

## **COMMITTEE OF THE WHOLE - FEBRUARY 23, 2010**

### **NEW SERVICE CONNECTION STANDARD CITY WIDE**

#### **Recommendation**

The Commissioner of Engineering and Public Works in consultation with the Director of Building Standards recommends:

THAT the best practice from the Ontario Concrete & Drain Contractors Association that recommends new municipal storm and sewer lateral connections be constructed from the main to 1.5 metres beyond the property line in new subdivisions be adopted by the City, and that the City's engineering standards and procedures be amended accordingly.

#### **Contribution to Sustainability**

The recommendations of this report have been developed with consideration for the impact on the natural and built environments, and their potential social and financial implications.

#### **Economic Impact**

There is no economic impact to the City in connection with the adoption of the best practices related to the extension of sewer laterals 1.5 metres beyond the property line in servicing of new subdivisions. Where services are being installed by the City in unserved communities, there would be a nominal increase in cost to the City portion of a contract and a slight reduction in the cost of the homeowner's service extension. However, it is noted that the overall cost to the City and to the homeowner would not change as the homeowner pays the cost of the connection from the main sewer line to the house.

#### **Communications Plan**

The approved recommendations stemming from this report will be communicated to the private sector developers, engineering consultants and contractors through correspondence and the normal design, inspection and acceptance process.

#### **Purpose**

To highlight the best practice document prepared by the Ontario Concrete & Drain Contractors Association with respect to the extension of sewer laterals 1.5 metres beyond the property line and to implement the standard in the City of Vaughan.

#### **Background - Analysis and Options**

The construction of new municipal services and roadways is generally undertaken in typical standard sequence. First, the underground sanitary and storm sewers, watermains and service connections to the property lines are constructed followed by the roadway and the installation of the shallower utilities such as natural gas, telecommunication cables and hydro in the boulevards. Current standards require the sewer laterals to be terminated at the property line about 3.0 metres below grade. The water service connection is also extended to the property line and terminated with a valve (curb stop) as shown on Attachment No.1.

During the house building program, these service connections are extended into the building by a drain/plumbing contractor. Since the utilities in the boulevards are in close proximity to the capped ends of the sewer and water service connections, there is a high risk of a utility being

struck and damaged during the excavation process. Damage to a utility can be costly to repair. In addition, the close grouping of the services often results in a trench excavation with very steep banks creating an unstable and dangerous situation for construction workers requiring the use of a trench box.

This situation has been a concern in the construction industry for some time now. In response, the Ontario Concrete & Drain Contractors Association (OCDCA) has developed a best practice document that recommends extending only the sanitary and storm sewer service laterals to 1.5 metres beyond the property line in new developments. This practice will reduce the hazards associated with the subsequent extension of the lateral connections into a new dwelling. The benefits of extending the lateral connections include the following:

- Contractors are able to connect to the service laterals in more stable soil conditions, which allows for proper trench sloping and safer excavation conditions;
- Reduces the risk of damage to existing utility infrastructure;
- Improves the safety of the construction work environment.

It is estimated that the extension of the sewer lateral 1.5 metres beyond the property line will cost the developer an extra \$175 per lateral. However, this additional cost to the developer is more than recovered by the builder since the connection into the dwelling is shorter and the construction environment is much safer so the work can be done much quicker.

Where the city is constructing a sanitary sewer and service connections to properties in unserved areas, the cost of the 1.5 metre extension would be part of the City's construction contract. The property owner would complete the extension of the service lateral at his cost. In construction projects of this type, the entire service connection cost from the main sewer to the building being serviced is the property owner's responsibility and adoption of this standard would not increase the final costs to be borne either by the City or the property owner.

The recommended best practice from OCDCA has been either supported or adopted by a number of regional municipalities in the GTA including the Regions of Durham, Peel and York together with many of their associated area municipalities. The practice is also supported by other associates such as the Greater Toronto Sewer and Watermain Contractors Association, the Ontario Sewer and Watermain Construction Association and the Construction Safety Association of Ontario.

### **Relationship with the Ontario Building Code**

The Ontario Building Code (OBC) applies to the design and construction of the underground sewer and water lines on private property. The extension of the service connections 1.5 metres beyond the property line creates an overlap in the jurisdiction between the OBC and municipal servicing standards. To address this overlap, the City's Chief Building Official has agreed to accept the certification from the developers consulting engineer that the 1.5 metre portion of the service lateral connection within the lot has been constructed in accordance with municipal standards as being sufficient to satisfy the OBC requirements.

### **Water Service Connection**

Current standards require the water service connection to be terminated at the property line with a valve (curb stop). If the waterline was also extending 1.5 metres beyond the property line, it would result in the need for an additional coupling on the waterline. This additional coupling would greatly increase the risk of leaks in the future as the system ages. Accordingly, for this reason, staff is recommending that the current standard of terminating the water service connection at the property line be maintained.

## **Relationship to Vaughan Vision 2020/Strategic Plan**

This report is consistent with the priorities previously set by Council, in particular:

- Lead & promote environmental sustainability
- Maintain assets & infrastructure
- Ensure financial sustainability
- Plan and manage growth and economic vitality.

This report is consistent with the priorities previously set by Council and the necessary resources have been allocated and approved.

## **Regional Implications**

This report has no implications on the Region of York.

## **Conclusion**

The Ontario Concrete & Drain Contractors Association (OCDCA) has developed a best practice document that recommends extending sanitary and storm sewer service laterals to 1.5 metres beyond the property line in new developments. This best practice will improve construction worker safety, construction efficiency and reduce the risk of damage to utility infrastructure. For these reasons, staff is recommending that this best practice be adopted by the City and the applicable standards and procedures be amended accordingly.

## **Attachments**

Attachment No. 1 – Service Connection Diagram

## **Report prepared by:**

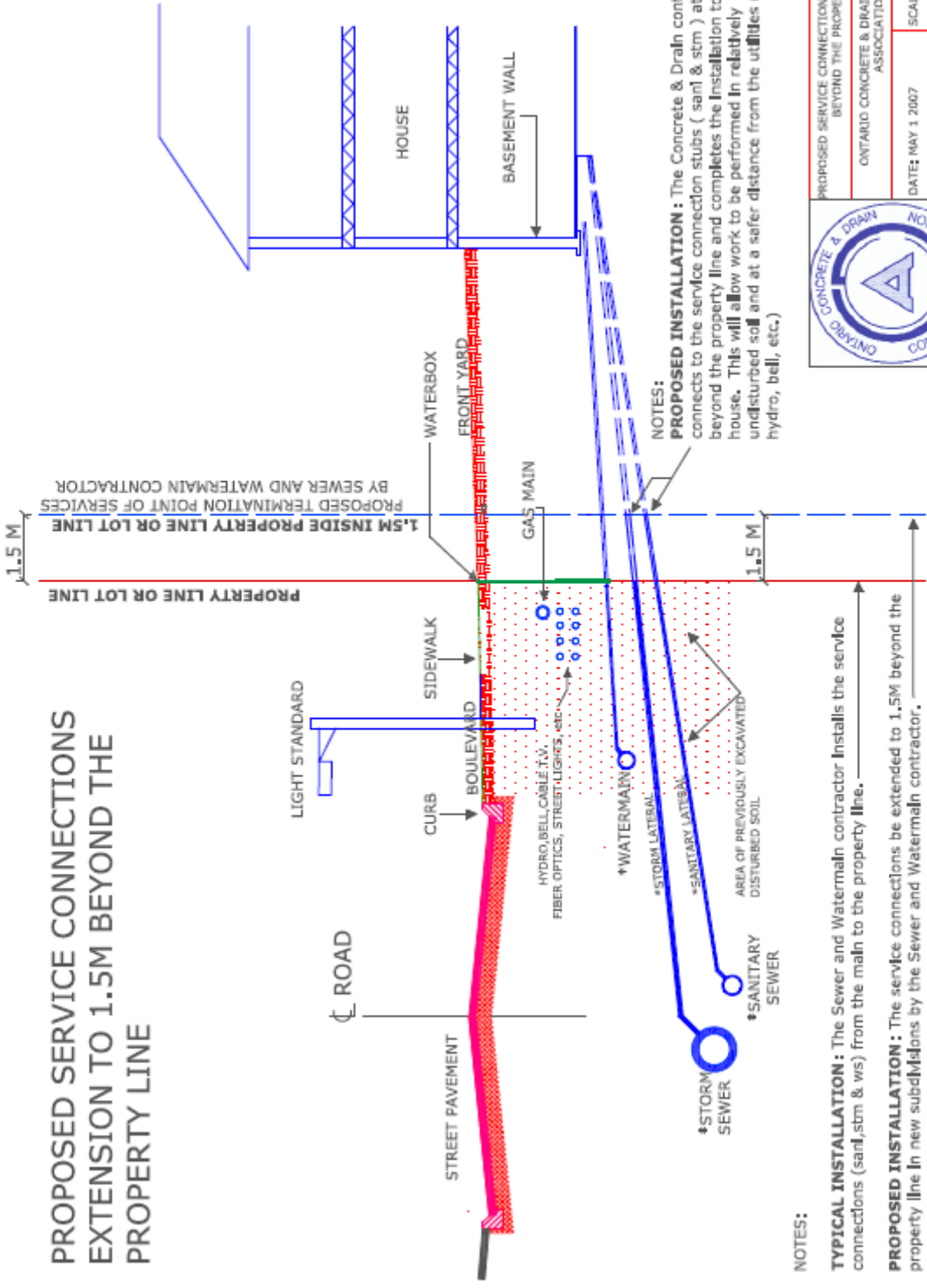
Andrew Pearce, Director of Development & Transportation Engineering, Ext. 8255  
Bill Robinson, Commissioner of Engineering and Public Works, Ext 8247

Respectfully submitted,

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

Andrew D. Pearce, C.E.T.,  
Director of Development &  
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# PROPOSED SERVICE CONNECTIONS EXTENSION TO 1.5M BEYOND THE PROPERTY LINE



**NOTES:**  
**PROPOSED INSTALLATION:** The Concrete & Drain contractor connects to the service connection stubs ( sanl, stm ) at 1.5 m beyond the property line and completes the installation to the house. This will allow work to be performed in relatively undisturbed soil and at a safer distance from the utilities ( gas, hydro, bell, etc.)

**NOTES:**

**TYPICAL INSTALLATION:** The Sewer and Watermain contractor installs the service connections ( sanl, stm & ws) from the main to the property line.

**PROPOSED INSTALLATION:** The service connections be extended to 1.5M beyond the property line in new subdivisions by the Sewer and Watermain contractor.



PROPOSED SERVICE CONNECTIONS EXTENSION TO 1.5M BEYOND THE PROPERTY LINE	
ONTARIO CONCRETE & DRAIN CONTRACTORS ASSOCIATION	
DATE: MAY 1 2007	SCALE: 1:125
DWG No 001	BY: M,R,D,D