




**CITY OF HAMILTON**  
**PUBLIC WORKS DEPARTMENT**  
**Engineering Services Division**

<b>TO:</b>	Chair and Members Public Works Committee
<b>COMMITTEE DATE:</b>	May 15 <sup>th</sup> , 2023
<b>SUBJECT/REPORT NO:</b>	Standardization of Equipment, Supplies and Support Services (PW13027(b)) (City Wide)
<b>WARD(S) AFFECTED:</b>	City Wide
<b>PREPARED BY:</b>	David Lamont (905) 546-2424 Ext. 4413
<b>SUBMITTED BY:</b>	Jackie Kennedy Director, Engineering Services Public Works Department
<b>SIGNATURE:</b>	

**RECOMMENDATIONS**

- (a) Pursuant to Procurement Policy #14 – Standardization, that Council approve the continued standardization of field equipment, supplies and office related systems identified in Appendix “A” to Report PW13027(b) until May 31, 2027 and that the General Manager, Public Works Department, or designate, be authorized to negotiate, enter into and execute any required Contract and any ancillary documents required to give effect thereto with the suppliers identified in Appendix “A” with content acceptable to the General Manager of Public Works, and in a form satisfactory to the City Solicitor and Procurement; and
- (b) That the General Manager, Public Works, or designate, be authorized to amend any Contracts executed and any ancillary documents as required in the event that suppliers identified in Appendix “A” to Report PW13027(b) undergoes a name change in a form satisfactory to the City Solicitor.

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OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

## **EXECUTIVE SUMMARY**

Pursuant to the Corporate Procurement Policy, Section 4.14, “Policy for Standardization”, this report seeks to continue the standardization of equipment, office hardware and software which is currently supplied by the vendors listed in Appendix “A” to Report PW13027(b). This equipment and software support field survey services, mapping, GIS, engineering plan production, and plotting to various client groups within the City of Hamilton.

### **Alternatives for Consideration – See Page 4**

## **FINANCIAL – STAFFING – LEGAL IMPLICATIONS**

**Financial:** The products and services in Appendix “A” to Report PW13027(b) is a list of recommended vendors for standardization. Capital budgets and annual operating budgets, as applicable, may incur additional expenses as a direct result of any negotiated price increases as a result of the standardization and single sourcing with the suppliers in Appendix “A”. The extent of any price increase is unknown at this time however staff are confident through continued standardization, staff may be able to curb some current increases being experienced within this commodity market.

**Staffing:** N/A

**Legal:** Legal Services continues to provide input for negotiated contractual arrangements with these vendors.

## **HISTORICAL BACKGROUND**

Trimble Technologies & Cansel Canada

Since 1999, the City of Hamilton has exclusively procured land surveying equipment from Trimble due to their patent on active tracking technology and integration with data collection systems. Cansel Survey Equipment (Canada) Inc. is the single source vendor of the systems we have acquired.

Using Trimble Technologies and the Can-Net network, the Engineering Services Division has calibrated the positioning requirements for the geographic extents of the City of Hamilton to model out inconsistencies in horizontal and vertical control placements within the Can-Net Virtual Reference Station network. This calibration set is proprietary to the Trimble Inc. network and is a mandatory element in complying with positional requirements of the Association of Ontario Land Surveyors as per Ontario Regulation 216/10 of the Surveyors Act.

**SUBJECT: Standardization of Equipment, Supplies and Support Services  
(PW13027(b)) (City Wide) – Page 3 of 5**

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Cansel Survey Equipment (Canada) Inc. is the sole Canadian vendor to provide hardware and software support for the Faro series of Laser Scanners (Light Detection and Ranging - LiDAR). The laser scanner is utilized throughout Public Works and Engineering Services to record complex structures, architectural facades, and subsurface infrastructure that could not be obtained using traditional survey methods.

Bentley Systems Inc.

The City has been using Bentley Systems Incorporated Computer Aided Design (CAD) Software - MicroStation since 1994. Since then, the Engineering Services Division has standardized on Bentley Systems Incorporated suite of civil engineering solutions, including MicroStation, ProjectWise, InRoads, OpenRoads and WaterCAD. All City of Hamilton civil design and engineering drawings have standardized across this platform. Roster consultants and mapping contracts are also required to operate and deliver in this product format. Bentley Canada (wholly owned by Bentley Systems Incorporated) provides local support and professional services for Bentley Systems Incorporated suite of products.

Hexagon

The City has been using MicroSurvey Software Inc. (Hexagon) as a legal survey boundary calculation tool since 1990 and this product is the basis of all legal survey services in the Corporation. It provides all relevant calculations and mathematical closure routines required to create and register a regulated plan of survey at the Registry Office.

Canon Canada Inc

Canon Canada Inc. acquired OCE Canada which has been the supplier of the Engineering Services Division large scale plot and scan system since 2000. This vendor also provides maintenance and on-going hardware upgrades to ensure the systems are current and meet production requirements. All City of Hamilton Design and Construction contracts are plotted using the Canon Canada large scale plotter. Additionally, historical hardcopy as-built drawings are scanned and archived using the Canon large scale scanner.

ESRI Canada

ESRI technology is an industry leader of on-premise and web-based Geographic Information Systems (GIS). The ArcGIS software developed by ESRI is currently being utilized for the Public Works spatially indexed engineering records management system (SPIDER), and it is also the mapping technology utilized within Corridor Managements right of way permitting group. Additionally, the ArcGIS platform has been standardized

**SUBJECT: Standardization of Equipment, Supplies and Support Services  
(PW13027(b)) (City Wide) – Page 4 of 5**

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across the Corporation and in particular the Spatial Solutions workgroup. ESRI Canada is the sole provider of ESRI products, support, and professional services in Canada, including ArcGIS Enterprise, ArcGIS Pro/Desktop and ArcGIS Online.

**POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS**

By-law 20-205 as amended, Procurement Policy #14 - Policy for Standardization requires that approval from Council be obtained for the standardization of a good or service. Where the establishment of a standard will result in a single source purchase, that purchase will also require Council approval.

**RELEVANT CONSULTATION**

In previous years, these system purchases were managed through the use of Policy 11- Non-competitive Procurement procedures. In order to reduce the use of Policy 11 negotiation requests to continue to acquire professional services, maintenance or additional hardware and software through these suppliers, the Procurement Section recommends that this report be brought forward.

**ANALYSIS AND RATIONALE FOR RECOMMENDATIONS**

This Report recommends that Council approve several software and hardware products that are considered Standard by staff but require Council approval. Having access to standardized vendors builds key business relationships necessary for needs assessments, enabling the City to trial hardware or software prior to commitment, and allows for update strategies that would not otherwise be available without standardization.

Standardization also increases efficiencies and decreases costs by lessening licenses and maintenance costs for hardware and software through economies of scale, lessening training costs for staff, and allows for labour mobility across work groups (as they are familiar and trained on standardized hardware and software across the organization). Appendix “A” to Report PW13027(b) provides detailed information on the Supplier, Product and Services for each of these vendors.

**ALTERNATIVES FOR CONSIDERATION**

1. Staff could prepare individual Council Reports requesting the extension of the approved Standards currently in place. Also, additional Reports would be required for items considered Standard but requiring Council approval to purchase additional licenses or hardware components. This is not being recommended due to the duplication of effort.

**SUBJECT: Standardization of Equipment, Supplies and Support Services  
(PW13027(b)) (City Wide) – Page 5 of 5**

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Financial: Not standardizing on equipment and software results in losing the ability to monopolize on the economies of scale as it relates to maintaining our current equipment and software inventory as well as licensing and training components as it relates to acquiring the necessary equipment and services to efficiently perform our section's business.

Staffing: Increase administration and staffing requirements.

Legal: Legal Services continues to provide input for negotiated contractual arrangements with these vendors.

2. Procurement through competitive bid processes, would result in a mixed environment, which would have a negative impact on the total cost of ownership, compatibility, and reliability. This would require additional training for staff to become familiar with the new manufacturer's equipment and software. This alternative is not being recommended as it would require a significant financial investment to integrate additional manufacturers into our environment as well as add administrative overhead.

Financial: Costs would increase as the City would be paying hardware and software maintenance on multiple solutions providing similar service.

Staffing: This would require additional training for staff to become familiar with the new manufacturer's equipment and software. Additional, increased administrative overhead would be required to support multiple hardware and software platforms.

Legal: Legal Services continues to provide input for negotiated contractual arrangements with these vendors.

## **ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN**

### **Built Environment and Infrastructure**

Hamilton is supported by state-of-the-art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

## **APPENDICES AND SCHEDULES ATTACHED**

Appendix "A" to Report PW13027(b) – Supplies, Equipment and Services for the City of Hamilton Public Works and Finance & Corporate Services Departments