

PEACE REGION (GRANDE PRAIRIE DISTRICT - SOUTH) GRMP



SITE INSPECTION FORM

SITE NUMBER AND NAME: GP044 Cutbank River Slide (North)		HIGHWAY & KM: 40:40, 1.002		PREVIOUS INSPECTION DATE: May 23, 2018		INSPECTION DATE: June 15, 2022		
LEGAL DESCRIPTION:	NAD 83 COORDINATES:			RISK ASSESSMENT:				
	UTM	Northing	Easting					
NE-21-65-05-W6M	11	6056410	391477	PF: 9	CF: 2	TO	ΓAL: 18	
AVERAGE ANNUAL DAILY TRAFFIC (AADT):				CONTRACT MAINTENANCE AREA (CMA):				
2290 (north) & 2170 (south) (Reference No. 70000761, 2021)				504				-

SUMMARY OF SITE INSTRUMENTATION:	INSPECTED BY:
	Chris Gräpel (KCB)
Inoperable: One slope inclinometer (SI), one vibrating wire piezometer (VWP), and	Courtney Mulhall (KCB)
two standpipe piezometers (SPs) installed in 2017.	Ed Szmata (AT)
	Kristen Tappenden (AT)
LAST READING DATE: N/A	Max Shannon (AT)

PRIMARY SITE ISSUE: Landslide in backslope along west side of Hwy 40:40 that was repaired in 2020. A bedrock outcrop at the south site limit, which would generate rockfalls, was also repaired. The site is located just north of the Cutbank River Bridge.

APPROXIMATE DIMENSIONS: An approximate 450-m length of highway was being impacted before the slide was repaired. The backslope is approximately 30 m high and originally had a slope of 1H:1V to 1.5H:1V before it was flattened.

DATE OF ANY REMEDIAL ACTION: Unknown – backslope flattened. 2020 – backslope flattened again, diversion ditch constructed at crest of backslope, two drainage swales reconstructed on backslope, and riprap check dams placed in upslope/west highway ditch.

ITEM	CONDITION EXISTS		DESCRIPTION AND LOCATION	NOTICABLE CHANGE FROM LAST INSPECTION	
	YES	NO		YES	NO
Pavement Distress		Х	None observed at time of 2022 inspection.		Х
Slope Movement	х		Slide movements have been minimal since last repair completed in 2020. Toe rolls on backslope.	х	
Erosion	х		Rill and small gully erosion on backslope. South drainage swale failing, gully eroded down center.	х	
Seepage	x		Seepage and ponded water previously observed by others on backslope, but no seepage observed at time of 2022 inspection.		х
Culvert Distress		Х	No culverts observed by KCB.		Х

COMMENTS

Slope is poorly vegetated in areas.

Some thin translational movement observed on backslope with mid-slope toe rolls in areas of sliding.

A dip was observed in the guardrail south of the site along the northbound lane of Hwy 40:40. The dip is upslope of an old slide site that is no longer being monitored. A toe berm was previously constructed at this location after movements were observed following initial highway construction in the 1980's.

Maintenance/Repair/Monitoring Recommendations:

Monitor recent repair and erosion gully forming in drainage swale. If erosion worsens, drainage swale at gullies at southern site limit may need to be armored with riprap.

Alberta

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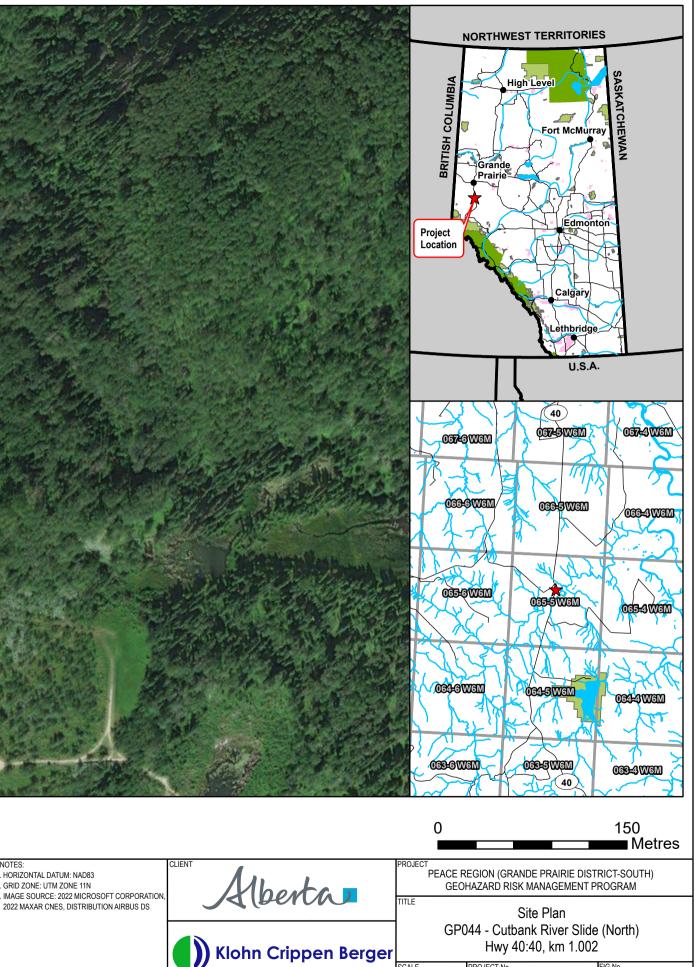
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Chris Gräpel, M.Eng., P.Eng. Senior Civil Engineer, Associate





SCALE 1:3,000 PROJECT №. A05116A01

Inspection Photographs

Photo 1 Overview of GP044 site on Hwy 40:40. Photo taken June 15, 2022, facing southwest from northern site limit.

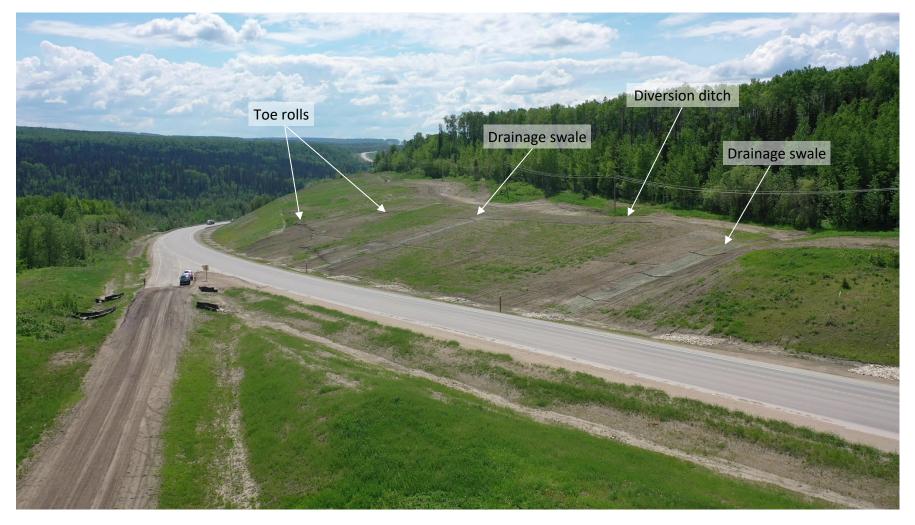






Photo 2 Overview of GP044 site on Hwy 40:40. Photo taken June 15, 2022, facing southwest from southern site limit.



Photo 3 Backslope along west side of Hwy 40:40. Note rill and small gully erosion on backslope, and small gully eroded down south drainage swale. Photo taken June 15, 2022, facing north.

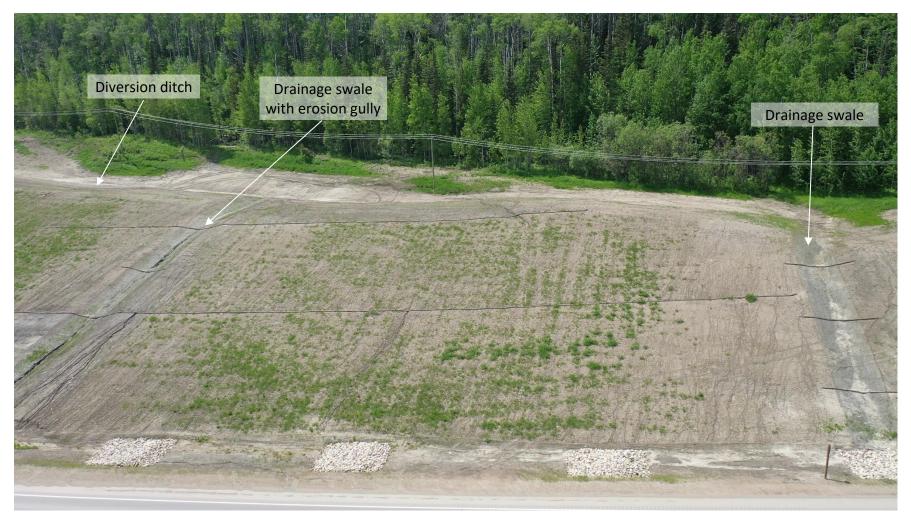




Photo 4 Backslope along west side of Hwy 40:40. Note rill and small gully erosion, and toe roll on backslope. Also, small gully eroded down center of south drainage swale. Photo taken June 15, 2022, facing north.

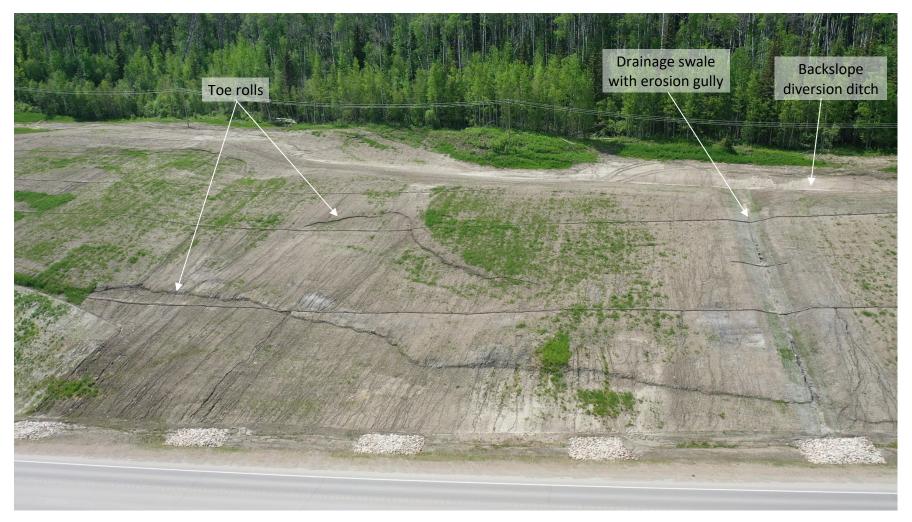




Photo 5 Backslope along west side of Hwy 40:40. Note rill and small gully erosion on backslope. Photo taken June 15, 2022, facing north.



