

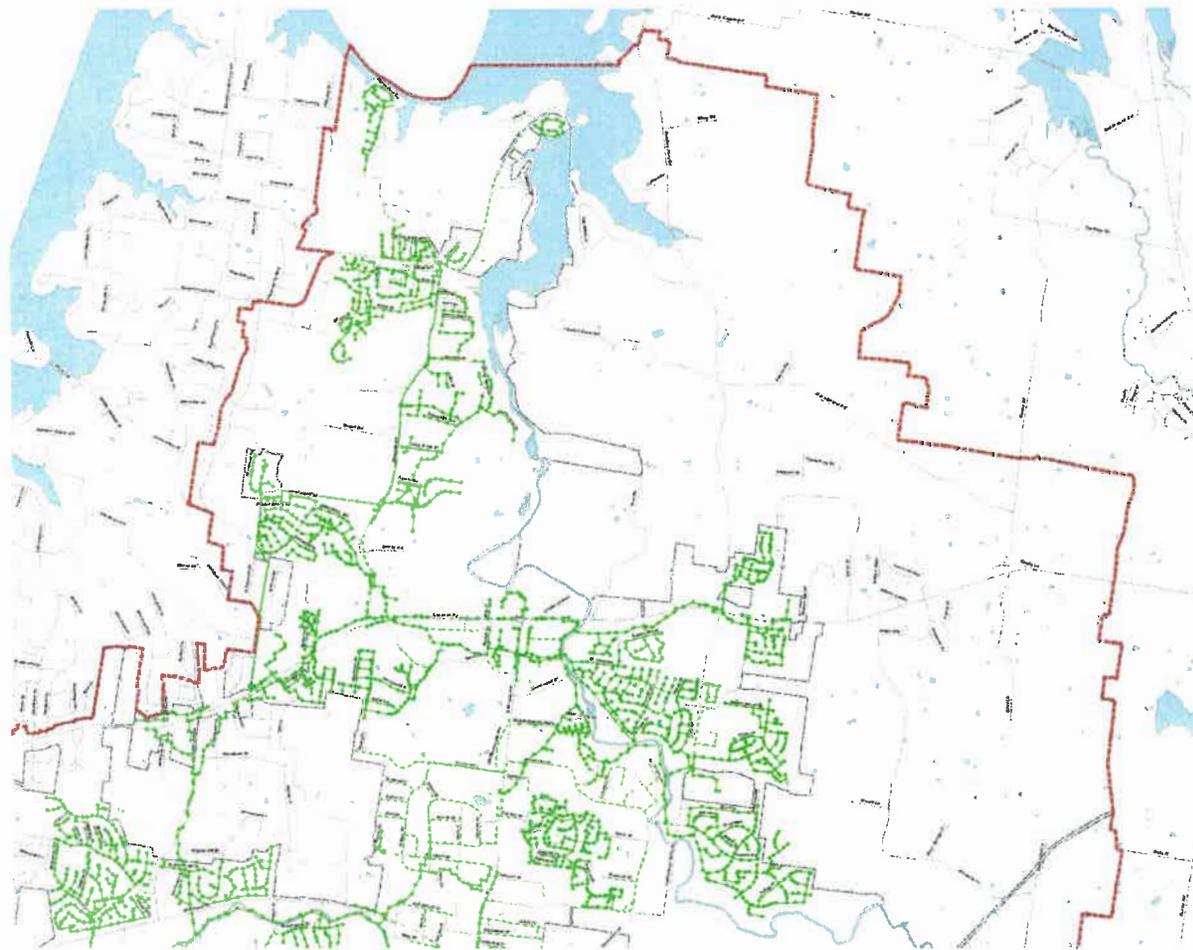
HWY 70 Drainage Basin Sewer Capacity



Existing Collection System

- Existing flows are collected at the Cedar Creek Pump Station
 - All flows from the Mt Juliet Library north
 - Flows from Jackson Hills
 - Flows from Hwy 70 up to Green Hill High School
 - Flows from Benders Ferry Road
- The existing station is at approximately 70% capacity

Cedar Creek Drainage Basin Map



Urban Growth Boundary

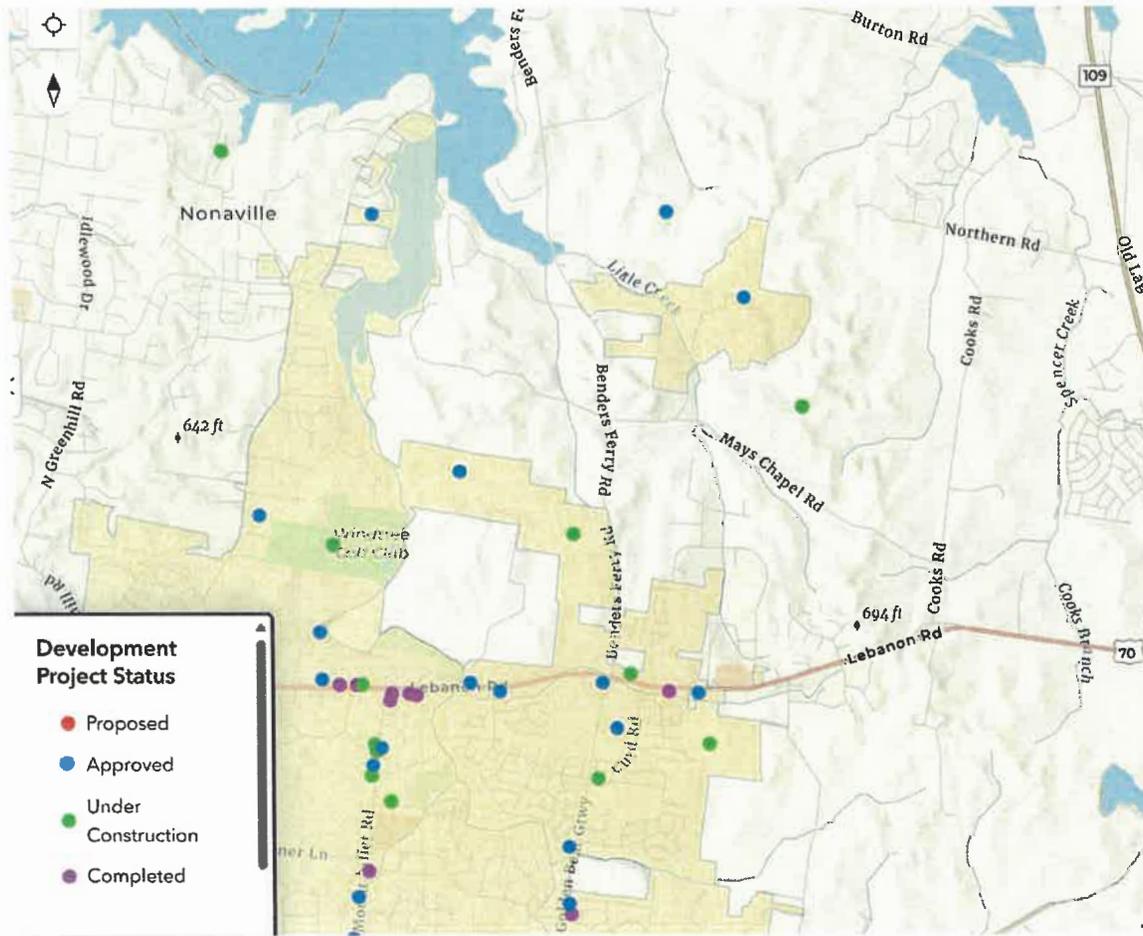


Existing Sewers



Hwy 70E Interceptor Sewer

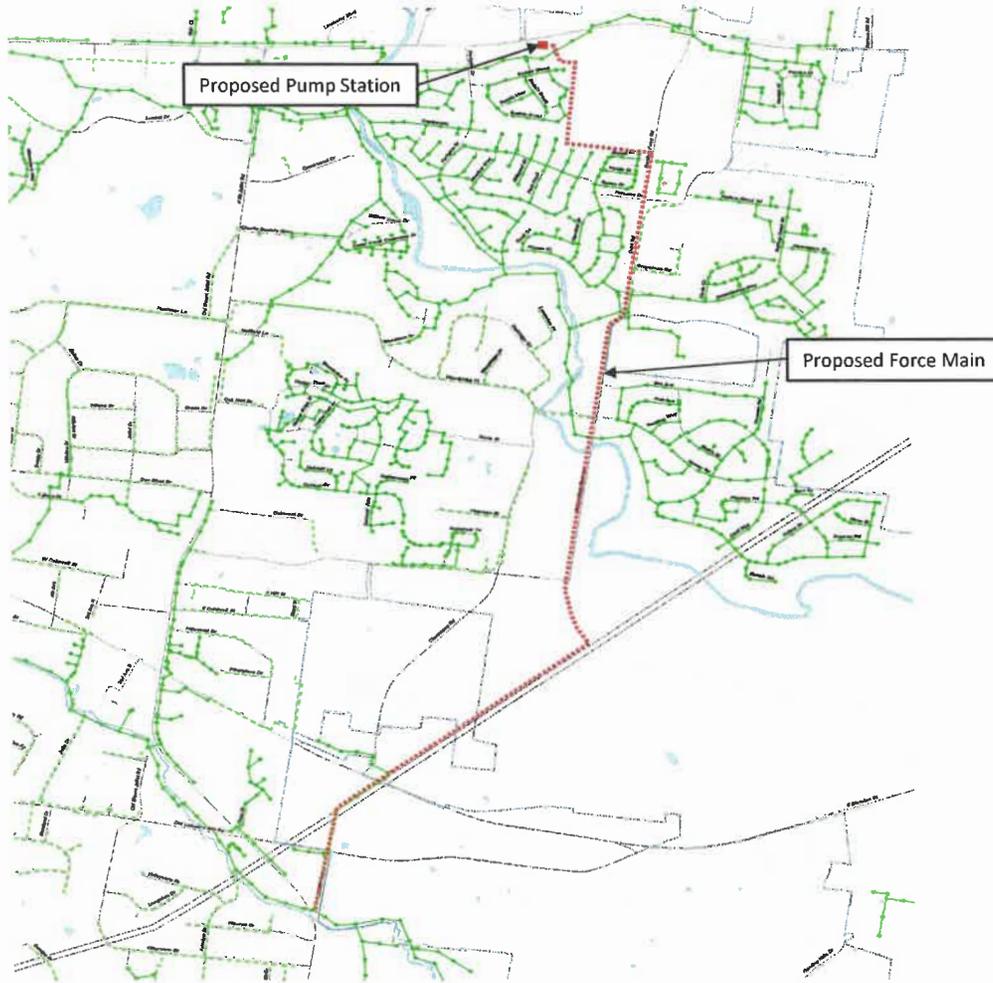
- Existing 15-inch interceptor sewer
 - Collects the area with the highest sewer availability request rate
 - All capacity within the sewer has been allocated
 - Requires improvements to accomodate additional development
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Hwy 70E Development Map

Proposed Improvements

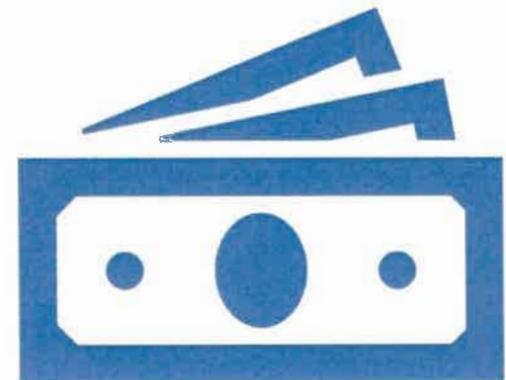
- Construct a new pump station to intercept flow in the existing 15-inch interceptor sewer
 - Construct a new 16-inch force main along Golden Bear Gateway to convey flows into the Sinking Creek interceptor sewer
 - Project would provide capacity for approximately 3,500 single family units
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Proposed Improvements

Estimated Project Cost and Timeline

- New pump station and 16,000 feet of force main
- Estimated cost of 12.1 million dollars
- Estimated timeline for design is 12 months
- Estimated timeline for construction is 18 months
- Project operational by January 2028



BENDERS FERRY REGIONAL PUMP STATION AND FORCE MAIN PRELIMINARY ESTIMATE

ITEM	DESCRIPTION	QUANTITY	ESTIMATED UNIT PRICE	TOTAL
1	16" C900 (DR-21) PVC force main with 3" detection tape and tracer wire complete in place and ready for use.	15,000LF	\$350.00	\$5,250,000.00
2	16" C900 (DR-21) PVC force main in 30" diameter 0.0144" wall (solid weld) steel casing pipe by tunnel / bore method, with trace wire, complete in place and ready for use.	800LF	\$1,500.00	\$1,200,000.00
3	Miscellaneous compact DIP fittings, complete in place and ready for use.	16,000LBS	\$15.00	\$240,000.00
4	16" plug valve with valve box, complete in place and ready for use.	2EA	\$15,000.00	\$30,000.00
5	Combination sewage air/vacuum release valve assembly and manhole, complete in place and ready for use.	7EA	\$24,000.00	\$168,000.00
6	Trace wire stub-up boxes with frame and cover, complete in place and ready for use.	7EA	\$1,500.00	\$10,500.00
7	Utility marker with integral tracer wire test station, complete in place and ready for use.	5EA	\$300.00	\$1,500.00
8	"Type A" asphalt roadway replacement - full width, complete in place and ready for use.	120LF	\$400.00	\$48,000.00
9	"Type A" asphalt roadway replacement - repair / trench width, complete in place and ready for use.	2,910LF	\$40.00	\$116,400.00
10	Asphalt driveway / parking lot replacement, complete in place	500LF	\$40.00	\$20,000.00
11	Concrete driveway replacement, complete in place.	250LF	\$50.00	\$12,500.00
12	Concrete sidewalk replacement, complete in place and ready for use.	500LF	\$50.00	\$25,000.00
13	Gravel driveway replacement, complete in place and ready for use.	100LF	\$20.00	\$2,000.00
14	Topsoil and seeding of trenches, complete in place and ready for use.	15,000LF	\$2.00	\$30,000.00
15	Class C (2,000 psi) concrete for cradle, thrust blocking, encasement, etc., complete in place and ready for use.	75CY	\$150.00	\$11,250.00
16	Bituminous (temporary) cold mix asphalt for trenches, complete in place and ready for use.	50TONS	130	\$6,500.00
17	Unclassified excavation for undercuts, complete in place and ready for use.	50CY	\$10.00	\$500.00
18	Crushed stone backfill for undercuts, complete in place and ready for use.	50CY	\$10.00	\$500.00
19	Lump Sum item for connection of new 16" PVC force main to existing interceptor sewer, complete in place and ready for use.	1LS		\$20,000.00
20	Lump Sum item for connection of existing gravity sewer to new pump station, complete in place and ready for use.	1LS		\$80,000.00
21	Lump Sum item for construction of new pump station, complete in place and ready for use.	1LS		<u>\$3,250,000.00</u>
		Estimated Project Construction Cost		\$10,522,650.00
		Contingencies Engineering and Other Project Construction Cost @ 15%		<u>\$1,578,397.50</u>
		Estimated Probable Project Cost		\$12,101,047.50

Recovery of Cost

- Facilities are for the purpose of new development
 - City can recover cost by establishing an additional capacity charge
 - Charge would be levied to the first 3,500 units constructed
 - Estimated charge is \$4,000 per unit
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