

Central Corridor Light Rail Transit

Met Council
February 22, 2012



*Improving
mobility*

*Easing
congestion*

*Strengthening
our communities*

Today's Topics

Central Corridor Light Rail Transit

- 2011 Lessons Learned
- 2012 construction look ahead
 - Civil East
 - Civil West
 - Operations & Maintenance Facility
 - Systems
 - Light Rail Vehicles



Central Corridor Light Rail Transit



2011 Lessons Learned

Central Corridor Light Rail Transit



Vehicle Traffic and Access

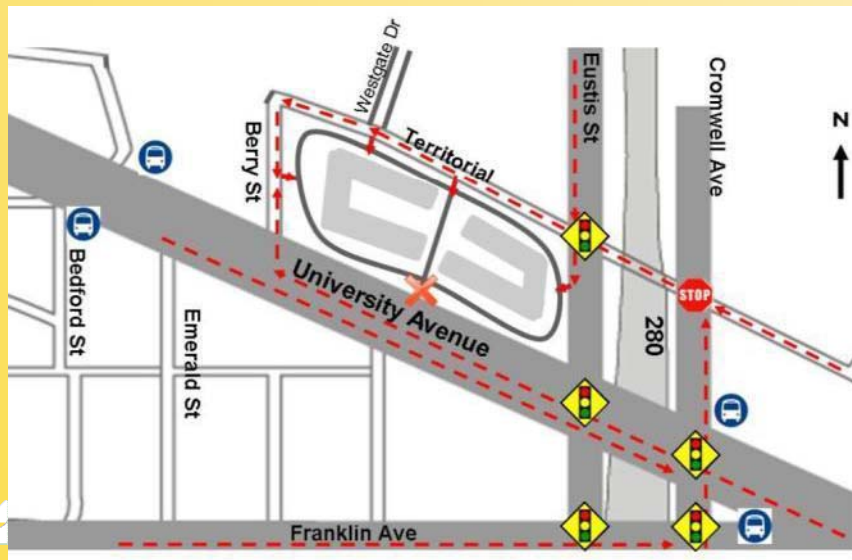
Issue: North/South Lane Restrictions

- Phased intersection construction to maintain through traffic
- 2-3 month impact to intersections

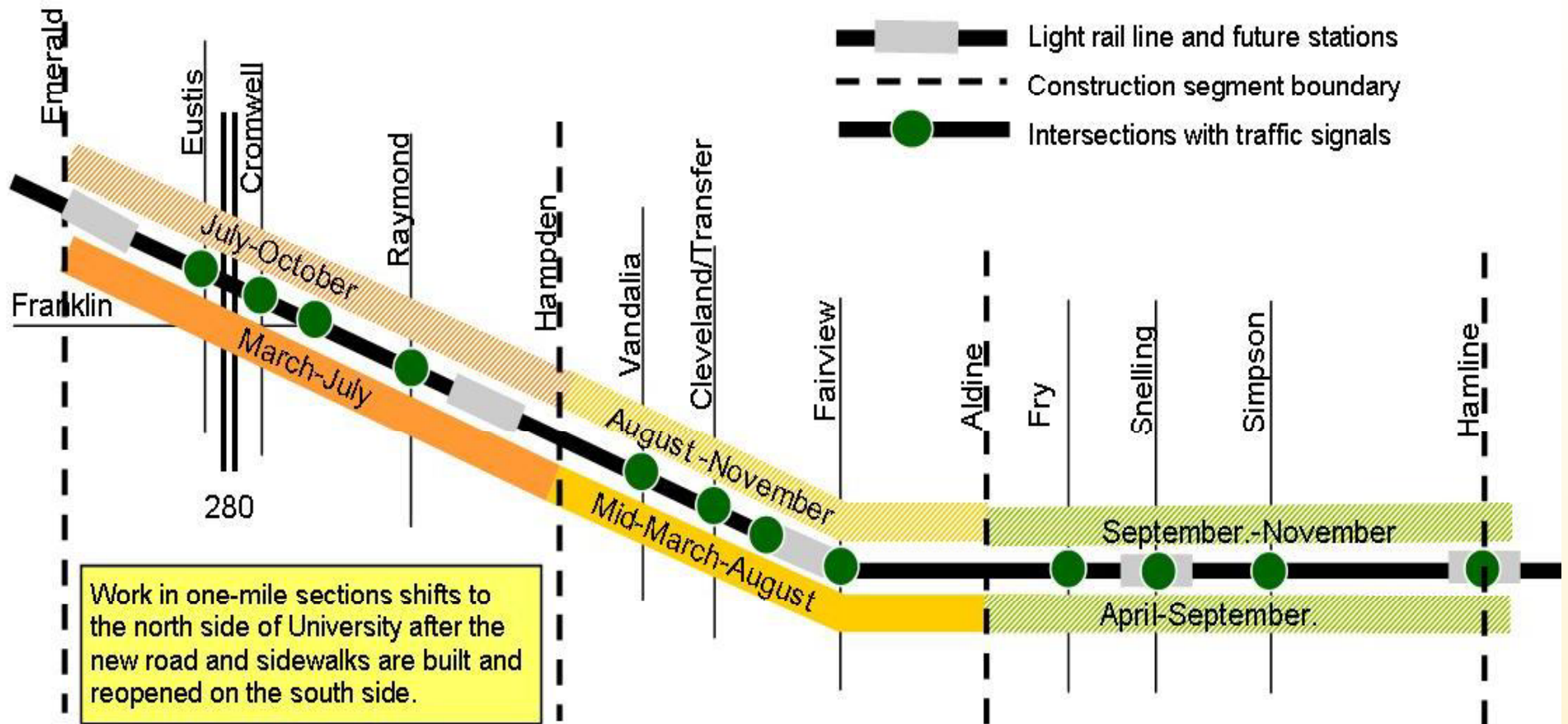


Action: Full Closure of Select Intersections

- Expedite work over 2-4 weeks
- Use variable message signs to provide detour directions
- Provide maps showing detours



Issue: Length of Work Zones

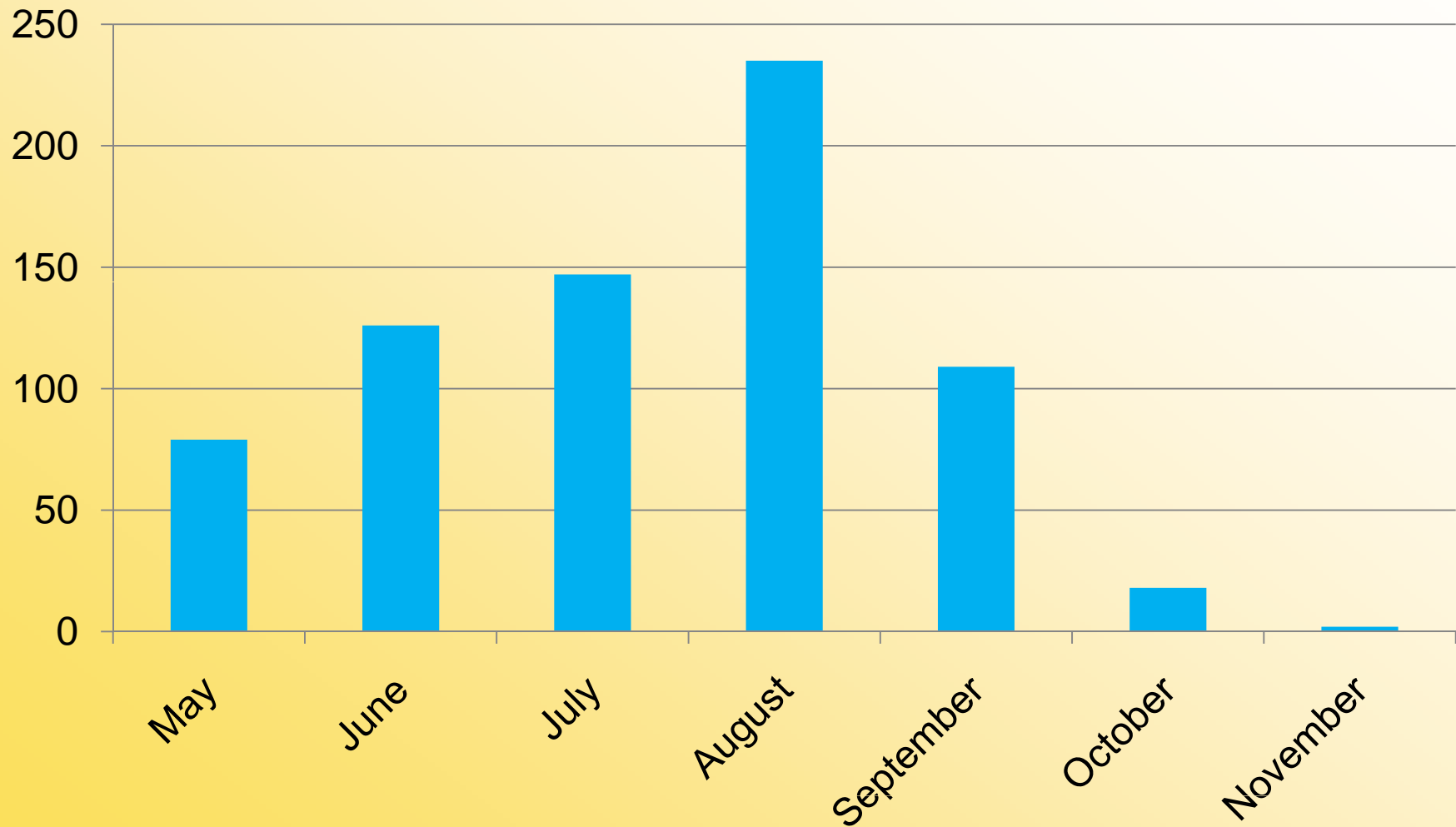


Issue: Idle work zones (CE)



Action: New Workers Added By Month

2011



Action: Link construction zone size with crew resources (CE)



Action: Continue to have inspectors track issues;
add CCPO staff



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Pedestrian Access



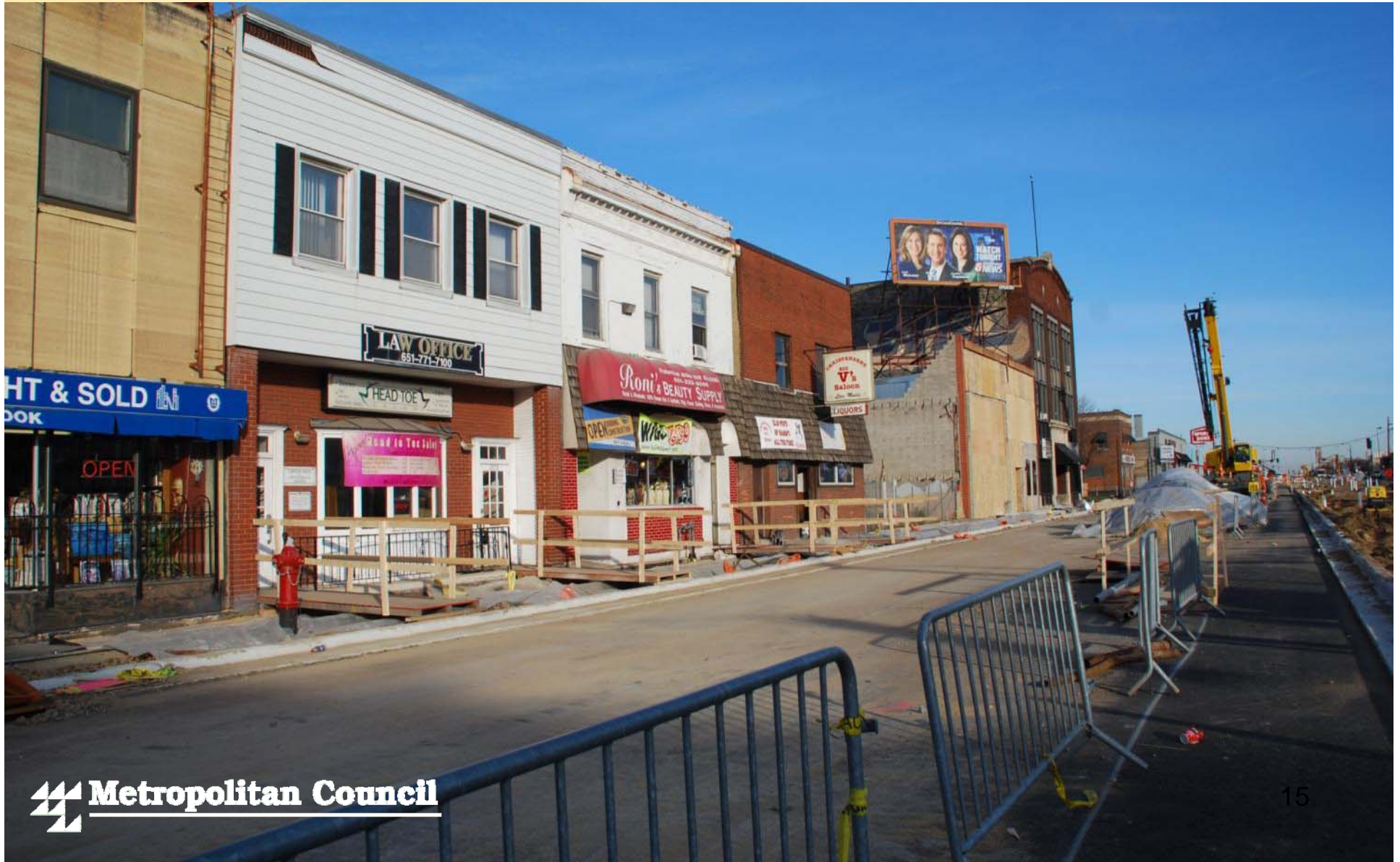
Issue: No Accessible Ramp to Bus Stop



Action: Temp bus stop with ramp and protective railings, barriers and trash cans



Issue: Utility installation and sidewalk replacement affected ped access



Action: Use ADA temp bridges to provide ped access during sidewalk construction



Issue: Confusing signage



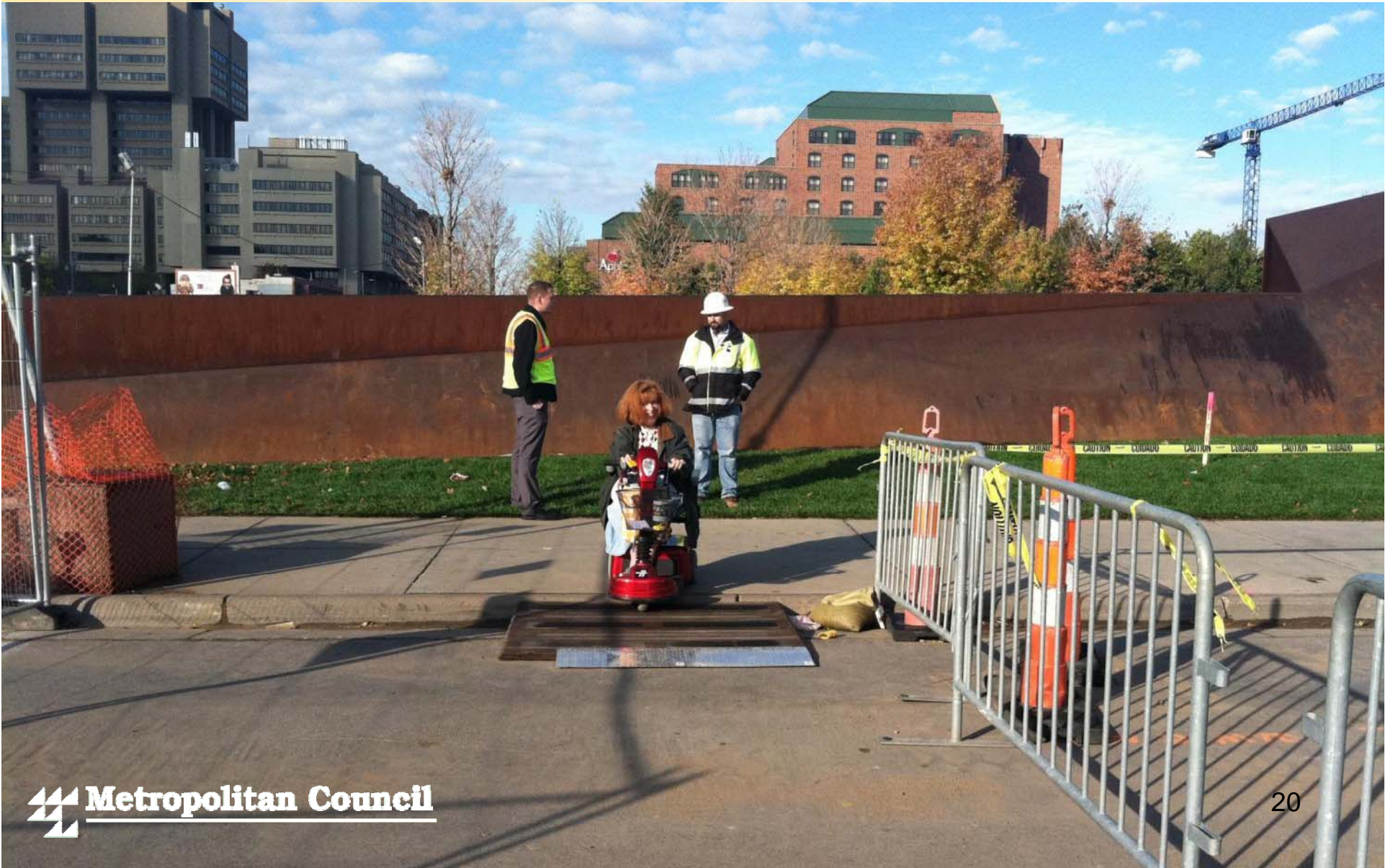
Action: Use proper signage



Issue: Maintaining Temporary Sidewalks and Access (CE)



Action: Conduct ADA Field Checks



Central Corridor Light Rail Transit



Outreach

24-hour Hotline

- Over 100 signs posted throughout the corridor



Weekly Construction Updates

Central Corridor Light Rail Transit

St. Paul - University Avenue West Construction Update

April 16-22, 2011



Support corridor businesses: Dine out and catch a show



Dan Simonson (left) and James Thissen of Caffè Biaggio want passers-by to know that they can still dine at the Italian restaurant at 2356 University Ave. W. in St. Paul despite LRT construction on the street in front of them

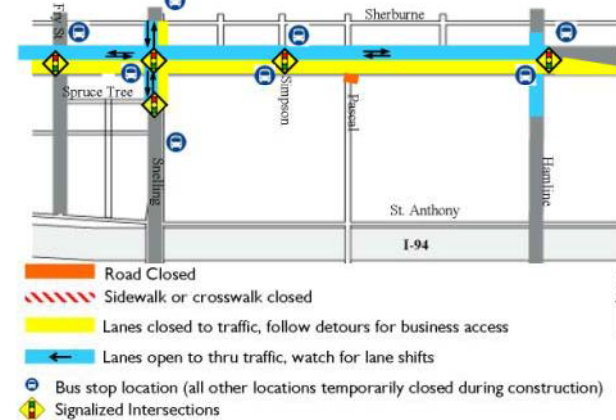
For more ideas, go to: www.discovercentralcorridor.com or www.twitter.com/discoverclrt

Highlights and Upcoming Work

- Snelling is reduced to one lane in each direction between Spruce Tree and Sherburne; lanes shifted to west side of Snelling
- University at Snelling reduced to one lane in each direction on the south side of the road.
- Construction preparation along University between Aldine and Syndicate will start the week of April 18 and construction is anticipated to begin starting the week of April 25.
- Highway 280 will be closed April 29-May 2 for bridge work.
- Crews start work on retaining wall on south side of University between Prior and Cleveland; sidewalk on south side of University closed. Use sidewalk on the north side of University as alternate route.

University Avenue St. Paul West June 4-June 10

University Avenue: Fry to Hamline
150 day clock started on south side: April 21
Remaining: 108 days on south side

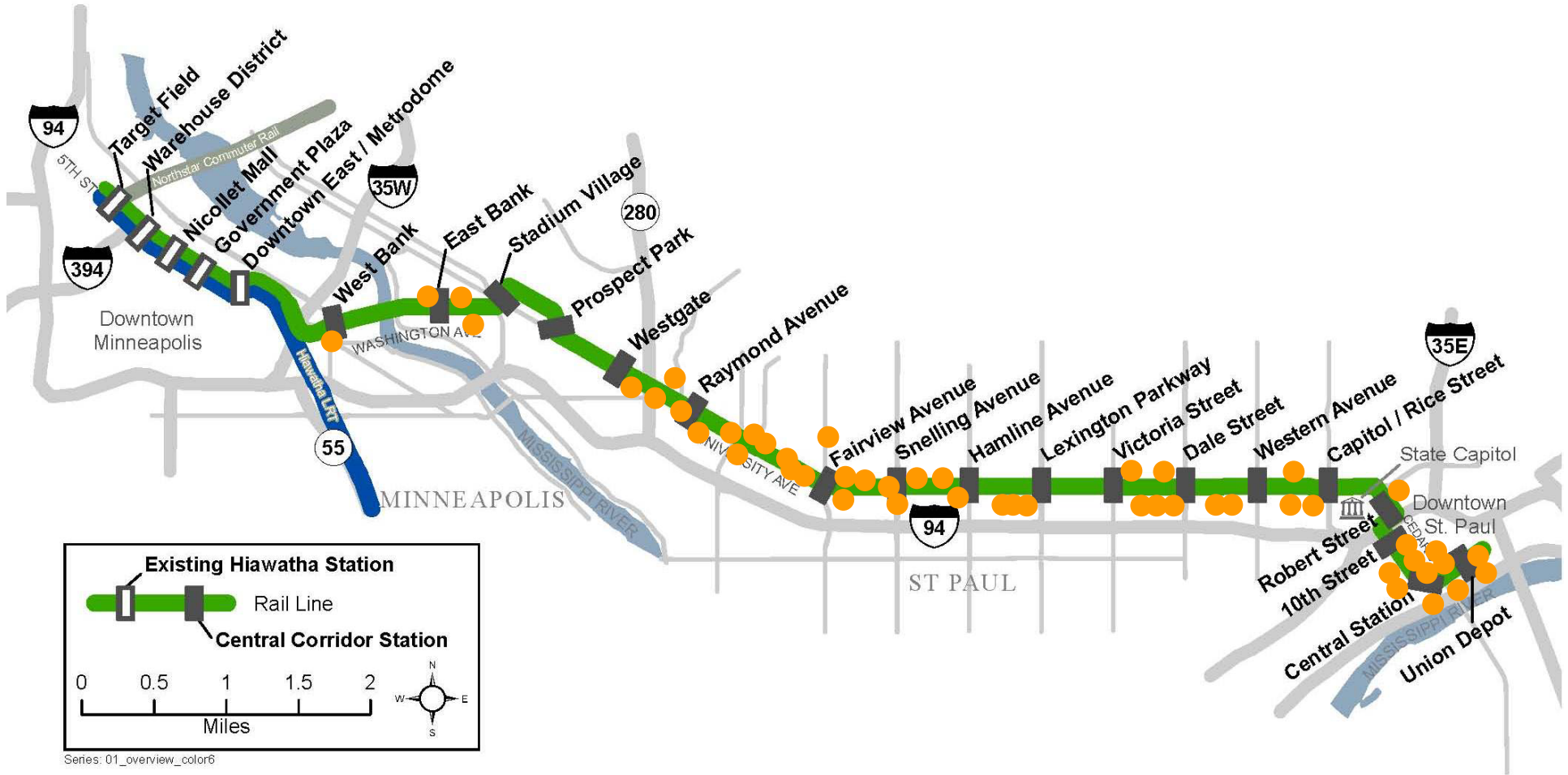


Traffic details

- Crews continue paving and working on the intersections of University with Berry, Eustis, Cromwell, and Franklin; watch for delays.
- Snelling between Spruce Tree and Sherburne reduced to one lane each way.
- Utility work begins on the east side of Hamline at the intersection with University; watch for lane shifts.
- Construction crews continue to work on east side of Raymond between University and Wabash; impacts include lane shifts and removal of on-street parking.
- University between Emerald and Hamline traffic shifted to north side of University onto three lanes: one eastbound, one westbound lane and a shared center lane for left turns.
- Twelve cross streets in the construction zone are signalized for full traffic movements: Eustis, Cromwell, Franklin, Raymond, Vandalia, Cleveland, Prior, Fairview, Fry, Snelling, Simpson and Hamline. These streets will be reduced to one lane each way at the intersection with University and some on-street parking will be removed to allow for lane shifts. All other cross streets south of University closed; signage directs vehicles to alternative access to businesses.
- Access to the Midway Shopping Center maintained from St. Anthony via Pascal, from University via Simpson and driveways off of Snelling and Hamline.



Locations of Construction Posters



Working with businesses on access plans



“Open For Business” Signs

- Placement
- Durability



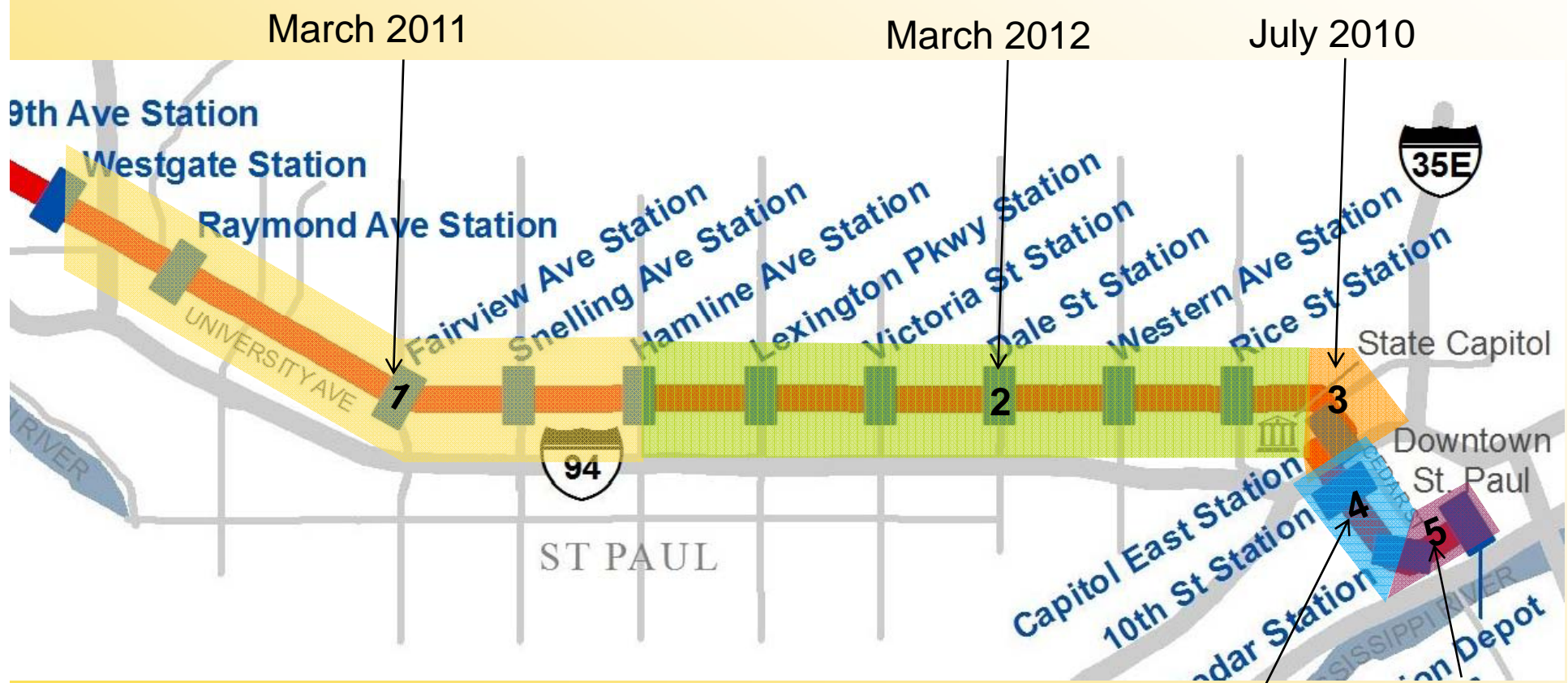
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2012 Construction Look Ahead



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Civil East Construction Starts



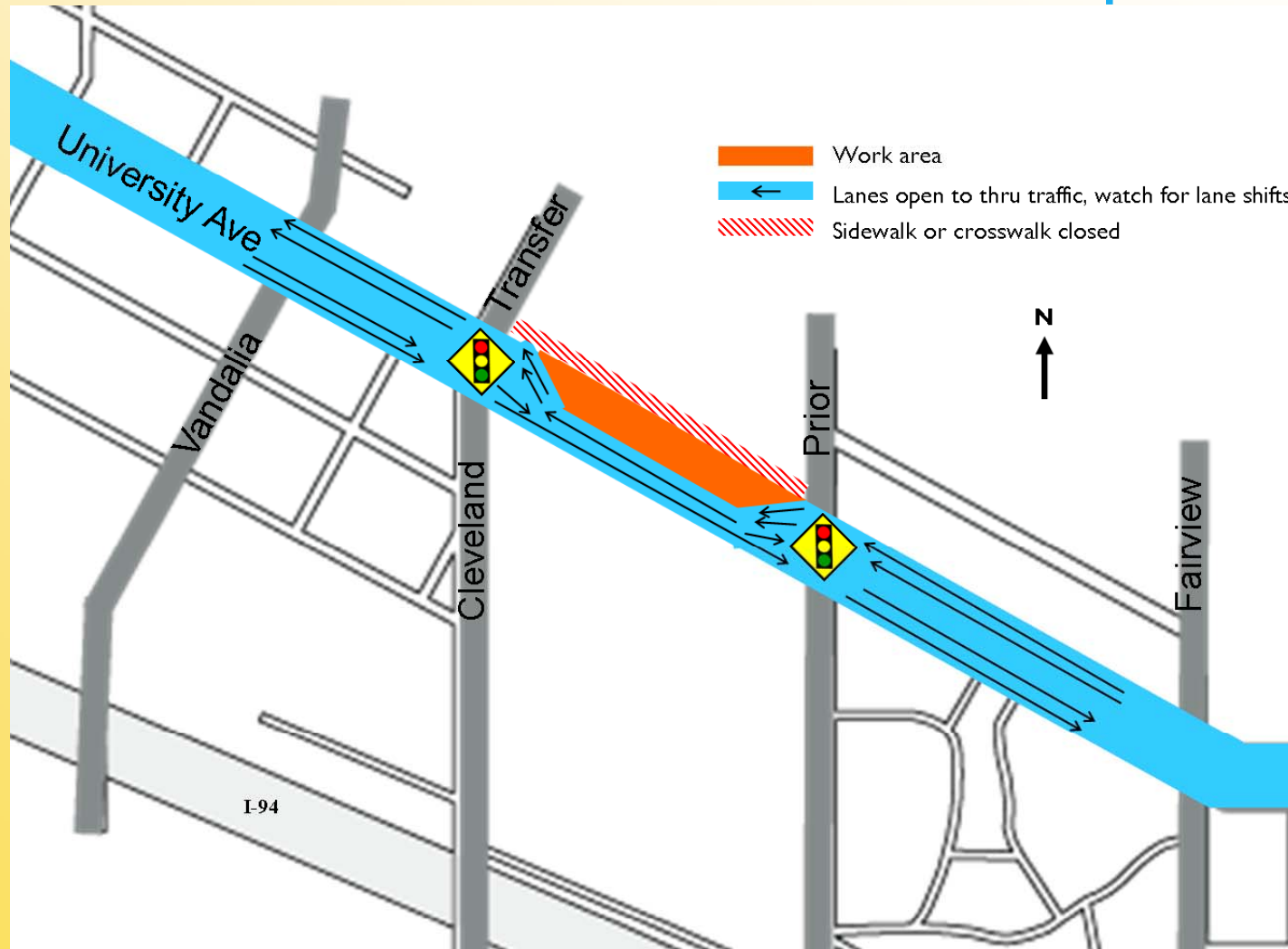
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University Avenue Emerald to Hamline Construction

- Cleveland to Prior north side roadway construction
 - Traffic shifted to south side
 - Complete early summer
- Cleveland to Hamline trackwork
 - Intermittent lane closures
 - Complete midsummer
- University Ave. bridge over TH280
 - Southside bridge deck mill and overlay
 - Complete early summer

University Avenue Cleveland to Prior Traffic Impacts



University Avenue

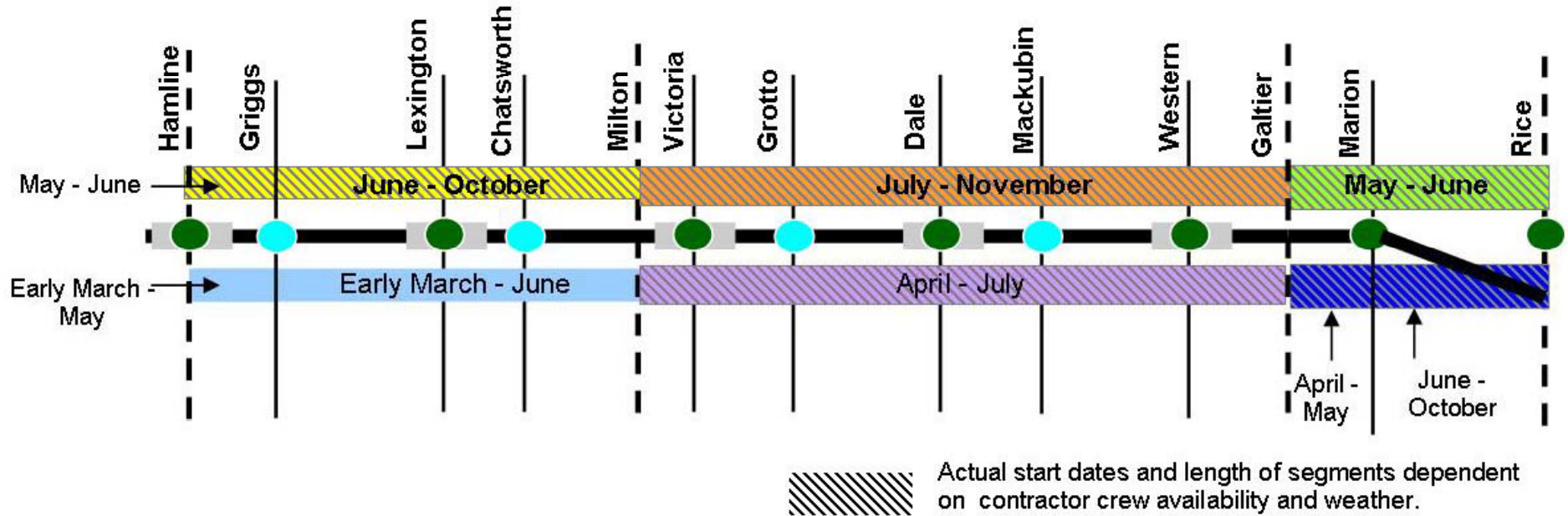
Hamline to Rice


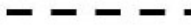


Construction throughout 2012



- Relocation and installation of underground utilities
- Reconstruction of roadway and intersections
- Installation of new traffic signals and streetlights
- Construction of stations at Hamline, Lexington, Victoria, Dale, Western and Capitol/Rice Street
- Installation of new landscaping

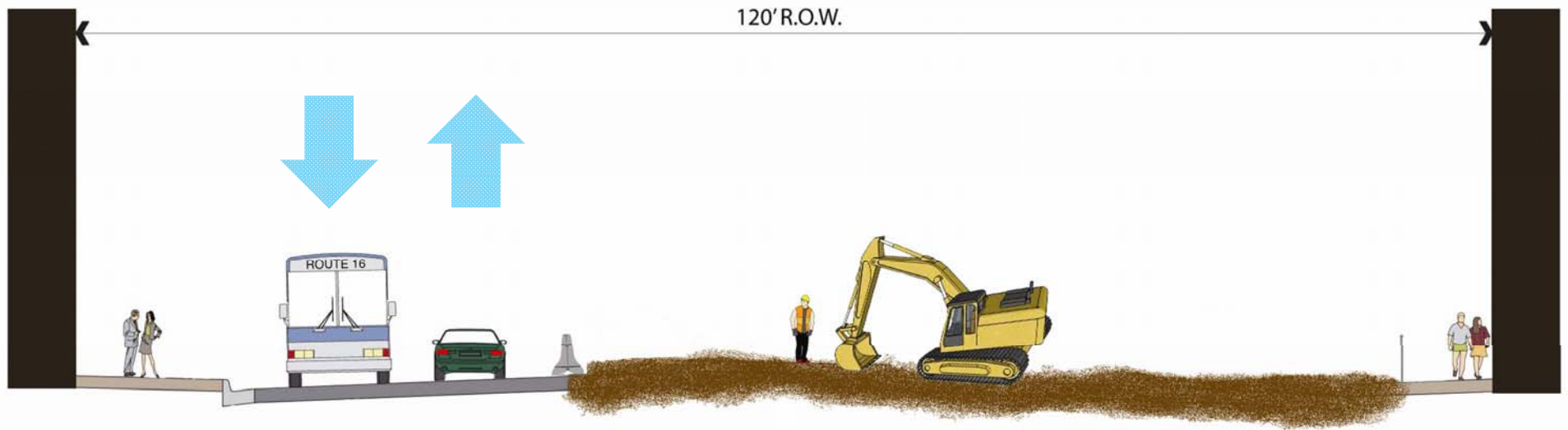
University Avenue Hamline to Rice Traffic Impacts



-  Light rail line and future stations
-  Construction segment boundary
-  Intersections with vehicular traffic signals during construction
-  Intersection with pedestrian traffic signals during construction

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University Avenue Stage 1 – South Side

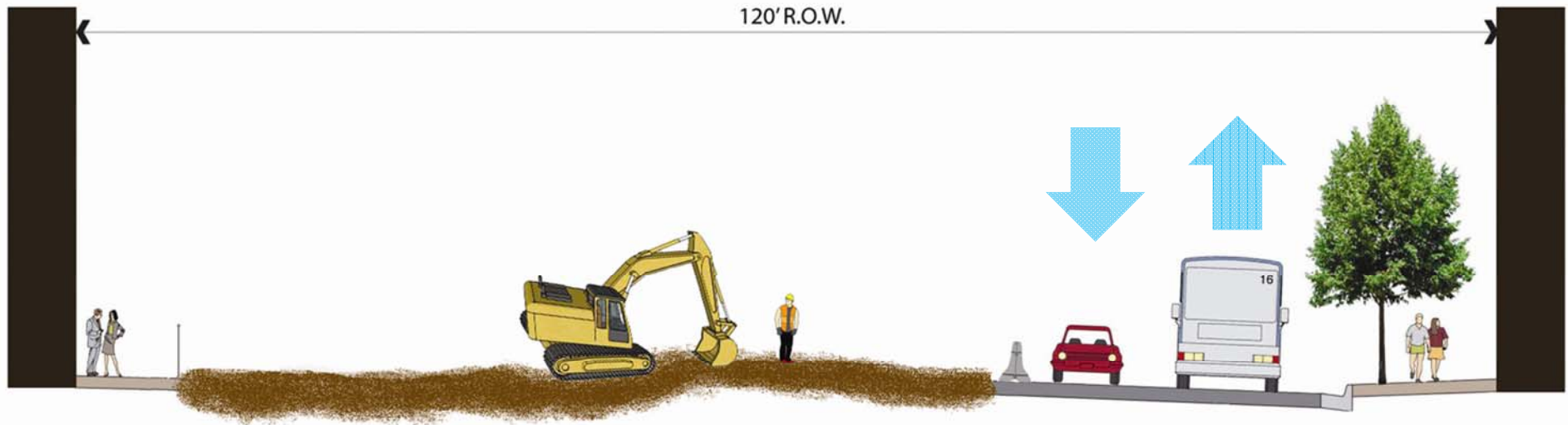


Work starts on first 2/3 of street

- Maintain pedestrian access by keeping at least 4-5' of sidewalk open, providing temporary walkways
- Maintain one lane of traffic in each direction
- Coordinate with businesses and property owners to maintain access

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University Avenue Stage 2 – North Side



Work shifts to the other side of the street

- Maintain pedestrian access by keeping at least 4-5' of sidewalk open, providing temporary walkways
- Maintain one lane of traffic in each direction
- Coordinate with businesses and property owners to maintain access

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University Avenue Stage 3 - Center

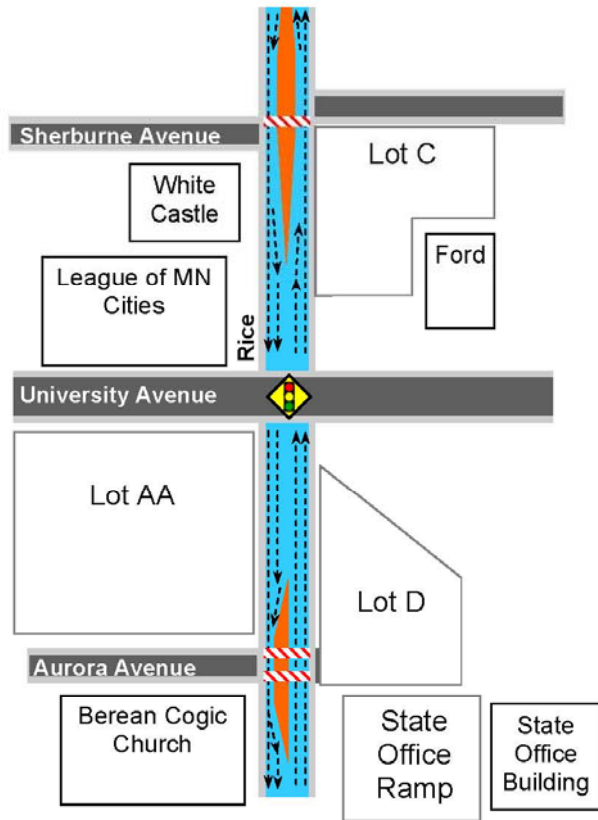






Work continues in the middle of the right-of-way after road and sidewalk are restored

- Construct stations
- Install systems and OCS poles
- Lay and weld track
- Conduct integrated testing

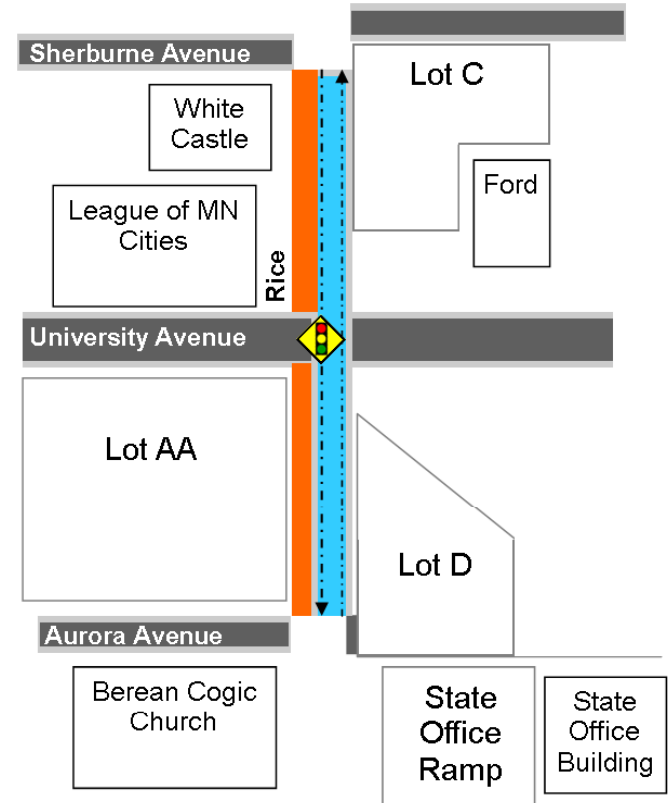
University Avenue Rice Xcel Work





February/March



-  Work Area
-  Lanes open to thru traffic, watch for lane shifts
-  Sidewalk or crosswalk closed
-  Signalized Intersections

March/April



-  Work Area
-  Lanes open to thru traffic, watch for lane shifts
-  Sidewalk or crosswalk closed
-  Signalized Intersections

**Central Corridor
Light Rail Transit**

University Avenue

Rice to Robert March – April Construction



- Advanced work
- Intermittent activities
 - Removals
 - Temporary shoring
 - Advanced utility work
 - Retaining walls
- Expectations
 - Maintain 1-lane of traffic in each direction
 - Monitor noise and vibration
 - Adjust construction methods to minimize noise and vibrations

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University Avenue Rice to Robert Heavy Construction After Regular Session Ends



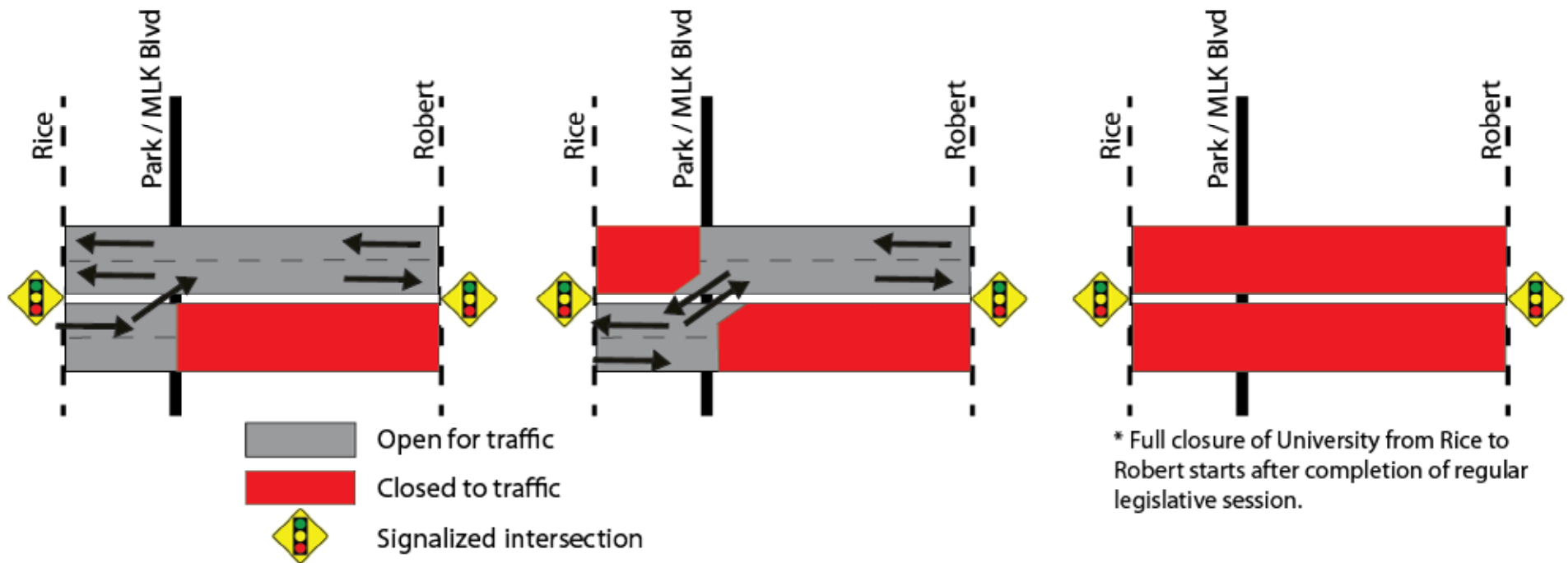
- **Activities**
 - Utility relocation
 - Coordinate with State on proposed tunnel construction, if approved
 - Excavation for trackwork
 - Road and sidewalk construction
- **Expectations**
 - University Avenue closed for light rail construction for up to 120 days; Construction extension required if tunnel is approved
 - Pedestrian access maintained via ³⁸ Cedar and Rice

University Avenue Rice to Robert Traffic Impacts

March - May

April - May

June - October*



* Full closure of University from Rice to Robert starts after completion of regular legislative session.

Cedar Street 12th Street to 4th Street Construction



- Relocation and installation of underground utilities
- Reconstruction of roadway and intersections
- Reconstruction of sidewalk
- Installation of new traffic signals and street lights
- Construction of embedded track
 - Floating slab track from 10th to 7th
- Construction of stations at 10th Street and Saint Paul Central

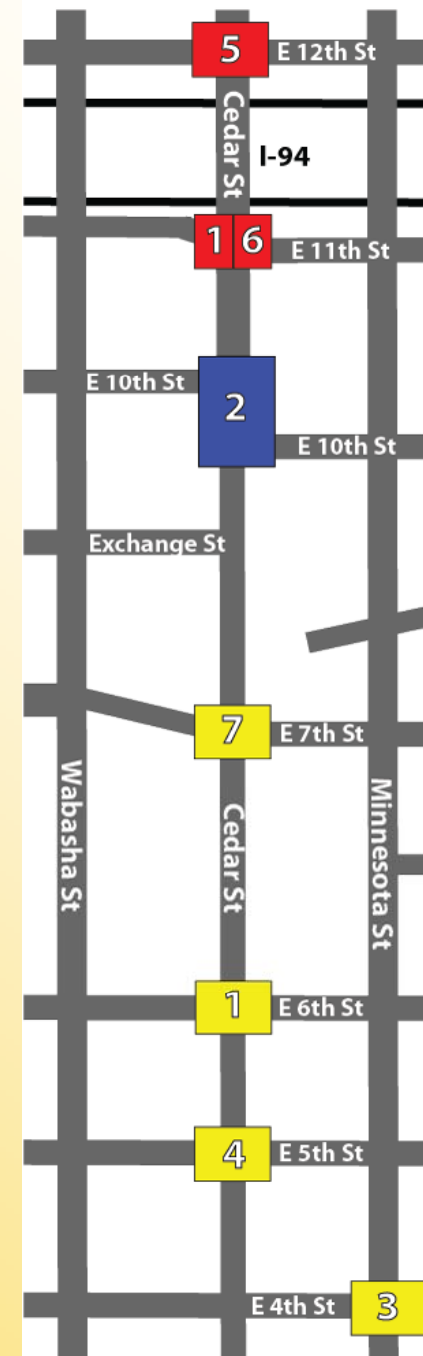
Cedar Street 12th St – 4th St Traffic Impacts

- Cedar Street closed to through traffic late Feb. – Nov./Dec.
- Intermittent full and partial intersection closures
- Access maintained to parking ramps and loading docks
- Sidewalk maintained on at least one side of Cedar
- Crosswalks maintained across at least one side of each intersection



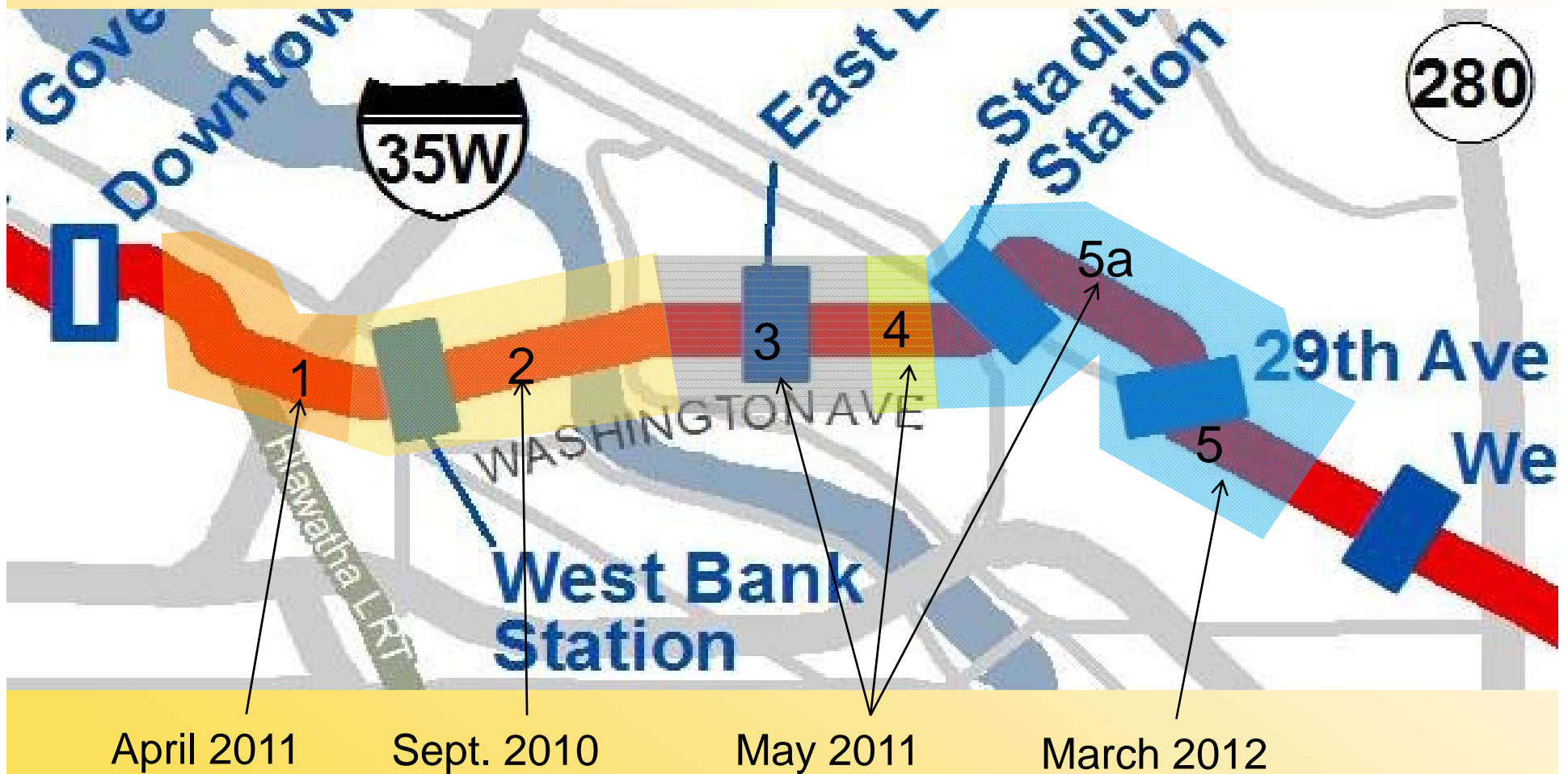
Cedar Street 12th Street to 4th Street Intersection Closures

1. March,
 - Cedar & 11th Street (4 weeks)
 - Cedar & Sixth Street (8 weeks)
2. April,
 - Cedar & 10th Street (16 weeks)
3. May,
 - Fourth & Minnesota (2 weeks)
4. July,
 - Fifth & Cedar (2 weeks)
5. July,
 - 12th Street & Cedar (2 weeks)
6. July,
 - 11th Street again (4 weeks)
7. August,
 - Seventh & Cedar (4 weeks)



**Central Corridor
Light Rail Transit**

Civil West Construction Starts



West Bank Construction



- Continue work on Washington Avenue between Hiawatha LRT connection and Washington Avenue Bridge
 - Resume road work March 2012
 - Continue West Bank Station work

West Bank Traffic Impacts



2012 Reopening Schedule

	Spring	Summer	Fall	Winter
Eastbound from Cedar Avenue to Washington Avenue Ramp	C L O S E D			
North Side of Washington Avenue Bridge	C L O S E D			
4th Street/South Side of Washington Avenue	C L O S E D			
Northbound I-35 W to East Bank Ramp			C L O S E D	

Washington Ave. Bridge Construction and Traffic Impacts



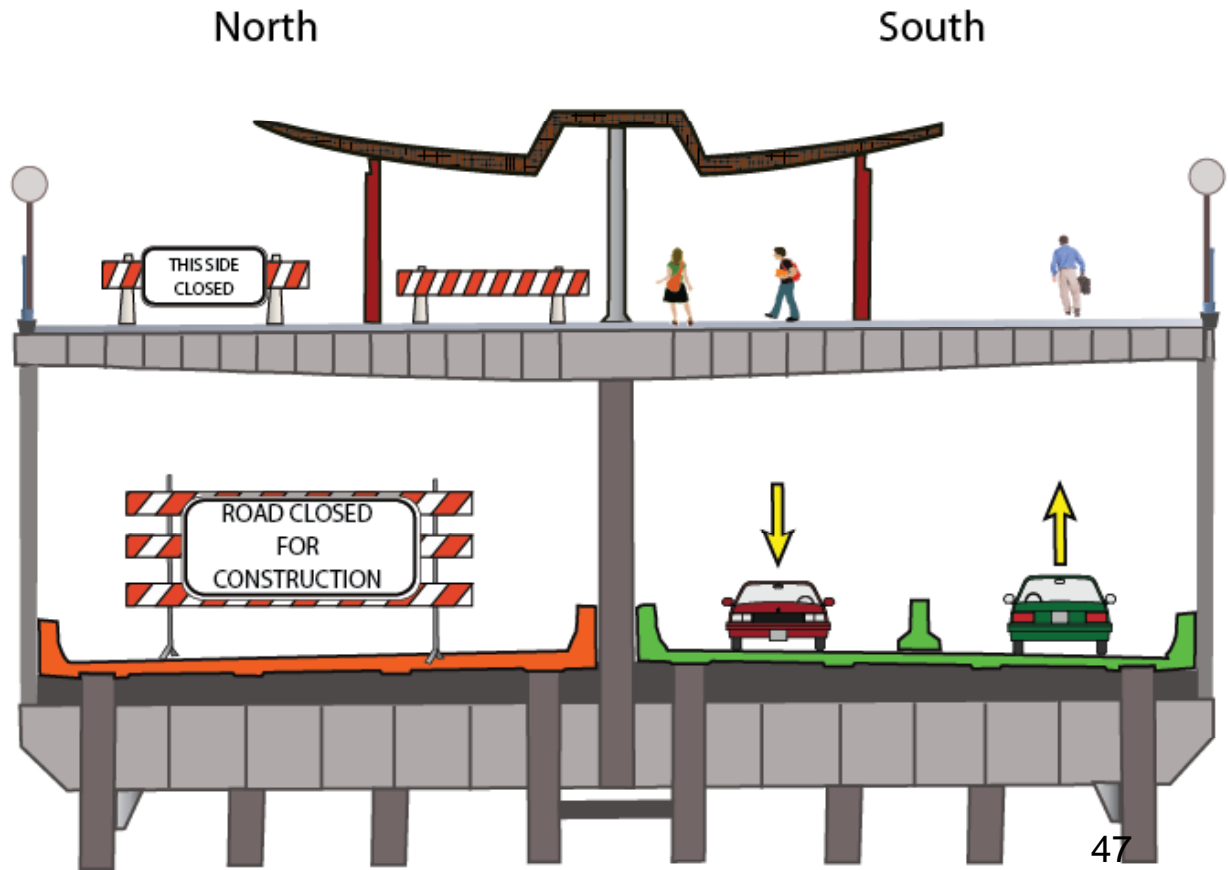
- Construction continues on north side of bridge; traffic deck
 - One lane traffic in each direction on south side of bridge
 - Pedestrian and bicycle traffic consolidated to south side of upper pedestrian deck
- Construction continues on north side of bridge; traffic deck
 - Several short term full closures will occur over the summer
 - One lane traffic in each direction on outside lanes of bridge

Washington Ave. Bridge Traffic Impacts

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Washington Avenue Bridge Current Configuration

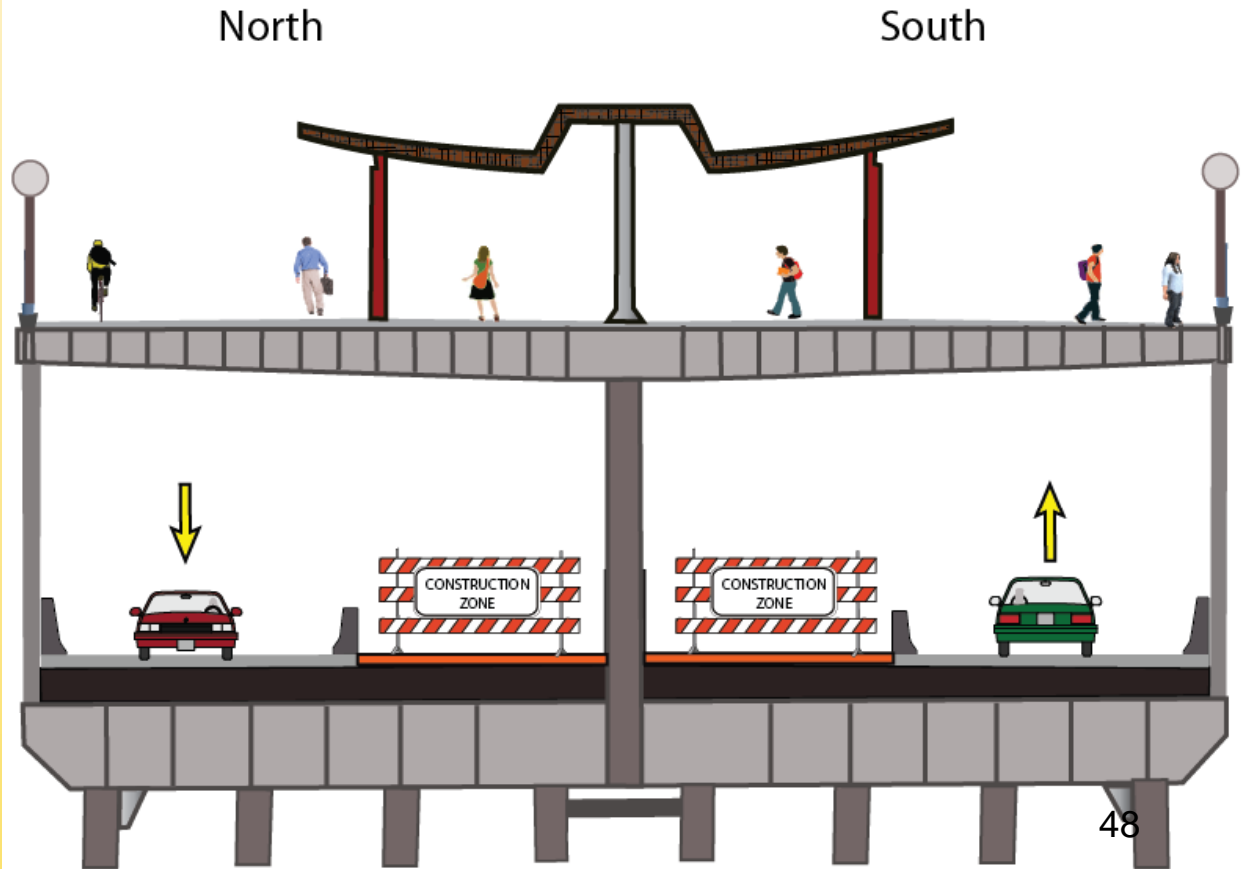


Washington Ave. Bridge Traffic Impacts

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Washington Avenue Bridge Late Summer 2012 through 2014

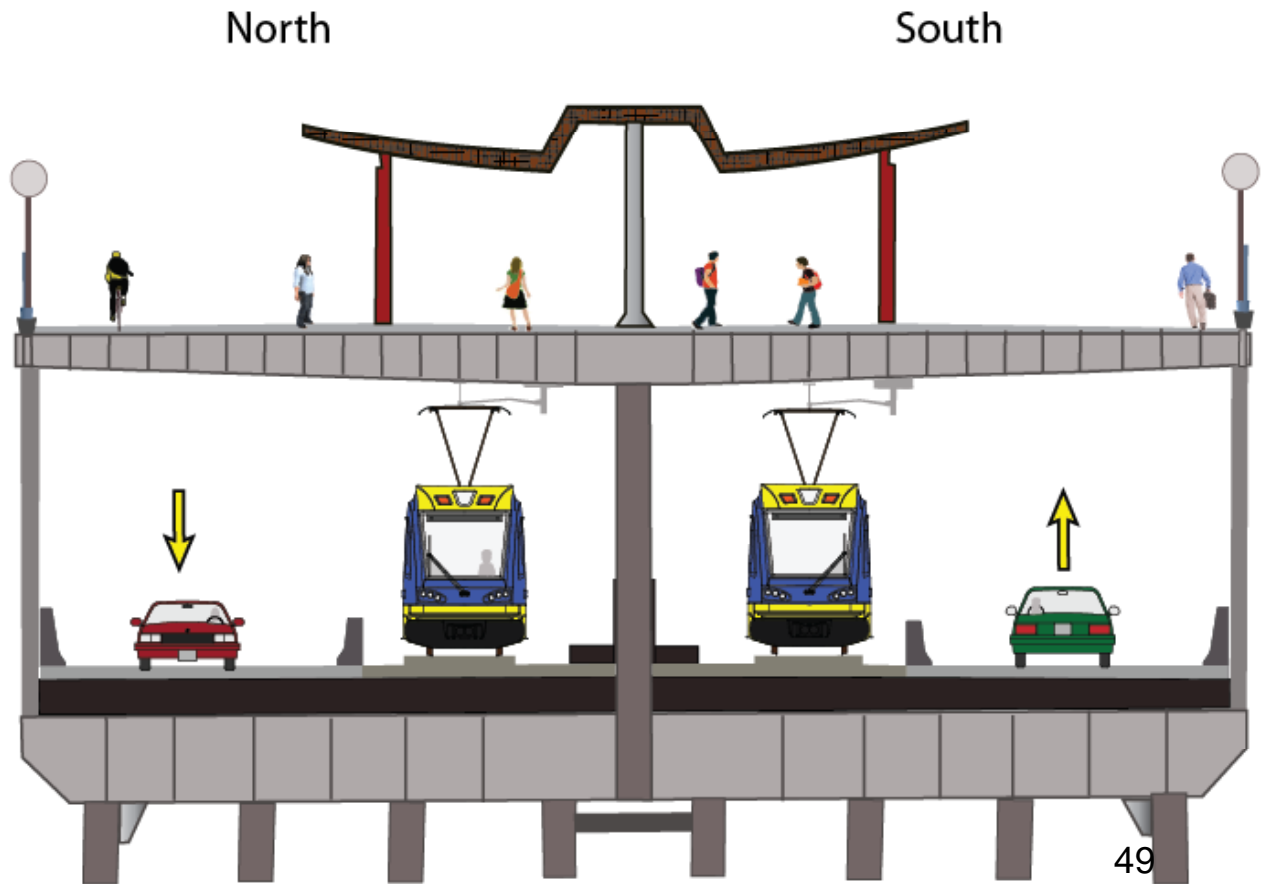


Washington Ave. Bridge Traffic Impacts

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Washington Avenue Bridge Final Configuration 2014



East Bank

Washington Ave West of Oak Construction

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- Work continues between Pleasant and Walnut
- Relocation and installation of underground utilities
- Reconstruction of roadway/transit mall
- Reconstruction of sidewalk
- Installation of traffic signals, street lighting and landscaping
- Construction of embedded track
- Reconstruction of East Bank Station
- Construction of storm sewer drop shaft on East River Parkway

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East Bank Traffic Impacts

- Work continues between Pleasant and Oak Street
- Oak Street intersection restricted to one southbound lane for ~8 weeks
- Harvard closes mid May for 7 – 8 weeks
- Walnut remains open while Harvard is closed
- East River Parkway closed mid May through August

East Bank Washington Avenue West of Oak Traffic Impacts



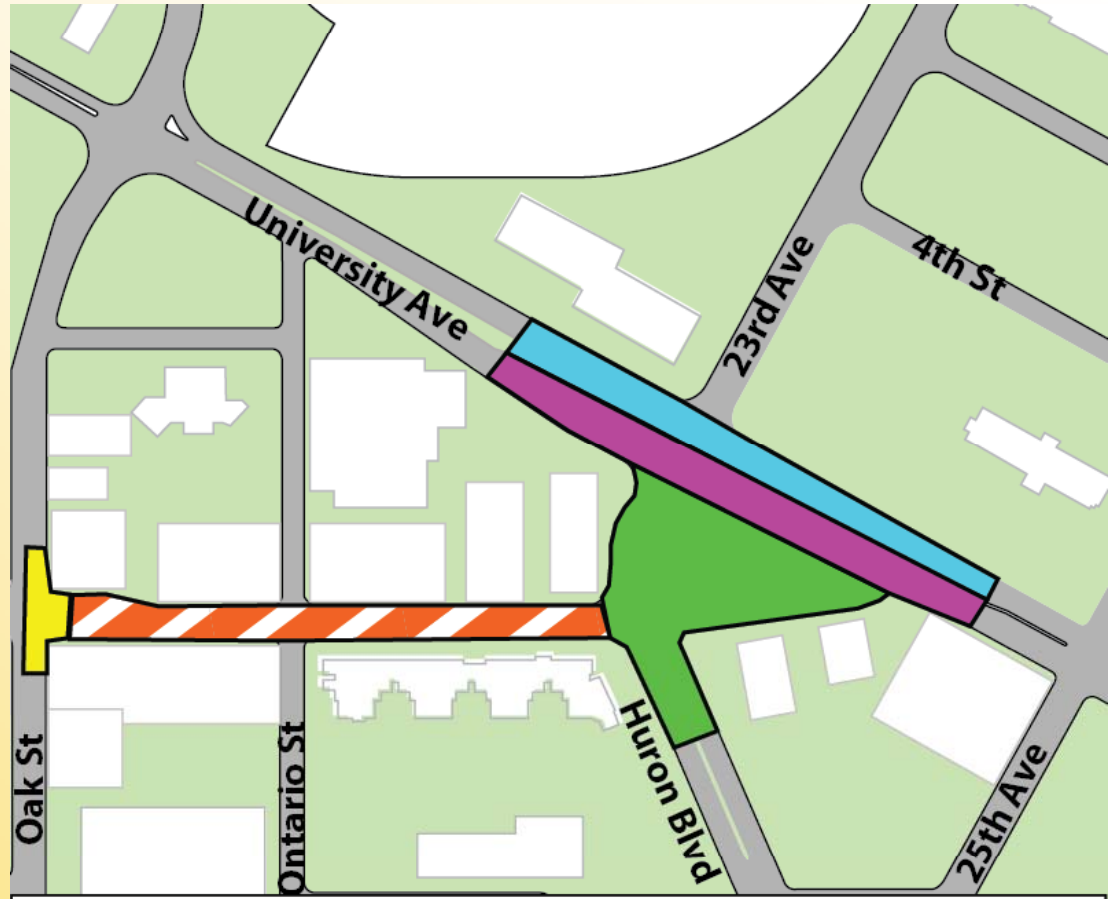
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Stadium Village Washington Avenue East of Oak to Huron Blvd Construction



- Relocation and Installation of underground utilities
- Reconstruction of roadways and intersections
- Reconstruction of sidewalk
- Installation of new traffic signals, street lighting and landscaping
- Construction of embedded track
- Construction of Stadium Village Station

Stadium Village Washington Ave East of Oak Huron Blvd Traffic Impacts



-  Washington Avenue Closure (March - August)
-  Northbound Oak Street Closure (March - Mid May)
-  Huron Boulevard Closure (Mid May - August)
-  University Avenue Southside (April - August)
-  University Avenue Northside (August - November)

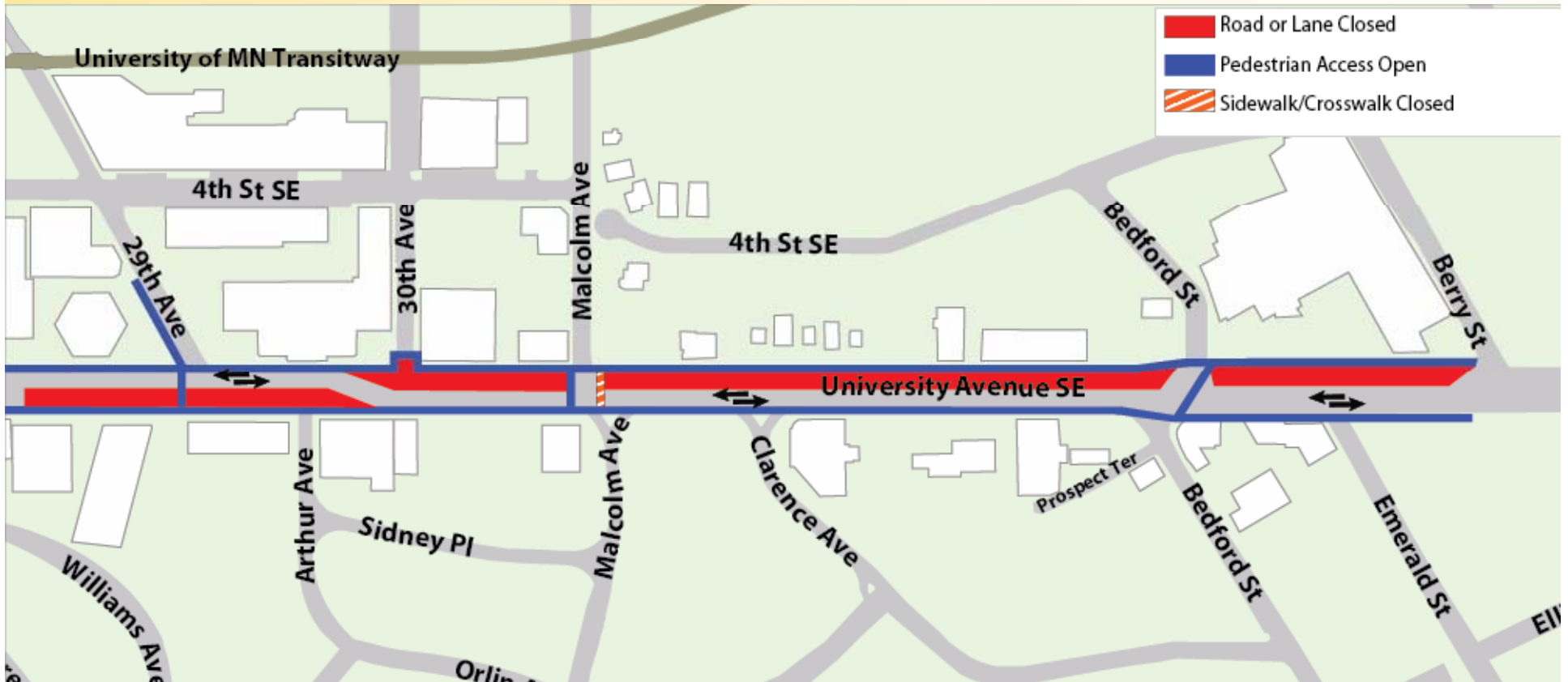
**Central Corridor
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University Avenue 29th Avenue to Emerald Construction

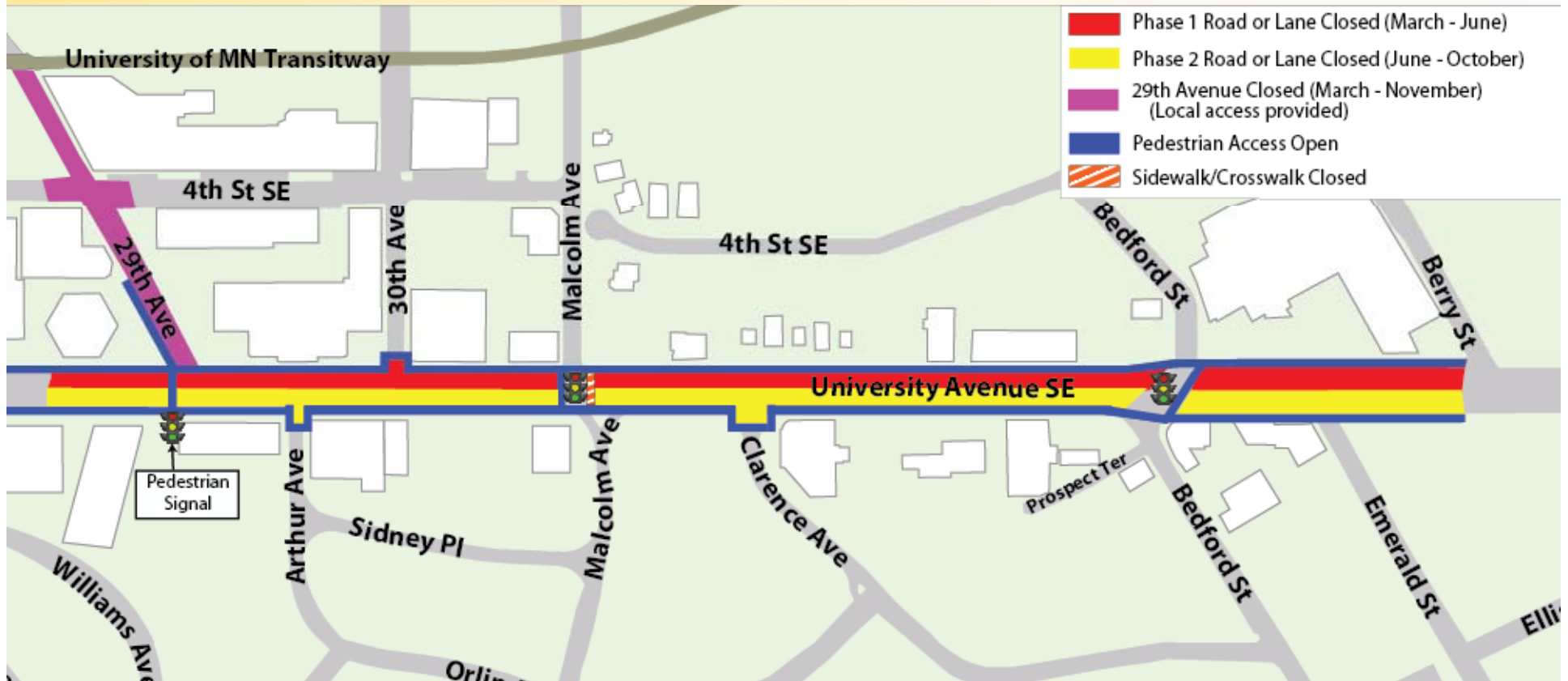


- Relocation and installation of underground utilities
- Reconstruction of roadway and intersections
- Reconstruction of sidewalk
- Installation of new traffic signals and street lights
- Construction of embedded track
- Construction of Prospect Park Station on 29th Avenue
- Installation of new landscaping

University Avenue 29th to Emerald March Traffic Impacts



University Avenue 29th to Emerald Traffic Impacts



Central Corridor Light Rail Transit

Operations and Maintenance Facility



- Complete build out of the structural elements
 - Place new floor slab
 - Complete interior walls
 - Complete roof
 - Complete utility installation
 - Partially complete interior track work
- Begin yard work
 - Remove surcharge
 - Install TPSS #13
 - Install subsurface utilities

Systems

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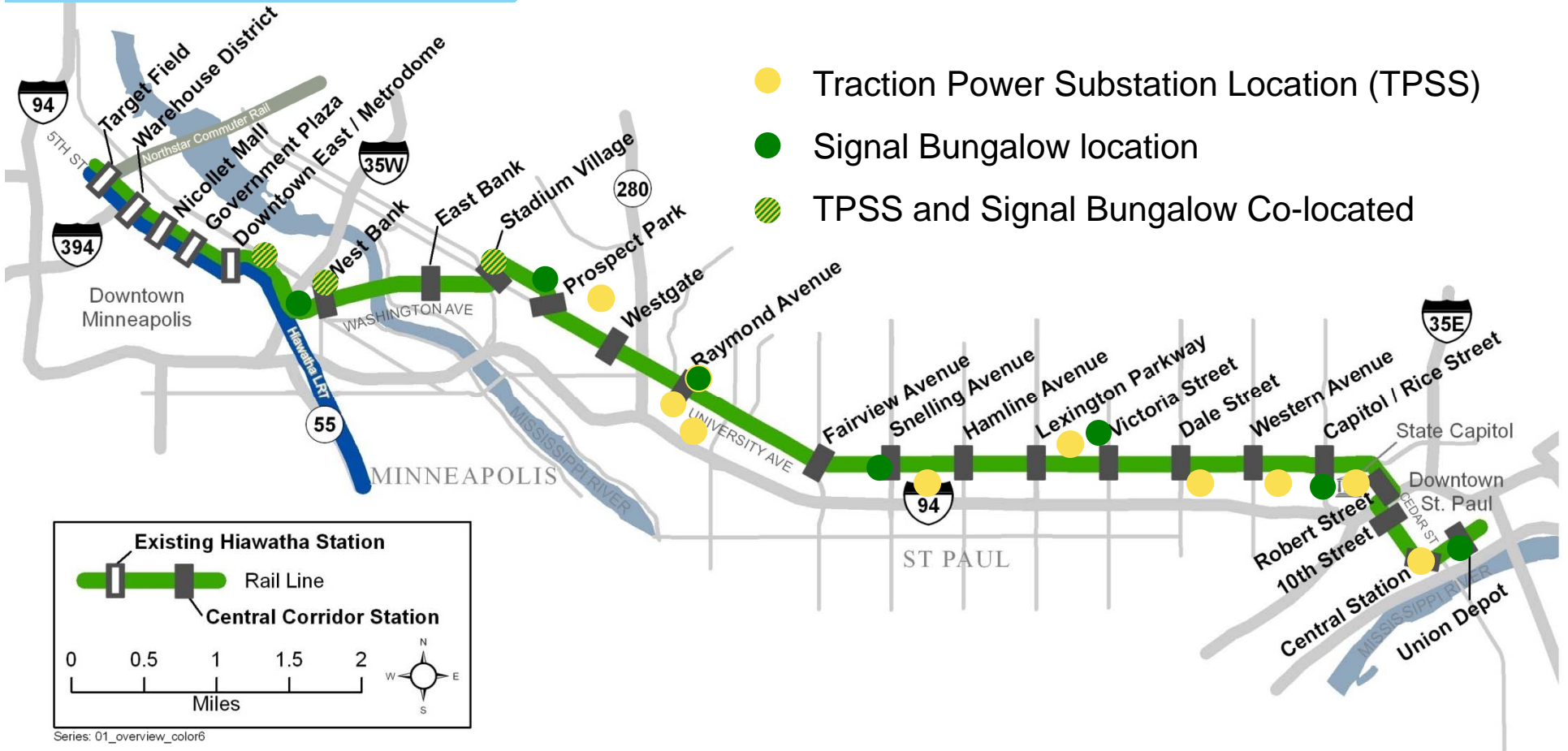


- Prepare/install Traction Power Substations
- Begin to install station communications and electrical systems
- Begin installation of Overhead Catenary System poles
- Continue retrofitting and testing at Rail Control Center

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TPSS and Signal Bungalow Locations

- Traction Power Substation Location (TPSS)
- Signal Bungalow location
- TPSS and Signal Bungalow Co-located



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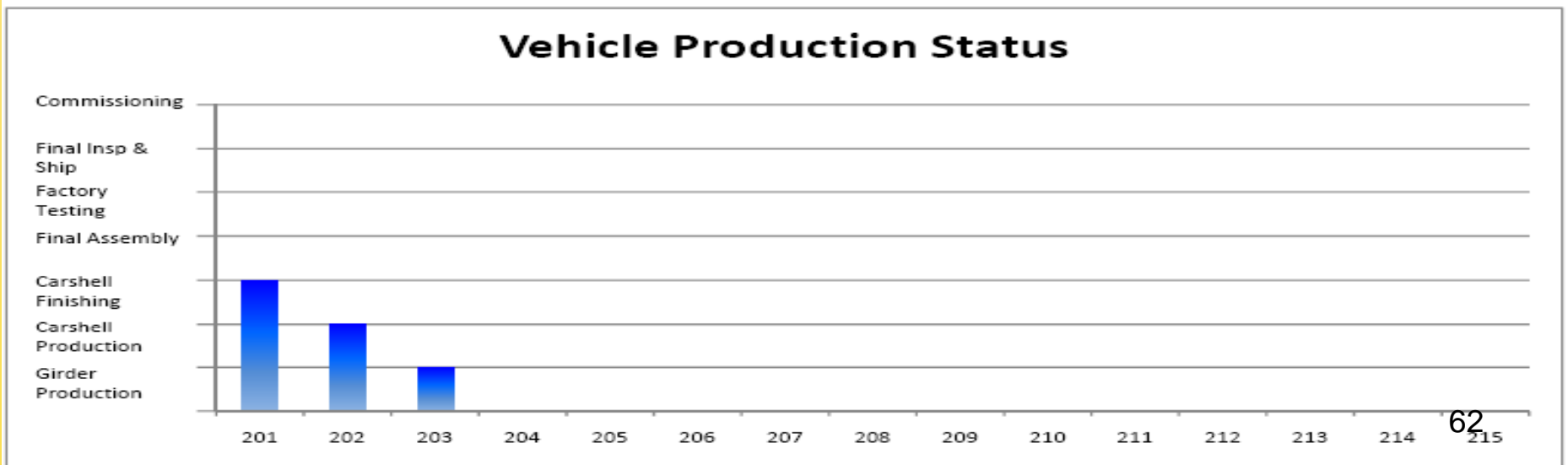
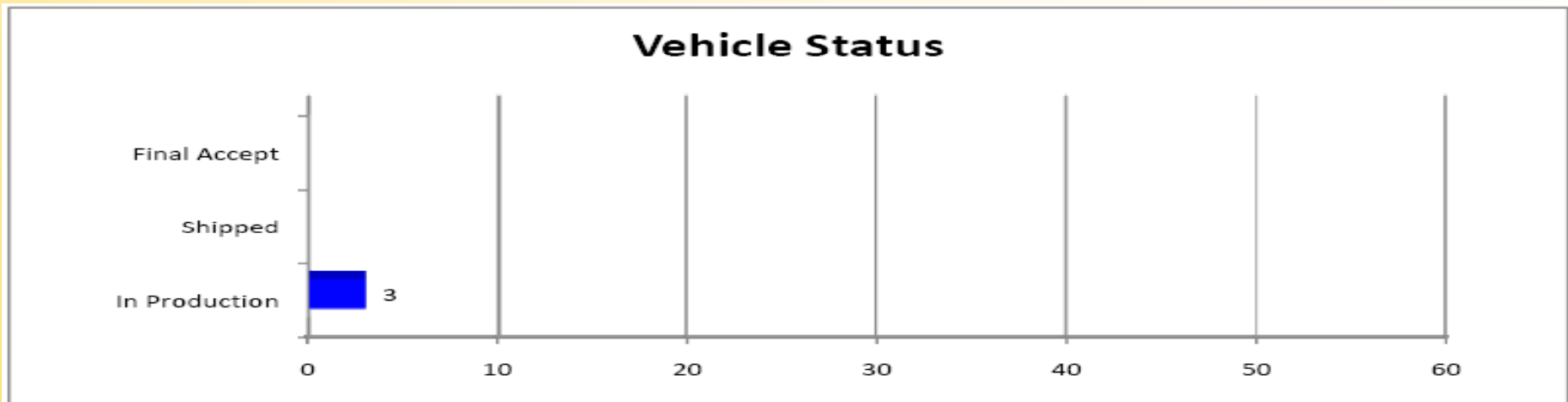
LRV Contract 2012 Schedule



- LRV Production Steps
 - Girder Production
 - Carshell Production
 - Carshell Finishing
 - Final Assembly
 - Factory Testing
 - Final Inspection & Shipment
 - Commissioning

March 2012

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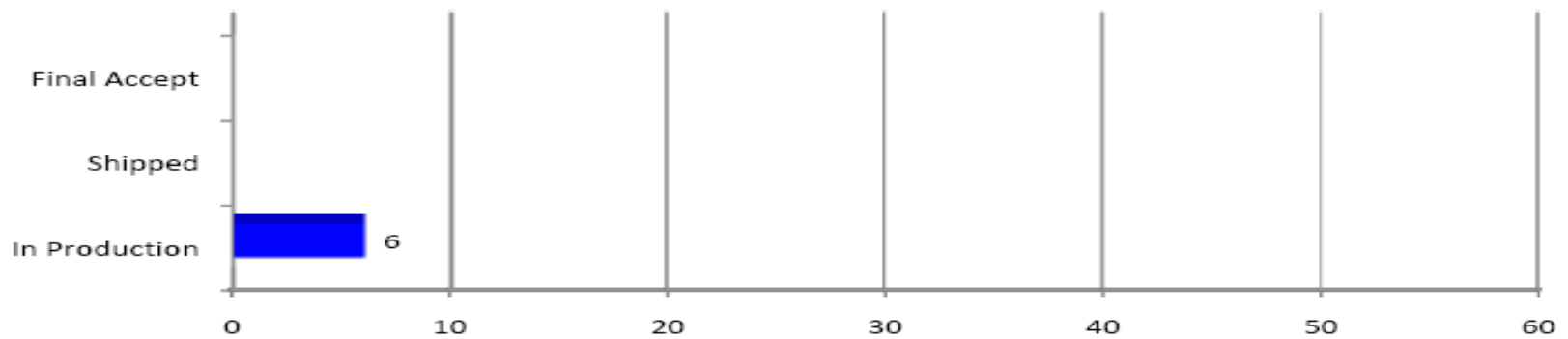
#201B car Floor in Floor Integration Fixture



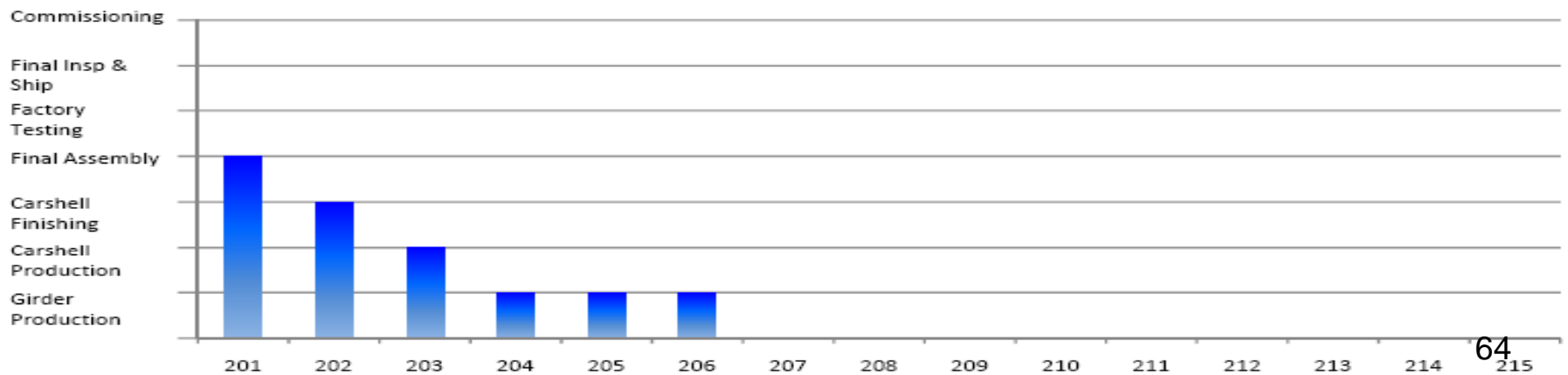
May 2012

Central Corridor Light Rail Transit

Vehicle Status



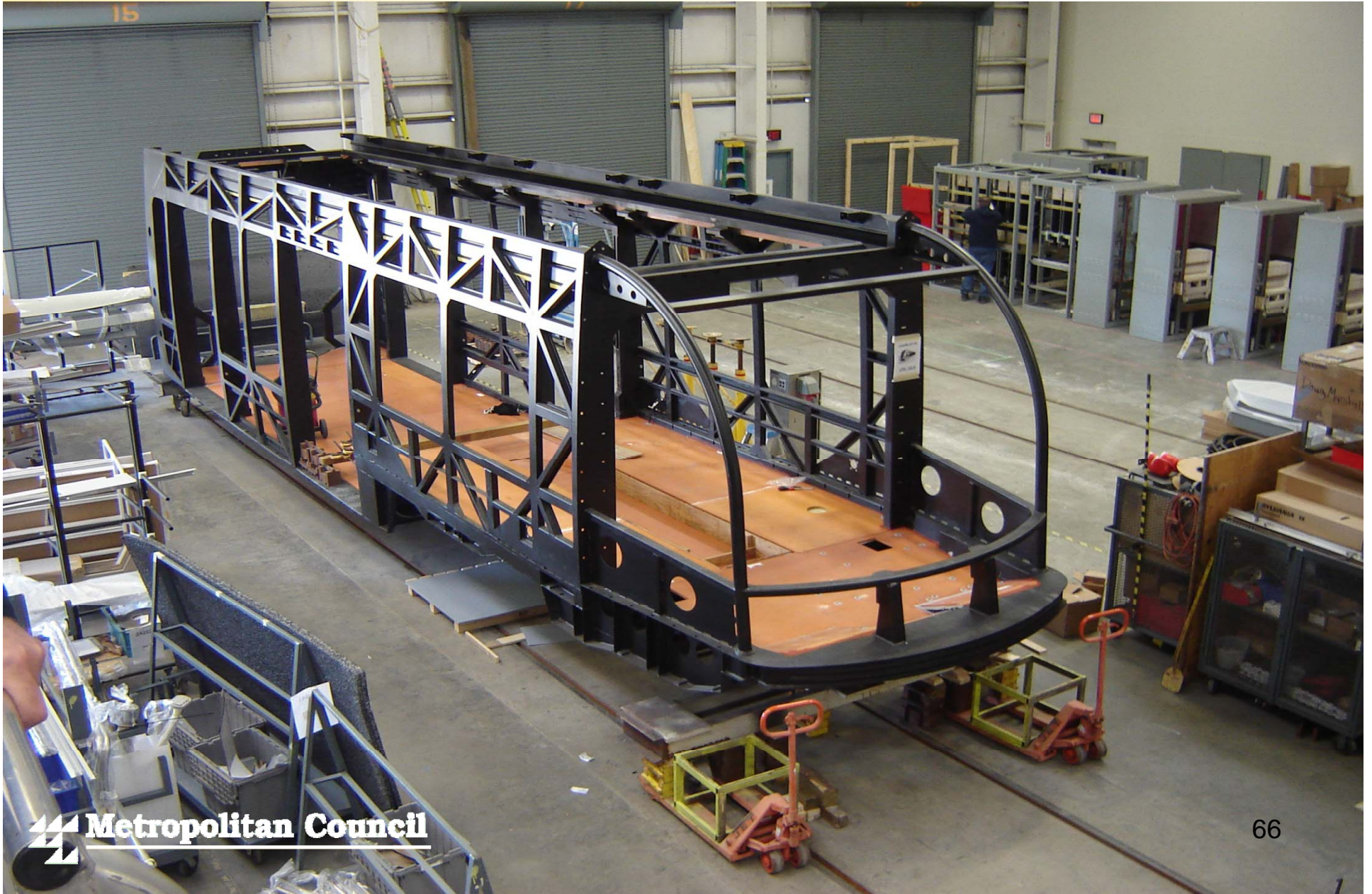
Vehicle Production Status



#201 C Car Has Been Primed



Flooring Installed in Car Shell Finishing



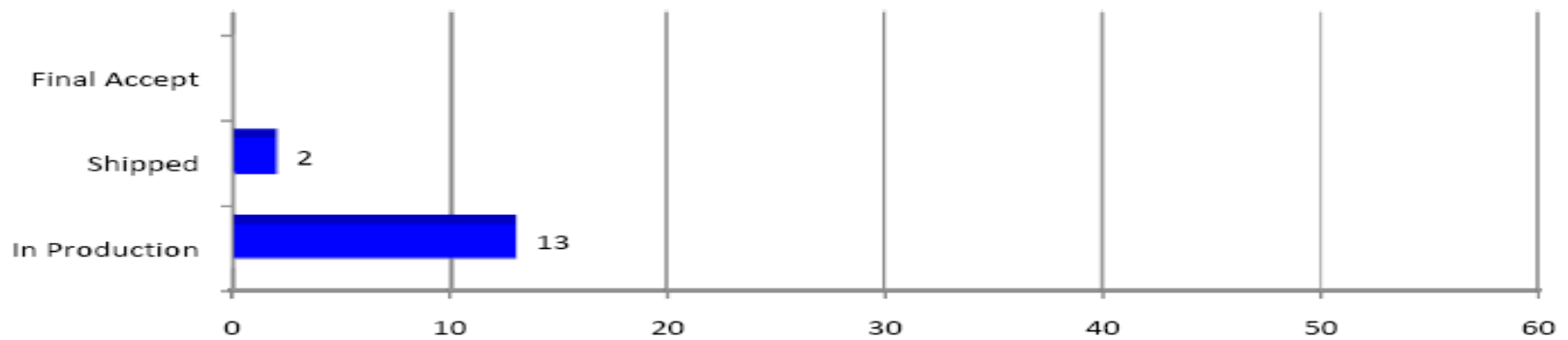
Cladding Installed in Carshell Finishing



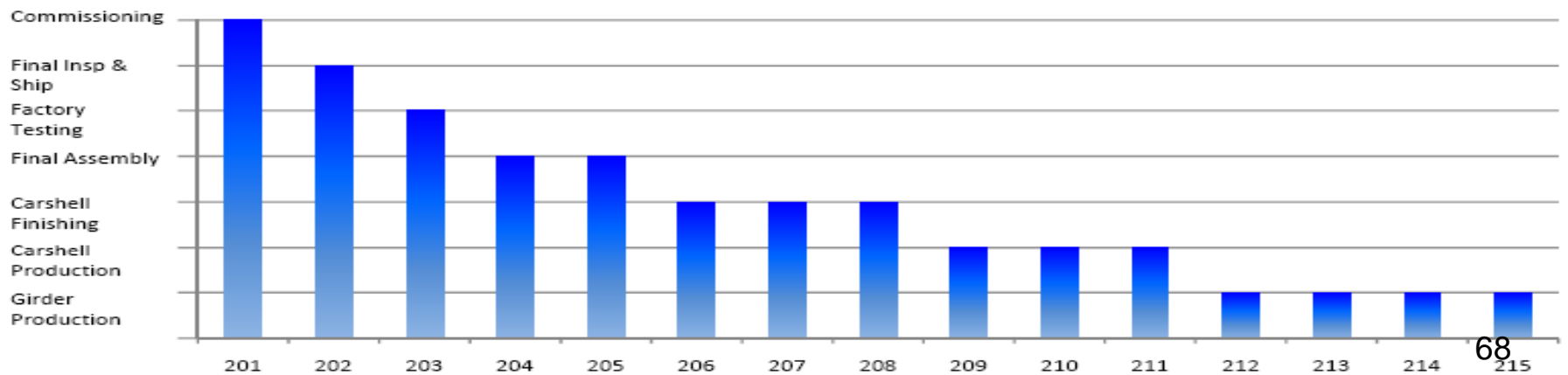
September 2012

Central Corridor Light Rail Transit

Vehicle Status



Vehicle Production Status



68

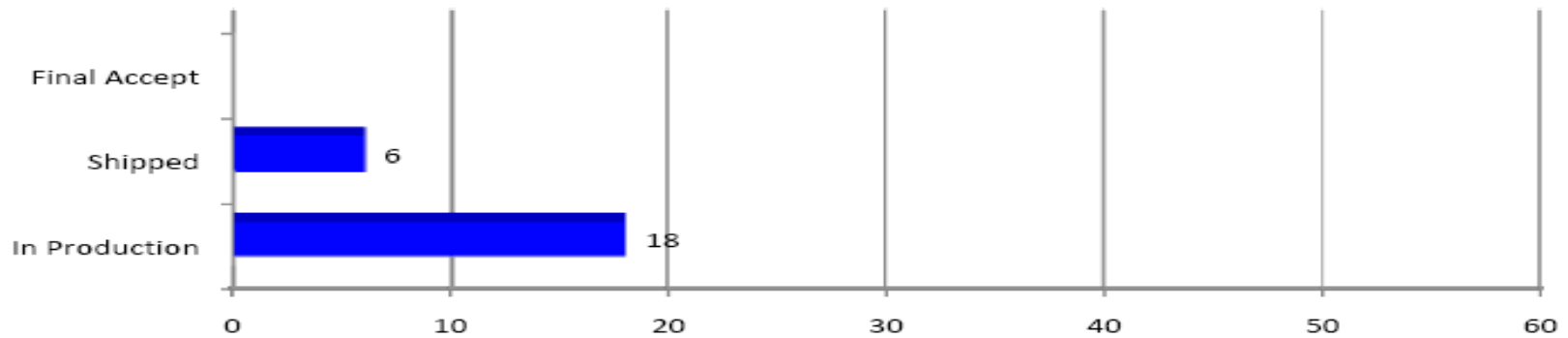
Shipped by Rail on Flat Car



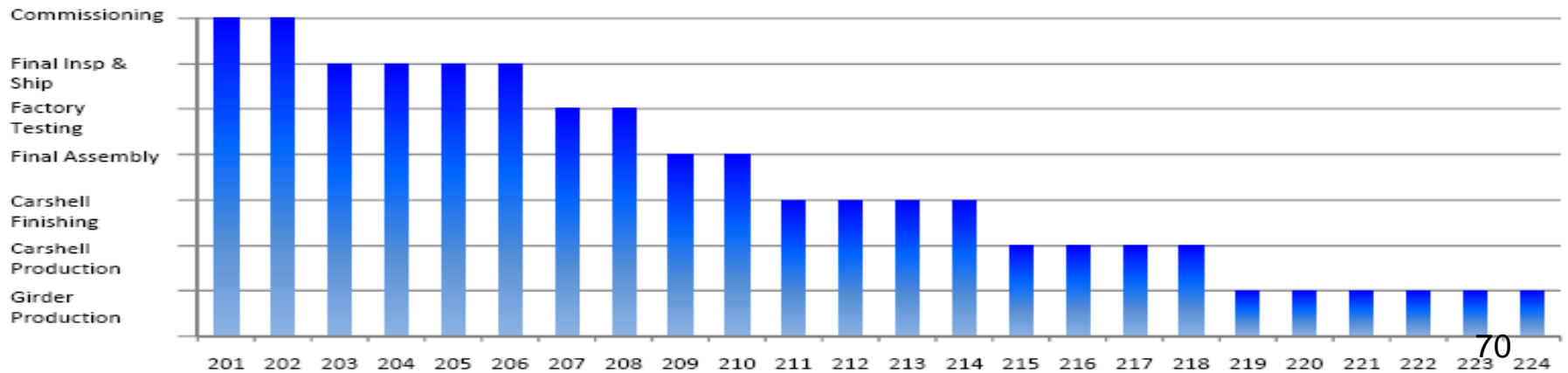
December 2012

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Vehicle Status



Vehicle Production Status



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LRV Delivery Schedule





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More Information

Check out our website:

- www.centralcorridor.org

Contact the Central Corridor Project Office:

- 540 Fairview Avenue North
St. Paul, MN 55104
- Construction Hotline: 651-602-1404
- Comment Line: 651-602-1645
- Email: centralcorridor@metc.state.mn.us

