



Deerfoot Trail Study

Short-term Improvement
Options Stakeholder
Workshops
What We Heard Report
November / December
2016

PROJECT OVERVIEW

The City of Calgary (The City) and Alberta Transportation (AT) are working together to study Deerfoot Trail, between the Stoney Trail interchanges in the north and south.

The study will consider a range of possible freeway management strategies, including some new to Calgary, and recommend ways to manage traffic and improve safety in the short- and long-term. The focus will be on making the most of the existing infrastructure, planning for future growth and aligning with the Calgary Transportation Plan.

The study will define and recommend a program of upgrades for Deerfoot Trail by:

- Identifying the existing and future travel needs on the corridor, and any associated impacts on the surrounding communities.
- Engaging the public, community groups and stakeholders to identify users and demands for the corridor, and build a range of potential solutions.
- Recommending safety and mobility improvements for people who drive and take transit.
- Improving air quality and reducing greenhouse gas emissions from vehicles by reducing travel times to and within the corridor.

ENGAGEMENT PROCESS



STAKEHOLDER WORKSHOPS

In late 2016, The City of Calgary held two stakeholder workshops to review short-term improvement options for Deerfoot Trail and discuss refinements.

Event details	Attendees	Total
November 30, 2016	Goods movement / trucking / transportation industry Environmental groups Developers Think tanks Economic development and supply chain management organizations Active modes groups Industrial parks Towing companies Calgary Airport and associated businesses / industries Adjacent municipalities Adjacent Community Association representatives	17

Event details	Attendees	Total
December 6, 2016	Emergency responders	3

Each workshop began with a presentation to outline the study, the short-term improvement options that were considered but not moving forward and an overview of the options under consideration. At the first stakeholder workshop, participants broke into three groups to review each option and discuss refinements, impacts, benefits and concerns for each. A technical expert and facilitator were stationed at each table to answer questions, record input and manage time so the group could discuss the areas they considered most important.

Over the last 20 years, there have been 17 studies about Deerfoot Trail. Using those studies, the 10,000+ comments from citizens during the first phase of engagement on this study and an updated technical analysis of the corridor today, the project team developed the potential short-term improvement options. Given that so much feedback had already been gathered, and being cognisant of cost and time, the project team invited representatives from all the stakeholder groups identified for the study area to provide input on the short-term options.

What we asked

Each participant and facilitator was given a worksheet for each option to record elements that were liked, concerns, ideas for improvement and questions.

What we heard

FOCUS AREA: SOUTHLAND DRIVE S.E. TO ANDERSON ROAD S.E. / BOW BOTTOM TRAIL S.E.

Widen ramp from northbound Deerfoot Trail to southbound Anderson Road S.E. / Bow Bottom Trail S.E. to two lanes

1. **What do you like about it?**
 - More capacity
 - Earlier access to Bow Bottom Trail
 - Solves p.m. peak congestion
2. **Do you have any concerns?**
 - There needs to be enough space and time to slow down (possible safety issue)
 - Those moving westbound from Douglasdale Boulevard have less time to merge if they want to continue northbound on Deerfoot Trail
 - This still doesn't address the real issue of Deerfoot Trail going from three lanes to two in this section
 - Not sure the Ivor Strong Bridge can be widened any more
 - Doesn't address the bigger a.m. congestion problem
3. **Do you have ideas to improve it?**
 - Look at the movements this plan serves and consider widening turns
 - Add collector-distributor roads near the Douglasdale Boulevard merge
 - Combine with northbound connection from Ivor Strong bridge to Southland Drive S.E.
 - Advance signage will be needed



Northbound connection from Ivor Strong Bridge to Southland Drive S.E.

1. What do you like about it?

- Separates Anderson Road / Bow Bottom Trail S.E. / Deerfoot Trail northbound traffic from diverging traffic
- Better for congestion problems
- Access to Southland Drive S.E. without needing to use Deerfoot Trail
- Better addresses weaving and speed differential

2. Do you have any concerns?

- Land acquisition – feasibility, cost, time
- Early exit could be confusing; signage will be needed
- Concern about flooding so close to the river; What is the alternative access route?
- If you miss the exit, it will be hard to gain access again / may be difficult to figure out exactly where an incident is – mile signage is needed
- Doesn't improve p.m. congestion problems

3. Do you have ideas to improve it?

- If access is provided to the development from the existing ramp, this will become an access road, not a ramp
- Collector-distributor ready – connect to 15 Street S.E. directly
- Both exits should be maintained
- Is elevation possible to eliminate the need to acquire land?



Basket weave bridge (northbound) to grade separate traffic coming from Anderson Road S.E. from traffic going to Southland Drive S.E.

1. What do you like about it?

- Solves weaving issue which is significant in the a.m. peak
- Requires less land acquisition
- Less confusion

2. Do you have any concerns?

- Cost
- Early exit
- Access from Lafarge site
- Locating exactly where an incident is and hard to gain access if you miss first exit

3. Do you have ideas to improve it?

- Access from ramp
- Can the basket weave be moved north?
- More frequent signage such as mileposts to help reporting the precise location of an incident
- Add the extra exits to Southland Drive S.E.



Shift exit ramps north of Southland Drive S.E.

1. What do you like about it?

- Improves northbound weaving issue which is significant in the a.m. peak
- No more work would be needed on Ivor Strong bridge

2. Do you have any concerns?

- Provides too much free flow onto westbound Southland Drive S.E. and potentially into communities
- Pathway crossing a dual ramp
- Remington traffic will increase volume



- Southland Drive S.E. pedestrian/cycling corridor would have barriers with ramps
- Right hand merge may cause incidents due to blind spot
- Delays driver behaviour instead of eliminating it

3. Do you have ideas to improve it?

- East-west pathway under ramps
- Traffic calming in Acadia

FOCUS AREA: GLENMORE TRAIL S.E. INTERCHANGE

Add a third northbound lane on Deerfoot Trail at Glenmore Trail S.E.

1. What do you like about it?

- Increased capacity
- Great for traffic on Deerfoot Trail south of Glenmore Trail S.E. interchange

2. Do you have any concerns?

- Short-cutting
- Too many interchanges between Anderson Road S.E. and Glenmore Trail S.E.
- Makes the interchange more difficult to navigate
- Impacts on Glenmore Trail S.E.

3. Do you have ideas to improve it?

- Could have separate structure for eastbound to northbound loop ramp
- Stop line moved back on the southwest loop onto Glenmore Trail S.E.
- Ensure the merge is long enough to accommodate large trucks



Additional northbound exit lane on Deerfoot Trail at Heritage Meadows S.E.

1. What do you like about it?

- Two lanes to serve both Deerfoot Meadows and Glenmore Trail S.E. traffic
- Minimal construction impact
- Free flow traffic to Heritage Drive S.E.

2. Do you have any concerns?

- Burdens local road network (i.e. Heritage Meadows and Heritage Drive S.E.)
- Existing queueing issues here that back up as far as Southland Drive S.E. – not sure this plan will resolve those issues

3. Do you have ideas to improve it?

- Part of a larger collector-distributor system
- Protected “T” intersection
- Consider moving this off Deerfoot Trail completely and have it connect to 15 Street S.E.



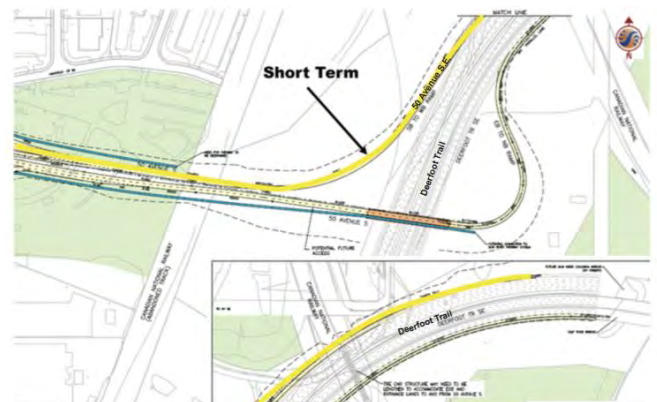
Southbound off-ramp on Deerfoot Trail at 50 Avenue S.E.

1. What do you like about it?

- Better access to 11 Street S.E.
- Takes traffic off Glenmore Trail S.E.
- Helps congestion on 17 Avenue S.E.
- Uses land The City already owns
- Ties into the long-term plan

2. Do you have any concerns?

- Cost
- No reciprocal movement
- May impact existing congestion on Blackfoot Trail S.E. during rush hour



1. Do you have ideas to improve it?

- Provide a northbound off-ramp to 50 Avenue S.E.
- Move northbound traffic off Deerfoot Trail and onto 46 Avenue / 50 Street S.E.
- More lanes on Calf Robe bridge

FOCUS AREA: 16 AVENUE N.E. AND 32 AVENUE N.E. INTERCHANGES

Signalize westbound 17 Avenue S.E. to clear queues on ramp from Deerfoot Trail

1. What do you like about it?

- Low cost
- No major construction
- Significant safety improvement and benefit

2. Do you have any concerns?

- Not resolving high speed ramps crossing east - west pathway
- Access from eastbound 17 Avenue S.E. to southbound Deerfoot Trail difficult
- "War zones" northbound moving on-ramp
- May increase congestion at 17 Street S.E. roundabout
- Impact the new 17 Avenue South BRT project will have on traffic volumes on 19 Avenue S.E. and 16 Avenue S.E.



3. Do you have ideas to improve it?

- Pedestrian off-ramps on north side of 17 Avenue S.E. to better facilitate bike and pedestrian crossings
- Add a lane from northbound Deerfoot Trail to 46 Avenue / 50 Avenue S.E.
- Maybe a T-intersection like the one at Southland Drive S.E. when travelling southbound on Blackfoot Trail S.E.

Add loop ramp from northbound Deerfoot Trail to southbound 16 Avenue N.E. and exit ramps from 16 Avenue N.E. to northbound Deerfoot Trail

1. What do you like about it?

- Great capacity improvement
- Stops 'ramp surfing' to bypass Deerfoot Trail
- Length of the ramp allows time to speed up
- Good use of land/space
- Good integration of two new movements

2. Do you have any concerns?

- There are existing weaving issues at 19 Street N.E. and this may cut the merge even shorter
- Concerns remain for the other half of the intersection

3. Do you have ideas to improve it?

- Give the loop ramp a lane away
- Instead of building over 16 Avenue N.E., make it an underpass – aware that it would be costly but likely worth it
- Tighten the ramp radius to reduce speeding



Additional lane in both directions in the existing median from Memorial Drive to Beddington Trail N.E.



1. **What do you like about it?**
 - More capacity
2. **Do you have any concerns?**
 - If the median is removed, where will drainage go / how will this impact emergency response since many vehicles pull over to this area
 - If high occupancy vehicle (HOV) lanes are implemented, they need to be enforced
 - If high speed traffic keeps moving closer together and the median is removed, there is concern about an increase in collisions, especially in icy conditions
 - Concerned HOV lanes won't work on Deerfoot Trail and will impede emergency responders' ability to access and respond to an incident
 - Loss of the pedestrian bridge; would prefer to keep pedestrian/cycle connection
3. **Do you have ideas to improve it?**
 - Ensure there is still a shoulder to deal with incidents – some responders prefer to deal with incidents in the median shoulder, as opposed to the outside shoulder where traffic is merging
 - Consider HOV lanes when adding lanes

Eliminate left turns at 12 Street N.E. and create a through-turn further east



1. **What do you like about it?**
 - Alleviates the need for a quick left
 - More direct
 - More time to change lanes and turn
2. **Do you have any concerns?**
 - Difficult to sign
 - Concerned that people will still turn left at the intersection unless it is completely closed
3. **Do you have ideas to improve it?**
 - Dual left turn

Eliminate eastbound left turn at 32 Avenue N.E. / 12 Street N.E. and replace it with right turns



1. **What do you like about it?**
 - No responses
2. **Do you have any concerns?**
 - This is already a congested area and drivers will have to go through intersection twice
 - Safety concern with people having to cross the new road to access commercial buildings
 - Too many left turns
 - Driver education challenges
3. **Do you have ideas to improve it?**
 - Move it so it's not through the parking lot
 - Roundabout
 - May need a signal for drivers exiting the commercial area and turning left

Southbound basket weave between 32 Avenue N.E. and 16 Avenue N.E. on Deerfoot Trail (separate traffic coming from 16 Avenue N.E. from traffic going to 32 Avenue N.E.)

1. **What do you like about it?**
 - Good design
2. **Do you have any concerns?**
 - Cost
 - Locating an incident on this stretch of road
 - Acceleration distances – this may cause queueing
 - Impact to pedestrian bridge
3. **Do you have ideas to improve it?**
 - Leave a 32-foot service road southbound to 16 Avenue N.E.
 - 16 Avenue N.E. exit should occur before 32 Avenue N.E. (service road)
 - Increase roadway shoulder



FOCUS AREA: MCKNIGHT BOULEVARD N.E. AND 64 AVENUE N.E. INTERCHANGES

Move the ramp from northbound Deerfoot Trail to eastbound McKnight Boulevard N.E. further west to increase weaving distance

1. **What do you like about it?**
 - Much better transition to “urban speeds”
 - Added weaving distance creates more space for traffic
 - Sight lines are good – you can anticipate the curve
 - Improved left turn
2. **Do you have any concerns?**
 - Increasing grades here – may be difficult to develop around this effectively
 - Potential for rollovers at curve
3. **Do you have ideas to improve it?**
 - Install a two-lane signalized right turn



Close the eastbound left turn from McKnight Boulevard N.E. to 12 Street N.E. and replace it with right turns via 14 Street N.E. and 45 Avenue N.E.

1. **What do you like about it?**
 - Still allows emergency response vehicles to turn left in the intersection as needed
 - Flow would likely be wonderful
2. **Do you have any concerns?**
 - This option places a lot of traffic on local network
 - Conflict with pedestrians
 - Too many turns
 - Feels like a penalty to locals shopping
 - Total distance will be a detractor for drivers
3. **Do you have ideas to improve it?**
 - Add a Tim Hortons restaurant to pull traffic off the road earlier and prevent congestion at 12 Street N.E.
 - Add an emergency only left turn lane for incidents



Northbound auxiliary lane between McKnight Boulevard N.E. and 64 Avenue N.E.

- 1. What do you like about it?**
 - Low cost
 - Connects right-lane traffic and provides more distance but don't have to move as far / cross as many lanes
- 2. Do you have any concerns?**
 - No responses
- 3. Do you have ideas to improve it?**
 - Add ramp meter
 - Service lane added northbound



New 11 Street N.E. on-ramp north of Beddington Trail N.E.

- 1. What do you like about it?**
 - Better access
 - Alleviates pressure on 64 Avenue N.E.
 - Good for traffic north heading to Airdrie
 - Improves McKnight Boulevard N.E. and reduces congestion and weaving on Deerfoot Trail
 - Safety improvement
- 2. Do you have any concerns?**
 - Grade difference
 - Environmental concerns (check restoration study)
 - Land acquisition
- 3. Do you have ideas to improve it?**
 - Continue connection to Beddington Trail N.E.
 - Improve traffic signals at Beddington Boulevard N.E.



Workshop Evaluation

Attendees were asked to evaluate the workshop. This input will be used to improve engagement events in future phases of the study.

1. Please select your level of satisfaction with the following:

	Strongly Agree	Agree	Disagree	Strongly Disagree
I had the information I needed to provide the input requested.	7	9	1	-
My comments and opinions were heard by the project team.	8	6	-	-
The project team's response to my questions was satisfactory.	8	5	-	-
I understand how my input will be used.	6	8	-	-
This workshop was an effective way to collect my input.	7	6	-	-
The meeting location was satisfactory.	8	5	-	-
The meeting time was satisfactory.	8	5	1	-

- 2. Is there other information that would have been valuable?**
 - Explain how input will be used at the beginning of the event instead of the end
 - Background on the project provided before the event
 - More context and detail on the displayed maps
 - Anticipated destinations
 - Traffic volumes
- 3. Are there any changes you would suggest for future workshops of this kind?**
 - More context and detail on the display maps (2)
 - Background on the project provided before the event
 - Anticipated destinations
 - Traffic volumes
- 4. Additional comments about this workshop:**
 - Nice venue (3)
 - Good food (2)
 - Group sizes were great for communication
 - Greater number of staff than attendees
 - Well organized
- 5. Additional comments about the Deerfoot Trail Study:**
 - Would like to be sent project results/recommendations/summary (2)
 - Ensure design is suitable for livery/bus/taxis and limos

NEXT STEPS

Input collected from these workshops and Phase 1 engagement will be reviewed, along with technical analysis, to help select and refine short-term improvement recommendations. In 2017, the project team will host a public information session to present the recommended short-term improvements. The project team will also resume the long-term planning study.