

LARGE DIAMETER FIBERGLASS JUNCTION STRUCTURES FOR SANITARY SEWERS

Amanda Voss, PE Project Manager, Trinity River Authority
George Farah, PE Conveyance Team Leader



PLUMMER

PIPELINE CONSTRUCTION





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AIR SCRUBBER FOR ODOR CONTROL





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LIFT STATION WETWELLS



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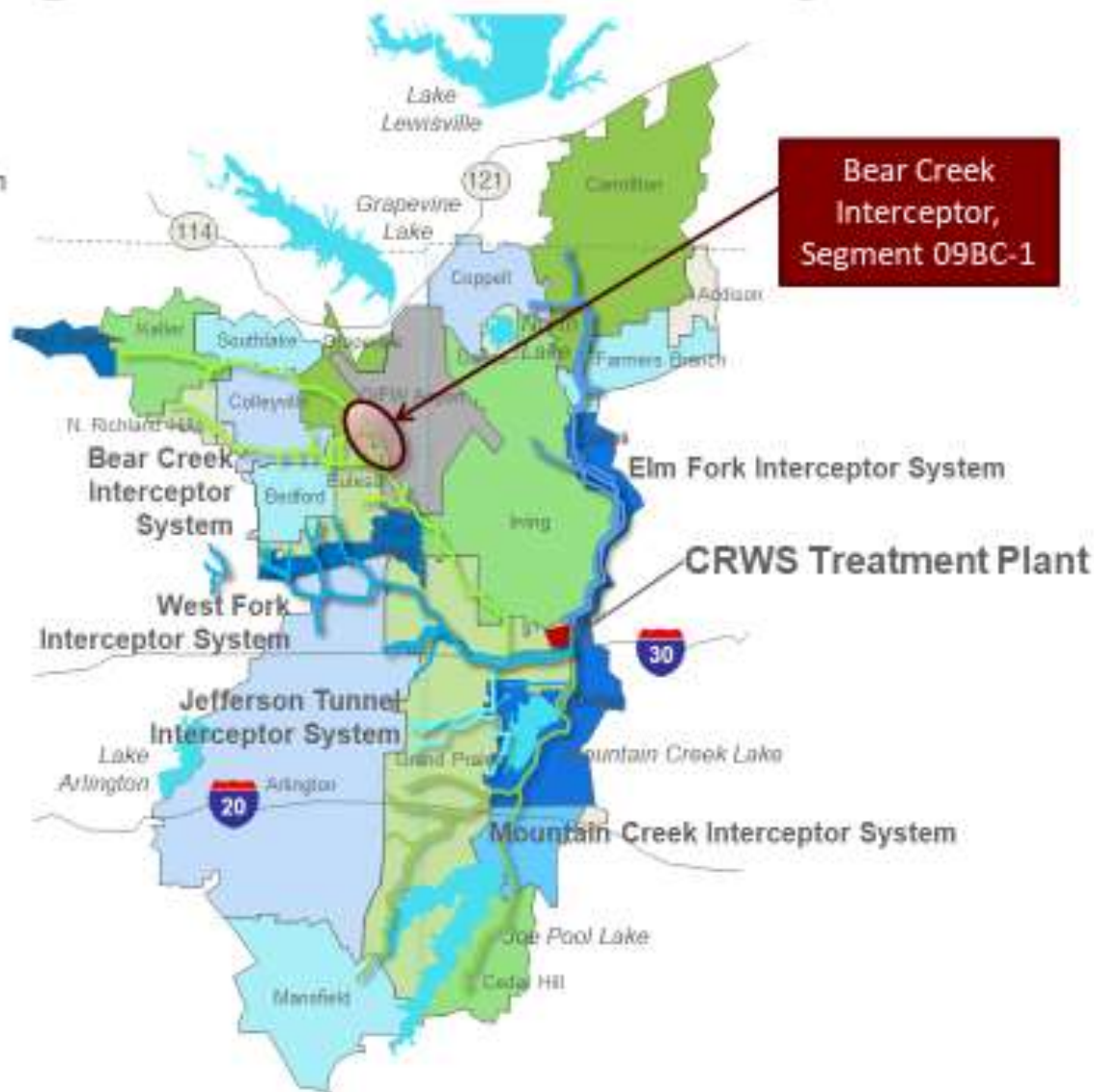
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Central Regional Wastewater System



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





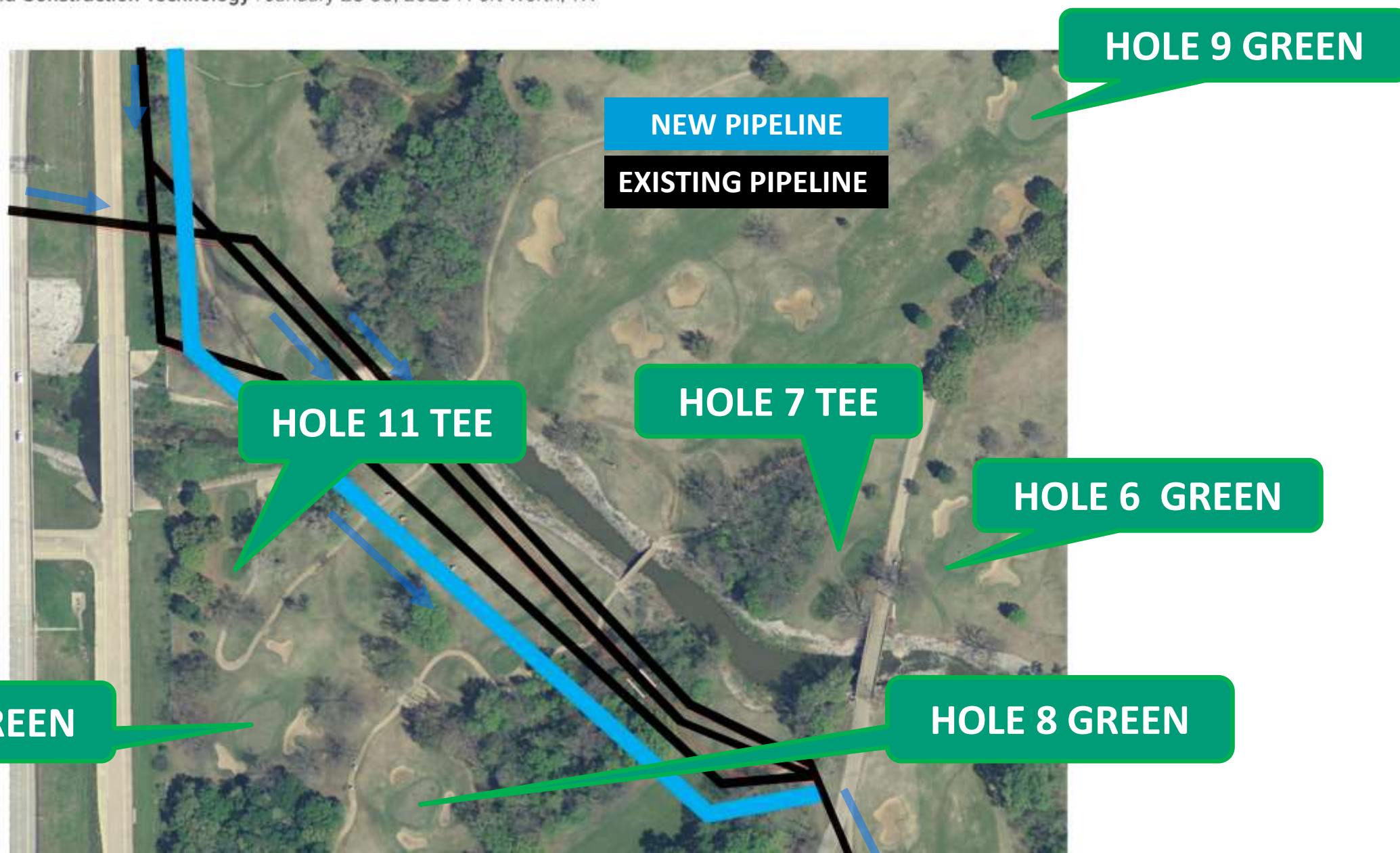
- 5 Miles 60", 48", 42"
- 3,500 LF on Golf Course 60", 54" and 48"





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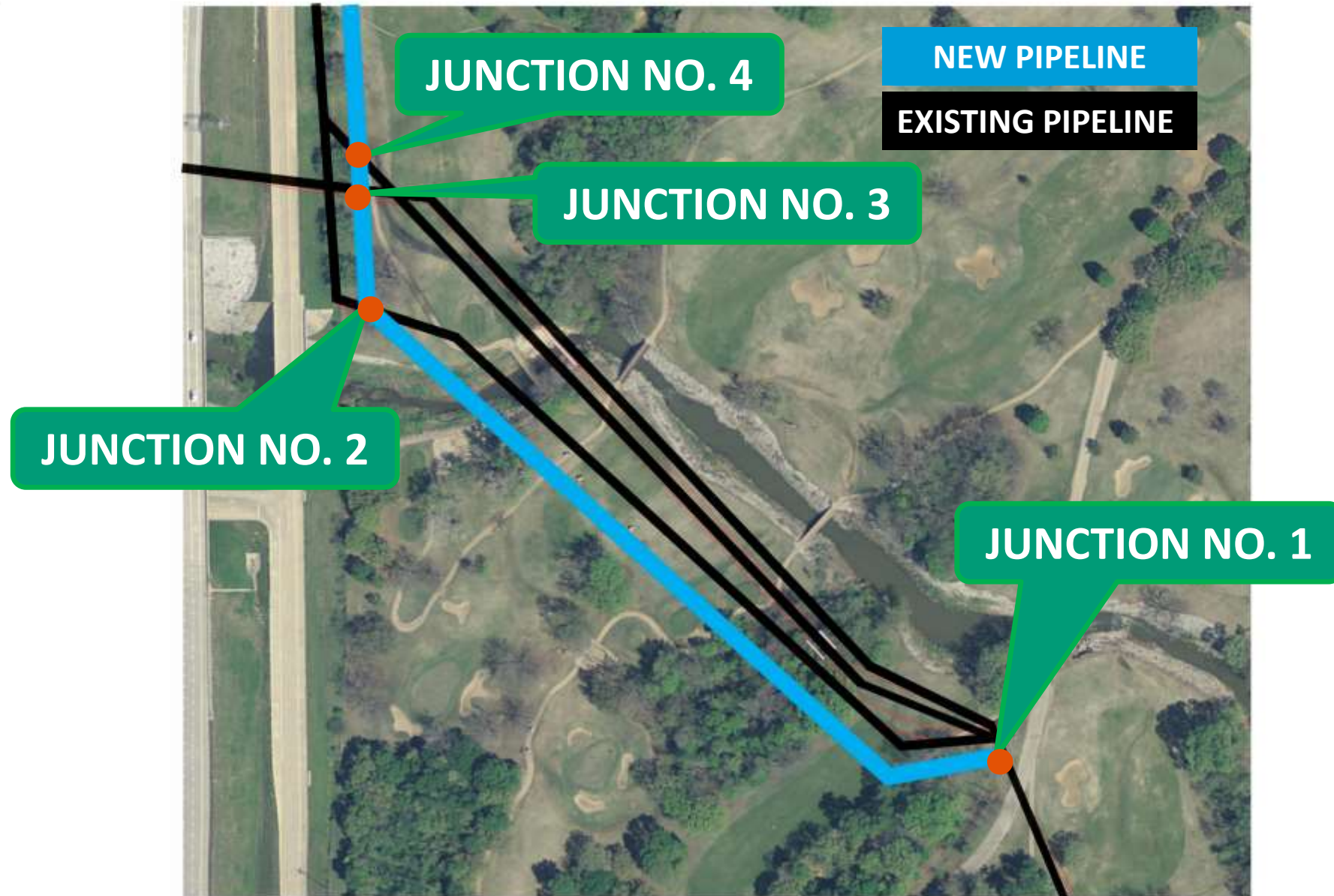
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PROJECT SCHEDULE

		Offsite Prep.				Onsite Construction																					
Cast In Place Concrete		PW1	PW2	PW3	PW4	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17	W18	W19	W20	W21	W22
1	Rebar Submittal Review																										
2	Concrete Mix Submittal Review																										
3	Foundation Excavation & Frame																										
4	Foundation Placement																										
5	Cure Time																										
6	Form Walls																										
7	Wall Placement																										
8	Cure Time																										
9	Frame Roof																										
10	Roof Pour																										
11	Cure Time																										
12	Leak Testing																										
13	Lining																										
14	Cure Lining/ Spark Testing																										
FRP Structure		PW1	PW2	PW3	PW4	PW5	PW6	PW7	W1	W2	W3	W4	W5	W6	W7												
1	Rebar Submittal Review																										
2	Concrete Mix Submittal Review																										
3	FRP Manhole Submittal Review																										
4	FRP Manhole Manufacturing																										
5	Factory Testing																										
6	Delivery of FRP manhole																										
7	Foundation Frame																										
8	Foundation Placement																										
9	Cure Time																										
10	Set Structure																										
11	Backfill Structure																										
12	Leak Testing																										
13	Frame Roof																										
14	Roof Pour (concrete)																										
15	Cure Time																										
16	Roof Installation																										

Mobilize on J
Site/ Access G
Course

15 Week Saving

Mobilize on Job Site/ Access Golf Course



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CONCRETE JUNCTION STRUCTURE



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**DOG-HOUSE
CUT OUT**



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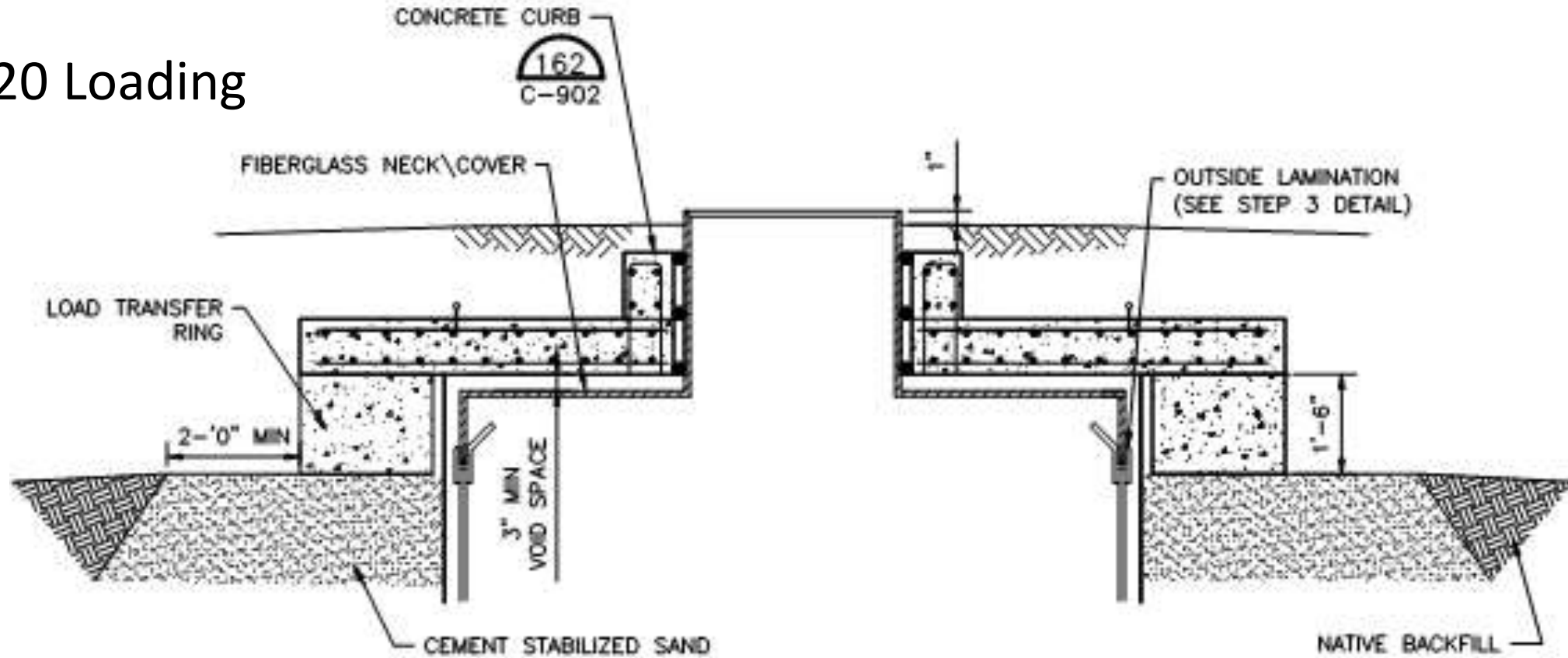
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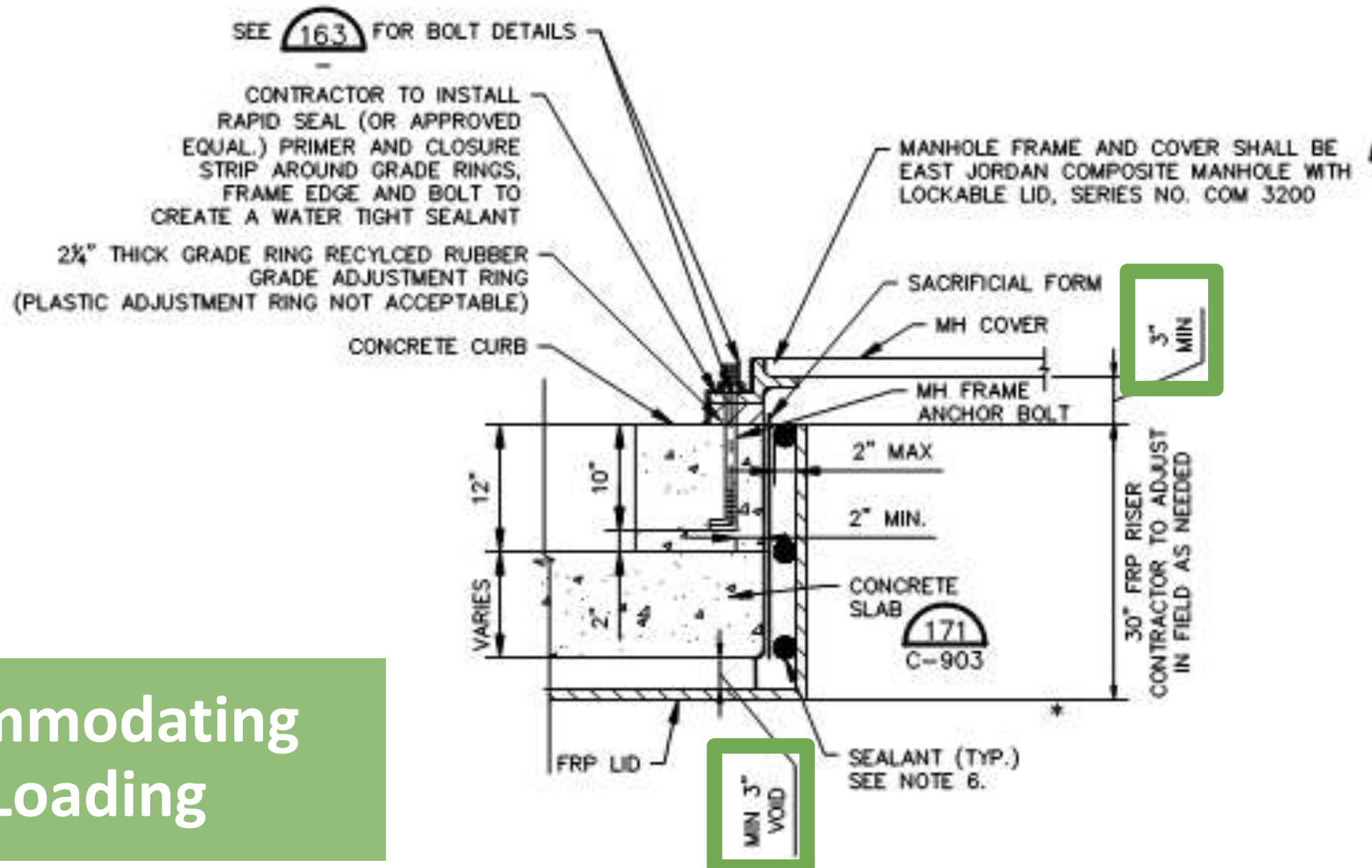


H-20 Loading



Accommodating
H-20 Loading

STEP 5 DETAIL
CONCRETE LID PLACEMENT



Accommodating
H-20 Loading

- Resulted in Junction Structure Cost savings of more than \$1,080,000*.

Item	Large Diameter FRP Structure	Concrete Vault
Structure	\$80,000/ Ea.	\$200,000/ Ea.
Liner	\$0	\$25,000/ Ea.

* Costs for Bypass Pumping Savings are not included in this number.

QUESTIONS?

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