



Agenda

Date and Time: June 3, 2014 6-9pm **Project No.:** 300032275

Project Name: Niska Road EA

Meeting Subject: Niska Road Community Working Group Meeting No. 4

Meeting Location: Guelph City Hall

Items

1. Review of Meeting Minutes from Tuesday March 18, 2014
2. Discussion of Opportunity Statement
3. Review of Evaluation of Alternative Tables for Road and Bridge
4. Discussion of Traffic Calming Opportunities
5. Public Information Centre #1
6. Other



BURNSIDE

[THE DIFFERENCE IS OUR PEOPLE]

Minutes of Meeting

Niska Road Community Working Group Meeting No. 3

Meeting Date: March 18, 2014

Date Prepared: March 25, 2014

Time: 6:00 p.m. – 9:00 p.m.

Location: Guelph City Hall, Meeting Room C

File No.: 300032275.0000

Those in attendance were:

Jennifer Vandermeer	R.J. Burnside & Associates Limited
Leonard Rach	R.J. Burnside & Associates Limited
Philip Rowe	R.J. Burnside & Associates Limited
Sarah Draper	R.J. Burnside & Associates Limited
Brad Hamilton	City of Guelph
Gwen Zhang	City of Guelph
Don Kudo	City of Guelph
Stephen Robinson	City of Guelph
Nather Aziz	Niska Road EA Community Working Group
Joe Bigley	Niska Road EA Community Working Group
Sharon Claessens	Niska Road EA Community Working Group
Larry Erickson	Niska Road EA Community Working Group
Shaun Goodyer	Niska Road EA Community Working Group
Vince Hanson	Niska Road EA Community Working Group
Peter Lennie	Niska Road EA Community Working Group
Lori MacEwan	Niska Road EA Community Working Group
Tim Martin	Niska Road EA Community Working Group
Judy Martin	Niska Road EA Community Working Group
Terry McLellan	Niska Road EA Community Working Group
Laura Murr	Niska Road EA Community Working Group

Sandy Nicholls	Niska Road EA Community Working Group
GRCA (Samantha Lawson)	Niska Road EA community Working Group
Richard Unterman	Unterman McPhail Associates

Those absent were:

Jim Miller	Niska Road EA Community Working Group
------------	---------------------------------------

Items Discussed**Action by****1. Welcome and Introduction (Philip Rowe)**

- 1.1 Philip Rowe (P.R.) – We have a few points to cover before we get started. This CWG meeting is for the purpose of advancing the EA process in a positive way. I know you are all passionate about the environment and the community, but the idea behind these meetings is not to halt or stall the EA process. This is an opportunity for us to make the Niska Road Bridge and roadway something better.

We saw some emails that may not be deserved or that were a little aggressive; it is important that everyone understand why we are here.

When you are invested in a process it becomes very important to you, and we want to respect that. Many environmental assessments are carried on without a community working group, they are not necessarily required. We felt that this was important to the community and we want your input. We made an attempt to create a balanced committee, and whatever we come up with during this EA process needs to be something that is transparent and defensible for the City to implement. Everyone in the room was in agreement with the selection of the committee members and there are no individuals present at these meetings that did not declare themselves as CWG members.

2. Review of Minutes of Thursday, January 21, 2014 (Philip Rowe)

- 2.1 Lori MacEwan (L.M.E.) – I am listed under present and absent, I was absent for the last meeting.

Sharon Claessens (S.C.) – There was a package to be handed out at this meeting but I have not received it.

P.R. – I didn't hand it out just yet to help facilitate listening to Richard rather than reading through the package. The package will be handed out as we go through the agenda.

Tim Martin (T.M.) moved to accept the minutes, seconded by L.M.E.

Items Discussed	Action by
3. Presentation of Draft Cultural Heritage Evaluation Report of Niska Road Bridge (By Richard Underman)	
3.1 P.R. – Introduced Richard Unterman (R.U.). Philip explained that the report will remain a draft until the EA is final to allow for changes until we are finished and ready to submit it.	
R.U. – Introduced himself to the group and explained Unterman McPhail Associates’ involvement in the Niska Road EA process. R.U provided the following background information about bridges and Cultural Heritage Evaluation Reports (CHERs):	
We are using an evaluation tool called a Cultural Heritage Evaluation Report (CHER) for the evaluation of the Niska Road bridge. This evaluation process is regulated under O.Reg. 9/06 under the <i>Ontario Heritage Act</i> . It also allows us to communicate with the municipalities. The MTO uses their bridge guidelines and their own scoring system, which is different from the heritage assessment guidelines. Our guidelines are qualitative in nature while the MTO uses quantitative measures.	
The process of completing a CHER includes a number of steps in which we look at the history of the area and the historical properties of the bridge. The Niska Road crossing dates back to the 1860’s, with the possibility of having been a crossing as late as the late 1840’s. The site history for the bridge itself allows us to do historical research on the bridge, who may have constructed the bridge, what type of bridge it was, how the bridge looks and how long it has been in place.	
We also go out to the site and look at the bridge to get an understanding of how it fits into the surrounding environment, how important it is to the community as a crossing and how the community accepts it. The site visit helps us to understand the physical condition of the bridge, including any physical alterations that the bridge has undergone.	
Because this bridge falls under the purview of the GRCA we did a comparison of other bridges in the GRCA. Within the County of Wellington, there are two bailey bridges: the Niska Road bailey bridge and the Concession Road 8 bailey bridge. The GRCA lists the Niska Road bridge as being of cultural heritage GRCA, but not the Mapleton bridge. We have not been out to the Mapleton bridge so we are not sure why that is.	
R.U. presented slides showing the physical make-up of the bailey bridge at Niska Road, including pictures of the bridge from 1971 (before it collapsed) and in 1974 (after the collapse).	

Items Discussed

Action by

The regulations governing cultural heritage list three primary criteria, of which the potential cultural heritage landmark must meet at least one of those criteria to be considered. The Niska Road bridge meets all three criteria (Design or Physical Value, Historical or Associative Value and Contextual Value). From a municipal level it has heritage value, and this is a qualitative measure.

We have evaluated the bridge, and when looking at a bridge like the one at Niska Road we see that it is a movable bridge. It was a wartime development out of Britain. These bridges have been transported and moved throughout the world. They are still used on roads in Northern Ontario on remote logging roads, and in remote communities. This bridge is movable, but it has not been moved since 1974.

There are not many bailey bridges located in Southern Ontario, and those that do still exist are used primarily for pedestrian traffic only.

The CHER document looks at what might be viable mitigation measures for the bridge once it has been evaluated. In this case we have developed some mitigation measures for this bridge. Mitigation can fall into a number of categories. When we are looking at rehabilitation as a form of mitigation, we also look at documenting the bridge for our records. This documentation helps answer questions the local historical societies, students, or the community on a whole may have about the history of the crossing. We try to provide advice about what a new bridge might be if it was put in place and comment on how that might look. We also recommend that a commemorative plaque go in place as the crossing is 150 years old and we think it is important to commemorate that for future generations.

Again, I should note that the GRCA in their Arch, Truss and Beam Bridge Inventory has identified the bridge as being of cultural heritage importance. Their evaluation is what we would call a heritage evaluation "lite", and there are bridges along the Grand River that have not yet been evaluated by the GRCA, so there are still others to be looked at.

This is what we have done in terms of the process. If there are questions I would be willing to address them. The draft report will be made available to you.

I should also note that the County records are not so good, Puslinch had very little in the way of records. The County of Wellington has done a great job in assisting us and providing us with records.

Items Discussed

Action by

P.R. – We have Steven Robinson here as well tonight, if you have questions along those lines he can address them.

Laura Murr (L.M.) – I have been doing research on the bridges in the area as well, and I believe that some of the information in the report may not be correct. L.M. noted that the land ownership that had been handed down by the crown was not accurate in his report. Additionally L.M. questioned why the report was not placed in context with the history of the area on a whole.

R.U. – The focus was to provide the history, but also to evaluate the bridge, and I believe that we have done a sufficient job of evaluating the bridge. We don't mine to the bottom when looking at the history of the area, but we do relay the information we find.

L.M. – From my perspective of living in the neighbourhood, I value the view that you see of the road, and the bridge. This is part of the viewshed of the area. You don't recommend mitigation on the change of the road. The community would like to see the view maintained, and the width of the road is important to the community.

R.U. - This report was about the bridge. The EA can't necessarily evaluate the viewscape. I think we have provided information that relates to the issue of the bridge.

Jennifer Vandermeer (J.V.) – Clarified that members of the CWG have been given a draft copy of the Existing Conditions Report (ECR) completed by Unterman McPhail Associates, that the comments from L.M. are from the ECR not the CHER. A draft copy of the CHER will be provided to members of the CWG for their review.

L.M. – Noted that the view of the area is one of the only places you can see how the urban/rural interface how it was in the 1800's.

R.U. - We didn't try to downplay this in any way, but we were focusing on the bridge. There is greater description in the report.

L.M. - Would it not have been more efficient to have us view this before the meeting?

P.R. - We wanted to give Richard the opportunity to present the report to the group, there is no end game here, if we need to have Richard to come back we can have him come back and address your comments or concerns.

Items Discussed

Action by

There seemed to be much more focus a year ago going from a Schedule B Class EA to a Schedule C, and we have done this. With that change also comes a separation between the bridge and road components of the study.

L.M.E. – Is the bridge now declared a cultural heritage site?

R.U. – The municipalities use O.Reg. 9/06 as the standard for determining cultural heritage value or interest. We have looked at it and evaluated the bridge based on the criteria set out in this regulation. The bridge meets the criteria in all three categories of the regulation, and as such the Niska Road bailey bridge is identified as having cultural heritage value. We then present this to the municipality, and they can list or designate the bridge. It is up to council to decide what to do. Health and safety is also a part of this, if the bridge is falling down there are other things that have to be done.

L.M.E. – Does that give us some rules that we have to follow when it comes to options?

P.R. – The GRCA has given it a classification, the City may choose to do so; currently that is not the case. The EA is not the place to make a recommendation to council to do that. This needs to come from you; you need to approach your counsellor to address those concerns. There are no rules that stop us from doing one thing or another. It becomes one of the things we have to consider. If the bridge is recognized by council as a heritage bridge that may force me to do other things, it becomes a more detailed process, but there are no limiting factors at this stage.

Peter Lennie (P.L.) – Was your company (Unterman and McPhail) involved in anything with the bridge that was on Sideroad 10? There was a similar bridge on Sideroad 10.

R.U. - No we were not involved in that.

L.M. - The 2005 policy statement says you must be consistent with the policy statement. It lists the cultural heritage landscape. That's one of the things that you have to look at isn't it?

P.R. – It is something that we look at, there are mitigation measures that we have to look at to address the cultural heritage landscape. There are mitigating opportunities that you can include on either side of what we do.

Items Discussed

Action by

L.M. – Does this take place before or after you submit your recommendation?

P.R. – There is no report to council to make the bridge anything other than what it is today. If you wish to change that as a citizen, it is up to you.

L.M. – Is there a timeline for doing that?

Stephen Robinson (S.R.) – This process has already started, we were made aware of the EA process as well as the cultural assessment that as being done. The Cultural Advisory Committee was made aware of this, and now that Richard has come out with his report I would like the committee to look at that and use it to help base some of their decisions. I have just started with the committee, but we will get them more familiar with the bridge itself.

T.M. – Richard's company does their CHER, the GRCA does their own inventory and classify it as a bridge of importance. Where does the GRCA come into play in the EA process? Can they come along and say we can't do anything to the bridge? Are they involved in the EA process?

P.R. – They are involved in the process. Anything that we want to do along the Speed River at the crossing on their lands involves them. We meet with them to make sure they know what our intentions are, and to make sure that we meet their environmental requirements.

R.U. – This is a simple evaluation, but there is no statutory protection based on this inventory.

Samantha Lawson (S.L.) – I am from the GRCA. The bridge inventory is one component that GRCA uses to maintain the river's heritage designation. The GRCA has many technical staff of various disciplines who will flag the potential impacts of various environmental components, cultural heritage being one of these components.

L.M.E. – In terms of timeline, how long is the process of designating the bridge?

S.R. – Now that the report is complete we can get started on that process. Staff need to bring a recommendation to council to designate the property. At the moment there is no schedule in place for that.

Items Discussed

Action by

P.L. – From a health and safety standpoint, where does the bridge stand? Based on the photographs that were passed out yesterday there was some heavy rust and corrosion.

P.R. - The August 2013 report was very clear about the deterioration and their concern was clear.

P.L. – They say some aspects need to be addressed within a year.

P.R. – Some recommendations were to ‘do nothing’, but in the case of Niska Road, ‘doing nothing’ would mean to complete repairs. To make sure no one falls into the river, we are looking at repair. A report to council will say what the cost is to repair or replace the bridge, here are the pros and cons and council can make a choice based on those pros and cons. The bridge is in disrepair, something has to be done.

Leonard Rach(L.R.) – How would you rate the cultural heritage value of just the bailey portion of the bridge, vs. the abutments? The abutments are clearly of a distinct heritage value, but how do you rate the super structure itself?

R.U. - If I was to look at in an Ontario context the structure is one of many. In this context in the GRCA it is one of two, or one of one. The abutments are important because they demonstrate it has been a crossing of longstanding in addition to having two different types of materials, stone and concrete. I don't typically split out the bridge from the abutments. The abutments bring another piece of history to the table, but I didn't separate out the bridge; I look at it as a whole.

4. Brief Community Working Group Member Presentation
By Vince Hanson (V.H) and Laura Murr (L.M.)

4.1 P.R. – Introduced V.H. and L.M.

V.H. – We have 15 slides, and the purpose is to help us have a common language on what the viewscape is and why the rural/urban interface is important.

Looking west from the hilltop, this picture was taking in Aug 2013. This is looking down to the bridge, you can see it in the far distance. It is a beautiful area, and we need to look at more than just the bridge, with the rolling landscape. I suspect there are not many other areas where you can take the bus and go to the Speed River and see it much as the way it was in the 1800's. Much of the stretch of the road is described as one of the most beautiful areas in Guelph.

Items Discussed

Action by

L.M. – Niska Road between Pioneer Trail and looking west to the Guelph side. This is a rural bridge and road, if this was widened we would lose the view of the trees.

If this is the view of the bailey bridge, the City owns a small wedge of the property where you can walk down and see the bridge. It is very much a rural setting. This part of the area is a public area and is available for the public, and this is why we want it preserved, so that people can feel like they are still 'out in the country'.

Standing on the west side of the bridge, you can see the hedge rows make it appear as though you are still in a country setting. This is the view-scape looking back, imagine we had a trail, and we put the trail on the GRCA lands, this feels like being in the country. This could be part of the trail system connecting with the City trails.

This is the north side of the bridge looking across the abutments made of stacked stone. This is similar to a bridge on Mill Creek in 1906. If we were to rehabilitate the bridge, we could pair it with a pedestrian bridge without damaging the landscape.

This slide is of a tree just beside the road. These are hollows in the trees for nesting animals, that we would like preserved.

This slide is a view of the abutments with the worst of the scouring.

This slide is the view from Ptarmigan, and shows how beautiful the viewscape is from Ptarmigan.

V.H. - Dangerous parking problem – As you can see there is a dog in this picture. This situation looked quite dangerous, my eyes were diverted to the dog and someone was coming over the other side of the bridge. We know something must be done. There is a lot of parking happening there and this needs to be addressed, this is a danger.

P.L. – There is a sign that says no parking, this is a turnaround section for a plow.

V.H. – This goes to Sandy's standpoint about enforcement.

V.H. – These are children. They are walking to the school bus. There are other parents in the room and I wanted to point out that a lot of things need to be done in the area with regards to safety.

Items Discussed

Action by

L.M. – We have a beautiful view-shed, it is much like it was for the last 100 years and we want to preserve this going forward. We don't see a 20 m wide road going down to the bridge, it takes out the hedgerow if we do that. We don't want lights put in; we have a beautiful view of the night sky and sunset that everyone can see this if we preserve this area. This is all part of the cultural heritage of this area.

L.M.E. – I was wondering where the photo with the kids was taken?

CWG Members - This was taken east walking towards Tanager.

T.M. – This is across from my house, I don't know how this area has gotten away with not having a sidewalk.

P.R. - We have public safety issues, maybe we need a sidewalk or a bike lane, but in order to do this we need to look at an urban road cross-section, where you have a lane width, the curb, and the sidewalk.

When we look at the whole corridor in regards to what we put in place, there needs to be a balance between what we need to achieve with how much impact we make on the area, and putting in what is safe for the community.

V.H. – We do recognize that this is a concern, but we want everyone to be aware that we are looking at everything here, not just a single minded view of what we do with the bridge.

P.R. – We are going to try and look at what can be done with the whole corridor.

L.M – When we look at the view-scape. This is all owned by the GRCA, there is no reason we have to widen the road, this can all be put on the GRCA lands.

P.R. - I am not sure about the ownership of the land, so the GRCA can speak to that. There may be issues that you are not fully aware of.

S.L. - I can speak a bit to this. The Niska Wildlife Foundation has a lease on the land. The GRCA is a private land owner, so unless we give permission for individuals to be on the property, presence on GRCA lands is considered trespassing. The Foundation leases more than just the fenced area and you need permission to be on those lands.

Items Discussed

Action by

P.R. - We became aware of the need to ask permission to be on the lands for our study. When looking for wintering deer we realized that there are legal issues regarding the ownership of the lands.

Joe Bigley (J.B.) – I want to thank V.H. and L.M. This helps put things in context and helped me see the bigger area and what we are preserving.

- 4.2 Ten minutes were given to the group to mark up a map of the corridor with suggestions for changes/preservation.

5. Review of Problem Statement Importance from Summary

- 5.1 P.R. presented results of the Problem Statement Importance forms (summarized in tabular format). The results were displayed this way to get a sense of the parameters that are important to the group.

P.R. - Only nine members of the CWG filled out the form, so not everyone's opinion was reflected with this summary. You will note the thicker black line around the first five numbers. These are the top five important issues that were identified by those who did participate.

The problem statements need to be succinct and they need to include the issues that stood out as being the top five issues. This was great as a starting point for us, and great for you guys to see all the issues we needed to look at. We are going to move on to the problem statement, if there is anything that has not been captured by the problem statement that you feel is important and must be included please let us know. Please keep in mind that when we say we are going to look at traffic safety, for example, that this will include all of the issues around traffic safety. We do not need to list traffic lights and stop signs in addition to listing traffic safety. We are going to try and get the essence of the issues into the problem statement.

L.M. - We sub categorized them, but how can we rate them when they fall into the same category?

P.R. - I agree with you regarding the sub-categorization, and we recognized that as we got the forms back from CWG members.

6. Discuss Problem Statement Options

- 6.1 The CWG worked together to review the draft problem statement and continued to provide comments on the large map of the Niska Road and bridge corridor.

P.R. - We will make sure that we track the comments made on this figure of the area and this will be included in the EA document. The problem statement is one way to identify an issue, but it can also be an

Items Discussed

Action by

opportunity. We are documenting the direction and focus of the EA process. V.H. provided an example. He made more of an opportunity statement, because he listed things we can do to improve the area. What is important is that at the end of the day you can say that issues were addressed as part of the study process.

Please make note, and circle things that may be important to you, language that you tuned into, pull out parts of statements you like and we will blend them together.

Problem Statement 1

L.M. – Are we drafting a problem statement or an opportunity statement?

P.R. – We can draft either, whatever works for this project.

V.H. – Guidelines for a two lane bridge, if that recommendation is in there, what would this group need to recommend that would change that? This sounds like a done deal.

P.R. - There are other things, if the road is downgraded from a collector road, if the bridge is rehabilitated completely, or if the speed changes. The MTO has guidelines, and those changes can impact them. What we are addressing now is what we have in front of us today.

L.R. – The MTO has produced design guidelines that are typically used as best practice.

P.R. – It is important that we note that these are guidelines. The City should make sound decisions based on them, but the City must be responsible and accountable for the decisions that they make.

L.M. – Rajan Philips said that this was a minor collector road, there should be some mention of that in here.

L.R. – The official plan does not make reference to a minor or major collector, it just states that Niska is a collector road.

P.R. & J.V. – We will double check this, if the plan says just collector I cannot change that.

Burnside

Problem Statement 2

V.H. – Is it in need of a problem statement if we go with a pedestrian bridge?

Items Discussed

Action by

P.R. – We would need to recommend repair.

V.H. – Can we say repair rather than replacement?

P.R. – Yes we can.

T.M. – Repair and management, what does this mean?

P.R. – Repair is the process of restoring the bridge to the required City safety standards. Management is the ongoing operational maintenance and management of the bridge to ensure it is operational. Maintenance may include snow ploughing, cleaning, painting, inspections etc. verses a major deck repair or replacement.

P.L. – Between the bailey bridge and Ptarmigan, should it not say Downey?

P.R. – There is no right or wrong, we can change it.

P.L. - In relation to what they do on Highway 6 and Downey, if they are going to go south to go up to Highway 6, should they not expand this to be a loss leader? If they decide to go ahead with the construction, would this not be a white elephant? The local white house that sits on the corner of Highway 6 and Downey is being taken down. They are going to let this go to wilderness so that they don't have to buy property from anyone. Maybe this is thinking too far ahead.

Nather Aziz (N.A.) – The driving area on the bridge is in need of replacement, can we put another floor on the bridge in a material made out of something other than wood to prolong it?

P.R. - We can look at these options on a truss bridge like this.

Problem Statement 3

P.R. - I would call this one an opportunity statement, we are speaking to opportunities to make change, rather than focusing on the problems.

Problem Statement 4

P.R. - This is the one that Vince submitted, I believe that you really focused on the opportunities. Vince suggested revision to the problem statement.

Items Discussed

Action by

S.R. – I see in the first sentence you have used the wording natural cultural heritage. I think it is importance that there is a differentiation between the natural, and cultural heritage in the planning world. Cultural heritage is what allows things to be preserved.

V.H. – In the second problem statement safety is missing from it.

P.R. – Noted the City owns the road way.

J.B. – The first problem statement is more about the rebuilding of the bridge and road and cars and it does not have enough cultural and natural heritage focus.

P.L. – Suggested a sign for people to “use at their own risk” for the bridge based on the photos presented in the slides.

L.M – This problem statement feels like it represents an “old style EA” and is not a full view of the neighbourhood. L.M. noted that she does not support this problem statement.

V.H. – This about the structure and the bridge. We view bridge narrowing as traffic calming, the City views it as traffic restriction. If we can't agree with the City on this we won't have a solution that we can all agree on.

P.L. – Don't you think the pictures show the wrong end of the bridge? The Guelph side of the bridge needs the most work done to it. It needs millions to fix the issues.

T.M – Version 2 of the problem statement is the only one that had a focus on the fiscal responsibility.

P.R. – Cost is important to council, the community can do an audit of the decisions the City makes, and the City is accountable for their spending.

The use of terminology viewscape vs. viewshed was discussed between L.M, J.V. and S.L. It was felt that vewscape is the more widely accepted term when discussing the view such as the view along Niska Road that one can see by facing the Speed River at Ptarmigan Drive.

T.M. - Why is Version 3 a problem statement rather than an opportunity statement?

Items Discussed

Action by

P.R. – It is based on the format, if it is focusing on a problem or focusing on an opportunity.

V.H. – I suggest we focus on changing Version 3, and skipping over Version 4 since 3 encompasses most of what we are looking for. It needs to include structural needs as well as fiscal responsibility.

7. Discussion of Potential Alternative Solutions and Evaluation

- 7.1 J.V. – Presented a summary of the potential alternatives solutions for the bridge and the roadway. These are solutions that will address the ultimate problem statement.

City

Potential Bridge Alternatives
Alternative 1 – Do Nothing

This alternative would not simply be to “do nothing”, but rather would include repair and maintenance of the bridge.

Alternative 2 – Close the Bridge to Vehicle Traffic

Alternative 3 – Remove the Bridge and Not Replace It.

This would see Niska Road changed to a local residential street and cut off access from the west. It would be downgraded to a local residential street and it would no longer be considered a collector road.

Alternative 4 – Replace the Bridge With a New Structure.

Alternative 5 – Replace the Bridge With a 2 Lane Structure with Alternatives Also Listed in 4.

- 7.2 P.R. – Summarized how the study team would be evaluating the various alternative solutions that are chosen. A preliminary draft evaluation table showing the proposed evaluation criteria was provided to the CWG members for initial review and comment.

P.R. - We have provided a summary of the existing conditions under evaluation criteria (first column to the right of criteria column). The existing conditions description is not a ranking, it is just what we saw, what is out there, what the legislation is. This is the launching off point. The ranking table looks at what the impacts are based on our 5 alternative solutions. The main reason you got the chart is so you can make your own notes and make us aware of things that you have identified that need to be changed. We are not comparing the criteria against one another e.g. aquatic habitat vs. cultural heritage. We only compare the five alternative solutions for a single criteria. Once the chart is done, look at the whole chart and it will point you in the direction of what the preferred solution might be. One of the key things

Items Discussed

Action by

here is that the solutions are constructible and doable. The intent is to have a solution that will address all of the things we have talked about tonight, but that is doable for the City.

V.H. – T.M. has suggested as recently as 15 years ago that we close Niska Road to two lane traffic and make it a one way street. I know we are talking about the bridge, and that intersection at Downey and Niska is a bad intersection. If it was one way, it might impact what we do with the bridge. How do we get that in front of you with this criteria?

P.R. - Pick up the sheet that includes that in the road alternatives. In the “to be determined” section, you can suggest that a one way street can be placed there.

This exact same chart for the Bridge Alternatives is also being given out. We cannot replace the bridge, and do something contradictory to the road way.

V.H. – If you did different things on the roadway it would impact what you do to the bridge.

P.R. - That is correct, you look at the bridge and at the same time you look at things you want to do with the roadway. To maintain the street you can say just repair the surface. The bridge is one decision, but the road is another. You can pick any one of the road options and marry it with one of the bridge options, but we want to try and make sense of it and choose an option that works with both. That is the idea of the EA process.

J.V. – This is a good point, if we make a decision about what happens with the bridge, does that dictate what happens with the road? We have to look at it both ways.

P.R. - We can see if Gwen Zhang (G.Z.) can do a mock-up of a one way street option and run this option through the transportation model.

G.Z. – We can see how that will impact the surrounding streets and the road network.

V.H. –That sounds like Joe’s description of Problem Statement 1, all of the focus is on option 1, we want to throw in environment culture and natural heritage.

P.R. – I was referring to the computer model of the network.

Items Discussed

Action by

V.H. – My concern is that this becomes about numbers and glosses over the health and safety concerns on Niska Road and the bridge.

P.R. – The model can dictate it has minimal impact on traffic, but that does not limit us from talking about the safety issues and what we can do in the community like bus stops and sidewalks.

J.B. – Are you going to run models on the different bridge options? Can we see those? It would help us to see what makes the most sense. To me if we can see that information it would be good.

L.M. – I would like to see the City's standpoint, Rajan said it was not the intention to bring traffic from Highway 124 down Niska, but now I hear that we are modeling plans that direct traffic down Niska. It does not reflect what we were talking about. Are they intending that Niska be a bypass?

J.B. – Rajan said that when the Hanlon was completed, a trip down the Hanlon to Highway 124 was the preferred option.

L.M. – But that could be 20 years down the road that the MTO finishes the Hanlon. In the meantime, they have made Niska Road a through route for traffic.

P.R. – Sometimes models show small changes, sometimes they don't. We balance that with all the other elements or data that we can anticipate or estimate, such as anticipated external traffic, background growth or future timelines of local development. This helps us understand the numbers or data.

L.M. – We could put in traffic lights that would eliminate the safety factor.

L.R. – That would be part of the safety improvements. We would have to recommend traffic signals to regulate traffic crossing the bridge.

P.R. - We know that we have to make changes for safety but we have to make sure that it is done according to regulation.

S.L. – Are you looking for us to provide input into the revised problem statement?

P.R. – We will revise the problem statement, I am asking you to take a look at what the alternatives could be on the charts that we handed out. If you know something that we don't know about that would be helpful it would be great for you to put that down in writing for us to include.

Items Discussed	Action by
-----------------	-----------

P.R. – The last thing is criteria, if you think we are missing criteria then yes, we want that from you.

Burnside

S.L. – Do you have detailed breakouts for the proposed evaluation criteria?

J.V. – If there are criteria that seem too broad we can see about breaking that out into greater detail.

L.M. - Is it your plan to take this list to the River Systems Management Committee? They have experts that sit on that committee that know more than we do, and would have input before we finalize this.

Burnside

P.R. - We are long way from finalizing this, but we can see about sending this to them for their review.

L.R. – To help you get an idea of the future, we hope to table the problem statement and evaluation of the alternatives. Hopefully the evaluation of alternatives it will lead us to a preliminary preferred alternative. This will help us give input in the design alternatives.

S.L. – What is the timing for the PIC?

L.R. – We would like to go to the first PIC before the end of May.

J.V. – Definitely before school breaks, but around May is what we were thinking.

P.R. – Before the summer holidays is preferred by the MOE.

T.M. – Are our fees based on total project costs?

P.R. and L.R. - We bid the project on a time and materials basis with an upset limit.

P.L. – Questioned the term “country road” in Problem Statement 3, are we not a feeder road?

Burnside

P.R. - We opted for that term to reflect the historic and cultural feel of the road, but we can change this if need be.

L.R. - In an attempt to finalize the problem statement and to give you an insight as to what will be presented at the PIC we would like to have an preliminary preferred alternative chosen by the next meeting.

Items Discussed

Action by

8. Next Meeting

8.1 April 22, 2014

The preceding are the minutes of the meeting as observed by the undersigned. Should there be a need for revision, please advise within seven days. In the absence of notification to the contrary, these minutes will be deemed to be an accurate record of the meeting.

Minutes prepared by:

R.J. Burnside & Associates Limited

Sarah Draper
Administrative Assistant

Distribution: Jennifer Vandermeer, R.J. Burnside & Associates Limited
Leonard Rach, R.J. Burnside & Associates Limited
Philip Rowe, R.J. Burnside & Associates Limited
Andrew Janes, City of Guelph
Brad Hamilton, City of Guelph
Gwen Zhang, City of Guelph
Niska Road EA Community Group Members
City of Guelph Website

Developing a Traffic Calming Program

Definition

Traffic calming measures are introduced to moderate traffic behavior, through physical and legislative measures. Their purpose is to reduce vehicle speeds, (and/or) traffic volumes (and/or) travel patterns, thereby improving traffic safety, and quality of life in the urban environment, while preserving mobility and accessibility.

Traffic calming is the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behaviour and improve conditions for non-motorized street users.



Objectives

The objectives of this study process are as follows:

- i. to ensure that traffic calming is part of the overall transport strategy for the area;
- ii. to ensure that traffic is accommodated and applied at the correct road hierarchy level;
- iii. to provide communication channels for the public to participate in the “calming” process;
- iv. to improve the efficiency and safety of the road network without compromising costs;
- v. to minimize the extent of pollution and damage caused by vehicles;
- vi. to protect residential areas and the resident from unwanted through traffic and associated dangers;
- vii. to moderate extraneous traffic behavior;
- viii. to promote road safety and
- ix. to improve traffic flows.

Geographical Assessment

The road hierarchy of the study area will be evaluated. Physical features such as the surrounding road network, proximity of schools and road safety characteristics will also be evaluated at this point. An assessment will be performed to determine whether an Engineering, Enforcement or Education (or any Combination thereof) solution can to be implemented.

Engineering

This could be one of the following:

- Major engineering in which the problem requires substantive planning, design and construction. This would be proposed for inclusion in future budget programs.
- Traffic Systems Management in which the problem requires improvements to traffic management such as elimination of accident red spots, intersection improvements, traffic lights, etc.
- Traffic calming in which the problem requires calming techniques for specific safety problems. This would be proposed for inclusion as part of an area program.

Enforcement

This could be one or a combination of the following:

- Technical traffic actions such as improvements to road signs and markings, parking prohibitions.

- Traffic enforcement actions such as speed checks and moving violations. These actions would be undertaken by the Guelph Police Department.
- Traffic enforcement measures or arrangements, which would solve or reduce the problem, will be proposed.

Education

This could be one or a combination of the following:

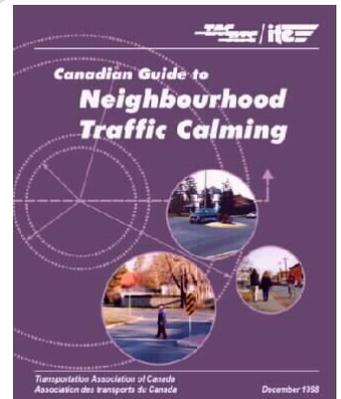
- Liaison with the City's Communication Department and the Police Department to establish an Education campaign.
- Announcements or notices to schools, businesses, campgrounds, neighbours watch and other area community associations.
- Conduct an open public meeting with ratepayers associations, community, etc.
- Involvement with Organizations such as "DRIVE ALIVE", "MADD" school boards, University of Guelph, YMCA etc.
- Any education measures or arrangements, which would solve or reduce problems.

Combination of E1, E2 and E3

This could be a combination of the above and would be proposed accordingly.

Resources

- Canadian Institute of Transportation Engineers and Transportation Association of Canada, [Canadian Guide to Neighbourhood Traffic Calming, 1998](#)
 - In 1998, the Canadian Institute of Transportation Engineers joined with the Transportation Association of Canada to publish the *Canadian Guide to Neighbourhood Traffic Calming*. The guide's purpose is to help practitioners understand traffic calming principles and applications and achieve some level of standardization, while minimizing liability and maximizing public safety.
- Institute of Transportation Engineers and United States Federal Highway Administration, [Traffic Calming: State of the Practice, 1999](#)



Traffic Physical Calming Measures

Traffic calming can include the following engineering measures, grouped by similarity of method:

- **Narrowing:** Narrowing traffic lanes differs from other road treatments by making slower speeds seem more natural to drivers and less of an artificial imposition, as opposed to most other treatments used that physically force lower speeds or restrict route choice. Such means include:
 - Narrower traffic lanes — streets can be narrowed by extending the sidewalk, adding bollards or planters, or adding a bike lane or on-street parking.
 - Curb extensions (also called bulbouts) which narrow the width of the roadway at pedestrian crossings.
 - Chokers, which are curb extensions that narrow the roadway to a single lane at points^[8].
 - Road diets: actively remove a lane from the street.
 - Allowing parking on one or both sides of a street. This in effect also a type road diet as it reduces the number of driving lanes.
 - Pedestrian refuges or small islands in the middle of the street.
 - Converting one-way streets into two-way streets.
- **Vertical deflection:** These include:
 - Speed bumps, sometimes split or offset in the middle to help emergency vehicles reduce delay.
 - Speed humps, parabolic devices that are less aggressive than speed bumps and used on residential streets.
 - Speed cushions, two or three small speed humps sitting in a line across the road that slow cars down but allows (wider) emergency vehicles to straddle them so as not to slow emergency response time.
 - Speed tables, long flat-topped speed humps that slow cars more gradually than humps.
 - Raised pedestrian crossings, which act as speed tables, often situated at intersections.
 - Changing the surface material or texture (for example, the selective use of brick or cobblestone).
- **Horizontal deflection, i.e. make the vehicle swerve slightly.** These include:
 - Chicanes, which create a horizontal deflection causing vehicles to slow as they would for a curve.
 - Pedestrian refuges again can provide horizontal deflection, as can curb extensions and chokers.
- **Block or restrict access.** Such traffic calming means include:
 - Median diverters to prevent left turns or through movements into a residential area.
 - Converting an intersection into a cul-de-sac or dead end.
 - Boom barrier, restricting through traffic to authorized vehicles only.
 - Closing of streets to create pedestrian zones.
- **Speed Enforcement and education measures for traffic calming include:**
 - Reducing speed limits near institutions such as schools and hospitals (see below).
 - Vehicle activated sign, signs which react with a message if they detect a vehicle exceeding a pre-determined speed.
 - Watchman, traffic calming system.

Vertical deflection

Vertical traffic calming measures include speed humps, raised crosswalks and raised intersections. These measures have a physical effect on motorists and their vehicles, and are usually the most effective at reducing traffic speeds.

Speed Hump

- Not a speed bump.
- A raised section of roadway, 7 metres (20 feet) long, and 100 mm (4 inches) high.
- Used between intersections.
- Slows motorists by vertically deflecting a vehicle, creating an uncomfortable feeling at higher speeds.



Raised Crosswalk

- Similar to a speed hump.
- Incorporates a marked pedestrian crossing and features a coloured impressed concrete top.



Raised Intersection

- A raised area where two roadways intersect.
- Slows motorists as they enter and exit an intersection.
- Usually used when constructing new streets, as retrofitting expensive due to drainage impacts.



Horizontal deflection

Horizontal traffic calming measures include traffic circles/roundabouts, medians, curb extensions or bump-outs, and chicanes. These measures have a physical or psychological effect on motorists, and are somewhat effective in reducing traffic speeds.



Roundabout / Traffic Circle

- A raised island with splitter islands on each approach located in the center of an intersection.
- Slows motorists as they must steer counter-clockwise around the island.
- Reduces delay and angle collisions.



Median

- A raised section of roadway between opposing lanes of traffic.
- Slows motorists by reducing the width of the roadway.



Curb Extension/Road Narrowing

- An intrusion of the curb into the roadway, either at or between intersections.
- Shortens pedestrian crossing distances.
- Slows motorists by reducing the width of the roadway.
- Most effective when motorists are opposed by traffic.



Chicane

- A series of curb bump-outs alternating from one side of the street to the other.
- Slows motorists because they must steer around the bump-outs.
- Most effective when motorists are opposed by traffic.



Other traffic calming measures can include contrasting materials, pavement markings and signage. These measures have a psychological effect on motorists, and are occasionally effective at reducing traffic speeds.

Contrasting Materials

- For example, coloured impressed concrete crosswalks at an intersection



Pavement Markings

- For example, lines along the edge of the roadway to make it appear narrower, and durable crosswalk markings to enhance the appearance of crosswalks.



Warning Signage

- Examples include Pedestrian Ahead signs and Playground Ahead signs and others:



Astetic Options

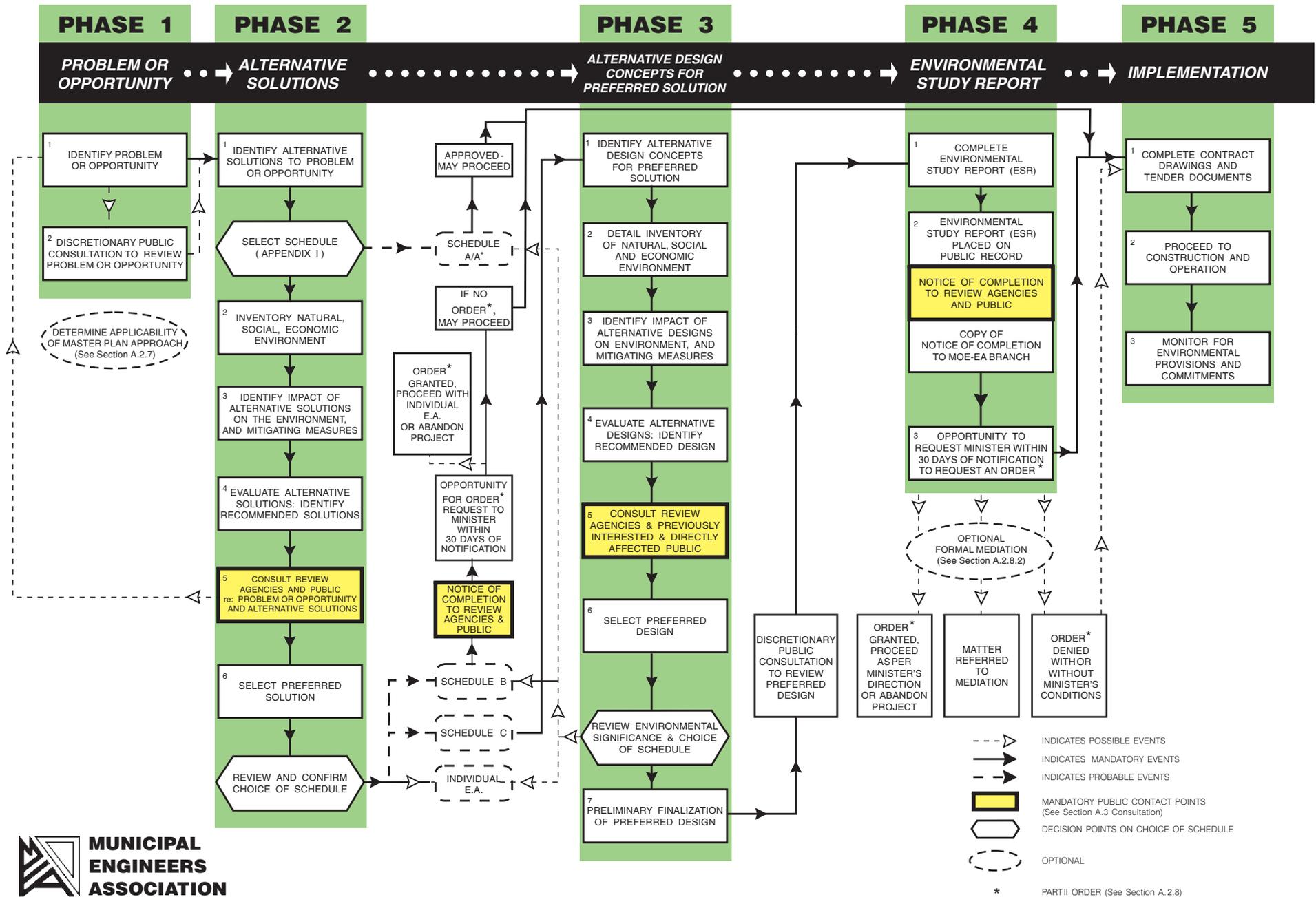
These options address the viewscape and streetscaping styles. The intent is to convey a the message that driver is entering a neighbourhood.



EXHIBIT A.2

MUNICIPAL CLASS EA PLANNING AND DESIGN PROCESS

NOTE: This flow chart is to be read in conjunction with Part A of the Municipal Class EA



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road
A Natural Environment <i>Rating:</i>							
1	Designated Sites (e.g. Provincially Significant Wetlands, Areas of Natural and Scientific Interest)	<p>Encroachment into designated features.</p> <p>Permitting Requirements.</p>	<p>The Speed River Wetland Complex and former Kortright Waterfowl Park and Wildlife Centre (GRCA owned lands) are within the study area.</p> <p>No Species at Risk were observed during field surveys within study area.</p> <p>Grand River holds designation as navigable waterway.</p>	<p>Minimal impact during regular maintenance and repair.</p> <p>In general, minor bridge maintenance activities do not require permitting.</p>	<p>Minimal impact over existing conditions.</p> <p>Snow storage areas may be identified on both sides of the bridge. Emergency vehicle access gates may be installed for EMS and fire.</p> <p>Provision for snow storage and emergency access can be provided in the existing road right-of-way (ROW).</p>	<p>Temporary surface disruption will occur. Restoration plan will be required.</p> <p>Permitting from GRCA will be required for work in the regulated area.</p>	<p>Potential for encroachment into Designated Sites as a result of construction activities.</p> <p>Impacts will be minimized/ mitigated by using best practices.</p> <p>Any works within the delineated limits of the Speed River Wetland Complex (PSW) will be subject to Grand River Conservation Authority (GRCA) permitting and approval requirements.</p> <p>Mitigations measures to minimize the potential impacts to the PSW will be required.</p> <p>Appropriate buffers will be maintained outside of the study area in accordance with GRCA permitting requirements.</p> <p>The footprint of the abutments may be larger for a two-lane structure than a one-lane structure.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road
2	<p>Terrestrial Habitat and Biology (e.g. woodlands, wetlands, wildlife corridors)</p> <p>Displacement of Threatened, vulnerable or endangered species (Species at Risk).</p> <p>Loss of wetland habitat.</p> <p>Loss of trees.</p> <p>Barrier effects on wildlife travel corridors.</p>	<p>Various vegetation types observed including forested, wetland and agricultural land classification.</p> <p>Deer and other incidental wildlife observed onsite and valued by residents and anglers.</p> <p>No rare species identified within study area.</p> <p>Current vegetation surrounding river key to resisting sedimentation in river.</p> <p>Some perching of trees indicates periods of flooding and poor drainage.</p> <p>Current forested and wetland areas provide wildlife habitat and natural corridors.</p>	<p>Existing bridge footprint does not change the current environmental conditions as it relates to terrestrial habitat and biology.</p> <p>Minimal impact during regular maintenance and repair. In general, minor bridge maintenance activities do not require permitting.</p>	<p>Existing bridge footprint does not change the current environmental conditions as it relates to terrestrial habitat and biology.</p> <p>Minimal impact during regular maintenance and repair. In general, minor bridge maintenance activities do not require permitting.</p>	<p>Potential to improve wildlife corridors and habitat by removing the existing structure and removing the fill slopes from the flood plain.</p> <p>Potential for impact to terrestrial habitat and wetland will be taken into consideration. Impacts will be minimized/ mitigated by using best practices.</p> <p>Potential temporary impacts on adjacent terrestrial habitat and biology as a result of removal activities.</p>	<p>Potential temporary impacts on adjacent terrestrial habitat and biology as a result of construction activities.</p> <p>Impacts will be minimized/ mitigated by using best practices.</p> <p>However, there is potential to improve wildlife corridors by increasing the span of the bridge.</p> <p>Potential to affect breeding birds using bridges structure as nesting habitat. May require permitting under the Migratory Bird Convention Act.</p>	<p>Potential temporary impacts on adjacent terrestrial habitat and biology as a result of construction activities.</p> <p>Impacts will be minimized/ mitigated by using best practices.</p> <p>However, there is potential to improve wildlife corridors by increasing the span of the bridge.</p> <p>Potential to affect breeding birds using bridges structure as nesting habitat. May require permitting under the Migratory Bird Convention Act.</p> <p>The footprint of the abutments may be larger for a two-lane structure than a one-lane structure.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road
<p>3 Aquatic Habitat and Biology (e.g. fish species, fisheries or aquatic habitat)</p>	<p>Displacement of Threatened, vulnerable or endangered aquatic species (Species at Risk).</p> <p>Loss of/effect to significant individual fish species.</p> <p>Barrier effects on fish.</p> <p>Loss of aquatic habitat.</p>	<p>Stretch of Speed River examined considered a diverse warmwater fish community and considered a recreational fishery.</p> <p>No Species at Risk identified within reach observed.</p> <p>Bridge's concrete abutments resist erosion and create deep pools.</p> <p>These pools provide refuge to resident fish.</p> <p>Current depth of river as well as substrate type and groundwater provide refuge and potential spawning habitat for fish.</p>	<p>Existing bridge footprint does not change the current environmental conditions as it relates to aquatic habitat and biology.</p> <p>Minimal impact during regular maintenance. In general, minor bridge maintenance activities do not require permitting.</p> <p>However the bridge current requires in-situ major repairs of the abutments, as such major disruption to fish species and habitat during bridge during the repair process of the abutments will occur.</p> <p>Pools providing refuge for resident fish will be impacted.</p> <p>Continued structural deterioration has potential to increase sedimentation into river.</p>	<p>Existing bridge footprint does not change the current environmental conditions as it relates to aquatic habitat and biology.</p> <p>Minimal impact during regular maintenance and repair. In general, minor bridge maintenance activities do not require permitting.</p> <p>Lighter loads and traffic volumes likely to decrease rate of structural deterioration lessening impact on aquatic habitat due to sedimentation.</p> <p>Abutment will still require repair, however the extent of the repair may be lessened.</p> <p>Pools would continue to provide refuge for resident fish.</p>	<p>Potential to improve aquatic habitat by removing the existing structure from the flood plain if existing abutments remain.</p> <p>In the event that the removal of existing abutments is required, temporary cofferdams will be installed to minimize the impacts to aquatic habitat.</p> <p>Potential for impact to aquatic habitat will be taken into consideration. Impacts will be minimized/ mitigated by using best practices.</p> <p>Temporary disruption to fish species and habitats during removal activities.</p> <p>Section of river downstream of bridge would widen and infill the deep pools currently used as refuge for resident fish if abutments were removed leading to a loss of habitat.</p>	<p>Temporary disruption to fish species and habitat during bridge construction.</p> <p>In order to minimize impacts to aquatic habitat, abutment locations beyond river embankments will be considered within the ROW allowing for the existing abutments to remain as active fish and aquatic habitat.</p> <p>Aquatic habitat would theoretically remain the same as pre-construction.</p>	<p>Temporary disruption to fish species and habitat during bridge construction.</p> <p>In order to minimize impacts to aquatic habitat, abutment locations beyond river embankments will be considered within the ROW allowing for the existing abutments to remain as active fish and aquatic habitat.</p> <p>Aquatic habitat would theoretically remain the same as pre-construction.</p> <p>The footprint of the abutments will be larger for a two-lane structure.</p> <p>Wider bridge and related abutments would alter habitat downstream of bridge. Potentially increasing refuge habitat.</p>



CRITERIA FOR EVALUATING ALTERNATIVES	Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road
<p>4 Hazard Lands (e.g. floodplain)</p>	<p>Encroachment into floodplain. Erosion and sedimentation impacts within floodplain.</p>	<p>No impact over existing conditions.</p>	<p>No impact over existing conditions.</p>	<p>Encroachment into the floodplain can be reduced. Road embankments graded/removed from the flood plain. Temporary impact/disruption during removal activities. Affected areas would require re-vegetation with native plantings.</p>	<p>Potential to improve the hazard lands by constructing a new multi-span structure. Repairs that may occur within the floodplain will be subject to GRCA permitting and requirements. Temporary impact/disruption during construction/maintenance activities. Affected areas would require re-vegetation with native plantings.</p>	<p>Potential to improve the hazard lands by constructing a new multi-span structure. Repairs that may occur within the floodplain will be subject to GRCA permitting and requirements. Temporary impact/disruption during construction/maintenance activities. Affected areas would require re-vegetation with native plantings.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road
5	<p>Surface Water Quality and Drainage</p> <p>Erosion and sedimentation impacts to road drainage features and receiving watercourse.</p> <p>Increases to runoff from impermeable surface.</p>	<p>Current water quality in Speed River good due to slight groundwater seep. Continued deterioration of bridge may negatively impact water quality of Speed River due to sedimentation.</p> <p>Evidence of groundwater input to Speed River, though river is classified as a warmwater thermal regime.</p> <p>The river is a stable, permanent channel characterized as a run.</p> <p>Water quality impacts from roadside litter and bridge runoff including road salt impacts.</p>	<p>Temporary effects during maintenance activities.</p> <p>Continued deterioration of bridge may lead to sedimentation in river.</p> <p>Impacts from roadside litter, bridge runoff and road salt applications would continue.</p>	<p>Continued structural deterioration may negatively impact water quality.</p> <p>Benefit to water quality through less roadside litter road salt application.</p>	<p>Minimal impact during removal activities.</p> <p>Potential benefit to water quality through less litter and less impact to water quality through road salt applications and bridge runoff.</p>	<p>Temporary effects during construction/ maintenance activities.</p> <p>Potential for less sediment from winter sanding if new bridge wide enough to accommodate machinery to clear debris from bridge.</p> <p>Impacts from roadside litter, bridge runoff and road salt applications would continue however new bridges are found to instill community pride of ownership.</p> <p>Opportunity to improve and manage bridge runoff to river.</p> <p>Opportunity to potentially improve thermal conditions and water quality in area of the bridge towards a sustainable coldwater fishery.</p>	<p>Temporary effects during construction/ maintenance activities.</p> <p>Potential for less sediment from winter sanding if new bridge wide enough to accommodate machinery to clear debris from bridge.</p> <p>Impacts from roadside litter, bridge runoff and road salt applications would continue however new bridges are found to instill community pride of ownership.</p> <p>Opportunity to improve and manage bridge runoff to river.</p> <p>Opportunity to potentially improve thermal conditions and water quality in area of the bridge towards a sustainable coldwater fishery.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road
6 Groundwater Quality	Impacts to groundwater resources from dewatering activities (if necessary).	<p>Curent groundwter quality in Speed River good due to sligt groundwater seep.</p> <p>Continued deterioration of bridge may negatvely impact water quality due to sedimentation.</p> <p>Groundwater quality and quantity in the area of the bridge is unknown.</p> <p>No monitoring wells are in the study area</p>	No impact over existing conditions.	No impact over existing conditions.	No impact over existing conditions provided that erosion/sediment and spill controls are in place during removal activities to safeguard water quality.	No impact over existing conditions provided that erosion/sediment and spill controls are in place during construction to safeguard water quality.	No impact over existing conditions provided that erosion/sediment and spill controls are in place during construction to safeguard water quality.



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road
Socio-economic/ Cultural Environment Rating:							
1	Local Residents Nuisance Impacts (noise, dust, vibrations, traffic, detours) during construction and operations. Safety impacts during construction and operations. Heritage Impacts. Traffic Volumes. Public safety.	Current one lane bridge is not deterring traffic as much as the community would like, therefore noise, safety and general community well-being a concern for residents. Traffic safety an issue due to accidents. Increased deterioration of bridge compromises safety of structure. Current condition of bridge is a major concern of City Road Operations.	Temporary nuisance impacts due to road closure/limited access during construction repairs to existing structure. Bridge and road deficiencies cannot be fully addressed through repair/rehabilitation; Therefore ongoing impacts will affect residents and traffic using the road and bridge, including limited emergency services. Permanent decrease of traffic through neighbourhood, which is currently a concern for residents. Local residents view the existing as a heritage character feature of the local community. Local residents	No vehicle traffic will be permitted across the structure, improving traffic safety. Eliminating vehicle and truck traffic across the bridge will also serve as traffic permanent calming measure along the roadway. Longer travel times may occur for EMS vehicles and buses. EMS vehicles could be given access to bridge. A closed bridge allow for the greater cycle and pedestrian use and bicycle use. General community may be concerned that there is no direct access to the Townships of Guelph Eramosa and Puslinch. Potential increase	Temporary nuisance impacts during removal activities. Removal of the structure will also serve as permanent traffic calming measure along the roadway. Residents will be impacted by the removal of the bridge as no longer access to across the Speed River at this location. EMS routing may be impacted for both the City and the Townships Permanent decrease of traffic through neighbourhood, which is currently a concern for residents. Local residents view the existing as a heritage character feature of the local community. This feature will be removed from the community.	Temporary nuisance impacts due to road closure/detour/limited access during construction. New bridge will provide access to all emergency services and traffic calming measures will be installed to improve traffic safety. Potential impact on property value. (- or +) Temporary safety impacts due to construction and increased truck traffic during construction. Potential for increased safety measures of residents if sidewalks and/or bike lanes added as part of new lane bridge.	Temporary nuisance impacts due to road closure/detour/limited access during construction. New bridge will address all existing bridge and road deficiencies and will be beneficial to residents and traffic long term. Potential impact on property value. (- or +) Temporary safety impacts due to construction and increased truck traffic during construction. Potential for increased safety measures of residents if sidewalks and/or bike lanes added as part of two lane bridge. Local residents are concerned that a new two lane bridge will attract additional traffic volumes through this



CRITERIA FOR EVALUATING ALTERNATIVES	Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road
		<p>consider the single bridge as a traffic calming feature.</p> <p>Local residents are concerned about the continued truck traffic that crosses the bridge.</p> <p>Local residents are concerned about the excessive speed of cars over the bridge and through this road corridor.</p>	<p>betterment of air quality.</p>	<p>Both local and external motorist will need to cross the Speed River at Hanlon Parkway and Wellington to the north or near Wellington County Road 32 and Wellington 124 in Puslinch to the south.</p> <p>Potential to increase safety as Niska Road becomes a cul-de-sac at the bridge on both sides.</p>		<p>corridor. However traffic modelling show nominal volume change/increase to 2031 as there is little area development planned.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road
2	<p>Greater Community, Region and neighbouring Townships</p> <p>Impacts on proposed development due to property requirements.</p> <p>Conformity to City of Guelph Official Plan and obligations as per previous EAs.</p> <p>Compatibility with Surrounding Land Uses.</p> <p>Impacts on functional needs of local community.</p> <p>Impacts on functional needs of surrounding community.</p>	<p>Niska Road is designated as a collector road in the City of Guelph Official Plan.</p> <p>Adequate right-of-way exists for potential improvements.</p> <p>Surrounding lands are agricultural, woodlands and residential.</p>	<p>No impact over existing conditions.</p> <p>Potential negative impacts on the community and surrounding area as road not properly utilized as a collector road, which negatively impacts the local traffic network.</p> <p>Road not properly utilized as a collector road, which negatively impacts the local traffic network and functional needs of surrounding community.</p> <p>Would not support functional needs of surrounding community and current planning of road network.</p> <p>Hanlon Parkway Class EA identified Niska Road as a fully functioning collector road as part of the analysis and decision making process when analyzing location of ramps and traffic routing. Analysis included the</p>	<p>Would not support Niska Road's designation as a collector road within the City of Guelph Official Plan.</p> <p>Negative impacts on the local traffic network and surrounding community, increasing commute times around the site.</p> <p>Snow plow and removal operations for the City and neighbouring Townships will require modification and possible snow storage areas.</p> <p>Hanlon Parkway Class EA identified Niska Road as a fully functioning collector road as part of the analysis and decision making process when analyzing location of ramps and traffic routing. Analysis included the anticipation of a two lane bridge. This option does NOT</p>	<p>Would not support Niska Road's designation as a collector road within the City of Guelph Official Plan.</p> <p>Negative impacts on the local traffic network and surrounding community, increasing commute times around the site</p> <p>Snow plow and removal operations for the City and neighbouring Townships will require modification and possible snow storage areas.</p> <p>Both local and external motorist will need to cross the Speed River at Hanlon Parkway and Wellington to the north or near Wellington County Road 32 and Wellington 124 in Puslinch to the south.</p> <p>Hanlon Parkway Class EA identified Niska Road as a fully functioning collector road as part of the analysis and decision making process when analyzing location of ramps and anticipated</p>	<p>Potential negative impacts on the local community as new bridge may increase speed</p> <p>No impact over existing conditions.</p> <p>Potential negative impacts on the community and surrounding area as road not properly utilized as a collector road, which negatively impacts the local traffic network.</p> <p>Road will continue to not be properly utilized as a collector road, which negatively impacts the local traffic network and functional needs of surrounding community.</p> <p>Would not support functional needs of surrounding community and current planning of road network.</p> <p>Provides an opportunity to construct safety and recreational features as part of the bridge</p> <p>Hanlon Parkway Class EA identified Niska Road</p>	<p>Supports Niska Road's designation as a collector road.</p> <p>Positive impacts on the road network through increased functional use by surrounding community.</p> <p>Conformity to City of Guelph Official Plan and obligations as per previous EAs.</p> <p>Compatibility with very long term surrounding land uses.</p> <p>Meets current obligation of the City's OP and Class EA's completed within the past 5 years.</p> <p>Meets obligation of City Council to close the Stone Road Crossing and enhance Niska Road Crossing.</p> <p>Provides an opportunity to construct safety and recreational features as part of the bridge</p> <p>Hanlon Parkway Class EA identified Niska Road as a fully functioning</p>



CRITERIA FOR EVALUATING ALTERNATIVES	Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road
		anticipation of a two lane bridge. This option does NOT meet these obligations.	meet these obligations.	traffic routing. Analysis included the anticipation of a two lane bridge. This option does NOT meet these obligations.	as a fully functioning collector road as part of the analysis and decision making process when analyzing location of ramps and traffic routing. Analysis included the anticipation of a two lane bridge. This option does NOT meet these obligations.	collector road as part of the analysis and decision making process when analyzing location of ramps and traffic routing. Analysis included the anticipation of a two lane bridge. This option meets these obligations.



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road
3	<p>Heritage Resources (e.g. archaeological features, built heritage, and cultural heritage landscapes)</p> <p>Disruption and/or destruction of sites, structures, landscape units having significant archaeological.</p> <p>Impacts to historical or architectural value.</p>	<p>Current bridge holds cultural significance due to historical value</p> <p>Niska Road Bailey Bridge designated as Heritage Bridge due to historical and structural value. Possibility for archaeological potential in low-laying, well-drained areas, though no features yet identified. One registered archaeological site located within 1km of study area in surrounding township.</p>	<p>Increased structural deterioration will result in eventual loss of steel truss structure, which will negatively impact the heritage value.</p> <p>Repairs to steel truss structure will help to increase lifespan of existing structure.</p> <p>Repairs to the existing structure may also compromise existing heritage aesthetics.</p> <p>Repairs to timber bridge abutments will require a more extensive and intrusive approach and will require in-water repair and/or replacement works.</p>	<p>Increased structural deterioration will result in eventual loss of steel truss structure, which will negatively impact the heritage value.</p> <p>Repairs to steel truss structure will help to increase lifespan of existing structure.</p> <p>Repairs to timber bridge abutments will still be required however the extent of the initial required repair may be less than the 'Do Nothing' approach. Major repairs to the abutments will eventually be required, that will require in-water repair and/or replacement works.</p>	<p>Loss of steel truss will result in a loss in local heritage aesthetics.</p> <p>A monument or heritage feature can be placed in the area near that displays information on the 'former' bridge. Parts of the steel truss can be used in this feature.</p> <p>The old timber bridge abutments will be examined and could remain in place and a reminder of the bridge and as fish habitat.</p> <p>If the abutments are crumbling and are deemed a public hazard, removal of the abutments will be required. Loss of fish habitat will require involvement from GRCA and possibly DFO.</p>	<p>Loss of steel truss will result in a loss in local heritage aesthetics.</p> <p>A monument or heritage feature can be placed in the area near that displays information on the 'former' bridge. Parts of the steel truss can be used in this feature.</p> <p>New Bridge will change/alter the 'viewscape' of the bridge area.</p>	<p>Loss of steel truss will result in a loss in local heritage aesthetics.</p> <p>A monument or heritage feature can be placed in the area near that displays information on the 'former' bridge. Parts of the steel truss can be used in this feature.</p> <p>New Bridge will change/alter the 'viewscape' of the bridge area.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road
4	Pedestrian and Cyclist Accessibility and Safety	<p>Impacts to pedestrian and cyclist safety</p> <p>Currently walking trails throughout surrounding area valued by residents. Access to bridge, and safety of crossings limited by traffic and narrow bridge.</p> <p>Currently no walkway/bike lane on single lane bridge.</p> <p>Roadway width between Niska Bridge and Ptarmigan too narrow to safely support bikes/pedestrian use.</p> <p>Over a 7 day period in October 2013, 77 cyclists shared this section of Niska Road with 250 vehicles during morning and evening rush hours (8:00 to 9:00 a.m. and 5:00 to 6:00 p.m.).</p> <p>Safety issue for children walking to school bus from Whittaker to Tanager (no sidewalks).</p>	<p>No impact over existing conditions.</p> <p>Continued risk for pedestrians and cyclists due to lack of sidewalks and/or bike lanes.</p> <p>Signalization at the bridge can be introduced to increase overall safety.</p>	<p>Pedestrian and cycling access is greatly improved over the bridge and safety is improved due to the vehicle traffic being removed from the bridge.</p> <p>Also roadway safety is improved due to roadway becoming a cul-de-sac.</p>	<p>Negative impacts to pedestrian and cycling access along Niska Road as there is no river crossing at this location.</p> <p>Cyclist will need to cross the Speed River at Hanlon Parkway and Wellington to the north or near Wellington County Road 32 and Wellington 124 in Puslinch to the south.</p>	<p>Potential to improve pedestrian and cyclist accessibility and safety by adding sidewalks and bicycle lanes to the road and bridge cross section.</p> <p>Potential for increased traffic intensifying safety issues for pedestrians and cyclists.</p>	<p>Potential to improve pedestrian and cyclist accessibility and safety by adding sidewalks and bicycle lanes to the road and bridge cross section.</p> <p>Potential for increased traffic intensifying safety issues for pedestrians and cyclists.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road	
5	Lifestyle and Culture	<p>Loss of privacy/reduced use and enjoyment of property due to removal of vegetation.</p> <p>Loss of privacy/reduced use and enjoyment of property due to setback requirements.</p> <p>Reduced use and enjoyment of recreational areas during construction and operations.</p> <p>Effects/loss of 'country' viewscape</p>	<p>Speed River is considered a Recreational fishery and provides value to river through recreational value.</p> <p>Surrounding community and region surrounding bridge valued culturally as urban/rural interface, historical region and natural heritage landscape/viewscape. Use for recreation (canoeing, fishing, hiking and cycling) valued culturally.</p>	<p>No impact over existing conditions.</p> <p>Continued safety issues at recreational areas due to lack of parking, unsafe crossing conditions and lack of sidewalks and bike lanes.</p>	<p>Increased lifestyle and culture as the natural/rural feel is maintained by reducing vehicle traffic along Niska Road.</p> <p>Increased safe access to recreational areas across the bridge for pedestrians and cyclists.</p> <p>Restricted access to recreational areas for greater community/ motorists.</p>	<p>Increased lifestyle and culture as the natural/rural feel is maintained by reducing vehicle traffic along Niska Road.</p> <p>Decreased access to recreational areas across bridge for pedestrians, cyclists and motorists.</p>	<p>Potential impact on lifestyle on culture caused by the road improvements.</p> <p>Temporary loss of vegetation to widen road embankments during construction.</p> <p>Potential for increased safe access to recreational areas adjacent to the bridge.</p> <p>Potential alternation of country 'viewscape.'</p>	<p>Potential impact on lifestyle on culture caused by the road improvements.</p> <p>Temporary loss of vegetation to widen road embankments during construction.</p> <p>Potential for increased safe access to recreational areas adjacent to the bridge.</p> <p>Potential alternation of country 'viewscape.'</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road
C	Financial Factors <i>Rating:</i>						
1	Construction and Demolition Costs	<p><u>Preliminary Cost Estimates:</u></p> <p>2 lane + bike lanes + sidewalk \$2.5 million</p> <p>1 lane + bike lanes + sidewalk \$2 million</p> <p>Demolition cost of existing bridge \$300, 000</p>	<p>Rehabilitative and repair cost estimate \$1,300,600</p> <p>No demolition costs.</p>	<p>Rehabilitative and repair cost estimate \$1,026,000</p> <p>No demolition costs.</p>	<p>Demolition cost of existing bridge \$350, 000</p> <p>High demolition costs and no construction costs.</p>	<p>1 lane + bike lanes + sidewalk \$2 million</p> <p>High construction and demolition costs associated with new bridge.</p>	<p>2 lane + bike lanes + sidewalk \$2.5 million</p> <p>High construction and demolition costs associated with new bridge.</p>
2	Operation and Maintenance Costs	<p>Current bridge in need of costly repairs. August 6, 2013 Bridge inspection Report indicates that bridge requires \$1, 026,193 in repair costs.</p> <p>Currently maintenance and repairs undertaken as required.</p>	<p>High operating and maintenance costs will significantly increase over time.</p> <p>Continued snow removal issues due to size of bridge.</p>	<p>Moderate operating and maintenance costs will still significantly increase over time due to its current condition and as bridge deteriorates.</p>	<p>No operating and maintenance costs.</p>	<p>Low initial operating and maintenance cost will moderately increase over time.</p> <p>Bridge life cycle will be approximately 75 to 100 years with current technology, construction methods and quality of materials.</p>	<p>Low initial operating and maintenance cost Will moderately increase over time.</p> <p>Bridge life cycle will be approximately 75 to 100 years with current technology, construction methods and quality of materials.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road
D	Technical Factors Rating:						
1	Structural – Condition and Load Capacity	<p>Currently a maximum weight restriction on bridge for 5 tonnes.</p> <p>Increased deterioration of bridge compromises safety of structure.</p> <p>Overall the structure is in very poor condition. The major concerns at this site are the water encroaching against abutments as a result of span opening being shorter than watercourse width (this situation may lead to unstable substructure in case of high volume water - flooding), major road constriction, absence of a pedestrian access, absence of traffic barrier, progressive undermining of the northwest retaining wall, severe failure of the northwest embankment, partial failure of northeast embankment, severe corrosion of the bearing plates, isolated severe corrosion of the bottom chords at the ends and</p>	<p>Does not address all structural deficiencies, in particular load capacity.</p> <p>Currently a maximum weight restriction on bridge for 5 tonnes helps to deter truck traffic. Could be argued that this condition be considered a traffic calming feature.</p>	<p>Does not address existing structural deficiencies.</p> <p>Currently a maximum weight restriction on bridge for 5 tonnes will become irrelevant and the pace of deterioration may slow down due to absence of vehicular traffic.</p>	<p>Bridge removed, no structural deficiencies addressed.</p>	<p>New bridge will provide a 75 to 100 year life cycle.</p> <p>New bridge will address all existing structural deficiencies.</p>	<p>New bridge will provide a 75 to 100 year life cycle.</p> <p>New bridge will address all existing structural deficiencies.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road
		west end verticals, partial poor condition and progressive deterioration of the bearing seats and progressive deterioration of the masonry retaining walls.					
2	Geometry – Road Profile and Width	Existing right-of-way an average of 20 meters in width.	Does not address existing geometry deficiencies.	Addresses existing geometry deficiencies as the bridge is no longer a supporting vehicular traffic.	Bridge has been removed.	Road profile and approach geometry will be improved. Bridge geometry will be improved but not brought to the minimum standard as per the MTO's Geometric Design Standards.	Road profile and road geometry will be brought to the minimum standard as per current municipal and MTO standards. Opportunity to introduce pedestrian and cycle facilities (bike lane, multiuse path, sidewalks, trails etc.)
3	Roadside Safety – Barriers and Clearances	No structural barrier system over bridge and approach guide rail does not meet minimum length requirements or have correct end treatments.	Does not address existing roadside safety issues.	Does not address existing roadside safety issues.	Bridge has been removed.	New bridge will address all roadside safety issues.	New bridge will address all roadside safety issues.
4	Utility Impacts	Movement of hydro transmission lines. Movement of lighting standards. Movement of watermains.	Overhead hydro lines on the south side of the road.	Will not likely impact utilities.	No impact over existing conditions.	Will not likely impact utilities.	May require temporary or permanent relocation of utilities.



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road	
5	Emergency Access	Impacts to/loss access for emergency services.	Restrictive 5 tonne load limit prevents fire response vehicles from crossing the bridge.	No impact over existing conditions.	Emergency access prevented from crossing the river.	Emergency access prevented from crossing the river.	Improved emergency access, no load restriction on bridge.	Significant improvement to emergency access. No load restrictions and two lanes.
6	Traffic Impacts	Impacts to surrounding road networks (e.g. traffic volumes).	<p>Currently study area classed as residential. Residents concerned with speed, truck use, and increase in flow of traffic within neighbourhood.</p> <p>The existing bridge over the Speed River only has a single lane.</p> <p>Currently Niska Road Bridge exceeds the threshold of 400 vehicles per day (vpd).</p> <p>Ministry of Transportation (MTO) design guidelines recommends the construction of a 2 lane bridge (with a minimum width 7 meters), for bridges with a posted speed of 50 km/hr that service road volumes between greater than 400 vpd.</p>	<p>Currently one lane bridge not serving functional traffic needs of surrounding community.</p> <p>One lane serves as a traffic calming measure.</p>	<p>Negative impacts to through traffic by closing bridge.</p> <p>Does not support Niska Road's designation as a collector road.</p> <p>Would not support functional needs of Official Plan and some travelling public.</p> <p>Closing the bridge serves as a traffic calming measure.</p>	<p>Negative impacts to through traffic by removing bridge.</p> <p>Does not support Niska Road's designation as a collector road.</p> <p>Would not support functional needs of Official Plan and some travelling public.</p>	<p>Load limit removed from structure allowing all vehicles to cross the structure.</p> <p>Policy can be put in place for truck restrictions allowing for local deliveries only.</p> <p>Two way traffic still restricted by a single lane bridge.</p> <p>Supports Niska Road's designation and function as a collector road. Would service functional needs of surrounding community.</p>	<p>Traffic Impacts significantly improved by removing load limit and providing two-way traffic.</p> <p>Policy can be put in place for truck restrictions allowing for local deliveries only.</p> <p>Supports Niska Road's designation and function as a collector road. Would service functional needs of surrounding community.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Close Bridge to Vehicular Traffic and Maintain	Remove Bridge / Do Not Replace Bailey Bridge	Replace the Existing Bailey Bridge With a New One Lane Structure and Provide Operational Improvements to Niska Road	Replace the Existing Bailey Bridge With a New Two Lane Structure and Provide Operational Improvements to Niska Road
7	Stormwater Infrastructure	Effect on existing storm sewers, culverts. Requirements for new storm sewers, culverts.	Improved stormwater management facilities required.	No impact on stormwater infrastructure.	No impact on stormwater infrastructure.	No impact on stormwater infrastructure.	Opportunity to improve adjacent road profile and surrounding stormwater infrastructure in either an urban or rural form.
8	Vehicular Safety	Deterioration of bridge a vehicular safety concern due to potential for failure. Lack of positive traffic control for the one lane bridge.	No change to existing conditions. Continued risk for users due to road deterioration increasing potential for road failure. Continued vehicular safety concerns due to lack of positive traffic control on existing one-lane bridge. Potential to improve barriers and roadside safety measures. Potential to improve vehicle safety by installing traffic control devices at the bridge and installing proper roadside safety measures.	Increase in community safety. Potential for increased traffic on surrounding roads.	Increase in community safety. Potential for increased traffic on surrounding roads.	Potential to improve vehicle safety by installing traffic control devices at the bridge and installing proper roadside safety measures.	Significant improvement to vehicle safety by providing two full lanes with proper barriers and roadside safety measures.



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Repave Surface	Reconstruct Road with Rural Cross-section	Reconstruct Road with Urban Cross-section
A Natural Environment <i>Rating:</i>						
1	Designated Sites (e.g. Provincially Significant Wetlands, Areas of Natural and Scientific Interest) Encroachment into designated features.	<p>The Speed River Wetland Complex and former Kortright Waterfowl Park and Wildlife Centre (GRCA owned lands) are within the study area.</p> <p>No Species at Risk were observed during field surveys within study area.</p> <p>Grand River holds designation as navigable waterway.</p>	<p>No impact over existing regular maintenance and road repair operations.</p> <p>All maintenance works will occur within the existing right-of-way (ROW).</p>	<p>Potential temporary impacts on adjacent Speed River Wetland Complex (PSW) as a result of construction activities.</p> <p>Mitigation measures will be required to minimize impacts to the PSW and adjacent lands.</p>	<p>Works would occur within existing ROW and ditch area.</p> <p>Any works within the PSW areas will be subject to permitting and approval requirements as established by GRCA based on the area and function of any impacted features.</p> <p>Mitigation measures to minimize the potential impacts to the PSW will be required.</p> <p>Appropriate buffers will be maintained outside of the area defined by the permit.</p>	<p>Works would occur mainly within existing ROW.</p> <p>Any works within the delineated limits of the PSW will be subject to GRCA permitting and approval requirements.</p> <p>Mitigation measures to minimize the potential impacts to the PSW will be required.</p> <p>Appropriate buffers will be maintained outside of the area defined by the permit.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Repave Surface	Reconstruct Road with Rural Cross-section	Reconstruct Road with Urban Cross-section
2	<p>Terrestrial Habitat and Biology (e.g. woodlands, wetlands, wildlife corridors)</p> <p>Displacement of Threatened, vulnerable or endangered species (Species at Risk).</p> <p>Loss of wetland habitat.</p> <p>Loss of trees.</p> <p>Barrier effects on wildlife travel corridors.</p>	<p>As a result of severe cracking, spidering and roadside erosion, washout and sedimentation in surrounding natural communities has created stress to tree health.</p> <p>Further road deterioration may lead to habitat deterioration.</p> <p>Various vegetation types observed including forested, wetland and agricultural land classification. Deer and other incidental wildlife observed onsite and valued by residents and anglers.</p> <p>No rare species identified within study area.</p> <p>Current vegetation surrounding river key to resisting sedimentation in river.</p> <p>Some perching of trees indicates periods of flooding and poor drainage.</p> <p>Sedimentation from road affecting tree health.</p> <p>Current forested and wetland areas provide wildlife habitat and natural corridors.</p>	<p>No impact over existing conditions. All works will occur within the existing ROW.</p> <p>Risk of reoccurring roadside erosion, washout and sedimentation if traffic use remains as is within existing roadway.</p> <p>Increased erosion, washout and sedimentation may lead to habitat deterioration.</p>	<p>Potential temporary impacts on adjacent natural wooded and wetland areas as a result of construction activities.</p> <p>Mitigation measures will be required to ensure minimal impacts on features on adjacent lands.</p> <p>Does not address flooding and poor drainage.</p> <p>Does not address sedimentation from road affecting tree health.</p>	<p>Impact over existing conditions as works may be required outside of the existing ROW in order to complete the required improvements to Niska Road.</p> <p>Activities may result in potential habitat loss/change/disturbance.</p> <p>Mitigation measures will be required to ensure minimal impacts on features on adjacent lands.</p> <p>Opportunity to address flooding and poor drainage.</p> <p>Opportunity to address sedimentation from road affecting tree health.</p>	<p>Impact over existing conditions as works may be required outside of the existing ROW in order to complete the required improvements to Niska Road.</p> <p>Activities may result in potential habitat loss/change/disturbance.</p> <p>Mitigation measures will be required to ensure minimal impacts on features on adjacent lands.</p> <p>Opportunity to address flooding and poor drainage.</p> <p>Opportunity to address sedimentation from road affecting tree health.</p>



CRITERIA FOR EVALUATING ALTERNATIVES	Existing Conditions	Do Nothing/ Repair and Maintain	Repave Surface	Reconstruct Road with Rural Cross-section	Reconstruct Road with Urban Cross-section	
<p>3 Aquatic Habitat and Biology (e.g. fish species, fisheries or aquatic habitat)</p>	<p>Displacement of Threatened, vulnerable or endangered aquatic species (Species at Risk).</p> <p>Loss of/effect to significant individual fish species.</p> <p>Barrier effects on fish.</p> <p>Loss of aquatic habitat.</p>	<p>Stretch of Speed River examined considered a diverse warmwater fish community and considered a recreational fishery.</p> <p>No Species at Risk identified within reach observed.</p> <p>Current depth of river as well as substrate type and groundwater provide refuge and potential spawning habitat for fish.</p>	<p>Risk of re-occurring roadside erosion, washout and sedimentation if traffic use remains as is within existing roadway.</p> <p>Increased erosion, washout and sedimentation may lead to habitat deterioration/ increased sedimentation in waterway.</p>	<p>Construction activities may result in potential habitat loss/change/disturbance.</p> <p>Mitigation measures will be required to ensure minimal impacts on features on adjacent lands.</p> <p>Fresh asphalt is a potential impact to the surrounding environment through runoff and potential spills/ seepage.</p> <p>Slightly increased impermeable surface, increasing amount of runoff.</p> <p>Aquatic habitat would theoretically remain the same as pre-construction.</p>	<p>Construction activities may result in potential habitat loss/change/disturbance.</p> <p>Mitigation measures will be required to ensure minimal impacts on features on adjacent lands.</p> <p>Increased runoff due to re-established drainage ditches and re-paving could potentially disrupt fish species and habitat, though no long term impacts are anticipated.</p> <p>Since no in-water works would be required, aquatic habitat would theoretically remain the same as pre-construction.</p> <p>Fresh asphalt is a potential impact to the surrounding environment through runoff and potential spills/ seepage.</p> <p>Medium to long term, aquatic habitat would theoretically remain the same as pre-construction.</p>	<p>Construction activities may result in potential habitat loss/change/disturbance.</p> <p>Mitigation measures will be required to ensure minimal impacts on features on adjacent lands.</p> <p>Increased runoff due to re-established drainage ditches, storm sewers, and re-paving could potentially disrupt fish species and habitat, though no long term impacts are anticipated.</p> <p>Potential for in-water works associated with storm water management outlets.</p> <p>Fresh asphalt is a potential impact to the surrounding environment through runoff and potential spills/ seepage.</p> <p>Medium to long term, aquatic habitat would theoretically remain the same as pre-construction.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Repave Surface	Reconstruct Road with Rural Cross-section	Reconstruct Road with Urban Cross-section
4	<p>Hazard Lands (e.g. floodplain)</p> <p>Encroachment into floodplain.</p> <p>Erosion and sedimentation impacts within floodplain.</p>		<p>No impact over existing conditions.</p> <p>Potential temporary impact/disruption during construction/maintenance activities.</p> <p>Affected areas would require re-vegetation with native plantings.</p>	<p>Repairs that may occur within the floodplain will be subject to GRCA regulations and permitting requirements.</p> <p>Potential temporary impact/disruption during construction/maintenance activities.</p> <p>Fresh asphalt presents a potential impact to the surrounding environment through runoff and potential spills/ seepage.</p> <p>Slightly increased impermeable surface, increasing amount of runoff.</p>	<p>Repairs that may occur within the floodplain will be subject to GRCA regulations and permitting requirements.</p> <p>Temporary impact/disruption during construction/maintenance activities.</p> <p>Possible increased road footprint within right of way due to excavation of ditches.</p> <p>Hazard Lands (floodplain) would be impacted.</p> <p>Affected areas would require re-vegetation with native plantings.</p> <p>Fresh asphalt presents a potential impact to the surrounding environment through runoff and potential spills/ seepage.</p>	<p>Repairs that may occur within the floodplain will be subject to GRCA regulations and permitting requirements.</p> <p>Temporary impact/disruption during construction/maintenance activities.</p> <p>Increased footprint of right of way due to additional recreation features. Pavement contained using curb and gutter.</p> <p>Hazard Lands (floodplain) would be impacted.</p> <p>Affected areas would require re-vegetation with native plantings.</p> <p>Fresh asphalt presents a potential impact to the surrounding environment through runoff and potential spills/ seepage.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Repave Surface	Reconstruct Road with Rural Cross-section	Reconstruct Road with Urban Cross-section
5	<p>Surface Water Quality and Drainage</p> <p>Erosion and sedimentation impacts to road drainage features and receiving watercourse.</p> <p>Increases to runoff from impermeable surface.</p>	<p>Current water quality in Speed River good due to slight groundwater seep.</p> <p>Continued deterioration of road may negatively impact water quality of Speed River due to sedimentation.</p> <p>Runoff carrying road sand and eroded ditch bank sediment has some sediment removed by existing grass-lined ditches.</p> <p>Limited hydrocarbon removal from capture in ditch soil.</p> <p>Evidence of groundwater input to Speed River, though river is classified as a warmwater thermal regime.</p> <p>The river is a stable, permanent channel characterized as a run.</p> <p>Water quality impacts from roadside litter and bridge runoff including road salt impacts.</p>	<p>No changes to existing conditions.</p> <p>Continued deterioration of road may negatively impact water quality of Speed River due to sedimentation.</p> <p>Potential temporary effects during construction/maintenance activities.</p> <p>Impacts from roadside litter, road runoff and road salt applications would continue.</p>	<p>Potential temporary increase during resurfacing works, no permanent change to existing runoff conditions.</p> <p>Potential temporary impacts on soils and surface water quality will require that erosion/sediment and spill controls are in place during construction to safeguard water quality.</p> <p>Fresh asphalt presents a potential impact to water quality through runoff.</p> <p>Slightly increased impermeable surface, increasing amount of runoff.</p> <p>Road surface would be re-paved leading to potentially less related sedimentation impacts to the watercourse.</p>	<p>Probable increase in sediment from wider road requiring more winter sanding and generating more runoff.</p> <p>Potential temporary impacts on soils and surface water quality Will require that erosion/sediment and spill controls are in place during construction to safeguard water quality.</p> <p>Fresh asphalt presents a potential impact to water quality through runoff.</p> <p>Slightly increased impermeable surface, increasing amount of runoff.</p> <p>Road surface would be re-paved leading to potentially less related sedimentation impacts to the watercourse.</p>	<p>Potential water quality improvement with full capture of road runoff in an oil / grit separator.</p> <p>Potential temporary impacts on soils and surface water quality Will require that erosion/sediment and spill controls are in place during construction to safeguard water quality.</p> <p>Fresh asphalt presents a potential impact to water quality through runoff.</p> <p>Slightly increased impermeable surface, increasing amount of direct runoff through use of storm sewers.</p> <p>Road surface would be re-paved leading to potentially less related sedimentation impact to the watercourse.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Repave Surface	Reconstruct Road with Rural Cross-section	Reconstruct Road with Urban Cross-section
6	Groundwater Quality Impacts to groundwater resources from dewatering activities (if necessary).	<p>Current water quality in Speed River is good due to slight groundwater seep.</p> <p>Continued deterioration of road may negatively impact water quality of Speed River due to sedimentation.</p> <p>Groundwater quality and quantity in the area of the bridge is unknown.</p>	No impact over existing conditions.	<p>Temporary impact over existing conditions.</p> <p>Potential temporary impacts on groundwater resources due to dewatering operations.</p> <p>Erosion/sediment and spill controls will need to be in place during construction to safeguard water quality.</p>	No impact over existing conditions provided that erosion/sediment and spill controls are in place during construction to safeguard water quality.	<p>Depending of the elevation of the ground water table, potential temporary impacts on groundwater resources due to dewatering operations during installation of storm sewers.</p> <p>Erosion/sediment and spill controls will need to be in place during construction to safeguard water quality.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Repave Surface	Reconstruct Road with Rural Cross-section	Reconstruct Road with Urban Cross-section
B Socio-economic/ Cultural Environment Rating:						
1	<p>Residents</p> <p>Nuisance Impacts (noise, dust, vibrations, traffic, detours) during construction and operations.</p> <p>Displacement to properties.</p> <p>Effects on property value.</p> <p>Safety impacts during construction and operations.</p>	<p>Surrounding lands are agricultural, woodlands and residential.</p> <p>Current traffic calming measures not deterring traffic as much as intended, therefore noise, safety and general community well-being a concern for residents.</p> <p>Traffic safety an issue due to a number of accidents.</p>	<p>No impact over existing conditions unless traffic volumes increase, which pose risk to residents due to increased wear and traffic on Niska.</p> <p>Temporary nuisance impacts (noise, dust, vibrations, traffic, detours) during road maintenance.</p> <p>Preservation of current appearance of roadway and viewscapes.</p> <p>Community safety concerns are not addressed. No implementation of traffic calming measures or sidewalks.</p>	<p>Temporary nuisance impacts (noise, dust, vibrations, traffic, detours) during construction.</p> <p>Some community safety concerns are can be addressed through introduction of road surface traffic calming measures.</p> <p>No sidewalks.</p>	<p>Temporary nuisance impacts (noise, dust, vibrations, traffic, detours) during construction.</p> <p>Potential impacts on property value???</p> <p>Community safety concerns can be fully addressed.</p> <p>Opportunity to fully explore the range of traffic calming measures and recreational features (i.e. cross-walks, bike paths, multi-use paths, sidewalks, signage etc.).</p>	<p>Temporary nuisance impacts (noise, dust, vibrations, traffic, detours) during construction.</p> <p>Potential impacts on property value???</p> <p>Community safety concerns can be fully addressed.</p> <p>Opportunity to fully explore the range of traffic calming measures and recreational features (i.e. cross-walks, bike paths, multi-use paths, sidewalks signage etc.).</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Repave Surface	Reconstruct Road with Rural Cross-section	Reconstruct Road with Urban Cross-section	
2	Community and Region	<p>Impacts on proposed development due to property requirements.</p> <p>Conformity to City of Guelph Official Plan and commitments as per previous EAs.</p> <p>Compatibility with Surrounding Land Uses.</p> <p>Impacts on functional needs of local community.</p> <p>Impacts on functional needs of surrounding community.</p>	<p>Niska Road is designated as a collector road in the City of Guelph Official Plan.</p> <p>Adequate right-of-way exists for potential improvements.</p> <p>City of Guelph Official Plan classes Niska Road as a Collector Road.</p>	<p>No impact over existing conditions.</p> <p>Niska Road considered a collector road in the City of Guelph Official Plan, but currently road width does not support requirements of traditional collector road.</p> <p>Currently one lane bridge and road not serving functional needs of the greater surrounding community.</p>	<p>No impact over existing conditions.</p>	<p>Increased usability for community and region.</p> <p>Improvement in Niska Road's function as a collector road within the City of Guelph Official Plan and road network.</p> <p>Impact over existing conditions as works may be required outside of the existing ROW in order to complete the required improvements to Niska Road.</p> <p>Further land requisition will be examined through preliminary design, however it is anticipated at this time that all road improvements can be placed within the current ROW.</p>	<p>Increased usability for community and region.</p> <p>Improvement in Niska Road's function as a collector road within the City of Guelph Official Plan and road network.</p> <p>Impact over existing conditions as works may be required outside of the existing ROW in order to complete the required improvements to Niska Road.</p> <p>Further land requisition will be examined through preliminary design, however it is anticipated at this time that all road improvements can be placed within the current ROW.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Repave Surface	Reconstruct Road with Rural Cross-section	Reconstruct Road with Urban Cross-section
3	Heritage Resources (e.g. archaeological features, built heritage, and cultural heritage landscapes)	<p>Disruption and/or destruction of sites, structures, landscape units having significant archaeological. Historical or architectural value.</p> <p>Existing 20 metre right-of-way completely disturbed by existing road corridor therefore no longer holds archaeological potential.</p> <p>Eastern section of proposed right-of-way well drained therefore holding potential for Aboriginal and Euro-Canadian archaeological resources due to located within 300 m of water source and potentially undisturbed.</p> <p>Most areas along road corridor associated with low lying, poorly drained lands therefore holding no archeological potential.</p> <p>One registered archaeological site located within 1km of study area in surrounding township. Agricultural lands east of Pioneer Trail relatively undisturbed therefore holding archaeological potential.</p> <p>Niska Road not currently designated as a historic road.</p> <p>Possibility for archeological potential in low-laying, well-drained areas, though no features yet identified.</p> <p>Stage 1 Archaeological Assessment indicates that no evidence of late 19th century homesteads or other buildings situated along road corridor in the northwestern section of Puslinch Township.</p>	No impact over existing conditions.	<p>No impact over existing conditions.</p> <p>Niska Road not currently designated as a historic road.</p>	<p>No impact over existing conditions. Potential for archaeological resources will be assessed prior to construction to ensure any potential resources protected.</p> <p>Niska Road not currently designated as a historic road.</p>	<p>No impact over existing conditions. Potential for archaeological resources will be assessed prior to construction to ensure any potential resources protected.</p> <p>Niska Road not currently designated as a historic road.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Repave Surface	Reconstruct Road with Rural Cross-section	Reconstruct Road with Urban Cross-section
4 Local Economy	<p>Nuisance Impacts (noise, vibrations, dust, traffic, detours) to businesses during construction and operations.</p> <p>Displacement of businesses due to property requirements.</p> <p>Impact on business signage due to setback.</p> <p>Impacts on agricultural land due to property requirements.</p>	<p>Truck traffic and speeding are issues.</p>	<p>No change in existing conditions; residential area.</p> <p>Continues existing impacts from restricting traffic across bridge and along Niska Road.</p>	<p>No impact over existing conditions; residential area.</p> <p>Potential negative impacts from restricting traffic across bridge and along Niska Road.</p>	<p>No impact over existing conditions for residential areas.</p> <p>Potential positive impact on agricultural machinery access in surrounding lands due to increased road width.</p> <p>Potential to improve local economy by increasing functional use of Niska Road to connect to commercial areas nearby.</p> <p>Access to future development opportunities may become important.</p>	<p>No impact over existing conditions for residential areas.</p> <p>Potential positive impact on agricultural machinery access in surrounding lands due to increased road width.</p> <p>Potential to improve local economy by increasing functional use of Niska Road to connect to commercial areas nearby.</p> <p>Access to future development opportunities may become important.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Repave Surface	Reconstruct Road with Rural Cross-section	Reconstruct Road with Urban Cross-section
5	Pedestrian and Cyclist Accessibility and Safety Impacts to pedestrian and cyclist safety	<p>Currently walking trails throughout surrounding area valued by residents.</p> <p>Roadway width between Niska Bridge and Ptarmigan too narrow to safely support bikes/pedestrian use.</p> <p>Over a 7 day period in October 2013, 77 cyclists shared this section of Niska Road with 250 vehicles during morning and evening rush hours (8:00 to 9:00 a.m. and 5:00 to 6:00 p.m.).</p> <p>Safety issue for children walking to school bus from Whittaker to Tanager (no sidewalks)</p>	<p>No impact over existing conditions.</p> <p>Continued risk for pedestrians and cyclists due to roadway being too narrow for sidewalks and/or bike lane.</p> <p>Currently the one-lane bridge connected to a two lane roadway is creating an unintentional traffic calming measure; however, there are no sidewalks to provide safe passage for pedestrians and cyclists.</p>	<p>No impact over existing conditions.</p> <p>Continued risk for pedestrians and cyclists due to roadway being too narrow for sidewalks and/or bike lane.</p> <p>Currently the one-lane bridge connected to a two lane roadway is creating an unintentional traffic calming measure; however, there are no sidewalks to provide safe passage for pedestrians and cyclists.</p>	<p>Potential to improve pedestrian and cyclist accessibility and safety by adding sidewalks and bicycle lanes to the road.</p> <p>Wider road and shoulders could increase pedestrian safety with painted bike lane.</p> <p>Motorists in a 5m wide lane will feel safe and will tend to speed. Therefore bike lanes should have a solid white stripe leaving a 3.5m wide vehicular path, making drivers perceive a narrow lane, and slow down.</p> <p>A rumble strip could also be introduced as a community entry feature.</p>	<p>Potential to improve pedestrian and cyclist accessibility and safety by adding sidewalks and bicycle lanes to the road.</p> <p>This option provides the maximum pedestrian safety relative to all other alternatives.</p> <p>Motorists in a 5m wide lane will feel safe and will tend to speed. Therefore bike lanes should have a solid white stripe leaving a 3.5m wide vehicular path, making drivers perceive a narrow lane, and slow down.</p> <p>A rumble strip could also be introduced as a community entry feature.</p>



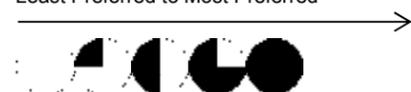
CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Repave Surface	Reconstruct Road with Rural Cross-section	Reconstruct Road with Urban Cross-section
6	<p>Lifestyle and Culture</p> <p>Loss of privacy/reduced use and enjoyment of property due to removal of vegetation.</p> <p>Loss of privacy/reduced use and enjoyment of property due to setback requirements.</p> <p>Reduced use and enjoyment of recreational areas during construction and operations.</p> <p>Potential impact to 'country' viewscape</p>	<p>Speed River is considered a recreational fishery and provides value to river through recreational value.</p> <p>Surrounding community and region surrounding bridge valued culturally as urban/rural interface, historical region and natural heritage landscape/viewscape.</p> <p>Use for recreation (canoeing, fishing, hiking and cycling) valued culturally.</p>	<p>No impact over existing conditions.</p> <p>Increased lifestyle and culture as the natural/rural feel is maintained.</p> <p>Temporary disruption of use and enjoyment of recreational areas during maintenance.</p>	<p>No impact over existing conditions.</p> <p>Increased lifestyle and culture as the natural/rural feel is maintained.</p> <p>Temporary disruption of use and enjoyment of recreational areas during construction and operations.</p>	<p>Temporary loss of privacy if trees need to be removed during construction.</p> <p>Temporary disruption of use and enjoyment of recreational areas during construction and operations.</p> <p>Removal of unintentional traffic calming created by single lane road may alter community environment.</p> <p>Potential for increased safe access to recreational areas if road expanded to allow for parking areas.</p> <p>Potential alteration of 'viewscape', as such, special attention must be paid to avoid removal of ornamental vegetation, rehabilitation and restoration</p>	<p>Temporary loss of privacy if trees need to be removed during construction.</p> <p>Temporary disruption of use and enjoyment of recreational areas during construction and operations.</p> <p>Potential impact to 'country' viewscape.</p> <p>Removal of unintentional traffic calming created by single lane road may alter community environment.</p> <p>Potential for increased safe access to recreational areas if road expanded to allow for parking areas.</p> <p>Potential alteration of 'viewscape', as such, special attention must be paid to avoid removal of ornamental vegetation, rehabilitation and restoration.</p>



CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Repave Surface	Reconstruct Road with Rural Cross-section	Reconstruct Road with Urban Cross-section
C	Financial Factors Rating:					
1	Construction and Demolition Costs		<\$20,000	\$200,000	\$500,000	\$1, 300,000
2	Operation and Maintenance Costs	Road requires rehabilitation. Currently maintenance and repairs undertaken as required. Current bridge is in need of costly repairs.	No changes over existing conditions. Current bridge is in need of costly repairs that will continue into the future.	No changes over existing conditions.	Minor increase in area to maintain. Can consider semi-urban design as well.	Increased to match typical City urban road.
3	Property Acquisition Costs	None.	None.	None.	None.	None.
D	Technical Factors Rating:					
1	Structural – Condition and Load Capacity	Spidering and cracking of road causing washout. Road repairs necessary to prevent continued deterioration creating vehicular safety issues.	Continued maintenance and partial reconstruction. Overall ongoing deterioration of road.	Probable several years without surface restoration. Possible weak subgrade issues not addressed.	Provides for 60 year life cycle.	Possible minor increase in longevity over rural from curb and drainage improvements. Provides for 60 year life cycle.
2	Geometry – Road Profile and Width	Existing right-of-way an average of 20 meters in width. The existing road corridor consists of a single 3.5 m wide lane in each direction flanked on both sides by drainage ditches.	No changes to existing conditions. Sub-standard design.	No changes to existing conditions. Sub-standard design.	Increase lane width to 5.5m with 2m shoulder, minor profile adjustment. Meets City standards.	Increase lane width to 5.5m, minor profile adjustment. Meets City standards.

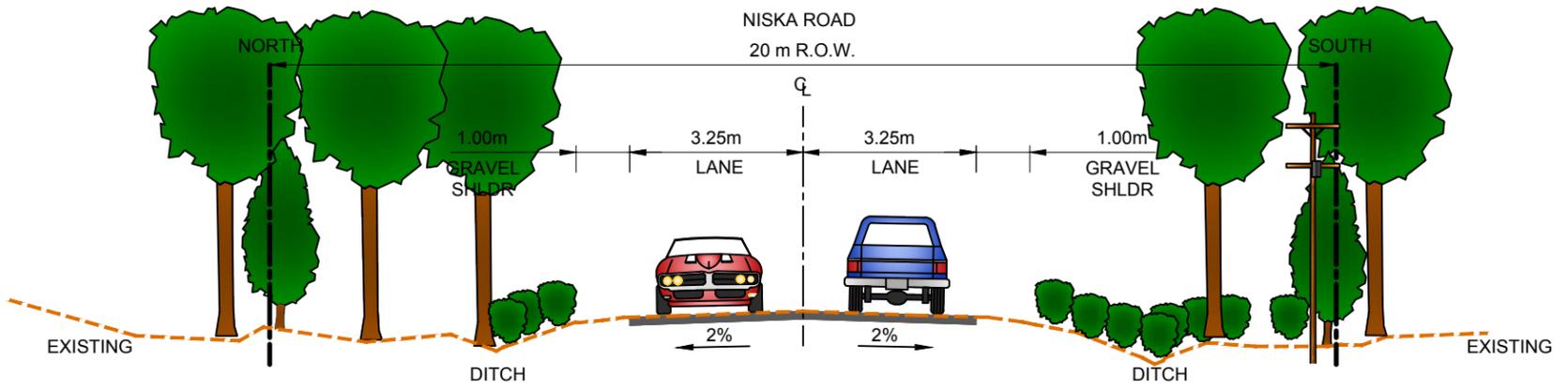


CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Repave Surface	Reconstruct Road with Rural Cross-section	Reconstruct Road with Urban Cross-section	
3	Roadside Safety – Barriers and Clearances		Posted speed in study area is 50 km/hr.	No changes to existing conditions.	No changes to existing conditions.	Widening of existing narrow shoulder increases pedestrian and motorist safety.	Curbs increase pedestrian and motorist safety.
4	Utility Impacts	Movement of hydro transmission lines. Movement of lighting standards. Movement of watermains.	Minimal disruption anticipated to existing utilities as a result of improvements to Niska Road.	No changes to existing conditions.	No changes to existing conditions.	Relocation / protection of existing utilities likely required.	Relocation / protection of existing utilities likely required.
5	Emergency Access	Impacts to/loss access for emergency services.	Niska Road provides emergency access to neighbourhood within study and to surrounding residents of Puslinch and Guelph-Eramosa.	No changes to existing conditions.	No changes to existing conditions.	No changes to existing conditions.	No changes to existing conditions.
6	Traffic Impacts	Impacts to surrounding road networks (e.g. traffic volumes).	Currently study area classed as residential. Niska Road being used as a collector road. Residents concerned with speed, truck use, and increase in flow of traffic within neighbourhood.	No impact over existing conditions. Niska Road considered a collector road in the City of Guelph Official Plan, but currently road width does not support requirements of traditional collector road. Currently one lane bridge and road not serving functional needs of surrounding community.	No impact over existing conditions. Niska Road considered a collector road in the City of Guelph Official Plan, but currently road width does not support requirements of traditional collector road. Currently one lane bridge and road not serving functional needs of surrounding community.	Improvement in Niska Road's function as a collector road within the City of Guelph Official Plan and road network.	Improvement in Niska Road's function as a collector road within the City of Guelph Official Plan and road network.

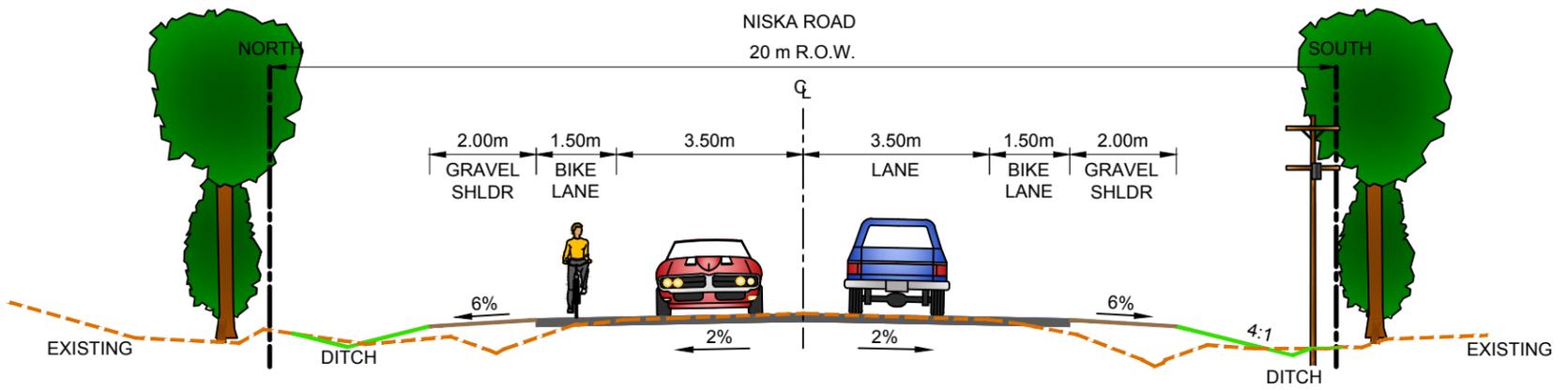


CRITERIA FOR EVALUATING ALTERNATIVES		Existing Conditions	Do Nothing/ Repair and Maintain	Repave Surface	Reconstruct Road with Rural Cross-section	Reconstruct Road with Urban Cross-section
7	Stormwater Infrastructure	<p>Effect on existing storm sewers, culverts.</p> <p>Requirements for new storm sewers, culverts.</p>	<p>Improved stormwater management facilities required.</p> <p>Runoff carrying road sand and eroded ditch bank sediment has some sediment removed by existing grass-lined ditches. Limited hydrocarbon removal from capture in ditch soil.</p>	<p>No changes to existing conditions.</p>	<p>Potential temporary increase during resurfacing works, no permanent change to existing runoff conditions.</p>	<p>Probable increase in sediment from wider road requiring more winter sanding and generating more runoff.</p> <p>Potential water quality improvement with full capture of road runoff in an oil / grit separator.</p> <p>Probable quantity increase.</p>
8	Vehicular Safety	<p>Deterioration of road a vehicular safety concern.</p> <p>Lack of positive traffic control for the one lane bridge.</p> <p>Concern for improved tragic control at Niska/Downey intersection.</p>	<p>No changes to existing conditions. Continued risk for users due to road deterioration increasing potential for road failure.</p> <p>Continued vehicular safety concerns due to lack of positive traffic control for the one lane bridge.</p>	<p>Increased stability of road decreasing potential for road failure.</p>	<p>Widening of existing narrow shoulder increases pedestrian and motorist safety.</p> <p>Potential to improve vehicular safety by installing proper roadside safety measures.</p>	<p>Curbs increase pedestrian and motorist safety.</p> <p>Potential to improve vehicular safety by installing proper roadside safety measures.</p>

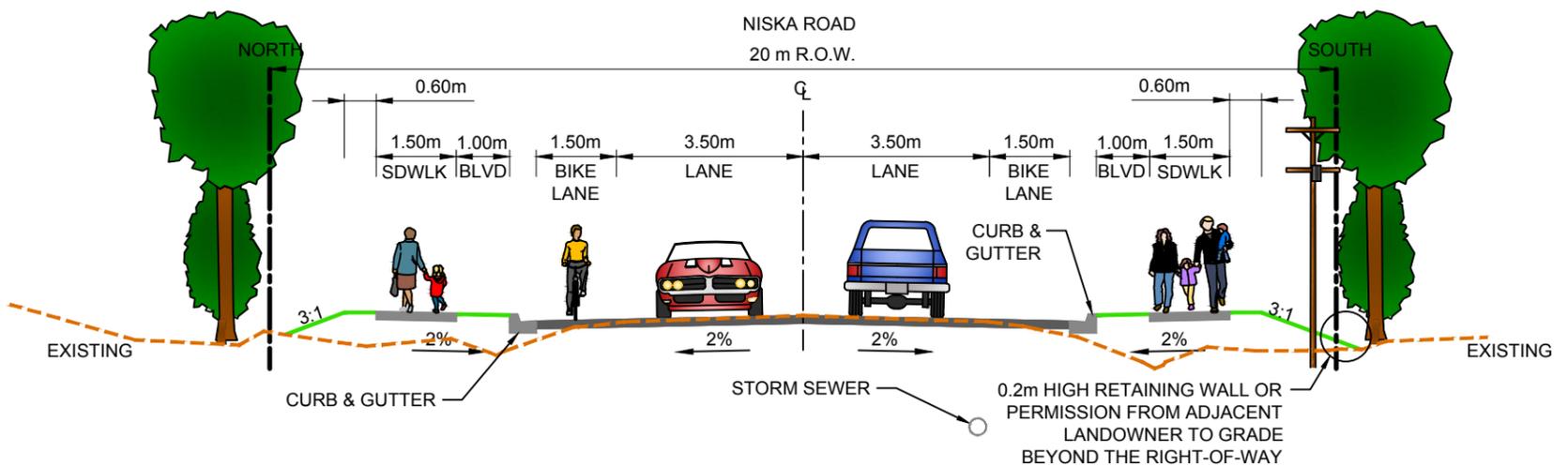




EXISTING CONDITION (ALTERNATIVES 1 AND 2)



ALTERNATIVE 3 - RECONSTRUCT WITH RURAL SECTION



ALTERNATIVE 4 - RECONSTRUCT WITH URBAN SECTION

Draft Opportunity Statement – Niska Road Class EA

The purpose of this study is to undertake a Schedule C Municipal Class Environmental Assessment to assess the rehabilitation and replace options for Niska Road between the Bailey Bridge and Downey Road.

The current City of Guelph's Official Plan recognizes Niska Road as a two-lane collector road which collects vehicle trips from the immediate area and provides for through movement for vehicular travel to/from arterial roadways and expressways. A secondary function is to serve land access and to link the Townships of Puslinch and Guelph-Eramosa.

Segments of the Niska Road through the study corridor are nearing the end of their useful life and the single lane Niska Road Bailey Bridge, installed in 1974 as a temporary replacement, is in very poor condition and is also nearing the end of its life expectancy.

A solution is required to address the deterioration and increasing maintenance costs to Niska Road infrastructure. In addition to reviewing a variety of road cross-sections; impacts to the natural environment and community road safety issues; a range of bridge solutions will also be examined which includes bridge closure, bridge rehabilitation and bridge replacement.

Completion of this Environmental Assessment is part of the process to enable the City of Guelph to address both the short-term and the long-term transportation needs for the local community and the connected overall transportation network.

Social and economic impact, aquatic impact, natural environmental impact, archaeological assessments and heritage assessment will all be assessed as part of the Class EA study process. Community safety and road safety will also be examined. Presently, traffic volumes exceed regulatory thresholds and guidelines for a single lane bridge.

The Local Community has identified 4 important considerations:

1. Consider how to maintain, preserve and protect natural environment and cultural heritage, viewsapes, historic character of existing road and rural/urban interface.
2. Consider the cultural and historical evaluation of the existing Bailey Bridge.
3. Consider health and safety of the local community.
4. Consider recreational opportunities.

As an opportunity, the following bridge options shall be considered equally:

- Consider closing the bridge (i.e. allow pedestrian and bicycle traffic only)
- Consider rehabilitation of existing bridge
- Consider replacing existing bridge with a one lane bridge
- Consider replacing existing bridge with a two lane bridge

The Municipal Class EA process allows for the Study Team to fully examine all options using context based design planning principles to identify and explore reasonable opportunities.