



CITY OF HAMILTON

PUBLIC WORKS DEPARTMENT
Corporate Assets and Strategic Planning Division

TO: Chair and Members Public Works Committee	WARD(S) AFFECTED: CITY WIDE
COMMITTEE DATE: December 3, 2012	
SUBJECT/REPORT NO: Standardization of Traffic Control Equipment and Materials (PW12097) (City Wide)	
SUBMITTED BY: Gerry Davis, CMA General Manager Public Works Department	PREPARED BY: Martin White Manager, Traffic Operations 905-546-2424, Extension 4345
SIGNATURE:	Kim Wyskiel Superintendent, Business Services of Traffic Operations 905-546-2424, Extension 5473

RECOMMENDATION

- (a) That in accordance with the City of Hamilton’s Procurement Policy #14 - Standardization, Tacel Ltd. be approved as the single source supplier for Polara brand Accessible Pedestrian Traffic Signal Equipment (Bulldog, Navigator, control boards and components) through December 31, 2017;
- (b) That in accordance with the City of Hamilton’s Procurement Policy #14 - Standardization, Fortran Traffic Signal Hanger be approved as the standard through December 31, 2017. Single source supplier - Fortran Traffic Systems Ltd.;
- (c) That in accordance with the City of Hamilton’s Procurement Policy #14 - Standardization, Eltec School Zone Flashers and component parts be approved as the Standard through December 31, 2017. Single source supplier - Tacel Ltd.;
- (d) That in accordance with the City of Hamilton’s Procurement Policy #14 - Standardization, Novax Accuwave Presence Single Phase Detector be approved as the standard through December 31, 2017. Single source supplier - Electromega Ltd.;

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- (e) That in accordance with the City of Hamilton's Procurement Policy #14 - Standardization, 3M Vinyl Reflective Traffic Sign Sheeting be approved as the standard through December 31, 2017. Single source supplier - 3M Canada;
- (f) That the General Manager of Public Works or his designate be authorized and directed to negotiate all prices, quantities, terms and conditions with the identified single source suppliers.

EXECUTIVE SUMMARY

The Traffic Operations section of the Public Works Department maintains and operates approximately 550 traffic signals and is responsible to maintain approximately 250,000 traffic signs on an annual basis. The section manufactures approximately 10,000 traffic signs on an annual basis in the City's in-house sign fabrication facility. The approved 2012 budget to operate and maintain traffic signals is \$1.5 million and traffic signs is \$2.1 million. The cost of parts and materials for these operations totals \$1.3 million in the 2012 budget.

Traffic Operations adheres to the Procurement Policies and Procedures for the purchasing of parts and materials. Under the Procurement Policies and Procedures the preferred process is to seek multiple vendors whose products meet the technical specifications and to encourage an open and competitive bidding process. In certain situations parts and materials essential to the operation are proprietary to a specific vendor; are technically unique or are solely compatible with existing equipment. The use of the Standardization Policy #14 will improve Traffic Operations business practices and provide the ability to procure highly specialized technical equipment to meet operational requirements.

This report recommends and seeks approval to standardize on the following highly specialized technical equipment used by Traffic Operations through December 31, 2017

1. Polara brand Accessible Pedestrian Traffic Signal Equipment

Polara brand Accessible Pedestrian Signal (APS) equipment (Bulldog, Navigator, control boards and components) were approved as the standard APS in report PW08077a at Council on March 28, 2012.

The proprietary rights to sell Polara brand products in Canada are currently held by Tacel Ltd. and this report recommends them as the single source supplier.

2. Fortran Traffic Signal Hanger

Fortran Traffic Signal Hangers are used to install Traffic Signal Heads to the Traffic Signal Arms. Traffic Signal staff has tested available signal hangers manufactured by other suppliers which are currently available. Through the continuous improvement process, field testing has shown that the Fortran brand hanger is significantly easier to install, less time consuming, has a superior lifespan and reduced maintenance requirements. For this reason field staff has requested that the Fortran traffic signal hanger be designated as the standard.

The proprietary rights single source manufacturer and distributor is Fortran TrafficSystems Ltd.

3. Eltec School Zone Flashers and component parts

Eltec School Zone Flashers and component parts are consistent with current solar and AC powered school zone flashers in use in Hamilton. Traffic Engineering staff have reviewed other brands of school zone flashers and concluded that the Eltec brand is superior and the most reliable system which has resulted in lower maintenance costs. The Eltec system is compatible with existing paging communications system for the upload of data. For these reasons Traffic Engineering staff has requested that the Eltec School Zone Flasher be designated as the standard.

The proprietary rights single source distributor is Tacel Ltd. New school zone flasher installations approved by Council include the designated source of funding.

4. Novax Accuwave Presence Single Phase Detector

The Novax Accuwave Presence Single Phase Detector is a microwave motion sensor that will identify a vehicle moving in its detection pattern and then trigger the operation of a traffic controller. By utilizing microwave technology, this device provides accurate and consistent vehicle detection that is not affected by temperature, humidity, colour or background variations. It is recommended that the Novax Accuwave Detector be designated as the standard by Traffic Signal staff as the proven product currently in use.

The proprietary rights single source distributor is Electromega Ltd.

5. 3M Vinyl Reflective Traffic Sign Sheeting

Vinyl reflective traffic sign sheeting is required to fabricate traffic regulatory, warning and information signs at the Traffic Operations in-house fabrication facility. Traffic sheeting is required to meet Ontario Provincial Standard OPSS 543 and be consistent with sheeting defined in the Ontario Traffic Manual. 3M is the only manufacturer to meet all specifications and standards.

The proprietary rights single source manufacturer and distributor is 3M.

Alternatives for Consideration - See Page 5

FINANCIAL / STAFFING / LEGAL IMPLICATIONS

Financial: The recommended products have proven superior in performance and lifespan. It is anticipated that these products will reduce future maintenance costs. Designated Traffic staff will negotiate all costs to ensure fair market value of goods. There is sufficient funding available in the capital and operating budgets for Traffic Operations to support the purchase of the above noted products.

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Staffing: There are no staffing implications.

Legal: The installation and operation of traffic control devices is dictated by the Highway Traffic Act and the Municipal Act. The use of the defined products will assist in maintaining a traffic infrastructure meeting all legal requirements.

HISTORICAL BACKGROUND

In the past Traffic Operations submitted Policy # 11 - Non-competitive Procurement requests on an annual basis to secure procurement of the defined products as and when required. As a continuous improvement measure, Traffic Operations reviewed the use of Policy 11s and the procurement and use of specialized single sourced items. The review has resulted in these recommendations to designate specified traffic products and parts as standards.

POLICY IMPLICATIONS

The recommendations contained in this report meet all conditions of City of Hamilton By-Law No. 11-297 Procurement Policy or such other similar policy currently in force.

RELEVANT CONSULTATION

Traffic, Community Services, Transportation Division, Public Works

Engineering Services Division, Public Works

Traffic Operations, Corporate Assets and Strategic Planning Division, Public Works

Procurement, Corporate Services

ANALYSIS / RATIONALE FOR RECOMMENDATION

The Traffic Operations section of the Public Works Department maintains and operates approximately 550 traffic signals and is responsible to maintain approximately 250,000 traffic signs on an annual basis. The section manufactures approximately 10,000 traffic signs on an annual basis in the City's in-house sign fabrication facility. The approved 2012 budget to operate and maintain traffic signals is \$1.5 million and traffic signs is \$2.1 million. The cost of parts and materials for these operations totals \$1.3 million in the 2012 budget.

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use of the Standardization Policy #14 will improve Traffic Operations business practices and provide the ability to procure highly specialized technical equipment to meet operational requirements.

Traffic staff has evaluated a variety of products for adherence to specifications and standards, performance, wear and reliability. Products evaluated were APS Pedestrian actuation traffic signal equipment, traffic signal hangers and school zone flashers. Traffic staff evaluated the recommended products along with all available competitive products. The evaluations have been conducted over a number of years and have included adherence to technical specifications and standards, bench testing, experimental installations and full field testing and reviews.

The Polara brand APS traffic signal equipment, the Fortran Signal Hanger, and the Eltec School Zone Flasher are products that perform favourably compared to their competitive products, therefore Traffic Staff recommend that these products be designated as a standard.

The Novax Accuwave Detector and the 3M Vinyl Traffic Sign Sheeting are products which meet Traffic Operations specifications and OPSS (Ontario Provincial Standards and Specifications) and OTM (Ontario Traffic Manual) standards. There are no alternative products available which meet all specifications and standards. Both these products have been in use by Traffic Operations for more than a decade. The products historic performance has been acceptable and since there are no comparable products available it is recommended that they be designated as a standard.

Standardizing on the above products allows for reduced stock levels of spare parts. Furthermore these products all require product specific knowledge and training for their use and installation. Standardization will result in reduced training and improved staff knowledge of these products. Traffic field staff participated in the continuous improvement reviews and in the evaluation and testing and they provided recommendations for standardizing on these parts. Follow through on the staff observation and recommendations will improve staff morale and provide an opportunity for an engaged workforce. The standardization on these recommended products will aid in improving the operation and maintenance of the City's Traffic Signals and Signs assets.

Traffic Operations staff will continue to review via the continuous improvement process, the procurement and use of traffic parts and materials. Traffic Operations will provide an updated report at the end of the 5 year period, December 2017.

ALTERNATIVES FOR CONSIDERATION

The alternative is to use certain parts and materials that have proven to be substandard and which can be predicted to fail more frequently and require a higher level of maintenance. In the case of the Accuwave Detection and the Vinyl Sign Sheeting there are no alternative products which meet specifications and standards and unsuitable parts would have to be substituted or the programs halted.

CORPORATE STRATEGIC PLAN

Focus Areas: 1. Skilled, Innovative and Respectful Organization, 2. Financial Sustainability, 3. Intergovernmental Relationships, 4. Growing Our Economy, 5. Social Development, 6. Environmental Stewardship, 7. Healthy Community

Skilled, Innovative & Respectful Organization

- ◆ A culture of excellence
- ◆ A skilled, adaptive and diverse workforce, i.e. more flexible staff
- ◆ More innovation, greater teamwork, better client focus
- ◆ ◆ An enabling work environment - respectful culture, well-being and safety, effective communication
- ◆ Opportunity for employee input in management decision making

Financial Sustainability

- ◆ Delivery of municipal services and management capital assets/liabilities in a sustainable, innovative and cost effective manner

APPENDICES / SCHEDULES

None