

Title: Hwy 2A:14, Highway 27 and 47 St, Reconstruction/Widening

Memorandum (or Approval) Date: May 1, 2013
 Design Exception Request Date: January 30, 2013
 Region: Central
 Approval Status: Approved

Project Location					
Highway	Control Section	At km	From km	To km	Existing AADT
2A	14		14.3	14.7	5540

Project Type (Mark all that apply with an X)			
Functional Planning:	New Construction:	Reconstruction: X	Paving/Surfacing:
Bridge:	Operations:	Geotechnical:	Environmental:
Other:	Detailed Design	X	

Summary
<p>As per Alberta Transportation's Urban Geometric Design Guide Urban Supplement (Draft Nov. 2003) Section U.D.6, for a design speed of 60 km/h, a deceleration length of 90m and a bay taper length of 50m are desired. However, the proposed lengths for approaches below are less than that:</p> <ul style="list-style-type: none"> • Highway 2A NB Left Turn Bay at Highway 27: 84m deceleration length and 50m bay taper length • Highway 2A SB Left Turn Bay at Highway 27: 40m deceleration length and 30m bay taper length • Highway 2A SB Left Turn Bay at 47 Street: 25m deceleration length and 50m bay taper length • Highway 2A NB Left Turn Bay at 47 Street: 20m deceleration length and 30m bay taper length • Highway 2A NB Right Turn Bay at 47 Street: 20m deceleration length and 27m bay taper length

Rationale for Approval/Rejection

- The urban setting along Highway 2A, within the Town of Olds, is conducive to low speed operation. The posted speed limit along this section of roadway is 50 km/h.
- The urban setting results in geometric constraints due to the proximity of accesses and intersections as well as utilities.
- These constraints limit the deceleration lengths and taper lengths of the right and left turning-bays, as shown on the plans below.
- The first phase of the improvement (for the intersection at Highway 2A and 47 Street) is being conducted during the spring of 2013. Intersection improvements at Highways 2A and 27 are also proposed, but are being deferred until additional property is acquired. Because these proposed second phase improvements to the Highway 27 intersection are integral to the overall traffic flow, operation and safety of both intersections, the region should ensure that this work is completed when the property comes available.

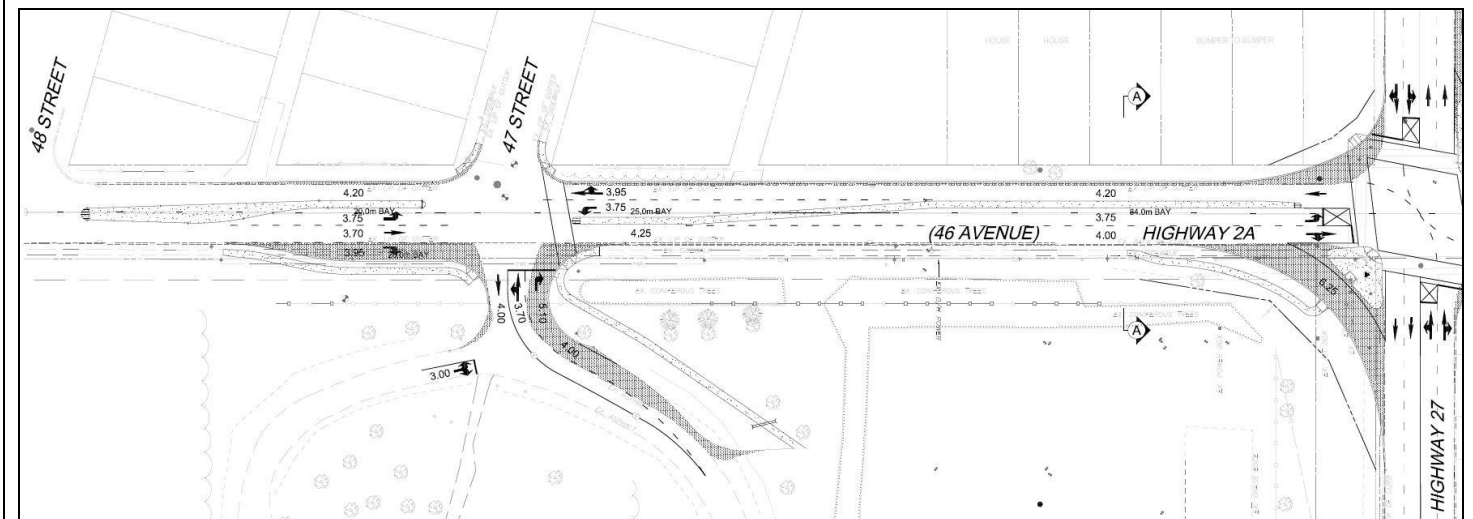
Additional Mitigation Required

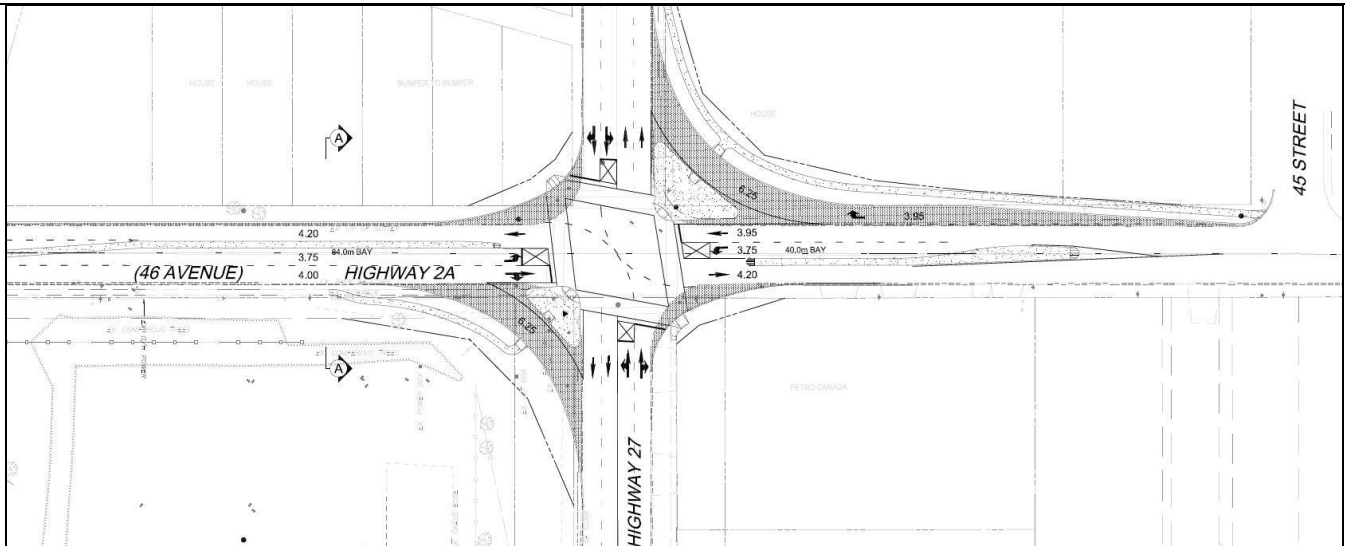
No mitigation required

Key Words

Turn bay, reconstruction, urban intersection

Photograph/Diagram





2008.09.28 02A:14:C1 DL:R1 km 14.500 JCT Hwy 582 DIDSBURY JCT Hwy 2 (BOWDEN) 51.794280 -114.096188 1045.2



Hwy 2A/Hwy 27 (NB)

2008.09.28 02A:14:C1 DL:R1 km 14.326 JCT Hwy 582 DIDSBURY JCT Hwy 2 (BOWDEN) 51.792722 -114.096188 1043.7



Hwy 2A/47 Street (NB)