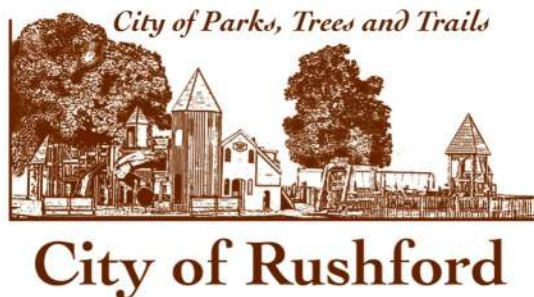


Preliminary Engineering Report Trunk Highway 30 Reconstruction

September 14, 2020



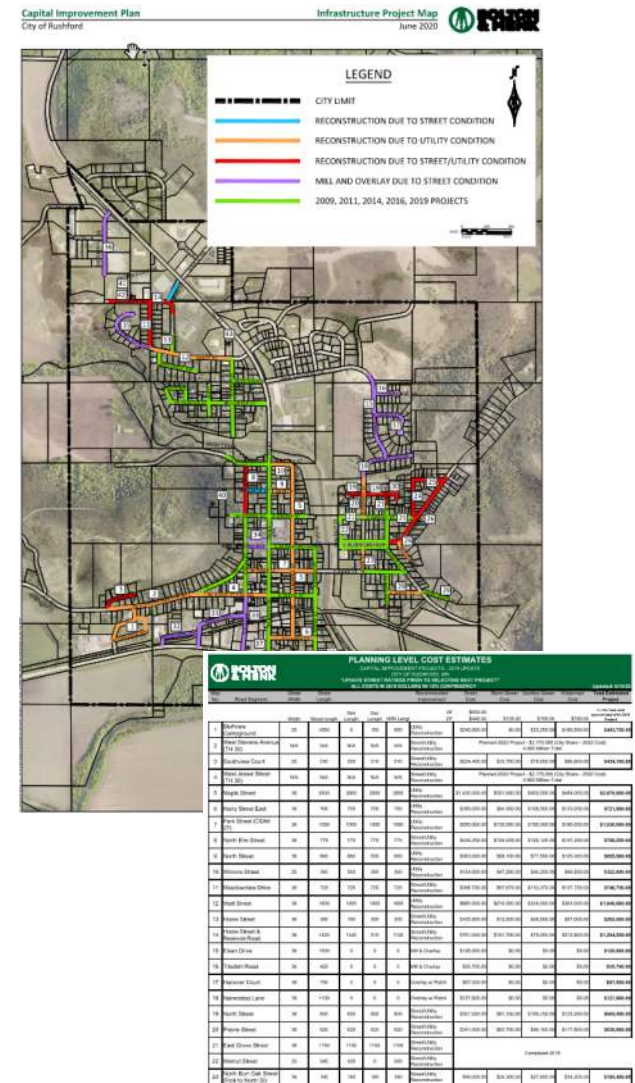
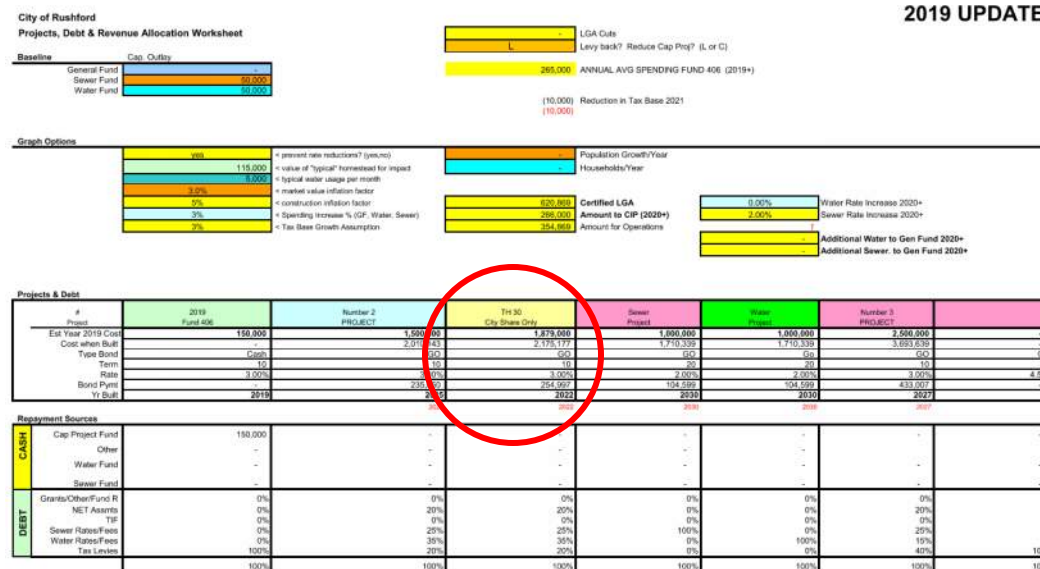
Preliminary Engineering Report

- Project Area
- Existing Conditions
- Proposed Improvements
- Cost Estimate & Financing
- Assessments
- Schedule & Next Steps



CAPITAL IMPROVEMENT PLANNING

- On-going effort to improve & maintain City Infrastructure
- TH 30 project identified several years ago
- Additional improvements to follow



Project Area

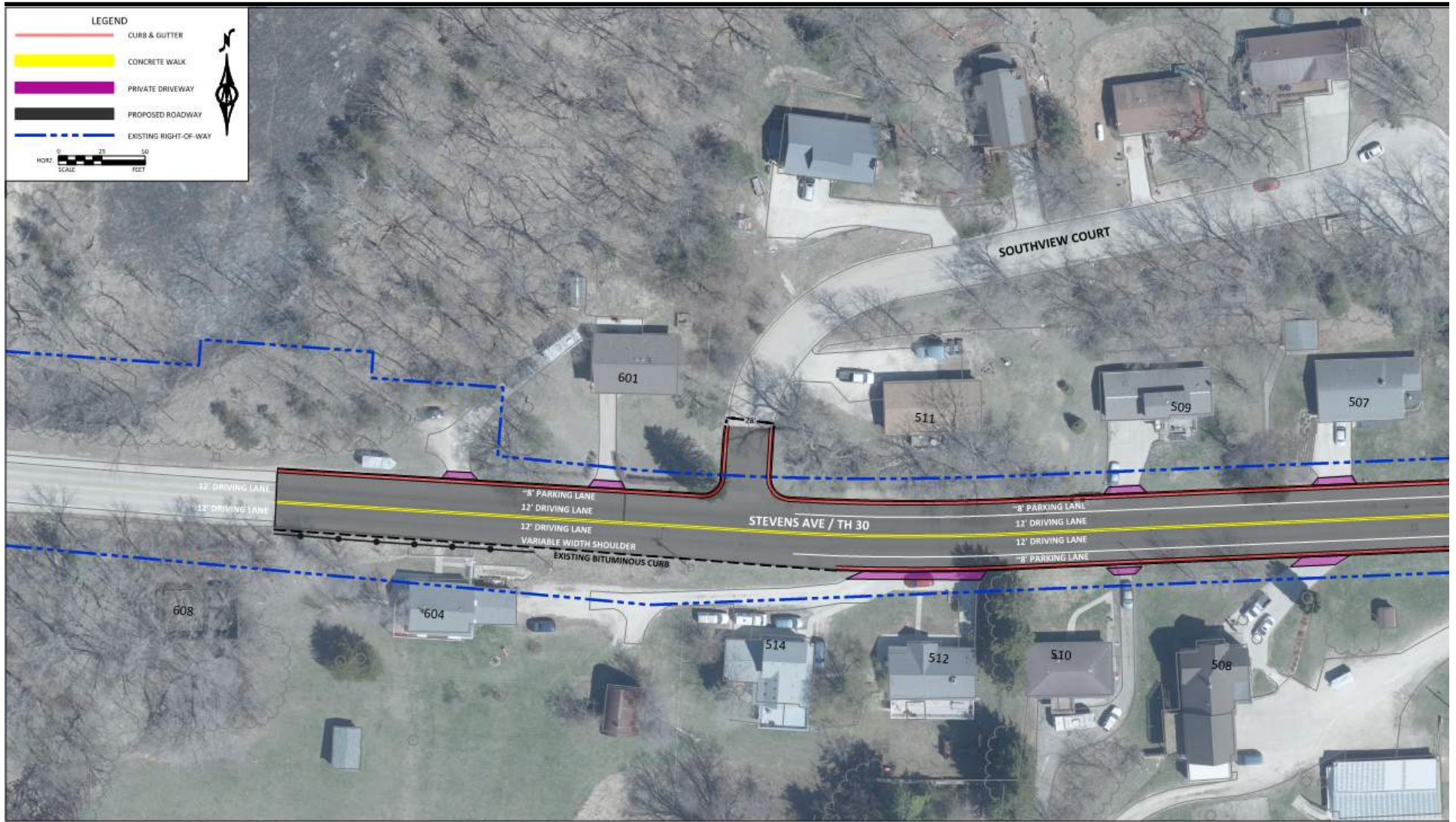


Typical City Street



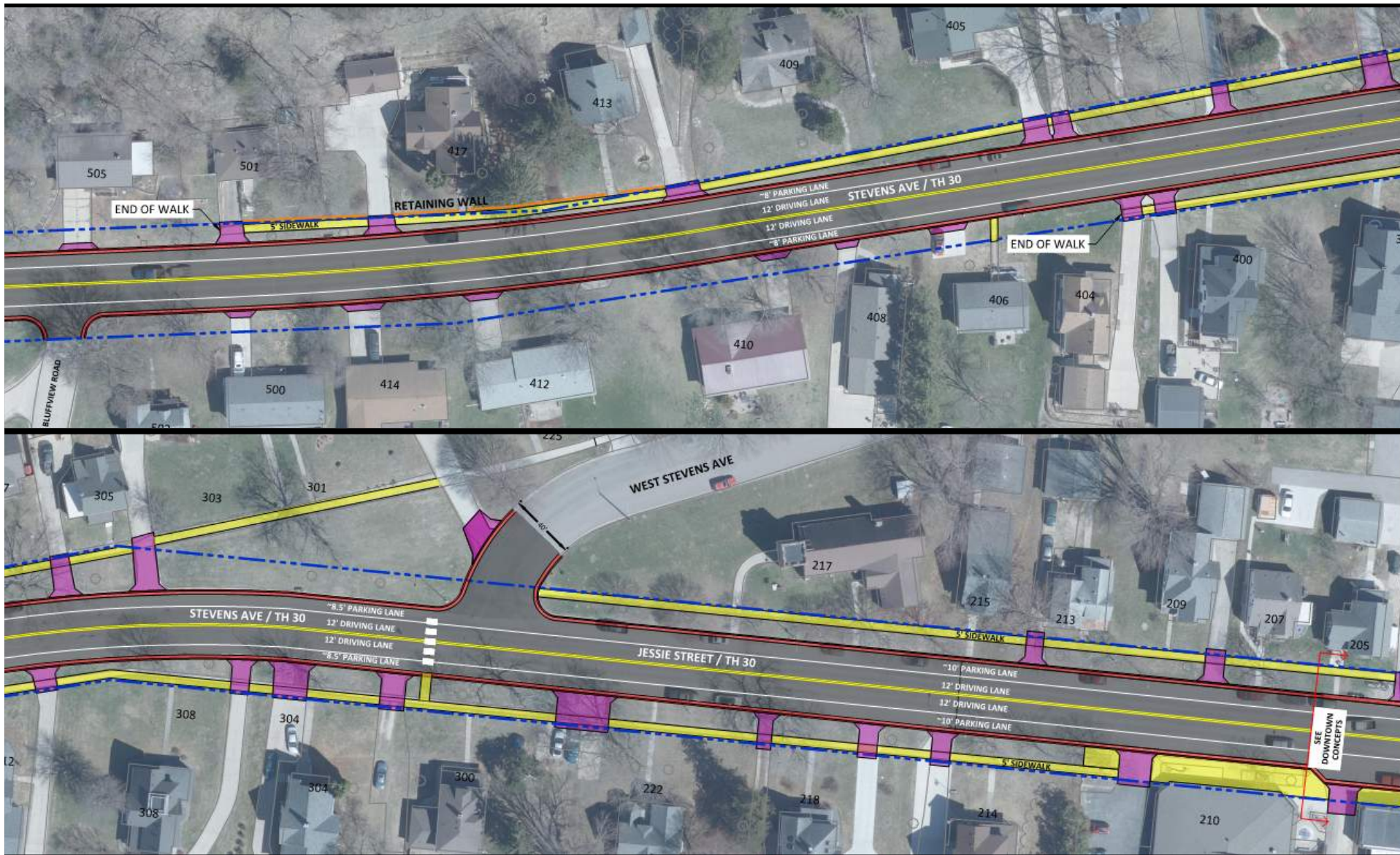
Existing Conditions

Residential Streets & Sidewalk



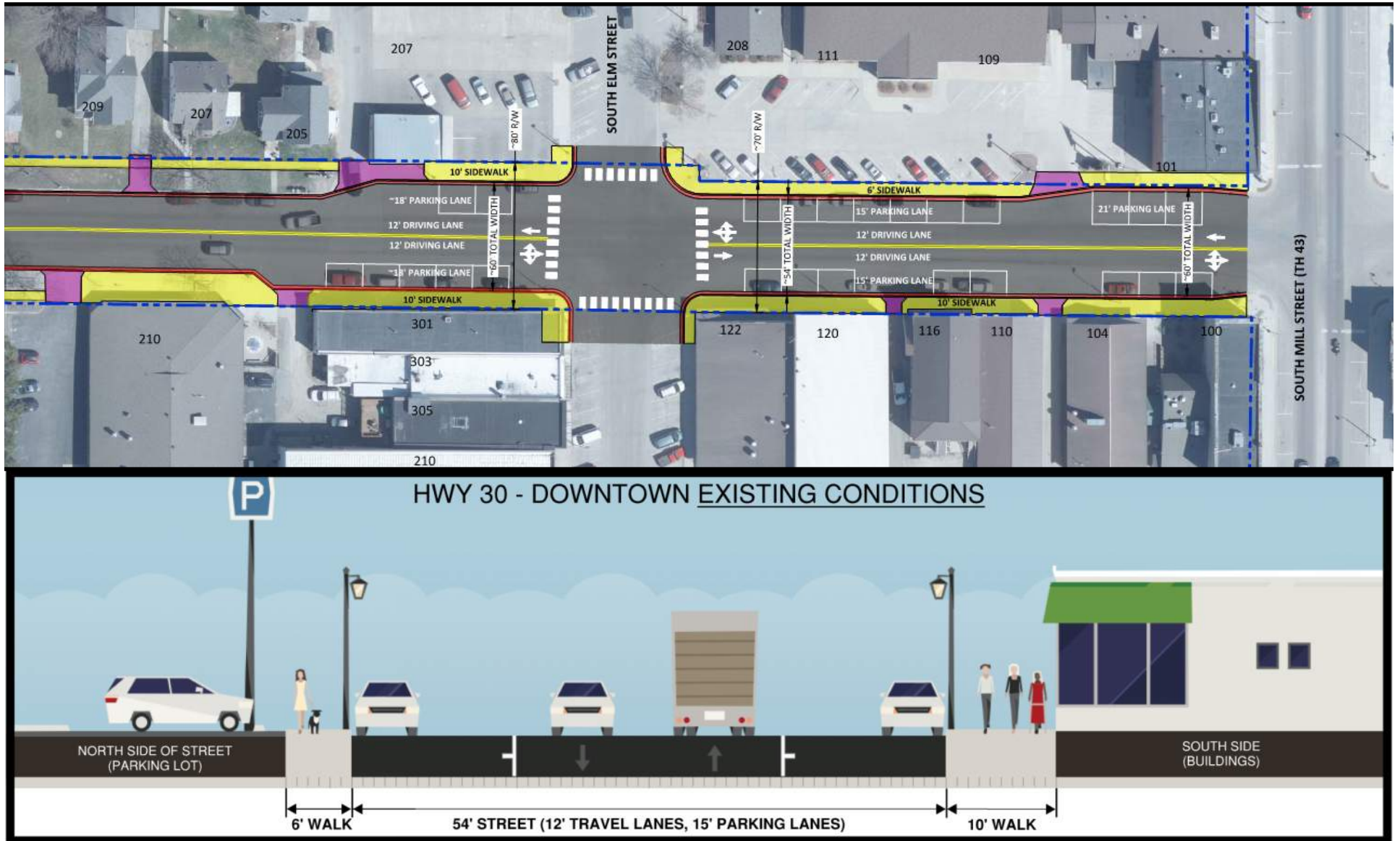
Existing Conditions

Residential Streets & Sidewalk



Existing Conditions

Downtown Streets & Sidewalk



Existing Conditions

Design Challenges

NORTH SIDE



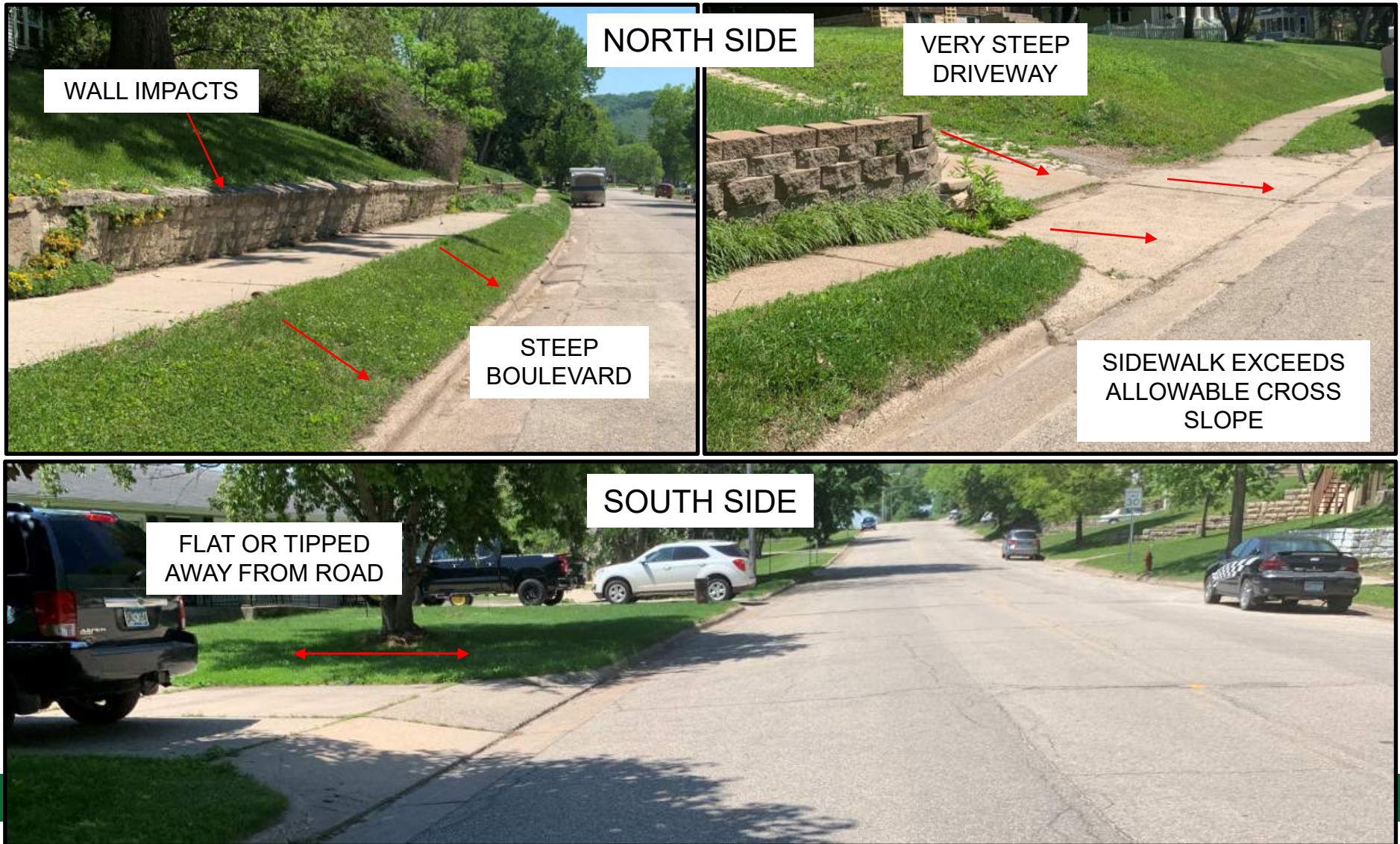
SOUTH SIDE



SIDEWALK EXCEEDS
ALLOWABLE CROSS
SLOPE

Existing Conditions

Design Challenges



Existing Conditions

Storm Sewer/Drainage

- Exists throughout project area
- Installed in 50's and 80's
- Does not meet current drainage design standards
 - # of Inlets
 - Inlet grate type
 - Undersized pipe
- Several Deteriorating Structures



Existing Conditions Sanitary Sewer



- Mill to Elm (8" PVC – 1996)
 - Services not replaced
- West of Elm (6"-8" Clay/Concrete)
 - Most segments lined (2005)
 - Some areas not lined
 - Services unlined (clay or cast iron)
- Unsealed service connections
- Long Segments between manholes (>400')
- Few Combined Services



Existing Conditions

Watermain

- Cast Iron (3", 6", and 8")
 - Brittle/Corroded Pipe
- Installed between '50s and '70s
- Improper Main Location
 - Not offset from storm sewer
 - Mostly Located in Curb Line
- Services
 - Freezing Issues/Combined



Proposed Conditions

Streets/Walk

Table 2 – Proposed Street Widths

From	To	Existing Street Width ¹ (ft)	Proposed Street Width ¹ (ft)	Parking
300' W of Southview Ct	Southview Ct	36' - 40'	34'	North Side
Southview Ct	Stevens Ave	41'	40'	Both Sides
Stevens Ave	½ Block W of Elm St	44'	40'	Both Sides
½ Block W of Elm St	TH 43/Mill St	54' – 60'	48'	Both Sides

Notes: ¹Curb Face to Curb Face

Streets

- Travel Lane Width
 - 12'
- Parking Lane Width
 - 12' (Downtown Area)
 - 8' (Residential Area)

Sidewalk

- Residential
 - 5' Width
- Downtown
 - 10' (North Side)
 - 12' (South Side)



Proposed Conditions

Storm Sewer



- Increased Main Pipe Size
- Increase # Inlets
- 5-Year Storm Event
 - ~3.8" Rainfall



Proposed Conditions Sanitary Sewer & Services



- 8" Diameter PVC Pipe
- Reinforced Concrete Manholes
- 4"-6" Services to Property Line (or near property line)
- Watertight System
- Sump Pump Connections



Proposed Conditions

Watermain & Services



- 8" Diameter PVC
- 1" Copper Services to Property Line (or near property line)
 - Includes new curb stop
- New Hydrants
- New Mainline Valves



Proposed Conditions

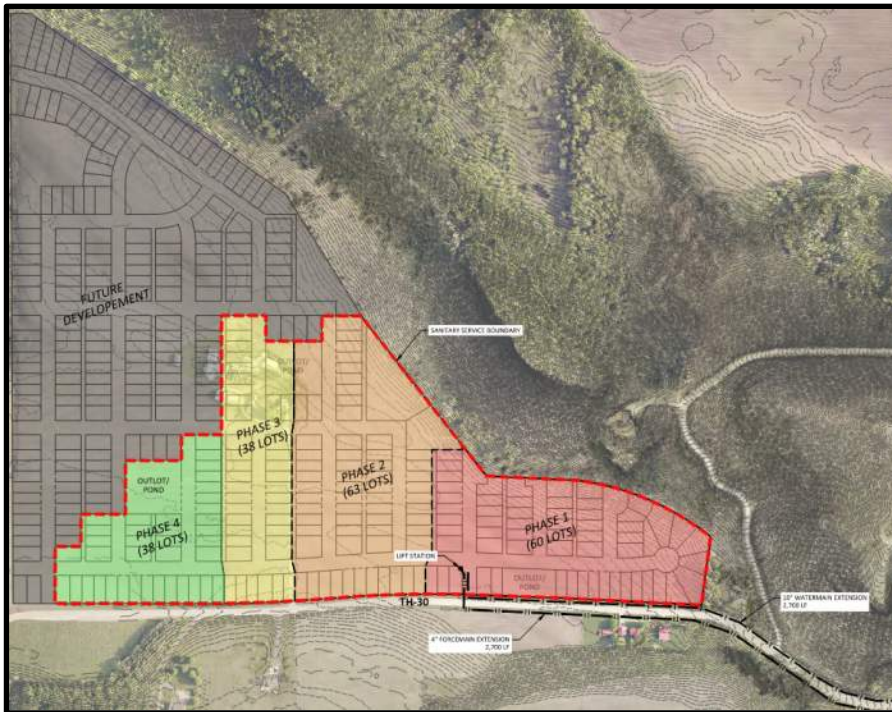
Watermain and Sanitary Upsizing Options

Option: Upsize Sanitary Main to 10"

- Only needed for western development potential
- 8" Main can accommodate ~150 additional connections
- Cost ~\$42,000

Option: Upsize Watermain to 10"

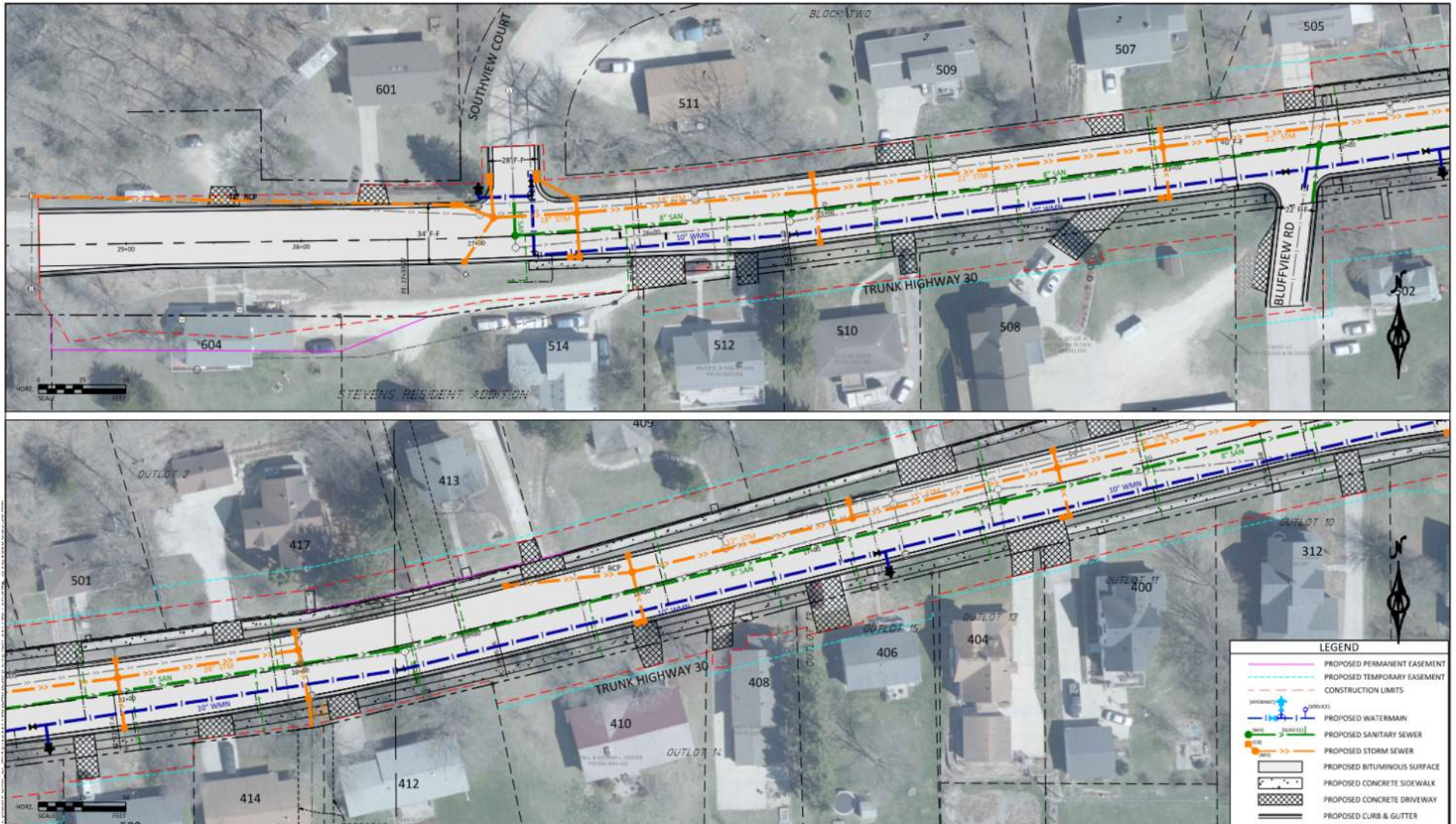
- Recommended with any development potential to west
- Will provide immediate benefit
- Cost: ~\$15,000



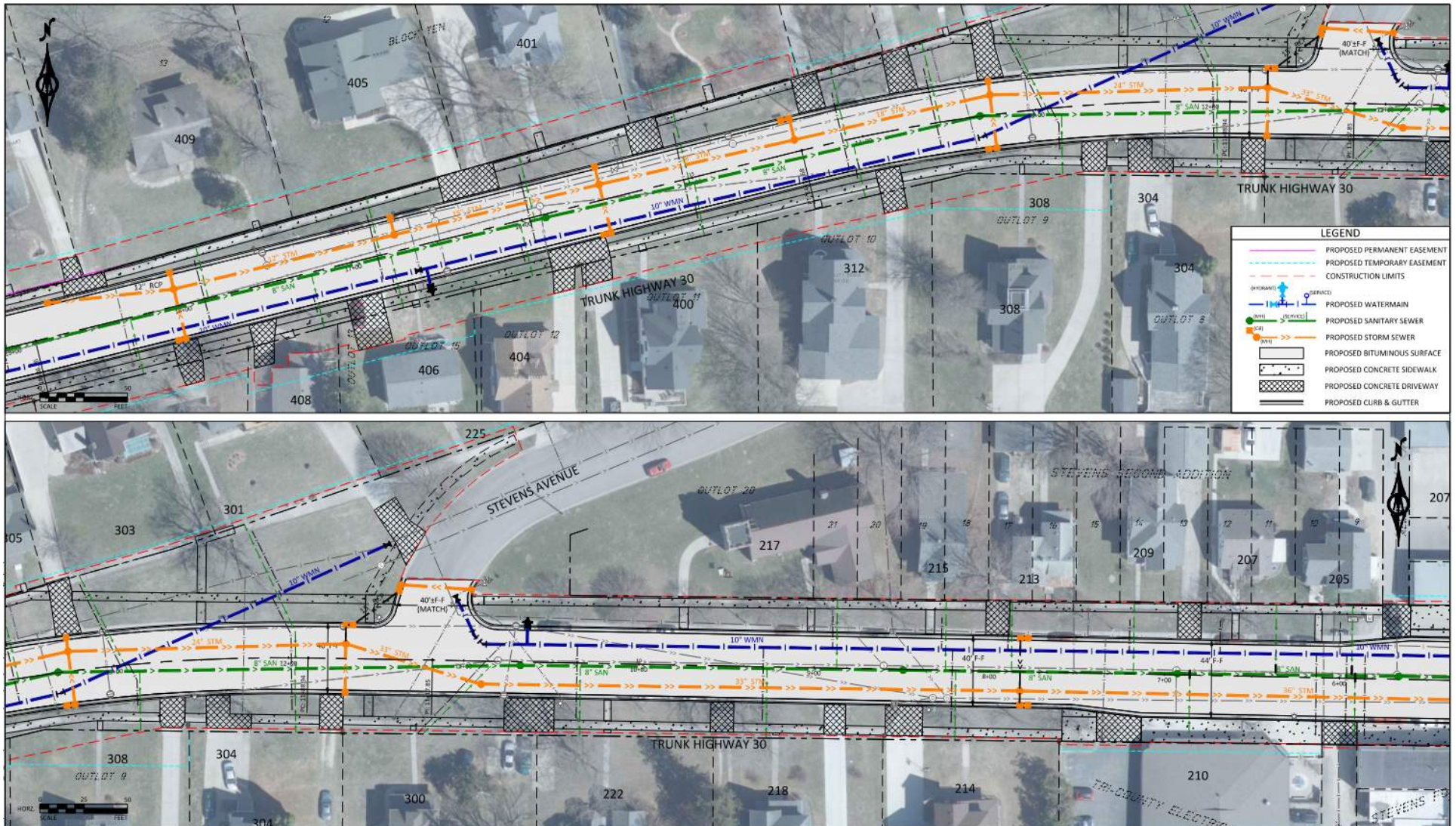
Based on West Area Development Study (2018)



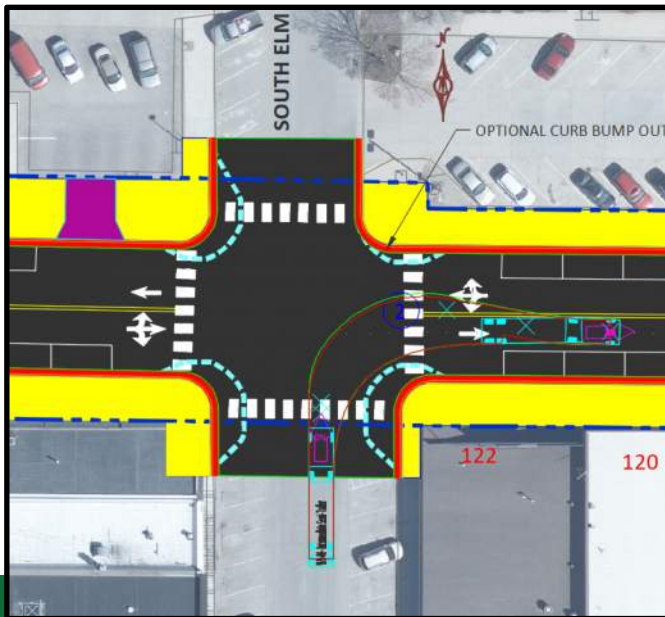
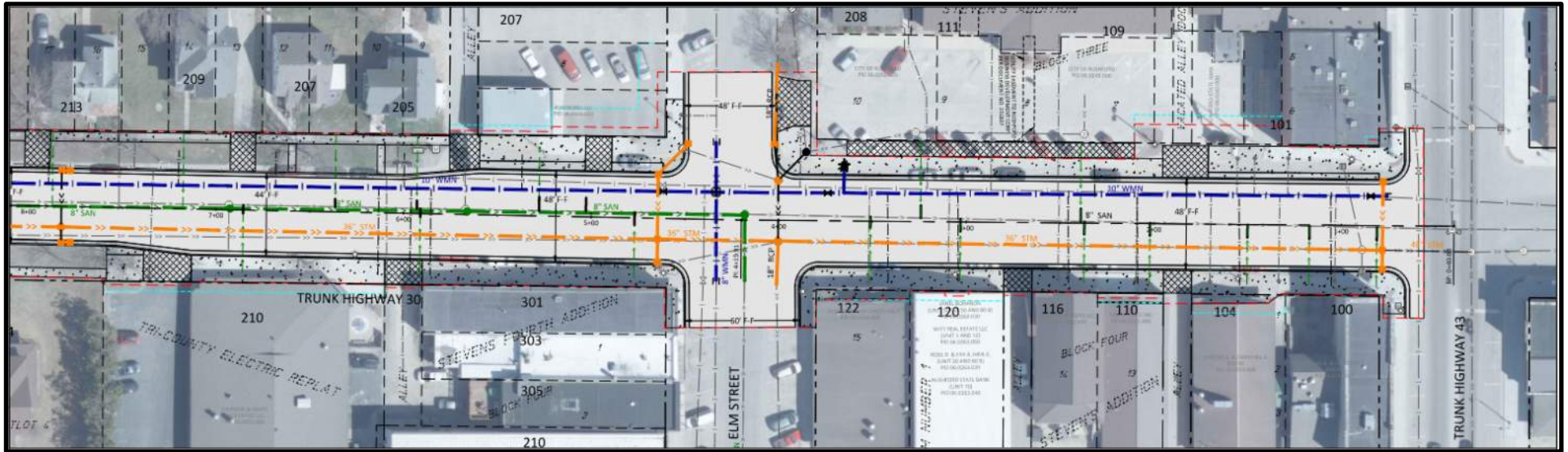
Proposed Conditions – Residential (West)



Proposed Conditions – Residential (East)



Proposed Conditions – Downtown



Elm Street Bumpouts

- Council Previously requested that bumpouts be excluded from project
- Based in preliminary design – should be able to exclude
- MnDOT will require that bumpouts be included in geometric layout until we prove they are not needed (during final design)



Downtown Street Lighting

- Decorative Lighting
- Currently planned for area between Stevens Ave and Mill St (TH 43)
- Could alternatively reduce decorative lighting to area just west of Elm St as cost saving measure
- Remainder of residential lights would be relocated/replaced in kind as needed

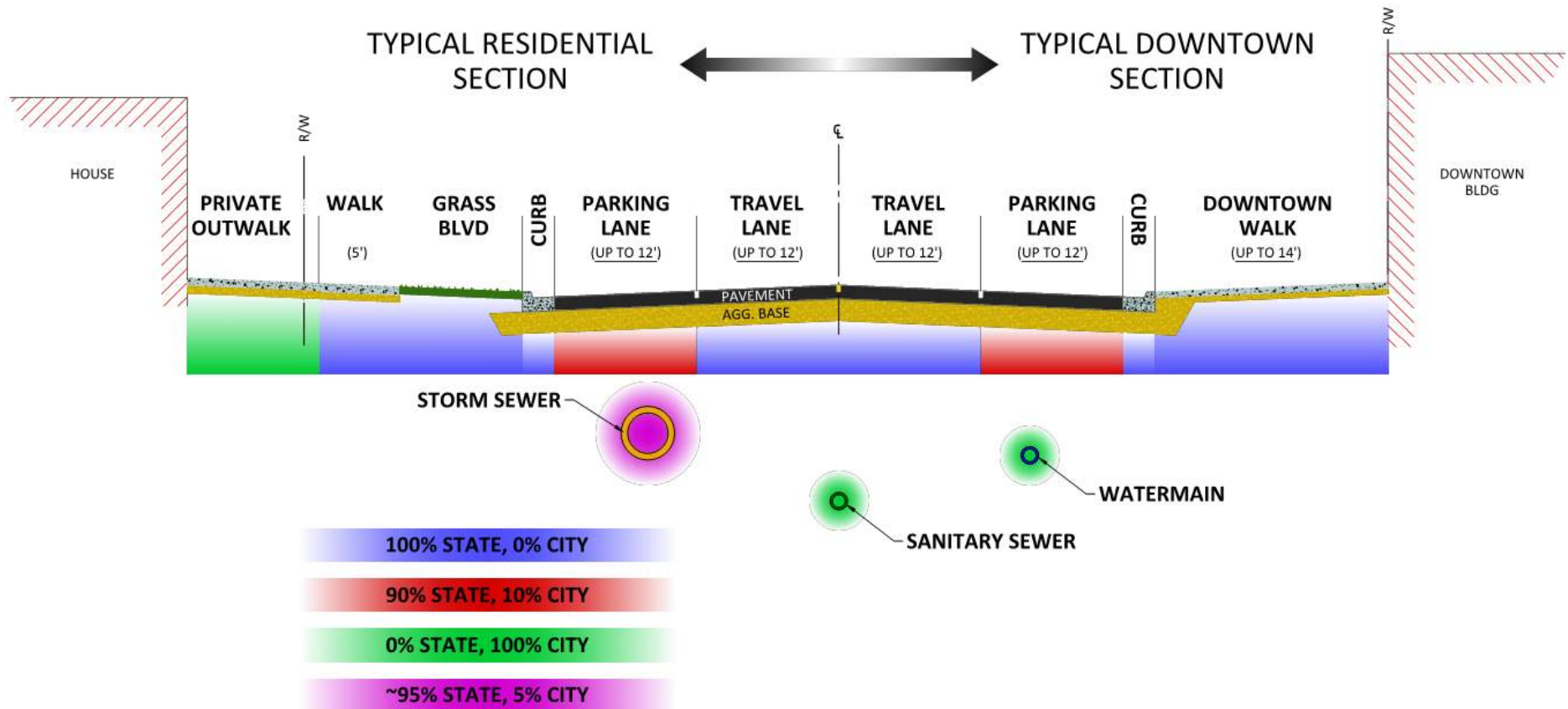


Other Utilities

- Communications (internet, phone cable)
- Natural Gas
- Electric
- Design to be coordinated with these systems



Cost Share Illustration



*Percentages based on Construction Costs Only

- Additional Detail found in Table 4 of report,
- Several special circumstances when cost share deviates from info provided in report



Estimated Costs

Table 3 – Preliminary Cost Estimate			
Project Component	Total Project Cost	State Share	City Share
Street Improvements (Residential ¹)	\$1,415,885.70	\$1,131,437.57	\$284,448.13
Street Improvements (Downtown ²)	\$466,781.64	\$370,660.53	\$96,121.11
Sidewalk Improvements (Residential ¹)	\$618,009.17	\$446,958.87	\$171,050.30
Sidewalk Improvements (Downtown ²)	\$318,569.74	\$248,188.13	\$70,381.62
Street Lighting Improvements	\$223,804.75	\$0.00	\$223,804.75
Aesthetic ³ , Landscaping Improvements	\$93,886.77	\$56,000.00	\$37,886.77
Storm Sewer Improvements	\$846,010.95	\$615,638.95	\$230,372.00
Sanitary Sewer Improvements	\$427,695.46	\$0.00	\$427,695.46
Sanitary Services (Mill St to Elm St)	\$25,113.10	\$0.00	\$25,113.10
Water System Improvements	\$589,224.70	\$0.00	\$589,224.70
Right-of-Way Acquisition	\$175,377.00	\$0.00	\$175,377.00
Project Total	\$5,200,359.00	\$2,868,884.05	\$2,331,474.95

- Current CIP Cost \$2.175M (exceeded by ~7% / ~\$150K)
- Includes Watermain Upsizing
- Does Not Include Sanitary Upsizing



Financing

- States portion determined by using State's cooperative agreement manual
- City Portion to be financed using Bond Sale
 - Repaid through Utility Funds, Levy, Special Assessments



Special Assessments

Table 5 – Assessment Policy Summary		
Project Component	% Assessable	% City Cost
Street	30%	70%
Sidewalk	100%	0%
Storm Sewer	0%	100%
Street Lighting	0%	100%
Aesthetic & Landscaping	0%	100%
Storm Sewer	0%	100%
Sanitary Sewer	30%	70%
Water System Improvements	30%	70%
Right-of-Way Acquisition	0%	100%

Table 6 – Assessment Calculation Method	
Project Component	Distribution of Assessments
Street	Adjusted Front Foot Method ¹
Sidewalk	Adjusted Front Foot Method ¹
Sanitary Sewer	Unit Method ²
Water System	Unit Method ²

- 1) Adjusted Front Footage = (100% x front property width) + (50% x side property width)
- 2) Unit = 1 per connected lot
- 3) Additional adjustments may apply for oddly shaped lots or circumstances where water or sanitary sewer services are larger than the typical residential lot.



Special Assessments

Table 7 – Preliminary Assessment Rates	
Project Component	Estimated Assessment Rate
Street (Residential)	\$16.50 per ft
Street (Downtown)	\$22.35 per ft
Sidewalk (Residential)	\$47.37 per ft
Sidewalk (Downtown)	\$54.56 per ft
Sanitary Sewer Main & Service	\$2,916.11 per unit
Sanitary Sewer (Service Only) ¹	\$753.39 per unit
Water Main & Service	\$3,212.25 per unit

- 1) Applies to sanitary services between Elm Street and TH 43 (Mill Street) only.



Special Assessments

Table 8 – Typical Total Assessments

Property Description	Estimated Total Assessment
Typ. Residential Lot (100' frontage) w/ sidewalk, sanitary & water service	\$12,515
Typ. Downtown Lot (50' frontage) w/ sidewalk, sanitary & water service	\$9,974

Table 9 – Historical Assessment Rates

Past City Project	Total Assessment for a 100-ft Lot	Total Assessment for a 100-ft Lot (Adjusted for 4% Inflation)
2019 Street & Utility	\$11,153	\$12,063
2016 Street & Utility	\$8,699	\$10,584
2014 Street & Utility (TH 43)	\$8,042	\$10,582

- See Preliminary Assessment Roll (handout)
- Assessments are preliminary estimates, approval of final amounts will not be requested until after bidding
- Assessment Estimates will change



Tentative Project Schedule

Table 10 – Tentative Project Schedule	
Council Authorize Preliminary Engineering Report	6/8/2020
Prepare Feasibility Report	Summer 2020
Resolution Receiving Report and Calling for Hearing on Improvement	9/14/2020
Published Notice of Hearing on Improvement	10/1/2020
	10/8/2020
Mailed Notice of Hearing on Improvement	10/1/2020
Public Informational Meetings (two – afternoon & evening)	Week of 10/5/2020
Hold Improvement Hearing	10/13/2020
Resolution Ordering Improvement and Preparation of Plans and Specs	
Prepare Plans and Specifications	Oct. '20 – Jul '21
Resolution Authorizing Authority to Make Offers (for easements)	1/25/2021
Send Offers (for easements)	Feb – Mar 2021
Public Informational Meeting(s)	Mar – Apr 2021
Final Plan Submittal to MnDOT	8/3/2021
Resolution Approving Plans and Specifications	Fall 2021
Open Bids (by MnDOT)	1/28/2022
Order Assessment of Hearing	2/14/2022
Published Notice for Assessment Hearing	2/24/2022
Mailed Notice for Assessment Hearing	2/26/2022
Public Informational Meeting(s)	Week of 3/7/2022
Hold Assessment Hearing	3/14/2022
Resolution Approving Final Assessment Roll	
Cooperative Agreement with MnDOT	Feb – Mar 2022
Begin Construction	April/May 2022
Substantial Completion of Construction	September 2022
Final Completion of Construction	June 2022



Conclusions/Recommendations

- Proposed improvements are necessary, cost effective, and feasible
- Need direction on following items:
 - Sanitary Sewer Upsizing: Include with project
 - Watermain Upsizing: Delete from project
 - Any Other Changes: Limit decorative lighting to downtown only
- Recommend City Council accept this report & call for a hearing on proposed improvement (Resolution)
- Upcoming: Municipal Consent
 - Approval of Geometric layout, Costs
 - Will Require notices & 2nd public hearing



Discussion

