

2020 Full-Depth Pavement Reconstruction

CIF-20-004

Public Hearing
February 4, 2020



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COMMUNITY PRIDE SINCE 1857

City of Shakopee | 485 Gorman St., Shakopee MN 55379 | 952-233-9300 | www.ShakopeeMN.gov

Capital Improvement Program

- City Initiated Program
- Reconstruct Aging Public Streets
- 2020 Full-Depth Pavement Reconstruction CIF-20-004

Of Important Note:

- Local public improvements to the city's infrastructure based on Minnesota Statute 429

2020 thru 2024

Department Capital Improvements Fund
Contact Public Works Director

Capital Improvement Plan
City of Shakopee, Minnesota

Project # CIF-20-004
Project Name 2020 Full-Depth Pavement Reconstruction

Accounting Code Fund Capital Improvement Fund

Description

This project is for the full depth reconstruction of the bituminous roadways for parts of the Donumun Hills area, the Westridge Lake Estates developments, Sarazin Street from St. Francis Ave to Valley View Rd, Montecito Drive, Park Ridge Dr and Stagecoach Road from 13th Avenue to County Road 101. Utility and curb and gutter repairs and improvements will be evaluated and included with this project.

Justification

This project is a continuation of the City's Pavement Preservation Program to maintain existing infrastructure. The bituminous pavements in the project area have significantly deteriorated. Patching or pavement overlays are no longer effective options to extend the life of the asphalt surface. These roads require more than usual maintenance at this point. Substantial subsoil corrections are expected to be required as part of this project based on the existing pavement conditions and the fact that the original pavement section was not constructed to the typical standards that are used today. The City must also reconstruct pedestrian ramp facilities to comply with its ADA Transition plan adopted in 2018, increasing the cost of this project compared to previous years' projects.

Expenditures

	2020	2021	2022	2023	2024	Total
Construction/Maintenance	2,200,000					2,200,000
Engineering/Administration	150,000					150,000
Total	2,350,000					2,350,000

Funding Sources

	2020	2021	2022	2023	2024	Total
Capital Improvement Fund						
Cost Sharing, SPUC	1,650,000					1,650,000
Sanitary Sewer Fund	10,000					10,000
Special Assessments	10,000					10,000
Storm Drainage Fund	680,000					680,000
	20,000					20,000
Total	2,350,000					2,350,000

Budget Impact/Other

Required ADA improvements are generally unfunded mandates to improve accessibility and to minimize liability. It should also be noted that bituminous prices increased approximately 15% in 2019.

Total Project Cost: \$2,350,000

Status Active

Priority 1 Critical for Safety/Preservation

Type Improvement

Useful Life 25

Category Street Reconstruction

Contact Public Works Director

Department Capital Improvements Fund

2020 thru 2024

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Capital Improvement Plan
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Proposed Project Location

Area A – Park Ridge Drive

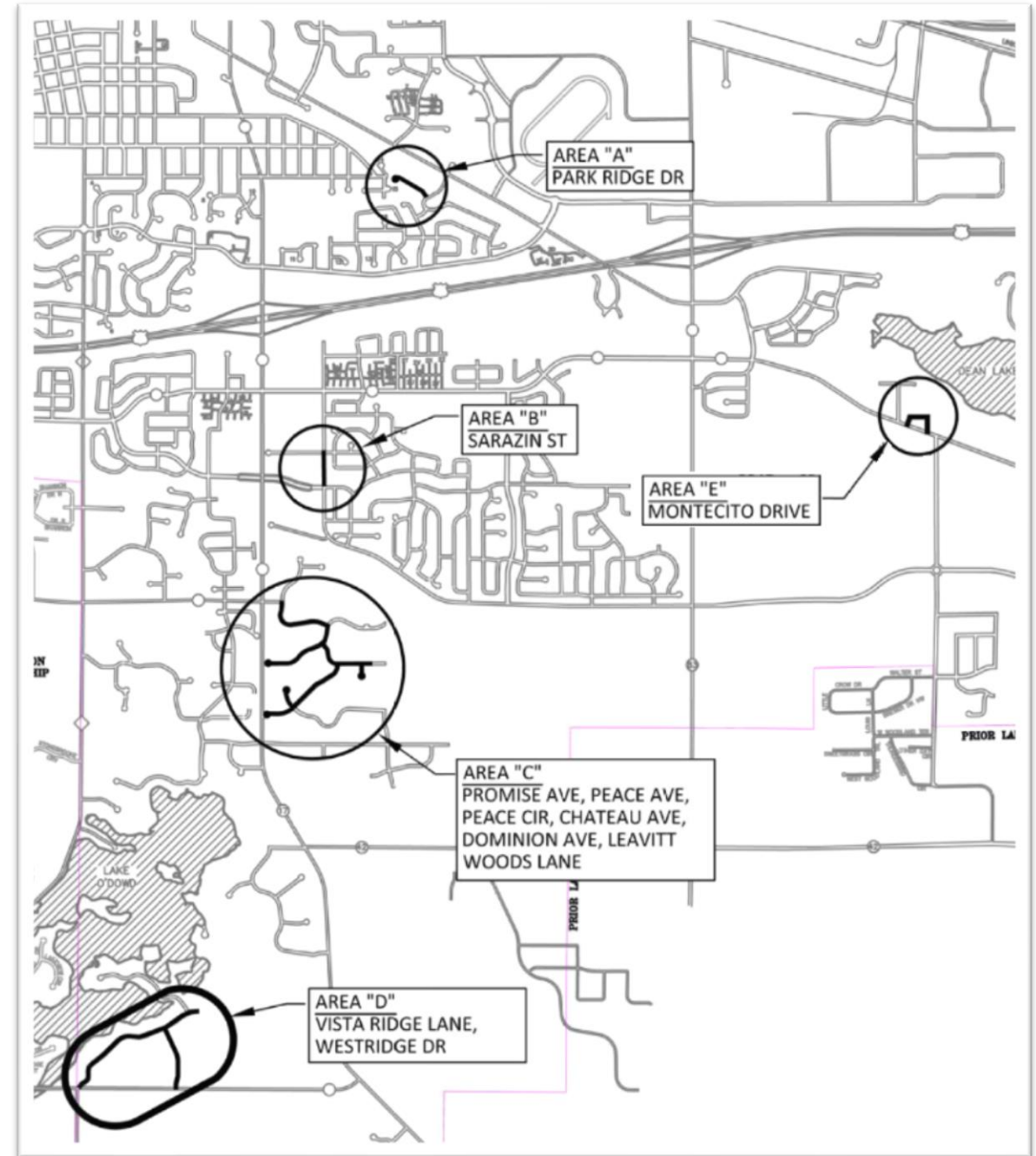
Area B – Sarazin Street

Area C – Dominion Hills Area

Area D – Westridge Lake Estates Area

Area E – Montecito Drive

Area F – Stagecoach Road (*postponed to future project*)



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Area A – Park Ridge Drive

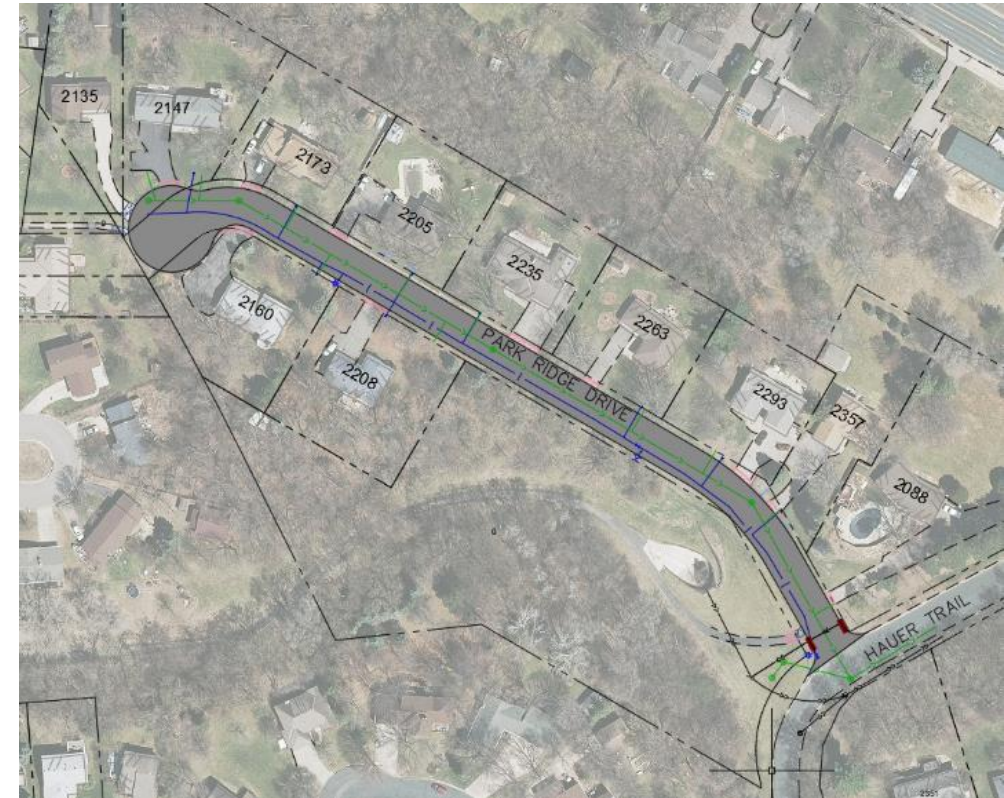
Existing Conditions

- Constructed in 1979
- 37-ft wide roadway with notable elevation change (west to east)
- Substantial roadway deterioration and cracked/settled curb and gutter, with some ponding water
- Storm sewer system at Hauer Trail intersection
- 6-in DIP water main & 8-in PVC sanitary sewer

Proposed Improvements

- 4-inch asphalt pavement, 8-inch reclaimed aggregate base.
- 1-foot sand section with subsurface draitile near the intersection of Hauer Trail
- Add storm sewer catch basins to improve roadway drainage
- Spot curb and gutter repairs
- Pedestrian curb ramps (ADA compliancy)

***No proposed sanitary sewer, watermain or street lighting improvements**



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Area B – Sarazin Street

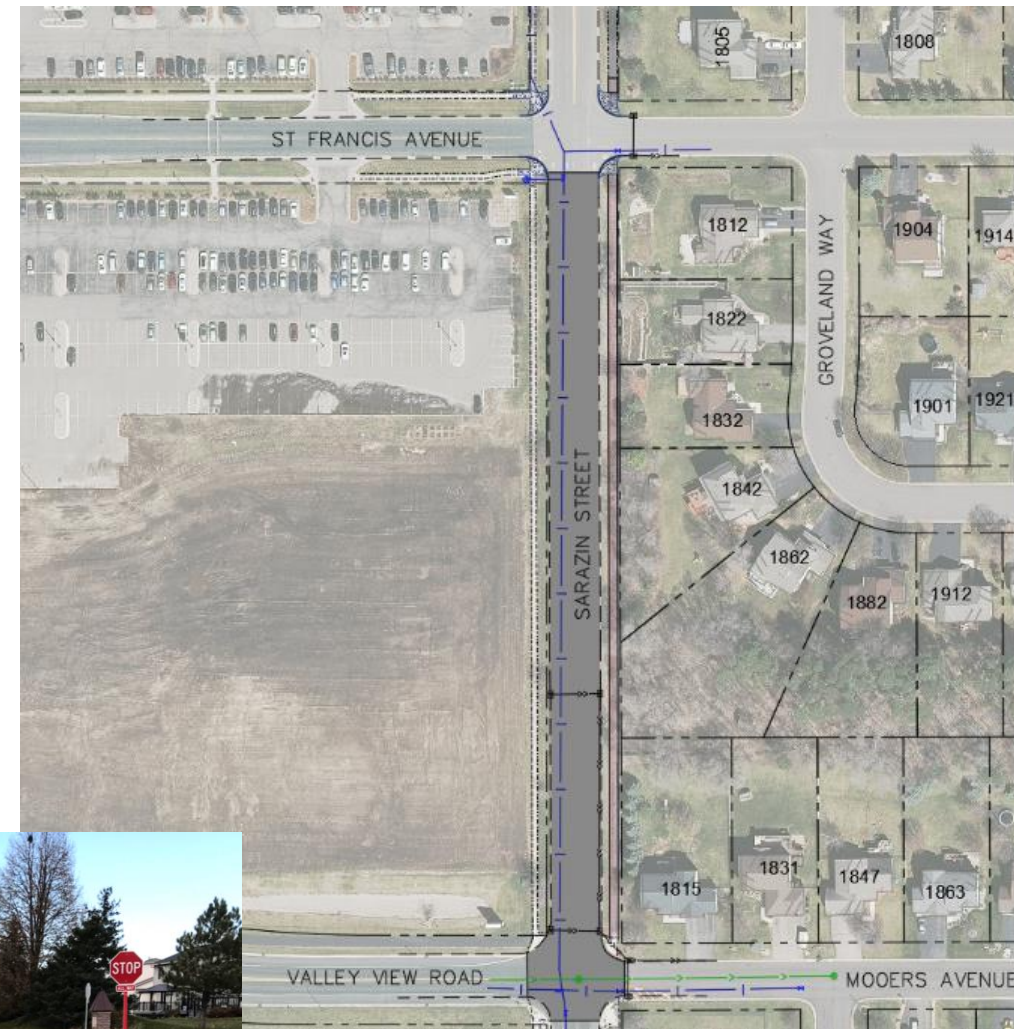
Existing Conditions

- Constructed in 1999
- 45-foot wide roadway with gradual elevation change (north to south)
- Substantial roadway deterioration and minor cracked curb and gutter
- 8-foot bituminous trail on east side of road, 5-foot concrete sidewalk on west side
- 12-in DIP water main and no sanitary sewer main

Proposed Conditions

- 5-inch asphalt pavement, 10-inch reclaimed aggregate base.
- Reconstruct 8' bituminous trail
- Spot curb and gutter repairs
- Pedestrian curb ramps (ADA compliancy)

*No proposed sanitary sewer, watermain or street lighting improvements



Area C – Dominion Hills Area

Existing Conditions

- Constructed between 1992-1999
- 28-foot wide bituminous roadway, rolling hills and windy curves
- Substantial roadway deterioration. Subgrade is pumping and rutting into the aggregate and bituminous surface in areas
- Drainage ditches on both sides of road, culverts under driveways
- No city sanitary sewer main or water main. Residents on private septic and private well systems

Proposed Conditions

- 4-inch asphalt pavement, 8-inch reclaimed aggregate base with a 1-foot sand section and geotextile fabric
- Subsurface drain tile will be installed to remove water from the sand subgrade section

***No proposed sanitary sewer, watermain or street lighting improvements**



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Area D – Westridge Lake Estates Area

Existing Conditions

- Constructed in 1993
- 28-foot wide roadway, rolling hills, notable elevation changes. Aggregate shoulders and drainage ditches on both sides of the road.
- Substantial roadway deterioration
- HOA owned private 8-inch DIP water main system
- No city sanitary sewer main. Residents on their own private septic system

Proposed Conditions

- 4-inch asphalt pavement, 8-inch reclaimed aggregate base, a 1-foot sand section and geotextile fabric. 3-foot aggregate shoulders on both sides of roadway
- Subsurface drain tile will be installed to drain the sand subgrade section.

***No proposed sanitary sewer, watermain or street lighting improvements**



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Area E – Montecito Drive

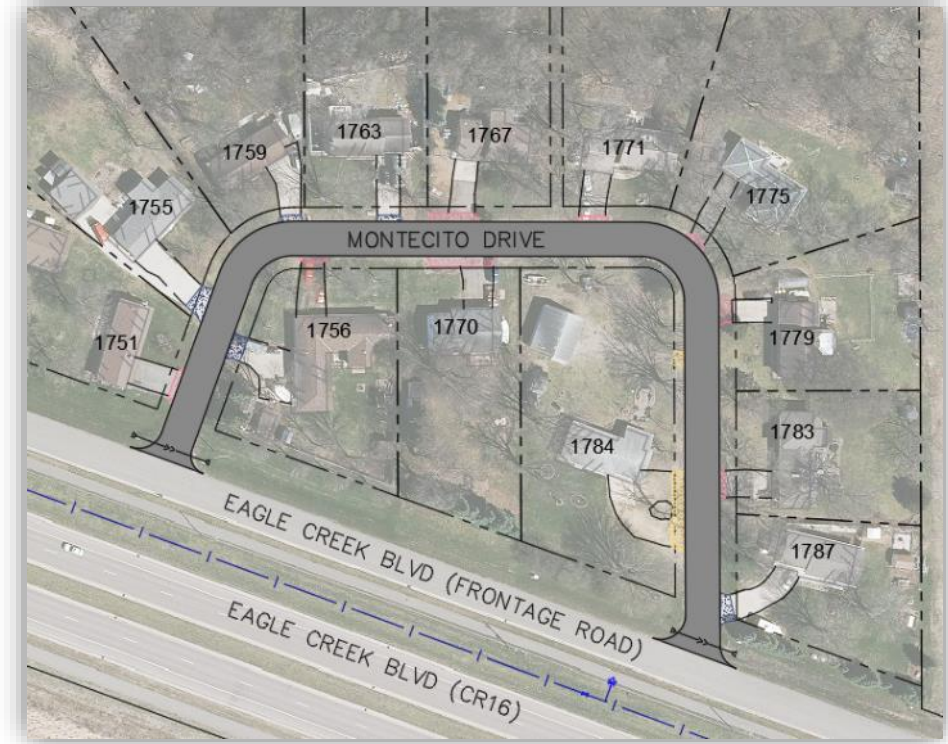
Existing Conditions

- Constructed between 1973 and 1977
- 28-foot wide roadway, generally flat, surface drainage runs along the edge of the bituminous roadway.
- Substantial roadway deterioration
- No city sanitary sewer main or water main. Residents are on private septic and well systems.
- 12-inch water main between the frontage road and CSAH16

Proposed Conditions

- 4-inch asphalt pavement, 8-inch reclaimed aggregate base, a 1-foot sand section and geotextile fabric.
- Subsurface drain tile will be installed to drain the sand subgrade section.
- Consideration of a modified bit curb during final design

***No proposed sanitary sewer, watermain or street lighting improvements**



Area F – Stagecoach Road

Existing Conditions

- Roadway was reconstructed in 1998
- Substantial roadway deterioration and cracked curb/concrete median
- Street width varies from 31-feet to 59-feet wide, rural section with aggregate shoulders
- Ditches on both sides of the roadway for surface drainage.
- 12-inch DIP water main and 3-inch PVC sanitary sewer force main

Proposed Conditions

- No improvements are recommended for Stagecoach Road
- A potential redevelopment of a 56-acre site adjacent to Stagecoach Road may require realignment of Stagecoach Road as it nears County Road 101
- Reasonable maintenance and patching needed in order to extend the life of the roadway.



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Restoration

- Ends of driveways that are disturbed due to the street construction will be replaced with similar materials
- Disturbed boulevard areas along Sarazin Street, Dominion Hills and Westridge Lake Estates will be restored with a compost-topsoil blend, seed and hydro-mulch. Sod will be used for turf restoration along Park Ridge Drive and Montecito Drive.



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Project Inconveniences



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Proposed Cost Apportionment

Table 1 - Estimated Cost & Funding Source
2020 Full-Depth Pavement Reconstruction Project CIF-20-004

	Streets (inc. street lighting)	Storm Sewer	Sanitary Sewer	Water Main	Estimated Total
Estimated Expenditures					
Estimated Construction Cost Street & Utility	\$2,300,000	\$140,000	\$5,000	\$5,000	\$2,450,000
Contingencies (~8%)	\$184,000	\$11,000	\$400	\$400	\$195,800
Administration, Engineering, Legal (~6%)	\$145,000	\$8,000	\$350	\$350	\$153,700
Total Estimated Project Costs (Feasibility)	\$2,629,000	\$159,000	\$5,750	\$5,750	\$2,799,500
Estimated Revenue					
Special Assessments	\$729,200				\$729,200
Capital Improvements Fund	\$1,899,800				\$1,899,800
Storm Sewer Fund		\$159,000			\$159,000
Sanitary Sewer Fund			\$5,750		\$5,750
Shakopee Public Utilities				\$5,750	\$5,750
Total Estimated Revenue (Feasibility)	\$2,629,000	\$159,000	\$5,750	\$5,750	\$2,799,500

Note: This is a council initiated project that requires 4/5ths vote to proceed



Special Assessment Method

Determined per City of Shakopee Assessment Policy

30% of the assessable street improvements will be assessed

Cost per Front Footage Basis (Sarazin Street)

- Assessment Rate = 30 percent of assessable street improvements / total front footage of assessable lots
- Bituminous trail and collector street oversizing costs will not be assessed

Cost per Lot Basis (Park Ridge, Dominion, Westridge, Montecito)

- Assessment Rate = 30 percent of assessable street improvements / number of assessable lots
- Corner lot adjustments made (half assessment per side of corner lot)

Preliminary Assessment Rate Table

Area A	Park Ridge Drive	\$ 4,410.00 per lot
Area B	Sarazin Street	\$ 35.38 per foot
Area C	Dominion Hills	\$10,855.00 per lot
Area D	Westridge Lake Estates	\$ 5,030.00 per lot
Area E	Montecito Drive	\$ 4,375.50 per lot

Each project area will be assessed for the actual cost of the street improvements specific to each neighborhood.

Assessment Amortization

Area B - Sarazin Street				
Assessment Amount		\$10,855.00		
Assessment Interest Rate		5.5%		
Assessment Term		10 Years		
Year	Annual Payment	Principle	Interest	Balance
1	\$1,782.03	\$1,085.50	\$696.53	\$9,769.50
2	\$1,622.82	\$1,085.50	\$537.32	\$8,684.00
3	\$1,563.12	\$1,085.50	\$477.62	\$7,598.50
4	\$1,503.42	\$1,085.50	\$417.92	\$6,513.00
5	\$1,443.72	\$1,085.50	\$358.22	\$5,427.50
6	\$1,384.01	\$1,085.50	\$298.51	\$4,342.00
7	\$1,324.31	\$1,085.50	\$238.81	\$3,256.50
8	\$1,264.61	\$1,085.50	\$179.11	\$2,171.00
9	\$1,204.91	\$1,085.50	\$119.41	\$1,085.50
10	\$1,145.20	\$1,085.50	\$59.70	\$0.00
Totals:	\$14,238.14	\$10,855.00	\$3,383.14	

Area C - Dominion Hills				
Assessment Amount		\$5,030.00		
Assessment Interest Rate		5.5%		
Assessment Term		10 Years		
Year	Annual Payment	Principle	Interest	Balance
1	\$825.76	\$503.00	\$322.76	\$4,527.00
2	\$751.99	\$503.00	\$248.99	\$4,024.00
3	\$724.32	\$503.00	\$221.32	\$3,521.00
4	\$696.66	\$503.00	\$193.66	\$3,018.00
5	\$668.99	\$503.00	\$165.99	\$2,515.00
6	\$641.33	\$503.00	\$138.33	\$2,012.00
7	\$613.66	\$503.00	\$110.66	\$1,509.00
8	\$586.00	\$503.00	\$83.00	\$1,006.00
9	\$558.33	\$503.00	\$55.33	\$503.00
10	\$530.67	\$503.00	\$27.67	\$0.00
Totals:	\$6,597.68	\$5,030.00	\$1,567.68	



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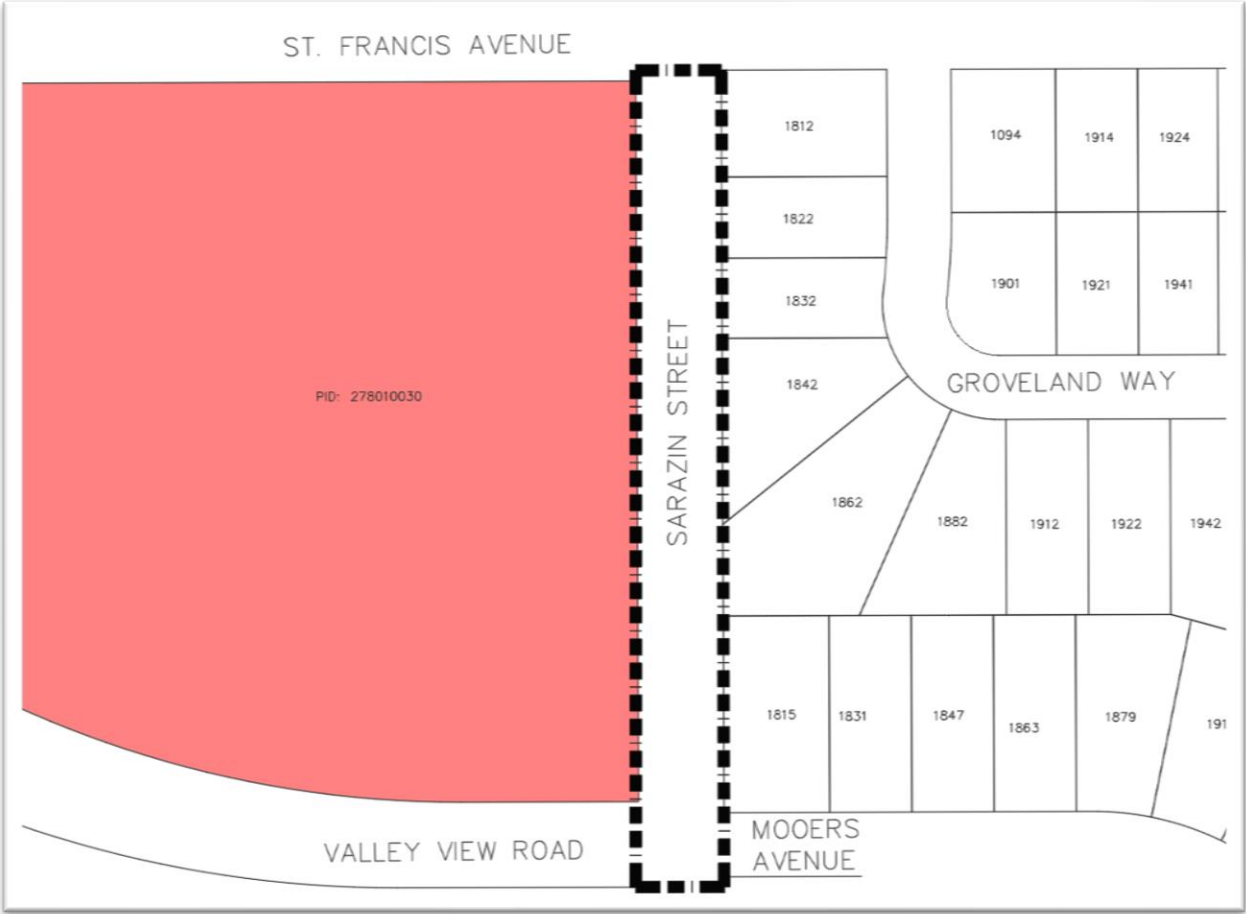
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Assessment Maps



Area A – Park Ridge Drive



Area B – Sarazin Street



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Map of the City of Peoria, Illinois, showing the location of the proposed Peoria Public Library Branch at 1742 Dominion Avenue.

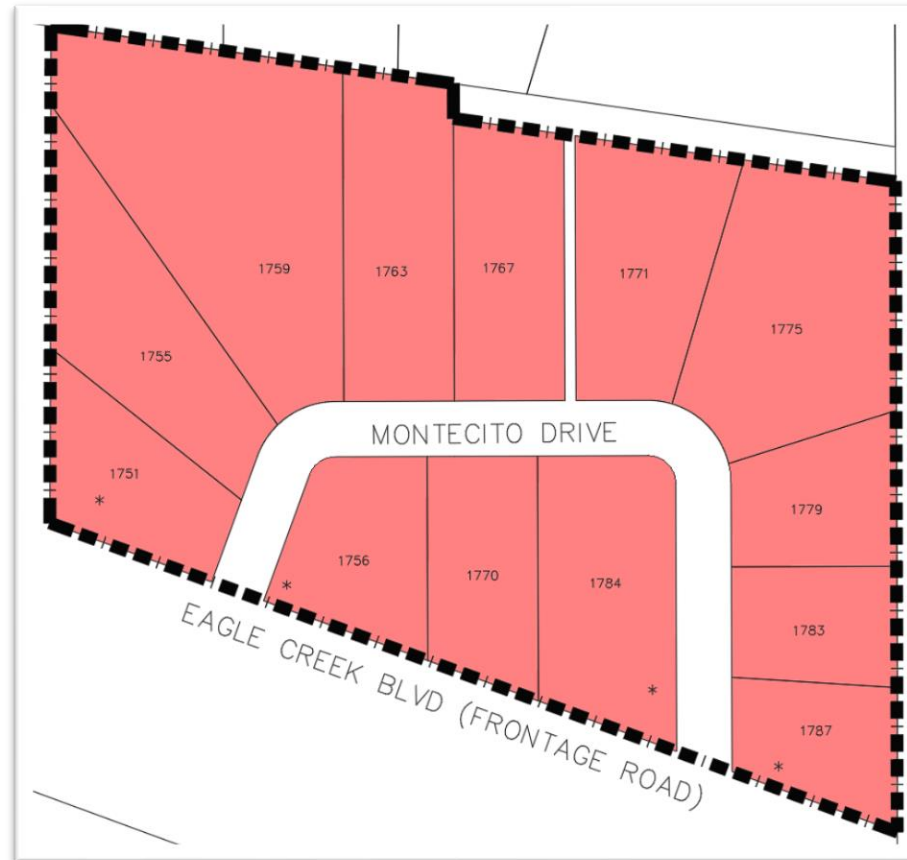
The map displays the following streets and lot numbers:

- Streets:** MARSHALL ROAD (CR17), HILLSIDE DRIVE, PROMISE AVENUE, DOMINION AVENUE, CHATEAU AVENUE, PEACE AVENUE, CIRCLE, WOODS LANE.
- Lot Numbers:** 2255, 2305, 2315, 2268, 2285, 2288, 2308, 2318, 1742, 1842, 1772, 1851, 1921, 2021, 1451, 1545, 1645, 1672, 1742, 1440, 1507, 1557, 1697, 1717, 1758, 1798, 2398, 2395, 2425, 2428, 1447, 1544, 1647, 1678, 1558, 1440.

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Assessment Maps



Area E – Montecito Drive

Preliminary Project Schedule

City Council Receives Feasibility Report, Calls for Public Hearing	January 21, 2020
City Council Holds Public Hearing, Authorizes the Project and Orders Preparation of Plans and Specifications	February 4, 2020
City Council Approves Plans and Specs, Authorizes Advertisement for Bids	February 18, 2020
City Receives and Opens Project Bids	March 26, 2020
City Council Considers Award of Contract	April 7, 2020
Start Project Construction	June 2020
Construction Substantially Complete	October 2020
City Council Declares Cost to be Assessed, Calls for Public Hearing	October 2020
Hold Assessment Public Hearing	November 2020



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