CRITERIA FOR DESIGNATION

STEEL TRUSS BRIDGES at GLASGOW and SNEATH ROADS in BOLTON.

Background.

To coincide with recognition by the Federal and Provincial governments of the **Humber River** as a **Canadian Heritage River** the Caledon Heritage Committee recognized the significance of the Steel Truss Bridges over the Humber at Glasgow and Sneath Roads in Bolton as having special heritage significance.

History

The bridges constructed for Albion Township in the past, but now part of Ward Five (Bolton) are known to be in excess of 70 years old. Dates of assembly are however not known due in part to the fact that they were funded and constructed by the Province through grants from the Department of Highways, rather than the local tax base. The specifications (probably used repeatedly through Ontario, in Townships) therefore were not part of a municipal budget and make historical research somewhat difficult. It is also unclear if bridge building was undertaken by Counties, rather than Townships. Consultation with a number of people, including Ministry historians and the archaeologist, former MTO historians, and eventually Ian Wilson, Archivist of Ontario revealed that although the Archives of Ontario do anticipate having that Ministry's historic information and Annual Reports in care soon, that has not yet happened. The Archive presently has an employee endeavoring to catalogue the material she can find at the new Ministry headquarters in St. Catharines and at McMaster University. As the Annual Reports are very large and the construction dates unknown spending a large number of hours, in Toronto, searching for information, that might not be included, seemed impractical especially as bridges can be 'era' dated.

At the regular meeting of the Caledon Heritage Committee and LACAC held on May 11th, 1999 after discussion, it was decided that in light of the, to date, fruitless search for documentation of the exact construction dates it would be more sensible to consult with the Ontario authority on historic bridges. This is David J. Cuming, BSc. (Hons.), Dip. T.P., MCIP., MRTPI., RPP. Mr. Cuming is the author of "**DISCOVERING HERITAGE BRIDGES ON ONTARIO'S ROADS'** (Boston Mills Press) and has also been the principal consultant for Caledon on our official plan heritage policies. A letter and photographs were sent to him and he has informed the Heritage Office that as the two bridges are of rivet assembly rather than 'pin connected' they date from after 1900. Riveting became popular after transportable pneumatic tools became available in the early 20th Century, which revolutionized any construction using steel. Both have concrete abutments, another post -1900 indicator. The style reflects a popular, solidly built, form that was relatively inexpensive, in a one lane format that was very favoured in townships on country roads to easily facilitate movement of farm and field machines and early vehicular traffic. In his opinion, based on considerable expertise, he says the bridges were not built before 1910 or after 1920. This makes them between 70 and 80 years old.

When the committee first discussed the possible designation of the bridges the Chair consulted with the then Director of Public Works, Bert Moore on the status of the Bridges and projected future use. Bert confirmed that it was entirely possible that they would be closed to vehicular traffic in the future, if maintenance costs became prohibitive. However in light of the enormous public interest in hiking and walking trails, and in the anticipated designation of the river, that they would be retained for pedestrian use. Bert also pointed out that in both cases eventual closure to vehicles would not handicap the public as alternative and emergency exits exist. In the case of the Glasgow Road bridge an entirely new road has been added to the west however the Sneath Road alternative may require that the bridge remain open to all traffic or at least be passable in an emergency. Either scenario, or the status quo would have no impact on heritage designation,

Architecturally difficult to describe both bridges are identical, single lane and single span. They have four 'arches' on both side and no supporting overhead beams. As previously mentioned they are in riveted steel. The structure is called a Warren Steel Truss (created by the appearance of "Ws" on the sides) and is also known as a 'pony truss'. This configuration carries both tension and compression and with the use of the steel rivets creates a strong structure capable of carrying heavy loads, and able to withstand most thaw ice flows. Both bridges have small 'wings' of steel on the outside of the spans that also help to spread the weight load. They are set on concrete abutments.
Local, supervised, labour could be used to assemble them.
One interesting historical fact about the universal appeal of these bridges and the large number that were constructed from the turn of the Century is that there developed a rivalry between land surveyors, civil and military engineers and bridge building companies on which group had the true responsibility for safe construction. This culminated in the formation of 288 civil engineers into the **Canadian Society of Civil Engineers**, which received its charter in 1914. Earlier this group had somewhat pompously served notice in the October 6th, 1910 addition of The Canadian Engineer that 'bridge building lay strictly in the sphere of civil engineering and the profession served notice to the bridge building companies, land surveyors and municipalities that disregarding this "fact" would lead to additions to costs and "insecure" structures'. It even claimed that 'Even after the award of the contract Councils possessed of good judgement will retain competent engineers to see that the plans and specifications are adhered to and that the work is carried out in a proper manner'. In other words only stupid Councils didn't hire an engineer. This then was the basis of what may be considered the monopoly still retained in certain public construction by this profession.

Bibliography.
-Correspondence with David J. Cuming.
-"Discovering Heritage Bridges on Ontario's Roads"(Boston Mills Press)
David J. Cuming, circa 1981.
-Files of the Heritage Resource Office.

Heather Ghey Broadbent. June 1999.