APPENDIX G

STRUCTURAL EVALUATION OF MAIN CULVERT

The Regional Municipality of Halton

Class Environmental Assessment Study for Ninth Line

Structure Name	Ninth Line, Lot 3, Conc IX/X		
ID Number	13-1159210 CU01		
Classification	☐ Bridge ☑ Culvert	☑ Structure ☐ Municipal	
Location	1.00 km North of Steeles Avenue		
Load Posting	No Posting	**Span Lengths**	3.02 m
		Board Order / Agreement	☐
Structure Type	RF		
Yr Constructed	1960		
Yr Rehabilitated	N/A		
Inspection Date	22-May-14	**Current AADT**	10210
Previous Inpsection	09-Oct-12	**Date AADT**	
Next Inspection		**Projected AADT**	

Effects of Deterioration

There are no steel-beam guide rails or hazard signs over the structure. The ashpalt roadway is in good condition with a longitudinal crack along the centre of the roadway. The abutment walls are generally in fair condtion. The deck soffit is good condition. There is leakage through the cold joints on the abutment wall and efflorescent staining. There are areas of light honeycombing/segregation throughrout the culvert abutment walls and deck soffit. There are areas of light to medium scalling on the culvert abutment walls. There is light spalling on the bridge deck soffit at the southeast corner. There is scaling on the fascia of the outlets of the structure. There is severe concrete disintegration of the east end of the south abutment wall. The footings are exposed near the east end of the structure and are exposed up to 500mm at the southeast corner due to scour and erosion. There is rip-rap placed at the southeast corner of the structure, with vegetation at all other corners. There are overhead lines directly over the east outlet.

Recommendation

We recommend completing a rehabiltiation/replacement analysis to determine if it is more economical to rehabilitated the existing structure or replace the structure.

Recommended Rehabilitation

RRA - Rehabilitation Replacement Analysis Replacement

Priority Rating	NOW	**Implementation Ranking**	Medium		
Estimated Total Cost	$5,000.00	**General Overall Condition**	Fair	**BCI:**	65

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Recommended Rehabilitation

RRA - Rehabilitation Replacement Analysis

Engineering Cost		
Rehabilitation/Replacement Analysis		$5,000.00
		$0.00
	Sub Total	$5,000.00
Construction Cost		
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
	Sub Total	$0.00
	Total	$5,000.00

Ninth Line, Lot 3, Conc IX/X
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Photograph No. 1: 8633: Roadway over structure looking North

Photograph No. 2: 8638: West Elevation

Ninth Line, Lot 3, Conc IX/X
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Photograph No. 3: 8665: North abutment wall looking west

Photograph No. 4: 8662: Deck soffit at Southeast corner of structure