



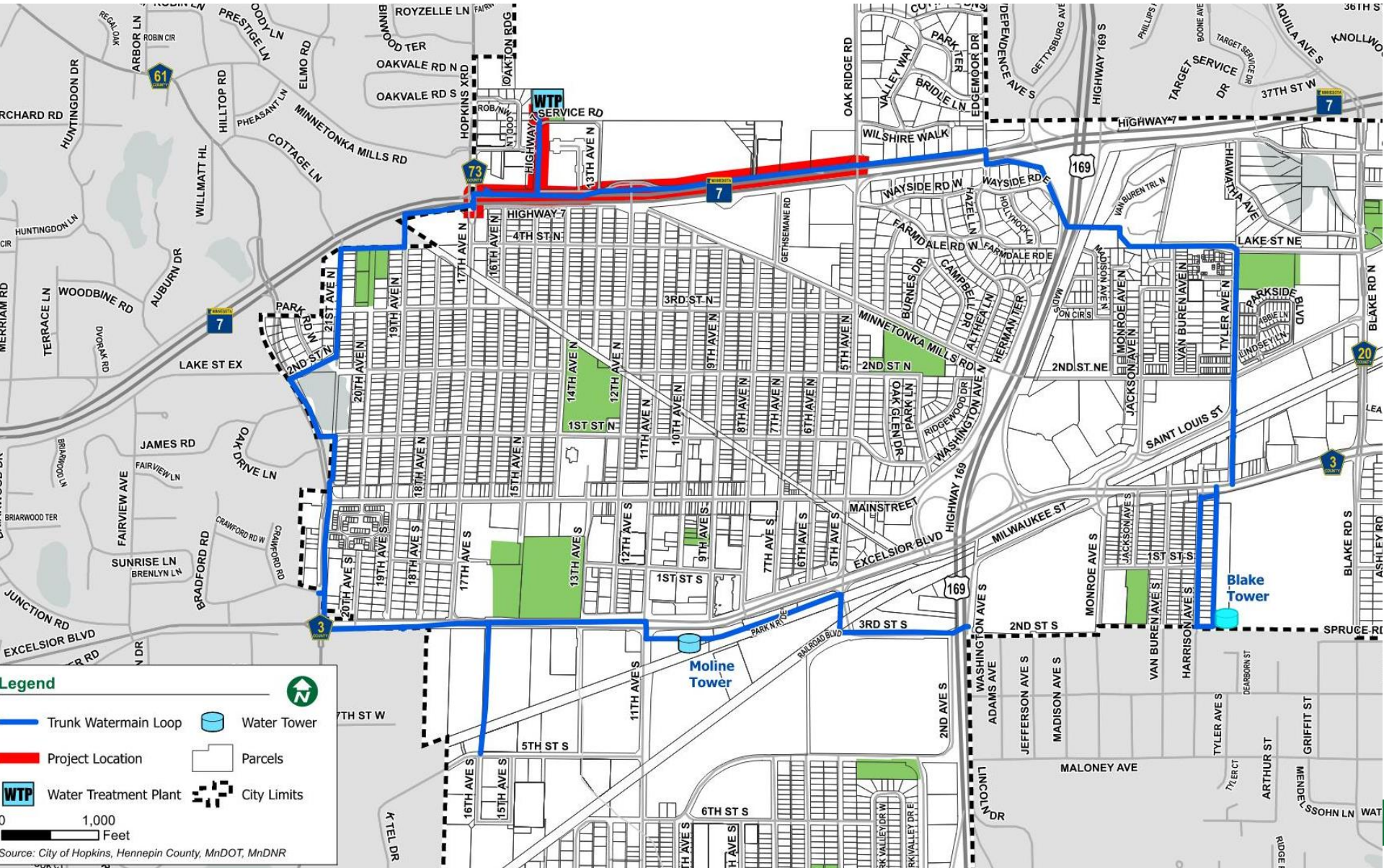
City of Hopkins

2022 Trunk Watermain Improvements

September 14, 2021



Project Location Map



2016 Watermain Condition Analysis



Video:

https://www.youtube.com/watch?v=ibxBtbE8_aM

Segment	Site/Street	Distance (ft)	Pipe Material	Internal Diameter (in)	Nominal Thickness (in)	Remaining Thickness (in)	% Change from Nominal
1	Robinwood Ln	483	CI	16	0.63	0.61	-3%
2	Robinwood Ln	424	CI	16	0.63	0.56	-11%
3	North Service Rd	502	CI	16	0.63	0.62	-2%
4	North Service Rd	666	CI	16	0.63	0.42	-33%
5	North Service Rd	344	CI	16	0.63	0.40	-37%



Preliminary Engineering Efforts

- Identify the most cost-effective replacement or rehabilitation methods for the critical water segments
- Preliminary modeling of the water system
- Identify the proposed improvements to serve as the basis for final design as well as the associated estimated costs



Watermain Replacement via Open Cut Excavation



Trenchless Rehabilitation: CIPP Lining



Contractor video:

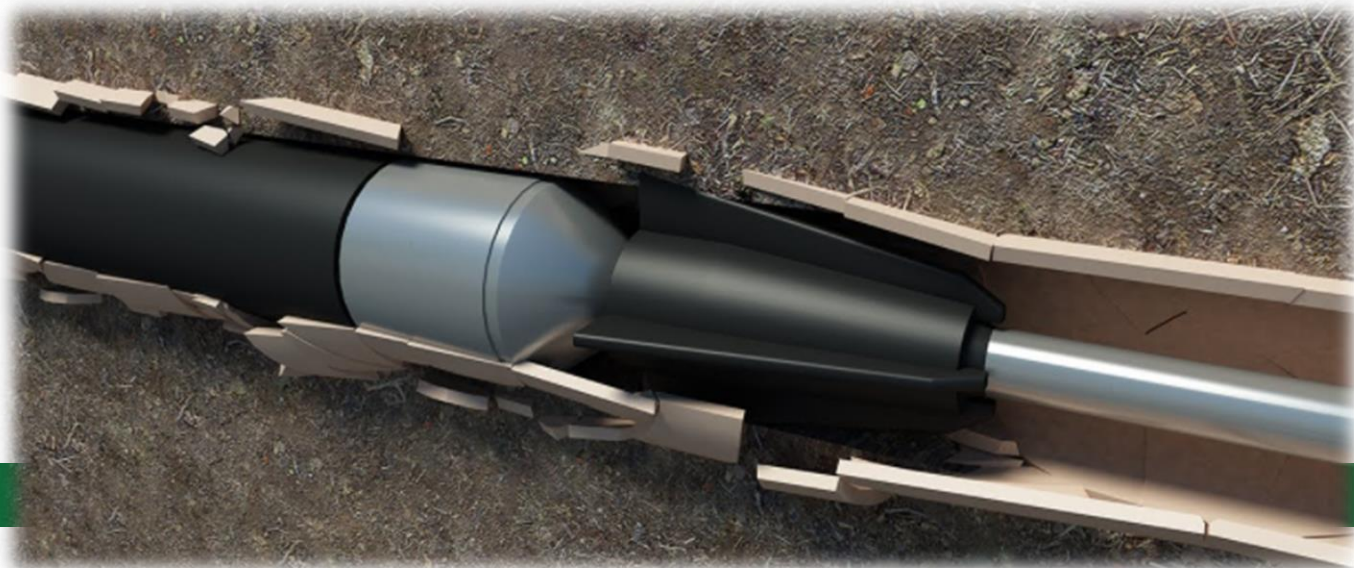
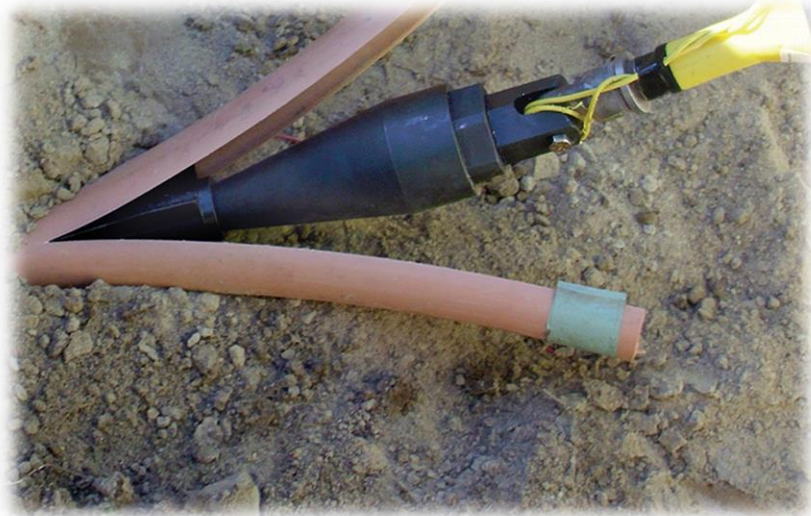
<https://youtu.be/5m1wA9vueRA>



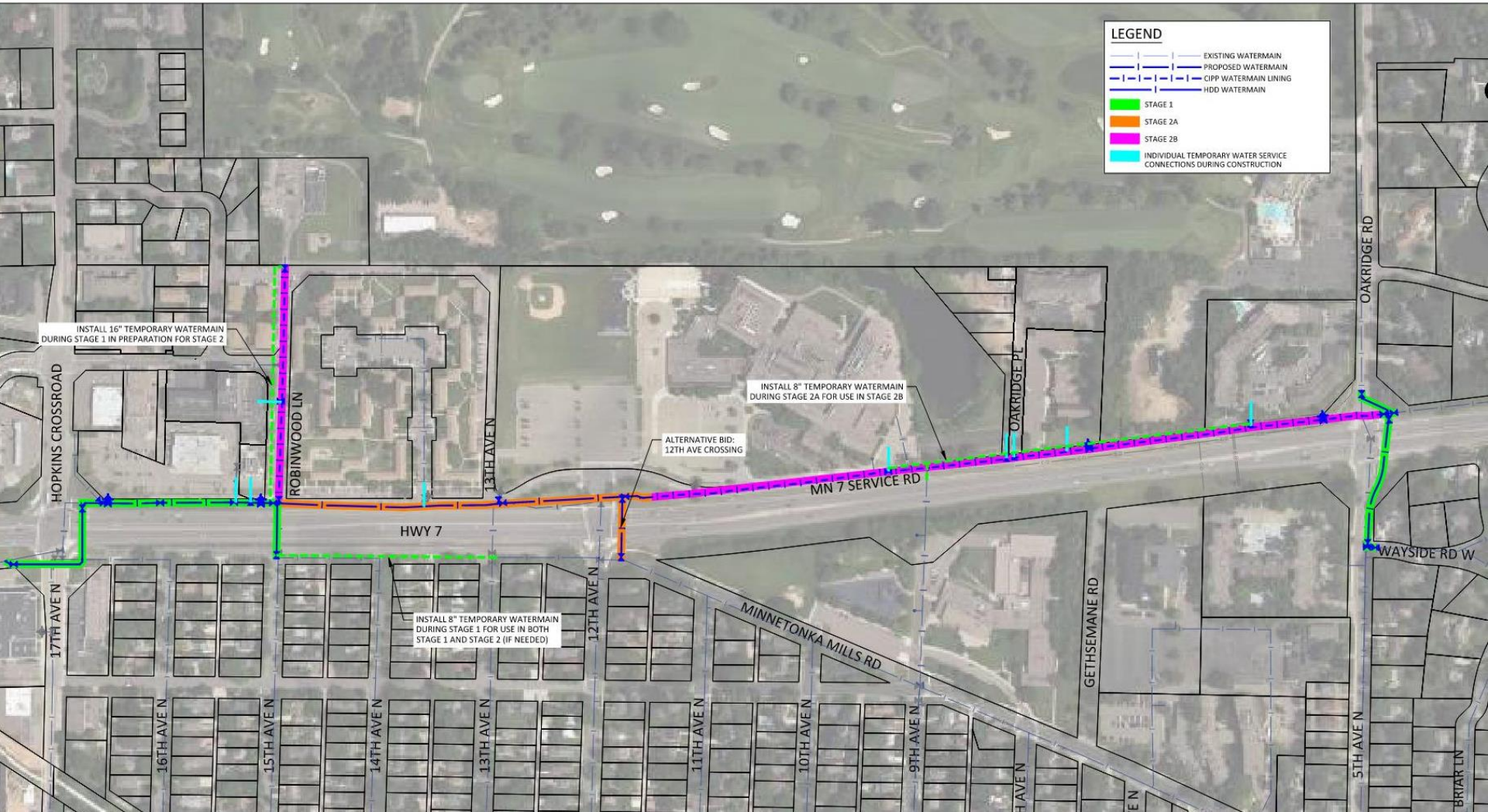
Trenchless Replacement: Horizontal Direction Drilling



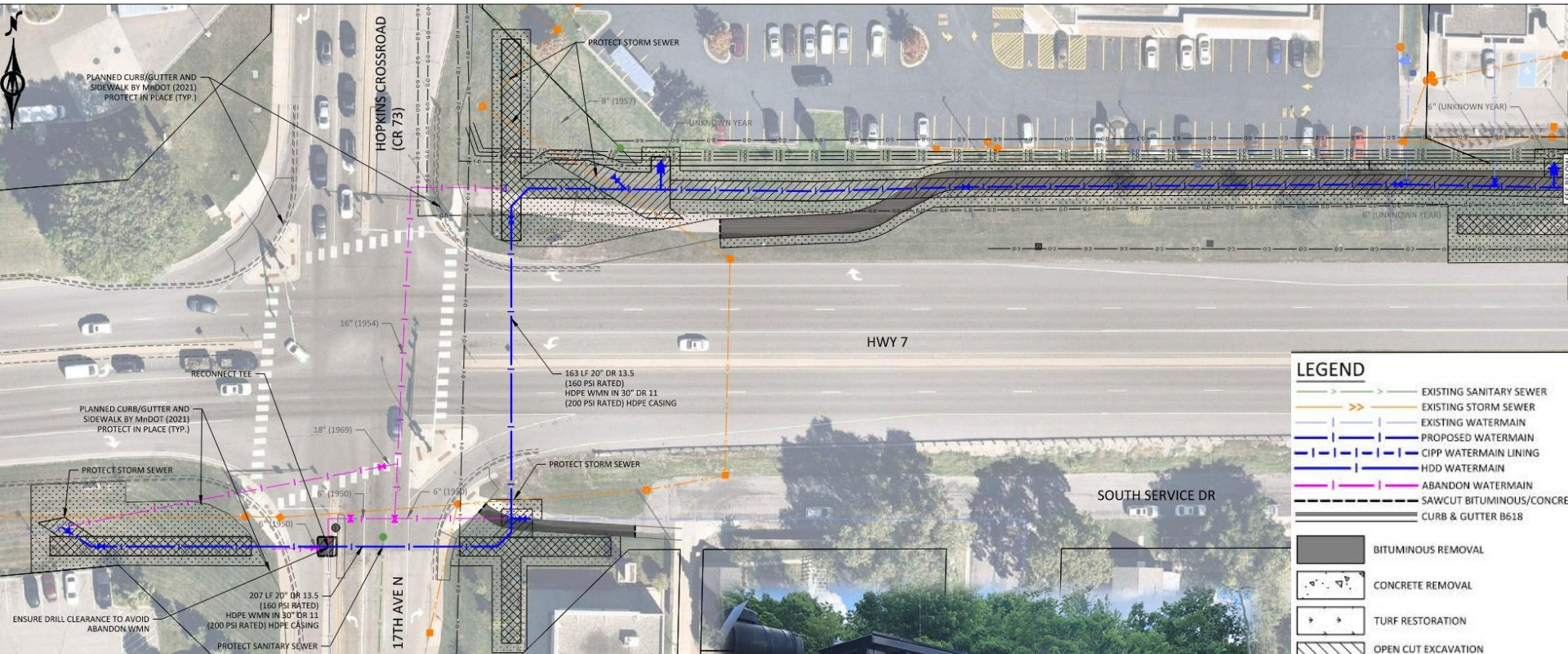
Trenchless Replacement: Pipe Bursting



Proposed Improvements



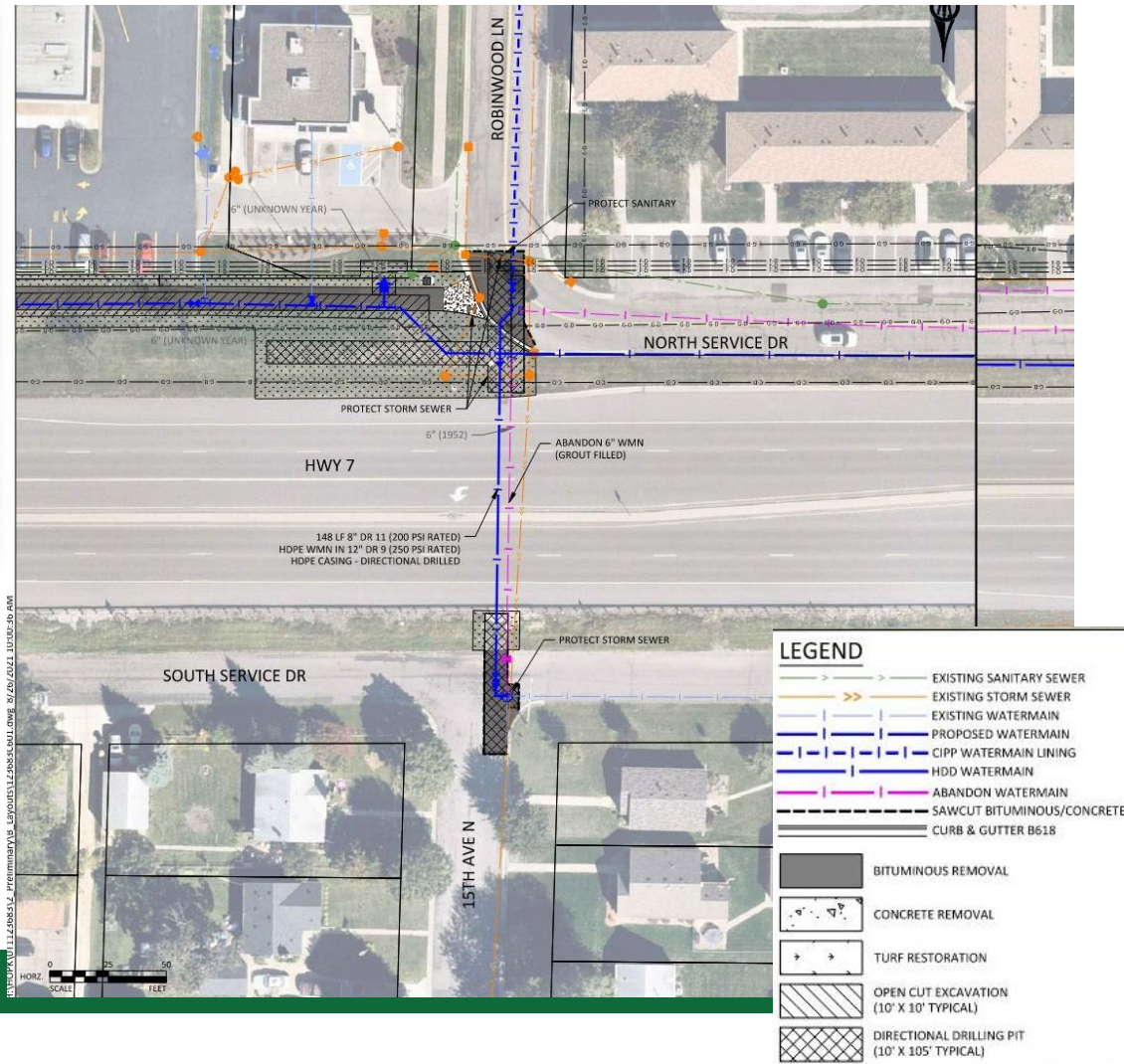
Hopkins Crossroad / 17th Ave N



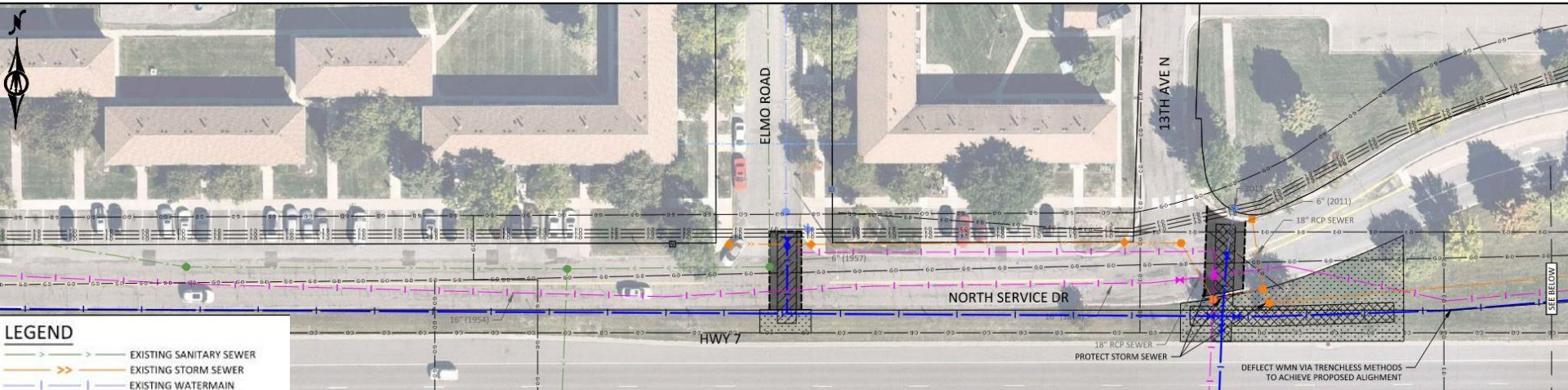
LEGEND

	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING WATERMAIN
	PROPOSED WATERMAIN
	CIPP WATERMAIN LINING
	HDD WATERMAIN
	ABANDON WATERMAIN
	SAWCUT BITUMINOUS/CONCRETE
	CURB & GUTTER B618
	BITUMINOUS REMOVAL
	CONCRETE REMOVAL
	TURF RESTORATION
	OPEN CUT EXCAVATION (10' X 10' TYPICAL)
	DIRECTIONAL DRILLING PIT (10' X 105' TYPICAL)





North Service Dr: HDD



- LEGEND**
- EXISTING SANITARY SEWER
 - EXISTING STORM SEWER
 - EXISTING WATERMAIN
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North Service Drive: CIPP Lining

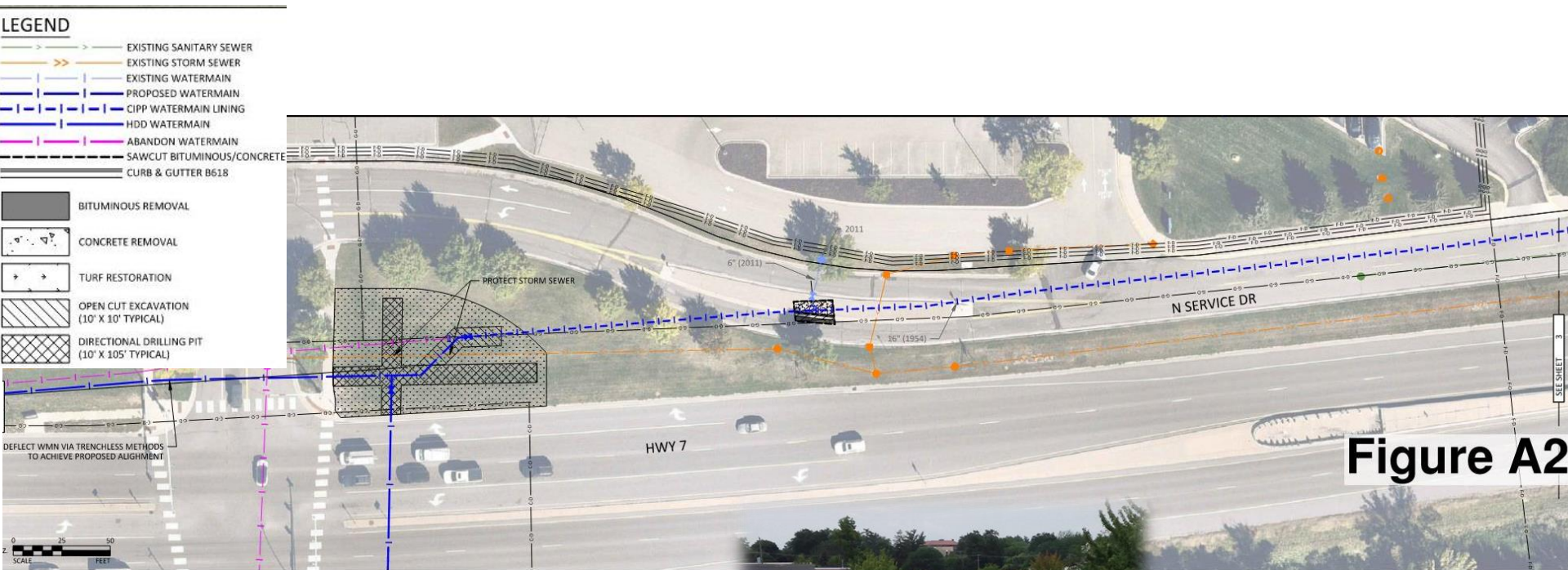


Figure A2



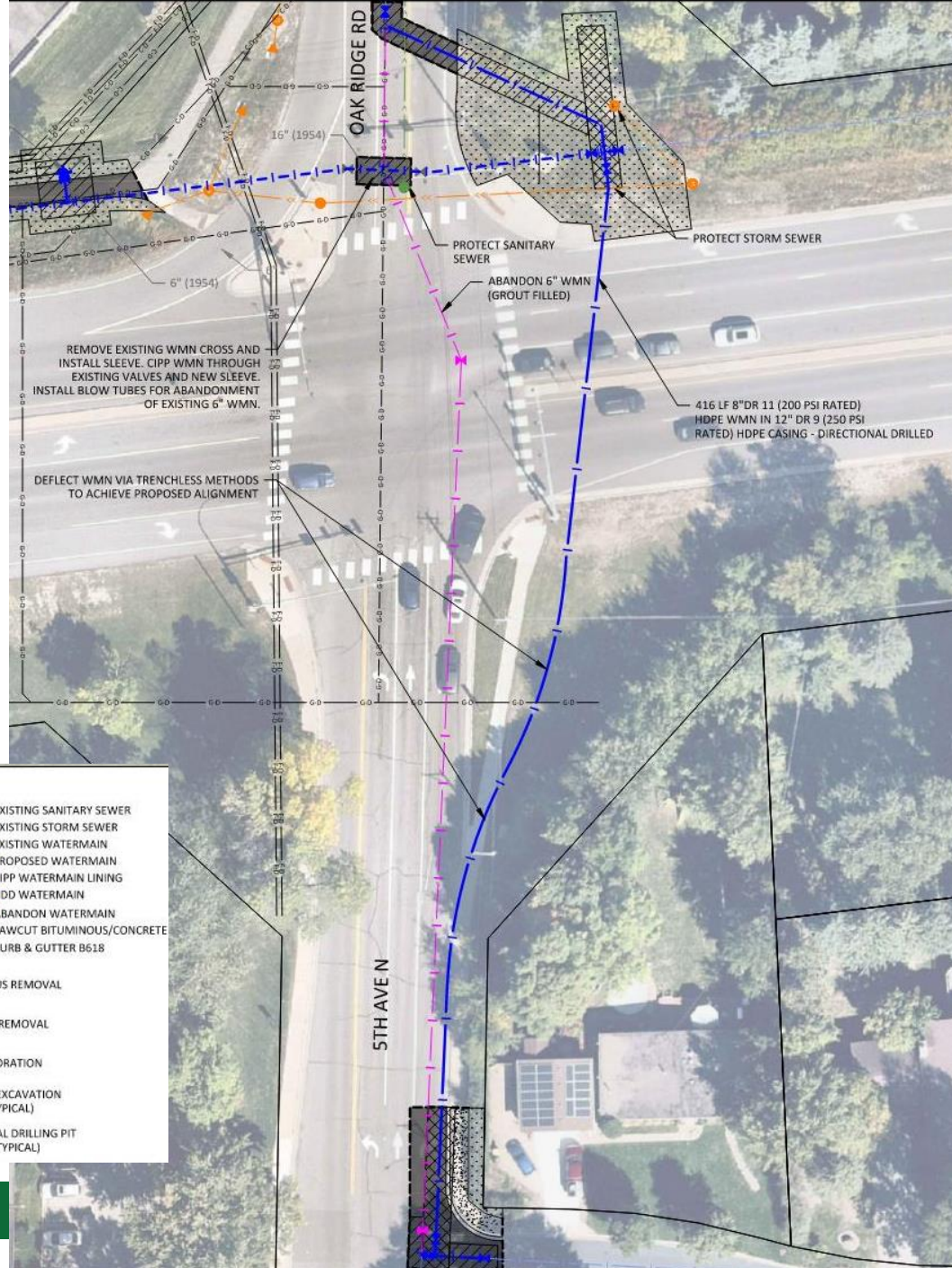
North Service Drive: CIPP Lining



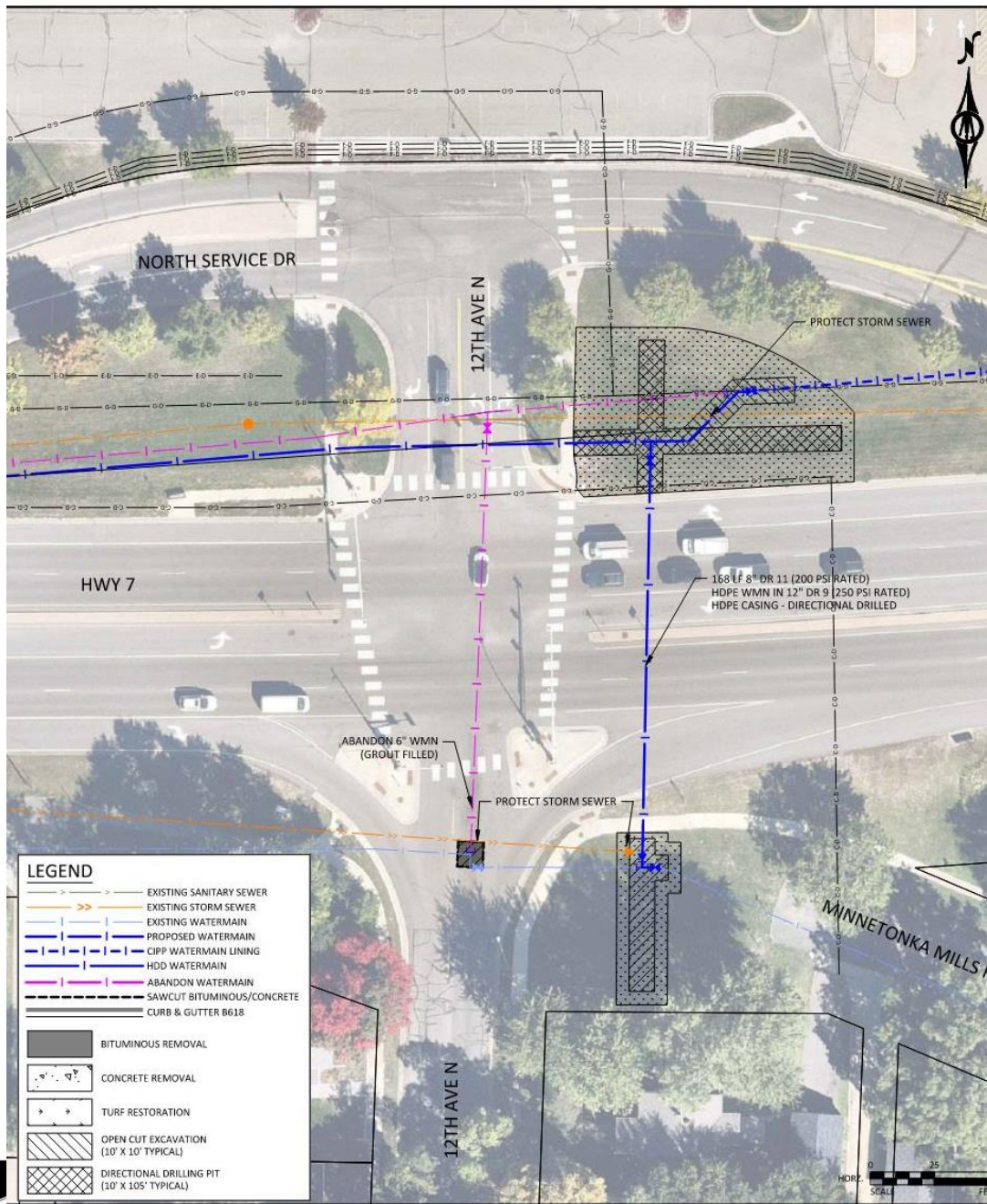
North Service Drive: CIPP Lining



5th Ave N Crossing of TH 7 via HDD Method



Add Alternative Improvements: TH 7 Crossing at 12th Ave N



Estimated Costs & Project Budget

Preliminary Estimated Project Cost of 2022 Trunk Watermain Improvements	
Base Improvements	\$3,895,000
Add Alternative - 12 th Ave Crossing	\$151,000
Total Estimated Project Cost: Base + Alternative Improvements	\$4,046,000

- **\$3,955,000 budgeted in the CIP**
 - \$450,000 PIR / GO Bonds
 - \$395,000 Sanitary Sewer Fund
 - \$160,000 Storm Sewer Fund
 - \$2,950,000 Water Fund



Trenchless Utility Animation Links

CIPP

<https://www.youtube.com/watch?v=PcM0NXMSGt4>

Pipe Bursting

<https://www.youtube.com/watch?v=4cVyv1BWTCI>

Horizontal Directional Drilling

<https://www.youtube.com/watch?v=mdLCD6t6C-w>

