



## OPERATIONS COMMITTEE

Monday, September 12, 2011

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A meeting of the Operations Committee was held on Monday, September 12, 2011 at 9:30 a.m., at the Township of North Algona Wilberforce Municipal Office, 1091 Shaw Woods Road, Eganville, Ontario.

Present were:                    Bob Sweet, Warden  
   Walter Stack, Chair

Committee Members:        Donald Eady, Norm Lentz, Jennifer Murphy, David Shulist,  
   Harold Weckworth

Staff Present:                    James Kutschke, Treasurer/Deputy Clerk  
   David Darch, Director, Public Works & Engineering  
   Steve Boland, Manager, Operations  
   Randy Thur, Supervisor, Engineering Services  
   Shelley Kalucki, Administrative Assistant

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Vice-Chair Weckworth assumed the role of Chair per Chair Stack's request.

Chair and North Algona Wilberforce Mayor Harold Weckworth welcomed the Operations Committee to the Township and introduced the staff and Council representatives from the Township that were in attendance.

Chair Weckworth called the meeting to order at 9:30 a.m. The roll was called, and no pecuniary interests were disclosed.

### **RESOLUTION NO. OP-C-11-09-79**

Moved by: Reeve Lentz  
Seconded by: Warden Sweet

THAT the minutes of August 8 and August 29, 2011 be adopted as printed and circulated.

CARRIED.

### **DELEGATION**

North Algona Wilberforce Councilor Lorenz Kelo addressed Committee regarding the two County Bridges on Limestone Road. Mr. Kelo advised that the Township is in negotiations to secure property on Limestone Road to realign the road, eliminating both structures. He noted that there are five property owners (100-acre parcels of land each) who are unable to develop their land because of the load restrictions on the two bridges. The Township is hopeful that the County can contribute its \$50,000 apportionment for each bridge (\$100,000) towards the Township's costs to purchase the property and/or fence and construct the new road.

Mayor Weckworth concurred that he would like to see the \$100,000 contribution from the County for this purpose.

Mayor Weckworth also commented that in his view, the County assumed too many structures when the rationalization of the County Road System took place in 1998. He suggested that the smaller culverts should be transferred back to the local municipalities so that the municipalities could manage them more effectively. Mr. Darch acknowledged Mayor Weckworth's comments, adding that the County has jurisdiction for approximately 260 structures, some with significant traffic volumes that have maintenance requirements. He stated that, unfortunately County structures, such as the two bridges on Limestone Road would not be rated as a high priority and any rehabilitation/replacement works would be deferred for a considerable length of time unless the structure fails. He questioned the logic of County structures being located on one-lane roads.

Reeve Lentz advised that the Township of Brudenell, Lyndoch & Raglan partnered with the County on the replacement of a 2-tonne load restricted bridge in the Township and the arrangement worked out very well.

Mayor Murphy commented that residents should not be denied emergency services because the service vehicles are too heavy to cross some of the load restricted bridges. Mr. Darch responded that municipalities are expected to develop "work-around" solutions to accommodate such scenarios.

Mr. Boland suggested that the Department could prepare a report which would categorize all County structures, their type, size, location and needs. The report could also indicate the condition of the structure and any anticipated work scheduled. Reeve Stack suggested that this report be included as part of the review of the 10-year capital works plan. He added that the report should indicate the type of road on which the structure is located (e.g. a through road or dead-end road, etc.).

### **Public Works & Engineering**

Mr. Darch presented the Public Works & Engineering Department Report, which is attached as Appendix A.

#### **10-Year Capital Works Program Review**

Staff overviewed the 10-Year Capital Works Program that was approved in January 2008 and presented comparison tables of the approved program with the work that has been completed to date. The tables identified the timing of projects as per the originally approved 10-year program and compared those timelines to works either completed to date or as currently scheduled.

On review of the comparison tables, the following issues were noted:

- Some projects had been advanced in the schedule to enable the County to take advantage of the conditions of some of the recent infrastructure programs. Two particular projects that fall into this category are County Road 58 (Round Lake Road) between Round Lake Center and Tramore as well as part of County Road 515 (Palmer Road).
- Some culvert and bridge projects had been advanced to address more rapidly occurring deterioration or structural failures than was originally anticipated.

- Some projects, such as County Road 16 (Victoria Street), had been advanced to enable a coordinated project approach with the local municipalities, although this project may be debt financed outside of the 10-year plan.
- Several projects were delayed as a result of changes to the scope of work required, increases in the cost of construction, and the need to balance the program with the available funding. The original 10-Year Plan was developed on the basis of average benchmark costs. As each project develops, the detailed evaluation and design process may result in a change in the scope of the project which in turn reflects a change in the costs.

Mr. Boland commented that he has been unofficially notified by the Ministry of Transportation that the Ministry has taken back jurisdiction of the interprovincial bridge at Chenaux. All were pleased to hear the news.

Reeve Stack again inquired if the 'blind corner' issue on Flat Rapids Road could be addressed. Staff agreed to report back to Committee on this issue.

Mr. Boland responded to Mayor Murphy's inquiry into the Department's traffic count program and advised that counts are done in the spring and fall of each year. He also stated that traffic counts may be performed at other times when conditions warrant, such as in cottage areas.

Mr. Darch expressed his concern in not being able to sustain the roads system with the Department's current funding allocation, adding that the funding gap is increasing. He stressed the need for a sustainable funding plan and will continue to solicit opportunities to achieve this from the federal and provincial governments.

Frustration was expressed by Mayor Eady who spoke of the Township of Horton's loss of funding; preventing them from addressing their roads needs in a timely manner.

Warden Sweet suggested that as the provincial election draws near, there is an opportunity for municipalities to question the local candidates running as to what they intend to do to assist municipalities in addressing their infrastructure needs.

Committee recessed at 10:41 a.m. Committee reconvened at 11:00 a.m. with the same persons present.

#### 10-Year Capital Works Program Update

As directed by the Committee, staff will be updating the 10-Year Capital Works Program with a view to presenting an updated plan at the October 14, 2011 meeting. Mr. Darch advised that in the development of an update to the Capital Works Forecast, the following factors will be considered:

- (a) The plan must consider the level of funding that is determined to be sustainable and predictable. The updated plan will incorporate an annual increase in the tax levy of 2% over the life of the 10-year planning horizon.

- (b) The needs of the roads and bridges under the jurisdiction of the County far outweigh the available funding allocation. Current funding of the system from predictable sources (ie. property tax levy and gas tax) is approximately \$8.0 million.
- (c) A priority should be given to funding those projects that can be identified as “just-in-time” works. This strategy minimizes the need to implement more costly rehabilitation strategies. The update should also require a review of what is the “tolerable level of service” that can be provided as compared to the level of service that is “desirable” on a project specific basis. This will necessitate consideration of alternative strategies to the full reconstruction option.
- (d) In an effort to match anticipated funding levels, innovative and alternative strategies may need to be implemented. These alternatives may also result in reduced life expectancies for the system. Such a change in strategy will require careful consideration and discussion by Committee and County Council.
- (e) The long range plan will not likely consider new projects or projects that are in large part driven by development pressures within the County. A separate funding strategy is required for growth generated project works.
- (f) If there is a need or desire to advance a project to accommodate other activities or to address more rapid deterioration, it will be necessary to delay a corresponding value of work in order to respect the sustainable funding levels incorporated in the plan.
- (g) While benchmark costing is proposed to develop the 10-year forecast, the unit costs for the various rehabilitation treatments need to be adjusted to reflect the past increases in the costs of the various construction components. It will be necessary to incorporate a reasonable contingency amount in the benchmark costs to provide an allowance for unknown factors. Even with a contingency provision, it is important to understand that some project costs will increase during the detailed evaluation and design phases of the project due to changes in the scope of the work required.
- (h) The timing of works-in-progress projects and projects “in line” for implementation will not be impacted by the update review.
- (i) The current plan was developed on the basis of a number of criteria that were presented to and approved by the Operations Committee and County Council in October 2007. The road evaluation criteria to be used in the Capital Works update will include the following components:
- Pavement Condition Index (PCI)
  - Riding Comfort
  - Traffic Volume & Composition
  - Geometrics/Safety
  - Roadway Design Class

County Assumption of Baskin Drive, Town of Arnprior

Committee considered two separate resolutions (May 25, 2010 and August 3, 2011) from the Town of Arnprior requesting that:

- (a) the County assume Baskin Drive (Daniel Street-Division Street) and,
- (b) Baskin Drive (Daniel Street-Division Street) and Division Street (Elgin Street-Baskin Drive) be upgraded as part of the Department's 2012 Capital Works program.

Using the OGRA Road Rationalization criteria, staff advised that Baskin Drive received a total weighted rating of five points. This total rating is below the recommended threshold "cutoff" level of six points. Notwithstanding the evaluation score, alterations to the area road network as a result of the construction of Highway 417 support the position that Baskin Drive (Division Street-Daniel Street) should be incorporated into the County's road network at this time.

Since Division Street (Highway 417-Baskin Drive) will become a "flyover" at the newly constructed Highway 417 - it will no longer intersect directly with the highway and as such, the Division Street-Baskin Drive-Daniel Street road network will become the most direct connecting roadway link to Highway 417.

Future development on both sides of Highway 417 may dictate new roadway links (e.g. an extension of Vanjumar Drive to Division Street). This could result in a future reassessment of the County Road network in this area.

Division Street (Highway 417-Baskin Drive) will no longer qualify as a County Road due to the loss of its direct access to Highway 417. Accordingly, the section of roadway will be transferred back to the Township of McNab/Braeside.

Based on previous jurisdictional road transfers, when there is a download of a road facility, the transferring road authority has approved funding to cover the cost of "reasonable" capital improvements and in some cases monies to offset one or two years operating costs. It is noted, however, that uploads of local roadways to the County have not required the local municipality to provide any form of financial compensation to bring the roadways to a "tolerable" County standard.

Mr. Darch commented that there is a need to revisit past practices and policies. He feels that bringing a road up to a tolerable standard should apply regardless of whether or not a roadway is being uploaded or downloaded.

With respect to Division Street (Highway 417-Baskin Drive), the cost to bring the roadway to a "tolerable" local standard is approximately \$40,000. Negotiations will be initiated with McNab/Braeside staff in September 2011 to determine the amount of compensation for the transfer of jurisdictional control. These negotiations will also address maintenance requirements as well, particularly for winter control.

**RESOLUTION NO. OP-C-11-09-80**

Moved by: Mayor Murphy

Seconded by: Mayor Eady

THAT the transfer of Baskin Drive (Division Street - Daniel Street) to a County Road be approved in principle at this time; AND THAT the transfer of Division Street (Highway 417 - Baskin Drive) to the Township of McNab/Braeside be approved in principle at this time; AND THAT negotiations take place in September 2011 with Township staff to agree upon the amount of monies to be provided to the Township in order to bring the roadway up to a "tolerable" local municipal standard; AND FURTHER THAT upon completion of the negotiations referenced above, a staff report be considered by Operations Committee, Finance & Administration Committee and County Council at their October meetings with regard to the jurisdictional transfer of Baskin Drive (Division Street - Daniel Street) and Division Street (Highway 417 - Baskin Drive).

CARRIED.

**Capital Works Division**

Mr. Darch introduced Mr. Randy Thur, Supervisor, Engineering Services. Mr. Thur overviewed the Capital Works Division Report, which is attached to the Public Works & Engineering Department Report.

**Operations Division**

Mr. Boland overviewed the Operations Division Report, which is attached to the Public Works & Engineering Department Report.

Mr. Boland advised Committee that the Renfrew County Road Supervisors Association recently held their annual Truck Roadeo at the County of Renfrew Pembroke Patrol Yard. The test of drivers' skills was well attended by 33 municipal operators. Mr. Keith McMillan from the Township of McNab/Braeside won the competition, making him eligible to attend and compete at the provincial truck roadeo taking place at Durham Region in Oshawa on September 14, 2011.

**Petawawa Transportation Study - Environmental Assessment**

As directed during the special meeting of the Operations Committee on August 29, 2011, staff contacted the study consultant to obtain an updated schedule to complete the environmental assessment work. It is anticipated that the Phase 3 & 4 Environmental Assessment work will be completed and the final reports filed for public review by late November 2012. Mr. Boland advised that the consultant has prepared an update to the budget to take the project to its completion. The projected cost to complete the project is \$125,000.

Warden Sweet inquired how the estimated contract amount of \$125,000 would be funded. Mr. Darch responded that the Department will attempt to secure "external" funding for this undertaking. He also indicated that the project is at a stage where it has to proceed in order to be in a position to respond to future capacity problems on Petawawa Boulevard. The contract will proceed as a project extension to the existing consultant contract.

### Sand Point Traffic Calming

Committee was advised that a letter dated July 12, 2011 was received from the Township of McNab/Braeside, regarding possible additional measures to be taken to help reduce speeding in the Sand Point area.

The current speed limit through the Hamlet is 50km/h. The County of Renfrew has introduced several measures to help reduce speeding over the past three years including reducing the speed limit from 60km/h to 50km/h and installing additional signage to warn motorists of pedestrians in the area. Unfortunately most motorists continue to exceed the posted speed limit in this area. Speed studies indicate that approximately 75% of motorists are travelling more than 20 km/h over the posted speed limits.

Committee considered the following recommendations by staff:

1. That a white paint edge line be placed along both sides of the roadway within the 50 km/h section of the Hamlet. It is noted, in several traffic manuals, that a painted edge line can make a roadway seem narrower, causing motorists to reduce their speed.
2. That a “50 km/h Ahead” symbol be painted on the roadway prior to entering the reduced speed zone. This would be the first time that the County of Renfrew has painted text on a roadway and staff believes that this would be a good trial location for this type of marking.
3. That a Community Safety Zone (CSZ) be implemented within the 50km/h section of Sand Point. Below is a definition/summary of a Community Safety Zone (CSZ):

Section 214 of the Highway Traffic Act (RSO 1990) contains provisions whereby a municipality may pass a by-law designating a part of a highway as a Community Safety Zone (CSZ) if in the Council’s opinion, public safety is of a special concern on that part of the highway. The effect of the CSZ designation is to increase the penalties imposed for infractions. The usual increase is to double the fines. The area designated must be appropriately signed in accordance with the Ontario Traffic Manual (OTM).

In order to have a CSZ implemented, special signage must be installed and a Municipal By-Law must be passed designating the zone. This would be the first CSZ along a County Road and staff is of the opinion that the CSZ implementation on a pilot project basis at this location would permit an opportunity to assess the effectiveness of CSZ’s.

It is proposed that the changes in the area be monitored for one year with a follow-up report to be presented to Committee in late 2012.

Reeve Stack commented that the installation of caution lights at each end of the zone could be effective. Warden Sweet added that he has observed portable speed bumps, referred to as “sleeping policemen”. The speed bumps are removed prior to the winter operations season.

It was the general consensus that the recommended measures be implemented.

**RESOLUTION NO. OP-C-11-09-81**

Moved by: Reeve Stack  
Seconded by: Mayor Shulist

THAT the three traffic calming measures outlined above be implemented as a pilot project along this section of County Road 1 (River Road) in the Hamlet of Sand Point; AND THAT a by-law be passed to authorize the designation of a community safety zone (CSZ).

CARRIED.

**RESOLUTION NO. OP-C-11-09-82**

Moved by: Reeve Stack  
Seconded by: Reeve Lentz

THAT the Public Works & Engineering Department Report attached as Appendix A be approved.

CARRIED.

**New Business**

Reeve Stack expressed appreciation to Mayor Eady and the Township of Horton for forwarding correspondence relaying that the Township has waived their landfill tipping fees for waste the County of Renfrew picks up along County Roads in Horton Township. He commented that it was a good gesture and hopes other municipalities throughout the County will follow suit.

Chair Weckworth commented that the OPP closed Highway 60 (which detoured traffic onto local roads) to reconstruct the scene of a recent motor vehicle accident. He inquired if it were possible that the police could notify the local municipalities in such instances. Mr. Boland responded that there is an upcoming meeting of the Municipal Public Works Supervisors and this issue is one of the topics on the agenda. Also on the agenda for this meeting are spring load restrictions. It is hoped the managers can implement consistent timing of spring load restrictions throughout the County.

**RESOLUTION NO. OP-C-11-09-83**

Moved by: Reeve Stack  
Seconded by: Warden Sweet

THAT this meeting adjourn and that the next regular meeting be held on Friday, October 14, 2011 at the Town of Renfrew municipal office. Time – 12:45 p.m.

CARRIED.

COUNTY OF RENFREW

PUBLIC WORKS & ENGINEERING DEPARTMENT REPORT

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**TO:** Operations Committee

**FROM:** Dave Darch, P. Eng.,  
Director of Public Works & Engineering

**DATE:** September 12, 2011

**SUBJECT: Departmental Report**

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**INFORMATION**

1. Monthly Treasurer's Report

The July 31, 2011 Treasurer's Report is attached as Appendix I for the information of Committee. Staff has reviewed this report and offer the following comments:

**Maintenance - Roadside Maintenance:** It is noted that the year to date actual appears to be considerably less than the projected year to date budget amount. The curb replacement contract in the amount of \$111,336 will be completed in September and as such is not included in the year to date actual. Further, significant work in roadside brushing and ditching is expected to be completed in September and October.

**Maintenance - Loose Top Maintenance:** The work completed to date is expected to exceed the budgeted amount. This is due to the decision to change a portion of County Road 22 (Grattan Road), scheduled for reconstruction in 2012, to a gravel surface in order to reduce the extent of patching needed on a regular basis.

As of this date, staff is projecting that the Department's overall 2011 Operating Budget will be delivered within the approved allocation.

2. Staffing

(a) Summer Students

Committee is advised that the three Jr. Engineering Technician students as well as the four student labourers working out of the patrols completed their summer employment terms with the Department on or before Friday, September 2nd.

3. 10-Year Capital Works Program Review

As directed by the Operations Committee, staff has reviewed the 10-Year Capital Works Program, as approved in January 2008, and has compared the approved program with the work that has been completed to date. The tables attached as Appendix II identify the timing of projects as per the originally approved 10-year program and compare these timelines to works either completed to date or as currently scheduled. The comparison also includes the revisions incorporated in the update approved by the Committee on February 8, 2010.

In reviewing the comparison tables, the following issues should be noted:

- A number of the projects in the original plan were to be scheduled over multiple years and included adjacent sections of roadway. For the purposes of the comparison, the entire roadway has been indicated as having work done over a number of years rather than identifying individual sections of road in a particular year. As an example, County Road 62 (Combermere Road) indicates work being completed between 2008 and 2013 rather than itemizing each section of County Road 62 and the year that it is scheduled.
- Some projects have been advanced in the schedule to enable the County to take advantage of the conditions of some of the recent infrastructure programs. Two particular projects that fall into this category are County Road 58 (Round Lake Road) between Round Lake Center and Tramore as well as part of County Road 515 (Palmer Road).
- Some culvert and bridge projects have been advanced to address more rapidly occurring deterioration or structural failures than was originally anticipated.
- Some projects, such as County Road 16 (Victoria Street), have been advanced to enable a coordinated project approach with the local municipalities, although this project may be debt financed outside of the 10-year plan.
- Several projects have been delayed as a result of changes to the scope of work required, increases in the cost of construction, and the need to balance the program with the available funding. In terms of the costs, it should be noted that the original 10-Year Plan was developed on the basis of average benchmark costs. As each project develops, the detailed evaluation and design process may result in a change in the scope of the project which in turn reflects a change in the costs.

#### 4. 10-Year Capital Works Program Update

As directed by the Committee, staff is in the process of updating the 10-Year Capital Works Program with a view to presenting an updated plan at the October 14, 2011 meeting. In considering the development of an update to the Capital Works Forecast, the following factors must be considered:

- (a) The plan must consider the level of funding that is determined to be sustainable and predictable. The current plan is based on a formula that includes property tax revenue in the amount of \$5.5 million and Gas Tax revenue of \$2.5 Million annually. The implications of any external funding from the federal and/or provincial levels of government should not be considered as they tend to be unpredictable. In terms of the property tax levy portion, it is also proposed that the updated plan incorporate an annual increase in the tax levy of 2% over the life of the 10-year planning horizon.
- (b) The needs of the roads and bridges under the jurisdiction of the County far outweigh the available funding allocation. The PSAB process has identified that the overall system needs are approximately \$16 million/year just to maintain the system in its present condition. This estimate does not consider the backlog of work that exists. Current funding of the system from predictable sources (ie. property tax levy and gas tax) is approximately \$8.0 million.

- (c) A priority should be given to funding those projects that can be identified as “just-in-time” works. This strategy minimizes the need to implement more costly rehabilitation strategies. The update should also require a review of what is the “tolerable level of service” that can be provided as compared to the level of service that is “desirable” on a project specific basis. This will necessitate consideration of alternative strategies to the full reconstruction option.
- (d) In an effort to match the funding levels in the plan, innovative and alternative strategies may need to be implemented. These alternatives, while providing “smooth roads”, may also result in reduced life expectancies for the system. Such a change in strategy will require careful consideration and discussion by Committee and County Council.
- (e) The long range plan will not likely consider new projects or projects that are in large part driven by development pressures within the County. Typically projects in these categories would be new roads and bridges or facilities with greatly increased capacity to support more traffic. A separate funding strategy is required for growth generated project works.
- (f) If there is a need or desire to advance a project to accommodate other activities or to address more rapid deterioration, it will be necessary to delay a corresponding value of work in order to respect the sustainable funding levels incorporated in the plan.
- (g) While benchmark costing is proposed to develop the 10-year forecast, the unit costs for the various rehabilitation treatments need to be adjusted to reflect the past increases in the costs of the various construction components. It is also necessary to incorporate a reasonable contingency amount in the benchmark costs to provide an allowance for unknown factors. Even with a contingency provision, it is important to understand that some project costs will increase during the detailed evaluation and design phases of the project due to changes in the scope of the work required.
- (h) Projects that are introduced after the development and approval of the 10-Year Plan will require that consideration be given to the funding strategies to implement the project. For those projects that are debt financed, the incremental cost will need to be added to the annual budget allocation if the sustainable funding levels for the balance of the program are to be respected.
- (i) The current plan was developed on the basis of a number of criteria that were presented to and approved by the Operations Committee and County Council in October 2007. A copy of the report dated October 5, 2007 is attached as Appendix III. The road evaluation criteria identified in this report (refer to 1.3, page 5) will form the basis for the development of the update to the 10-Year Capital Works Forecast. The criteria will also be used to determine the relative priorities of the various projects to be added to the forecast.

## **RESOLUTIONS**

### 5. County Assumption of Baskin Drive, Town of Arnprior

The County is in receipt of two separate resolutions (May 25, 2010 and August 3, 2011) from the Town of Arnprior requesting that:

- (a) the County assume Baskin Drive (Daniel Street-Division Street) and,
- (b) Baskin Drive (Daniel Street-Division Street) and Division Street (Elgin Street-Baskin Drive) be upgraded as part of the Department's 2012 Capital Works program.

A map illustrating the roads in the vicinity of Baskin Drive is attached as Appendix IV for Committee's reference. Copies of the two resolutions are included in Appendix V.

This report will address past practices with respect to the road rationalization process, the evaluation of Baskin Drive utilizing the Ontario Good Roads Association (OGRA) evaluation criteria, and recommended conditions of transfer for both of the above roadways.

#### **Road Rationalization Process**

Historically, the following three principals have been employed in road rationalization reviews:

- Upper tier roads, that are primary transportation corridors, should provide continuous roadway services throughout the County
- Upper tier roads should be capable of being upgraded to a reasonable standard consistent with the service provided
- Upper tier roads should be along the shortest practical route along existing roads and streets

For Committee's information, a copy of OGRA's Road Rationalization criteria and weighting system is attached as Appendix VI. This document highlights the 12 criteria and associated weightings to assess whether or not a roadway meets upper tier road standards. It also recommends a "cutoff" point weighting of six for each evaluation.

#### **Baskin Drive Evaluation**

Using the OGRA Road Rationalization method, Baskin Drive received a total weighted rating of five points (refer to Appendix VII for individual criteria scores). This total rating is below the recommended threshold "cutoff" level of six points. Notwithstanding the evaluation score, staff is of the opinion that alterations to the area road network as a result of the construction of Highway 417 make an argument that Baskin Drive (Division Street-Daniel Street) should be incorporated into the County's road network at this time. There are several reasons for this position:

- Division Street (Highway 417-Baskin Drive) will become a "flyover" at the newly constructed Highway 417 - it will no longer intersect directly with the highway.
- In view of the above, the Division Street-Baskin Drive-Daniel Street road network will become the most direct connecting roadway link to Highway 417.

It should be noted, however, that future development on both sides of Highway 417 may dictate new roadway links (e.g. an extension of Vanjumar Drive to Campbell Drive) that could result in a future reassessment of the County Road network in this area. The current assessment of Baskin Drive does not take into account future development scenarios but merely addresses the area road network configuration as of the completion of the current Highway 417 construction works.

Meetings took place with staff from both municipalities (Arnprior and McNab/Braeside) in May 2011 to discuss future development in their respective municipalities.

Should Committee and Council adopt staff's recommendation to assume Baskin Drive (Division Street-Daniel Street) as a County Road, it follows that Division Street (Highway 417-Baskin Drive) would no longer qualify as a County Road due to the loss of its direct access to Highway 417. Accordingly, the section of roadway would be transferred back to the Township of McNab/Braeside.

### **Conditions of Jurisdictional Transfer**

Based on past jurisdictional road transfers, when there is a download of a road facility, the transferring road authority has approved funding to cover the cost of "reasonable" capital improvements and in some cases monies to offset one or two years operating costs. In 1998 the Ministry of Transportation (MTO) downloaded several of its 500 series highways to the County. At that time, the Ministry paid the County approximately 2/3 of the "full cost of treatments that would be expected or a percentage thereof".

Similarly in March 1999, the County transferred approximately 97 km of roadway to the local area municipalities. The County assessed the costs to bring a roadway under consideration up to a "reasonable state of repair". Ultimately, the County paid the local municipality approximately 2/3 of projected improvement costs with the transfer of the roadway. The County of Renfrew transferred the subject section of Baskin Drive to the Town of Arnprior. As a part of the transfer of jurisdiction, the County paid Arnprior approximately \$36,000 to resurface the roadway.

Traditionally, the payment of transfer monies has taken place over two fiscal years.

It should be noted, however, that in the late 1990's uploads of local roadways to the County did not require them to provide any form of financial compensation to bring the roadways to a "tolerable" County standard. In effect there appears to be a double standard with respect to compensation - it is very dependent on whether a roadway is being uploaded or downloaded. Staff recommends that this practice should be reviewed in the near future with a view to developing a formal policy with respect to compensation costs relating to transfer of jurisdictional control of roadways.

Currently, the section of Baskin Drive under consideration is approximately 1.23 km in length with a 7 m paved road surface. It has 2.5 m shoulder widths comprising 1.5 m of pavement and 1 m of gravel. There are several areas requiring sub-grade repairs inclusive of ditch regrading. The estimated cost to bring the subject section of Baskin Drive to a "tolerable" County standard is approximately \$375,000. If there is a need to urbanize Baskin Drive through the provision of curbs, sidewalks, underground servicing in the future, there will be a need to enter into cost negotiations with the Town for these works.

It is noted, that the Town of Arnprior anticipates servicing works for future development on both Division Street and Baskin Drive. Similar to Victoria Street in the Town of Petawawa, cost sharing negotiations will be required between Town and County staff regarding reinstatement costs, etc.

With respect to Division Street (Highway 417-Baskin Drive), utilizing the 2/3 principle, staff estimates the cost to bring the roadway to a “tolerable” local standard is approximately \$40,000. Negotiations would be initiated with McNab/Braeside staff in September 2011 to determine the amount of compensation for the transfer of jurisdictional control. These negotiations would also address maintenance requirements as well, particularly for winter control.

**Recommendations:** THAT the transfer of Baskin Drive (Division Street - Daniel Street) to a County Road be approved in principle at this time; AND THAT the transfer of Division Street (Highway 417 - Baskin Drive) to the Township of McNab/Braeside be approved in principle at this time; AND THAT negotiations take place in September 2011 with Township staff to agree upon the amount of monies to be provided to the Township in order to bring the roadway up to a “tolerable” local municipal standard; AND FURTHER THAT upon completion of the negotiations referenced above, a staff report be considered by Operations Committee, Finance & Administration Committee and County Council at their October meetings with regard to the jurisdictional transfer of Baskin Drive (Division Street - Daniel Street) and Division Street (Highway 417 - Baskin Drive).

6. Capital Works Division

Attached as Appendix VIII to this report is the Capital Works Division Report, prepared by Mr. Michael Pinet, P. Eng., Manager of the Capital Works Division, providing an update on activities.

7. Operations Division

Attached as Appendix IX to this report is the Operations Division Report, prepared by Mr. Steve Boland, Manager of the Operations Division, providing an update on activities.

Return to Agenda

COUNTY OF RENFREW  
 TREASURER'S REPORT - PUBLIC WORKS  
 As at July 31, 2011

Appendix I

	<u>YTD ACTUAL</u>	<u>YTD BUDGET</u>	<u>VARIANCE</u>	<u>FULL YEAR BUDGET</u>
<b><u>CAPITAL WORKS</u></b>	<b><u>107,528</u></b>	<b><u>275,919</u></b>	<b><u>(168,391)</u></b>	<b><u>473,000</u></b>
Capital Projects - Repairs	0	0	0	0
Infrastructure Mgt & Misc	107,528	275,919	(168,391)	473,000
Recoveries	0	0	0	0
<b><u>ADMINISTRATION</u></b>	<b><u>707,479</u></b>	<b><u>700,699</u></b>	<b><u>6,780</u></b>	<b><u>1,029,600</u></b>
Salaries & Benefits	332,480	327,690	4,790	568,000
Office Expenses	74,934	82,799	(7,865)	128,200
Professional Services	260,378	246,000	14,378	261,000
Staff Training	18,048	20,310	(2,262)	36,000
Misc	21,690	23,900	(2,210)	36,400
Recoveries	(50)	0	(50)	0
<b><u>MAINTENANCE</u></b>	<b><u>3,610,897</u></b>	<b><u>3,565,624</u></b>	<b><u>45,273</u></b>	<b><u>5,801,000</u></b>
Bridges and Culverts	123,165	89,500	33,665	179,000
Roadside Maintenance	255,631	328,290	(72,659)	529,500
Hard Top Maintenance	850,625	799,360	51,265	1,249,000
Loose Top Maintenance	56,172	27,200	28,972	34,000
Winter Control	1,998,367	1,921,134	77,253	3,149,400
Safety Devices	318,488	370,785	(52,297)	650,500
Misc	94,179	93,024	1,155	163,200
Recoveries	(85,750)	(63,669)	(22,081)	(153,600)
<b><u>EQUIPMENT</u></b>	<b><u>(200,915)</u></b>	<b><u>(241,950)</u></b>	<b><u>41,035</u></b>	<b><u>(324,600)</u></b>
Equipment Replacements	0	0	0	0
Small Equipment, Misc	27,937	20,650	7,287	45,400
Vehicle Operating Costs	810,396	713,400	96,996	1,230,000
Vehicle Operating Revenue	(1,039,248)	(976,000)	(63,248)	(1,600,000)
Recoveries	0	0	0	0
<b><u>HOUSING</u></b>	<b><u>128,443</u></b>	<b><u>141,504</u></b>	<b><u>(13,061)</u></b>	<b><u>251,100</u></b>
Operating Expenses	128,443	141,504	(13,061)	221,100
Major Repairs	0	0	0	30,000
Misc	0	0	0	0
Recoveries	0	0	0	0
<b><u>OTHER</u></b>	<b><u>1,173,810</u></b>	<b><u>4,014,384</u></b>	<b><u>(2,840,574)</u></b>	<b><u>10,118,800</u></b>
Depreciation	4,637,012	4,559,275	77,737	7,815,900
Surplus Adjustment - Depreciation	(4,637,012)	(4,559,275)	(77,737)	(7,815,900)
Surplus Adjustment - Capital	1,173,810	4,014,384	(2,840,574)	9,794,200
Surplus Adjustment - TRF to Reserves	0	0	0	324,600
<b><u>CLEARING ACCOUNT</u></b>	<b><u>(112,299)</u></b>	<b><u>0</u></b>	<b><u>(112,299)</u></b>	<b><u>0</u></b>
				8
<b>TOTAL EXPENDITURES</b>	<b>5,414,944</b>	<b>8,456,180</b>	<b>(3,041,236)</b>	<b>17,348,900</b>

**COUNTY OF RENFREW  
TREASURER'S REPORT - PUBLIC WORKS  
As at July 31, 2011**

	<u>YTD ACTUAL</u>	<u>YTD BUDGET</u>	<u>VARIANCE</u>	<u>FULL YEAR BUDGET</u>
<b><u>ROADS REVENUES</u></b>				
Municipal Contribution	5,399,175	8,434,674	(3,035,499)	13,267,899
Provincial Grants & Subsidies	0	0	0	200,000
Surplus Adjustment - TRF from Reserves	0	0	0	3,637,701
Federal Grants & Subsidies	0	0	0	200,000
Other Revenue - Capital Asset	0	0	0	0
Misc	15,769	21,506	(5,737)	43,300
<b>TOTAL REVENUES</b>	<b>5,414,944</b>	<b>8,456,180</b>	<b>(3,041,236)</b>	<b>17,348,900</b>
<hr/>				
<b>Municipal Surplus / (Deficit)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Return to Report

**COUNTY OF RENFREW**  
Public Works & Engineering Department

**10 Year Roads Rehabilitation Program 2008 - 2017 Schedule Comparison**

Road No	Name	Description		Approved Schedule		Actual/Projected Schedule		Comments
		From	To	Const. Start	Const. Finish	Const. Start	Const. Finish	
1	Madawaska Blvd/Elgin Street	Herrick Dr	Cty Rd 10	2013	2016	Beyond 2014 update		
1	River Road	Dochart St	Castleford Bdge S Exp Jnt	2013	2017	Beyond 2014 update		
2	White Lake Road	Edey St	Baskin Dr	2008	2008	2008	2008	
2	White Lake Road	Campbell Dr	Young Road	2013	2013	2013	2013	
2	White Lake Road	Waba Creek E Exp Jnt	Cty Rd 52 (Burnstown Rd)	2013	2013	Beyond 2014 update		
3	Usborne Street	Braeside West Limits	Cty Rd 54 (McLean Dr)	2015	2017	2015	2017	
5	Stone Road	Culhane Rd	Kennelly Rd	2016	2016	Beyond 2014 update		
6	Gillan Road	Hwy 60 (O'Brien Rd)	Lime Kiln Rd	2012	2012	Beyond 2014 update		
6	Lochwinnoch Road	Hwy 17-to-Thomson Rd	Miller Rd	2017	2017	Beyond 2014 update		
7	Foresters Falls Road	Beginning of semi-urban	Grants Settlement Rd	2016	2016	Beyond 2014 update		
8	Cobden Road	Hwy 60/Cty Rd 9	CPR Crossing	2010	2012	2012	2014	
8	Main Street	CPR Crossing	Hwy 17	2016	2016	Beyond 2014 update		
9	Bulger Road	Agnew Rd	Hwy 41	2009	2009	2009	2009	
9	Bulger Road	Hwy 60/Cty Rd 8	Agnew Rd	2014	2014	Beyond 2014 update		
10	Division Street	Cty Rd 15	Cty Rd 1	2011	2011	2013	2013	Surface rehabilitation only
13	Mountain Road	Hwy 41	Micksburg Rd	2017	2017	Beyond 2014 update		
14	Witt Road	Cty Rd 56	Cty Rd 26	2017	2017	Beyond 2014 update		
16	Victoria Street	Cty Rd 51	Wolfe Ave	2010	2009	2009	2009	
16	Victoria Street	Wolfe Ave	Cty Rd 25	2013	2015	2012	2012	
19	Mud Lake Road	Cty Rd 24	City of Pembroke South Limit	2012	2014	2014	2016	
20	Bruce Street	Hwy 60	Hwy 17	2010	2010	2012	2012	
20	Castleford Road	Eady Rd	Cty Rd 1	2016	2016	Beyond 2014 update		
21	Beachburg Road	Cty Rd 49	Cemetery Rd	2008	2013	2008	2014	
21	Beachburg Road	Cemetery Rd	Cty Rd 40	2017	2017	Beyond 2014 update		
21	Beachburg Road	Cty Rd 7	Buchannan's Pit Entrance	2017	2017	Beyond 2014 update		
22	Grattan Road	Hwy 41	Scotch Bush Rd	2009	2012	2010	2012	
22	Hyndford Road	Scotch Bush Road	Cty Rd 5	2010	2011	2013	2013	
26	Doran Road	Sandy Beach Rd	Cty Rd 58	2008	2008	2008	2008	
26	Doran Road	Airport Rd	Black Bay Rd	2013	2013	Beyond 2014 update		
28	Barron Canyon Road	Priebe Road	End of Cty Rd 28	2009	2015	2010	2011	Proj. advanced with FED/Prov funding. Work S of Station Hill Road schedule TBD
29	Drive-in Road	Clearview Crescent	Hwy 148	2009	2009	2012	2012	Culv. in 2010 are part of Mun. Drain
30	Lake Dore Road	Black Creek Rd	Hwy 41	2012	2015	2014	2016	
34	Whelan Rd/Norton Rd	English Road	Cty Rd 508	2009	2017	2009	2017	
35	Jean Avenue/Boundary Road	Beginning of Urban	Trafalgar Rd	2012	2012	2014	2014	
42	Forest Lea Road	Hwy 17	Meadowbrook Dr West Junction	2012	2012	2014	2014	
49	Lapasse Road	Grants Settlement Rd	Cty Rd 50	2008	2008	2008	2008	
50	Gore Line	Canola Rd	Cty Rd 49	2016	2016	Beyond 2014 update		
51	Petawawa Boulevard	Cty Rd 42	Airport Rd	2012	2012	2014	2014	

52	Burnstown Road	Cty Rd 2	McLachlan Rd	2013	2013	Beyond 2014 update		
52	Burnstown Road	Picket Hill Lane N Jct	Hwy 60	2013	2015	Beyond 2014 update		
54	McLean Drive	Hwy 17	Cty Rd 3	2012	2014	2014	2015	
55	Paquette Road	Cty Rd 51	Hwy 17	2012	2012	2014	2014	
56	Woitto Station Road	Cty Rd 14	Ottawa Valley Waste Recovery Centre	2016	2016	Beyond 2014 update		
58	Round Lake Road	Stencells Road	Hwy 17	2008	2009	2008	2009	
58	Round Lake Road	Ski Hill southerly	Picnic Area	2009	2013	2009	2014	
58	Round Lake Road	Round Lake Centre	Traemore	2012	2015	2010	2010	Project advanced with FED/PROV Funding program
58	Round Lake Road	Hwy 60	Traemore	2015	2015	Beyond 2014 update		
58	Round Lake Road	Round Lake Center S Bndy	Deer Trail Rd	2013	2016	Beyond 2014 update		
58	Round Lake Road/Bruham Ave	Hwy 17	Boundary Rd	2012	2014	Beyond 2014 update		
61	Haley Road/Godfrey Road	Hwy 60	Hwy 17	2008	2009	2009	2011	
62	Combermere Road	Cty Rd 515	Hwy 60	2008	2013	2008	2013	
63	Flat Rapids Road	Cty Rd 45	Stewartville Road	2009	2011	2008	2013	
63	Stewartville Road	Maple Bend Rd	Cty Rd 508	2014	2017	Beyond 2014 update		
63	Miller Road	Clifford Sideroad	Cty Rd 6	2015	2015	Beyond 2014 update		
64	Opeongo Road	Cty Rd 512	Hwy 41	2009	2017	2009	2017	
66	Opeongo Road	John Watson Road	Wilno S. Road	2010	2011	2010	2011	
68	Letterkenny Road	Rockingham Rd	Cty Rd 66	2008	2010	2010	2012	
68	Rockingham Road	Diamond Lake Rd	Guiney Road	2011	2011	2013	2013	
69	Siberia Road	Queen Street	Hwy 60	2012	2013	2014	2014	
70	Ruby Road	Gorman Rd	Hoffman Rd (East Leg)	2010	2012	2012	2014	
71	Matawatchan Road	Hwy 41	Cty Rd 65	2011	2014	2010	2013	
508	Calabogie Road	Barrett Chute Rd	Cty Rd 65	2009	2011	2009	2012	
511	Lanark Road	Cty Rd 508	Calabogie Bridge	2013	2013	Beyond 2014 update		
512	Brudenell Road	South Limit of Killaloe	Cty Rd 66	2008	2011	2008	2010	
512	Foymount Road	Hwy 41	Spring Creek Rd	2009	2012	2009	2014	
512	Foymount Road	Silver Lake Rd	Buelow Rd	2013	2017	Beyond 2014 update		
515	Palmer Road	Cty Rd 62	Palmer Rapids	2012	2015	2010	2017	Proj advanced with FED/PROV funding program

**COUNTY OF RENFREW**  
Public Works & Engineering Department

**10 Year Bridge Rehabilitation Program 2008 - 2017 Schedule Comparison**

Bridge No.	Name	Original Schedule		Actual/Projected Schedule		Comments
		Const. Start	Const. Finish	Const. Start	Const. Finish	
B118	CPR Overhead, Cty Rd 1	2008	2008	2008	2008	
B233	Latchford Bridge, Cty Rd 515	2008	2008	2008	2008	
B044	Douglas Bridge, Cty Rd 5	2009	2009	2009	2009	
B053	Constant Creek Bridge, Ferguson Lake Rd	2009	2009	2011	2011	
B105	Coulas Bay Bridge, Bear Trail Rd	<b>Project Not Scheduled</b>		2010	2010	
B153	Jewellville Bridge, Cty Rd 515	2010	2010	2010	2010	
B096	Centennial Lake Bridge, Cty Rd 65.	2011	2011	2013	2013	
B101	Bonnechere River Bridge, Cty Rd 58	2012	2012	2014	2014	
B173	Byers Creek Bridge, Cty Rd 58	2012	2012	2010	2010	
B100	Sherwood River Bridge, Cty Rd 58	2012	2012	2010	2010	
B311	Indian River Bridge, Cty Rd 58	2013	2013	2013	2013	
B234	Coles Creek Bridge, Cty Rd 512 (Killaloe)	2013	2013	Beyond 2014		
B067	Addington Road Bridge, Quadeville	2013	2013	2011	2012	
B226	Black Creek Bridge, Black Creek Rd	2013	2013	Beyond 2014		
B018	Davis Mills Bridge, Cty Rd 26	2013	2013	Beyond 2014		
B120	Claybank Bridge, Cty Rd 2	2014	2014	2015	2015	Expansion joint repairs required in 2011
B258	Madawaska River Bridge. (Arnprior), Cty Rd 1	2015	2015	Beyond 2014		Some rehab work completed in 2008
B203	Petawawa River Bridge, Cty Rd 51	2016	2016	2011	2011	
B257	Harrington Creek Bridge, Cty Rd 512 (Foymount Rd)	2016	2016	Beyond 2014		
B057	Mt. St Patrick Bridge, Mt St. Patrick Rd	2017	2017	Beyond 2014		
B150	Dam Lake Bridge, Martin Recoskie Rd	2017	2017	Beyond 2014		
B202	Cameron St Bridge, Cameron St (Killaloe)	2017	2017	Beyond 2014		
B002	Bonnechere River Bridge, Bonnechere Rd	2017	2017	2014	2014	
B074	Fire Tower Bridge, Fire Tower Road	<b>Project Not Scheduled</b>		2008	2008	
B031	Madawaska River Bridge (Calabogie) Cty Rd 511	2017	2017	2011	2011	
B110	Christopher Bell Bridge, Cty Rd 1	2017	2017	Beyond 2014		

**COUNTY OF RENFREW**  
Public Works & Engineering Department

**10 Year Culvert Rehabilitation Program 2008 - 2017 Schedule Comparison**

Culvert No.	Name	Approved Schedule		Actual/Projected Schedule		Comments
		Const. Start	Const. Finish	Const. Start	Const. Finish	
C077	Castleford Culvert, Cty Rd 1, 4.7 km E of Cty Rd 20	2008	2008	2009	2009	
C119	Dochart Creek Culvert, Cty Rd 1, 0.02 km N of Moore Street	2008	2008	2008	2008	
C168	Lake Clear Tri Culverts, 1.7 km S of Cty Rd 512	2008	2008	2008	2008	
C248	Forest Lea Culvert, Cty Rd 42, 0.06 km E of B-Line Road	2008	2008	2008	2008	
C263	County Road 515, Neumans Culvert	2008	2008	2008	2008	
C332	Chapeski Mill Dr, Chapeski Culvert	2008	2008	2008	2009	
C162	Kohlsmith Culvert, Kohlsmith Road, 1.5 km S of Cty Rd 7	2009	2009	2009	2009	
C175	Paugh Lake Road Culvert, Paugh Lake Road	2009	2009	2010	2010	
C195	Black Bay Culvert, Black Bay Road, 2 km W of Highway 17	2009	2009	2009	2009	
C237	Sicards Creek Culvert, Cty Rd 512, 10.4 km N of Brudenell	2009	2009	2009	2009	
C245	Indian Road Culvert, Cty Rd 21 at Indian Road	2009	2009	2010	2010	
C251	Armstrongs Culvert, Russett Drive, 4 km E of Highway 17	2009	2009	Beyond 2014		
C334	Thompson Road Culvert	<b>Project Not Scheduled</b>		2009	2009	Project added to original plan
C081	Esmond Culvert, Cty Rd 64	2012	2012	2009	2009	Work advanced due to culvert condition
C104	Byers Creek Culverts, Cty Rd 67, 1.5 km S of Cty Rd 58	2012	2012	2013	2013	
C261	Kauffeldt's Culvert, Cty Rd 515	2012	2012	2013	2013	
C264	Hopeberg Creek Culverts, Jewellville Rd,	2012	2012	2013	2013	

C065	Rockingham Creek Culvert, Cty Rd 68	2013	2013	2014	2014	
C147	Turtle Creek Culverts, Cty Rd 68	2013	2013	2014	2014	
C255	Red Rock Tri Pipes, Red Rock Road	2013	2013	2007	2007	Early replacement required due to structural failure
C028	Alice-Wilberforce Municipal Drain, Locksley Road, 1 km W of Highway 41	2014	2014	2015	2015	
C125	McGregor Culvert, Lochwinnoch Road, 2.3 km S of Cty Rd 1	2014	2014	2010	2010	Work advanced due to culvert condition
C238	Townline Culvert, Cty Rd 512, 0.1 km W of Silver Lake Road	2014	2014	2015	2015	
C140	Mundt's Culvert, Roesler Road,	2015	2015	Beyond 2014		
C190	Bucholtz Culvert, Stafford Third Line, 0.5 km NW of Cty Rd 24	2015	2015	2014	2014	
C313	Nagels Culverts, Cty Rd 49	2015	2015	Beyond 2014		
C314	Royal Pines Culvert, Royal Pines Road,	2015	2015	Beyond 2014		
C136	Robertson Twin Pipes, Robertson Line, 2.5 km E of Cty Rd 2	2016	2016	Beyond 2014		
C141	Zienans Culvert, Roesler Rd, 5 km N of Highway 60	2016	2016	Beyond 2014		
C217	Hila Road Culvert, Hila Road, 1.5 km E of Cty Rd 21	2016	2016	Beyond 2014		
C016	Harold's Culvert, English Road, 1 km W of Cty Rd 34	2017	2017	Beyond 2014		
C030	Hales Creek Culvert, B-Line Road, 0.2 km N of Cty Rd 42	2017	2017	2012	2012	Work advanced due to culvert condition
C151	Wadsworth Creek Culvert, Vistula Road, 9 km N of Cty Rd 62	2017	2017	Beyond 2014		
C215	Elm Creek Culverts, Snake River Line, 1 km N of Waterview Road	2017	2017	Beyond 2014		
C266	Drohan Creek Culverts, Cty Rd 62 south of Barry's Bay	<b>Project Not Scheduled</b>		2009	2009	Work included with Cty Rd 62 road project
C267	Bean Pot Creek Culverts, Cty Rd 62 south of Barry's Bay	<b>Project Not Scheduled</b>		2009	2009	Work included with Cty Rd 62 road project
C246	Culhane Culvert, Culhane Road, 0.5 km W of McNaughton Line East Junction	2017	2017	Beyond 2014		
C252	Vanderploegs Culvert, Russett Drive, 2 km E of Highway 17	2017	2017	Beyond 2014		

**COUNTY OF RENFREW****PUBLIC WORKS & ENGINEERING DEPARTMENT REPORT**

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**TO:** Operations Committee

**FROM:** Steven P. Boland, C.E.T., CMM III  
Manager, Maintenance Division

**DATE:** October 5, 2007

**SUBJECT: Asset Management Program  
Planning Criteria**

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**BACKGROUND**

As reported to the Committee at the September meeting, staff are in the process of developing a 10-year forecast for the capital improvements to the County's infrastructure. One of the first steps in the process of developing the 10-year program is to identify the various criteria to be used to determine the needs of the system as well as the standards, nature and extent of any rehabilitation treatments. In developing the Asset Management System, reference has been made to a variety of technical resources and manuals including those developed by the Ministry of Transportation Ontario (MTO), the Transportation Association of Canada (TAC), Ontario Good Roads Association (OGRA) and the Canadian Highway Bridge Design Code (CHBDC). This resource material has provided guidance in determining the manner in which the infrastructure is to be assessed as well as various rehabilitation strategies.

**DISCUSSION**

The list of criteria that could be used in developing the 10-year capital forecast is potentially endless and the most appropriate strategy may be unique for each road and bridge within the County's system. However, at a network or high level of analysis, it is desirable to identify a number of criteria that are common to all roads and similarly to all bridges and large culverts. In this regard, the following technical criteria are proposed:

**Roads**

- Design Classifications
- Desirable & Minimum Design Standards
- Evaluation Criteria
- Rehabilitation Strategies

**Bridges & Large Culverts**

- Design Classifications
- Desirable & Minimum Design Standards
- Evaluation Criteria
- Rehabilitation Strategies

In addition to the technical issues, consideration must be given to the financial aspects of developing a long range Capital Works Forecast. The following issues are proposed for consideration from a financial perspective:

- Sustainable Funding Levels
- Funding Strategies
- Benchmark Costing

A more detailed discussion of the foregoing criteria follows.

## 1.0 ROADS

### .1 Design Classification

The Design Classification of the County's road system is used to establish the relative priority of one road or section of road relative to any other road or section of road. The design classification is based primarily on the nature and volume of the traffic which is conveyed along the road.

Generally speaking, a road with higher traffic volumes and a greater percentage of trucks or commercial traffic will have a higher priority than a roadway with low volumes. The traffic volume is normally defined as Average Annual Daily Traffic (AADT) and is based on data collected through automated and manual counts. This is considered to be the average traffic on a roadway and is typically used to determine the physical characteristics of the roadway. The following Design Classes are proposed:

<u>Design Class</u>	<u>Traffic (AADT)</u>
1	12000 & greater
2	5000 - 11999
3	1000 - 4999
4	400 - 999
5	200 - 399
6	less than 200

It is proposed that the 10-year forecast consider growth in traffic based on historical data. Across the entire system, typical average growth rates are in the range of 1% - 2%. Some locations have seen greater increases and others have experienced reductions in volumes.

The nature of the roadside environment (ie. rural, semi-urban, urban) is also considered in the design of the road. Design also considers the functional classification of the roadway. In this regard "Local" roads tend to have lower traffic volumes and have a primary purpose of providing access to property. At the other end of the scale are the "Arterial" roads that serve the primary purpose of connecting communities and tend to have high traffic volumes. Roads referred to as "Collectors" are in the middle. The majority of the County's system consists of roads which fall within the Collector classification and are rural in nature.

## **.2 Desirable/Minimum Standards**

The design standards for roadways are based primarily on the operating speed and volumes/characteristics of the traffic using the roadway. Generally speaking as traffic speeds and volumes increase, the standards increase as well. The design standards typically address pavement and shoulder widths & types; drainage requirements; right-of-way (ROW) width and; the horizontal and vertical curvature of the roadway. The design standards for a road relate directly to safety and the ability of a driver to safely manoeuvre a vehicle along the roadway. Design standards may also consider other road users such as pedestrians and cyclists, especially in urban areas. This level of design would be considered during development of the detail design for the applicable roadway.

### Design Speed

In regards to design speed, the desirable practice identified in the MTO and the Transportation Association of Canada (TAC) manuals is to set the design speed 10 to 20 km/hr higher than the posted legal speed. This is to take into consideration changes in conditions over time as well as an acknowledgement that most drivers exceed the posted speed limits. The design speed should be at least equal to the posted speed limit. However, the design speed may be reduced in isolated locations to address physical constraints which may be encountered. Some examples are horizontal curves which would require severe realignment, and vertical curves which would require excessive cuts and/or fills. In such cases, the design speeds should be reduced by no more than 20 km/hr.

In order to provide a road system which can be travelled at a reasonable and safe rate of speed, it is proposed that the following design speeds be adopted:

<u>Location</u>	<u>Desirable Standard</u>	<u>Minimum Standard</u>
Rural	90 km/hr	80 km/hr
Urban	60 km/hr	50 km/hr

At those locations where severe constraints exist (which would require a further reduction), it is proposed that the minimum acceptable speed be set at 60 km/hr in rural areas and 40 km/hr in urban areas. In these instances appropriate warning signage will be required to advise drivers of the changes.

### Pavement Width/Lane Width

Pavement width is largely a function of the nature of the traffic using the roadway. The pavement width and the individual lane widths have a significant influence on the safety and comfort of the drivers using the roadway. Narrow lane widths also contribute to pavement edge breaks and increased pavement and shoulder maintenance, especially in locations where there are significant volumes of trucks. The following widths are proposed for rural roadways:

	<u>Lane Width</u>	<u>Total Pavement Width (2 Lane Roadway)</u>
Desirable	3.5	7.0
Minimum	3.25	6.5

In the case of urban roads the lane and pavement widths will require an assessment on a case-by-case basis, taking into consideration traffic, parking and turning movements as well as other road users such as cyclists.

### Shoulder Widths

Roadside shoulders serve two main purposes. The first is to provide support and protection for the edge of the pavement from vehicles that veer onto the shoulder. In order to properly carry out shoulder grading operations a minimum width of 1.5 m is required to accommodate the maintenance equipment.

The second purpose that the shoulder serves is to provide a refuge for stopped or disabled vehicles. The minimum usable width for a disabled vehicle is 2.0 m. In view of the foregoing the following shoulder widths are proposed:

Desirable Standard	-	2.0 m
Minimum Standard	-	1.5 m

Shoulder widths may need to be increased to accommodate guiderails and other roadside safety features at specific locations.

### Drainage/Ditch Depths

The purpose of the roadway drainage system is to provide drainage of the granular materials in the road base and to convey that drainage to an adequate outlet. In order to properly drain the road sub-base material a minimum ditch depth of 0.3 m below the subgrade is required. A depth of 0.5 m is preferred. In addition, the side slopes of the roadside ditch must be such that they can be free of erosion and are maintainable. In the case of earth slopes, a minimum slope of 2:1 is required with 3:1 being preferred. Urban areas are typically serviced by storm sewers and as such allowance for ditch depth and width are not as critical.

### Horizontal & Vertical Curve Alignment

The requirements for the design of the horizontal and vertical curvature of the roadway is dependent on the design speeds. In locations where significant constraints dictate a reduction in design speeds it may be necessary to adjust the horizontal and vertical curvature standards as well. The standards for roadway alignment have a direct influence on the safety of the roadway. In those locations where the design speed needs to be reduced, it will be necessary to provide appropriate warning signage to inform drivers of the change.

### Right-of -Way Width

The width of right-of-way (ROW) required is influenced by the pavement and shoulder widths, the ditch depths and side slopes and the adjacent terrain. It is also desirable to have a relatively flat area beyond or behind the ditch slope to permit the installation and maintenance of fencing and utility lines. A minimum width of 1.0 m is preferred.

In order to accommodate all components of the roadway, based on the desirable standards, a desirable ROW width of 26 m (86 ft±) or 13 m from the centreline of the pavement is required. The ROW width can be reduced to a minimum of 20 m (66 ft) or 10 m from the centreline if all components of the roadway are designed to the minimum standards. In view of the foregoing, the following ROW standards are proposed:

Desirable ROW Width	-	26 m
Minimum ROW Width	-	20 m

### Pavement & Shoulder Materials

A variety of options exist for the materials to be used for the surface of both the roadway and the shoulders. Although hot mix asphalt pavement has been the preferred choice for the road surface, other options are technically acceptable for low volume roads. In addition, the nature and depth of the road surface material as well as its condition, influence whether or not spring load restrictions will be enforced. As the pavement surface increases in depth, the ability to support heavy loads, especially in spring, increases.

The following road surface materials and depths are proposed on the basis of traffic volumes:

<u>Traffic Volume AADT</u>	<u>Road Surface</u>
Less than 400	Double Surface Treatment
400 to 999	50 mm – Hot Mix Asphalt
1000 to 4999	90 mm – Hot Mix Asphalt
5000 & Greater	130 mm – Hot Mix Asphalt

It is proposed that all road shoulders be constructed of granular materials.

### **.3 Evaluation Criteria**

The evaluation criteria proposed for use in determining the rehabilitation strategies and the relative priorities includes the following components:

- Pavement Condition Index (PCI)
- Riding Comfort
- Traffic Volume & Composition
- Geometrics/Safety
- Roadway Design Class

These first four criteria can be measured and utilized in a calculation to determine the relative priority of one road compared to all others.

### Pavement Condition Index

The Pavement Condition Index (PCI) is a calculated value that is based on the density and severity of 15 types of observed pavement distress that includes cracking, surface deformities, distortion and rutting. Each type of distress is rated during the annual inspections. The PCI values range from 0 (worst condition) to 100 (best condition) and provides a reasonably good assessment of the overall pavement condition of the roadway. The PCI rating can also be compared to the standard deterioration profiles for similar classes of roads in order to determine and anticipate the preferred rehabilitation strategy and when it should be implemented in order to provide the best return on investment.

### Riding Comfort

Riding comfort or the Riding Condition Rating (RCR) provides a good indication of how well the road is serving the travelling public and measures the roads roughness as observed by the driver at the posted speed limit. The RCR value is determined during the annual inspections and is used in calculating the PCI.

### Traffic Volumes and Composition

Details of the traffic volumes and compositions were provided earlier in the report.

### Roadway Design Class

Details of the roadway design class are discussed elsewhere in this report.

### Geometrics/Safety

This criteria considers geometric and road safety issues that cannot be objectively measured. These criteria will be applied subjectively to the various roads in conjunction with the calculated criteria in order to determine the nature and extent of the rehabilitation strategy to be employed. Generally speaking, major geometric and safety improvements to meet the technical standards would be considered to be part of the more extensive reconstruction projects rather than a part of a resurfacing or minor construction project.

## **.4 Rehabilitation Strategies**

While there are numerous rehabilitation strategies that can be applied in an effort to maintain the County's roads, it is proposed that relatively few be used for the purposes of developing the 10-year capital forecast. As each individual project moves closer to its implementation year, a number of the alternative technologies can be examined in greater detail on a case-by-case basis. The proposed rehabilitation strategies to be used in the preparation of the 10-year forecast are:

- Full Reconstruction
- Base & Surface Reconstruction
- Hot Mix Asphalt Overlay
- Surface Treatment Overlay
- Mill & Resurface

### Full Reconstruction

Full reconstruction involves excavation of all existing road materials and replacing them with new granular materials and pavement surface. Typically this type of project also includes extensive re-ditching and culvert replacements. This form of rehabilitation may also involve significant realignments and geometric improvements. Generally speaking, roads which demonstrate extensive and very severe distress and have a PCI rating of 30 or less will require full reconstruction. Typical full reconstruction costs range from \$350,000 to \$500,000 per kilometre depending on the terrain and the extent of realignment required.

### Base & Surface Reconstruction

This rehabilitation strategy involves pulverizing or scarifying the existing road surface, placing additional granular materials to strengthen and or widen the platform and placing a new road surface. The work may also include selective drainage improvements and culvert replacements. Generally speaking this treatment is utilized on roads which have a poor pavement condition and poor ride condition which is indicative of some failure of the road base. Typical PCI ratings would be in the range of 30 to 50. Benchmark costs for a base & surface rehabilitation range from \$150,000 to \$250,000 per kilometre depending on the extent of drainage improvements and the type of surface chosen.

### Hot Mix Asphalt Overlay

Hot Mix Asphalt Overlay involves resurfacing an existing paved road with hot mix asphalt, and resurfacing the granular shoulders with new granular material to match the new pavement surface. This treatment is limited to those pavement surfaces that have a fair pavement condition and show moderate to slight distress. Typical PCI values would be in the 50 to 70 range. Benchmark costs for this type of treatment are in the order of \$100,000 per kilometre based on a 50 mm depth of asphalt.

### Surface Treatment Overlay

This rehabilitation strategy involves placing either a single surface treatment or double surface treatment over an existing road surface. This option is generally used to strengthen an existing surface treated road or to improve the skid resistance on an asphalt pavement. Since surface treatment has limited inherent strength, the existing road surface and substructure must be in fair to good condition. Typical PCI values would be in the 60 to 70 range and would be limited to existing surface treatment areas. Benchmark costs are in the order of \$20,000 to \$30,000 per kilometre.

### Mill & Resurface

Typical Mill and Resurface projects involve milling or grinding away the top of the existing asphalt surface and placing new hot mix asphalt. This type of treatment is used in urban areas where it is necessary to match into existing curbs and gutters. It is also used on rural roads where the surface of the asphalt exhibits signs of deterioration and the ride condition is good. PCI values would be in the range of 50 to 60. Costs for this treatment would be in the range of \$125,000 to \$150,000.

## **2.0 BRIDGES**

For the most part the assessment of the needs and the criteria used to identify the rehabilitation strategies for bridges is similar to that used for the roads. For the purposes of the 10-year Capital Works Forecast, bridges are considered to be those structures (bridges and large culverts) that have a span of 3.0 m or greater and are defined as bridges in the Public Transportation and Highway Improvement Act (PTHIA) and the Canadian Highway Bridge Design Code (CHBDC). The County is currently responsible for all structures defined as bridges on County roads and local Municipal roads.

### **.1 Design Classification**

The design classifications for a bridge are the same as those utilized for the adjacent road approaches.

### **.2 Standards**

The standards for the construction of bridges are set out in the CHBDC. Accordingly, a road authority has limited choices regarding the standards of construction. Choices are generally limited to the type of materials to be used, whether the bridge should have one lane or multiple lanes, and the alignment of the structure. The latter two choices are often dictated by the roadway on the bridge approaches.

### **.3 Evaluation Criteria**

Similar to the issue of standards, the evaluation criteria for bridges are set out in the various regulatory documents. The primary focus is the safety of the structure and its ability to carry the intended loadings. All bridges are evaluated on a biannual basis. Unlike a road, the road authority has the option to post load restrictions for all bridges in an effort to minimize the damage that may be caused due to exceeding the safe load carrying capacity.

### **.4 Rehabilitation Strategies**

Generally speaking three rehabilitation strategies will be considered for the purposes of generating the 10-Year Capital Works Forecast. These are:

- Reconstruction
- Deck Replacement
- Patch, Waterproof and Pave

### Reconstruction

Reconstruction of a bridge or culvert would include demolition and/or removal and replacement with a new structure. In the case of a bridge or concrete culvert, it may be possible to retain a portion or all of the abutments and piers, depending on their condition and suitability to the new bridge. In regards to steel culverts, generally the entire culvert requires replacement. The replacement of a structure may also require realignment of the road approaches and the waterway. The costs to replace a bridge vary widely depending on the size and location and the extent of road and waterway improvements and the nature of the structure. Typical culvert replacement costs range from \$150,000 to \$250,000. Typical concrete bridge replacement costs are in the order of \$3,000 to \$5,000 per square metre of deck area.

### Deck Replacement

Deck replacement only applies to true bridges. Typical work includes removal of all or most of the deck down to the supporting girders and replacing it with a new deck and driving surface. This treatment would be considered when the supporting abutments, piers and girders are in relatively good condition. Deck replacement does not usually involve road or waterway realignments. Typically a deck replacement also includes replacement of the curbs, sidewalks, parapets, bearings and expansion joints. As is the case for replacements, costs can vary significantly depending on the nature of the bridge. Typical costs for a concrete deck replacement would be in the range of \$2,000 to \$3,000 per square metre of deck area.

### Patch Waterproof & Pave

This work includes removal of the driving surface, spot removal of spalled concrete areas, reapplication of the waterproofing membrane and installation of a new driving surface, typically asphalt. This treatment is only applicable to those bridges that have a concrete deck. Benchmark costs in the range of \$1,500 to \$2,000 per square metre of deck area are to be expected.

## **FINANCIAL IMPLICATIONS/FUNDING**

In order to prepare a realistic 10-year forecast, it is important that the funding levels chosen be sustainable and predictable. In this regard it is proposed that funding of the 10-year Capital Works Forecast be based on the revenues generated through the property tax levy, the federal gas tax program and the Move Ontario program. Due to the uncertain nature of programs like COMRIF, these one time funding sources will not be considered in the preparation of the 10-year plan.

While the major focus of the program must be the actual construction activities in any particular year, there is also a need to continue with the annual engineering program in order to have the designs completed in advance of the actual year of construction.

It is proposed that the estimating for the purposes of preparing the 10-year forecast be done on the basis of Benchmark Costing at a network level. Under this approach average costs per kilometre for roadwork and per square metre of deck for bridge work will be utilized. As individual project details are developed, the estimates will be refined for the annual budgeting process.

In terms of the apportionment of the available funding it is proposed that approximately 75% of the program be roads projects and that 18% of the program consist of bridge projects in any given year. The remaining 7% is utilized for safety systems upgrades, right-of-way acquisitions and infrastructure management programs.

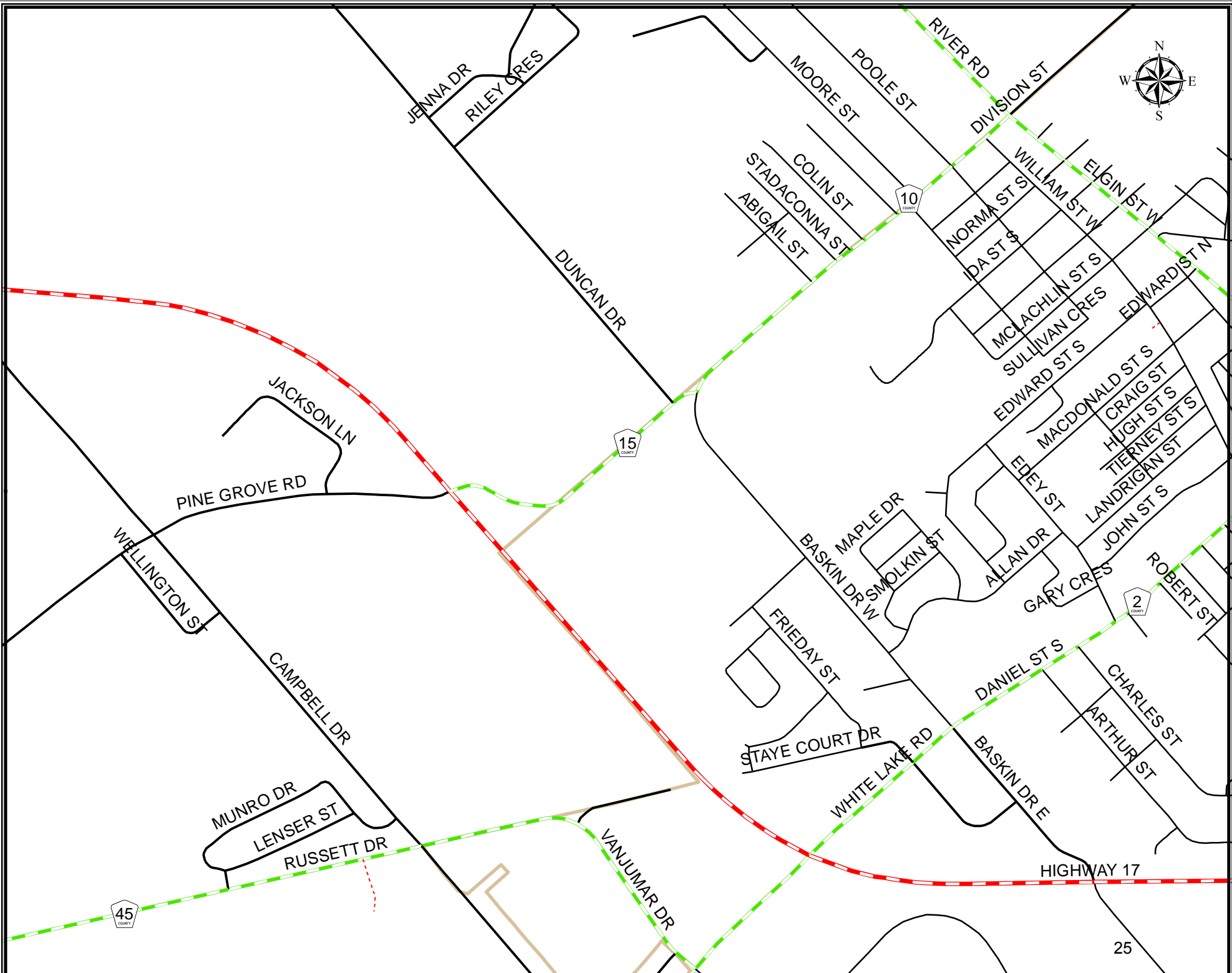
This represents approximate expenditures of \$6.7 million on roads and \$1.6 million on bridges annually based on the 2007 Capital Works budget exclusive of COMRIF projects. While this breakdown is the preferred target it is important to recognize that there will be a need from time to time to adjust the actual distribution to accommodate individual projects in specific years. An example is the need to replace a bridge at a cost of \$2.5 million would necessitate a corresponding adjustment in that year's road program.

### **RECOMMENDATION**

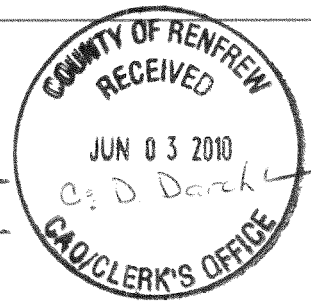
Staff are of the opinion that the development of the 10-year Capital Works Forecast based on the foregoing criteria will provide the County with a long range plan to support improvements to the County's infrastructure.

It is recommended that the Operations Committee approve of the criteria proposed for the development of the 10-year Capital Works Forecast.

Return to Report



CORPORATION OF THE  
**TOWN OF ARNPRIOR**



REC'D BY \_\_\_\_\_  
CIRC TO \_\_\_\_\_

JUN 04 2010

COPY TO \_\_\_\_\_  
FILE \_\_\_\_\_

May 25, 2010

Mr. Jim Hutton, CAO  
County of Renfrew  
9 International Drive  
Pembroke, ON K8A 6W5

Dear Mr. Hutton:

Please be advised that Council, at their meeting held on January 12, 2009 passed the following resolution;

Resolution No. 226-10

“WHEREAS development on the west side of Arnprior continues to increase the vehicle traffic on Elgin Street and Baskin Drive; and

WHEREAS Division Street is presently a county road; and

WHEREAS Division Street will no longer provide access to Highway 417 upon completion of the phase under construction; and

WHEREAS the Town of Arnprior and M.T.O have expended in excess of one million dollars in upgrading Baskin Drive from Johnson Road to Daniel Street/White Lake Road (in the Town of Arnprior); and

WHEREAS Daniel Street/White Lake Road will become the largest interchange from Ottawa to Pembroke upon completion of this phase of Highway 417.

AND WHEREAS Baskin Drive from Division to Daniel Street will become the most used connecting link to Highway 417.

AND WHEREAS A.J. Charbonneau Public School provides education to students from Arnprior as well as adjacent communities.

.....2

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Fax: 613-623-8091

- Administration
- Building
- Cemeteries
- Engineering
- Finance
- Planning
- Public Works

PARKS AND RECREATION  
Nick Smith Centre  
77 James Street  
Arnprior, Ontario  
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Tel: 613-623-7301  
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FIRE DEPARTMENT  
67A Meehan Street  
Arnprior, Ontario  
K7S 2B7

Tel: 613-623-4231  
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AND WHEREAS the safety of our students is a top priority.

NOW THEREFORE be it resolved that the Town of Arnprior petition the County of Renfrew to assume responsibility for Baskin Drive from Division Street to Daniel Street immediately.

AND FURTHER THAT provisions for the upgrading of Baskin Drive in conjunction with the Town of Arnprior be provided for in the County of Renfrew Capital Works Budget in 2011.

AND FURTHER THAT provisions be made for the upgrading of Division Street from Elgin to Baskin in the 2011 Budget (this already being a County Road)."

Your consideration of this resolution would be greatly appreciated. Trusting the above is satisfactory. I remain.

Yours very truly,

A handwritten signature in cursive script, appearing to read "Maureen Spratt".

Maureen Spratt  
Deputy Clerk

/ms

CORPORATION OF THE  
TOWN OF ARNPRIOR



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August 3, 2011

Mr. Jim Hutton, CAO  
County of Renfrew  
9 International Drive  
Pembroke, ON K8A 6W5

Dear Mr. Hutton:

**Re: Transfer of Baskin Drive**

Please be advised that Council at its meeting of July 25<sup>th</sup> adopted the following resolution:

*“THAT the Town of Arnprior petition the County of Renfrew to assume responsibility for Baskin Drive from Division Street to Daniel Street; and*

*FURTHER THAT provisions for the upgrading of Baskin Drive in conjunction with the Town of Arnprior be provided for in the County of Renfrew Capital Works Budget in 2012; and*

*FURTHER THAT provisions be made for the upgrading of Division Street from Elgin to Baskin in the 2012 Budget (this already being a County Road).”*

The Town of Arnprior respectfully requests that the County of Renfrew support this resolution.

Yours very truly,

David Reid,  
Mayor

cc Reeve Walter Stack

Return to Report



## **ONTARIO GOOD ROADS ASSOCIATION**

530 OTTO ROAD, UNIT 2  
MISSISSAUGA, ONTARIO  
L5T 2L3  
TELEPHONE 905 785-2555  
FAX 905 785-2550

February 1998

# Road Rationalization

## THE CONCEPT OF ROAD RATIONALIZATION

When first established, the "Kings Highway System" provided a major inter-centre connector. A county or regional road system provides this same service on a reduced scale, connecting smaller centres of population and providing a "farm to market" road link. The local road acted as the final link in the system providing access to the abutting properties. These roles have changed very little over time. However, in many areas of the province, significant changes in settlement patterns, population and employment have left some areas with designation of roads that is no longer appropriate. The Province of Ontario has taken the lead in the re-designation of their road system and has begun to shift responsibility for some roads to the local, county and regional levels.

Road service providers are requested to demonstrate accountability for road maintenance services. The efficient and effective delivery of road services is a priority of municipal customers (the road user and taxpayer) and the provincial government. Rationalizing road jurisdiction between a county (region) and local municipalities will ensure that local roads serve primarily a local function and county (regional) roads serve a through traffic function. Another benefit to the transferring of roads is a county (regional) road that is a low priority to the upper tier, once transferred, may become a high priority for the local municipality and see significant improvements over time. Likewise a high volume local road carrying primarily through traffic may receive higher levels of service than the local municipality was able to provide.

The road rationalizing method as shown in this report permits a review of the road system within a county (region). The outcome of the review is a determination of the appropriate jurisdiction of a road or road section.

## BY-LAWS

Each county or regional municipality has been granted the power under the *Public Transportation and Highway Improvement Act* or its respective regional or county act to establish, maintain, add or remove designated roads from or to the county or regional road system.

The *Public Transportation and Highway Improvement Act* (PTHIA) provides for the establishment of a county road system. The county road systems were established in the early years of this century by by-laws passed by each council. The roads that comprise a county road system established under the PTHIA are county roads whether they are in a town, a village or a township. When the task of determining what alterations have been made to the physical system or when it is desirable to review municipal service delivery, a new system can be designated by a new establishing by-law. In effect, the slate is wiped clean and the road system starts afresh.

## PRINCIPLES OF ROAD RATIONALIZATION

- Upper tier roads, that are primarily transportation corridors, should provide continuous roadway service throughout the county or region.
- Upper tier roads should be capable of being upgraded to a reasonable standard consistent with the service to be provided.
- Upper tier roads should be along the shortest practicable route along existing roads and streets.

## GOAL OF A ROAD RATIONALIZATION STUDY

- To develop a county (regional) road system that reflects the realities of today and beyond.

## TERMS OF REFERENCE

- Conduct a road rationalization study, evaluating criteria prepared by the Ministry of Transportation in its document *Upper Tier Road Classification Criteria*, modifying the criteria based on information as shown in this document.
- Seek efficient and effective delivery of all road services within the county or region.
- Transfer roads to the local municipalities that serve primarily a local function.
- Transfer roads to the county (region) that primarily serve a through traffic (regional) function.

- Consider road condition and compensation throughout the discussion of road transfers.
- Involve the local municipalities in the decision-making process by encouraging feedback and comments.

## METHODOLOGY

The review of every road section within the county and local municipalities will be time-consuming and probably unnecessary. By each local municipality identifying roads that it believes serve a through traffic function will save a time-consuming road-by-road analysis.

- Review the criteria as shown in section entitled *Criteria and the Weights Applied* and modify to meet specific municipal requirements.
- Apply the criteria to all existing county (regional) roads and roads identified by the local municipalities as candidates for upper tier road classification.
- Weight the criteria based on their relative importance.
- Determine "cut-off" weight for inclusion of individual road sections in the county (regional) system.
- Develop a county (regional) road system.
- Determine the standard (i.e. surface condition) that the county (region) will accept or transfer roads.
- Determine impact on local municipalities as well as county or region.
- Present findings to council.

## CRITERIA AND THE WEIGHTS APPLIED

### Criterion 1 *Urban Center Connector*

Connect urban centres to each other or to a King's Highway unless such a service is now provided by a King's Highway.

Weighting Applied = 3

**Criterion 2** *King's Highway/Upper Tier Connector*

Connect major commercial and industrial areas, universities, hospitals, international border crossings and provincial boundaries, etc. to a King's Highway or upper tier road.

Weighting Applied = 2

**Criterion 3** *Heavy Industry Service*

Provide service within 4 km. of consistent major attractors or generators of heavy vehicles.

Weighting Applied = 2

**Criterion 4** *Barrier Service*

Provide service parallel to and across major barriers to free traffic movement such as freeways, watercourses or congested areas.

Weighting Applied = 1

**Criterion 5** *Resort Criterion*

Provide service within 4 km. of a major resort and/or recreational areas.

Weighting Applied = 1

**Criterion 6** *Urban Cell Service*

Provide service in urban areas within the cells formed by the King's Highways and the streets selected by the above criteria, provided that the traffic demand existing on the street is considered predominantly for through traffic.

Weighting Applied = 0

**Criterion 7** *Urban Arterial Extension*

Provide service on those roads which are extensions of urban arterial streets, from the urban limits to the first intersection, where the AADT is below 700 vehicles per day, then connect to an upper tier road or a King's Highway by the shortest route.

Weighting Applied = 3

**Criterion 8 *Rural Cell Service***

Provide service in rural areas within the cells formed by the King's Highways and the roads selected by the above criteria.

Weighting Applied =0

**Criterion 9 *Traffic Speed***

Provide service on roads where the speed limit is 80 km/hr.

Weighting Applied =1

**Criterion 10 *Road Surface***

Provide service on roads with an asphalt surface.

Weighting Applied =0.5

**Criterion 11 *Traffic Volume***

Provide service on roads with current traffic volumes greater than 1000 vehicles per day.

Weighting Applied =0.5

**Criterion 12 *Road Right-of-Way***

Provide service on roads with at least a 66-foot wide right-of-way.

Weighting Applied =1

**APPLICATION GUIDELINES**

Criterion 1 (Urban Centre Connector) and criterion 7 (Urban Arterial Extension) are considered the most important criteria, as upper tier roads should serve as inter-municipal corridors to connect the small urban centres within the county or region. In order to apply criterion 1, a determination of what constitutes an urban centre is required.

**Criterion 1 *Urban Centre Connector***

This criterion is intended to identify roads providing service to and from centres having commercial and possibly industrial development.

Urban centres are areas of concentrated development, not "ribbon" development.

The criterion is not intended to be applied to residential subdivisions that are developing in rural areas. When the residential development grows to a sufficient size, upper tier road service may be considered through the application of all of the criteria.

**Criterion 2** *Kings Highway/Upper Tier Road Connector*

The intent of this criterion is to extend the King's Highway or upper tier road to connect to the facilities mentioned and not to provide for lateral connections between highways/upper tier roads.

Major Institutional/commercial/industrial complexes are areas generating more than 1000 vehicle trips per day.

**Criterion 3** *Heavy Industry Service*

It is not intended that it be an upper tier responsibility to provide service to the entrance of every attractor or generator of heavy vehicles in an area. Rather, it is intended that upper tier service be provided close to the industry and that the distribution within the area of the industry be a lower tier responsibility.

"Close to" means within a distance of approximately 4 km.

"Consistent major attractor or generator", in the case of gravel pits and quarries, is defined as approximately 9 months or more of operation per year.

Landfill sites under the jurisdiction of or serving the upper tier municipality may also be considered as attractors of heavy vehicles and may be serviced by upper tier roads.

**Criterion 4** *Barrier Service*

The intent of this criterion is to alleviate traffic on local roads by providing service parallel to or across barriers to traffic movement where upper tier service is justified. The barrier must be an obstacle to traffic wishing to cross it and it must be feasible to cross (i.e. freeways by interchanges and rivers by bridges)

Service is provided "parallel to" only if there is no other upper tier or provincial road providing that service within a reasonable distance and only along roadways which are used to reach barrier crossings.

**Criterion 5** *Resort Criterion*

The intent of this criterion is to provide upper tier service close to resort/recreational areas or to a lower tier road system that distributes the traffic.

"Close to" means within a distance of approximately 4 km from the edge of the resort development.

A major resort/recreational area is an area generating a minimum of 700 vehicle trips per day during normal season of operation.

**Criterion 6** *Urban Cell Service*

The intent of this criterion is to identify roads in the cell under consideration at the spacing noted. The roads so identified must function predominately for through movement of traffic.

Roads that function as minor collectors for trips with origin and destination within the cell should be rejected.

The cell population density considered in identifying the appropriate spacing should be either the daytime or nighttime population, whichever is greater.

Population Density	Additional service required when spacing of roads is greater
than	
less than 40 persons/hectare	2000 m
between 40 and 125 persons/ha	1200 m

Criteria 6 and 8 are not included in the original application of criteria but could be used as a rationale for including additional roads or road sections to complete the road network. The reasoning behind excluding these criteria in the original application is due to the good condition of most local roads and the fact the majority of population has access to transportation or transportation services.

**Criterion 7 Urban Arterial Extension**

The intent of this criterion is to provide for the extension of urban arterial streets into the rural areas to connect with an upper tier road or a King's Highway. Traffic counts should be taken on both sides of the intersection with the upper tier and the extension continued through the intersection, only if both AADTs equal or exceed 700 vehicles per day.

**Criterion 8 Rural Cell Service**

The intent of this criterion is to provide upper tier service within the cell formed by the application of criteria 1 - 7 inclusive at spacing related to population density within the cells.

Upper tier roads or provincial highways in the subject upper tier or in adjacent upper tiers act as rural cell boundaries.

Population Density	Additional service required when spacing of roads is greater than
less than 1 person/km <sup>2</sup>	no additional service
1 person/km <sup>2</sup>	25 km
between 1 and 4 persons/km <sup>2</sup>	20 km
between 4 and 8 persons/km <sup>2</sup>	15 km
between 8 and 16 persons/km <sup>2</sup>	10 km
greater than 16 persons/km <sup>2</sup>	6 km

**Criterion 9 Traffic Speeds**

This criterion is intended to identify those roads which have a speed limit of 80 km/h. This is deemed to be a desirable speed limit allowing roads that predominately serve as inter-municipal links in a road network to do so efficiently.

**Criterion 10 Road Surfaces**

This criterion is intended to identify those roads with an asphalt surface. These roads were deemed to be more appropriate to serve as upper tier roads as this surface material would be more durable to withstand the

greater traffic volumes, heavier vehicles and higher speeds as anticipated on upper tier roads.

#### **Criterion 11 *Traffic Volumes***

This criterion was intended to identify roads with current traffic volumes greater than 1000 vehicles per day.

#### **Criterion 12 *Road Right-of-Way***

The intent of this criterion is to identify roads with a right-of-way width of 66 feet. It is appropriate to be considered for an upper tier road designation that the road have at least a standard right-of-way.

Apply each of the criteria in section entitled *Criteria and the Weights Applied* to the existing upper tier road system and to local roads identified by each municipality as a provider of through traffic service. Criteria 6 and 8 are not included in the original application of criteria but could be used as a rationale for including additional roads or road sections to complete the road network.

#### **CUT-OFF WEIGHT**

After the criteria have been applied to each road being analyzed, it is possible to determine how much weight each road has accumulated. By setting a minimum weighting of six points, a cut-off threshold is established for including a road in the upper tier system.

This would mean that to qualify for upper tier designation a road must meet either the criteria for urban centre connector or the criteria for urban arterial extension worth 3 points, plus all four criteria for traffic speed, road surface, traffic volume and road right-of-way worth a combined total of 3 points, or another combination of criteria to have a total weight of 6. This becomes the yardstick to be used for recommending the redesignation of roads.

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## BASKIN DRIVE ASSESSMENT SUMMARY

Criterion	Weighting Applied	Weighted Points
1 – Urban Center Connector	3	0
2 – King’s Highway/Upper Tier Connector	2	0
3 – Heavy Industry Service	2	0
4 – Barrier Service	1	0
5 – Resort Criterion	1	0
6 – Urban Cell Service	0	0
7 – Urban Arterial Extension	3	3
8 – Rural Cell Service	0	0
9 – Traffic Speed	1	0
10 – Road Surface	0.5	0.5
11 – Traffic Volume	0.5	0.5
12 – Road Right-of-Way	1	1
TOTALS	15	5

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## CAPITAL WORKS DIVISION REPORT

Prepared by: Michael Pinet, P. Eng., Manager, Capital Works

Prepared for: Operations Committee

September 12, 2011

### INFORMATION

#### 1. Projected 2011 Capital Budget Expenditures & Funding

At the August 8, 2011 Operations Committee meeting staff provided a summary report on the projected expenditures for the 2011 Capital Works program. The report forecast a surplus of approximately \$345,000 to the 2011 year-end.

There was also some uncertainty that the County Road 66 project on Opeongo Road could be completed this year due to delays associated with the utility relocations. In the event that portions of the project were delayed or postponed, there could be an increase in the division's forecasted surplus. Staff was directed to proceed with the tendering of the County Road 66 project and a contract was awarded at a special Committee meeting on August 29, 2011.

Staff was also directed to update the projected expenditures and to provide recommendations for the re-allocation of the projected surplus funding for specific projects at the special Committee meeting which was held on August 29, 2011.

Attached as Appendix CW-I for Committee's review is a modified version of Schedule "B" from the Departmental budget, which sets out the Capital Program as approved in the 2011 budget. This schedule identifies the approved budget, projected project expenditures and the variance (between budget & projected expenditures). The analysis includes the most recent tenders received, updated costs for works that have been completed to date, and updated costs for projects currently under construction. The cost projections are current to September 2<sup>nd</sup>. The variances in the program are summarized in Table 1.

**Table 1**

<b>2011 CAPITAL WORKS BUDGET</b>			
<b>Variances in Program (x \$1,000)</b>			
	<b>Budget</b>	<b>Projected Expenditure (August 26)</b>	<b>Variance</b>
TOTAL ROAD RECONSTRUCTION/REHABILITAION	6,465.0	6,583.0	68.0
TOTAL BRIDGE/CULVERT RECONSTRUCTION/REHABILITAION	1,730.0	2,035.7	307.5
TOTAL FUTURE ENGINEERING	287.4	220.4	(67.0)
TOTAL SAFETY DEVICES	280.0	235.0	(45.0)
TOTAL INFRASTRUCTURE & RIGHT-OF-WAY & STUDIES	473.0	275.0	(198.0)
<b>TOTAL 2011 CAPITAL WORKS BUDGET</b>	<b>9,235.4</b>	<b>9,350.9</b>	<b>65.5</b>

## Discussion:

This current estimate shows a projected over-expenditure of approximately \$65,500 which is within 1% of the approved budget. As Committee will recall, staff had initially anticipated that the construction of the Petawawa River Bridge would be deferred by one year, and had marginally increased the scope of work on several multi-year projects to take advantage of the competitive costs and reduce the amount of work to be completed in future years.

As was discussed at the special Committee meeting on August 29<sup>th</sup>, the division budget forecast now provides a funding expenditure of \$700,000 in the 2011 budget projection for the Petawawa River Bridge rehabilitation in accordance with Resolution No. OP-C-11-08-77. This includes funds for the engineering design for the project, with the balance to be set aside as a special reserve to be used to fund the repair program in 2012. To accommodate this requirement, staff has adjusted the proposed capital works program for the remainder of this year. The table in the Appendix CW-I now updates the individual project cost projections from those in the August Committee report.

The following summarizes the major program variations from that provided in the August Committee meeting.

### **i) Bridge Repairs General and unbudgeted Culvert Replacements**

Staff has previously identified the need to replace the Lessard Bridge used at Constant Creek with a new 60 foot bridge (\$75,000) and to replace a failing culvert at Coghlan's Meadow (\$130,000 -150,000). Significant repairs have also been identified to correct damage to the expansion joints at the Claybank Bridge and to correct a significant slope stability problem at the Cameron Culvert on Usborne Street near Arnprior. The updated program proposes to defer the purchase of the replacement Lessard structure to 2012, and has postponed the repairs to the Cameron Culvert on Usborne Street.

### **ii) Petawawa River Bridge**

As stated previously, the repairs to the parapet walls on the Petawawa River Bridge have been deferred for 2011. The full funding for this project has now been allocated to this project, with the understanding that all unused funds will be set aside in a special reserve to offset the costs for the parapet wall repairs, which are now to be undertaken as part of the 2012 work program. This results in a project cost increase of approximately \$600,000 from that reported in the earlier August Committee meeting.

### **iii) Road Construction**

**County Road 34 (Norton Road)**  
**County Road 68 (Letterkenny Road)**  
**County Road 66 (Opeongo Road)**

With the completion of the construction on County Roads 34 and 66, there has been an increase in the cost for the projects due to the amount of rock removal on these two projects. These costs have been partially offset by favorable tender results for the construction of the remainder of County Road 66, Opeongo Road.

#### iv) **Infrastructure, Right-of-way and Studies**

The budgeted costs for a variety of studies and reports have been reduced. Several studies and structural assessments will be reduced or deferred until 2012. In addition, the vacancy in the asset management position will result in a reduction in this program. The net effect is a forecast reduction of approximately \$235,000 in expenditures in infrastructure assessment and evaluations activities.

Staff will continue to monitor the Division's progress on the 2011 capital program. It is possible that surplus funds may still be achieved. Should this occur, staff proposes to direct the available funds towards the reconstruction of County Road 22, Grattan Road where practical. The funds would be utilized to complete clearing operations or rock removal on the remaining portion of the project, currently scheduled for 2012.

#### 2. Project Updates - Construction

- (a) Reconstruction of County Road 68 (Letterkenny Road) from 1.6 km north of Rockingham Road northerly 1.7 km, in the Township of Brudenell, Lyndoch & Raglan. Design: Robinson Consultants. Contractor: Eastway Contracting

This project is the second phase of a multiyear project to reconstruct County Road 68, Letterkenny Road. The project included the complete reconstruction of the road including earth and rock excavation, grading and drainage, culvert replacement and hot mix paving.

All work was completed by Eastway Contracting with the exception of line painting, which is to be completed the week of September 6, 2011.

##### Coghlands Meadow Culvert

As Committee will recall in the August Operations Committee meeting, the County Road 68, Letterkenny Road project was extended to include the replacement of a 2.7 m diameter culvert at Coghlands Meadow on County Road 66, Opeongo Road. The work required that Opeongo Road be closed to through traffic commencing August 22, 2011. Detours were in place via Letterkenny Road and John Watson Road. The installation of the culvert was completed on September 2<sup>nd</sup> and the road was reopened to through traffic. Asphalt paving and the reinstatement of guide rail is to be completed in early September.

- (b) Rehabilitation of County Structure (B032) Calabogie Bridge on County Road 511 (Lanark Road), Township of Greater Madawaska. Design: McCormick Rankin Contractor: Corington Engineering Inc.

Work continues on the rehabilitation of the structure. The contractor has now completed the jacking of the bridge deck and the replacement of the bridge bearings. On Thursday, September 1, 2011 the contractor completed the repairs to the east side of the bridge, including waterproofing and paving of the deck. On Friday, the traffic was diverted onto the east side of the bridge and the contractor began the repairs to the west half of the deck.

The bridge will remain open to one-way traffic, controlled by traffic signals for the duration of the construction. Work is currently scheduled for completion in early October.

- (c) Frost Heave Repair on County Road 20 (Castleford Road) from 5.0 km north of Highway 17 – Township of Horton – Contractor: Day Labour Crew

The asphalt paving was completed at the end of July. The work is now complete.

- (d) Structure B053 - Constant Creek Bridge Replacement; Municipal Class Environmental Assessment and Interim Deck Replacement Work - Consultant: Genivar; Contractor: Greyleith Construction

This project involved the rehabilitation of a load restricted bridge on Ferguson Lake Road. The bridge was posted with an eight (8) tonne load restriction. The contractor was required to remove the existing bridge deck and to rehabilitate the existing abutments.

The contractor for this project, Greyleith Construction has now completed all work on this project. The bridge deck was then replaced with the 50-foot Lessard Bridge which was relocated to the site from the Pembroke Patrol yard. Detours were in place for the duration of the construction. The bridge was reopened to all traffic on August 23, 2011, approximately 10 days ahead of schedule. The signs identifying the load restrictions have now been removed from the bridge.

- (e) Reconstruction of County Road 34 (Norton Road) from County Road 508 (Calabogie Road) to English Road, Townships of Admaston/Bromley and Greater Madawaska - In-House Design - Contractor: Day Labour Crew

This project involves the reconstruction of the roadway, including horizontal and vertical alignment, grading (earth and rock), drainage and granular. In preparing the 2011 budget for the project, the placement of surface treatment on this project was deferred until 2012.

County of Renfrew Day Labour Crew began work on the project on July 14<sup>th</sup>. The road construction was completed on September 6<sup>th</sup>. The costs for the project have increased due to the amount of rock encountered on the project and a shortage of suitable available excavated material.

This day labour project included several contracts for the provision of materials and services. Granular A and B for the project was supplied by Cavanagh Construction in conjunction with the work by the Day Labour crew. The placement of fencing and guiderail, by contract with Hughson Fence and Guide Rail Ltd., will be completed in early September. The hydroseeding of the ditches will be completed by J & K Hydroseeding and Mulching by mid September.

- (f) Rehabilitation of County Road 61 (Haley Road) from 1.0 km south of Godfrey Road to Highway 17, Township of Whitewater Region – In-House Design – Contractor: B.R. Fulton Construction Ltd.

The firm of B.R. Fulton Construction Ltd. was awarded a contract for the rehabilitation of County Road 61 at the August meeting of County Council. The contractor has provided the required performance and maintenance bonds for the project, and the contracts have been signed. A pre-construction meeting was held on Wednesday August 31, 2011 to review the project requirements. The contractor began work on the project on September 6<sup>th</sup>.

This project involves the reconstruction of the CPR crossing on Godfrey Road. The rail authority is scheduled to remove the rails in this section of the line beginning the week of September 5<sup>th</sup>. Staff is currently working with the rail authority, under the guidance of Paul Moreau, in order to coordinate the removal of the rail infrastructure within the road allowance. This will allow for the full reconstruction of the road in this area and will eliminate an ongoing drainage and frost heave problem. The contractor's schedule will be adjusted to accommodate any delays caused by the additional railway works.

- (g) Reconstruction of County Road 63 (Flat Rapids Road) from 300 m east of Mill Ridge Road to 750 m west of Mill Ridge Road, Township of McNab/Braeside – Consultant: Genivar

This tender was awarded at the June 2011 County Council meeting. The contract documents have been signed and the required bonding and insurance has been received.

The contractor, Goldie Mohr Construction Limited, started the reconstruction project on August 29, 2011. This project includes the reconstruction of approximately 1.1 km of Flat Rapids Road and the realignment of the Mill Ridge Road intersection. The major items in the contract include grading, drainage improvements and hot mix paving. The project is scheduled to be complete in early October.

- (h) Reconstruction of County Road 22 (Grattan Road), from 1.6 km east of Highway 41 easterly 2.0 km -Consultant: Morrison Hershfield- Contractor: Day Labour Crew

This is the second phase of a multiyear reconstruction project scheduled for completion in 2012. Earlier this summer, due to the poor condition of the road surface, the majority of the road was returned to a gravel condition.

The County of Renfrew Day Labour Crew commenced construction on this year's project on September 1, 2011. Construction is expected to last until the end of October and will involve a series of contracts for materials and services. Hot mix asphalt paving will be completed by Greenwood Paving Ltd. Granular material will be supplied by B.R. Fulton Construction Ltd. The fencing and guiderail will be completed by Hughson Fencing and the culverts will be supplied by Armtec Limited Partnership.

The legal survey is ongoing for the remainder of the properties required for the 2012 construction project.

- (i) Reconstruction of County Road 66 (Opeongo Road) from Wilno South Road easterly 1.5 km, Township of Madawaska Valley – Consultant: McIntosh Perry Consulting Engineers. Contractor: Walsh Contracting & Equipment Rentals Ltd.

As Committee is aware, this project has been delayed due to the requirement to relocate Bell and Hydro lines. Staff has had discussions with Hydro One Networks and although the forestry work has been completed, Hydro One has advised that the line relocation will not be complete by September 2. Currently, hydro crews are setting the poles. A schedule for the Bell activities is pending.

A resolution to award a contract for the reconstruction of County Road 66 (Opeongo Road) was approved at the August County Council meeting. The contract includes a provision to defer the asphalt paving and related works until 2012, should the weather conditions become unfavourable. The letter advising of the contract award has been sent to the successful tenderer, Walsh Contracting & Equipment Rentals Ltd. The pre-construction meeting will be arranged once the schedule for the Bell relocations has been determined.

- (j) Rehabilitation of County Road 28 (Barron Canyon Road) from Priebe Road to Station Hill Road, Township of Laurentian Valley and Town of Petawawa. Consultant: Jp2g Consultants Inc. Contractor: Eastway Contracting. Build Canada Project Intake I

In accordance with the resolution of Committee, a change order was issued to Eastway Contracting for the construction of a 2.0 km portion of County Road 28 (Barron Canyon Road). The contractor has provided the required performance bonds and insurance certificates for the work. A pre-construction meeting is scheduled for September 7, 2011. Construction is scheduled to commence on September 12, 2011 with completion in the middle of October.

- (k) Property

Staff members are continuing to work at property acquisitions related to several road projects.

Current property negotiations are summarized in the following table:

Road	Total # of Owners Contacted	Meetings Attended	Signed Options	Properties for which a By-law has been passed	Transactions Completed
22 (Grattan Road)	40	33	36	12	7
28 (Barron Canyon Road)	8	8	8	8	8
34 (Norton Road)	8	8	6	6	6
63 (Flat Rapids Road)	16	13	12	11	5
66 (Opeongo Road)	18	18	18	0	0
68 (Letterkenny Road)	14	13	13	10	8
71 (Matawatchan Road)	5	1	0	0	0
<b>Total</b>	<b>109</b>	<b>94</b>	<b>93</b>	<b>47</b>	<b>34</b>

3. Proposed Reconstruction of Matawatchan Road (County Road 71) –Design

Staff is continuing to prepare the design for the roadway, and have contacted several land owners regarding the potential purchase of property for road widening. Staff is currently preparing a request for proposals for geotechnical (soils) investigation. A detailed report on the status of the project will be provided at the October Committee meeting in advance of the public meeting currently scheduled for late October. The final design for the road project will be dependent on the outcome of the soils investigation and the success of the property negotiations.

4. Tenders & Quotations

(a) Upcoming Tenders

Staff continues to prepare tenders for the approved 2011 construction program. All tenders will be advertised in the local newspapers and posted on the County of Renfrew web site in accordance with the County purchasing policy.

The following provides a list of pending tenders and quotations which staff expects will be advertised in the month of September 2011:

1. PWC-2011-37 - Expansion Joint Repairs of County Structure B120 (Claybank Bridge), in the Township of McNab/Braeside. Tender closing September 20, 2011.
2. PWC-2011-38 - Request for Proposals for the evaluation of County Structure C205 (Westmeath Culvert), in the Township of Whitewater Region have been requested from 3 consulting firms. The proposals are due September 16, 2011.

**Recommendation:** Receive as information.

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## CAPITAL WORKS VARIANCE REPORT - SEPTEMBER 2011

(X \$1,000)

Road Reconstruction/Rehabilitation									
Road #	Location	From	To	Length (km)	2011 BUDGET	Projected Expenditure June 2011	Projected Expenditure Aug. 8 2011	Projected Expenditure Sep.12 2011	Variance
22	Bonnechere Valley	2010 Limit	Easterly	2.00	900.0	890.00	915.00	949.00	49.0
28	Laurentian Valley/Petawawa	Station Hill Road	Smith Lane	3.00	800.0	600.00	700.00	734.00	-66.0
34	Greater Madawaska/Admaston/Bromley	2010 Limit	Northerly	1.40	480.0	610.00	610.00	760.00	280.0
61	Whitewater	2009 Limit	Hwy 17	1.90	750.0	550.00	460.00	452.00	-298.0
*62	Madawaska Valley	2009 Limit	Long Lake Road?	1.70	550.0	575.00	630.00	600.00	50.0
63	McNab/Braeside	300m E of Mill Ridge Road	750m W of Mill Ridge Road	1.50	800.0	1,000.00	1,025.00	1,025.00	225.0
*64	Bonnechere Valley	Baptist Church Road	Easterly	3.30	350.0	350.00	350.00	343.00	-7.0
66	Madawaska Valley	Wilno Road South	Easterly	1.50	900.0	890.00	810.00	697.00	-203.0
68	Brudenell, Lyndoch & Raglan	1.6km N of Rockingham	Northerly	2.00	800.0	832.00	749.00	834.00	34.0
*69	Madawaska Valley	Sunny Hill Road	Southerly	2.00	43.0	43.00	45.00	45.00	2.0
		Kartuzy Road	Westerly	1.50	32.0	32.00	33.00	33.00	1.0
*20	Horton	Frost Heave Repair			60.0	60.00	61.00	61.00	1.0
<b>ROAD RECONSTRUCTION/REHABILITATION TOTALS</b>				<b>21.8</b>	<b>6,465.0</b>	<b>6,432.0</b>	<b>6,388.0</b>	<b>6,533.0</b>	<b>68.0</b>
Bridge/Culvert Reconstruction/Rehabilitation									
Structure #	Location	Structure Name			2011 BUDGET				Variance
B-032	Greater Madawaska	Calabogie Bridge			620.0	675.00	685.00	691.00	71.0
B-053	Greater Madawaska	Constant Creek Bridge			260.0	285.00	230.00	219.00	-41.0
B-203	Petawawa	Petawawa River Bridge			700.0	100.00	100.00	700.00	0.0
<b>Bridge Repairs - General</b>					150.0	0.00	0.00	0.00	-150.0
		*Tramore Bridge			0.0	35.00	35.00	33.00	33.0
		Claybank Bridge			0.0	40.00	120.00	120.00	120.0
		Replace Lessard Bridge (60 foot)			0.0	75.00	75.00	0.00	0.0
<b>Unspecified Culvert Replacements</b>					0.0				0.0
		Coughlans Meadows			0.0	130.00	130.00	131.00	131.0
		*CR56 Culvert			0.0	45.00	52.00	52.00	52.0
		*CR58 Culvert				80.00	80.00	91.50	91.5
<b>BRIDGE/CULVERT RECONSTRUCTION/REHABILITATION TOTALS</b>					<b>1,730.0</b>	<b>1,465.0</b>	<b>1,507.0</b>	<b>2,037.5</b>	<b>307.5</b>
Future Engineering									
<u>A. Roads</u>									
Road #	Location	From	To	Length (km)	2011 BUDGET				Variance
10	McNab/Braeside/ Arnprior	Elgin Street	County Road 15	1.20	30.4	30.40	30.40	30.40	0.0
70	Bonnechere Valley	Gorman Road	Wolfe Road	3.30	30.0	30.00	30.00	30.00	0.0
71	Greater Madawaska	County Road 65	Northerly	3.00	50.0	50.00	50.00	50.00	0.0
<b>Road Future Engineering Totals</b>				<b>7.50</b>	<b>110.4</b>	<b>110.4</b>	<b>110.4</b>	<b>110.4</b>	<b>0.0</b>
<u>B. Bridges/Culverts</u>									
Structure #	Location	Structure Name			2011 BUDGET				Variance
C-030	Laurentian Valley	Hales Creek Culvert (Bline Rd)			50.0	50.00	50.00	30.00	-20.0
B-067	Brudenell, Lyndoch & Raglan	Addington Bridge			50.0	50.00	50.00	40.00	-10.0
<b>Bridge/Culvert Future Engineering Totals</b>					<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>70.0</b>	<b>-30.0</b>
<u>C. Deck Condition Surveys/Structural Evaluations</u>									
Structure #	Location	Structure Name			2011 BUDGET				Variance
<b>Deck Condition Survey Totals</b>					<b>77.0</b>	<b>77.0</b>	<b>77.0</b>	<b>40.0</b>	<b>-37.0</b>
<b>FUTURE ENGINEERING TOTALS</b>					<b>287.4</b>	<b>287.4</b>	<b>287.4</b>	<b>220.4</b>	<b>-67.0</b>
6) Safety Devices									
Road #	Location				2011 BUDGET				Variance
		Guide Rails - Various Locations			80.0	40.00	35.00	35.00	-45.0
		Traffic Signals - Winner's Circle - Arnprior			200.0	200.00	200.00	200.00	0.0
<b>SAFETY DEVICES TOTAL</b>					<b>280.0</b>	<b>240.0</b>	<b>235.0</b>	<b>235.0</b>	<b>-45.0</b>
7) Infrastructure, Right-ofway & Studies									
<u>A. Items</u>									
<b>Item Totals</b>					<b>298.0</b>	<b>298.0</b>	<b>298.0</b>	<b>190.0</b>	<b>-108.0</b>
<u>B. Studies</u>									
<b>Item Totals</b>					<b>175.0</b>	<b>175.0</b>	<b>175.0</b>	<b>85.0</b>	<b>-90.0</b>
<b>INFRASTRUCTURE, RIGHT-OF-WAY &amp; STUDIES TOTAL</b>					<b>473.0</b>	<b>473.0</b>	<b>473.0</b>	<b>275.0</b>	<b>-198.0</b>
<b>BUDGET TOTAL</b>					<b>9,235.4</b>	<b>8,897.4</b>	<b>8,890.4</b>	<b>9,300.9</b>	<b>65.5</b>

\* Projects completed

All figures in thousands

Schedule B

**CAPITAL WORKS DIVISION - OPERATING PROGRAM**

<b>Infrastructure, Right-of-Way &amp; Studies</b>				
<b><u>A. Items</u></b>	<b>2011 BUDGET</b>	<b>Projected Expenditure Sep. 12 2011</b>	<b>Variance</b>	
Right-of-Way Management	40.0	50.0	10.0	
Infrastructure Management	175.0	80.0	-95.0	
Culvert Approvals and Environmental Assessments	26.0	10.0	-16.0	
Education, Research, PMPs, Interviews & Meetings	57.0	50.0	-7.0	
<b>Item Totals</b>	<b>298.0</b>	<b>190.0</b>	<b>-108.0</b>	
<b><u>B. Studies</u></b>				
Transportation Strategic Planning	50.0	25.0	-25.0	
Growth Financing Assessment	5.0	0.0	-5.0	
Drainage Outlets Review	15.0	<b>5.0</b>	-10.0	
Sand Point Drainage Study	20.0	<b>0.0</b>	-20.0	
Division Street Infrastructure Assessment - Arnprior	35.0	35.0	0.0	
Meadowbrook Drive Drainage Assessment - Forest Lea Road	25.0	10.0	-15.0	
Miscellaneous Studies and Assessments (5 x \$5,000)	25.0	10.0	-15.0	
<b>Studies Totals</b>	<b>175.0</b>	<b>85.0</b>	<b>-90.0</b>	
<b>INFRASTRUCTURE, RIGHT-OF-WAY &amp; STUDIES TOTAL</b>		<b>473.0</b>	<b>275.0</b>	<b>-198.0</b>

\*All figures in thousands

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**OPERATIONS DIVISION REPORT**

Prepared by: Steven P. Boland, C.E.T., LEL, Manager of Operations  
 Prepared for: Operations Committee  
 September 12, 2011

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**INFORMATION**1. Summer Operations(a) Roadside Brushing

Roadside brushing is continuing at various locations throughout the system utilizing a combination of in-house and contracted resources. It is anticipated that the majority of the brushing contemplated in the 2011 maintenance program will be completed by mid October.

(b) Pavement Marking Program

The work under the annual pavement marking program is continuing. All work is expected to be completed by mid September.

(c) Roadside Ditching Program

Staff is in the process of undertaking ditch cleanouts at various locations. The work comprises two types of work. The first is cleanout and regrading of ditches that have shown a history of drainage problems, and is intended to rectify past problems. The other type of work pertains to cleaning out the ditches at the ends of culverts that have been partially blocked over the past year. This work is completed in preparation for the coming winter and spring seasons as a preventative measure to help ensure that the drainage system functions properly when it is needed.

(d) Hot Mix Scratch Coat Paving and Patching – Contract PWO-2011-10

The scratch coat paving portion of this contract has been completed. Localized hot mix patching of asphalt surfaces will be undertaken over the next few weeks at a variety of locations by the contractor, Smiths Construction. The hot mix patches are being placed at locations where culverts have required replacement and in places where the road surface has seen isolated areas of distress. The use of hot mix patching helps to preserve the integrity of the road surface, thereby extending its longevity.

(e) Granular Sealing of Roadside Shoulders – Contract PWO-2011-17

Quotations for the supply and application of granular sealant on roadway shoulders at various locations were received on August 9, 2011 as follows:

1. Greenwood Paving Ltd., Pembroke, ON	\$47,375.25
2. Smiths Construction Company Ltd., Arnprior, ON	49,138.05
3. H&H Construction Inc., Petawawa, ON	No Submission
All amounts include 13% HST	

In accordance with Policy GA-01, the contract has been awarded to the low bidder under the authority of the Director of Public Works & Engineering.

The work involves spraying an asphalt emulsion on the gravel shoulder which hardens the surface in an effort to reduce erosion of the shoulder. The sealing is generally applied at guiderail locations. Granular sealing also provides the additional benefit of discouraging the growth of vegetation which in the vicinity of guiderails must be cut by manual means. It is expected that all work under this contract will be completed by the end of September.

(f) Concrete Curb Replacements – Contract PWO-2011-16

The contract for the replacement of concrete curbs in Arnprior and Killaloe is being undertaken by H&H Construction Inc., Petawawa, Ontario. The contractor plans to commence work on September 12, 2011. All work is to be completed by September 16, 2011.

2. Winter Operations

(a) Winter Sand

The supply, delivery and stockpiling of winter sand has commenced at the various patrol locations. All winter sand is to be delivered and stockpiled prior to the beginning of the winter season.

3. Fleet Management

(a) Annual Vehicle Safety Inspections

Work is continuing with the annual vehicle safety inspections within the fleet. The goal is to ensure that all heavy duty trucks have been inspected and repaired as necessary in order to be available at the start of the coming winter season. In addition to the inspection and repair of those vehicles within the Public Works & Engineering Department, staff also performs the routine maintenance, inspection and repair of the paramedic vehicles.

(b) Replacement Tandem Truck & Plow Units – Contract PWO 2011-07

Staff has been advised by the supplier, Francis Canada Truck Centre, that delivery of the new trucks will be delayed beyond the September 15, 2011 delivery date. It is anticipated that delivery of the new trucks will be delayed until December.

The impacts to winter operations, due to late delivery of these trucks, should be minimal as the existing units will remain in service until such time as the new trucks arrive.

The supplier has been advised that the County reserves the right to enforce the late delivery provisions of the contract should it choose to do so. Staff is currently in discussions with the supplier regarding potential liquidated damages.

4. Corridor Control

(a) Petawawa Transportation Study - Environmental Assessment

As directed during the special meeting of the Operations Committee on August 29, 2011, staff has contacted the study consultant to obtain an updated schedule to complete the environmental assessment work. A copy of the work plan and schedule is attached as Appendix OP-I. In reviewing the schedule, it is noted that there are two Operations Committee meeting presentations proposed as well as a Public Information Centre (PIC) in June of 2012 and presentations of the final study results to County Council and the Town of Petawawa Council in October 2012. It is anticipated that the Phase 3 & 4 Environmental Assessment work will be completed and the final reports filed for public review by late November 2012. The consultant is currently preparing an update to the budget to take the project to its completion.

**RESOLUTIONS**

5. Sand Point Traffic Calming

Attached as Appendix OP-II is a letter dated July 12, 2011 received from the Township of McNab/Braeside, regarding possible additional measures to be taken to help reduce speeding in the Sand Point area. A local resident, Mr. Mike Cleary recently met with McNab/Braeside Council as well as County staff regarding the matter.

Sand Point is a small hamlet in McNab/Braeside Township, in close proximity to the Ottawa River. Also running through the middle of the community is the former CPR railway track. The roadway is a paved surface with yellow centre lines and narrow shoulders. Many of the houses are built close to the roadway. On the north side, the shoulders run off to a shallow ditch that leads to the railway track. The current speed limit through the Hamlet is 50km/h. The County of Renfrew has introduced several measures to help reduce speeding over the past three years including reducing the speed limit from 60km/h to 50km/h and installing additional signage to warn motorists of pedestrians in the area. Unfortunately most motorists continue to exceed the posted speed limit in this area. Previous speed studies indicate that approximately 75% of motorists are travelling more than 20 km/h over the posted speed limits.

Staff has again reviewed the area and provides the following recommendations for the Committee's consideration:

1. That a white paint edge line be placed along both sides of the roadway within the 50 km/h section of the Hamlet. It is noted, in several traffic manuals, that a painted edge line can make a roadway seem narrower, causing motorists to reduce their speed.
2. That a "50 km/h Ahead" symbol be painted on the roadway prior to entering the reduced speed zone. This would be the first time that the County of Renfrew has painted text on a roadway and staff believes that this would be a good trial location for this type of marking.
3. That a Community Safety Zone (CSZ) be implemented within the 50km/h section of Sand Point. Below is a definition/summary of a Community Safety Zone (CSZ):

Section 214 of the Highway Traffic Act (RSO 1990) contains provisions whereby a municipality may pass a by-law designating a part of a highway as a Community Safety Zone (CSZ) if in the Council's opinion, public safety is of a special concern on that part of the highway. The effect of the CSZ designation is to increase the penalties imposed for infractions. The usual increase is to double the fines. The area designated must be appropriately signed in accordance with the Ontario Traffic Manual (OTM).

The OTM provides the following information regarding Community Safety Zones:

*“These are sections of roadway where public safety is of special concern. Community Safety Zones may include roadways near schools, day care centers, playgrounds, parks, hospitals, senior citizen residences and may also be used for collision-prone areas within a community.”*

In order to have a CSZ implemented, special signage must be installed and a Municipal By-Law must be passed designating the zone. This would be the first CSZ along a County Road and staff is of the opinion that the CSZ implementation on a pilot project basis at this location would permit an opportunity to assess the effectiveness of CSZ's.

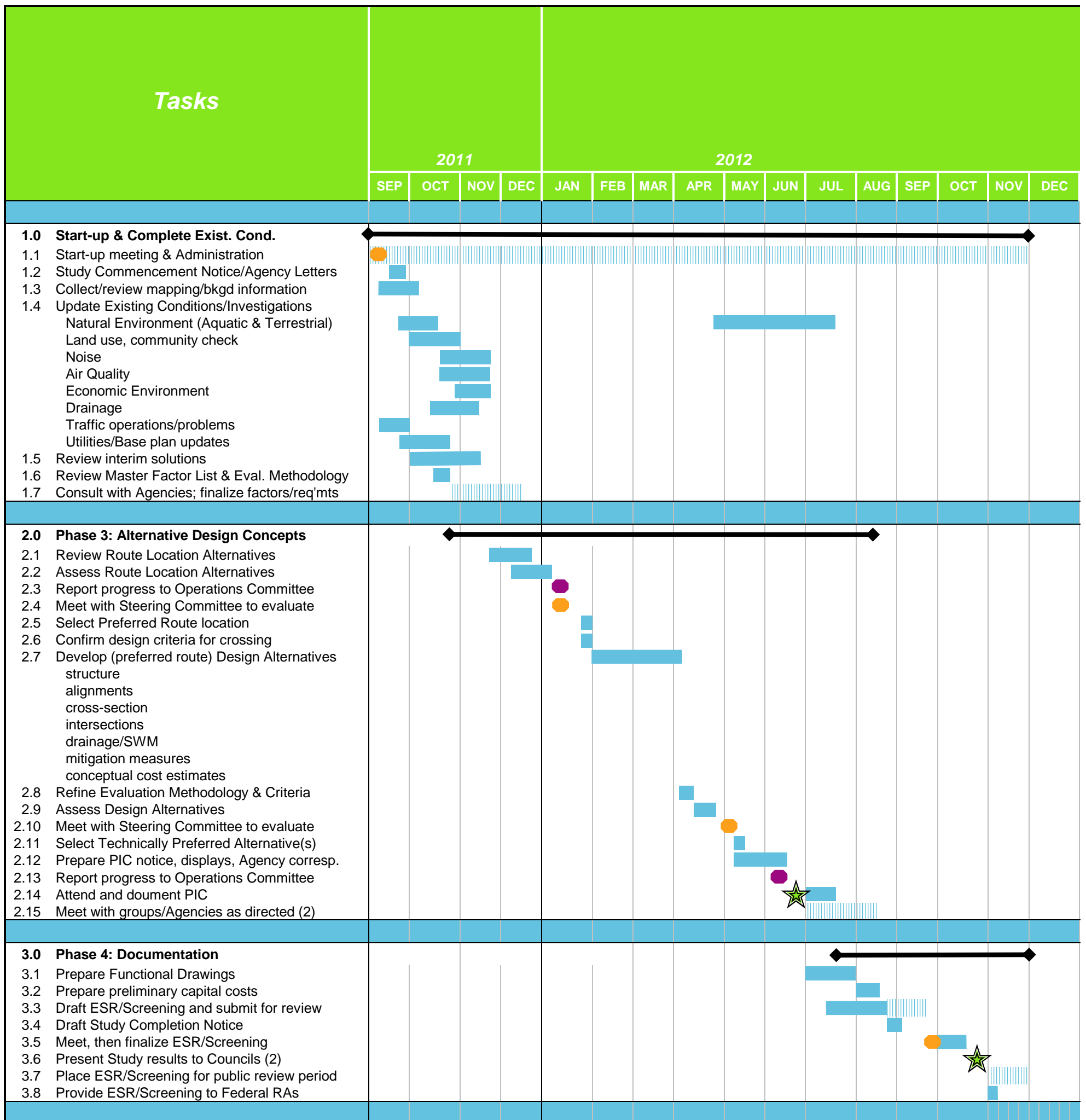
Attached as Appendix OP-III is a map identifying the aforementioned changes for this section of County Road 1. Also attached is a draft by-law. It is proposed that the changes in the area be monitored for one year with a follow-up report to be presented to Committee in late 2012.

The estimated cost to make the proposed changes to the signage is approximately \$3,000.

**Recommendation:** THAT the three traffic calming measures outlined above be implemented as a pilot project along this section of County Road 1 (River Road) in the Hamlet of Sand Point; AND THAT a by-law be passed to authorize the designation of a community safety zone (CSZ).

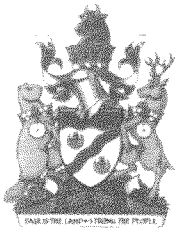
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**Proposed Schedule and Workplan for Petawawa Class EA Phase 3 and 4 Completion**



Notes: A field investigation in the spring (not completed) is required to satisfy provincial and federal requirements.  
 A Stage 2 Archaeological Investigation is likely required once the new alignment has been staked in the field. For the County's information, a Stage 2 investigation will be in the range of \$9,000 to \$15,000 depending on the site selected.  
 Responsible Authorities may include DND, DFO, Transport Canada. Triggers may include land, Fisheries Act and NWPA regulations.  
 Federal Agencies may have additional requirements to those anticipated in this work plan to complete their screening, depending on the characteristics of the Recommended Plan.

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THE CORPORATION OF

**THE TOWNSHIP OF McNAB/BRAESIDE**

2508 RUSSETT DRIVE, R.R. 2, ARNPRIOR, ONTARIO K7S 3G8

July 12, 2011

Mr. David Darche, P. Eng.  
Public Works & Engineering Department  
County of Renfrew  
9 International Drive  
Pembroke, Ontario  
K8A 6W5

Re: River Road - Sand Point

Dear Mr. Darche:

The Township has received further complaints from a resident that resides in the Sand Point area along River Road. Mr. Mike Cleary was in attendance at a recent Council meeting to address Council regarding the excessive speeding in the hamlet of Sand Point. Mr. Cleary further advised that the County of Renfrew is proposing signage or singing grooves / vibrating markings on the road surface entering into Sand Point, however, has stated that the County of Renfrew will require Council's support in this regard.

Please provide clarification as to the proposed changes the County intends to implement so that I may provide to Council for their review prior to their issuance of support regarding this subject. Thanking you in advance for your response on this matter, I remain.

Yours truly,

Noreen C. Mellema, CMO  
CAO/Clerk

NCM/ay

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# Sand Point Traffic Calming Measures



**COUNTY OF RENFREW**

**BY-LAW NUMBER**

**A BY-LAW TO AUTHORIZE THE  
DESIGNATION OF A COMMUNITY SAFETY ZONE**

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WHEREAS pursuant to Section 214.1(1) of the Highway Traffic Act, R.S.O. 1990, Chapter H.8, as amended, the Council of a municipality may by by-law designate a part of a highway under its jurisdiction as a community safety zone, if in the opinion of Council, public safety is of special concern on that part of the highway.

NOW THEREFORE the Council of the Corporation of the County of Renfrew enacts as follows:

1. That the following portion of a highway in the geographic Township of McNab, in the Township of McNab/Braeside, be designated as a Community Safety Zone:

<b>Designated Highway Name</b>	<b>Between</b>	<b>Time Period</b>
County Road 1, River Road	100 m south of Golf Club Road to 1.2 km north of Golf Club Road	January 01 through December 31 - 00:01am to 12:00am (mid-night) daily

2. The penalties provided in the Highway Traffic Act shall apply to offences against this by-law.
3. That this by-law shall come into force and take effect on the date of final passage hereof and the installation of Community Safety Zone signage.

READ a first time this 28<sup>th</sup> day of September, 2011.

READ a second time this 28<sup>th</sup> day of September, 2011.

READ a third time and finally passed this 28<sup>th</sup> day of September, 2011.

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ROBERT SWEET, WARDEN

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W. JAMES HUTTON, CLERK

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