



Project Location Map
 I-41 | Outagamie & Brown Counties, Wisconsin

2021-05-05



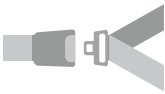
Purpose

The purpose of the I-41 project is to provide a safe, reliable highway that meets interstate standards and addresses safety and operational deficiencies. In addition, another purpose of the project is to address the outdated Wrightstown Safety and Weight Enforcement Facility (SWEF) to allow it to operate effectively with proposed improvements to I-41.



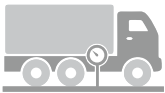
Capacity – Existing & Future Traffic Operations

Reducing congestion and traffic delays and improving reliability on I-41 would reduce transportation costs for all trips while improving traffic flow.



Safety – High Crash Rates

On I-41 in the study area, there were 1,640 crashes (not including deer or other animal crashes) from 2015 to 2019, close to one crash every day. Approximately 22 percent of the crashes resulted in injuries and six were fatal.



Wrightstown Safety and Weight Enforcement Facility (SWEF)

WisDOT is proposing rebuilding the Wrightstown SWEF in Outagamie County, which is accessible from northbound I-41, about 0.75 mile south of County U. The existing SWEF does not have modern technology to weigh and inspect commercial motor vehicle truck traffic. In addition to replacing the SWEF, the State Patrol would move its Northeast Region Headquarters (currently in Fond du Lac) to this site.



Roadway Deficiencies

Pavement Condition: Much of the I-41 pavement was built in the 1960s, and although it has been resurfaced, the underlying pavement has reached the end of its useful life, and further resurfacings are no longer cost effective.

Bridge Conditions: The bridges have deteriorated over the years due to age, heavy traffic, road salt, freeze thaw cycles, and water entering cracks in the bridges. At some locations, bridge clearances (the vertical distance from pavement to the lowest portion of the bridge above the roadway) are below desirable standards.

Roadway Design Deficiencies: There are numerous locations with narrow shoulders, insufficient ramp designs, and closely spaced interchanges along I-41.

Purpose and Need

I-41 | Outagamie & Brown Counties, Wisconsin

2021-05-21



Task Item	2020												2021											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Environmental																								
Agency Coordination																								
Traffic Analysis																								
Alternatives Development/Screening																								
Preliminary Design																								
Public Involvement																								

Initiation of Environmental Study: Dec 2019
Final Design: Tentative 2022-2024

Real Estate Acquisition: Tentative 2023-2024
Construction: To Be Determined

Proposed Schedule

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- 1 I-41 (WIS 96 - County F)**
6-Lanes - The 6-lane alternative is the safest I-41 alternative, best addresses future traffic operations, and is the only alternative that would provide lane and route continuity. The 6-lane alternative would reconstruct I-41 and add an additional travel lane in each direction. The additional travel lane would be added in the median and a concrete median barrier would separate the two directions of traffic rather than the current grass median.
- 2 I-41 (WIS 96 - WIS 15), (WIS 47 - County E), (WIS 55 - County J), (South Bridge Connector - County F)**
Auxiliary Lanes - In addition to adding a third lane in each direction, auxiliary lanes would also be built between these closely spaced interchanges. Auxiliary lanes are extra lanes constructed between entrance and exit ramps that allow drivers a safe way to merge into traffic.
- 3 WIS 15/County OO (Northland Avenue) Interchange**
Diverging Diamond Interchange - The diverging diamond interchange best addresses traffic operations at the interchange, improves safety, and has minimal impacts.
- 4 WIS 47 (Richmond Street) Interchange**
Diverging Diamond Interchange - The diverging diamond interchange best addresses traffic operations at the interchange, improves safety, and has minimal impacts.
- 5 County E (Ballard Road) Interchange**
Diverging Diamond Interchange - The diverging diamond is the safest interchange option, has the best traffic operations and requires less land from adjacent property owners.
- 6 WIS 441 System Interchange**
55-mile-per-hour Flyover Ramps - The 55-mile-per-hour design speed flyover ramp alternative requires less land from adjacent property owners, has less impacts, and costs less than the 60 mile-per-hour flyover alternative while offering similar operational and safety benefits.
- 7 I-41 (County E - WIS 441)**
Collector-Distributor Roads - A Collector-distributor (C-D) road is an extra lane(s) parallel to, but separated from, the freeway lanes by concrete barrier. Their primary purpose is to move vehicle lane changing away from the high-speed traffic on the freeway lanes. A C-D road would improve safety over the existing auxiliary lane, requires less land, and is less expensive than the braided ramps, but still provides a safe connection with acceptable traffic operations.
- 8 WIS 441 (I-41 to County OO)**
Auxiliary Lane (Northbound) - The auxiliary lane would provide similar safety benefits for current and future traffic volumes, while requiring less land from adjacent property owners, and cost.
Braided Ramp (Southbound) - The braided ramps alternative avoids right of way acquisition and resource impacts needed to reconstruct the WIS 441/County OO interchange as a partial cloverleaf interchange.
- 9 County N (Freedom Road) Interchange**
Diamond Interchange with Traffic Signals - The interchange operates acceptably as a diamond interchange with traffic signals today, and future traffic volumes are projected to remain close to current volumes.
- 10 WIS 55 (Delanglade Street) Interchange**
Diamond Interchange with Roundabouts - This interchange was reconstructed in 2018 to add roundabouts, the roundabouts meet current standards and do not require reconstruction. An additional lane may be added along WIS 55 to address future traffic volumes and the I-41 bridges over WIS 55 and Maloney Road would be reconstructed.

- 11 County J (Lowe Street) Interchange**
Diamond Interchange with Roundabouts - This interchange was reconstructed in 2010 to add roundabouts, and thus the roundabouts meet current standards and do not require reconstruction. The interchange ramps would be reconstructed to tie into I-41, and the County J bridge over I-41 would be reconstructed due to the location of the existing bridge piers. Reconstructing the ramps in their current alignment meets the need of the project with minimal environmental impacts.
- 12 County U (County Line Road) Interchange**
Diamond Interchange with Roundabouts - The diamond interchange with roundabouts alternative would best handle future traffic volumes.
- 13 County S (Freedom Road) Interchange**
Diamond Interchange with Roundabouts - The diamond interchange with roundabouts alternative would best handle future traffic volumes and have less impacts than the relocated frontage road alternatives.
- 14 South Bridge Connector (County EB/GV) Interchange**
Diamond Interchange with Roundabouts - There is no existing interchange at I-41 and Southbridge Road/Orange Lane. As part of the I-41 Project, WisDOT would construct a new interchange at this location. The diamond interchange with roundabouts was identified as the preferred alternative for the new interchange. This alternative has the best operational performance and meets safety and design standards.
- 15 Wrightstown Safety and Weight Enforcement Facility (SWEF)**
Northbound Alternative - This alternative uses existing right of way with no property acquisition or relocations required, has less environmental impacts, is safer, keeps existing frontage roads intact, and costs less than the southbound alternative. The reconstructed SWEF would also house the relocated State Patrol's Northeast District Headquarters in a new two-story building.



Preferred Alternative Map

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2021-07-06



		Purpose and Need				Environmental Impacts				Real Estate Impacts			Major Utility Impacts	Construction Cost
		Improves Safety	Upgrades to Current Design Criteria	Meets Traffic Demands	Provides System Continuity	Parkland	Arch/History	Wetlands	Stream Crossings	R/W Required	Residential Relocation	Business Relocation		
Mainline	No Build	No	No	No	No	No	No	No	No	No	No	No	No	N/A
	Transportation Demand Management (TDM)	No	No	No	No	No	No	No	No	No	No	No	No	N/A
	Transportation System Management (TSM)	No	No	No	No	No	No	No	No	No	No	No	No	N/A
	4-Lane Modernization with Hard Shoulder Running	Yes	Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	\$350M+/- \$30M
	6-Lane Modernization (Preferred Alternative)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	TBD	\$600M+/- \$50M
WIS 15/County OO	Diamond	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	No	\$24M-\$28M
	Diamond with Roundabouts	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	No	No	\$24M-\$28M
	Diverging Diamond (Preferred Alternative)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	No	\$24M-\$28M
	Partial Cloverleaf	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	No	No	\$25M-\$29M
	Partial Cloverleaf with Roundabouts	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	No	No	\$25M-\$29M
WIS 47	Diamond	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	No	No	No	\$17M-\$21M
	Diamond with Roundabouts	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	No	No	No	\$17M-\$21M
	Diverging Diamond (Preferred Alternative)	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	No	No	\$18M-\$22M
County E	Diamond	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	No	No	\$17M-\$21M
	Diamond with Roundabouts	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	No	No	No	\$17M-\$21M
	Diverging Diamond (Preferred Alternative)	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	No	\$19M-\$23M
	County E Park and Ride Lot					No	No	No	No	No	No	No	No	\$100k
WIS 441	Loop Ramp	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	No	No	No	\$26M-\$30M
	55 MPH Flyovers with C-D Road to County E (Preferred Alternative)	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	No	\$70M-\$80M
	60 MPH Flyovers with C-D Road to County E	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	No	\$85M-\$90M
County N	Diamond (Preferred Alternative)	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	No	No	\$10M-\$14M
	County N Park and Ride Lot					No	No	No	No	No	No	No	No	\$100k
WIS 55	Diamond with Roundabouts (Preferred Alternative)	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	No	No	No	\$5M-\$7M
County J	Diamond with Roundabouts (Preferred Alternative)	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	No	No	\$7M-\$9M
County U	Diamond	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	No	No	No	\$6M-\$10M
	Diamond with Roundabouts (Preferred Alternative)	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	No	No	\$8M-\$10M
County S	Diamond	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	No	No	No	\$15M-\$19M
	Diamond with Roundabouts (Preferred Alternative)	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	No	No	\$15M-\$19M
	Diamond with Relocated Frontage Roads	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	No	No	\$19M-\$23M
	Diamond with Relocated Frontage Roads Hickory Road Connection	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	No	No	\$19M-\$23M
	County S Park and Ride Lot					No	No	No	No	No	No	No	No	\$100k
South Bridge	Diamond	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	No	\$40M-\$50M
	Diamond with Roundabouts (Preferred Alternative)	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	No	\$40M-\$50M
Outagamie County DPW Salt Shed						No	No	No	No	No	No	No	No	\$1M
SWEF - Northbound Alternative		Yes	Yes	Yes		No	No	Yes	No	No	No	No	No	\$21.7M
SWEF - Southbound Alternative		Yes	Yes	Yes		No	No	Yes	No	No	No	No	No	\$24.1M

Alternative Evaluation Matrix

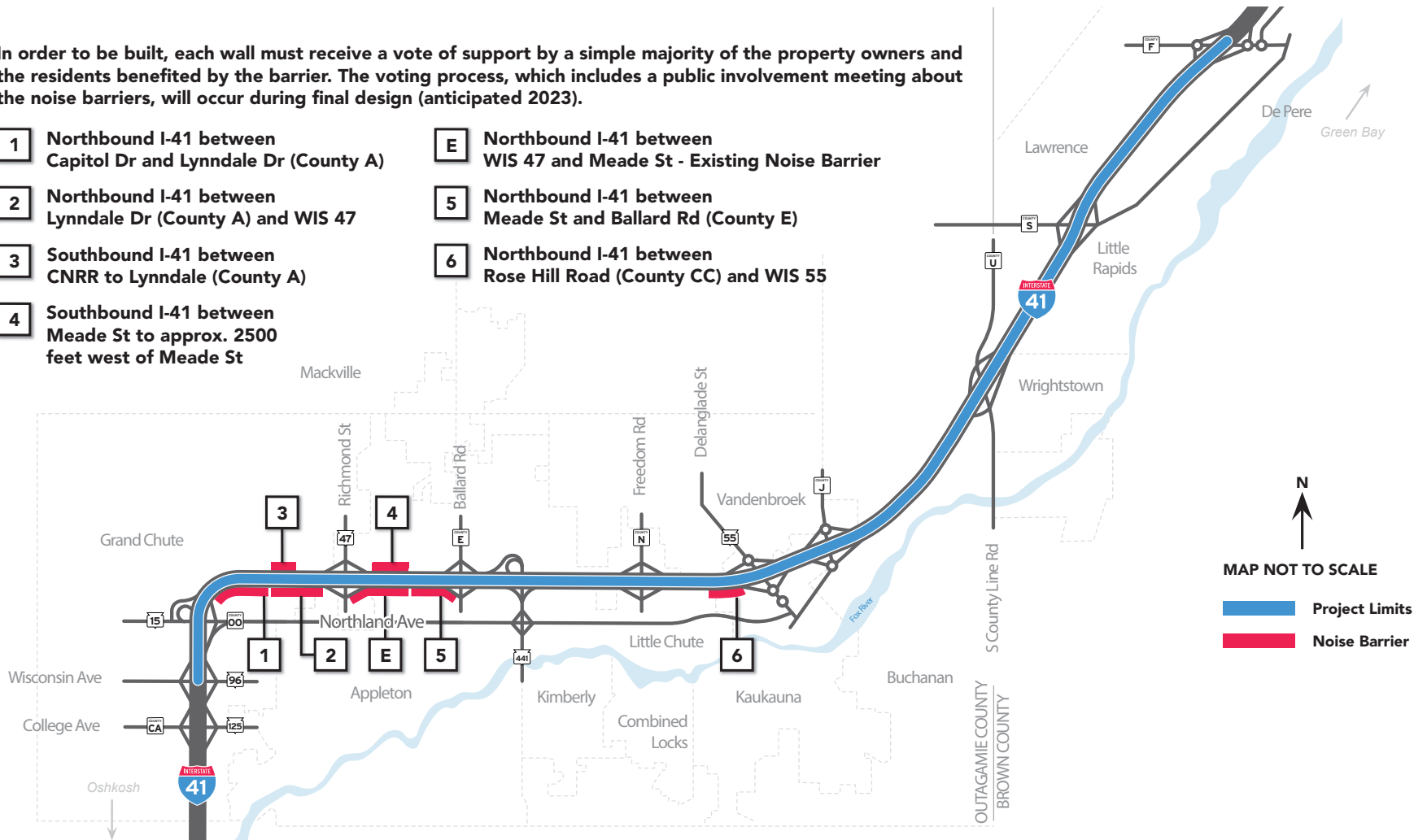
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2021-06-14



In order to be built, each wall must receive a vote of support by a simple majority of the property owners and the residents benefited by the barrier. The voting process, which includes a public involvement meeting about the noise barriers, will occur during final design (anticipated 2023).

- | | |
|---|---|
| 1 Northbound I-41 between Capitol Dr and Lynndale Dr (County A) | E Northbound I-41 between WIS 47 and Meade St - Existing Noise Barrier |
| 2 Northbound I-41 between Lynndale Dr (County A) and WIS 47 | 5 Northbound I-41 between Meade St and Ballard Rd (County E) |
| 3 Southbound I-41 between CNRR to Lynndale (County A) | 6 Northbound I-41 between Rose Hill Road (County CC) and WIS 55 |
| 4 Southbound I-41 between Meade St to approx. 2500 feet west of Meade St | |



Noise Barriers

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2021-06-11





4(f) Property

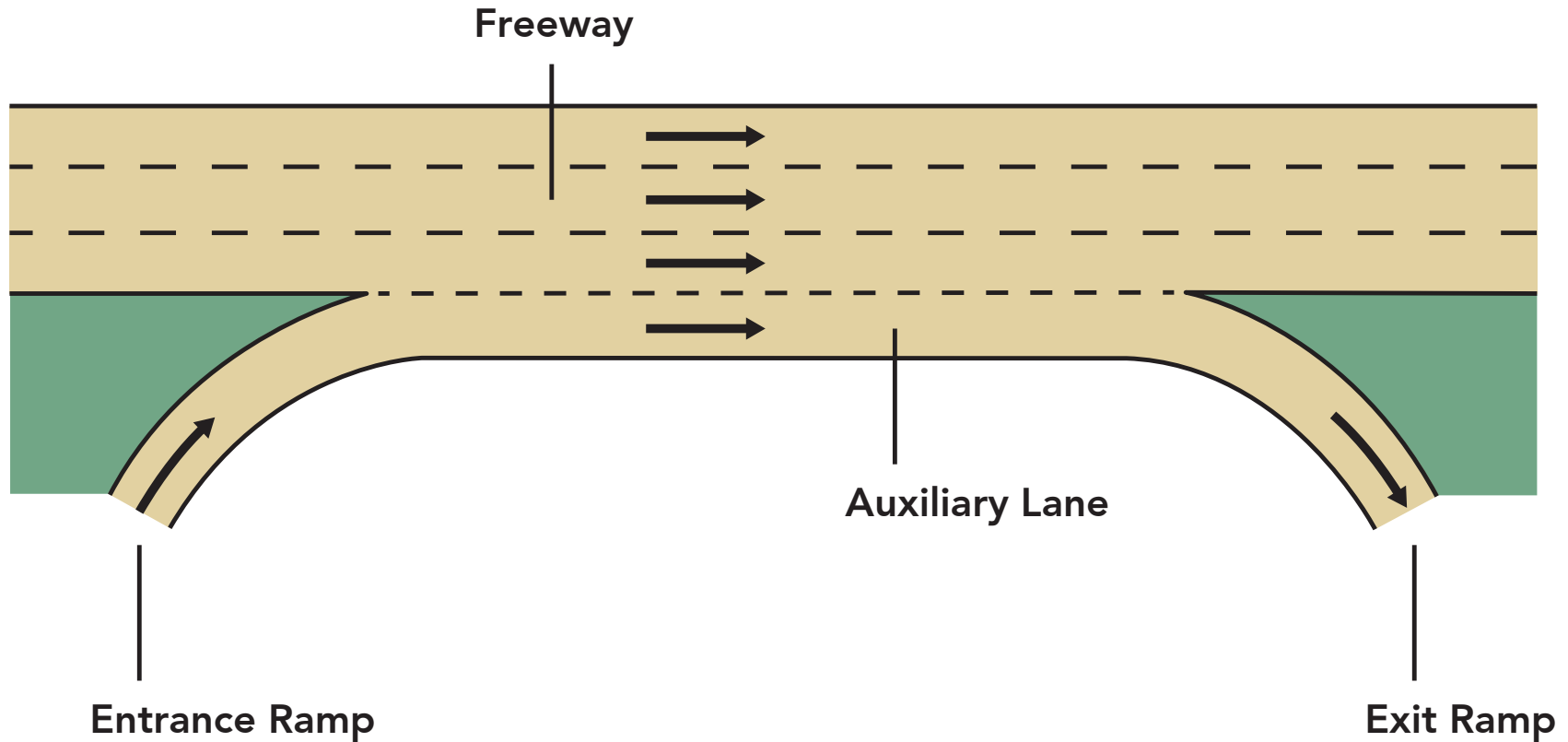
Proposed Right of Way

Section 4(f) Impacts

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2021-06-11





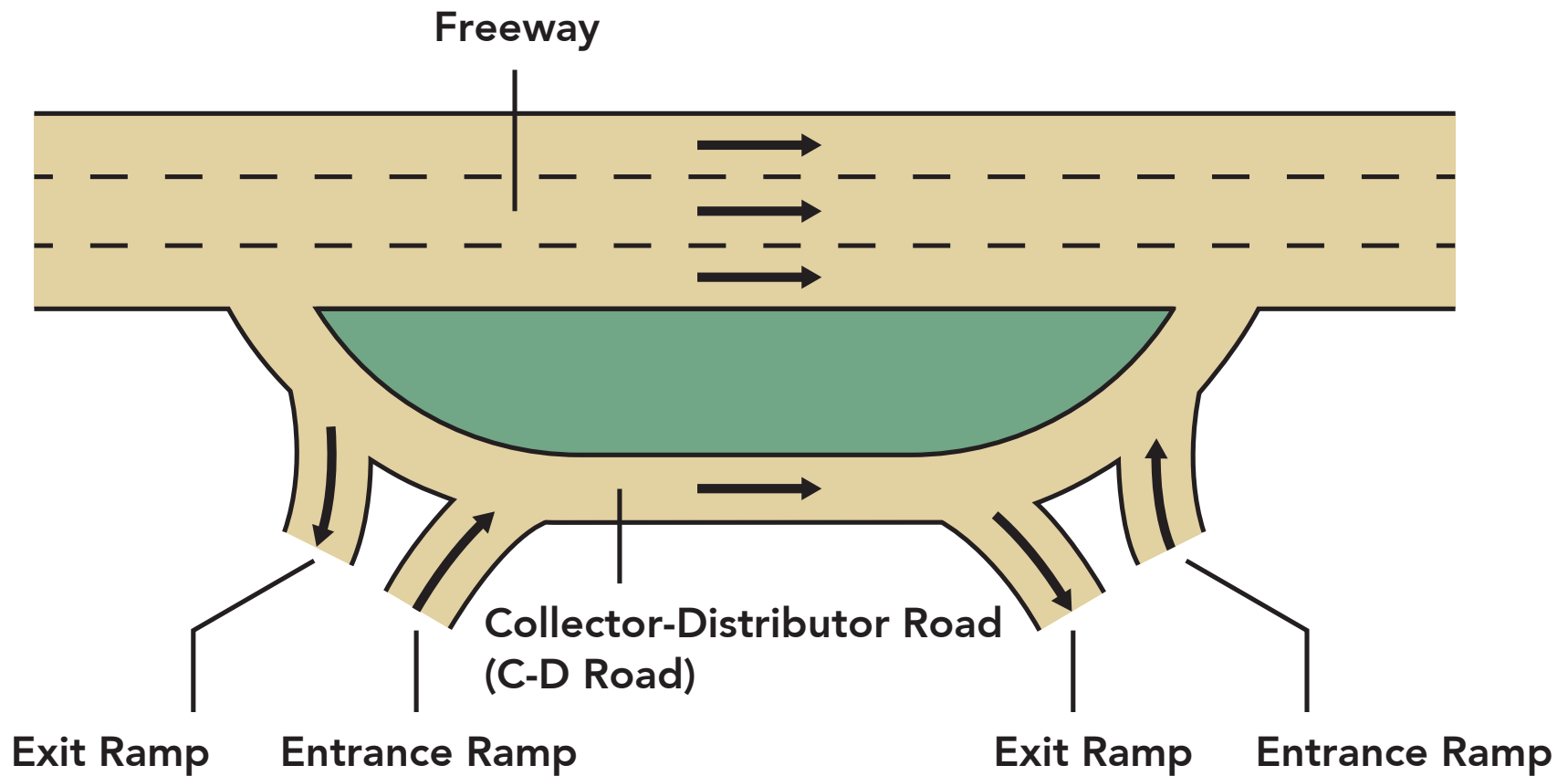
Auxiliary lanes are extra lanes constructed between entrance and exit ramps that allow drivers a safe way to merge into traffic while also preventing bottlenecks caused by drivers attempting to enter or exit.

Auxiliary Lane

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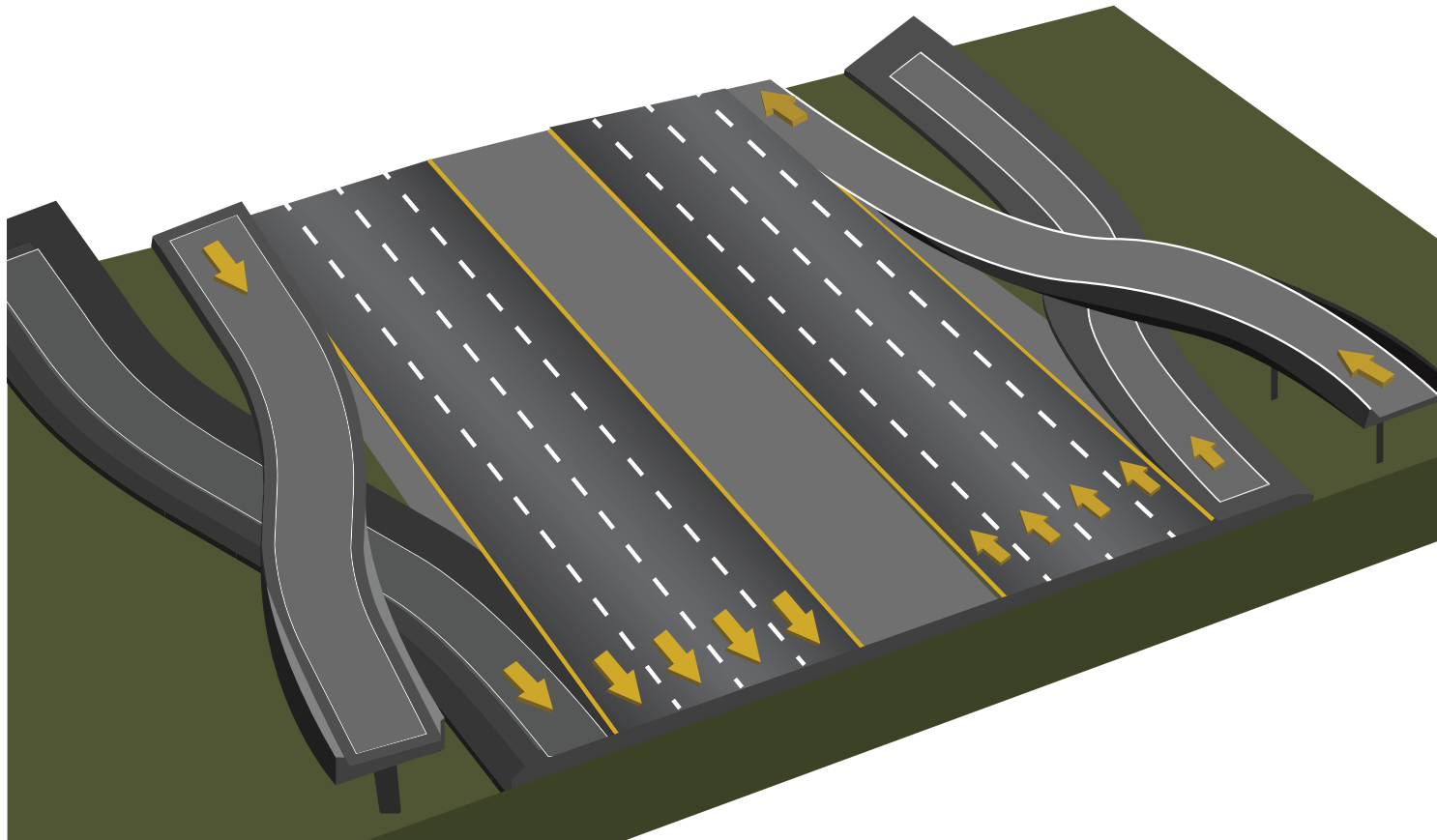


Collector-distributor roads are limited-access roads that run parallel to the main travel lanes of a highway and carry traffic to and from local roads. The collector-distributor roads would eliminate weaving on I-41 and reduce the number of entrance and exit points.

Collector-Distributor Road (C-D Road)
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2021-05-06





Braided ramps remove weaving conflicts by separating the merging traffic onto different ramps. A common example is when an on-ramp from one nearby interchange is braided with (or arcs up and over) an off-ramp for the next interchange.

Braided Ramps

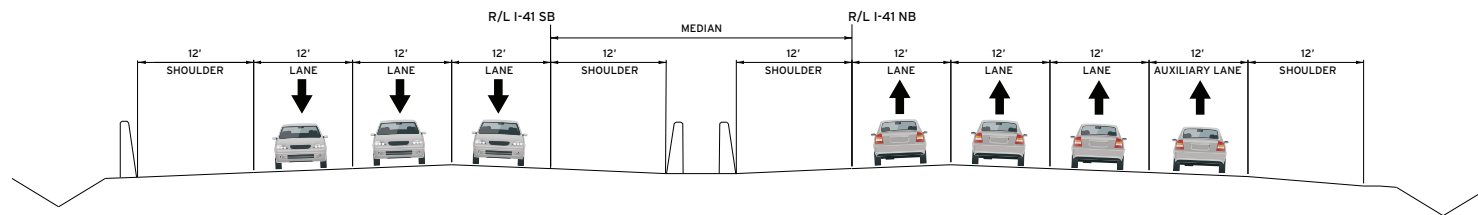
I-41 | Outagamie & Brown Counties, Wisconsin

2021-06-30

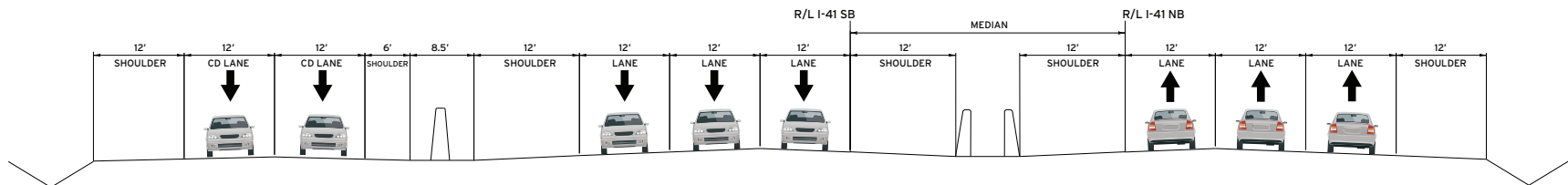


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SIX LANE TYPICAL SECTION - I-41
SHOWN WITH AUXILIARY LANE



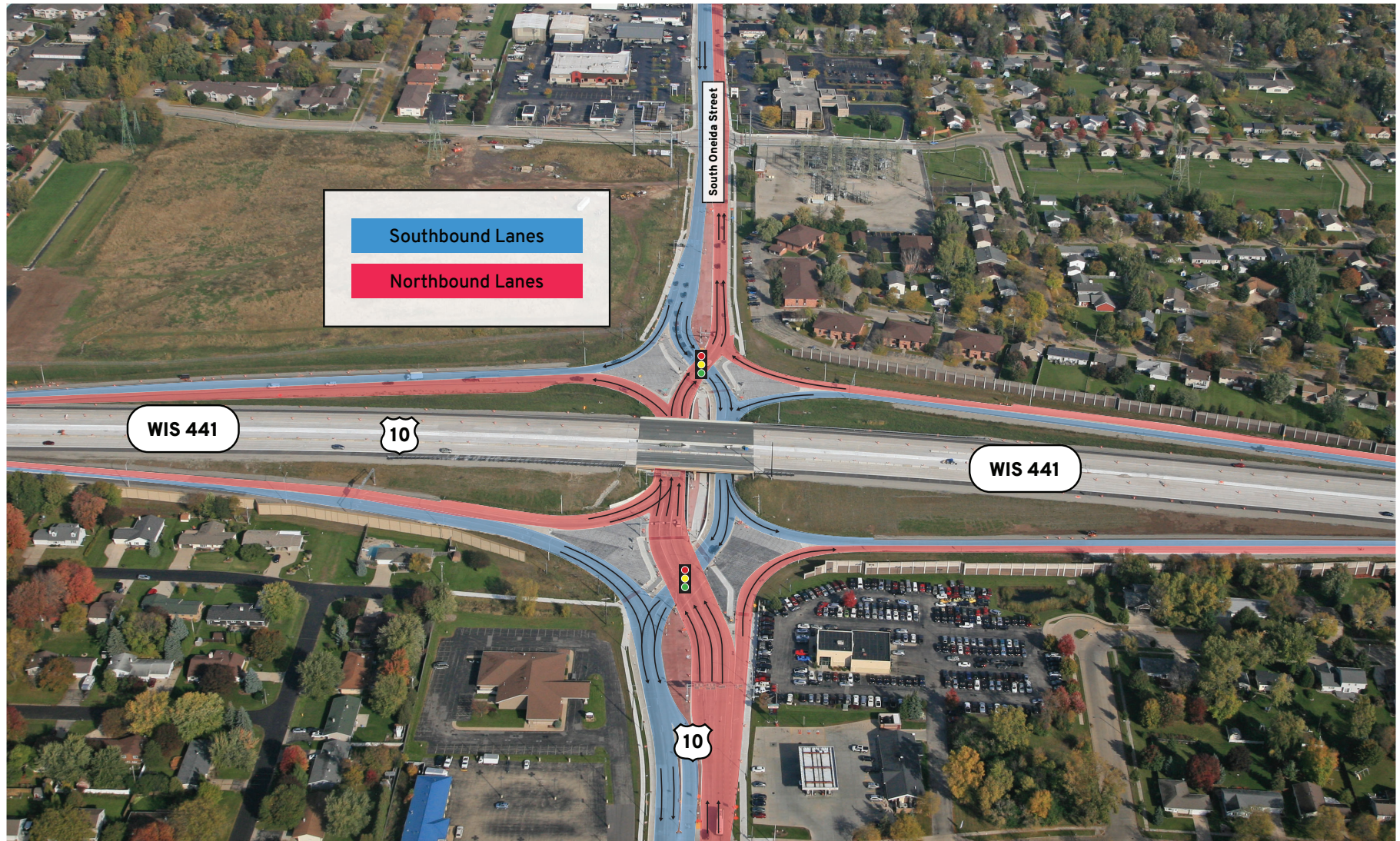
SIX LANE TYPICAL SECTION - I-41
SHOWN WITH COLLECTOR-DISTRIBUTOR ROAD

Six-Lane Proposed Alternative

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2021-06-25





Diverging Diamond Interchange – DDI | WIS 441 & South Oneida Street

I-41 Study | Outagamie & Brown Counties, Wisconsin

2021-06-25



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