

Welcome

Please come in and review the presentation boards. Our staff will be happy to answer your questions and discuss the project.

Feedback forms are available and we encourage you to provide your input.

Please visit **calgary.ca/16Ave19St** for project information.

Information Session Objectives:

- Provide opportunity for the public to:
 - Learn about the recommended long-term plan being proposed.
 - Learn about the short-term solution being proposed.
- Feedback / comment forms are provided.
 - Submit it in person, by email or mail by **March 21, 2014**.

Public Engagement

Our engagement promise

- To listen to stakeholders and community members and learn about their views, issues, concerns, and expectations.
- To incorporate stakeholder and community input to the maximum extent possible, and advise how consultation affected the decisions and outcomes.

Engagement to date

- Stakeholders (community, business and special interest group representatives) and members of the public have been engaged throughout the study by way of a stakeholder meeting and workshop, two public open houses and accompanying online surveys.

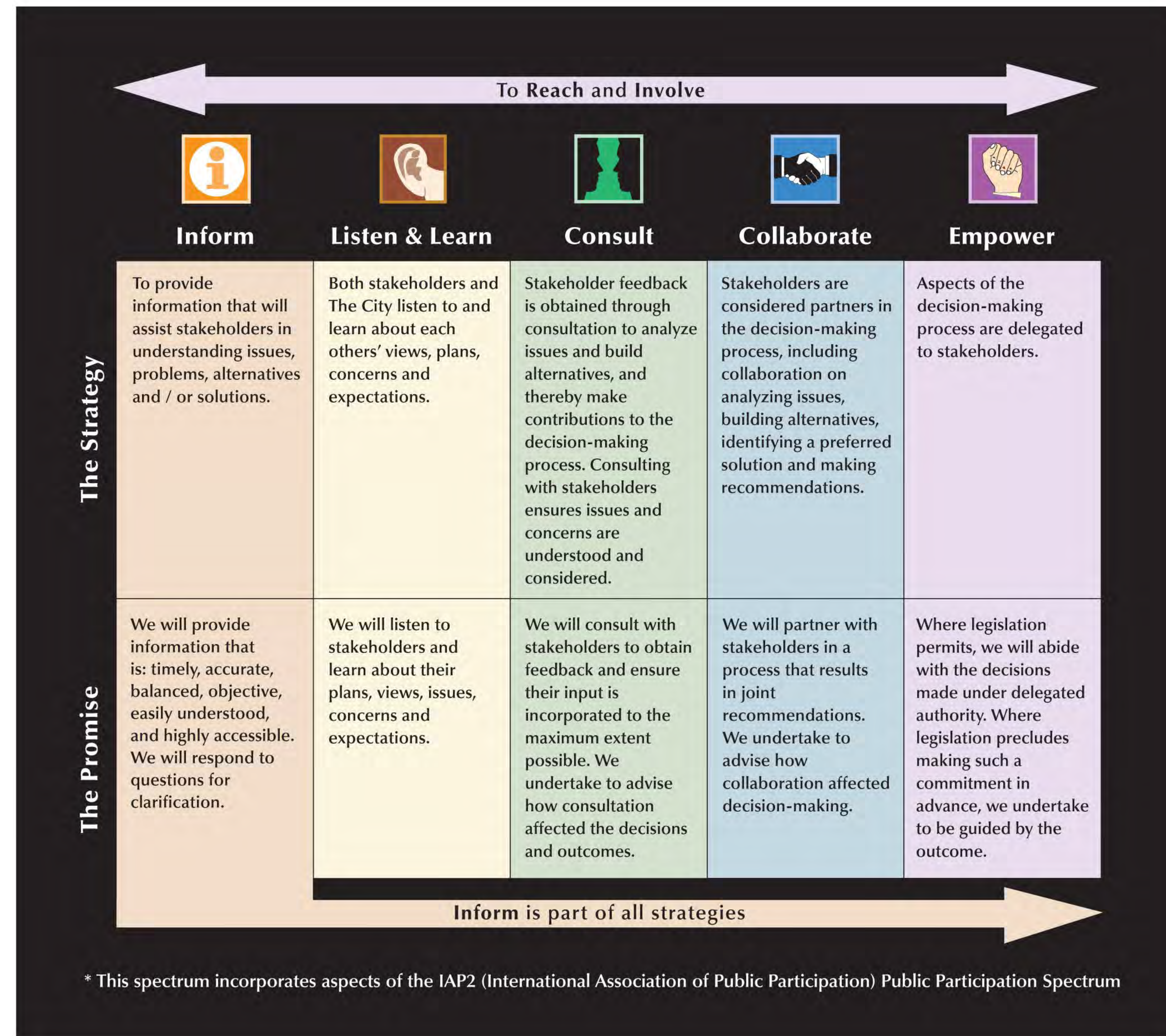
Next steps

- Complete the long-term functional design plan for the corridor.
- Finalize the short-term solution.
- Present the recommended plans to City Council for approval.



engage! policy

SPECTRUM OF STRATEGIES AND PROMISES



16 Avenue N and 19 Street E



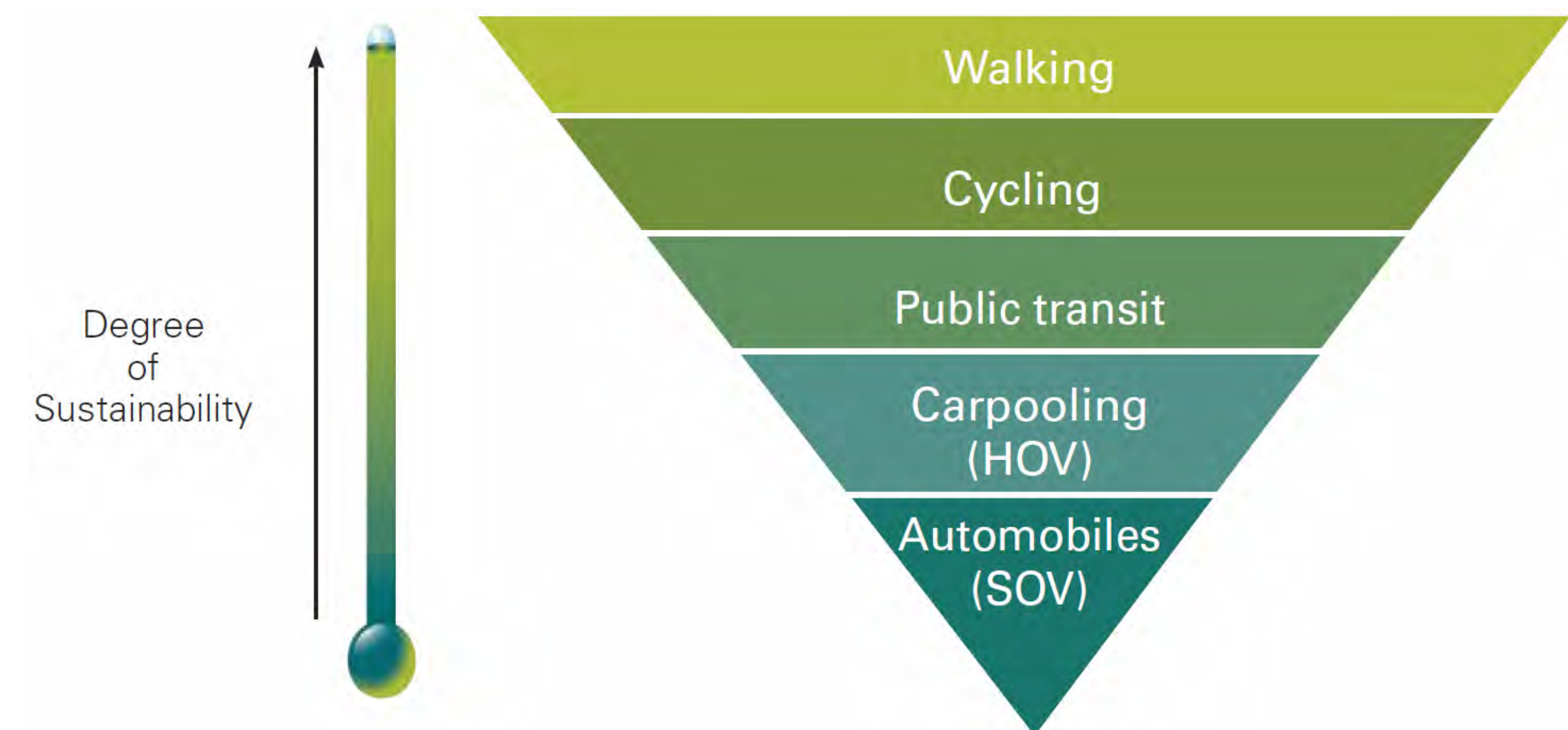
Study Scope and Objectives

Study Scope

- Determine the design and configuration of a future interchange at 16 Avenue N and 19 Street E that considers the proximity of existing interchanges at Deerfoot Trail and Barlow Trail.
- Identify opportunities to enhance walking, biking and transit connections to provide transportation options.

Study Objectives

- Improve traffic flow and safety at:
 - The 16 Avenue N and 19 Street E intersection.
 - Along 16 Avenue N from Deerfoot Trail to Stoney Trail.
- Improve pedestrian and cyclist movement across 16 Avenue N between Deerfoot Trail and Barlow Trail.
- Accommodate frequent, reliable transit service as part of the primary transit network in N.E. Calgary.
- Address other issues identified during the study.



Functional Planning Studies

- Identify the ultimate design of a roadway.
- Outline the interim and long-term requirements such as right-of-way, infrastructure upgrades, and estimated costs.
- Guided by the Council-approved Municipal Development and Calgary Transportation Plans (CTP).

Supporting Council Priorities (CTP)

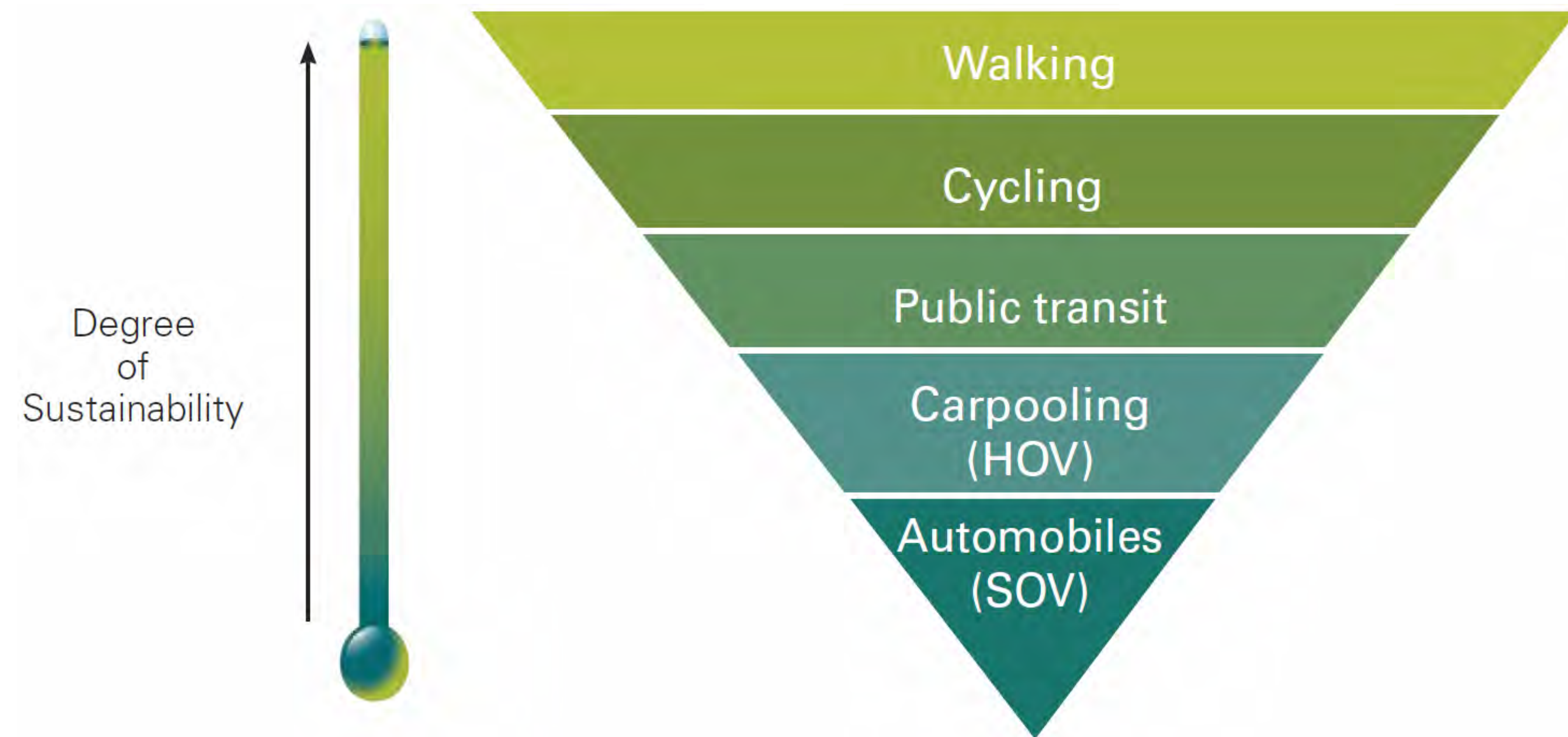
Calgary Transportation Plan (CTP)

Goals

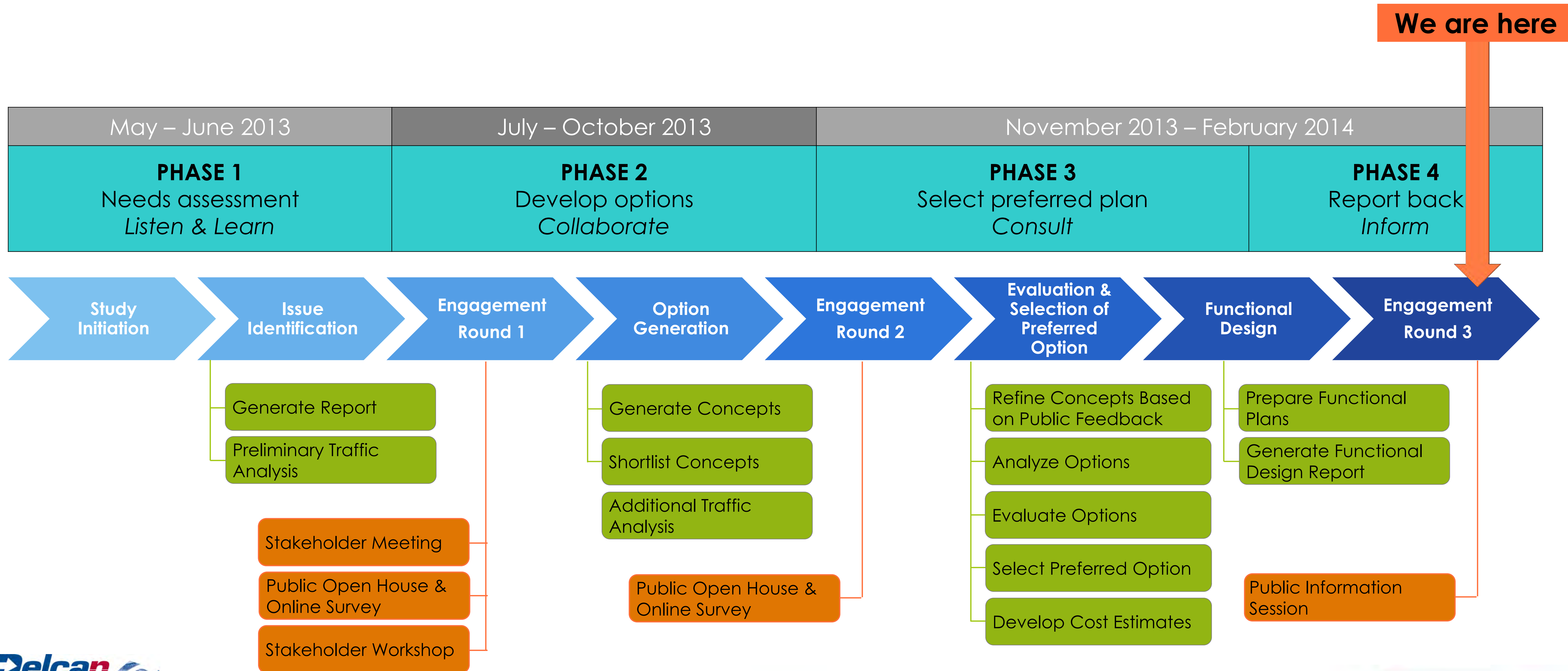
- Multi-modal, Multi-user.
- Efficient movement of people and goods.

Policies

- Improved transit speed and reliability.
- Improved goods movement.
- Choice of transportation modes for all users.
- Management of congestion.



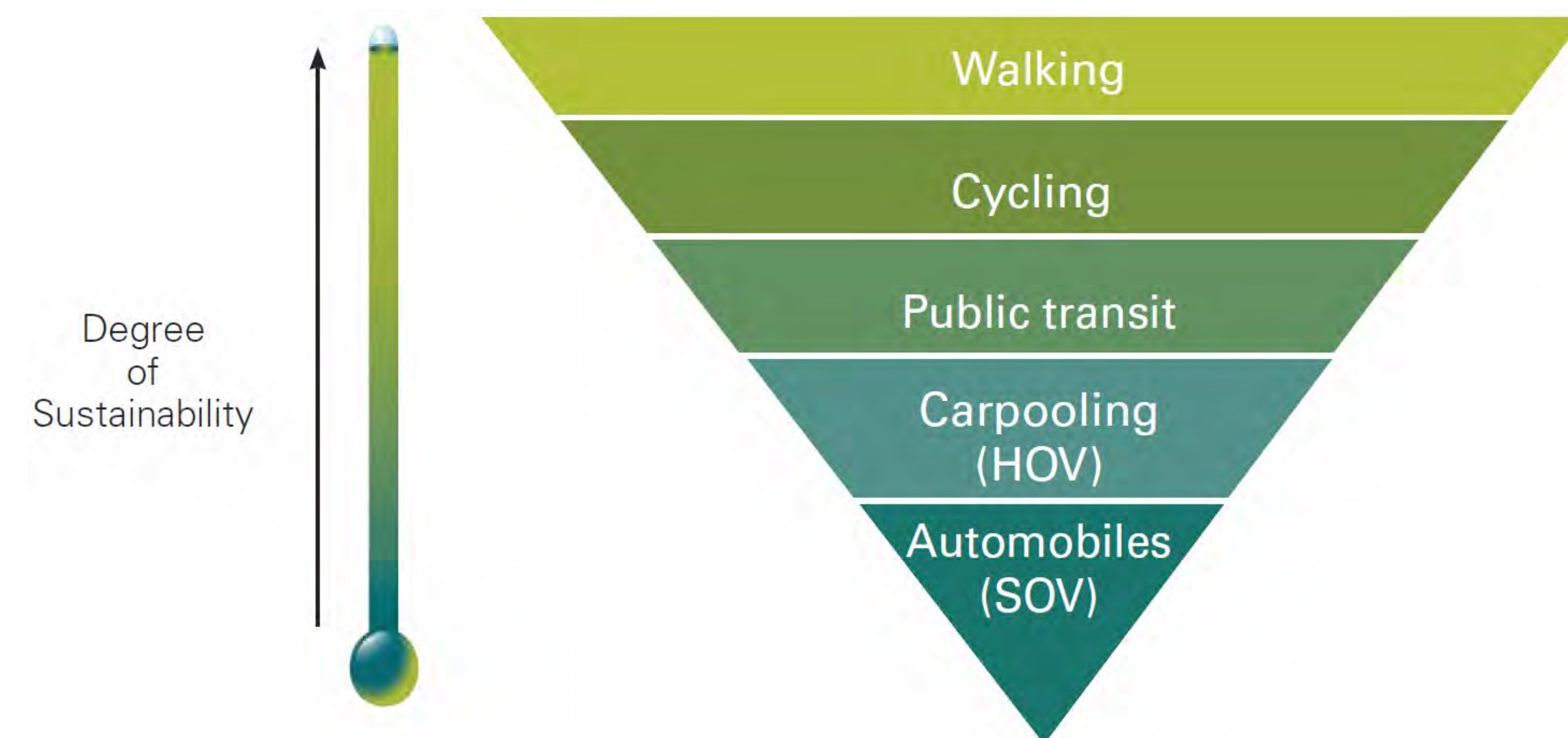
Study Process and Timeline



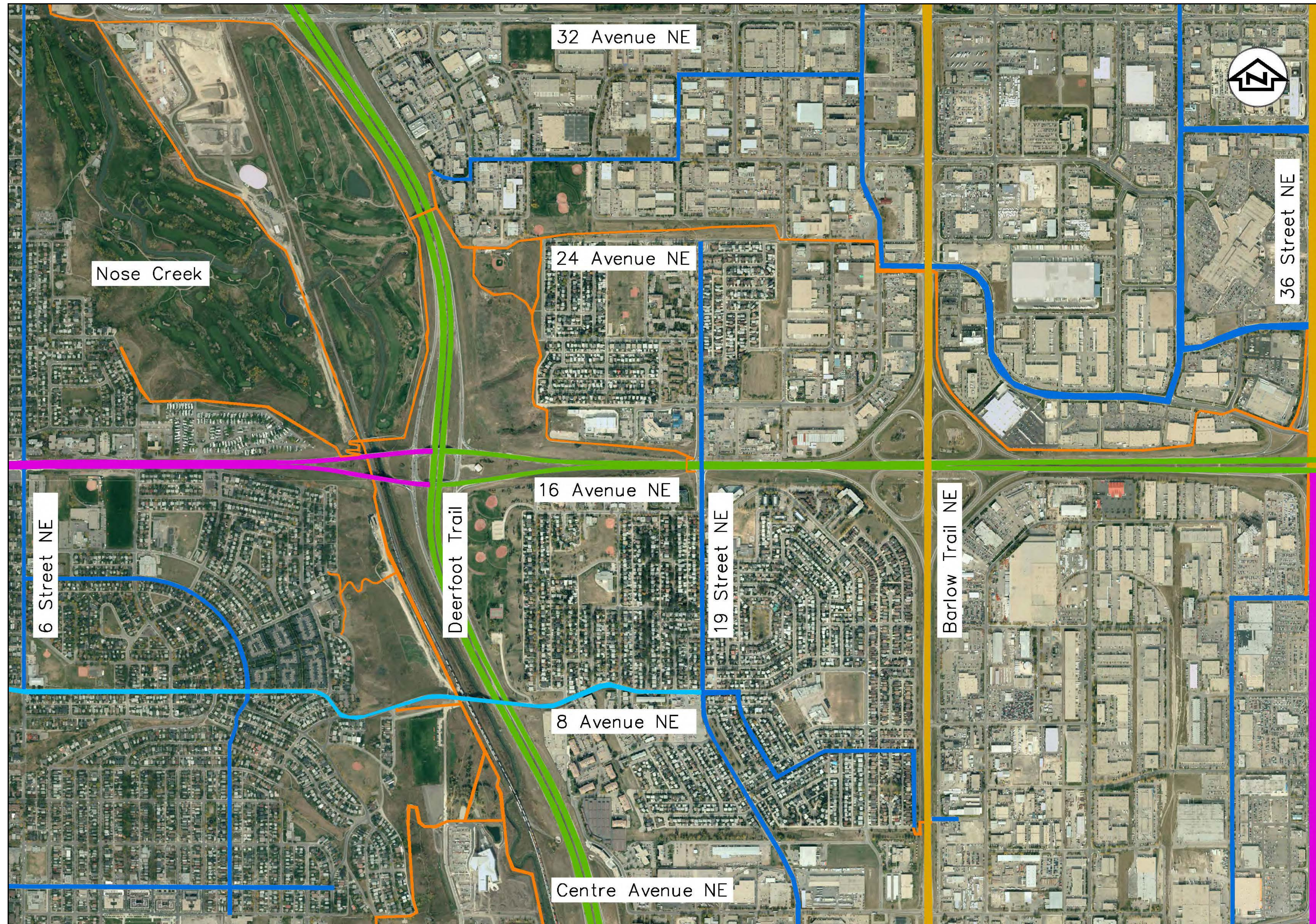
Transportation Network Context

The CTP outlines various roles for 16 Avenue and 19 Street as part of the overall transportation network

- 16 Ave is a “Skeletal Road” east and an “Urban Boulevard” west of Deerfoot Trail .
 - A skeletal road is comparable to an expressway – a high speed, high volume roadway for long distance travel.
 - An urban boulevard provides good access to surrounding communities, and gives high priority to walking, cycling, and transit while accommodating high volumes of traffic.
- 16 Ave is part of the “Primary High Occupancy Vehicle Network” east of Deerfoot Trail.
 - In Calgary, HOVs include buses, and vehicles with two or more occupants.
- 16 Ave is part of the “Primary Goods Movement Network”.
- 19 St is part of the “Primary Transit Network” north and south of 16 Ave.
 - Aims to provide transit service every 10 minutes or less, 15 hours/day, 7 days/week.



Transportation Network



LEGEND

- Existing On-Street Bikeway 
- Existing Bike Lane 
- Existing Regional Pathway 
- Skeletal Road 
- Arterial Road 
- Urban Boulevard 



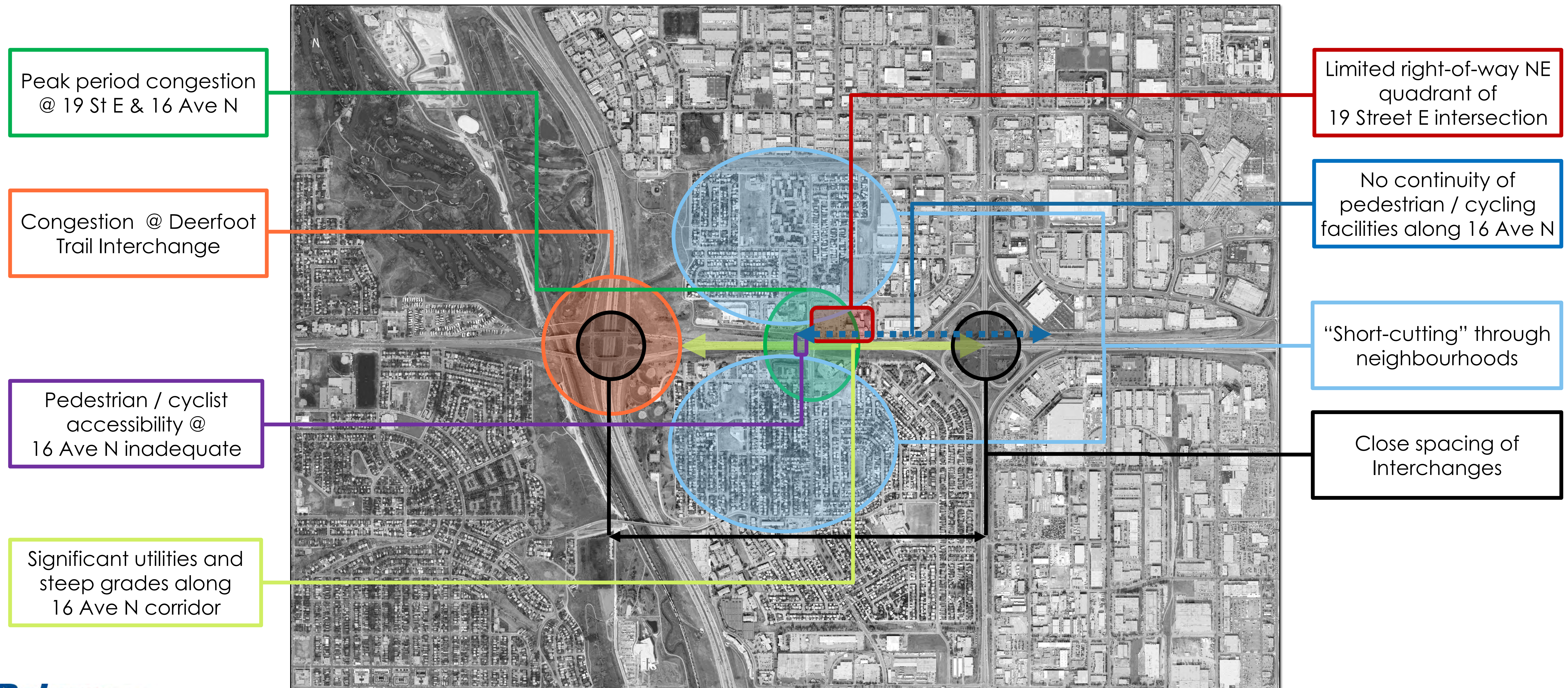
Summary of Issues and Challenges

Issues and challenges have been identified and include feedback from the previous open house and stakeholder meetings.

This list is not exhaustive, but represents the main issues and challenges that affected the generation of options.

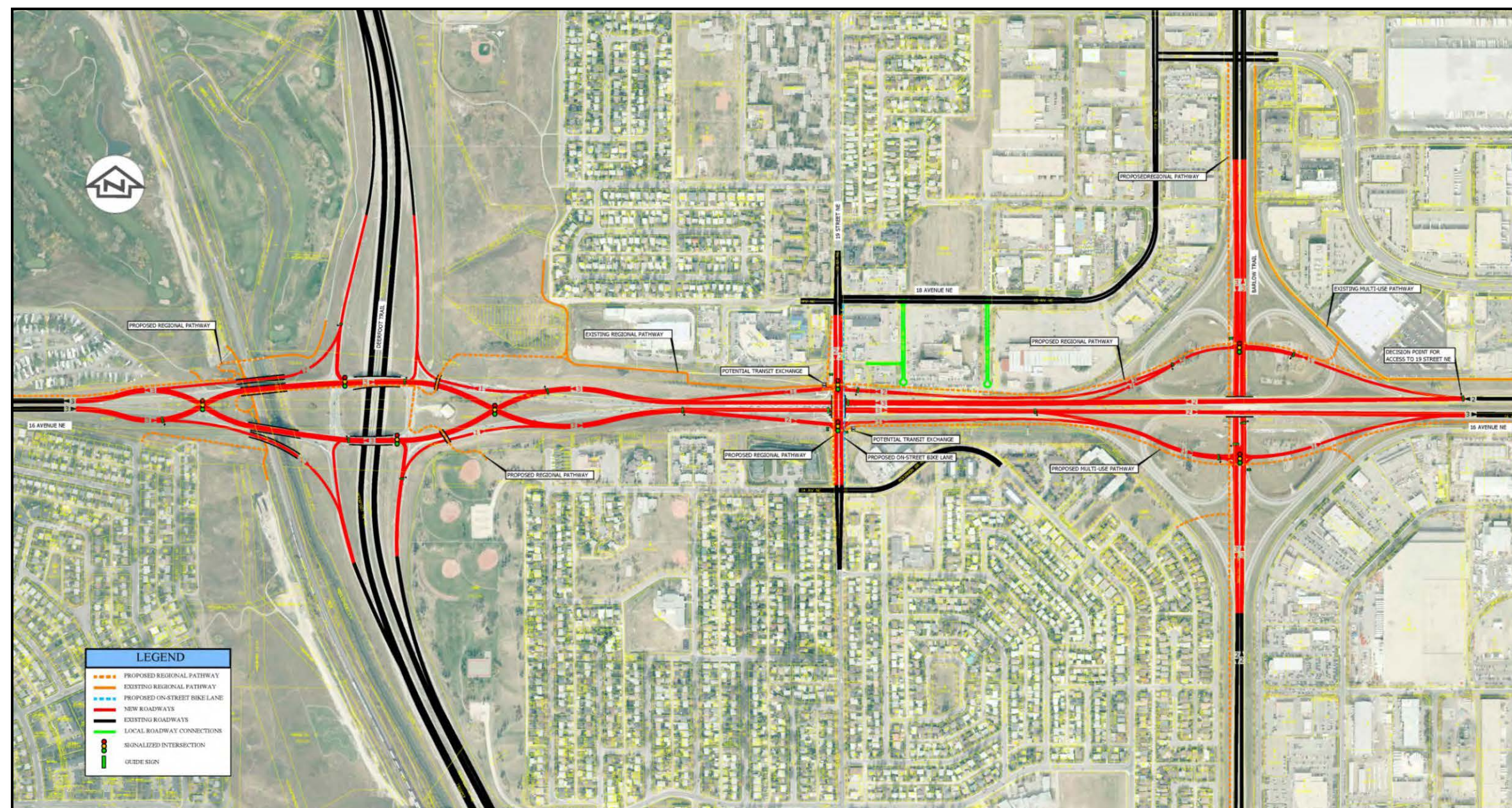
- Congestion in the peak periods at 19 Street E / 16 Avenue N
- Significant congestion at Deerfoot Trail Interchange
- Community access and “short cutting” through neighbourhoods
- Close spacing of interchanges at Deerfoot Trail and at Barlow Trail
- Limited right-of-way in the NE quadrant of 19 Street E intersection
- No continuity of pedestrian / cycling facilities along 16 Avenue N
- Pedestrian / cyclist accessibility across 16 Avenue N is inadequate
- Significant utilities in the 16 Avenue N corridor
- Steep grades along 16 Avenue N

Summary of Issues and Challenges

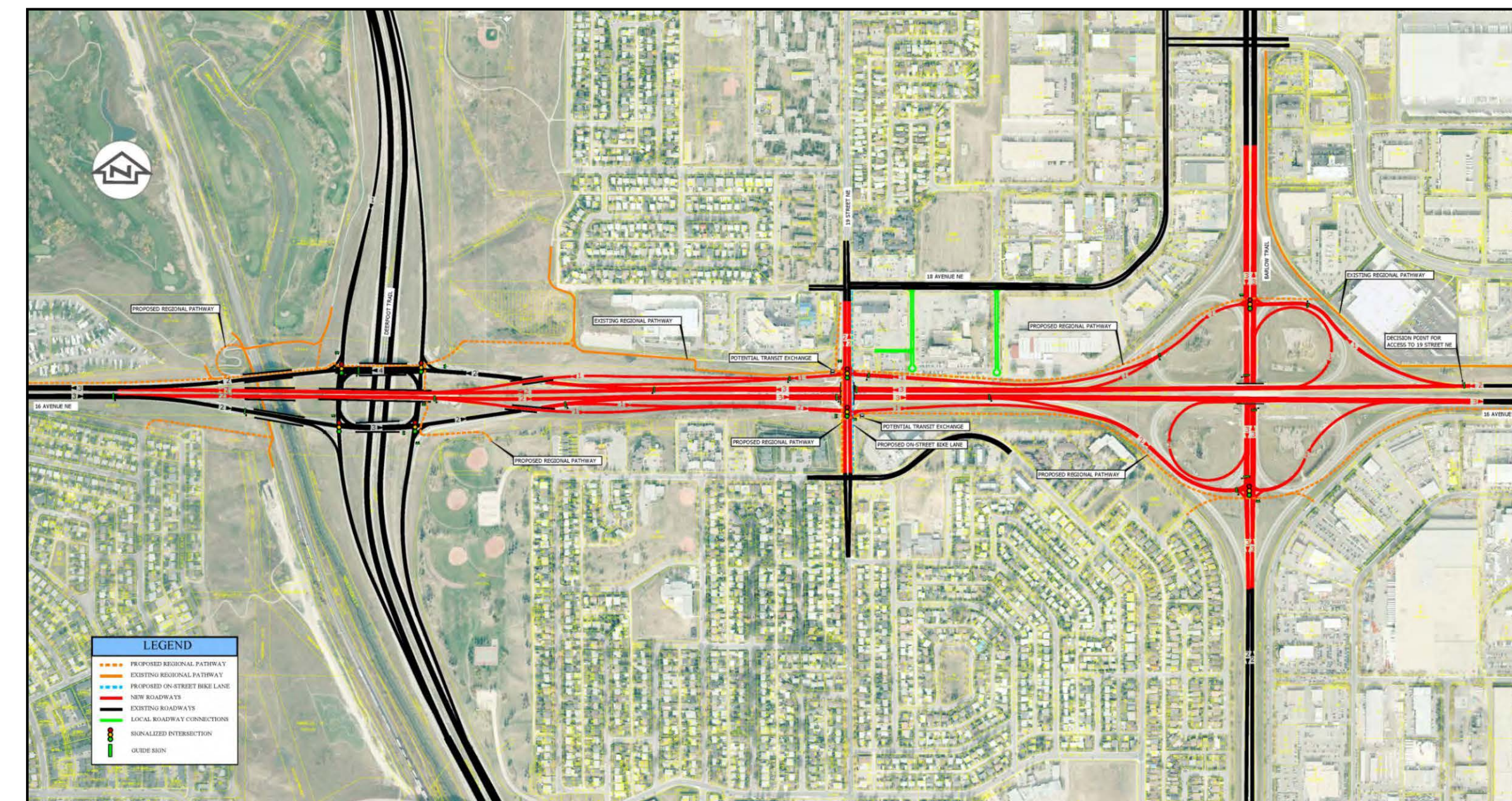


Options Overview

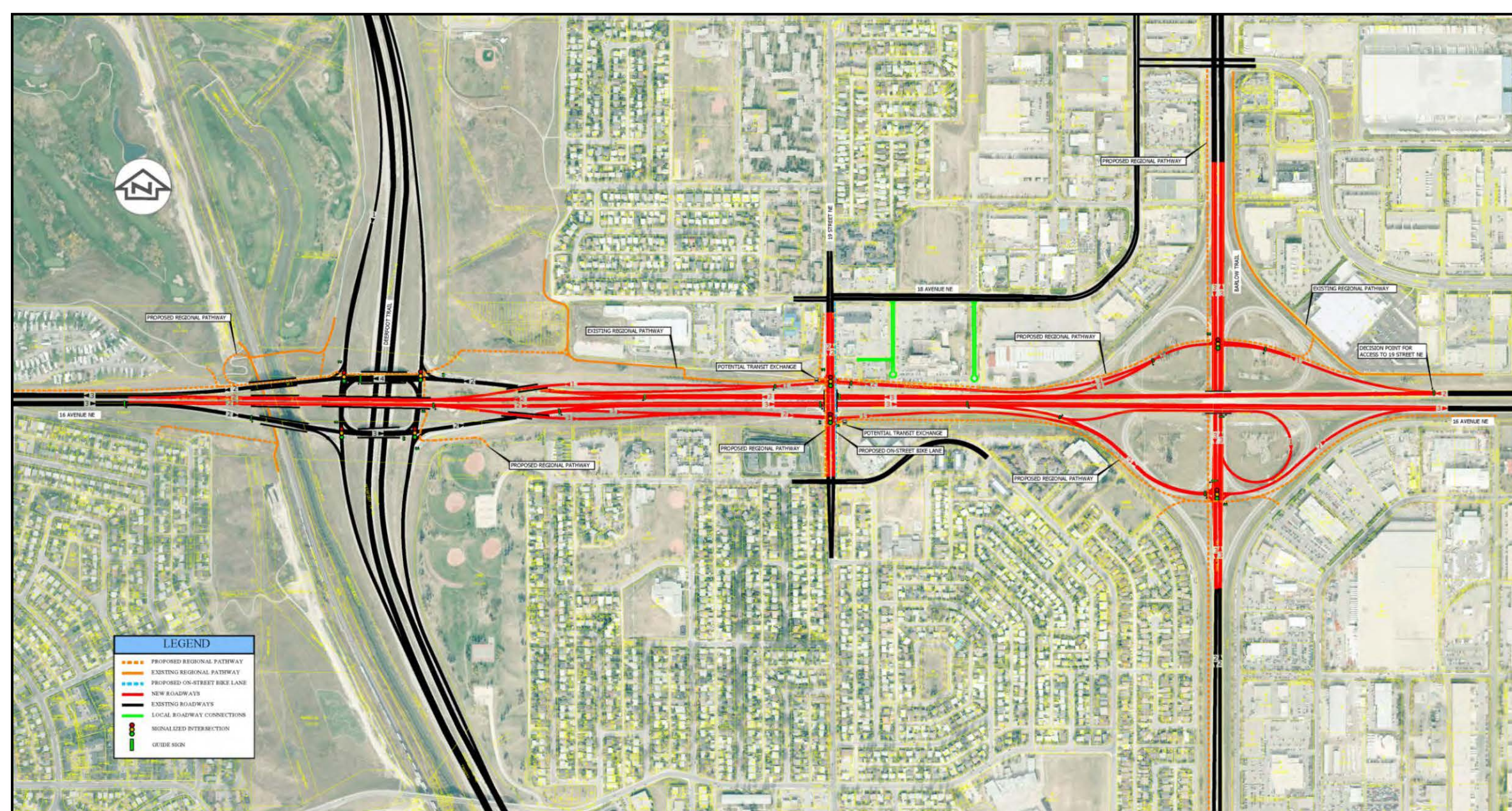
Option 1



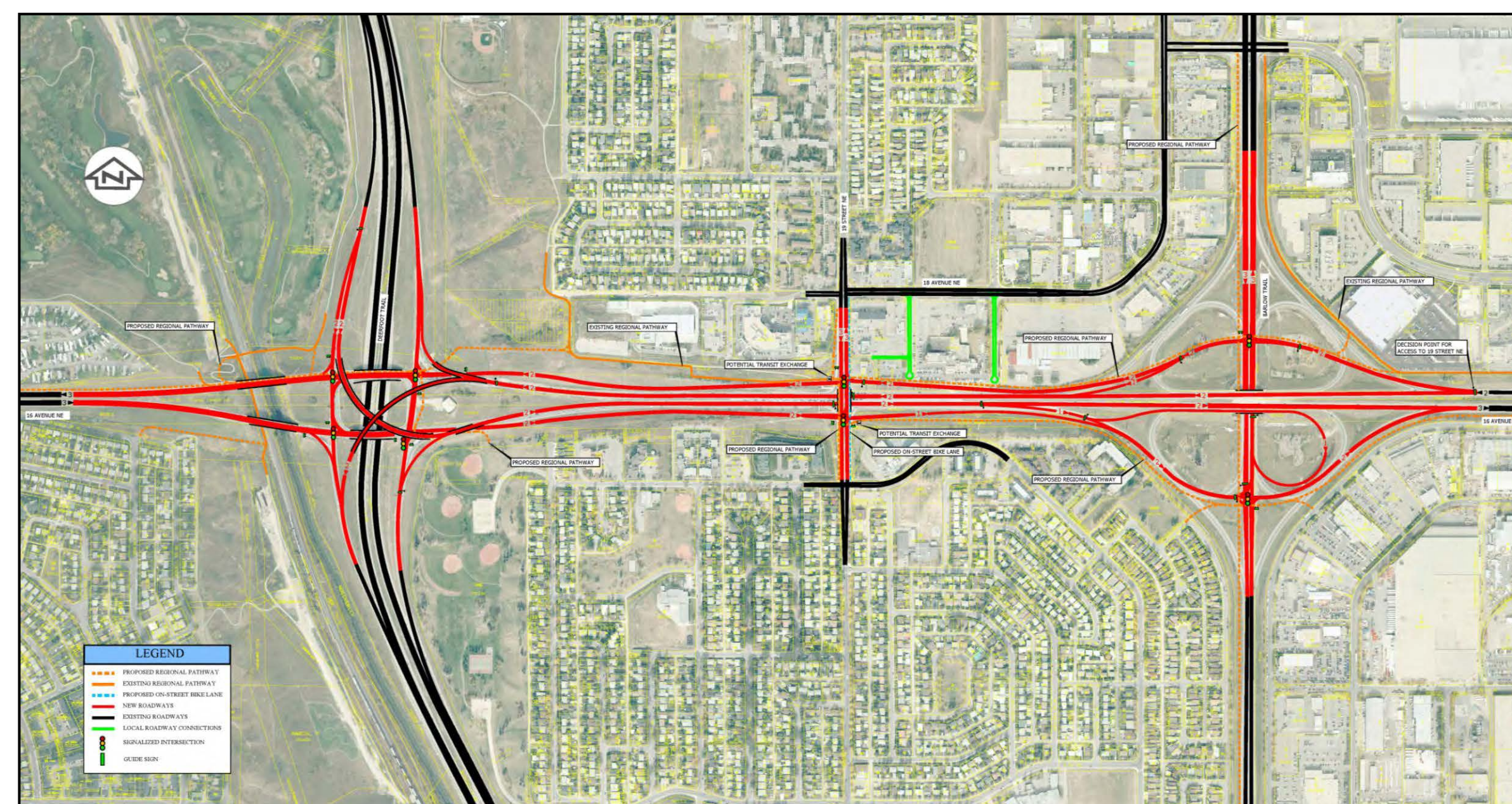
Option 3



Option 2



Option 4



Proposed Evaluation Criteria

The following evaluation criteria will be used by the project team in assessing the four proposed options to identify the preferred solution.

CRITERIA	Mode	INDICATOR *
Traffic Operations	Autos / Trucks	Hours of Total Vehicle Delay / Savings (hrs) Intersection Performance (Level of Service)
Connectivity	Pedestrians Cyclists	Neutral / Minimal / Moderate / Significant Improvement or Impact
Accessibility	Pedestrians Cyclists Transit Autos / Trucks	Neutral / Minimal / Moderate / Significant Improvement or Impact
Safety	Pedestrians Cyclists Autos / Trucks	Neutral / Minimal / Moderate / Significant Improvement or Impact
Property Impacts		Number of Properties Affected Square metres of property impacted by type
Vehicle Emissions	Autos / Trucks	Tonnes of Greenhouse Gases (GHGs)
Guide Sign Complexity		Minimal / Moderate / Significant Complexity
Design Forgiveness		No / Minimal / Moderate level of forgiveness
Constructability		Minimal / Moderate / Significant Complexity
Costs		Construction Costs (\$) Property Acquisition Costs (\$)
Benefit / Cost		Comparison of Benefits (\$) to Costs (\$)

*** All criteria are measured against existing and future "base" conditions (e.g. what's out there today)**



Option Evaluation Summary

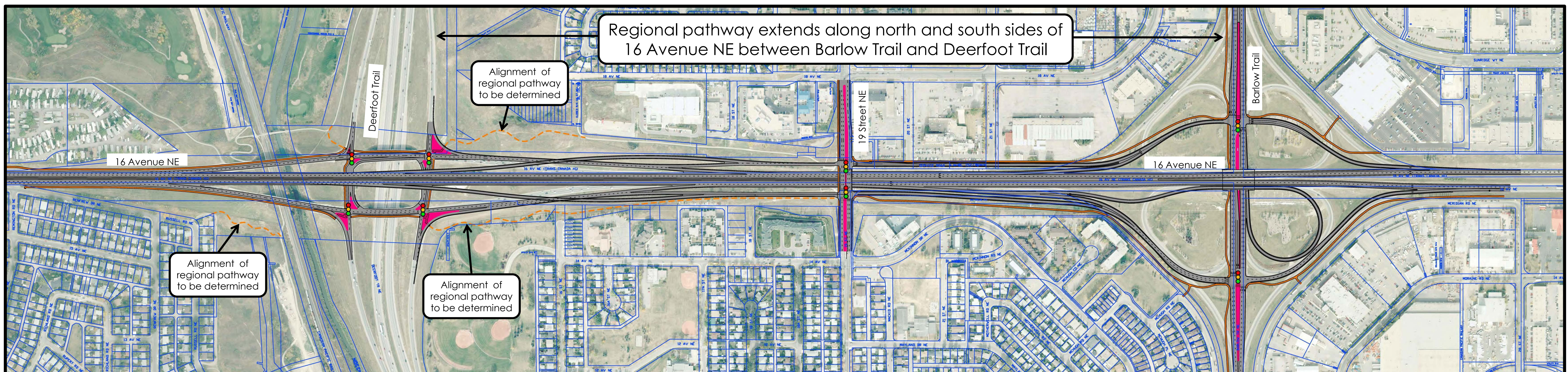
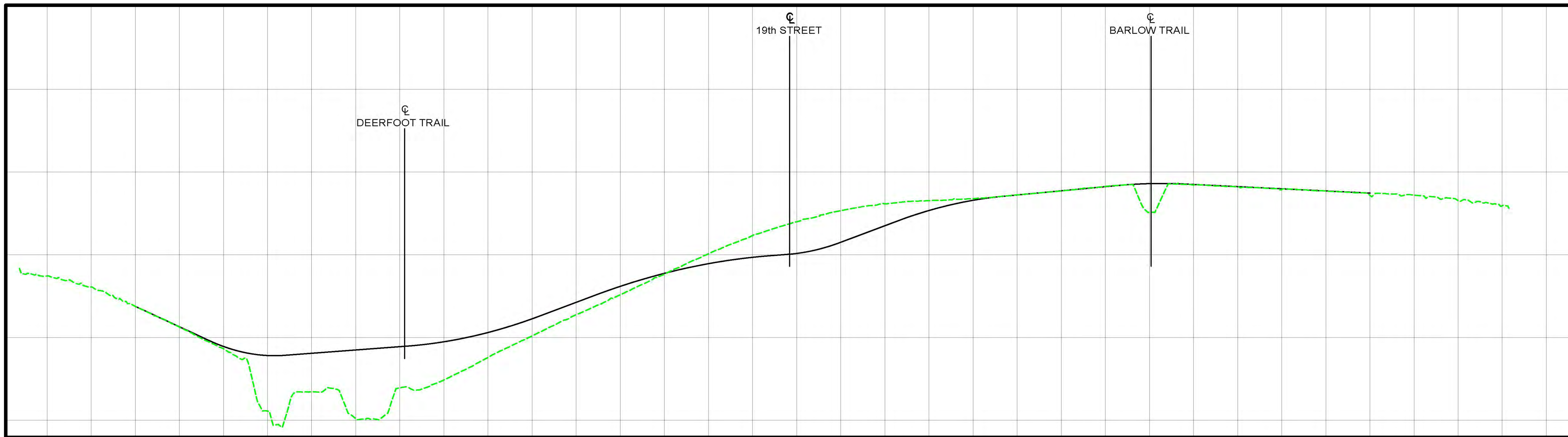
Criteria	Option 1	Option 2	Option 3	Option 4
Traffic Operations Travel time savings	<i>Decrease in Travel Time</i> ●	<i>Decrease in Travel Time</i> ●	<i>Significant Decrease in Travel Time</i> ●	<i>Increase in Travel Time</i> ○
Connectivity Pedestrian, cyclist and transit	<i>Significant Improvements</i> ●	<i>Significant Improvements</i> ●	<i>Moderate Improvements</i> ●	<i>Significant Improvements</i> ●
Accessibility Pedestrian, cyclist, transit and vehicles	<i>Significant Improvements</i> ●	<i>Significant Improvements</i> ●	<i>Moderate Improvements</i> ●	<i>Significant Improvements</i> ●
Safety Conflict points	Pedestrians: 20 Cyclists: 21 Vehicles: 63 ●	Pedestrians: 26 Cyclists: 25 Vehicles: 82 ●	Pedestrians: 20 Cyclists: 21 Vehicles: 83 ●	Pedestrians: 28 Cyclists: 29 Vehicles: 85 ●
Property Impacts	Number of properties impacted: 5 Square Metres: 7,115 ●	Number of properties impacted: 5 Square Metres: 7,055 ●	Number of properties impacted: 5 Square Metres: 7,055 ●	Number of properties impacted: 4 Square Metres: 6,060 ●
Vehicle Emissions Greenhouse gases	<i>Moderate Increase (2.2 – 2.9%) in Vehicle Emissions</i> ●	<i>Mild Increase (0.01 – 0.8%) in Vehicle Emissions</i> ●	<i>Mild Increase (0.4 – 0.7%) in Vehicle Emissions</i> ●	<i>Moderate Increase (>10%) in Vehicle Emissions</i> ○
Guide Sign Complexity	<i>Minimal to Moderate Complexity</i> ●	<i>Minimal Complexity</i> ●	<i>Minimal Complexity</i> ●	<i>Moderate to Significant Complexity</i> ○
Design Forgiveness	<i>Minimal Forgiveness</i> ●	<i>Moderate Forgiveness</i> ●	<i>Moderate Forgiveness</i> ●	<i>No to Minimal Forgiveness</i> ○
Constructability	<i>Minimal to Moderate Complexity</i> ●	<i>Moderate to Significant Complexity</i> ●	<i>Moderate to Significant Complexity</i> ●	<i>Significant Complexity</i> ○
Costs Capital, property, utility conflict	\$135M ●	\$205M ●	\$210M ●	\$220M ●
Benefits / Costs Travel time savings benefits (\$) relative to project costs	0.85 ●	1.04 ●	1.14 ●	-0.95 ○



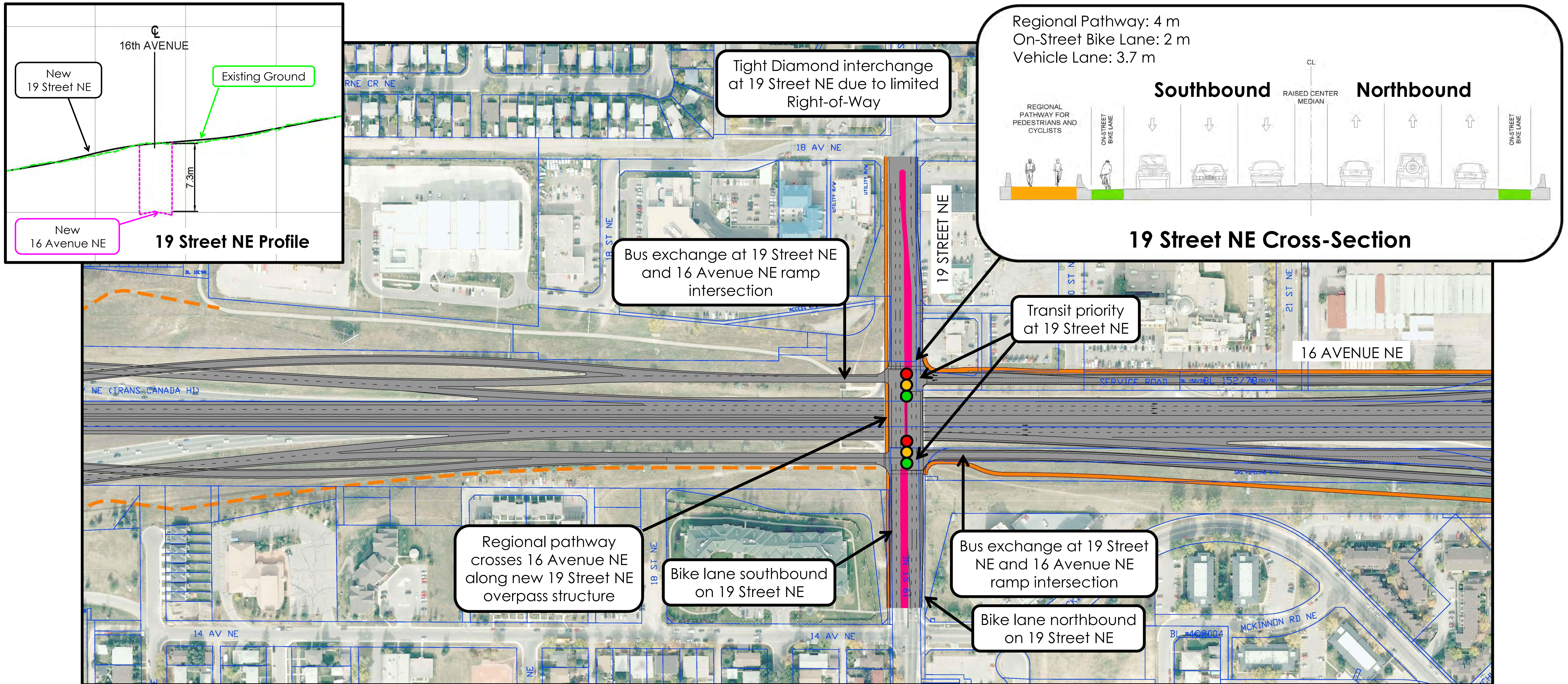
Recommended Plan based on: Travel time savings; Ability to provide a north-south regional pathway along the west side of Barlow Trail; Connectivity and accessibility for active modes of travel



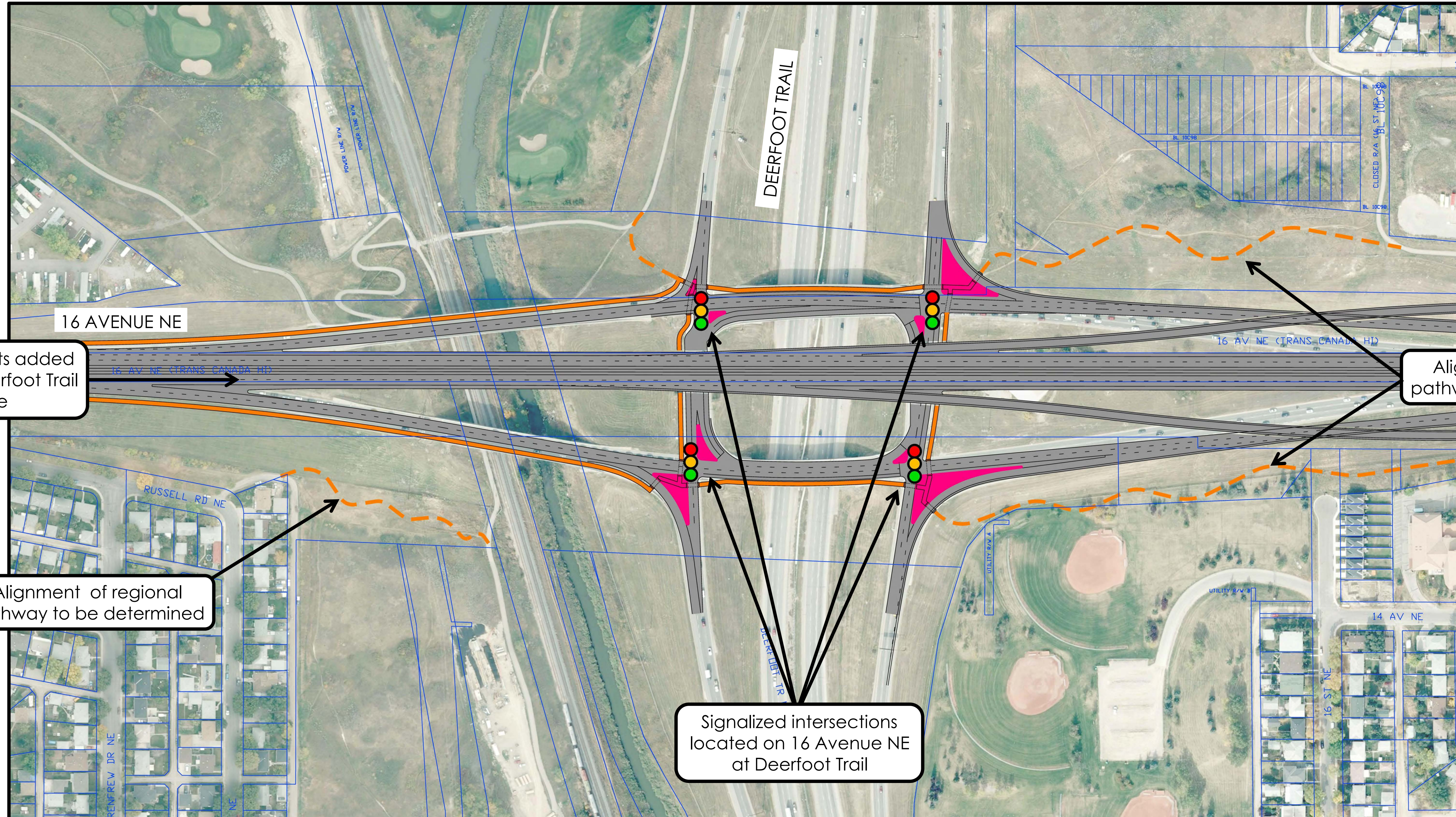
Recommended Plan: Option 2



Recommended Plan – 19 Street NE



Recommended Plan – Deerfoot Trail



Through movements added to third level at Deerfoot Trail interchange

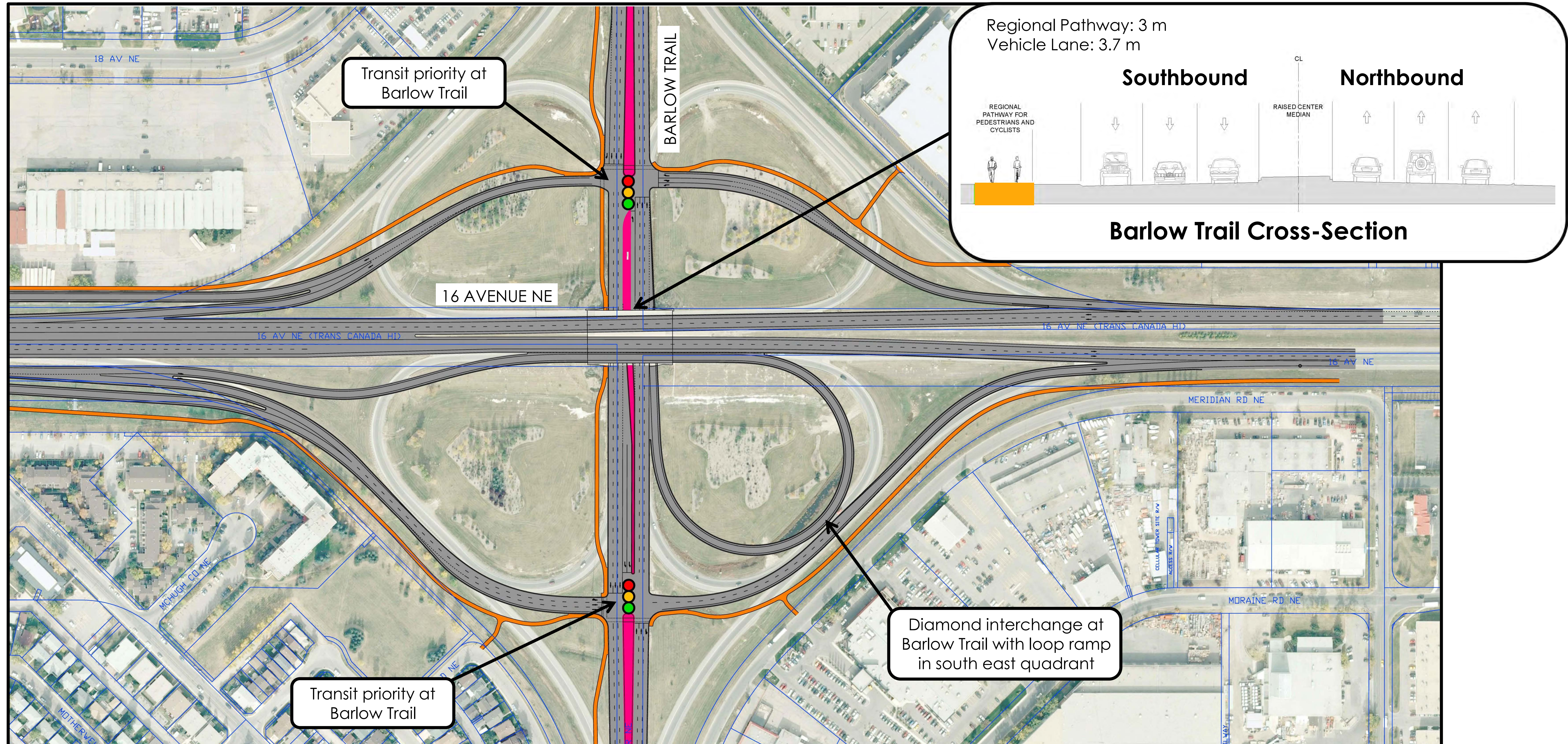
Alignment of regional pathway to be determined

Signalized intersections located on 16 Avenue NE at Deerfoot Trail

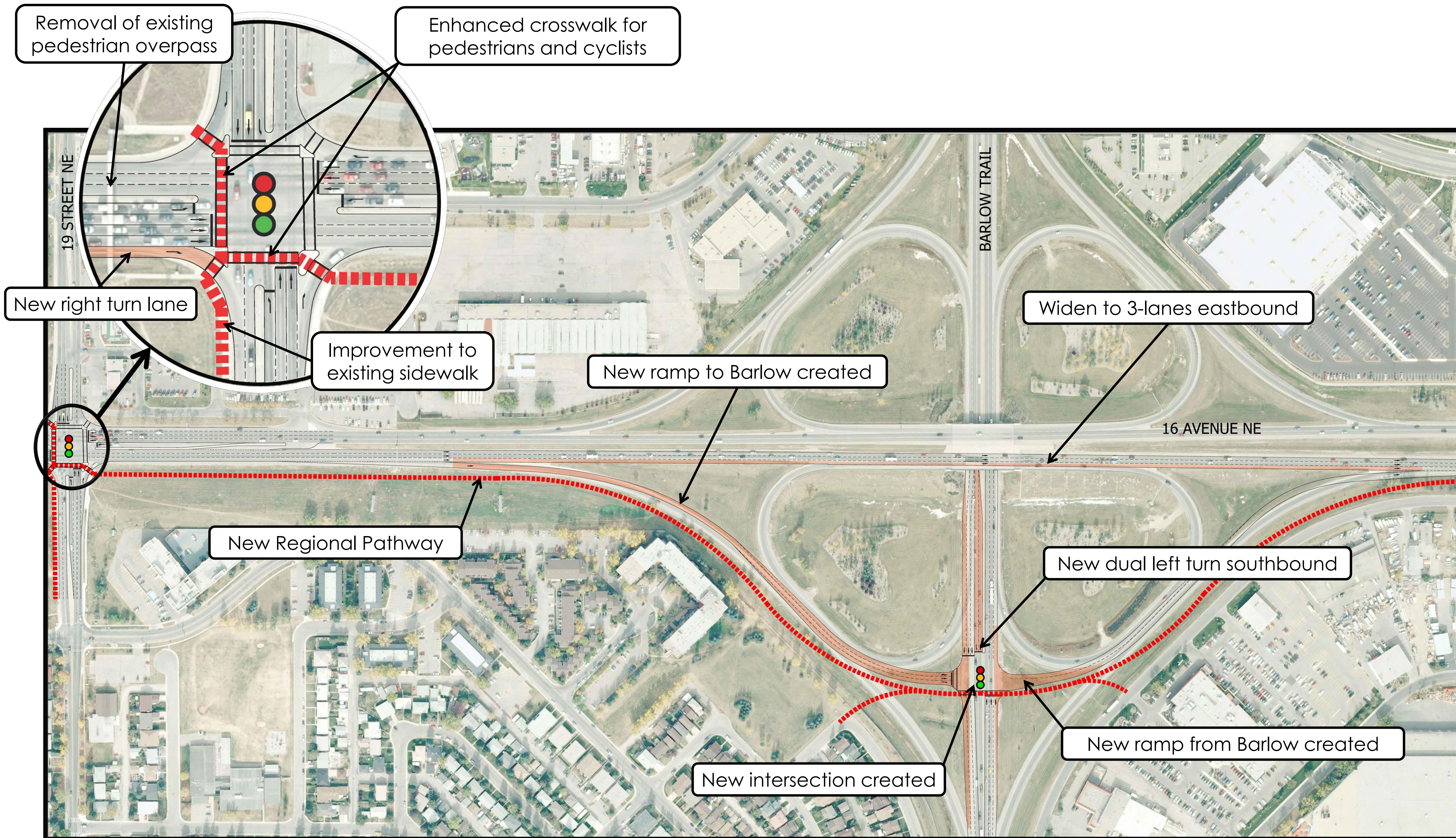
Alignment of regional pathway to be determined



Recommended Plan – Barlow Trail



Short-Term Improvement – Phase 1



Highlights of Improvement:

- Improve pedestrian and cycling connectivity across 16 Avenue NE at 19 Street NE.
- Improve pedestrian and cycling connectivity across Barlow Trail.
- Improve safety at Barlow Trail intersection.
- Improve traffic operations on 16 Avenue NE by adding an additional eastbound lane to the east of 19 Street NE.
- Improve traffic operations at 19 Street NE by adding an eastbound right turn lane.
- Approximate cost: \$14 Million

Next Steps

- Analyze public comments from information session.
- Finalize the functional design for the recommended plan.
- Prepare final report.
- Present recommended plans to City Council for approval.

**Thank you for your attendance and input
throughout the project.**