

North Fish Hatchery Road Reconstruction

Public Meeting #3 Exhibits | April 8, 2019

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North Fish Hatchery Road Traffic Conditions Summary

Corridor Characteristics:

- Principal Arterial (regional traffic route)
- Reliever route for Verona Road and US Highway 14
- One of only three Beltline Crossings between USH 14 and Verona Road
- Urbanized corridor with 4 traffic signals that operate with high delays during peak hours.
- 2 additional traffic signals will be installed along the corridor (total of 6 signalized intersections).

Traffic Volumes:

- Currently serves between 33,700 to 38,500 vehicles per day (increases from south to north)
- The Greenway Cross intersection serves almost 5,000 vehicles during the afternoon peak hour
- Infill development is anticipated to increase traffic volumes along the corridor by 8,000 – 12,000 vehicles per day

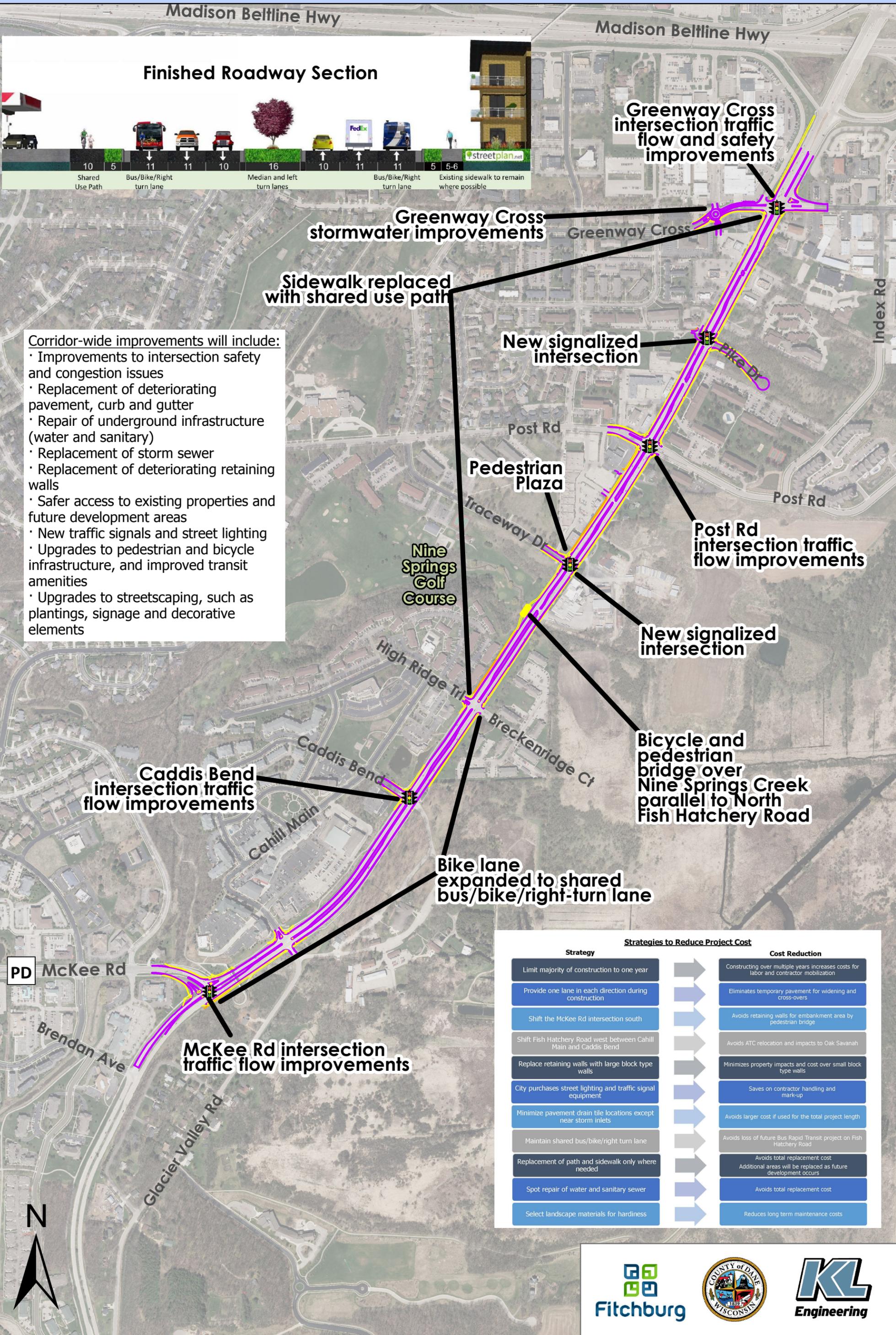
Safety and Crashes:

- 439 crashes reported along the corridor in 5 years (2013 – 2017)
- Majority of crashes intersection related
- Highest crash rates at the Greenway Cross and Post Road intersections
- High rate of rear-end crashes at Caddis Bend intersection

Traffic Flow and Congestion:

- Major congestion at the Greenway Cross intersection. Northbound traffic flow is unbalanced due to single lane EB Beltline Ramp entry (expansion would require WisDOT approval)
- High levels of congestion between Greenway Cross and Post Road
- Major congestion at the CTH PD intersection, especially on the west leg of McKee Road
- Moderate congestion at other intersections: Caddis Bend and Post Road

North Fish Hatchery Road -Corridor Improvements-



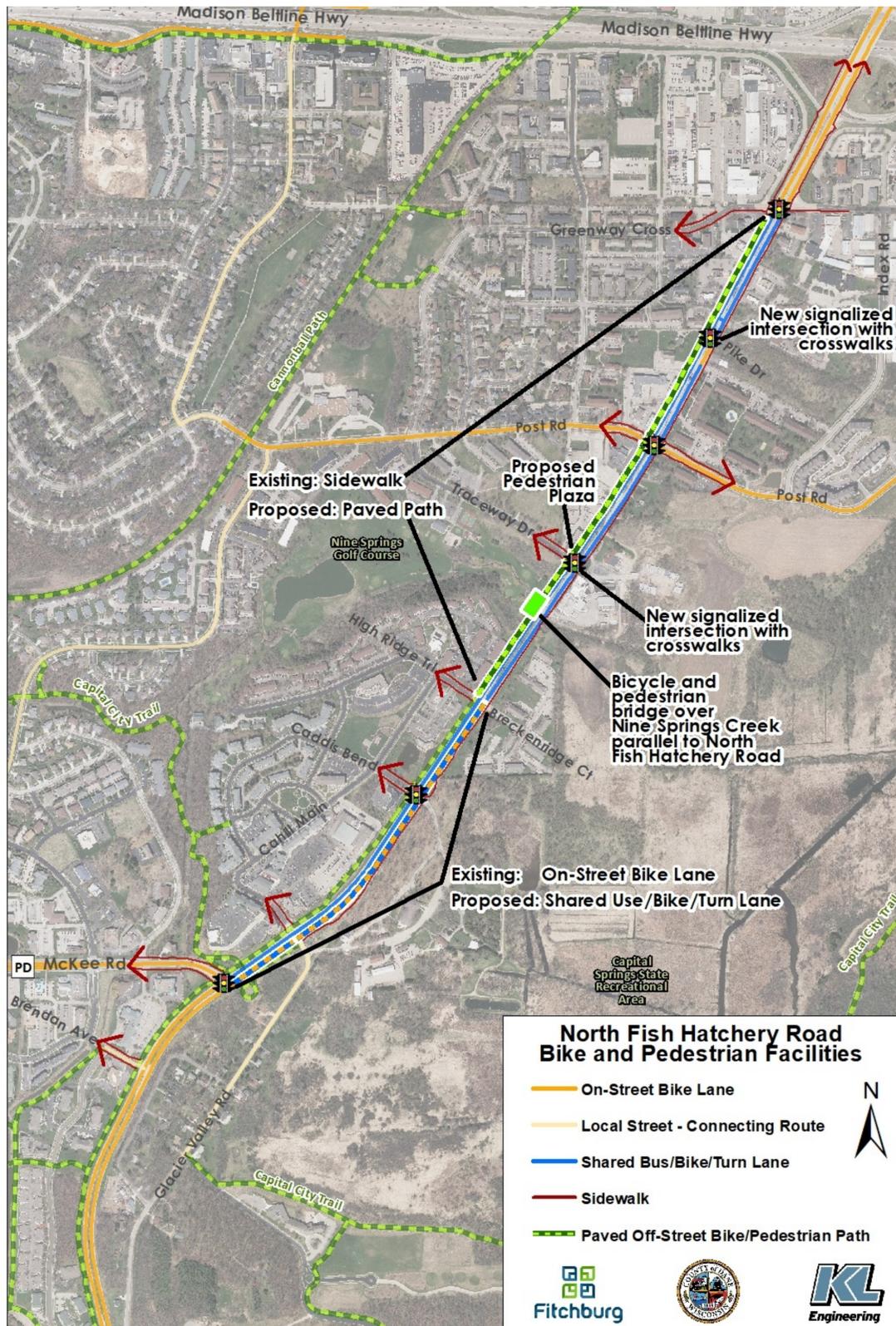
- Corridor-wide improvements will include:**
- Improvements to intersection safety and congestion issues
 - Replacement of deteriorating pavement, curb and gutter
 - Repair of underground infrastructure (water and sanitary)
 - Replacement of storm sewer
 - Replacement of deteriorating retaining walls
 - Safer access to existing properties and future development areas
 - New traffic signals and street lighting
 - Upgrades to pedestrian and bicycle infrastructure, and improved transit amenities
 - Upgrades to streetscaping, such as plantings, signage and decorative elements

Strategies to Reduce Project Cost

Strategy	Cost Reduction
Limit majority of construction to one year	Constructing over multiple years increases costs for labor and contractor mobilization
Provide one lane in each direction during construction	Eliminates temporary pavement for widening and cross-overs
Shift the McKee Rd intersection south	Avoids retaining walls for embankment area by pedestrian bridge
Shift Fish Hatchery Road west between Cahill Main and Caddis Bend	Avoids ATC relocation and impacts to Oak Savannah
Replace retaining walls with large block type walls	Minimizes property impacts and cost over small block type walls
City purchases street lighting and traffic signal equipment	Saves on contractor handling and mark-up
Minimize pavement drain tile locations except near storm inlets	Avoids larger cost if used for the total project length
Maintain shared bus/bike/right turn lane	Avoids loss of future Bus Rapid Transit project on Fish Hatchery Road
Replacement of path and sidewalk only where needed	Avoids total replacement cost. Additional areas will be replaced as future development occurs
Spot repair of water and sanitary sewer	Avoids total replacement cost
Select landscape materials for hardiness	Reduces long term maintenance costs

North Fish Hatchery Road

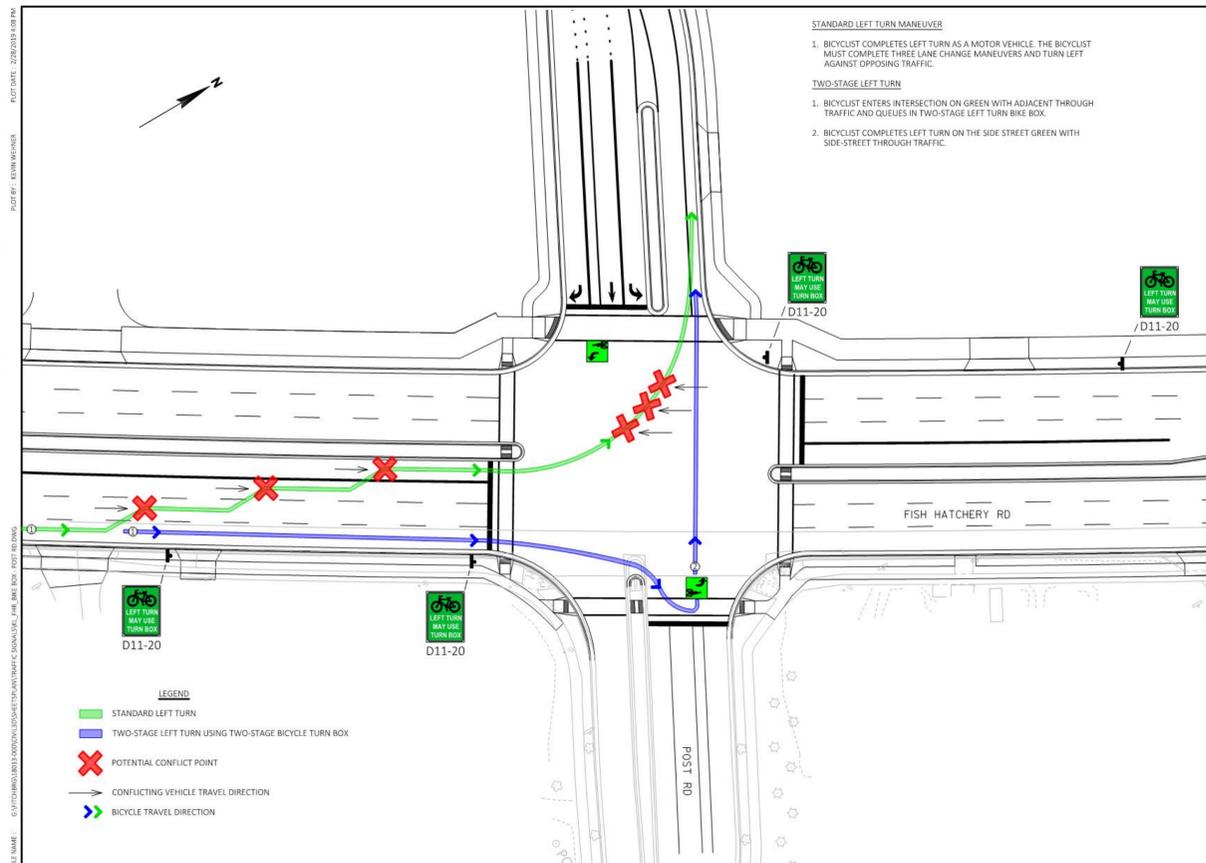
Existing and Proposed Bike and Pedestrian Facilities



Corridor-wide improvements will include:

- Street lighting with better illumination of the sidewalk and path
- Enhanced signing and pavement marking of the shared bus/bike/right turn lane
- Improved crosswalk markings including green crosswalks for path crossings of both roads and driveways
- ADA curb ramps
- Pedestrian actuated signals at signalized intersections
- Median refuges for Fish Hatchery Road crosswalks
- 2-stage bicycle turn boxes at appropriate intersections

Example Photos of Bicycle and Pedestrian Bridge over Nine Springs Creek



Two-Stage Left Turn Bike Boxes

A two-stage left turn (TSLT) bike box is a dedicated on-street bicycle accommodation that helps bicyclists make left turns. These pavement markings encourage cyclists to first proceed through the intersection, and then cross the road from the side street with side street through traffic. Two-stage left turn bike boxes consist of pavement markings that indicate a safe place for the cyclist to wait, and bicycle detection at those locations.

Two-stage left turn bike boxes are currently approved by the FHWA on an interim basis. According to the FHWA, they "have been part of international practice for many years." They are commonly used in conjunction with green colored pavement markings to increase visibility.

Advantages of two-stage left turn bike boxes include the elimination of several conflict points associated with left turns. Most notable for the Fish Hatchery Road corridor is the elimination of the need for lane changes to access the left turn lane from the bike lane, a maneuver that occurs across heavy traffic.

TSLT bike boxes are being considered at some locations along the Fish Hatchery Road Reconstruction project. Locations being considered include those where left turns could be otherwise difficult for bicyclists to make. Other criteria include factors that enhance the benefit of TSLT bike boxes such as the presence of adjacent on-street bicycle facilities, as well as compatibility with vehicular lane assignments.

Advantages:

- Fewer potential conflict points with vehicular traffic.
- More comfortable for less confident cyclists.
- Clearly indicates location of bicycle detection.

Disadvantages:

- Additional left turn delay.
- Not yet familiar for SW WI bicyclists.
- Additional pavement marking maintenance.

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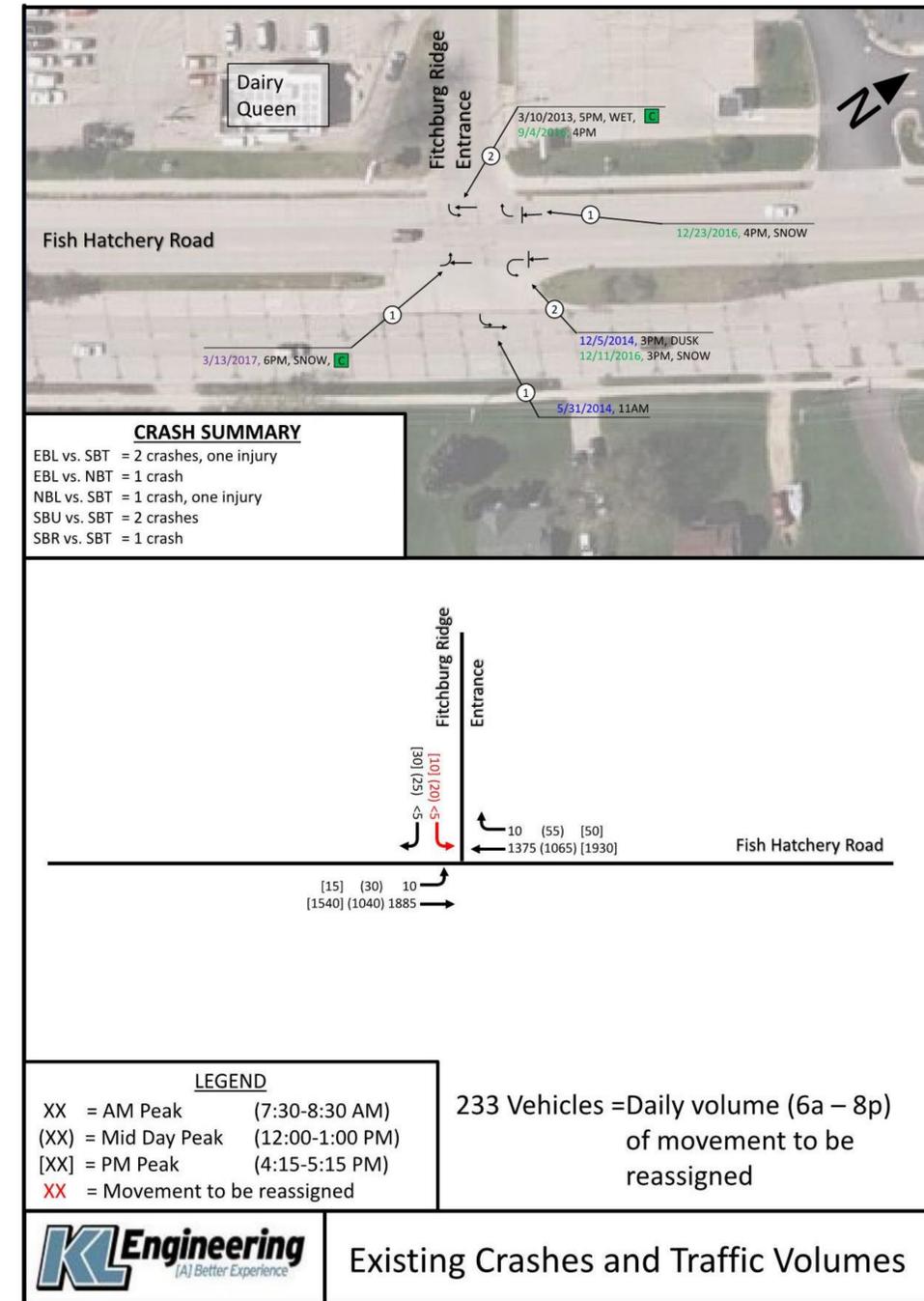
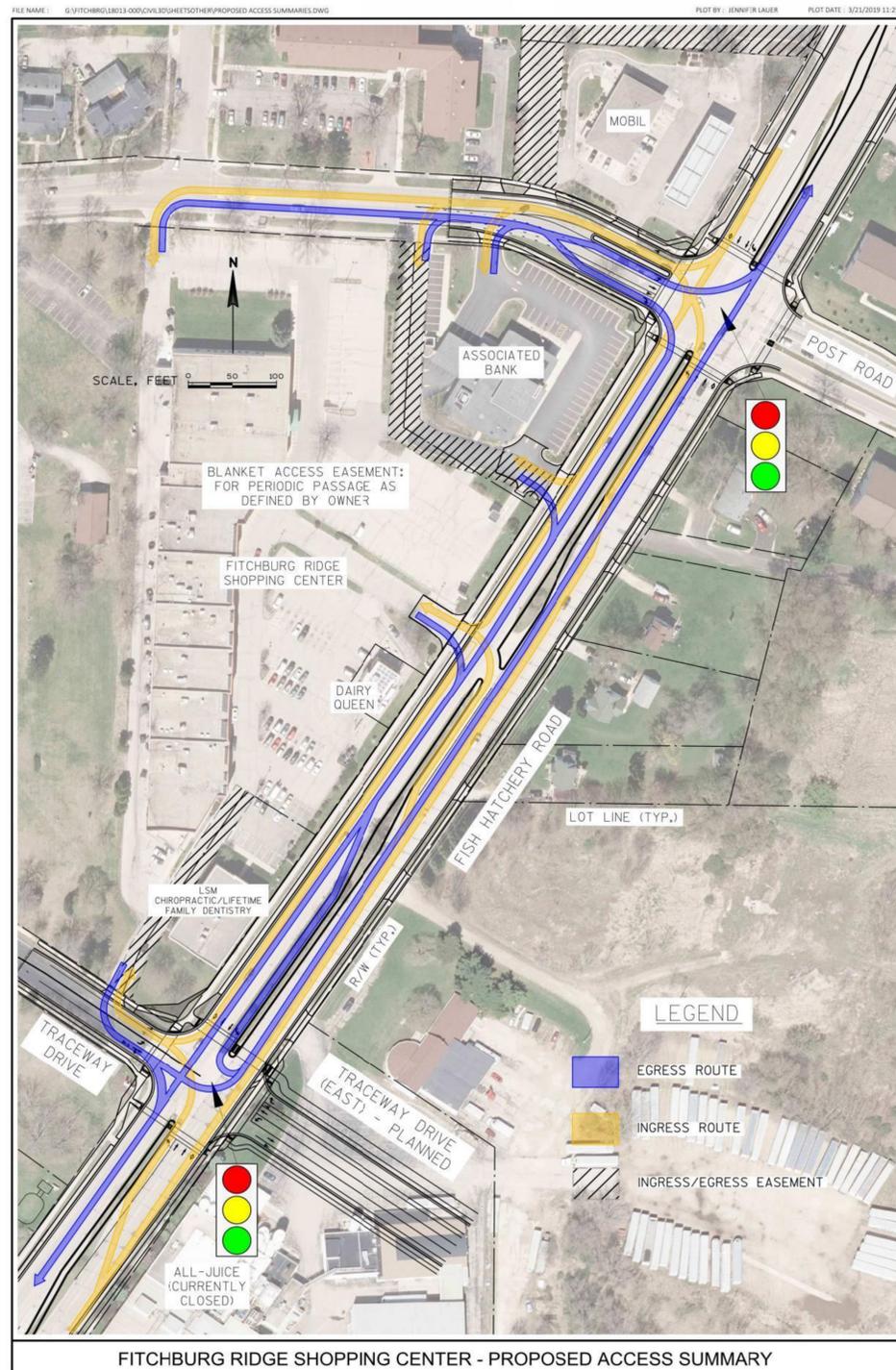
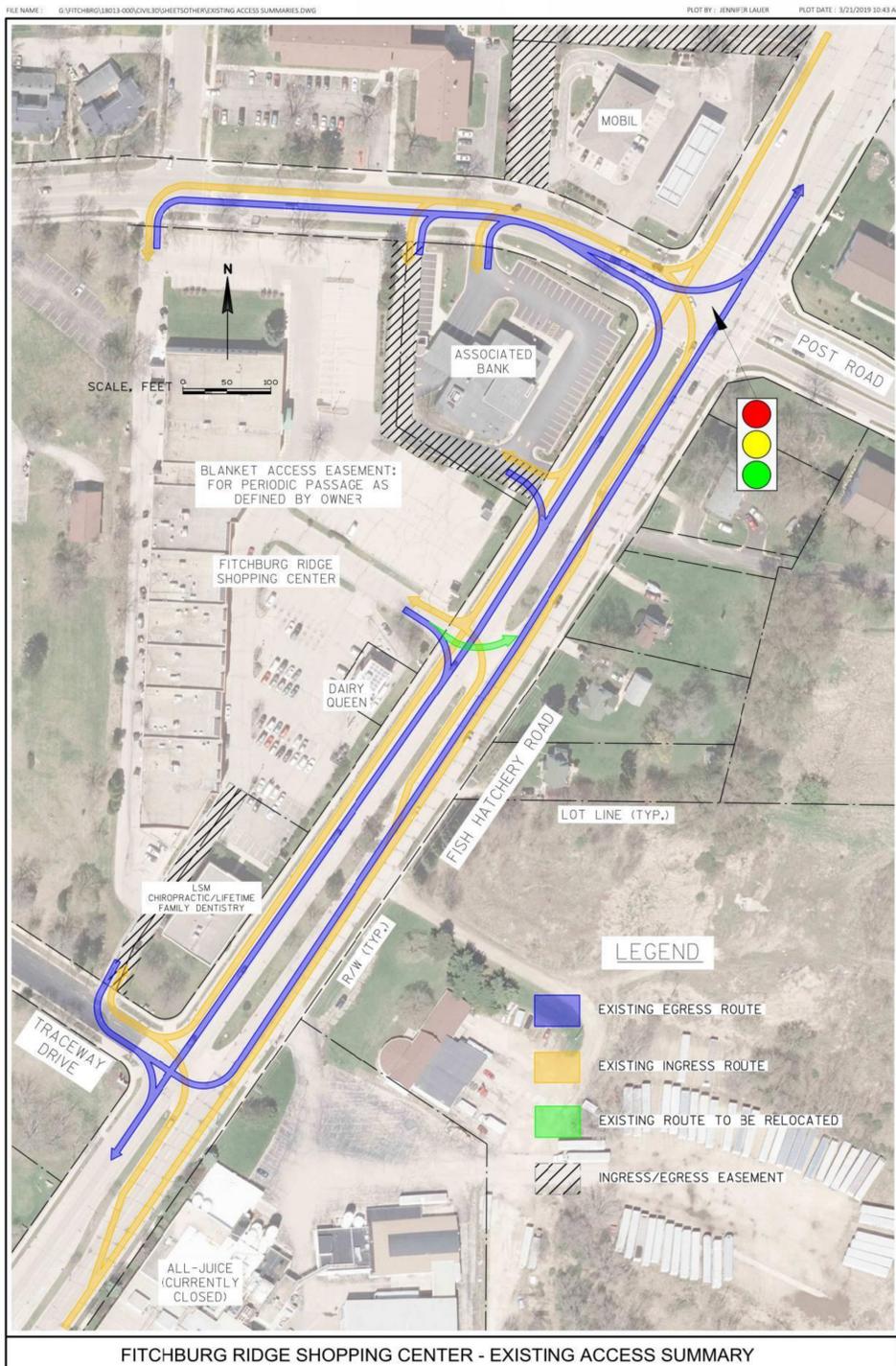
TWO-STAGE BICYCLE TURN BOX CONCEPTUAL LAYOUT

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Example Photo of green crosswalk University Ave, City of Madison

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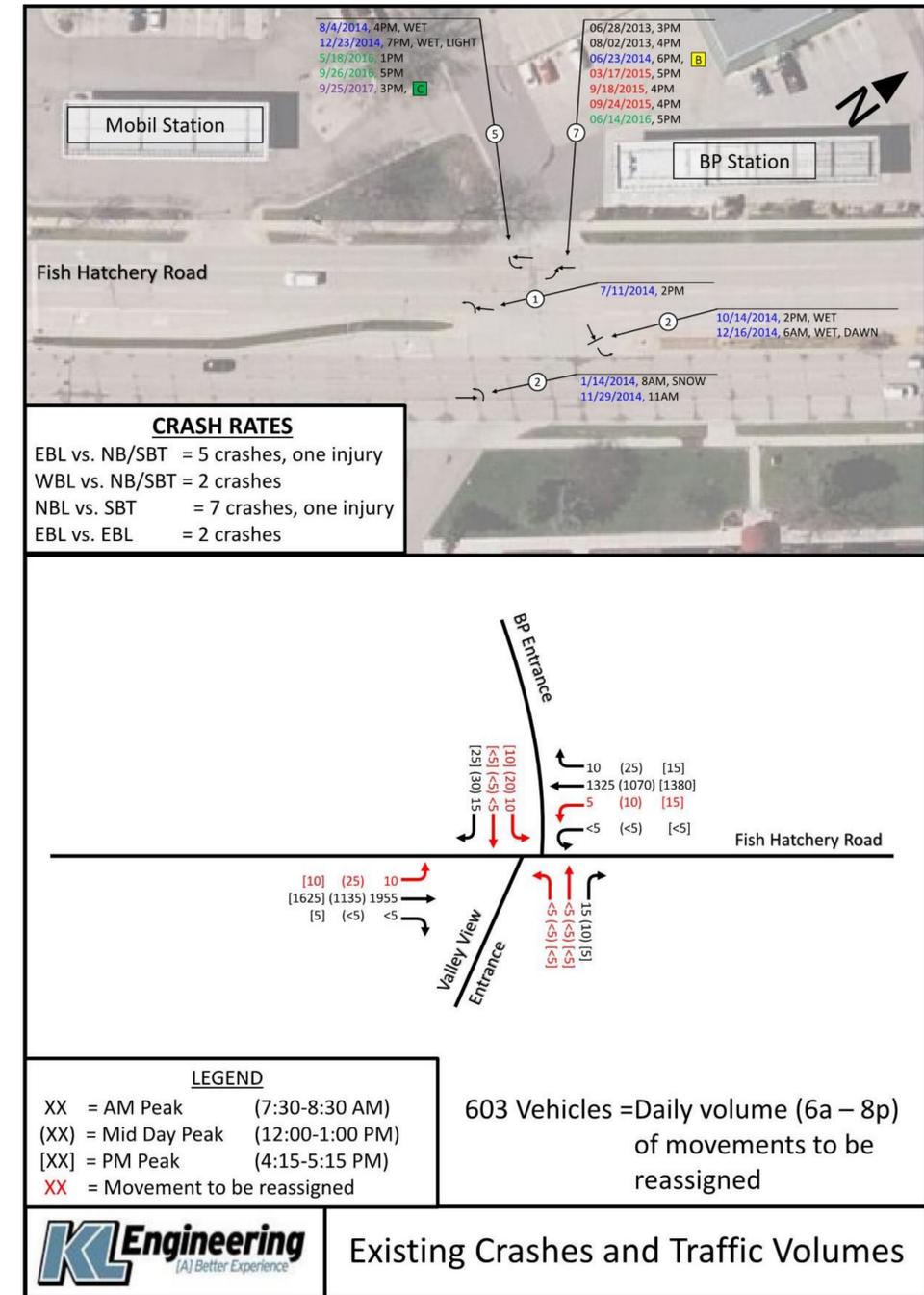
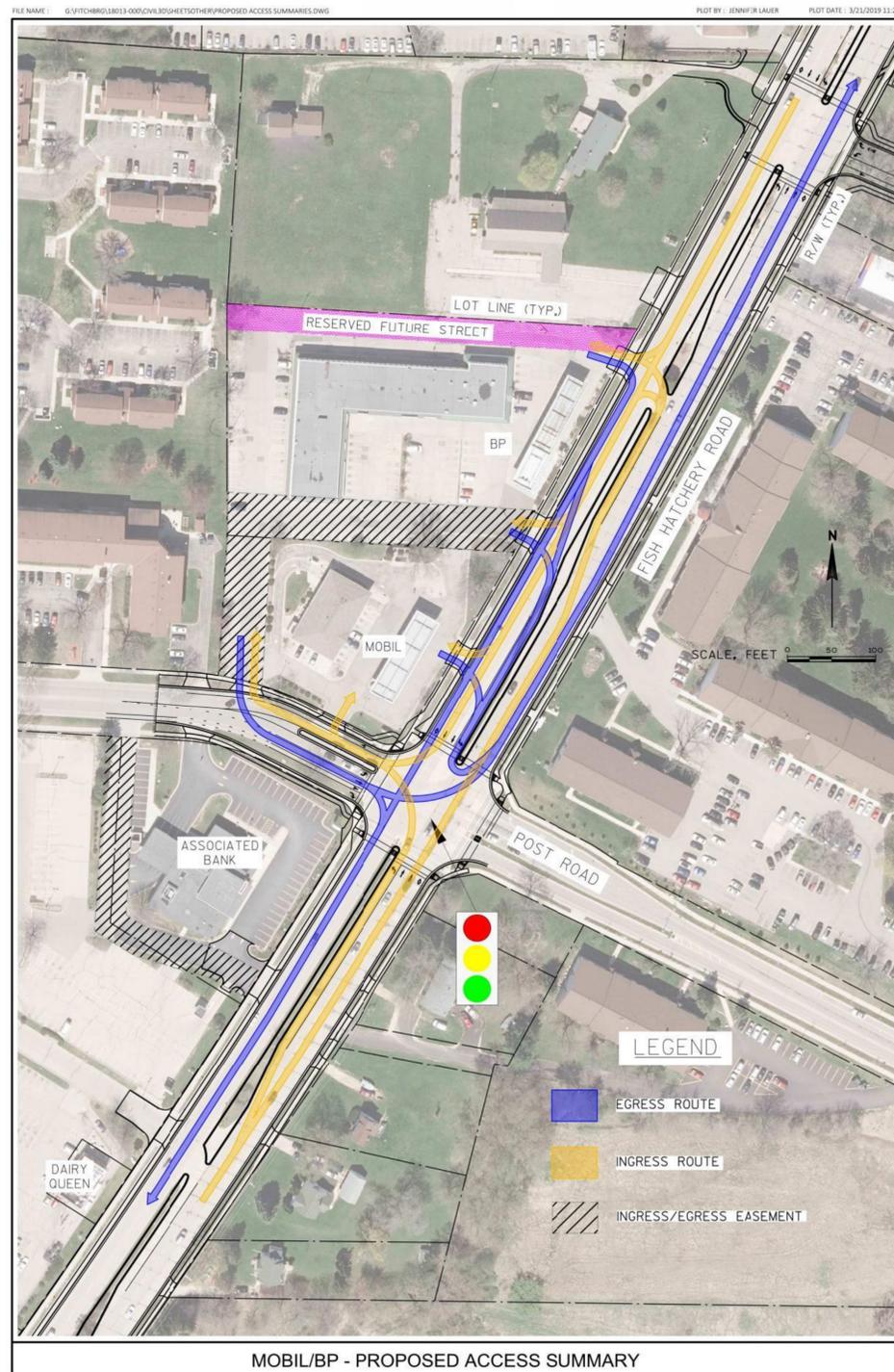
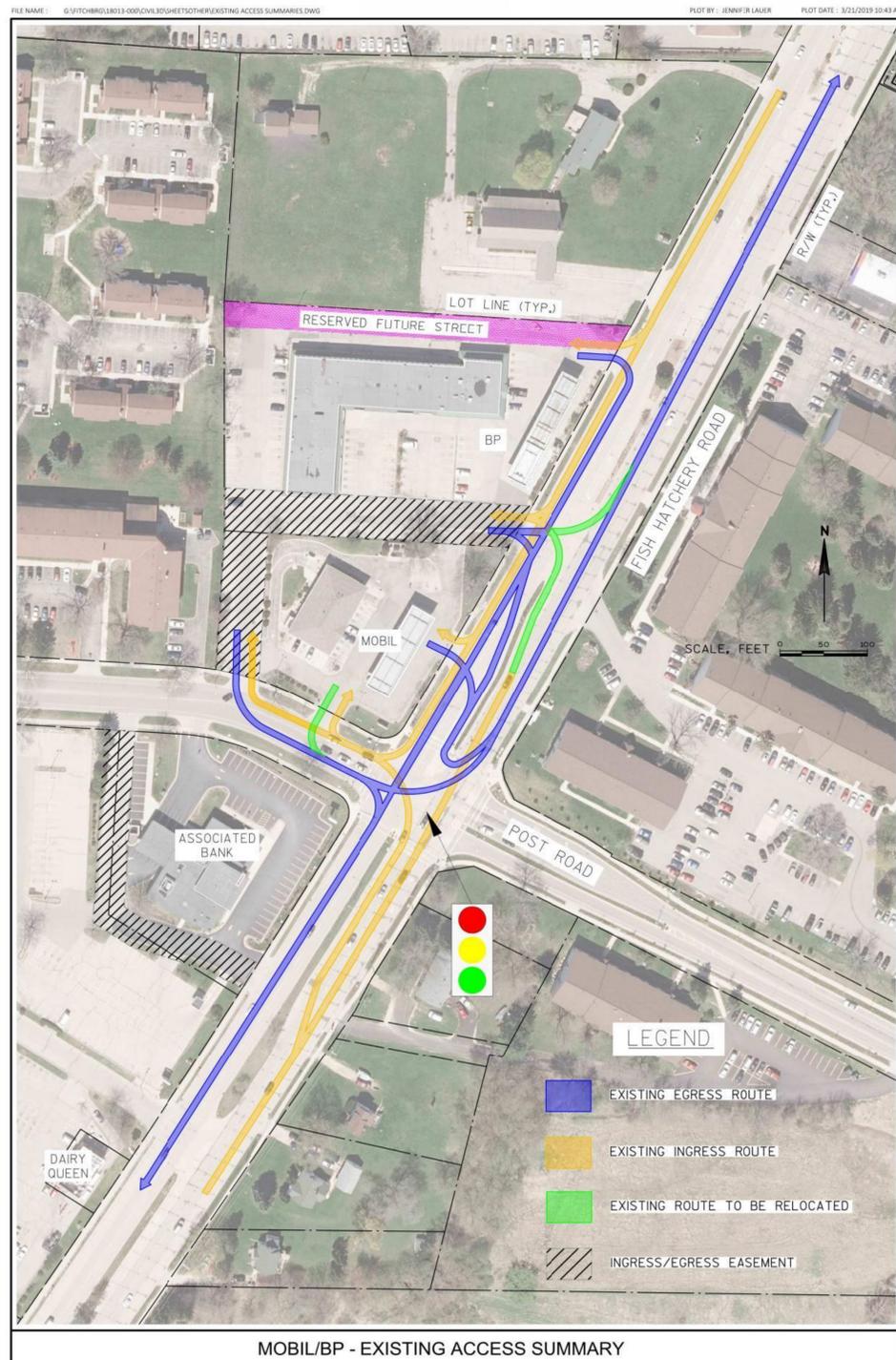
North Fish Hatchery Road Median Access Modifications Fitchburg Ridge Shopping Center



Summary

Left turns out of the Fitchburg Ridge Shopping Center driveway onto Fish Hatchery Road are over 15 times more likely to be involved in a crash than side-street left turns from the nearby traffic signals.

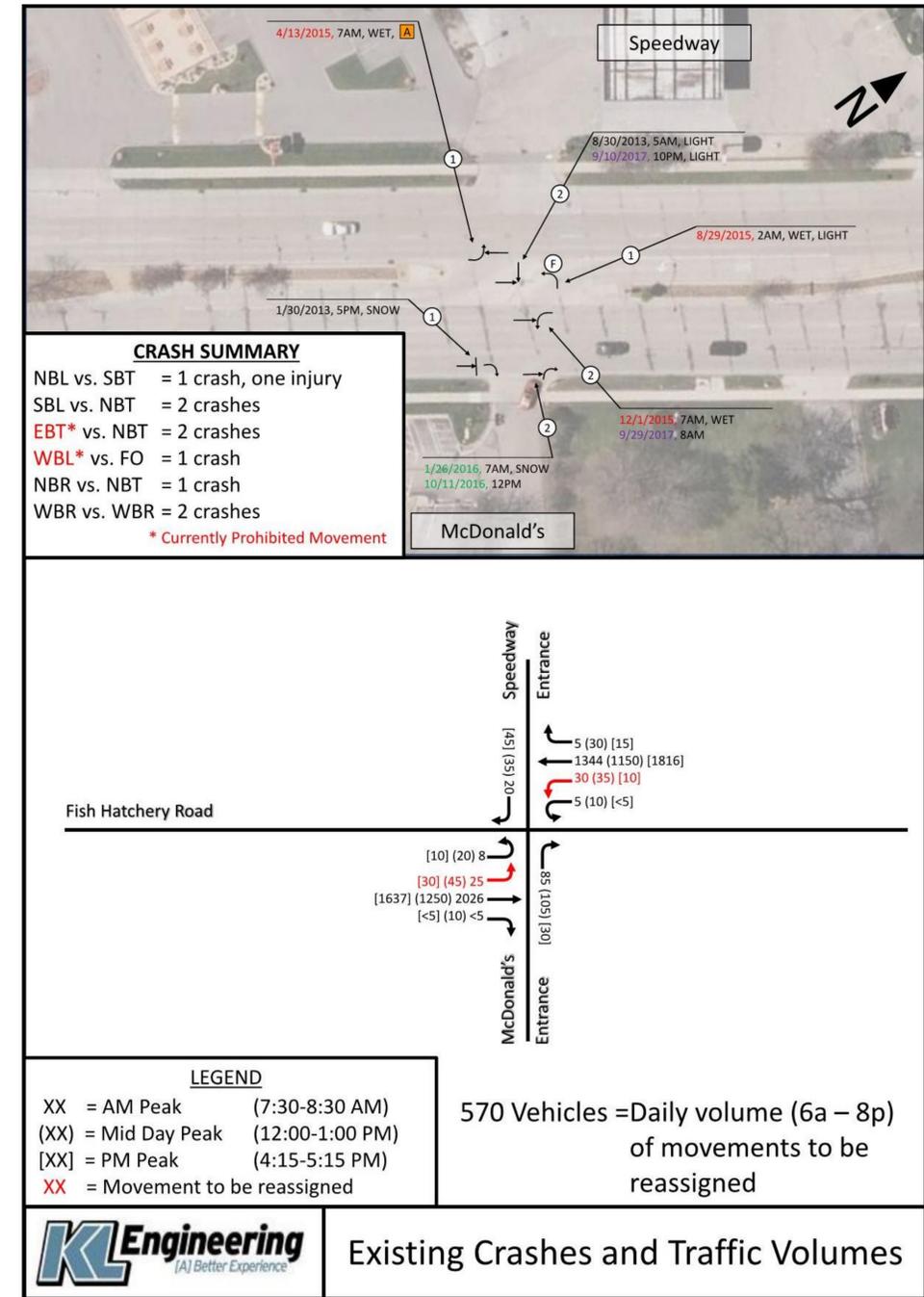
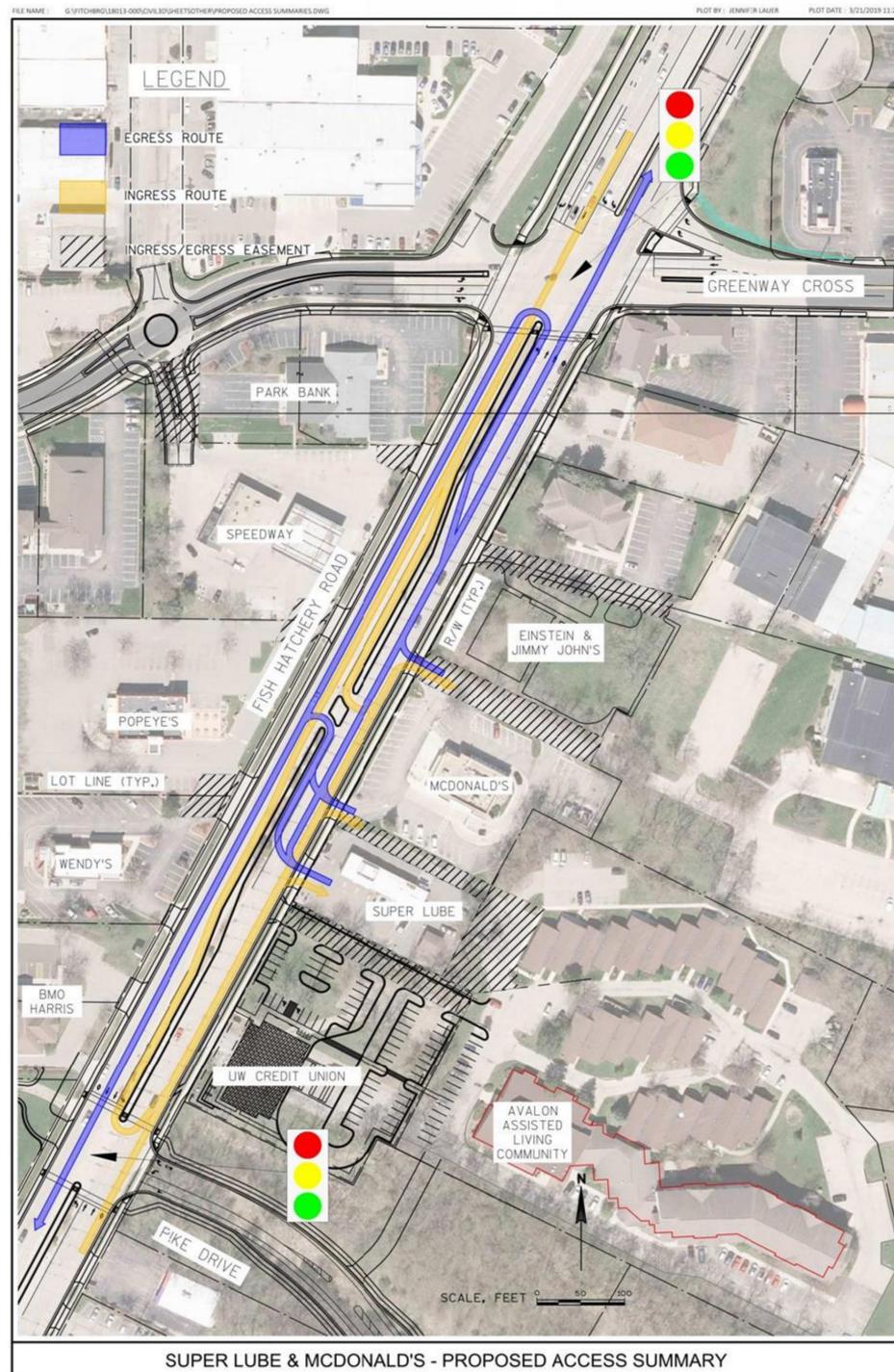
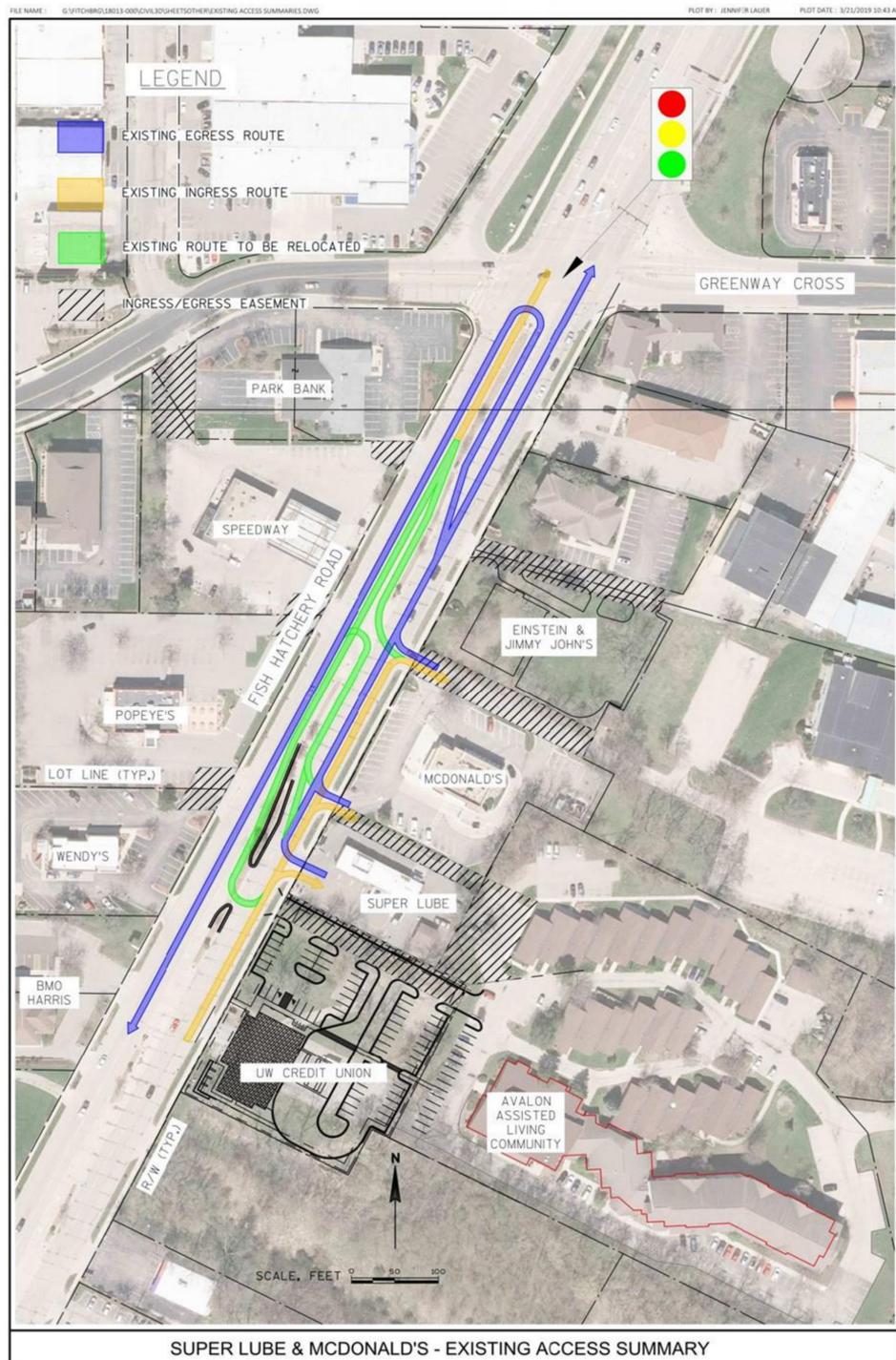
North Fish Hatchery Road Median Access Modifications Mobil/BP Entrance



Summary

Left turns out of BP/Mobil onto Fish Hatchery Road are over 40 times more likely to be involved in a crash than side-street left turns from the nearby traffic signals.

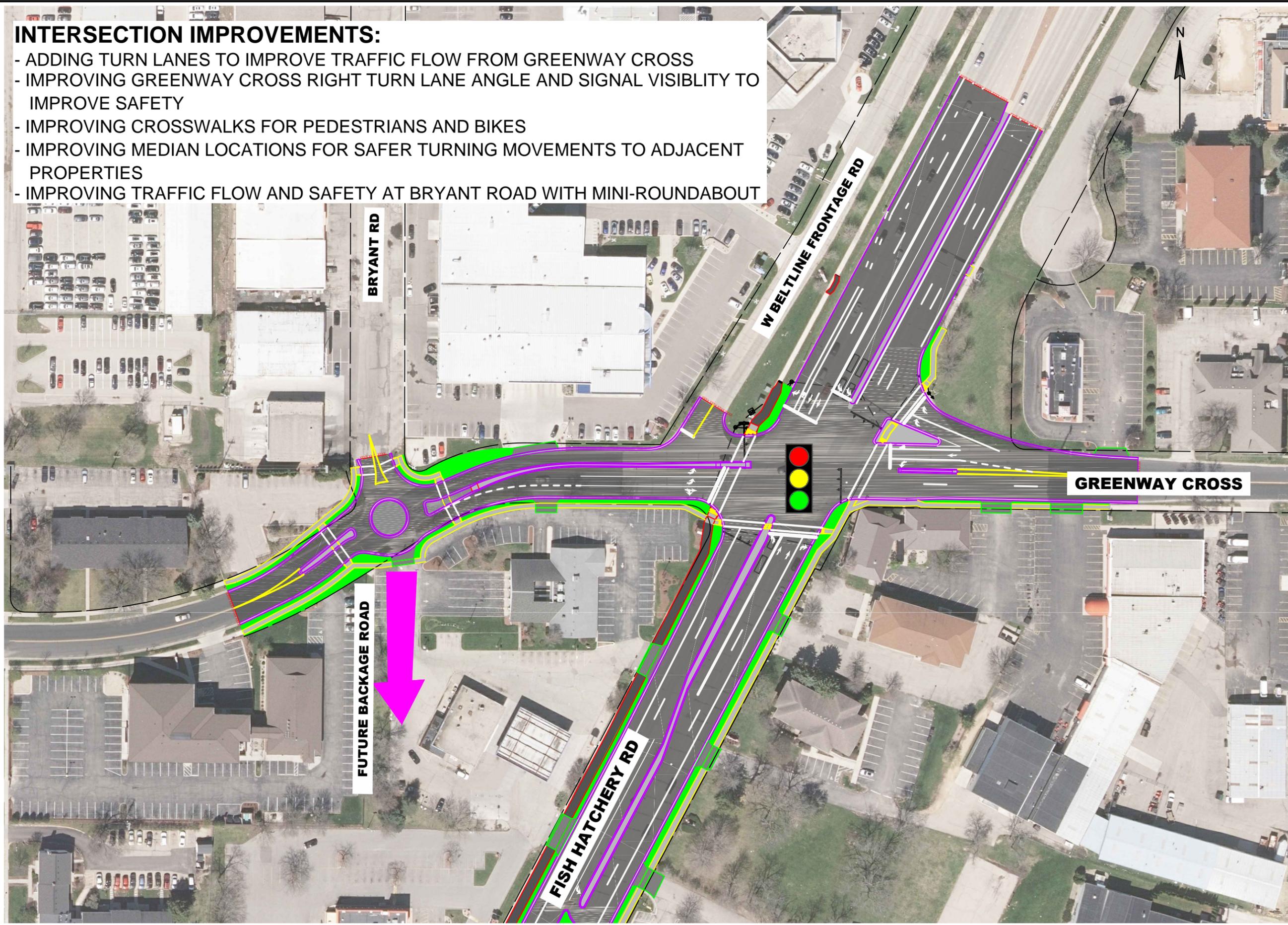
North Fish Hatchery Road Median Access Modifications Super Lube and McDonald's Entrance



Summary
 Contributing factors to these median opening crashes are believed to be the proximity to the Greenway Cross intersection and non-compliance with existing access restrictions.

INTERSECTION IMPROVEMENTS:

- ADDING TURN LANES TO IMPROVE TRAFFIC FLOW FROM GREENWAY CROSS
- IMPROVING GREENWAY CROSS RIGHT TURN LANE ANGLE AND SIGNAL VISIBILITY TO IMPROVE SAFETY
- IMPROVING CROSSWALKS FOR PEDESTRIANS AND BIKES
- IMPROVING MEDIAN LOCATIONS FOR SAFER TURNING MOVEMENTS TO ADJACENT PROPERTIES
- IMPROVING TRAFFIC FLOW AND SAFETY AT BRYANT ROAD WITH MINI-ROUNDOABOUT



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GREENWAY CROSS INTERSECTION

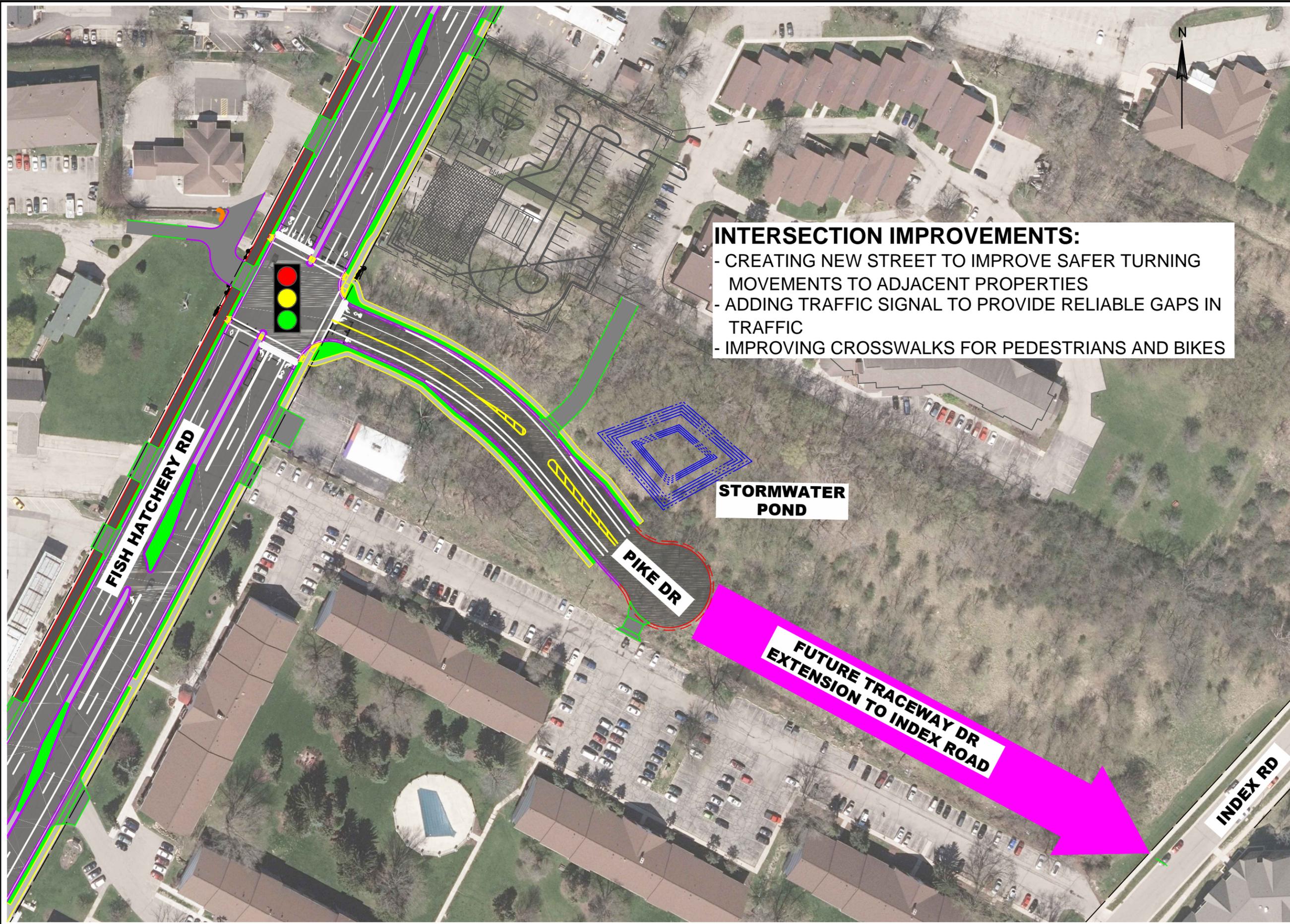
Project No: 19-3488
 Date: MARCH 2019
 Designed By: MDP
 Drafted By: XXX
 Checked By: XXXX

Revisions: XX-XX-XXXX
 SCALE, FEET



SHEET NO.

1 OF 1



- INTERSECTION IMPROVEMENTS:**
- CREATING NEW STREET TO IMPROVE SAFER TURNING MOVEMENTS TO ADJACENT PROPERTIES
 - ADDING TRAFFIC SIGNAL TO PROVIDE RELIABLE GAPS IN TRAFFIC
 - IMPROVING CROSSWALKS FOR PEDESTRIANS AND BIKES



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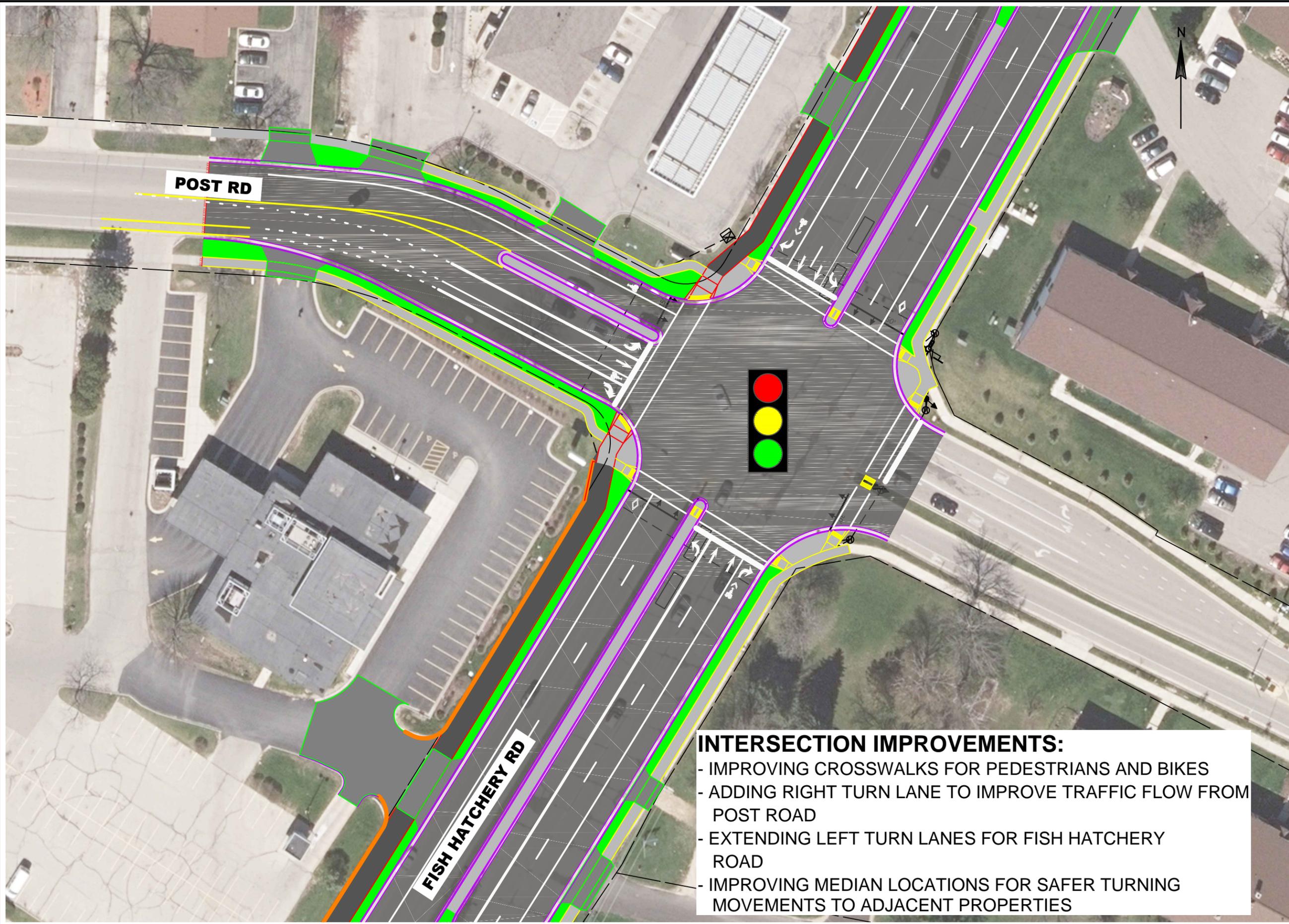
PIKE DRIVE INTERSECTION

Project No: 19-3488
 Date: 02-13-2019
 Designed By: MDP
 Drafted By: XXX
 Checked By: XXXX

Revisions: 03-22-2019
 SCALE, FEET



SHEET NO.



- INTERSECTION IMPROVEMENTS:**
- IMPROVING CROSSWALKS FOR PEDESTRIANS AND BIKES
 - ADDING RIGHT TURN LANE TO IMPROVE TRAFFIC FLOW FROM POST ROAD
 - EXTENDING LEFT TURN LANES FOR FISH HATCHERY ROAD
 - IMPROVING MEDIAN LOCATIONS FOR SAFER TURNING MOVEMENTS TO ADJACENT PROPERTIES



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POST ROAD INTERSECTION

Project No: 19-3488

Date: 02-15-2019

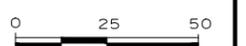
Designed By: MDP

Drafted By: XXX

Checked By: XXXX

Revisions: XX-XX-XXXX

SCALE, FEET

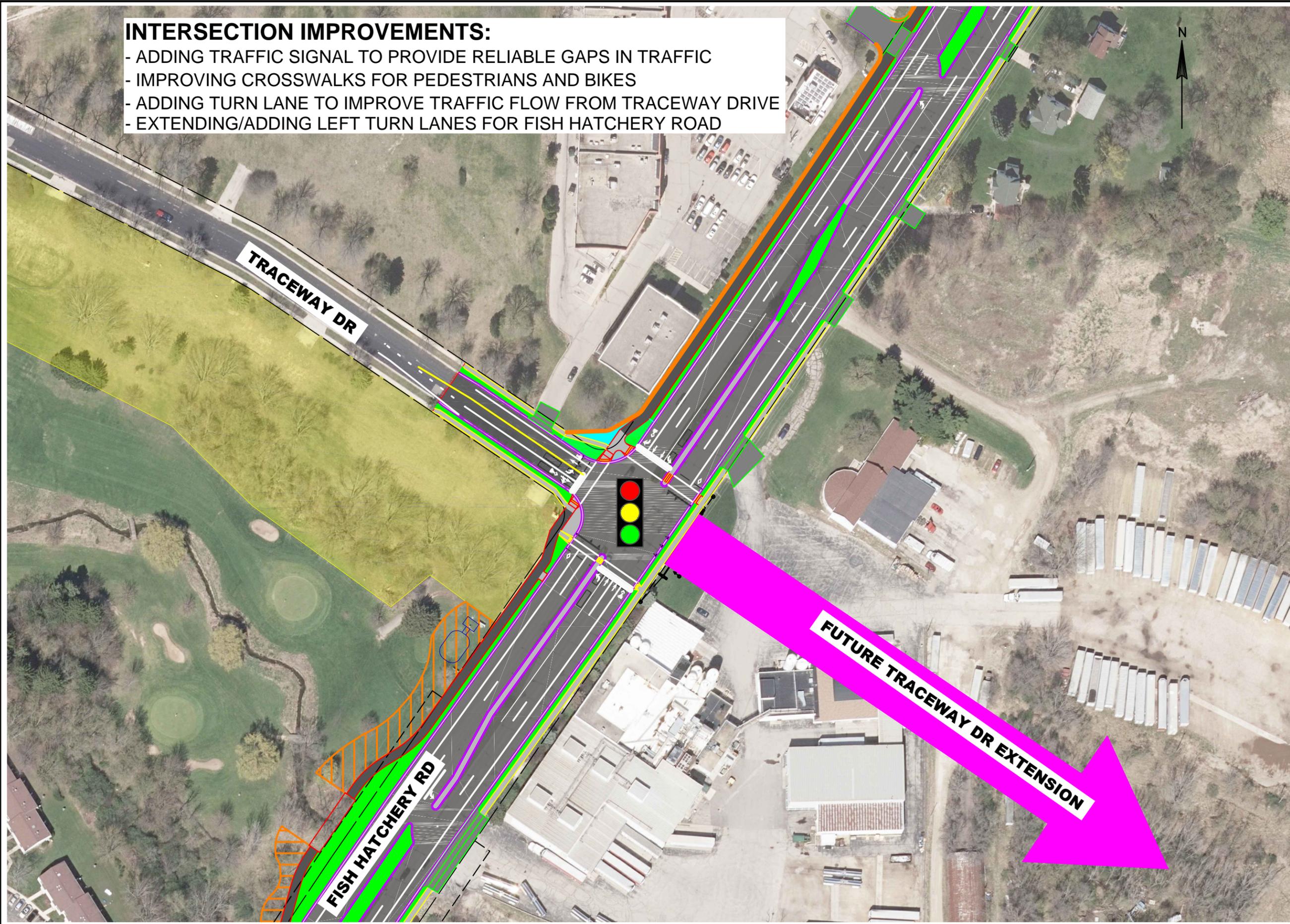


SHEET NO.

1 OF 1

INTERSECTION IMPROVEMENTS:

- ADDING TRAFFIC SIGNAL TO PROVIDE RELIABLE GAPS IN TRAFFIC
- IMPROVING CROSSWALKS FOR PEDESTRIANS AND BIKES
- ADDING TURN LANE TO IMPROVE TRAFFIC FLOW FROM TRACEWAY DRIVE
- EXTENDING/ADDING LEFT TURN LANES FOR FISH HATCHERY ROAD



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TRACEWAY DRIVE
INTERSECTION

Project No: XXXXXX-XX
Date: XX-XX-XXXX
Designed By: XXX
Drafted By: XXX
Checked By: XXXX

Revisions: XX-XX-XXXX
SCALE, FEET

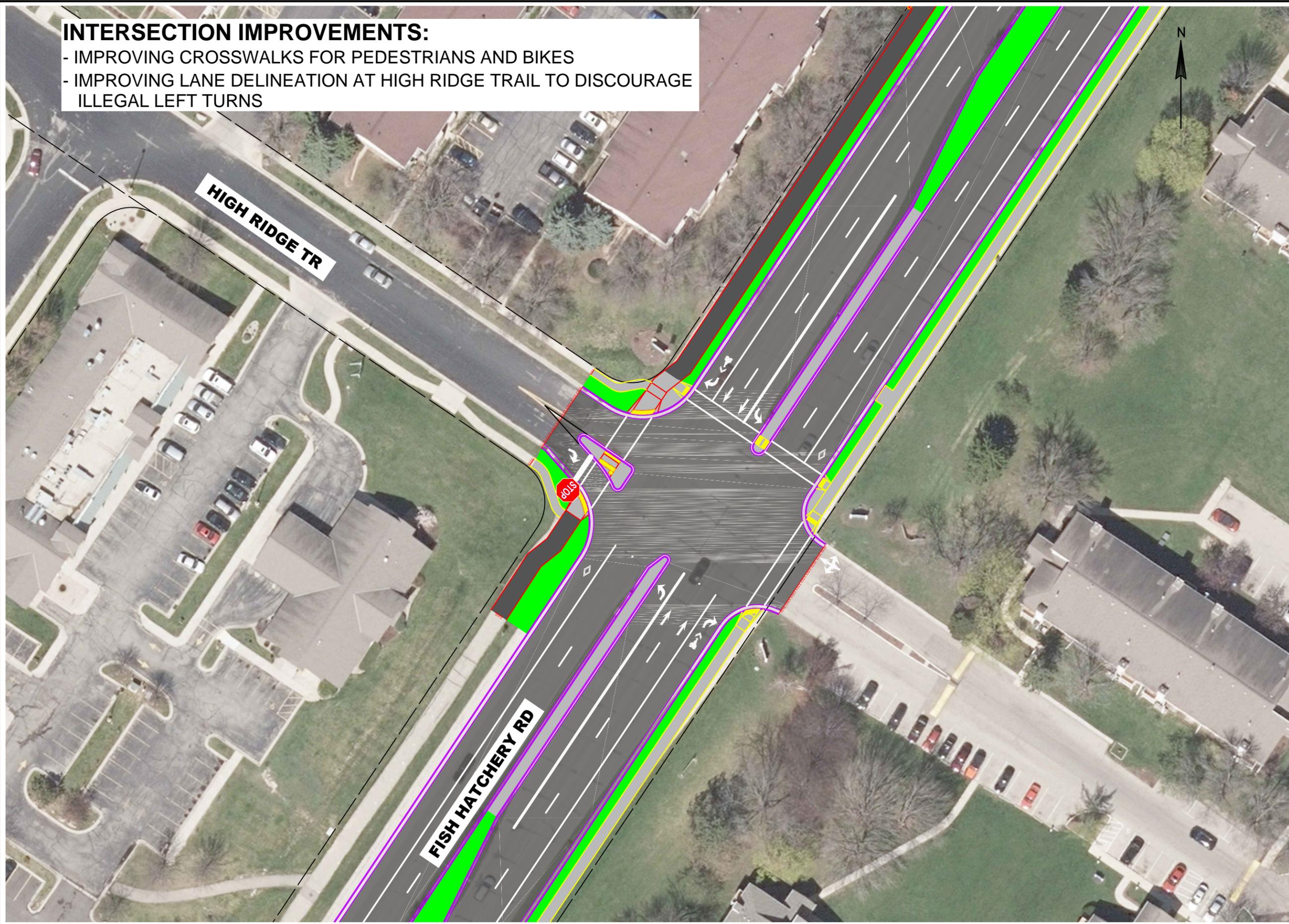


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1 OF 1

INTERSECTION IMPROVEMENTS:

- IMPROVING CROSSWALKS FOR PEDESTRIANS AND BIKES
- IMPROVING LANE DELINEATION AT HIGH RIDGE TRAIL TO DISCOURAGE ILLEGAL LEFT TURNS



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HIGH RIDGE TRAIL INTERSECTION

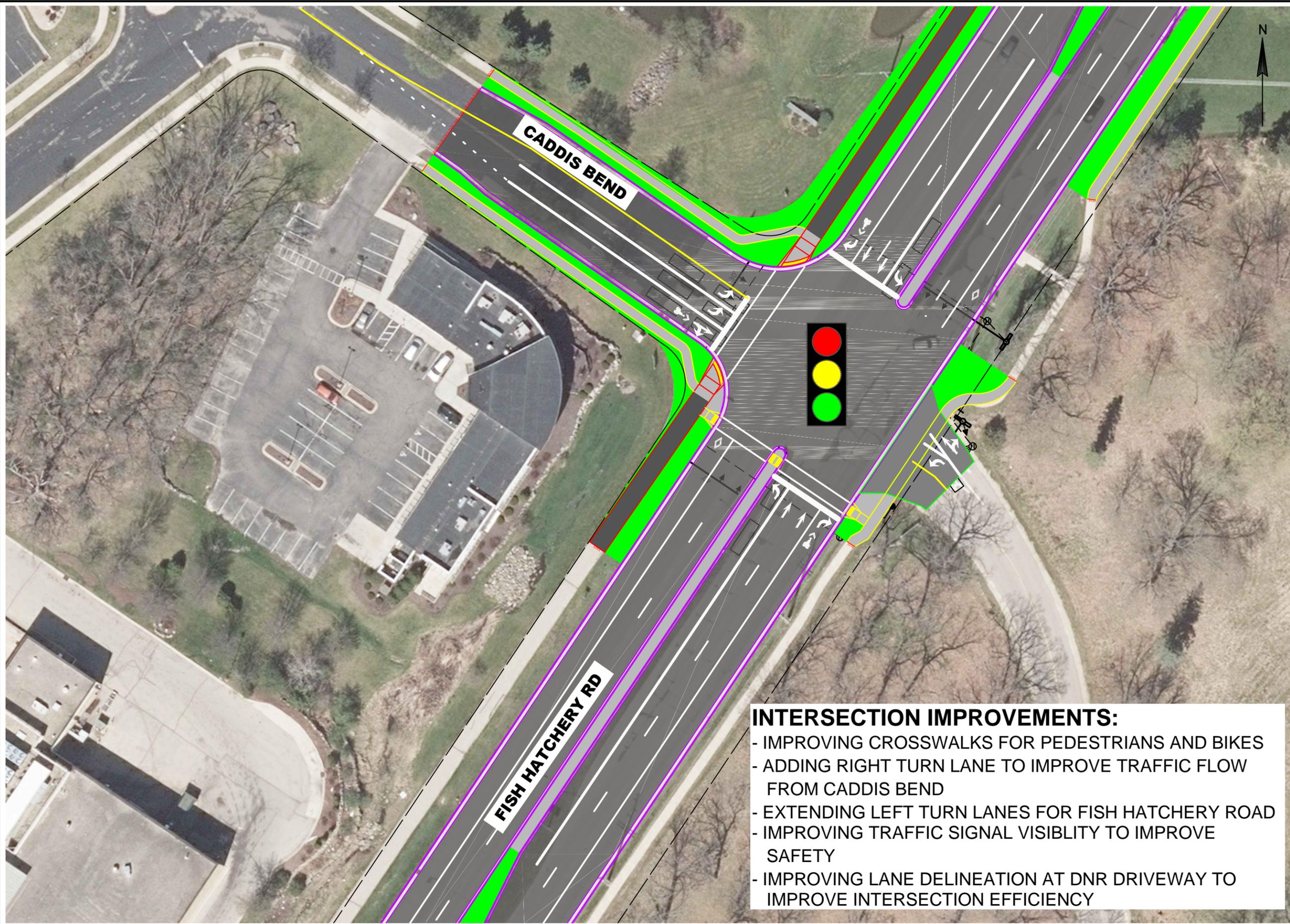
Project No: 19-3488
 Date: 02-25-2019
 Designed By: MDP
 Drafted By: XXX
 Checked By: XXXX

Revisions: 03-19-2019
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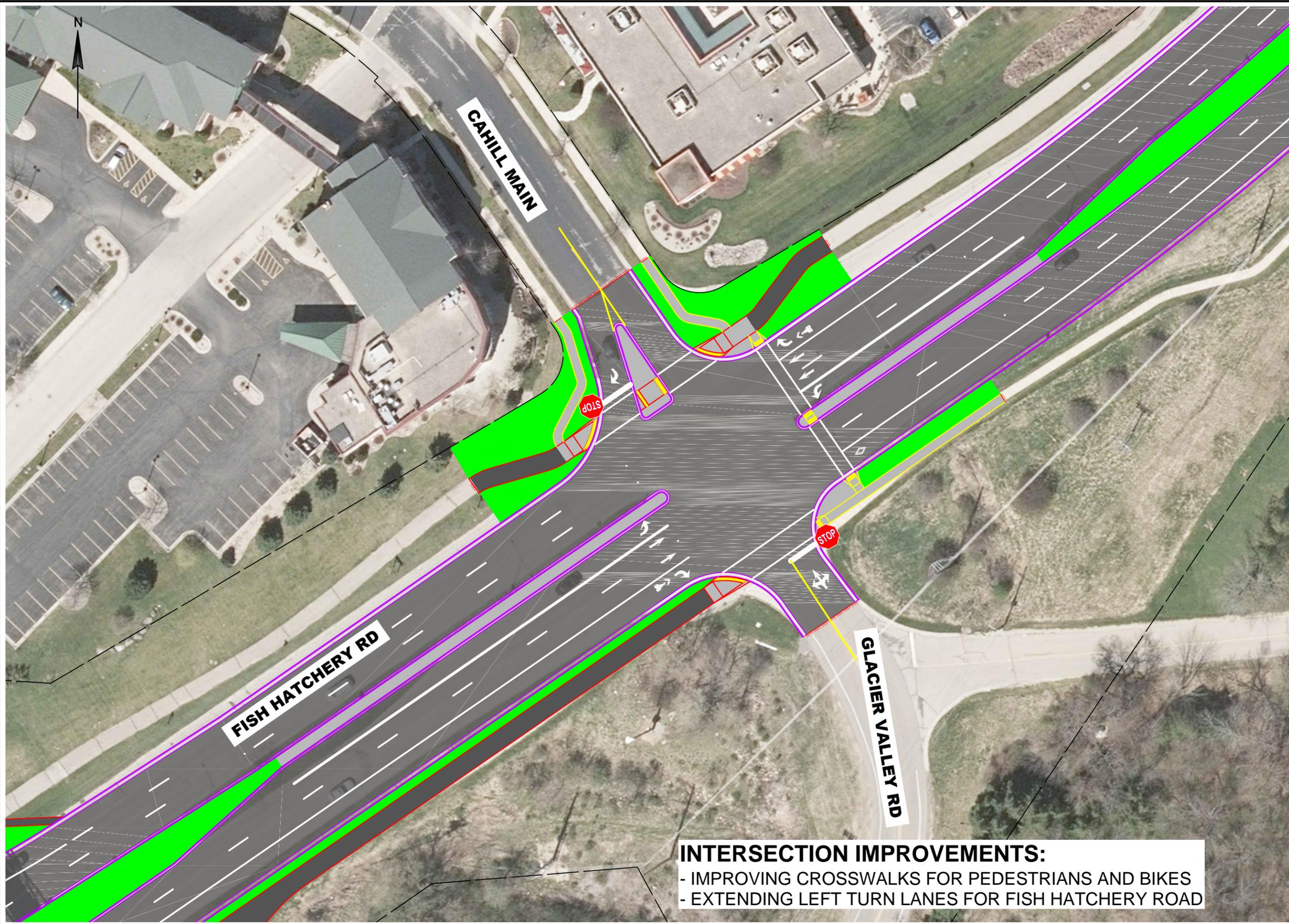
CADDIS BEND INTERSECTION

- INTERSECTION IMPROVEMENTS:**
- IMPROVING CROSSWALKS FOR PEDESTRIANS AND BIKES
 - ADDING RIGHT TURN LANE TO IMPROVE TRAFFIC FLOW FROM CADDIS BEND
 - EXTENDING LEFT TURN LANES FOR FISH HATCHERY ROAD
 - IMPROVING TRAFFIC SIGNAL VISIBILITY TO IMPROVE SAFETY
 - IMPROVING LANE DELINEATION AT DNR DRIVEWAY TO IMPROVE INTERSECTION EFFICIENCY

Project No: 19-3488
 Date: 02-20-2019
 Designed By: MDP
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 Checked By: XXXX

Revisions: 03-21-2019
 SCALE, FEET
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CAHILL MAIN INTERSECTION

Project No: 19-3488

Date: 02-25-2019

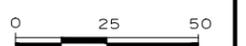
Designed By: MDP

Drafted By: XXX

Checked By: XXXX

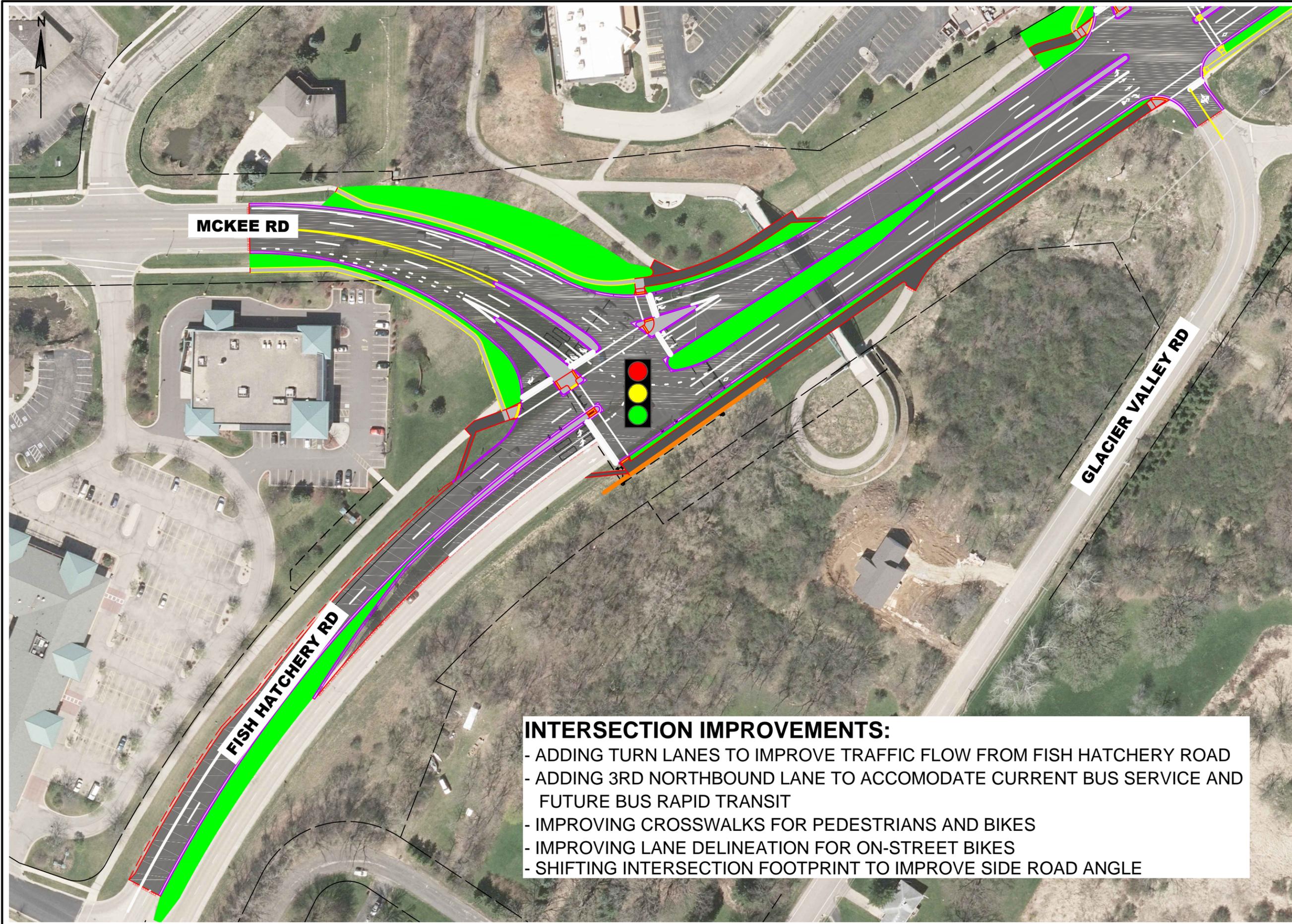
Revisions: 03-22-2019

SCALE, FEET



SHEET NO.

1 OF **1**



MCKEE RD

FISH HATCHERY RD

GLACIER VALLEY RD

- INTERSECTION IMPROVEMENTS:**
- ADDING TURN LANES TO IMPROVE TRAFFIC FLOW FROM FISH HATCHERY ROAD
 - ADDING 3RD NORTHBOUND LANE TO ACCOMODATE CURRENT BUS SERVICE AND FUTURE BUS RAPID TRANSIT
 - IMPROVING CROSSWALKS FOR PEDESTRIANS AND BIKES
 - IMPROVING LANE DELINEATION FOR ON-STREET BIKES
 - SHIFTING INTERSECTION FOOTPRINT TO IMPROVE SIDE ROAD ANGLE



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MCKEE ROAD INTERSECTION

Project No: 19-3488

Date: 02-13-2019

Designed By: MDP

Drafted By: XXX

Checked By: XXXX

Revisions: 03-19-2019

SCALE, FEET



SHEET NO.

1 OF **1**

Fish Hatchery Road | Streetscape Improvement Districts



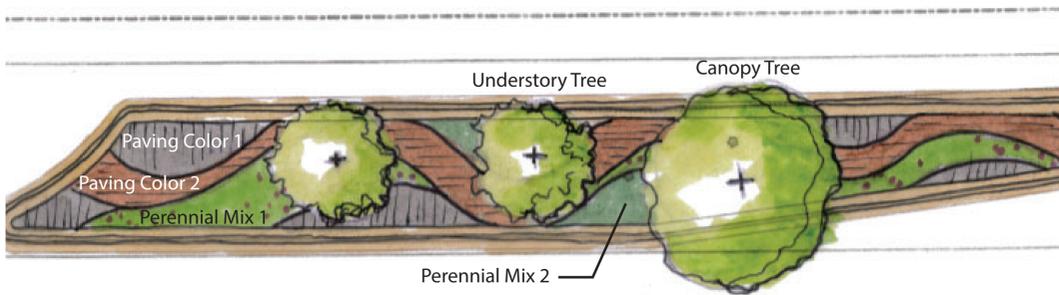
	KEY INTERSECTION
	HIGH LEVEL STREETSCAPING
	MID LEVEL STREETSCAPING
	LOW LEVEL STREETSCAPING



GRAPHIC SCALE FEET
0 150 300 600

Fish Hatchery Road | Streetscape Design Example Blocks

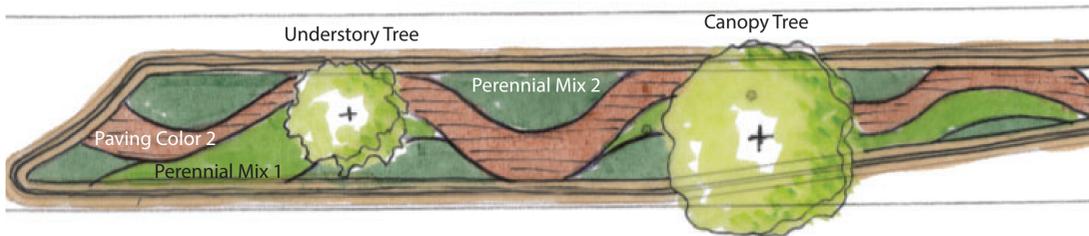
High Level Treatment



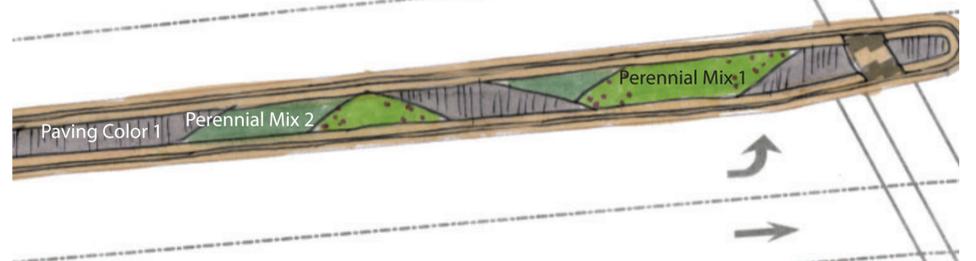
- Mix of Deciduous and Understory Trees
- Decorative pavement- 2-3 colors/textures
- Perennial understory planting



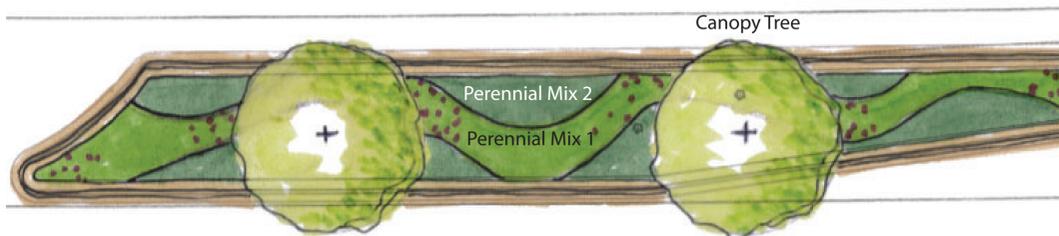
Medium Level Treatment



- Mix of Deciduous and Understory Trees, but reduced use of understory trees overall
- Decorative pavement- 1 color/texture
- Perennial understory planting
- Theme carried through via plant massing/textural contrast rather than paving vs. planting contrast



Low Level Treatment



- Deciduous trees only
- Minimal paving except where needed due to space or grading issues
- Perennial understory planting but more natural appearance overall
- Theme carried through via plant height/massing/textural contrast



North Fish Hatchery Road Decorative Street Lighting – Alternatives

“Edge”



The City of Fitchburg uses the “Edge” model street light throughout the City (shown above and to the right).

This street light performs efficiently, but is fairly basic in appearance. This light will be used for the project unless a more decorative alternative is selected.

“Omega”



“Skyliner”



“Millennia”



The Fish Hatchery Road project is considering using a more decorative looking street light than the “Edge”. The 3 options shown above have been identified as potential decorative lights that could be used for the project.

The project will improve the amount of lighting at intersections, and along pedestrian areas, regardless of the type of street light that is selected.

Please Let Us Know What You Think of These Alternatives!!

North Fish Hatchery Road -Construction Staging-

Strategies to Minimize Disruption During Construction

Strategy

Limit the most intense construction activities to a single year (2020)

Require minimized construction time north of Post Rd

Provide a signed detour route for County Highway D

Hire a Business Outreach Manager

Create mitigation plan between the City of Fitchburg and City of Madison

Sequence and expedite intersection construction

Coordinate with Metro Transit

Work with businesses before and during construction

Benefit

Minimizes duration of impact to neighborhoods and businesses

Allows north end of the project to remain fully open to traffic for longer
Shortens disruption of Beltline traffic
Maintains access for businesses in this segment

Helps redirect commuter traffic to other routes
Preserves capacity of the roadway for local and business traffic

Offers a "one-stop" source for communication and advocacy during construction

Allows quick and proactive response to neighborhood concerns with traffic diversion issues on local streets

Provides more continuous access for local traffic, business traffic, and emergency response

Provides plan for temporary bus stops and changes to bus routes

Maintains access for customers and deliveries

Madison Beltline Hwy

Summer 2020 - Fall 2020

- Reconstruct southbound FHR
- Traffic will utilize northbound FHR (orange and yellow) with one lane in each direction plus turn lanes
- Construction time in this segment will be minimized to reduce impact to businesses and residents

Fall 2019

- Install underground utilities near Greenway Cross intersection

Summer 2020 - Fall 2020

- Reconstruct southbound FHR
- Traffic will utilize northbound FHR (orange and yellow) with one lane in each direction plus turn lanes
- North of Post Rd to Greenway Cross remains open to traffic in both the northbound and southbound lanes (yellow and blue), except when blue segment is under construction

Summer 2020

Northbound Phase B

- Reconstruct northbound FHR
- Traffic will utilize southbound FHR (blue and green) with one lane in each direction plus turn lanes
- Construction time in this segment will be minimized to reduce impact to businesses and residents

Fall 2019

- Expand a portion of the CTH PD intersection to the south
- Install temporary intersection accommodations including signals, median, and crossover construction
- Traffic will utilize existing lanes

Spring 2020 - Summer 2020

Northbound Phase A

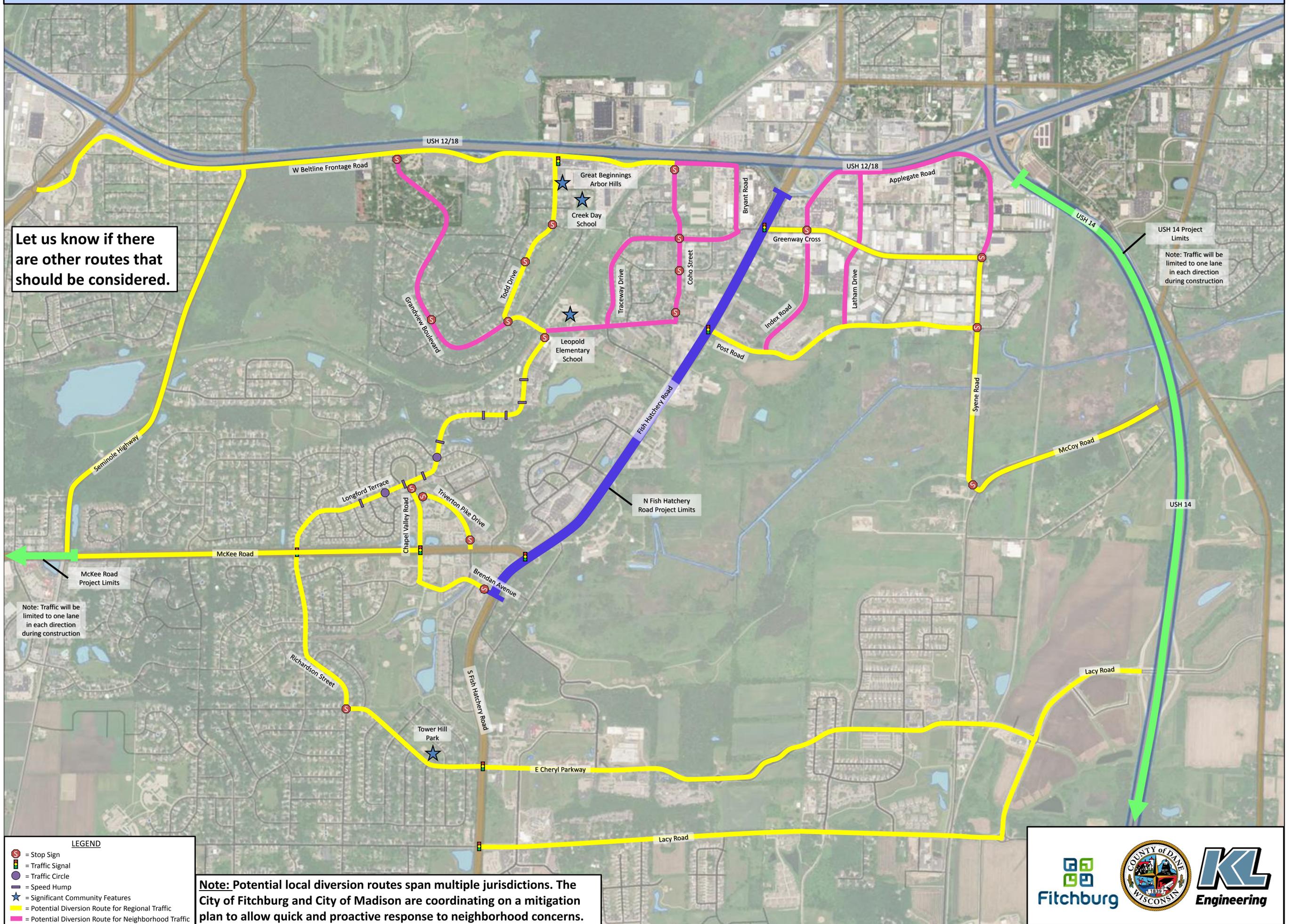
- Reconstruct northbound FHR
- Traffic will utilize southbound FHR (green) with one lane in each direction plus turn lanes
- North of Post Rd to Greenway Cross initially remains open to traffic in both the northbound and southbound lanes (yellow and blue)

Spring 2021 Entire Corridor

- Finish median work and final restoration
- Remove any remaining temporary pavement
- Traffic will utilize permanent lanes with short term lane closures



North Fish Hatchery Road Potential Local Diversion Routes in 2020



Let us know if there are other routes that should be considered.

USH 14 Project Limits
Note: Traffic will be limited to one lane in each direction during construction

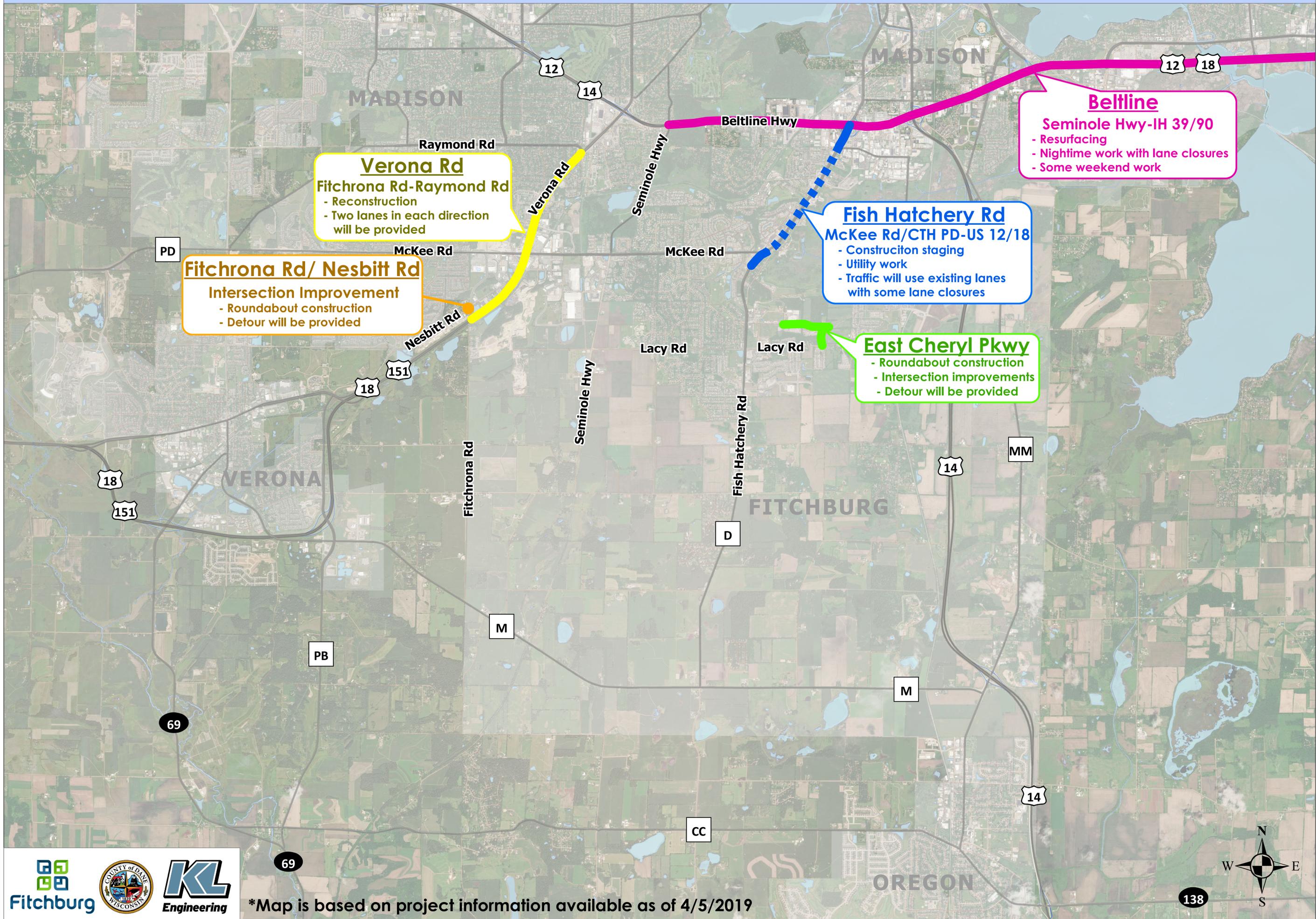
Note: Traffic will be limited to one lane in each direction during construction

LEGEND

-  = Stop Sign
-  = Traffic Signal
-  = Traffic Circle
-  = Speed Hump
-  = Significant Community Features
-  = Potential Diversion Route for Regional Traffic
-  = Potential Diversion Route for Neighborhood Traffic

Note: Potential local diversion routes span multiple jurisdictions. The City of Fitchburg and City of Madison are coordinating on a mitigation plan to allow quick and proactive response to neighborhood concerns.

North Fish Hatchery Road - Regional Projects in 2019



Beltline
 Seminole Hwy-IH 39/90
 - Resurfacing
 - Nighttime work with lane closures
 - Some weekend work

Verona Rd
 Fitchrona Rd-Raymond Rd
 - Reconstruction
 - Two lanes in each direction will be provided

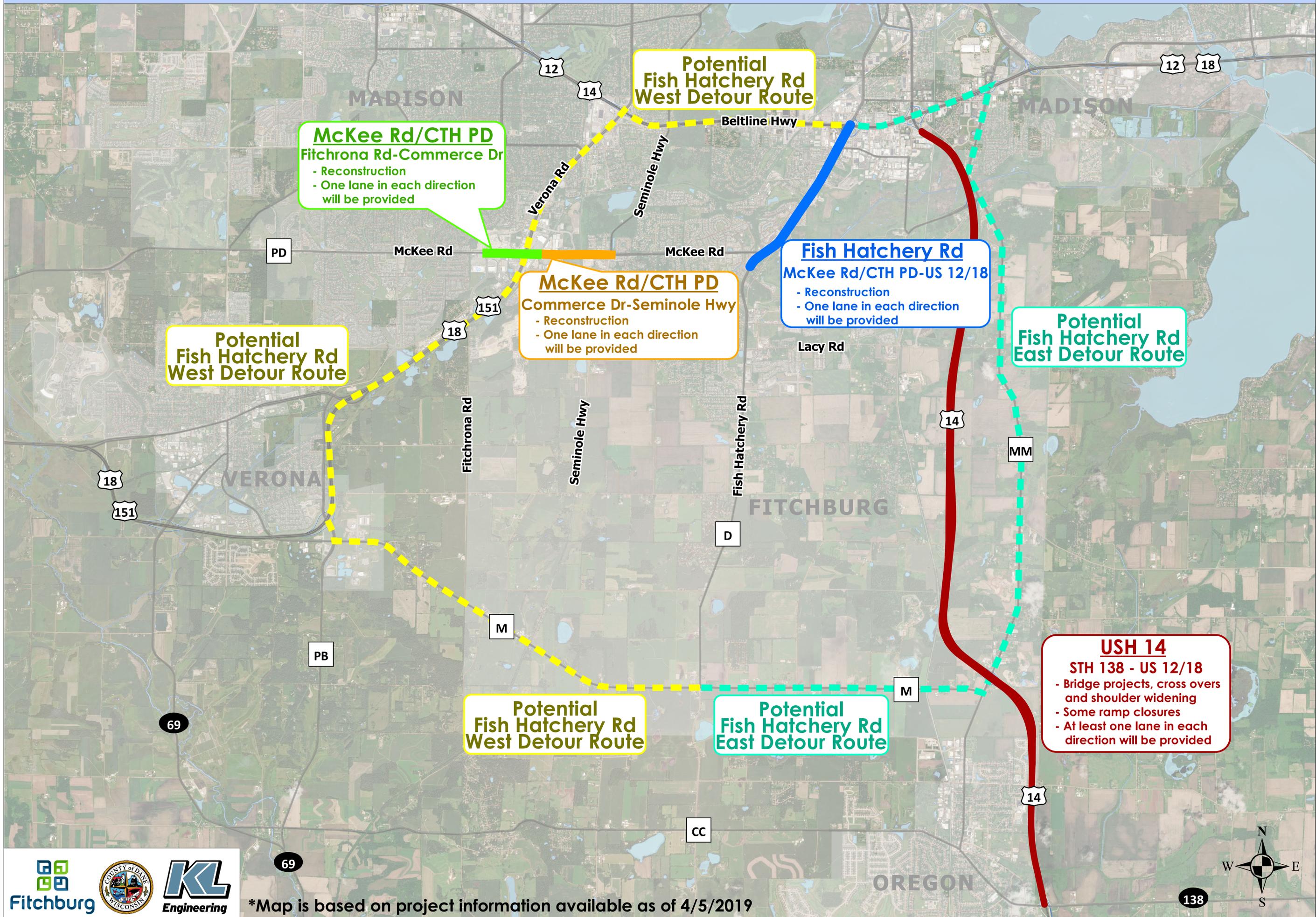
Fitchrona Rd/ Nesbitt Rd
 Intersection Improvement
 - Roundabout construction
 - Detour will be provided

Fish Hatchery Rd
 McKee Rd/CTH PD-US 12/18
 - Construction staging
 - Utility work
 - Traffic will use existing lanes with some lane closures

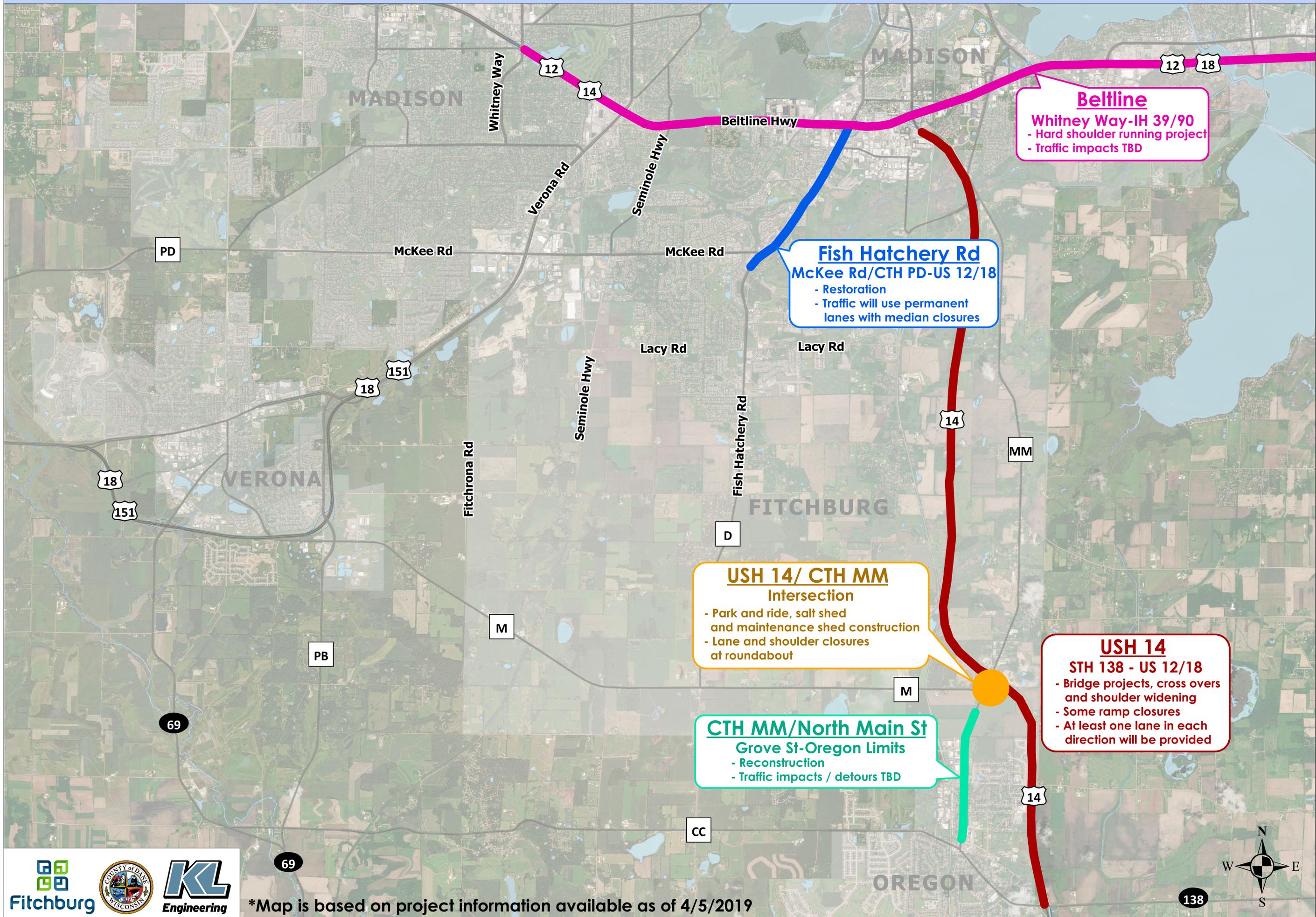
East Cheryl Pkwy
 - Roundabout construction
 - Intersection improvements
 - Detour will be provided



North Fish Hatchery Road - Regional Projects in 2020



North Fish Hatchery Road - Regional Projects in 2021



Beltline
 Whitney Way-IH 39/90
 - Hard shoulder running project
 - Traffic impacts TBD

Fish Hatchery Rd
 McKee Rd/CTH PD-US 12/18
 - Restoration
 - Traffic will use permanent lanes with median closures

USH 14/ CTH MM
 Intersection
 - Park and ride, salt shed and maintenance shed construction
 - Lane and shoulder closures at roundabout

CTH MM/North Main St
 Grove St-Oregon Limits
 - Reconstruction
 - Traffic impacts / detours TBD

USH 14
 STH 138 - US 12/18
 - Bridge projects, cross overs and shoulder widening
 - Some ramp closures
 - At least one lane in each direction will be provided

