Regional Municipality of Waterloo
Planning and Works Committee
Minutes

Tuesday, January 7, 2014
2:19 p.m.
Regional Council Chambers
150 Frederick Street, Kitchener


Members absent: J. Brewer, T. Cowan, and G. Lorentz

Declarations of Pecuniary Interest Under the “Municipal Conflict of Interest Act”

K. Seiling stated that in 2011, questions were raised about the “Municipal Conflict of Interest Act” relative to the proposed rapid transit corridor. A number of Regional Councillors, including himself, as well as local area councillors declared conflicts due to the presence of properties owned by family members within the transit corridor. Over the past 12 months, there have been a number of judicial cases which have served to further clarify the legislation and how the courts have viewed the matter. K. Seiling sought legal advice to review these decisions and on the basis of those decisions and that review, he is confident that he is able to participate in the issue of rapid transit and looks forward to participating in these discussions.

R. Deutschmann declared a pecuniary interest with respect to Report E-14-001, Ion Adapted Bus Rapid Transit Implementation, Report E-14-003/F-14-001, Stage 1 Light Rail Project – Infrastructure Cost Sharing with Area Municipalities and Report E-14-008, Hydro One Transmission Line Relocation for LRT Project Courtland Avenue to Fairview Park Mall, due to an indirect pecuniary interest since he and his spouse are shareholders of corporations that have an interest in a property at 10 Duke Street West, Kitchener.
Chair J. Wideman announced that today is the last Planning and Works meeting for Bill Brodribb, Director, Design and Construction who is retiring. He thanked B. Brodribb for his hard work and dedication.

Delegations

a) Sue Stubley re: Stormwater Discharge into Barrie’s Lake ESPA 57 did not appear as a delegation and will attend at a later date.

b) Trevor Preis appeared before Committee regarding development on Woolwich Street in Waterloo. He provided a presentation that highlighted; the potential impacts, challenging site conditions, Provincial Policy Statement (2005) (PPS), lack of consistency with the PPS, and asked what is next. A copy of his presentation is appended to the original minutes.

Rob Horne, Commissioner, Planning, Housing and Community Services highlighted that this site is proposed for development of 79 units. R. Horne noted that City and Regional staff have been working with T. Preis and are down to two remaining technical issues and have committed to meeting with T. Preis to work on those two remaining conditions. R. Horne also noted that he has informed T. Preis that he has authority to approve this subdivision through the delegation authority by-law.

Request To Remove Items From Consent Agenda

No items were removed from the Consent Agenda

Motion To Approve Items Or Receive For Information

Moved by T. Galloway

Seconded by C. Zehr

That the following items be approved:


- That the Regional Municipality of Waterloo approve an amendment to Controlled Access By-law #58-87 for a right-in/right-out access on the north side of Regional Road #28 (Homer Watson Boulevard), approximately 355 metres west of Conestoga College Boulevard in the City of Kitchener, as described in Report No. P-14-002, dated January 7, 2014.

  Carried

Regular Agenda Resumes

Reports – Planning, Housing and Community Services

a) P-14-003, Western Golden Horseshoe Municipal Network Charter

1543914
R. Horne provided introductory comments noting that this report is to recommend a more formal commitment to the Network in the form of a Charter being endorsed.

Moved by J. Mitchell
Seconded by R. Kelterborn

That the Regional Municipality of Waterloo endorse the Western Golden Horseshoe Municipal Network Charter (“the Charter”) attached to Report P-14-003, dated January 7, 2014, and that the Region’s Chief Administrative Officer be authorized to sign the Charter signifying the Region’s membership in the Western Golden Horseshoe Municipal Network.

Carried

Reports - Transportation and Environmental Services

Rapid Transit

b) E-14-001, Ion Adapted Bus Rapid Transit Implementation

Received for information.

c) E-14-003/F-14-001, Stage 1 Light Rail Project – Infrastructure Cost Sharing with Area Municipalities

Thomas Schmidt, Commissioner, Transportation and Environmental Services highlighted that this report documents the understanding with both the City of Kitchener and City of Waterloo on how infrastructures costs are going to be shared during the light rail transit project. He noted the cost sharing is split up in two categories, utilities and betterments.

Some Committee member inquired about a dispute mechanism if there is a disagreement between the Region and the Cities. T. Schmidt stated that the Region will work with the Cities until there is an agreement made.

Moved by L. Armstrong
Seconded by S. Strickland

That the Regional Municipality of Waterloo enter into separate formal agreements with the City of Waterloo and the City of Kitchener with respect to the cost sharing for utilities, betterments and any corridor streetscape priorities relating to the Stage 1 Light Rail Project as identified and agreed to by both local municipalities respectively and as described in Report E-14-003/F-14-001, subject to the agreements being satisfactory to the Commissioner of Transportation and Environmental Services, the Chief Financial Officer and Regional Solicitor.

Carried
d) E-14-008, Hydro One Transmission Line Relocation for LRT Project Courtland Avenue to Fairview Park Mall

T. Schmidt introduced the report stating that the work will largely be done by a contractor for Hydro One Networks Inc. He provided clarification on the budget noting the Region will only pay for work actually done.

Some Committee members asked for a picture of what the structure is going to look like. T. Schmidt stated he could provide Committee members with a picture at a later date.

T. Schmidt provided clarification on the transmission structures and noted they have been in discussion with Fairview Park Mall.

Moved by K. Seiling
Seconded by S. Strickland

That the Regional Municipality of Waterloo enter into a Transmission Line Relocation Agreement with Hydro One Networks Inc. (HONI) to bury the existing 115 kV transmission line on the Hydro corridor between Courtland Avenue and Fairview Park Mall, in form and content satisfactory to the Commissioner of Transportation and Environmental Services, the Regional Solicitor and the Chief Financial Officer at an estimated cost of $25,011,000.

This relocation will allow for the construction of the Region’s LRT system on the HONI corridor between Courtland Avenue and the Fairview Park Mall RT station.

Carried

Water Services

e) E-14-004, Additional Information - Biosolids Handling Contract for the Waterloo Wastewater Treatment Plant Construction Project

Received for information.

T. Schmidt stated staff was asked to provide additional information on this project. He highlighted that the report is showing the delays on 2 of the contracts are on the critical path and are largely due to weather conditions, some additional construction, and unforeseeable site conditions related to the ballast ring. T. Schmidt did state that the project is still within anticipated budget.

Some Committee members expressed their concerns with this projected and inquired about the ballast ring. T. Schmidt provided clarification on the ballast ring stating staff where unaware of this ballast ring because the drawings were not accurate.

S. Strickland referred to an item on the Administration and Finance Committee tracking list regarding a pilot project for prequalification and asked when Committee can expect to receive a report on this item stating he requested this report over a year ago.
Craig Dyer, Chief Financial Officer stated that staff are currently working on the report and Committee members can expect to see the report coming forward in either March or April of this year.

**Information/Correspondence**

a) Council Enquiries and Requests for Information Tracking List was received for information.

**Other Business**

a) J. Haalboom questioned the implementation that Council approved with respect to the maintenance and care of the landscaping relating to the Ion.

T. Schmidt stated that this is not finalized but that locally this would be done on our behalf since that is our current process.

b) J. Mitchell thanked staff for the large yield and pedestrian signs located at the Blockline Road/Homer Watson Boulevard Roundabout.

**Next Meeting – January 28, 2014**

**Adjourn**

Moved by C. Millar

Seconded by B. Halloran

That the meeting adjourn at 2:55 p.m.

Carried

**Committee Chair**, J. Wideman

**Committee Clerk**, E. Flewwelling
Development on Woolwich St.

Impacts to Water Resources and Wildlife
Locating the Neighbourhood

Deer Winter Habitat

Provincially Significant Wetland (PSW)
Potential Impacts: Residents

- Lowering of water table – wells impacted in quantity and quality
  - New subdivision higher elevation than neighbouring lands
- Increased run-off rates (storm events) – septic beds impacted by high water table, backing up
  - New subdivision has higher rates of run-off
Challenging Site Conditions

- Historically high water table (~ 1 foot deep)
- Most residents on septic systems, and many on private water wells
- Surrounded by natural features (wetland, forests, habitat)
- Adjacent to a Provincially Significant Wetland
- Located directly between two deer habitats (Ministry of Natural Resources)
2.1.3 Development and site alteration shall not be permitted in:

b. significant wetlands

unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

2.1.6 Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.3, 2.1.4 and 2.1.5 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.
Lack of Consistency with PPS

1. Thermal impacts
2. Nutrient (phosphorus) impacts
3. Wildlife impacts
4. Water balance and quality impacts
5. Aquifer dewatering impacts
2011 CVC Cooling Trench Design Study (Baden)

Figure 3-25: Precipitation vs. Temperature (All Data)

(source: University of Waterloo Weather Station & Baden Field Data – 2008 Monitoring Program)
The Phosphorus Problem
Phosphorus Removal

A large number of characteristics of the wetland are included in such a correlation: vegetation type, water depth, climate, wetland size and shape, and flow rates, to name a few.

Figure 14-9 Black-box correlation of phosphorous removal in emergent marsh wetlands.

(Kadlec and Knight, 1996)
Winter Habitat
Ministry of Natural Resources
White-tailed deer winter habitat
Water imbalance

- Pre-development = 15 000 m³/year
- Post-development = 27 000 m³/year

170%!
Draft Plan of Development

Stormwater Management
Constructed Wetland/Pond
Stormwater Management (SWM) Plan
(loosely based on MOE Manual)

From Tables 1 and 3, it is shown that the pervious areas in the post development site are reduced from the existing condition, resulting in less infiltration. To augment this, the stormwater management pond is proposed to be an infiltrating pond. Though it is hard to quantify the amount of water infiltrating in the pond, it is assumed that any water that reached the pond and does not evaporate will infiltrate. Further more, infiltration is assumed to occur only through the sides of the facility. Landscape plantings around the pond will provide some shade and this should aid in the reduction of evaporation.

<table>
<thead>
<tr>
<th>Zone</th>
<th>Drains towards</th>
<th>Area (ha)</th>
<th>Runoff Coefficient</th>
<th>Runoff (m$^3$/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>501</td>
<td>East (Wetland finger and Grand River)</td>
<td>1.127</td>
<td>0.80</td>
<td>8,475</td>
</tr>
<tr>
<td>502</td>
<td></td>
<td>0.155</td>
<td>0.25</td>
<td>364</td>
</tr>
<tr>
<td>701</td>
<td>South (Melitzer Creek)</td>
<td>1.690</td>
<td>0.71</td>
<td>1,128</td>
</tr>
<tr>
<td>702</td>
<td></td>
<td>0.726</td>
<td>0.71</td>
<td>625</td>
</tr>
</tbody>
</table>
Next excerpt, same SWM report

**Table 4: Post-development Runoff**

As precipitation is the sum of runoff, evapotranspiration, and infiltration, the change in evapotranspiration can be estimated based on the calculated runoff and infiltration above, and will decrease with development.

In order to account for the effects of the constructed wetland, an evaporation rate of 750 mm/year is assumed over the permanent pool of the constructed wetland and forebay, for a total of approximately 700 m³/year evaporated from the facility.

Table 5 shows the total pre-development and post-development water budgets for catchments discharging to the wetland and wetland finger.

<table>
<thead>
<tr>
<th>Drains towards</th>
<th>Pre-development (m³/year)</th>
<th>Post-development (m³/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>East (Wetland finger and Grand River)</td>
<td>9,311</td>
<td>12,820</td>
</tr>
<tr>
<td>South (Melitzer Creek wetland)</td>
<td>6,684</td>
<td>4,280</td>
</tr>
<tr>
<td>Total</td>
<td>15,995</td>
<td>17,068</td>
</tr>
</tbody>
</table>

**Table 5: Water Balance (Infiltration + Runoff)**
Demonstration vs. Assumption

Canadian Oxford Dictionary:

- **assume**
  1. take or accept as being true, *without proof*, for the purpose of argument or action.

- **demonstrate**
  1. describe and explain with the help of examples, experiments, practical use, etc.
  2. a logically prove the truth of, b be proof of the existence of.
What next?

- Complete Studies
- Proven Technologies
- Balanced Guidance
Potential Impacts: Environment

- Stormwater discharges
  - Increased run-off / diminished infiltration
  - Reduced water quality entering wetland

- Proposed SWM facility ineffective
  - Does not meet PPS standard of:

No Negative Impacts
Potential Impacts: Provincially Significant Wetland (PSW)

- Degraded quality of water reaching PSW
  - Impact 1: Phosphorus, *Party Drug of Natural Systems*
  - Impact 2: Temperature, *Fish Killer*
- Incomplete evaluation of habitat, impacts
  - Impact 1: Movement Corridor, *Trapped*
  - Impact 2: Effective Foraging Area (winter habitat), *Starved*
Phosphorus: The Party Drug

- Negative Effects:
  - Causes Eutrophication (the overdose)
  - Starves the system of oxygen
  - Is quickly recycled and stays for a long time

- Proposed Solution: Constructed Treatment Wetland
  - Problems: Blackbox Approach, Poor Track Record
Phosphorus: Current Technology

- Required Solution: Engineered Sorption Media (Filter)
  - High Proven Treatment Efficiencies
- Known (tested) life cycle exhaustion
  - Can properly time maintenance, fresh media
Temperature: The Fish Killer

- Melitzer Creek: brook trout fishery sensitive to temperature of incoming water < 20°C
- Development and stormwater management increase temperature of incoming water > 30°C
- Proposed Solution: Miniature Cooling Trench
- Required Solution: Expansive Cooling, (Area, Length x 40)
Wildlife Concerns: White-tailed deer

- Lack of required study for *Adjacent Lands*
  - Requires evaluation of *Ecological Functions*
  - Demonstration of *Negative Impacts* absent

- Incomplete study of *Movement Corridor* function
  - Conclusions oppose observations by local residents
2.0 Wise Use and Management of Resources

Ontario’s long-term prosperity, environmental health, and social well-being depend on protecting natural heritage, water, agricultural, mineral and cultural heritage and archaeological resources for their economic, environmental and social benefits.

Accordingly:

2.1 Natural Heritage

2.1.1 Natural features and areas shall be protected for the long term.

2.1.2 The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.

2.1.3 Development and site alteration shall not be permitted in:

a. significant habitat of endangered species and threatened species;
b. significant wetlands in Ecoregions 5E, 6E and 7E1; and
c. significant coastal wetlands.

2.1.4 Development and site alteration shall not be permitted in:

a. significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E1;
b. significant woodlands south and east of the Canadian Shield;
c. significant valleylands south and east of the Canadian Shield;
d. significant wildlife habitat; and
e. significant areas of natural and scientific interest

unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

2.1.5 Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.

2.1.6 Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.3, 2.1.4 and 2.1.5 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

2.1.7 Nothing in policy 2.1 is intended to limit the ability of existing agricultural uses to continue.

2.2 Water

2.2.1 Planning authorities shall protect, improve or restore the quality and quantity of water by:

...
53 x 2 + 12 = 118 acres = 48 ha

Habitat Calculation