

COMMITTEE AGENDA



TO **Planning & Building, Engineering and Environment
Committee**

DATE September 10, 2013

LOCATION Council Chambers, Guelph City Hall, 1 Carden Street

TIME 12:30 p.m.

DISCLOSURE OF PECUNIARY INTEREST AND GENERAL NATURE THEREOF

CONFIRMATION OF MINUTES – July 15, 2013 Open and Closed Meeting
Minutes

PRESENTATIONS (Items with no accompanying report)

a) Request to Change Cell Tower Policy - Sue Lebrecht

Available to Answer Questions:

- Rob Metzinger, Electronics Engineering Technologist, BBEC President
- Frank Clegg, CEO, Canadians for Safe Technology
- Tracey Manton, Guelph Resident

Correspondence:

- Michele Cooksley
- Brian and Csilla Adkins
- Annie Corbin
- Rino Bourgoin
- Judy Morrison

CONSENT AGENDA

The following resolutions have been prepared to facilitate the Committee's consideration of the various matters and are suggested for consideration. If the Committee wishes to address a specific report in isolation of the Consent Agenda, please identify the item. The item will be extracted and dealt with separately. The balance of the Planning & Building, Engineering and Environment Committee Consent Agenda will be approved in one resolution.

ITEM	CITY PRESENTATION	DELEGATIONS	TO BE EXTRACTED
PBEE-2013.30 Sign By-law Variance for 728 Victoria Road South (Pidel Homes)			
PBEE-2013.31 York Trunk Sewer And Paisley-Clythe Feedermain: Recycled Water Distribution System and Edinburgh Road Trail Underpass			

Resolution to adopt the balance of the Planning & Building, Engineering and Environment Committee Consent Agenda.

ITEMS EXTRACTED FROM CONSENT AGENDA

Once extracted items are identified, they will be dealt with in the following order:

- 1) delegations (may include presentations)
- 2) staff presentations only
- 3) all others.

STAFF UPDATES AND ANNOUNCEMENTS

CLOSED MEETING

THAT the Planning & Building, Engineering and Environment Committee now hold a meeting that is closed to the public with respect to:

S. 239 (2) (c) proposed or pending acquisition or disposition of land by the municipality or local board

ADJOURNMENT

NEXT MEETING: October 9, 2013

**Planning and Building, Engineering and Environment Committee
Held in the Council Chambers, Guelph City Hall,
Monday, July 15, 2013 at 2:00 p.m.**

Attendance

Members: Chair Piper, Mayor Farbridge, Councillors Bell, Burcher (*arrived 2:06 p.m.*) and Guthrie

Councillors: Councillors Dennis, Furfaro, Hofland, Van Hellemond and Wettstein

Staff: Dr. J. Laird, Executive Director of Planning, Building, Engineering and Environment; Mr. A. Horsman, Executive Director, Mr. T. Salter, General Manager, Planning Services; Ms. T. Agnello, Deputy City Clerk; and Ms. D. Black, Council Committee Coordinator

Call to Order (2:00 p.m.)

Chair Piper called the meeting to order.

Disclosure of Pecuniary Interest and General Nature Thereof

There were no disclosures.

Confirmation of Minutes

1. Moved by Councillor Bell
Seconded by Councillor Guthrie

That the open and closed meeting minutes of the Planning and Building, Engineering and Environment Committee held on June 10, 2013 be confirmed as recorded.

VOTING IN FAVOUR: Mayor Farbridge, Councillors Bell, Guthrie and Piper (4)

VOTING AGAINST: (0)

CARRIED

Consent Agenda

The following items were extracted from the July 15, 2013 Consent Agenda to be voted on separately:

- | | |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PBEE-2013.25 | Integrated Operational Review of Planning, Building, Engineering and Environment and Enterprise Services – Phase 3 – Implementation Plan & Performance Framework |
| PBEE-2013.26 | Rental Housing Licensing Cost-Benefit Analysis |
| PBEE-2013.27 | Housing and Homelessness Plan for Guelph and Wellington |
| PBEE-2013.28 | Wastewater Services 2012 Annual Report |
| PBEE-2013.29 | Outstanding Motions of the Planning & Building, Engineering and Environment Committee |

Councillor Burcher arrived at the meeting. (2:06 p.m.)

Dr. Janet Laird, Executive Director, Planning, Building, Engineering and Environment, provided a brief introduction to each of the reports.

Extracted Consent Items

PBEE-2013.26 Rental Housing Licensing Cost-Benefit Analysis

Ms. Joan Jylanne, Senior Development Planner, outlined the purpose and principles of the analysis, community issues, existing limitations of current tools, advantages and benefits, and key purpose of licensing rental housing.

Mr. Bill Bond, Zoning Inspector, outlined the three proposed licensing options and their associated fees. He provided information regarding how London and Waterloo handled licensing shared rental housing units.

Mr. Rob Reynen, Manager of Inspector Services, provided information regarding complaints received on properties with absentee landlords versus present landlords. He said there will be a five year review to determine the relevance and success of the program.

Mr. John Gruzleski, Old University Neighbourhood Residents Association (OUNRA), said that the OUNRA supports the licensing of rental housing and they believe the report offers reasonable options and are eager for the public consultation process to begin.

Mr. Lyle McNair, landlord, questioned the validity of the statistics within the report and requested explanation for assumptions made. He said licensing costs will make it difficult for landlords to stay within their rental increase allowance and tenants will have to pay more.

Mr. Stewart Schinbein, landlord, requested a cost comparison of current costs to address shared rental housing issues versus costs associated with the proposed licensing. He does not believe licensing will result in compliance and is concerned about the impacts that licensing will have on available rental units. He said safety concerns are covered by the existing by-laws and the Fire Code,. He believes licensing will be a detriment to meeting the increased demand for shared rental housing units.

Mr. John Romeo, landlord, said safety concern issues are not addressed consistently between family dwellings and rental units. He agrees with Morris Haley's written comments included in the agenda and questioned the staff interpretation of the data. He believes the delegation speaking time is insufficient and the committee meeting time is not conducive to public participation.

Mr. Pierre Sardor was not present.

Staff clarified that the Fire Code does not allow access without permission from the dwelling resident unless there is a clear and immediate danger. They also provided clarification of the self-certification option. Staff were requested to provide details regarding roles, complaint process, statistics, financial data and performance indicators, including whether there is a reduction of complaint calls and avoided costs in municipalities with existing licensed shared rental housing when they report back.

Staff will provide information to Council from Waterloo and London regarding their timelines, fees, and community feedback.

2. Moved by Councillor Burcher
Seconded by Mayor Farbridge

1. That Report 13-32 from Planning, Building, Engineering and Environment regarding the Rental Housing Licensing Cost-Benefit Analysis report dated July 15, 2013 be received.
2. That staff be authorized to proceed with public consultation on the proposed licensing directions and cost-benefit analysis to guide the development of a rental housing licensing program.

VOTING IN FAVOUR: Mayor Farbridge, Councillors Burcher and Piper (3)

VOTING AGAINST: Councillors Bell, Guthrie (2)

CARRIED

PBEE-2013.25 Integrated Operational Review of Planning, Building, Engineering and Enterprise Services – Phase 3 – Implementation Plan & Performance Measurement Framework

Mr. Peter Cartwright, General Manager, Economic Development, outlined the process and implementation highlights, the governance model and performance measurement framework.

Mr. Todd Salter, General Manager, Planning Services, explained the performance measurement dashboard.

A discussion ensued about the possibility of having the project manager be a current staff position in order to retain corporate knowledge.

3. Moved by Councillor Burcher
Seconded by Councillor Guthrie

1. That report number 13-33, titled "Integrated Operational Review of Planning, Building, Engineering and Enterprise Services – Phase 3 – Implementation Plan & Performance Measurement Framework" be received for information.
2. That the Integrated Operational Review of Planning, Building, Engineering and Enterprise Services – Phase 3 – Implementation Plan 2014 – 2016 budget estimate as presented in report number 13-33 Attachment 4 be referred to the annual Operating and Capital Budget Process.

VOTING IN FAVOUR: Mayor Farbridge, Councillors Burcher, Guthrie and Piper (4)

VOTING AGAINST: Councillor Bell (1)

CARRIED

PBEE-2013.27 Housing and Homelessness Plan for Guelph and Wellington

This report is also being considered at the July 16, 2013 Community and Social Services Committee and all comments received will be shared between the departments and a report addressing the County's housing and homelessness plan is forthcoming.

4. Moved by Mayor Farbridge
Seconded by Councillor Guthrie

That the joint report from Planning, Building, Engineering and Environment, report #13-34; and Community and Social Services report #CSS-CESS-1329, regarding the Housing and Homelessness Plan for Guelph and Wellington, dated July 15, 2013, be received.

VOTING IN FAVOUR: Mayor Farbridge, Councillors Bell, Burcher, Guthrie and Piper (5)

VOTING AGAINST: (0)

CARRIED

PBEE-2013.28 Wastewater Services 2012 Annual Report

Ms. Kiran Suresh, General Manager, Wastewater Services, provided an overview of the Wastewater Services 2012 Annual Report.

5. Moved by Mayor Farbridge
Seconded by Councillor Guthrie

That the report from Planning, Building, Engineering and Environment dated July 15, 2013 entitled "Wastewater Services 2012 Annual Report" be received.

VOTING IN FAVOUR: Mayor Farbridge, Councillors Bell, Burcher, Guthrie and Piper (5)

VOTING AGAINST: (0)

CARRIED

PBEE-2013.29 Outstanding Motions of the Planning & Building, Engineering and Environment Committee

Staff will confer with the Chair of the committee to determine whether any outstanding motions can be removed or placed on hold.

6. Moved by Mayor Farbridge
Seconded by Councillor Burcher

That the report dated July 15, 2013 regarding outstanding motions of the Planning & Building, Engineering and Environment Committee, be received.

VOTING IN FAVOUR: Mayor Farbridge, Councillors Bell, Burcher, Guthrie and Piper (5)

VOTING AGAINST: (0)

CARRIED

Staff Updates and Announcements

Dr. Laird, Executive Director, Planning, Building, Engineering and Environment, acknowledged staff and stakeholders for their efforts on the Joint Operational Review and the Shared Rental Housing reports.

Authority to Resolve into a Closed Meeting (5:05 p.m.)

7. Moved by Mayor Farbridge

Seconded by Councillor Guthrie

That the Planning and Building, Engineering and Environment Committee now hold a meeting that is closed to the public with respect to Sec. 239(2)(b) of the *Municipal Act* with respect to personal matters about an identifiable individual.

CARRIED

Closed Meeting (5:06 p.m.)

The following matters were considered:

PBEE-C-2013.1 Citizen Appointments to the Water Supply Master Plan Community Liaison Committee

Rise from Closed Meeting & Adjourn (5:10 p.m.)

8. Moved by Councillor Guthrie
 Seconded by Councillor Burcher

That the committee rise from its closed meeting.

CARRIED

Open Meeting (5:11 p.m.)

9. Moved by Councillor Guthrie
 Seconded by Councillor Burcher

That the meeting be adjourned.

CARRIED

Deputy Clerk

Dear Tina and Dolores,

Thank you for welcoming me to present to the Standing Committee of the Guelph Planning, Engineering and Environment Department. I will be joined by Frank Clegg, the CEO of Canadians for Safe Technology (www.c4st.org) and former president of Microsoft Canada (for 14 years), as well as Rob Metzinger, Electronics Engineering Technologist, BBEC President of Safe Living Technologies Inc (www.slt.co), as well as Tracey Manton, a strong supporter of this cause.

Kindly forward this letter and all attachments to all City Council members. I respectfully request to speak to council on the same matter. Thank you.

My presentation addresses the city's need to revise its policy on communication towers. The present policy, adopted by the City of Guelph in 2001 (or 2002?) needs revision.

Patrick Sheehy in City Planning tells me that the city only has jurisdiction of towers greater than 16.6 metres, however elsewhere in Canada the height at which Industry Canada allows comment by municipalities is anything over 15 metres. Why should Guelph be different?

Moreover, in February 2013, there was an agreement signed between the Canadian Federation of Municipalities (CFM) and The Canadian Wireless Telecommunications Association (CWTA), the industry's main lobby group, agreeing that cities and towns could comment on cell towers less than 15 metres. (<http://www.theglobeandmail.com/globe-investor/wireless-industry-moves-to-stem-flow-of-cellphone-tower-ire/article9146453/>). So now, in municipalities across Canada, proposed towers, regardless of height, are open to comment – except in Guelph.

That means, the proposed 16-metre-high Bell cell tower at Grange and Starwood – and any other tower between 15 m and 16.6 m – falls through a crack, completely untouchable, neither high enough, nor low enough for city involvement.

With both online and hardcopy petitions, I now represent more than 400 people (and counting) who are strongly opposed to the proposed cell tower at Grange and Starwood, and to the proposed Rogers wireless extended pole on Auden Rd. The cell tower would overshadow two elementary schools. There are several electrosensitive people in the immediate neighbourhood, and besides health risk concerns, particularly to children, people don't want to see their property values go down. No one is complaining about cell phone reception – everyone already has good reception here – and they wonder why they have not been notified about the proposal. (Please see comments on the online petition at www.gopetition.com/petitions/stop-new-cell-towers.html) There is no debate between those who want a cell tower and those who don't; I haven't met anyone who wants it. The only discrepancy here is those who are informed about electromagnetic radiation, and those who are not.

The Canadian Radiocommunications Information and Notification Service (CRINS) helps cities go through the process of working with proponents (i.e. Bell, Rogers, etc.) on the proper notification and placement of cell towers. The organization can also be instrumental in helping cities update their communication tower policy to the "best" of possible options. Their fee gets covered by the proponent. Would the City of Guelph be willing to contact this organization? (The CEO is Todd White, Todd.White@crins-sinrc.ca)

Moreover, since the city adopted its communication tower policy 12 years ago, a tremendous amount of research has been done in both the medical and scientific communities on the health risks of electromagnetic radiation emitted from cell towers, base stations, antennas and transmitters – as well as cell phones, Wi-Fi, cordless phones, Smart Meters, microwaves, wireless appliances and baby monitors. The City's policy should reflect this greater knowledge so that the City's policy protects the health and safety of our community. Significant advances include the following:

* In May 2011, the World Health Organization classified radio frequency electromagnetic fields as a Class 2B carcinogen – putting it in the same category as lead and DDT.

* Electrosensitivity was recognized as at Canadian Human Right.

* The NRC Research Press have issued a report stating that cell towers should NOT be placed within 500 metres of residential properties, schools, hospitals and daycares, but should be at least 1000 metres.

* In October 2011, Health Canada issued a cell phone use warning for children under 18. Radiation from cell phones and other sources penetrates deeper into the heads of children.

* In 2012, a new BioInitiative Report was released – an update on the 2007 BioInitiative Report. The Report comprehensively reviewed over 1800 new scientific studies on the health risks from exposure to electromagnetic fields and wireless technologies (radiofrequency radiation). The Report was put together by 29 highly respected doctors and scientists from around the world. It outlines evidence to the following:

A. Evidence for Damage to Sperm and Reproduction B. Evidence that Children are More Vulnerable C. Evidence for Fetal and Neonatal Effects D. Evidence for Effects on Autism (Autism Spectrum Disorders) E. Evidence for Electrohypersensitivity F. Evidence for Effects from Cell Tower-Level RFR Exposures G. Evidence for Effects on the Blood-brain Barrier H. Evidence for Effects on Brain Tumors I. Evidence for Effects on Genes (Genotoxicity) J. Evidence for Effects on the Nervous System (Neurotoxicity) K. Evidence for Effects on Cancer (Childhood Leukemia, Adult Cancers) L. Melatonin, Breast Cancer and Alzheimer's Disease M. Stress, Stress Proteins and DNA as a Fractal Antenna N. Effects of Weak-Field Interactions on Non-Linear Biological Oscillators and Synchronized Neural Activity

The entire report can be read and downloaded at www.bioinitiative.org/ along with a 26-page "Summary for the Public" at www.bioinitiative.org/report/wp-content/uploads/pdfs/sec01_2012_summary_for_public.pdf

* In 2012, Frank Clegg, the former president of Microsoft Canada, established Canadians For Safe Technology (formerly Citizens for Safe Technology), a not-for-profit, volunteer-based coalition and leading website informing Canadians and their policy makers about the dangers to exposures to unsafe levels of radiation. The organization is pushing for a proper review of Safety Code 6 by an independent and unbiased panel of researchers and scientists. The C4ST website (www.c4st.org) features EMR issues, research studies, news, and education materials, including an electrosensitivity fact sheet, ideal for distribution to health professionals (<http://www.c4st.org/images/documents/C4STESFactSheet.pdf>). Their section on active cell tower conflicts in Canada includes the Grange and Starwood concern (<http://www.c4st.org/community-profiles>).

Industry Canada's radiocommunication and broadcasting installations comply with Health Canada's Safety Code 6. Emissions from cell towers are supposed to be below SC6 levels, resulting in Industry Canada licensing these towers anywhere the mobile phone companies chose to put them. The problem with SC6 is that it doesn't recognize the proven health issues caused by exposure to much less than SC6 limits.

SC6 is based on the thermal effects of microwave radiation – not on non-thermal effects. That is, SC6 is based on the level at which flesh bakes, and does not take into account accumulative biological and health effects (i.e. on our brain waves, or neurological or endocrine systems, etc.).

Canada's Safety Code 6 is one of the worse guidelines in the world today. Guidelines in China, Italy, Switzerland, Russia and India are all 100 times safer than Canada's. (www.c4st.org/website-pages/item/widget-kits/educate-yourself.html).

As well:

- The SC6 levels designated as “Safe” were based on science tested in the 1980's on a 220lb mannequin
- There is no consideration or distinction for the developing brains and cells of children, pregnant women, the weak or the elderly.
- Industry Canada does not measure the output of the cellular towers once they are approved and installed.
- Other providers (Rogers) have begun to put clauses in their tower contracts that will allow the contract to be cancelled if/when HC updates SC6 to account for the danger the emissions levels cause local citizens. (They know there is a problem but will not change until they are regulated to do so.)

This year Health Canada is in the process of updating Safety Code 6 and is employing an "Independent" panel from the Royal Society of Canada to review its work before final publication. However, members of the panel have come under fire for conflict of interest. Last month the head of the panel stepped down.

So, while thousands of studies have found harmful health effects from exposure to the radiation emitted from transmission towers, and while a significant and growing percentage of our population are suffering ill health effects caused by emissions, and while an updated Safety Code 6 lies in waiting and may or may not receive a proper review from an independent panel of scientists and researchers – telecommunication companies are continuing to expose us to greater and greater intensity of EMR. Without warning, new towers are popping up everywhere in the city. (And why? No one in the city has weak cell phone reception.)

Many people aren't aware that the symptoms that they're experiencing are being caused by EMR – including headaches, tinnitus, difficulty sleeping, vertigo, eye irritation, skin blotches, shortness of breath, anxiety, numbness, heart palpitations and high or low blood pressure. Indeed, many – if not most doctors – are not informed about electrosensitivity and its symptoms.

Recently, on August 12, 2013, the Town of Oakville passed a motion requesting that Industry Canada place a moratorium on the approval of any new radiocommunication facilities until Safety Code 6 has been finalized (<http://www.c4st.org/news/cell-towers/town-of-oakville-approves-motions-to-radio-communications-facilities-protocol.html>). The City of Guelph should follow suit, and too, request a moratorium on any new installations until SC6 is properly reviewed.

Logically, the revision of the City's communication tower policy should include the following:

- * that the City's protocol allows comment on cell towers less than 16.6m
- * that cell towers should not be placed within 1000 metres of residential properties, schools, hospitals and daycares
- * that residents within a 1000 meter radius should be consulted in advance to any installation (of cell tower, base station, antenna and transmitter) and that they be informed of the biological health effects – and be given the right to vote on whether they want it or not
- * that installations of antennas on rooftops of apartment buildings or residential dwellings be banned
- * that local councils must be allowed to make their own decisions about tower sites – regardless of tower heights – without being overruled
- * that homes of electrosensitive people be given special consideration with regard to proposed tower sites – and that an area of the city be designated "quiet" with regard to EMR and granted a buffer from towers
- * that EMR levels in the city in popular public and family areas be checked and monitored regularly

Realistically, however, Industry Canada has the last say it seems, and Frank Clegg, who has dealt with IC, will tell you that if a municipality asks for "too much", IC will over-ride the protocol and declare it void, then defaulting to its own policy. He says the city should host a council meeting on cell tower protocol and invite public input; and, should investigate the opportunity to protect children from Wi-Fi in venues such as libraries.

The scenario on EMR can be likened to that of smoking before it was officially recognized as a health risk. EMR is far worse because those who want to opt out – not smoke, if you will, based on gut instinct, sensitivities, research or simply wanting to err on the side of caution – can't. The hazards of acute and chronic exposure to EMR effect everyone. The exposure that we are being subjected to is unprecedented. And that "we" have to prove health risks is absurd.

Electromagnetic radiation has already been effectively used in warfare. It's a dangerous realm of technology that should be approached with the greatest caution until we learn about its long term effects and implications – and not just on people but wildlife and nature, our ecosystems and biodiversity. (Cell towers with their lights at night are proving to be the worst killers of songbirds, more so even than cats and glass buildings. By one report, there are no more hummingbirds left in Grand Bend. Our precious bees, although we keep hearing about pesticides, EMR is most certainly a factor; just put a cordless phone by a hive and they don't come back.) (Resonance: Beings of Frequency, James Russell documentary: <http://www.youtube.com/watch?v=-ocu6xJHh1I>)

Attached are some supporting documents, including an open letter on cell towers from Dr. Magda Havas (www.magdahavas.com), Associate Professor of Environmental & Resource Studies at Trent University, and leader in the field of biological effects of environmental contaminants, along with a few links to important online videos.

Your immediate attention to revising the city's communication tower policy is crucial – not just to help stop the proposed cell tower at Grange and Starwood but to help stop an impending health crisis.

Thank you,
Sue Lebrecht
519-265-8323

Dr. Magda Havas, B.Sc., Ph.D.,

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December, 2012

Open Letter Regarding Placement of Cell Towers

As a professor who does research on the biological effects of electromagnetic radiation, concerned citizens frequently contact me about the safety of radiation generated by cell phone base stations. “How close is too close?” is a common question. A growing number of municipal governments are considering drafting protocols for the siting of cell towers that including establishing setbacks and exclusions zones that include schools, hospitals and residential areas. Currently, Industry Canada has the final say about where a cellular tower may be placed and, if a conflict exists, they usually side with the cellular provider rather than the community.

Public meetings are required if a new tower is to exceed **15 meters** in height, but if existing towers have more antennas added, or if the antennas are placed on buildings the surrounding community does not need to be notified. New towers that are under 15 meters in height require no notification either and are sometimes constructed in the middle of the night before anyone can object.

If you are a councillor or if you are concerned about a proposed or existing cell phone base station you need to recognize that the existing Safety Code 6 guidelines for radio frequency and microwave radiation—established by Health Canada—are outdated and are much less protective than in many other countries. The guidelines in Russia, China and several European countries are 100 times lower (i.e. more protective) than in Canada and are based on biological effects rather than on changes in body temperature.

Safety Code 6 was established to prevent heating of body tissue. It is based on the intensity of the radiation (power density) averaged over a 6-minute period. Studies from around the world have documented adverse effects of microwave radiation (note: cell phones and cell phone antennas emit microwaves) at levels well below Safety Code 6 guidelines. Long-term cumulative exposure to low levels may be as harmful as short-term exposure to high levels. Consequently someone who lives near one of these antennas may develop health complaints attributable to the radiation over time. Children, the elderly and those who have a compromised immune system and/or a history of cancer in the family are most at risk.

The literature in this area is vast and compelling. Below are a several studies that document the adverse effects of this radiation. Also provided are recommendations from various agencies to have more protective guidelines established for those exposed to continuous radiation and especially for those who have developed a sensitivity to electromagnetic fields.

I. We have **STUDIES documenting the adverse effects** of this radiation.

For example,

1. We have at least 3 studies in Israel, Germany, and Brazil that show an increase in cancer for those who live within 350 to 500 meters of cell phone antennas. None of the exposures exceeded our federal safety code guidelines. Indeed, the highest level documented in the Brazil study (Dode et al. 2011) was 41 microW/cm², which is 4% of Health Canada's Safety Code 6 of 1000 microW/cm².
2. A review of 10 epidemiological studies by Khurana et al. (2010) showed that 8 of the 10 studies documented adverse health effects and all of these were within 500 meters of cell phone antennas. These include 2 of the 3 cancer studies noted above and 6 studies showing neurobehavioral effects. The symptoms are some combination of chronic fatigue, chronic pain, cognitive dysfunction, mood disorders, skin problems, dizziness, nausea, sleep disorders, and tinnitus for those who live within 450 meters of cell phone antennas.

Collectively these symptoms are referred to as *electrohypersensitivity* (EHS) and were previously known as *microwave sickness* and were experienced by military personnel working with radar (which also uses microwave radiation).

Epidemiological studies show an associate with an agent (radio frequency radiation) and an outcome (in this case cancer and EHS). They require confirmation with laboratory studies as in item 3 below.

3. We have laboratory studies with rats showing an increase in primary tumors at levels below our federal guidelines (Chou et al. 1992) and demonstrating damage to DNA (Lai and Singh 1995). These studies show cause effect relationship between radiation and cancer/DNA damage.

II. We have **RECOMMENDATIONS for limiting our exposure and for safer guidelines.**

For example,

1. The ECOLOG (2000) review funded by T-Mobile provides the following recommendations:

We recommend the precautionary limit of 0.01 W/m² [10 microW/cm², current HC SC6 value is 1000 microW/cm², so this is 1/100th of Safety Code 6)] independent of the carrier frequency. The rough dependency on frequency with higher limits outside of the resonance range, as it is applied in the concept of SAR, is not justifiable given the results of the scientific studies which conclusively prove non-thermal effects of high frequency fields. Also, the current allowed higher exposures for parts of the body, as long as they refer to the head or thorax are not justifiable.

2. More than 1000 physicians signed the Freiburger Appeal (2002) which states the following [www.feb.se/NEWS/Appell_021019-englisch.pdf]:

*Our therapeutic efforts to restore health are becoming increasingly less effective: the **unimpeded and continuous penetration of radiation into living and working areas . . . causes uninterrupted stress and prevents the patient's thorough recovery.***

In the face of this disquieting development, we feel obliged to inform the public of our observations . . .

*What we experience in the daily reality of our medical practice is anything but hypothetical! We see the **rising number of chronically sick patients** also as the result of an **irresponsible "safety limits policy"**, which fails to take the protection of the public . . . as its criteria for action. Instead, it submits to the dictates of a **technology already long recognized as dangerous**. For us, this is the beginning of a very serious development through which the **health of many people is being threatened**.*

*We will no longer be made to wait upon further unreal research results - which in our experience are often **influenced by the communications industry**, while **evidential studies go on being ignored**. We find it to be of urgent necessity that we act now!*

*Above all, we are, as doctors, the advocates for our patients. In the interest of all those concerned, whose basic right to life and freedom from bodily harm is currently being put at stake, **we appeal to those in the spheres of politics and public health.***

3. Ten years after the Freiburger Appeal little progress has been made and our levels of exposure have increased. So the International Community of Scientists and Doctors are trying again to influence policy based on health concerns. This is what they recommend:

As physicians, we think the following policy steps are urgently needed:

- *Protect the inviolability of the home by lowering exposure levels from internal and external EMF (electromagnetic field) sources*
- *Stop the expansion of wireless technologies and drastically lower exposure limits*

- *Stop the use of continuous wireless transmitters such as cordless phones (DECT), wireless Internet access (Wi-Fi), and wireless meters*
 - *Switch to shielded wired or fiber-optic technologies in homes, preschools, schools, universities, workplaces, hospitals, nursing homes, and public buildings*
 - *Ban the use of cell phones by children below the age of 16*
 - *Attach warning labels on all devices with wireless functions—similar to cigarette packages. Inform the public about the potential risks of wireless technologies and declare radiation on all devices with wireless functions*
 - *Promote biocompatible communication technologies and electricity use*
 - *Identify and clearly mark protected zones for electrohypersensitive people; establish public spaces without wireless access or coverage, especially for public transportation, similar to cigarette smoking*
 - *Provide government funding for industry-independent research that does not dismiss strong scientific and medical indications of potential risks, but rather works to clarify those risks* http://www.apdr.info/electrocontaminacion/Documentos/Declaraci3n/International_Doctors_Appeal_2012_Okt-14.pdf
4. A review of effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays (Levitt and Lai 2010) recommends lower guidelines than we currently have in Canada.

In general, the lowest regulatory standards currently in place aim to accomplish a maximum exposure of 0.02 V/m, equal to a power density of 0.0001 $\mu\text{W}/\text{cm}^2$, which is in line with Salzburg, Austria's indoor exposure value for GSM cell base stations. Other precautionary target levels aim for an outdoor cumulative exposure of 0.1 $\mu\text{W}/\text{cm}^2$ for pulsed RF exposures where they affect the general population and an indoor exposure as low as 0.01 $\mu\text{W}/\text{cm}^2$ (Sage and Carpenter 2009). In 2007, The BioInitiative Report, A rationale for a biologically based public exposure standard for electromagnetic fields (ELF and RF), also made this recommendation, based on the precautionary principle (BioInitiative Report 2007).

5. The Standing Committee on Health report (HESA 2010) on the potential health impact of radiofrequency electromagnetic radiation (<http://www.magdahavas.com/house-of-commons-standing-committee-on-health-2/>) made the following recommendations. I am unaware that any of these recommendations have been put in place.
- *The Government of Canada consider providing funding to the Canadian Institutes of Health Research in support of long-term studies examining the potential health impacts of exposure to radiofrequency electromagnetic radiation.*
 - *Health Canada request that the Council of Canadian Academies or another appropriate independent institution conduct an assessment of the Canadian and*

*international scientific literature regarding the potential health impacts of short and long-term exposure to radiofrequency electromagnetic radiation, which would include an examination of **electromagnetic sensitivity** and a comparison of public policies in other countries governing exposure to radiofrequency electromagnetic radiation; and report on its findings.*

- *Health Canada and Industry Canada develop a comprehensive risk awareness program for exposure to radiofrequency electromagnetic radiation, which would include Health Canada making public in an accessible and transparent way all the studies and analyses undertaken by the Department on the impact of radiofrequency electromagnetic radiation on human health, as well as the provision of information promoting the safe use of wireless technologies.*
- *Health Canada and Industry Canada offer to provide information, including awareness sessions on exposure to radiofrequency electromagnetic radiation.*
- *Health Canada ensure that it has a process in place to receive and respond to reports of adverse reactions to electromagnetic radiation emitting devices.*

III. ELECTROHYPERSENSITIVITY (EHS) is recognized by several jurisdictions worldwide. Based on scientific studies about 3% of the population have severe EHS and another 35% have moderate symptoms. In Uxbridge—with a population of 20,600—this comes to approximately 618 with severe symptoms and 7,210 with moderate symptoms. The effects on health care, family resources, and time off work or school can be considerable if these individuals are exposed to radiation within their own homes. For example,

1. In the United States, the U.S. Americans with Disabilities Act recognizes this sensitivity.
2. In Sweden, electrohypersensitivity (EHS) is an officially fully recognized functional impairment (i.e. it is not regarded as a disease). Survey studies show that somewhere between 230,000—290,000 Swedish men and women [~3% of the Swedish population] report a variety of symptoms when being in contact with electromagnetic field (EMF) sources (Johansson 2006).
3. The Canadian Human Rights Commission (Sears 2007) reported that approximately 3% of Canadians have been diagnosed with environmental sensitivities and many more are somewhat sensitive to traces of chemicals and/or electromagnetic phenomena in the environment.

Sears goes on to state: *For people with environmental sensitivities, their health and ability to work rests with the actions of others, including building managers, co-workers and clients. Accommodating people with environmental sensitivities presents an opportunity to improve workplace environmental quality and workers' performance, and may help prevent the onset of sensitivities in others.*

Surely the home environment should be a safe sanctuary but if antennas are placed near homes there is no place for these people to go.

4. Women's College Hospital diagnoses electrohypersensitivity in their environmental sensitivity clinic and have been doing so for years. They currently have a 12 month waiting list.
5. The Parliamentary Assembly Council of Europe (PACE 2011) Resolution 1815 stated the following: Recommendation 8.1.4. *pay particular attention to "electrosensitive" people who suffer from a syndrome of intolerance to electromagnetic fields and introduce special measures to protect them, including the creating of wave-free areas not covered by the wireless network;*
6. The Austrian Medical Association (2012) wrote guidelines for physicians on how to diagnose and treat people with EHS. They stated the following:

There has been a sharp rise in unspecific, often stress-associated health problems that increasingly present physicians with the challenge of complex differential diagnosis. A cause that has been accorded little attention so far is increasing electrosmog exposure at home, at work and during leisure activities, occurring in addition to chronic stress in personal and working life. It correlates with an overall situation of chronic stress that can lead to burnout.

The bottom line is that levels of microwave radiation are increasing and are now at levels that adversely affect human health. The guidelines we have in Canada (Safety Code 6) are outdated and do not protect public health. They provide false assurance to those who have faith in Health Canada. Until the guidelines are changed everyone can hide behind these inadequate guidelines. In the interim it is incumbent on individuals to protect themselves and municipal governments to be responsive to public concerns.

Recommended Websites:

weepinitiative.org (Canada)
www.ertyu.org/steven_nikkel/cancellsites.html (Canadian Cellular Towers Map)
www.magdahavas.com (Canada)
www.slt.co (Canada) (services & products)
www.emrpolicy.org (US)
microwavenews.com (US)
www.antennasearch.com (US Antenna Map)
www.lessemf.com (US) (products)
www.mastsanity.org (UK)
www.powerwatch.org.uk (UK)

Respectfully submitted,
Magda Havas, B.Sc., Ph.D.

XXX

A Comparison of WiFi Emissions to Scientific Research

<u>Radiation Exposure</u>	<u>Effects</u>	<u>Researcher</u>	<u>Year</u>	<u>Country</u>
10,000,000	FCC Exposure Guidelines, 30 min public exposure, based solely on thermal effects	FCC	1986	U.S.
Government Regulations Claim That These Levels Are Safe	iPads and WiFi Laptops - Direct Body Contact			
90,000				
60,000	DNA damage in cells	Phillips	1998	U.S.
52,500	Induced stress response	Kwee	2001	Denmark
50,000	Impaired nervous system activity	Dumansky	1974	Russia
50,000	Drop in NK lymphocytes (immune function decreased)	Boscolo	2001	Italy
40,000	Slowed memory/alterd immune function in children	Chiang	1989	China
40,000	Changes in hippocampus, part of brain memory, learning.	Tattersall	2001	U.K.
35,000	1 foot from WiFi enabled Laptops			
30,000	Irreversible infertility (in mice at 3 generations)	Khalid	2011	U.K.
20,000	Double-strand DNA damage	Magras	1997	Greece
13,000	2x rate of leukemia in adults	Kesari	2008	India
12,500	Affected kidney development	Dolk	1997	U.K.
10,000	Headaches, dizziness, irritability, fatigue, weakness, insomnia, chest pain, difficulty breathing, indigestion	Pyrpasopoulou	2004	Greece
10,000	Affected functions of the immune system	Simonenko	1998	Russia
8,000	Emotional behavior changes (free-radicals)	Novoselova	1999	Russia
6,000	Change in calcium ion efflux from brain tissue	Akoev	2002	Russia
5,000	Decreased sperm motility and increased DNA fragmentation	Dutta	1986	U.S.
3,800	Affected calcium metabolism in heart cells	Advendano	2010	Argentina
3,500	Pathological leakage in blood-brain barrier	Schwartz	1990	Canada
3,000	Affected neurological system, brain function	Salford	2003	Sweden
2,200	Reduced density and number of young in bird populations	Vorobyov	2010	U.K.
2,000	Decreased survival in children with leukemia	Balmori	2009	Spain
2,000	2x rate of leukemia in children	Hocking	2000	Australia
1,700	Irreversible infertility (in mice at 5 generations)	Hocking	1996	Australia
1,600	Negatively affected memory, attention, motor function of schoolchildren	Magras	1997	Greece
1,500	Reduced memory function	Kolodynski	1996	Latvia
1,300	Decreased cognition, well-being	Nittby	2007	Sweden
1,000	10 feet from a WiFi Router	Zwamborn	2003	Netherlands
1,000	100 yards from a cell tower			
700	Sperm head abnormalities in mice			
638	Decreased cognitive function	Otitolaju	2010	Nigeria
600	Slowing of heart, change in EEG	Papageorgiou	2011	Greece
500	Adverse neurological, cardiovascular symptoms and cancer risk	Serkyuk	1980	
500	10x increased risk of cancer in women, with short latency.	Khurana	2010	Australia
400	10 feet from a WiFi enabled Laptop	Wolf	2004	Israel
300	Headaches, memory changes, depressive symptoms, sleeping problems			
100	Behavioral disruption	Rassoul et al.	2000	Egypt
100	Significant increase in breast cancer and brain tumours.	Navakatikan	1994	Romania
100	Fatigue, headaches, sleeping problems	Oberfeld	2008	Austria
100	Headaches, concentration problems, sleeping problems	Navarro	2003	Spain
100	Headaches, fatigue, cardiovascular issues	Hutter	2006	Austria
50	In adults (30-60), chronic exposure caused sleep disturbances	Kundi	2009	Austria
30	In children and adolescents (8-17 yrs) behavioral problems in school	Mohler	2010	Switzerland
30	In children and adolescents (8-17 yrs) headaches, irritation, concentration difficulties in school	Thomas	2010	Germany
20	Sleep disorders, abnormal blood pressure, nervousness, fatigue, joint pain, digestive disorders, fewer schoolchildren promoted	Heinrich	2010	Germany
6	Fatigue, depressive tendency, sleeping disorders, concentration difficulties, cardiovascular problems	Altpeter	1995	Switzerland
5	Decreased cell proliferation	Oberfeld	2004	Austria
3	Significantly reduced sperm count	Velizarov	1999	Bulgaria
0.001	Low Radiation Natural Environments	Behari	2006	India

Comparison of RF Exposure limits

International Radio Frequency "RF" Exposure Limits for 1800 MHz Range

(Cell Phone, WiFi, Smart Meters, etc)

Location	Reference	Exposure time	Limit Based On	Lower by	$\mu\text{W}/\text{m}^2$	V/m
Canada	Safety Code 6, Table 5	6 minutes	Thermal / Heating	-	10,000,000	61.4
USA	(FCC) IEEE C95.1-1999 and ICNIRP	30 minutes	Thermal / Heating	-	10,000,000	61.4
Most of Western Europe	IEEE C95.1-1999 and ICNIRP	30 minutes	Thermal / Heating	-	10,000,000	61.4
Russia	Sanitary Norms and Regulations 2.2.4/2.1.8.055-96	3 hours +	Biological Effects	100 x	100,000	6.14
China	UDC 614.898.5 GB 9175-88	3 hours +	Biological Effects	100 x	100,000	6.14
Italy	Sanitary Norms and Regulations 2.2.4/2.1.8.055-96	3 hours +	Biological Effects	100 x	100,000	6.14
Most of Eastern Europe	Sanitary Norms and Regulations 2.2.4/2.1.8.055-96	3 hours +	Biological Effects	100 x	100,000	6.14
Switzerland	Ordinance on Protection from Non-ionising Radiation (NISV)	Long Term	Precautionary	100 x	100,000	6.14
Toronto Board of Health, Canada	Proposed 1999	Long Term	Precautionary	100 x	100,000	6.14
Bio-Initiative Report recommendation	Bio-Initiative Report 2007	Long Term	Biological / Precautionary	10,000 x	1,000	0.614
Salzburg Resolution on Mobile Telecommunication	Preventive public health protection, Salzburg, June 7-8, 2000	Long Term	Precautionary	10,000 x	1,000	0.614
European Parliament	Resolution 1815, Strasbourg, May 27, 2011	Long Term	Precautionary	10,000 x	106	0.2
Building Biology Guidelines Germany (Sleeping Areas)	SBM2008 - Level of No Biological Concern	Long Term	Precautionary	100,000,000 x	0.1	0.006,14
Cell Phone Operational Requirements				10,000,000,000 x	0.001	0.000,061,4
Natural Cosmic Radiation	MAES 2000	Long Term	Natural Exposure	10,000,000,000,000 x	0.000,001	0.000,000,061,4
Average Indoor Urban Exposure Toronto, Canada	Safe Living Technologies Inc. 2011	Long Term			200 - 5000	0.3 - 1.4

From: Michele Cooksley
Sent: August 23, 2013 8:34 AM
To: Blair Labelle
Subject: No more cell towers!

Blair Labelle

Stop putting up cell towers and transmitters in Guelph! It is not safe for our community and we don't want it!!!

From: Brian and Csilla Adkins
Sent: August 23, 2013 8:43 AM
To: Blair Labelle
Subject: Please no Cell Tower in my neighbourhood...

Blair Labelle

As a citizen of my community in Guelph (specifically at Starwood and Grange); myself, my wife and many others in the location of my area are very concerned if this Bell Communication Tower goes through to this community. Not only do we object to the numerous known health risks associated with close proximity to high levels of EMR; we object to the appearance of sight appearance as well that have to impact of property value. Please stop this proposed at Grange and Starwood for the cell tower and move this tower away from our neighbourhood! Thank You

From: Annie Corbin
Sent: August 21, 2013 9:02 PM
To: Blair Labelle
Subject: cell tower

Blair Labelle

Health Canada needs to pay attention to the health of our people and, in particular, our children! We must start setting our standards higher and follow European countries in having stricter laws when it comes to cell towers and electromagnetic radiation.

From: Rino Bourgoïn

Sent: August 23, 2013 6:46 AM

To: Blair Labelle

Subject: stop installing cell towers in our beautiful city of Guelph !! What's next WIND MILLS !!!

Blair Labelle

I drive daily all over my territory of South West Ontario. I meet all kinds of wonderful people that live off our land, farmers and land owners. We all the love of country in our hearts and the fear government will ruin our way of life. Thanks for all the lost jobs in the horse industry by the way.....I see every day Wind Mills and cell towers going up and ruining the beautiful views and I fear for the health of my 3 year old who loves walking and running in our locality. We don;t need another Corporation looking to increase profits in our city installing more cell towers - ENOUGH !!! Rino Bourgoïn - Concerned parent !

From: Judy Morrison

Sent: August 21, 2013 5:07 PM

To: Blair Labelle

Subject: Cell towers

Blair Labelle

Stop installing cell towers and transmitters in Guelph

**PLANNING & BUILDING, ENGINEERING and ENVIRONMENT COMMITTEE
CONSENT AGENDA**

September 10, 2013

Members of the Planning & Building, Engineering and Environment Committee.

SUMMARY OF REPORTS:

The following resolutions have been prepared to facilitate the Committee's consideration of the various matters and are suggested for consideration. If the Committee wishes to address a specific report in isolation of the Consent Agenda, please identify the item. The item will be extracted and dealt with immediately. The balance of the Planning & Building, Engineering & Environment Committee Consent Agenda will be approved in one resolution.

A Reports from Administrative Staff

REPORT	DIRECTION
<p>PBEE-2013.30 SIGN BY-LAW VARIANCE FOR 728 VICTORIA ROAD SOUTH (PIDEL HOMES)</p> <p>1. That Planning, Building, Engineering and Environment Report dated September 10, 2013, regarding a Sign By-law variance for 728 Victoria Road South, be received.</p> <p>2. That, the request for a variance from the Sign By-law for 728 Victoria Road South to permit a freestanding sign with a height of 4.36 metres and an area of 8.8 m² with a setback of a minimum of 1 metre; be approved.</p>	Approve
<p>PBEE-2013.31 YORK TRUNK SEWER AND PAISLEY-CLYTHE FEEDERMAIN: RECYCLED WATER DISTRIBUTION SYSTEM AND EDINBURGH ROAD TRAIL UNDERPASS</p> <p>1. That a Recycled Water Distribution System and an Edinburgh Road Trail Underpass not be included within the scope of final design and construction of the York Trunk Sewer and Paisley-Clythe Feedermain project.</p> <p>2. That staff review the proposed business case and timing for implementation of a proposed Recycled Water Distribution System as part of future master plan updates such as the ongoing update to the City's Water Supply Master Plan, Wastewater Treatment Master Plan, Water and Wastewater Servicing Master Plan and Water Conservation and Efficiency Plan.</p>	Approve

3. That staff review the proposed timing for implementation of an Edinburgh Road Trail Underpass or alternative trail connection in conjunction with the future reconstruction of the Edinburgh Road bridge.

attach.

STAFF REPORT

TO Planning & Building, Engineering and Environment Committee

SERVICE AREA Planning, Building, Engineering and Environment

DATE September 10, 2013

**SUBJECT SIGN BY-LAW VARIANCE FOR 728 Victoria Road South
(Pidel Homes)**

EXECUTIVE SUMMARY

PURPOSE OF REPORT

To advise Council of a Sign By-law variance application for 728 Victoria Road South; requesting a freestanding sign with a height of 4.36 metres, a sign face of 8.8m² and a setback of a minimum 1 metre.

KEY FINDINGS

The Sign By-law No. (1996)-15245 in Table 2, Row 6; restricts freestanding signs in an Urban Reserve (UR) zone to a height of 1.8 metres (6'), an area of 0.2m² and a minimum setback of 4 metres from the travelled portion of the road. The applicant is proposing a height of 4.36 metres (14.3') and an area of 8.8m² and a setback of a minimum of 1 metre. Staff are supportive of the variance due to:

- The applicant received variances through the Committee of Adjustment to allow for additional commercial uses on the property. This is a typical sign for a commercial type development.

FINANCIAL IMPLICATIONS

N/A

ACTION REQUIRED

To approve the request for a Sign By-law variance for 728 Victoria Road South.

RECOMMENDATION

1. That Planning, Building, Engineering and Environment Report dated September 10, 2013, regarding a Sign By-law variance for 728 Victoria Road South, be received.
2. That, the request for a variance from the Sign By-law for 728 Victoria Road South to permit a freestanding sign with a height of 4.36 metres and an area of 8.8 m² with a setback of a minimum of 1 metre; be approved.

STAFF REPORT

BACKGROUND

Pidel Homes has submitted a Sign by-law variance application for the property located at 728 Victoria Road South (see Attachment 1- Location Map). The request is to allow for one freestanding sign with a height of 4.36 metres and an area of 8.8 m² to be located with a minimum setback of 1 metre. The property is zoned Urban Reserve, UR in the Zoning By-law No. (1995)-14864.

The Sign By-law No. (1996)-15245 in Table 2, Row 6; restricts freestanding signs to a height of 1.8 metres (5.9') and an area of 0.2 m² (2.1 ft²). The permitted setback is a minimum of 4 metres from the travelled portion of the road.

REPORT

Pidel Homes has applied for a Sign By-law variance for 728 Victoria Road South, (see Attachment 2- Proposed Signage). The review of the application identified the variances required for the installation of the sign.

The following reasons have been supplied by the applicant in support of the variance requests:

The Committee of Adjustment approved variances in application A-8/13 that allowed commercial uses including offices and commercial school. These new businesses require signage for their location and the present regulations greatly restrict their ability for adequate signage.

The requested variance is as follows:

Freestanding Sign (UR- Urban Reserve zone)	By-law Requirements	Request
Maximum Height	1.8 m	4.36 metres
Maximum Area	0.2 m ²	8.8 m²
Required Setback	4 metres from travelled portion of road	1 metre on private property

The requested variances from the Sign By-law are recommended for approval because:

- The proposed sign is in keeping with the regulations for a commercial sign in a commercial zone;
- The applicant received approval from the Committee of Adjustment to allow for commercial uses at this property;
- The existing Urban Reserve regulations for signage are very restrictive in terms of advertising a use.

STAFF REPORT



CORPORATE STRATEGIC PLAN

3.1- Ensure a well designed, safe, inclusive, appealing and sustainable City

DEPARTMENTAL CONSULTATION

N/A

COMMUNICATIONS

N/A

ATTACHMENTS

Attachment 1 -Location Map

Attachment 2 –Proposed Signage

Report Author

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Program Manager- Zoning
Building Services
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patrick.sheehy@guelph.ca

Approved By

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Chief Building Official
Building Services
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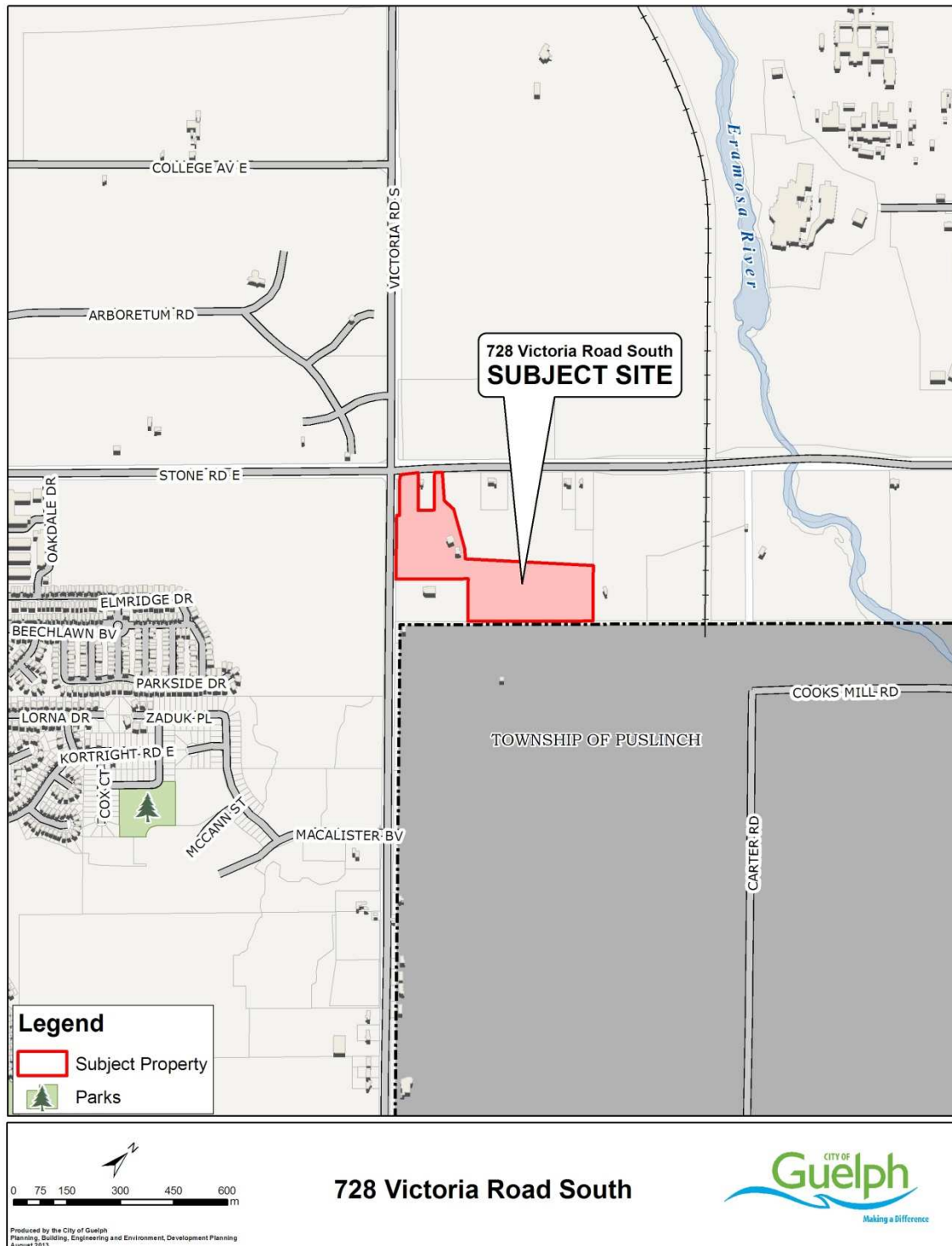
"original signed by Peter Busatto for"

Recommended By

Janet L. Laird, Ph.D.
Executive Director
Planning, Building, Engineering and
Environment
519-822-1260, ext 2237
janet.laird@guelph.ca

STAFF REPORT

ATTACHMENT 1- LOCATION MAP



STAFF REPORT

ATTACHMENT 2- PROPOSED SIGNAGE

THIS ARTWORK IS THE PROPERTY OF SIGNS GALORE INC. AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT FROM SIGNS GALORE INC.

172"
48" 92" 30"
97"
121"
113"
95" x 21-1/4"
Victoria Rd. S.
728
16"
12"
8"

SIGNS GALORE
INCORPORATED
15 Woodbine Street, P.O. Box 35
Brimley, Ontario L6Y 1K6
TEL: (519) 462-2716
FAX: (519) 462-2717
EMAIL: info@signsgalore.ca
WEB: www.signsgalore.ca

Client Name: Fidal Homes
Client Address: 728 Victoria Rd. S.
Guelph, ON N1L 1C3
Contact Person: Sheila
Phone Number: 516 753 8782
Email Address: sheila@fidalhomes.ca

File Number: P/01 Sign May '13
Designer Name: R. Hackett
Start Date: May 10, 2013
Last Revision:
W/O Number:

Signage Type: Neon Sign ☐ ☒
Paint Colours: ☐ ☐ ☐ ☐
Vynl Colours: ☐ ☐ ☐ ☐
☐ ☐ ☐ ☐

STAFF REPORT



TO Planning & Building, Engineering and Environment Committee

SERVICE AREA Planning, Building, Engineering and Environment

DATE September 10, 2013

**SUBJECT York Trunk Sewer and Paisley-Clythe Feedermain:
Recycled Water Distribution System and Edinburgh Road
Trail Underpass**

REPORT NUMBER

EXECUTIVE SUMMARY

PURPOSE OF REPORT

To update Council regarding the recommendations for the Recycled Water Distribution System prior to the implementation of the preferred alternatives of the York Trunk Sewer and Paisley-Clythe Feedermain, and to provide a project update on the detailed design related to the potential for including a trail underpass at Edinburgh Road within the preferred sewer and water feedermain alignment.

KEY FINDINGS

- Design and construction of a Recycled Water Distribution System to coincide with the York Trunk Sewer and Paisley-Clythe Feedermain project will not result in substantial capital cost savings.
- There are many unknowns and uncertainties to allow for proper construction of a Recycled Water Distribution System at this time.
- Design and construction of an Edinburgh Road Trail Underpass to coincide with the York Trunk Sewer and Paisley-Clythe Feedermain project will not result in substantial capital cost savings.
- Proceeding with an Edinburgh Road Trail Underpass with the York Trunk Sewer and Paisley-Clythe Feedermain project limits the possible design alternatives and potential cost savings for a future trail crossing.

FINANCIAL IMPLICATIONS

The approximate capital cost to construct a Recycled Water Distribution System and Edinburgh Road Trail Underpass to coincide with the construction of the York Trunk Sewer and Paisley-Clythe Feedermain project are \$1,500,000 and \$600,000 respectively. There would be additional operating costs needed to also maintain this infrastructure over its lifetime.

As the detailed project estimate for the York Trunk Sewer and Paisley-Clythe Feedermain has not been finalized, confirmation of whether sufficient funding for

STAFF REPORT

the Recycled Water Distribution System is available in the project budget cannot be made at this time. However, it is unlikely that a total additional amount of \$1,500,000 would be available. The cost for a proposed Edinburgh Road Trail Underpass has not been included in any current budget at this time.

ACTION REQUIRED

That Planning & Building, Engineering and Environment Committee approve the recommendations.

RECOMMENDATION

1. That a Recycled Water Distribution System and an Edinburgh Road Trail Underpass not be included within the scope of final design and construction of the York Trunk Sewer and Paisley-Clythe Feedermain project.
2. That staff review the proposed business case and timing for implementation of a proposed Recycled Water Distribution System as part of future master plan updates such as the ongoing update to the City's Water Supply Master Plan, Wastewater Treatment Master Plan, Water and Wastewater Servicing Master Plan and Water Conservation and Efficiency Plan.
3. That staff review the proposed timing for implementation of an Edinburgh Road Trail Underpass or alternative trail connection in conjunction with the future reconstruction of the Edinburgh Road bridge.

BACKGROUND

At a meeting of Guelph City Council held January 30, 2012, Council approved the Class Environmental Assessment (EA) for the York Trunk Sewer and Paisley-Clythe Feedermain. In addition to the resolutions to receive and complete the EA process and to proceed with implementation of the preferred alternatives, other resolutions passed at the time were as follows:

"... AND THAT staff revise the technical memorandum for the Recycled Water Distribution System to consider the potential to supply recycled water for toilet flushing and other non-potable uses in future intensification sites in the downtown and its contribution to meeting water conservation targets outlined in the City's Water Conservation and Efficiency Plan;

AND THAT staff report back to Council regarding the recommendations for the Recycled Water Distribution System prior to implementation of the preferred alternatives;

AND THAT Engineering Services staff work with Parks Maintenance & Development staff to examine the potential for including a trail underpass at Edinburgh Road and Guelph Junction Railway crossing within the preferred sewer and feedermain alignment during the detailed design phase of the sewer and feedermain project."

REPORT

The consultant design assignment for the York Trunk Sewer and Paisley-Clythe Feedermain project commenced in November, 2012. To date, the City's consultant has completed a preliminary design and the design is currently being reviewed by staff.

As part of the initial design review, it was confirmed that the starting point for the York Trunk Sewer would be located east of the Hanlon Parkway and the existing sewer under the Hanlon Parkway and connection to the Wastewater Treatment Plant (WWTP) would not need upgrading at this time since the existing pipe and connection to the WWTP was adequate from both pipe capacity and pipe condition aspects.

The preliminary design alignment has resulted in both the trunk sewer and feedermain alignment to be located closer to the Wellington Road right of way than the preferred alignment recommended in the Class Environmental Assessment (EA) for the section from Silvercreek Parkway to McCrae Boulevard. This minor change in the proposed e feedermain and trunk sewer alignment is consistent with the intent of the EA preferred design alternative. The benefits to this preliminary design alignment are less disruption to the park and playing fields during construction, improved access to the proposed trunk sewer and feedermain in the future for maintenance purposes and reduced impact to existing trees and vegetation Recycled Water Distribution System.

Staff is not recommending the installation of a Recycled Water Distribution System (RWDS or "purple pipe") to coincide with the York Trunk Sewer and Paisley-Clythe Feedermain project. An estimate of \$1,500,000 to install a RWDS pipe was determined based on the cost to install a similar type pressure pipe along the corridor. Staff does not believe that substantial costs savings can be achieved to install an additional pressure pipe, by including the RWDS in the current proposed construction project given the preliminary design alignment location for the trunk sewer and feedermain.

In addition to the very high estimated cost to construct a RWDS pipe, there are many unknowns and uncertainties to allow for proper construction of a RWDS at this time:

- lack of regulatory framework for wastewater effluent reuse;
- anticipated high capital costs for upgrades to the WWTP;
- lack of technical detail to appropriately design a RWDS and unknown agency approval requirements;
- limitation in potential servicing capacity for treated wastewater reuse;
- expected high unit capacity cost relative to other water conservation opportunities;
- lack of certainty for acceptance of RWDS by public, industry and approval agencies;
- lack of business case, unknown "customers" and unknown payback on investment; and

- unknown effect of diverting quantities of treated wastewater from the Speed River given ecological contributions of current effluent discharge within sub-watershed during low river flow periods.

A review of RWDS is currently part of the scope for the City's ongoing Water Supply Master Plan update and could be included in future master plan updates such as the Wastewater Treatment Master Plan, Water and Wastewater Servicing Master Plan and Water Conservation and Efficiency Plan. Master plans typically rank projects from most cost effective/feasible to least cost effective/feasible. The feasibility/timing of RWDS could be evaluated with other water supply alternatives and wastewater treatment alternatives. The current RWDS technical memorandum could then be fully reviewed and ranked with other water supply, servicing, wastewater treatment, water conservation and efficiency measures.

Should future studies indicate a need for RWDS, staff believe that there is sufficient space along the servicing corridors adjacent to the WWTP to construct a future RWDS pipe. The proposed alignment for the York Trunk Sewer and Paisley-Clythe Feedermain would not conflict with the installation of a future RWDS pipe.

Edinburgh Road Trail Underpass:

Staff is not recommending the installation of an Edinburgh Road Trail Underpass to coincide with the York Trunk Sewer and Paisley-Clythe Feedermain project. There would not appear to be substantial additional savings to be gained from including a trail underpass in the current proposed construction project given the preliminary design alignment location for the trunk sewer and feedermain.

Engineering Services staff met with staff from Parks and Recreation and Planning to discuss the proposed trail underpass at Edinburgh Road. The current trail location is just north of the Edinburgh Road bridge on the east side of the street. The future continuation of this trail on the west side of Edinburgh Road will also be located just north of the bridge. The preliminary design alignment location for the trunk sewer and feedermain is located close to the intersection of Wellington and Edinburgh. Since there is a separation of approximately 60 metres between the trail location and the proposed sewer and feedermain alignment location, construction cost savings to install a trail underpass coincidentally with the sewer and feedermain project is considered minimal.

The City's design consultant for the sewer and feedermain project have provided an estimate of approximately \$600,000 to construct a trail underpass as an additional project cost.

Other determining factors to not construct an Edinburgh Road Trail Underpass at this time are:

- future maintenance costs;
- flood plain issues;
- public safety;

STAFF REPORT

- limited design alternatives; and
- proximity of existing at grade signalized crossing locations.

While staff recognize that an unimpeded connection between the future trail location on the west side of Edinburgh Road and the existing trail on the east side of Edinburgh Road would be a benefit, construction costs, existing conditions and design elements of an underpass or tunnel do not support moving forward with an Edinburgh Road Trail Underpass as part of the nearby trunk sewer and feedermain project. It should be noted there are currently two available at grade signalized crossing locations with one directly connecting the trails on the south side of the bridge and the other location being at the intersection of Wellington and Edinburgh.

The possibility to include a trail crossing of Edinburgh Road when the Edinburgh Road bridge is rehabilitated or reconstructed can be explored in the future. The City's current bridge structure inventory indicates that the Edinburgh Road bridge will require rehabilitation work in the next ten years that may allow for trail crossing options to be explored at that time. By proceeding with a trail underpass at this time with the York Trunk Sewer and Paisley-Clythe Feedermain project limits the possible design alternatives to a "tunnel" only option. However, by examining the possibility of an underpass with future work on the Edinburgh Bridge, staff believe there are more potential design alternatives available as well as potential cost savings.

CORPORATE STRATEGIC PLAN

3.1 Ensure a well designed, safe, inclusive, appealing and sustainable City.

DEPARTMENTAL CONSULTATION

CSS - Parks and Recreation

PBEE - Planning, Wastewater Services and Water Services

COMMUNICATIONS - N/A

ATTACHMENTS

Attachment 1 York Trunk Sewer and Paisley-Clythe Feedermain – Proposed
Edinburgh Road Crossing Alignment

"original signed by Don Kudo"

Report Author

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