


SITE NUMBER AND NAME: NC082 – Morinville Slide	HIGHWAY AND KM: 02:36 R1 km 10.187	PREVIOUS INSPECTION: May 13, 2019	CURRENT INSPECTION: June 14, 2022
LEGAL DESCRIPTION: SW 4-56-25-W4M	NAD83 COORDINATES: UTM12U 5964988N, 324786E		RISK ASSESSMENT: PF: 5 CF: 3 Total: 15
AVERAGE ANNUAL DAILY TRAFFIC (AADT): 490 (2021, Traffic from East, Turning Right)		CONTRACTOR MAINTENANCE AREA (CMA): 510	

SUMMARY OF INSTRUMENTATION: No instrumentation installed at this site. LAST READING DATE: N/A	INSPECTED BY: Stantec: Leslie Cho, Sonja Pharand AT: Rocky Wang, Amy Driessen
PRIMARY SITE ISSUE: Embankment failure on the east side of the northbound on-ramp from Hwy 642 to Hwy 2	
APPROXIMATE DIMENSIONS: North slide: 9 m wide by 49 m long x 3.5 m deep South slide: 7 m wide by 18 m long x 2.5 m deep	
DATE OF ANY REMEDIAL ACTION: Slide remediation was completed in Winter 2017 / Spring 2018. Pavement patch between 2019 and 2022. Repaired slumping near test pit TP17-02.	

ITEM	CONDITIONS EXIST		DESCRIPTION AND LOCATION	NOTICEABLE CHANGE FROM LAST INSPECTION	
	YES	NO		YES	NO
Pavement Distress	X		Pavement cracking along east shoulder of off-ramp	X	
Slope Movement		X			X
Erosion	X		Minor erosion near TP17-02		X
Seepage		X			
Culvert Distress		X			

COMMENTS
<ul style="list-style-type: none"> North and south slumps were repaired in Winter 2017/Spring 2018. No signs of slope movement were observed during this site visit. Minor slumping and erosion noted at TP17-02. Erosion control matting on north side of erosion was bunched up. Previously, a new ground crack appeared to be developing at the southern limits of the south slump. The crack was not observed during the current inspection due to thick vegetative cover along the embankment. The embankment was bare of vegetation near the crest of the south slide at localized areas, possibly due to road sand. The on-ramp appeared to be recently patched. The patch date is unknown to Stantec. Transverse pavement cracking noted along on-ramp above the embankment. Longitudinal cracking along the shoulder was observed about 40 m south of the south slide. Ditch flow appeared slow. Water was approximately 450 mm deep.
RECOMMENDATIONS
<ul style="list-style-type: none"> Pavement cracks should be sealed to reduce surface water infiltration into the embankment. The Maintenance Contract Inspector should continue to monitor the new ground cracks for retrogression toward Highway 2.

- Regular ditch cleaning at the site and beyond the current site may be considered to further improve ditch drainage.
- Given that the remediation is performing well, site NC082 could be removed from future site inspections. If on-going site inspections are desired, then inspections could continue once per contract period.

PREPARED BY: Sonja Pharand, E.I.T.	PREPARED BY: Leslie Cho, M.Eng., P.Eng.	REVIEWED BY: Xiteng Liu, M.Sc., P.Eng., PMP
		

2022 Site Inspection Photos at NC082



Photo 1: Repaired south slide, looking southwest.



Photo 2: Repaired test pit area, looking northwest.

2022 Site Inspection Photos at NC082



Photo 2: Repaired north slide, looking northwest.



Photo 4: Road sand leading appears to be reducing vegetation at crest of embankment at south slide Facing northeast.

2022 Site Inspection Photos at NC082

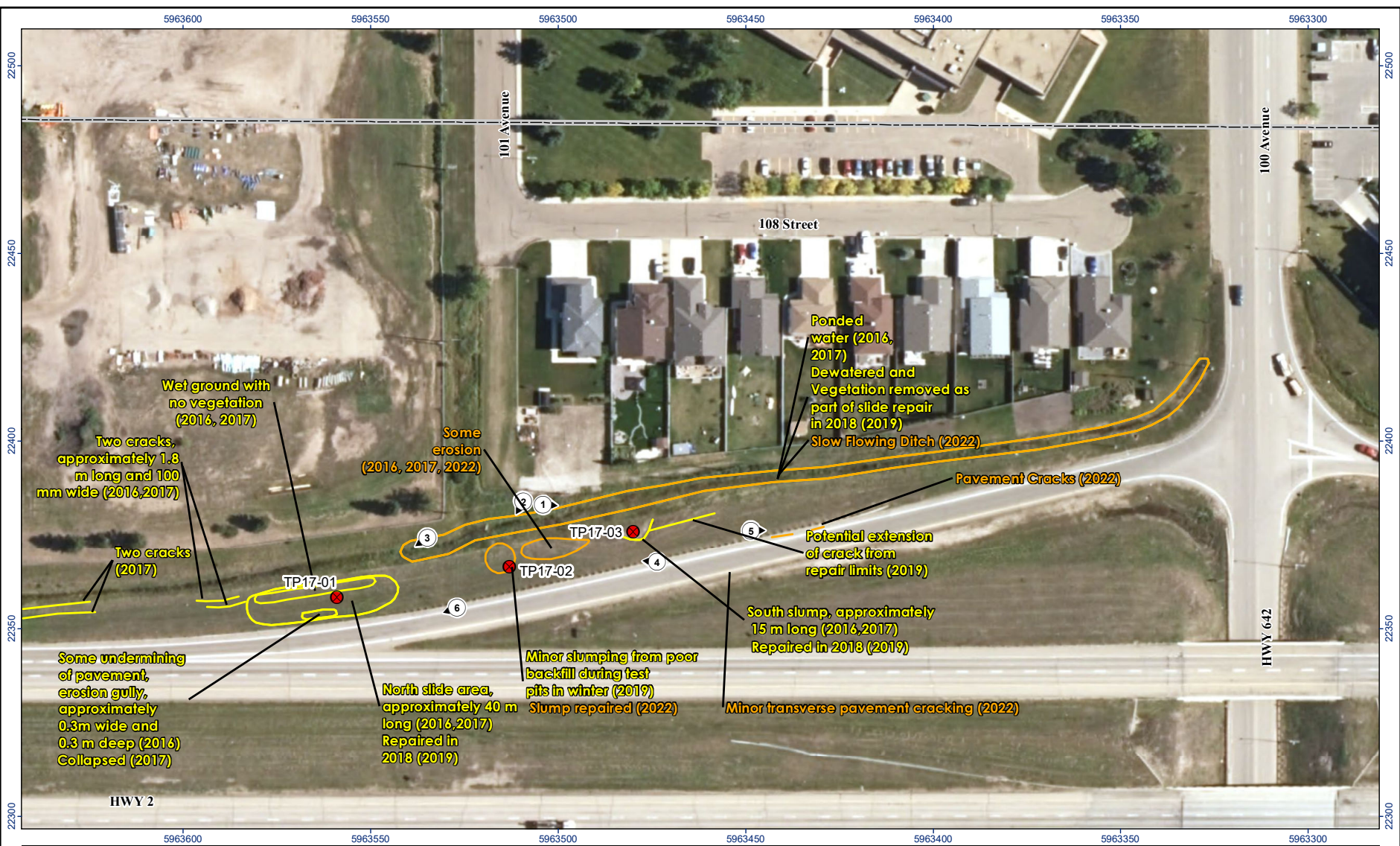


Photo 5: On-ramp to Highway 2 north bound. Cracking approx. 40 m south of south slide. Looking south.

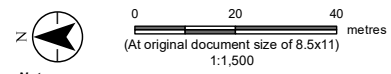


Photo 6: On-ramp to Highway 2 north bound. Looking northwest.

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- Approximate Test Pit Location
- Photo Number and Direction
- Current Observation
- Previous Observation
- Morinville Township Limits



Notes
 1. Coordinate System: NAD 1983 3TM 114
 2. Data Sources:
 3. Background: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Project Location	Prepared by DR on 2022-09-26
Morinville, Alberta	TR by LC on 2022-09-26
Client/Project	IR Review by XL on 2022-09-26
Alberta Transportation Geohazard Monitoring Program NC82 Morinville Slide	12315222

Figure No.
1

Title
Site Plan



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