NORTH CENTRAL REGION GRMP
EDSON / STONY PLAIN
SITE INSPECTION FORM

SITE NUMBER AND NAME:	HIGHWAY AND KM:	PREVIOUS INSPECTION:	CURRENT INSPECTION:
NC040 – North of N. Sask River	759:02, km 12.587	June 14, 2024	May 20, 2025
LEGAL DESCRIPTION: NE-12-13-50-6-W5 NW-9-14-50-6-W5	**NAD83 COORDINATES:** UTM11U 5909780 N, 649396 E		**RISK ASSESSMENT:** PF: 13 CF: 5 Total: 65
AVERAGE ANNUAL DAILY TRAFFIC (AADT): 1,790 (2024)		**CONTRACTOR MAINTENANCE AREA (CMA):** 509	

SUMMARY OF INSTRUMENTATION:	INSPECTED BY:
N/A	Stantec: Leslie Cho, Sonja Pharand TEC: Kristen Tappenden, Jennifer Mazurek

PRIMARY SITE ISSUE:

Slope failure of the west embankment along Highway 759. Multiple slope failures on the east embankment.

APPROXIMATE DIMENSIONS:

West embankment: 50 m wide by 20 m long.

East embankment: North slide is 35 m wide by 18 m long. Middle slump is about 25 m wide by 10 m long. South slump is about 15 m wide by 5 m long.

DATE OF ANY REMEDIAL ACTION:

Two slumps on the east embankment repaired in 2004. Repair consisted of pushing the disturbed slump material downslope to build a toe berm, backfilling the excavated area with compacted clay, and revegetating the disturbed area. Slumps on the east embankment reactivated in 2007, and a new slide was observed on the west embankment. The slide on the west embankment was repaired by regrading in 2007 but reactivated in 2008.

It is understood that the west embankment was repaired around 2011, though the method is not known.

Another slide activated on the west slope prior to 2023. The slide was regraded prior to winter 2023 to reduce water infiltration into the embankment.

ITEM	CONDITIONS EXIST		DESCRIPTION AND LOCATION	NOTICEABLE CHANGE FROM LAST INSPECTION	
	YES	NO		YES	NO
Pavement Distress		X			X
Slope Movement	X		Scarp re-exposed at regraded west embankment slope. Multiple embankment failures on east side slope, with north and middle slides becoming joined.	X	
Erosion		X			X
Seepage		X			X
Bridge/Culvert Distress		X			X

COMMENTS

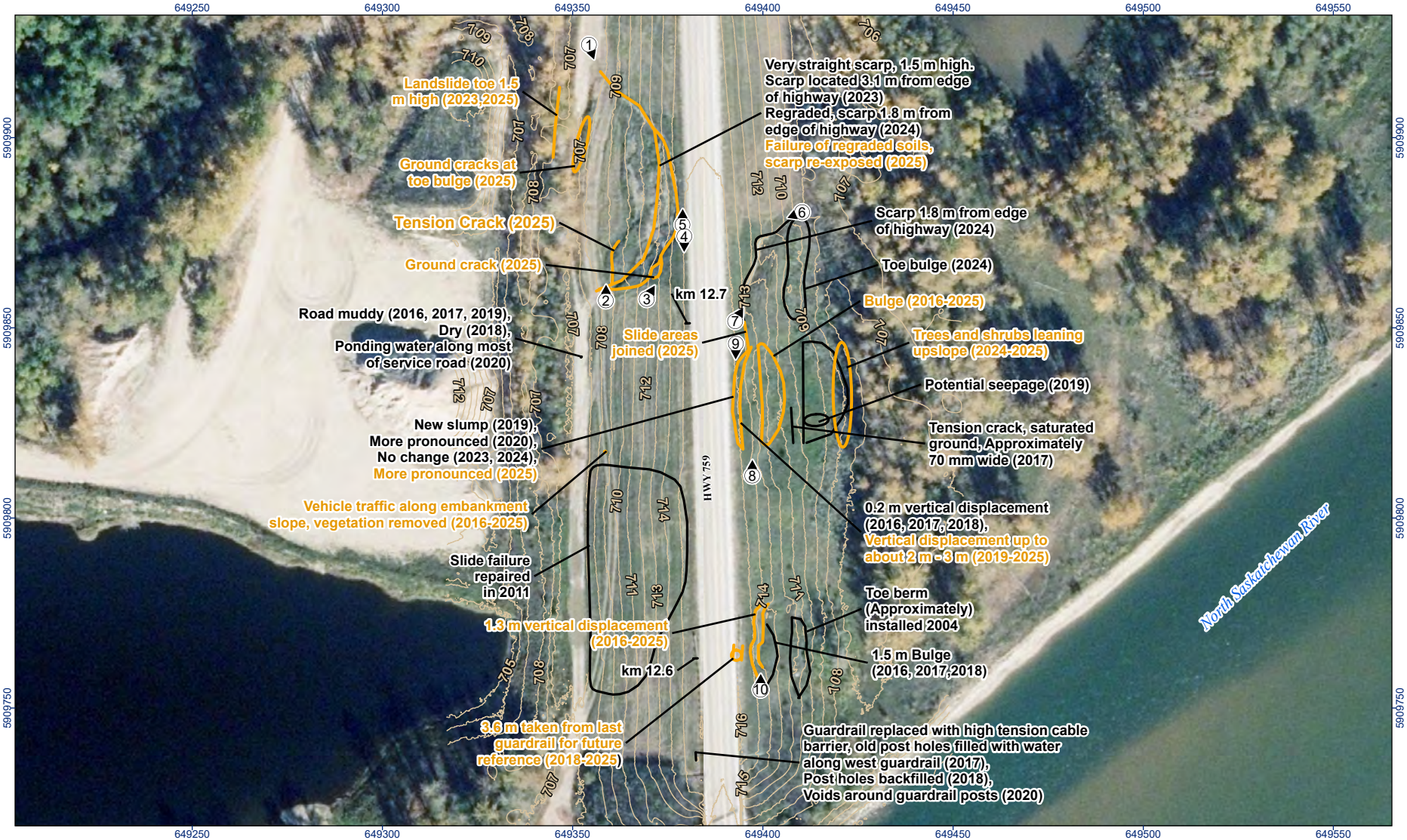
- The regraded soils on the landslide on the west embankment have failed. The toe is still approximately 1.5 m high, and the service road has been blocked again (Photos 1 to 3). The exposed scarp is 1.8 m from the edge of the highway, similar to the measurement in 2024. The slope is moderately vegetated.
- Cracking was observed within the toe bulge of the landslide on the west embankment.
- No landslide related pavement cracks were observed along the highway as shown on Photos 4 and 5.

- The surrounding embankment slopes were at approximately 3H:1V and were well-covered with grass. Wheel tracks continue to be observed about one-third of the way up the embankment.
- The service road on the south side of the west landslide was observed to be muddy, with ponding water, similar to observations during previous years.
- The landslide at the north end of the east embankment has extended south to join the slumping at the middle of the embankment. The scarp of the landslide was measured to be up to 1.8 m high and 2.9 m from the edge of the highway at its closest point, similar to the previous inspection in 2024. The toe bulge appears to be pushing against the shrubs, upslope from the tree line (Photos 6 and 7). It is possible that the toe of the slide is located on private land.
- Little to no change was observed at the other two embankment failures on the east side slope since Stantec's previous inspection in 2024 (Photos 8 to 10).
- The crest of the south slump on the east side slope was measured to be 3.6 m from the guardrail at its closest point since 2018. The backscarp appears well vegetated similar to the previous inspection in 2024 (Photo 10).
- Seepage was not observed on either side of the embankment due to rain at the time of inspection.

RECOMMENDATIONS

- In the short-term, the slides should be monitored by the HMC for further movement.
- Stantec has prepared a Section F remediation design of the west embankment slope, and submitted a scope change cost estimate in early 2025 to add remediation design of the east embankment slope. The preferred remediation option is understood to be removal and replacement.
- Site inspections should continue annually.

PREPARED BY: Sonja Pharand, P.Eng.	**REVIEWED BY:** Leslie Cho, M.Eng., P.Eng.	**PERMIT TO PRACTICE:**
PROFESSIONAL ENGINEER ALBERTA SONJA A. PHARAND ID 286545 2025-10-11		PERMIT TO PRACTICE STANTEC CONSULTING LTD. Signature ID# 74389 Date 15 - Oct - 2025 PERMIT NUMBER: P 0258 The Association of Professional Engineers and Geoscientists of Alberta



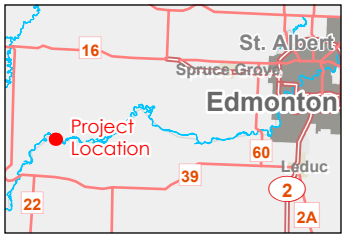


Photo and Direction
Previous Observation
2025 Observation
Ground Elevation Contours (LiDAR 2024)*

* Contours created from DTM LiDAR (Stantec Survey, 2024-04-25)

N

0 20 40 metres
(At original document size of 8.5x11)
1:1,500

Notes
1. Coordinate System: NAD 1983 CSRS UTM Zone 11N
2. Data Sources: Geogratis, ©Department of Natural Resources Canada,
3. Background: Light Gray Base: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
World Imagery: Brazeau County, Parkland County

Stantec

Project Location
Parkland County, Alberta

Prepared by MK on 2025-06-16
QR by SP on 2025-06-17
IR by LC on 2025-06-18

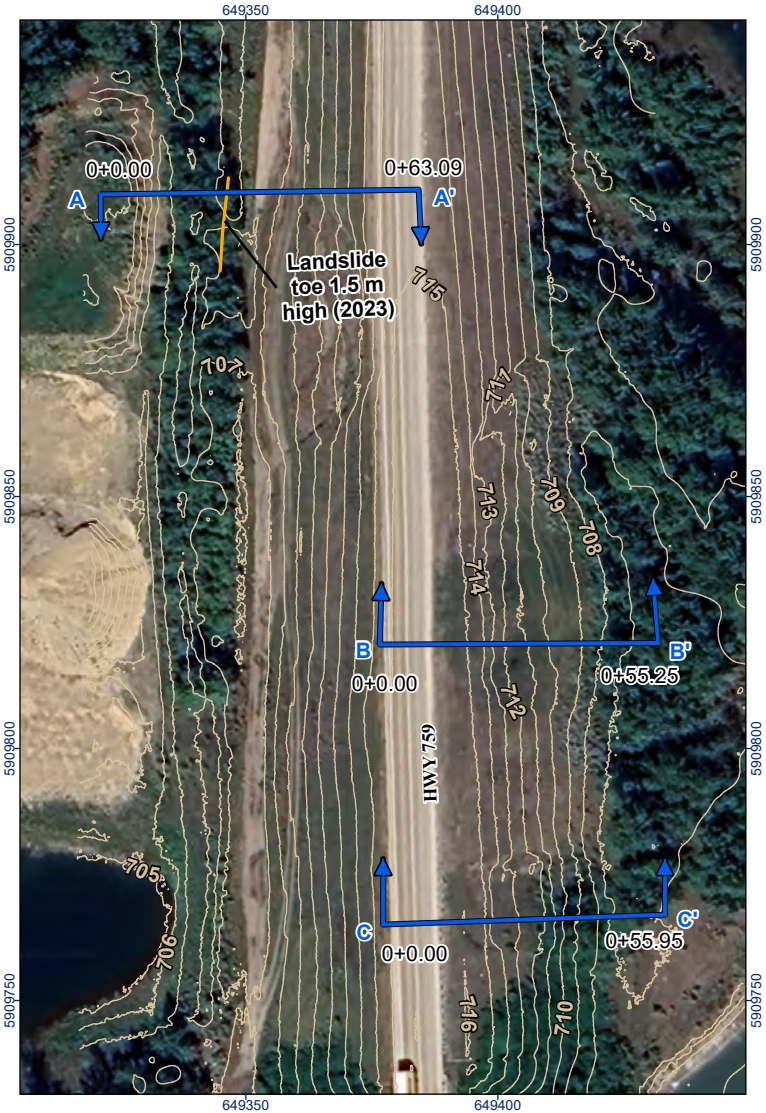
Client/Project
Transportation and Economic Corridors
Geohazard Monitoring Program
NC040 Hwy 759:02, North of North Saskatchewan River

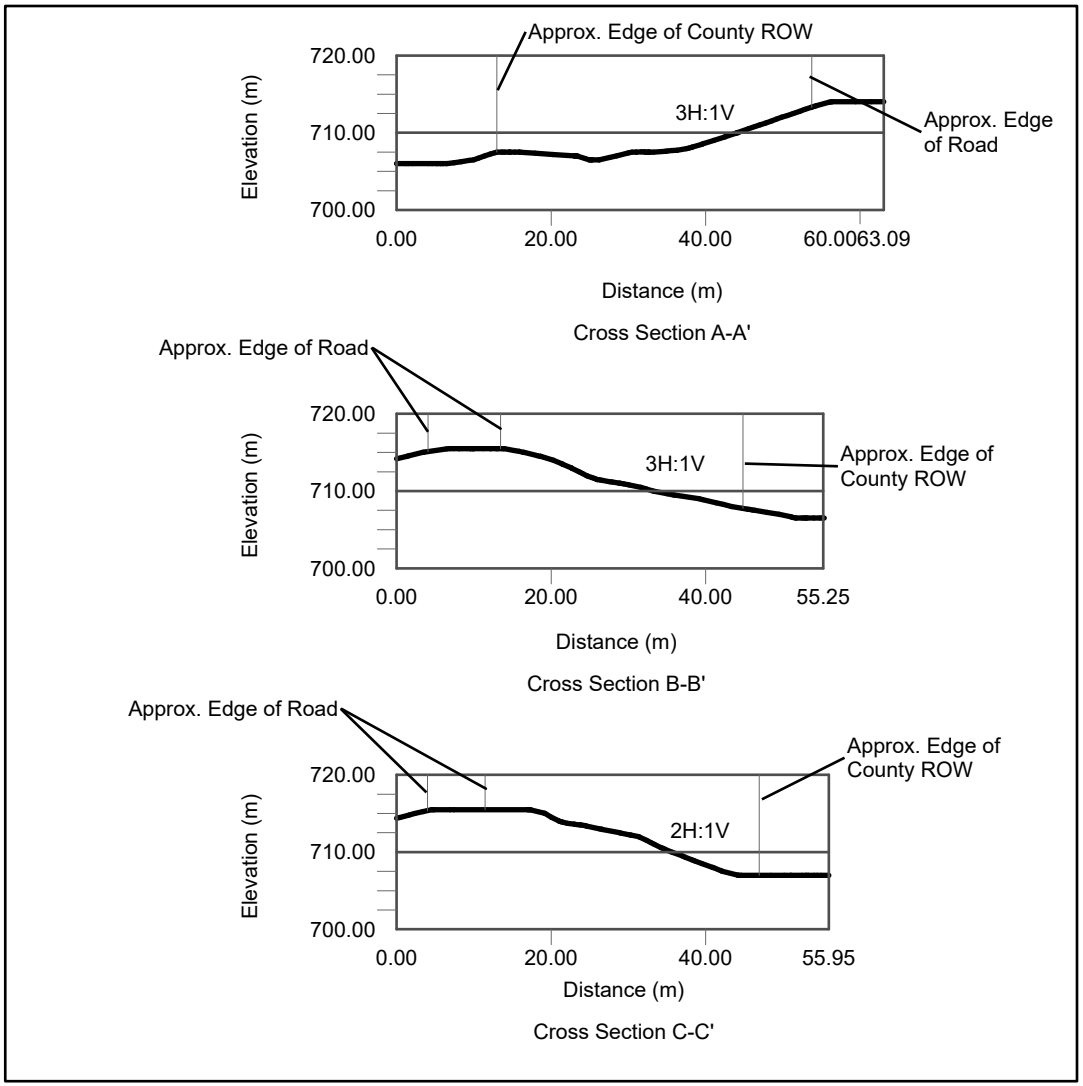
123315222

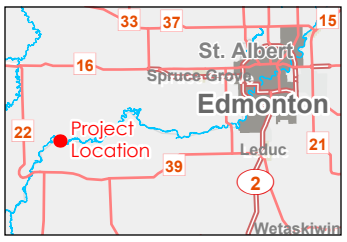
Figure No.
1

Title
Site Plan

\\cd1001-c200\workgroup\1233\active\123315222\03_data\gis_cad\figures\annual_inspection\NC4012025 Figure: Fig_1_SitePlan_NC40 Revised: 2025-10-03 By: MKuhl







2023 Observation

Ground Elevation Contours (LiDAR 2024)*

Cross Section

* Contours created from DTM LiDAR (Stantec Survey, 2024-04-25)

N

0 20 40 metres

(At original document size of 8.5x11)

1:1,500

Notes

1. Coordinate System: NAD 1983 CSRS UTM Zone 11N

2. Data Sources: Geogratis, ©Department of Natural Resources Canada,

3. Background: Light Gray Base: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
Google Satellite: © OpenStreetMap (and) contributors, CC-BY-SA

Stantec

Project Location
Parkland County,
Alberta

Prepared by MK on 2025-06-16
QR by SP on 2025-06-17
IR by LC on 2025-06-18

Client/Project 123315222
Transportation and Economic Corridors
Geohazard Monitoring Program
NC040 Hwy 759:02, North of North Saskatchewan River

Figure No.
2

Title
Ground Profile

\\cd1001-c200\workgroup\1233\active\123315222\03_data\gis_cad\figures\annual_inspection\NC40\2025 Figure: fig_2_ground_profile_plan_NC40 Revised: 2025-10-03 By: MKuhl

2025 Inspection Photos at NC040

Photo 1: Failure at north extent of west side slope. Service road at landslide toe has been blocked. Looking south.

Photo 2: Failure at south extent of west side slope. Looking north.

2025 Inspection Photos at NC040

Photo 3: Backslope of failure and ground cracking to the south of the scarp. Looking northeast.

Photo 4: Highway surface above west sideslope failure. Looking southeast.

2025 Inspection Photos at NC040

Photo 5: Highway surface above west sideslope failure. Looking northeast.

Photo 6: Slump on north end of east sideslope. Looking southwest from toe.

2025 Inspection Photos at NC040

Photo 7: Northern slump on east sideslope. Looking northeast.

Photo 8: Middle slump on east sideslope. Looking north.

2025 Inspection Photos at NC040

Photo 9: East sideslope at middle slump. Looking south.

Photo 10: South slump on east sideslope relatively unchanged. Looking north.