

# LOCAL OFFICIALS MEETING #3

## US 151 FREEWAY CONVERSION STUDY

Project I.D. 1110-00-09

Columbus to Waupun

Dodge County

March 27, 2014



# MEETING AGENDA

- Review purpose and need of study
- Discuss official “mapping” process
- Summarize completed tasks
- Summarize impacts of freeway conversion
- Discuss roadway alternatives
- Review study schedule
- Gather input

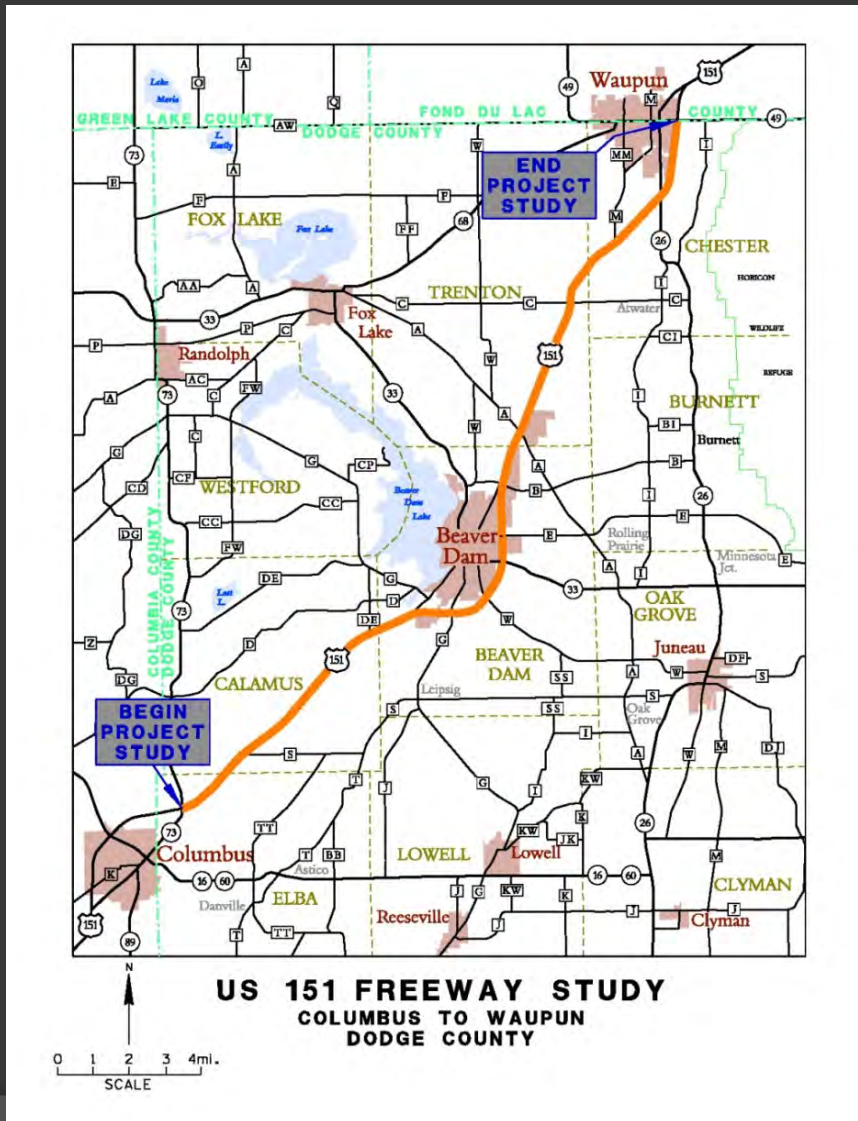


# PROJECT STAFF

- Wisconsin Department of Transportation
  - Mark Westerveld – DOT Project Manager
  - Tom Koprowski – DOT Planner
- Ayres Associates Inc
  - Matt Barr – Project Manager
  - Dan Schrum – Design Engineer
- TranSmart Technologies
  - Charles Wade – Transportation Planner



# PROJECT STUDY AREA



## Project limits

- Columbus to Waupun
- WIS 73 interchange to WIS 49 interchange
- Total length approx. 27 miles

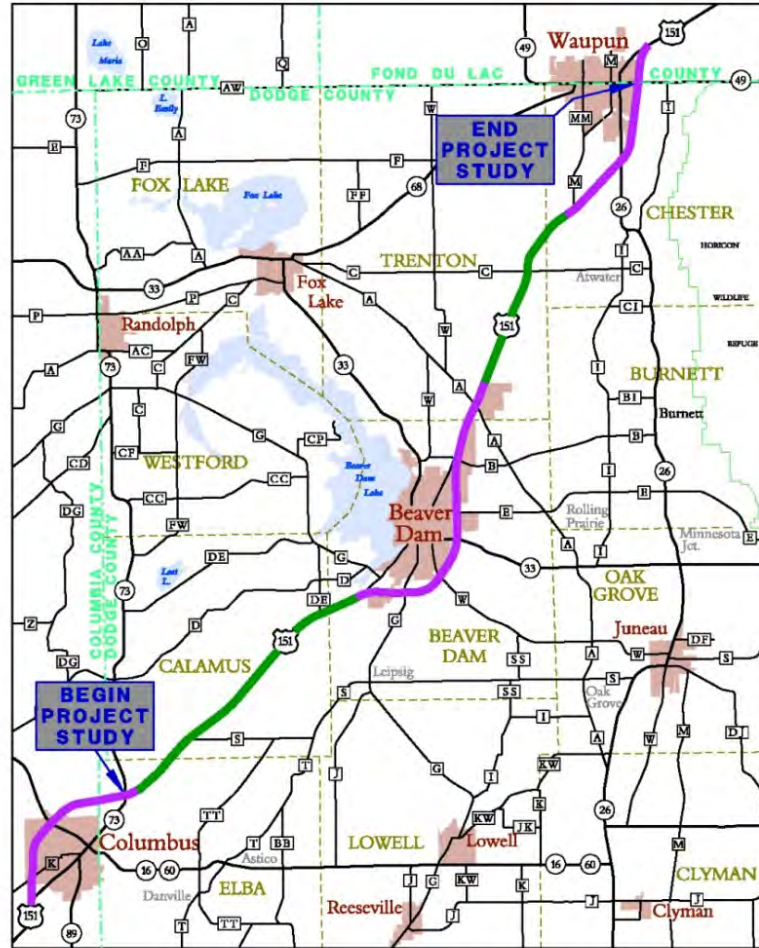


# PURPOSE OF STUDY

- Analyze US 151 corridor for conversion to freeway facility (Majority of US 151 within study limits is currently an expressway)
  - Expressway
    - Four-lane divided roadway
    - Limited access to mainline for side roads and private entrances
  - Freeway
    - Four-lane divided roadway
    - Access to mainline only allowed at interchanges



# PROJECT STUDY AREA



-  CURRENTLY FUNCTIONING AS EXPRESSWAY
-  CURRENTLY FUNCTIONING AS FREEWAY



# EXISTING CORRIDOR HISTORY



- Columbus Bypass – Freeway compatible section completed in 1991
- Columbus to Beaver Dam – Expressway completed in 1993
- Beaver Dam Bypass – Freeway compatible section completed in 1996
- Beaver Dam to Waupun – Expressway completed in 1997



# EXISTING CORRIDOR HISTORY

- Beaver Dam Bypass
  - 2008 construction
  - Overlay of US 151
- County D Interchange
  - Reconstruction in 2011/2012
  - Included removal of access between US 151 and Iron Road





# PROJECT NEED

- Long-term plan and importance of highway
  - Corridors 2020 Backbone Route
- Address increasing traffic volumes
  - 2008 counts – 12,600 (vehicles per day) near Waupun and 21,200 around Beaver Dam
  - 2035 projections – 18,500 near Waupun and 26,400 around Beaver Dam
- Address increasing growth and development
- Facilitate planning for future land use and transportation needs
- Maintain long-term safety and operations



# CRASH ANALYSIS RESULTS

- Crashes analyzed from 2002 to 2006
- Both crash and injury rates exceed state averages for similar facilities
- Over half of intersections evaluated experienced significant severity
- Intersections with over 10 crashes
  - County DE
  - County D/Iron Road
  - WIS 33
  - County M
- County D/Iron Road crossover removed in 2008
- Crashes likely to continue to increase



# STUDY AREA GROWTH 2005-2030

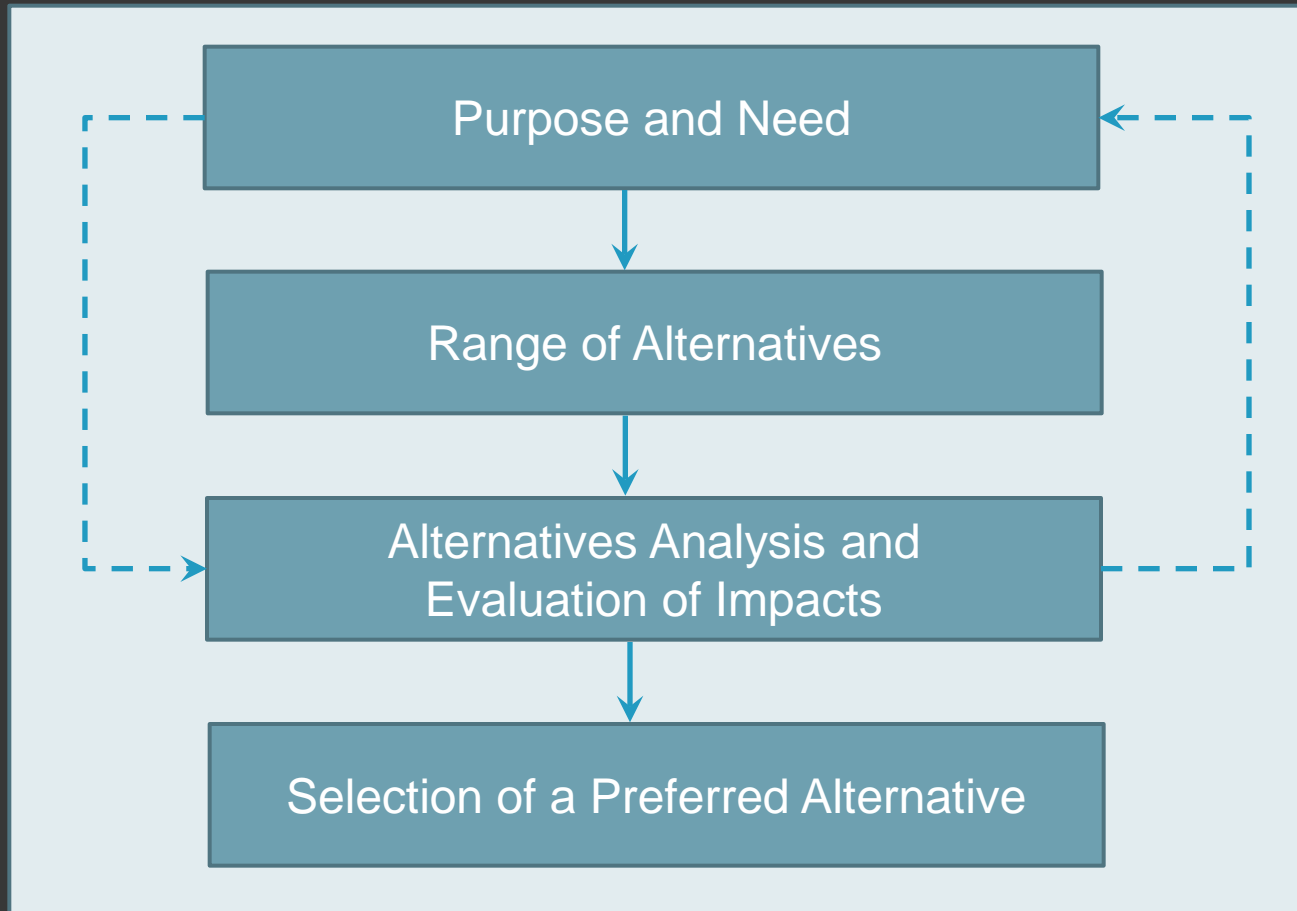
- Projected Employment Growth: 46%  
(Dodge County)
- Projected Household Growth: 19%
- Projected Population Growth: 9.6%



# PROJECT STUDY PHASES

- Phase 1 – Data gathering and conceptual design
- Phase 2 - Environmental Study and additional roadway design (current phase)
- Phase 3 - Develop official map for corridor

# FREEWAY CONVERSION FOLLOWS NEPA PROCESS



# WIS. STATUTES 84.295 & OFFICIAL MAP

Wisconsin Statute 84.295 provides for “.....the development of a well balanced and integrated state trunk system further modernized and improved to adequate standards to provide needed increased traffic capacity, relieve the congestion on over-taxed existing highways, and otherwise more adequately serve the present and anticipated future needs of highway travel, and toward that end to prevent conflicting costly economic development on areas on lands to be available as right of way when needed for future highway construction.”



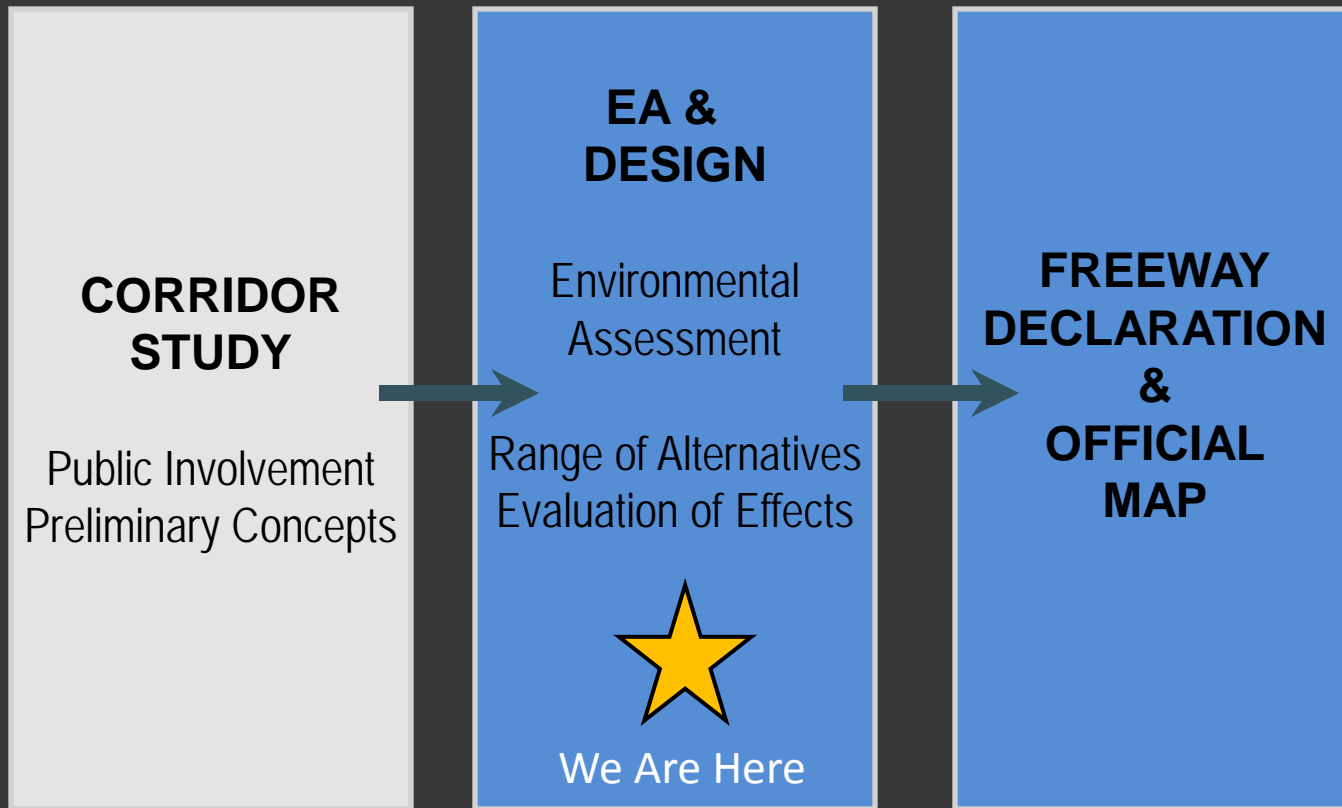


# WIS. STATUTES 84.295 & OFFICIAL MAP

- State Statute (Wis. Stat. 84.295) authorizes WisDOT to create and update an official map for future freeways and expressways
- An official map allows WisDOT to preserve, protect, and set aside future right-of-way for US 151 where freeway design is being planned
- An official map also informs and enables landowners, the public, and local agencies to plan their future in ways that won't conflict with the future highway improvements



# OFFICIAL MAP PROCESS



# WHAT WILL WISDOT OFFICIALLY MAP?

- WisDOT will map and preserve land required to convert US 151 to a freeway under Wis. Statutes 84.295 including:
  - Interchanges
  - Grade separations (overpass/underpass)
  - Alterations to existing public and private access points, including driveways
  - Alterations, removals, or additions to the local road system



# TASKS COMPLETED

- Environmental data collected
  - Contaminated materials
  - Historical buildings
  - Archaeological sites
  - Wetlands
  - Stream crossings
  - Endangered species
  - Agricultural lands
  - Noise receptors



# TASKS COMPLETED

- Crash analysis prepared
- Surveys sent to property owners, emergency services, and schools
- Local comprehensive plans obtained
- Federal and state agencies contacted for input
- Railroad companies contacted
- Preliminary roadway concepts developed for conversion of US 151 to freeway



# TASKS COMPLETED

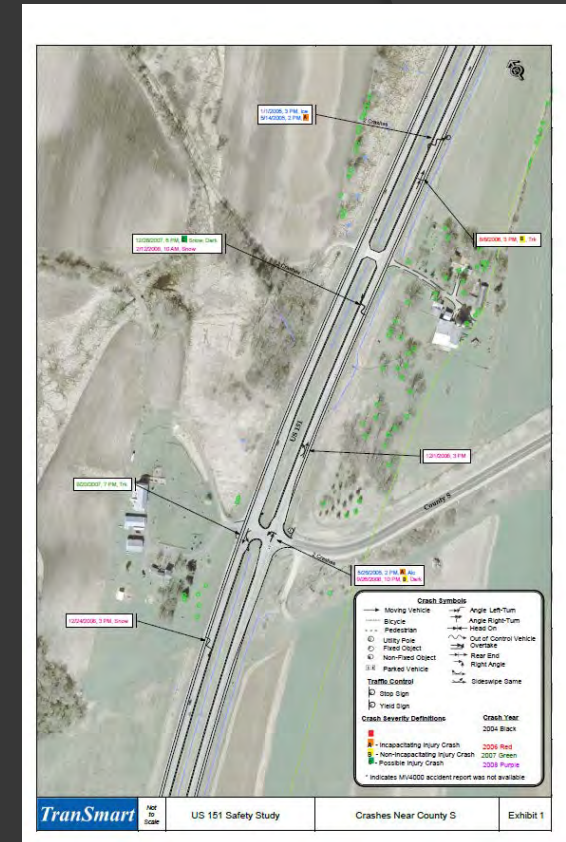
- Held 2 Local Officials Meetings and 2 Public Involvement Meetings
- ***US 151 Safety Study completed 2009/2010***
- Report documenting results of Phase I completed 2010
- Developed 5 alternatives with total of 16 sub alternatives
- Environmental factors used to screen alternatives
- ***Value Planning Study (VP) completed Spring 2013***
- VP Recommendations incorporated into Alternatives
- 6 Alternatives moving forward – 3 in south segment (Columbus to Beaver Dam) and 3 in north segment (Beaver Dam to Waupun)





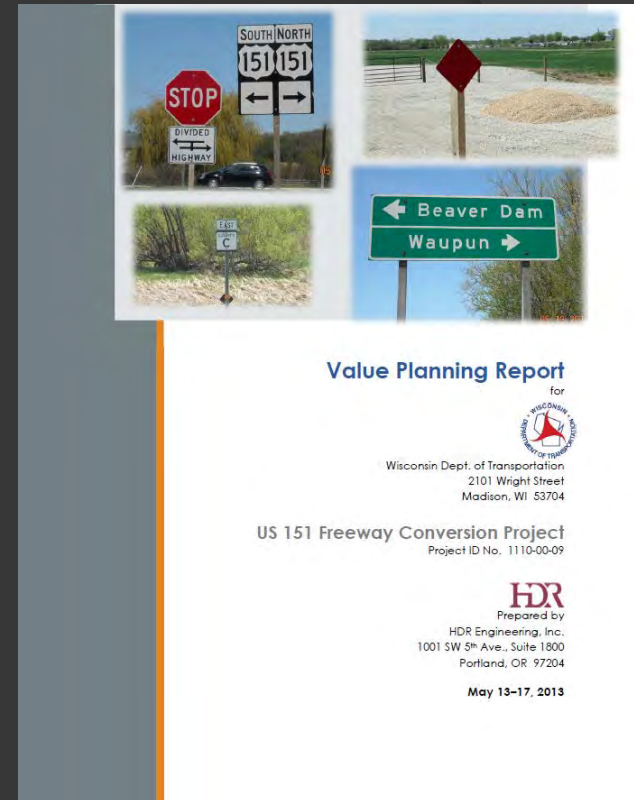
# 2009/2010 Safety Study

- Additional crash analysis completed using 2004 to 2008 crash data
- Purpose was to determine high crash locations and identify 5 sites for further analysis
- 17 locations identified with high crash rates
- Five priority crash cluster locations further analyzed
  - County S
  - Forest Road
  - Iron Road
  - County E
  - Industrial Dr.
- No further action recommended at the time



# 2013 Value Planning (VP) Report

- Value Planning - process involving a group of individuals with applicable expertise to conduct a review. It is required on larger WisDOT studies
- Review concepts developed by project team for possible modifications to improve safety and/or reduce costs
- 30 ideas generated and compared against alternatives developed by project team
- 12 recommendations further developed
- Project team incorporated all or a portion of 10 of the 12 recommendations into the alternatives



# SUMMARY OF FREEWAY CONVERSION

## Existing interchanges likely to remain

- WIS 73 - Full diamond interchange
- County D – Reconstructed to full diamond interchange in 2012
- County G - Full diamond
- WIS 33 - Full diamond
- Industrial Drive - Half diamond
- County B - Full diamond



STH 73 Interchange

# SUMMARY OF FREEWAY CONVERSION

Existing interchanges likely to remain

- County A - Full diamond
- County M
  - Only 2 movements allowed now
- WIS 26 - Full diamond
- WIS 49 - Full diamond



County A Interchange



# SUMMARY OF FREEWAY CONVERSION

## Side roads

- Access to US 151 relocated to interchanges
- Modifications to local road network required
- Desirable distance between ramp terminals and frontage road is  $\frac{1}{4}$  mile
- Possible overpass or underpass crossings of US 151



Redwood Road

# SUMMARY OF FREEWAY CONVERSION

## Private access

- All access removed from US 151
  - Commercial entrances
  - Driveways
  - Agricultural entrances
- Access to US 151 only at interchanges
- Frontage road construction likely





# SUMMARY OF FREEWAY CONVERSION

## Eliminate at-grade railroad crossings

- Crossing of Wis. Southern east of Beaver Dam
  - Likely require raising US 151 over railroad
  - US 151 would span both railroad and County E
- Crossing of Wis. Southern south of Waupun
  - Likely require raising US 151 over railroad
- Overpass of Union Pacific crossing south of Beaver Dam to remain



RR crossing east of Beaver Dam

# CONCERNS AND IMPACTS OF FREEWAY CONVERSION

- Division of farm properties resulting from loss of at-grade crossings of US 151
- Possible need to create alternative crossings of US 151 to serve farmers
- Longer and less direct commutes for some residents on/near the US 151 corridor
- Need for new local roads or extended driveways to replace direct access to US 151
- Impact on existing and proposed crossings for recreational users (snowmobiles, bicycles, etc.)



# CONCERNS AND IMPACTS OF FREEWAY CONVERSION

- Loss of undeveloped land due to potential new roadways
- Possible disincentive for non-agricultural development near the US 151 corridor where access is eliminated
- Possible increased pressure to develop near potential new interchanges
- Possible removal/relocation of buildings
- Likely increases in traffic on remaining routes with access to US 151



# AREA LAND USE

- Comprehensive plans obtained from communities along corridor
- State requirement to have comprehensive plans completed by 2010
- Most of corridor is primarily agricultural
- Commercial and residential around Columbus, Beaver Dam, and Waupun



Beaver Dam

# KEY FUTURE LAND USE ISSUES

- Limit commercial growth along Klatt/Jackson Roads
- Provide alternative to reduce truck traffic on south side of Beaver Dam



WIS 73 Interchange



# KEY FUTURE LAND USE ISSUES

- City and Town of Beaver Dam expected to experience largest growth rates in study area
- Development proposed northeast of WIS 26 interchange
- Potential commercial development adjacent to County A interchange



WIS 26 Interchange

# ALTERNATIVES ANALYSIS

- 6 Alternatives
  - 3 South Segment Alternatives: Columbus to Beaver Dam
    - 3 Possible New Interchange Locations
      - County S
      - Gunn Road
      - County DE
  - 3 North Segment Alternatives: Beaver Dam to Waupun
    - 2 Possible Interchange Locations
      - Redwood Road
      - County C





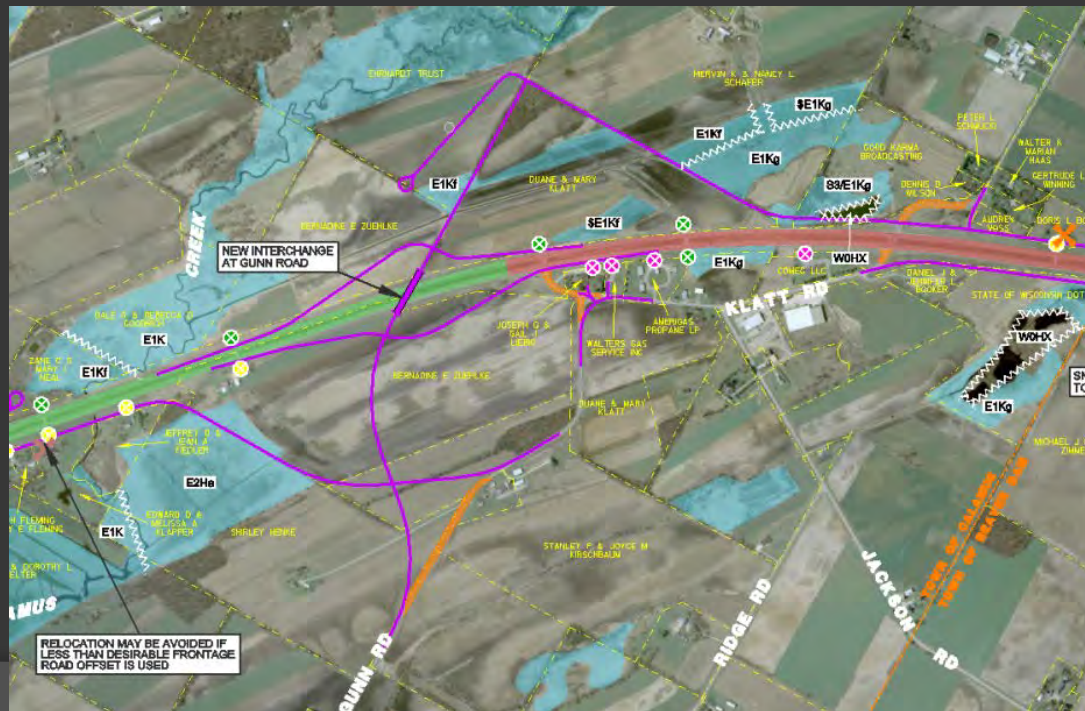




# ALTERNATIVES ANALYSIS

## Columbus to Beaver Dam – ALTERNATIVE 1C

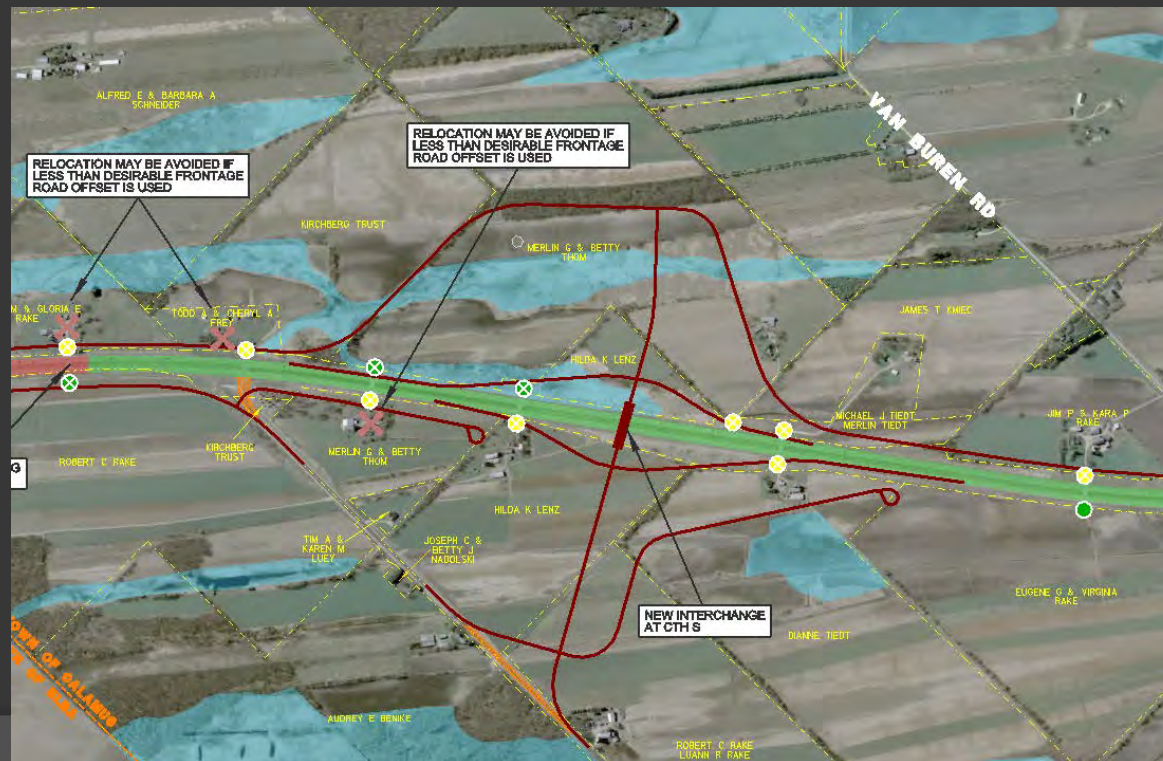
- Interchange locations – County S, Gunn Road  
Gunn Road
- Shifted slightly south from version presented in 2009
  - Advantages: May avoid relocations, minimal wetland impacts
  - Disadvantages: Farmland impacts, indirection for trucks using co-op



# ALTERNATIVES ANALYSIS

## Columbus to Beaver Dam – ALTERNATIVE 2B

- Interchange locations – County S, County DE
- County S – same configuration as Alternative 1C
  - Advantages: ties into county highway, uses high quality side road
  - Disadvantages: farmland impacts, wetland impacts, property owner access



# ALTERNATIVES ANALYSIS

## Columbus to Beaver Dam – ALTERNATIVE 2B

- Interchange locations – County S, County DE  
County S
  - Similar configuration as version presented in 2009
    - Advantages: Ties into county highway, better access to co-op,
    - Disadvantages: numerous relocations, less than desirable 2-mile distance from existing interchange





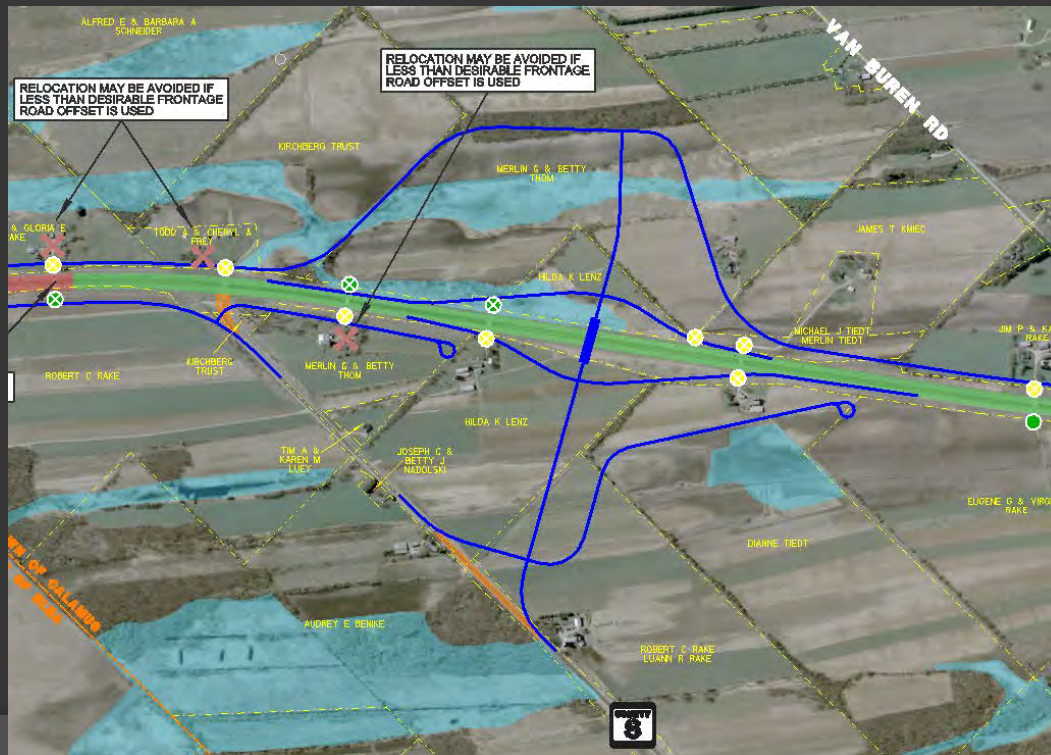
# ALTERNATIVES ANALYSIS

## Columbus to Beaver Dam – ALTERNATIVE 3C

- Interchange location – County S

County S – same configuration as Alternative 1C & 2B

- Advantages: ties into county highway, uses high quality side road
- Disadvantages: farmland impacts, wetland impacts, property owner access



# ALTERNATIVES ANALYSIS

## Beaver Dam to Waupun – ALTERNATIVE 5B

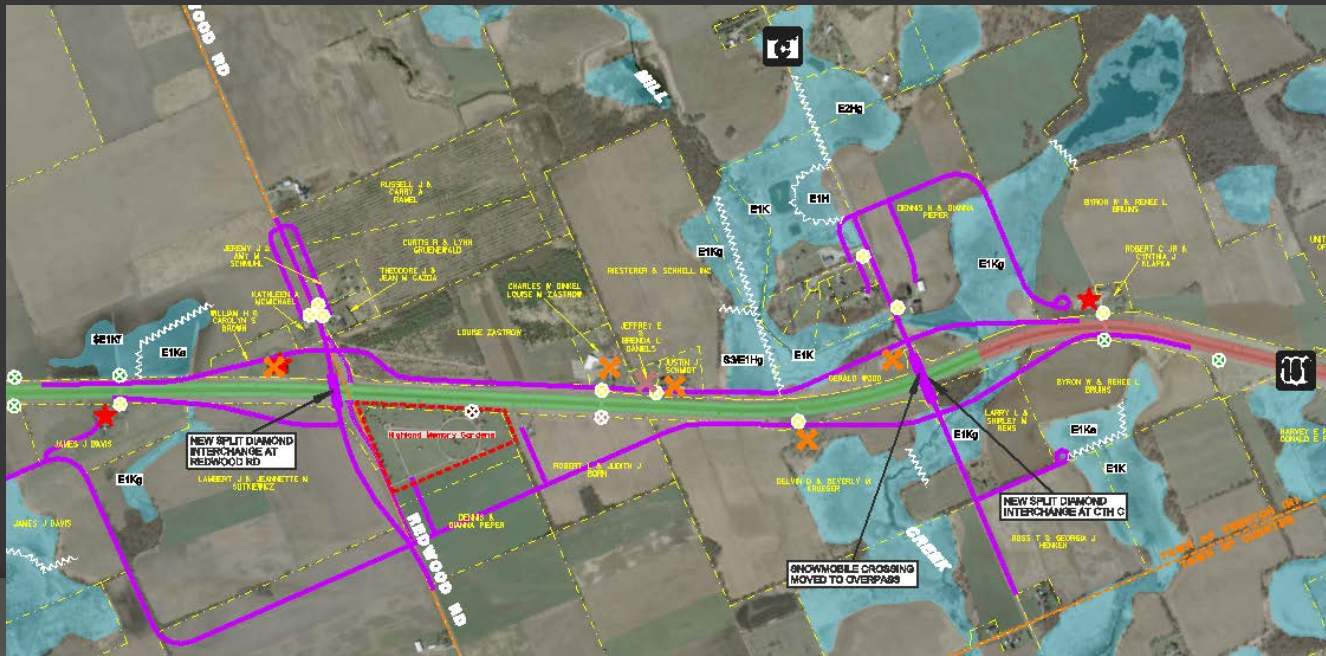
- Interchange locations – County C, Diamond at County M  
County C
  - Similar configuration as version presented in 2009
    - Advantages: Ties into county highway
    - Disadvantages: Located on a curve, farmland impacts, wetland impacts, require at least one relocation



# ALTERNATIVES ANALYSIS

## Beaver Dam to Waupun – ALTERNATIVE 6A

- Interchange locations – Split Diamond at Redwood Road and County C, Diamond at County M
- Split Diamond – Redwood Road and County C
  - Not presented in 2009
    - Advantages: No impacts to cemetery, ties into county highway
    - Disadvantages: Non-standard interchange type, farmland impacts, wetland impacts, possible relocations, alignment shift of Redwood Road

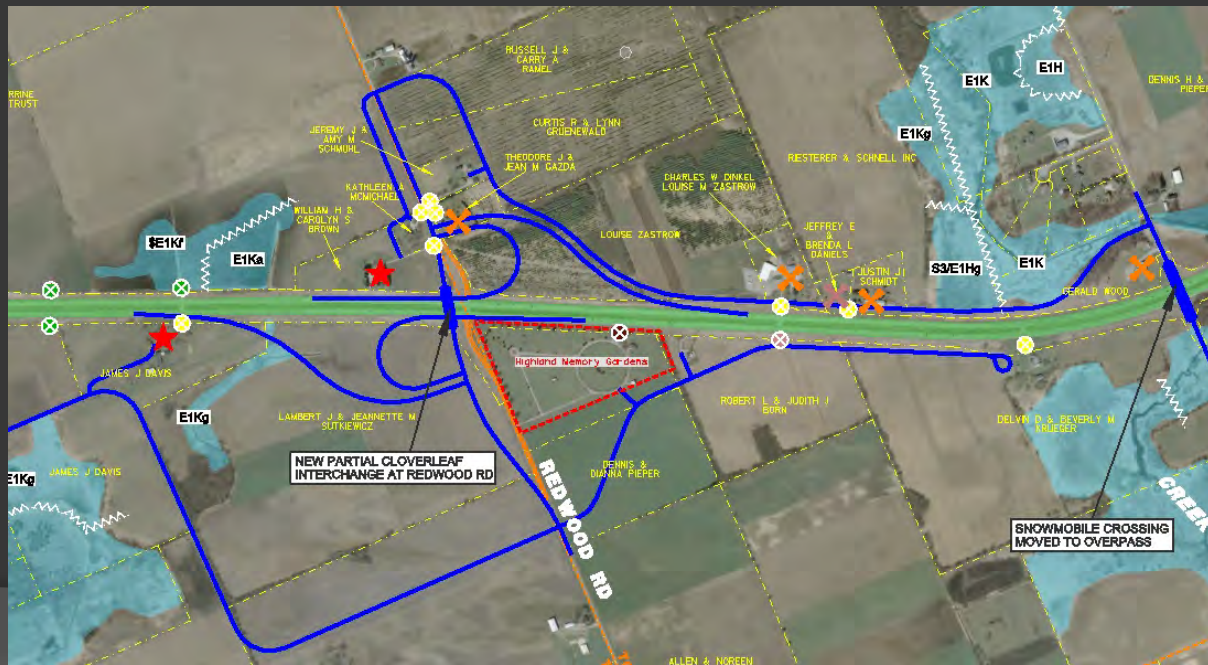




# ALTERNATIVES ANALYSIS

## Beaver Dam to Waupun – ALTERNATIVE 7A

- Interchange locations – Partial Cloverleaf (PARCLO) at Redwood Road, Diamond at County M  
PARCLO at Redwood Road
  - Not presented in 2009
    - Advantages: No relocations, no impact to cemetery, minimal wetland impacts, could possibly tie into CTH CI to the east
    - Disadvantages: Non-standard interchange type, farmland impacts, does not tie into county highway, Redwood Road alignment shifted



# WHEN WILL CONSTRUCTION OCCUR?

- Wis. Stats. 84.295 and official mapping does not include construction
- No construction or project dollars are programmed at this time
- Possibly programmed, funded, and constructed over several decades or phases
- Funding is examined statewide
- Short-term options may also be considered such as intersection improvements and driveways and/or median alterations



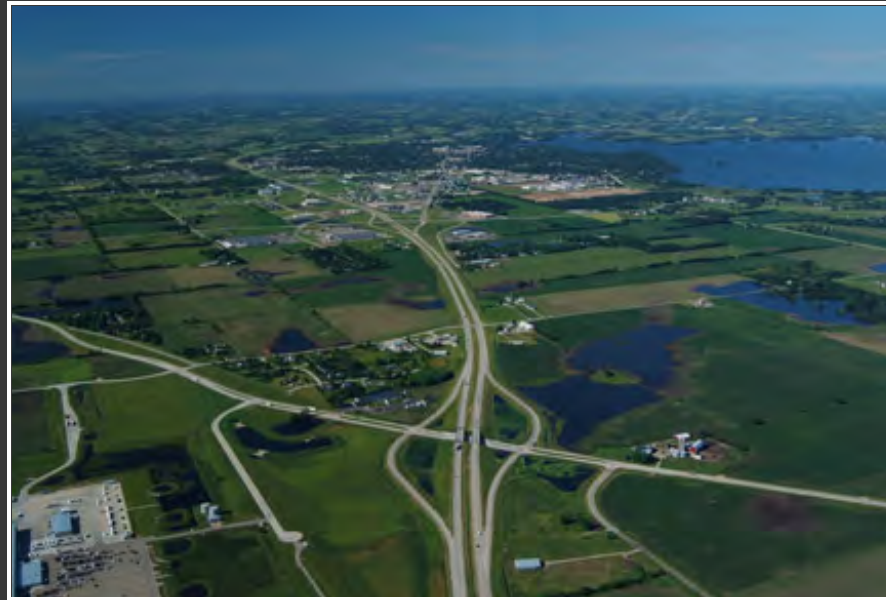


# PROJECT SCHEDULE

- Initiate Corridor Study Summer 2007
- Collect data July 2007 – March 2008
- Local Officials Meeting #1 February 25, 2008
- Public Info. Meeting #1 April 16, 2008
- Send surveys June 2008
- Local Officials Meeting #2 May 12, 2009
- Public Info. Meeting #2 July 15, 2009
- Safety Study August - November 2009
- Phase I Complete November 2010
- Preliminary Design, Screening of  
Alternatives and Environmental  
Data Collection 2011-2014
- Value Planning (VP) Study Spring 2013
- Local Officials Meeting #3 March 27, 2014
- Public Involvement Meeting #3 April 2014
- Environmental Study 2014 – 2015
- Prepare Official Map 2016 - 2017



# QUESTIONS?



## Project website

<http://www1.wisconsin.gov/Pages/projects/by-region/sw/151/default.aspx>

## Project contacts

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