



NEWSLETTER

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Additional Trent River Crossing Schedule 'C' Class Environmental Assessment

October 23, 2008

THIS NEWSLETTER CONTAINS A SUMMARY OF THE CURRENT INFORMATION RELATED TO THIS STUDY AS WELL AS RESPONSES TO QUESTIONS, COMMENTS, AND SUGGESTIONS RECEIVED FROM THE PUBLIC. A REFERENCE GUIDE TO ITS CONTENTS IS PROVIDED BELOW:

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INTRODUCTION

Recognizing the relatively short design life remaining for the Campbellford Bridge Street bridge, and the increasing concerns with traffic congestion, the respective Councils of the Municipality of Trent Hills and Northumberland County unanimously agreed in September 2007 to proceed with a study of an additional crossing of the Trent River within the geographic limits of the former Town of Campbellford. Proposals for the study were received from five qualified firms, and Totten Sims Hubicki Associates (TSH) was retained as the consultant for the project in November 2007.

The study is being carried out as a **Schedule C** project under the **Municipal Class Environmental Assessment** process (**the Class EA**), which is approved under the **Ontario Environmental Assessment Act**. This involves public and government agency consultation throughout the study. The project contact list includes members of the general public who have expressed interest in the project, representatives of the various utility providers, emergency service providers, First Nations, and various municipal, provincial, and federal government agencies. In addition, and as related to the Trent-Severn Waterway, the study also will address federal environmental assessment requirements through coordination with and review by the **Canadian Environmental Assessment Agency (CEAA)** and other responsible authorities.

To date, the formal points of public and agency contact have been a Notice of Commencement published in the local newspapers and mailed to the government agencies in January 2008, Public Information Centre No. 1 held on April 24, 2008 at the Forrest Dennis Seniors Centre in Campbellford, Public Information Centre No. 2 held on June 26, 2008 at the same location, and this Newsletter.

The recommendations of the study to date are to make improvements to the Bridge Street traffic signals as an interim measure, and in the future, to construct a new high level bridge in the corridor between Alma Street on the west side of the Trent River and Second Street on the east side of the Trent River.

The purpose of this Newsletter is twofold:

1. For the general public and the government agencies that have participated in the process, the Newsletter contains information that responds to the many comments and suggestions that have been received to date.
2. For the general public who have not been involved directly, but who may have been following the progress of the project through various media reports, the Newsletter provides an overview of the study process as well as a summary of the details of the project.

Additional information can be reviewed on the Municipality of Trent Hills web site at <http://www.trenthills.ca/bridgestudy.html>. Further comments on the study may be sent to the consultant Project Manager – contact details are provided on the back page of this Newsletter.

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT PROCESS (THE CLASS EA)

Provincial Requirements

The Class EA process is described in full in the document, ***“Municipal Class Environmental Assessment, Municipal Engineers Association, October 2000, as amended in 2007”***. In brief, the Class EA is a planning and design process for municipal infrastructure projects that meets the requirements of the **Ontario Environmental Assessment Act**. It is used by Ontario municipalities for roads, water, and wastewater projects where similar types of problems or opportunities are addressed and where similar types of environmental impacts are encountered.

Depending on the anticipated environmental impact of a project, there are four project classifications known as “Schedules”. From least to greatest anticipated environmental impacts, these are Schedule A, A+, B, and C projects. Each “Schedule” has different study requirements and different degrees of public consultation. As noted above, the study of an additional crossing of the Trent River is being conducted as a Schedule C project, which requires the highest degree of public consultation.

In a Schedule C project, there are five phases:

- Phase 1: Defining the problem and/or opportunity
- Phase 2: Reviewing and assessing alternative solutions (i.e., different ways to solve the problem/opportunity), and identifying a preferred alternative
- Phase 3: Reviewing and assessing alternative designs (i.e., different ways to implement the preferred solution to the problem/opportunity), and identifying a preferred design
- Phase 4: Preparing an Environmental Study Report (ESR) to document the study, and to allow for public and government agency review of the decision-making process
- Phase 5: Implementing the project – includes preparation of detailed contract drawings and tender documents, proceeding to construction and operation of the project, and monitoring for environmental provisions and commitments (i.e., ensuring that the provisions for environmental protection measures identified in the ESR are fulfilled)

The current study of the additional crossing of the Trent River is currently in Phase 3 of the Class EA process, and will end after the completion of Phase 4. ***The timing for the implementation of the recommendations of the ESR, i.e., Phase 5, is unknown at this time as it is dependent on the approval of the Class EA, Municipal and County Council approvals to implement the project, and funding.***

In the spirit of the Class EA process, the Municipality and County, public, and government review agencies have been working together to determine the preferred means of addressing the identified problems and opportunities. In the event that there are major issues that can not be resolved, any person or party may request the Minister of the Environment to require the Municipality and County to comply with Part II of the EA Act before proceeding with the project. This is called a Part II Order, and the Minister will make one of the following decisions:

1. Deny the request.
2. Refer the matter to mediation.
3. Require the Municipality and County to comply with Part II of the EA act by one of the following:
 - submitting the ESR for government review and approval, or
 - completing an individual EA for government review and approval, or
 - preparing a Terms of Reference governing the preparation of an Individual EA.

Federal Requirements

In addition to the provincial Class EA requirements, the provisions of the ***Canadian Environmental Assessment Agency (CEAA)*** will be triggered by a proposed new bridge since the construction activity and placement of bridge piers in the water could have an impact on fish habitat and the navigability of the Trent-Severn Waterway. The CEAA requirements focus on the identification and mitigation of environmental impacts of the preferred design alternative as identified in Phase 3 of the Class EA, and on the issuance of permits by the responsible federal authorities after the detail design in Phase 5 of the Class EA.

Study Notification

Notification of the Study Commencement and the two Public Information Centres to the general public and agencies have met or exceeded the requirements outlined in the Class EA document. This has involved publishing notices in the local newspapers, mail outs to the majority of affected property owners, email circulation of study information to local business groups and interests, and posting background information and public information centre information on the Municipal and County web sites. This Newsletter forms another official point of contact with the public and agencies, and an extensive mail out has been made to all addresses within the Municipality of Trent Hills. In addition to the above, the information regarding the study has been disseminated within the community by representatives of local interest groups who attended the Public Information Centres, and through local news media coverage.

PROBLEMS/OPPORTUNITIES

The Bridge Street bridge over the Trent River provides a vital east-west transportation link, but is the only high level, public road crossing of the Trent River within Campbellford. An alternative crossing of the Trent River is provided by Trent Drive and includes the following bridges (from west to east):

- A one lane swing bridge owned and operated by the Trent-Severn Waterway;
- A single lane concrete bridge for vehicles with a 4.5 ton load limit (not capable of accommodating large fire trucks), which is located in the vicinity of the Ontario Power Generation facility, and is owned and maintained by the Trent-Severn Waterway; and
- A two lane bridge under the jurisdiction of the Municipality of Trent Hills with a Trent-Severn Waterway control structure below.

The problems with this situation are that traffic congestion occurs along Bridge Street on a daily basis, emergency access for large fire trucks is dependent on one bridge, and the high level bridge will eventually require complete replacement in approximately 35 years.

The opportunities presented with this study are to:

- Improve existing traffic conditions and emergency access;
- Minimize net impacts on the natural and social environment, including culture and heritage;
- Facilitate the future population and employment growth aspirations of the Municipality;
- Maximize the return on the investment in road/bridge infrastructure; and
- Develop a sustainable solution to the current mobility issues, concerns, and problems.

NEED AND JUSTIFICATION

The need and justification for an additional crossing of the Trent River has been under discussion for over 20 years. In the **1988-89 Town of Campbellford Traffic Operations Study**, various measures were recommended to address existing traffic congestion, but it also was concluded that an additional crossing of the Trent River would be required to provide capacity for future traffic growth.

The **1995-96 Additional Bridge Crossing Need and Justification Study** recommended traffic operational improvements along Bridge Street in the short term and the completion of a Class EA study for a new bridge. Some operational improvements have been made since 1996 (e.g., new signal controllers and fire truck signal pre-emption devices), and it is the County's intention to do a comprehensive review of all their signalized intersections in 2009. The stated benefits of a new bridge included increasing the capacity for traffic crossing the river, thus reducing congestion on

Bridge Street, and providing two crossings for emergency vehicle use. By completing the Class EA study, the Municipality would be able to establish and protect a future alignment for a new crossing of the Trent River, seek infrastructure funding from higher levels of government, and acquire property.

In the current study, ***Additional Trent River Crossing Class Environmental Assessment***, the need and justification for the project is threefold – Transportation Service, Emergency Access, and Planning for Replacement of the Existing Bridge. The key points in each of these areas are summarized below.

Transportation Service Issues

- The analysis of the existing arterial level of service along Bridge Street for the weekday peak hour traffic periods indicates near to over-capacity conditions, and is supported by observations;
- Existing traffic congestion along Bridge Street results in delay, longer travel times, higher fuel consumption, and the related higher emissions;
- With new development planned within Campbellford and in neighbouring communities, additional traffic capacity for river crossings will be required;
- The traffic congestion negatively affects the efficiency and economy of goods movement within and through the community;
- To date, the collision experience at the Bridge Street intersections on each side of the bridge has been low with 18 collisions recorded from 2002 to 2006 inclusive. With increased traffic in the future, higher levels of congestion and delay will add to road user frustration and potential safety problems could emerge (e.g., red light running, turns without sufficient gaps, tailgating, failure to yield to pedestrians, etc.); and
- The existing bridge is the only crossing of the Trent River in Campbellford that accommodates pedestrians – there are no pedestrian facilities, i.e., sidewalks at the Trent Canal single lane swing bridge (Parks Canada proposed adding a sidewalk during a recent rehabilitation, but were denied approvals by Heritage Canada). Similarly, cyclists using Bridge Street or the swing bridge must share a narrow corridor with vehicular traffic.

Emergency Access Issues

- Each of the emergency service providers – fire, ambulance, and police – have major concerns with the existing bridge situation and support an additional crossing;
- Fire protection appears to be the most significant concern as the large fire trucks are too heavy for the weight restriction of the Trent-Severn Waterway's single lane bridge on Trent Drive near the Ontario Power Generation facility;
- The fire service is affected in two ways by the congestion on the bridge – fire trucks are delayed in crossing the river (even though they are equipped with devices that change the traffic signals to green) and volunteers are delayed in getting to the fire station or the location of a fire; and
- In the August 2008 Campbellford/Seymour Fire Station Monthly Report, Fire Chief Tim Blake comments on the current study, ***“The traffic congestion seen in the downtown core on a daily basis is causing delays for fire apparatus responding to incidents and for firefighters responding to the hall.”***, and ***“With the growing population and influx of tourists throughout the area the need for a second bridge has not only become a requirement but a safety concern for all emergency services.”***

Planning for the Replacement of the Existing Bridge Issues

- With regular maintenance (e.g., a deck rehabilitation has been completed recently), the design life of the existing Bridge Street bridge would be approximately 75 years, at which time a complete replacement would be required – approximately 35 years from now, or some time in the 2040's;
- The bridge replacement would take approximately 18 to 24 months during which time the crossing would be closed and/or be limited to one lane alternating one-way access at other times;
- During the construction period, an additional high level bridge as recommended in this study would provide the necessary alternative for travel across the Trent River to minimize vehicular delay, maintain emergency access, and minimize potential impacts on the local economy; and
- A relatively long lead time is required to complete all the steps necessary prior to the construction and opening of an additional high level bridge, including the completion and approval of an environmental assessment (this study), allocating funds within the Municipal and County budgets, obtaining infrastructure funding from higher levels of government, preparing the detail design and construction drawings, and constructing the bridge and related road and utility works. ***An estimate of the time required for this entire process – approvals to construction – is approximately ten years.***

ALTERNATIVES

Many alternatives to a new bridge in the Alma Street to Second Street corridor have been considered in this and previous studies. As well, many ideas have been forwarded by the public for consideration. A summary of these alternatives and the key issues related to each of them is provided below. Where necessary, additional detail will be provided within the Environmental Study Report that will be produced at the conclusion of this study.

Traffic Operations Improvements Along Bridge Street

As part of this study, optimizing traffic signal timing and coordination is recommended as a first step in reducing traffic congestion. This would involve using several different signal timing plans that reflect the typical traffic demands that occur during different times of the day and for weekends. While this is within the capability of the existing traffic signal controllers (essentially mini-computers) located at each intersection, additional traffic data collection will be required to fine-tune the signal timing plans and field testing will be required to ensure that the desired results are achieved. It is anticipated that some additional equipment will be required in the field such as detector loops in dedicated left turn lanes, which would be used to determine when a separate phase is needed (advanced left turn arrows), and countdown pedestrian signal heads that inform pedestrians of the amount of time that is available for crossing an intersection. A more sophisticated and expensive system with advanced detectors to record the volume of traffic entering the control area, dynamic changing of signal plans in response to the entering volumes, and a centralized computer (located off site) to monitor operations could be considered for the future, but the net benefits of this type of system over a simpler system may not be justified.

With signal timing improvements, it should be possible to make a moderate increase in the capacity provided for the key movements at the intersections at either end of the bridge. Assuming that the traffic volumes do not change significantly after the signal timing improvements are implemented, the **average** vehicle delay experienced by all traffic crossing the bridge could be reduced. Although the immediate benefits of this improvement are obvious, there are some potential problem areas to consider:

- The options for changes to the signal timing would be to eliminate or shorten the advanced green phases for traffic exiting from either end of the bridge, and to reduce the frequency and length of advanced left turn phases on the north-south approaches to Bridge Street (i.e., Queen Street southbound and Front Street northbound). This may result in more delay for some minor traffic movements in order to accommodate the major traffic movements. There also could be an increase in collision experience with the modification of the advanced green phases until drivers adjust to the new conditions;
- The amount of time given for pedestrians to cross the intersections would be sufficient in length, but for some crosswalks, would be shorter than under existing conditions. The addition of countdown pedestrian signal indications would assist in the understanding of and adjustment to the new conditions; and
- In the public responses to this project, and from anecdotal evidence provided by the study's Steering Committee, it is apparent that some people avoid using Bridge Street and the bridge during the busy time periods and/or avoid visiting or shopping in Campbellford in general due to traffic conditions. With improvements to traffic operations, some of this traffic may return to Bridge Street, utilizing the increased capacity and reducing the benefits of the changes to the signal timing. Similarly, with new developments and traffic growth generated within Campbellford and the surrounding area, there would be higher demands on the available capacity.

Therefore, while this alternative appears to be a good solution in terms of relatively minor costs, ease of implementation, and with no impacts on property, it only can be considered as an ***interim or temporary solution*** for the following reasons:

- Without adding traffic lanes, there is only a fixed amount of capacity available at the Bridge Street intersections to be allocated to the traffic demand by adjusting signal timings (as has been done in the past), and eventually this capacity will be used in part by attracting some of the latent traffic demand that avoids this area today and in part by new traffic generated through growth and development;
- It would not improve conditions for pedestrian or bicycle traffic crossing the river;
- It would not address the emergency access issue since the community would remain reliant on one high level bridge crossing; and
- It would not address the issue of planning for the replacement of the Bridge Street bridge.

Turn restrictions at the intersections at either end of the Bridge Street bridge also have been suggested as a way to manage or eliminate problem traffic movements. While these types of measures may provide some benefits immediately at an intersection, they tend to transfer the "problem" to other streets as traffic finds alternative routes. Also, turn restrictions may be ignored and become ineffective unless they are regularly enforced, and typically there are insufficient police resources available for frequent monitoring of these types of controls.

Improve The Existing Bridge on Bridge Street

The existing bridge was constructed in 1968 and replaced a bascule bridge (lift bridge). The need to replace the old bridge was due to the deterioration of its superstructure, a substandard narrow roadway in the bascule section, and insufficient capacity for the weight of "modern" trucks. In the 1966 pre-engineering study for the bridge replacement, several alternative bridge types and designs were reviewed. It was determined that the selected bridge design would provide the maximum benefit relative to cost as it would have minimal property impact and disruption to local businesses. This was qualified by acknowledging that the resultant road grades at 6.5 per cent are steeper than optimum, which could be hazardous in slippery conditions and limit the sight distance over the crest of the bridge, and that consideration should be given to rerouting Highway 30 (now County Road 30

or Grand Road) to provide greater distance between the intersection with Bridge Street and the bridge landing.

Due to the constraints of maintaining the required clearance of approximately seven meters (22 feet) over the Trent-Severn Waterway, and the resultant steep road grades on the bridge due to the close proximity of the County roads at each end of the bridge, the existing bridge has a shallow deck profile (post tensioned concrete deck slab). This design allowed for a very slender bridge deck, which was necessary to minimize the difference between the required road grade (6.5 per cent) to meet the approach roads on either side and optimum engineering standards (5.0 per cent as noted in the 1966 pre-engineering study). The width of the bridge was limited to two lanes to minimize property impacts.

As seen in operation today, the lack of exclusive left turn lanes for traffic exiting from each end of the bridge is the key factor in the resultant congestion. To add exclusive left turn lanes on the bridge and increase the intersection capacities at each end, the following suggestions have been made:

- Use pavement markings to divide the available width of the roadway on the bridge into three lanes;
- Remove the sidewalks to widen the roadway, and replace the sidewalks by providing a new pedestrian only structure; or
- Widen the bridge structure by cantilevering (essentially adding superstructure and deck along both the north and south sides of the bridge).

Each of these suggestions has been reviewed with the structural engineers on the project team, and it was concluded that none are feasible. In brief, the bridge does not have adequate width within the existing two lanes to safely provide a third lane for left turning traffic at each end of the bridge, does not have the weight bearing capacity to accommodate three lanes of traffic if the sidewalks were removed, and does not have the structural capability to allow for widening of the cantilever sections.

Twinning the existing bridge also has been suggested to increase the capacity of the bridge and the intersections at each end. Assuming that a twin bridge (another two lane bridge adjacent to the existing bridge) could be constructed, and whether it is located north or south of the existing bridge, there would be major property and commercial building impacts. These property impacts and demolition of buildings would not be limited to the bridge landings on either side of the Trent River, but would extend easterly and westerly on Bridge Street due to the need to provide proper lane alignment for traffic entering and exiting the bridge. There also would be significant costs incurred for utility relocations, and partial loss of on-street parking along Bridge Street.

Another key issue related to twinning the existing bridge is the type of bridge that could be constructed and the design geometry of that bridge. Due to current day restrictions on in-water construction, twinning the existing structure with a similar bridge would be prohibitively costly, and disruptive to the environment and navigation of the Trent-Sever Waterway. The structural engineers on the project team have advised that a suspension type bridge, or long span structure, could be constructed to achieve the slender bridge deck required to maintain the required clearance over the Trent River while matching the less than optimum steep road grades. These types of bridges are much more costly to construct than standard girder bridges (estimated at a factor of three to four times the cost), require major excavation at each end of the bridge for support towers, and would likely involve the expertise of a specialized construction company for the design and construction work that would be required.

Consider Alternative Types and Locations for a New Bridge

Many alternative bridge types and locations were examined in the **1995-96 Additional Bridge Crossing Need and Justification Study**, and have been suggested by the public during this current study. The key aspects of the various alternatives are discussed in the following sections.

Swing or Lift Bridges (Various Locations Suggested)

The advantage of a swing or lift bridge is that high level clearance under the bridge is not required, and therefore, the bridge approaches could meet the adjacent roads at or near to the existing road grade and minimize adjacent property impacts. The disadvantages are many, including:

- Relatively high cost of construction considering the interrupted traffic service and related traffic delay, increased fuel consumption, and higher emissions with this type of bridge;
- Ongoing operational and maintenance costs associated with staff to operate the bridge and maintenance of mechanical components. Over the design life of this type of bridge, these costs would be in the millions of dollars;
- Safety concerns for boating traffic when the bridge is in the lowered position, and for vehicular traffic when the bridge is in the raised position; and
- Potential for failure of mechanical components resulting in increased and unexpected delays to boat and/or vehicular traffic.

The senior structural engineers on the project team for this study have noted that they are not aware of any new bridges of this type being constructed in Ontario in the past 20 years. This was confirmed through contacts with an official of Public Works and Government Services Canada, who was not aware of any bridges of this type being constructed in Canada in recent history, and with an official of the Ministry of Transportation of Ontario. The Ministry staff added that they would not support the construction of this type of bridge on their highways due to concerns with their operational requirements and life cycle costs (i.e., poor benefit to cost ratio).

Construct a New Bridge South of Campbellford

From a transportation planning perspective, a new bridge located to the south of Campbellford does not address the key objectives related to transportation service and emergency access due to the following:

- A bridge to the south of Campbellford would only carry up to 15% of the river crossing traffic (diverted from both the Bridge Street bridge as well as from the Trent Drive series of bridges);
- It would not provide significant relief to existing and future traffic congestion;
- It would result in a less desirable alternative emergency route compared to a bridge within the community; and
- It would not justify the expense and impact of the road and bridge construction required to connect County Roads 30 and 8 to the south of Campbellford.

Notwithstanding the rationale above, suggestions have been made by the public for bridge locations and connecting roads at many locations between the Campbellford Business Park and Meyer's Island. As shown on an aerial photograph provided at the second Public Information Centre (and available on the Municipal web site), there are considerable feasibility challenges for these proposals, including:

- The very high cost of construction of a two lane road through mostly undeveloped, forested, and hilly terrain;

- Depending on the alignment, new or reconstructed road lengths ranging from approximately two to three kilometres, and bridge spans ranging from approximately 100 to 300 meters with some requiring multiple bridges; and
- Some road alignments, the shorter ones located closer to Campbellford, would run through Ferris Provincial Park.

Ontario Parks is a branch of the **Natural Resources Management Division** in the Ontario **Ministry of Natural Resources (MNR)** and is responsible for delivering the Parks and Protected Areas Program in Ontario. The MNR and Ontario Parks were contacted to inquire about the possibility of obtaining a public road allowance through Ferris Provincial Park, and their response was that they would not support this proposal as it is contrary to several of their policies and objectives, including:

- The Provincial Parks and Conservation Reserves Act states that “maintenance of ecological integrity is the first priority for planning and management of provincial parks”. The alignments through the park would negatively affect the park’s ecological integrity, which is against the principles of the act;
- The Ontario Provincial Parks: Planning and Management Policies, 1992 update, states that "In instances where public utilities are developed after a park is created, they should avoid park lands wherever possible."; and
- The park goal is "to provide opportunities for Ontario residents and visitors to discover and enjoy the natural features and recreational opportunities of the Peterborough drumlin field and the Trent River and Canal." The alignments through the park would impact the park's setting, which would seriously compromise the park's recreation objective, which is "to provide provincial park day use and facility-based camping opportunities in an attractive setting."

Construct a High Level Bridge at Another Location Within Campbellford

Over the Trent Canal Connecting Grand Road and Trent Drive

- Due to the narrow width of the canal and the need to provide clearance according to Trent-Severn Waterway requirements (+/- 7 m, 22 ft.), it is not possible to provide a high level bridge at this location that provides for reasonable connections to Grand Road and Trent Drive; and
- This was demonstrated in the display panels at Public Information Centre No. 1, which are provided on the Municipality’s web site.

Alma Street (at Grand Road) to Saskatoon Avenue (at Kennedy Park entrance)

- This is similar to the preferred alternative of Alma Street to Second Street, except the bridge would angle or curve to the south to either terminate at Saskatoon Avenue, or extend through Kennedy Park and loop back to Second Street opposite Front Street;
- If the bridge terminated at Saskatoon Avenue, circuitous travel would be required via Saskatoon Avenue to provide the link between Grand Road and Second Street, which is inefficient for vehicle travel and creates intersection design issues for the accommodation of truck turning movements;
- If the bridge/road continued through Kennedy Park, the existing (soccer) and planned (skateboarding) recreational uses for the park would be negatively impacted, traffic and noise impacts would be experienced at the seniors apartment developments along the extension of Front Street, a major intersection re-design would be required at Second Street/Front Street to accommodate truck turning movements, and Saskatoon Avenue would have to be terminated at the bridge alignment (i.e., no road connection between Saskatoon Avenue and Trent Drive);

- Public comments have been received *in favour* of these alignments to minimize the property and traffic impact on Second Street properties just east of Saskatoon Avenue;
- Public comments also have been received *in opposition* to these alignments due to the impacts on the existing and future recreational aspects of the park, as well as concerns about higher traffic volumes in close proximity to children's activities at the park and the potential impact on parking; and
- The additional traffic impacts on Second Street would be virtually the same with either of these alternative alignments or with the preferred Alma Street to Second Street alternative.

Former Railway Bridge Corridor, Grand Road to Kennedy Park

- This alignment was recommended as the preferred alternative in the **1995-96 Additional Bridge Crossing Need and Justification Study**, and has been suggested again by members of the public;
- On the east side of the Trent River, the same transportation and recreational issues outlined above would apply to this alternative except that traffic would be at the rear instead of front of some Second Street residences. Also, in 1995, the Kennedy Park plans were not a factor as they had not advanced to the stage that they are at today, and further to this, all the previous CN Rail owned property in the corridor east of Kennedy Park has been sold off; and
- On the west side of the Trent River, the planning and development of Tim Horton's and Canadian Tire from the mid to late 1990's was approved by the Council of the time. As such, a significant commercial and employment node has been developed, which effectively eliminated a location for a bridge terminal at this location.

Canrobert Street (at Grand Road) to River Street

- This alignment was suggested by a member of the public noting that the Trent River is narrower at this point than where the existing bridge crosses;
- As noted previously in the discussion of the existing bridge, the narrower width of the river is not an advantage given the vertical clearance requirement over the Trent River and the design challenges with respect to meeting desirable standards for the road grades on the bridge and the intersection approaches on each side of the bridge. Due to these constraints, as well as the complexity related to the type of bridge that could be constructed at this location, there would be major property impacts on each side of the river to accommodate the bridge and the realignment of the intersecting roads;
- Considering traffic operations, it is assumed that the intersections on either side of a bridge at this location would be signalized. At approximately 150 meters from the existing bridge, the resultant spacing of traffic signals along Grand Road and along Front Street or Saskatoon Avenue is much less than desirable (300 to 400 meters); and
- This alignment would have a direct impact on the fire hall and water plant buildings.

Locations North of the Existing Bridge

Locations north of the existing bridge had been considered previously in the **1995-96 Additional Bridge Crossing Need and Justification Study**, and have been suggested by the public. These include a crossing from Garry Street (at Queen Street) to Market Street (at Front Street) and from Church Street (at Queen Street) to Front Street, presumably north of Market Street. Each of these locations provide major design challenges due to the width of the Trent River (similar to the width for the Alma Street to Second Street corridor), the proximity of the north-south roads to the river's edge,

and the existing development at or immediately adjacent to the area where the bridge would land on either side of the river. A review of these locations indicates that the property impacts (demolition requirements) would be greater than in the Alma Street to Second Street corridor.

From a transportation planning perspective, these locations north of the existing bridge are seen to be less advantageous than the Alma Street to Second Street corridor for the following reasons:

- The municipal roads at each end of the bridge would not provide the same level of connectivity to the County Road arterial system compared to those in the Alma Street to Second Street corridor. Therefore, much of the traffic that would use a bridge in a northerly location would travel through the existing intersections on Bridge Street at each end of the existing bridge;
- The new commercial and residential development areas within Campbellford, existing industries such as Blommer Chocolate and Dart Cup, and Ferris Provincial Park are located south of the existing bridge. A bridge to the north of the existing bridge would do little to serve the new traffic demands;
- Compared to County Roads 50 (Queen Street) and 38 (Front Street), the higher traffic volumes on the County Road system are to the south of Campbellford on County Roads 30 (Grand Road) and 8 (Centre Street);
- In the event that either the single lane swing bridge or the stationary single lane bridge on Trent Drive are taken out of service by the Trent-Severn Waterway, a bridge in the Alma Street to Second Street corridor would provide a better alternative route to the Trent Drive area; and
- While it has been suggested, and is true, that a bridge north of the existing bridge would provide good service to the hospital and high school, the same is true of the existing bridge in a scenario where approximately half the traffic that now uses the existing bridge transfers to a new bridge in the Alma Street to Second Street corridor.

ALMA STREET TO SECOND STREET CORRIDOR

A bridge between Alma Street and Second Street remains as the preferred alternative for a new crossing of the Trent River. Some changes have been made to the design of the bridge and roadway portion of the crossing since the June 2008 public information centre. In response to public input, and specifically to minimize property impacts and requirements, the following changes to the intersection of the bridge with Grand Road and Alma Street are recommended:

- A standard four-leg intersection under signalized control would be constructed rather than a roundabout design. This minimizes the realignment of Grand Road, and reduces the residential property and proximity impacts along Grand Road; and
- The intersection would be shifted slightly to the south to further reduce residential property and proximity impacts along Grand Road. This also minimizes the realignment of Alma Street, which reduces proximity impacts on the residence located at the corner of Alma Street and Pellissier Street. A small degree of curvature would be introduced in the bridge design to allow this shift.

A new plan will be prepared to illustrate the recommended changes and will be posted on the Municipal and County web sites, and provided for viewing at any future public meetings.

PROPERTY IMPACTS AND COMPENSATION

The impacts on property as related to a bridge in the Alma Street to Second Street corridor include property requirements where all or part of a property including buildings would be needed, and proximity impacts where a property would be negatively affected by structures such as retaining walls or by an increase in noise from passing traffic. A noise study (draft) has been undertaken

using an accepted methodology to identify noise impacts according to Ontario Provincial Guidelines and Policies.

The property impacts on the west side of the Trent River, for the alternative with a signalized intersection at Grand Road and Alma Street, include:

- One residential building and property (northwest corner of Grand Road/Alma Street);
- Some small sections of two residential properties (no buildings), one on Grand Road and one on Alma Street, which will be determined in more detail with the refined plan; and
- Some commercial property at the eastern edge of the Canadian Tire parking lot. The latter impact may be mitigated by exchanging part of the existing Alma Street road allowance that would be a remnant parcel due to the proposed realignment of Alma Street.

Due to the realignment of Alma Street, there also would be some proximity impacts in terms of increases in noise at the residence located in the northeast corner of Alma Street/Pellissier Street. The latter impact is being reexamined to account for the subsequent shift in the realignment of Alma Street that would be closer to its existing alignment.

The property impacts on the east side of the Trent River include:

- A small part of two residential properties, but no buildings, would be required for the closure of Frank Street and construction of a cul-de-sac just north of Second Street;
- The residential properties on both sides of Second Street between Saskatoon Avenue and Front Street would experience proximity impacts as related to retaining walls and/or increased noise levels. This would affect a total of eight properties (including the two above) – five impacted by retaining walls and increased noise, and three impacted by increased noise; and
- There would be no requirement to demolish any buildings or acquire any part of these eight properties (other than property requirements noted above for the Frank Street closure) since the bridge and related road works would be accommodated within the existing Second Street road allowance.

In a letter submitted to the Municipal and County Councils, the Second Street Residents Association have expressed their concerns regarding the changes this project would bring to their neighbourhood. In this letter, and other correspondence submitted as part of the public consultation, the heritage value of the area has been highlighted. This aspect of the community is acknowledged in a **Built Heritage & Cultural Landscape** report (draft) prepared by the heritage resource management consulting firm on the project team. The key points in that report are as follows:

- One of the affected properties, the Spite House located at No. 17 Second Street, is listed as a heritage property by the Municipality of Trent Hills; and
- Within the affected area, there are no other municipal properties designated under the *Ontario Heritage Act*, or municipal or provincial conservation easement properties, cemeteries, or provincially recognized properties.

The property and proximity impacts outlined above would be subject to compensation since there are no effective means to otherwise mitigate the impacts. The method for compensation would have to be determined by the Municipality and County should the project move forward, and the Mayor of Trent Hills has publicly stated that there should be appropriate, fairly negotiated compensation. As one possible outcome, the Municipality could purchase the affected properties, and since the buildings do not have to be demolished, there would be potential for resale or rental as residential dwellings, or redesignation and rezoning of the properties and buildings for non-residential use. Concerns have been expressed by residents that their property values are now lower due to this

study and the potential for a new bridge. In response, it should be understood that in a scenario where the Municipality offers to purchase a property, the property value would reflect fair market value prior to the commencement of this study and this would provide a basis for negotiations.

TRAFFIC IMPACTS

Several concerns have been expressed regarding the increase in traffic that would be realized on Second Street, Alma Street, and Simpson Street due to a new bridge. These concerns include high traffic volume in residential areas, traffic safety in general and pedestrian safety in particular, speed, truck traffic, pollution, and litter.

For context on traffic volumes, the Transportation Association of Canada (TAC) provides guidelines on the characteristics of urban roads according to their functional classification. For the Campbellford situation, three classifications of roads apply – local, collector, and arterial. The characteristics of these types of roadways as described by TAC, and local examples are provided in the following table:

| Characteristics | Road Classification | | |
|-----------------------------------|--------------------------------|--|--------------------------------------|
| | Local | Collector | Arterial |
| Land Service/Access | land access primary function | traffic movement and land access of equal importance | traffic movement major consideration |
| Traffic Volume (typical veh./day) | < 1,000 | 1,000 to 12,000 | 5,000 to 30,000 |
| Average Running Speeds (km/h) | 20 - 40 | 30 - 70 | 50 - 90 |
| Vehicle Type | passenger and service vehicles | all types | all types up to 20% trucks |
| Local Example | Frank Street | Second Street | Bridge Street (bridge) |
| Daily Volume Today | +/- 200 vehicles | +/- 2,000 vehicles | +/- 12,000 vehicles |

It is evident from the comments received that residents of Second Street perceive their street to be a “residential street”, and would like it to function with the characteristics listed in the table above for a “local road”. Notwithstanding this perception, Second Street has a mix of residential, commercial (e.g., funeral home, outlet chocolate store, beer store), and industrial (chocolate factory) land uses, and performs a “collector road” function. In recent years, additional residential development has been proposed for the lands behind the chocolate factory, and this development would use Second Street and Centre Street for access. Recognizing these land use characteristics, and related traffic movement and access functions, the Municipality designed and rebuilt Second Street at a higher standard (e.g., four lane width between Front Street and Centre Street) than a local residential street. It was viewed as a collector road and a continuation of the County Road arterial system that it connects to.

With a bridge in the Alma Street to Second Street corridor, each of Alma Street, Simpson Street, and Second Street would clearly function as collector roads. In considering the 20 year traffic forecasts prepared as part of this Study, which account for possible increases in traffic due to general County population and employment growth as well as new, specific developments within Campbellford, the future traffic volumes on these streets would be well within the range for typical collector roads.

For example, the Second Street daily traffic volume forecast would be approximately 5,000 vehicles per day if the bridge opened 10 years from now, and with further growth and development, could increase to approximately 7,000 vehicles per day in 20 years. The Alma Street and Simpson Avenue daily traffic volume forecasts would range between 4,500 and 6,000 vehicles per day over

the same period. For comparison with existing roadways, Grand Road in the vicinity of Alma Street carries approximately 7,500 vehicles per day under existing conditions. Also, a typical threshold daily volume for a two lane road exhibiting capacity or near capacity operating conditions during peak periods is approximately 15,000 vehicles per day. Therefore, the typical volumes stated above for collector roads are well within the capacity of a two lane road.

The traffic projections noted above include substantial growth taking place over the 20 year period, including full development of the Campbellford Business Park. This results in an estimate of the growth in peak hour vehicular traffic crossing the river of approximately 2.0 per cent per annum compounded, whereas the actual growth in traffic will be subject to the pace of development and other variables. With less growth, the traffic forecasts would be correspondingly lower, or alternatively, would take a longer time period to achieve. For comparison, population growth for Trent Hills of approximately 0.6 to 0.7 per cent per annum compounded was estimated in the January 2008 *Trent Hills Community Recreation and Wellness Centre Feasibility Study* for the *Multi-Use Recreation Facility Committee*, which would result in the population increasing from 12,247 (2006 census) to 14,046 by 2026. Similarly, the provincial population projections for Northumberland County for the period 2006 to 2031 reflect growth of approximately 0.5 per cent per annum compounded. These growth projections are currently being refined in the County's ongoing Growth Management Planning Study. It should be understood that while changes in population can be used as a general indicator of future traffic growth, other factors in the Campbellford situation would also play a part given its role as a district serving centre for goods and services, health care, education, tourism, and seasonal residents as well as it being situated at the junction of several County roads.

With respect to traffic and pedestrian safety, part of the implementation of this project should include a road safety audit to determine where additional improvements should be made. This could include physical modifications to intersections, signage, or other warning or regulatory traffic controls. Similarly, road upgrades may be required to accommodate higher volumes of truck traffic, and consideration could be given to time of day truck restrictions (i.e., no overnight truck traffic).

The traffic analysis for this study has included a comparison of the delay, travel time, fuel consumption and emissions with one bridge versus two bridges, and it has been found that there would be benefits in terms of reducing each of these factors with two bridges. The reason for this is that with one bridge, and continued development and increasing traffic in the future, the type of congestion (long vehicle queues, idling vehicles, etc.) that is seen today will get worse even with signal timing improvements. With two bridges, the same amount of traffic will move through the system with fewer stops, shorter queues, and less vehicle idling. While this may mean some higher emissions along Second Street and other streets that receive additional traffic, there would be overall community benefits with respect to reduced delay and travel time, fuel consumption, and emissions as well as the related societal costs.

The concerns regarding speeding and littering are primarily matters for enforcement. The appropriate regulatory and warning signs should be posted as part of the implementation of this project, and monitored as necessary by the police.

INFRASTRUCTURE FUNDING

The sources for funding for this project would be the Municipality, the County, and provincial and federal infrastructure programs. ***It is very important to recognize that to be in a position to qualify and apply for provincial and federal infrastructure, typically it is necessary to have the supporting studies completed.*** The Class EA for this project would be used as part of a business case to demonstrate the need and justification for the project, and its feasibility. The types of funding that could be applied for from the higher levels of government include:

- Municipal Infrastructure Investment Initiative from the Province of Ontario;

- Canada Ontario Municipal Rural Infrastructure Funding;
- Eastern Ontario Economic Development Fund;
- Building Canada Program through Infrastructure Canada; and
- Other funding initiatives that are routinely announced.

SUMMARY AND NEXT STEPS

In summary, traffic operational improvements along Bridge Street are recommended as an interim measure, and a new, high level bridge in the Alma Street to Second Street corridor is recommended as the preferred solution to the problems and opportunities that have been identified for the current situation with only one high level bridge in Campbellford. This corridor provides an effective transportation solution that would relieve traffic congestion in proximity to the Bridge Street bridge, lessen the reliance on the Trent-Severn Waterway controlled one-lane bridges, reduce traffic volumes through the Trent Drive area, provide an excellent connection between County Roads 30 (Grand Road) and 8 (Centre Street) as well as a good alternative route to/from the downtown core of Campbellford, and would help serve the traffic demands associated with new residential and business park development in the eastern and southern parts of Campbellford.

The environmental impacts related to a bridge in this corridor are primarily related to the social environment, and specifically residential property impacts. As described within this Newsletter, the property and proximity impacts directly affect 11 residential properties, but only require the demolition of one residential building which is situated at the northwest corner of Grand Road and Alma Street. Historically, the latter building has been occupied as a fraternal meeting hall, and only in the recent past as a residence and commercial business. Part of one commercial property (part of Canadian Tire parking lot) also would be impacted, but it is anticipated that a land exchange may be possible to negate the loss of property. Should the project move forward, the Municipality and County would have to address compensation issues as related to these property impacts.

The next steps in this Class EA are to incorporate further feedback that may be generated by this Newsletter, refine the design plans for the preferred alternative, and prepare the Environmental Study Report (ESR). ***At the direction of Municipal Council, another public information centre has been arranged to discuss and review outstanding concerns that the public and/or agencies may have with this study. This meeting will be held on Wednesday, November 19, 2008 between 6:30 p.m. and 9:30 p.m. at Campbellford District High School (119 Ranney Street N., Campbellford, Ontario).*** Further notification of this meeting will be advertised in the local newspapers, and mailed to all those who have or will be expressing interest in this study. It also is anticipated that the ESR will go to Municipal and County Councils in December 2008 or January 2009, and with their approval will be filed for a minimum 30 day public review period at that time.

CONTACT INFORMATION

If you have any questions or comments regarding the information provided in this Newsletter that you feel should be considered or addressed prior to the completion and filing of the Environmental Study Report, or wish to be added to the contact list for this project, please contact the consultant Project Manager by email, fax, or letter:

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