SUBJECT: Isthmus Bay Road Maintenance Issues

FROM: William Rydall, C.E.T., Public Works and Property Manager

DATE: February 29, 2016

RECOMMENDATION:

THAT Council receives Public Works Department Report PW 16-07 as information;

AND THAT Council directs Staff to include Isthmus Bay Road improvements in the 2019-2024 Road Management Study.

BACKGROUND:

In response to a letter received from the Isthmus Bay Property Owners’ Association, Staff has prepared this Report for Council’s information and disposition.

The Municipality has all roads listed and numbered in the 2014-2018 Road Management Study. The purpose of the Road Management Study is to:

a) Clearly identify the Municipality’s road system;
b) Prepare a five (5) year maintenance and construction program within existing levels of expenditures;
c) Identify those road sections in need of improvement, the type of improvement and an estimate of cost;
d) Establish bridge needs from the Municipality's bridge appraisal sheets;
e) Prepare an inventory of existing equipment and housing and forecast a replacement schedule; and
f) Prepare a five (5) year maintenance and construction program within existing levels of expenditures.

An inventory of all the roads in the new Municipality of Northern Bruce Peninsula (1999 amalgamation) was reviewed and revised as necessary. A visual assessment of the structural integrity (condition rating) was made for each road section.

For inventory purposes, road sections have been identified as Urban, Semi-urban and Rural depending on their design elements and environment.
Urban Roads
Roads with curb and gutter on both sides and curb and gutter on one side with full servicing, i.e. water, storm sewer, sanitary sewers.

Semi-Urban
Roads located in an urban environment without curb and gutter or with curb and gutter on one side without storm sewers.

Rural
Roads without curb and gutter in a rural environment.

Isthmus Bay Road, section identification number E260, is classed as rural and received a road condition rating of six (6) out of ten (10) during a combined Road Management Study following the amalgamation of the former Eastnor, Lindsay and St. Edmunds Townships and the Village of Lion’s Head in 1999.

The three (3) kilometre section from Everatt Sideroad to Whippetollow Road has a Low Cost Bituminous (LCB) surface with a width of 5.8 metres on a 7.8 metre platform within a 20 metre right-of-way (ROW). The road is a school bus route with average daily traffic of 400 to 999. The visual assessment indicated that the road was a poor ride and exhibited poor drainage.

Isthmus Bay Road was resurfaced in 1997 and again in 2011, a span of fourteen (14) years. The normal resurfacing frequency for an LCB surfaced road is seven (7) years. This would suggest that the sub-base of the road is good and the platform deformities could be eliminated by grinding the current surface, reshaping and applying a 150 mm crushed base under a new hard surface of LCB or asphalt.

The Ministry of Transportation’s (MTO) Roadside Safety Manual clear zone guideline suggests that the road should have no obstructions for a distance of three (3) metres (ten feet) from the cuter edge of a road. This clear zone would need to be kept free of parked vehicles, fences and permanent structures. The clear zone setback in an urban road classification can be reduced to 0.5 metres with the installation of a barrier curb.

COMMENTS:

The Road should be looked at in three (3) parts for a maintenance improvement solution as each part varies in degree of difficulty. Each area is discussed below with a proposed improvement plan and with an estimated cost of work.

Complete Reconstruction costs as per Road Management Study:

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Cost per metre</th>
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<tbody>
<tr>
<td>Rural</td>
<td>200-1000 V.P.D.</td>
<td>$160</td>
</tr>
<tr>
<td>Urban</td>
<td>Nominal Storm Sewers</td>
<td>$580</td>
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</table>
**Area 1 – Station 0+000 to 1+240**
- Intersection of Whipoorwill Road and Forty Hills Road (Station 0+040) requires horizontal and vertical alignment and drainage improvements
- Ditching on west side of road plus outlets
- Grind surface and apply four (4) inches of crushed gravel, reshape and place new hard surface
- May require property acquisition to address visibility problem at curve

Estimated cost – 1,240 metres at $160.00/metre = $198,000 (Station 0+000 to 1+240)

**Area 2 – Station 1+240 to 2+240 (change from rural to urban classification)**
- Full road design and consultation with property owners and Niagara Escarpment Commission (NEC) required
- Station 1+240 to 2+240 requires curb and gutter, catch basins and storm sewer
- New base and surface
- Removal of trees, fences and walls on 66 foot road allowance
- Possible back slope easements on west side of road

Estimated cost – 1,180 metres at $600.00/metre = $700,000 (Station 1+240 to 2+240)

A temporary measure in this area would be to install drain pits with catch basins in the ponding areas, reshape pond area and restrict parking in the clear zone area. Estimated cost of $50,000.00; however, this is not recommended for a long term solution.

**Area 3 – Station 2+240 to 3+000**
- Ditching on west side of road plus outlets
- Grind surface and apply four (4) inches of crushed gravel, reshape and place new hard surface
- Removal of trees, fences and walls on 66 foot road allowance
- May require property acquisition to address visibility problem at curve

Estimated cost – 760 metres at $160.00/metre = $120,000 (Station 2+240 to 3+000)

**ATTACHMENTS:**

1. Letter received November 5, 2015 from Isthmus Bay Property Owners' Association
2. Location map depicting areas (set out above)
3. Aerial photos of each area (set out above)

**BUDGET IMPLICATIONS:**

The budget implications would be addressed in the Road Management Study update.
MUNICIPAL STRATEGIC COMMITMENT:

By evaluating strategic objectives, it can be assured that the actions taken by the Municipality create value across all strategic priorities identified in the Strategic Plan. In doing so, the Municipality moves closer to its vision of providing a safe, progressive municipality that is committed to managing growth and providing a welcoming, diverse and environmentally sustainable community that enhances the quality of life for all residents and visitors.

<table>
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<tr>
<th>Strategic Priority</th>
<th>Yes</th>
<th>No</th>
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<tr>
<td>Well managed and fiscally responsible municipal government is enhanced</td>
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<td>Conservation and protection of unique natural environment including the encouragement of well managed growth is enhanced</td>
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<td>Health, safety and education of the community are enhanced.</td>
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<tr>
<td>Development/promotion of cultural and recreational opportunities is enhanced.</td>
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<td>Citizen involvement is enhanced.</td>
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<tr>
<td>Economic development strategies are enhanced.</td>
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<tr>
<td>Does the option(s) recommended create value across all strategic priorities?</td>
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<td></td>
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<tr>
<td>Does the option(s) recommended make Northern Bruce Peninsula a municipality of choice for high performance public servants?</td>
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Respectfully submitted:  

[Signature]
William Rydall, C.E.T.  
Public Works and Property Manager

Approved by:  

[Signature]
Mary Lynn Stander for  
Bill Jones, Chief Administrative Officer
To: Mayor and Council of Municipality of Northern Bruce Peninsula  
Re: Isthmus Bay Road

Dear Mayor and Members of Council,

We are writing to express our concern over what we consider to be unsafe and hazardous conditions on Isthmus Bay Road (IBR). This was a topic of concern at our most recent Annual General Meeting and, as a result, we have convened an ad hoc committee to review this matter. The committee met with Bill Rydell in August to review the concerns.

While we understand that a complete reconstruction of IBR is not an option because of its' scenic nature and conflicting property structures and encroachments we ask that you give consideration to the following factors raised by our committee:

- Conversation with Bill indicated that the surface treatment used on IBR is different from that used on comparable roads and has not performed as well as other treatments. We request that a renewal schedule be based on its condition and maintenance needs rather than on the schedule used for better-performing surfaces.
- Both major and minor maintenance has consistently been neglected.
- Chronic drainage problems are causing surface breakup, warping of road surfaces, splashing of bicyclists and pedestrians as well as creating a hazard for vehicles.
- Brushing and day-lighting procedures are lacking particularly at the curve south of Constance Drive. Recent brushing at the Swan Lake drain crossing is an improvement but brush impedes visibility.
- Berms (small windrows) are present in multiple locations on both sides of the road as a result of winter sanding operations and spillage gravel from driveways. These berms create a dangerous surface and inhibit rain and melt water from draining away as sheet runoff, thereby creating puddles and channelling runoff erosion. The need to be removed on a regular basis.
- Narrowing of the road in several places is common due to the above mentioned conditions and by parked vehicles encroaching on the driving surface and shoulders.
- Speed limits are rarely enforced.

We understand that a Roads Needs Study was scheduled to be completed by a consultant and tabled to Council in September. Apparently this has not happened.. Once it has, please provide a copy or web address to the report when it is tabled so that we can review the needs of IBR in context of other needs of the Municipality.

A list of more detailed observations and comments which may be of some assistance to your staff is appended to this letter. We trust these points are both helpful and constructive. As a result we look forward to some much needed improvements that will be of benefit to vehicle movement and pedestrian safety and at the same time will contribute to reduced liability for the Municipality.

Yours truly,

Kathryn Burns, Vice-President of the Isthmus Bay Property Owners' Association.