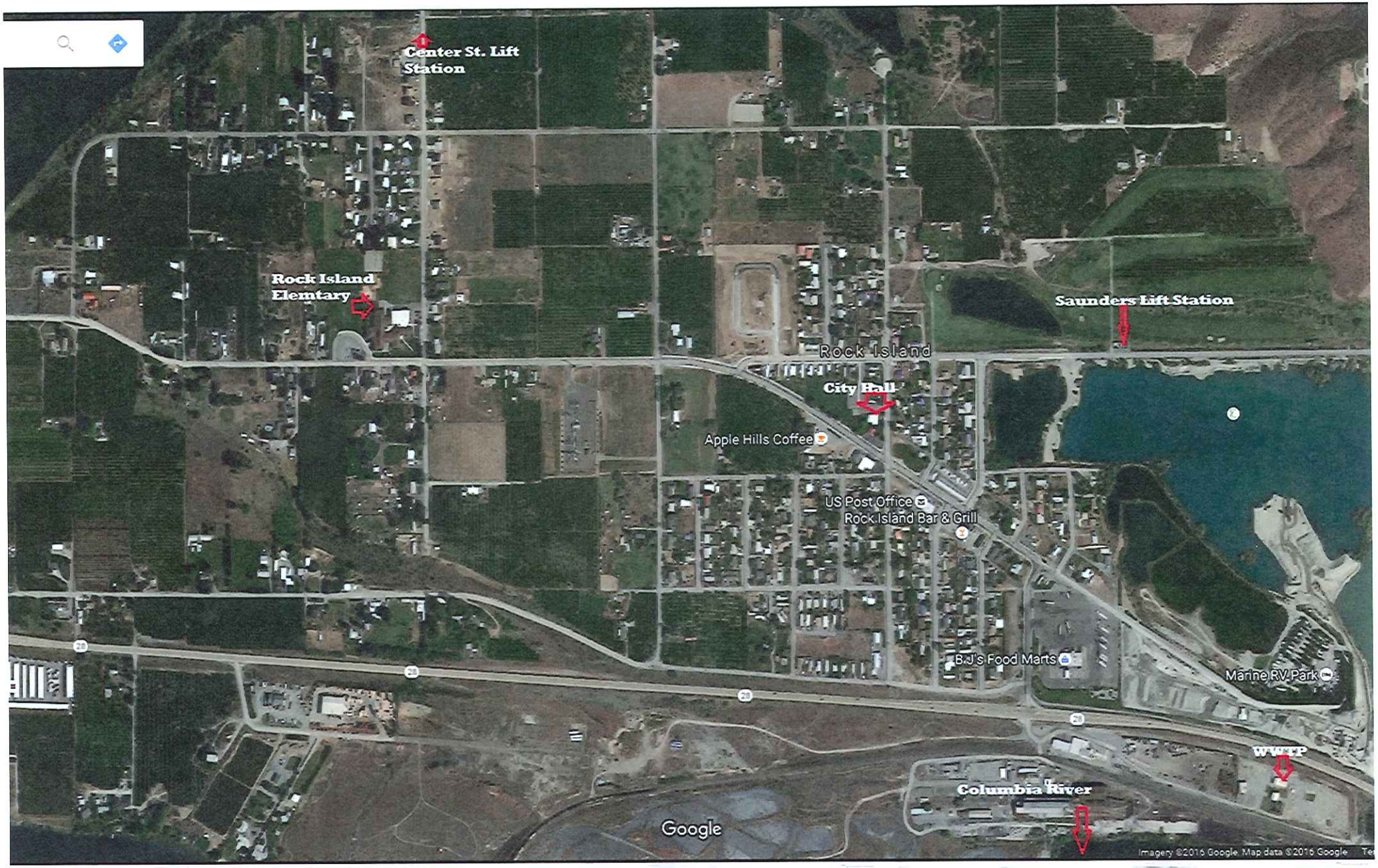
VARELA AND ASSOCIATES, INC.
ENGINEERING AND MANAGEMENT

CITY OF ROCK ISLAND, WA

WASTEWATER TREATMENT PLANT
PROCESS PIPING

1050304-Process Piping Exhibit


SR 28
Lab/Ops
Plant L.S.
Shop
ATS
Dewatering
Beds
Hdwks
Bio-solids
Storage
Basins
Columbia River
Outfall


Center St. Lift Station
Rock Island Elemtary
Saunders Lift Station
Rock Island
City Hall
Apple Hills Coffee
US Post Office
Rock Island Bar & Grill
BJ's Food Marts
Marine R.V. Park
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