

Carleton College

One North College Street
Northfield, Minnesota 55057

Nancy C. Braker
Director of the Cowling Arboretum and Lecturer in Biology

507-222-4543
nbraker@carleton.edu

Memorandum

To: Members of the Carleton Community
From: Arboretum Committee
Re: Waterford Iron Bridge Replacement
Date: May 12, 2008

For quite some time the College has been working with Waterford Township regarding the Iron Bridge over the Cannon River on Canada Avenue. The bridge is in very poor condition and needs to be replaced. For various engineering and design reasons it can not be re-built in the same location and the Waterford Township Board and Dakota County Engineers have proposed that the new location be slightly upstream. This places it on current College property. A proposal that appears to be acceptable to both the College and Waterford Township was recently developed, but now needs final review and approval by the Trustees.

Recommendation: The Arboretum Committee recommends that the Board of Trustees approve the donation of a transportation easement and a temporary construction easement to Waterford Township for the purposes of bridge construction. In addition, the Committee recommends that ownership of the land at the future boat landing area be transferred to the Minnesota Department of Natural Resources (DNR) for long-term maintenance, if required by DNR.

Background: The Iron Bridge is a one lane bridge crossing the Cannon River. The bridge is on the high priority list of MN Department of Transportation (MNDOT) for replacement. It is greatly in need of repair, but an additional reason for re-building is that it is not large enough to accommodate emergency vehicles. The bridge is not rated for ambulance or fire vehicle use. Additionally it causes some inconvenience to several farmer neighbors who farm land on both sides of the river and have a significant drive around to a larger bridge.

Carleton and Waterford Township have been discussing the bridge replacement for some time - since at least 2004. A number of proposals have been suggested including re-building in the existing location, using a new location either upstream or downstream, or using a longer span to reduce impacts. Three re-designs of the bridge were developed during this period to best accommodate environmental concerns.

The bridge proposal as it stands now includes using about two acres of College property to build a new bridge upstream from the current bridge. This would allow the new bridge to conform to required design elements such as degree of angle to the turns and vehicle speed. Canada Avenue would still have a significant turn, an advantage from the College's perspective as it would encourage slowing of traffic. The Iron Bridge, as long as it passes safety inspections, would be left in place for the period of construction to allow for river crossing. After the new bridge is in place the Iron Bridge will be closed to public use pending future plans to renovate and re-use for pedestrian and bicycle crossing. Because of the historical significance of the bridge the Town of Waterford hopes to be able to follow through on these plans but a funding source for the renovation and maintenance of the Iron Bridge has not been identified.

The Arboretum committee has been very involved in the on-going discussion. The initial placement of the bridge concerned Mary Savina due to the potential for obstructing a side channel of the river. Mary and one of her geology classes evaluated an earlier design and made the suggestion to alter the location of the new bridge in order to avoid the side channel that could cause both ecological and engineering problems. This proposal was accepted by the County engineer and incorporated into the current plan. Gary Wagenbach has recently surveyed for mussels in the river in the vicinity, and feels fairly confident there is no rare mussel habitat that would be impacted by the bridge building. Nancy Braker and Mark McKone both regret that two groups of large cottonwood trees will be removed during the construction. However, the damage caused by tree removal should be temporary, and the bridge as designed doesn't pose any obvious long-term ecological problems for the Arboretum.

Transfer of right-of-way (ROW): The transfer of land rights would be a right-of-way. In addition to the permanent ROW required for the road, there would need to be a "construction ROW" which would be temporary and used to stage equipment, fill material, supplies or a construction trailer. The construction ROW would be for two years. We have asked that the construction ROW in the wooded area near the river be as small as possible and indicated that we are willing to provide a different area for the construction ROW as needed. There is a small agricultural field west of the river, on College land next to the railroad tracks that could be used for this purpose.

Construction period: It is expected that construction would take place in 2008 or 2009, pending successful permit application and funding availability.

Status of negotiation with Waterford Township: The College has made a proposal to the Town, pending College Trustee approval. The Township has accepted this proposal. The College indicated it is willing to donate the easement with the following conditions:

- The concurrence of the Waterford Township Board that it is intending, for the foreseeable future, to maintain Canada Avenue as an unpaved road. The College has an interest in keeping traffic levels low and at a slower speed.
- The existing, informal boat landing and pull-off, currently located just upstream of the Iron Bridge, will be upgraded to DNR standards for a carry-in canoe/kayak landing. The ownership of the boat landing could be transferred to DNR for long-term maintenance if required by DNR. This boat landing would be designed and implemented as part of the bridge construction and at no cost to the College.
- Should any part of the ROW no longer be used for transportation purposes it would revert back to the College.
- The College would retain the right to harvest timber prior to bridge construction, if we choose, from the land to be covered by the ROW or areas impacted by the construction.

Submitted by Nancy Braker, Director of the Colwing Arboretum, on behalf of the Arboretum Committee.

Arboretum Committee:

Nancy Braker, Dennis Easley, Leon Lunder, Mark McKone, Éva Pósfay, Fred Rogers, Mary Savina, and Gary Wagenbach.