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West Bank Station Area
 Central Corridor LRT Northern Alignment Alternative
 University of Minnesota



Figure 20

Cedar Avenue S/Cedar Connecting Ramp

- Northbound: left-turn lane and two thru lanes
- Southbound: thru lane and a thru-right lane
- Eastbound: dual right-turn lane (restrict right turn on red), left-turn lane (the middle lane could be a shared movement lane)
- Phasing: northbound left-turn movement will have a protected/permmissive phase, preferably lagging, with an eastbound right-turn overlap
- Signal Operation: Pre-timed and coordinated

All three critical intersections operate at acceptable levels of service.

Cedar Avenue S/3rd Street S

- Northbound: thru lane, thru-right lane
- Southbound: left-thru lane and a thru lane
- Westbound: left-turn lane and a right-turn lane
- Phasing: southbound left-turn movement will have a protected/permmissive phase
- Signal Operation: Pre-timed and coordinated

The traffic operations analysis completed using the 2030 traffic volumes and the proposed lane configurations described above demonstrate that the resulting volume to capacity (v/c) ratio and corresponding Level of Service (LOS) (Table 2) would be at acceptable levels. The results of a queue length analysis are shown in Table 3.

All three critical intersections operate at acceptable levels of service.

**Table 2 – West Bank Station Area
Year 2030 P.M. Peak V/C Ratio and LOS**

Intersection	Delay (s/veh)	LOS	Capacity (v/c)
Washington Avenue/Northbound I-35 Off-Ramp/ Cedar Connecting Ramp	35 – 40	D	0.74
Cedar Avenue S/Cedar Connecting Ramp	25 – 30	C	0.70
Cedar Avenue S/3rd Street S	20 – 25	C	0.62

**Table 3 – West Bank Station Area
Year 2030 P.M. Peak Queue Lengths**

Intersection	Movement	Storage	Average Queue	95th% Queue
Washington Avenue/NB I-35 Off-Ramp/ Cedar Connecting Ramp	Southbound Left	600 ft.	175 ft.	400 ft.
Cedar Avenue S/Cedar Connecting Ramp	Southbound Thru	300 ft.	200 ft.	325 ft.
Cedar Avenue S/Cedar Connecting Ramp	Northbound Left	120 ft.	125 ft.	275 ft.
Cedar Avenue S/3rd Street S	Southbound Thru	300 ft.	200 ft.	325 ft.

The queuing analysis (Table 3) shows that the southbound movements at the Cedar Avenue S/Cedar Avenue S Ramp and Cedar Avenue S/3rd Street S intersection will periodically spill into the adjacent intersections during the pm peak hour under year 2030 volumes. These queues will not significantly increase the delay of the adjacent intersection.

4.3.2 Stadium Village Station

A traffic analysis was conducted for the future roadway system in the immediate area of the University of Minnesota (U of M) football stadium (see Figure 21).

The intersections analyzed included:

- LRT Crossing at 25th Avenue SE at the U of M Transitway
- LRT Crossing at 23rd Avenue SE at the U of M Transitway
- LRT Crossing at 6th Street SE at 23rd Avenue SE

These three intersections/crossings will be controlled by traffic signals based on safety. The traffic analysis demonstrates that the intersections will operate at acceptable levels of service under year 2030 forecast volumes (see Table 4).

**Table 4 – Stadium Village Station Area
Year 2030 PM Peak LOS**

Intersection	Delay (s/veh)	LOS
LRT Crossing at 25th Avenue SE at the Transitway	5-10	A
LRT Crossing at 23rd Avenue SE at the Transitway	5-10	A
LRT Crossing at 6th Street SE at 23rd Avenue SE	5-10	A

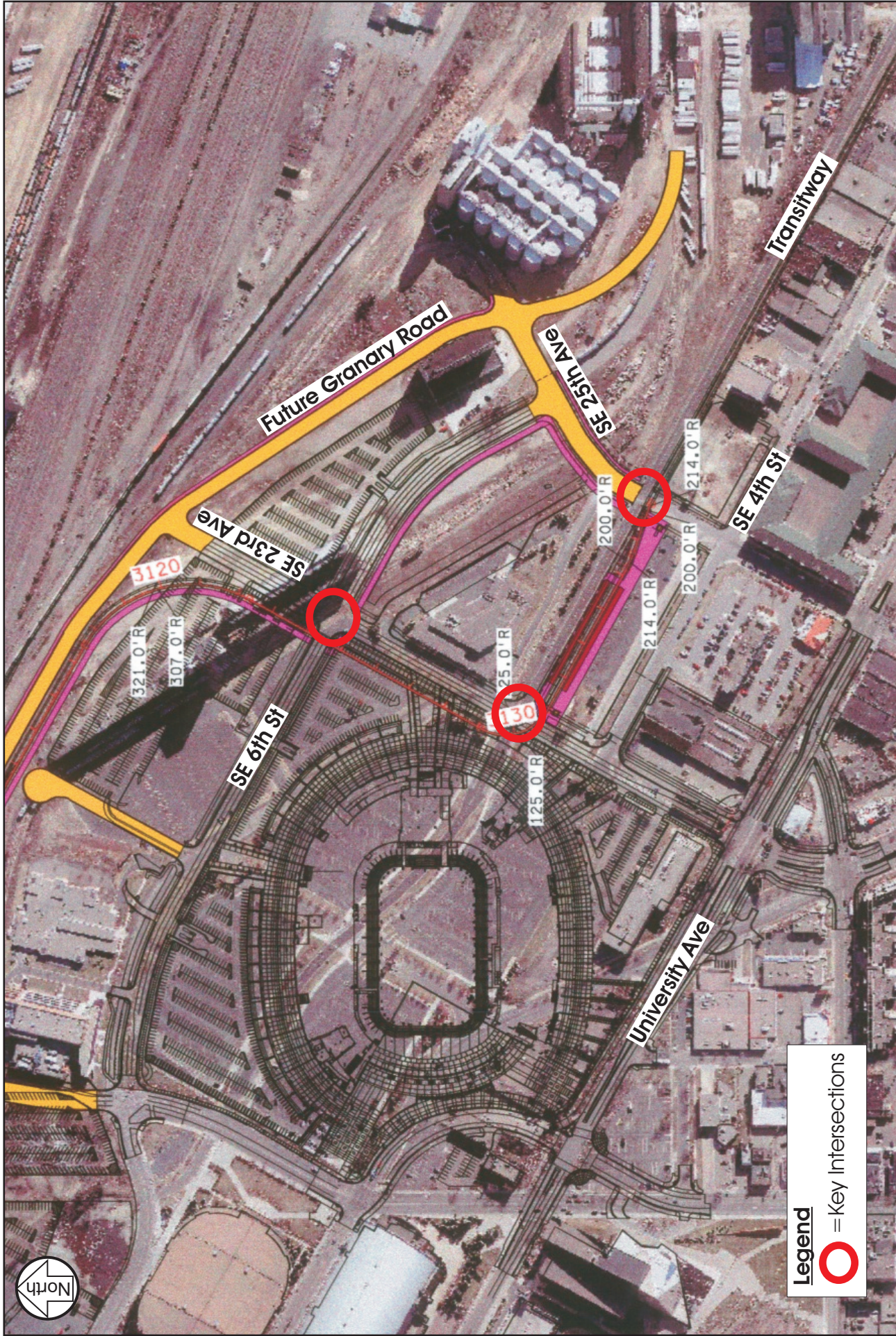
The impacts of a future multi-modal facility and any associated parking were not included in the analysis.

4.3.3 Road Traffic

The East Bank/Dinkytown segment of the Northern Alignment has no impacts on vehicular traffic, since the alignment would not cross or require the modification of any existing roadways.

This traffic analysis demonstrates that in the West Bank Station area and the Stadium Village Station area, key intersections in the future roadway system would operate at acceptable levels of service with the implementation of the Northern Alignment. Based on this traffic analysis, the Northern Alignment provides reasonable and appropriate roadway circulation in and around the vicinity of the U of M. Thus, on the basis of traffic operations, the Northern Alignment is a feasible alternative to the Washington Avenue Alignment.

Thus, on the basis of traffic operations, the Northern Alignment is a feasible alternative to the Washington Avenue Alignment.



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Stadium Village Station

Central Corridor LRT Northern Alignment Alternative

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Figure 21