

Technical Advisory Committee

August 16, 2012

Welcome!

Agenda

Meeting goal: Reach agreement on components to be evaluated in Level 2.

- Introductions
- Input on material presented in June
- Evaluation process update
- Draft Level 1 evaluation results
- Traffic analysis/modeling update
- Next meeting

June Meeting Recap

- Questions on June materials
- Other improvement ideas/questions?

Near-Term Evaluation Process

- Level 1 screening
 - Qualitative assessment of components' potential to address Purpose and Need
- Level 2 screening
 - Quantitative and qualitative analysis based on readily available data
- Level 3 screening
 - Package components into alternatives
 - Quantitative analysis
 - DynusT traffic modeling and transit modeling
 - Focused environmental analysis
- Identify Preferred Alternative
- Prioritize components of Preferred Alternative

Level 1 Screening Questions

1. Purpose - Component could be accommodated within recently constructed structures?
2. Purpose - Potential to be implemented in the near-term?
3. Need - Potential to address identified near-term congestion issues?
4. Need - Potential address identified near-term safety issues?
5. Need - Potential to address identified near-term multimodal capacity issues?

Level 1 Categories

- Category 1 - Retained for Additional Analysis in Level 2
- Category 2- Retained for Packaging in Level 3
- Category 3 – Eliminated for Near-term Implementation
- Category 4 - Eliminated

Retained for Additional Analysis in Level 2

Potential Infrastructure Improvements	
C-D system - US 36 to 84th, northbound N.2	Retained in Level 2 to assess potential to improve operations, reduce congestion and improve safety between 84th Avenue and US 36.
C-D system - 84th Avenue to US 36, southbound S.2	
Auxiliary lane - I-270 to 84th, northbound N.3	
Auxiliary lane - 84th to US 36, southbound S.4	
Braided ramps - 84th Avenue to US 36, southbound S.1	
I-76 direct connection to I-25 upstream of current connection N.4	
84th Avenue on-ramp gore point extension - restrict SB entering traffic from reaching I-270 flyover S.3	
Extend toll lane ingress/egress north of 84th (no access at 84th) L.7	
70th/Washington Intersection, extend eastbound dual left turn L.5	
88th Avenue T-ramp TL.7	
Continuous accel/decel lane 84th to 136th Avenue (between each interchange), northbound N.9	Retained in Level 2 to assess potential to reduce congestion and improve safety between 84th Avenue and 136th Avenue.
Continuous accel/decel lane 84th to 136th Avenue (between each interchange), southbound S.7-S.10	
Add I-25 Crossings	



C-D system - US 36 to 84th Avenue, northbound N.2



Braided ramps - 84th Avenue to US 36, southbound S.1



I-76 direct connection to I-25 upstream of current connection N.4

Note: This category includes components that:
 1. Address the Purpose
 2. Have potential to address all three identified Needs

X.X Component Reference Number,
 June 28, 2012 TAC packet.



Retained for Additional Analysis in Level 2

Potential Transit Improvements		
Expand Wagon Road park-n-Ride PNR.1	Retained in Level 2 to assess potential to address multimodal capacity need and efficacy of various locations.	
Expand Thornton park-n-Ride PNR.2		
New Park-n-Ride at 136th Avenue and I-25 PNR.3		
New Park-n-Ride at 144th Avenue and I-25 PNR.4		
New Park-n-Ride at SH 7 and I-25 PNR.5		
New Park-n-Ride at 124th Avenue and Claude Court at Eastlake PNR.6		
Increase bus frequency during peak period B.1	Retained in Level 2 to assess potential to address multimodal capacity need.	
Increase use of articulated buses B.2		
Provide bus service farther north B.3		
88th Avenue Median Station TL.6	Retained in Level 2 to assess operational benefit of eliminating bus weave from managed lane to Thornton park-n-Ride at 88th Avenue.	

Note: This category includes components that:

1. Address the Purpose
2. Have potential to address all three identified Needs

XX Component Reference Number, June 28, 2012 TAC packet.

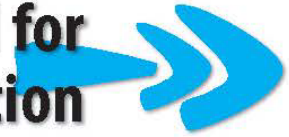
Retained for Packaging

Potential Infrastructure Improvements	
Upgrade ramp merge and diverge sections to meet current design standards <small>N.12, S.11</small>	These components would not fully address the Purpose and Need. However, they will be included, as appropriate, to improve operations, safety and capacity.
Construct continuous acceleration/deceleration lanes between interchanges north of 136th Avenue <small>N.9, N.10, S.5, S.6</small>	
Construct parallel C-D system along I-25 between 144th Avenue and SH 7 <small>N.14, S.13</small>	
Construct two-lane interchange ramps <small>I.4</small>	
Potential Transit Improvements	
Convert 120th Avenue bus tunnel to be a bi-directional facility (to and from south) <small>TI.1</small>	This component would not fully address Purpose and Need. However, it will be considered as appropriate to enhance multimodal capacity.
Build a shoulder busway from 120th Avenue to 144th Avenue <small>TI.3</small>	This component would not fully address Purpose and Need. However, it will be considered if alternatives recommend additional bus service north of 120th Avenue.
Bus queue jump lanes and bus ramps at interchanges <small>TI.4</small>	This component would not fully address Purpose and Need. However, it will be considered if bus service recommendations include use of interchange ramps.
128th Avenue Median Station <small>TI.9</small>	This component would not fully address Purpose and Need. However, it will be considered if alternatives include new transit station/Park-n-Ride at 128th Avenue.
Potential TDM, ITS, TSM Improvements	
Travel Demand Management Measures (e.g., guaranteed ride home, carpooling, bike maps, bike share programs, marketing, etc.) <small>TDM.1-TDM.20</small>	These components would not fully address the Purpose and Need. However, they will be included, as appropriate, to improve operations, safety and capacity.
Intelligent Transportation Systems (e.g. ramp metering, travel time indicators, variable message signing, radar vehicle detection, active traffic management, etc.) <small>ITS.1-ITS.19</small>	
Incident management <small>TSM.5</small>	
Driver education campaigns (e.g., use of buffer separated lanes) <small>TSM.3</small>	

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- Note:** This category includes components that:
1. Address the Purpose
 2. Have potential to address one or more Needs
 3. Are more universal in application

Components Eliminated for Near-Term Implementation



Components Eliminated for Near-Term Implementation	
Extend Managed Lanes north to SH 7 I.1	Could not be implemented in near-term due to cost, property impacts, and NEPA process and therefore do not meet the Purpose and Need, but are retained as long-term options.
Additional General Purpose Lanes 84th Avenue to SH 7 N.13, S.12	
Extend reversible lanes up I-25 I.8	
Provide two managed lanes in each direction between US 36 and SH 7 I.2	

Note: This category includes components that:

1. Do not address the Purpose (typically because they can't be implemented in the near term)
2. Are retained for long-term consideration

XX Component Reference Number, June 28, 2012 TAC packet.

Components Eliminated



Infrastructure Components Eliminated

Pre-mainline merge [merge all ramps (I-270, US 36 and I-76) prior to I-25 northbound entry]	N.5	Would reduce capacity of merge point and result in longer queues on the merging facilities.
Convert left-side I-270 flyover to right-side ramp	S.14	Would require reconstruction or modification of recently constructed structures and therefore would not meet the project Purpose and Need.
84th Avenue interchange T-ramp	TI.5	
Construct new north/south route for trucks parallel to I-25	I.3	Construction of a new facility could not be accomplished in the near-term due to cost, property impacts or NEPA process and therefore would not meet the project Purpose and Need.
Braided ramps US 36 to 84th Avenue, northbound	N.1	Could not be implemented in near-term due to anticipated property impacts, and/or NEPA process and therefore would not meet the project Purpose and Need.

Transit Components Eliminated

Light rail on I-25	TI.11	Considered during an extensive study of the North Metro corridor. Not considered as favorable as the commuter rail solution ultimately identified in the Environmental Impact Statement.
120th Avenue Median Station	TI.8	Would require reconstruction or modification of recently constructed structures and therefore would not meet the project Purpose and Need.
Add structure to 120th Avenue bus tunnel to facilitate bus access to the managed lanes (to and from the north)	TI.2	Could not be implemented in near-term due to cost, property impacts, and/or NEPA process and therefore would not meet the project Purpose and Need.
Shift 120th Avenue bus tunnel from left side to right side of northbound I-25	TI.10	Extension of managed lanes north to 120th (opening 2014) would allow the buses to enter the bus tunnel without changing lanes therefore this component would create an unnecessary weave on I-25. This would not address the Purpose and Need.

TDM, ITS, TSM Components Eliminated

Limit large trucks and buses to the rightmost three lanes of I-25	TSM.4	Not compatible with new managed lane.
Designate inside lane of I-25 for trucks only	TSM.1	Not compatible with new managed lane.
Implement \$2 toll all day	TSM.2	The existing dynamic toll structure serves to maximize revenue and person through-put, therefore this does not meet the project Purpose and Need.

XX Component Reference Number, June 28, 2012 TAC packet.

Note: This category includes components that:
 1. Do not address the Purpose or
 2. Do not address one or more Need

Discussion and agreement on Level 1 results

Traffic Analysis/ Modeling Update

- Dynamic Traffic Assignment Modeling effort
 - 2010 calibrated model
 - 2035 and 2010 No Action
- Upcoming component evaluation and screening
 - Traffic analysis tools
 - 2035 comparison, 2010 testing

Reminder: Please coordinate with your Executive Committee reps!

Next meeting:
September 27th (tentative)