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Agenda

Niska Road Community Working Group
Meeting No. 1

Location:	Guelph City Hall, Meeting Room C, 1 Carden Street
Date and Time:	Tuesday, December 10, 2013 at 7:00 p.m.
File No.:	300032275

Items

1. Review of Minutes of Meeting of Thursday, November 21, 2013
2. Results of Questionnaire – "Developing Assessment Criteria for Alternate Solutions"
3. Review / Discussion of Existing Study Area Conditions
   a) Existing Traffic / Safety Conditions
   b) Natural Environment
   c) Heritage Evaluation
   d) Stage 1 Archaeological Assessment
   e) First Nations' Position
   f) Council Approved Position on Stone Road Alignment
4. Developing a Problem Statement (break out session)
5. Develop Alternate Solutions to the Problem Statement (break out session)
6. Next Meeting

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Minutes of Meeting

Niska Road Schedule C Environmental Assessment
Community Working Group – Member Selection Meeting

Meeting Date: November 21, 2013 **Date Prepared:** November 25, 2013

Time: 7:00 PM – 9:05 PM

Location: Emergency Services Centre, 160 Clair Road West, Guelph ON

File No.: 300032275

Those in attendance were:

Brad Hamilton	City of Guelph
Don Kudo	City of Guelph
Karl Wettstein	Ward Councillor
Ashley Gallaugher	R.J. Burnside & Associates Limited
Jennifer Vandermeer	R.J. Burnside & Associates Limited
Leonad Rach	R.J. Burnside & Associates Limited
Philip Rowe	R.J. Burnside & Associates Limited
	Sixteen Community Group Responders (See attached sign-in sheet)

Items Discussed **Action by**

1. Welcome and Introduction (Led by D.Kudo and P.Rowe)

- As attendees entered, they were asked to sign in and take a hand out package. This hand out package included:
  - Agenda for the evening
  - Niska Road Reconstruction Class Environmental Assessment Study Community Working Group :Class EA Selection Process
  - Niska Road Reconstruction Class Environmental Assessment Study: Community Working Group Community Working Group Selection Process
  - Municipal Class EA Planning and Design Process

Items Discussed	Action by

Flowchart
- Notice of Study Commencement, Municipal Class Environmental Assessment Schedule C Environmental Study

- Copies of maps of the Project Area and Study area were available for reference on each table.

- Attendee names were checked off on the Community Working Group (CWG) Candidate List as they signed in. Based on a review of the Candidate List, Burnside determined that 1 councillor, 1 media representative, 2 residents who did not confirm their interest in the CWG, but were residents living within 2000 metres (M) from the Project Area (i.e. not on the CWG Candidate list), 1 non-government organization representative and 1 individual residing outside 2000 M from the Project Area were in attendance. The remaining meeting attendees were residents within 2,000 M of the Project Area.

- D. Kudo (DK) provided a brief overview of the project history and introduced both the City staff and Burnside staff present for the meeting.

- P. Rowe (PR) asked all attendees to provide a brief introduction of themselves to the group.

- Each person provided their name and their interest in this project. Most attendees were local residents

2. Schedule C Class EA Process (Led by P. Rowe)

- PR explained rational behind elevating the EA Study from a Schedule B to Schedule C undertaking noting items such as community comments and concerns, heritage, the uncertainty of the final cost as it related to the various options that will be evaluated, community safety, road improvements etc.

- PR provided description of Phase 1 of the Municipal Class EA Process, explaining that we are currently at this phase for the Niska Road EA

- PR provided explanation of the Schedule B Class EA process, which includes Phase 1 and 2; noting that the Proponent is only

Items Discussed	Action by

required to select a preferred solution to the problem, which essentially is a broad-picture solution.

- PR provided explanation of a Schedule C Class EA, which also includes Phase 3 and 4, noting that in Phase 3, the proponent is required to select a preferred alternative to the selected solution, i.e. the preferred option to the solution.

2.1 Question and Answer Period (Impromptu)
Several questions were posed by residents during explanation of the Schedule C Class EA Process.

Resident: Who decided to move the project to a Schedule C from a Schedule B? Burnside or the City?

PR: It was a team decision; made by the entire Study Team, however the final decision is the responsibility of the City. With the Project Team's input the City staff reviewed the circumstances of this project and determined that this project falls in the category of a Schedule C

Resident: Are representatives from the local and surrounding counties involved in the study?

PR & DK: Representatives from surrounding counties were invited but did not respond. The Study Team can make an extra effort to involve them if CWG members feel it is necessary.

Resident: PR noted that the final solution has to meet the City of Guelph standards. Does this not take into consideration standards of surrounding counties (i.e. Township of Puslinch)

PR: My comment was in regard to making sure the City's technical road design standards are met as this is a City of Guelph Roadway. All other relevant design standards will need to be upheld as well.

Resident: What is the radius for traffic data collection?

PR: PR pointed out the area for the traffic study on the Project Area Map provided).

Resident: Why is the project area only from the bridge to Downey Road, not to Whitelaw or further? Concern that the study area is not expansive enough to address the potential impacts west of the bridge.

Items Discussed	Action by

PR: The 'EA Study Area' is the area immediately surrounding the Niska Road improvements area i.e. City Limits to Downey Road. However, in order to conduct a complete analysis of the potential impacts of the proposed improvements to Niska Road, the Study Team will be surveying a wider area beyond the limits of the 'EA Study Area'

Resident: In the past, I have observed maintenance trucks stopping at their respective county boundary i.e. on either side of the bridge. Who will be responsible for winter maintenance once the bridge is repaired?

PR: These sorts of questions will be discussed at the next meeting, once the committee has been selected. The purpose of our meeting today is to discuss the selection of a CWG.

Resident: If representatives from neighbouring townships aren't involved, how can the selected solution be a fair and representative one?

L.Rach (LR) & PR: Representatives from surrounding townships were invited to be engaged, and will continue to have opportunity to comment and be involved throughout the study. Ultimately, they (or any stakeholder), determine their own level of involvement.

Resident: How much influence will the CWG have in the final decisions that are made? Will members' efforts be taken into consideration more than those of the general public/those not on the CWG? Is there are preconceived idea of where influence will be weighted in decision making?

PR: We take this process very seriously. There are no preconceived/preplanned weighting of influence. Decisions will be made after taking all recommendations into consideration equally. No party will have more say in decisions that are made.

Resident: Is the City under any obligation to accept recommendations?
PR: All recommendations will be taken into consideration equally.

Resident: Has an estimated date of completion been determined?

PR: This is not known at this time, and difficult to estimate based on varying schedules of stakeholders and authorizing agencies (City, government, Non-government, stakeholder groups, etc.). This study

Items Discussed	Action by

does not have a fixed date for completion
Resident: What is your opinion on the perspectives of politicians on the Project?

PR: No opinion on the perspective of local politics.

Residents: Other resident noted that one political representative has voiced favour for a two lane bridge solution).

PR: Council cannot select a solution they can only approved or not approve the Class EA recommendations brought to Council ; Resident: Was traffic data determined before and after the bridge was constructed?

PR: Topics like this will be discussed at the next meeting with those selected to be on CWG.

Resident: Was the traffic data not collected when the bridge was closed?
LR: No, it was a baseline study, but more details about this study and this data will be discussed at later meetings.

Resident: Is the road not considered a right-of-way right now and as such cannot be closed?

PR: The bridge can be closed currently through City bylaw.

3. Responsibility of the Community Working Group Members and Explanation of Selection Process (Led by P.Rowe)

PR provided a brief introduction to the responsibilities of the CWG.

Before the explanation of selection began, a resident voiced their opinion on group membership. She stated that she has had good experiences with large working groups, and that those who want to be part of the CWG and attend meetings, should be allowed to; that there should not be a maximum number of participants allowed. The resident felt that every effort be made to find a balanced and representative CWG, those who expressed interest in being members of the group should not be excluded based on a number requirement.

PR: noted that has had good and bad experiences with large groups. Emphasised that attendance of meetings or participation in the CWG is

Items Discussed	Action by
not a selfish process, but rather an opportunity to represent the community and share the information from CWG meetings with the community. Resident noted that due to busy lifestyles, CWG members may not have time to spend talking to everyone in their community. Requested that part-time involvement be offered. Residents provided examples of good and bad large group experiences. One example provided illustrated an experience in which everyone worked together and they were respectful, however someone else provided an example of the opposite experience in which the whole meeting time was taken up with competing agendas, arguments and no problem solving. Another resident suggested that everyone who wants to be involved should write which category they fall under within the CWG member types, and then select a representative group based on those willing to participate. 2 residents opted out of membership. One due to a medical emergency and lack of solid commitment possibilities as a result. One resident inquired whether he could participate as a non-government organization representative since he is an avid cyclist. PR noted that the group could decide under which CWG member type they felt best represented their position. Resident noted that opening up the meetings and membership of the CWG to everyone, would endanger the credibility of recommendations made by the group. DK: Reiterated that public involvement is still possible throughout the process, regardless of membership of CWG. Anyone in the community can pass concerns to CWG committee members, or directly to the Study Team. PR noted that collaborative groups would be more balanced, and allow for varying perspectives to be considered in solutions. PR noted that the danger in a group composed of members with the same perspective could lose credibility as they may be perceived as biased toward a particular solution and not necessarily in the best interest of the majority	

Items Discussed	Action by

of stakeholders. A group composed of varying perspectives would allow a more holistic consideration of alternatives in order to choose one suited to most everyone's needs.

Resident agreed that this group may not be as representative as possible. Despite equal invitation and notification to representatives from varying backgrounds and interest groups, only those who involve themselves can be taken into consideration.

Resident: Would bystanders be allowed to attend meetings in future, provided they didn't participate?

PR: I don't see a problem with this as long as they aren't disruptive.

Resident noted that involvement in CWG would require skill and experience, especially for 'homework' portions of involvement. Those who are considering being part of the group should ensure they have the expertise to perform the duty of research.

PR: I do not underestimate the community's ability to perform this research or conduct small assignments or survey in the community. We will often rely on local knowledge and experiences when making design decisions. This process is now referred as 'Citizen Science'

Councillor Wettstein noted that the group could be great advisors but need to ensure that they are representing their community. Reiterated that participation still possible for those outside the group through personal comments and through political influence through voting.

Selection Process:
Based on hearing the concerns raised by residents with respect to the selection process, Burnside and City Staff demonstrated a willingness to consider a CWG membership different from the original TOR breakdown of only six members from within a 2,000 metre radius of the Study Area.

PR asked for a raise of hands for all those willing to serve as members of the CWG.

A total of 13 residents living within 2,000 metre radius of the Study Area, showed interest in membership, (this includes 2 residents within 2,000 metres of the study area but not originally on CWG candidate list)

In addition to this, it was noted that the representative from Grand River

Items Discussed	**Action by**

Conservation Authority present would have a position on the CWG as well as another resident living outside the 2000 M Study Area.

Resident: I would like to inquire whether a motion could be put forward to allow those who expressed interest in being on the CWG to be members.

Resident: If we accept all of those who wish to be on the CWG today, does that also mean that numbers of participants from external community will be increased proportionately? This could make the group far too large.

PR: No, it does not mean that we have to have to increase the numbers of participants from external community. That will be discussed Study Team later. For now we need to work through the selection process at hand. However, whatever we decide the CWG must be credible, transparent and as balanced as possible. It should be a cross-section of the community not just represents a single local position or interest.

Councillor Wettstein: Noted that all input needs to be considered, but that this group has a large influence on the decision making process of the alternatives to be studied.

Two Motions were put forth:

> Motion #1
> With a show hands please indicate if you are interested in being a member and participant on the Niska Road Reconstruction Class EA Community Working Group (CWG)
>
> Voting Results:
> 15 hands were raised to be on the committee.
> Later, 2 individuals removed themselves from the committee.
> Therefore 13 individuals were requesting to be members of the CWG.
>
> Motion #2
> With a show hands please indicate if your agree that everyone who wants to be on the committee should be allowed to be on the committee
>
> Voting Results:

Items Discussed	Action by
Of the 18 eligible voters, 11 voters were agreement with Motion #2.	
Study Team exited the room and deliberated on the motions tabled. During the deliberation of the Study Team, the community members completed the 'Developing Assessment Criteria for Alternative Solutions' Survey.	
4. Explanation and completion of 'Developing Assessment Criteria for Alternative Solutions" Survey (Led by P.Rowe) PR explained that the survey will help to provide a gage as to what is "most important" to community. The survey data will be complied and discussed at the next meeting.	
5. Selection of Committee Members and Next Meeting Date Selection Upon the return of the Study Team to the room, DK thanked everyone for their patience and advised the attendees that the Study Team had determined that all those who expressed interest to be on the CWG would be allowed, despite what the TOR noted about breakdown of CWG membership.	Philip Rowe Don Kudo
PR: Further, if those on the CWG decide to declare themselves as NGO representatives, they are no longer able to represent a stakeholder residing within 2,000 metres of the Study Area. Also, PR and DK indicated that there will be no additions to the committee from the local community.PR asked that all those joining the CWG to print name, sign and initial the CWG Membership sheet. The names of those on this sheet will be those included in the CWG from this point forward.	
PR: The dates available for the next meeting are December 4th and December 10th at City Hall. We will now decide which date is best.	
Resident: I work on Wednesday's so December 4th does not work.	
Group decided that December 10th would be the next meeting date by default.	
Councillor Wettstein noted councillors will not attend any other meetings, as these meetings will be strictly for members of the CWG and Study Team.	

Items Discussed	Action by

6. Meeting Adjourned

Meeting Adjourned at 9:05 pm by Philip Rowe

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:

Ashley Gallaugher, HBA EPt.
Environmental Scientist
R.J. Burnside & Associates Limited

Minutes reviewed by:
Philip Rowe
Lead - Environmental Planning and Assessment
R.J. Burnside & Associates Limited

Distribution:

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Niska Road Reconstruction Class EA
Community Working Group

Developing Assessment Criteria
For Alternative Solutions

SUMMARY OF SURVEY

CRITERIA	IMPORTANCE OF CRITERIA			
	Very Important	Somewhat Important	Not Important	COMMENTS
TRANSPORTATION SERVICE:				
• Enhance Corridor Capacity and Level of Service for Cars	3	3	10	
• Enhance Corridor Capacity and Level of Service for Trucks	2	0	14	• Ban on trucks? Bylaws? • No trucks over specific weight or none allowed • N/A or for snow plows • 5 ton trucks should be reduced to no trucks • Truck ban on Kortright Hills
• Reduce Corridor Capacity and Level of Service for Cars	11	1	3	• N/A truck ban in Kortright Blvd.
• Reduce Corridor Capacity and Level of Service for Trucks	13	0	2	• No trucks allowed
• Accommodate Pedestrians and Cyclists	10	5	1	• Close bridge
• Improve Traffic Safety	12	4	0	
• Improve Pedestrians Safety	13	2	1	• Close bridge
• Increased Pedestrians Accessibility (Special Needs)	8	6	1	• Close bridge
• Intersection Improvements	10	3	3	
• Improve Bridge Functionality	6	6	4	• Saves heritage
• Improve Emergency Services Access	4	8	3	• From/to where? • N/A • Close bridge
SOCIO-ECONOMIC IMPACTS:				
• Minimize Disruption of Local Residences	15	0	1	
• Minimize Disruption of Businesses	5	7	3	
• Minimize Disruption of Area Schools	14	2	0	• Only one school
• Reduce Noise Impacts	12	4	0	
• Improve Air Quality	10	5	1	
• Visual Aesthetic of Corridor	10	4	1	
• Archaeological aspects of the Community	8	6	2	
• Cultural Heritage aspects of the Community	9	6	1	• How much heritage value?

CRITERIA	IMPORTANCE OF CRITERIA			
	Very Important	Somewhat Important	Not Important	COMMENTS
• Access to Speed River (Fishing, Boat launch, Canoe Launch, etc.)	6	5	5	• Off of private land? Is this necessary?
• Increase Residential Use of Corridor	6	6	4	
• First Nations Interest	5	7	4	
NATURAL ENVIRONMENT IMPACTS:				
• Minimize Negative Effects on Vegetation	12	4	0	• Negative impacts on hydrology? Hydro-geology?
• Minimize Negative Effects on Wildlife	13	3	0	• Wetland & trees?
• Minimize Negative Effects on Aquatic Habitat	13	2	1	
• Management / Control of Deer crossings	12	2	2	• Other animal / wildlife crossings?
• Management of Stormwater	13	1	1	• Water quality? • Geomorphology? • Flood plain?
• Minimize Negative Effects on Speed River	13	2	1	
• Management of Slop Stability and erosion	13	2	1	• Bank stabilization? • Geomorphology?
• Control of Invasive Plant Species (i.e. Harmful Plants)	10	4	2	• This would be [important] to define because removal could be seen as a benefit, but what if it's in a wetland?
COSTS:				
• Cost of Road Reconstruction	11	5		
• Cost of Bridge Reconstruction	12	4		
• Cost of on-going Bridge Repair and Operations	10	6		
• Minimize overall Capital Costs	11	5		
• Cost of Property Acquisition	9	7		• Impacts of acoustics
• Impacts to Local Property Values	12	4		
OTHER CRITERIA:				
• Wishes of direct community (those most affected)	1			
• Green Space Preservation for Future Generations	2			
• City Environmental Reputation	1			
• Looking at Alternative Corridors and Traffic Routing	1			
• Minimize long-term effects on natural environment	1			

CRITERIA	IMPORTANCE OF CRITERIA			
	Very Important	Somewhat Important	Not Important	COMMENTS
• Maintain goals that are consistent with "global" goals (e.g., reduce carbon footprint, less reliance on oil, cars)	1			
• Side walks	1			
• Traffic calming	1			
• Installation of lights at Niska and Downey Roads	1			
• School Bus Safety	1			
• Access to school bus stops	1			
• Designation of Niska as a historic and scenic road	1			
• River clean up	1			
• Nature trails	1			
• No more housing	1			
• Educational prospects	1			
GENERAL COMMENTS				
• Should reduce the traffic on Downey Road. • Trucks should be excluded of using the bridge. • Noise should be reduced as much as can be. • "Improved" traffic access on Niska will negatively impact the whole area (e.g., Ptarmigan and Downey) • Heritage value of bridge important for future generations. • Environmental preservation very important for future generations. • Preserve the area to the original intent The City of Guelph planned. • Include planned intersection improvements • Ultimate fate of GRCA lands need to be determined (i.e., will GRCA be selling lands west of Ptarmigan and south of Niska for development as in the City's grand plan? • Definition of criteria is necessary to rank the criteria properly. • Careful consideration to criteria/weighing of each is important.				

Niska Road EA
Overview of Existing Traffic Conditions

Prepared By:

R.J. Burnside & Associates Limited
15 Townline Orangeville ON L9W 3R4

Prepared for:

City of Guelph / Community Working Group

December 2013

File No: 300032275

Table of Contents

Tables

Appendices

1.0 Overview of Niska Road from Downey Road to Westerly City Limits (at the Speed River)

- Classified as a collector road in the City's Official Plan. A collector road is defined as collecting vehicle trips and providing through movement for travel to/from arterials and expressways. A secondary function is to serve land access.

- Niska Road bailey bridge was installed as a "temporary replacement" in 1974. An August 6, 2013 Bridge Inspection Report indicated:
  - structure in very poor condition;
  - water encroaching against abutments;
  - absence of pedestrian access;
  - progressive undermining of northwest retaining wall;
  - failure of northwest and northeast embankments;
  - severe corrosion
  - operates with 5 tonne load limit; and
  - requires $1,026,193 in repairs.

- Pavement width on Niska Road between the bridge and Ptarmigan Drive is approximately 6 metres wide / rural cross section / through an environmentally sensitive area. This section:
  - requires pavement rehabilitation;
  - lacks shoulders / possible drainage issues / lane widths narrow / non-standard; and
  - lacks pedestrian / cycle amenities.

- Pavement width on Niska Road between Ptarmigan Drive and Downey Road is approximately 7.8 metres wide. This section:
  - will likely require pavement rehabilitation in the next five years; and
  - urban cross section / frontage residential.

- Traffic control is characterized by:
  - All way stop control at Ptarmigan Drive/Niska Road
  - Stop sign control on Niska Road at Downey Road
  - 50 kph speed limit.

2.0 Summary of Area Resident Concerns – June 27, 2013 Community Workshop

The following concerns were expressed:

- non-local traffic on Niska Road;
- truck traffic;
- safety;
- lack of pedestrian / cyclist facilities;
- potential for increased traffic with a two-lane bridge; and
- potential for environmental impacts of any improvement to Niska Road west of Ptarmigan Drive.

3.0 Summary of Existing Conditions

3.1 Traffic Safety Review – Niska Road from Downey Road to West City Limits

The safety performance of Niska Road between Downey Road and the West City Limits was assessed through a review of the collision history of reported collisions as provided by the City of Guelph between April 1, 2008 and April 30, 2013. Over this five year period there were 16 reported collisions of which the majority of collisions occurred in the 2009 to 2011 period. As seen in Table 1, six of the collisions resulted in personal injuries. The following summarizes a closer look at the collisions by location, severity, collision type and time period.

Table 1: Number of Reported Collisions by Year

Year	No. of Accidents	Severity		
		Fatal	Injury	Property Damages
2008	1	-	1	-
2009	5	-	3	2
2010	4	-	1	3
2011	4	-	1	3
2012	1	-	-	1
2013	1	-	-	1
Total	**16**	**-**	**6**	**10**

Collisions by Location and Severity

Table 2 portrays the number of injury/property damage collisions from 2008 to 2013 by location. The five collisions in the Pioneer Trail to Speed River section of Niska Road were all related to the motor vehicle operation at the single lane Bailey bridge. As well, the personal injury collisions were either within the Niska/Downey intersection or at the single lane Bailey bridge.

Table 2: Motor Vehicle Collisions by Location and Severity

Location	Severity		Total
	Injury	Property Damage	
Niska Road at Downey Road	3	2	5
Niska Road at Ptarmigan Drive	-	4	4
Niska Road between Downey Road and Ptarmigan Drive	-	-	-
Niska Road between Ptarmigan Drive and Pioneer Trail	-	2	2
Niska Road between Pioneer Trail and Speed River	3	2	5
Total	**6**	**10**	**16**

Collisions by Location and Impact Type

Table 3 portrays the number of collisions from April 2008 to April 2013 by Location and Impact Type. Of note:

- The single motor vehicle collision was a deer crossing incident on Niska Road between Ptarmigan Drive and Pioneer Trail.
- Collisions associated with the single lane Bailey bridge are two head on collisions, two rear end collisions and one out of control with speed as the prime factor.
- All collisions at the Niska Road/Downey Road intersection were related to a failure to yield right of way and driver error in judging safe gaps.

Table 3: Motor Vehicle Collisions by Location and Impact Type

Location	Impact Type					Total
	Single Motor Vehicle	Head On	Angle	Rear End	Out of Control	
Niska Road at Downey Road	-	-	5	-	-	5
Niska Road at Ptarmigan Drive	-	-	-	4	-	4
Niska Road between Downey Road and Ptarmigan Drive	-	-	-	-	-	-
Niska Road between Ptarmigan Drive and Pioneer Trail	1	-	-	-	1	2
Niska Road between Pioneer Trail and Speed River	-	2	-	2	1	5
Total	**1**	**2**	**5**	**6**	**2**	**16**

Collisions by Time of Day

As seen from Table 4, the majority of motor vehicle collisions occur in the 10:00 a.m. to 7:00 p.m. period which accounts for 75 percent of the reported motor vehicle accidents.

Table 4: Motor Vehicle Collisions by Time of Day

Location	Time of Day				Total
	9 am–10 am	10 am–4 pm	4 pm–7 pm	7 pm–7 am	
Niska Road at Downey Road	-	3	2	-	5
Niska Road at Ptarmigan Drive	-	2	2	-	4
Niska Road between Downey Road and Ptarmigan Drive	-	-	-	-	-
Niska Road between Ptarmigan Drive and Pioneer Trail	-	-	-	2	2
Niska Road between Pioneer Trail and Speed River	1	2	1	1	5
Total	**1**	**7**	**5**	**3**	**16**

Collisions by Month of Year

As seen in Table 5 the majority of collisions occur in the May to September period.

Table 5: Motor Vehicle Collision by Month of Year

Location	MONTH												Total
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	
Niska Road at Downey Road					1	1			2			1	5
Niska Road at Ptarmigan Drive	1	1					1	1					4
Niska Road between Downey Road and Ptarmigan Drive													
Niska Road between Ptarmigan Drive and Pioneer Trail			1						1				2
Niska Road between Pioneer Trail and Speed River					1	1	1	1		1			5
Total	**1**	**1**	**1**		**2**	**2**	**2**	**2**	**3**	**1**		**1**	**16**

3.2 Existing Traffic Studies

Various traffic studies were conducted in the October 17 to 23, 2013 period.

The following is a summary of data collected.

3.2.1 24 Hour Traffic Count Summaries

Table 6: Niska Road Between Ptarmigan Drive and Downey Road

	Eastbound	Westbound
Thursday, October 17	1818	1886
Friday, October 18	1957	1976
Saturday, October 19	1513	1478
Sunday, October 20	1285	1266
Monday, October 21	2000	2017
Tuesday, October 22	1928	2069
Wednesday, October 23, 2013	1918	2057

Average weekday 24 hour traffic volume eastbound – 1924; westbound – 2001.

The highest weekday peak hour volume eastbound was 248 from 5:00 to 6:00 p.m. The highest weekday peak hour volume westbound was 189 from 8:00 to 9:00 a.m. Over the seven day period 77 cyclists used this section of Niska Road.

Table 7: Niska Road Between Ptarmigan Drive and Pioneer Trail

	Eastbound	Westbound
Thursday, October 17	2336	2236
Friday, October 18	2388	2256
Saturday, October 19	1793	1752
Sunday, October 20	1470	1351
Monday, October 21	2452	2211
Tuesday, October 22	2454	2234
Wednesday, October 23, 2013	2393	2300

Average weekday 24 hour volume eastbound – 2405; westbound 2247.

The highest weekday peak hour volume eastbound was 366 from 5:00 to 6:00 p.m. The highest weekday peak hour volume westbound was 302 from 8:00 to 9:00 a.m. Over the seven day period 111 cyclists used this section of Niska Road.

Table 8: Niska Road Between Pioneer Trail and Speed River Bridge

	Eastbound	Westbound
Thursday, October 17	2364	2272
Friday, October 18	2414	2343
Saturday, October 19	1847	1796
Sunday, October 20	1501	1414
Monday, October 21	2476	2291
Tuesday, October 22	2473	2305
Wednesday, October 23, 2013	2426	2362

Average weekday 24 hour volume eastbound – 2431; westbound – 2315.

The highest weekday peak hour volume eastbound was 379 from 5:00 to 6:00 p.m. The highest weekday peak hour volume westbound was 302 from 8:00 to 9:00 a.m. Over the seven day period 120 cyclists used this section of Niska Road.

Overall the existing traffic volumes on Niska Road fall within the threshold of the City's urban collector roadways. Urban collector roads can carry up to 8,000 to 12,000 vehicles per day.

3.2.2 Heavy Trucks

For the purpose of this exercise, heavy trucks were defined as equal or greater than four or more axle units. Over the one week period there were a total of:

- 25 heavy trucks in the Ptarmigan to Downey section of Niska Road;

- 20 heavy trucks in the Ptarmigan to Pioneer section of Niska Road
- 15 heavy trucks in the Pioneer to bridge section of Niska Road.

The daily heavy truck volumes are noted in the following tables.

Table 9: Niska Road Between Ptarmigan Drive and Downey Road

	Eastbound	Westbound
Thursday, October 17	2	1
Friday, October 18	1	1
Saturday, October 19	1	-
Sunday, October 20	-	2
Monday, October 21	4	3
Tuesday, October 22	3	1
Wednesday, October 23, 2013	3	3

Table 10: Niska Road Between Ptarmigan Drive and Pioneer Trail

	Eastbound	Westbound
Thursday, October 17	1	3
Friday, October 18	-	2
Saturday, October 19	1	2
Sunday, October 20	-	3
Monday, October 21	-	4
Tuesday, October 22	1	1
Wednesday, October 23, 2013	-	2

Table 11: Niska Road Between Pioneer Trail and Speed River Bridge

	Eastbound	Westbound
Thursday, October 17	1	3
Friday, October 18	-	2
Saturday, October 19	-	1
Sunday, October 20	-	3
Monday, October 21	-	1
Tuesday, October 22	1	-
Wednesday, October 23, 2013	-	3

It should be noted that there is a bylaw in place prohibiting trucks with gross weights of 4,500 kg or greater from travelling on Niska Road.

3.2.3 Vehicle Speed Data

The following represents the 85 percentile vehicle speed observed over the seven day period between October 17 and 23, 2013. It should be noted that typically the speed limit is equated to the 85 percentile speed and the value at which 85 percent of motorists adhere to. In this case, the speed limit is 50 kph.

Niska Road between Ptarmigan Drive and Downey Road – 85 percentile speed eastbound – 60 kph; westbound – 59 kph.

Niska Road between Ptarmigan Drive and Pioneer Trail – 85 percentile speed eastbound – 60 kph; westbound – 59 kph.

Niska Road between Pioneer Trail and Speed River Bridge – 85 percentile speed eastbound – 74 kph; westbound – 70 kph.

3.2.4 Historical Counts

The Speed River bridge on Niska Road was closed for plank maintenance on May 28, 2013. As shown on the Traffic Count Summary in Appendix A (Niska Road between Ptarmigan Drive and Tarrager in front of House No. 172), the traffic volume showed a significant decrease.

3.2.5 License Plate Trip Trace

A 7:00 a.m. to 7:00 p.m. vehicle trip trace on October 16, 2013 was undertaken for all vehicles entering and leaving:

- Niska Road west of the Speed River Bridge;
- Niska Road west of Downey Road;
- Ptarmigan Drive west of Downey Road; and
- Pioneer Trail north of Laird Drive.

Of the 1,806 vehicles entering Niska Road at the bridge, 448 vehicles (24.8%) were destined within the immediate survey boundary area. Of the 1,374 vehicles entering Niska Road at Downey Road, 360 vehicles (26.2%) were destined within the immediate survey boundary area.

3.2.6 Intersection Counts

An eight hour turning movement count was undertaken at the Niska Road / Downey Road intersection; at the Niska Road / Ptarmigan Drive Intersection; and the Niska Road / Pioneer Trail intersection. The results are included in the data package.

BURNSIDE

[THE DIFFERENCE IS OUR PEOPLE]

Appendix A

Traffic Data Package

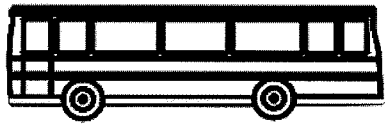
FHWA VEHICLE CLASSIFICATIONS

1 Motorcycles

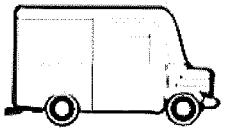
2 Passenger Cars

3 Two Axle, 4 Tire Single Units

4 Buses

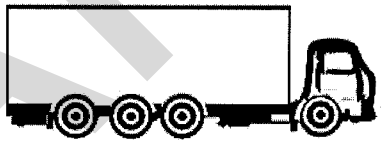


5 Two Axis, 6 Tire Single Units



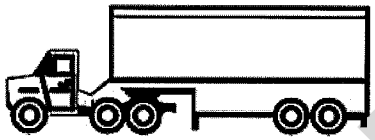
6 Three Axle Single Units

7 Four or More Axle Single Units

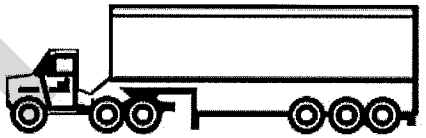


8 Four or Less Axle Single Trail

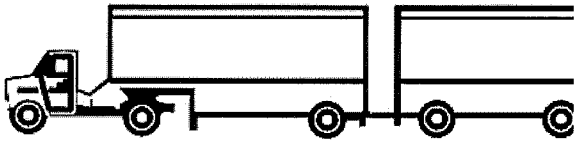
9 Five Axle Single Trailers



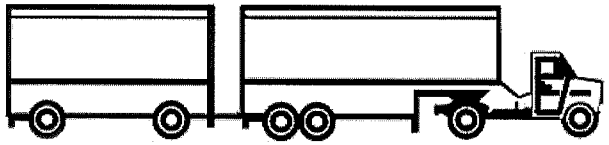
10 Six or More Axle Single Trailers



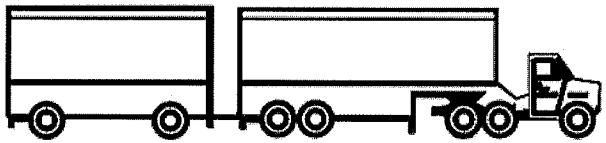
11 Five or Less Axle Multi-Trailers



12 Six Axle Multi-Trailers



13 Seven or More Axle Multi-Trailers



ONTARIO TRAFFIC Inc.

Traffic Count Summary

Niska Road between Foxwood Crescent and Tanager in front of house # 112 Data Collected from 06/06/2011 to 06/12/2011						
Day	Westbound Lane			Eastbound Lane		
	Volume	Average Speed	85% Speed	Volume	Average Speed	85% Speed
Monday	2114	51.7	59.6	2017	51.1	59.3
Tuesday	1989	50.8	58.9	1932	50.5	58.5
Wednesday	2036	50.2	58.7	2058	49.8	58.5
Thursday	1965	50.6	58.9	1947	50.7	58.8
Friday	1884	51.1	59.2	1800	50.4	58.4
Saturday	1596	49.5	57.9	1523	48.4	57.5
Sunday	1234	50.5	58.7	1250	50	58.1
TOTAL	**12818**	**50.7**	**58.9**	**12527**	**50.2**	**58.6**

Niska Road between Foxwood Crescent and Tanager in front of house #100 Data Collected from 11/08/2011 to 11/14/2011						
Day	Westbound Lane			Eastbound Lane		
	Volume	Average Speed	85% Speed	Volume	Average Speed	85% Speed
Monday	1692	49.1	58	1630	50.7	59.8
Tuesday	1777	48.9	57.9	1593	50.6	60.4
Wednesday	1848	48.4	57.2	1727	49.7	58.9
Thursday	530	33.7	51.4	453	35.4	54.2
Friday	974	46.1	56.8	1029	47.8	59.5
Saturday	1484	49.1	58.8	1522	48.8	62.2
Sunday	1250	49.1	58	1189	49.3	61.2
TOTAL	**9555**	**47.7**	**57.7**	**9143**	**48.9**	**59.9**

Niska Road between Ptarmigan Drive and Tanager in front of house # 172 Data Collected from 05/27/2013 to 06/02/2013						
Day	Westbound Lane			Eastbound Lane		
	Volume	Average Speed	85% Speed	Volume	Average Speed	85% Speed
Monday	1701	44.3	51.7	1575	44.6	52
Tuesday *	1289	44	52.4	1115	42.5	49.4
Wednesday	1599	44.3	52.2	1521	43.5	50.4
Thursday	1946	44.7	52.3	1679	44.2	50.7
Friday	1878	43.2	51.2	1708	43.7	50.3
Saturday	1276	43.5	51.2	1226	42.5	49.3
Sunday	1055	44.5	51.2	1116	42.9	49.4
TOTAL	**10744**	**44.0**	**51.8**	**9940**	**43.5**	**50.0**

Niska Road between Foxwood Crescent and Downey in front of house # 78 Data Collected from 05/26/2013 to 05/29/2013						
Day	Westbound Lane			Eastbound Lane		
	Volume	Average Speed	85% Speed	Volume	Average Speed	85% Speed
Sunday	1047	48.5	57	1026	54.2	62.6
Monday	2100	49.3	57.5	1895	54	62.3
Tuesday *	1670	48.2	56.9	1471	51	59.7
Wednesday	1859	48.4	56.9	1757	53.6	62.2
TOTAL	**6676**	**48.6**	**57.1**	**6149**	**53.2**	**61.9**

* = Bailey Bridge over the Speed River closed for 1 day for maintenance

Ontario Traffic Inc.

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 9:00:00

One Hour Peak
From: 7:45:00
To: 8:45:00

Municipality: Guelph
Site #: 1320300003
Intersection: Downey Rd & Niska Rd
TFR File #: 1
Count date: 17-Oct-13

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Downey Rd runs W/E

North Leg Total: 332
North Entering: 142
North Peds: 0
Peds Cross: ⋈

Cyclists	1	3	4
Trucks	0	1	1
Cars	6	131	137
Totals	7	135	

Cyclists	6
Trucks	0
Cars	184
Totals	190

East Leg Total: 1353
East Entering: 482
East Peds: 0
Peds Cross: ⧖

Niska Rd

Cyclists	Trucks	Cars	Totals
12	1	292	305

Cars	Trucks	Cyclists	Totals
179	0	5	184
286	1	11	298
465	1	16	

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Downey Rd

Cyclists	Trucks	Cars	Totals
1	0	5	6
24	5	707	736
25	5	712	

Downey Rd

Cars	Trucks	Cyclists	Totals
838	6	27	871

Peds Cross: ⧖
West Peds: 1
West Entering: 742
West Leg Total: 1047

Comments

Ontario Traffic Inc.

Mid-day Peak Diagram

Specified Period
From: 11:00:00
To: 14:00:00

One Hour Peak
From: 13:00:00
To: 14:00:00

Municipality: Guelph
Site #: 1320300003
Intersection: Downey Rd & Niska Rd
TFR File #: 1
Count date: 17-Oct-13

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Downey Rd runs W/E

North Leg Total: 239
North Entering: 125
North Peds: 7
Peds Cross: ⋈

Cyclists	0	0	0
Trucks	0	0	0
Cars	3	122	125
Totals	3	122	

Cyclists	3
Trucks	1
Cars	110
Totals	114

East Leg Total: 757
East Entering: 371
East Peds: 0
Peds Cross: ⧗

Niska Rd

Cyclists	Trucks	Cars	Totals
3	8	254	265

Cars	Trucks	Cyclists	Totals
105	1	3	109
251	8	3	262
356	9	6	

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Downey Rd

Cyclists	Trucks	Cars	Totals
0	0	5	5
5	4	255	264
5	4	260	

Downey Rd

Cars	Trucks	Cyclists	Totals
377	4	5	386

Peds Cross: ⧗
West Peds: 0
West Entering: 269
West Leg Total: 534

Comments

Ontario Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 16:45:00
To: 17:45:00

Municipality: Guelph
Site #: 1320300003
Intersection: Downey Rd & Niska Rd
TFR File #: 1
Count date: 17-Oct-13

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Downey Rd runs W/E

North Leg Total: 421
North Entering: 220
North Peds: 5
Peds Cross: ⋈

Cyclists	0	0	0
Trucks	1	0	1
Cars	11	208	219
Totals	12	208	

Cyclists	3
Trucks	1
Cars	197
Totals	201

East Leg Total: 1516
East Entering: 848
East Peds: 0
Peds Cross: ⧗

Niska Rd

Cyclists	Trucks	Cars	Totals
1	7	665	673

Cars	Trucks	Cyclists	Totals
184	0	3	187
654	6	1	661
838	6	4	

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Downey Rd

Cyclists	Trucks	Cars	Totals
0	1	13	14
6	5	449	460
6	6	462	

Downey Rd

Cars	Trucks	Cyclists	Totals
657	5	6	668

Peds Cross: ⧗
West Peds: 0
West Entering: 474
West Leg Total: 1147

Comments

Ontario Traffic Inc.

Total Count Diagram

Municipality: Guelph
Site #: 1320300003
Intersection: Downey Rd & Niska Rd
TFR File #: 1
Count date: 17-Oct-13

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Downey Rd runs W/E

North Leg Total: 2317
North Entering: 1124
North Peds: 42
Peds Cross: ⋈

Cyclists	1	5	6
Trucks	1	5	6
Cars	46	1066	1112
Totals	48	1076	

Cyclists	31
Trucks	7
Cars	1155
Totals	1193

East Leg Total: 8281
East Entering: 4091
East Peds: 0
Peds Cross: ⧗

Niska Rd

Cyclists	Trucks	Cars	Totals
45	37	2920	3002

Cars	Trucks	Cyclists	Totals
1101	6	30	1137
2874	36	44	2954
3975	42	74	

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Downey Rd

Cyclists	Trucks	Cars	Totals
1	1	54	56
72	36	3006	3114
73	37	3060	

Downey Rd

Cars	Trucks	Cyclists	Totals
4072	41	77	4190

Peds Cross: ⧗
West Peds: 5
West Entering: 3170
West Leg Total: 6172

Comments

Ontario Traffic Inc.

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 9:00:00

One Hour Peak
From: 8:00:00
To: 9:00:00

Municipality: Guelph
Site #: 1320300002
Intersection: Niska Rd & Ptarmigan Dr
TFR File #: 1
Count date: 17-Oct-13

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Niska Rd runs W/E

North Leg Total:	22
North Entering:	16
North Peds:	0
Peds Cross:	⋈

Cyclists	0	0	0	0
Trucks	0	0	1	1
Cars	4	7	4	15
Totals	4	7	5	

Cyclists	0
Trucks	1
Cars	5
Totals	6

East Leg Total:	305
East Entering:	193
East Peds:	3
Peds Cross:	⧗

Ptarmigan Dr

Cyclists	Trucks	Cars	Totals
0	1	298	299

Cars	Trucks	Cyclists	Totals
1	0	0	1
176	1	0	177
9	2	4	15
186	3	4	

Niska Rd

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Cyclists	Trucks	Cars	Totals
0	0	0	0
0	0	91	91
0	0	39	39
0	0	130	

Niska Rd

Cars	Trucks	Cyclists	Totals
108	1	3	112

Ptarmigan Dr

Peds Cross:	⧗
West Peds:	0
West Entering:	130
West Leg Total:	429

Cars	55
Trucks	2
Cyclists	4
Totals	61

Cars	118	4	13	135
Trucks	0	1	0	1
Cyclists	0	0	3	3
Totals	118	5	16	

Peds Cross:	⋈
South Peds:	0
South Entering:	139
South Leg Total:	200

Comments

Ontario Traffic Inc.

Mid-day Peak Diagram

Specified Period
From: 11:00:00
To: 14:00:00

One Hour Peak
From: 13:00:00
To: 14:00:00

Municipality: Guelph
Site #: 1320300002
Intersection: Niska Rd & Ptarmigan Dr
TFR File #: 1
Count date: 17-Oct-13

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Niska Rd runs W/E

North Leg Total:	11
North Entering:	3
North Peds:	1
Peds Cross:	⋈

Cyclists	0	0	0	0
Trucks	0	0	0	0
Cars	1	1	1	3
Totals	1	1	1	

Cyclists	0
Trucks	0
Cars	8
Totals	8

East Leg Total:	191
East Entering:	92
East Peds:	2
Peds Cross:	⧖

Ptarmigan Dr

Cyclists	Trucks	Cars	Totals
0	1	108	109

Cars	Trucks	Cyclists	Totals
7	0	0	7
67	1	0	68
14	0	3	17
88	1	3	

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W E
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Niska Rd

Cyclists	Trucks	Cars	Totals
0	0	1	1
0	0	89	89
0	0	43	43
0	0	133	

Niska Rd

Cars	Trucks	Cyclists	Totals
99	0	0	99

Ptarmigan Dr

Peds Cross:	⧖
West Peds:	1
West Entering:	133
West Leg Total:	242

Cars	58
Trucks	0
Cyclists	3
Totals	61

Cars	40	0	9	49
Trucks	0	0	0	0
Cyclists	0	0	0	0
Totals	40	0	9	

Peds Cross:	⋈
South Peds:	0
South Entering:	49
South Leg Total:	110

Comments

Ontario Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 16:45:00
To: 17:45:00

Municipality: Guelph
Site #: 1320300002
Intersection: Niska Rd & Ptarmigan Dr
TFR File #: 1
Count date: 17-Oct-13

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Niska Rd runs W/E

North Leg Total:	15
North Entering:	5
North Peds:	0
Peds Cross:	⋈

Cyclists	0	0	0	0
Trucks	0	0	0	0
Cars	1	0	4	5
Totals	1	0	4	

Cyclists	0
Trucks	0
Cars	10
Totals	10

East Leg Total:	357
East Entering:	155
East Peds:	0
Peds Cross:	⧗

Ptarmigan Dr

Cyclists	Trucks	Cars	Totals
0	0	207	207

Cars	Trucks	Cyclists	Totals
6	0	0	6
131	0	0	131
14	1	3	18
151	1	3	

Niska Rd

N
W E
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Cyclists	Trucks	Cars	Totals
0	0	3	3
0	0	190	190
0	0	151	151
0	0	344	

Niska Rd

Cars	Trucks	Cyclists	Totals
202	0	0	202

Ptarmigan Dr

Peds Cross:	⧗
West Peds:	2
West Entering:	344
West Leg Total:	551

Cars	165
Trucks	1
Cyclists	3
Totals	169

Cars	75	1	8	84
Trucks	0	0	0	0
Cyclists	0	0	0	0
Totals	75	1	8	

Peds Cross:	⋈
South Peds:	0
South Entering:	84
South Leg Total:	253

Comments

Ontario Traffic Inc.

Total Count Diagram

Municipality: Guelph
Site #: 1320300002
Intersection: Niska Rd & Ptarmigan Dr
TFR File #: 1
Count date: 17-Oct-13

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Niska Rd runs W/E

North Leg Total: 113
North Entering: 57
North Peds: 8
Peds Cross: ⋈

Cyclists	0	1	0	1
Trucks	0	0	1	1
Cars	9	19	27	55
Totals	9	20	28	

Cyclists	1
Trucks	1
Cars	54
Totals	56

East Leg Total: 1936
East Entering: 1005
East Peds: 30
Peds Cross: ⧖

Ptarmigan Dr

Cyclists	Trucks	Cars	Totals
0	9	1384	1393

Cars	Trucks	Cyclists	Totals
30	0	1	31
859	4	0	863
79	4	28	111
968	8	29	

N
W E
S

Niska Rd

Cyclists	Trucks	Cars	Totals
0	0	10	10
1	1	823	825
0	4	538	542
1	5	1371	

Niska Rd

Cars	Trucks	Cyclists	Totals
924	2	5	931

Ptarmigan Dr

Peds Cross: ⧖
West Peds: 13
West Entering: 1377
West Leg Total: 2770

Cars	636
Trucks	8
Cyclists	29
Totals	673

Cars	516	14	74	604
Trucks	5	1	0	6
Cyclists	0	0	4	4
Totals	521	15	78	

Peds Cross: ⋈
South Peds: 1
South Entering: 614
South Leg Total: 1287

Comments

Ontario Traffic Inc.

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 9:00:00

One Hour Peak
From: 8:00:00
To: 9:00:00

Municipality: Guelph
Site #: 1320300001
Intersection: Niska Rd & Pioneer Trail
TFR File #: 1
Count date: 17-Oct-13

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Niska Rd runs W/E

East Leg Total:	425
East Entering:	298
East Peds:	0
Peds Cross:	

Niska Rd

Cyclists	Trucks	Cars	Totals
0	0	304	304

Cyclists	Trucks	Cars	Totals
0	0	117	117
0	0	11	11
0	0	128	

N
W E
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Niska Rd

Cars	Trucks	Cyclists	Totals
293	0	0	293
4	0	1	5
297	0	1	

Cars	Trucks	Cyclists	Totals
127	0	0	127

Pioneer Trail

Peds Cross:	
West Peds:	0
West Entering:	128
West Leg Total:	432

Cars	15
Trucks	0
Cyclists	1
Totals	16

Cars	11	10	21
Trucks	0	0	0
Cyclists	0	0	0
Totals	11	10	

Peds Cross:	
South Peds:	0
South Entering:	21
South Leg Total:	37

Comments

Ontario Traffic Inc.

Mid-day Peak Diagram

Specified Period
From: 11:00:00
To: 14:00:00

One Hour Peak
From: 12:00:00
To: 13:00:00

Municipality: Guelph
Site #: 1320300001
Intersection: Niska Rd & Pioneer Trail
TFR File #: 1
Count date: 17-Oct-13

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Niska Rd runs W/E

East Leg Total:	238
East Entering:	116
East Peds:	2
Peds Cross:	

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W E
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Niska Rd

Cyclists	Trucks	Cars	Totals
0	0	113	113

Cyclists	Trucks	Cars	Totals
0	2	116	118
0	0	9	9
0	2	125	

Cars	Trucks	Cyclists	Totals
106	0	0	106
9	1	0	10
115	1	0	

Niska Rd

Cars	Trucks	Cyclists	Totals
120	2	0	122

Pioneer Trail

Peds Cross:	
West Peds:	0
West Entering:	127
West Leg Total:	240

Cars	18		
Trucks	1		
Cyclists	0		
Totals	19		

Cars	7	4	11
Trucks	0	0	0
Cyclists	0	0	0
Totals	7	4	

Peds Cross:	
South Peds:	0
South Entering:	11
South Leg Total:	30

Comments

Ontario Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 17:00:00
To: 18:00:00

Municipality: Guelph
Site #: 1320300001
Intersection: Niska Rd & Pioneer Trail
TFR File #: 1
Count date: 17-Oct-13

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Niska Rd runs W/E

East Leg Total: 552
East Entering: 196
East Peds: 0
Peds Cross:

Cyclists	Trucks	Cars	Totals
0	0	201	201

Niska Rd

Cyclists	Trucks	Cars	Totals
0	1	345	346
0	0	26	26
0	1	371	

N
W E
S

Cars	Trucks	Cyclists	Totals
189	0	0	189
7	0	0	7
196	0	0	

Niska Rd

Cars	Trucks	Cyclists	Totals
355	1	0	356

Pioneer Trail

Peds Cross:
West Peds: 0
West Entering: 372
West Leg Total: 573

Cars	33	12	10	22
Trucks	0	0	0	0
Cyclists	0	0	0	0
Totals	33	12	10	

Peds Cross:
South Peds: 0
South Entering: 22
South Leg Total: 55

Comments

Ontario Traffic Inc.

Total Count Diagram

Municipality: Guelph
Site #: 1320300001
Intersection: Niska Rd & Pioneer Trail
TFR File #: 1
Count date: 17-Oct-13

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Niska Rd runs W/E

East Leg Total: 2759
East Entering: 1387
East Peds: 3
Peds Cross: ⧖

N
W E
S

Niska Rd

Cyclists	Trucks	Cars	Totals
1	6	1405	1412

Cyclists	Trucks	Cars	Totals
1	7	1307	1315
0	1	103	104
1	8	1410	

Cars	Trucks	Cyclists	Totals
1332	6	1	1339
46	1	1	48
1378	7	2	

Niska Rd

Cars	Trucks	Cyclists	Totals
1364	7	1	1372

Pioneer Trail

Peds Cross: ⧖
West Peds: 0
West Entering: 1419
West Leg Total: 2831

Cars	149
Trucks	2
Cyclists	1
Totals	152

Cars	73	57	130
Trucks	0	0	0
Cyclists	0	0	0
Totals	73	57	

Peds Cross: ⋈
South Peds: 0
South Entering: 130
South Leg Total: 282

Comments

Niska Road Improvements
Class Environmental Assessment Study

Community Working Group
Summary of Environmental Studies

The following environmental studies have been completed to date on Niska Road between City Limits and Ptarmigan Drive. Some of these studies (as indicated) will be updated in the Spring 2014 to reflect the expanded study area to Downey Road intersection:

- Natural Environment Studies
  - Amphibian Surveys
  - Aquatic Assessment of Speed River
  - Terrestrial Environment Field Survey (to be updated)

- Socio/Cultural Environment Studies
  - Stage 1 Archaeological Assessment (to be updated)
  - Built Heritage Resources and Cultural Heritage Landscapes – Existing Conditions Report

In addition to the studies above, a Cultural Heritage Evaluation Report is in the process of being prepared for the bailey bridge.

Amphibian Surveys

- Surveys were conducted by Burnside staff on April 29, May 28 and June 28 at two wetland areas adjacent to Niska Road approximately 70 metres east of the bailey bridge.
- Surveys were conducted in accordance with Environment Canada *Marsh Monitoring Program Protocol* (Bird Studies Canada, 2013).
- One call from a Spring Peeper was noted on April 29.
- No calls were observed during other survey times and locations.
- Based on the protocol, these areas do not constitute amphibian habitat.
- Amphibian habitat would be expected within the Former Kortright Waterfowl Park given the abundance of wetland area.
- Burnside feels that the frog larvae could be being consumed by snapping turtles or mature frogs could be being consumed by meat-eating birds e.g. herons.

Aquatic Assessment of the Speed River

- Speed River is part of the Grand River Watershed and is classified as a warm water watercourse in the reach located within the study area.
- Based on a review of Department of Fisheries and Oceans Canada *Species at Risk Mapping* and Ministry of Natural Resources *Natural Heritage Information Centre*, there are no records of aquatic species at risk within study area.
- An aquatic field assessment was conducted by Burnside staff on May 8 using the Ministry of Transportation *Environmental Guide for Fish and Fish Habitat*.
- Both upstream and downstream of bridge, the Speed River is a stable, permanent channel.
- River flows faster under bridge due to constriction from bridge abutments.

- Deep pools were noted in the approximate middle of the river immediately upstream and downstream of the bridge. Another deep pool was noted further downsteam of the bridge.
- A groundwater seep was noted along the bank of the western side downstream of the bridge. Groundwater inputs typically contribute to water quality and quantity by adding cool/coldwater.
- Possible location for minnow species spawning habitat was observed downstream of the bridge on a small sand mound.

Terrestrial Environment Field Study (to be updated)

- Field survey was conducted on July 9 of vegetation communities and general site conditions along Niska Road between City Limits and Ptarmigan Drive.
- No rare species were identified.
- Several terrestrial communities were identified in accordance with the Ministry of Natural Resources *Ecological Land Classification for Southern Ontario* (Lee et. al, 1998)
    - Lowland area near Speed River dominated by white cedar coniferous forest with a small pocket of old field meadow on the east side of the river south of bridge.
    - The former Kortright Waterfowl Park is characterized as a mineral meadow marsh.
    - Small pocket of wetland area opposite road from former waterfowl park is characterized as a reed-canary grass organic meadow marsh.
    - Upland area nearest Pioneer Trail (south side) comprised of sugar maple-white ash deciduous forest.
    - Transition area between comprised of sugar maple-lowland ash deciduous forest.
    - The vegetation communities found within the study area are common throughout Southern Ontario.
- Severe cracking and road side erosion have led to washout and sedimentation within the surrounding terrestrial vegetation communities. This sedimentation has created observable stress to tree health.

Follow-up Studies:

- In Spring 2014, Burnside staff will update the terrestrial assessment to include a review of the terrestrial features within the expanded study area between Ptarmigan Drive and Downey Road.
- A tree inventory and analysis of impacts to flora and fauna will be conducted once more details of the proposed road improvements are known.

Stage 1 Archaeological Assessment (to be updated)

- Archaeological Assessment completed by Archaeological Assessments Limited (AAL) in June for Niska Road between City Limits and Ptarmigan Drive.
- Assessment area extended 10 metres on either side of existing road right-of-way.
- Part of study area between Pioneer Trail and Ptarmigan Drive has some potential for archaeological resources, based on:
    - Located within 300 metres of a source of water; and,
    - Potentially undisturbed.
- Other surveyed lands within study area do not have and archaeological potential.
- Stage 2 archaeological assessment recommended for areas of archaeological potential prior to any construction activities.

Follow-up Studies:

- In Spring 2014, AAL will complete update the Stage 1 Archaeological Assessment to include review of the area between Ptarmigan Drive and Downey Road.

Identified Cultural Heritage Resources – Existing Conditions

- A field survey was conducted by Unterman McPhail Associates in May to identify cultural heritage resources within the area between City Limits and Ptarmigan Drive.
- Supplemental desktop research was conducted in October to identify cultural heritage resources within the expanded study area up to Downey Road.
- Four cultural heritage landscapes (CHL) were identified:
    - Hanlon Farm Complex @ 35 Niska Road (on Municipal Register)
    - Niska Road
    - Pioneer Trail
    - Speed River
- One Built Heritage Resource (BHL)
    - Niska Road Bridge
- No cultural heritage impacts anticipated for Hanlon Farm Complex, Pioneer Trail or Speed River.
- The existing character of the Niska Road roadscape will be disrupted by improvements. No mitigation is recommended.
- The Niska River Bridge may be removed depending on the recommended solution identified within the EA study, which would result in direct impact to this BHR.
- Unterman McPhail Associates in undertaking a Cultural Heritage Evaluation Report with supplemental photo documentation for the Niska Road Bridge.

033275_CWG Summary of Environmental Studies
3/14/2014 11:23 AM

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BURNSIDE
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Memo

Date: December 10, 2013 **File No.:** 300032275

Project: Niska Road Improvements Class EA, City of Guelph

Prepared By: Devin Soeting, B.A., Environmental Technologist

Reviewed By: Christopher Pfohl, C.E.T., (E.P.), Senior Aquatic Ecologist

Amphibian Survey Field Memo - DRAFT
Existing Conditions

Amphibian surveys were conducted on April 29th, May 28th and June 28, 2013 at 2 sites (Station A and Station B) across the study area, as shown in Figure XX.

These stations are associated with the Former Kortright Waterfowl Park (Station A) and a nearby meadow marsh feature, just south of Niska Road (Station B). One amphibian call was recorded throughout the surveys. Station A likely provides the best amphibian habitat on the subject lands; where a Spring Peeper (*Pseudacris crucifer*) was recorded during the first survey. Spring Peeper is ranked S5 (very common and demonstrably secure). Breeding amphibian surveys were conducted according to Environment Canada's Marsh Monitoring Program protocol (Bird Studies Canada, 2003).

The locations and timing of these observations are summarized in the Table below and field notes are available in Appendix XX.

Amphibian Survey Results			
	Survey Dates and Species Recorded*		
Stations	April 29, 2013	May 28, 2013	June 28, 2013
Station A	Spring Peeper (1-1)	No calls observed	No calls observed
Station B	No calls observed	No calls observed	No calls observed
*numbers in parenthesis refer to the call code and the number of individuals recorded.			
The first number in the sequence refers to the call codes, which are assigned as follows:			
Code 1: Calls not simultaneous, number of individuals can be accurately counted.			
Code 2: Some calls simultaneous, number of individuals can be reliably estimated.			
Code 3: Full chorus, calls continuous and overlapping, number of individuals cannot be reliably estimated.			
The second number in the sequence refers to the number of individuals of each species recorded.			

032275 Amphibian Survey Summary Niska Road Bridge
12/10/2013 9:35 AM

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Memo

Date: December 10 2013 **File No.:** 300032275

Project: Niska Road Improvements Class EA, City of Guelph

Prepared By: Devin Soeting, B.A., Environmental Technologist

Reviewed By: Christopher Pfohl, C.E.T., (E.P.), Senior Aquatic Ecologist

Aquatic Assessment Report - DRAFT
Existing Conditions

1.1 Aquatic Assessment of the Speed River

As previously mentioned, the Speed River is located within the study area and flows north to south beneath the Niska Road Bridge. The Speed River is the main stem of the Speed River sub-basin within the Grand River Watershed and can be thermally classified as a warm water watercourse in the area of the Site. However, management strategies are aimed at rehabilitating the river to be capable of sustaining a cool/cold water fishery. This stretch of the Speed River is home to a diverse warmwater fish community (GRCA Fisheries Management Plan, 2005) and is considered to be a recreational fishery.

According to the 2013-2014 Guide to Eating Ontario Sport Fish, sport fish located in the river are brown bullhead (Ameiurus nebulosus), common carp (Cyprinus carpio), northern pike (Esox lucius), rock bass (Ambloplites rupestris), smallmouth bass (Micropterus dolomieu), and white sucker (Catostomus commersonii). Based on the consumption guidelines outlined in that document, the water quality appears to be relatively good, with high recommended consumption rates identified upstream and downstream of the study area.

The Department of Fisheries and Oceans Canada Species at Risk Mapping along with the Natural Heritage Information Center (NHIC) was reviewed to determine if any Species at Risk were identified near or within the study area. According to both databases, no species at risk were identified within this reach of the Speed River.
The watercourse was assessed by Burnside staff on May 8, 2013 using the Ministry of Transportation Environmental Guide for Fish and Fish Habitat. This section of the

Speed River is located in an area of mixed forest and park land and is downstream of the urbanized area of Guelph.

The river corridor within the study area has a mature and developed riparian system that maintains the thermal regime and helps mitigate erosion. The reaches immediately upstream and downstream of the Niska Road Bridge have riparian zones containing areas of relatively dense woody vegetation (overhanging on the stream banks). Notable riparian species that were observed at the time of the site visit were red osier dogwood, shrub willow, eastern white cedar, as well as grasses along the shorelines of the sections immediately upstream and downstream of the Niska Road Bridge. Emergent grasses were also noted at the assessed sections.

1.1.1 Upstream Section

At the crossing, the Speed River is approximately 23 m wide and is restricted as it flows through the crossing by the bridge concrete block abutments. These abutments resist erosion and form a slight bottleneck whereby increasing the flow of the river as it travels beneath the crossing. The entire study area upstream of the crossing is a stable, permanent channel that was characterized as a run. The substrate upstream of the crossing is comprised of a combination of predominantly cobbles and gravel, with sand, and some boulders. The section immediately upstream of the crossing had a mean wetted depth of approximately 0.5 m and a mean wetted width of approximately 32 m. Deep pools were noted (approximately 0.85 m deep) in the approximate middle of the river immediately north of the bridge. The mean bankfull width of this section was approximately 37 m and a mean bankfull depth of approximately 1.5 m. Although no groundwater inputs were observed upstream of the bridge, it should be noted that an associated wetland of the river is located just north east of the assessed section. Some overhanging large woody debris along with a small amount of large in-stream woody debris was also noted along the eastern side of the upstream section of the Speed River.

1.1.2 Downstream Section

The downstream section of the Speed River, south of the Niska Road Bridge is very similar to the upstream section. The downstream section of the river is a stable, permanent channel that was also characterized as a run. The dominant substrate type was gravel with some cobbles, sand, and sporadic boulders. The mean wetted depth of the section immediately downstream of the bridge was approximately 0.7 m and the mean wetted width was approximately 33 m. Similar to the upstream section, deeper pools (approximately 1 m deep) were noted in the approximate middle of the river immediately south of the bridge. In addition to these pools, a large, relatively deep pool was noted farther downstream of the bridge. This pool provides refuge from the shallower sections of the river for resident fish. The mean bankfull width of this section was approximately 43 m and the bankfull depth was approximately 2.2 m.
A groundwater seep was noted along the bank of the western side of the downstream section. Groundwater inputs typically contribute to the water quantity and quality of

watercourses, adding a cool/coldwater input. Slightly downstream of this groundwater seep, darters were observed in the immediate downstream section of a boulder on a small sand mound. This location has the potential be darter/cyprinid spawning habitat.

2.0 Impact Assessment and Proposed Mitigation Measures

2.1 Environmental Constraints

Based upon the recommended solution identified within the EA study, field observations and a review of background information, some environmental constraints could limit work in, and/or around the bridge.

The depth of the river observed throughout the study area (especially the deep pools described in the upstream and downstream sections) should be maintained as they provide refuge and potential spawning habitat for fish. With the exception of these pools, the water depth within study area is relatively shallow. This is likely emphasized during periods of low flow, further increasing fish reliance on these pools. The substrate type, size (cobbles and gravel), and distribution within the river should be maintained including placing boulders within deep sections of the river.

The groundwater seep noted during the field investigation (originating immediately south of Niska Road on the west bank of the Speed River) should be maintained to ensure that the seep still outlets to the Speed River. This seep provides a minor contribution to the water quantity and quality of the river.

Efforts should also be made to minimize vegetation clearing and maintain the riparian buffer to the extent possible and replace anything disturbed or removed during repair or reconstruction activities. A tree protection and restoration plan will likely be required and should include native riparian plantings.

2.2 Opportunities for Improvement

Burnside reviewed the Grand River Fisheries Management Plan (GRCA, 1998) for descriptions of development strategies more specifically for the rehabilitation and restoration of the Speed River.

Based on this review, the recommended solution for the bridge should emphasize applied natural channel design principles where possible, including an emphasis toward the transition to a sustainable coldwater fishery. Consultation with the City of Guelph will be required to discuss design options that optimize the long-term goals of rehabilitation at the river.

2.3 Erosion and Sediment Control (ESC) Measures

Heavy duty silt fencing should be placed along Niska Road prior to any site clearing. Typically, silt fencing should be placed along the buffer limit; however, in this instance the need to field fit erosion and sediment control measures to reduce the

disturbed area is suggested. All exposed soils should be re-vegetated as soon as possible after work is completed and silt fencing should be maintained until soils have been stabilized.

The maintenance of ESC measures will be the responsibility of the contractor. All ESC measures should be inspected on a regular basis and after heavy rainfall events to ensure that it is functioning appropriately.

3.0 Approvals Process

The approvals process will depend on the nature of the proposed work and footprint of repair or reconstruction activities.

Navigable Waters Authorization

The *Navigable Waters Protection Act* (NWPA) ensures that any work in, or around, watercourses will not affect navigation. The Grand River is a navigable waterway. Transport Canada will need to be consulted to determine whether or not a permit under the NWPA is required.

Fisheries Act Authorization

The Speed River is considered a Recreational fishery with the presence of sport fish species and angling opportunities within the Niska Road Bridge study area. Based on the new changes to the Fisheries Act, a review of the proposed undertaking will need to be “self-assessed” using DFO’s “Pathways of Effects” to determine the potential impacts to fish and fish habitat and whether there is a potential to cause "serious harm to fish". Based on DFO's decision making process, if developments cause “serious harm to fish” and cannot be mitigated then DFO will determine if an Authorization will be issued under Section 35 (2) (b) of the Fisheries Act. Undertakings that may impact a fishery should be mitigated and therefore will not require an Authorization by the Minister. This determination will be made during the detailed design phase.

Public Lands Act/Lakes and Rivers Improvement Act

These acts are administered by the Ministry of Natural Resources (MNR). The *Public Lands Act* governs work on public lands which includes the beds of lakes and rivers, while the *Lakes and Rivers Improvement Act* regulates in-water structures such as dams. A Work Permit may be required under these acts, however no dams are present. Often, the MNR will coordinate with the local Conservation Authority (CA) and may waive approvals where approvals are issued by the CA. The MNR will need to be consulted to confirm whether a permit will be required.

***Development, Interference with Wetlands and Alterations to Shorelines and* Watercourses**

This regulation is administered by Conservation Authorities and requires permission prior to any work within, or near, a watercourse. The Speed River is located within the jurisdiction of the Grand River Conservation Authority.

GRCA regulates development in or around hazard lands (i.e. watercourses, floodplains, slopes, wetlands) through the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation (O. Reg. 150/06), and conforms to the Generic Regulation (O.Reg. 97/04).

The CA may grant permission for development in regulated areas if, in its opinion, the control of flooding, erosion, pollution or the conservation of land will not be affected by the proposed undertaking.

A permit will be required under this regulation. GRCA will need to be consulted to confirm approval requirements.

4.0 Next Steps

Once the recommended solution for the bridge is determined, the next steps can be confirmed.

Next steps will include:

- Consultation with agencies to confirm the need for approvals under the:
  - *Navigable Waters Protection Act*;
  - *Fisheries Act*;
  - *Public Lands Act/Lakes and Rivers Improvement Act*; and,
  - Conservation Authority Regulations.

We hope this provides you with sufficient information for this stage of the project. If you require any additional information or have any questions please feel free to contact us.

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BURNSIDE
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Memo

Date:	December 10, 2013	**File No.:**	300032275
Project:	Niska Road Improvements Class EA, City of Guelph		
Prepared By:	Ashley Gallaugher, HBA EPt., Environmental Scientist		
Reviewed By:	Dominique Evans, Environmental Technologist		
Distribution:	City of Guelph		

Terrestrial Environment Survey Field Memo - DRAFT
Existing Conditions

Comments

On July 9, 2013, Ashley Gallaugher and Dominique Evans conducted a field investigation of the vegetation and general site conditions along the study area for the Niska Road Bridge Improvement Environmental Assessment. Observations were taken from the road Right of Way (ROW) and documented. No rare species were identified, but several natural features were present.

Ms. Evans and Ms. Gallaugher arrived on site at 10:00 am and remained on site for approximately two and a half hours. It was approximately 23°C outside, with heavy cloud cover and no rain. The ground was wet due to recent rain events. Wind was very slight, measured lower than a level 1.

General observations:
Severe cracking, spidering and road side erosion, lead to washout and sedimentation in the surrounding natural communities. This sedimentation has created observable stress to tree health, as well as water quality.

Wildlife Observations:
During field investigation incidental wildlife observations were noted. These species included bluejays (*Cyanocitta cristata*), song sparrows (*Melospiza melodia*), red winged blackbirds (*Agelaius phoeniceus*), American crows (*Corvus brachyrhynchos*) and turkey vultures (*Cathartes aura*).

Ecological Land Classification
The study area is comprised of a combination between a naturalized landscape with a portion of agricultural landscape and crosses over the Speed River. A site reconnaissance was undertaken on July 9, 2013. Ecological Land Classification (ELC) of the study area was completed based on Lee et. al (1998), where 8 vegetation and

cultural communities were identified in the study area. The ELC evaluation was completed from the ROW, and no soils data was collected.
A summary of the ELC units identified within the study area is provided below and delineated on Figures XX.

FOC 2-2: Dry-Fresh White Cedar Coniferous Forest Type
There were six areas identified as a white cedar coniferous forest type. These forests were White Cedar dominant. Tree canopy cover in coniferous forests is at a minimum 75%. These types of forest ecosites usually represent second growth arising on heavily managed or disturbed areas. In the six sites that were identified as Dry-Fresh White Cedar Coniferous Forests, eastern white cedar (*Thuja occidentalis*) dominated all sites, with various other trees species sparsely present such willow (*Salix sp.*), white oak (*Quercus alba*), ash species (*Fraxinus sp.*), white pine (*Pinus strobus*), trembling aspen (*Populus tremuloides)*, Manitoba maple (*Acer negundo*), choke cherry (*Prunus virginiana ssp. Virginiana*) and black walnut (*Juglans nigra*). There was little to no understory due to the dense tree cover.

FOD 5-8: Dry-Fresh Sugar Maple- White Ash Deciduous Forest Type
There was one site identified as being a Dry-Fresh Sugar Maple- White Ash Deciduous Forest Type. These forests are Deciduous Forests and therefore have a canopy cover consisting of >75% deciduous trees. The site identified as Dry-Fresh Sugar Maple-White Ash Deciduous, was dominated by sugar maple (*Acer saccharum ssp. Saccharum*) and ash. False soloman's seal (*Maianthemum racemosum ssp. racemosum*) was also highly prevalent. Ground cover and understory were primarily ash. These sites are typically on upper to middle slopes.

FOD 6-1: Moist Sugar Maple- Lowland Ash Deciduous Forest Type
One site was determined to be a Moist Sugar Maple- Lowland Ash Deciduous Forest Type. These ecosites represent the wetland-terrestrial transition. This site was characteristically poorly drained, and lowland with sugar maple, yellow birch (*Betula alleghaniensis*) and green ash *(Fraxinus pennsylvanica*). Topography was hummocky and rocky. Maple in this site exhibited perching indicating periods of high moisture and/or flooding.

CU: Cultural
Due to the limitations of the ELC system the former Kortright Waterfowl Park building and parking area are classifies as cultural. This site was developed, with a building on it from the previous sanctuary. Along the roadside, there were sugar maple, white ash and staghorn sumac (*Rhus typhina*) trees observed. General vegetation included buckthorn (*Rhamnus sp*), basswood (*Tilia Americana)* and common mullien (*Verbascum thapsus)*.

Two active agricultural fields were also noted within the study limits. Due to the ELC limitations these areas could not be classified. It is of note that the fields were in soybean crop during the site investigation.

CUM 1-1: Dry-Moist Old Field Meadow Type
One site was determined to be a Dry-Moist Old Field Meadow Type. This site was located along the river on the south side of the road on the east side of the river. General vegetation observed included: grasses, red raspberry (*Rubus idaeus ssp. idaeus),* Canada thistle (*Cirsium arvense*), goldenrod (*Solidago sp*), burdock (*Arctium sp*) and ox-

eye daisy (*Chrysanthemum leucanthemum*). There was also one very young white oak identified.

MAM2: Mineral Meadow Marsh Ecosite

The Mineral Meadow Marsh Ecosite was located within the Kortright Bird Sanctuary, and due to site access restrictions it was not possible to classify any further. Mineral Meadow Marsh Ecosites are usually dominated by grasses or sedges. From off-site observation, it was determined that this site contained tree species including sugar maple, balsam poplar, and some patchy eastern white cedar. Vegetation included sensitive fern *(Onoclea sensibilis*), milkweed (*Asclepias sp*), Lupins (*Lupinus sp.*), narrow-leaved cattail (*Typha angustifolia),* field horsetail (*Equisetum arvense*), nettle (*Urtica sp*), wild grape and basswood. There were pockets of open water as well as sections of Gramonoid marsh also observed.

MAM3-2: Reed Canary Grass Organic Meadow Marsh Type

One site was determined to meet the characteristics of a Reed-Canary Grass Organic Meadow Marsh Type, although it was a very small marsh located alongside Niska Road and was surrounded by cedar stands. The site was dominated by phragmites (*Phragmites australis*) with one standing dead cedar.

MAS2-1: Cattail Mineral Shallow Marsh Type

One site was identified as a Cattail Mineral Shallow Marsh Type site during field investigation. This was a Storm Water Monitoring pond surrounded by willow, sumac, ash and trembling aspen. This is characteristic of a typical Cattail Mineral Shallow Marsh, which is dominated by grasses, sedges and rushes. Marsh sites are classified as having tree and shrub cover ≤25%, with variable flooding regimes. This site fell under these general characteristics.

THE STAGE 1 ARCHAEOLOGICAL ASSESSMENT OF THE NISKA ROAD IMPROVEMENTS AND BRIDGE REPLACEMENT, PTARMIGAN DRIVE TO THE CITY LIMITS, CITY OF GUELPH, COUNTY OF WELLINGTON

ARCHAEOLOGICAL ASSESSMENTS LTD.

THE STAGE 1 ARCHAEOLOGICAL ASSESSMENT OF THE NISKA ROAD IMPROVEMENTS AND BRIDGE REPLACEMENT, PTARMIGAN DRIVE TO THE CITY LIMITS, CITY OF GUELPH, COUNTY OF WELLINGTON

Prepared by

Archaeological Assessments Ltd.
2227 Wuthering Heights Way, Oakville, Ontario L6M 0A3
Telephone - 905-469-8690 Facsimile - 905-469-8702

Consulting Archaeologist: Chris Brown
Archaeological Consulting Licence Number P361
P.I.F. Number P361-047-2013
June 10, 2013

TABLE OF CONTENTS

PROJECT PERSONNEL

Project Director	Chris Brown (License P361)
Report Preparation	Rick Sutton (License P013)

EXECUTIVE SUMMARY

This report details the rationale, methods and results of the Stage 1 Archaeological Assessment of the Niska Road Improvements and Bridge Replacement, Ptarmigan Drive To The City Limits, City of Guelph, County of Wellington. The purpose of the assessment was to determine the archaeological potential of the road corridor as part of a Schedule B project in accordance with the Municipal Class Environmental Assessment process.

The road corridor has a length of 764 metres. The existing right-of-way has a average width of 20 metres. Details regarding the proposed expansion of the existing right-of-way are still being formulated. For the purposes of this study it was assumed that the proposed right-of-way will be expanded for an average of 10 metres on either side of the existing right-of-way.

The results of the Stage 1 assessment indicate that part of the eastern section of the proposed right-of-way does have some potential for both aboriginal and Euro-Canadian archaeological resources. Some sections of the proposed right-of-way have archaeological potential because they are located within 300 metres of a source of water and are potentially undisturbed. Other areas are either disturbed or are associated with low lying poorly drained lands and therefore do not have any archaeological potential.

It is recommended that the well drained potentially undisturbed sections of the proposed right-of-way should be subjected to a Stage 2 archaeological assessment prior to any construction activities. No soil disturbance or development activities should take place until after a Stage 2 archaeological assessment has been completed.

1.0 PROJECT CONTEXT

1.1 INTRODUCTION AND DEVELOPMENT CONTEXT

This report details the rationale, methods and results of the Stage 1 Archaeological Assessment of the Niska Road Improvements and Bridge Replacement, Ptarmigan Drive To The City Limits, City of Guelph, County of Wellington. The purpose of the assessment was to determine the archaeological potential of the road corridor as part of a Schedule B project in accordance with the Municipal Class Environmental Assessment process.

The assessment was conducted by Archaeological Assessments Ltd., under archaeological consulting licence No. P361 issued to Chris Brown. The assessment was conducted in accordance with the provisions of the Ontario Heritage Act (Government of Ontario 1980) and the technical guidelines for archaeological assessments formulated by the Ministry of Tourism and Culture (MCL 2011). Archaeological Assessments Ltd. accepts responsibility for the long term curation of any artifacts recovered or documents produced as a result of the assessment.

1.2 ARCHAEOLOGICAL CONTEXT

Project Description

The study area for this project is a 764 metre long section of Niska Road located in the southwestern section of the City of Guelph (Figure 1). The section of the road corridor that is the focus of this assessment extends west from Ptarmigan Drive to the city limits just west of the Speed River.

The existing right-of-way has a average width of 20 metres. Details regarding the proposed expansion of the existing right-of-way are still being formulated. For the purposes of this study it was assumed that the proposed right-of-way will be expanded for an average of 10 metres on either side of the existing right-of-way. The City is proposing to replace the existing single lane bridge with a two lane bridge to provide one vehicle lane in each direction. The City is also considering building sidewalks and bike lanes on both sides of the roadway and bridge.

A visual inspection of the road corridor was conducted on June 7, 2013 by consultant archaeologist Chris Brown (Licence P361). The existing road corridor is situated in a rural area on the southwestern edge of a new residential development. The existing road corridor consists of a single lane in each direction flanked on both sides by drainage ditches. The existing bridge over the Speed River only has a single lane. The existing right-of-way has been completely disturbed by the existing road corridor. The topography of the study area is dominated by valley lands associated with the Speed River. The road corridor slopes down to the Speed River. More elevated well drained tablelands are only located in the eastern section of the road corridor east of Pioneer Trail. Due to its association with the Speed River, the majority of the existing and proposed right-of-way are low lying and poorly drained. Some areas of the proposed new expanded right-of-way east of Pioneer Trail are on more elevated well drained tablelands and consist of undisturbed agricultural lands. The eastern end of the corridor at Ptarmigan Drive has been disturbed by recent urban development, utility corridors and a sidewalk on the north side.

The subject property is located in the Guelph Drumlin Field physiographic region (Chapman and Putnam 1984). The Guelph Drumlin Field consists of a series of drumlins separated by flat to gently rolling spillways.

General physiographic features which must be considered when identifying areas of archaeological potential include distance to water, local topography, soil conditions, and other resource specific features. In general, any lands located within 300 metres of any of these physiographic features should be considered to have archaeological potential (MTC 2011: 7).

The MTC's Standards and Guidelines for Consultant Archaeologists (2011: 4-5) stipulate that primary water sources (lakes, rivers, streams, creeks, etc.), secondary water sources (intermittent streams and creeks, springs, marshes, swamps, etc.), ancient water sources (glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches, etc.), as well as accessible or inaccessible shorelines (high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.) are characteristics that indicate archaeological potential. Other geographic characteristics that can indicate archaeological potential include: elevated topography (eskers, drumlins, large knolls, plateau), pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground, distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. Resource areas are also considered to be characteristics that indicate archaeological potential (MTC 2011: 5).
Potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in south central Ontario after the Pleistocene era, proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for predictive modeling of site location.

The majority of the road corridor is located within 300 metres of the Speed River or Hanlon Creek, which runs east to west north of Niska Road. Large sections of the road corridor are located in low lying poorly drained areas associated with the Speed River and do not have any archaeological potential. Some areas situated east of Pioneer Trail are located in an area of elevated topography associated with well drained sandy loam soils. This indicates that the elevated and potentially undisturbed sections of the proposed expanded right-of-way have some potential for both aboriginal and 19th century Euro-Canadian archaeological sites.

Previous Archaeological Research

In order to provide context for evaluating archaeological planning concerns, a study area was established which included all lands within a 1km metre radius of this project. The Stage 1 background research included a variety of published and unpublished reports. Data on registered sites located within the study area was obtained from the Archaeological Sites Data Base (ASDB) of the Ontario Ministry of Tourism and Culture in Toronto. The ASDB houses site record forms for registered sites, as well as published and unpublished reports on past surveys, assessments and excavations.

There are currently no registered archaeological sites located either on or immediately adjacent to the road corridor (Rob Von Bitter MTCS: personal communication). A survey of the Ministry of Tourism, Culture and Sport archaeological files located in Toronto indicates that there is only one registered archaeological site located within a one kilometre radius of the study area. The previously registered site is AjHb-79 (no site name), which is a mid to late 19th century Euro-Canadian homestead located 750 metres northeast of the eastern end of the road corridor.

1.3 HISTORICAL CONTEXT

The MTC's Standards and Guidelines for Consultant Archaeologists (2011: 5) stipulate that areas of early Euro-Canadian settlement (pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries, are considered to have archaeological potential. In general, any lands located within 300 metres of any of these cultural features should be considered to have archaeological potential (MTC 2011: 7). Early historical transportation routes (trails, passes, roads, railways, portage routes), properties listed on a municipal register or designated under the Ontario Heritage Act or a federal, provincial, or municipal historic landmark or site, and properties that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations are also considered to have archaeological potential. Any lands located within 100 metres of early historical transportation routes should also be considered to have archaeological potential (MTC 2011: 7).

Information on potential Euro-Canadian archaeological planning concerns was derived from an examination of the 1877 Illustrated Historical Atlas of Wellington County (Parsell 1877). The historical atlas map suggests that there were not any late 19th century homesteads or other buildings situated along the road corridor in the northwestern section of Puslinch Township (Figure 2).

Puslinch Township was surveyed for settlement between 1828 and 1831 (Parsell 1877). The first settlers arrived in this area in the 1820's. By 1828 the future City of Guelph contained about 30 log homes and shanties. The population of both Guelph and Puslinch Township slowly increased in the 1830's and 1840's and by 1843 Guelph had a population of 700. Niska Road was used as a early transportation route and was likely in use as a rough dirt road by the mid to late 19th century. Any undisturbed lands situated along Niska Road have some potential for mid to late 19th century Euro-Canadian archaeological resources.

2.0 FIELD METHODS

The study area was visited on June 7, 2013 by consultant archaeologist Chris Brown (Licence P361) under cloudy and mild weather conditions. General observations of the road corridor were taken from along the existing Niska Road right-of-way.

2.1 ANALYSIS AND CONCLUSIONS

For an assessment of the archaeological potential of any road corridor, examining the extent of previous disturbance is an important factor in determining the potential for archaeological resources. Lands that have been subjected to intensive and deep land alterations due to previous development often no longer have any archaeological potential (MTC 2011:5). The most common forms of previous disturbance include the existing road corridor, building footprints, drainage ditches, utility corridors and infrastructure development. Other activities such as agricultural cultivation, gardening and minor landscaping do not generally affect archaeological potential (MTC 2011:5).

The existing road corridor consists of a single lane in each direction flanked on both sides by drainage ditches. The existing bridge over the Speed River only has a single lane. The existing 20 metre wide right-of-way has been completely disturbed by the existing road corridor and no longer has any archaeological potential. For the proposed new 10 metre wide right-of-way on both sides of the existing corridor, most of the lands appear to be potentially undisturbed. These areas consist of forested and agricultural lands. The agricultural lands located on tableland areas east of Pioneer Trail are relatively undisturbed and are considered to have archaeological potential (Figures 3, 4 & 5). There are some disturbed areas associated with urban development immediately west of Ptarmigan Drive. The remaining sections of the proposed new right-of-way consist of low lying poorly drained lands and therefore do not have any archaeological potential.

3.0 RECOMMENDATIONS & COMPLIANCE ADVICE

3.1 Recommendations

The results of the Stage 1 assessment indicate that part of the eastern section of the proposed right-of-way does have some potential for both aboriginal and Euro-Canadian archaeological resources. Some sections of the proposed right-of-way have archaeological potential because they are located within 300 metres of a source of water and are potentially undisturbed. Other areas are either disturbed or are associated with low lying poorly drained lands and therefore do not have any archaeological potential.

It is recommended that the well drained potentially undisturbed sections of the proposed right-of-way should be subjected to a Stage 2 archaeological assessment prior to any construction activities. No soil disturbance or development activities should take place until after a Stage 2 archaeological assessment has been completed.

3.2 Compliance Advice

This report is submitted to the Minister of Tourism and Culture as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism and Culture, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest , and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.

The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

4.0 MAPS

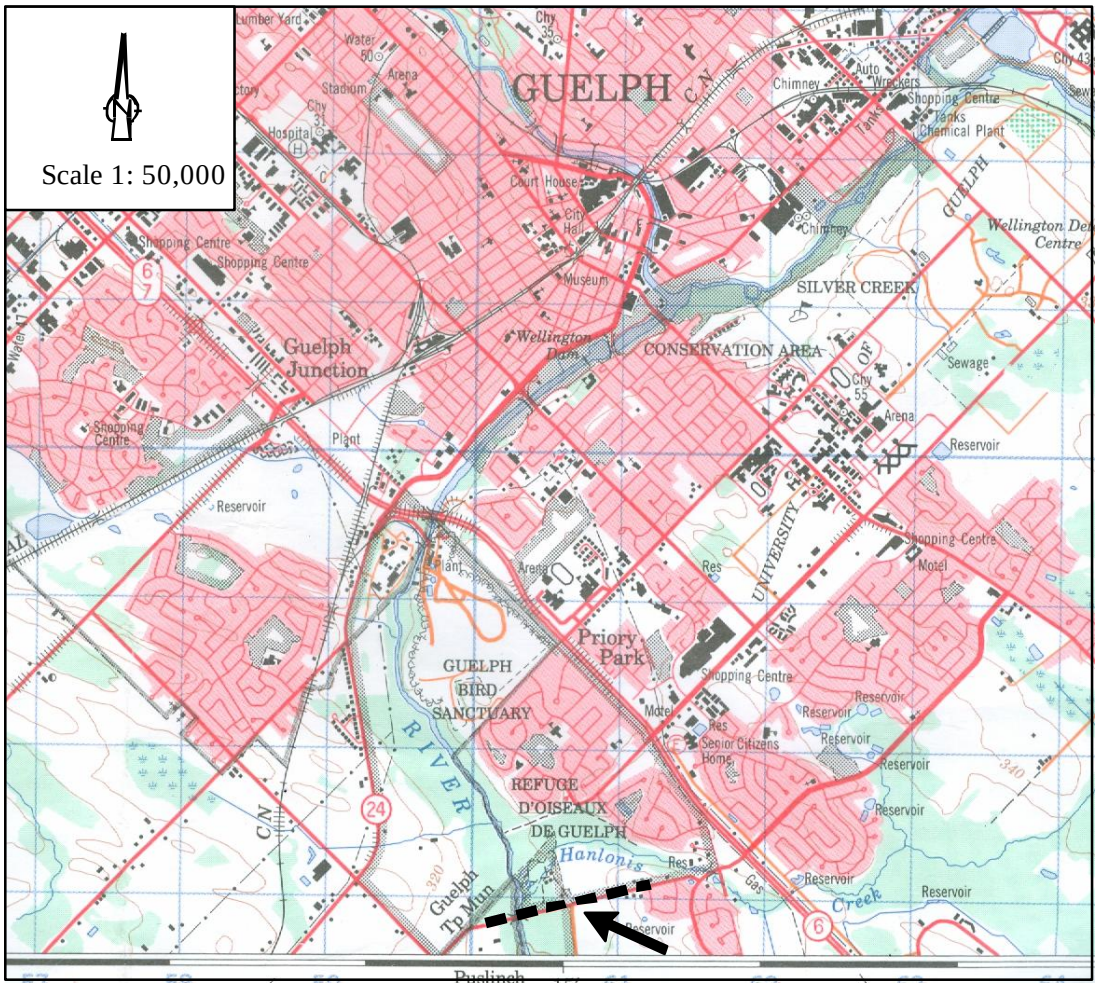

Figure 1. General Location of the Road Corridor
(Department of Energy, Mines and Resources 1994 Guelph40 P/9)

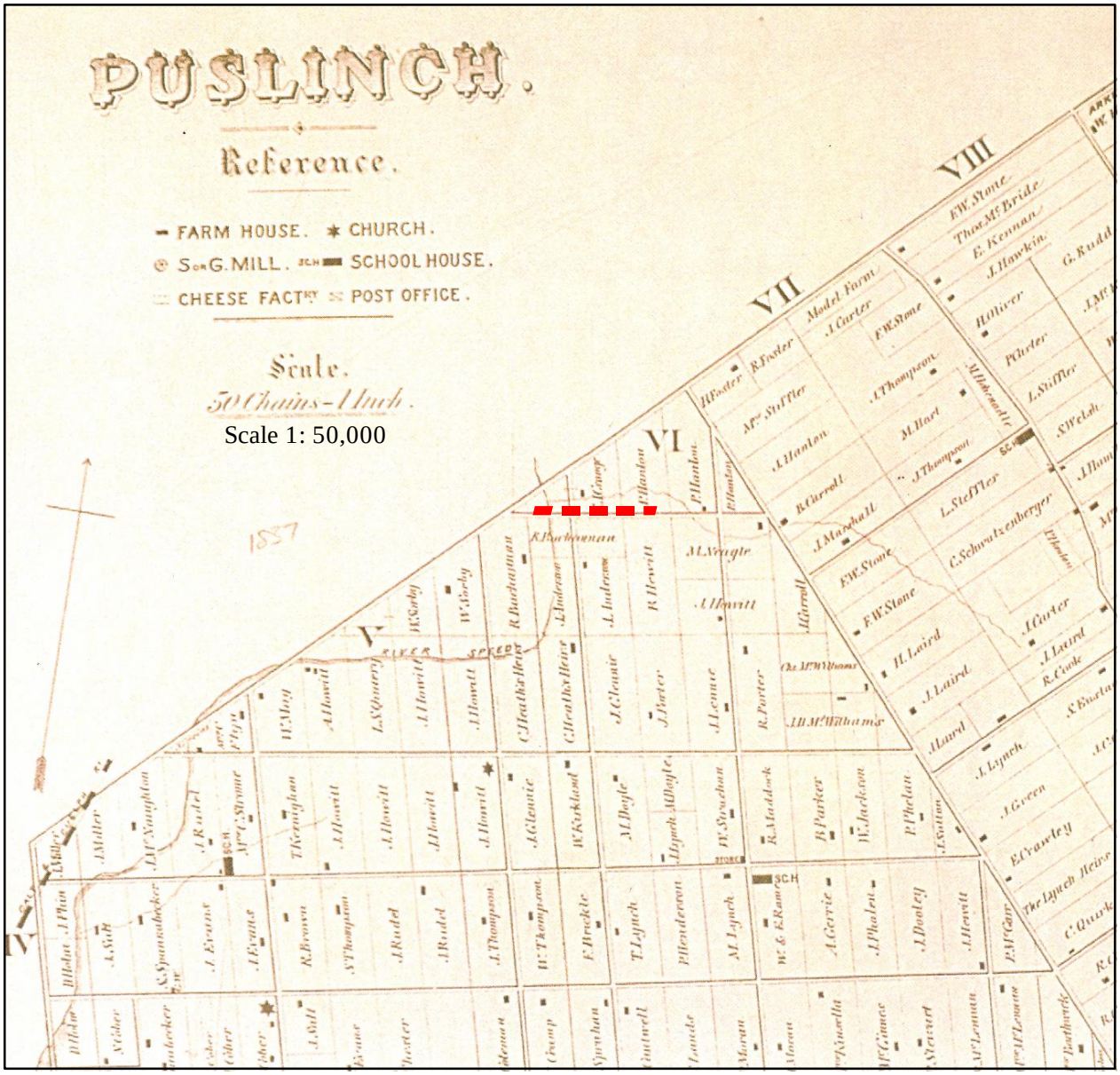

Figure 2. 1877 Historical Atlas Map of Puslinch Township Showing the Approximate Location of the Road Corridor (Parsell 1877)

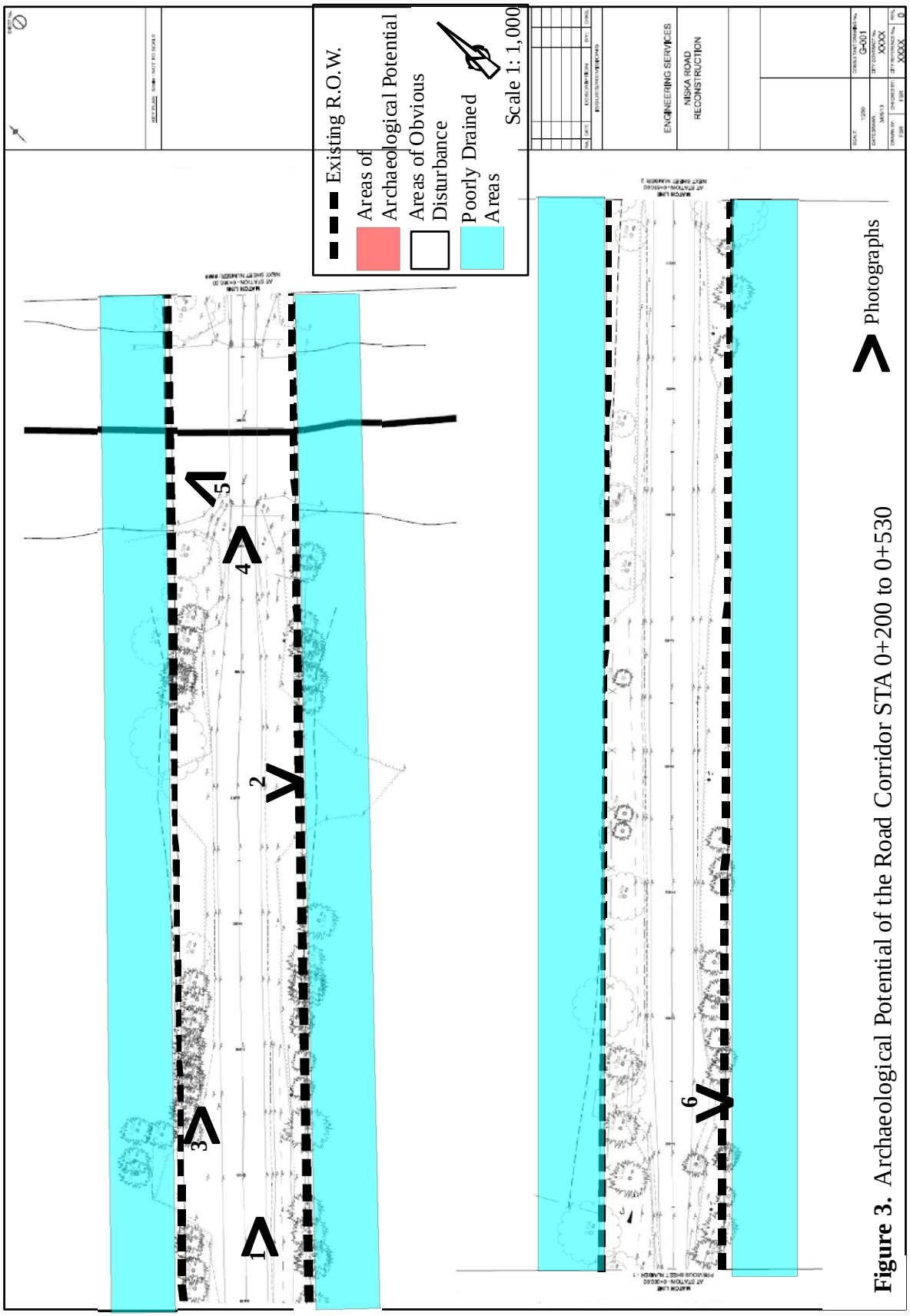

Figure 3. Archaeological Potential of the Road Corridor STA 0+200 to 0+530

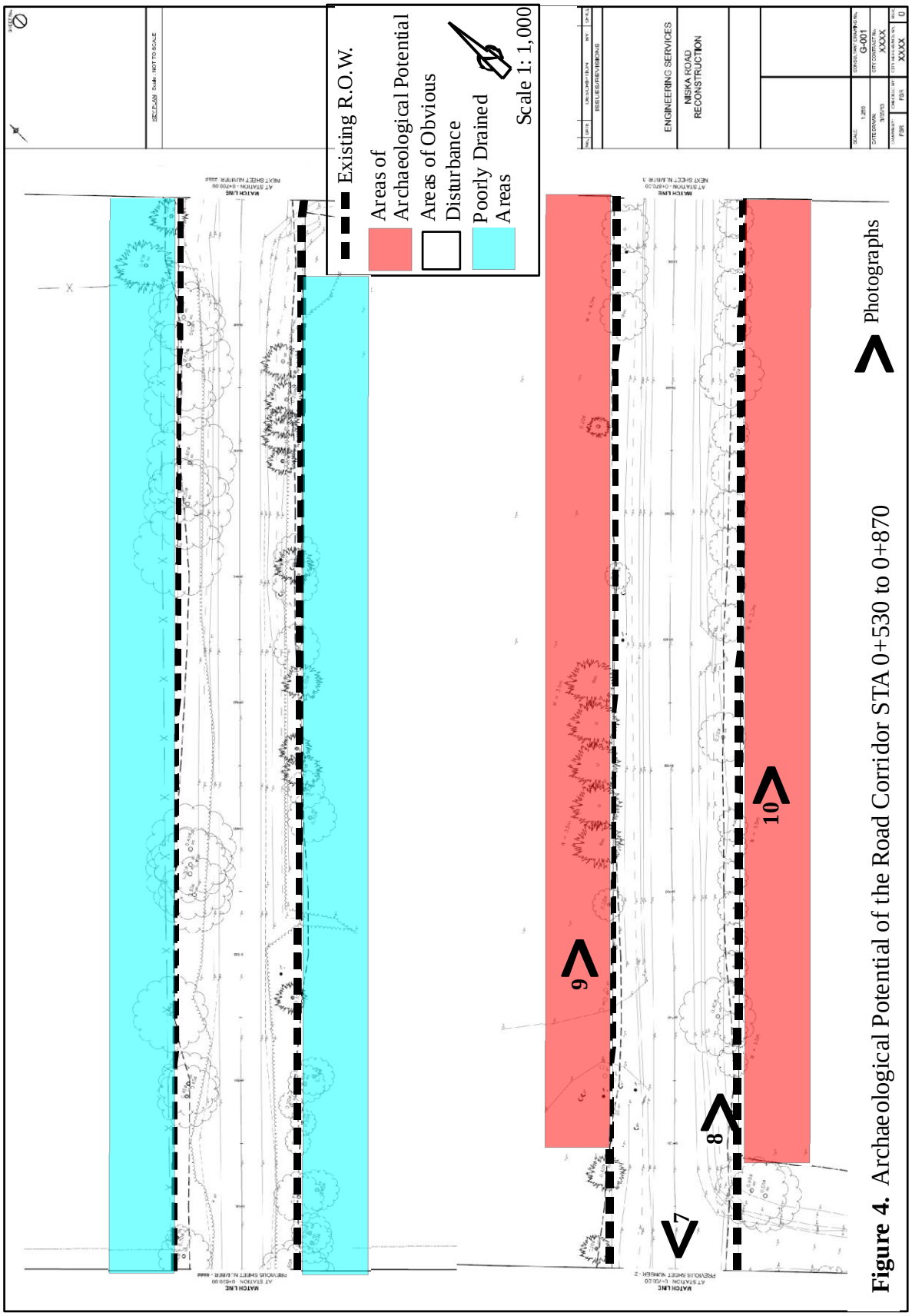

Figure 4. Archaeological Potential of the Road Corridor STA 0+530 to 0+870

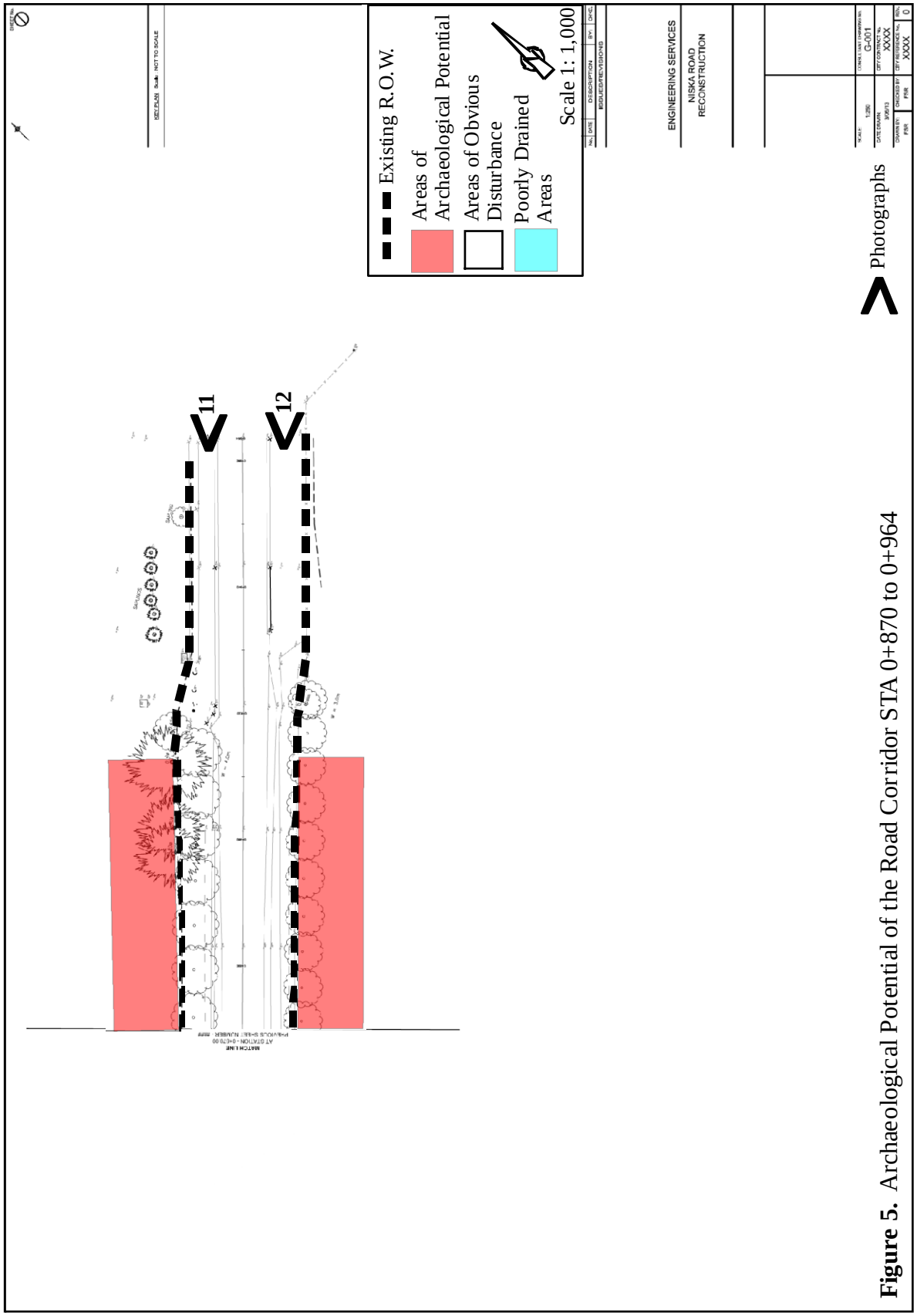

Figure 5. Archaeological Potential of the Road Corridor STA 0+870 to 0+964

5.0 IMAGES

Plate 1. Road Corridor West of the Speed River (view east)

Plate 2. Poorly Drained Lands, South Side of Corridor West of the Speed River (view south)

Plate 3. Poorly Drained Lands, North Side of Corridor West of the Speed River (view north)

Plate 4. Bridge over the Speed River (view east)

Plate 5. The Speed River at the Bridge (view north)

Plate 6. Poorly Drained Lands, South Side of Corridor East of the Speed River (view south)

Plate 7. Road Corridor West of Pioneer Trail (view west)

Plate 8. Ditch, South Side of Road Corridor East of Pioneer Trail (view east)

Plate 9. Agricultural Field North Side of Road Corridor East of Pioneer Trail (view east)

Plate 10. Agricultural Field South Side of Road Corridor East of Pioneer Trail (view east)

Plate 11. North Side of Road Corridor West of Ptarmigam Drive (view west)

Plate 12. South Side of Road Corridor West of Ptarmigam Drive (view west)

6.0 REFERENCES CITED

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1984 **The Physiography of Southern Ontario** (Third Edition). Ontario Geological Survey Special Volume 2. Ontario Ministry of Natural Resources, Toronto.

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2011 **Standards and Guidelines for Consulting Archaeologists.** Ministry of Tourism and Culture, Toronto.

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1881 **Illustrated Historical Atlas of Waterloo and Wellington Counties, Ontario**. 1972 Reprint, Toronto.

Niska Road Improvements
Class Environmental Assessment Study

Community Working Group
Summary of Aboriginal Consultation

In accordance with the Municipal Class EA process, the following activities have taken place to date with respect to consultation with aboriginal groups:

The following aboriginal groups were provided a copy of the original Notice of Commencement (Schedule B) in April, 2013:

- Aboriginal Affairs and Northern Development Canada - Consultation and Accommodation Unit (CAU) Ontario Office
- Aboriginal Affairs and Northern Development Canada - Environmental Assessment Coordination, Environment Unit, Lands and Trusts Services
- Ministry of Aboriginal Affairs - Policy and Relationships Branch
- Association of Iroquois and Allied Indians
- Haudeosaunee Confederacy Council
- Métis Nation of Ontario
- Mississaugas of the New Credit
- Six Nations of the Grand River Territory

Following a consultation information request, the Aboriginal Affairs and Northern Development Canada Consultation and Accommodation Unit (CAU) Office provided a Consultation Information Service (CIS) response to the study team outlining information about treaty and aboriginal rights and specific claims relating to aboriginal communities located within a 100 km radius surrounding the study area.

On the basis of the information provided in the CIS, the study team sent a copy of the original Notice of Commencement (Schedule B) to the following additional aboriginal groups:

- Caldwell First Nation
- Chiefs of Ontario
- Southern First Nations Secretariat

All aboriginal groups noted above have been maintained on the study master agency list. Each group noted above was provided a copy of the Notice of Commencement (Schedule C) in October, 2013. All future notices for the EA will be circulated to this list.

<u>Future Action Items:</u>
Based on the information received from the CIS, the study team has noted that the following aboriginal communities have either treaty areas or specific land claims that may or may not be impacted by the Niska Road improvements. Once more information is available about the potential impacts of the road / bridge improvements, these communities will be contacted directly to set-up meetings to discuss their concerns about the project.

- Caldwell First Nation
- Mississaugas of the New Credit
- Six Nations of the Grand River Territory

Sample Problem/Opportunity Statements

Streetsville Watermain Class EA

The Region has identified the need to improve local watermains in Streetsville. The existing system is out dated and replacement has been deemed necessary in order for the Region to provide the required level of service (flow and pressure) as per the Region of Peel Standards.

This project provides the Region with the opportunity to consider various watermain routes, and appropriate sizes for these routes while minimizing the impacts to the natural and socioeconomic environment, traffic disruptions and flow patterns, as well as utlity conflicts.

Tiny Township Septage Management Class EA

The following problem/opportunity statement was developed in consultation with Township staff and the Project Advisory Committee (PAC):

"Current practice for dealing with septage and holding tank wastes in the Township of Tiny is primarily land application. Sewage servicing to all existing and potential units is provided by private sewage systems, potentially as many as 12,000 units. There is currently no capacity within the Township to treat the resulting hauled sewage. Due to pending regulatory changes, as well as concerns raised about the current practice of land application, the Township is initiating the development of a Septage Management Plan to deal with these wastes in an environmentally and financially responsible manner."

Beeton Master Servicing Plan

The problem/opportunity statement that is the basis for this study is as follows:

> *"The Beeton settlement area has been expanded and the existing municipal infrastructure does not have the capacity to meet the needs of the projected 2031 population of the community. Various servicing alternatives should be evaluated to determine the most appropriate servicing solution, within the context of the Town's growth, environmental, social, economic and land use planning objectives."*

The Gore Road Improvements Class EA

Based upon a review of background data, site reviews and an in-service road safety audit, the following conclusions were reached:

- *The pavement on The Gore Road between Patterson Sideroad and Highway 9 has reached its life expectancy and requires rehabilitation/reconstruction.*
- *The road base and side slopes are in need of stabilization.*
- *The road structure, road shoulders and road drainage require upgrading to meet current design standards.*

- *The rolling terrain causes poor sight lines and visibility problems for private entrances and intersections.*
- *A basic two-lane pavement with added traffic signal control at The Gore Road/ Highway 9 intersection is sufficient to accommodate traffic growth within the planning period.*

In reconstructing The Gore Road, there is the opportunity not only to focus on geometric design options but also to provide for the following opportunities for improvement:

- *improve travel needs of all roadway users over the next 20 years;*
- *include Active Transportation facilities;*
- *improve stormwater quantity and quality with flat bottom ditches; and*
- *maintain The Gore Road's rural character without compromising existing features.*