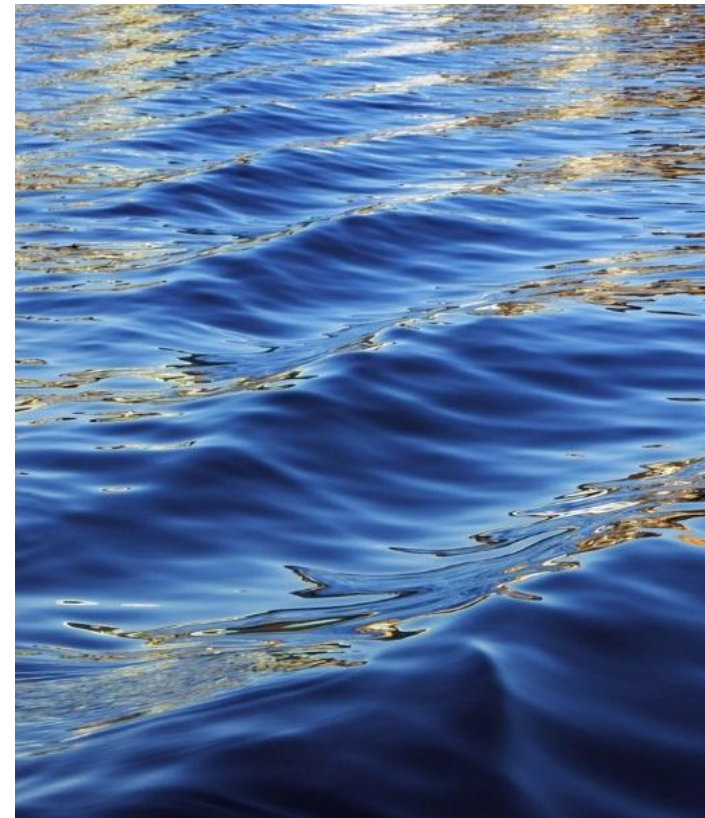




Meeting 2 : Sewer Ordinance Committee Workshop

November 6, 2023



Agenda

1. **Housekeeping:** Summary Notes approved, Goal/Success Indicators, Q & A time (see documentation)
2. Fist to Five vote on sewer w/in city limits - pulse check
3. Understanding Full Scope of Waste Water Clarifier/Sewer Effort
 - a. **Scopes, timelines, budgets, etc.**
4. Financing Options – education, assessment, what’s missing, what now?
5. Solution space – generate solutions for various scenarios Stevenson is facing

“It’s not about me, it’s not about now.”

Charter: Indicators of Success

- **Fair Infrastructure Improvement and Expansion:** Success ensures equitable sharing of financial impacts that do not burden residents with exorbitant costs for transitioning from septic to sewer and extending sewer lines while supporting small private development.
- **Informed Decision-Making:** Success means that the committee comprehensively understands the scope of the issue and various financing solutions, builds trust in the decision-making process, and recommends middle-ground positions that are determined legal.
- **Inclusivity and Community Perspectives:** Success entails considering all perspectives on the impacts of potential changes to the sewer ordinance and refraining from making decisions that benefit single perspectives or individuals. Success is improving trust by ensuring the committee understands the process, is supported to generate ideas to address sewer issues, and people feel heard and their time is valued.

Goals Staff for the Committee -

1. Create shared understandings of the sewer and septic trends in our community.
2. Validate or identify the need to alter the 1972 Sewer Ordinance assumptions/decisions, 2013 Land Use/Development assumptions/decisions and 2019 Rate assumptions/decisions.
3. Surface the potential impacts of proposed changes to the 1972 Sewer Ordinance.
4. Recommend a proposal with the least negative impacts

Decision making



Fist to Five

No way!
I'll block this.

I see **MAJOR**
issues we need
to resolve.

I see **MINOR**
issues we need
to resolve now.

I see minor
issues we can
resolve later.

I'm fine with
this as it is.

I love this!
I will champion it.

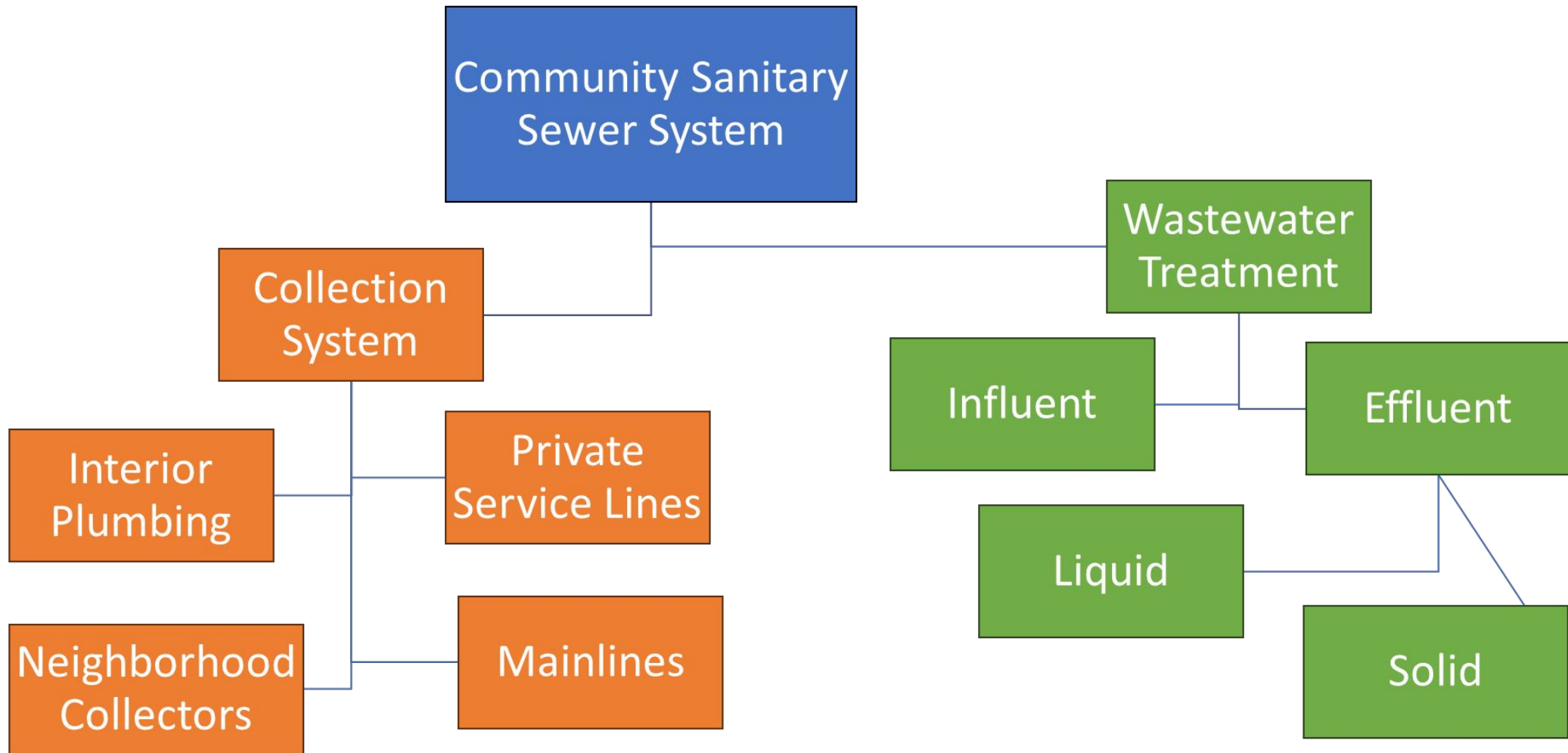
Assuming an equitable funding structure that does not burden residents with exorbitant costs or hinder small private development, I think sewer mainlines should be extended to City Limits by 2040, and a plan should be developed and implemented to maximize the number of parcels connected to the City Sewer System.

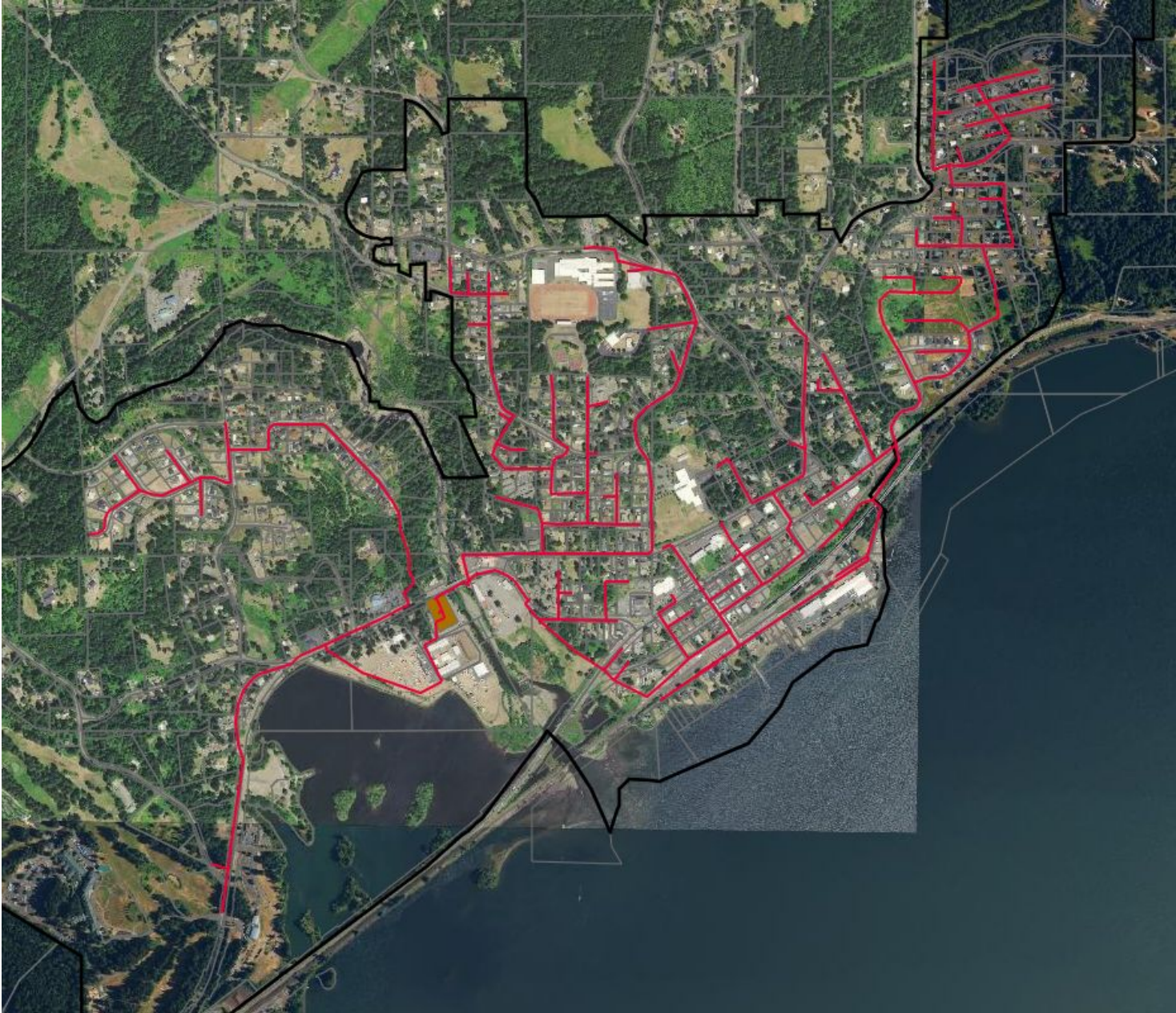
Let's EAT!

Courtesy of City of Stevenson
Provided by Tacos Pepe



Sewer System Components – Deeper Dive

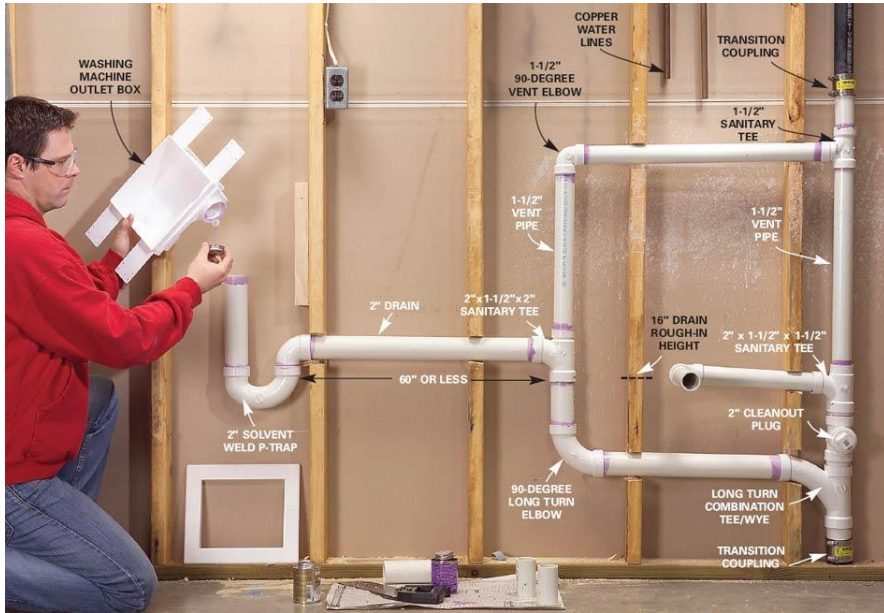




- Collection System
 - Interior Plumbing
 - Private Service Laterals
 - Neighborhood Collectors
 - Mainlines

Mainline – 12 miles
Manholes – 315 manholes
Pump Stations – 4

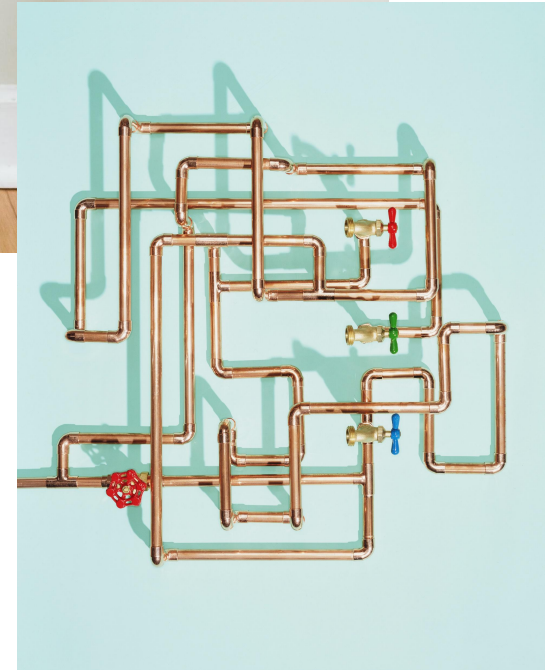
Interior Plumbing



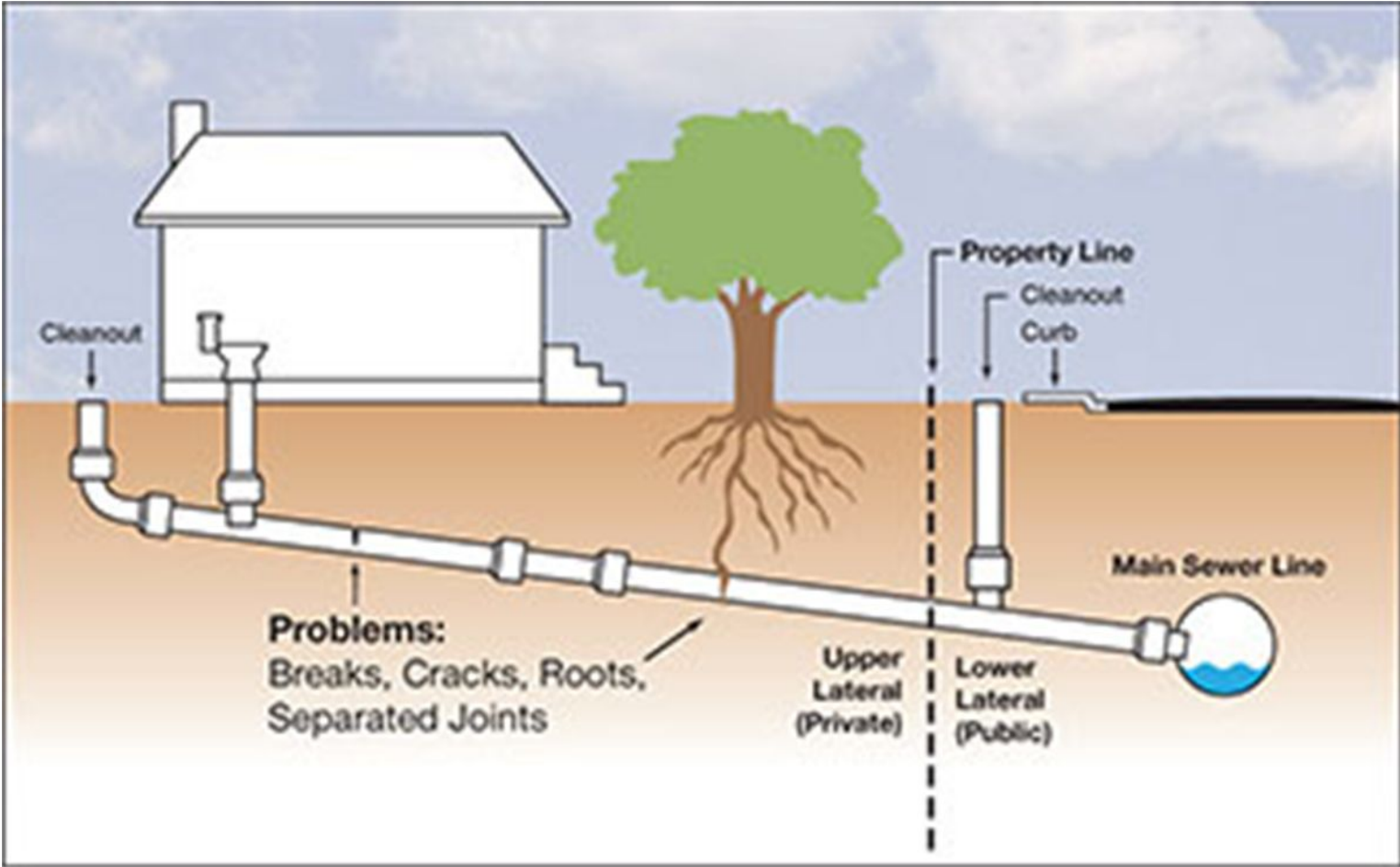
This Photo by Unknown Author is licensed under [CC BY-SA](#)



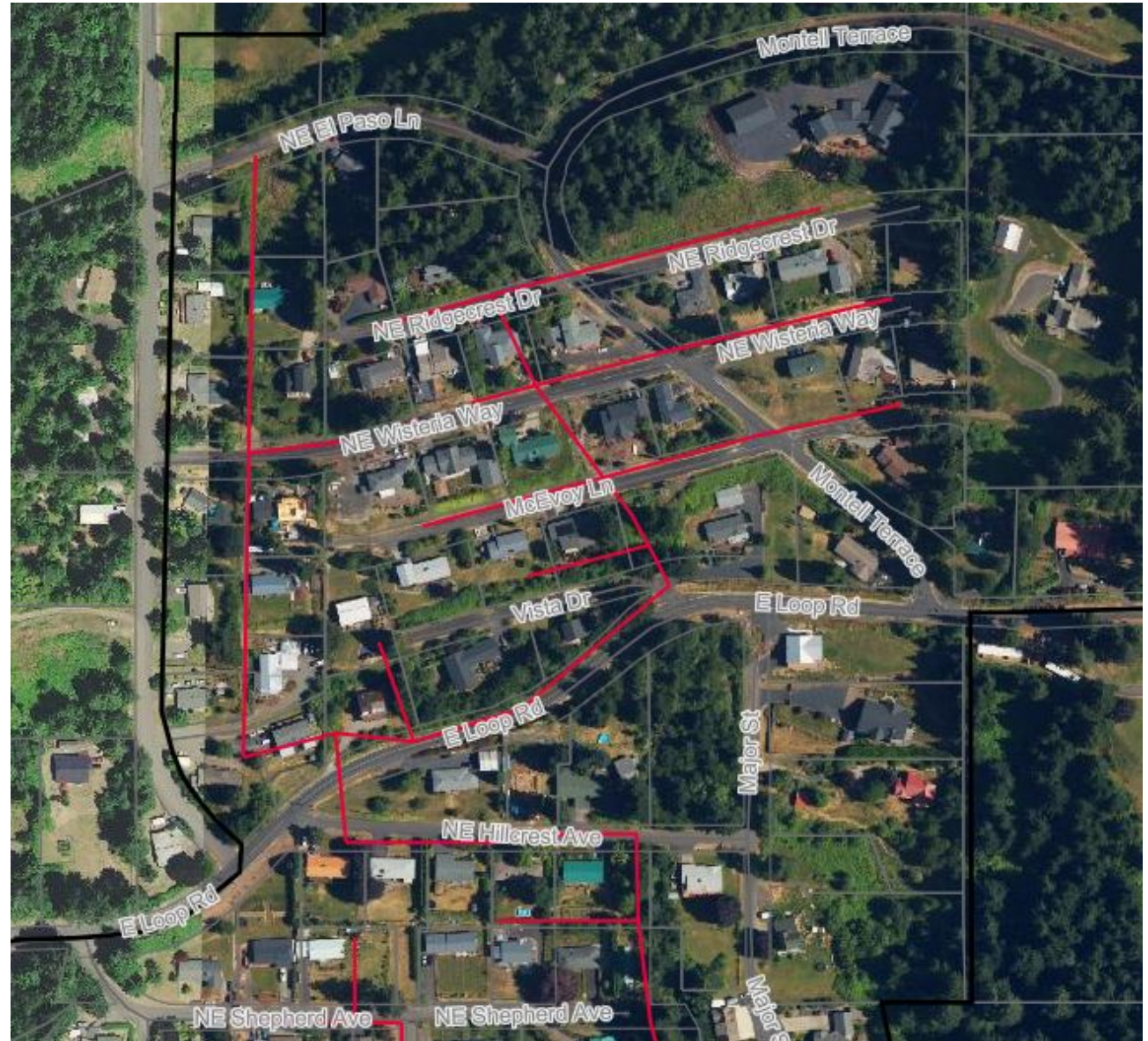
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Private Service Lateral



Neighborhood/ Community Collector



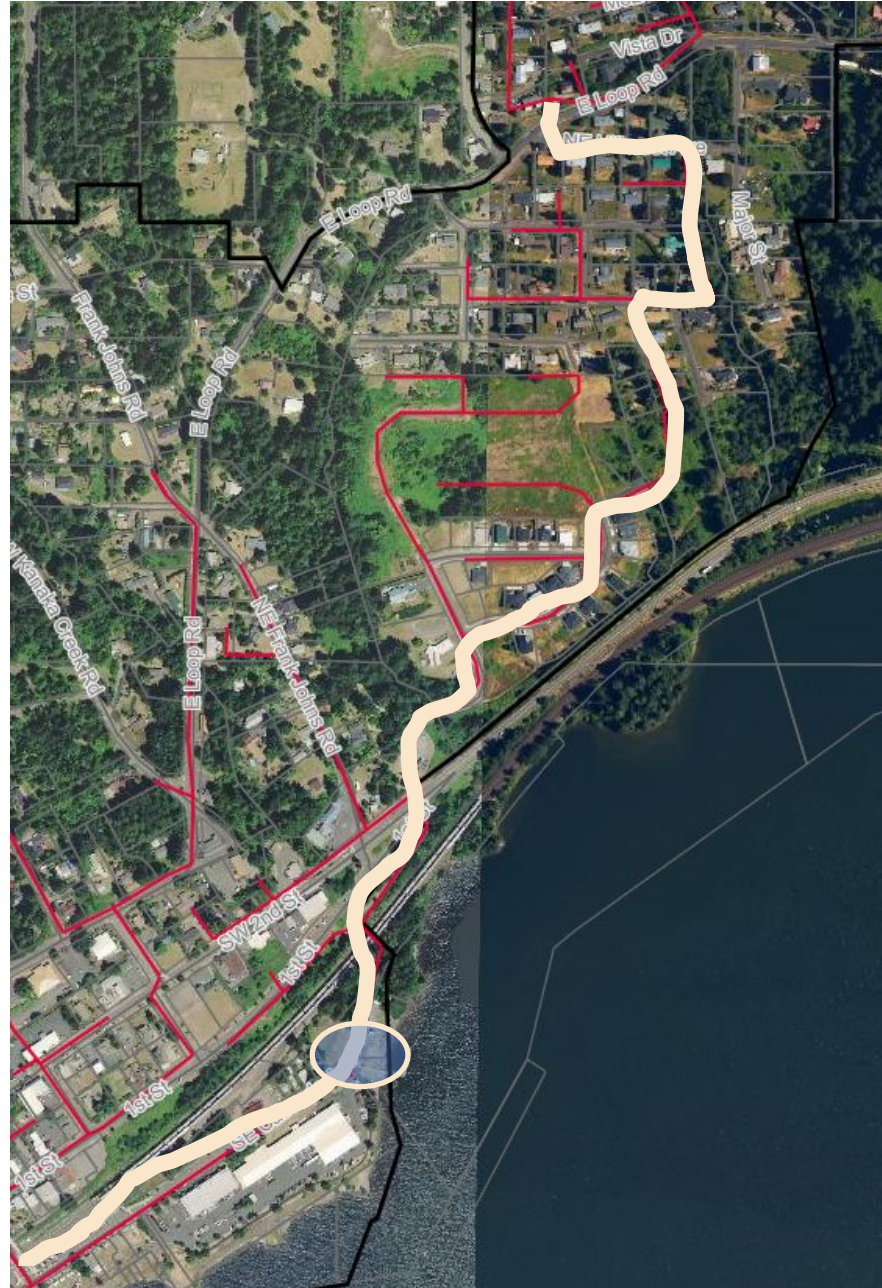
Neighborhood/ Community Collector



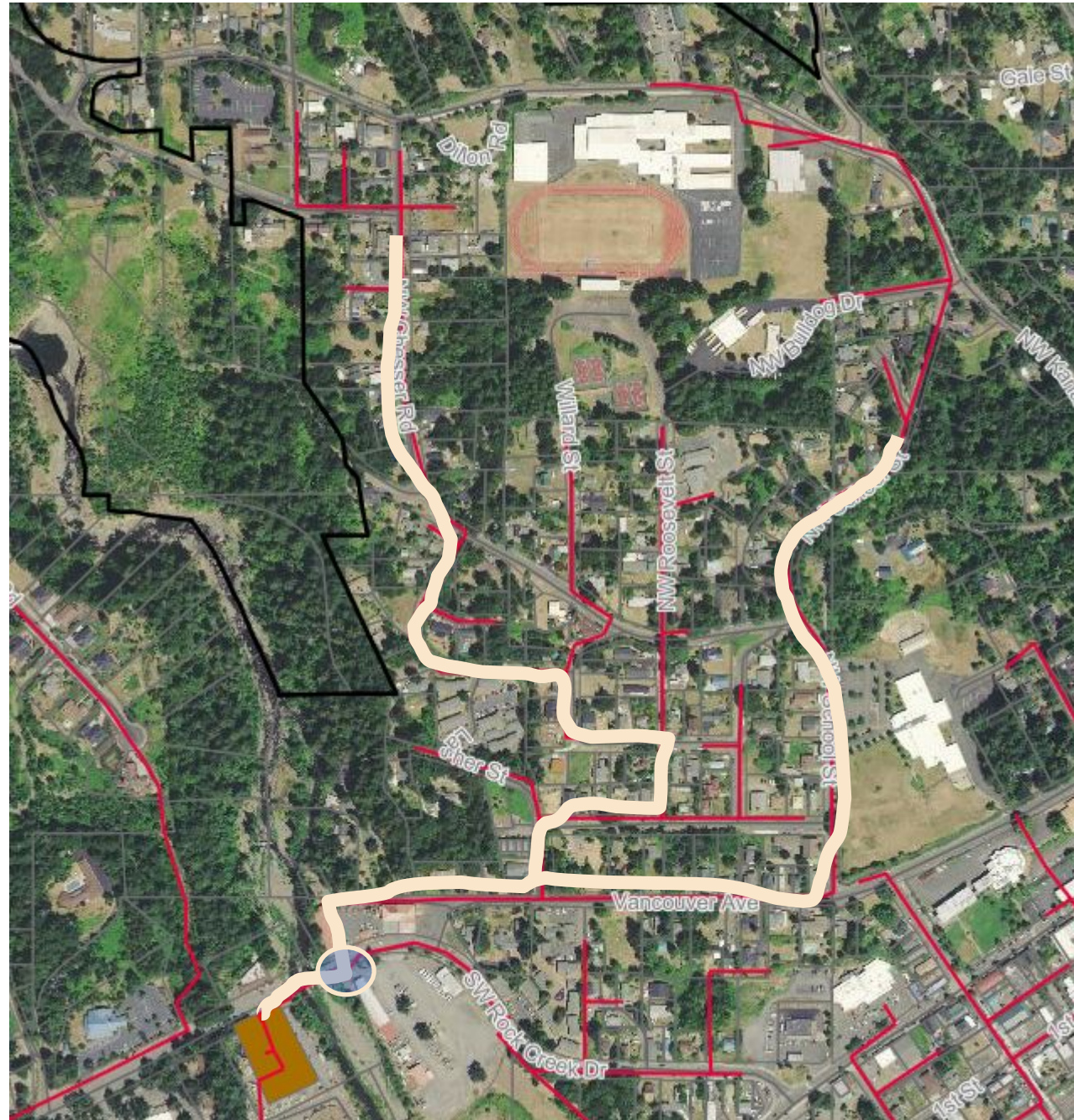
Neighborhood/ Community Collector



Sewer Mainline



Sewer Mainline



WWTP





Designer:
ESVELT ENVIRONMENTAL ENGINEERING LLC
 Spokane, Washington
 Phone: (509) 326-3049

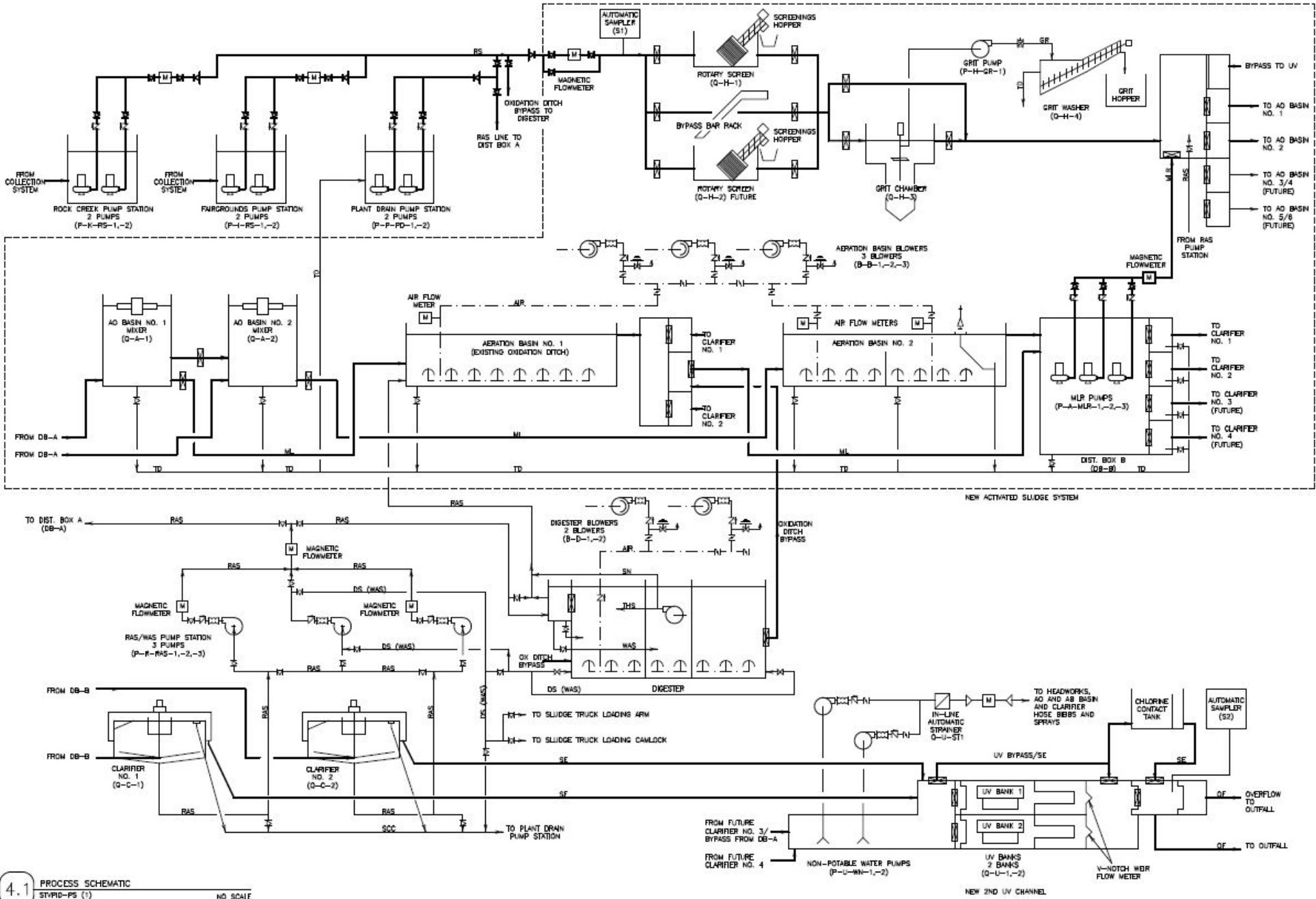
Project Engineer:
wallis engineering
 1000 N. Washington
 Spokane, WA 99201
 Project No. 1477A

SCALE OF FOOTINGS:
 The above and the larger numbered items, in this drawing, are the property of Esvelt Environmental Engineering LLC. All rights reserved. No part of this drawing may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Esvelt Environmental Engineering LLC.

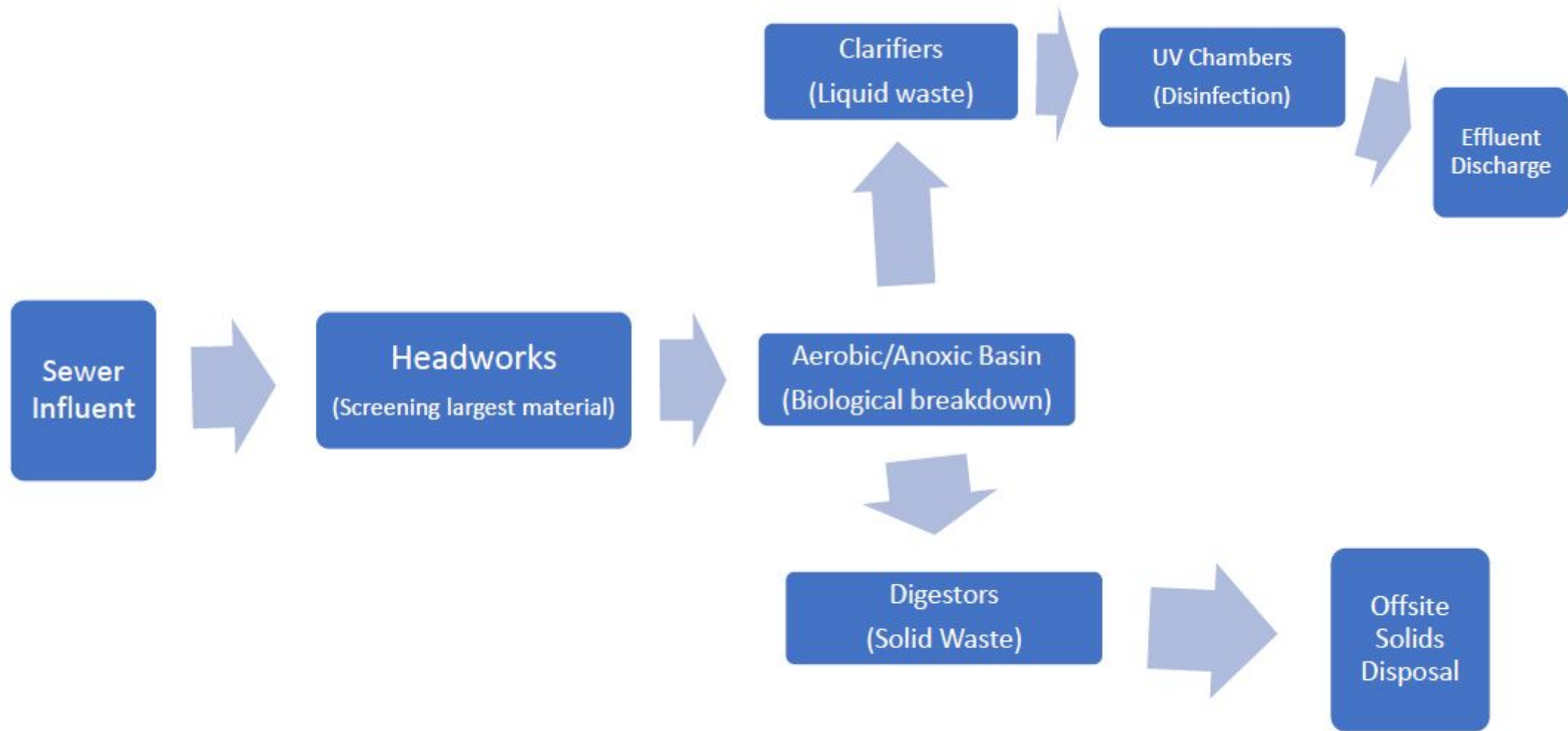


PROCESS SCHEMATIC
 Wastewater Treatment Plant
 Improvements - Phase 1
 City of Stevenson, WA

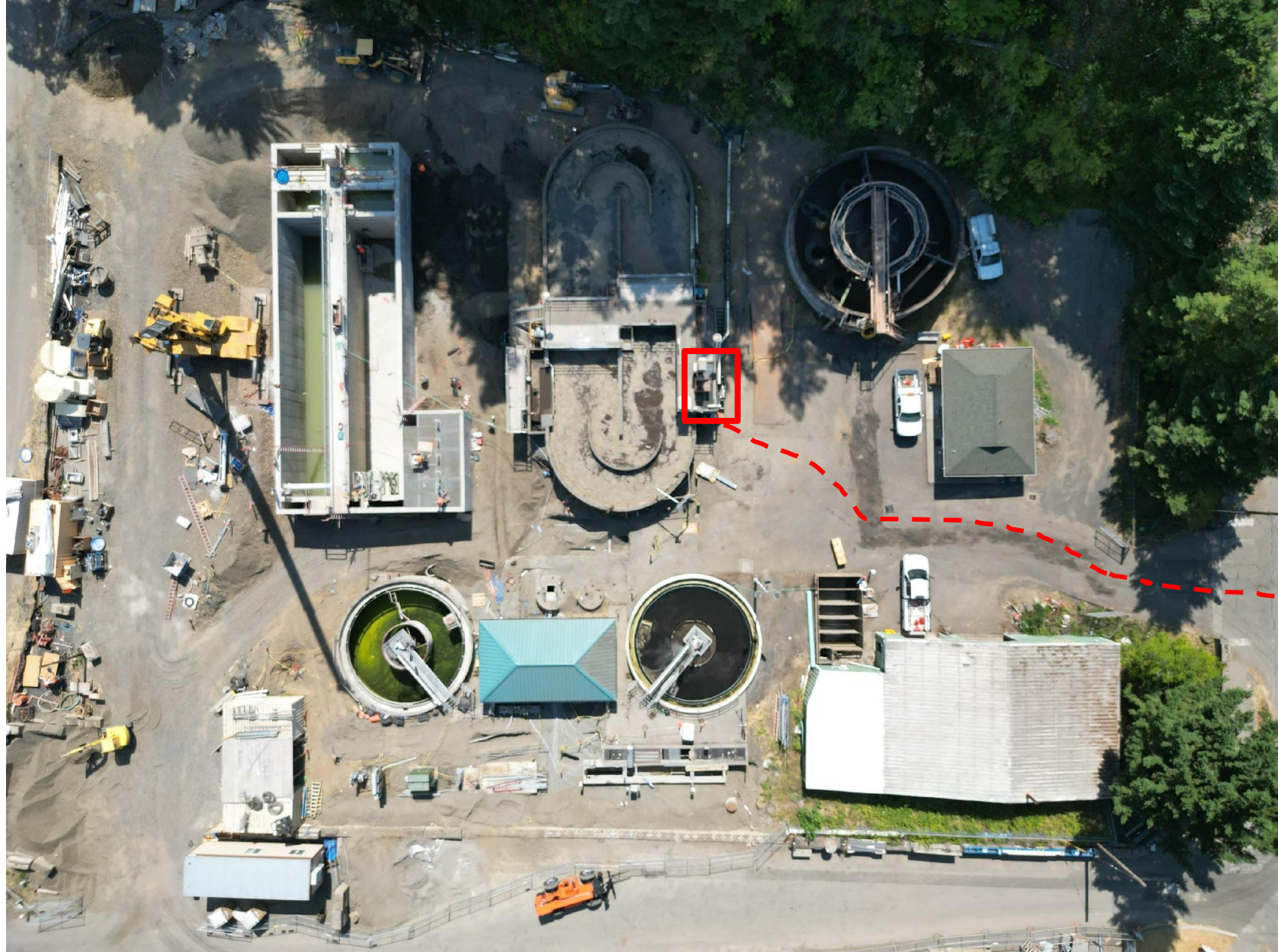
Revisions
Drawing Status Final
Released for Construction
Release Date 5/1/2022
Drawing OP2
Sheet 8 of 177



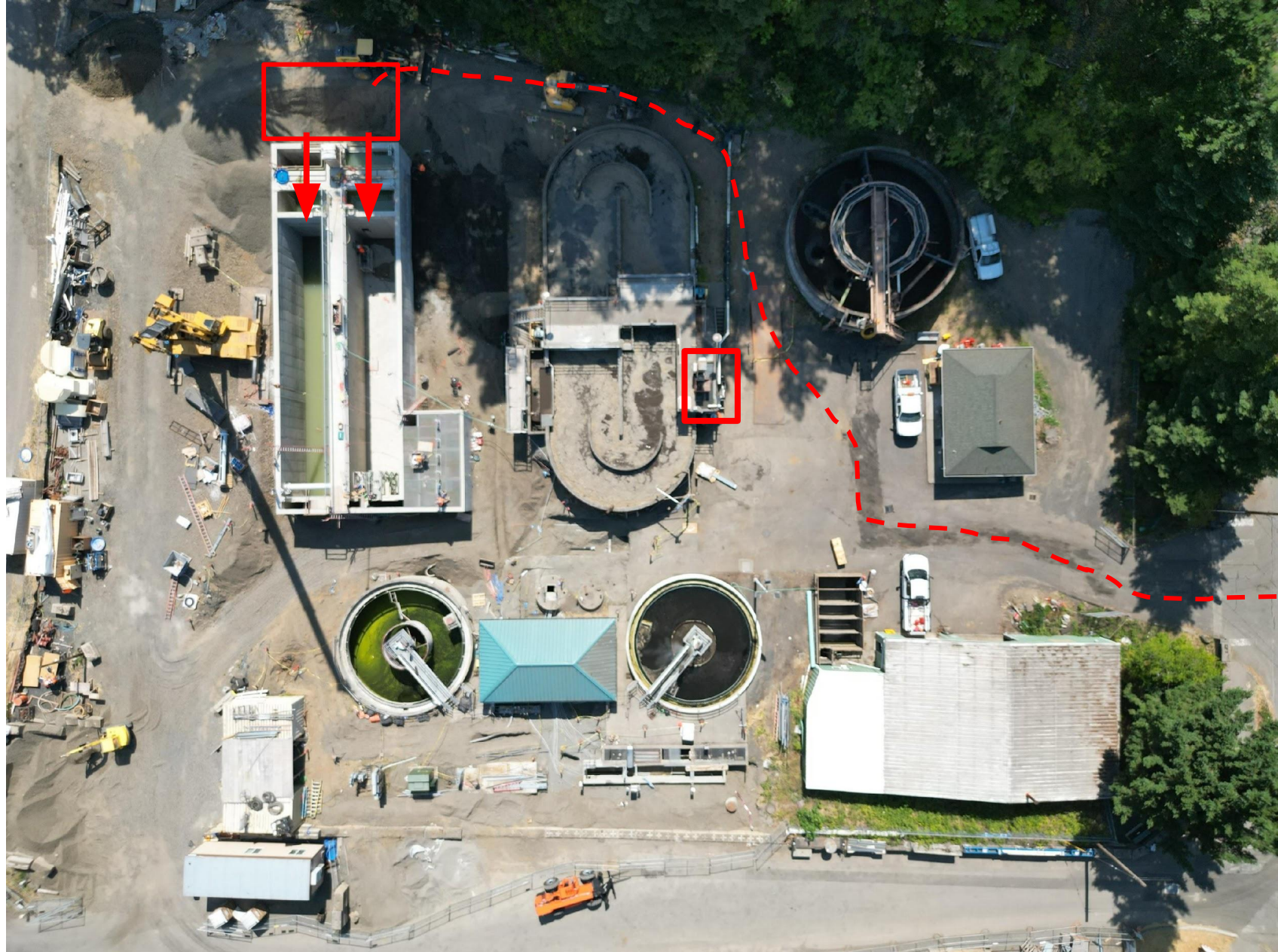
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 STVPID-PS (1)
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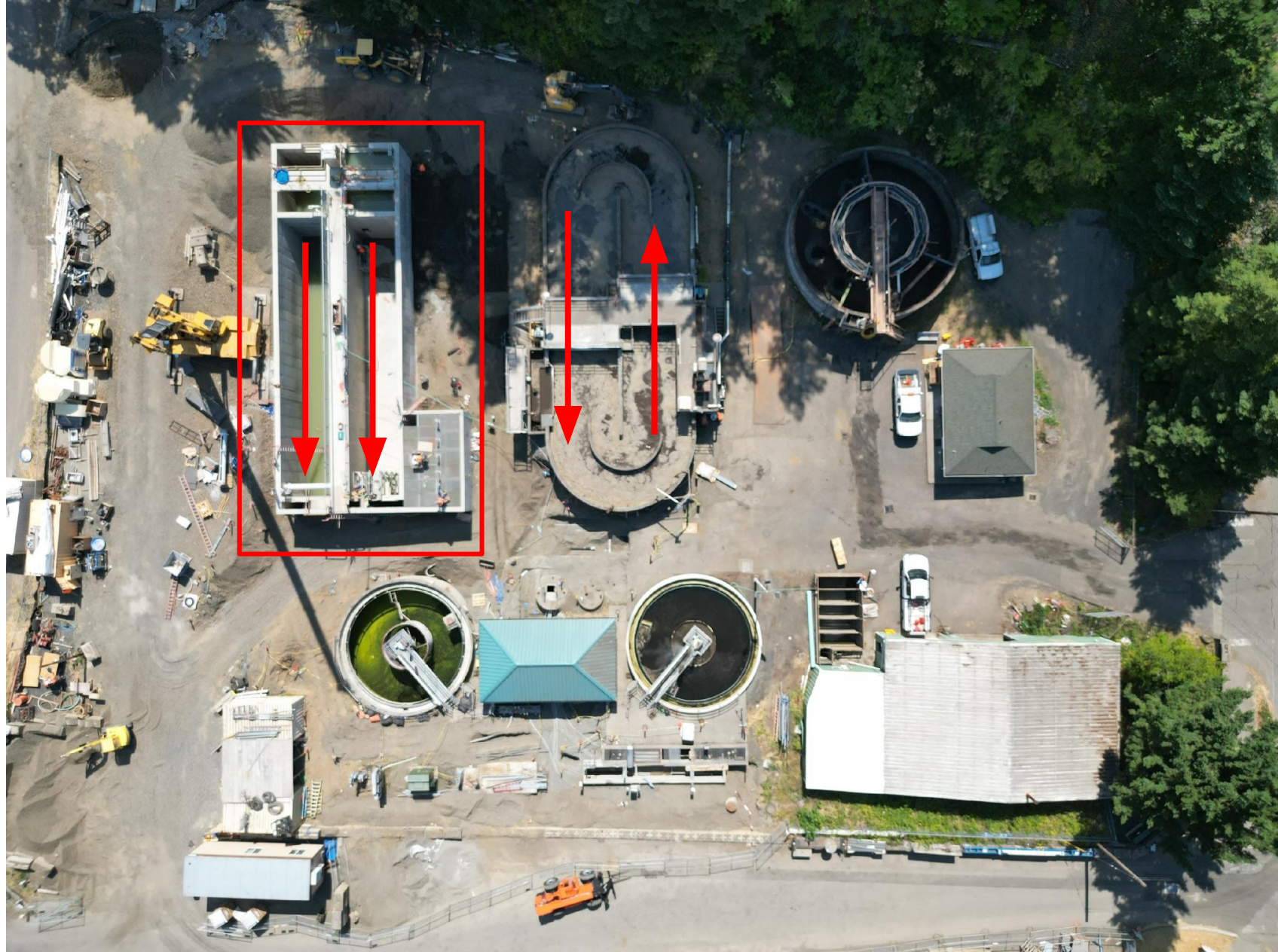
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WWTP



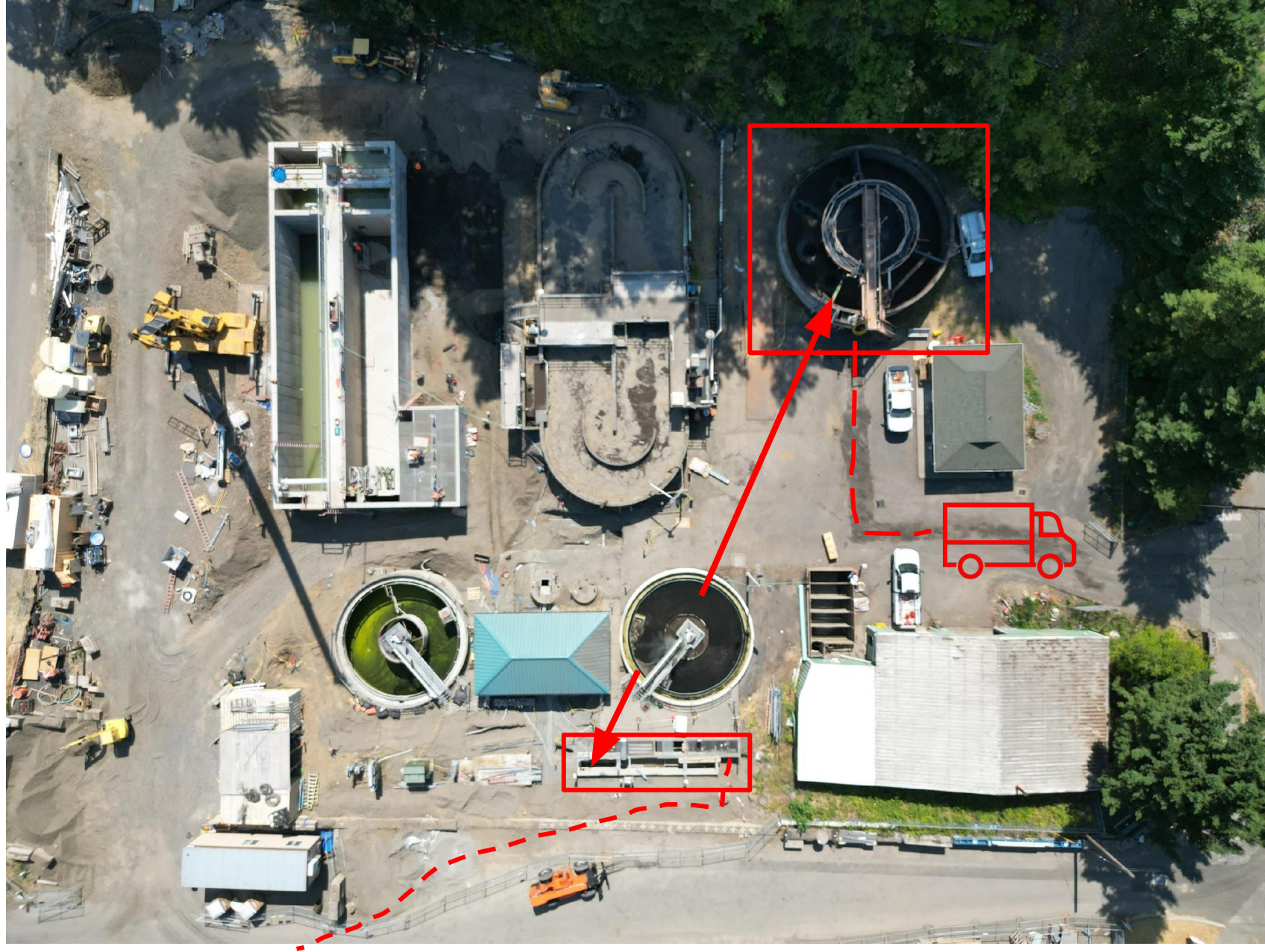
WWTP



WWTP



WWTP



National Pollutant Discharge Elimination System (NPDES) (aka Discharge Permit)

TESTS	SAMPLE POINT	SAMPLING FREQUENCY	SAMPLE TYPE
Flow	Influent or Final Effluent	Continuous (Report daily totals)	On Line
pH	Influent Final Effluent	Daily	Grab
BOD ₅	Influent Final Effluent	2/Week	24-hour Composite Refrigerated
TSS	Influent Final Effluent	2/Week	24-hour Composite Refrigerated
Fecal Coliform	Final Effluent	2/Week 5/Week during July – October for the Secondary Outfall	Grab
Ammonia	Final Effluent	2/week July – October only for Secondary Outfall	24-hour Composite
Sludge Production	Digested Sludge (volume hauled)	Monthly	Measured
Temperature	Final Effluent	Daily	Grab

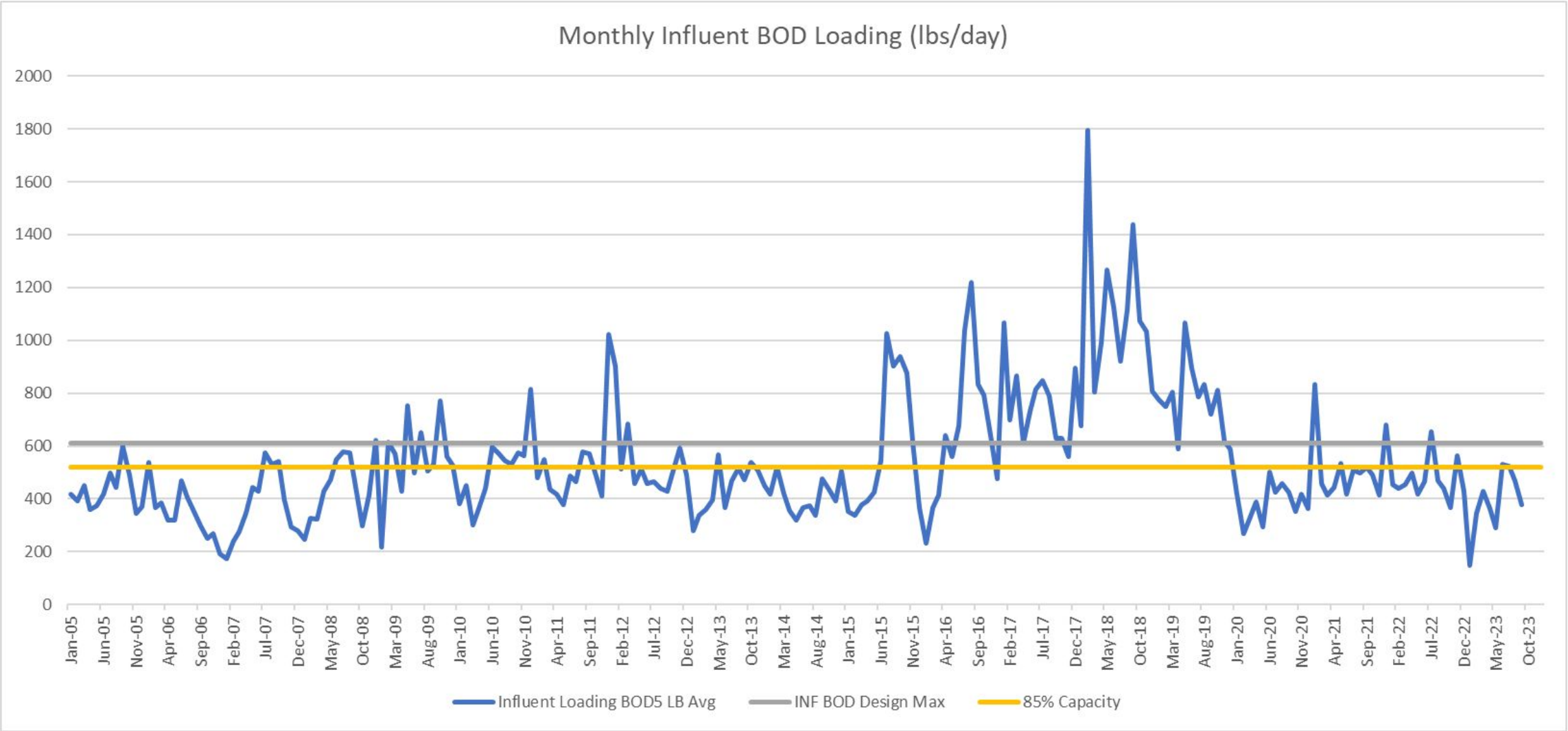
Discharge Permit Requirements

EFFLUENT LIMITATIONS		
Parameter	Monthly Average ^a	Weekly Average ^a
Biochemical Oxygen Demand* (5-Day)	30 mg/l, 92 lbs/day 85% Removal	45 mg/l, 138 lbs/day
Total Suspended Solids ^b	30 mg/l, 92 lbs/day 85% Removal	45 mg/l, 138 lbs/day
Fecal Coliform Bacteria	200/100 ml	400/100 ml
pH	Shall not be outside the range 6.0 to 9.0	
^a The monthly and weekly average for BOD ₅ and Total Suspended Solids are based on the arithmetic mean of the samples taken. The averages for fecal coliform are based on the geometric mean of the samples taken.		
^b The monthly average effluent concentration limitations for BOD ₅ and Total Suspended Solids shall not exceed 30 mg/l or 15 percent of the respective influent concentrations, whichever is more stringent.		

SUMMARY OF SUBMITTALS

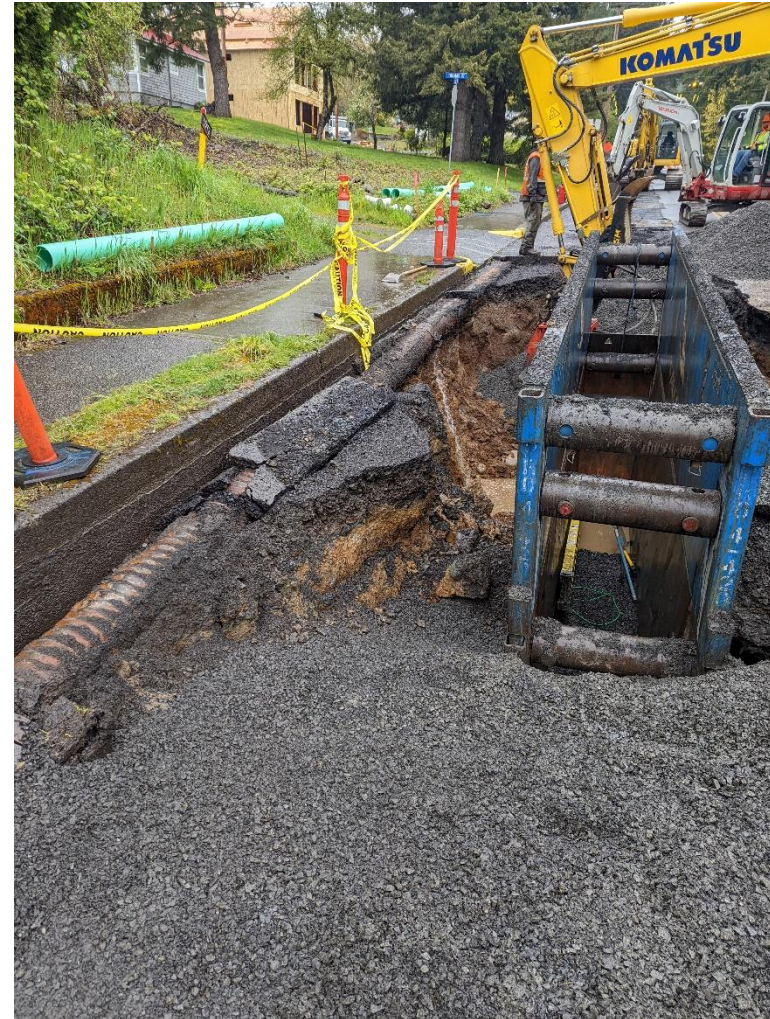
Permit Section	Submittal	Frequency	First Submittal Date
S3.	Discharge Monitoring Report	Monthly	December 15, 2008
S4.B.	Plan for Maintaining Adequate Capacity	As Necessary	
S4.C.	Notification of New or Altered Sources	As Necessary	
S4.D.	Infiltration and Inflow Evaluation	Annual	February 15, 2009
S4.E.	Wasteload Assessment	Annual	February 15, 2009
S5.B.	Operation and Maintenance Manual Update	As Necessary	
S5.G.	Contract Operators Hours	Monthly	With Discharge Monitoring Report
S8.	Pretreatment Industrial Waste Survey	As Necessary	
S9.	General Sewer Plan Update	As Necessary	
G1.	Signature Authorization	As Necessary	
G4.	Reporting a Cause for Permit Modification	As Necessary	
G7.	Application for Permit Renewal	1/Permit Cycle	May 1, 2013

Main trigger for Administrative Order



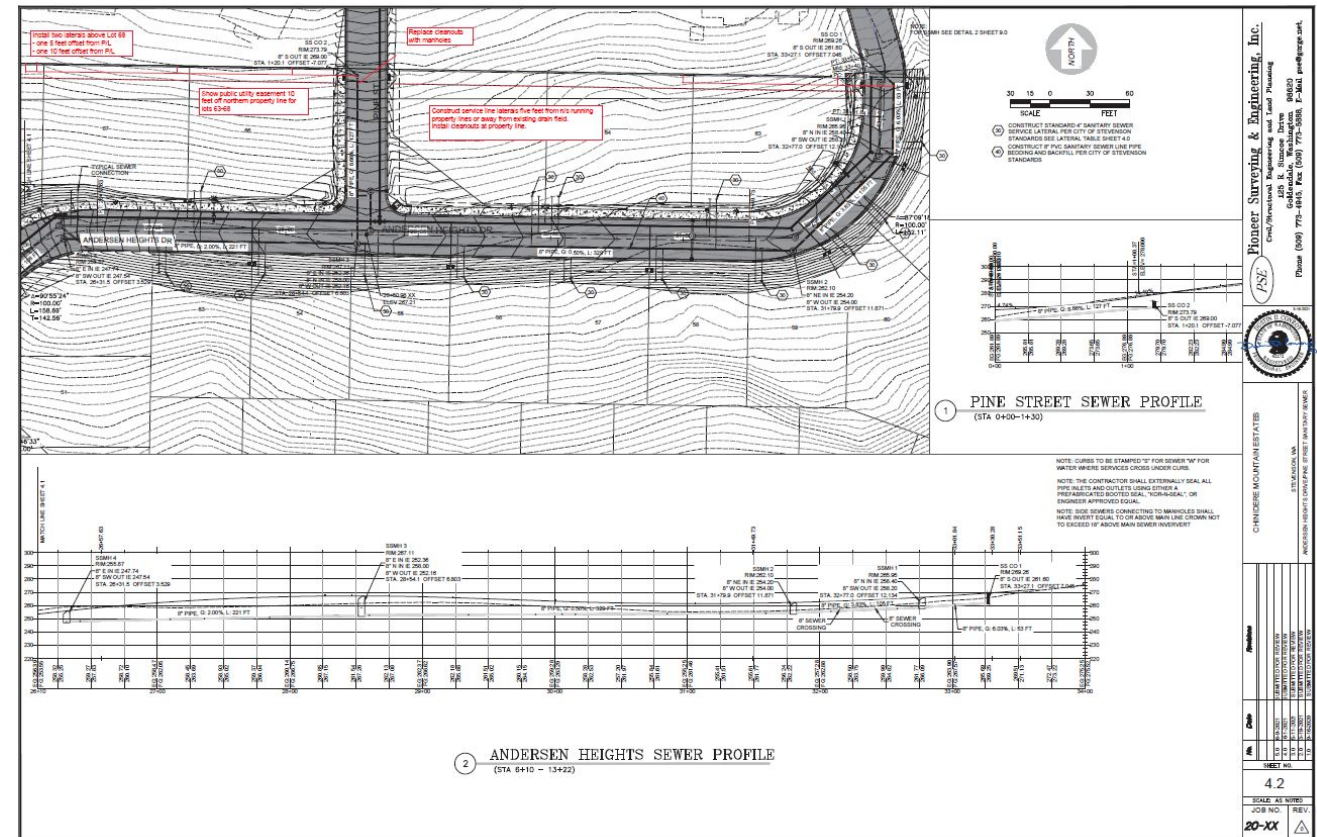
Completed Project 1 – Main D Extension (Collection)

- Main D Extension-Phase 1
- Status – Completed
- Lessons learned
- Project has been closed for public engagement given status of implementation



Completed Project 2 – Chinidere (Collection)

- Chinidere Extension-Phase 2-3
- Status – Completed
- Lessons learned
- Project has been closed for public engagement given status of implementation



Completed Project 3 – Iman Cemetery Extension (Collection)

- Iman Cemetery Extension
- Status – Completed
- Lessons learned
- Project has been closed for public engagement given status of implementation



Current Project 1 – Administrative Order

- Wastewater Treatment Plant Upgrades-Phase 1
- Rate Study
- Moratorium
- Status – Under Construction
- Lessons learned
- Project has been closed for public engagement given status of implementation



Current Project 2 – Collection System Upgrades

- Pump Stations and Cascade Interceptor Upsizing-all phases identified in Plan
- Status – Under Construction
- Lessons learned
- Project has been closed for public engagement given status of implementation



Current Project 3 – Cascade Avenue (Collection)

- Upsizing of sewer main along Cascade Avenue to accommodate existing flows and future growth
- Status – Pending Funding
- Lessons learned



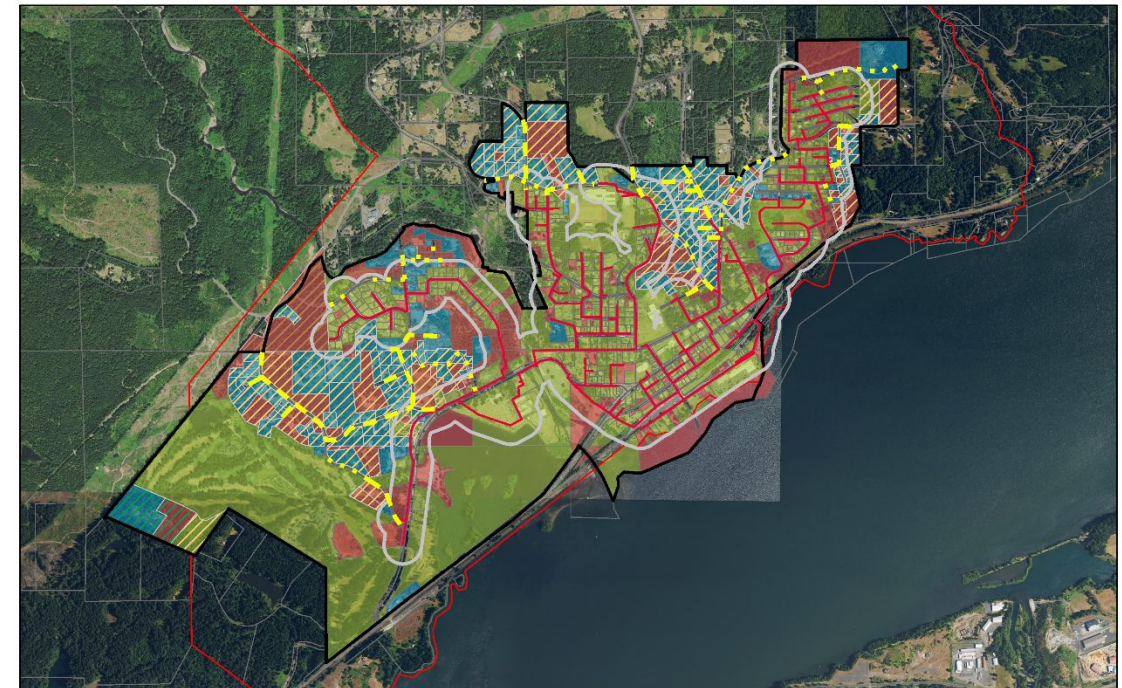
City of Stevenson Current Project Summary

Project & Scope	Rate-Payers	Property Owners	Grants
Main D Sewer line Extension	Low-interest loan \$400k	Main D Latecomers' Reimbursements:\$140k 50% of initial project cost	<ul style="list-style-type: none"> • Complete
Wastewater Treatment Plant	Low-interest Loans \$10M Cash (Reserves):\$1.28M		<ul style="list-style-type: none"> • DOE \$1.5M • CERB \$50k • EPA \$2.5M
Collection System Upgrades	Low-interest loan \$873k Cash (Reserves):\$830k		<ul style="list-style-type: none"> • EDA \$4M
Cascade Avenue	Low-interest loan \$882k		<ul style="list-style-type: none"> • None for WW

Future Project 1 – Sewerlines to City Limits

- Council Decision to Extend:
 - Council Plan to extend - Goals, scope, and timeline clear + dependencies
 - Funding Sources
 - Vacant and Conversions Potential
- Public input on how:
 - Funding mix between
 - property owner
 - rate payer
 - community
 - Location/timing prioritization

Stevenson Sewer System - Future Planning 9.19.23



9/19/2023, 11:26:42 AM

Sewer Main Future Extension	300ft Sewer Line Offset	Urban Area	UR-LIT	Utilities_Properties
Conceptual	Sewer Pipes	Urban Reserve	UR-HDR/LDR	City sewer
General Sewer Plan	City Boundary	UR-HDR		Septic

0 500 1,000 2,000 ft
0 287.5 575 1,150 m

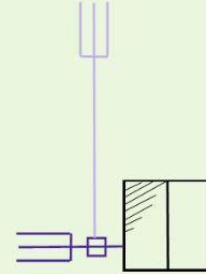
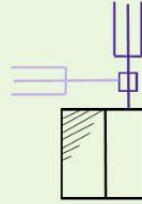
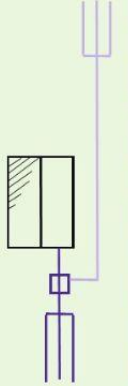
Esri, NASA, NGA, USGS, FEMA, Oregon Metro, Oregon State Parks, State of Oregon GEO, WA State Parks GIS, Esri, HERE, Garmin, SafeGraph.

System Deployment

Sewers and Septics and Costs

Private Cost for Septic Systems

- \$ _____ Standard System
- \$ _____ Pressure System
- \$ _____ Other System Type
- \$ _____ Utilize Reserve Field

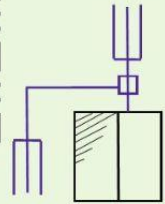
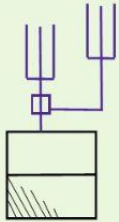


Private Cost to Extend Sewer Mains

\$270/ linear foot
 (2023 Iman Extension: \$102k, 234 linear feet)
 (2023 Chindere Extension: \$88k, 470 linear feet)

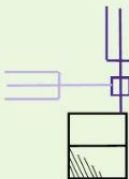
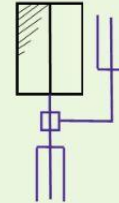
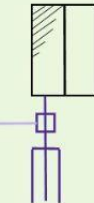
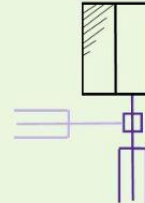
Public Cost to Extend Sewer Mains

\$414/ linear foot
 (2022 Main D Extension: \$415k*, 1000 linear feet)
 *The 2022 \$339,750 contract amount has been inflated from August 2022 to September 2023 using https://www.bls.gov/data/inflation_calculator.htm



Private Cost to Decommission Septic & Connect to Sewer

\$23,050/ system
 *See the HEALing SCARS program document for information on how the 2022 \$22,300 amount was estimated. That amount has been inflated from October 2022 to September 2023 using https://www.bls.gov/data/inflation_calculator.htm



Financing Deep Dive

- Review available funding resources
- Initial steps
- Possible Scenarios



Available Funding Resources

- Mid-Columbia Economic Development District
 - Project Listing
 - Funding Contacts (US EDA, Brownfields, etc.)
- Skamania County Economic Development Council
- Infrastructure Assistance Coordinating Council (<https://infracfunding.wa.gov/>)
 - Annual conference with funders (CDBG, DOE, USDA, Commerce, etc)
 - Tech Team meetings for project-specific funding assistance
- CFM Advocates (<https://cfmadvocates.com/>)
 - Funding Contacts (federal and state)
 - Grant-writing assistance
- City Staff
 - Combined non-sewer related grants received from 2018-present \$3.87M
 - Sewer-related grants and competitive low-interest loans (less than 2%) \$20M



Initial Steps

- Develop a Plan to address cost and implementation questions
 - Talk with resources about maximizing grant funding potential
 - Initial discussions with CFM will result in a \$500k State Capital Grant Request for 2024.
- Add project to Comprehensive Economic Development Strategy (CEDS) list
- Develop a funding and implementation strategy
 - Meet with Tech Team to discuss funding and implementation options
 - Multiple state and federal program representatives meet with City team to discuss project and available funding sources, pros and cons.
 - Meet with CFM Advocates to discuss funding and implementation options
 - Analyze options against the policy for extensions currently being developed (this committee)



Funding Cocktail Group Exercise

Group 1: Rick Jessel, Karen Rutledge, Jeff Breckel, Dave Cox

Group 2: Brian McKenzie, Jenny Taylor, Scott Anderson, Adam Miller

Group 3: Mark Peterson, Shawn Van Pelt, Wes Huston, Gail Collins, Michael Johnson

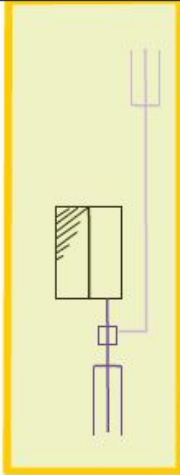
Source Options	Success	Rate Payer	Property Owner	Community	Grants
Direct Legislative Requests	Good				100% State 80% Federal
General Obligation Bond	Low			Voter-Approved Rates above 5% for 30-year bond	
Revenue Bonds/Loans	High	Up to 5% interest			
Low-Interest Loans	Good	Around 2% interest	Potential Low-Income Grant combo		Potential depending on utility rates/affordability
Local Improvement District	Low/Good		Making the loan payments (or a portion)		
Latecomers	Good		Refunding Developer/City		
Others					

Questions Related to Scenarios

Questions / Scenarios	Rate Payer	Property Owner	Community
% distribution	Loans x%	LID X%	GO Bond X%
Do not exceed		X% of property value	

Scenario 1

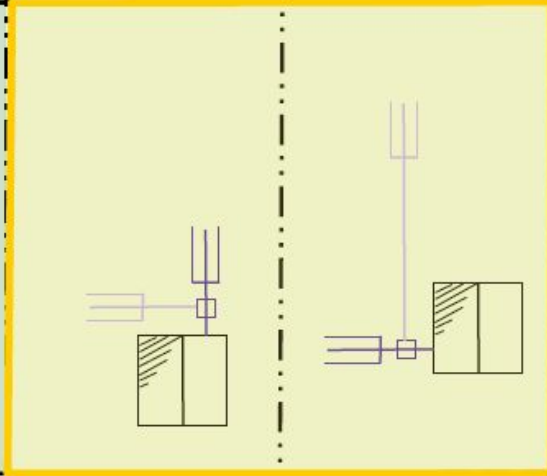
Developed Property, Adjacent Sewer



Private Cost to Extend Sewer Mains

\$270/ linear foot

(2023 Iman Extension: \$102k, 234 linear feet)
(2023 Chinidere Extension: \$88k, 470 linear feet)

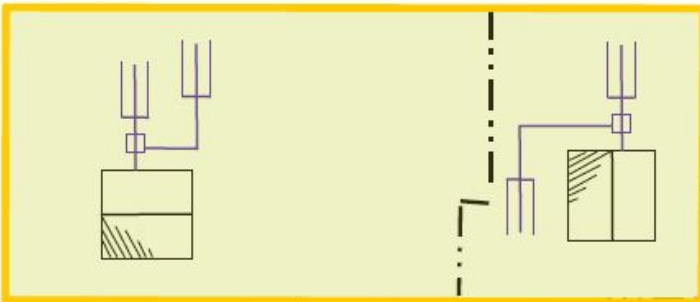


Public Cost to Extend Sewer Mains

\$414/ linear foot

(2022 Main D Extension: \$415k*, 1000 linear feet)

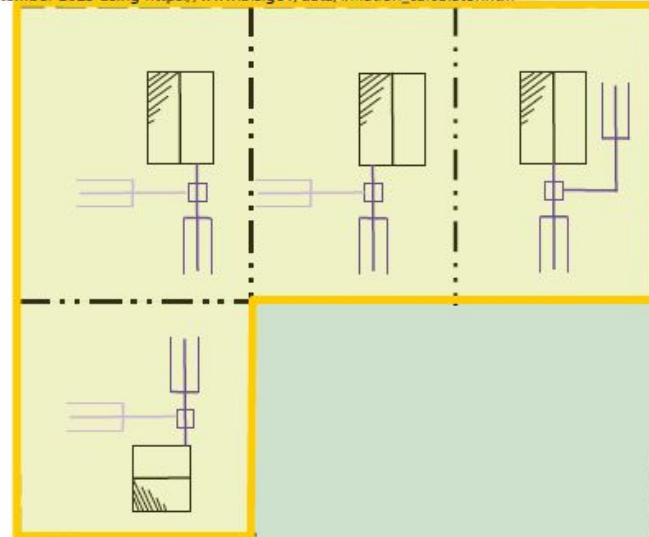
*The 2022 \$339,750 contract amount has been inflated from August 2022 to September 2023 using https://www.bls.gov/data/inflation_calculator.htm



Private Cost to Decommission Septic & Connect to Sewer

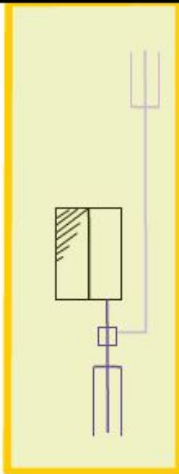
\$23,050/ system

*See the HEALing SCARS program document for information on how the 2022 \$22,300 amount was estimated. That amount has been inflated from October 2022 to September 2023 using https://www.bls.gov/data/inflation_calculator.htm



Scenario 2

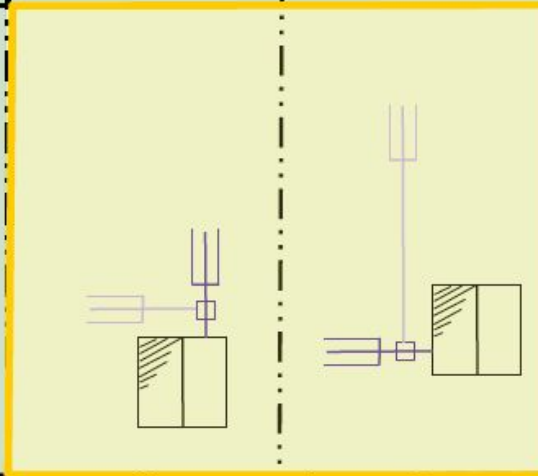
Developed Property, Distant Sewer



Private Cost to Extend Sewer Mains

\$270/ linear foot

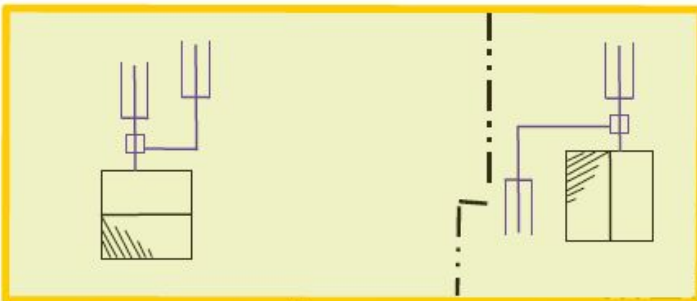
(2023 Iman Extension: \$102k, 234 linear feet)
(2023 Chinidere Extension: \$88k, 470 linear feet)



Public Cost to Extend Sewer Mains

\$414/ linear foot

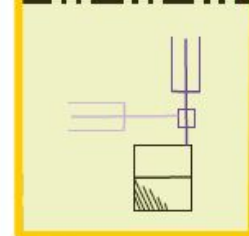
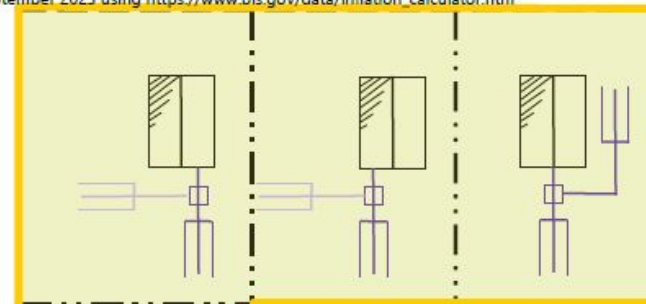
(2022 Main D Extension: \$415k*, 1000 linear feet)
*The 2022 \$339,750 contract amount has been inflated from August 2022 to September 2023 using https://www.bls.gov/data/inflation_calculator.htm



Private Cost to Decommission Septic & Connect to Sewer

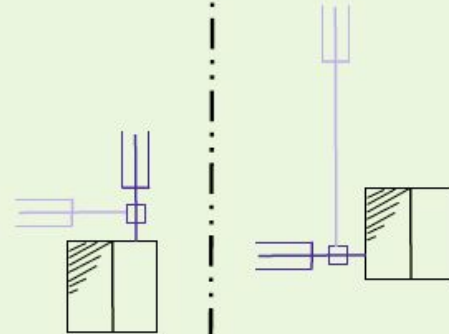
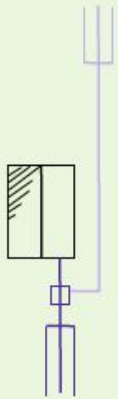
\$23,050/ system

*See the HEALing SCARS program document for information on how the 2022 \$22,300 amount was estimated. That amount has been inflated from October 2022 to September 2023 using https://www.bls.gov/data/inflation_calculator.htm



Scenario 3

Vacant Property, Distant Sewer



Private Cost to Extend Sewer Mains

\$270/ linear foot

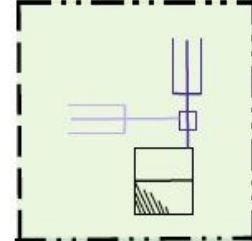
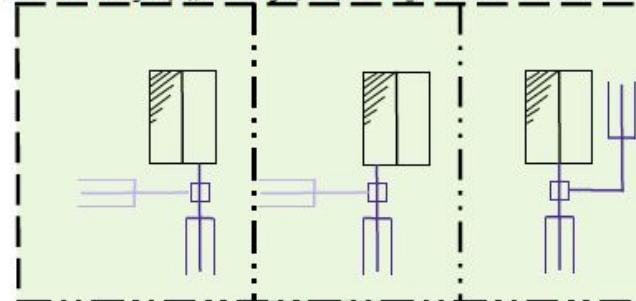
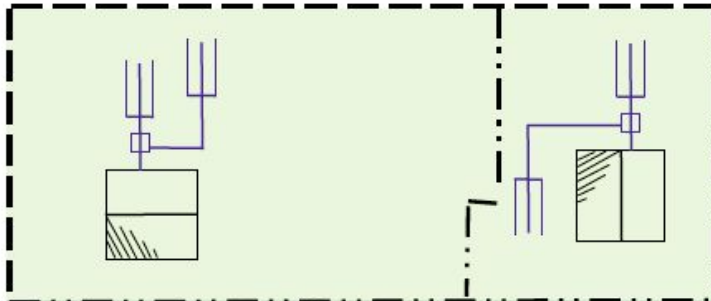
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Public Cost to Extend Sewer Mains

\$414/ linear foot

(2022 Main D Extension: \$415k*, 1000 linear feet)

*The 2022 \$339,750 contract amount has been inflated from August 2022 to September 2023 using https://www.bls.gov/data/inflation_calculator.htm



Questions related to Triggers

- Should there be a different distance criteria for Expansion, Development, Failure
- What considerations should be included in the appeal section - house location, lot size, improvement value compared to assessed land value, mainline location/availability via street or easement