

# Memo

To: Dave Cosgrove, Town of Lyons Director of Parks & Public Works  
Aaron Caplan, Town of Lyons Director of Utilities

Date: April 25<sup>th</sup>, 2023

From: Justin Doles, PE  
Town Engineer and Project Manager

**RE: 2023 Street Maintenance and Paving Update**

The purpose of this memo is to provide an update on the status of the pavement preservation program for the Town of Lyons. This document is based on much of the information presented in the memo from the Murraysmith (Conсор) regarding *Street Maintenance and Paving Summary and Recommendations Memo*, dated May 11, 2022. The aforementioned memo is attached to this document and gives a detailed explanation of background information and methodology for the current pavement preservation program. It is recommended to be familiar with it prior to reading this memo.

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## 2023 Pavement Work

In the fall of 2022, the Town advertised a bid a package that included mill and overlays and chip seals. However, only one bid was received and the pricing was higher than expected. It was determined by Town staff and the Board of Trustees that it would be best to readvertise the project in the spring of 2023 in hopes of getting more competitive pricing. The bid package included the following suggested work be completed:

- Mill and overlay for Eagle Cayon Circle, Eagle Cayon Drive, and Eagle Nest Lane
- Mill and overlay for Welch Court and Welch Drive
- Chip seal for Steamboat Valley Road, Vasquez Court, and Vasquez Road
- Chip seal for Eagle Valley Drive, Osprey Lane, Peregrine Lane, and Falcon Lane in the Stone Canyon area
- Striping throughout various parts of High Street, Railroad Avenue, and nearby areas.

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303.823.6622

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In the spring of 2023, the bid package was reviewed by staff, and additions were made based on the 2022 memo recommendations and observed conditions. These additions included:

- Mill and overlay for McConnell Drive from 2<sup>nd</sup> Avenue to just before Bohn Court (In front of the Middle and High School)
- Fire Lane/No Parking restriping in front of various fire hydrants throughout town.

The plan set for this bid package is attached to this document for reference.

In March 2023 this bid package with the additions was advertised per Board direction. Three bids were received on 4/20/2023. The lowest bids were the following:

- **Base Bid: \$476,123.95.** This includes the mill and overlays and striping work. It does NOT include the chip seal areas.
- **Base Bid + Bid Alternate: \$592,896.62.** This includes the Base Bid work plus the chip seal areas.

Given the structure of the bid, the Town board can elect to select the Base Bid only, Base Bid with the Bid Alternate, or choose to reject the bids and utilize the funding for other roadway projects now or in the future. Town Staff recommends doing the Base Bid with the Bid Alternate as this will provide the best value in pavement condition improvement and preservation and keeps in alignment with the intentions of the pavement preservation program.

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### Future Recommendations for Pavement Work

The Town's priority is to preserve pavements that still have significant residual life through preservation maintenance activities and to complete rehabilitation projects for pavements that are beyond their useful life or require complete reconstruction or reclamation. The Town will work towards those roadways prioritized in the 2022 memo mentioned previously and the Pavement Management Budget Options Report.

Many of the streets that are in need of major rehabilitation are on the north side of town, north of Main Street. However, significant drainage improvements are also needed along several of these streets prior to the roadway and pavement improvements. The drainage projects by themselves are multimillion dollar projects in addition to the funds necessary to complete the pavement work in these areas. Utilities are also a consideration in many of these areas, adding another layer of complexity.

The Town has applied for grants to help obtain the necessary funding for the drainage improvements along 2<sup>nd</sup> and 3<sup>rd</sup> Avenues. If successful, this will be a major step forward in beginning the process of improving the streets on the north side of Town. In the meantime, the Town has focused on providing

TELEPHONE

303.823.6622

FACSIMILE

303.823.8257

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increased maintenance per the guidance of the pavement assessment to many of the streets on the north side of Town through crack sealing and patching to keep them in the best condition possible until the funds are available. Please see the attached Town of Lyons 2022 Streets Pavement Memo date May 11, 2022 from Chris Jain, PE of Murraysmith, Appendix A- Recently Completed Projects (2017-2022.) In addition, the Town completed 15 infrared patches on the following streets to repair failing areas of asphalt: 2<sup>nd</sup> Avenue North, 3<sup>rd</sup> Avenue North, Kelling Drive, Park Drive, Eagle Canyon Circle, and Ewald and Prospect Avenue. Also in the fall of 2022, warranty crack sealing was completed on the north side of town on 1<sup>st</sup> (entire length), 2<sup>nd</sup> (Main ST. to 1<sup>st</sup> Ave), 3<sup>rd</sup> (Stickney to Seward), 4<sup>th</sup> (North of Stickney), Mountain View (entire length), Reese, Seward, Stickney.



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Attachments:

Attachment A: *Street Maintenance and Paving Summary and Recommendations Memo*, Murraysmith, May 11, 2022

Attachment B: 2023 Pavement Rehabilitation Plan Set (from bid documents).

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# Attachment A

Street Maintenance and Paving Summary  
and Recommendations Memo, Murraysmith  
May 11, 2022

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# Town of Lyons 2022 Streets Pavement Memo

**Date:** May 11, 2022

**Project:** 19-2529

**To:** Dave Cosgrove, Town of Lyons Director of Parks & Public Works  
Aaron Caplan, Town of Lyons Director of Utilities & Engineering

**From:** Chris Jain, PE, CFM  
Murraysmith, Town Engineer

**Re:** Street Maintenance and Paving Summary and Recommendations Memo

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## Overview

The purpose of this memo is to summarize the completed pavement projects within the last five years (2017 to 2021) and to identify and prioritize streets that will require pavement preservation or pavement rehabilitation over the next three years (2022 to 2024). In November 2019, Capitol Asset & Pavement Services, Inc. (CAPS) performed a visual inspection of all paved streets maintained by the Town of Lyons, Colorado (Town). US 36 (Main Street and Broadway) and 5<sup>th</sup> Avenue / Highway 7 are not included as the pavement for these streets is maintained by CDOT.

The subsequent Pavement Management Budget Options Report, submitted to the Town in March 2020, provided a Pavement Condition Index (PCI) of all inspected streets to assist the Town with identifying street preservation and rehabilitation priorities. The PCI is a measurement of pavement condition that ranges from 0 to 100, where a newly constructed street would have a PCI of 100, while a failed street needing to be reconstructed would have a PCI of under 25.

In general, a street that has a PCI of over 70 is in “Good” condition and can remain in “Good” condition for a longer period if relatively inexpensive preventative maintenance treatments (crack, chip, and slurry sealing) are used. However, if the PCI falls below 70, more expensive rehabilitation treatments such as a mill and overlay are required, and if the PCI falls below 40, increasingly expensive treatments such as full-depth reclamation or complete reconstruction are required. Thus, it becomes imperative for a pavement management system to follow a “best-first” approach to extend the life cycle of a street and delay the requirement for expensive rehabilitation projects by performing preventive maintenance and pavement preservation treatments.

The original report prepared by CAPS was produced in March 2020, and most of the recommendations from 2020 and 2021 have been completed. Street sections from those years that have not been completed are included on the proposed pavement preservation and rehabilitation projects lists. Additionally, all recommendations will be reevaluated in the field prior

to construction, as pavement deterioration may have occurred at a slower or faster rate than anticipated since the time of initial assessment in 2019 and documentation in 2020.

## Completed Projects

Annual pavement preservation projects have been on-going for several years. The recent pavement rehabilitation or reconstruction projects were part of the Town's disaster recovery efforts following the 2013 flood as stand-alone projects or in conjunction with utility replacement projects. The table below includes a summary of all completed pavement programs and their costs since 2017 in the Town of Lyons. For the comprehensive list of all pavement projects by location and treatment type, see **Appendix A**.

Approximate Costs of Completed Pavement Programs	
Program	Approximate Cost
2017/2018 – Pavement Preservation	\$55,000
2019 – Pavement Preservation	\$48,000
2019 – Apple Valley Waterline Relocation <sup>1</sup>	\$275,000
2020 – Pavement Preservation	\$38,500
2020 – Roadway Repairs for Flood Recovery (FEMA Grant)	\$525,000
2021 – Pavement Preservation	\$44,600
2021 – 2nd Avenue Bridge Replacement (Flood Recovery FEMA Grant) <sup>2</sup>	\$130,000
2022 – Longs Peak Drive Utility Replacement and Street Reconstruction <sup>1</sup>	\$360,000
<b>Total Cost of All Pavement Treatment Programs from 2017 to 2022</b>	<b>\$1,476,100</b>

<sup>1</sup>These projects were constructed for utility purposes but involved full-depth pavement reclamation. The costs provided were approximated using the construction costs of the pavement associated items.

<sup>2</sup>This project was primarily a bridge replacement project, but also included roadway reconstruction of the approaches to the bridge, approximately 250 feet south and 350 feet north of the new 2<sup>nd</sup> Avenue Bridge. The costs provided were approximated using the construction costs of the pavement associated items.

## Pavement Preservation Priorities

It is recommended that the pavement preservation projects continue to be completed on a yearly basis, to continue a “best-first” approach by preserving and extending the life of the streets that are currently still in good condition. Pavement preservation projects include crack sealing, slurry seals, and chip seals that extend the life of the pavement and protect the aggregate base by sealing out destructive water infiltration. Continuing these yearly preservation projects will supplement the pavement rehabilitation projects, which are designed to repair or replace severely deteriorated or failing streets. An example of this is to inspect recently paved streets for any developing cracks, and then applying a crack seal to them in a timely matter to preserve the recent investment.

**Appendix B** includes a list of pavement preservation projects for the next three years (2022 to 2024), as identified in the Pavement Management Budget Options Report. Each pavement

preservation project has a recommended treatment option to fulfill the goal of extending the pavement life cycle and preventing the need for a more costly rehabilitation project in the near future. In addition, although not specifically listed in **Appendix B**, striping will also likely be performed in conjunction with preservation projects as needed.

## Pavement Rehabilitation and Reconstruction Priorities

While a “best-first” approach to the Town’s pavement management system is proposed in this memo, several streets were identified in the CAPS report as having already deteriorated to the point of failure, and thus requiring a rehabilitation with mill and overlay or reconstruction with full-depth reclamation. A list of these streets can be found in **Appendix C**, with each project ranked in order of the current PCI. In addition, several streets will not be able to be fully rehabilitated through a mill and overlay and will instead require a full-depth reclamation.

Some of these streets with the worst PCI’s include 5<sup>th</sup> Avenue from High Street to Steamboat Valley Road, 2<sup>nd</sup> Avenue from Main Street/US 36 to the cul-de-sac on Mountain View Drive, and McConnell Drive from 2<sup>nd</sup> Avenue to Bohn Court and from Cater Drive back out to McConnell Drive. Spending money on these streets outside of patching potholes or repairing areas that pose a risk to vehicles, bikes, or pedestrians, is not advised as they have deteriorated past the point of saving. These streets will continue to function short-term but may be a rough ride for vehicles and will need to be addressed at some point.

Although PCI is integral in prioritizing streets with the greatest need for rehabilitation and reclamation, other factors must be considered when developing a proposed timeline for this work. These factors include necessary underground utility work, stormwater drainage problems, on-going construction projects, and street classification.

As the installation, repair or replacement of an underground utility often requires trench excavation in the roadway pavement, it will be imperative for all planned utility projects near or underneath existing roadways to be coordinated with pavement rehabilitation or reclamation projects. Likewise, the conditions of the underground utilities should be evaluated or confirmed prior to any rehabilitation or reconstruction projects to prevent having to cut a trench in newly placed pavement for utility repairs or replacements. The Town Engineer (Murraysmith), Town Director of Utilities & Engineering and Town Director of Parks & Public Works continue to discuss the needs and any identified future utility or streets projects to ensure utility work and street paving is coordinated.

Stormwater runoff can rapidly deteriorate both the asphalt pavement and the underlying base course and subgrade, contributing to a wide variety of roadway problems including stripping, bleeding, potholing, cracking, and heaving. Therefore, known drainage issues should be addressed prior to, or in conjunction with, street rehabilitation and reconstruction projects to extend the pavement life cycle and delay the need for the reoccurrence of these costly projects. For example, while 2nd Avenue from Main Street/US 36 to the cul-de-sac on Mountain View Drive has a current

PCI in the 20s and is therefore slated for a full-depth reclamation, there are known drainage problems in this area which must be addressed first.

Similar to the problems caused by improper drainage, regular use of a roadway by heavy vehicles can accelerate deterioration. This problem is often observed in areas that are adjacent to construction activities or commercial facilities and become temporary or permanent haul routes for trucks transporting heavy materials or equipment. Over the next two years, construction activities related to the new Summit Lyons Valley Townhomes will result in sustained heavy load traffic on the McConnell Drive loop, and therefore this roadway should not receive rehabilitation or reconstruction until after the adjacent construction project is complete. On the contrary, 5th Avenue previously experienced regular commercial vehicle traffic related to the operation of a quarry and commercial construction businesses north of the Town, contributing to the low PCI (approximately 25) observed on this street north of Highway 36. Now that these commercial facilities are no longer in operation, a complete street reconstruction project to upgrade the road would be appropriate.

Finally, street classification should be considered in the project prioritization as well. Streets classified as a “collector” or “arterial” are the backbone of a street network, relied upon by more users, typically resulting in higher volumes and speeds. Streets that are identified as “residential/local” will experience a lower volume of traffic with lower travel speeds and typically much less heavy/truck traffic. Most of the Town’s street network consists of residential/local streets, with McConnell Drive, most of Stone Canyon Drive, most of 2<sup>nd</sup> Avenue, and short sections of 3<sup>rd</sup> Avenue and 4<sup>th</sup> Avenue being classified as collectors. A section of Stone Canyon Drive is classified as an arterial.

## Conclusion

Below is a list of the top priorities to be considered for rehabilitation or reconstruction this year and include only street sections that have no known underground utility repair or replacement needs, no known significant stormwater drainage system needs, and that are not expected to be impacted by heavy traffic related to commercial facilities or planned construction activities in the near future. In addition, geographic proximity was considered to decrease the cost of mobilization and expedite construction. The following will be field inspected prior to seeking construction bids to verify the recommendations and project limits and adjust according to the available budget.

Pavement Rehabilitation Recommendations – Mill and Overlay		
Location	Current PCI	Estimated Cost
Eagle Canyon Circle (Entire Length)	44	\$118,000
Eagle Canyon Drive (Highway 36 to Eagle Canyon Circle)	46	\$16,000
Welch Court (Welch Drive to End of Cul-De-Sac)	46	\$32,000
Welch Drive (McConnell Drive to 2nd Avenue)	48	\$114,000
Total Estimated Cost of Mill/Overlay Projects		\$280,000



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Pavement Reconstruction Recommendations – Full-Depth Reclamation		
Location	Current PCI	Estimated Cost
5th Avenue (High Street to Steamboat Valley Road)	25	\$300,000

By providing a “best-first” approach that focuses on pavement preservation treatments in combination with rehabilitation and reconstruction projects for streets that require more extensive repair, the overall condition of the Town’s street network can be improved and maintained at an optimal PCI level in the low 80’s.

## Appendix A – Recently Completed Projects



2017/2018 – Pavement Preservation	
Location	Treatment Type
2nd Avenue	Patching
3rd Avenue (Railroad Avenue to Evans Street)	Infrared Patching
4th Avenue and Evans Street (Curve Only)	Repair
High Street (Adjacent to 211 High Street Only)	Patching
Apple Valley Road	Patching
Longs Peak Drive (Entire Length)	Infrared Patching
Old Shop/Sheriff's Building	ADA Parking and Paving
Railroad Avenue and 4th Avenue (Intersection Only)	Patching
Town Hall	Repair
<b>Approximate 2017/2018 Total Cost</b>	<b>\$55,000</b>

2019 – Pavement Preservation	
Location	Treatment Type
2nd Avenue (Railroad Avenue to 2nd Avenue Bridge)	Patching
4th Avenue (Broadway to Main Street)	Patching
4 <sup>th</sup> Avenue and High Street (Intersection Only)	Patching
Lyons Valley Park Subdivision Area (McConnell Dr, Raymond Ct, Goranson Ct, Bohn Ct, Noland Ct, Estes Ct)	Crack Sealing
Steamboat Valley Road Area	Crack Sealing
Vasquez Road Area	Crack Sealing
Horizon Road Area	Crack Sealing
Stone Canyon Area	Crack Sealing
<b>Approximate 2019 Total Cost</b>	<b>\$48,000</b>

2019 – Apple Valley Waterline Relocation	
Location	Treatment Type
Apple Valley Road (Boulder County Limits to US 36)	Overlay
<b>Approximate Cost for Pavement Section Only</b>	<b>\$275,000</b>

2020 – Pavement Preservation	
Location	Treatment Type
3rd Avenue (High Street to Stickney Avenue)	Patching and Crack Sealing
4th Avenue (High Street to Stickney Avenue)	Patching and Crack Sealing
5th Avenue (High Street to Steamboat Valley Road)	Patching and Crack Sealing
Bloomfield Alley (Entire Length)	Patching and Crack Sealing
Ewald Avenue (Entire Length)	Patching and Crack Sealing
McCall Alley (Entire Length)	Patching and Crack Sealing
Meily Street (Entire Length)	Patching and Crack Sealing
Old Main Street (2nd Avenue to 3rd Avenue)	Patching and Crack Sealing
Prospect Street (Entire Length)	Patching and Crack Sealing
Railroad Avenue (2nd Avenue to 5th Avenue)	Patching and Crack Sealing
Stickney Avenue (3rd Avenue to 5th Avenue)	Patching and Crack Sealing
<b>Approximate 2020 Total Cost</b>	<b>\$38,500</b>

2020 – Roadway Repairs for Flood Recovery (FEMA Grant)	
Location	Treatment Type
4th Avenue (Broadway to Evans Street)	Full-Depth Reclamation
4th Avenue (Broadway to Main Street)	Full-Depth Reclamation
Evans Street (4th Avenue to 332 Evans Street)	Full-Depth Reclamation
Evans Street (326 Evans Street to 3rd Avenue)	Mill and Overlay
Evans Street and 3rd Avenue (Intersection Only)	Full-Depth Reclamation
Evans Street (3rd Avenue to 2nd Avenue)	Patching and Mill and Overlay
3rd Avenue (Evans Street to Broadway)	Full-Depth Reclamation
2nd Avenue (Park Street to Evans Street)	Mill and Overlay
2nd Avenue (McConnell Drive to WWTP/Recycling Center Driveway)	Full-Depth Reclamation
3rd Avenue (Broadway to Main Street)	Mill and Overlay
McConnell Drive (2nd Avenue north to McConnell Drive intersection)	Mill and Overlay
<b>Approximate Cost for Pavement Section Only</b>	<b>\$525,000</b>

2021 – Pavement Preservation	
Location	Treatment Type
1st Avenue (Entire Length)	Patching and Crack Sealing
2nd Avenue (Main Street to 1st Avenue)	Patching and Crack Sealing
3rd Avenue (Stickney Avenue to Seward Avenue)	Patching and Crack Sealing
4th Avenue (North of Stickney Avenue)	Patching and Crack Sealing
Mountain View Drive (Entire Length)	Patching and Crack Sealing
Reese Street (Entire Length)	Patching and Crack Sealing
Seward Avenue (3rd Avenue to 5th Avenue)	Patching and Crack Sealing
Stickney Avenue (East of 3rd Avenue)	Patching and Crack Sealing
<b>Approximate 2021 Total Cost</b>	<b>\$44,600</b>

2021 – 2 <sup>nd</sup> Avenue Bridge Replacement (Flood Recovery FEMA Grant)	
Location	Treatment Type
2nd Avenue (WWTP/Recycling Center Driveway to 2nd Avenue Bridge, 2nd Avenue Bridge to Park Street)	Full-Depth Reconstruction
2nd Avenue and Park Street Intersection (Intersection)	Full-Depth Reconstruction
<b>Approximate Cost for Pavement Section Only</b>	<b>\$130,000</b>

2022 – Longs Peak Drive Utility Replacement and Street Reconstruction	
Location	Treatment Type
Longs Peak Drive (3rd Avenue to End)	Full-Depth Reconstruction
<b>Approximate Cost for Pavement Section Only</b>	<b>\$360,000</b>

## Appendix B – Pavement Preservation Recommendations



2022 – Pavement Preservation Recommendations	
Location	Treatment Type
2nd Avenue (McConnell Drive to 2 <sup>nd</sup> Avenue Bridge, 2nd Avenue Bridge to Evans Street)	Seal Cracks, Slurry or Chip Seal
Nolan Road (Stone Canyon Road to end)	Slurry or Chip Seal
Peregrine Lane (Eagle Valley Drive to cul-de-sac)	Slurry or Chip Seal
Vasquez Drive (Vasquez Court to Horizon Drive)	Slurry or Chip Seal
Railroad Avenue (5th Avenue to 3rd Avenue)	Slurry and Crack Seal
Steamboat Valley Road (5th Avenue to Vasquez Drive)	Slurry and Crack Seal
4th Avenue (Prospect Street to Evans Street)	Seal Cracks
Evans Street (West cul-de-sac to 5th Avenue)	Seal Cracks
Evans Street (5th Avenue to 4th Avenue)	Seal Cracks
Park Street (5th Avenue to cul-de-sac)	Seal Cracks
Prospect Street (5th Avenue to 4th Avenue)	Seal Cracks
Approximate Cost Estimate	\$85,000

2023 – Pavement Preservation Recommendations	
Location	Treatment Type
1st Avenue (Overlook Drive to cul-de-sac)	Slurry or Chip Seal
Bloomfield Alley (5th Avenue to 4th Avenue)	Slurry or Chip Seal
Carter Drive (McConnell Drive to new pavement – Summit Town Homes)	Slurry or Chip Seal
High Street (80 ft east of 4th Avenue to 3rd Avenue)	Slurry or Chip Seal
McConnell Drive (Carter Drive to house #325)	Slurry or Chip Seal
McConnell Ct (McConnell Drive to cul-de-sac)	Slurry or Chip Seal
Stickney Avenue (250 feet east of 3rd Avenue to Seward Street)	Slurry or Chip Seal
Stickney Avenue (3rd Avenue to 250 feet east of 3rd Avenue)	Slurry and Crack Seal
Eagle Valley Drive (Stone Canyon Drive to cul-de-sac)	Slurry and Crack Seal
Falcon Lane (Eagle Valley Drive to cul-de-sac)	Slurry or Chip Seal
Apple Valley Road (Town Limits to US 36)	Seal Cracks
McConnell Drive (US 36 to McConnell Drive intersection)	Seal Cracks
McConnell Drive (School Driveway to Raymond Court)	Seal Cracks
Approximate Cost Estimate	\$85,000

2024 – Pavement Preservation Recommendations	
Location	Treatment Type
McConnell Drive (US 36 to McConnell Drive intersection)	Slurry or Chip Seal
McConnell Drive (100 feet S of Goranson Court to Carter Drive)	Slurry or Chip Seal
Old Main Street (3rd Avenue to 2nd Avenue)	Slurry or Chip Seal
Raymond Court (McConnell Drive to cul-de-sac)	Slurry or Chip Seal
Stone Canyon Drive (US 36 to Eagle Valley Drive)	Slurry or Chip Seal
Stickney Avenue (4th Avenue to 3rd Avenue)	Slurry and Crack Seal
2nd Avenue (WWTP/Recycling Center Driveway to 2nd Avenue Bridge, 2nd Avenue Bridge to Park Street)	Seal Cracks
3rd Avenue (Park Street to Main Street)	Seal Cracks
4th Avenue (Evans Street to Main Street)	Seal Cracks
Evans Street (4th Avenue to 2nd Avenue)	Seal Cracks
Longs Peak Drive (3rd Avenue to End)	Seal Cracks
Stone Canyon Drive (Eagle Valley Drive to Town Limits/Pavement End)	Seal Cracks
Approximate Cost Estimate	\$85,000



## Appendix C – Pavement Rehabilitation Recommendations



Pavement Rehabilitation Recommendations – Mill and Overlay	
Location	Current PCI
Eagle Canyon Circle (Entire Length) <sup>1</sup>	44
McCall Alley (5th Avenue to the Dead-End East of 4th Avenue)	45
Eagle Canyon Drive (Highway 36 to Eagle Canyon Circle) <sup>1</sup>	46
Welch Court (Welch Drive to End of Cul-De-Sac) <sup>1</sup>	46
3rd Avenue (Stickney Avenue to Cemetery)	47
Cobblestone Court (2nd Avenue to End of Cul-De-Sac)	47
Kelling Drive (2nd Avenue to the Dead End)	47
2nd Avenue (Highway 36 to Main Street)	48
High Street (3rd Avenue to 2nd Avenue)	48
Welch Drive (McConnell Drive to 2nd Avenue) <sup>1</sup>	48
2nd Court (2nd Avenue to End of Cul-De-Sac)	49
Estes Court (McConnell Drive to End of Cul-De-Sac)	49
Meily Road (Ewald Avenue to 5th Avenue)	49
Noland Court (McConnell Drive to End of Cul-De-Sac)	49
4th Avenue (Main Street to High Street)	63
5th Avenue Access Road (5th Avenue/Steward Intersection to 5th Avenue)	66

<sup>1</sup>These projects have been proposed to be completed in 2022.

# Attachment B

2023 Pavement Rehabilitation Plan Set  
(from bid documents)



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303.823.6622

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303.823.8257

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**TOWNOFLYONS.COM**



# TOWN OF LYONS, COLORADO

## 2023 PAVEMENT REHABILITATION

MARCH 2023

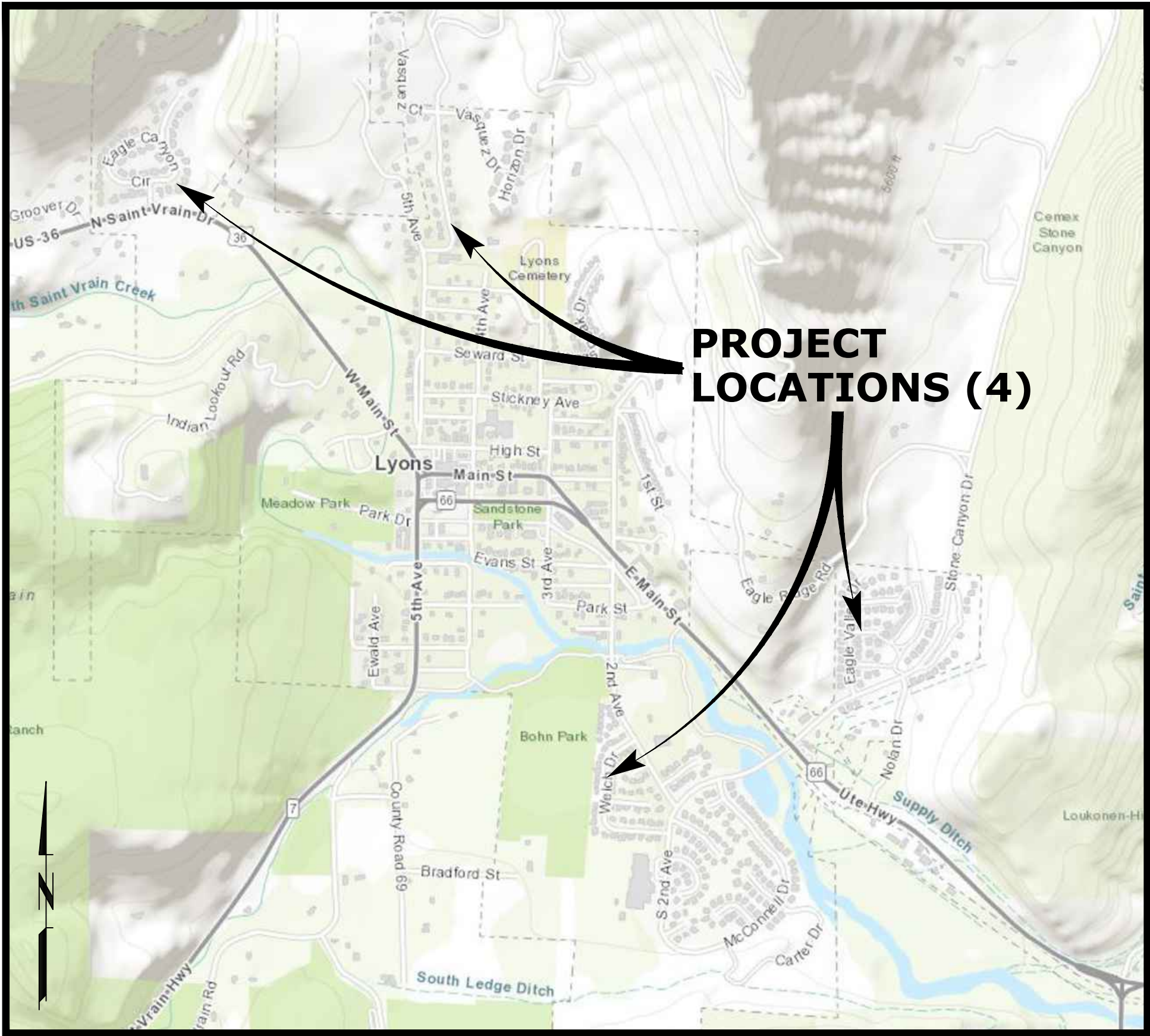
BID SET

INDEX OF DRAWINGS

<u>GENERAL</u>		
1	G-1	COVER SHEET, SHEET INDEX AND VICINITY MAP
2	G-2	GENERAL NOTES, SYMBOLS, AND LEGEND
3	G-3	ABBREVIATIONS
<u>CIVIL</u>		
4	C-1	OVERALL SITE PLAN
5	C-2	EAGLE CANYON CIRCLE AND DRIVE SITE LAYOUT
6	C-3	WELCH COURT AND DRIVE SITE LAYOUT
7	C-4	STEAMBOAT VALLEY SITE LAYOUT
8	C-5	EAGLE VALLEY SITE LAYOUT
<u>STRIPING ONLY</u>		
9	S-1	STRIPING SITE LAYOUT, HIGH STREET & RAILROAD AVENUE
10	S-2	STRIPING SITE LAYOUT, MCCONNELL DRIVE
11	S-3	STRIPING SITE LAYOUT, VARIOUS LOCATIONS
12	S-4	STRIPING SITE LAYOUT, VARIOUS LOCATIONS

PROJECT CONTACTS

OWNER & ENGINEER:  
TOWN OF LYONS UTILITIES DEPT  
432 5TH AVE  
PO BOX 49  
LYONS, CO 80540  
CONTACT: JUSTIN DOLES  
E: JDOLES@TOWNOFLYONS.COM  
303-823-6622 EXT 47



VICINITY MAP  
NTS

ATTENTION: COLORADO LAW REQUIRES THE CONTRACTOR TO FOLLOW THE RULES ADOPTED BY THE COLORADO UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN THE 2017 PROCEDURES GUIDE, EXCAVATION HANDBOOK & TITLE 9 SAFETY- INDUSTRIAL AND COMMERCIAL ARTICLE 1.5 EXCAVATION REQUIREMENTS 9-1.5-101 THROUGH 9-1.5-107. THE CONTRACTOR MAY OBTAIN COPIES OF THE RULES BY DOWNLOADING FROM THE WEB SITE [HTTP://COLORADO811.ORG/EDUCATION\\_CONSOLIDATED/](http://colorado811.org/education_consolidated/) OR CALLING UTILITY NOTIFICATION CENTER. (NOTE: THE TELEPHONE NUMBER FOR THE COLORADO UTILITY NOTIFICATION CENTER IS 800-922-1987.)





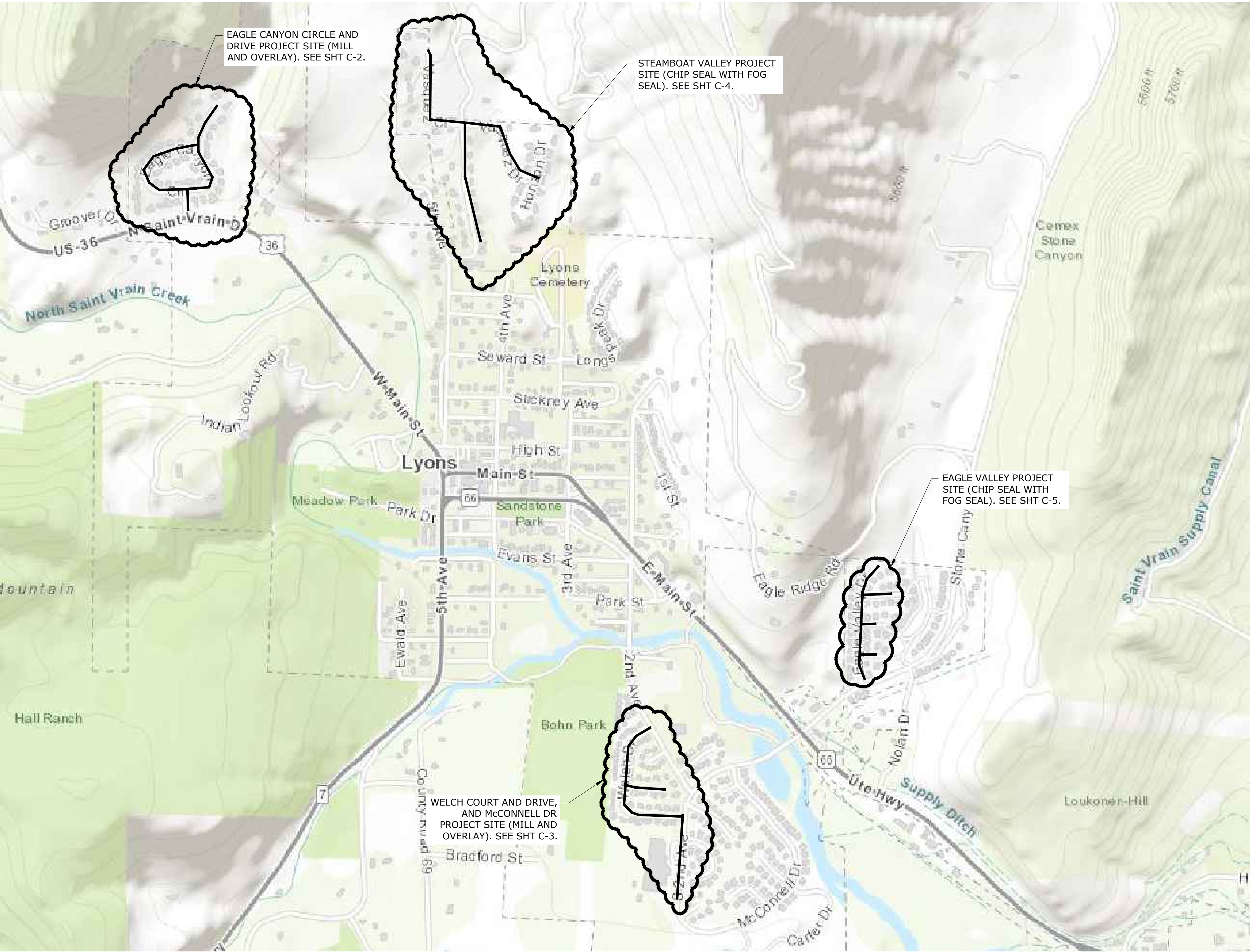








C:\Users\jdoles\OneDrive - Town Of Lyons\2023 Streets CIP\Lyons 2023 Paving - Standard\19-2529-CO-G-PAVING.dwg C-1 3/28/2023 4:19 PM JDOLES 24.2s (LMS Tech)



PLAN  
SCALE: 1"=500'

NO.	DATE	BY	REVISION

NOTICE

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED
DRAWN
CHECKED

**BID SET**  
DO NOT USE FOR CONSTRUCTION  
MARCH 2023



**2023  
PAVEMENT  
REHABILITATION**

OVERALL SITE PLAN			
PROJECT NO.: 19-2529	SCALE:	AS SHOWN	DATE: MARCH 2023

SHEET
C-1
4 of 12



C:\Users\jdoles\OneDrive - Town Of Lyons\2023 Streets CIP\Lyons 2023 Paving - Standard\19-2529-CO-C3-PAVING.dwg C-2 3/28/2023 4:23 PM JDOLES 24.2s (LMS Tech)



PLAN  
SCALE: 1"=60'

- LEGEND**
- 2-INCH MILL AND OVERLAY
- NOTES:**
1. PROTECT IN PLACE ALL CONCRETE CURB, GUTTER, SIDEWALK, AND CROSSPANS.
  2. ALL SIGNING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE CDOT M & S STANDARD PLANS, AND THE FHWA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
  3. LAYOUT OF CROSS WALK AND CROSS BAR STRIPING SHALL BE PER CDOT STANDARD PLAN S-627-1.
  4. IT IS ANTICIPATED THAT SEVERAL LOCATIONS WITHIN THE EAGLE CANYON CIRCLE AND DRIVE PROJECT SITE WILL REQUIRE A 4-INCH ASPHALT PAVEMENT REMOVAL AND PATCH. PRIOR TO THE MILL AND OVERLAY, CONTRACTOR SHALL COORDINATE WITH TOWN AND ENGINEER TO IDENTIFY ALL LOCATIONS WHERE A 4-INCH PAVEMENT REMOVAL AND PATCH WILL BE NECESSARY (ESTIMATED AREA AT THE EAGLE CANYON CIRCLE AND DRIVE PROJECT SITE IS APPROXIMATELY 150 SQUARE YARDS).

NO.	DATE	BY	REVISION

NOTICE  
0 1/2 1  
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED  
DRAWN  
CHECKED

**BID SET**  
DO NOT USE FOR CONSTRUCTION  
MARCH 2023



**2023  
PAVEMENT  
REHABILITATION**

**EAGLE CANYON CIRCLE &  
EAGLE CANYON DRIVE  
SITE LAYOUT**

PROJECT NO.: 19-2529 SCALE: AS SHOWN DATE: MARCH 2023

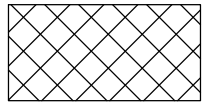
SHEET  
C-2  
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LEGEND

2-INCH MILL AND OVERLAY



NOTES:

1. PROTECT IN PLACE ALL CONCRETE CURB, GUTTER, SIDEWALK, AND CROSSPANS.
2. ALL SIGNING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE CDOT M & S STANDARD PLANS, AND THE FHWA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
3. LAYOUT OF CROSS WALK AND CROSS BAR STRIPING SHALL BE PER CDOT STANDARD PLAN S-627-1.
4. IT IS ANTICIPATED THAT SEVERAL LOCATIONS WITHIN THE WELCH COURT AND DRIVE PROJECT SITE WILL REQUIRE A 4-INCH ASPHALT PAVEMENT REMOVAL AND PATCH. PRIOR TO THE MILL AND OVERLAY, CONTRACTOR SHALL COORDINATE WITH TOWN AND ENGINEER TO IDENTIFY ALL LOCATIONS WHERE A 4-INCH PAVEMENT REMOVAL AND PATCH WILL BE NECESSARY (ESTIMATED AREA AT THE WELCH COURT AND DRIVE PROJECT SITE IS APPROXIMATELY 50 SQUARE YARDS).
5. IT IS ANTICIPATED THAT SEVERAL LOCATIONS WITHIN THE McCONNELL DRIVE PROJECT SITE WILL REQUIRE A 7-INCH ASPHALT PAVEMENT REMOVAL AND PATCH. PRIOR TO THE MILL AND OVERLAY, CONTRACTOR SHALL COORDINATE WITH TOWN AND ENGINEER TO IDENTIFY ALL LOCATIONS WHERE A 7-INCH PAVEMENT REMOVAL AND PATCH WILL BE NECESSARY (ESTIMATED AREA AT THE McCONNELL PROJECT SITE IS APPROXIMATELY 530 SQUARE YARDS).



PLAN  
SCALE: 1"=60'

NO.	DATE	BY	REVISION

NOTICE

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IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED

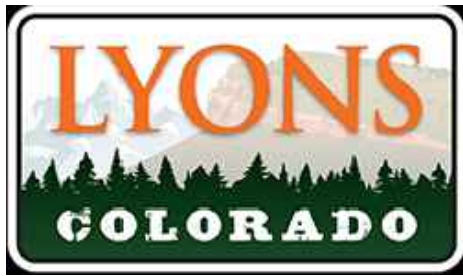
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BID SET

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MARCH 2023



2023  
PAVEMENT  
REHABILITATION

WELCH COURT , WELCH DR, &  
McCONNELL DR  
SITE LAYOUT

PROJECT NO.: 19-2529

SCALE: AS SHOWN

DATE: MARCH 2023

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PLAN  
SCALE: 1"=100'

**LEGEND**

CHIP SEAL WITH FOG SEAL 

- NOTES:**
1. PROTECT IN PLACE ALL CONCRETE CURB, GUTTER, SIDEWALK, AND CROSSPANS.
  2. ALL SIGNING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE CDOT M & S STANDARD PLANS, AND THE FHWA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
  3. LAYOUT OF CROSS WALK AND CROSS BAR STRIPING SHALL BE PER CDOT STANDARD PLAN S-627-1.
  4. CONTRACT SHALL FILL AND SEAL ALL OPEN CRACKS AND POTHoles AND REPLACE AREAS OF EXTENSIVE FATIGUE CRACKING, PRIOR TO PLACING THE CHIP SEAL.

NO.	DATE	BY	REVISION

NOTICE  
0 1/2 1  
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DESIGNED  
DRAWN  
CHECKED

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DO NOT USE FOR CONSTRUCTION  
MARCH 2023



**2023  
PAVEMENT  
REHABILITATION**

PROJECT NO.: 19-2529    SCALE: AS SHOWN    DATE: MARCH 2023

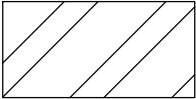
**STEAMBOAT VALLEY  
SITE LAYOUT**



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PLAN  
SCALE: 1"=60'

- LEGEND**
- CHIP SEAL WITH FOG SEAL 
- NOTES:**
1. PROTECT IN PLACE ALL CONCRETE CURB, GUTTER, SIDEWALK, AND CROSSPANS.
  2. ALL SIGNING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE CDOT M & S STANDARD PLANS, AND THE FHWA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
  3. LAYOUT OF CROSS WALK AND CROSS BAR STRIPING SHALL BE PER CDOT STANDARD PLAN S-627-1.
  4. CONTRACT SHALL FILL AND SEAL ALL OPEN CRACKS AND POTHOLES AND REPLACE AREAS OF EXTENSIVE FATIGUE CRACKING, PRIOR TO PLACING THE CHIP SEAL.

NO.	DATE	BY	REVISION

NOTICE  
0 1/2 1  
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MARCH 2023



**2023  
PAVEMENT  
REHABILITATION**

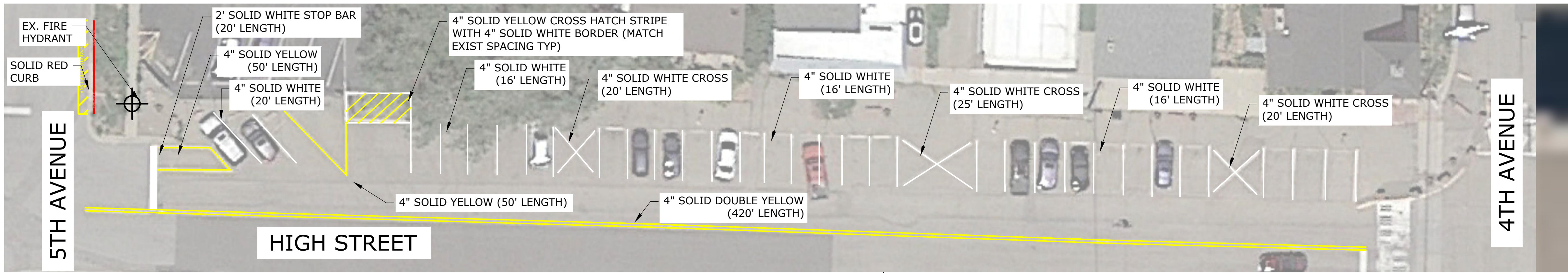
**EAGLE VALLEY  
SITE LAYOUT**

PROJECT NO.: 19-2529    SCALE: AS SHOWN    DATE: MARCH 2023

SHEET  
  
C-5  
  
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HIGH ST  
SCALE: 1"=20'

STRIPING NOTES

1. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE CDOT M & S STANDARD PLANS, AND THE FHWA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. CROSSWALK STRIPING SHOWN FOR REFERENCE ONLY. LAYOUT OF CROSS WALK STRIPING SHALL BE PER CDOT STANDARD PLAN S-627-1.
3. ALL PAVEMENT MARKINGS SHALL BE EPOXY PAINT.
4. ALL DIMENSIONS SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL MATCH THE DIMENSIONS OF THE EXISTING MARKINGS.
5. ALL YELLOW CURB PAINTING SHALL HAVE "NO PARKING" PAINTED IN WHITE EVERY 25 LINEAR FEET.
6. SITE OVERVIEWS
  - 6.1. HIGH STREET: ALL ROADWAY AND PARKING MARKINGS NORTH OF AND INCLUDING THE ROADWAY CENTERLINE BETWEEN 4TH AND 5TH AVENUE.
  - 6.2. RAILROAD AVENUE: ALL ROADWAY, PARKING, AND CURB MARKINGS BETWEEN 3RD AND 5TH AVENUE. THIS ALSO INCLUDES ALL PARKING MARKINGS BETWEEN RAILROAD AVENUE AND PARK DRIVE THAT IS ADJACENT TO TOWN HALL OR THE SHERIFF'S SUBSTATION. ALSO INCLUDED IS THE PARKING ON WEST SIDE OF 3RD AVENUE FROM BROADWAY TO PARK AVENUE AND PARKING ALONG 4TH AVENUE FROM MAIN STREET TO RAILROAD.



RAILROAD, 3RD AVE, AND 4TH AVE  
SCALE: 1"=40'

NO.	DATE	BY	REVISION

NOTICE  
0 1/2 1  
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MARCH 2023



2023  
STRIPING

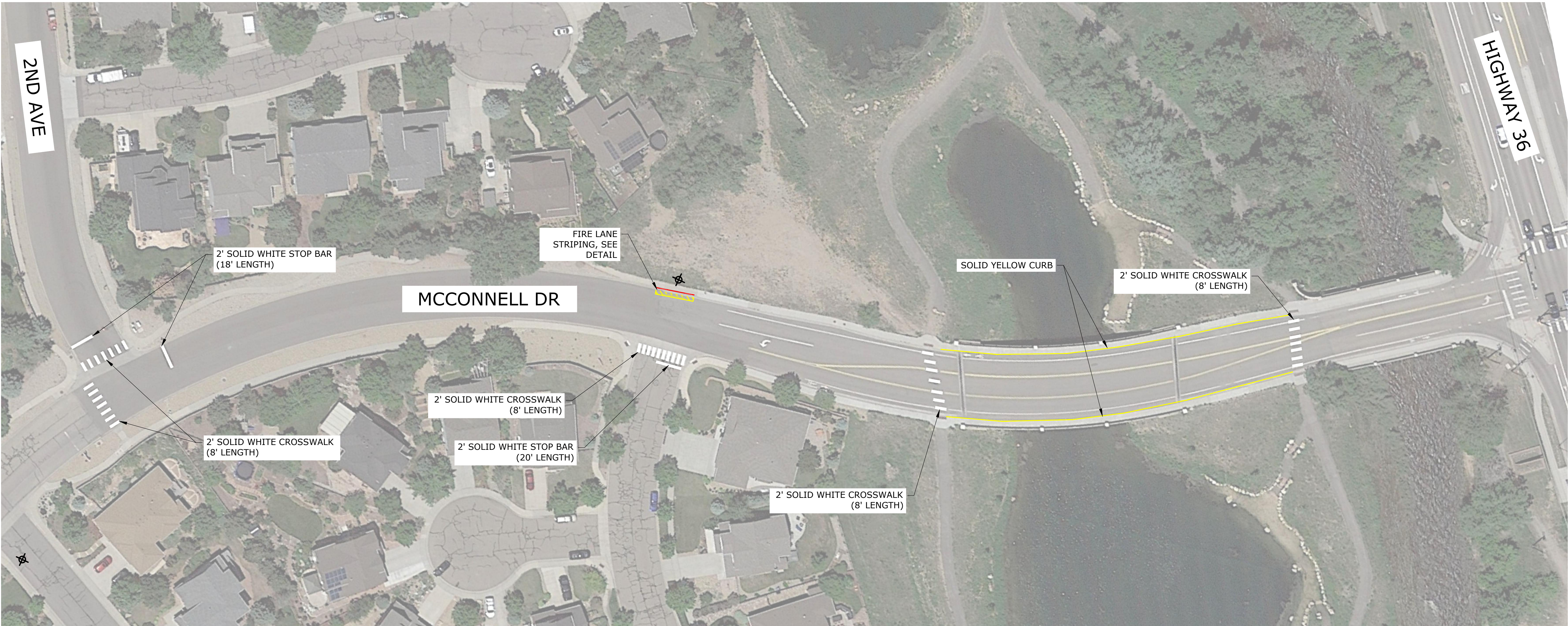
STRIPING SITE LAYOUT  
HIGH STREET &  
RAILROAD AVENUE

PROJECT NO.: 19-2529 SCALE: AS SHOWN DATE: MARCH 2023

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S-1  
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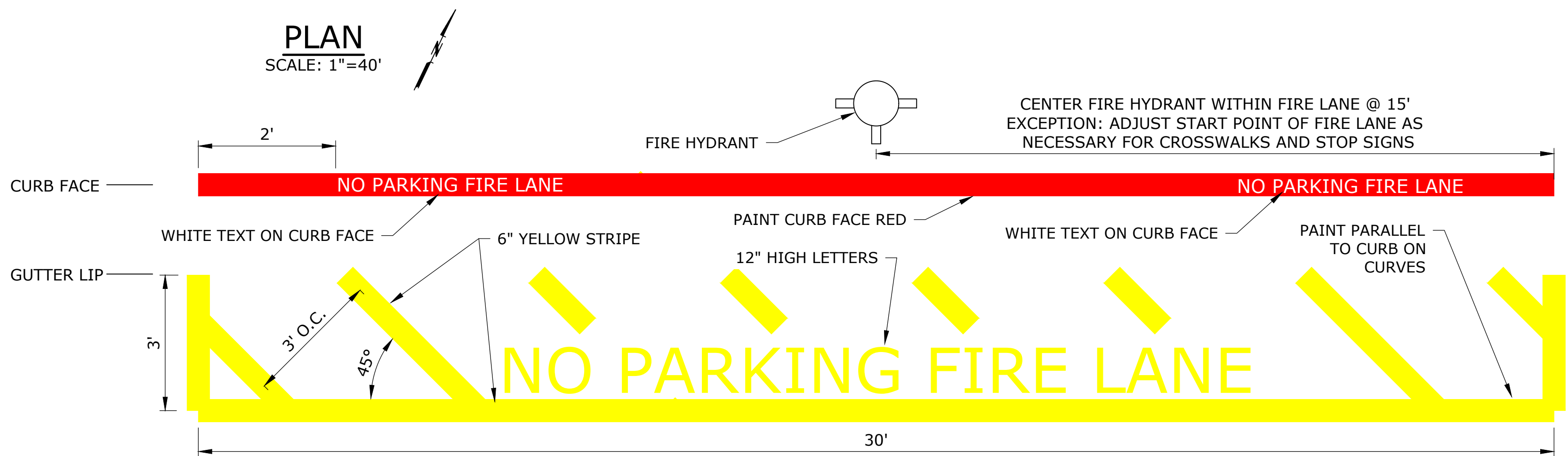


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STRIPING NOTES

1. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE CDOT M & S STANDARD PLANS, AND THE FHWA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
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3. ALL PAVEMENT MARKINGS SHALL BE EPOXY PAINT.
4. ALL DIMENSIONS SHOWN ON THE PLANS ARE APPROXIMATE. CONTRACTOR SHALL MATCH THE DIMENSIONS OF THE EXISTING MARKINGS.
5. ALL YELLOW CURB PAINTING SHALL HAVE "NO PARKING" PAINTED IN WHITE EVERY 25 LINEAR FEET.
6. SITE OVERVIEW
- 6.1. MCCONNELL DRIVE: ALL ROADWAY AND CURB MARKINGS BETWEEN 2ND AVENUE AND HIGHWAY 36, EXCEPT ANY EXISTING MARKING THAT IS THERMOPLASTIC, ANY LANE STRIPING, OR ANY MARKINGS WITHIN HIGHWAY 36 (CDOT) RIGHT OF WAY.



FIRE LANE DETAIL AT FIRE HYDRANTS

SCALE: 1"=40'

NO.	DATE	BY	REVISION

NOTICE
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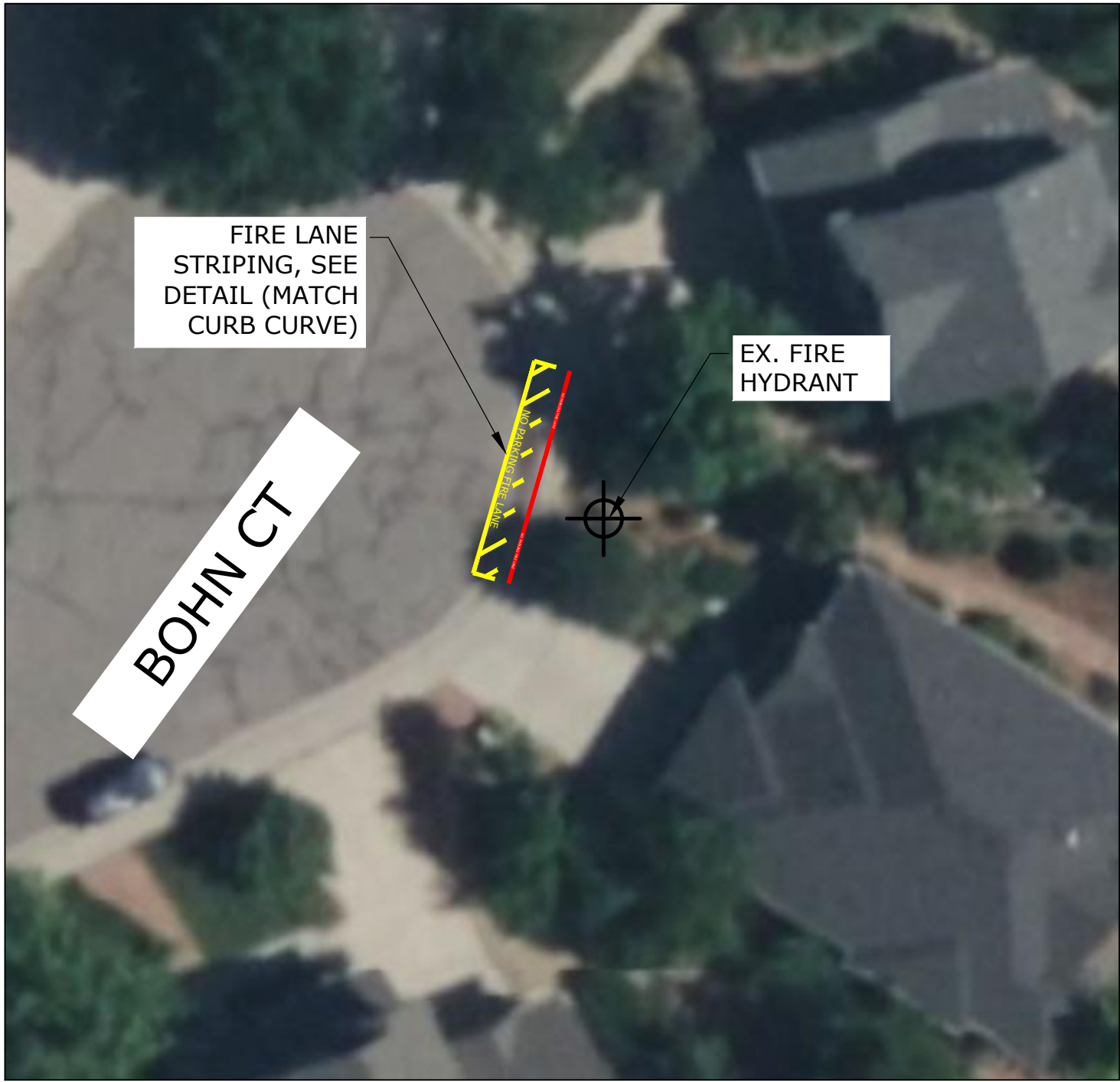
2023 STRIPING

STRIPING SITE LAYOUT			
MCCONNELL DRIVE			
PROJECT NO.: 19-2529	SCALE:	AS SHOWN	DATE: MARCH 2023

SHEET
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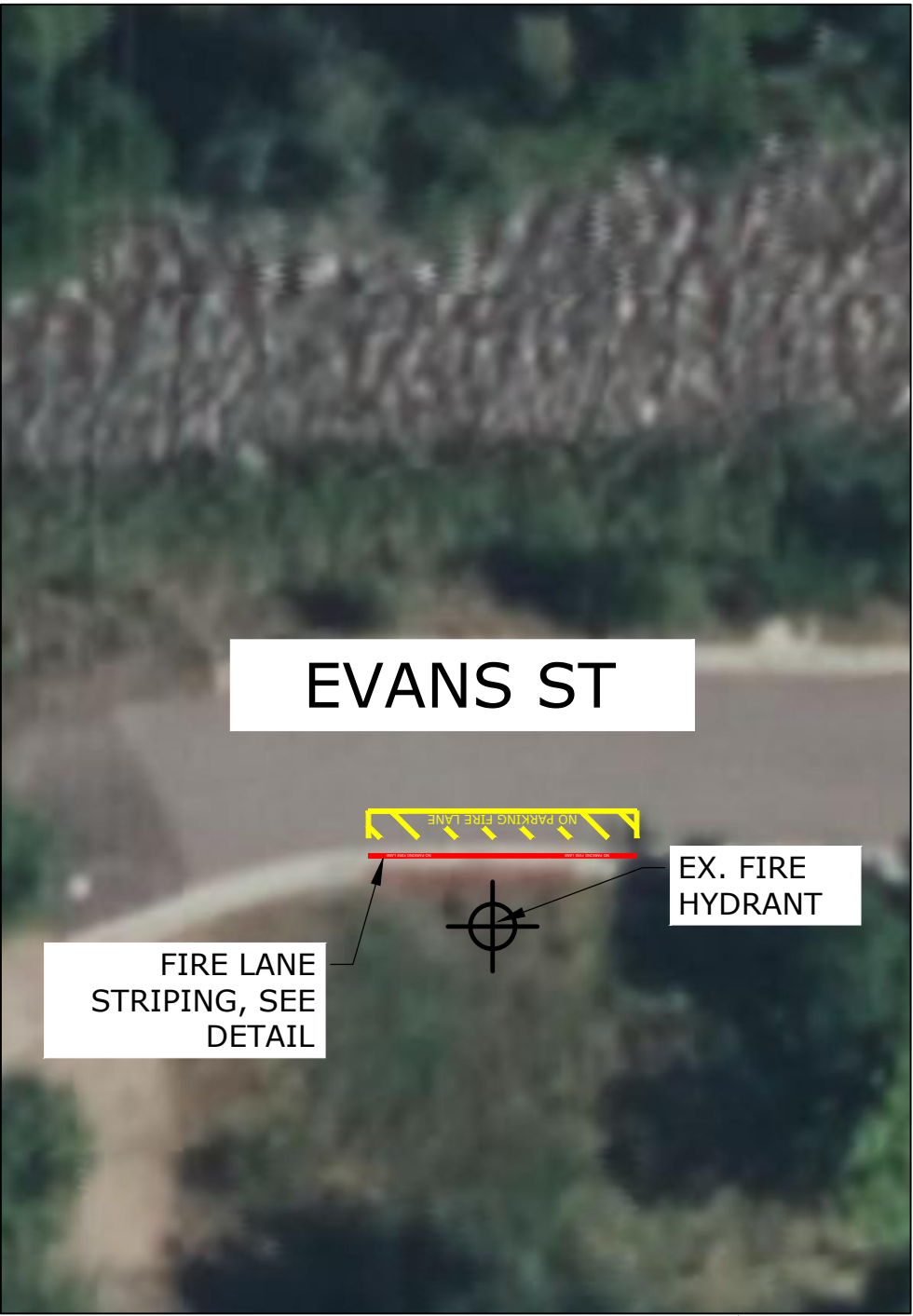
107 BOHN COURT  
SCALE: 1"=20'



342 4TH AVE  
SCALE: 1"=20'



EVANS ST & 5TH AVE  
SCALE: 1"=20'



535 EVANS ST  
SCALE: 1"=20'



114 PARK ST  
SCALE: 1"=20'



800 MOUNTAIN VIEW Dr  
SCALE: 1"=20'

STRIPING NOTES

1. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE CDOT M & S STANDARD PLANS, AND THE FHWA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
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5. ALL YELLOW CURB PAINTING SHALL HAVE "NO PARKING" PAINTED IN WHITE EVERY 25 LINEAR FEET.
6. SITE OVERVIEW
  - 6.1. VARIOUS FIRE LANE MARKINGS.

NO.	DATE	BY	REVISION

NOTICE

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MARCH 2023

LYONS

COLORADO

2023 STRIPING

STRIPING SITE LAYOUT  
VARIOUS LOCATIONS

PROJECT NO.: 19-2529SCALE: AS SHOWNDATE: MARCH 2023

SHEET

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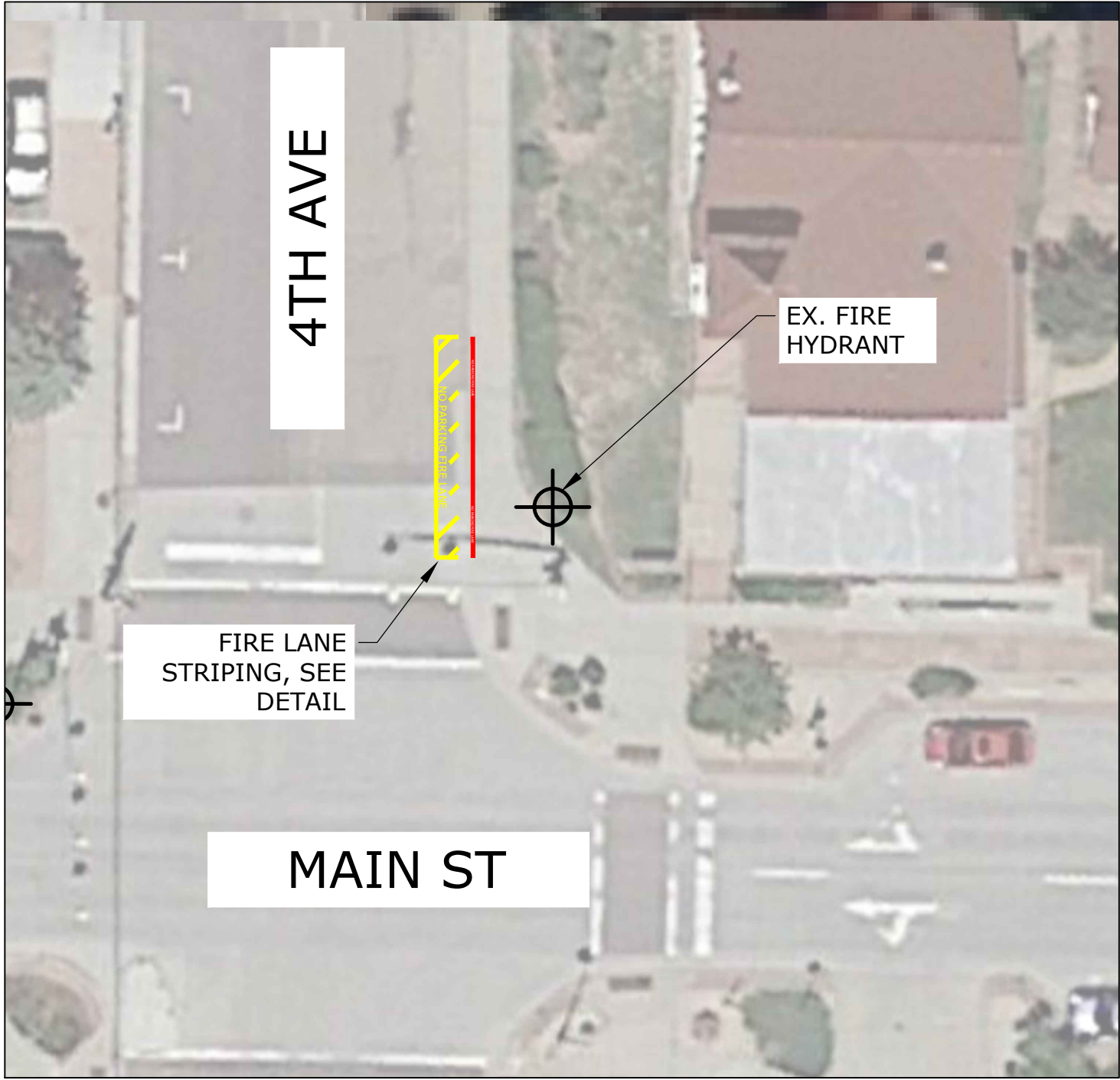
667 1ST AVE  
SCALE: 1"=20'



647 1ST AVE  
SCALE: 1"=20'



621 1ST AVE  
SCALE: 1"=20'



350 W MAIN ST  
SCALE: 1"=20'



340 HIGHT ST  
SCALE: 1"=20'

STRIPING NOTES

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6. SITE OVERVIEW
  - 6.1. VARIOUS FIRE LANE MARKINGS.

NO.	DATE	BY	REVISION

NOTICE

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MARCH 2023



2023  
STRIPING

STRIPING SITE LAYOUT  
VARIOUS LOCATIONS

PROJECT NO.: 19-2529SCALE: AS SHOWNDATE: MARCH 2023