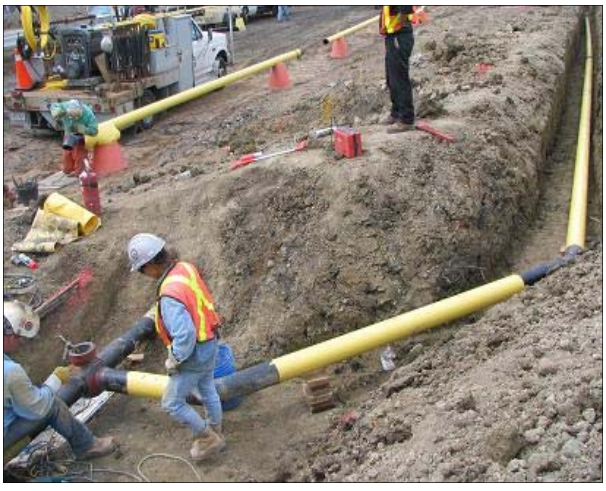
Inventories of Subsurface Features in Rights-of-Way

Ref: 2009—001

Recommendations for Municipalities



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The Challenge

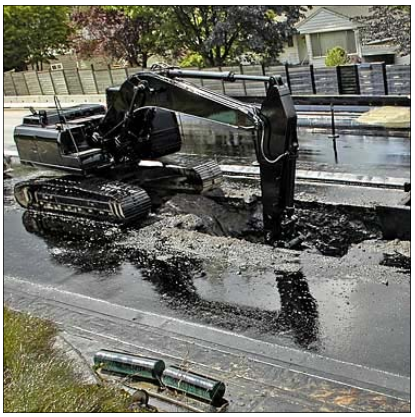
Improving the Quality and Completeness of Inventories of Subsurface Features in Rights-of-Way

The Association of Ontario Land Surveyors recognizes a systemic problem respecting the quality of records showing the location of subsurface features in municipal rights-of-way including sewers, watermains and private utilities. The problem can be remedied by revising site plan approval policy for new roads to be assumed by municipalities.

How Municipalities Can Improve the Quality and Completeness of Inventories of Subsurface Features in Rights-of-Way

Municipalities should consider updating their requirements for subdivision approval to include the provision of a composite utility map showing the as-built location of all subsurface features in the roads and other lands to be assumed by, or transferred to them. The subsurface features include the municipal services, private utilities and lateral service connections extending to private property. Composite utility maps are considered a best practice in many jurisdictions.

Why Municipalities Would Benefit from an As-Built Composite Utility Map of All Underground Utilities in New Roads and Other Lands to be Assumed



- As-built composite utility maps would serve as a permanent record and validate that the utilities are in the approved locations.
- As-built composite utility maps would facilitate the management of the limited subsurface in urban road allowances.
- As-built composite utility maps would reduce the future costs of base plan preparation for the preliminary design of road, sewer, watermain, and streetscape improvements. In addition, the availability of composite utility maps would reduce the time for review and mark up of plans by utility companies.

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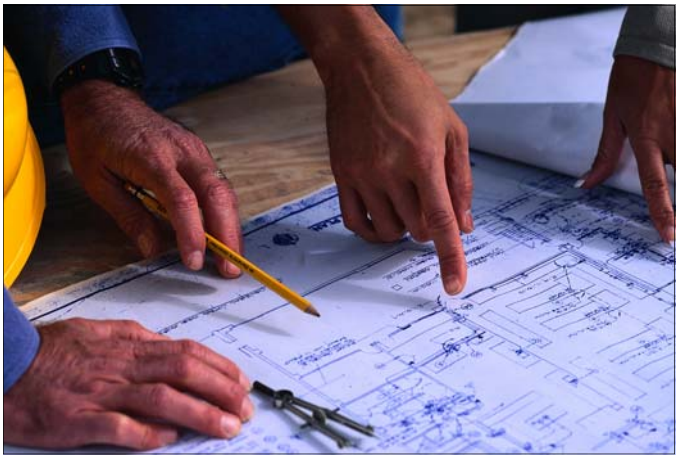

- As-built composite utility maps would facilitate utility locate requests prior to excavation.
- As-built composite utility maps can contribute to the safety of road construction personnel, provided that utility locates are undertaken as required by law.
- As-built composite utility maps would facilitate updates to asset management systems and the integration with other data sets, such as parcel mapping, when coupled with a requirement to submit such a utility map to a defined CAD or GIS standard.
- As-built composite utility maps can reduce the cost of subsurface utility engineering.
- As-built composite utility maps would encourage data standardization and exchange with utility companies.
- As-built composite utility maps can be sold to the public to improve service and generate revenue to offset some of the costs of managing the records. Qualifying statements and disclaimers respecting the reliability of the information should be included with the maps, and the purchaser should also be required to sign a release form.
- As-built composite utility maps would contribute to utility damage prevention programs.

Action

Contact a professional surveyor for advice on obtaining reliable as-built utility information, or assistance in establishing the foundation for a composite utility mapping program.

Association of Ontario Land Surveyors:

The Association of Ontario Land Surveyors was formed to regulate the practice of professional land surveying and to govern its members so that the public interest may be served and protected.

The Association of Ontario Land Surveyors (AOLS) issues licences to Cadastral (Legal Boundary) Surveyors and Certificates of Registration (C of R) in Geodesy, Geographic Information Management, Hydrography and Photogrammetry. Applicants must comply with academic requirements, a Term of Articles and pass the professional examinations. All members are entitled to use the designation O.L.S. (Ontario Land Surveyor) or O.L.I.P. (Ontario Land Information Professional).

Many of the members of the Association of Ontario Land Surveyors are employed by municipalities and government agencies, and provide services to municipalities. Professional surveyors are in a position to identify practices that will improve the efficiency and effectiveness of municipal operations.

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Related Policies
Title and Reference Number:
1. Survey Plans Are protected By Copyright—2009-002
2. Engage Professional Surveyors To Build Geospatial Infrastructure 2009-003
3. As-Built Drawings of Underground Utilities 2009-006

Revision Dates