

DESIGN and CONSTRUCTION NEWS

The Wisconsin Department of Transportation (WisDOT) recently completed the Zoo Interchange environmental process and design is underway. The reconstruction of the Zoo Interchange is projected to be completed in 2018.

This project will benefit the state of Wisconsin for decades to come. The project consists of nine miles of freeway corridor leading to and through the actual interchange. The Zoo Interchange fully opened to traffic in 1963 and has

deteriorated with age. It is Wisconsin's oldest and busiest interchange.

WisDOT has coordinated closely with local and regional governments and agencies to develop reconstruction plans to meet the needs of the public. It is WisDOT's goal to create a reconstruction effort which is safe and workable for the residents, businesses and institutions in the area.

The purpose of this newsletter is to keep you informed and to invite you to stay involved in the project.



A 3D view of the planned Zoo Interchange, looking northeast

Project Corridor

- **East**
I-94 at 70th Street
- **West**
I-94 at 124th Street
- **South**
I-894/US 45 at Lincoln Avenue
- **North**
US 45 at Burleigh Street

Project Goals

- Improve safety
- Reduce congestion
- Replace aging infrastructure and outdated design
- Invest in the future of Wisconsin's economy

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Community based planning enhances corridor

Community Sensitive Solutions (CSS) is a community-based approach to planning and designing transportation projects. The focus is on how the roadway appears to the surrounding community. The CSS process helps WisDOT achieve a vision



Typical pier structure for the core of the Zoo Interchange



Typical bridge overpass

that improves the transportation work through the use of fencing, landscaping, walls, bridge work and specific color schemes to enhance the surrounding area.

In summer 2011, WisDOT initiated a CSS program to engage businesses, residents, property owners and community leaders. Feedback was obtained on elements of the project including construction materials,

colors and overall appearance.

The recommended features will be included in the streetscaping plans for local roadways. The plans also establish aesthetic concepts for bridges and walls and will be included in the Zoo Interchange freeway design. Proposed CSS features will be implemented and maintained with a combination of state and local funds.

Interested in doing business with WisDOT?

Orange barrels and construction vehicles will begin to appear this year. Construction work will be broken down into several bid packages.

WisDOT encourages and supports small business owners and entrepreneurs that provide services and products in:

- Construction administration
- Earthwork
- Traffic control and safety
- Pavement
- Structures – bridges, culverts and walls
- Landscaping
- Trucking
- Demolition

If your business is interested in this and other WisDOT business opportunities visit the WisDOT website at: www.dot.wisconsin.gov/business

Other WisDOT Projects

The Wisconsin DOT is preparing other area roadways to handle additional traffic during the Zoo Interchange reconstruction. For updates on other projects:

- Repaving I-94: www.repave94.org
- US 18 (Bluemound Rd/Moreland Rd): www.dot.wisconsin.gov/projects/us18bluemoundmoreland
- WIS 59 (Greenfield Avenue): www.dot.wisconsin.gov/projects/sereion/wis59greenfieldave
- 511 travel information: www.511wi.gov

For information on WisDOT's Disadvantaged Business Enterprise (DBE) program: www.dot.wisconsin.gov/business/engrserv/dbe-main.htm

Designing Zoo Interchange structures

A major component of the Zoo Interchange project is the design and construction of many structures. An experienced team of structural engineers are working to design:

- 65+ bridges, which is 1.26 million square feet of bridges.
- 100+ retaining walls, which is 11 miles of retaining wall.

The structural engineers rely on the data gathered by the geotechnical experts who have tested the soil in and around the Zoo Interchange to determine how to support the structure. The complexity of the bridges and structures has led to challenges and opportunities for innovative design and construction techniques.

There are locations on the north, west and south legs of the Zoo Interchange project where the railroad crosses over or under the freeway. Additionally there is a railroad tunnel underneath the intersection of WIS 100 (Mayfair Road) and US 18 (Bluemound Road.)

The reconstruction of the railroad tunnel and bridges is complex since Union Pacific Railroad freight train traffic must be maintained during construction of WIS 100 in 2013.



Crew assembling steel reinforcement for a drilled test shaft to determine the ability of the soil to support the Zoo Interchange bridges.

**65+ bridges, which is 1.26 million square feet of bridges.
100+ retaining walls, which is 11 miles of retaining wall.**

Pedestrian and bike accommodations

- The bridges designed for the various interchanges (e.g. Greenfield Avenue, Bluemound Road, Wisconsin Avenue) will be wider with enough lane width for bike accommodations, additional turn lanes to alleviate traffic congestion, and wider sidewalks for pedestrian safety.
- WisDOT will pave the Hank Aaron State Trail from 94th Place to the Oak Leaf Trail upon completion of the Zoo Interchange. WisDOT will provide detours during Zoo Interchange construction over portions of the Hank Aaron State Trail.
- Glenview Avenue will include pedestrian friendly amenities at the intersection with Wisconsin Avenue, including colored crosswalks and improved signal timing.

The railroad bridge over I-94 will be reconstructed on an offset track in 2014. The new track line will be built while the

train traffic is operating on the existing line. The plans for railroad bridge reconstruction are aiming for a minimal period of closure for rail traffic.

The core of the Zoo Interchange is another challenging component of the structure design due to the four levels. The “fly over” ramps being designed are so named because they extend (or fly) over the other ramps.

The design and construction of the ramps will be complicated by the length of the spans, and the location of other ramps and utilities in the area. Construction staging will be complex due to the desire to keep traffic moving during construction.

Planning ahead on alternate routes

WisDOT will use multiple strategies to minimize disruption and impacts to motorists, businesses and residents while successfully and efficiently completing construction.

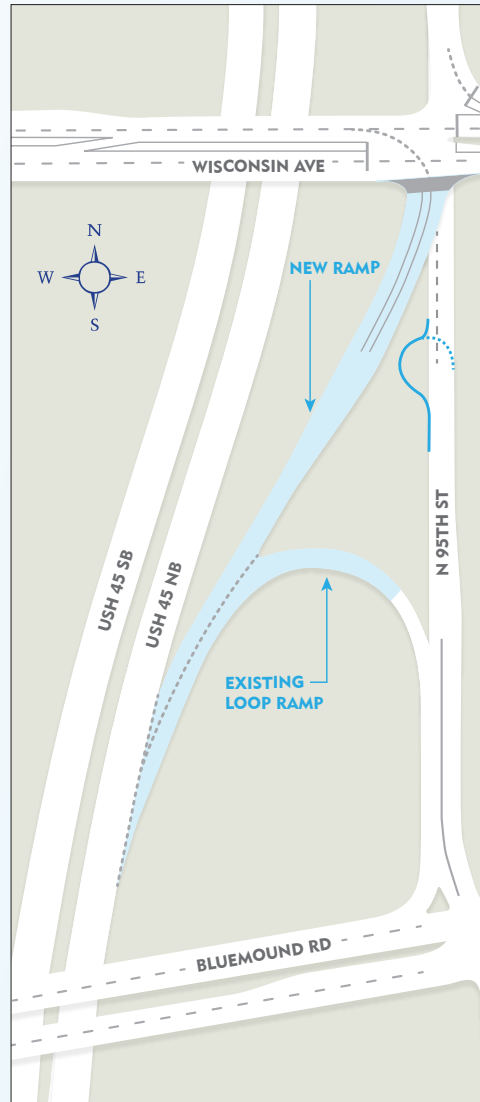
WisDOT will continue to coordinate with West Allis, Milwaukee and Wauwatosa on the proposed projects listed below.

Wisconsin Avenue Traffic Mitigation Project:

Later this year, temporary changes will be made to the Wisconsin Avenue/ Bluemound Road exit from northbound US 45 to help alleviate congestion during the reconstruction of the Watertown Plank Road interchange and the reconstruction of WIS 100 (Mayfair Road) between Watertown Plank Road and I-94. When you exit at Wisconsin Avenue/ Bluemound Road today, you drive around the loop and exit onto Bluemound Road. When this temporary exit is built, a second exit lane on a slight angle will also extend north to Wisconsin Avenue.

95th Street is currently a through street between Wisconsin Avenue and Bluemound Road. To accommodate the new temporary exit to Wisconsin Avenue, WisDOT will construct a temporary cul-de-sac on 95th Street, just south of Wisconsin Avenue. 95th Street will be reconnected to Wisconsin Avenue through traffic after the Wisconsin Avenue bridge over US 45 is rebuilt and the temporary ramp is removed.

WisDOT is committed to safe and cost-effective efforts to maintain efficient flow of traffic during all construction associated with the Zoo Interchange.



Temporary exit ramp at Wisconsin Avenue

Other modifications to Wisconsin Avenue include:

- Temporary on-street parking modifications between 95th Street and 92nd Street.
- Turn lanes will be extended to add more vehicle storage.

What else is being done this year?

- Improvements to WIS 100 north of Walnut Street
- Improvements to North Avenue
- Temporary signals on Lincoln Avenue
- Where impacted, bus stop relocation and related sidewalk extensions
- Marked detour routes to discourage cut-through traffic in the neighborhoods
- Intersection improvements (turn lane addition/modification)
- Signal timing improvements (add left turn arrows, pedestrian countdown timers, etc.)
- Add general purpose lanes by removing the High Occupancy Vehicle entrance ramp lanes at the certain ramp-metered interchanges

Watch for future newsletters with information on the reconstruction of Greenfield Avenue, WIS 100 and Glenview Avenue in 2013!

Construction Staging Map

Projects to improve traffic flow

• 2012

- WIS 59 (Greenfield Avenue) from 124th Street to 106th Street
- Wisconsin Avenue temporary ramp

• 2013

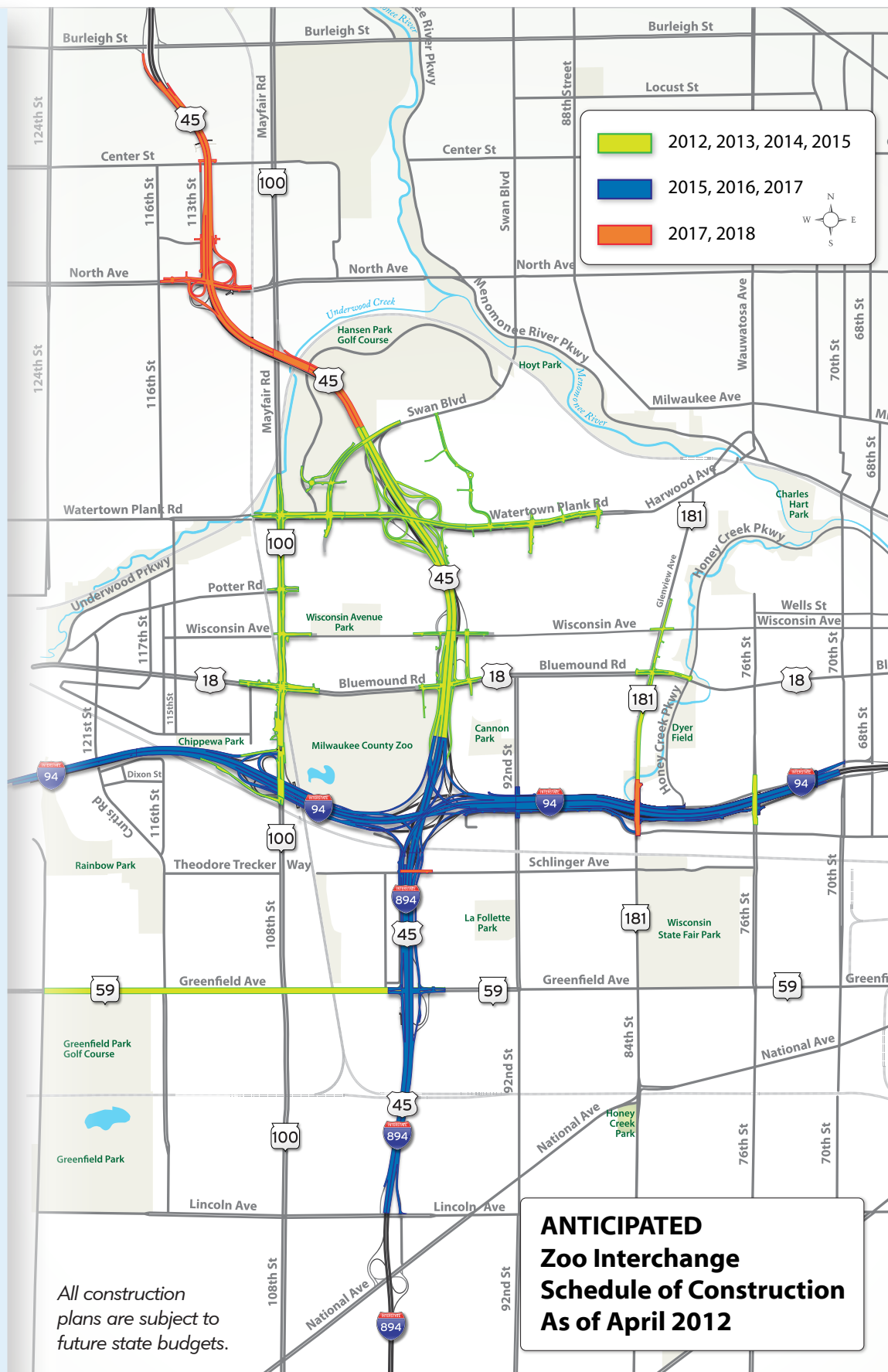
- WIS 100 from I-94 to Watertown Plank Road
- WIS 59 (Greenfield Avenue) from 106th Street to 97th Street
- 84th Street/ Glenview Avenue from Wisconsin Avenue to I-94
- Cleveland Avenue Bridge

• 2013/14/15

- Swan Boulevard
- US 45 from Bluemound Road to Swan Boulevard
- Bluemound Road and Wisconsin Avenue bridges
- Watertown Plank Road from WIS 100 to 87th Street
- 76th Street over I-94
- WIS 100 over I-94
- Railroad bridge over I-94

• 2015-2018

- Reconstruct the remainder of the Zoo freeway including the system interchange





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Zoo Interchange receives Federal support

In February 2012, the Federal Highway Administration (FHWA) issued a Record of Decision which documents approval of WisDOT's selected alternative for the \$1.7 billion reconstruction of the Zoo Interchange. The selected alternative includes:

- A cost-effective solution for modernizing the interchange to bring about needed safety improvements
- Improvements to Watertown

Plank Road, WIS 100 (Mayfair Road), and 84th Street/Glenview Avenue

- Minimized property acquisitions
- FHWA oversaw WisDOT's alternative development process and assessment of social, cultural, natural and physical environment. The environmental study included data collection, development and refinement of alternatives, impact assessment and community involvement.

WisDOT held over 500 meetings with individuals, groups, businesses, residents and community leaders.

With the FHWA Record of Decision, the project can move to final design and construction with federal funding. Construction of traffic mitigation measures, utility work and real estate negotiations will begin this year. Reconstruction of local roads and the freeway will start in 2013 and are anticipated to continue through 2018.



Watch your mailbox for future neighborhood meeting notices!

Keep up to date
www.zoointerchange.wi.gov

