Sign-off Sheet

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1.0 Purpose of Addendum

The Strasburg Creek Flood Control (Schedule ‘B’) Class Environmental Assessment (EA) was completed in May 2014 for the City of Kitchener to assess the preferred means to incorporate the required flood controls into the Strasburg Creek system (Strasburg Creek Flood Control Class Environmental Assessment Environmental Study Report, Stantec Consulting Ltd., May 2014). The primary flood control feature associated with the Huron Road crossing has already been constructed and no changes to this component are being contemplated.

The original study also considered potential changes to the configuration of the stream crossing of Fischer-Hallman Road at the upstream limits of the study area. At this location, there were two criteria:

1. The crossing is required to convey Regional Storm flows across the roadway with a maximum upstream floodplain elevation of 335.0 m (based on previous floodplain assessments)
2. The City desired a pedestrian crossing at this location as part of the City Trails Master Plan, and the EA assessed whether this trail crossing could be incorporated as part of the stream conveyance system

Following completion of the Flood Control Class EA, the Region of Waterloo began work on an Environmental Assessment for the upgrades to Fischer-Hallman Road through the same study area. New information from this process is now available, including preliminary road profile and cross sections, and a more detailed consideration of the existing watermain. It has been determined that the watermain is the primary supply for the Huron Village Community, and as such cannot be moved or temporarily shut down to facilitate construction. The pedestrian crossing at Fischer-Hallman Road and Strasburg Creek was identified in the Flood Control EA as a below-grade crossing (in association with the stream conveyance system), which would require the relocation of the watermain. With these details now available regarding the proposed Fischer-Hallman Road improvements, the City has requested that additional work be completed to ensure that the most appropriate form of pedestrian crossing is considered, given that the pedestrian crossing can be independent of the stream conveyance system.

It was determined that additional examination of potential forms of pedestrian crossing should be completed through an Addendum to the Class EA. The proposed problem statement for this addendum is:

Determine the most appropriate means of providing a safe pedestrian crossing of Fischer-Hallman Road to link future urban development areas to the west with the Huron Natural Area and trail system to the east. The crossing must not compromise the Strasburg Creek flow conveyance capacity, the City of Kitchener Multi-use Pathways and Trails Master Plan, integrate with the Fischer-Hallman Road Class EA and must minimize impacts to existing infrastructure, including the 450 mm diameter watermain.
Background
April 22, 2015

2.0 Background

The Strasburg Creek watershed is located in the southwest part of the City of Kitchener. The Main/Middle branch of Strasburg Creek originates northwest of the intersection of Fischer-Hallman Road and Bleams Road and flows generally southeast through a well-defined, well-vegetated valley crossing Huron Road approximately 1 km west of Strasburg Road.

The Strasburg Creek Master Watershed Plan (SCMWP) was completed by Paragon Engineering Ltd. (now Stantec Consulting Ltd.) and Ecologistics Ltd. in 1991. As part of the study, hydrologic modelling for the watershed was completed based on assumed development patterns and recommended a series of major on-line flood control structures to minimize the potential for downstream flooding and erosion impacts. The Grand River Conservation Authority (GRCA) and the City of Kitchener approved the SCMWP shortly after its completion.

One of these on-line flood control structures was recommended for construction just upstream of the Main Branch’s crossing of Huron Road. The function of the proposed structure was to control outflows for infrequent storm events to minimize the potential for negative downstream flooding impacts due to the development of the upstream catchments.

As a result of the SCMWP, the City identified the necessity of preparing a Schedule “B” Class Environmental Assessment (EA) to examine alternatives for the proposed means of providing sufficient controls upstream of Huron Road. The Class EA flood control recommendations have been implemented in conjunction with the reconstruction of Huron Road and are now currently in place and functional.

While the primary focus of the Flood Control EA was to ensure that the flow control targets are achieved downstream of Huron Road, further evaluation was also completed at the Fischer-Hallman Road crossing upstream of Huron Road to address floodplain issues with existing and future development, and accommodate a pedestrian crossing. The study made recommendations as to the preferred pedestrian crossing configuration in conjunction with the stream conveyance system. As the Region of Waterloo proceeded with additional work on Fischer-Hallman Road upgrades, including road profiles, cross sections and watermain details the City has requested that additional work be completed to ensure that the most appropriate form of pedestrian crossing is considered, given that the pedestrian crossing can be independent of the stream conveyance system.

Based on the original EA, it was determined that additional examination of potential forms of pedestrian crossing should be completed through an Addendum to the Class EA.

2.1 Previous Reports

This Class EA Addendum uses information from several other complimentary projects and City documents including the following:
Background
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- **Huron Natural Area Phase 1 Implementation Plan** (2007). An implementation plan was prepared for the City of Kitchener that identified the intended areas of improvements within the Huron Natural Area (HNA). These included trails, boardwalks, interpretation areas and connection points to the HNA and the surrounding community. Phase 1 identified a connection and trail along Strasburg Creek and a connection across Fischer-Hallman Road.

- **Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan Update** (2008). The two watersheds (Alder Creek and Strasburg Creek) are located beside each other and have recognized inter-relationships between groundwater systems and surface water systems. This study provided water quality and water quantity controls as well as land use management to protect vulnerable areas.

- **Upper Strasburg Creek Class EA** (Fischer-Hallman Road crossing) (2008). This study was intended to resolve floodplain and major flow control issues under existing conditions, upstream of Fischer-Hallman Road by determining which modifications may be required to the Strasburg Creek Culvert at Fischer-Hallman Road to reduce the Regional Storm flood elevation to 335 m. A Regional Storm elevation of 335 m is required to prevent flooding of the existing properties and structures upstream of Fischer-Hallman Road. The recommended solution was the modification of the existing Fischer-Hallman culvert to convey Regional Storm flows under the roadway so that the water level was less than 335 m. This EA acknowledged that the Strasburg Creek Flood Control EA could supersede the Upper Strasburg Creek EA relating to flood control requirements for the Regional Storm.

- **Huron Road Improvements Class EA** (2010). Huron Road through the study area was in need of reconstruction and upgrade due to infrastructure deficiencies related to pavement condition, roadway traffic capacity, storm drainage, horizontal and vertical road geometrics and vehicle and pedestrian safety. The primary objective of the Huron Road Class EA Study was to identify the preferred alternative for upgrading the road corridor to a fully urban condition and improving the overall servicing conditions of the road. These improvements were subsequently implemented as outlined in the Huron Road Reconstruction final engineering plans (2012).

- **Southwest Urban Area Study, Stormwater Management Strategy** (2011). This study assessed and recommended stormwater management criteria for the Rosenberg Area upstream of Fischer-Hallman Road.

- **City of Kitchener Urban Design Manual, Section 4.8 Fischer Hallman Road Corridor** (2012). The Urban Design Manual has a clearly defined vision and guidelines for the Fischer-Hallman Road Corridor. This corridor will function as the central spine for the Rosenberg Community that will support transit through the development of commercial, residential and office development throughout the corridor. The entire streetscape is to create a sense of cohesion with distinguishable urban and natural character areas within it. The Strasburg Creek area has been identified as a natural streetscape area within the manual. A mid-
block crossing at Strasburg Creek to connect the trails network was considered to be acceptable as part of the streetscape for the Fischer-Hallman Corridor.

- **City of Kitchener Multiuse Pathways and Trails Master Plan** (2012). The Master Plan is a comprehensive City wide plan for the long term implementation of multi-use pathways and trails. Trail types, surfacing, locations, wayfinding and general details are identified within this master plan. A trail was identified to cross Fischer-Hallman Road at Strasburg Creek. This trail would provide a connection to the Huron Natural Area and the future development along the Fischer-Hallman Corridor. The trail was identified as a desired secondary trail connection (Type 2). Type 2 trails are considered variable surface with 3 season maintenance. These trails would be 3.0 m wide and could be constructed with a compacted granular surface (e.g., stone dust) but consideration could be given to constructing the trails using asphalt or concrete if site conditions warrant the change to surface treatment.

- **Strasburg Creek Flood Control EA Environmental Study Report** (2014). Previous studies had concluded that several properties were susceptible to flooding, and the recommended measures were to implement flood control structures on Strasburg Creek. The primary objective of the Strasburg Creek Flood Control EA was to identify the preferred alternative to provide the required flood protection (per the SCMWP) for flood vulnerable properties downstream of Huron Road. The recommended flood control structures have been constructed. The study also considered potential configurations for a below-grade crossing at the upstream limit of the study area (Fischer-Hallman Road). It was anticipated that these features would be implemented in conjunction with Fischer-Hallman Road improvements, and therefore they have not yet been constructed.
3.0 Addendum Approach

Sections A4.1.1 and A4.3 of the Municipal Class Environmental Assessment guideline (MEA, amended in 2011) includes discussion on revisions to projects following completion of the ESR. Where it is necessary to revise Schedule B projects, the addendum process includes:

- Specific elements of the previous project can be amended, as opposed to the entire project. In this case, only the pedestrian crossing component has been re-opened for review; the remaining project elements do not require any revision.

- A revised notice of completion is required to be filed, however no public meeting is required. In the interest of transparency, a notice of commencement was issued (February 20, 2015) at the outset of the project (a copy of the notice is included in Appendix A). The standard 30-day public review period is still required for the addendum.

- Meetings with the City Steering Committee were held to review the alternatives, present evaluation criteria, design options and present the preferred alternative. Meeting notes are included in Appendix B.

- Preparation of the final report that clearly identifies the process undertaken through the addendum process, evaluation criteria, alternative reviews, evaluation of alternatives and presentation of a preferred alternative including selection rational.

- Presentation of final report to Council for approval of the preferred alternative.

- A Notice of Completion for the Pedestrian Crossing Addendum to the Strasburg Creek Flood Control EA was filed on May 8, 2015 as per the MEA guidelines (a copy of the notice is included in Appendix A).

3.1 DESCRIPTION OF PEDESTRIAN CROSSING ALTERNATIVES

The alternatives to be considered in this addendum were reviewed with and confirmed by the Steering Committee in Meeting #1 (January 29, 2015). They include:

1. **Do Nothing.** Under this alternative, no new trail infrastructure will be introduced into the area. Refer to Figure 1.

2. **Below Grade Crossing.** Culvert and pedestrian crossing per the original Class EA. The culvert will convey water during large storm events, and sections of the trails will be located within the floodplain. Lighting will be required. Refer to Figure 2 and 3.

3. **Above Grade Crossing.** Pedestrian bridge with footings outside of the right-of-way will need to be a minimum of 5 m high to accommodate truck traffic and therefore significant ramps will be required for accessibility. Refer to Figures 4 and 5.
4. **At Grade Crossing.** Traditional at-grade crossings. Three potential locations were considered, including:

   a. **Option A:** At Creek. Mid-block crossing near the Strasburg Creek culvert as per the Trails Master Plan. A pedestrian refuge island will be required. Refer to Figure 6 and 7.

   b. **Option B:** At Bleams Road. Pedestrians directed northerly alongside Fischer-Hallman Road to cross at the future Bleams Road roundabout. Refer to Figure 8.

   c. **Option C:** At Rosenberg Way. Pedestrians directed southerly alongside Fischer-Hallman Road to cross at future Rosenberg Way roundabout. Refer to Figure 9.

### 3.2 Evaluation Criteria

The evaluation criteria used in this Addendum were reviewed and discussed with the steering committee, and are similar to those used in the original Class EA, with a few revisions to reflect the shift in focus from flood control to trail issues. The primary change was the addition of the category of “Public Safety” to reflect these criteria as a key component for the evaluation. Each evaluation category has several individual criteria. All criteria were reviewed and approved by the Steering Committee, and include:

- **Natural Environment**
  
  a. Terrestrial and riparian habitat implications
  
  b. Potential impacts to Species at Risk
  
  c. Impact on the ability to implement the Huron Natural Area (HNA) Management Plan

- **Economic Environment**
  
  a. Total capital cost
  
  b. Total maintenance cost

- **Technical Environment**
  
  a. Ease of construction
  
  b. Ability for trail implementation
  
  c. Encroachment within the Regulatory Floodplain
SECTION E-E
FISCHER-HALLMAN ROAD CROSSING

FINISHED GRADE AT ROAD
FINISHED GRADE AT CREEK
SINGLE CULVERT
CULVERT AND BELOW GRADE PEDESTRIAN TUNNEL CROSSING
REGULATORY FLOOD LEVEL

1:125

Client/Project
CITY OF KITCHENER
FLOOD CONTROL EA ADDENDUM
PEDESTRIAN CROSSING

Figure No.
3.0
Title
ALTERNATIVE #2
BELOW GRADE CROSSING
SECTION E-E
FISCHER-HALLMAN ROAD CROSSING

PEDESTRIAN OVERPASS BRIDGE CROSSING AND RAMPS

FINISHED GRADE AT ROAD

REGULATORY FLOOD LEVEL

FINISHED GRADE AT CREEK

TWIN CULVERTS

ALTERNATIVE #3
ABOVE GRADE CROSSING

CITY OF KITCHENER
FLOOD CONTROL EA ADDENDUM
PEDESTRIAN CROSSING

Figure No: 5.0
Title:
CITY OF KITCHENER
FLOOD CONTROL EA ADDENDUM
PEDESTRIAN CROSSING

Figure No. 6.0

Title
ALTERNATIVE #4 OPTION A AT GRADE CROSSING
Cultural Environment

a. Conformance to Urban Design Manual Fischer-Hallman Corridor

b. HNA social infrastructure

c. Conformance to Multi-Use Pathways and Trails Master Plan

Public Safety

a. Crime Prevention Through Environmental Design (CPTED)

b. Pedestrian/traffic safety

c. Accessibility

A more detailed description and summary of how the criteria are evaluated and how each criterion is measured is provided in Table 1.
<table>
<thead>
<tr>
<th>Criteria Evaluation</th>
<th>Description</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CULTURAL ENVIRONMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Terrestrial/Riparian Habitat Implications Including Intrusion within PSW and Buffer</td>
<td>The nature and extent of disturbance to terrestrial/riparian vegetation and extent of intrusion within PSW and buffers resulting from the construction/operation of the alternative</td>
<td>High - the alternative will not significantly disturb existing vegetation and PSW (10) Moderate - the alternative will have some disturbance of existing vegetation and PSW (5) Low - the alternative will have greater relative disturbance of existing vegetation and PSW (1)</td>
</tr>
<tr>
<td>Potential Impacts to Species at Risk</td>
<td>The nature and extent of disturbance to species at risk and/or their habitat resulting from the construction/operation of the alternative. Alternatives that minimize disturbance are preferred</td>
<td>The alternative will result in minimal disturbance to species at risk and their habitat (10) The alternative will result in some disturbance to species at risk and their habitat (5) The alternative will result in greater relative disturbance to species at risk and their habitat (1)</td>
</tr>
<tr>
<td>Impact on the Ability to Implement the HNA Management Plan, including future enhancements of the watercourse, stream margins, wetlands and trails</td>
<td>Degree to which the alternative maintains the ability to optimize future projects along Strasburg Creek. Alternatives that maximize future opportunities are preferred</td>
<td>High - the alternative will result in opportunities for future projects (10) Moderate - the alternative will maintain the current opportunities for projects (5) Low - the alternatives result in decreased opportunities for future projects (1)</td>
</tr>
<tr>
<td><strong>ECONOMIC ENVIRONMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Capital Cost</td>
<td>Estimated capital costs, including restoration/enhancement costs for the alternative. Lower costs are preferred.</td>
<td>Low cost → (10) Moderate cost → (5) High cost → (1)</td>
</tr>
<tr>
<td>Total Maintenance Cost</td>
<td>Estimated annual costs for operations and maintenance activities for the alternative. Lower costs are preferred.</td>
<td>Low cost → (10) Moderate cost → (5) High cost → (1)</td>
</tr>
<tr>
<td><strong>TECHNICAL ENVIRONMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ease of construction/implementation</td>
<td>The ability of the alternative to be easily implemented on a technical, regulatory, and practical basis. Alternatives that are easier to construct/operate are preferred.</td>
<td>High - the alternative is relatively easy to implement with respect to approvals and construction (10) Moderate - the alternative is somewhat easy to implement with respect to approvals and construction (5) Low - the alternative has many difficulties with respect to approvals and construction (1)</td>
</tr>
<tr>
<td>Ability for trail implementation</td>
<td>The ability of the trails within each alternative to be easily implemented on a technical and practical basis. Alternatives that are easier to implement are preferred.</td>
<td>High - the alternative is relatively easy to implement with respect to trails and the existing network (10) Moderate - the alternative is somewhat easy to implement with respect to trails and the existing network (5) Low - the alternative has many difficulties with respect to trails and the existing network (1)</td>
</tr>
<tr>
<td>Encroachment within Regulatory Floodplain</td>
<td>The nature and extent of any encroachment within the Regulatory Floodplain resulting from the construction/operation of the alternative. Alternatives that minimize encroachment are preferred.</td>
<td>High - the alternative will not significantly encroach within the Regulatory Floodplain (10) Moderate - the alternative will result in some encroachment within the Regulatory Floodplain (5) Low - the alternative will significantly encroach within the Regulatory Floodplain (1)</td>
</tr>
<tr>
<td><strong>PHYSICAL ENVIRONMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conformance to the Urban Design Manual - Fischer Hallman Road Corridor</td>
<td>The ability of the alternative to conform to the current Urban Design Manual - Fischer Hallman Road Corridor. Alternatives that conform to the manual are preferred.</td>
<td>High - the alternative will maintain and/or enhance the area. In general conformance with the Manual (10) Moderate - the alternative will have some impact on the area. Some conformance with the Manual (5) Low - the alternative will result in significant changes to the area. Limited conformance with the Manual (1)</td>
</tr>
<tr>
<td>Huron Natural Area (HNA) Social Infrastructure</td>
<td>The ability of the alternative to maintain and manage uses within the HNA. Alternatives that maintain existing uses are preferred.</td>
<td>High - the alternative will maintain and/or enhance the uses within the HNA (10) Moderate - the alternative will have some impact on the use within the HNA (5) Low - the alternative will result in significant impacts to the uses within the HNA (1)</td>
</tr>
<tr>
<td>Conformance to the Multi-use Pathways and Trails Master Plan</td>
<td>The ability of the alternative to conform to the current City of Kitchener Multi-use Pathways and Trails Master Plan. Alternatives that conform to the master plan are preferred.</td>
<td>High - the alternative conforms with the Master Plan (10) Moderate - the alternative partially conforms with the Master Plan (5) Low - the alternative does not conform with the Master Plan (1)</td>
</tr>
<tr>
<td><strong>PUBLIC SAFETY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPTED (Crime Prevention Through Environmental Design)</td>
<td>The ability of the alternative to provide public safety using the principles of CPTED. Alternatives that meet the guidelines of CPTED are preferred.</td>
<td>High - the alternative meets or exceeds the CPTED guidelines (10) Moderate - the alternative meets some of the CPTED guidelines (5) Low - the alternative does not meet the intent of the CPTED guidelines (1)</td>
</tr>
<tr>
<td>Pedestrian / Traffic Safety</td>
<td>The potential risk or liability to public safety resulting from: • Crossing Conflicts • Flood events • Sight lines Alternatives with minimal risk are preferred.</td>
<td>High - the alternative will result in little potential risk (10) Moderate - the alternative will result in moderate potential risk (5) Low - the alternative will result in high potential risk (1)</td>
</tr>
<tr>
<td>Accessibility</td>
<td>The ability of the alternative to conform to the AODA standards. Alternatives that are fully assessable year round and inclusive are preferred.</td>
<td>High - the alternative is completely accessibility and inclusive (10) Moderate - the alternative is mostly accessibility and inclusive (5) Low - the alternative is lacking in accessibility and inclusion (1)</td>
</tr>
</tbody>
</table>
4.0 Evaluation of Alternatives

The approach to the evaluation of alternatives has been consistent with that used in the original Class EA study. Throughout the Addendum process, the various alternatives were reviewed and discussed by the Project Team and agency representatives. Each alternative was assessed using the evaluation criteria and with a measure (score) assigned to each. The measure is based on the individual criteria being scored with the highest possible score of 10 for the best solution. A score of 5 was assigned for solutions that met some of the established measure for the criteria and a score of 1 was assigned to non-conforming or least desirable solutions. Each section was totaled and then averaged to provide a total for a best possible score of 50. Each category has been weighted equally through this assessment. Table 2 provides the evaluation matrix for the alternatives. Table 3 is a summary of the evaluation rationale for each criterion and each alternative.

4.1 Preferred Alternative

Through the evaluation process there was one clear alternative that was the preferred option, Alternative #4, Option A: At Creek. Mid-block crossing near the Strasburg Creek culvert as per the Trails Master Plan. A pedestrian refuge island will be required for the safe crossing of Fischer-Hallman Road. Trails will tie into the informal trail connections within the HNA which will allow for future trail connections to be implemented outside of the floodplain. Signage will be implemented to meet the current City and Regional trail crossing and approach signage. Refer to Figures 6 and 7. This alternative met the majority of measures set for each criterion and achieved 48.3 out of a possible 50. The following is a summary of the key elements that established this alternative as the preferred.

- **Natural Environment**
  
  This alternative provided the best balance of protection of environmental features, protection for species at risk and provides a direct connection to the HNA that fits with the Master Plan and the Phase 1 implementation Plan.

- **Economic Environment**
  
  This alternative provided the lowest capital cost and lowest long term maintenance costs.

- **Technical Environment**
  
  The trail within this alternative can be easily implemented, as it only requires the construction of a trail and signage. There are limited requirements for permits or impediments to the implementation of the trail. This alternative provides the smallest footprint and minimizes the impact to the floodplain.
Evaluation of Alternatives
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- **Social Environment**

  This alternative is consistent with the Urban Design Guidelines, and the Fischer-Hallman Road Corridor specifically as it relates to a mid-block crossing at Strasburg Creek, which is included as part of the manual. The proposed location of the trail conforms to both the HNA Implementation Plan and the Multiuse Pathways and Trails Master Plan.

- **Public Safety**

  This alternative provides a safe solution that will work with the Crime Prevention Through Environmental Design (CPTED) and the Accessibility for Ontarians with Disabilities Act (AODA) standards. This alternative can minimize risk to pedestrians and vehicles with the proper implementation of design elements such as signage, sightlines and surface treatments.
# Table 2: Evaluation Matrix

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Alternative #1 Do-Nothing</th>
<th>Alternative #2 Below Grade</th>
<th>Alternative #3 Above Grade</th>
<th>Option A (Creek)</th>
<th>Option B (Bleams)</th>
<th>Option C (Rosenberg)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Terrestrial/Riparian Habitat Implications Including Intrusion within PSW and Buffer</strong></td>
<td>10</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td><strong>Potential Impacts to Species at Risk</strong></td>
<td>10</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td><strong>Impact on the Ability to Implement the HNA Management Plan. Impact on the potential for future enhancements of the watercourse, stream margins, wetlands and access to secondary trails.</strong></td>
<td>1</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>5</td>
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<tr>
<td><strong>Total</strong></td>
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<td>30</td>
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<tr>
<td><strong>Average</strong></td>
<td>7.0</td>
<td>6.7</td>
<td>10.0</td>
<td>10.0</td>
<td>8.3</td>
<td>8.3</td>
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<td><strong>ECONOMIC ENVIRONMENT</strong></td>
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<td><strong>Total</strong></td>
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<tr>
<td><strong>Average</strong></td>
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<td>3</td>
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<td>10</td>
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<td><strong>Ease of construction.</strong></td>
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<td>1</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>10</td>
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<tr>
<td><strong>Ability for trail implementation.</strong></td>
<td>1</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>5</td>
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<td><strong>Encroachment within Regulatory Floodplain</strong></td>
<td>10</td>
<td>1</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>21</td>
<td>12</td>
<td>20</td>
<td>30</td>
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<td>6.7</td>
<td>10.0</td>
<td>8.3</td>
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<td><strong>CULTURAL ENVIRONMENT</strong></td>
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<td><strong>Conformance to the Urban Design Manual - Fischer Hallman Road Corridor</strong></td>
<td>10</td>
<td>10</td>
<td>1</td>
<td>10</td>
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<td>10</td>
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<td></td>
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<td>5</td>
<td>1</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>10</td>
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<td>1</td>
<td>5</td>
<td>10</td>
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<tr>
<td><strong>Accessibility</strong></td>
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<td>5</td>
<td>5</td>
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<td>20</td>
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<tr>
<td><strong>Average</strong></td>
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<td>31.7</td>
<td>27.3</td>
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<td>48.3</td>
<td>40.0</td>
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</table>
### Potential Impacts to Species at Risk

- **Nature of disturbance (direct vs. indirect)**: The nature and extent of disturbance to terrestrial/riparian vegetation and extent of intrusion within/PSW and buffers resulting from the construction/operation of the alternative.
- **Impact**: Impact on the potential for future enhancements of the margins, wetlands and trails. Impact on the species at risk.
- **Impact on the nature and extent of any encroachment within terrestrial/riparian vegetation and PSW affected**: Impact on the potential for interaction/conflict at trail with SAR.

### Impact on the Ability to Implement the HRA Management Plan, including future enhancements of the watercourse, stream margin, wetlands and trails.

- **Nature of disturbance (direct vs. indirect)**: The nature and extent of disturbance to terrestrial/riparian vegetation and extent of intrusion within/PSW and buffers resulting from the construction/operation of the alternative.
- **Impact**: The ability of the trails within each alternative to be implemented on a technical, regulatory, and practical basis. Alternatives that are easier to implement are preferred. Alternatives that minimize disturbance are preferred.
- **Impact on the nature and extent of any encroachment within terrestrial/riparian vegetation and PSW affected**: Potential for interaction/conflict with SAR.

### Potential Cost Implications

- **Capital cost based on a standalone project**: A reduction in the capital cost of the project. Reduced capital costs can be achieved with the option.
- **Capital cost to complete this alternative is lower compared to other alternatives**: Reduced maintenance costs can be achieved with the option.
- **Capital cost to complete this option is lower compared to other alternatives**: Reduced potential for interaction/conflict at trail with SAR.
- **Capital cost to complete this option is lower compared to other alternatives**: Reduced potential for interaction/conflict at trail with SAR.

### Potential Impacts to Species at Risk

- **Number of species and/or area of habitat affected**: The number of species and/or area of habitat affected by the construction/operation of the alternative and the extent of the intrusion within PSW and buffers resulting from the construction/operation of the alternative.
- **Area of terrestrial/riparian vegetation and PSW affected**: The area of terrestrial/riparian vegetation and PSW affected by the construction/operation of the alternative.
- **Type of structure/construction required**: The type of structure/construction required for this alternative.
- **Complicated construction due to existing vernacular. Requires extensive work to be completed (up to the kerbside) before work can be constructed**: Complicated construction due to existing vernacular. Requires extensive work to be completed (up to the kerbside) before work can be constructed.
- **Capital cost**: Capital cost can be combined with capital cost to complete the alternative. Combined O&M cost for the option.

### Impact on the Ability to Implement the HRA Management Plan, including future enhancements of the watercourse, stream margin, wetlands and trails.

- **Impact on the nature and extent of any encroachment within terrestrial/riparian vegetation and PSW affected**: Impact on the potential for interaction/conflict at trail with SAR.
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### Potential Impacts to Species at Risk

- **Minimial impacts to vegetation/riparian vegetation**: Minimial impacts to vegetation/riparian vegetation as a result of the installation of the culverts.
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### Potential Impacts to Species at Risk

- **Minimial impacts to vegetation/riparian vegetation**: Minimial impacts to vegetation/riparian vegetation as a result of the installation of the culverts.
- **Capital cost**: Capital cost based on a standalone project.
- **Capital cost to complete the alternative**: Capital cost to complete the alternative.
- **Capital cost to complete this option is lower compared to other alternatives**: Capital cost to complete this option is lower compared to other alternatives.

### Impact on the Ability to Implement the HRA Management Plan, including future enhancements of the watercourse, stream margin, wetlands and trails.

- **Impact on the nature and extent of any encroachment within terrestrial/riparian vegetation and PSW affected**: Potential for interaction/conflict at trail with SAR.
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- **Impact on the nature and extent of any encroachment within terrestrial/riparian vegetation and PSW affected**: Impact on the potential for interaction/conflict at trail with SAR.
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### Impact on the Ability to Implement the HRA Management Plan, including future enhancements of the watercourse, stream margin, wetlands and trails.

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### Potential Impacts to Species at Risk

- **Minimial impacts to vegetation/riparian vegetation**: Minimial impacts to vegetation/riparian vegetation as a result of the installation of the culverts.
- **Impact on the nature and extent of any encroachment within terrestrial/riparian vegetation and PSW affected**: Impact on the potential for interaction/conflict at trail with SAR.

### Impact on the Ability to Implement the HRA Management Plan, including future enhancements of the watercourse, stream margin, wetlands and trails.

- **Impact on the nature and extent of any encroachment within terrestrial/riparian vegetation and PSW affected**: Impact on the potential for interaction/conflict at trail with SAR.
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
<th>Measure</th>
<th>Alternative #1</th>
<th>Alternative #2</th>
<th>Alternative #3</th>
<th>At Grade Option A (Credit)</th>
<th>At Grade Option B (Skirans)</th>
<th>At Grade Option C (Rosenberg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental</td>
<td>Conformance to the Urban Design Manual - Fischer Hallman Road Corridor</td>
<td>The ability of the alternative to conform to the current Urban Design Manual. Fischer Hallman Road Corridor. Alternatives that conform to the manual are preferred.</td>
<td>• Visual impacts to the streetscape from the Urban Design Manual.</td>
<td>• Limited visual impacts as the culvert is below grade.</td>
<td>• Major visual impacts from the large 5 m high trail crossing structure.</td>
<td>• Average visual impacts from the trail crossing infrastructure.</td>
<td>• Trail infrastructure would be part of standard urban streetscapes and conform with the Urban Design Manual.</td>
<td>• Average visual impacts from the trail crossing infrastructure.</td>
</tr>
<tr>
<td></td>
<td>Huron Natural Area (HNA) Social Infrastructure</td>
<td>The ability of the alternative to maintain and manage uses within the HNA. Alternatives that maintain existing uses are preferred.</td>
<td>• Nature of changes to trails, lookouts and other recreational infrastructure.</td>
<td>• Impact on previous investment in HNA environmental restoration and educational programs.</td>
<td>• This alternative maintains existing uses.</td>
<td>• This alternative maintains existing uses.</td>
<td>• This alternative maintains existing uses.</td>
<td>• This alternative maintains existing uses.</td>
</tr>
<tr>
<td></td>
<td>Trails Master Plan</td>
<td>The ability of the alternative to conform to the Multi-use Pathways and Trails Master Plan. Alternatives that conform to the master plan are preferred.</td>
<td>• Connections recommended within the Master Plan are provided.</td>
<td>• Connection provided and alternative in conformance with the Master Plan.</td>
<td>• Connection provided and alternative in conformance with the Master Plan.</td>
<td>• Connection provided in principle but not in the location identified within the Master Plan.</td>
<td>• Option is in general conformance with the Master Plan.</td>
<td>• Option is in general conformance with the Master Plan.</td>
</tr>
<tr>
<td>Public Safety</td>
<td>CPTED</td>
<td>The ability of the alternative to provide public safety using the principles of CPTED. Alternatives that meet the guidelines of CPTED are preferred.</td>
<td>• Principles of CPTED can be applied to the trail and crossing.</td>
<td>• Pedestrians are being directed to a roundabout crossing which could be perceived as an unsafe crossing.</td>
<td>• Pedestrians are being directed to a roundabout crossing which could be perceived as an unsafe crossing.</td>
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<td>• Pedestrians are being directed to a roundabout crossing which could be perceived as an unsafe crossing.</td>
<td>• Pedestrians are being directed to a roundabout crossing which could be perceived as an unsafe crossing.</td>
</tr>
<tr>
<td></td>
<td>Pedestrian / Traffic Safety</td>
<td>The potential risk or liability to community and operations staff health and safety resulting from:</td>
<td>• Impact of flooding on the trail connections.</td>
<td>• This alternative provides good connectivity and a smooth trail that can be utilized by any pedestrian.</td>
<td>• This alternative provides good connectivity and a smooth trail that can be utilized by any pedestrian.</td>
<td>• This alternative provides good connectivity and a smooth trail that can be utilized by any pedestrian.</td>
<td>• This alternative provides good connectivity and a smooth trail that can be utilized by any pedestrian.</td>
<td>• This alternative provides good connectivity and a smooth trail that can be utilized by any pedestrian.</td>
</tr>
<tr>
<td></td>
<td>Accessibility</td>
<td>The ability of the alternative to conform to the AODA standards. Alternatives that are fully assessable year round and inclusive are preferred.</td>
<td>• Extent to which AODA elements that can be incorporated are included in the solution.</td>
<td>• This alternative provides good connectivity but requires a number of ramps to facilitate the crossing. AODA standards can be met.</td>
<td>• This alternative provides good connectivity but requires a number of ramps to facilitate the crossing. AODA standards can be met.</td>
<td>• This option can meet AODA standards. However, the connectivity of this option is poor. Users are required to travel additional distance to a dedicated crossing so this can limit users with mobility and sight concerns.</td>
<td>• This option could be accessible year round with proper maintenance.</td>
<td>• This option could be accessible year round with proper maintenance.</td>
</tr>
</tbody>
</table>
4.2 COMPARISON WITH PREVIOUS ALTERNATIVE

The previous alternative was Alternative #2 Below Grade Crossing in the evaluation of the alternatives. This alternative combines a trail with a flood control culvert which would provide a safe and accessible crossing below the road. However, there are a number of challenges with this alternative including cost constraints and constructability associated with relocating the watermain on Fischer-Hallman Road as recently identified by the City and Region, which is the primary supply for the Huron Village Community. Being a combined use culvert, 45 m long by 4 m wide, there are long term maintenance costs associated with the cleaning post flooding, replacement of lights and potential for graffiti removal. When compared to the preferred alternative this alternative had more encroachment into the floodplain by the nature of where the trail and crossing was located.

Alternative #4 Option A scored higher overall in each category and was selected as the preferred alternative.

4.3 DESIGN CONSIDERATIONS

The report sections that follow were written to guide the environmental protection, mitigation requirements and general design considerations for the implementation of the preferred alternative.

4.3.1 General Design Measures

The intent through the original EA and this Addendum has been to minimize the footprint of the proposed work specifically within the floodplain.

Design considerations include the following:

- Conceptual design details are provided on Figures 6 and 7. These details should be incorporated into the Fischer-Hallman Road improvements designs/drawings. It is expected that the pedestrian crossing infrastructure will be constructed at the same time as the road upgrades. Staging and construction management will be part of the road project details.

- Environmental recommendations include:
  - Design trail approaches and connections to minimize impacts to the floodplain.
  - Trail orientation should direct users away from potential habitat for species at risk to minimize the potential for contact or harm with the species.
  - Consultation with City and GRCA staff to discuss all environmental sensitivities/constraints, all required mitigation measures, emergency protocols, wildlife encounter protocols, habitat enhancements and environmental inspection procedures required.
for the site to take place during the detailed design process. Examples of mitigation measures include isolation of work area for trail construction, restoration of disturbed areas with compatible native vegetation species, and avoid clearing during species at risk and migratory bird breeding periods.

- Develop a comprehensive erosion and sediment control plan to protect the floodplain, riparian areas and stream from construction work.

- Archaeological assessment to be coordinated with the Fischer-Hallman Road improvements project.

- Permits should be coordinated with the Fischer-Hallman Road improvements projects. Anticipated permits include:
  - GRCA Schedule “A” - Application for Development, Interference With Wetlands and Alterations to Shorelines and Watercourses Permit (Pursuant to Ontario Regulation 150/06)
  - City-Region coordination for trail locations and connections

- Project design and construction schedule will be coordinated with the Fischer-Hallman Road improvements.

### 4.3.2 Safety and Accessibility

There are a number of design elements that should be implemented to provide a final design that is both safe and accessible for all users.

- All designs should meet or exceed the recommendations within the Accessibility for Ontarians with Disabilities Act (AODA) guidelines. Specific attention should be paid to the road markings, approaches, trail slopes and surface treatments.

- All work within the Fischer-Hallman Road right-of-way (ROW) must meet the standards within the Region of Waterloo Regional Transportation Master Plan.

- The mid-block crossing should be a minimum of 200 m from the nearest intersection (Bleams Road or Rosenberg Way) for the future consideration of a pedestrian signal at this location. The pedestrian signal will provide an additional level of safety and accessibility and should be considered through the design process of Fischer Hallman Road. Signalization will be determined by the Region.

- CPTED guidelines to be provided during detailed design of the crossing.
5.0 Conclusions

The Strasburg Creek Flood Control (Schedule ‘B’) Class Environmental Assessment (EA) was completed in May 2014 for the City of Kitchener to assess the preferred means to incorporate the required flood controls into the Strasburg Creek system. In addition to the flood control feature, the original study also considered potential below grade pedestrian crossing configurations that crossed Fischer-Hallman Road at the upstream limits of the study area.

Following completion of the Flood Control Class EA, the Region of Waterloo began work on an Environmental Assessment for the upgrades to Fischer-Hallman Road through the same study area. New information from this process is now available, including preliminary road profile and cross sections, and a more detailed consideration of the existing watermain. It has recently been determined that the watermain is the primary supply for the Huron Village Community, and as such cannot be moved or temporarily shut down to facilitate construction. The pedestrian crossing at Fischer-Hallman Road and Strasburg Creek was identified in the Flood Control EA as a below-grade crossing (in association with the stream conveyance system), which would require the relocation of the watermain. With the proposed Fischer-Hallman Road improvement details now available, the City requested that additional work be completed to confirm that the most appropriate form of pedestrian crossing is considered. This additional work took the form of an Addendum to the Class EA. The proposed problem statement for this addendum is:

Determine the most appropriate means of providing a safe pedestrian crossing of Fischer-Hallman Road to link future urban development areas to the west with the Huron Natural Area and trail system to the east. The crossing must not compromise the Strasburg Creek flow conveyance capacity, the City of Kitchener Multi-use Pathways and Trails Master Plan, integrate with the Fischer-Hallman Road Class EA and must minimize impacts to existing infrastructure, including the 450 mm diameter watermain.

The Addendum process evaluated the various alternatives based environmental, technical, economic, cultural environment and public safety criteria, and the preferred option is Alternative #4, Option A: At Grade crossing near the Strasburg Creek culvert (as per the Trails Master Plan) as illustrated in Figures 6 and 7. The recommended alternative will be implemented in conjunction with the Fischer-Hallman Road improvements.

In addition to the identification of the preferred pedestrian crossing alternative, this Addendum also identifies a number of design and public safety considerations to be considered during the detailed design and implementation stages of the project. Refer to Section 4.3 for additional details.
APPENDIX A

Notice of Commencement
Notice of Completion
NOTICE OF STUDY COMMENCEMENT
CLASS ENVIRONMENTAL ASSESSMENT ADDENDUM
STRASBURG CREEK FLOOD CONTROL STUDY –
FISCHER-HALLMAN ROAD PEDESTRIAN CROSSING

The Study
In May 2014, the City of Kitchener completed a Schedule "B" Class Environmental Assessment (EA) Study to examine flood control options for Strasburg Creek, between Huron Road and Fischer-Hallman Road in the City of Kitchener and Region of Waterloo.

The Strasburg Creek watershed is located in the southwest part of the City of Kitchener. The Main, or Middle, branch of Strasburg Creek originates northwest of the intersection of Fischer-Hallman Road and Bleams Road and flows generally southeast, crossing Huron Road approximately 1 km west of Strasburg Road. The Strasburg Creek Master Watershed Plan recommended, among other things, a flood control structure just upstream of Huron Road to minimize the potential for downstream flooding and erosion impacts. The purpose of the original Class EA Study was to evaluate the appropriate location and configuration of the flood control measures.

A second component of this study also considered the potential for a pedestrian crossing at Fischer-Hallman Road. It was anticipated that a pedestrian crossing would be provided at this location to link the City trail system and could be constructed in conjunction with the stream crossing. The preferred pedestrian crossing alternative from this study was a below grade pedestrian culvert (approximately 4 m x 4 m x 45 m long that would also convey water during extreme storm events). Additional details on the surrounding areas have become available following the completion of the original Class EA Study, and the City has elected to review the Fischer-Hallman Road pedestrian crossing component to ensure that the most appropriate form of crossing is considered (e.g., above grade, at grade and below grade). No other portions of the original Class EA will be re-opened for review.

The Study Area is shown on the plan provided below.

The Process
The Addendum study will be completed in accordance with the Municipal Engineers' Association document entitled “Municipal Class Environmental Assessment” October 2002, as amended in 2011. The Class EA process includes public and review agency consultation, an evaluation of alternatives, an assessment of the impacts of the proposed alternatives, and identification of a preferred solution.

Upon completion of this Addendum, documentation outlining the study findings will be prepared and submitted to the Ministry of the Environment (MOE) and will be available for public review for a period of 30 calendar days.

Subject to comments received and the necessary approvals, the City of Kitchener intends to proceed with the construction of this project in accordance with the annual budget review and approval.

Comments Invited
While no formal public meeting is required or anticipated, we are interested in hearing any comments that you may have about the study. Please address any comments to either of the Project Team members below:

Ms. Linda Cooper, C.E.T. Mr. Steve Brown, MBA, P.Eng.
Manager, Development Engineering Project Manager
City of Kitchener Stantec Consulting Ltd.
200 King Street West 49 Frederick Street
Kitchener ON N2G 4G7 Kitchener ON N2H 6M7
Phone: 519-741-2200 x 7974 Phone: 519-585-7446
Fax: 519-741-2230 Fax: 519-579-8664
Email: linda.cooper@kitchener.ca Email: steve.brown@stantec.com
NOTICE OF STUDY COMPLETION
CLASS ENVIRONMENTAL ASSESSMENT ADDENDUM
STRASBURG CREEK FLOOD CONTROL STUDY –
FISCHER-HALLMAN ROAD PEDESTRIAN CROSSING

The Study
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By this Notice, the EA Addendum is being placed in the public record. A copy of the EA Addendum will be available for review at the following locations:

| City Clerk’s Office, Kitchener City Hall | Engineering Services, 9th Floor, Kitchener City Hall |
| 200 King Street West, Kitchener, Ontario | 200 King Street West, Kitchener, Ontario |
| Mon-Fri 8:30 am – 4:30 pm | Mon-Fri 8:30 am – 4:30 pm |
| Tel.: (519) 741-2203 | |

Note: - City Hall and the Library will be closed during public holidays.
The ESR is also posted on the city’s website: http://kitchener.ca/en/businessinkitchener/Environmental_assessments.asp

Interested parties are requested to provide comments on the ESR to Ms. Linda Cooper, C.E.T. at the City of Kitchener within 30 calendar days of the date of this Notice.

If concerns regarding the project cannot be resolved in discussions with the City, a person may request that the Minister of the Environment make an order for the project to comply with Part II of the Environmental Assessment Act (referred to as a Part II Order), which addresses individual environmental assessments. Requests must be received by the Minister at the address below by June 1, 2015. A copy of the request must also be sent to the contact person at the City of Kitchener. If no request is received by June 1, 2015, Strasburg Creek Flood Control Study – Fischer-Hallman Road Pedestrian Crossing will proceed to the Detail Design and Construction phases as proposed in the EA Addendum.

Minister of the Environment, 77 Wellesley Street West 11th Floor, Ferguson Block, Toronto, ON M7A 2T5

Ms. Linda Cooper, C.E.T.
Manager, Development Engineering
City of Kitchener
200 King Street West
Kitchener ON N2G 4G7
Phone: 519-741-2200 x 7974
Fax: 519-741-2230
Email: linda.cooper@kitchener.ca

Mr. Steve Brown, MBA, P.Eng.
Project Manager
Stantec Consulting Ltd.
49 Frederick Street
Kitchener ON N2H 6M7
Phone: 519-585-7446
Fax: 519-579-8664
Email: steve.brown@stantec.com
Steering Committee Meeting
Strasburg Creek Flood Control EA - Pedestrian Crossing Addendum

Date/Time: January 29, 2015 / 8:30 AM
Place: City of Kitchener, Scott Room (9th Floor) City Hall
Next Meeting: TBD
Attendees: Hans Gross, City of Kitchener
           Tim O’Brien, City of Kitchener
           Mike Palmer, City of Kitchener
           Linda Cooper, City of Kitchener
           Eric Riek, City of Kitchener
           Barb Steiner, City of Kitchener
           Kaitlyn Smith, Grand River Conservation Authority
           Delton Zehr, Region of Waterloo
           Mike Jones, Region of Waterloo
           Hanan Wahib, Region of Waterloo
           Steve Brown, Stantec Consulting Ltd.
           Tim McCormick, Stantec Consulting Ltd.

Distribution: All Attendees

Item: Action:

1. Welcome
   LC/SB welcomed everyone to the meeting and introductions were provided.

2. Meeting Purpose and Objectives
   SB outlined the objectives for the meeting:
   a) To bring a new Steering Committee up to date on the project.
   b) Initiate the EA Addendum process.
   c) Review/confirm trail alternatives and evaluation criteria.

3. Review of Project History
   SB provided a brief summary of the project history (focused primarily on the Fischer-Hallman Road location):
   - The project was originally initiated in 2013.
   - A recommendation from the Strasburg Creek Master Watershed Plan required that in conjunction with development, flood control structures required were upstream of Huron Road to protect downstream flood vulnerable structures.
Item:

- During the course of the Flood Control EA there were numerous other concurrent projects that provided input/information including Upper Strasburg/Alder Creek Subwatershed Study Update, Upper Strasburg Creek Class EA, Huron Road Improvements Class EA, Rosenberg Secondary Plan (and associated studies), etc.

- The Flood Control EA confirmed that the preferred alternative was to incorporate the flood control structure into Huron Road. This was subsequently designed and constructed.

- The Flood Control EA also considered potential changes to the configuration of the stream crossing at Fischer-Hallman Road that would provide sufficient conveyance capacity to achieve the required upstream floodplain elevation and that would incorporate a pedestrian crossing at the same general location. The study confirmed that this was feasible.

- The Strasburg Creek Flood Control EA was completed in the spring of 2014, including all public consultations, reviews, etc.

- Since completion, work has progress on the Fischer-Hallman Road EA and the surrounding development lands, so there is more information/details now available for:
  - Fischer-Hallman Road details.
  - Development details in the surrounding area.
  - Infrastructure timing.

With more details now available, the City requested that additional work be completed to ensure that the most appropriate form of pedestrian crossing is considered given that the crossing can be independent of the stream conveyance system.

SB clarified the process for amending a completed Class EA, including:

- Specific elements of the previous project can be amended, as opposed to the entire project. In this case, only the pedestrian crossing component will be re-opened for review; the remaining project elements will not be revised.

- A revised notice of completion is required to be filed, however no public meeting is necessary. It is the project team's recommendation that a notice of commencement also be issued at the outset of the project for transparency reasons. The standard 30-day public review period is still required for the addendum.
SB explained that the original EA problem statement didn’t consider the pedestrian crossing explicitly, so a draft problem statement has been prepared for consideration, as follows:

Determine the most appropriate means of providing a safe pedestrian crossing of Fischer-Hallman Road to link future urban development areas to the west with the Huron Natural Area and trail system to the east. The crossing must not compromise the Strasburg Creek flow conveyance capacity, the City of Kitchener Trails Master Plan and must minimize impacts to existing infrastructure.

Discussion on the draft problem statement included the following suggestions for revision:

- Change reference to City of Kitchener Multi-use Pathways and Trails Master Plan.
- Include that the EA Addendum recommendations should coincide with the Fischer-Hallman Road improvements.
- Note that the existing 450 mm dia. watermain is a critical infrastructure element to be considered.

Suggested Rewording:

Determine the most appropriate means of providing a safe pedestrian crossing of Fischer-Hallman Road to link future urban development areas to the west with the Huron Natural Area and trail system to the east. The crossing must not compromise the Strasburg Creek flow conveyance capacity, the City of Kitchener Multi-use Pathways and Trails Master Plan, integrate with the Fischer-Hallman Road Class EA and must minimize impacts to existing infrastructure, including the 450 mm diameter watermain.

4. **Review Crossing Alternatives**

TM described each of the alternatives to be considered.

**Below Grade Crossing:**

- Generally consistent with the recommendations of the Flood Control EA in terms of location and configuration (approx. 4 m x 4 m culvert approximately 45 m long that will convey water during extreme storm events).
- Pathway will include approximately 40 m of trail for this option.
Item:

- Lighting will be required for safety.
- All trails will be located in the floodplain.
- Challenges include the requirement to relocate the existing watermain, and safety, or the perception of the safety of a culvert crossing.

Comments/discussion:

- Ongoing maintenance may also be a challenge.
- The proposed trail is a secondary trail, meaning it may not be maintained in the winter.
- Maintenance/emergency access will be required from Fischer-Hallman Road.
- Local storm sewers on Fischer-Hallman Road may have to go over the pedestrian culvert.

At Grade Crossing (Option A – At creek):

- Trail location as per the Master Plan.
- Mid-block crossing of Fischer-Hallman Road may necessitate a pedestrian refuge island.
- Approximately 100 m of additional trail length required to bring trail up to road elevation.
- Challenges include pedestrian safety (could be addressed by a signalized crossing).

Comments/discussion:

- The Fischer-Hallman Road improvements likely to include (EA not yet complete) a full raised median, roundabouts at Bleams Road and Rosenberg Way, and a multi-use trail on both sides of the road.
- Show north and south branches of the trail on the west side of Fischer-Hallman Road to match trail plans.

At Grade Crossing (Option B – At Bleams Road):

- Similar to Option A, but trail crosses at Bleams Road, which deviates from the Master Plan and requires an additional 650 m of trail.
Item:  
• Offset trail locations on either side of Fischer-Hallman Road to discourage crossing outside of trail locations.

Action:  
• Challenges include an indirect and lengthy trail connection, and there may be safety concerns since pedestrians are directed to cross at a roundabout.

At Grade Crossing (Option C - At Rosenburg Way):

• Similar to Option B, but trail crosses at Rosenburg Way, which deviates from the Master Plan and requires an additional 550 m of trail.

• Potential for alternate trail alignment south of the proposed development.

• Challenges include an indirect and lengthy trail connection, and there may be safety concerns since pedestrians are directed to cross at a roundabout.

• Comments/discussion:
  o Primary trail actually located further south at the Hydro corridor and would like to discourage traffic through the Huron Natural Area.

  o The Region will only consider a controlled crossing if it is more than 200 m from an existing pedestrian crossing/refuge and if use warrants.

Above Grade Crossing:

• Trail location would conform to Master Plan, but would be required to be a minimum 5 m high to accommodate truck traffic, which would require more than 100 m of ramps on both sides of the road to make the crossing accessible (5% grade).

• Challenges include the length of ramps required, and that the ramps will have to be located outside of the right-of-way.

• Comments/discussion:
  o Ownership and maintenance (both structural and operational) of the structure would require further discussion between the City and Region.

Do Nothing:

• The “Do Nothing” alternative would mean that there is no crossing at this location and would require an adjustment to the Master Plan for consistency.
5. Review Evaluation Criteria

TM described the evaluation criteria to be considered. They are generally based on those used in the Flood Control EA, modified to address pedestrian crossing issues. The categories and individual criteria include:

- **Natural environment:**
  - Terrestrial/riparian habitat including intrusion into the feature and buffer.
  - Impact on the ability to implement Huron Natural Area Management Plan.
  - Maintain character of the Huron Natural Area.

- **Economic environment:**
  - Total capital cost.
  - Total maintenance cost.

- **Technical environment:**
  - Ability to provide flood protection.
  - Ease of construction/implementation.
  - Encroachment within Regulatory Floodplain.

- **Cultural environment:**
  - Aesthetics.
  - Huron Natural Area social infrastructure.
  - Conformance to Trails Master Plan.

- **Public safety:**
  - CPTED.
  - Pedestrian/traffic safety.
  - Accessibility.
The following points were raised/discussed:

- Species at Risk have been identified in (Blandings Turtle) and near (Jefferson Salamander) the study area, so this criteria should be maintained. BS to provide information/mapping.

- Ownership of the structure must be considered in the economic criteria. Who will own the structure, who will perform maintenance (e.g., winter plowing)?

- Conformance with the Master Plan should be considered in the cultural environment. TO to provide mapping and guidelines.

- Winter maintenance should be incorporated into the accessibility criteria.

The evaluation process was also discussed:

- Need to focus on the form of crossing and not get too caught up in the specific details as there is flexibility to confirm the final alignment later based on additional future information and planning details.

- The crossing form could be evaluated, and if the at-grade crossing is selected as preferred, then the scores of options A, B and C could be reviewed to assess the relative preference for each option.

6. Project Schedule/Planning

SB described the project schedule including the following tasks:

- Prepare EA Addendum notice (commencement).
- Evaluate alternatives.
- Steering Committee Meeting #2 (review evaluations).
- Presentation to Council.
- Prepare documentation/notice of completion.
- File for 30-day review period.

7. Next Steps

Next steps will include:

- Prepare EA Addendum notice (commencement) the week of February 2.
Item: Evaluate alternatives.

Action: Steering Committee Meeting #2 (review evaluations). Results will be circulated in advance of the meeting. Potential meeting dates discussed, but no consensus was achieved. SB to solicit input from Steering Committee members for a preferred date near the end of February.

Discussion items:

- Draft EA Addendum notice (commencement) will be provided to the Ward Councilor 2 days before it is published. Depending on publishing dates and schedules, it may be published the week of February 9.

- General schedule would be to have the steering committee review the evaluations near the end of February. Target date for other documentation is early April.

- April 20 is the only standing committee date in April.

- This project does not need to go to the Environment Committee; Cycling Committee to be confirmed.

8. Other Issues

None identified.

9. Next Meeting

Late February - specific date to be confirmed.

The meeting adjourned at 10:05 AM

The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Stantec Consulting Ltd.

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Date/Time: March 4, 2015 / 1:00 PM
Place: City of Kitchener, Scott Room (9th Floor) City Hall
Next Meeting: TBD
Attendees: Hans Gross, City of Kitchener
Linda Cooper, City of Kitchener
Mike Palmer, City of Kitchener
Eric Riek, City of Kitchener
Barb Steiner, City of Kitchener
Tim O’Brien, City of Kitchener
Juliane Von Westerholt, City of Kitchener
Kelly Galloway-Sealock, City of Kitchener
Kaitlyn Smith, Grand River Conservation Authority
Delton Zehr, Region of Waterloo
Hanan Wahib, Region of Waterloo
Steve Brown, Stantec Consulting Ltd.
Tim McCormick, Stantec Consulting Ltd.
Distribution: All Attendees

Item: 

1. Welcome

LC/SB welcomed everyone to the meeting and introductions were provided.

2. Meeting Purpose and Objectives

SB outlined the objectives for the meeting:

a) Continuation of Meeting #1
b) Review alternatives and evaluation criteria (briefly)
c) Discuss evaluation results
d) Outline next steps

3. Review Crossing Alternative Evaluations

TM reviewed the problem statement (revised at last meeting)

TM reviewed the alternatives being considered:

- Do nothing
- Below grade crossing
**Item:**

- Above grade crossing

- At grade crossing either at the Creek (option A), Bleams (option B) or Rosenberg (option C)

TM reviewed the preliminary scoring for each criteria and alternative and the committee discussed each and some alterations were made based on group consensus

One criteria was revised: the aesthetic criteria under the cultural environment was revised to include conformance with the Fischer-Hallman Road Urban Design Guidelines and Streetscape Plan per the approved Rosenberg Secondary Plan.

The potential for weighting categories was also discussed to allow for more importance to be placed on key issues like public safety to ensure that the best crossing is achieved. It was determined that weighting would not alter the outcome of the evaluation. Recommendations will be incorporated into the documentation for other features that should be considered in the detailed design stage to maximize safety.

**4. Next Steps**

Draft EA addendum documentation to be circulated by March 25.

Draft City report to Council to be completed by April 2.

Report will be considered at Committee on April 20.

Afterwards, the report will be posted on the City website and be available for the required 30-day review period.

**5. Other Issues**

None raised.

**6. Next Meeting**

No further meetings anticipated.

The meeting adjoumed at 2:30 PM
The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

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