



I229 / Exit 3 (Minnesota Ave) IMJR

Interchange Modification Justification Report (IMJR)

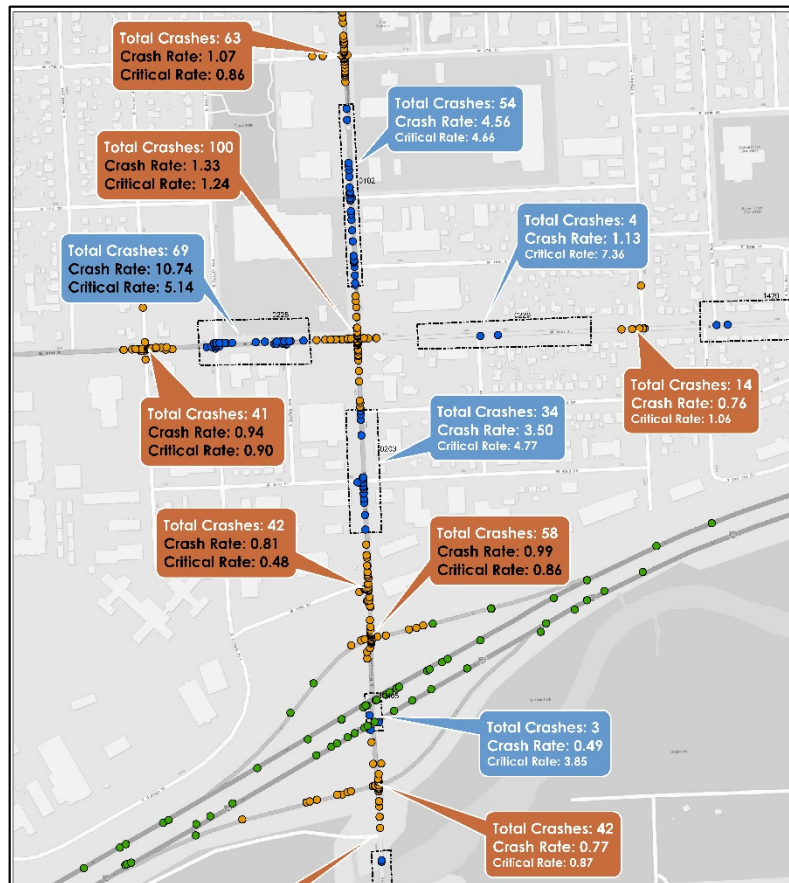
- Federal Highway Administration (FHWA) required document that concludes the proposed changes do not have a significant adverse impact on the safety and operations of the interstate facility.
- The IMJR document was developed with oversight from FHWA, SDDOT, City of Sioux Falls, and members of the SAT.
- The main steps in the process include:
 - Identify the study area
 - Gather data (ie. traffic, survey, land use, environmental, etc.)
 - Review prior studies
 - Coordinate with the preparation of the environmental studies and NEPA process
 - Determine operational & safety characteristics to address the FHWA requirements
 - Prepare and submit the IMJR document for review/approval



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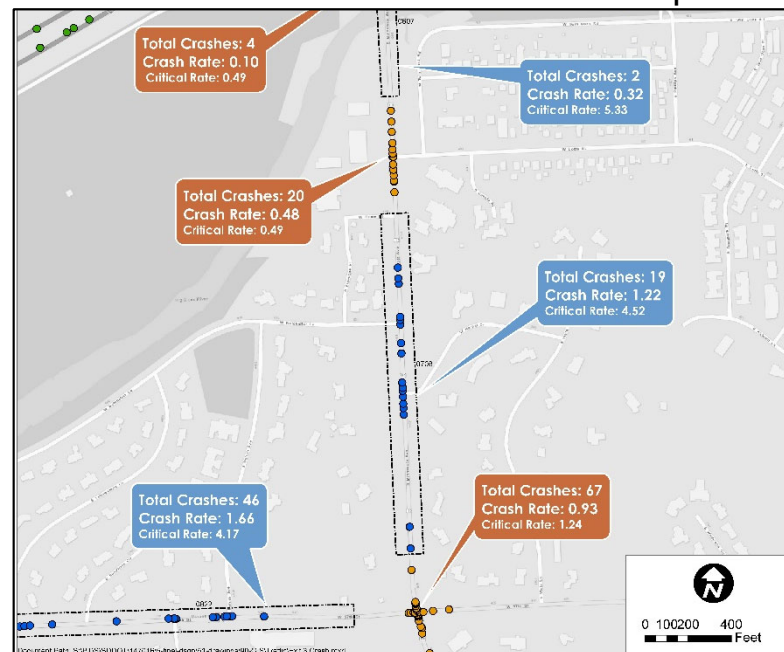


Exit 3 (Minnesota Ave) – Crash Summary



Summary of Reported Crashes:

- 508 Crashes along Minnesota Avenue
 - 396 at Intersections
 - 112 along Segments
- 87 Crashes on I-229 and Ramps
- 4 Intersections above Critical Rate:
 - Minnesota at 37th St
 - Minnesota at 41st St
 - Minnesota at 49th St
 - Minnesota at I-229 SB Ramp Intersection



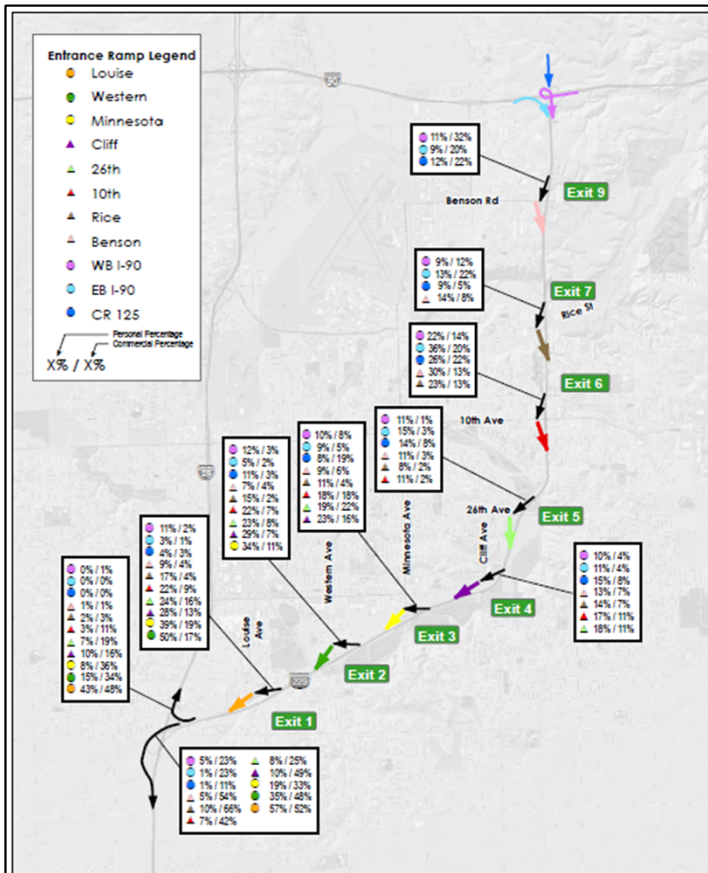
Interchange and Environmental Study for I-229
Exits 3 (Minnesota Ave) and 4 (Cliff Ave)



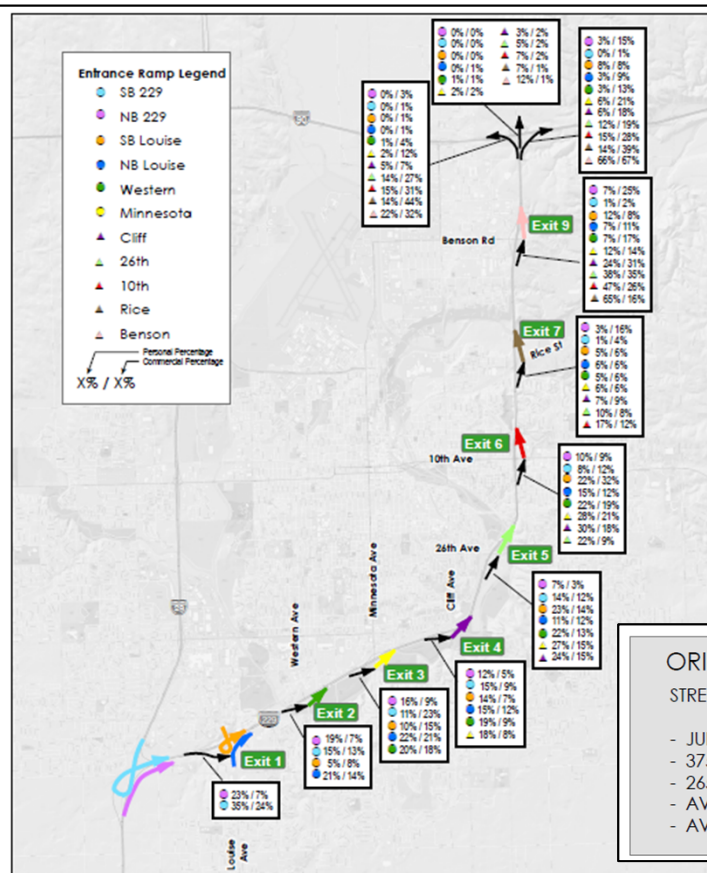
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Origin – Destination Study



SB OD Summary Weekday Avg



NB OD Summary Weekday Avg

ORIGIN - DESTINATION STUDY
STREETLIGHT DATE - CELLPHONE / GPS

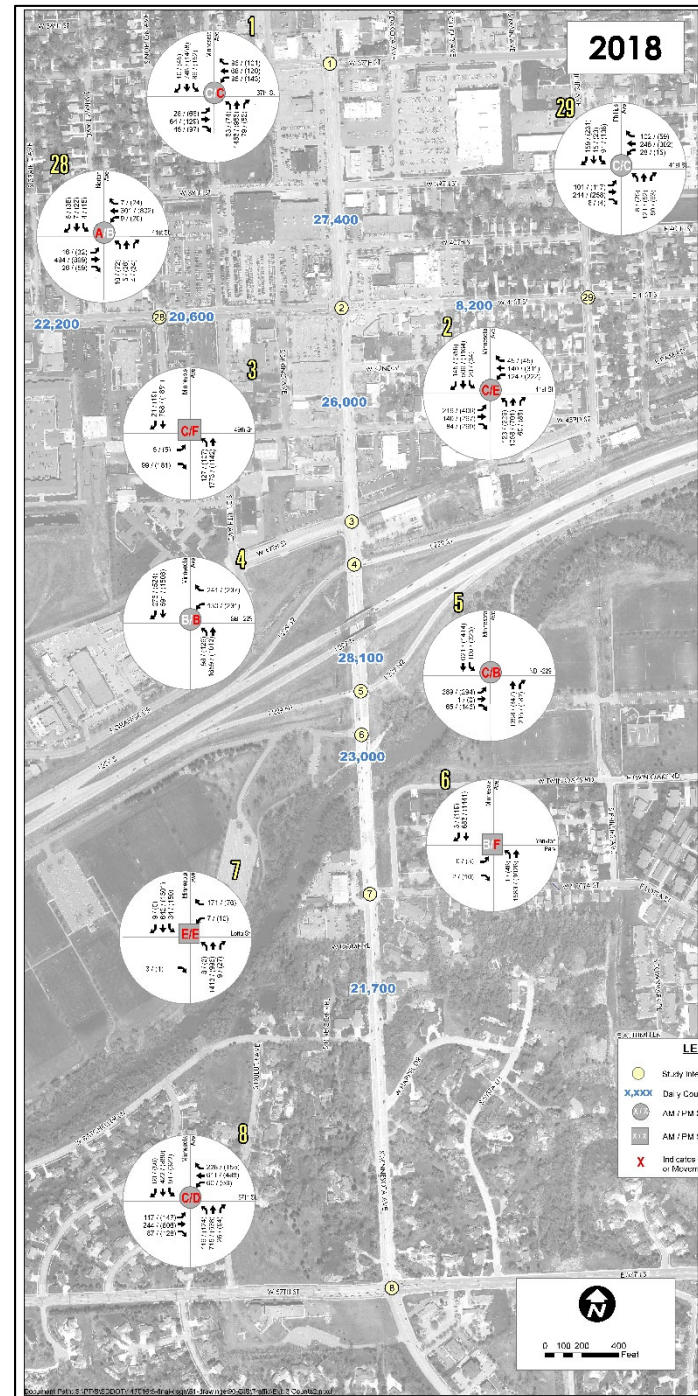
- JULY 2017 - JUNE 2018
- 375,000 PERSONAL TRIPS
- 265,000 COMMERCIAL TRIPS
- AVERAGE PERSONAL TRIP < 4 MILES
- AVERAGE COMMERCIAL TRIP < 5 MILES



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Exit 3 (Minnesota Ave) – Existing Traffic Volumes

- 2018 Freeway and Ramp Data provided by SDDOT.
- 2016-2018 Intersection data provided by City of Sioux Falls.
- Included 29 study intersections and 16 ramp junctions.



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Exit 3 (Minnesota Ave) – Future Growth

- Sioux Falls Area MPO's Regional Travel Demand Model used to develop forecasts for 2023 and 2050



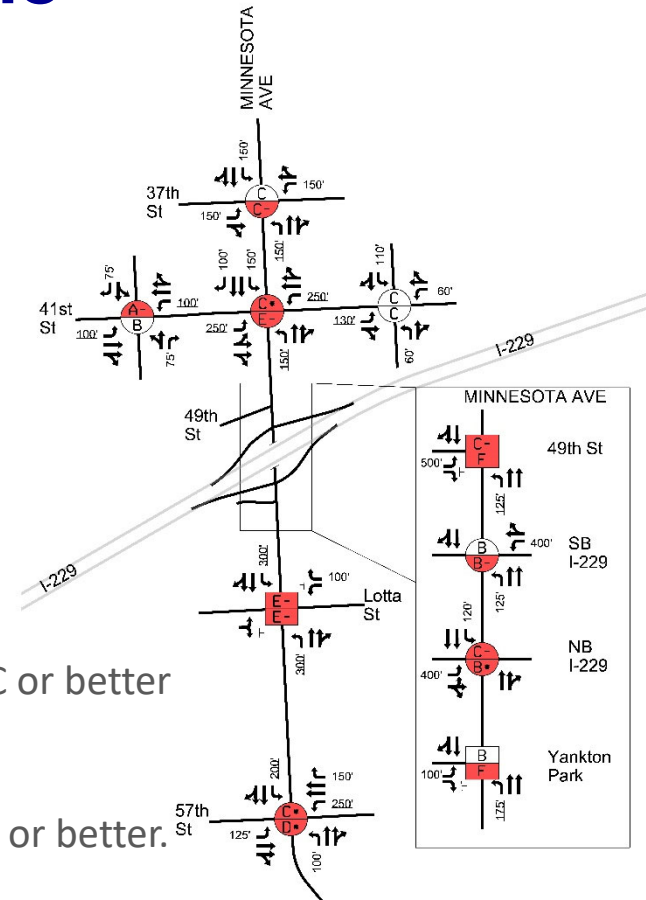
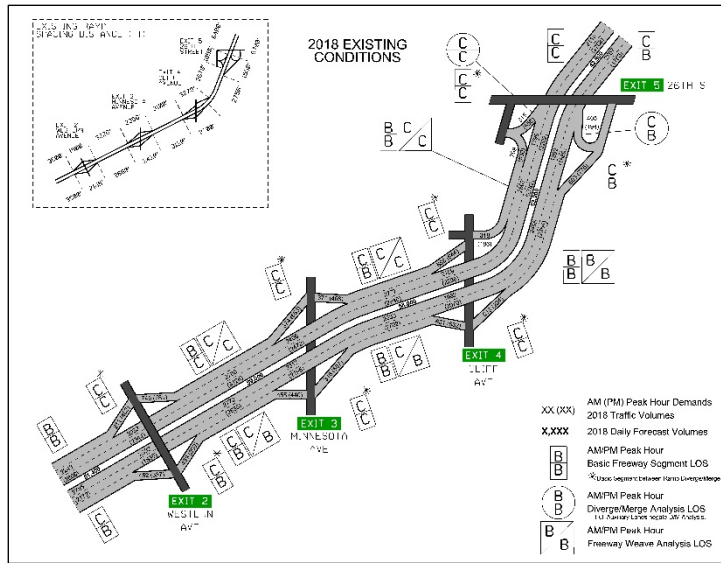
- I-229 to grow up to 60% by 2050.
- Minnesota Ave to grow between 25% and up to 35%.



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2018 Traffic Operations



How do we measure "Level of Service" (LOS)?

- A FREE FLOW**
Low volumes and free flow speeds.
- B STABLE FLOW**
Reasonable free flow speeds, minimal restrictions on lane maneuvers.
- C STABLE FLOW**
Near free flow speeds, noticeable restrictions on lane maneuvers.
- D STABLE FLOW**
Speed decline with increased volume, significant restriction on lane maneuvers.
- E UNSTABLE FLOW**
At or near capacity, with few gaps for lane maneuvers and frequent disruptions and queues.
- F FORCED FLOW**
Operational breakdown.

The Level of Service (LOS) goal is to achieve a LOS C or better for all freeway and ramp intersections.

The LOS goal for intersections is to achieve a LOS D or better.

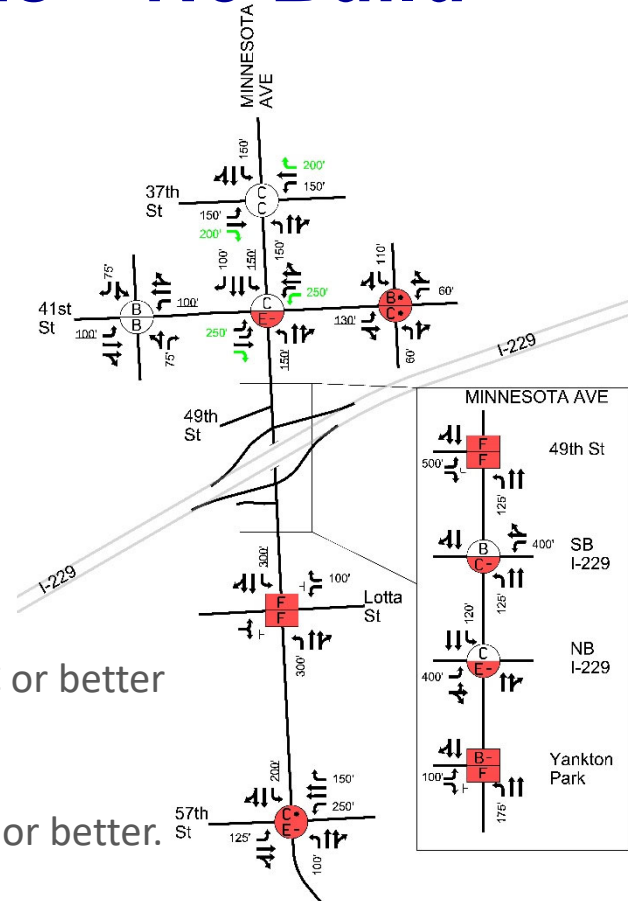
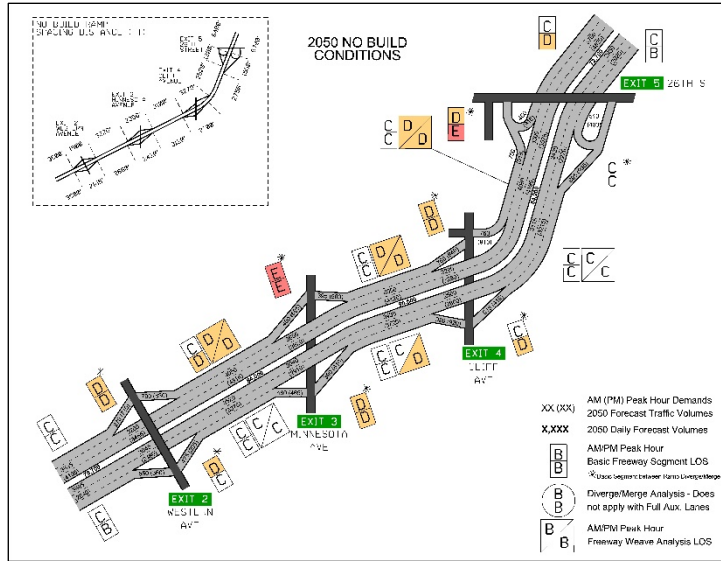
Under existing conditions, the freeway LOS is achieved; however, 9 study intersections have poor LOS.



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2050 Traffic Operations – No Build



How do we measure "Level of Service" (LOS)?

A	FREE FLOW Low volumes and free flow speeds.
B	STABLE FLOW Reasonable free flow speeds, minimal restrictions on lane maneuvers.
C	STABLE FLOW Near free flow speeds, noticeable restrictions on lane maneuvers.
D	STABLE FLOW Speed decline with increased volume, significant restriction on lane maneuvers.
E	UNSTABLE FLOW At or near capacity, with few gaps for lane maneuvers and frequent disruptions and queues.
F	FORCED FLOW Operational breakdown.

The Level of Service (LOS) goal is to achieve a LOS C or better for all freeway and ramp intersections.

The LOS goal for intersections is to achieve a LOS D or better.

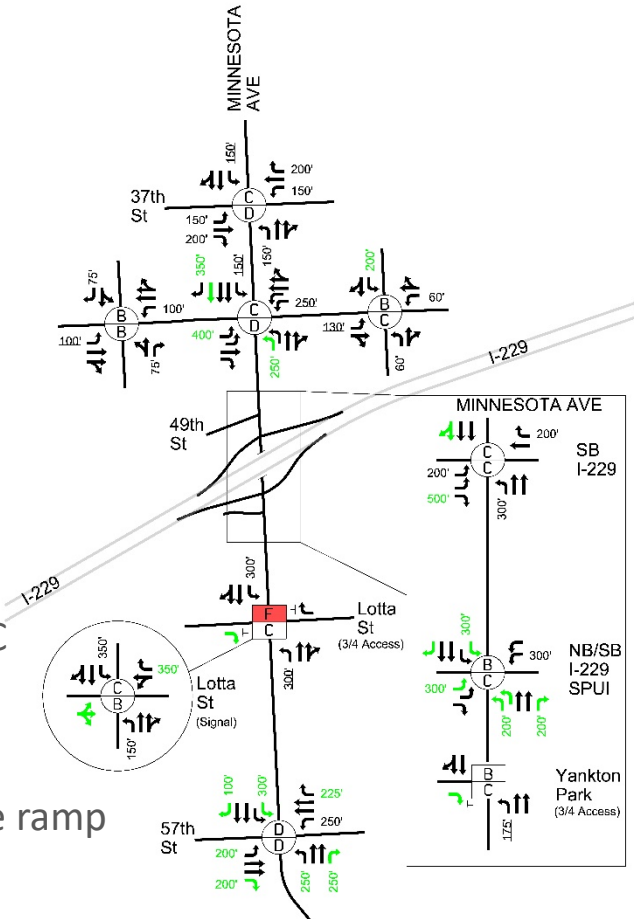
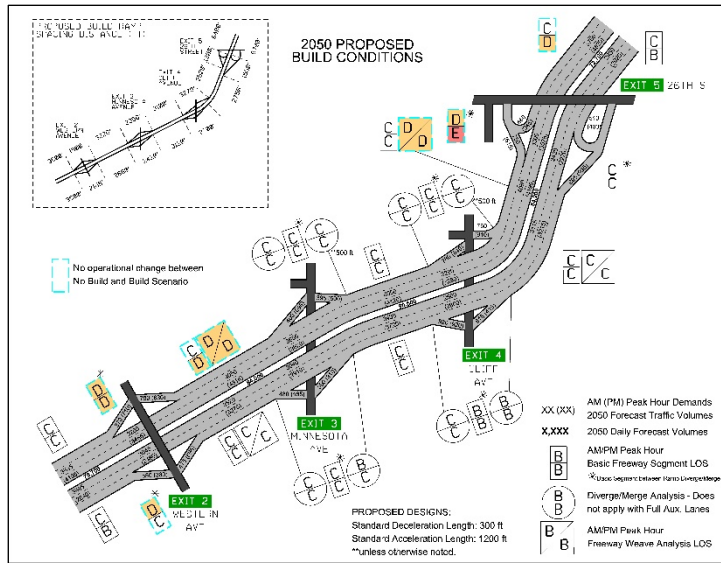
Under 2050 No Build conditions, the freeway and study intersections have poor LOS.



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2050 Traffic Operations – Build



How do we measure "Level of Service" (LOS)?

A	FREE FLOW Low volumes and free flow speeds.
B	STABLE FLOW Reasonable free flow speeds, minimal restrictions on lane maneuvers.
C	STABLE FLOW Near free flow speeds, noticeable restrictions on lane maneuvers.
D	STABLE FLOW Speed decline with increased volume, significant restriction on lane maneuvers.
E	UNSTABLE FLOW At or near capacity, with few gaps for lane maneuvers and frequent disruptions and queues.
F	FORCED FLOW Operational breakdown.

The Level of Service (LOS) goal is to achieve a LOS C or better for the freeway within the project area.

- Near Western Avenue and 26th Street poor LOS remains.

All three alternatives provide acceptable LOS at the ramp intersections.

- Lotta Street will be signalized; previously proposed 3/4 access.



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Thanks for Watching!!!

- Reminder to Provide Feedback/Comments (online at the project website)
- Project Website: www.i229exits3and4.com
- Project Contacts:

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