

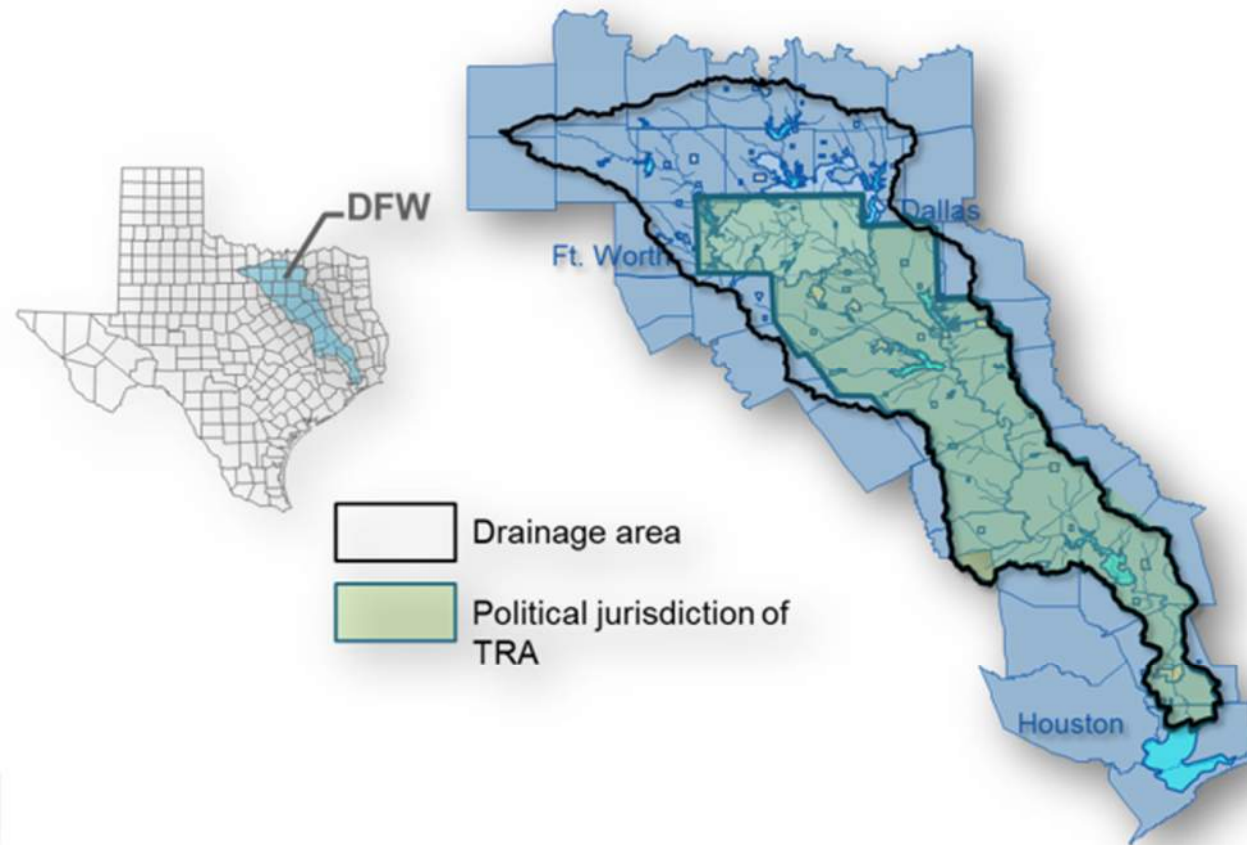
# A River Runs Through it ... Twice!



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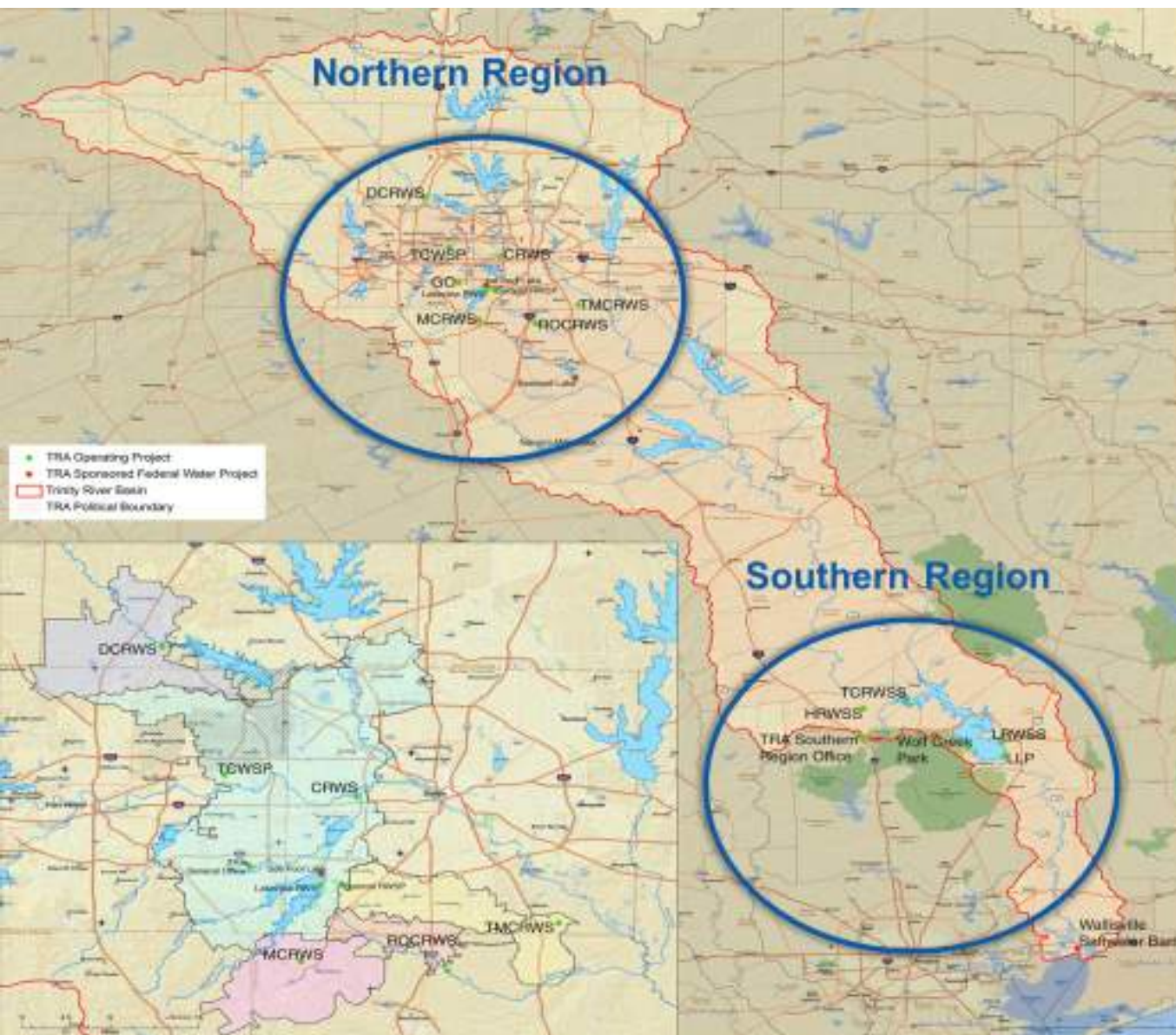


# Trinity River Authority of Texas



- Created by State of Texas in 1955
- 25 Board members appointed by Texas Governor
- 18,000-square-mile Trinity River basin





# Trinity River Basin

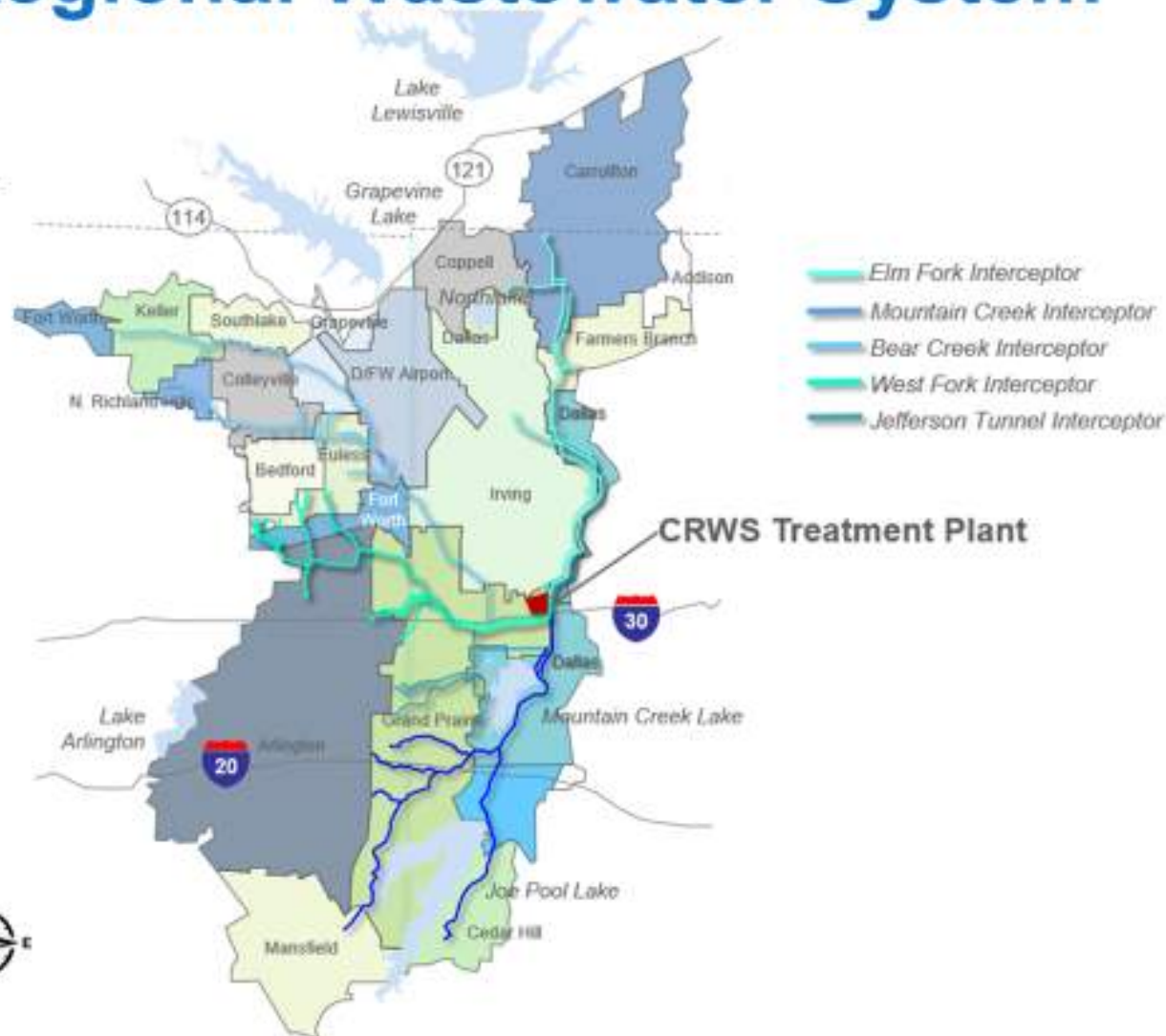




# Central Regional Wastewater System



Contracting Parties	
Irving	1957
Grand Prairie	1957
Farmers Branch	1957
Dallas	1957
Carrollton	1967
Arlington	1973
Bedford	1973
Euless	1973
D/FW Airport	1973
Mansfield	1973
Grapevine	1974
Colleyville	1975
N. Richland Hills	1975
Hurst	1975
Coppell	1976
Fort Worth	1976
Keller	1984
Duncanville	1984
Cedar Hill	1985
Southlake	1988
Addison	1996



# Shift in Approach

- Difficult installation and inspection
- Degradation history
- Sedimentation





# EF-7



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# DCRWS





# 1020J

DECEMBER 2022



JULY 2023



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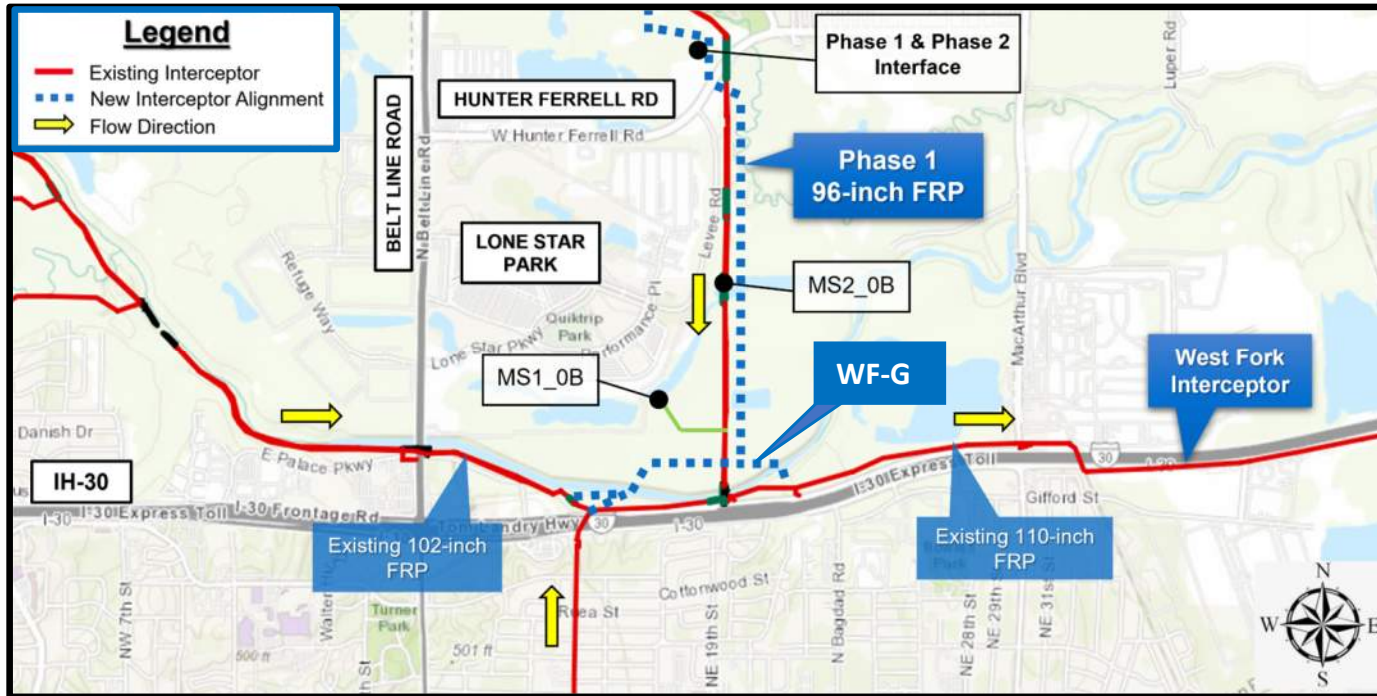
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# BCIR & WF-G | Overview



- 120-inch to 96-inch gravity sanitary sewer
- Five 2-barrel inverted siphons



# BCIR & WF-G | Overview





# BCIR & WF-G | Overview



# Design



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**First Siphon Summary:**

- Diameter:	<u>51-inches</u>	- Inlet Flowline Elevation:	<u>415.20</u>
- Length:	<u>297.97-feet</u>	- Outlet Flowline Elevation:	<u>414.25</u>

	Average Daily Minimum	Average Daily	Average Daily Maximum	Peak Wet Weather
- Flow Rate (MGD):	-	54.80-MGD	63.40-MGD	68.87-MGD
- Velocity (FPS):	-	5.98-FPS	6.91-FPS	7.51-FPS
- HGL:	-	0.0033-ft/ft	0.0045-ft/ft	0.0053-ft/ft

---

**Second Siphon Summary:**

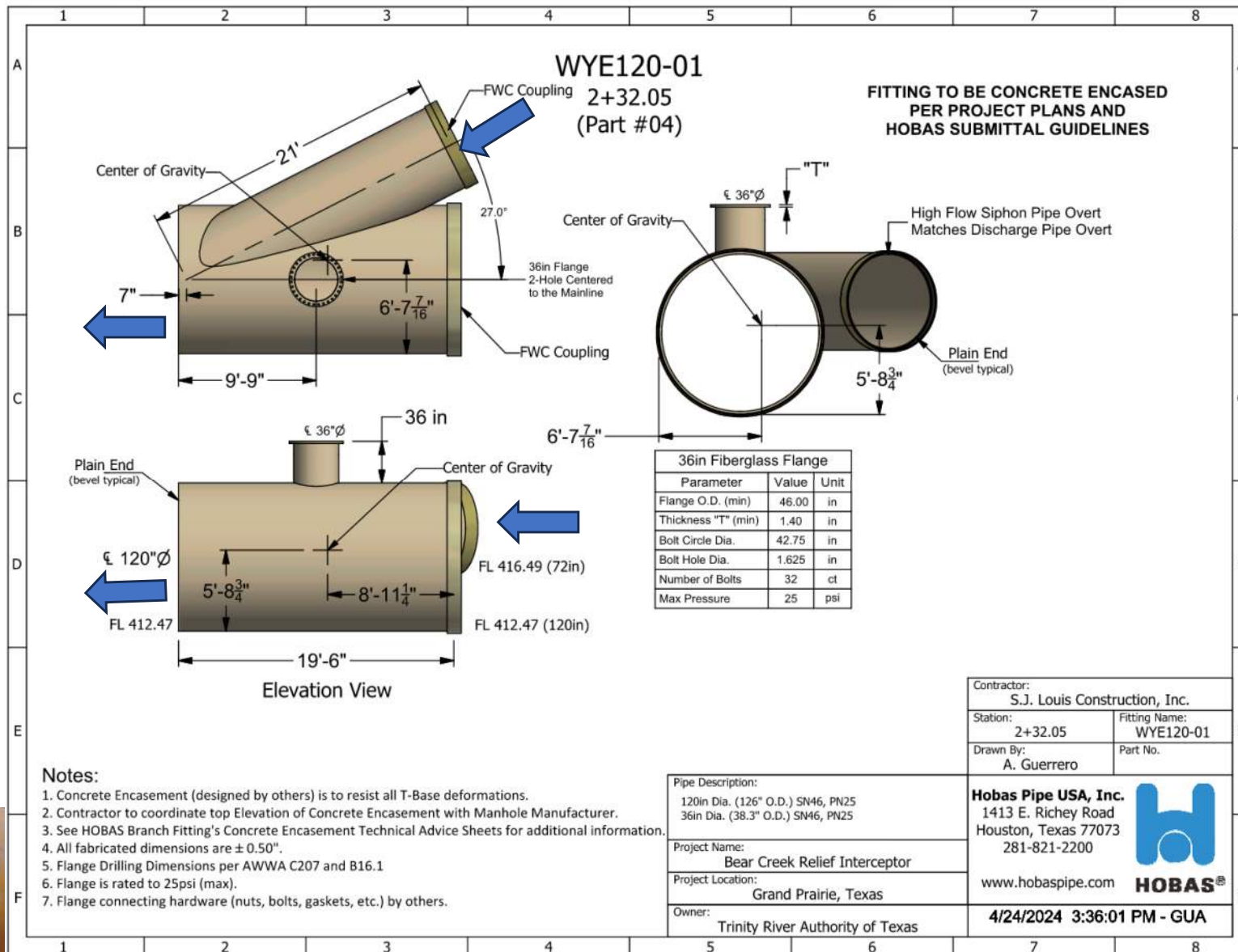
- Diameter:	<u>63-inches</u>	- Inlet Flowline Elevation:	<u>419.53</u>
- Length:	<u>355.98-feet</u>	- Outlet Flowline Elevation:	<u>417.66</u>

	Average Daily Minimum	Average Daily	Average Daily Maximum	Peak Wet Weather
- Flow Rate (MGD):	-	-	-	101.23-MGD
- Velocity (FPS):	-	-	-	7.24-FPS
- HGL:	-	-	-	0.0053-ft/ft



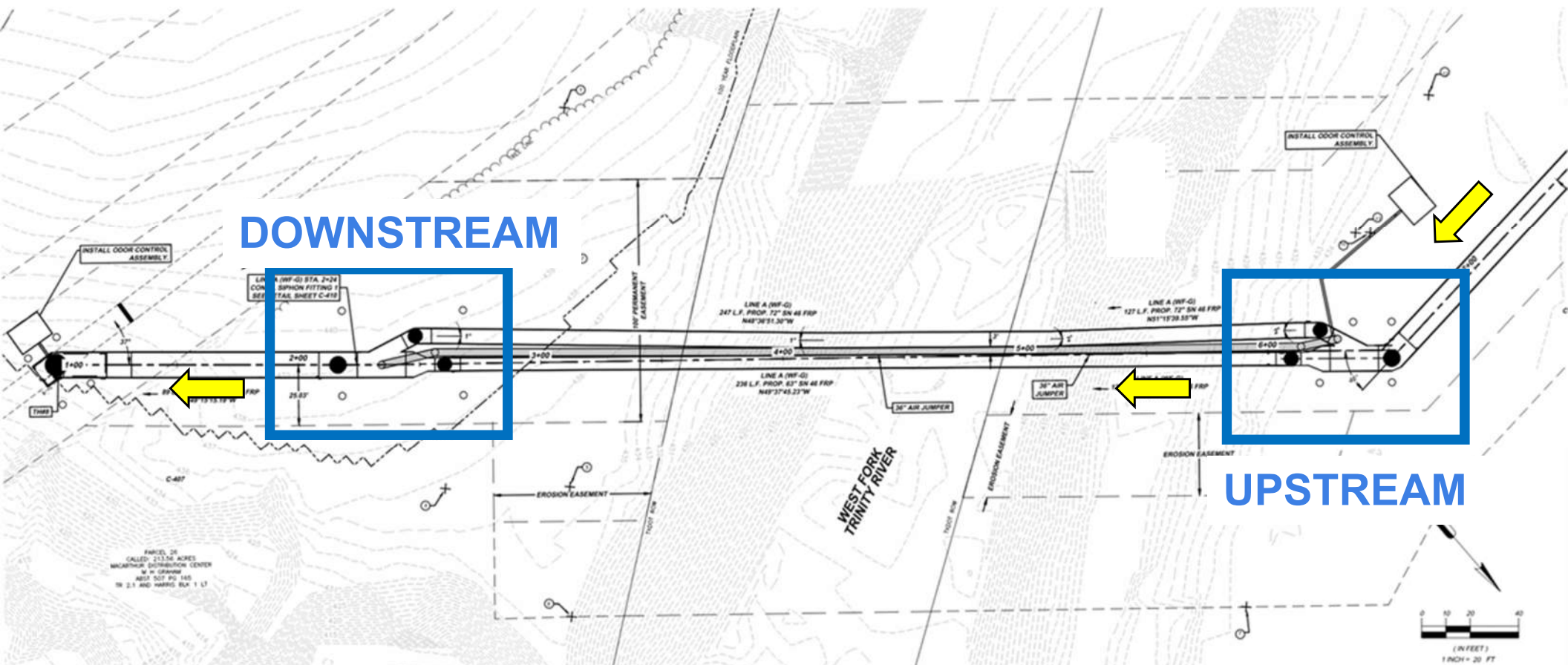
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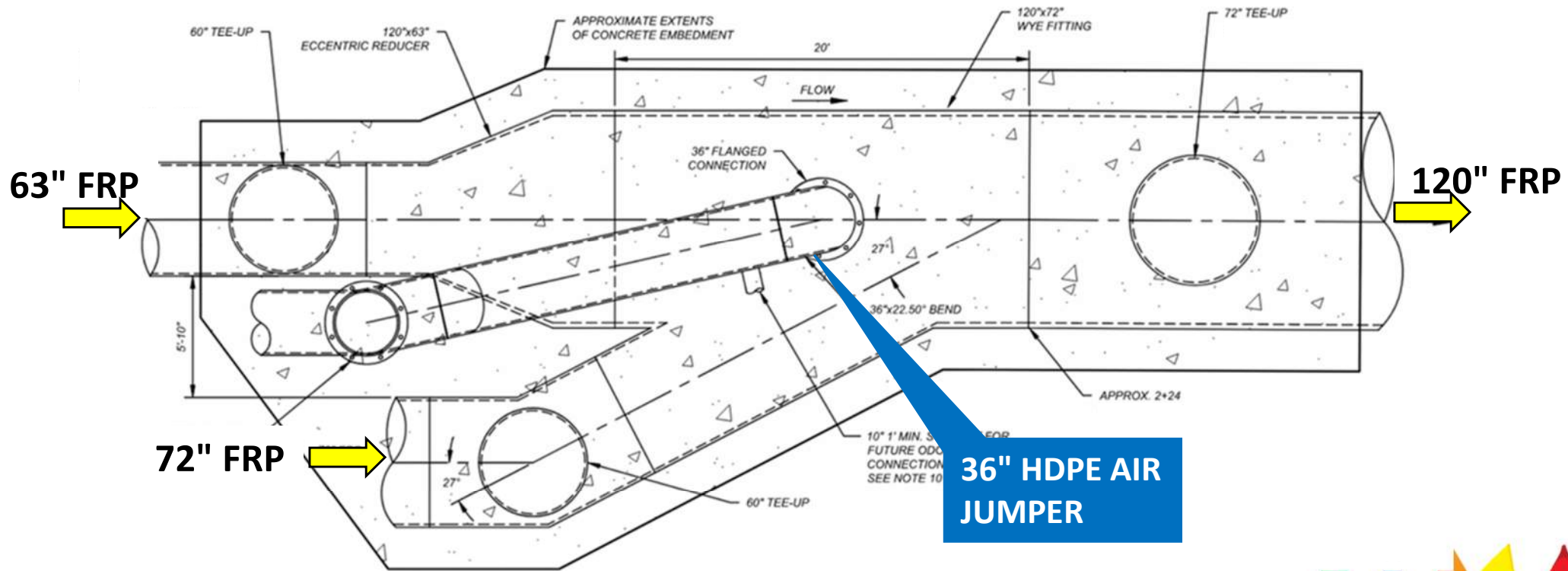




# Siphon Arrangements

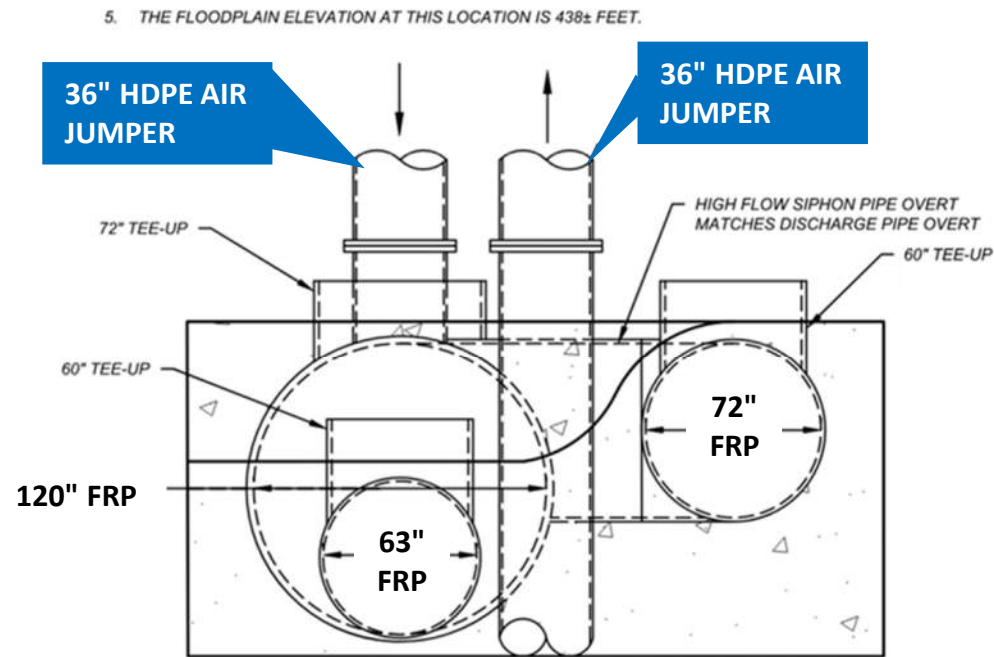


# DOWNSTREAM SIPHON - PLAN





# DOWNSTREAM SIPHON - PROFILE



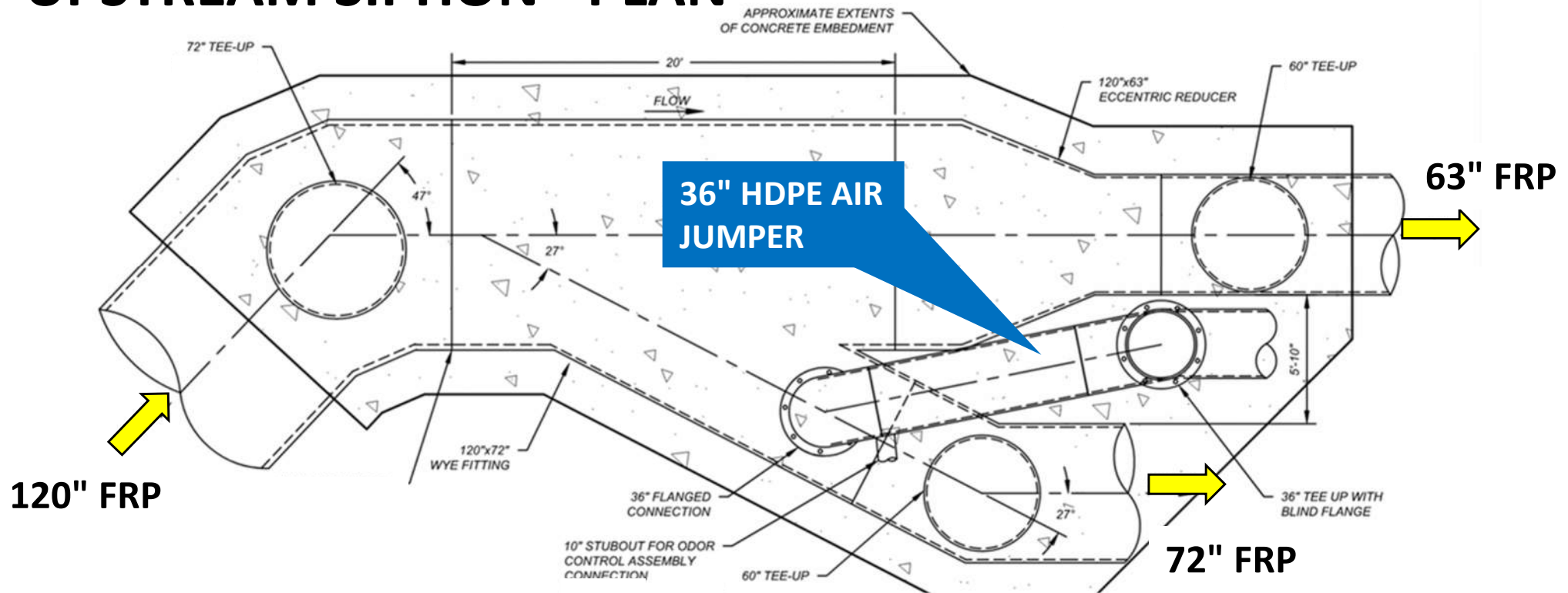
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# UPSTREAM SIPHON - PLAN



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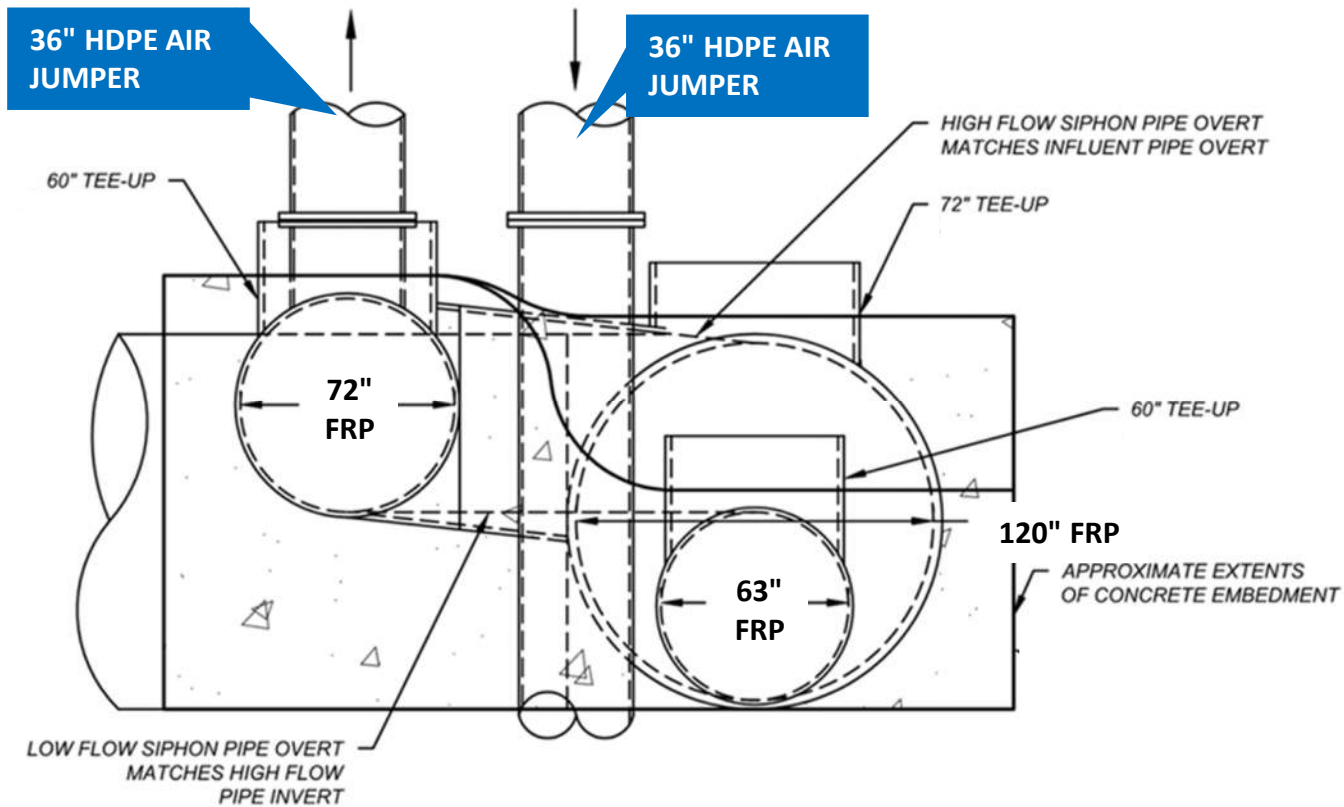
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# UPSTREAM SIPHON - PROFILE



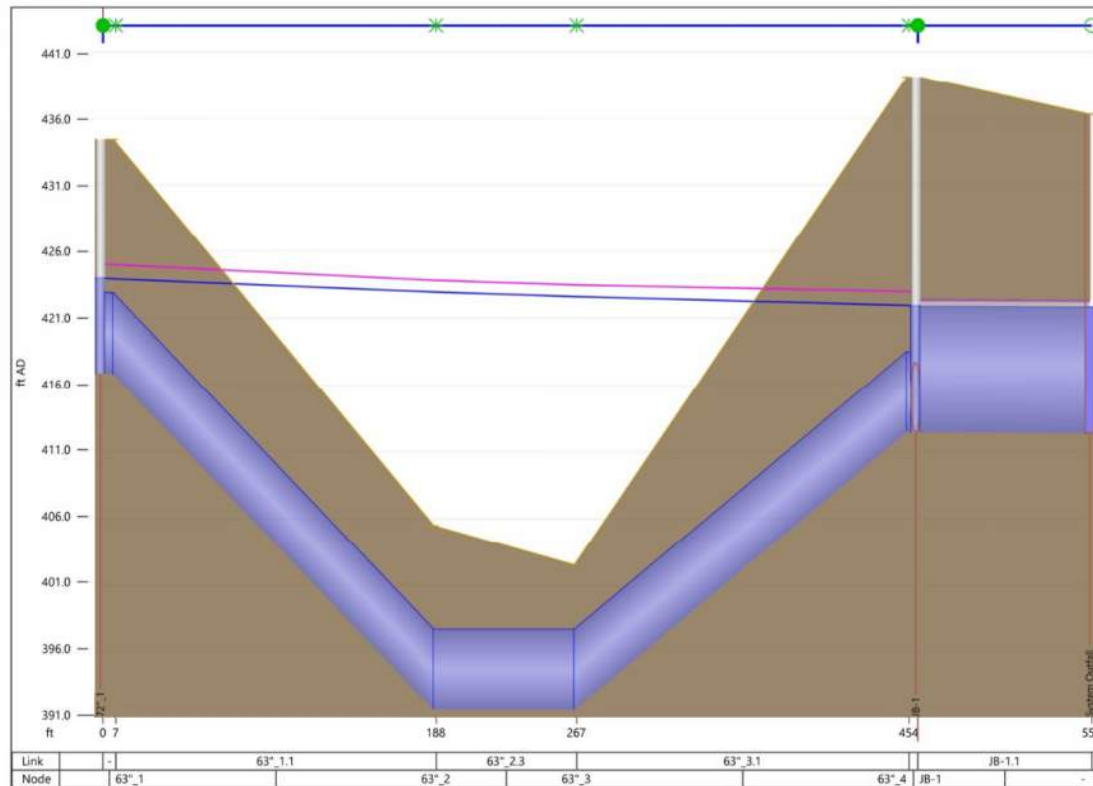
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# SIPHON MODELING



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# Manufacturing

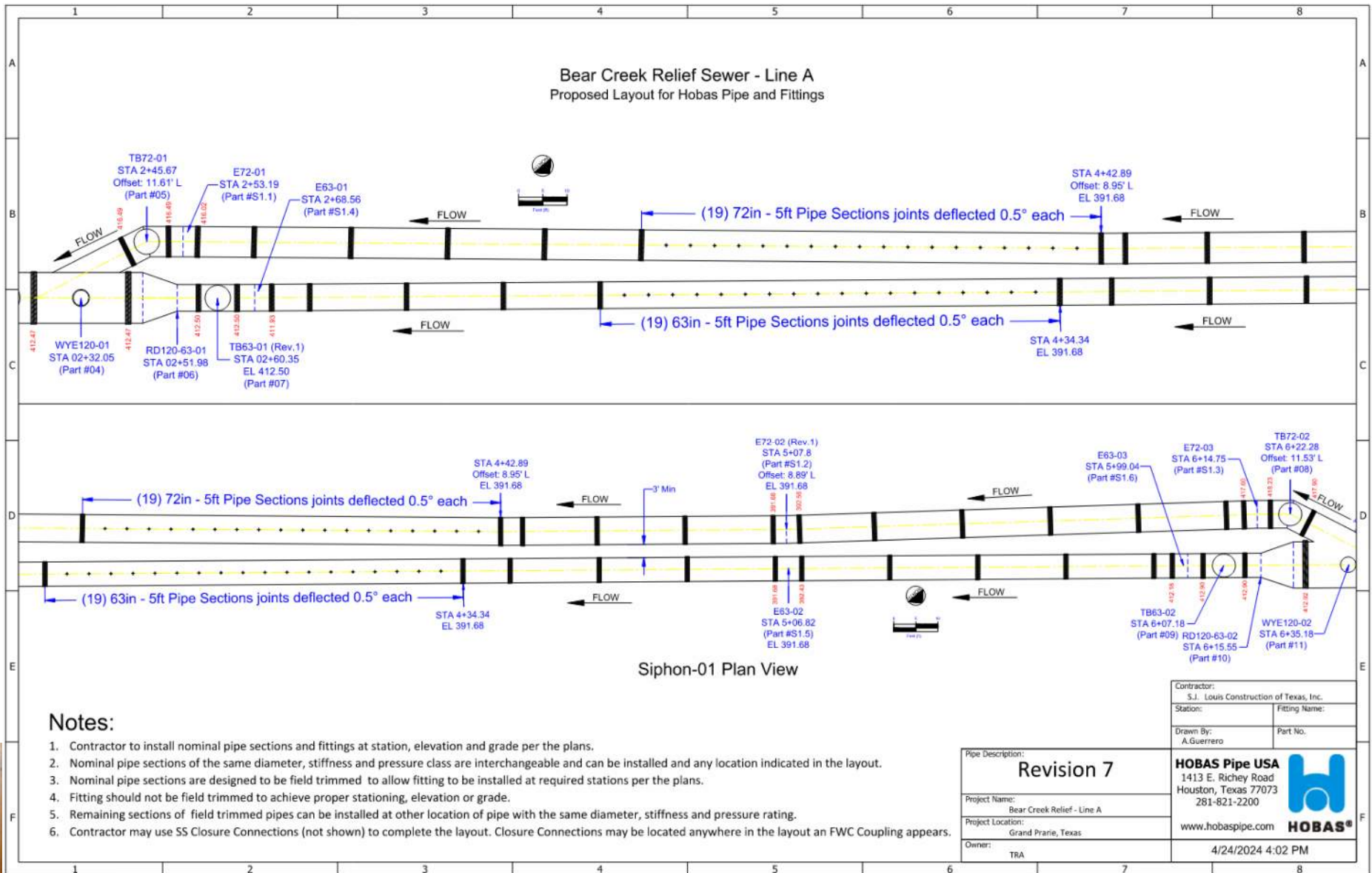


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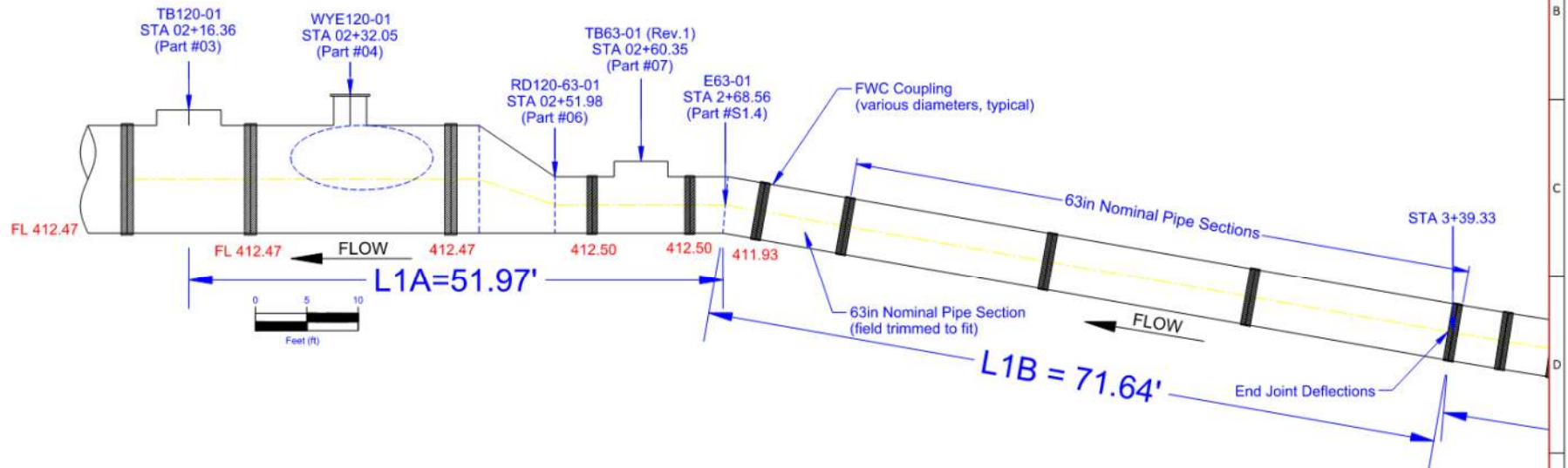
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**Bear Creek Relief Sewer - Line A - Siphon 63-01**  
Proposed Layout for Hobas Pipe and Fittings



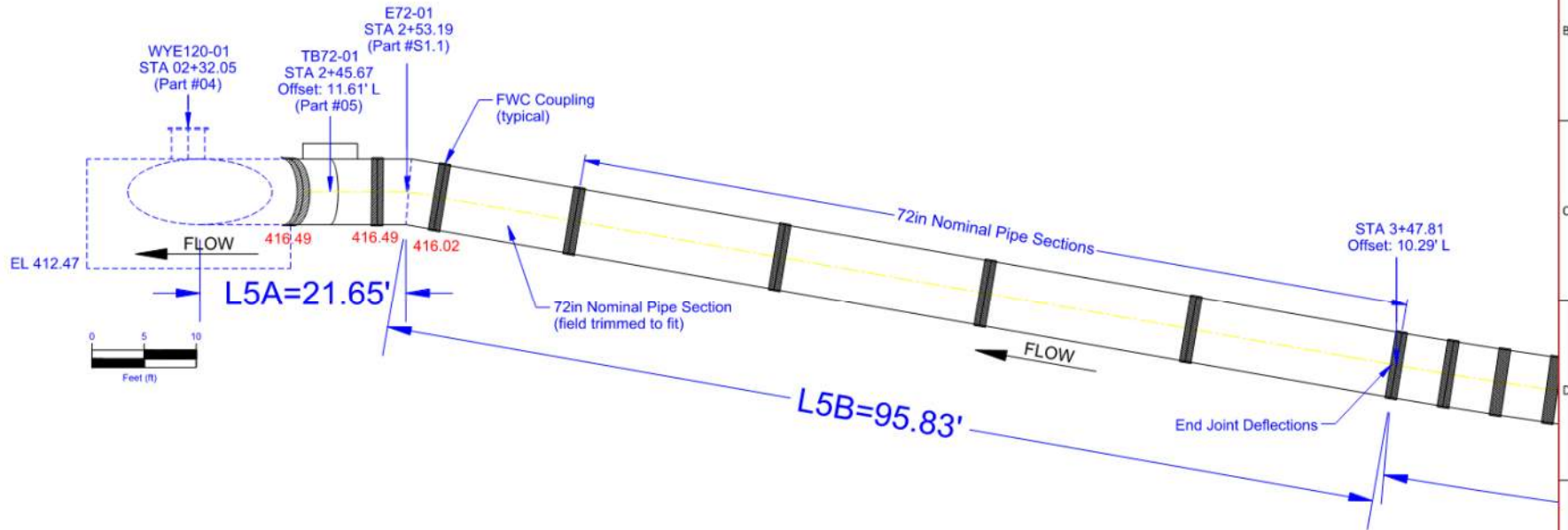
**Notes:**

1. Contractor to install nominal pipe sections and fittings at station, elevation and grade per the plans.
2. Nominal pipe sections of the same diameter, stiffness and pressure class are interchangeable and can be installed at any location indicated in the layout.
3. Nominal pipe sections are designed to be field trimmed to allow fitting to be installed at required stations per the plans.
4. Fittings should not be field trimmed to achieve proper stationing, elevation or grade.
5. Remaining sections of field trimmed pipes can be installed at other location of pipe with the same diameter, stiffness and pressure rating.
6. Contractor may use SS Closure Connections (not shown) to complete the layout. Closure Connections may be located anywhere in the layout an FWC Coupling appears.

Revision 7		Contractor: S.J. Louis Construction of Texas, Inc. Station: _____ Fitting Name: _____ Drawn By: A. Guerrero Part No. _____	
Project Name: Bear Creek Relief - Line A Project Location: Grand Prairie, Texas Owner: TRA		<b>HOBAS Pipe USA</b> 1413 E. Richey Road Houston, Texas 77073 281-821-2200 www.hobaspipe.com <b>HOBAS®</b>	
		4/24/2024 4:02 PM	



# Bear Creek Relief Sewer - Line A - Siphon 72-01 Proposed Layout for Hobas Pipe and Fittings



## Notes:

1. Contractor to install nominal pipe sections and fittings at station, elevation and grade per the plans.
2. Nominal pipe sections of the same diameter, stiffness and pressure class are interchangeable and can be installed at any location indicated in the layout.
3. Nominal pipe sections are designed to be field trimmed to allow fitting to be installed at required stations per the plans.
4. Fittings should not be field trimmed to achieve proper stationing, elevation or grade.
5. Remaining sections of field trimmed pipes can be installed at other location of pipe with the same diameter, stiffness and pressure rating.
6. Contractor may use SS Closure Connections (not shown) to complete the layout. Closure Connections may be located anywhere in the layout an FWC Coupling appears.

Revision 7		Contractor: S.J. Louis Construction of Texas, Inc.	
Project Name: Bear Creek Relief - Line A		Station: Fitting Name:	
Project Location: Grand Prairie, Texas		Drawn By: A. Guerrero	
Owner: TRA		Part No.	
Pipe Description:		HOBAS Pipe USA 1413 E. Richey Road Houston, Texas 77073 281-821-2200 www.hobaspipe.com	
		4/24/2024 4:02 PM	







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# Panel Speakers



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Deputy Executive Manager  
Planning, Design & Construction Administration  
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**Reyna Johnson, P.E.**

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Team Leader  
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**Gabriel Castelblanco, P.E.**

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**Ronald Etter**

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