



City of Livingston

GREEN ACRES SEWER EXTENSION STUDY

MARCH 15, 2022



INTRODUCTION & HISTORY

- Green Acres Subdivision was platted in 1959
- 2003 PER recommended Green Acres be connected to the sewer collection system
- Green Acres was annexed into the City in 2020
- 2020 PER listed this project as a priority for sewer extension
- 2021 Growth Policy acknowledged the large volume of septic tanks within the City, stating:

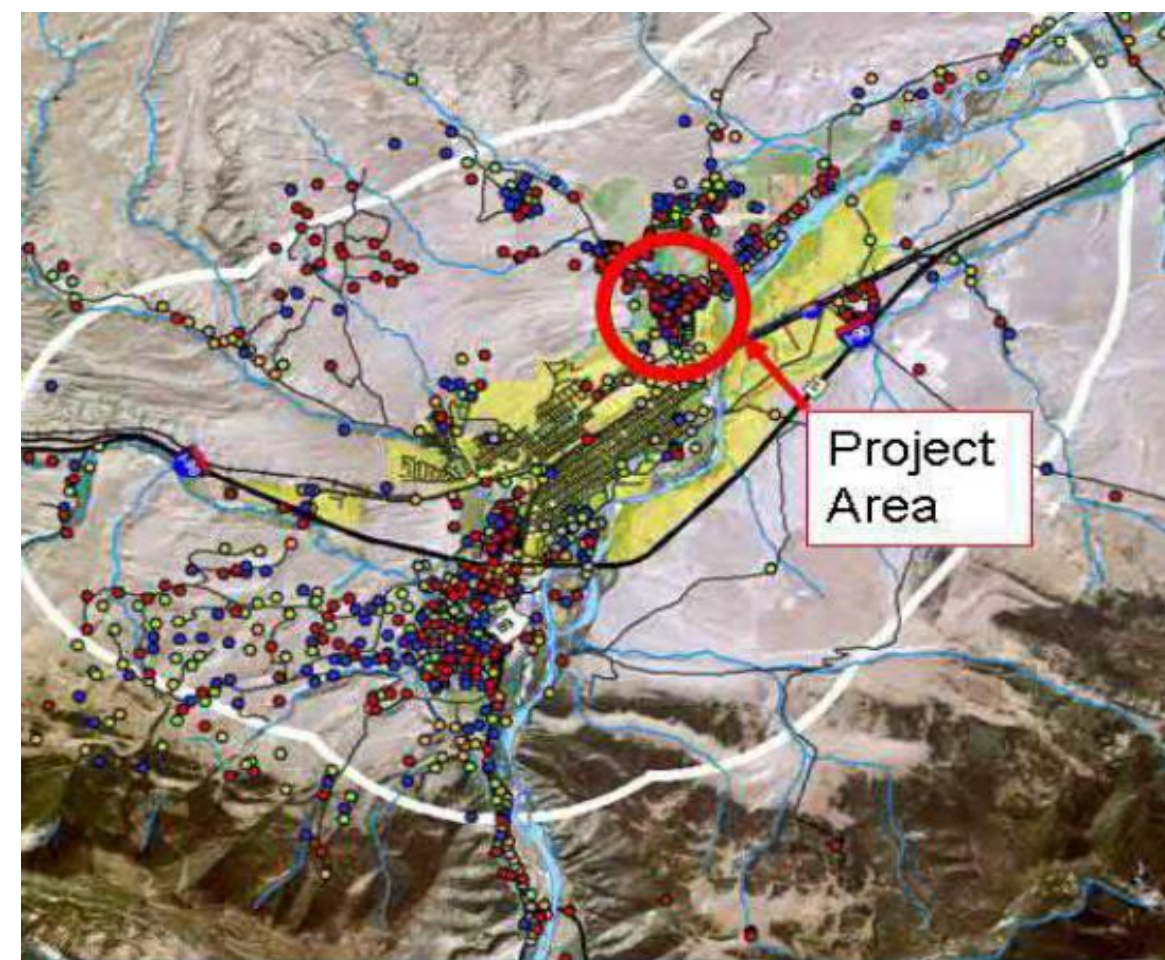
“Over 100 properties in the City utilize septic systems. They are mostly located in the southern half and north-eastern corner of the City, with concentrations in the Green Acres, south-eastern, and Fleshman Creek Neighborhoods.”

OVERVIEW

The primary goal for this project for Green Acres Subdivision is to provide reliable sewer services, protect drinking water, and protect environmental quality. Secondary goal is to update the existing water system to comply with current regulations and increase system reliability and increase fire flows. Public engagement was prioritized during this study. The outline for this presentation is:

- Reasons for the Project
- Alternatives
- Recommendations
- Next Steps
- Comments and Questions

REASONS FOR THE PROJECT



- **Sewer**
 - Provide City sewer service to Green Acres
 - Eliminate the high density of private septic systems. Support City, DEQ and Park County to eliminate septic systems
 - State subdivision requirements for private septic systems require connection to public system if the subdivision is located within 500 feet of a public system (ARM 17.36.328)
 - Eliminate contamination risk to ground water and surface water quality

REASONS FOR THE PROJECT

- **Water**
 - Aging water mains - roughly 60 years old, asbestos cement pipe
 - No water mains in Tana Lane and N. Park Street
 - Water services crossing property lines
 - Inadequate valving in the system
 - Inadequate number of fire hydrants
 - No looped water - dead-ends present

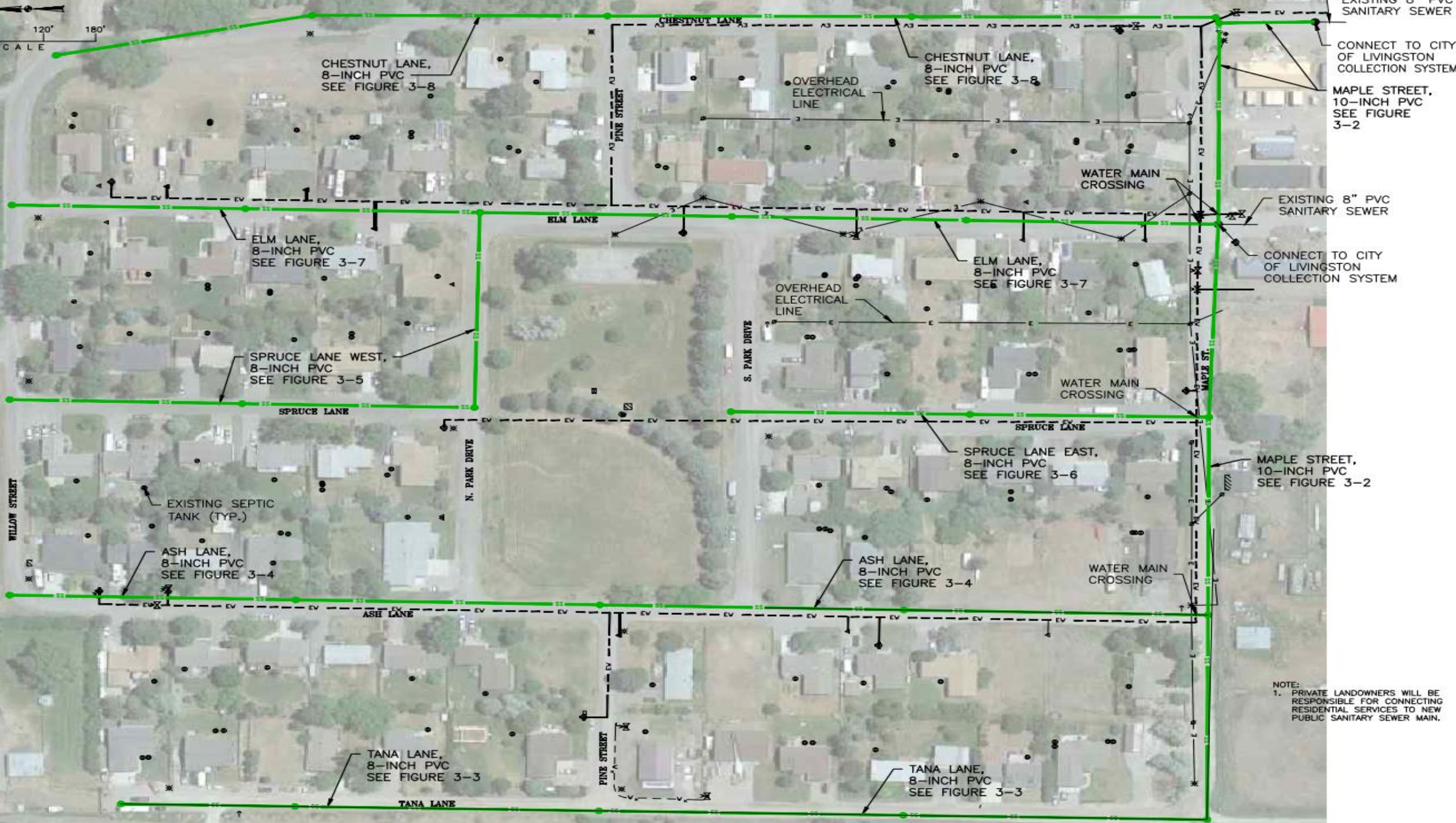


ALTERNATIVE 1

NEW SANITARY SEWER-STREET ALIGNMENT

- Install gravity mains within City street right-of-way
- Minor utility conflicts
- Routine operation and maintenance of system for Public Works staff
- Residents responsible for connecting sewer service in the street
- Traffic control and street closures expected during construction but access to homes will be required

	Estimated Cost
Construction Cost Estimate	\$1,974,000
Average Property Owner SID Contribution	\$21,500
City SID Contribution	\$196,000



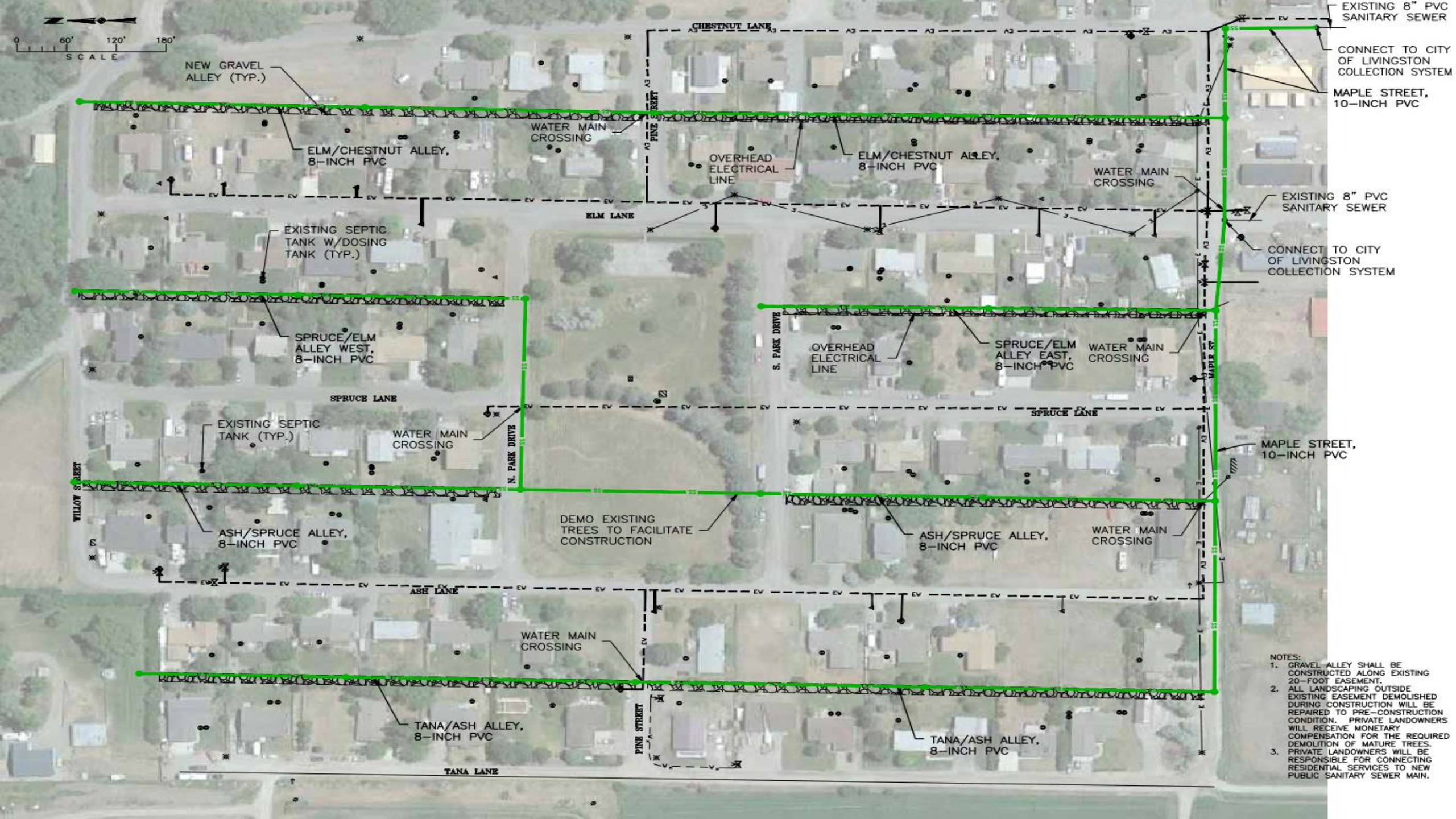
NOTE:
1. PRIVATE LANDOWNERS WILL BE RESPONSIBLE FOR CONNECTING RESIDENTIAL SERVICES TO NEW PUBLIC SANITARY SEWER MAIN.

ALTERNATIVE 2

NEW SANITARY SEWER-UTILITY EASEMENT ALIGNMENT

- Install sewer gravity mains within backyard utility easement
- Significant utility conflicts
 - Overhead power lines, underground utilities
- Create alleys for future maintenance of sewer mains - residents lose roughly 800 sf of backyard
- Construction activity occurring in backyards: 15-foot deep trench
- Loss of mature trees anticipated
- Minimal traffic control at street crossings and in Maple Street and Park Drive
- Simplified service connections

	Estimated Cost
Construction Cost Estimate	\$2,752,000
Average Property Owner SID Contribution	\$29,500
City SID Contribution	\$308,000



NEW GRAVEL ALLEY (TYP.)

ELM/CHESTNUT ALLEY, 8-INCH PVC

WATER MAIN CROSSING

OVERHEAD ELECTRICAL LINE

ELM/CHESTNUT ALLEY, 8-INCH PVC

WATER MAIN CROSSING

EXISTING SEPTIC TANK W/DOSING TANK (TYP.)

SPRUCE/ELM ALLEY WEST, 8-INCH PVC

OVERHEAD ELECTRICAL LINE

SPRUCE/ELM ALLEY EAST, 8-INCH PVC

WATER MAIN CROSSING

EXISTING SEPTIC TANK (TYP.)

ASH/SPRUCE ALLEY, 8-INCH PVC

DEMO EXISTING TREES TO FACILITATE CONSTRUCTION

ASH/SPRUCE ALLEY, 8-INCH PVC

WATER MAIN CROSSING

TANA/ASH ALLEY, 8-INCH PVC

TANA/ASH ALLEY, 8-INCH PVC

EXISTING 8" PVC SANITARY SEWER

CONNECT TO CITY OF LIVINGSTON COLLECTION SYSTEM

MAPLE STREET, 10-INCH PVC

EXISTING 8" PVC SANITARY SEWER

CONNECT TO CITY OF LIVINGSTON COLLECTION SYSTEM

MAPLE STREET, 10-INCH PVC

- NOTES:
1. GRAVEL ALLEY SHALL BE CONSTRUCTED ALONG EXISTING 20-FOOT EASEMENT.
 2. ALL LANDSCAPING OUTSIDE EXISTING EASEMENT DEMOLISHED DURING CONSTRUCTION WILL BE REPAIRED TO PRE-CONSTRUCTION CONDITION. PRIVATE LANDOWNERS WILL RECEIVE MONETARY COMPENSATION FOR THE REQUIRED DEMOLITION OF MATURE TREES.
 3. PRIVATE LANDOWNERS WILL BE RESPONSIBLE FOR CONNECTING RESIDENTIAL SERVICES TO NEW PUBLIC SANITARY SEWER MAIN.

ALTERNATIVE 3

MINIMAL WATER SYSTEM IMPROVEMENTS

- Install valves and fire hydrants to comply with today's regulatory standards
- Allow City staff to isolate sections of main
- Increases fire protection
- Does not address dead ends

	Estimated Cost
Construction Cost Estimate	\$156,000
Average Property Owner SID Contribution	\$1,300
City SID Contribution	\$17,500

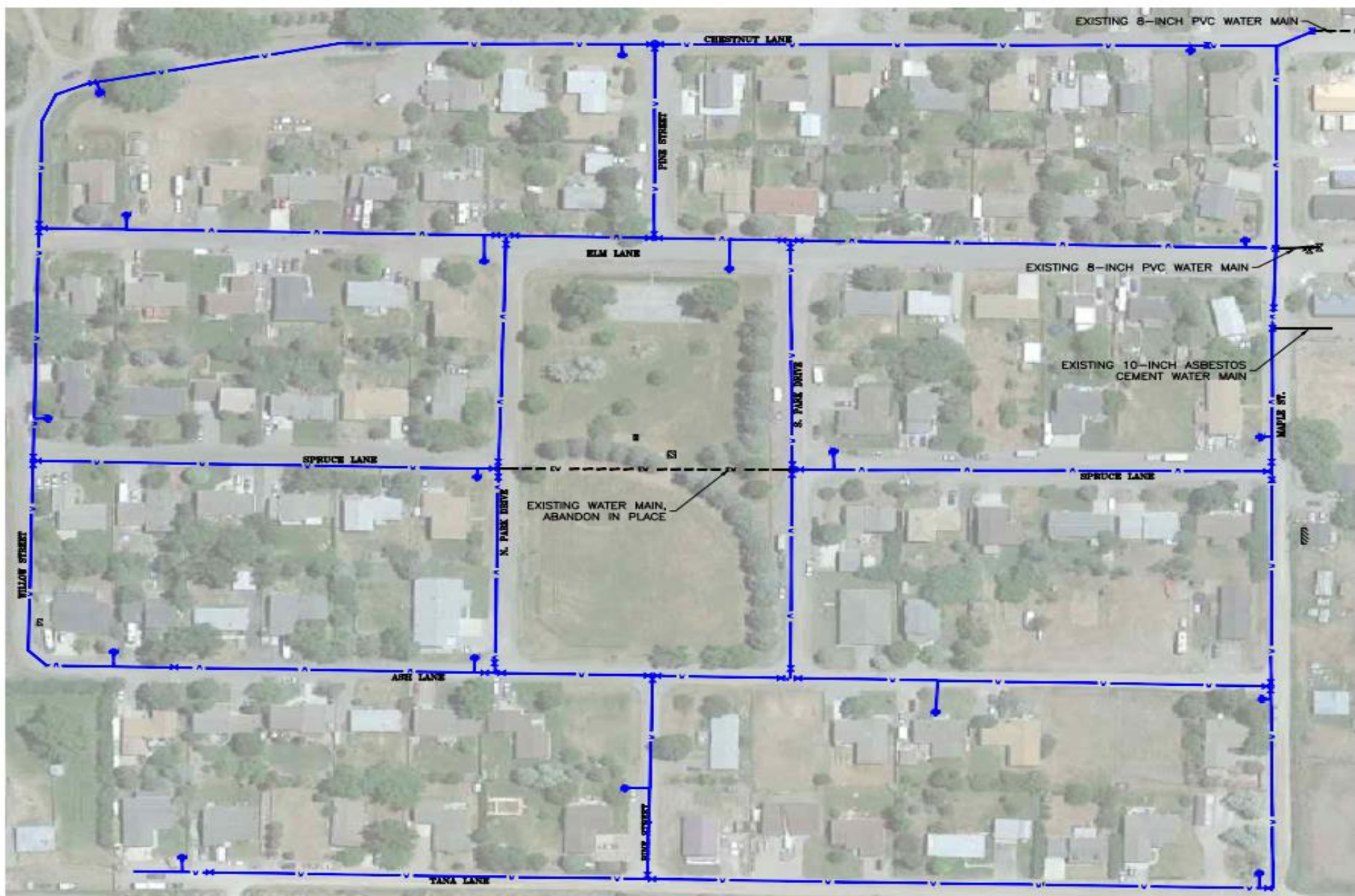


ALTERNATIVE 4

WATER SYSTEM REPLACEMENT AND EXPANSION

- Replaces existing, aging water mains
- Expands water system to reduce dead-end mains
- Adds required fire hydrants and water valves
- Eliminates service connections that cross neighboring properties
- Increases fire protection
- Allow City staff to isolate sections of main

	Estimated Cost
Construction Cost Estimate	\$3,004,000
Average Property Owner SID Contribution	\$25,000
City SID Contribution	\$336,000



EXISTING 8-INCH PVC WATER MAIN

CHRISTNUT LANE

PINE STREET

MIAM LANE

EXISTING 8-INCH PVC WATER MAIN

EXISTING 10-INCH ASBESTOS CEMENT WATER MAIN

SPRUCE LANE

SPRUCE LANE

EXISTING WATER MAIN, ABANDON IN PLACE

ASPE LANE

YANA LANE

S. PARK DRIVE

N. PARK DRIVE

WILLOW STREET

MAPLE ST.



LEGEND

- EX EX --- EXISTING WATER MAIN
- ◆ EXISTING FIRE HYDRANT
- ⊗ EXISTING WATER VALVE
- NEW 8" WATER MAIN
- ◆ NEW FIRE HYDRANT
- ⊗ NEW WATER VALVE

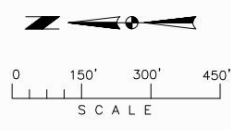
RECOMMENDED PROJECT SUMMARY

- **Alternative 1 - New Sanitary Sewer - Street Alignment**
 - Total Cost: \$1.97 Million
 - Average Property Owner SID Contribution: \$21,500 (includes \$4,506 for Impact Fees and \$2,040 for Brookstone Sewer Payback)
 - City SID Contribution: \$196,000
- **Alternative 3 - Minimal Water System Improvements**
 - Total Cost: \$156,000
 - Average Property Owner SID Contribution: \$1,300
 - City SID Contribution: \$17,500
- ARPA funding is being pursued to reduce costs to residents. Estimated costs presented do not include impact of grant funds that may be awarded.

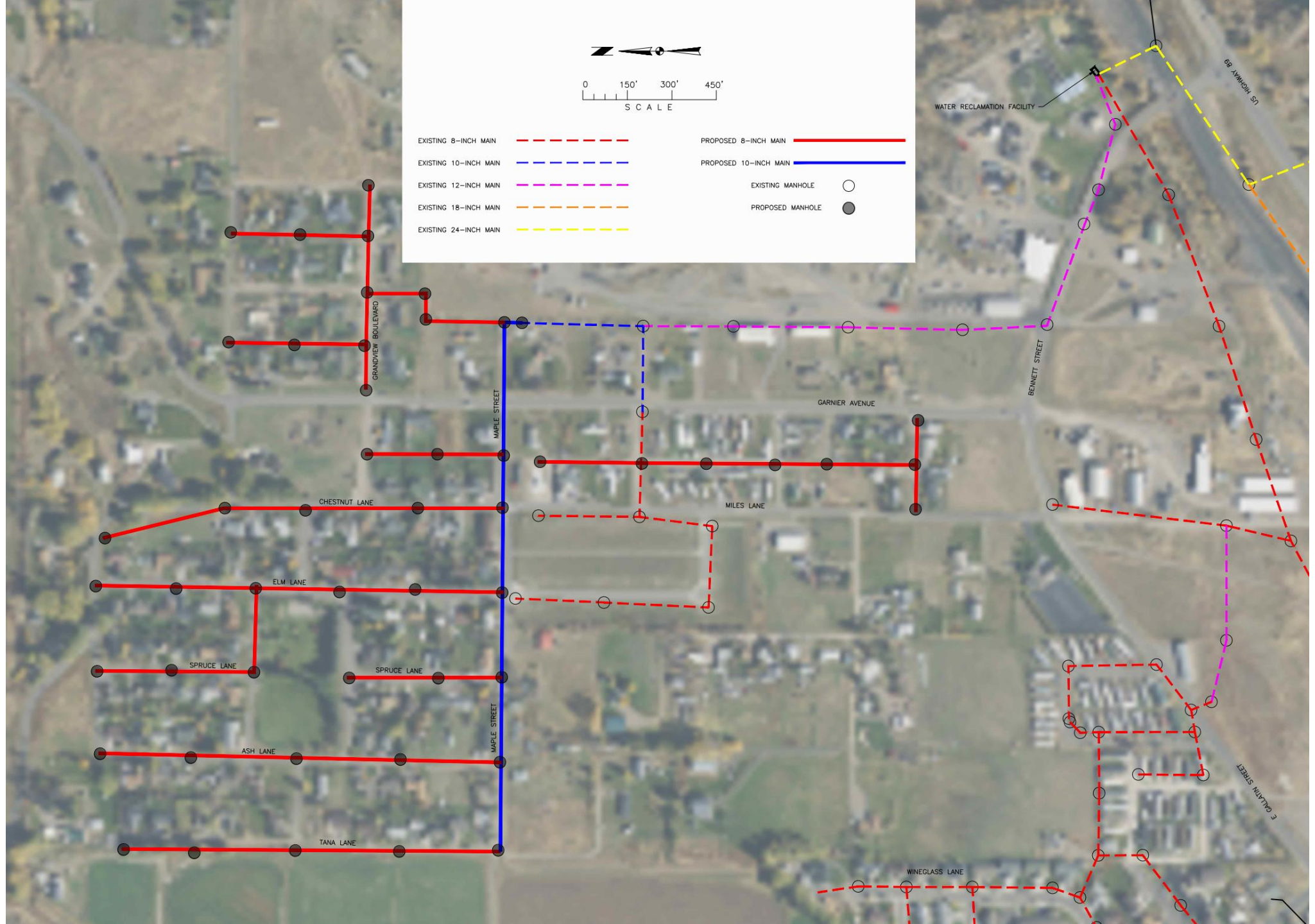
NEXT STEPS

- ARPA grant funding
 - ARPA funding is being pursued to reduce costs to residents. Estimated costs presented do not include impact of grant funds that may be awarded.
- Regional sewer extension to include Montague Subdivision
- Project schedule
- Special Improvement District (SID) creation to fund the project. SID amount will include impact fees and payback fees

Task	Estimated Completion Date
ARPA Grant Application	January 2022
ARPA Grant Results	March 2022
Start Engineering Design	March 2022
Preliminary Construction Plans and Specifications Complete	May 2022
Agency Comments on Construction Plans and Specifications	June 2022
Final Construction Plans and Specifications Complete	July 2022
Advertise for Construction Bids	September 2022
Award Construction Contract	October 2022
Begin Construction	April 2023
Construction Complete	October 2023
Two-Year Warranty Inspection	October 2025



EXISTING 8-INCH MAIN	---	PROPOSED 8-INCH MAIN	—
EXISTING 10-INCH MAIN	---	PROPOSED 10-INCH MAIN	—
EXISTING 12-INCH MAIN	---	EXISTING MANHOLE	○
EXISTING 18-INCH MAIN	---	PROPOSED MANHOLE	●
EXISTING 24-INCH MAIN	---		



NEXT STEPS

- Future City Commission engagement and decision points
 - SID creation and administration
 - Requirement for time to connect to new sewer
 - Impact fee assessment – full amount or other?

COMMENTS & QUESTIONS?

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