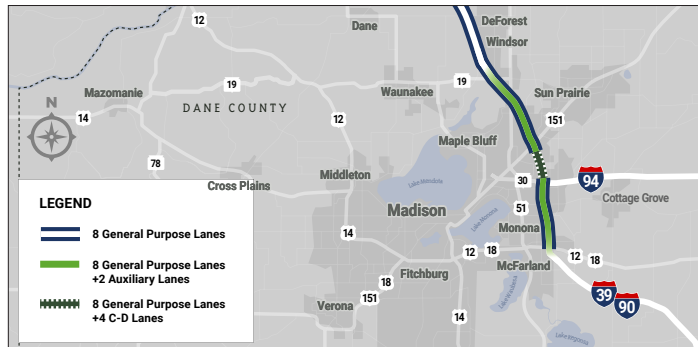


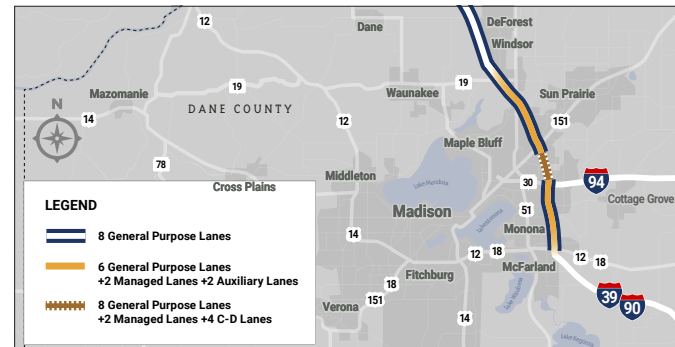
# I-39/90/94 Mainline Alternative Comparison

## ALTERNATIVE OVERVIEW

### Modernization Plus Added General Purpose Lane



### Modernization Hybrid



## SAFETY & OPERATIONS

### Predictive Safety

(Compared to Modernization of Existing Travel Lanes)

### Modernization plus added General Purpose lane

**30%** reduction in total crashes

**28%** reduction in fatal/injury crashes

### Modernization Hybrid

**3%** reduction in total crashes

**1%** reduction in fatal/injury crashes

## COST

The up-front cost of the Modernization Plus Added General Purpose Lane alternative is higher while the annual cost to maintain and operate the Modernization Hybrid is higher. For this reason, the Modernization Hybrid becomes more costly within 8-15 years of preliminary construction.

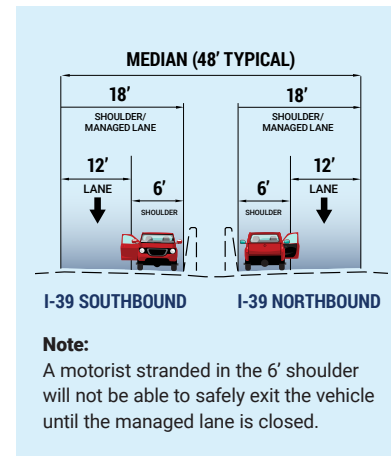
The following annual costs included in Modernization Hybrid over Modernization Plus Added General Purpose Lane:



- Traffic Management Center operators & engineer staff \*
  - County Maintenance Staff \*
  - Freeway Service Team \*
  - ITS System replacement costs (every 15 years)
  - Active response, repair of, and preventative maintenance of ITS equipment
  - Camera software & licensing, utility costs, & network monitoring
- \* Ongoing vacancies are occurring at TMC and Dane County which are anticipated to cause issues providing these services in the future.

## OTHER CONSIDERATIONS

- The Modernization Hybrid is 12' narrower (6' on both sides of the freeway) than the Modernization Plus Added General Purpose Lane alternative.
- 6 foot shoulders result in approximately 10% higher crash rates than 12 foot shoulders.
- The Hybrid alternative adds a lane on the inside shoulder, however the larger traffic demands are to and from ramps along the outside of the roadway (especially from US 12/18 to I-94/WIS 30).
- The start and end points of the Modernization Hybrid alternative adds additional decision points. Lane drops can have higher crash rates because of traffic weaving and merging conflicts.
- The Modernization hybrid alternative managed lanes will be unavailable at times. It is anticipated that 25% of the days when the managed lanes are opened, they would subsequently be partially or fully closed due to incidents, large snow events, power outages, etc. *There is a higher risk of traffic diversion to other roadways during outages.*
- A hybrid alternative operates most effectively with a large percentage of familiar drivers (local commuters). High truck volumes are present on all days and high volumes of unfamiliar, recreational drivers are present on high traffic Fridays and Sundays.



## OPERATING HOURS

- Predicted managed lanes operating hours in 2050 between I-94/WIS 30 and US 151 includes:



**WEEKDAYS:**  
7-9 a.m., 3-6 p.m. \*

**WEEKENDS:**  
7-9 a.m. to 8 p.m. \*

- The managed lane would be open for approximately 40% of daylight hours on weekdays and for all daylight hours on weekends.

\* These are the predicted hours of operation, but actual hours of operation will be based on field conditions and need.

