

**PEACE REGION – SWAN HILLS  
GEOHAZARD RISK ASSESSMENT  
SITE INSPECTION FORM**

<b>SITE NUMBER</b> SH 11 (-3, -4)	<b>SITE NAME</b> Little Smoky SH11-3 Little Smoky SH11-4	<b>HIGHWAY &amp; KM</b> HWY 744:02	<b>PREVIOUS INSPECTION DATE</b> May 31, 2011	<b>INSPECTION DATE</b> July 5, 2012
<b>LEGAL DESCRIPTION</b> LSD 02-20-76-22 W5M	<b>NAD 83 COORDINATES</b> N6161152 E476601	<b>PREVIOUS RISK ASSESSMENT</b>		
		<b>PF: 9</b>	<b>CF: 2</b>	<b>TOTAL: 18</b>
		<b>CURRENT RISK ASSESSMENT</b>		
		<b>PF: 9</b>	<b>CF: 2</b>	<b>TOTAL: 18</b>

<b>SUMMARY OF SITE INSTRUMENTATION:</b>  No Instruments	<b>INSPECTED BY:</b>  (i) AMEC: John Richmond, Eric Paton (ii) AT: Ed Szmata, Roger Skirrow
<b>LAST READING DATE: N/A</b>	

<b>PRIMARY SITE ISSUE:</b>  SH11-3 Pavement cracking and subsidence (undulations) of the highway. The site is part of a larger valley wall failure. The site is located on the southwest flank of a large valley wall block slide. A terrace (sag pond) is below the embankment and forms part of the benched valley wall.  SH11-4 Pavement cracking and subsidence (undulations) of the highway. The site is part of a larger valley wall failure. The site is located on the southwest flank of a large valley wall block slide. A terrace (sag pond) is below the embankment and forms part of the benched valley wall. The backslope ditch is wet with standing water. Movement at SH11-4 is considered to be more severe than at SH11-3.  Ongoing pavement repairs are required at both sites.  It is recommended that a lidar assessment of both sites be carried out to understand how the sites fit in with the larger valley wall failure. No remedial works are planned for the site. Re-routing the highway beyond the valley crest is considered to be one of the only approaches to prevent any further damage to the highway.  Note: Refer to previous inspection reports for further details
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<b>APPROXIMATE DIMENSIONS:</b>  Both sites extend approximately 200 to 250m along a highway curve. At both sites, the road embankment and the backslope are slope to approximately 3H:1V.
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**DATE OF ANY REMEDIAL ACTION:**

None

ITEM	CONDITION EXISTS		DESCRIPTION AND LOCATION	NOTICABLE CHANGE FROM LAST INSPECTION		
	YES	NO		YES	NO	See Comment
PAVEMENT DISTRESS	X		Cracking and subsidence (undulations) in the pavement are visible.			X
SLOPE MOVEMENT	X		The site is located on the southwest of a larger valley wall block failure			X
EROSION		X			X	
SEEPAGE		X			X	
CULVERT DISTRESS		X			X	

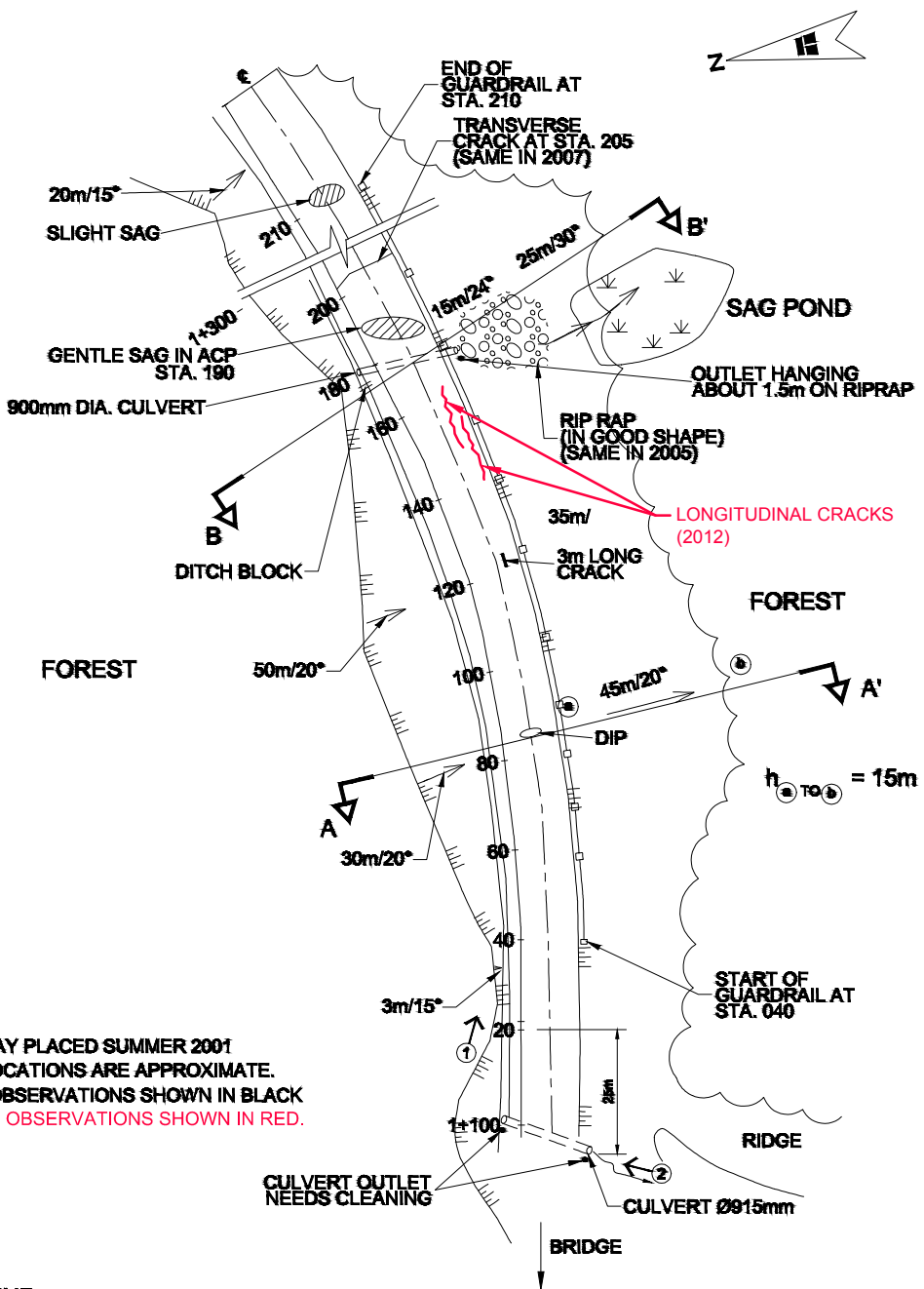
**COMMENTS:**

Although pavement distress and slope movement was noted in the 2011 inspection, it could not be determined whether the extents and severity of the distress or movement were noticeably different from the last inspection.

Annual inspection of the site should be continued.

Short term repairs of the road surface including, milling, patching, and crack filling should be carried out as required when distortion/settlement and cracking of pavement occurs. Records of maintenance should be kept for review.

Long term remediation of the site may include consideration for re-routing the highway to the valley crest. A re-route may be the only way to avoid the overall valley wall failure.



**NOTES :**

1. ACP OVERLAY PLACED SUMMER 2001
2. FEATURE LOCATIONS ARE APPROXIMATE.
3. PREVIOUS OBSERVATIONS SHOWN IN BLACK
4. JULY 5, 2012 OBSERVATIONS SHOWN IN RED.

**LEGEND**

50m/20°

— PHOTO AND DIRECTION

— CRACKS

--- CULVERT

⊙ PATCHED PAVEMENT

⊙ PHOTO AND DIRECTION

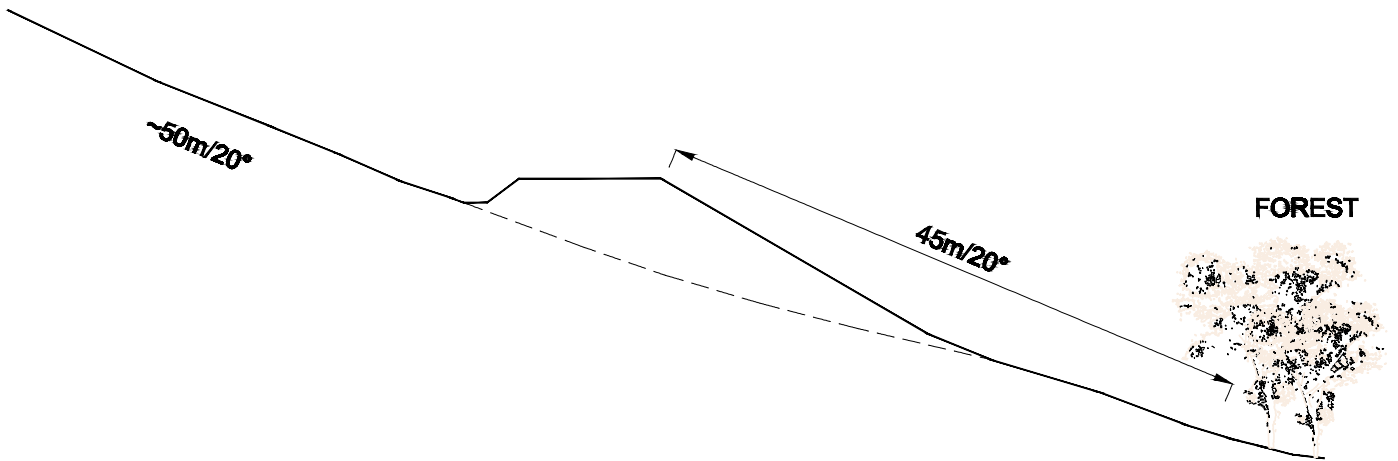
— EROSION

— LANDSLIDE SCARP

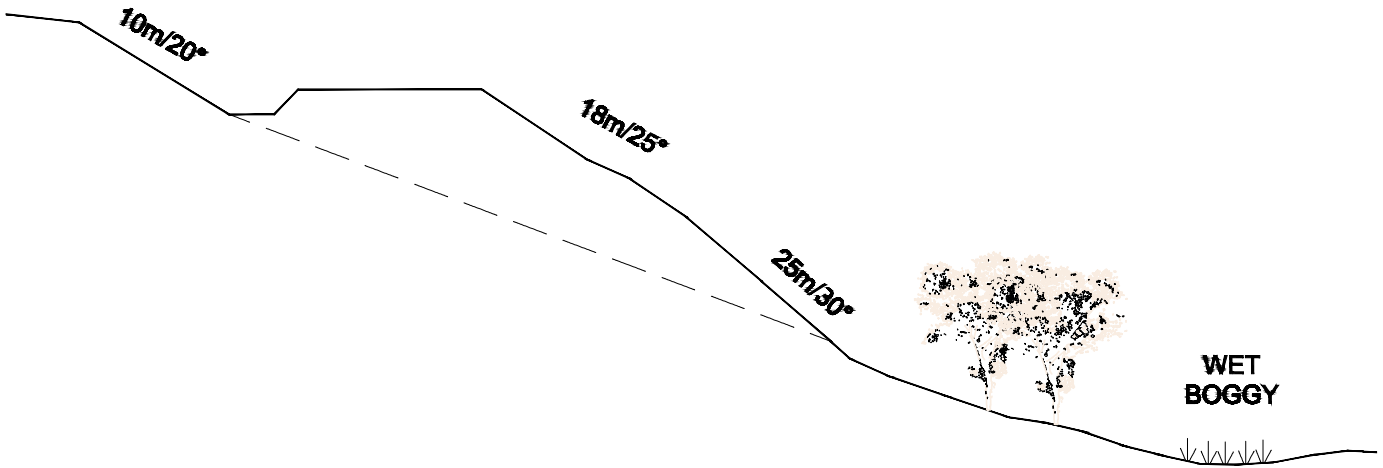
SITE LOCATION (2007):  
SECOND SET OF  
GUARDRAIL FROM  
BRIDGE.

REFERENCE: BASE "SITE PLAN", SH11-3.pdf, SUPPLIED BY ALBERTA  
INFRASTRUCTURE AND TRANSPORTATION.

CLIENT: <b>Government of Alberta</b> Transportation	DWN BY: CMG	PROJECT: <b>GEO HAZARD ASSESSMENT PEACE REGION (SWAN HILLS)</b>	DATE: SEPTEMBER, 2012
	CHK'D BY: EP		PROJECT No.: EG10030
 <b>AMEC Environment &amp; Infrastructure</b> 5681-70 STREET, EDMONTON, ALBERTA, T6B 3P6 PHONE 780-436-2152, FAX 780-435-8425	DATUM: -	TITLE: <b>SH11-3 HWY 744:02 LITTLE SMOKY RIVER VALLEY SITE PLAN</b>	REV. No.: A
	PROJECTION: -		FIGURE No.: <b>FIGURE 1</b>
	SCALE: NOT TO SCALE		





**SECTION A-A'**  
N.T.S.



**SECTION B-B'**  
N.T.S.

REFERENCE: BASE "SITE PLAN", SH11-3.pdf, SUPPLIED BY ALBERTA INFRASTRUCTURE AND TRANSPORTATION.

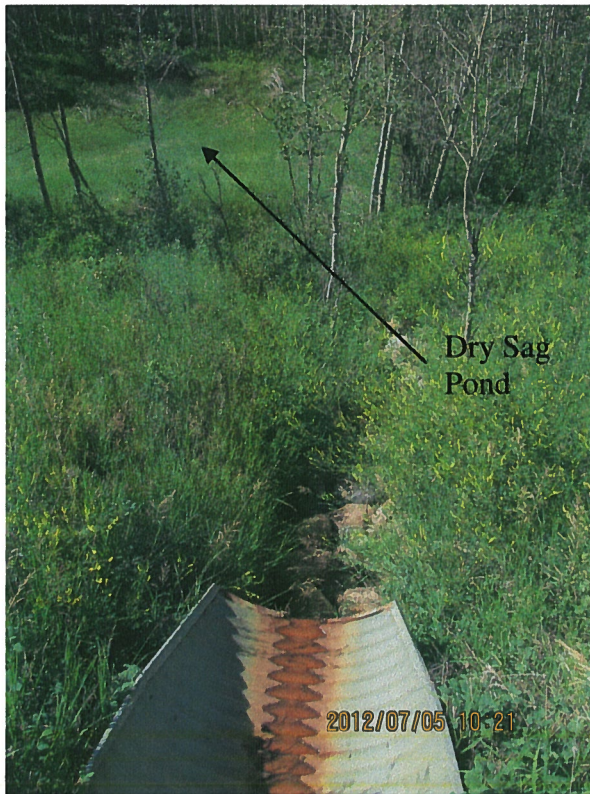
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	PROJECTION: -		FIGURE No.: <b>FIGURE 2</b>
	SCALE: NOT TO SCALE		



SH11-3 Photo 1. Site SH11-3 looking southwest at the road embankment slope (July 2012).



SH11-3 Photo 2. Looking southwest at the SH11-3 road surface. Note the cracking. The road surface undulates but is not visible in the image (July 2012).



SH11-3 Photo 3. Looking southeast down the embankment from the highway at SH11-3. Note the sag pond at the bottom of the embankment (July 2012).



SH11-4 Photo 4. Looking downgrade at SH11-4 (July 2012).



SH11-4 Photo 5. Looking upgrade at SH11-4. Note the undulations in the roadway and the cracking (July 2012).



SH11-4 Photo 6. Looking at the wet backslope ditch at SH11-4 (July 2012).