

<b>SITE NUMBER AND NAME:</b> NC039 – South of Sturgeon River Crossing	<b>HIGHWAY AND KM:</b> 825:02, km 9.1	<b>PREVIOUS INSPECTION:</b> June 1, 2023	<b>CURRENT INSPECTION:</b> May 21, 2025
<b>LEGAL DESCRIPTION:</b> NW 28-55-22-W4M	<b>NAD83 COORDINATES:</b> UTM12U 5962150N, 353532E		<b>RISK ASSESSMENT:</b> PF: 3 CF: 4 Total: 12
<b>AVERAGE ANNUAL DAILY TRAFFIC (AADT):</b> 5,090 (2024)		<b>CONTRACTOR MAINTENANCE AREA (CMA):</b> 510	

<b>SUMMARY OF INSTRUMENTATION:</b> No instruments.	<b>INSPECTED BY:</b> Stantec: Leslie Cho, Sonja Pharand TEC: Kristen Tappenden
<b>PRIMARY SITE ISSUE:</b> Erosion and slumping east of north bridge abutment.	
<b>APPROXIMATE DIMENSIONS:</b> 10 m wide x 12 m long	
<b>DATE OF ANY REMEDIAL ACTION:</b> 2004/ 2005 riprap was added in the west ditch south of bridge. Pavement dip patched in 2006. Ditch regraded with riprap added in the west ditch south of the bridge in 2015. Highway milled and re-paved in 2016. Highway patched north of bridge in mid-May 2020. Bridge superstructure replaced, highway milled and paved, bridge embankments and highway ditches repaired in 2022.	

ITEM	CONDITION EXISTS		DESCRIPTION AND LOCATION	NOTICEABLE CHANGE FROM LAST INSPECTION	
	YES	NO		YES	NO
Pavement Distress		X			X
Slope Movement	X		Slump on east side of north bank, undermining irrigation pipe.		X
Erosion	X		Erosion channel between slump and river on the east side of the north bank.		X
Seepage		X			X
Bridge/Culvert Distress	X		Standing water at outlet of culvert across entrance to Township Rd 555		X

<b>COMMENTS</b>
<ul style="list-style-type: none"> <li>Minor lateral pavement cracking was observed across the site, however the pavement appears to be in similar condition as seen in 2023 (Photo 1).</li> <li>Diagonal cracks across the highway were observed near the north bridge abutment which were not present during the 2023 inspection (Photo 8).</li> <li>Standing water was observed in the ditch south of the entrance to Township Road 555. Two culverts have been installed across this entrance, with riprap surrounding the beveled outlet end. Erosion channels and sedimentation were observed within the ditch, off the corner of Township Road 555 and Highway 825 (Photo 2).</li> <li>The east ditch was observed to be wet and moderately vegetated, with the turf reinforcement mat still visible. Debris was observed in the ditch, with possible tire tracks with ponding water (Photo 3).</li> <li>The west ditch was generally well vegetated (Photo 4). A fallen tree was observed in the west ditch, extending across all the way to the guardrail. A group of leaning trees was also observed near the gabion mattresses.</li> <li>Potential hydrovac depressions or trenches were observed in the west ditch and on the backslope.</li> </ul>

- The gabion mattresses installed on the west side of the north bridge abutment appeared to be in similar condition to 2023 (Photo 5).
- The straw wattles observed during the 2023 inspection were not observed, possibly due to tall grasses on the slope (Photo 5).
- The tension cracking and soft soils observed on the west and east sides of the gabion mattresses on the northwest slope in 2023 were not present. The slope is now moderately vegetated (Photo 5).
- The failure repair on the north bank above the irrigation pipe appears similar to 2023. The backfilled area is largely vegetated with long grasses. At the irrigation pipe the slump remains approximately 6 m wide, and the material below the pipe on either side of the erosion channel is vegetated with long grasses (Photo 6 and 7).
- The erosion channel slightly downslope from the undermined irrigation pipe to the river is approximately 1.5 m wide.

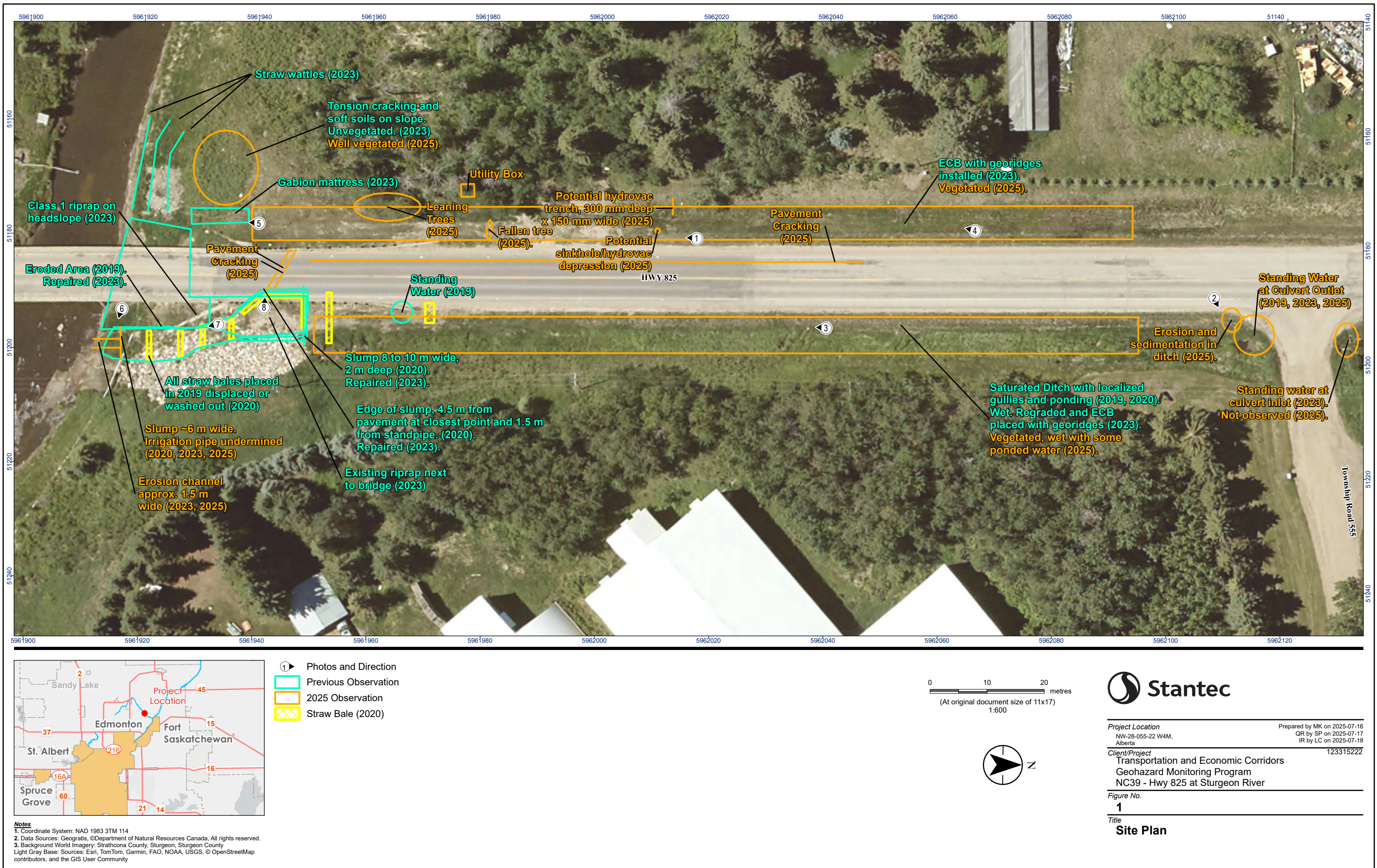
**RECOMMENDATIONS**

- The site should be monitored regularly by the MCI for retrogression of the scarp towards the roadway and bridge structure.
- The contractor should be asked to return to the site and remove the silt fencing that is still present at the site.
- Any pavement cracks that may appear should be crack sealed to reduce infiltration of water into the highway structure.
- It's recommended that this site is removed from the monitoring program.

<b>PREPARED BY:</b> Sonja Pharand, P.Eng.	<b>PREPARED BY:</b> Leslie Cho, M.Eng., P.Eng.	<b>PERMIT TO PRACTICE</b>



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2025 Site Inspection Photos at NC039



**Photo 1:** Highway 825, looking south.



**Photo 2:** Repaired culvert outlets, with erosion channels off highway. Looking northeast.



2025 Site Inspection Photos at NC039



**Photo 3:** Erosion control blankets, debris and ponded water in east ditch, looking south.



**Photo 4:** West ditch, generally vegetated. Looking southwest.



2025 Site Inspection Photos at NC039



**Photo 5:** Remediation on west side of bridge, looking south.



**Photo 6:** Undermined irrigation pipe along north bank, east of the bridge. Looking southeast.



2025 Site Inspection Photos at NC039



**Photo 7:** Remediation on east side of the bridge. Looking southeast.



**Photo 8:** Pavement cracking at north abutment. Looking west.