

COMMITTEE OF THE WHOLE- FEBRUARY 19, 2008

ASSUMPTION- MACKENZIE GLEN SUBDIVISION PHASE 5 19T-89016/65M-3338 HYDRO SWITCH GEAR RELOCATION

Recommendation

The Commissioner of Engineering and Public Works recommends:

1. That this report regarding the existing hydro switch gear situated on the property at 500 Cunningham Drive be received for information purposes; and
2. That the necessary by-law be passed assuming the municipal services that are set out in the subdivision agreement for Plan 65M-3338, and that the municipal services letter of credit be reduced to \$55,000.

Economic Impact

There are no economic impacts associated with this report.

Communications Plan

This report was prepared in consultation with the engineering staff from PowerStream, the Developer of the subdivision and the homeowner.

Purpose

This additional information report is intended to address the comments raised by Council with respect to the existing hydro switch gear situated in the front yard at 500 Cunningham Drive in Maple.

Background - Analysis and Options

Council, at its meeting of January 28, 2008, adopted the following:

“That staff provide a report to the Committee of the Whole meeting of February 19, 2008 on the relocation of the hydro switchgear box on Cunningham Drive (Lot #33 of Plan 65M-3879), west of Robertson Close.”

The fifth phase of the Mackenzie Glen Subdivision, Plan 65M-3338 is located west of Keele Street and north of McNaughton Road in Maple as shown on Attachment No. 1. This phase of the subdivision includes about 500 residential lots, a park and a school block. The municipal services in this phase of the Mackenzie Glen Subdivision were installed in the summer of 1998. A hydro switch gear was installed within an easement at the south-east corner of the proposed school block as part of the electrical distribution system in this subdivision as illustrated on Attachment No. 1. According to PowerStream, this particular switch gear is a key component of the overall hydro supply and distribution system that services about 600 customers in the surrounding neighbourhood.

At some point after the registration of Plan 65M-3338, the School Board decided not to exercise their option on the school block so the lands reverted back to the developer for residential use. The developer subsequently submitted Draft Plan of Subdivision 19T-04V07 on the former school block which proposed 33 residential lots. Through the draft plan review process, PowerStream and City staff identified that the existing hydro switch gear fell within the front yard of a proposed

residential lot. In keeping with usual practice, the Developer was requested to explore the feasibility of relocating this hydro switch gear to a more suitable location in the draft plan. After investigating a number of options, PowerStream determined that it was not practically feasible to relocate the switchgear. Accordingly, in an effort to mitigate the impact of the switchgear on the lot, the Developer prepared a demonstration plan showing how the switch gear could be maintained in the front yard of the lot and not impact the siting of the house and associated driveway. Through the review and approval of this plan, the frontage of the subject lot was widened to approximately 16.0 metres to accommodate the switch gear, which is about 4.0 metres wider than most other lots in the subdivision. Based on the adjustments to the lot width, the Mackenzie Glen Draft Plan of Subdivision 19T-04V07 was draft approved and ultimately registered as Plan 65M-3879. Consequently, the hydro switch gear is now located within an easement in favour of PowerStream on Lot 33 in Plan 65M-3879. Through the engineering stage of this development, the switch gear was detailed on the civil, landscaping and utility location plans, which were eventually approved by both PowerStream and the City.

The Developer has advised the City that the current homeowner of 500 Cunningham Drive had formally acknowledged and accepted that the hydro switch gear was located in the front yard of the lot prior to taking title of the property. Notwithstanding this, it is our understanding that the homeowner has recently contacted PowerStream to inquire about the feasibility of relocating the switch gear. On March 13, 2007, PowerStream provided a written response to the homeowner which concluded that based on a review of the existing electrical distribution system there is no viable option available to relocate the switch gear. A copy of this correspondence is included as Attachment No. 2 to this report.

In preparing this report, staff met with PowerStream to gain a better understanding of the potential options that are available to relocate the subject hydro switch gear. Based on these discussions, the following four options were explored:

Option 1 - Relocate the existing hydro switch gear to the north-west corner of the St. Joan of Arc School site. This option would involve extending high voltage cable from the existing switch gear site easterly along Cunningham Drive to the school, removal and relocation of the switch gear, and full restoration. The installation of the cable would require trenching along the road boulevard, and the crossing of about ten existing driveways and St. Joan of Arc Avenue. Based on very preliminary estimates, the electrical work associated with this option is expected to cost between \$125,000 and \$150,000 plus the cost of acquiring an easement over the school block.

Option 2 - Relocate the hydro switch gear to the center median within the cul-de-sac at the north end of Leor Court. This option would involve extending high voltage cable westerly along Cunningham Drive then north on Leor Court to the median. The installation of the cable would require trenching along the road boulevard, and the crossing of about ten existing driveways and Leor Court. Based on very preliminary estimates, the electrical work associated with this option is expected to cost about \$150,000. It is important to note that the relocation of the switch gear to the median would require the removal of some existing landscaping to make room for the new hydro switch gear. In addition, there are a number of existing underground utilities, municipal services and two hydro transformers currently situated on the median which may need to be moved to make sufficient room for the additional switch gear. Since this median is in full view of about twelve existing residences on the cul-de-sac, it would be appropriate to provide additional landscaping on the median to visually screen the switch gear.

Option 3 - Replacing the existing hydro switch gear within an underground vault. Although this is the least disruptive option, the design and construction requirements involved with an underground alternative is estimated to cost about \$175,000. In addition, the proposed underground vault would still be contained within the existing easement in the front yard and would require a large metal grate at ground level.

Option 4 – Removal of the hydro switch gear from the distribution system. This switch gear services approximately 300 customers and is an integral part of a much larger distribution system, providing backup servicing to an additional 300 customers. PowerStream staff advise that given the existing layout and design of the electrical distribution system, the removal of this hydro switch gear is not a technically feasible option.

After thorough considering these options, PowerStream once again concluded that there isn't a practical and economical option available to relocate the existing switch gear situated on the property at 500 Cunningham Drive in Maple.

Development Review Process Refinements

In new development, it is the practice to locate large hydro vaults and switch gears in areas that will not directly impact residential lots such as in school blocks, parks, storm water management facilities, landscaped medians, single loaded roads and if necessary, at the rear flankage of a lot. In infill developments, the situation can arise where an existing hydro vaults or switch gears conflicts with a proposed residential lot. In this case, the developer is requested to relocate the hydro facility to a more appropriate location if it is practically and economically feasible to do so.

Through recent discussions, City and PowerStream staff has established the following protocol for new residential development applications in order to better address the situation where existing hydro infrastructure has the potential to conflict or negatively impact with the development or redevelopment of a site. During the development review process, PowerStream will;

- (a) advise the City if a proposed or existing hydro switch gear or vault is located within a proposed residential subdivision or individual lot;
- (b) request the developer to relocate, entirely at the developer's cost, any existing or proposed hydro switch gear or vault that negatively impacts a proposed residential lot to an appropriate site within or in proximity to the development, if it is determined that it is practically and economically feasible to do so, to the satisfaction of the City and PowerStream;
- (c) If in the event there is no reasonable alternative other than to locate a hydro switch gear or vault on or in proximity to a residential lot, then PowerStream will request that the City include a condition in the subdivision agreement requiring that the appropriate warning statements be included in all purchase and sale agreements for the effected lot advising perspective purchasers of the existence of the hydro facility; and
- (d) The following requirement will be imposed as a standard condition of development approval for new residential developments:

“Prior to final approval of the Plan, the Owner shall make the necessary arrangements for the relocation of any existing utilities required by the development of the subject lands to be undertaken at the Owner's expense to the satisfaction of the City. The Owner shall agree in the subdivision agreement to incorporate in the design and layout of the units, all possible methods for the screening of utility boxes, transformers, and/or hydro meters to the satisfaction of the City.”

Relationship to Vaughan Vision 2020

This report is in keeping with the strategic goals and objectives of Vaughan Vision 2020, in particular the initiatives relating to the effective management of growth and the delivery of high quality of services to all City stakeholders.

Regional Implications

There are no Regional implications associated with this report.

Conclusion

After thorough consideration of the possible options, PowerStream has concluded that it is neither practically nor economically feasible to relocate the existing hydro switch gear situated in the front yard at 500 Cunningham Drive in Maple. City and PowerStream staff has implemented a number of refinements to the development review process in order to better address the location of hydro switch gears and/or vaults in new residential developments. Accordingly, staff is recommending that the municipal services in Phase 5 of the Mackenzie Glen Subdivision, Plan 65M-3338 be assumed and the municipal services letter of credit be reduced to \$55,000 as set out in Item 23, Report No. 1, of the Committee of the Whole meeting on January 21, 2008, a copy of which is attached to this report as Attachment No.3.

Attachments

1. Location Map
2. PowerStream letter dated March 13, 2007
3. Item 23, Report No.1 of the Committee of Whole Meeting – January 21, 2008

Report prepared by:

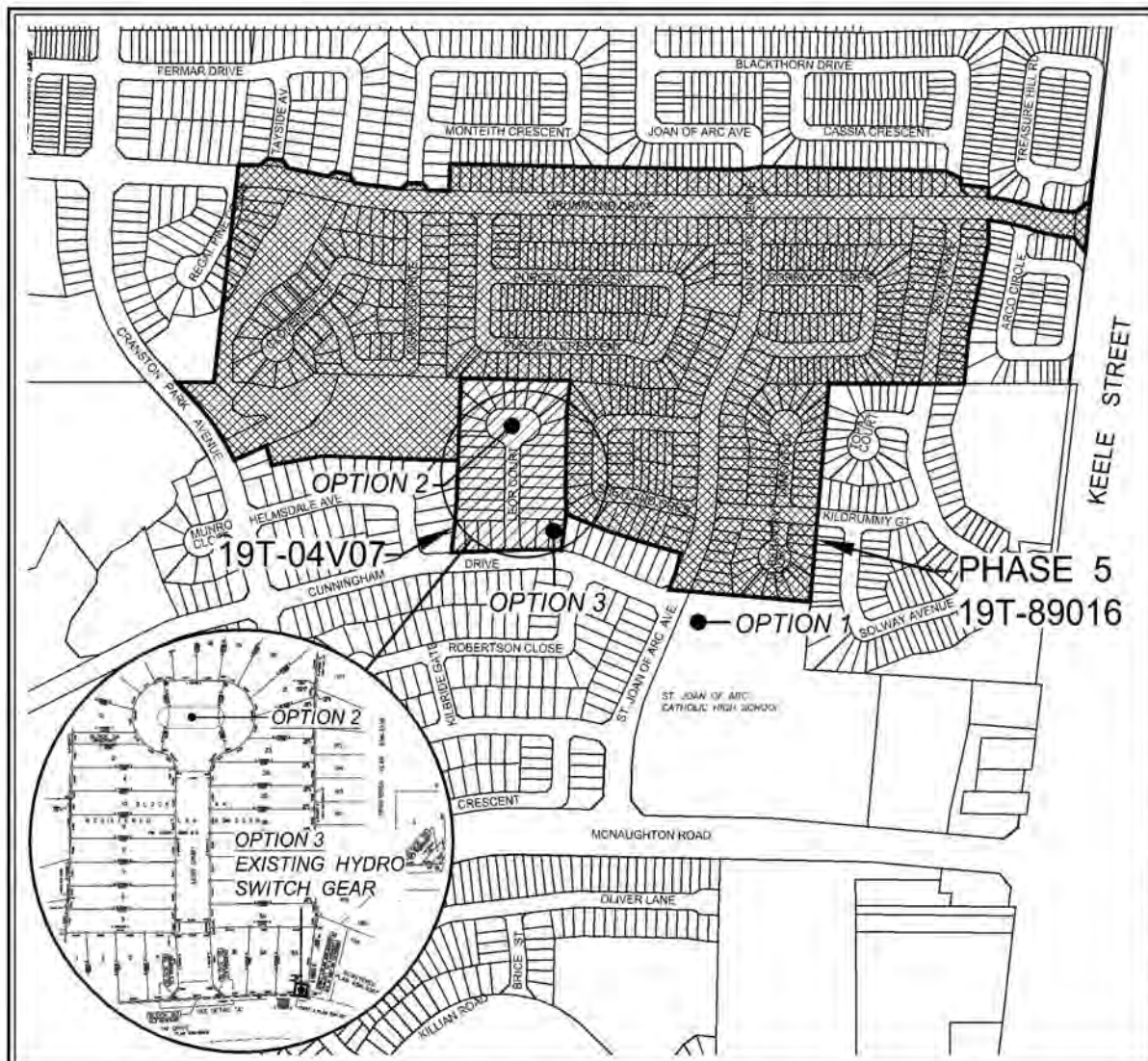
Htay Aung, P.Eng – Senior Engineering Assistant, ext. 8264
Mark Chiochio, C.E.T – Supervisor Development Review, ext. 8239
Tony Magliocchi, C.E.T – Manager of Development Services, ext. 8253

Respectfully submitted,

Bill Robinson, P. Eng.
Commissioner of Engineering and Public Works

Andrew Pearce, C.E.T.
Director of Development/
Transportation Engineering

ATTACHMENT No. 1

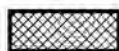


SUBDIVISION ASSUMPTION MACKENZIE GLEN DEVELOPMENTS - PHASE 5

19T-89016 / 65M-3338

LOCATION : Part of Lots 23 & 24, Conc. 4

LEGEND



MACKENZIE GLEN 19T-89016, PHASE 5, 65M-3338



MACKENZIE GLEN 19T-04V07, 65M-3879



NOT TO SCALE

ATTACHMENT NO. 2



March 13, 2007

ROBERT & ROSE TUCCI
500 CUNNINGHAM DR
MAPLE ON
L6A-0A8

FILE COPY

Dear Mr. & Mrs. Tucci

Re: Request for Switch Gear Relocation at 500 Cunningham Ave.:

PowerStream has reviewed your request to relocate a switch gear in front of your home.

Background Information:

Maple Springs Subdivision was scheduled for development in 1994. The development required three phase and single phase service provisions. A Future School Block was proposed on Cunningham Drive west of lot 138. The switch gear was installed permanently on an easement, supplied by the developer, to provide three phase service provisions to the school and single phase local distribution to residential customers. This is standard practice in Vaughan to provide requirements for single and three phase customers in an underground subdivision.

This switch gear not only provides servicing to multiple customers (approximately 300) but is an integral part of a much larger distribution system, providing backup servicing to an additional 300 customers.

Mackenzie Glen Subdivision Phase 6 was scheduled for development in June 2005. This development required single phase servicing for approximately 33 residences and was treated as an in fill style subdivision. Comments were made to the developer at the time of subdivision review that PowerStream possessed an easement within this development for the purpose of maintaining the location of a switch gear.

The developers electrical consultant and civil consultant were instructed to identify PowerStream's easement on their drawings for everyone's view.

Drawings were retrieved for the area and a complete investigation was held into the possible relocation of this switch gear. First we looked for a sufficient location, 6m by 6m, in the immediate area that could be used for the alternate position. Secondly we looked from an electrical design perspective to see if the distribution system could be altered safely, effectively and maintain all current servicing provisions to existing customers with minimal power interruptions. Regretfully the outcome provides no viable option to relocate the switch gear.

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Please find attached copies of both subdivision drawings complete with civil drawings for Mackenzie Glen Phase 6 and a copy of PowerStream's registered easement document.

PowerStream promotes a willingness to look at all customer requests thoroughly and thoughtfully ensuring all avenues are explored to satisfy our customer concerns.

Should you require any further assistance regarding this matter, please do not hesitate to call me directly.

Thank You

A handwritten signature in black ink, appearing to be "TB" followed by a long horizontal stroke.

Todd Bowman, C.Tech
Engineering Design Supervisor
PowerStream Inc.
Tel.: 905 417-6982

Cc: Customer Care – Howard Williams

ATTACHMENT NO. 3

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF JANUARY 28, 2008

Item 23, Report No. 1, of the Committee of the Whole, which was adopted, as amended, by the Council of the City of Vaughan on January 28, 2008, as follows:

By replacing "February 4, 2008" with "February 19, 2008" where it appears in clause 1 of the Committee of the Whole recommendation; and

By receiving the memorandum from the Commissioner of Engineering and Public Works, dated January 23, 2008.

23 **ASSUMPTION – MACKENZIE GLEN DEVELOPMENTS, PHASE 5**
19T-89016 / 65M-3338

The Committee of the Whole recommends:

- 1) That staff provide a report to the Committee of the Whole meeting of February 4, 2008 on the relocation of the hydro switchgear box on Cunningham Drive (Lot # 33 of Plan 65M-3879), west of Robertson Close; and
- 2) That the following report of the Commissioner of Engineering and Public Works, dated January 21, 2008, be received.

Recommendation

The Commissioner of Engineering and Public Works recommends:

That the necessary by-law be passed assuming the municipal services in the Subdivision Agreement for Plan 65M-3338 and that the municipal services letter of credit be reduced to \$55,000.

Economic Impact

Upon assumption of this development, approximately 4.8 lane kilometers of roadway and associated municipal infrastructure will be added to the City of Vaughan's system. There will be a future cost associated with the operation and long-term maintenance of the additional inventory of lands and public highways that may include roads, sewers, watermains, street lighting, streetscaping, storm water management ponds, parks, etc.

Communications Plan

Not applicable

Purpose

The subdivision has been completed and is ready to be assumed by the City.

Background - Analysis and Options

The 402 lot development is a residential subdivision. The development is located west of Keele Street and north of Cunningham Drive as shown on Attachment 1.

The Subdivision Agreement was signed on February 1, 1999. The municipal services in Plan 65M-3338 were installed in August 1998 and the top course asphalt was placed in September 2003.

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF JANUARY 28, 2008

Item 23, CW Report No. 1 – Page 2

All the documentation required by the Subdivision Agreement for assumption has been submitted. The Commissioner of Engineering and Public Works has received clearance from all pertinent City Departments including Engineering Services Department, Development/Transportation Engineering, Building Standards, Parks Development, Parks Operations and Forestry Department and Clerks. The Development Planning Department is requesting that \$5,000 be held back in securities for streetscape deficiencies. The Public Works Department is requesting that \$50,000 be held back in securities for sewer repair works. The Reserves and Investments Department has also confirmed that all of the City's financial requirements regarding this subdivision have been met.

Relationship to Vaughan Vision 2020

The development of this subdivision and the assumption of the municipal services is consistent with Vaughan Vision 2020, which encourages the planning and management of growth and the maintenance of the City's assets and infrastructure.

This report is consistent with the priorities previously set by Council.

Regional Implications

There are no Regional implications with respect to the assumption of the municipal works within this subdivision development.

Conclusion

It is therefore appropriate that the municipal services in Registered Plan 65M-3338 be assumed and the municipal services letter of credit be reduced to \$55,000. Once the deficiencies are repaired and completed to the satisfaction of the City, the letter of credit will be released.

Attachments

1. Location Map

Report prepared by:

Vick Renold, C.E.T. – Senior Engineering Assistant, ext. 8461
Engineering

VR/fc

(A copy of the attachments referred to in the foregoing have been forwarded to each Member of Council and a copy thereof is also on file in the office of the City Clerk.)