

Concepts for the Study

No Action

The No Action Concept involves maintaining the existing roadways and bridges on southbound I-225 through 2035 without any major improvements. The existing number of lanes on southbound I-225 would remain as they are today.

 **This Concept was retained for comparison purposes**

Concept 1

Managed Lanes

Bus-only lanes and Bus/High Occupancy Vehicle (HOV)/High Occupancy Toll (HOT) Lanes, similar to I-25 between 20th Street and US 36.

This Concept was eliminated in Tier 1 Screening for the following reasons:

- Not responsive to the Purpose and Need
- Only minimally improves congestion or reduces travel time

Concept 2

Transit

Provide additional transit improvements, such as additional light rail lines and bus routes.

This Concept was eliminated in Tier 1 Screening for the following reasons:

- Not responsive to the Purpose and Need
- Additional transit alone would not improve congestion or reduce travel time



Concept 3

ITS/TDM Only

Use of information technologies, such as intelligent transportation systems (ITS) including traffic control through ramp metering, and travel demand management (TDM) strategies, such as rideshare programs.

This Concept was eliminated in Tier 1 Screening for the following reasons:

- Not responsive to the Purpose and Need
- Only minimally improves congestion or reduces travel time
- May be used in conjunction with Recommended Concept(s)

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Concept 4

Hard Shoulder Running Only

This concept involves using the existing shoulder as a third travel lane along southbound I-225 during peak traffic congestion periods.

This Concept was eliminated in Tier 2 Screening for the following reasons:

- Unacceptable mainline and intersection operations
- Greater number of lane changes compared to current conditions
- Unacceptable shoulder widths
- Inability to meet driver expectations



Concept 5

Speed Harmonization Only

Speed harmonization uses over-lane speed signs and lane control signs to dynamically and automatically reduce speed limits in areas of congestion to maintain traffic flow and reduce collision risks due to speed differentials related to queuing and congestion.

This Concept was eliminated in Tier 1 Screening for the following reasons:

- Not responsive to the Purpose and Need
- Only minimally improves congestion or reduces travel time
- May be used in conjunction with Recommended Concept(s)

Concept 6

Queue Warning Only

Queue warning uses electronic signs to warn motorists of downstream congestion and slowed or stopped vehicles to allow drivers to adjust to the downstream travel conditions.

This Concept was eliminated in Tier 1 Screening for the following reasons:

- Not responsive to the Purpose and Need
- Only minimally improves congestion or reduces travel time
- May be used in conjunction with Recommended Concept(s)

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Concept 7

Third Lane Only

This Concept involves constructing an additional third lane along southbound I-225 and widening the bridges to accommodate three lanes and shoulders.

This Concept was eliminated in Tier 2 Screening for the following reasons:

- Unacceptable mainline and intersection operations
- Greater number of lane changes compared to current conditions



Concept 8

DTC on to NB I-25 Only

This Concept involves constructing a third lane along southbound I-225, closing the DTC Boulevard on ramp to southbound I-225 traffic, and rerouting traffic on the Yosemite Street interchange. The rerouted traffic would be directed to use the existing west shoulder over the Yosemite Street Bridge to access the Collector-Distributor (C-D) road to the north and merge onto southbound I-225 with an on ramp. The off ramp to DTC Boulevard from southbound I-225 would be removed.

This Concept was eliminated in Tier 2 Screening for the following reasons:

- Unacceptable intersection operations
- Extensive out-of-direction travel distance



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Concept 9

Texas U-Turn with DTC On Ramp to northbound I-25 Only

This Concept involves constructing a third lane along southbound I-225, closing the DTC Boulevard on ramp to southbound I-25 traffic, and rerouting traffic to a Texas U-turn bridge over I-225 near Yosemite Street. The rerouted traffic would be directed to the C-D road to the north and merge onto southbound I-225 with an on ramp. The off ramp to DTC Boulevard from southbound I-225 would be removed.

This Concept was eliminated in Tier 2 Screening for the following reasons:

- Unacceptable intersection operations
- Inability to meet design criteria
- Inability to meet driver expectations
- Extensive out-of-direction travel distance



Concept 10

DDI with Braided Ramp and DTC On Ramp to northbound I-25 Only

This Concept involves constructing a third lane along southbound I-225, closing the DTC Boulevard on ramp to southbound I-225 traffic, and rerouting traffic to the Yosemite Street interchange. The Yosemite Street interchange would be converted to a Diverging Diamond Interchange (DDI) to access the C-D road to the north and merge onto southbound I-225 with an on ramp. The off ramp to DTC Boulevard from southbound I-225 would be replaced with a braided ramp with the new Yosemite Street on ramp.

This Concept was eliminated in Tier 2 Screening for the following reasons:

- Unacceptable intersection operations
- Inability to meet driver expectations
- Unacceptable property impacts
- Extensive out-of-direction travel distance



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Concept 11

Reroute DTC Ramp to Yosemite

This Concept involves constructing a third lane along southbound I-225, closing the DTC Boulevard on ramp to both northbound and southbound I-25 traffic, and rerouting traffic to the Yosemite Street interchange. The rerouted traffic would be directed to use the existing Yosemite Street ramp intersections to access the C-D road to the north and merge onto southbound I-225 with an on ramp. The off ramp to DTC Boulevard from southbound I-225 would be removed.

This Concept was eliminated in Tier 2 Screening for the following reasons:

- Unacceptable mainline and intersection operations
- Inability to meet driver expectations
- Extensive out-of-direction travel distance



Concept 12

Braided Ramps between Yosemite and DTC

This Concept involves constructing a third lane along southbound I-225, closing the DTC Boulevard on ramp to both northbound and southbound I-25 traffic, and rerouting traffic to the Yosemite Street interchange. The rerouted traffic would be directed to use the existing Yosemite Street ramp intersections to access the C-D road to the north and merge onto southbound I-225 with an on ramp. The off ramp to DTC Boulevard from southbound I-225 would be replaced with a braided ramp with the new Yosemite Street on ramp.

This Concept was eliminated in Tier 2 Screening for the following reasons:

- Unacceptable mainline and intersection operations
- Extensive out-of-direction travel distance



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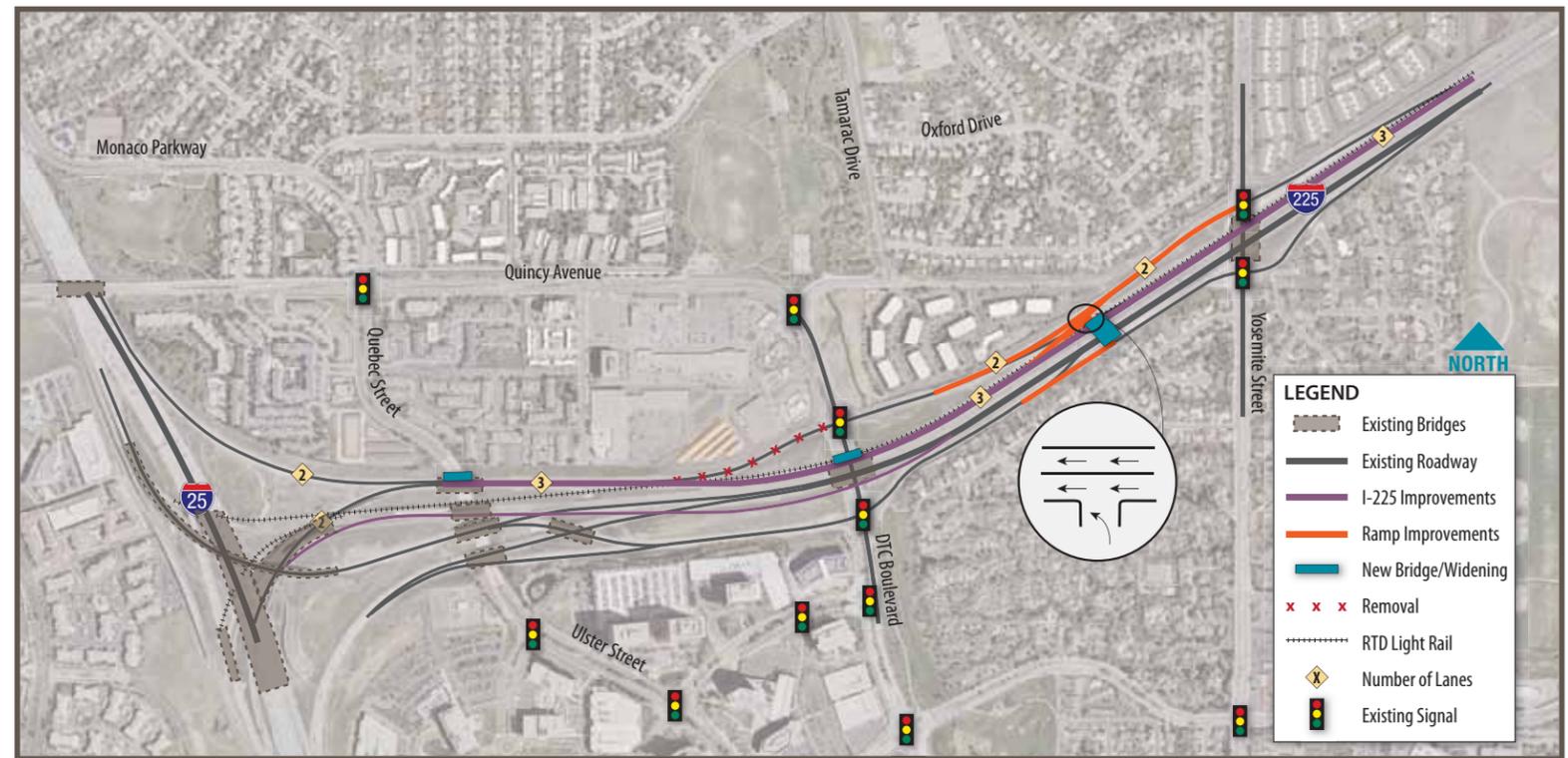
Concept 13

Combine interchanges with U-Turn Bridge

This Concept involves constructing a third lane along southbound I-225, closing the DTC Boulevard on ramp to both northbound and southbound I-25 traffic, and rerouting traffic to a u-turn bridge grade crossing halfway to Yosemite Street. The rerouted traffic would be directed to use the grade crossing to access the C-D road to the north and merge on to southbound I-225 with an on ramp. The off ramp to DTC Boulevard from southbound I-225 would be removed.

This Concept was eliminated in Tier 2 Screening for the following reasons:

- Unacceptable mainline and intersection operations
- Extensive out-of-direction travel distance



Concept 14

Texas U-Turn

This Concept involves constructing a third lane along southbound I-225, closing the DTC Boulevard on ramp to both northbound and southbound I-25 traffic, and rerouting traffic to a Texas U-turn bridge over I-225 near Yosemite Street. The rerouted traffic would be directed to the C-D road to the north and merge onto southbound I-225 with an on ramp. The off ramp to DTC Boulevard from southbound I-225 would be removed.

This Concept was eliminated in Tier 2 Screening for the following reasons:

- Unacceptable mainline and intersection operations
- Extensive out-of-direction travel distance



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Concept 15

Two DDIs - Yosemite and DTC

This Concept involves constructing a third lane along southbound I-225, closing the DTC Boulevard on ramp to both northbound and southbound I-25 traffic, and rerouting traffic to the Yosemite Street interchange. The DTC Boulevard and Yosemite Street interchanges would be converted to DDIs. Traffic would be directed to access the C-D road to the north and merge onto southbound I-225 with an on ramp. The off ramp to DTC Boulevard from southbound I-225 would be replaced with a braided ramp with the new Yosemite Street on ramp.

This Concept was eliminated in Tier 2 Screening for the following reasons:

- Unacceptable mainline and intersection operations
- Extensive out-of-direction travel distance



Concept 16

Braid Ramps West of DTC

This Concept involves constructing a third lane along southbound I-225. The DTC Boulevard on ramp to southbound I-25 would cross under southbound I-225 with a new bridge on southbound I-225 and then merge onto southbound I-225 from the left side of the highway. The DTC Boulevard on ramp to northbound I-25 would continue to use a dedicated lane to the exit ramp to I-25.

★ This Concept was retained for Tier 3 detailed analysis



Concepts for the Study

Concept 17

Divide I-225, Remove DTC off Ramp and Braid Ramps West of DTC

This Concept involves dividing southbound I-225 just west of Yosemite Street into two, two-lane highways directed either to northbound I-25 or southbound I-25. The DTC Boulevard on ramp would cross under southbound I-225 with a new bridge and then merge onto the highway to southbound I-25 from the right side. The DTC Boulevard on ramp to northbound I-25 would continue to use a dedicated lane to the exit ramp to I-25. The off ramp to DTC Boulevard from southbound I-225 would be removed and traffic would be redirected to the Yosemite Street off ramp and through the ramp intersection to reach DTC Boulevard.

★ This Concept was retained for Tier 3 detailed analysis



Concept 18 - NOT RECOMMENDED

Add loop Ramp and Braid Ramps East and West of DTC

This Concept involves constructing a third lane along southbound I-225. The northbound DTC Boulevard traffic heading to southbound I-225 would use a loop ramp; whereas the southbound Tamarac Parkway traffic would use a new slip ramp. The DTC Boulevard on ramps merge to a C-D road to access the northbound and southbound I-25 ramps. The DTC Boulevard to southbound I-225 on ramp would cross under southbound I-225 with a new bridge on southbound I-225 and then merge onto southbound I-225 from the left side of the highway. The off ramp to DTC Boulevard from southbound I-225 would be replaced with a braided ramp with the new Yosemite Street on ramp. The traffic operations for this concept performed well for 2035, which is why Concept 18 was retained for more detailed analysis. The loop ramp and C-D road would impact an apartment complex and Goldsmith Gulch and associated environmental resources.

★ This Concept was retained for Tier 3 detailed analysis, but not recommended



Concepts for the Study

Concept 19

Divide I-225 and Braid Ramps West of DTC

Concept 19 is the same as Concept 17 except that it maintains the DTC Boulevard off ramp from southbound I-225.

★ This Concept was retained for Tier 3 detailed analysis



Concept 20

Divide I-225 East of DTC and Roundabouts at DTC

Concept 20 is the same as Concept 19 except that the DTC Boulevard Ramp intersections would be converted to roundabouts.

This Concept was eliminated in Tier 2 Screening for the following reasons:

- Unacceptable intersection operations
- Extensive stacking of vehicles into adjacent intersections



Concepts for the Study

Concept 21

Braid Ramps East and West of DTC

Concept 21 is the same as Concept 19 except that the existing DTC Boulevard off ramp from southbound I-225 ramp is braided with a new Yosemite Street on ramp to southbound I-225.

★ This Concept was retained for Tier 3 detailed analysis

