

Hartstene Pointe Water-Sewer District

Sewer System Rehabilitation Project – Bluff Sewer Focus

Hartstene Pointe Water - Sewer District



Dedicated to Service

Who We Are



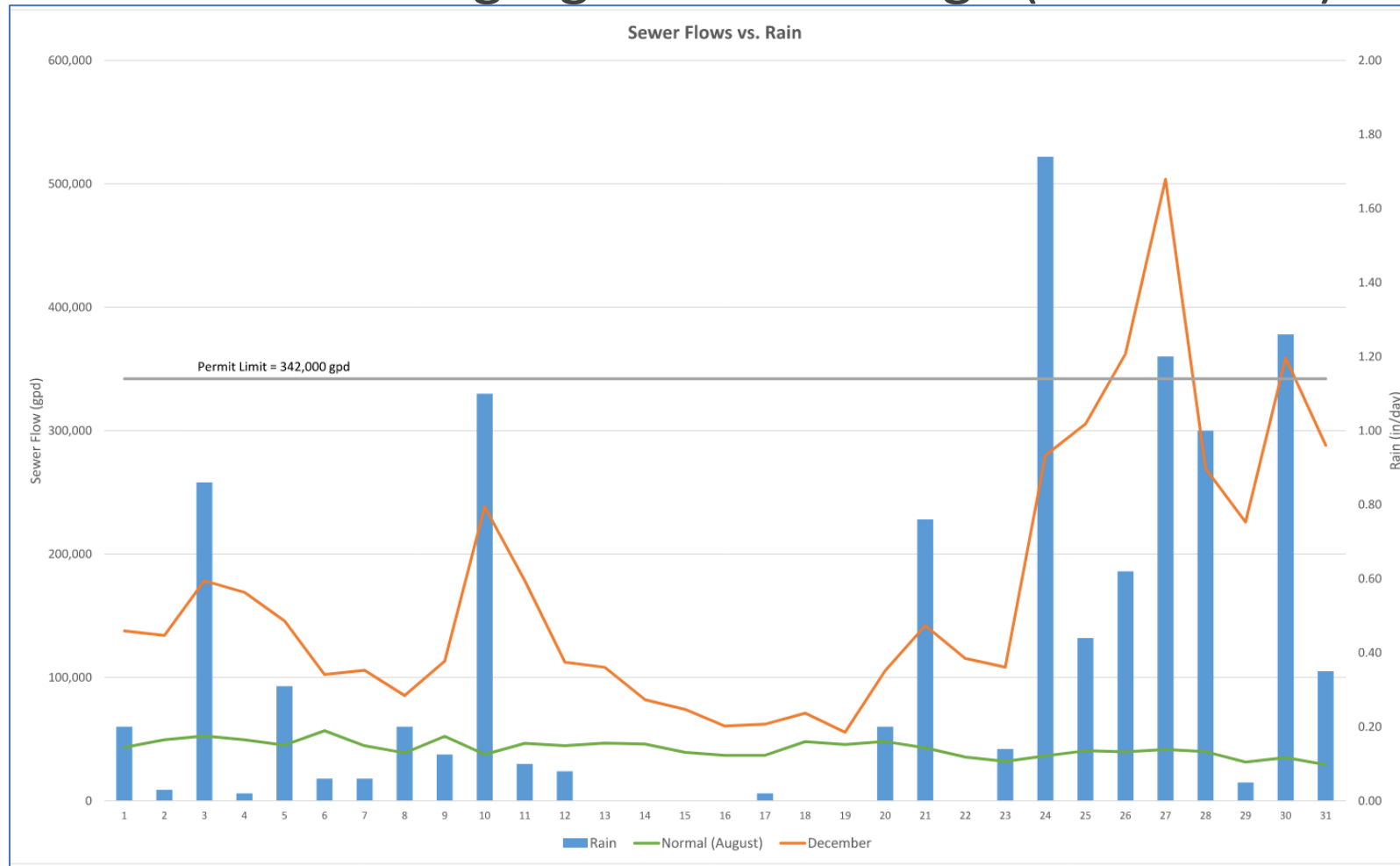
Why Are We Rehabilitating the Sewer?

- Sewer Lines are old and failing
- Sewer Lines weren't properly installed



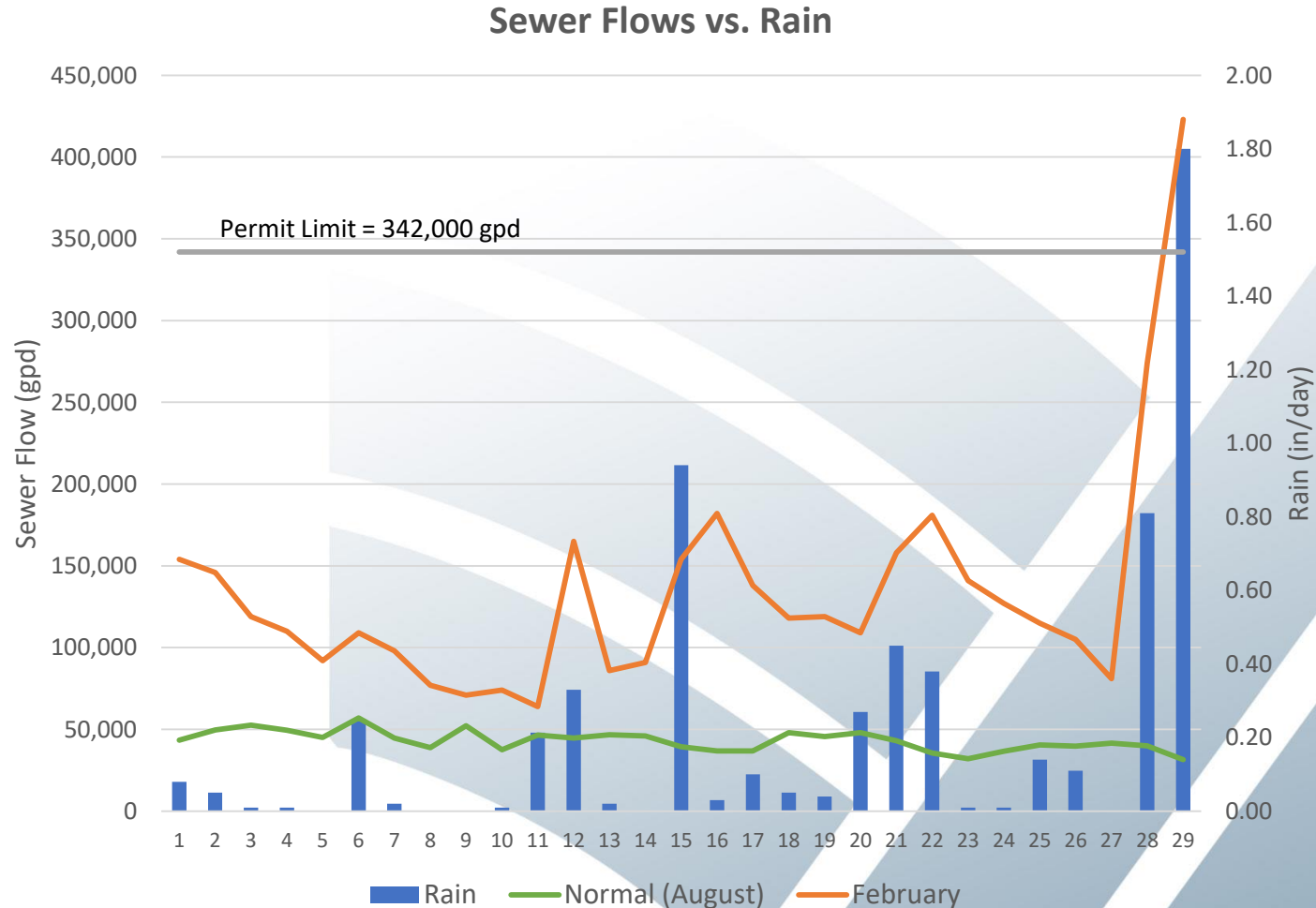
Why Are We Rehabilitating the Sewer?

- Sewer line failures causing significant leakage (infiltration)



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Why Are We Rehabilitating the Sewer?

- Why is Infiltration (leakage) a concern?
 - NPDES permit limitations

Maximum Month Design Flow (MMDF)	186,000 gpd
Peak Daily Design Flow	342,000 gpd
BOD ₅ Influent Loading for Maximum Month	270 lbs/day
TSS Influent Loading for Maximum Month	270 lbs/day

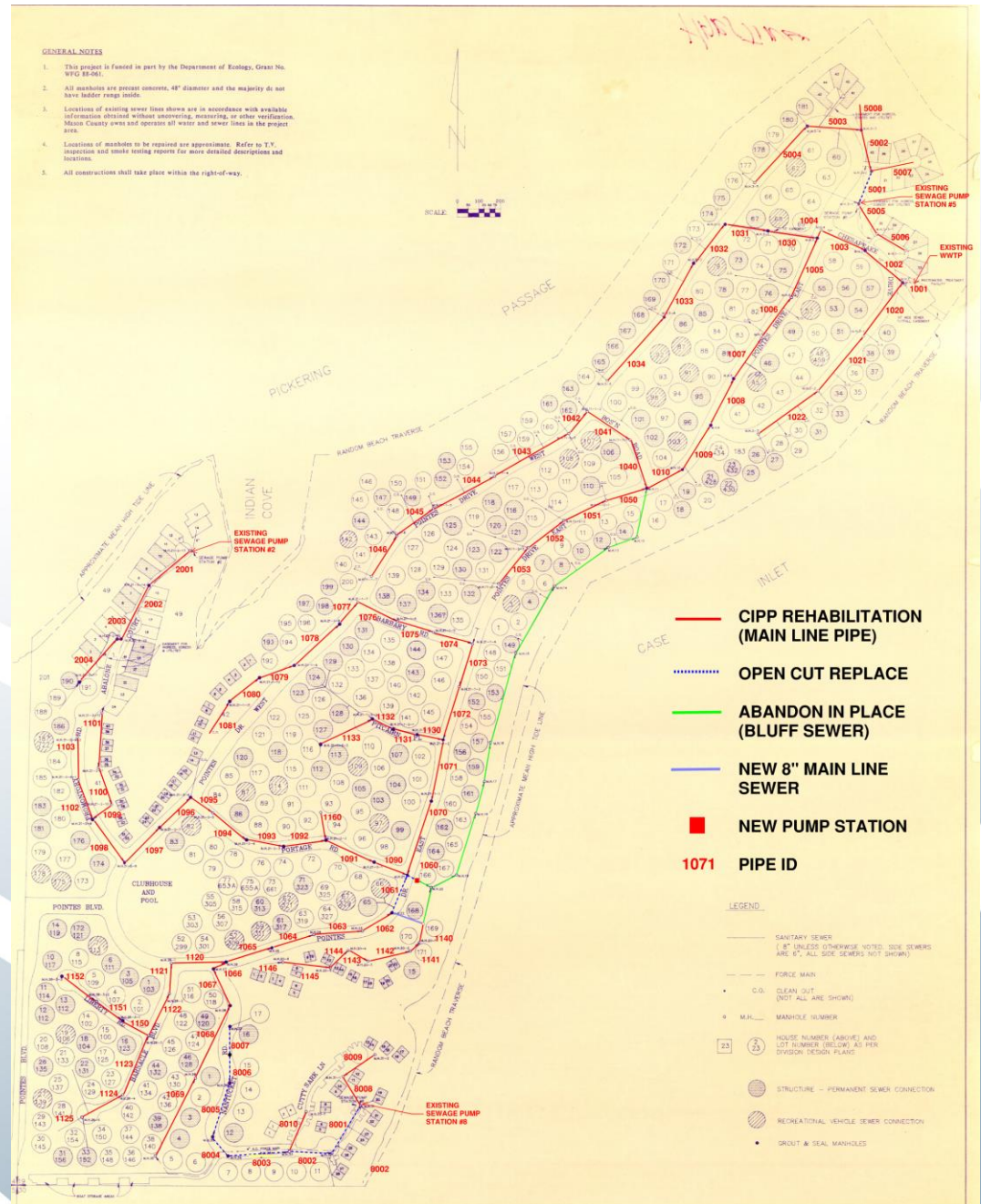
Why Are We Rehabilitating the Sewer?

- Why are violations a concern?
 - Lawsuits due to Clean Water Act (CWA)
 - Waste Action Project filed an intent to sue under CWA in 2023
 - Lawsuits cost money to defend and settle or pay fines
- If not taken seriously, could lead to jail time for Operators and Managers!!!
- Secondary concern – Bluff Sewer
 - Catastrophic failure of bluff would dump raw sewage into Puget Sound

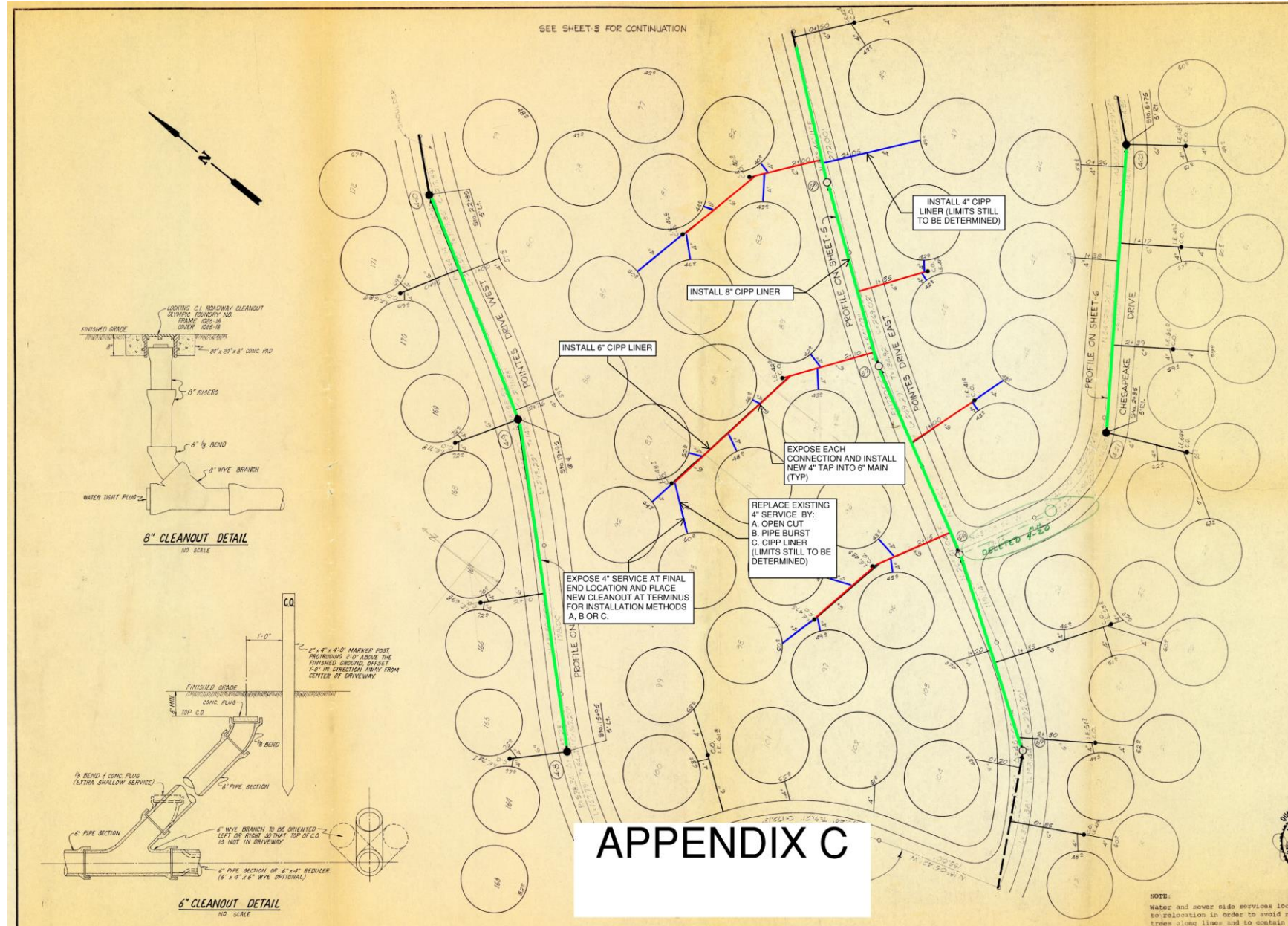
What Are We Going to Do?

- Two components of the project:
 1. Cured in Place Piping (CIPP) for majority of system
 - Potential for Pipe Bursting where CIPP not practical
 2. Bluff Sewer Realignment and Replacement
 - Replace bluff sewer with new pump station and force main in Pointes Drive
- Will also replace or install CIPP in service lines where necessary
- This presentation will focus on the Bluff Sewer Replacement and impacts

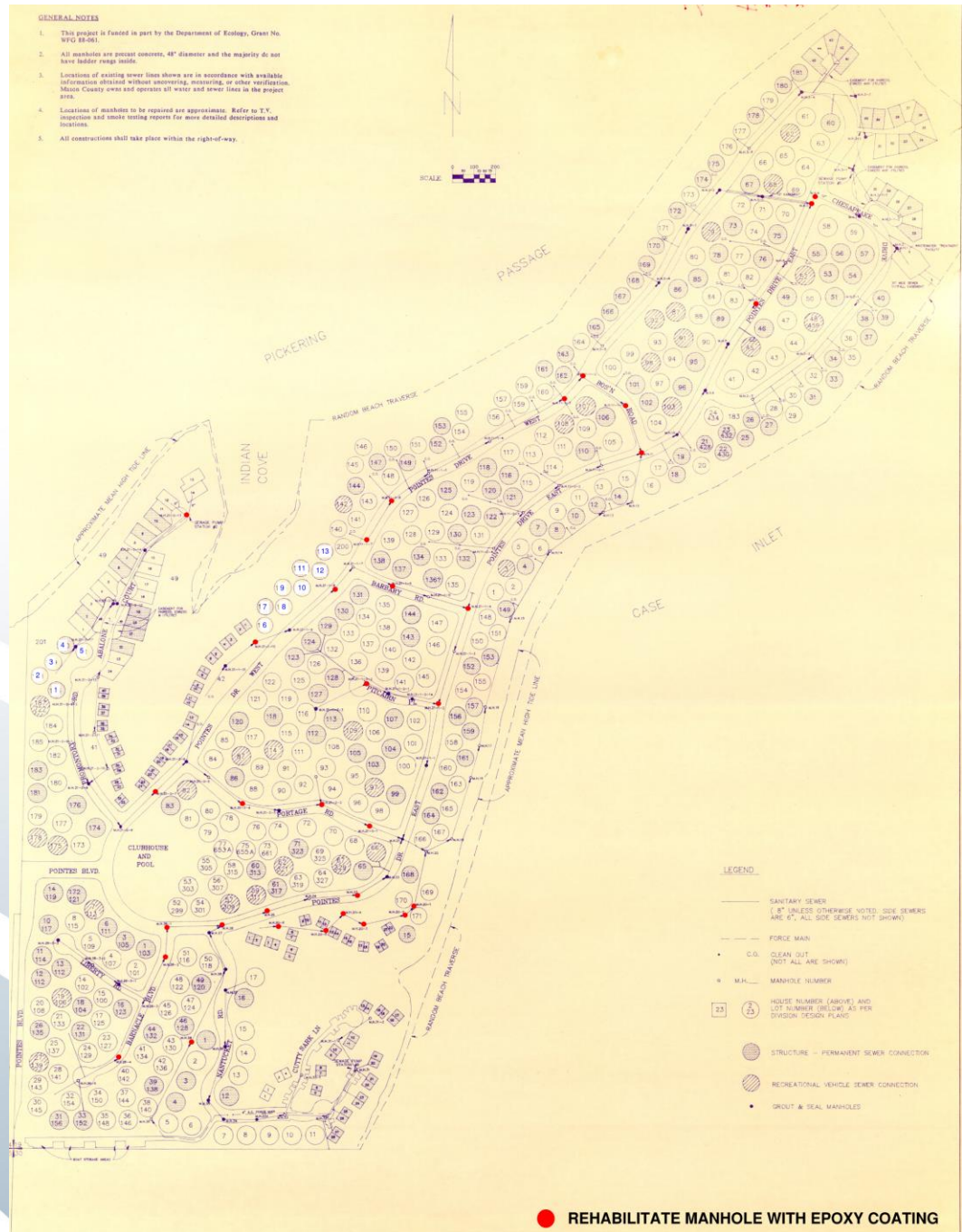
What Are We Going to Do?



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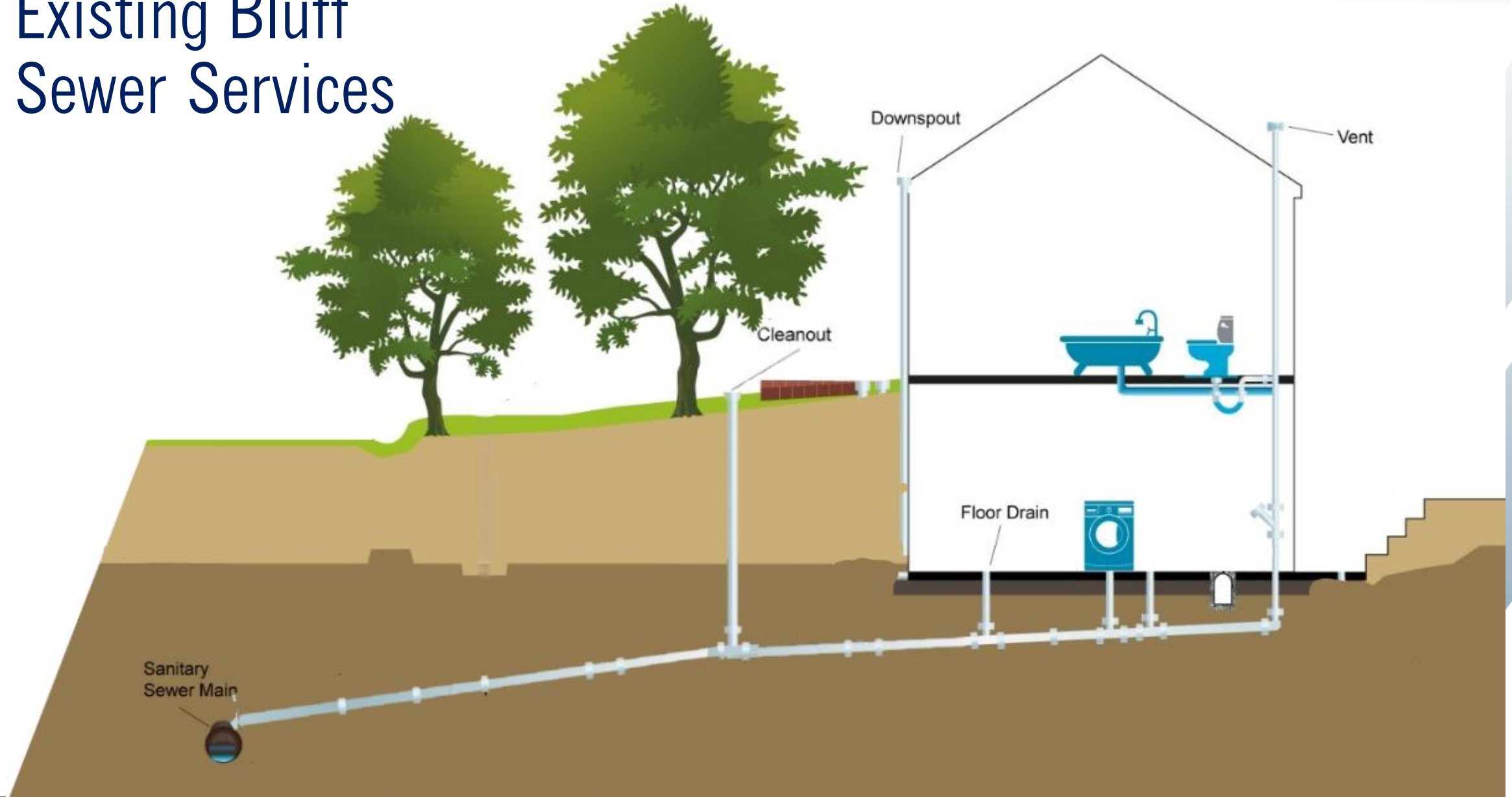
Existing Bluff Sewer



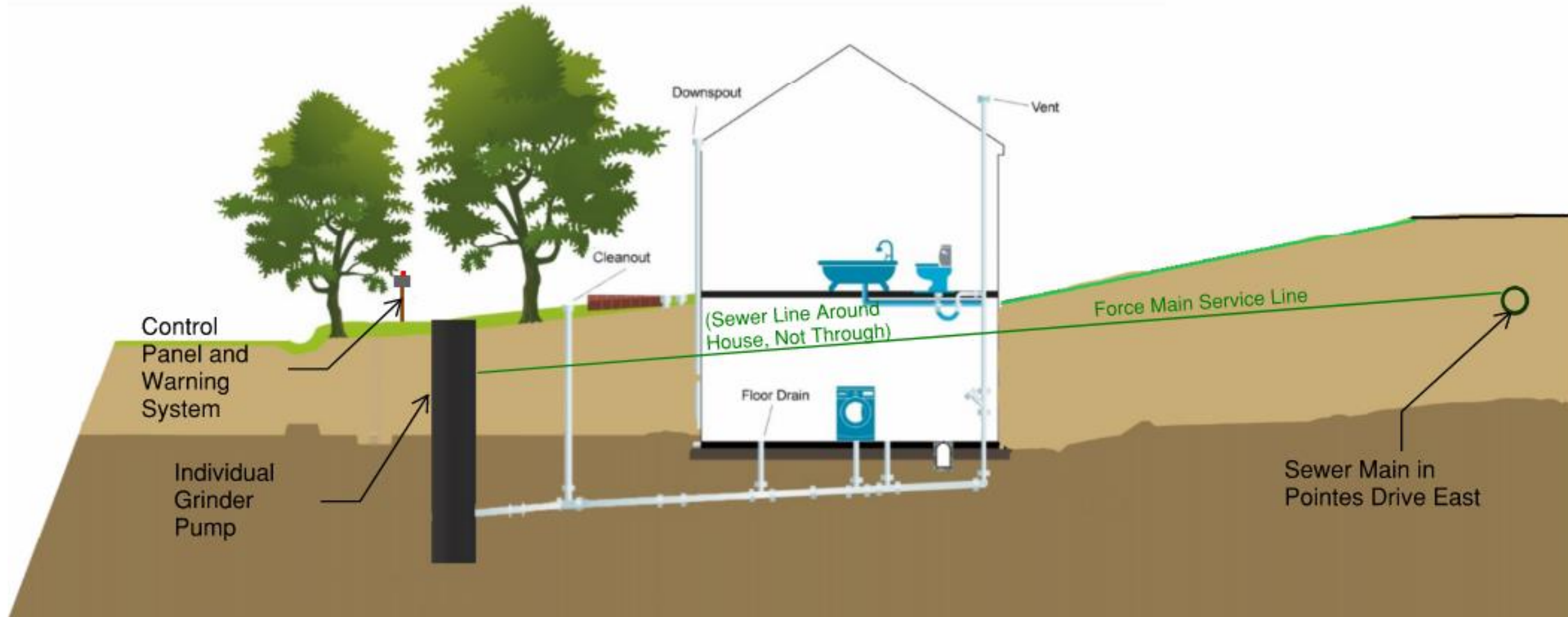
Existing Bluff Sewer



Existing Bluff Sewer Services



Proposed Bluff Sewer Services



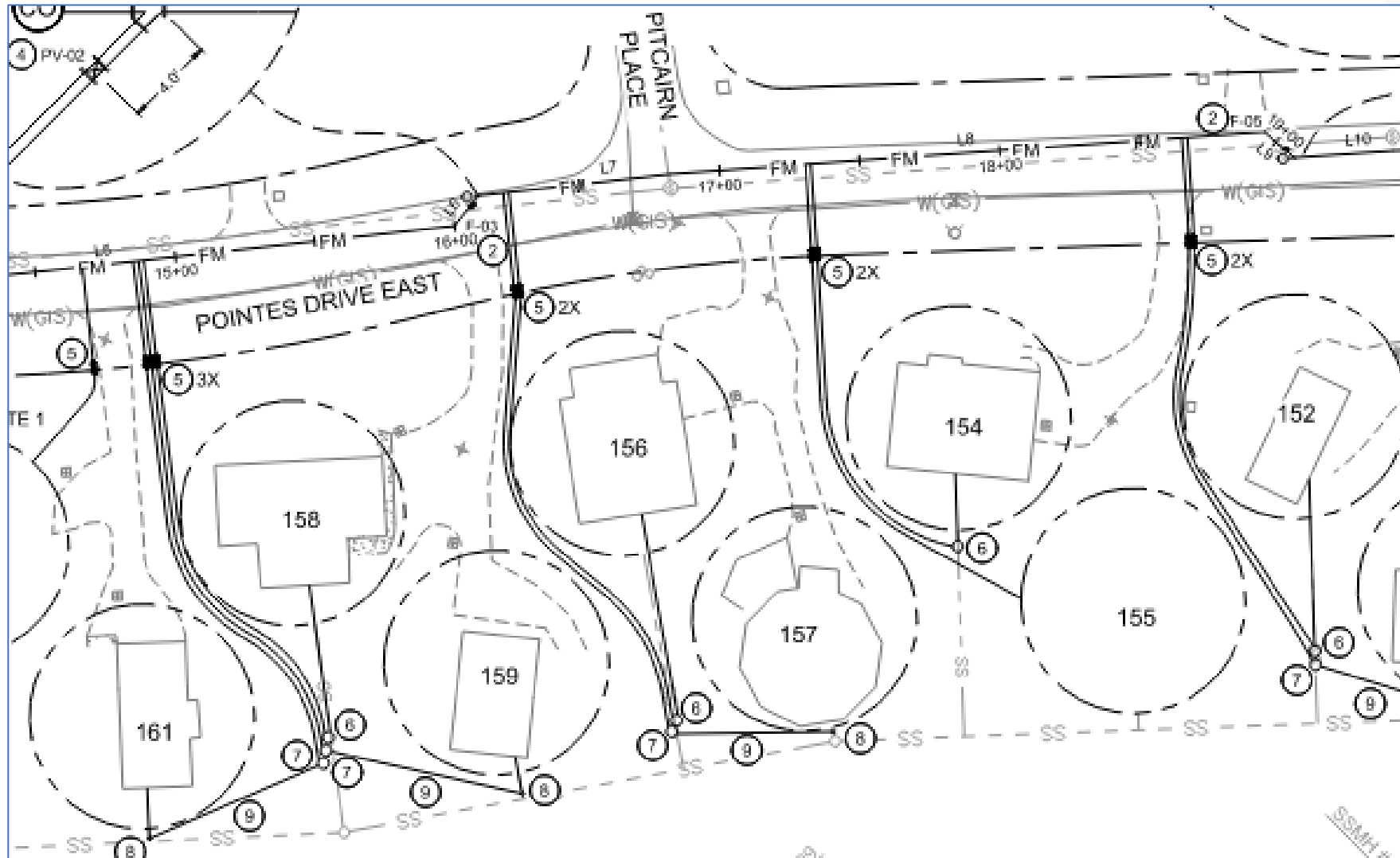
How is this Going to Impact Me?

- Bluff Sewer Line
 - Will need to install a trenched in force main from Portage to Bos'n
 - Most impact along this stretch
 - Will try to keep it on one side of the road to allow traffic to pass
 - Road replacement anticipated to be as minimal as possible, half-road width at the most

How is this Going to Impact Me?

- Replacement/Repair of Existing Service lines
 - Need to excavate from the existing sewer line to new grinder pump location
 - Need to install a cleanout on the existing service line where we change direction to the grinder pump
 - Would like to install this as close to the house as possible to eliminate as much old service line as possible
 - Service Line depth varies depending on if you have a basement or not

How is this Going to Impact Me?



How is this Going to Impact Me?

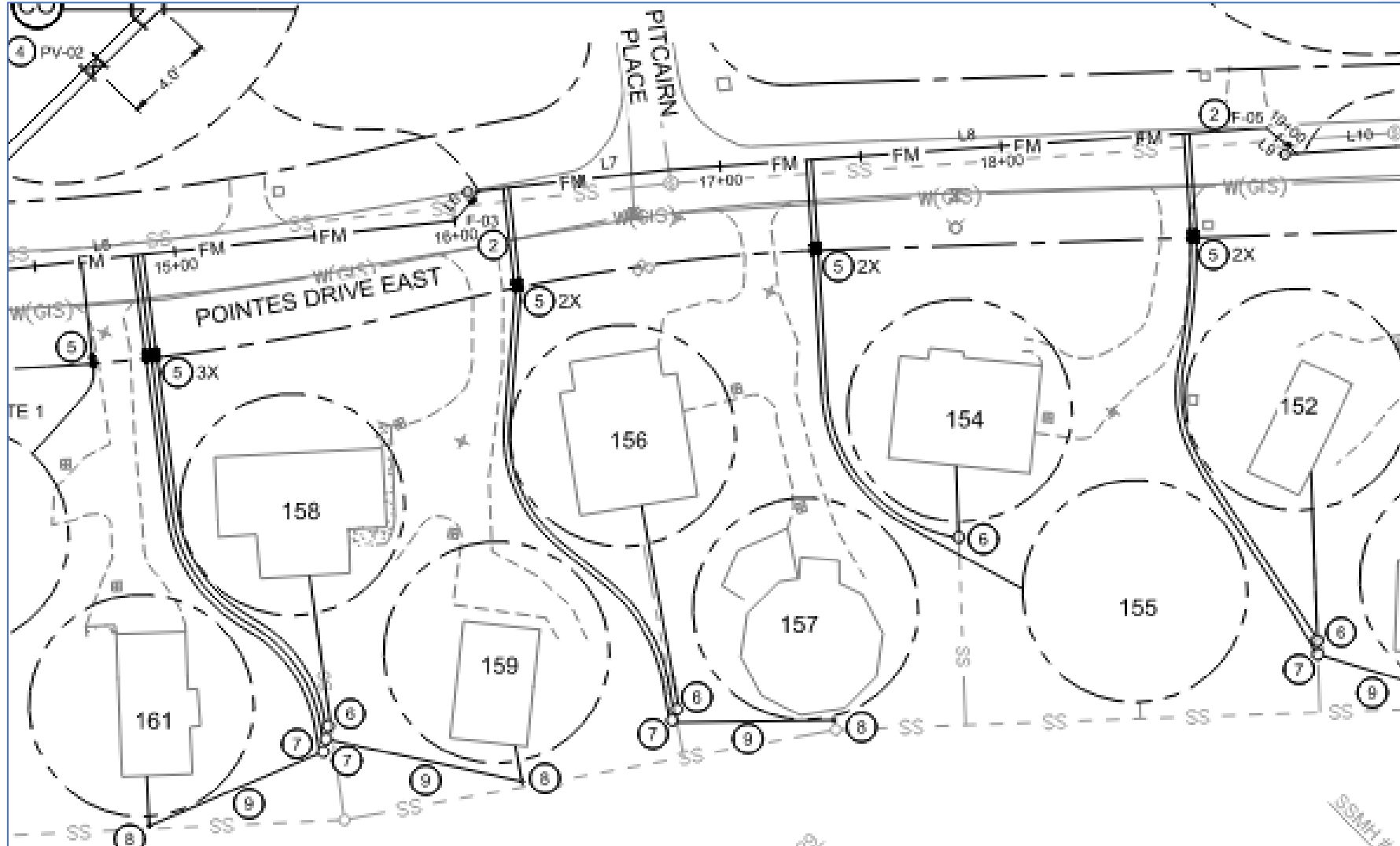
- Grinder Pumps

- Each Residence will have it's own grinder pump. No shared pumps.
- Grinder Pumps are approximately 10' tall and need to be installed to that depth. They will need to excavate a large hole in the common area to install them
- Each grinder pump has a control box that controls the pumps
 - Control box has a red light on the top and an audible alarm that sounds when there is an issue with the pump to notify people of an issue. Alarm can be silenced by pushing a button on the control box to end audible alarm
- Grinder pumps will have ability to use alternate power (district mobile generator) in the event of a power outage
- In the event of a pump failure, District will have additional grinder pumps on hand to quickly switch out failed pump with another in short order

How is this Going to Impact Me?

- Grinder Pumps (continued)
 - Grinder pumps operate quietly
 - There should be minimal if any odor that comes from the grinder pump
 - The District is providing all the maintenance and power for the grinder pumps
 - After pump is installed, ground surrounding pump will be rehabilitated to similar conditions before installation (no plantings)
 - Pumps are reliable and many installations in Puget Sounds area
 - More than 500 in other portions of Mason County
 - More than 20,000 in Washington State dating back to 1984

How is this Going to Impact Me?

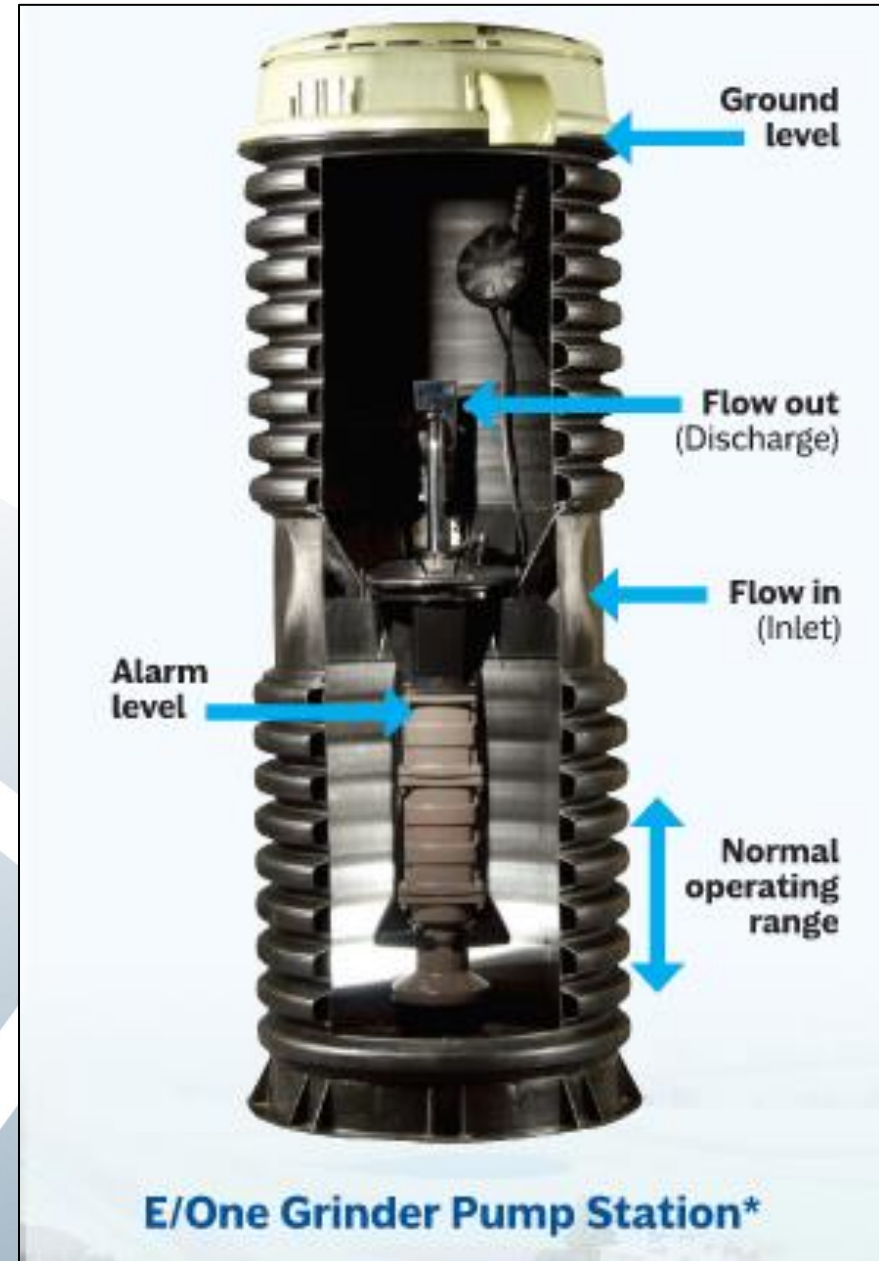


How is this Going to Impact Me?

- Grinder Pump at Spit Restrooms
- After meeting, Jeff will be down for people to look at it and observe it

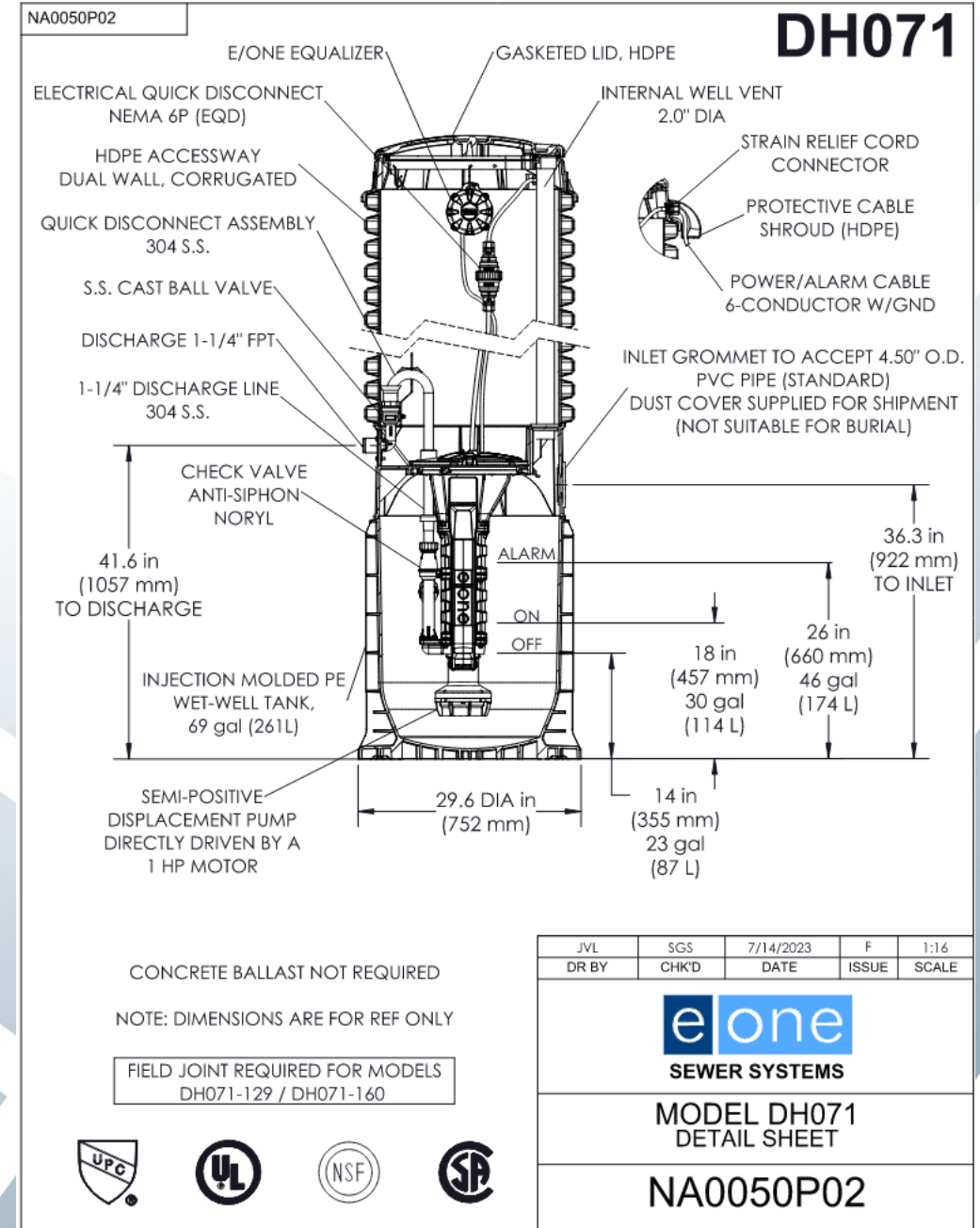


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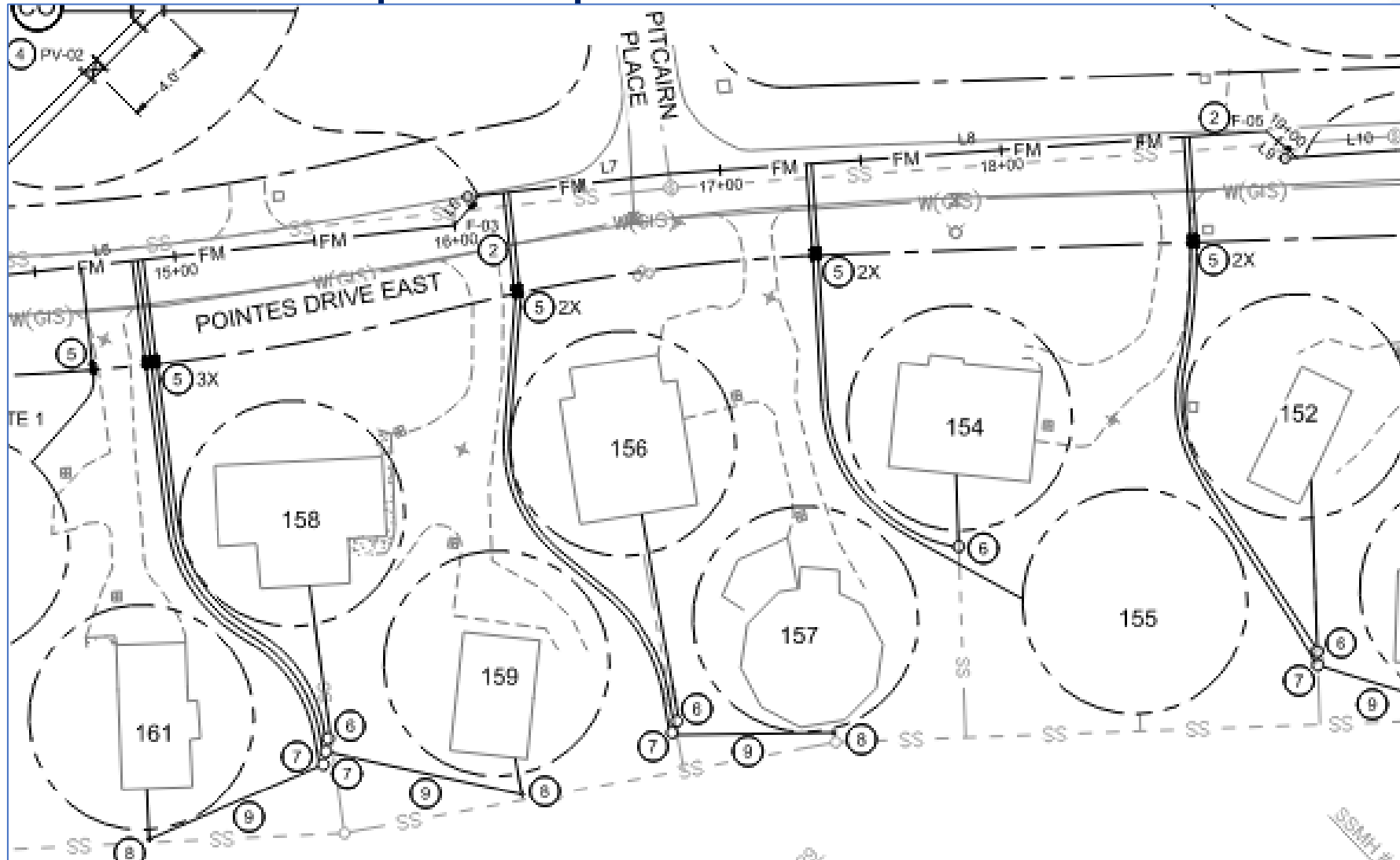
Bainbridge Island Utilities	Since 2008	100 +
City of Bonney Lake		130 +
City of Bremerton	Since 2008	100 +
City of Lacey		100 +
City of Port Townsend	Since 1999	50 +
Grays Harbor County	Since 1999	500 +
Lakehaven Sewer District	Since 1999	200 +
Mason County Utilities	Since 2000's	500 +
Pierce County (private)	Since 1998	500 +
Pierce County Utilities	Since 1984	1000 +
Port of Orchard	Since 1998	200 +



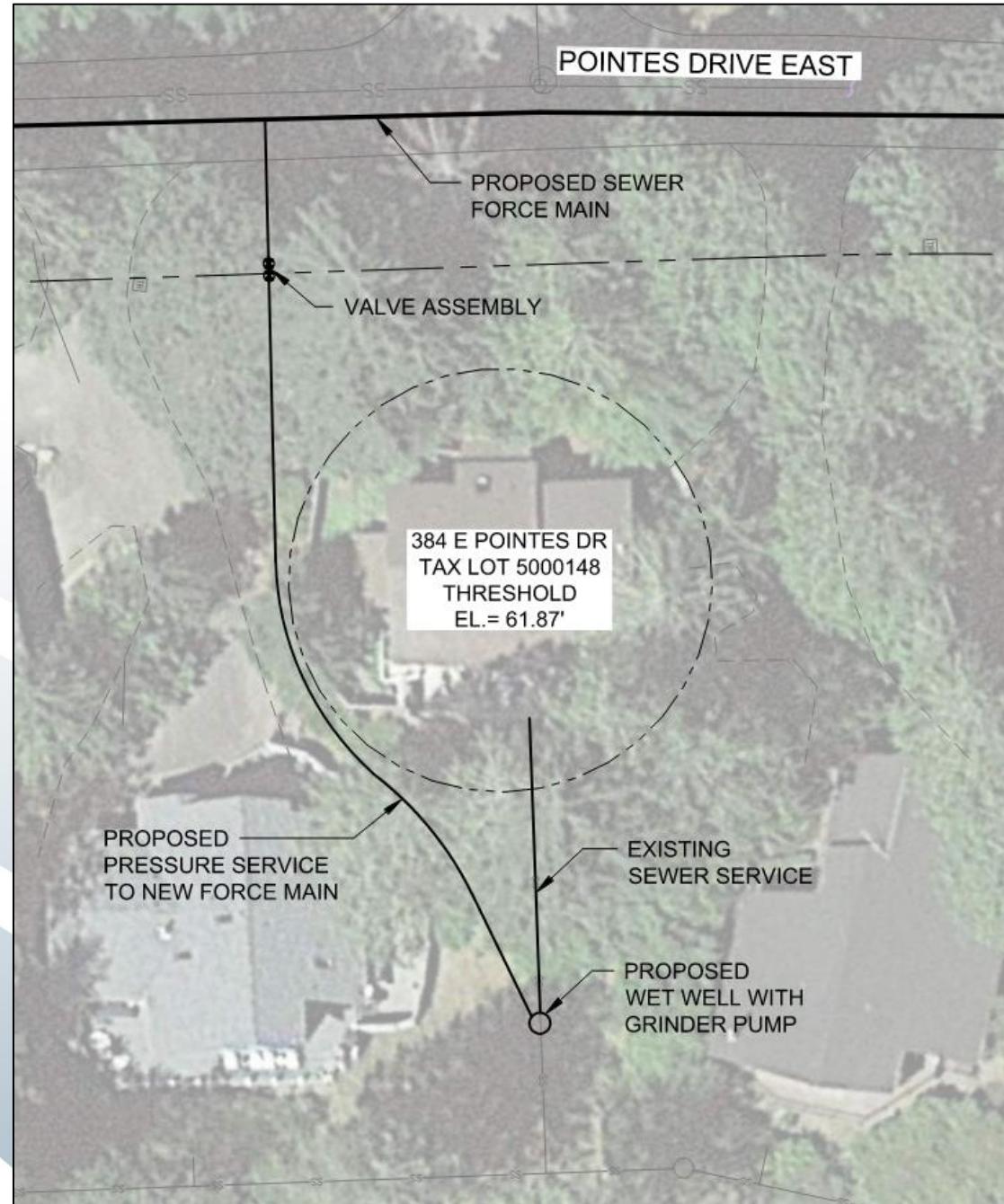
How is this Going to Impact Me?

- Individual Force Main Service Lines
 - Grinder Pumps will discharge to a 1.5” service line to Pointes Drive East
 - These service lines will be more than 2’ deep from the grinder pump to the street
 - Service line will be seamless may be installed using a “ditch witch” or directional drilling to minimize disruption to common area. Open trenching is also a possibility
 - Can be snaked around trees or obstacles using flexible service line

How is this Going to Impact Me?



How is this Going to Impact Me?



How is this Going to Impact Me?



Schedule

	2023	2024				2025				2026
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Notice to Proceed	★									
Field Investigations & Reporting	■									
Permitting	■	■								
Preliminary Design	■	■								
Final Design			■	■						
Construction					■	■	■	■	■	
Public Involvement		★	★	★						



Questions?