

WIS 19 Safety and Operations Study

WIS 19, Town of Springfield (US 12) to City of Waterloo (WIS 89)
Dane and Jefferson Counties
Project I.D. 5290-00-09

Public Involvement Meeting

March 11, 2015
Waunakee

Franco Marcos
WisDOT Study Manager



WIS 19 Safety and Operations Study



Presentation Outline

1. Safety/Operations Study
2. Study Area
3. Study Overview
4. Data Collection
5. Existing Conditions
6. Planned Projects
7. Ongoing WisDOT Studies
8. Next Steps
9. Schedule
10. Contacts



What is a Safety & Operations Study?

This is a planning-level preservation study for the WIS 19 corridor.

There are no allocated funds for design or construction projects tied to this study.

The study involves the following tasks:

- Evaluating existing roadway conditions
 - ✓ Access
 - ✓ Environmental and Socioeconomic Resources
 - ✓ Infrastructure
 - ✓ Land-use
 - ✓ Safety
 - ✓ Traffic Operations
 - ✓ Traffic Volumes
- Identify operational deficiencies and future corridor needs
- Develop strategies and recommendations that will preserve the safety and efficiency of the existing highway corridor for years

Study outcomes

- Existing Condition Report
- Safety and operational concerns listing
- Local concern listing
- Conceptual strategies for mitigation
- Corridor Report



What is a Safety & Operations Study?

Strategies that may be investigated:

- ✓ Traffic signals
- ✓ Roundabouts
- ✓ Intersection improvements
- ✓ Access management
- ✓ Geometric Improvements
- ✓ Signing and marking

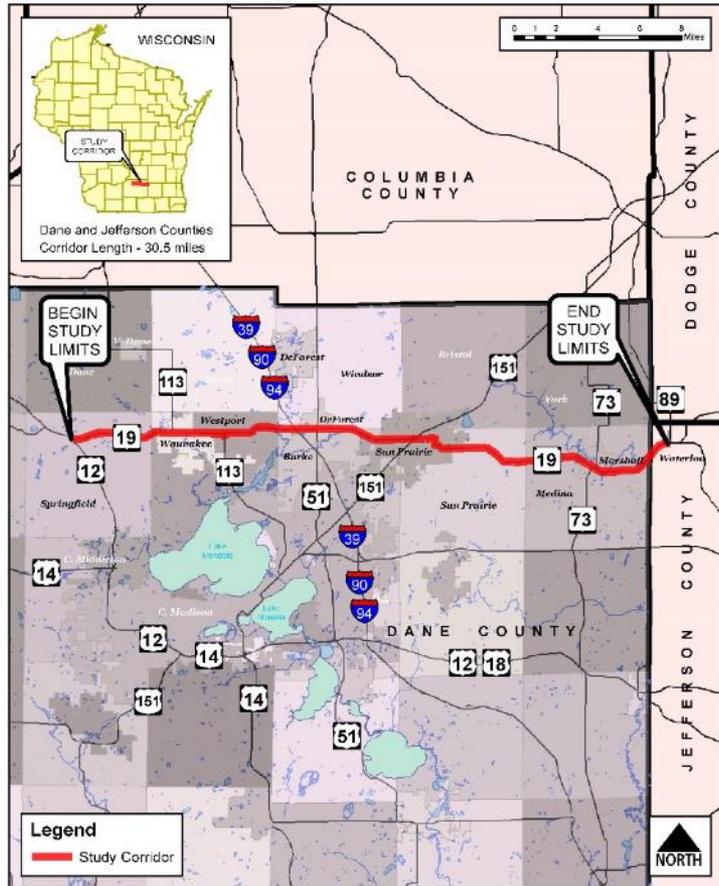
Large scale improvements go beyond the scope of this preservation study. The study team is not authorized and will not conduct:

- ✓ Analysis of bypass, relocation, or expansion alternatives
- ✓ National Environmental Policy Act (NEPA) study

There is no construction funding and therefore no construction will result directly from this study



Study Area



WIS 19 Safety and Operations Study - Location Map

US 12 to WIS 89 (Dane and Jefferson Counties)
Project ID: 5290.00.09

Counties

- Dane
- Jefferson

Municipalities

- Waunakee
- De Forest
- Sun Prairie
- Marshall
- Waterloo

Townships

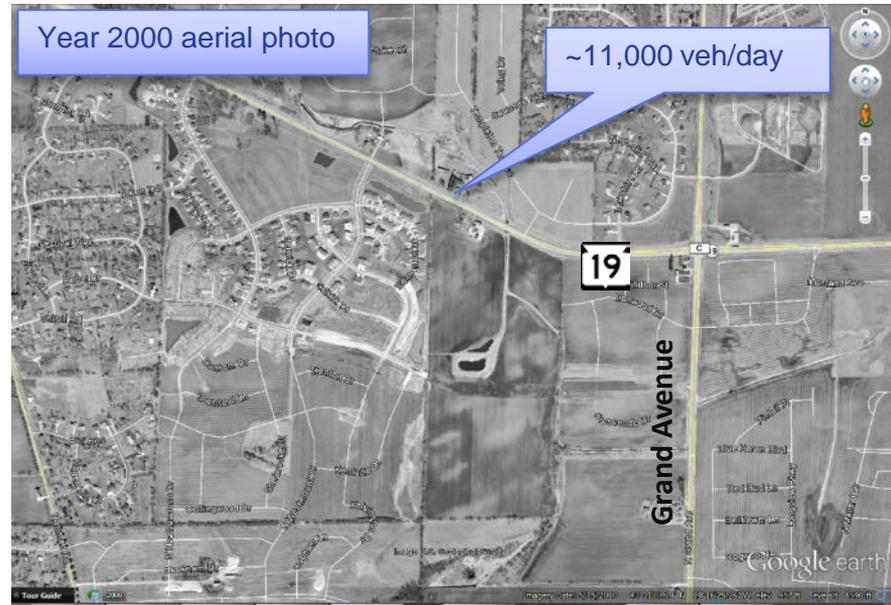
- Springfield
- Westport
- Windsor
- Burke
- Sun Prairie
- Medina



Study Overview

Why is this study needed?

- High and growing traffic volumes
- Existing crash concerns
- Population and economic growth
- Land development



Courtesy of Google Earth



Data Collection

Sources

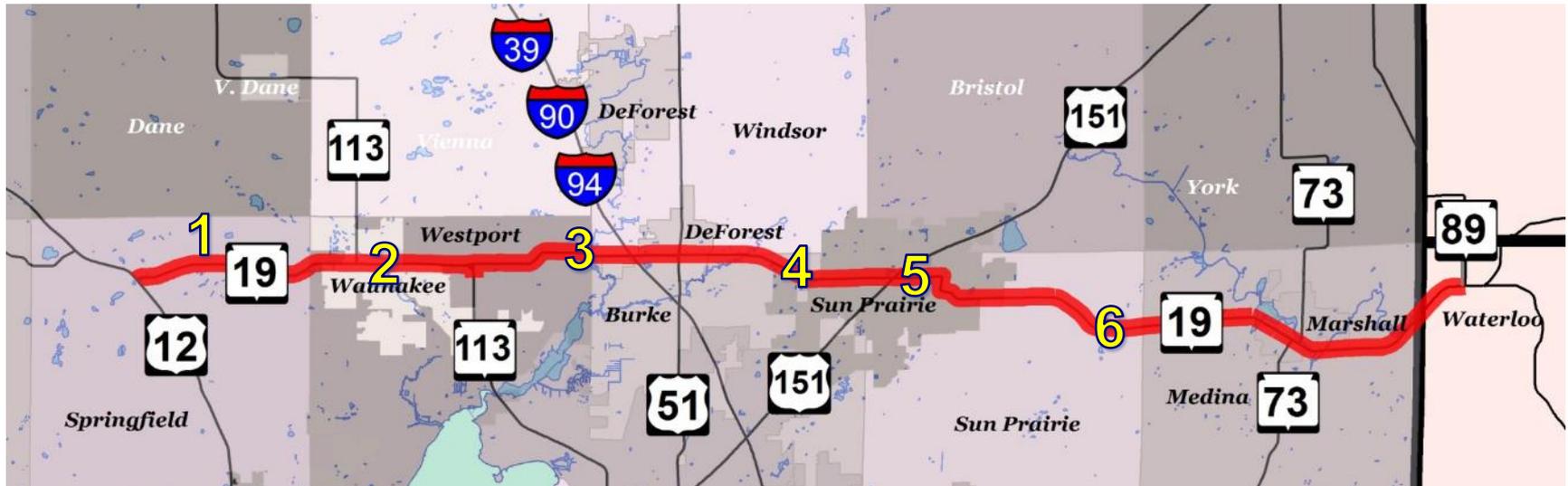
- Crash database and analysis (2009-2013)
- Mainline traffic counts (Throughout 2012)
- Intersection traffic counts (April/May 2014)
- Local officials/public involvement (February/March 2015)
- Traffic analysis (ongoing throughout)
- Field investigations (ongoing throughout)



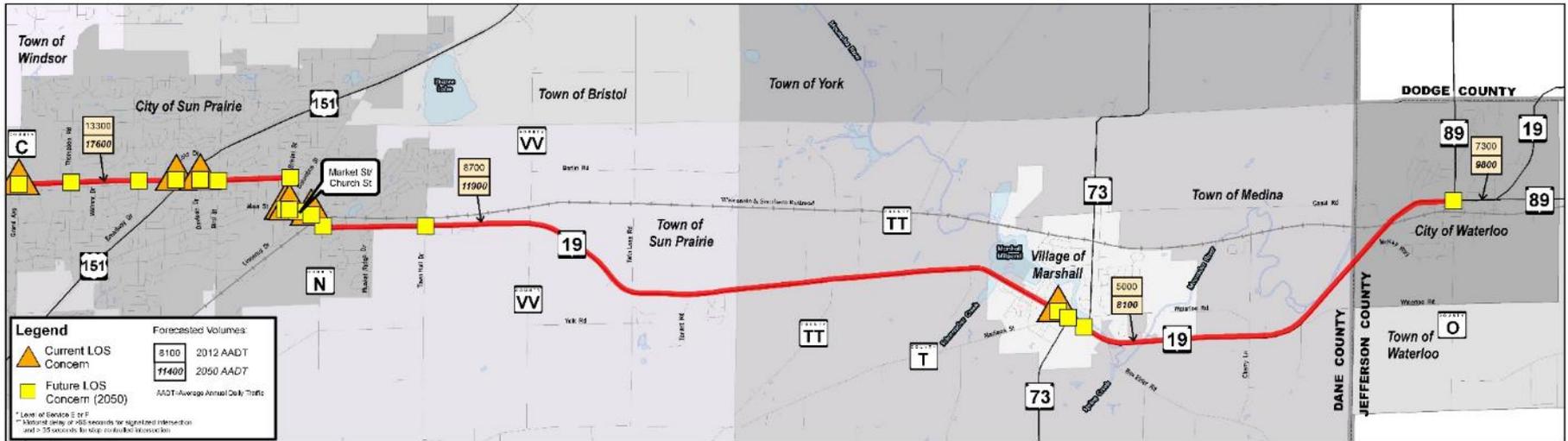
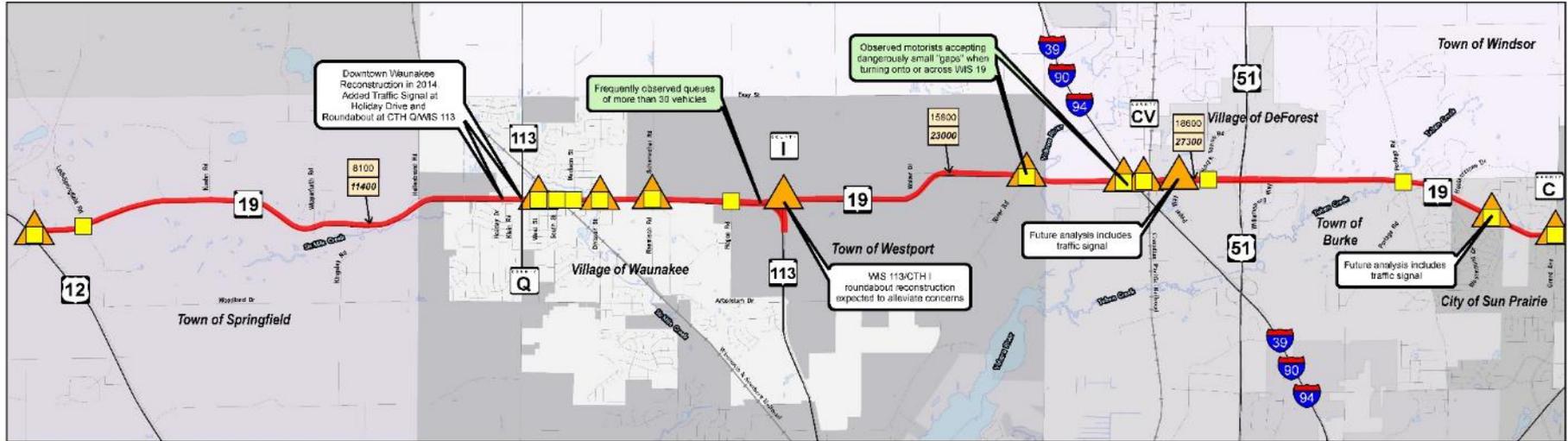
Existing Conditions: Traffic

Annual Average Daily Traffic (vehicles per day, Year 2012)

1. West of Waunakee (8,100)
2. Downtown Waunakee (14,800)
3. Waunakee to IH 39/90 (16,900)
4. IH 39/90 to Sun Prairie (15,400)
5. Within Sun Prairie (15,200)
6. East of Sun Prairie (7,000)



Traffic Operations



Legend

- ▲ Current LOS Concern
- Future LOS Concern (2050)

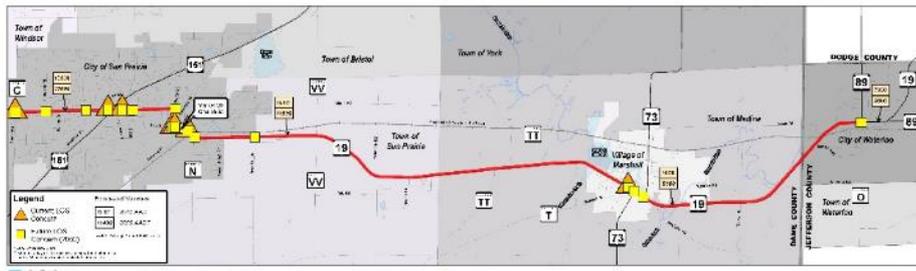
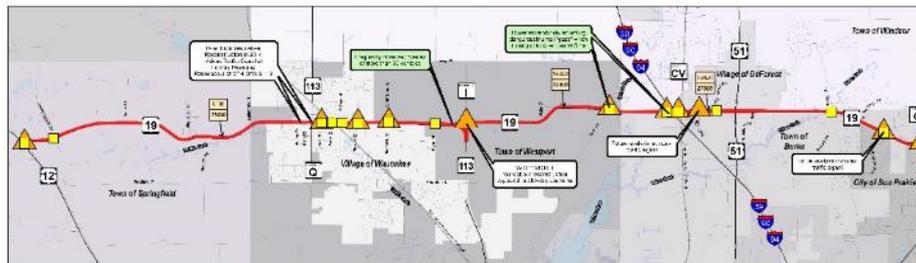
Forecasted Volumes:

- 8100 2012 AADT
- 11400 2050 AADT

AAADT-Average Annual Daily Traffic

* Level of Service E or F
** Minimum delay of 45 seconds for signalized intersection and > 35 seconds for stop controlled intersection

Traffic Operations Overview



SRF WIS 19 Safety and Operations Study - Traffic Operations Overview (7-9 AM and/or 4-6 PM Peak Period)
 DS 1215-019-19 (Dane and Jefferson Counties)
 Project # 1914-01-19



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Intersections with Level Of Service Concern*

Stop Controlled Intersections

- County I
- River Road
- IH 39 (SB) ramp
- Pepsi Way
- Westmount Drive
- Communication Dr/Lois Dr
- Linnerud Drive
- County T



Signal Intersections

- US 12
- Division Street
- Raemisch Road
- County CV
- Grand Avenue
- Davison Drive
- Main Street



*Level of Service (LOS) concern threshold indicates motorist delay of >55 seconds for a signalized intersection and >35 seconds for a stop controlled intersection



Safety/Crash History

Areas with at least one crash per million entering vehicles at an intersection.

- US 12
- WIS 113/County I
- IH 39/90 interchange
- County CV
- Grand Avenue/County C
- US 151 interchange
- Main Street/Bristol Street

Intersections with more than 1 crash per year and have 50% or more of their crash history involving injuries or fatalities.

- Klein Drive
- WIS 113 South
- Town Hall Drive
- County VV

1,145

Number of Crashes

421	Rear End
302	Angle
249	Single Vehicle
108	Sideswipe (Same Direction)
41	Sideswipe (Opposite Direction)
20	Head On
4	Unknown
142	Deer (not included in number of crashes)

Crash Type

10	Fatalities
318	Injuries
817	Property Damage
9	Pedestrians
10	Bicyclists

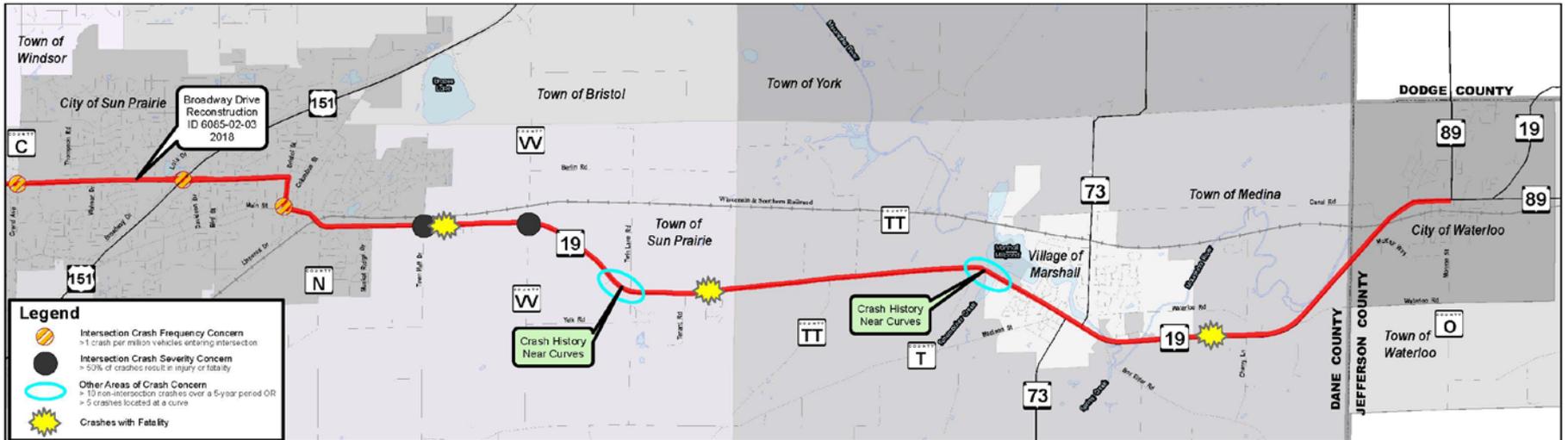
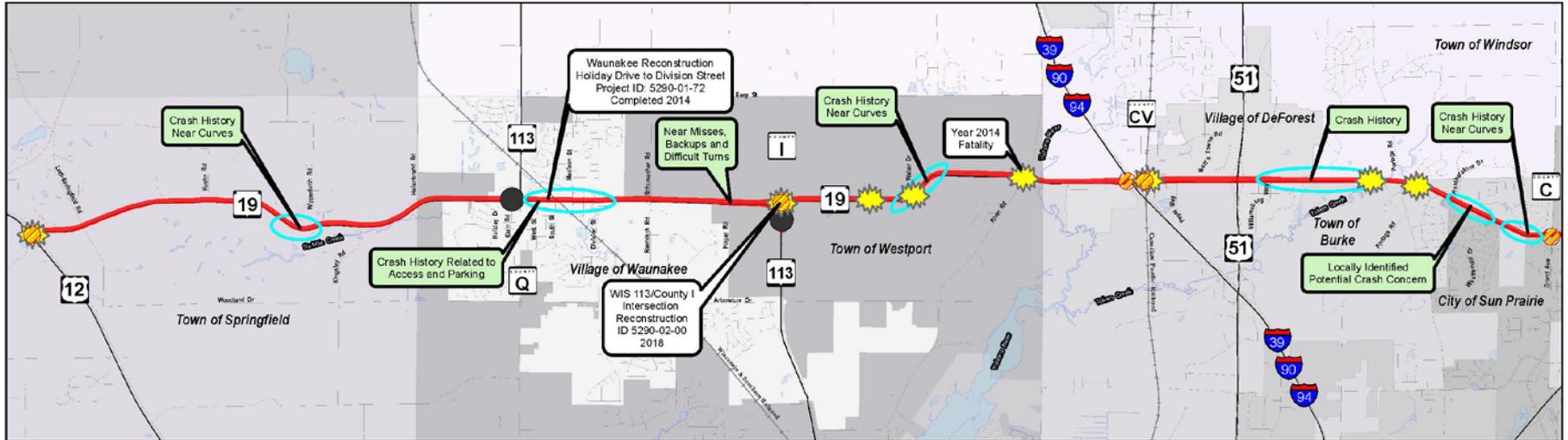
** Crash Summary from 2009-2013*

Non-Intersection areas with at least 20% of historical crashes resulting in injury or fatality:

- Curve near Wipperfurth Road
- Curve set near Walter Drive
- Curve west of Oxford Place
- Curves near Twin Lane Road
- Curve east of Lochinvars Trail
- Curve east of Box Elder Road



Safety/Crash History (cont.)



Existing Conditions: Geometry

Substandard conditions:

- Curves
- Intersections
- Bridges
- Bike and pedestrian facilities



Curve west of Hellenbrand Road



Existing Access

Access Management

- 648 total access points
- 30.5 miles corridor length
- Access points per mile
 - 67 urban areas
 - 12 rural areas

Access Point Breakdown

- 41% are residential driveways
- 25% are other roadways
- 16% are commercial driveways
- 11% are agricultural driveways
- 7% are other access points



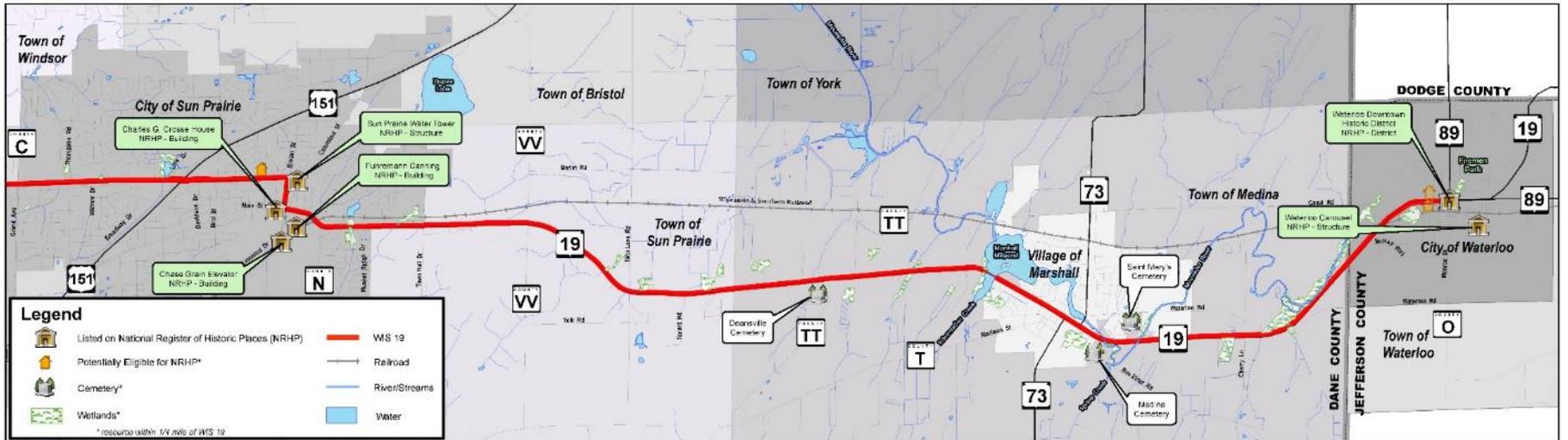
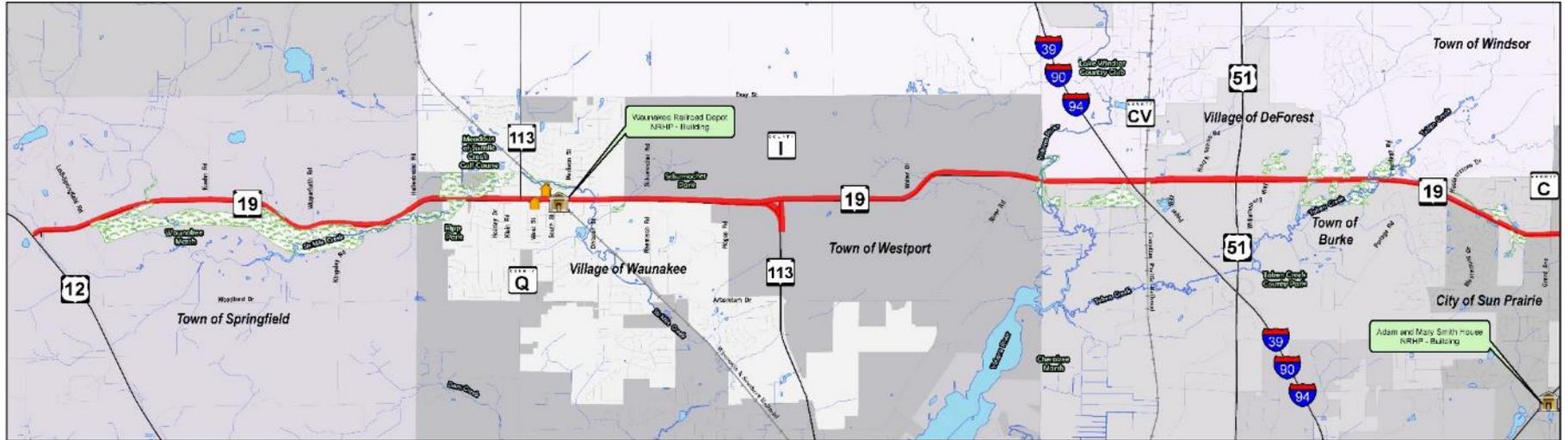
Environmental Resources

Environmental considerations are an important factor in the preservation study. The following areas are impacted by existing and future traffic operations:

- Wildlife areas
- Wetland complex
- Water resources
- Parks
- Historical properties
- Cemeteries



Environmental Resources Map

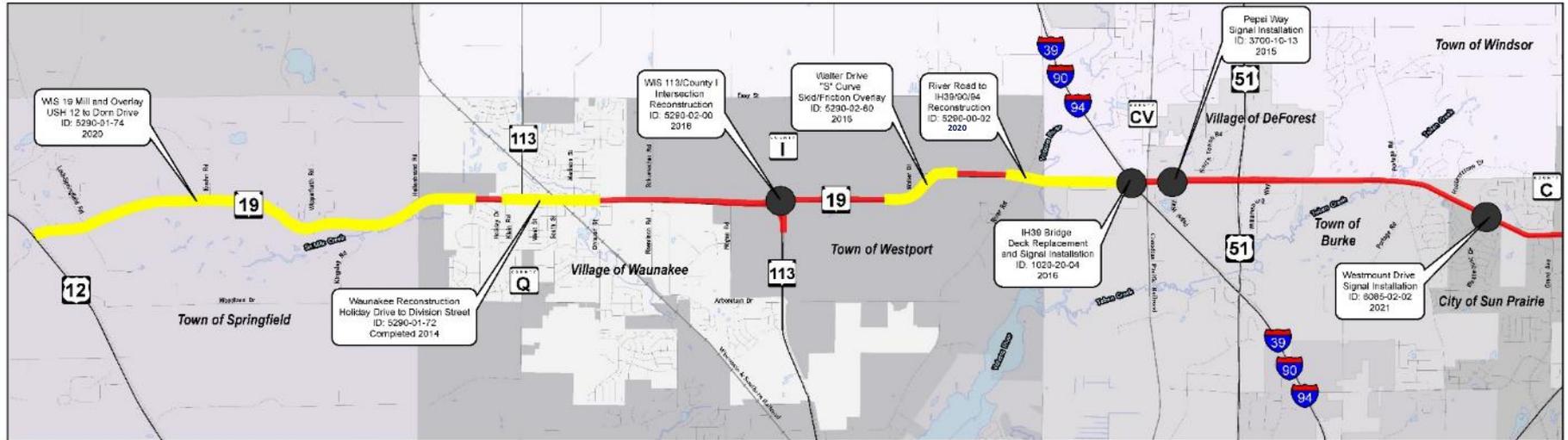


Legend

 Listed on National Register of Historic Places (NRHP)	 WIS 19
 Potentially Eligible for NRHP*	 Railroad
 Cemetery*	 River/Streams
 Wetlands*	 Water

* resource within 1/4 mile of WIS 19

Planned Projects



Legend

- Upcoming Highway Improvement Project
- Spot Improvement

SRE WIS 19 Safety and Operations Study - Anticipated Projects (Current Scheduled Year of Construction noted)

Consulting Group, Inc. US 12 to WIS 89 (Dane and Jefferson Counties)
Project ID: 5290-00-09



Planned Projects

Other planned projects along WIS 19 programmed for the next 6 years:

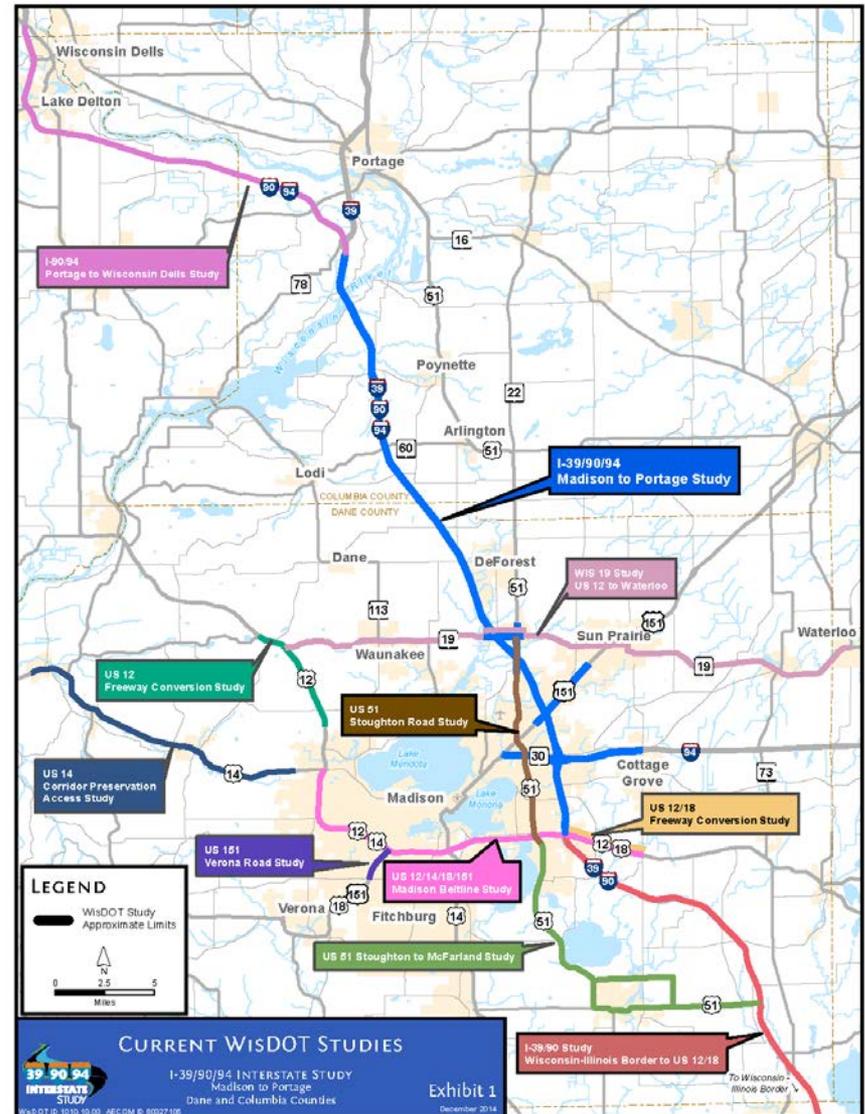
- 2 mill and overlay projects (Town of Springfield and City of Waterloo)
- 1 intersection reconstruction as roundabout (WIS 113/County I)
- 1 highway expansion (River Road to IH 39)
- 3 intersections reconstructed as traffic signals (Pepsi, Westmount, Broadway)
- 2 bridge deck replacement projects (IH 39 and USH 151)
- 3 bridge replacement projects (Yahara river bridge and river bridges in Waterloo)
- 1 skid/friction overlay project (curves near Walter Drive)



Ongoing WisDOT Studies

Other WisDOT studies adjacent to WIS 19:

- IH 39/90/94 Interstate Study
- US 12 Freeway Conversion Study
- US 12 Beltline PEL Study
- US 14 Preservation Study
- US 51 Stoughton Road Study
- US 51 Study (Stoughton to McFarland)



Next Steps

- Meet individually with interested municipal officials and other local stakeholders within the corridor
- Develop and finalize an Existing Conditions Report
- Develop strategies and conceptual alternatives to preserve the safety and efficiency of the corridor. Potential strategies that will be investigated include:
 - Traffic signals
 - Roundabouts
 - Intersection improvements
 - Access management
 - Geometric Improvements
 - Signing and marking
- Present conceptual strategies and alternatives to Local Officials and Public Involvement Meetings in late 2015
- Final Report Winter 2015/2016



Schedule

Activity/Task List	2014							2015												2016								
	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M				
Public Involvement																												
Local officials meetings																												
Local officials/planning depts.																												
Public Involvement Meeting																												
Data Collection/Inventory																												
Access/Environmental/Municipal																												
Traffic data																												
Safety data																												
Analysis																												
Operational analysis																												
Safety analysis																												
Concept/strategy analysis																												
Existing Conditions report																												
Final Report																												

End of Study

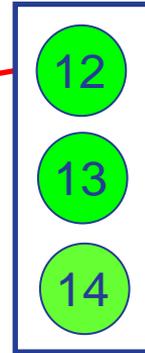
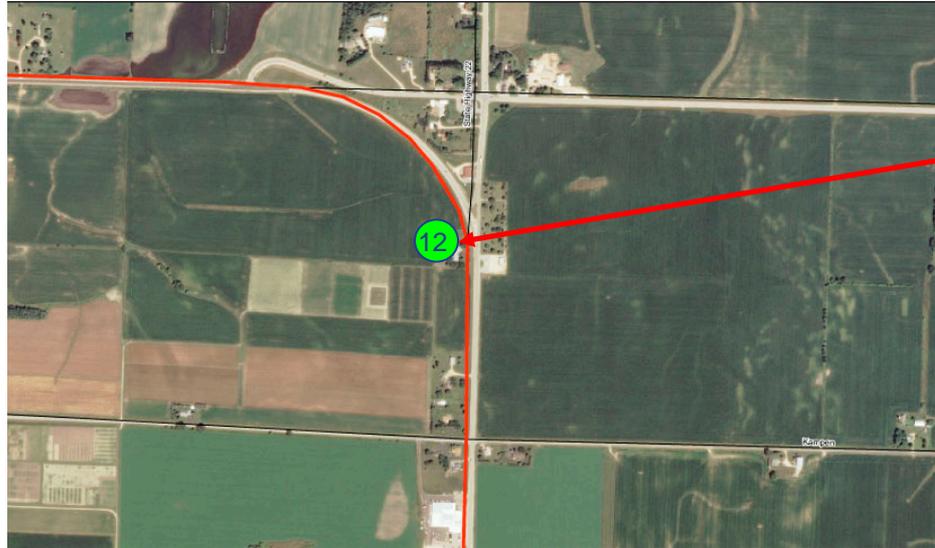


Public Input

STEP 1 – Place number on the map

STEP 2 – Write number and comment on form

STEP 3 – Drop comment form in box



Please Print Comments (attach additional sheets if necessary)

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Contacts

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Questions/Comments

