Agenda Item 4

Presentation of Conceptual Reconstruction Alternatives for Remaining Portions of Existing Freeway System
Consideration of Conceptual Reconstruction Alternatives - Process Overview

- Presentation of conceptual designs for individual freeway segments at previous Committee meeting and this meeting.

- Freeway system alternatives will be presented at the Committee’s September meeting.
Segment-by-Segment Consideration of Alternatives

FREEWAY SEGMENTS
ADDRESSSED AT JULY 26 MEETING

FREEWAY SEGMENTS
TO BE ADDRESSSED AT AUGUST 23 MEETING

ADDRESSED IN SEPARATE STUDY
Considerations for All Freeway Segments

- Proposed improvements address design deficiencies and safety problems identified previously in this study.

- Additional traffic lanes are included on selected segments of the freeway system as an alternative to address existing and forecast congestion problems identified previously in this study.
Segment No. 9: USH 12 in Walworth County

- Reconstruction largely “as is” is envisioned.
- Design and safety improvements are proposed in the redesign of the IH 43/ USH 12 Interchange. These improvements may require additional right-of-way.
Summary Map of Segment No. 9: USH 12 in Walworth County

Legend:
- Green: No new right of way required
- Yellow: Potential right of way required
- Red: New right of way required

- Extend new freeway to proposed Whitewater bypass facility.
- Modify USH 12/IH 43 interchange to include collector-distributor (C-D) roadways along IH 43. This will add interchange capacity, provide better signage and operations, reduce weaving maneuvers and add safety. This feature has the potential for new right of way requirements.
- Investigate adding auxiliary lanes between interchanges. This feature will not require new right of way.
- Reconstruct freeway with:
  - 4 Basic Lanes.
  - New pavement.
  - New bridges with additional vertical clearance.
  - Revised entrance ramps for better operations.
  These features will not require new right of way.

New southbound exit ramp (to westbound STH 50) is proposed for 2003 construction to lessen intersection conflicts and for added safety. This feature will require new right of way.
Segment No. 10: IH 43 from Walworth/Rock County Line to STH 83

- Reconstruction largely “as is” is envisioned.
- Design and safety improvements are proposed in the redesign of the IH 43/ USH 12 Interchange. These improvements may require additional right-of-way.
Summary Map of Segment No. 10: IH 43 from Walworth/Rock County Line to STH 83
Segment No. 11: IH 43 from STH 83 to Hale Interchange

- A design alternative includes conversion from four to six basic traffic lanes between CTH Y and the Hale Interchange. No additional right-of-way required for additional lanes.

- Design and safety improvements are proposed for the STH 100 interchange and segment approaching the Hale Interchange. These improvements will require additional right-of-way.

- Design and safety improvements are proposed for the redesign of the Hale Interchange. These improvements may require additional right-of-way.
Summary Map of Segment No. 11:
IH 43 from STH 83 to Hale Interchange

Reconstruct N. 124th Street/Layton Avenue Interchange to change eastbound exit ramp to right side. Also, consider ramp removals—see STH 100 Interchange. These features will not require new right of way.

Reconstruct freeway with:
- Conversion of 4 Basic Lanes to 6 Basic Lanes from Racine Avenue (CTH Y) to Hale Interchange.
- New pavement.
- New bridges.
- Revised entrance ramps for better operations. These features will not require new right of way.

Consider new service interchange between STH 83 and STH 164. New interchange construction will require new right of way.

Reconstruct bridges for additional vertical clearance. This feature will not require new right of way.

Partially reconstruct STH 100 Interchange for better operations and safety. Consider interchange reconfiguration to a full access interchange in combination with removal of ramps at N. 124th Street. Reconfiguration considerations will include improving horizontal alignments of IH 43, elimination of left side exit ramp, and relocation of Park and Ride lot. Partial reconstruction will not require new right of way; however, reconfiguration will require new right of way.

Reconstruct Hale Interchange with:
- Conversion for right side entrance and exit ramps
- Provision for lane continuity and route continuity
- Flatter horizontal and vertical curves. These features include the potential for new right of way requirements.

Investigate construction of separate ramp connections between interchanges that are grade-separated. This reduces lane changing and improves operations. This feature will require new right of way.
A design alternative includes conversion from six to eight basic traffic lanes. Additional right-of-way may be required for additional lanes at spot locations. These locations may primarily be at freeway interchanges.

Design and safety improvements are proposed at selected locations. These improvements may require additional right-of-way.

Portion immediately north of the Marquette Interchange included in separate study of that system interchange.
Summary Map of Segment No. 13: IH 43 from Marquette Interchange to Silver Spring Drive

Reconstruct Marquette Interchange as recommended by on-going engineering studies. The recommended configuration for the interchange and its north leg (IH 43) will be documented by the approved environmental report, expected early 2002. The preferred interference configuration includes right of way requirements.

Reconstruct freeway with:
- Conversion of 6 Basic Lanes to 8 Basic Lanes.
- New pavement with full shoulders. At recently constructed Silver Spring Interchange, preserve existing bridges and retaining walls and provide eight lanes with standard shoulders.
- New bridges with additional vertical clearance.
- Revised vertical alignment to accommodate safer stopping distances.
- Revised entrance ramps for better operations. These features have the potential for right of way requirements at spot locations along this freeway segment. These locations will primarily be at freeway interchanges.

Consider interchange reconfiguration at Hampton Avenue for additional capacity, better operations, and safety. Reconfiguration there has the potential for right of way requirements.

Consider flatter curves for safety and better operations. This realignment includes potential for right of way impacts.

Investigate adding auxiliary lanes between interchanges. As an alternative, consider relocating adjacent entrance and exit ramps to eliminate short weave sections and to provide better operations. These features have the potential for right of way requirements.
Segment No. 14: IH 43 from Silver Spring Drive to STH 60

- A design alternative includes conversion from four to eight basic traffic lanes between Silver Spring Drive and Brown Deer Road. Additional right-of-way will be required for additional lanes between Bender Road and Brown Deer Road.

- A design alternative includes conversion from four to six basic traffic lanes between Brown Deer Road and STH 60. No additional right-of-way required for additional lanes.
Summary Map of Segment No. 14: IH 43 from Silver Spring Drive to STH 60

Legend:
- Green: No new right of way required
- Yellow: Potential right of way required
- Red: New right of way required

Investigate adding auxiliary lanes between interchanges. Also, consider relocating northbound exit ramp (to Port Washington Road) further north, south of overpass. These features have potential for new right of way requirements.

Investigate adding new interchange at Highland Road. This feature will require new right of way.

Reconstruct Pioneer Road (CTH C) Interchange for improved ramp geometry and better operations. These considerations will not require new right of way.

Reconstruct CTH C / STH 60 Interchange for improved ramp geometry and better operations. These considerations will not require new right of way.

Reconstruct freeway between Brown Deer Road and STH 60 with:
- Conversion of 4 Basic Lanes to 6 Basic Lanes.
- New pavement.
- New bridges with additional vertical clearance. These features will not require new right of way.

Reconstruct Brown Deer Road (STH 100) Interchange for improved ramp geometry and better operations. Investigate realignment of interchange to a diamond style interchange. These features will not require new right of way.

Reconstruct Mequon Road (STH 167) Interchange for improved ramp geometry and better operations. These considerations have the potential for new right of way requirements.
Segment No. 15: IH 43 from STH 60 to Ozaukee/Sheboygan County Line

- A design alternative includes conversion from four to six basic traffic lanes between STH 60 and STH 57. No additional right-of-way required for additional lanes.

- Reconstruction largely “as is” is envisioned for the segment between STH 57 and the Ozaukee/Sheboygan County line.
Summary Map of Segment No. 15: IH 43 from STH 60 to Ozaukee/Sheboygan County Line

Legend:
- Green: No new right of way required
- Yellow: Potential right of way required
- Red: New right of way required

Reconstruct freeway between STH 60 and STH 57 with:
- Conversion of 4 Basic Lanes to 6 Basic Lanes.
- New pavement.
- New bridges.
These features will not require new right of way.

Reconstruct southbound roadway to eliminate "lane drop" on IH 43. Reconstruction will not require new right of way.

Investigate reconfiguration of northbound roadway for right side exit to STH 57 (north) and for appropriate route continuity and lane balance. Reconstruction will not require new right of way if northbound IH 43 roadway is relocated toward median.

Reconstruct CTH O / STH 60 Interchange for improved ramp geometry and better operations. These considerations will not require new right of way.

Reconstruct bridge and approaches for additional vertical clearance. No new freeway right of way is required.

Reconstruct freeway between STH 57 and north Ozaukee County Line with:
- 4 Basic Lanes.
- New pavement.
- New bridges.
These features will not require new right of way.

Investigate adding auxiliary lanes between interchanges for better operations. These features will not require new right of way.
Segment No. 16: IH 94 from Waukesha/Jefferson County Line to IH 94/ STH 16 Interchange

- A design alternative includes conversion from four to six basic traffic lanes between STH 67 and CTH SS. No additional right-of-way required for additional lanes.

- Reconstruction of existing four lanes between Waukesha/Jefferson County line and STH 67 with design which would accommodate future conversion to six basic traffic lanes may require additional right-of-way.
Summary Map of Segment No. 16: IH 94 from Waukesha/Jefferson County Line to IH 94/ STH 16 Interchange

Legend:
- Green: No new right of way required
- Yellow: Potential right of way required
- Red: New right of way required

Investigate construction for a northbound to eastbound ramp at STH 67 Interchange. This feature will require new right of way.

Consider reconstruction of CTH P Interchange to provide for full access. New ramp construction will require new right of way.

Freeway and three service interchanges were recently reconstructed.

System interchange with STH 16 was recently reconstructed.

Reconstruct freeway between west Waukesha County Line and STH 67 with:
- 4 Basic Lanes, including considerations for 84 foot median to accommodate future median lane additions.
- New pavement.
- New bridges.
Reconstruction for wider median has the potential for new right of way requirements.

Reconstruct freeway between STH 67 and CTH SS with:
- Conversion of 4 Basic Lanes to 6 Basic Lanes.
- New pavement.
- New bridges with additional vertical clearance.
- Revised entrance ramps for better operations. These features will not require new right of way.
Segment No. 17: STH 16 from Oconomowoc River to IH 94/ STH 16 Interchange

- Reconstruction largely “as is” is envisioned.
Summary Map of Segment No. 17: STH 16 from Oconomowoc River to IH 94/STH 16 Interchange

Legend:
- No new right of way required
- Potential right of way required
- New right of way required

Reconstruct freeway with:
- 4 Basic Lanes.
- New pavement.
- New bridges.
These features will not require new right of way.

Investigate adding auxiliary lanes between interchanges. This feature will not require new right of way.

System interchange with STH 16 was recently reconstructed.
Segment No. 18: IH 94 from IH 94/STH 16 Interchange to Zoo Interchange

- A design alternative includes conversion from six to eight basic traffic lanes. Additional right-of-way may be required for additional lanes at spot locations. These locations may primarily be at freeway interchanges.

- Design and safety improvements are proposed for the segment approaching the Zoo Interchange as part of the redesign of the Zoo Interchange. These improvements will require additional right-of-way.

- Safety and design improvements are proposed for selected service interchanges.
Summary Map of Segment No. 18: IH 94 from IH 94/ STH 16 Interchange to Zoo Interchange

- Investigate construction of separate ramp connections between interchanges that are grade-separated. As an alternative, investigate construction of auxiliary lanes between interchanges. These features have the potential for new right of way requirements.

- System interchange with STH 16 was recently reconstructed.

- Reconstruct freeway with:
  - Conversion of 6 Basic Lanes to 8 Basic Lanes.
  - New pavement with full shoulders.
  - New bridges with additional vertical clearance.
  - Revised entrance ramps for better operations. These features have the potential for new right of way requirements at spot locations along this freeway segment. These locations will primarily be at freeway interchanges.

- Investigate realignment of freeway profile for added stopping sight distance and greater safety. This feature has the potential for new right of way.

- Potential new interchange currently under a separate study. New access to IH 94 will require new right of way.

- Investigate configuration of separate ramp connections between interchanges that are grade-separated. As an alternative, investigate construction of collector-distributor (C-D) roadways between interchanges. These features will improve operations and will require new right of way.

- Eliminate eastbound median "lane drop" and construct new right side entrance ramp. This construction will not require new right of way.

- Investigate adding a westbound auxiliary lane or truck climbing lane. This feature has the potential for right of way requirements.

- Investigate reconfiguration of Mayfair Road / STH 100 Interchange for better operations, including provision for a single point exit for westbound traffic, instead of two successive exits. This construction has the potential for new right of way requirements.
Segment No. 19: IH 94 from Zoo Interchange to Marquette Interchange

- A design alternative includes conversion from six to eight basic traffic lanes. Additional right-of-way will be required for additional lanes.

- Design and safety improvements are proposed for the segment approaching the Zoo Interchange as part of the redesign of the Zoo Interchange. These improvements will require additional right-of-way.

- Portion immediately west of the Marquette Interchange included in separate study of that system interchange.
Summary Map of Segment No. 19: IH 94 from Zoo Interchange to Marquette Interchange
Possible Alternative Designs for Reconstruction Including Reconstruction of Stadium Interchange

- “As is”- Maintain freeway with six basic traffic lanes, with considerations for four lanes at north end of segment. Stadium Interchange would require reconfiguration to address design and safety deficiencies with attendant potential right-of-way impacts.

- Replacement with expressway/parkway- four- to six-lane facility similar to design of Miller Park Way. Stadium Interchange would be replaced with a “high-type” service interchange.
Segment No. 21: STH 145 (Fond du Lac Freeway)

Possible Alternative Designs for Reconstruction

- Maintain freeway- Maintain freeway design with six basic traffic lanes. Improvements to service interchanges may require additional right-of-way.

- Conversion to four lane freeway- Reconstruct freeway stub with conversion from six to four basic traffic lanes. Improvements to service interchanges may not require additional right-of-way.

- Replacement with surface arterial- Replace freeway spur with four- to six-lane surface arterial along STH 145 right-of-way, including at-grade intersections.

- Remove freeway spur and improve Fond du Lac Avenue- Improvement of Fond du Lac Avenue may not require additional right-of-way.
Segment No. 22: STH 119 (Airport Spur Freeway) from IH 94 to General Mitchell International Airport

- Reconstruction largely “as is” is envisioned.
- Design and safety improvements are proposed in the redesign of the IH 94/ STH 119 Interchange. These improvements will require additional right-of-way.
Summary Map of Segment No. 22: STH 119 (Airport Spur Freeway) from IH 94 to General Mitchell International Airport

Legend:
- Green: No new right of way required
- Yellow: Potential right of way required
- Red: New right of way required

Consider reconstruction of Airport Spur Interchange for flatter horizontal and vertical curves for safer stopping sight distances and better operations. Consider removal of ramp meters on Airport Spur ramp connections. Reconstruction will require new right of way.

Reconstruct 4 Basic Lane freeway with:
- New pavement.
- New bridges.
These features will not require new right of way.
Segment No. 23: IH 794 from Marquette Interchange to Carferry Drive

- As a result of the recent retrofit of the Hoan Bridge, the Wisconsin Department of Transportation expects that this portion of this segment will not require reconstruction until after the year 2050.
Next Steps in Study

- Presentation and evaluation of freeway system alternatives will be provided at the Committee’s September meeting.
- Development of preliminary recommended plan.