

<b>Assignment Name:</b> MacLeod Trail and Stoney Trail Interchange Stormwater Management Plan		<b>ID#: 14</b>
<b>Country:</b> Canada <b>Location within Country:</b> Alberta	<b>Approx. value of the contract:</b> Not available.	
<b>Name of Client:</b> Alberta Transportation	<b>Approx. value of the professional services provided under the contract:</b> US\$ 400,000	
<b>Address:</b>	<b>Total No. of staff-assigned to Project:</b> 3	
<b>Start date (month/year):</b> June 2012	<b>Total No. of staff-months of the assignment:</b> 5	
<b>Completion date (month/year):</b> March 2013	<b>Duration of assignment (months):</b> 10	
<b><u>Narrative description of Project:</u></b> Preliminary and final design of the stormwater management for the proposed Stoney Trail (existing Highway 22X) and Macleod Trail Interchange improvements to be constructed with the Transportation and Utility Corridor (TUC) in southeast Calgary.		
<b><u>Description of actual services provided by professional engineering staff within assignment:</u></b> The main objective of the Initial Stage Interchange (ISI) is to convert the existing Stoney Trail and Macleod Trail Parclo interchange into a full cloverleaf interchange. The project involves the design and construction of two new structures carrying the westbound lanes of Stoney Trail over Macleod Trail and the Canadian Pacific Railway (CPR). The project also includes the required twinning work of Stoney Trail to tie into the existing highway east of the signalized intersection at the 6th Street/Sheriff King Street.  This necessitates design and updating of the existing overland storm drainage for a proposed catchment area of approximately 64 ha and offsite contributing area of approximately 20 ha.		
<b><u>Description of Activities provided by RWI</u></b> Project manager and civil design QA support to the civil and stormwater modelling engineers.  The redesign of existing drainage systems, to accommodate the new facilities and a significantly expanded contributing area, led to several potential flooded areas under conditions of high rainfall. Primary contributing factors were flat topography and control inverts of exiting pipes and drainage channels. A few secondary pipe routes were designed to accommodate overflow volumes.  Design solution met client requirements of no flooding at selected design storm events and minimal capital costs to achieve the solution.		

