CITY OF EDMONTON
HISTORIC RESOURCE
MANAGEMENT PROGRAM

HIGH LEVEL BRIDGE

109 STREET & 98-89 AVENUE NW

DESCRIPTION OF HISTORICAL PLACE

The High Level Bridge is a massive steel truss multi-function bridge with a total of 28 spans, set on a combination of concrete piers and steel legs. The High Level Bridge is 2,550 feet long and the base of the rail deck is 156 feet above the North Saskatchewan River mean water level. It links 109 Street on Edmonton's south side with 109 Street in Edmonton's downtown.

HERITAGE VALUE

The High Level Bridge is significant as one of the four great steel truss bridges constructed by the Canadian Pacific Railway (CPR) in Canada before WWI and as a landmark and icon for the city of Edmonton.

The High Level Bridge was constructed between 1910 and 1913, and its design employs two distinct truss types, the Pratt Truss and the Warren Truss, for the steel substructure. The steel superstructure features two decks, one twenty feet above the other. The High Level Bridge, despite alterations and ongoing maintenance, retains its historic character and integrity of design and fabric.

The construction of the High Level Bridge provided a historically important transportation link, and was a major factor in the amalgamation of the City of Strathcona and the City of Edmonton, February 1, 1912. The High Level Bridge demonstrates the historical importance of the railway in the history of Edmonton, as the CPR, the City of Edmonton, the City of Strathcona, and the dominion and provincial governments shared the cost of construction, which was over $2 million.

The High Level Bridge has unique significance in western Canada for its original combination of four modes of transportation - train, streetcar, automobile, and pedestrian. Streetcar traffic ceased in 1951, and the CPR stopped running trains over the upper deck in 1989. Vehicular traffic and a pedestrian walkway continue on the lower deck, while a tourist streetcar runs seasonally on the upper deck.

CHARACTER DEFINING ELEMENTS

Key character defining structural elements of the High Level Bridge include:

+ the original construction techniques, scale, design and visual impact
+ form and massing exemplified by 28 spans, including three massive centre Pratt Truss spans (each 288 feet long), the seven Pratt Truss spans(each 96 feet long), and six tower spans (each 47 feet long) on steel legs that form the south side approach, two Warren Truss spans (each 130 feet long) on the north approach;

- four central reinforced concrete piers set in the river bed;
- original bridge superstructure that includes the lower traffic deck and the upper rail deck with existing arrangement of steel members and reinforced concrete;
- steel superstructure below the lower deck;
- metals handrails flanking the length of the bridge on both the east and west sides;
- two decks each 39 feet wide and twenty feet one above the other; and
- all black painted surfaces.

Designated as a Municipal Historic Resource through Bylaw 11114 in September 1995.