SUBJECT: Small Equipment Manufacturer’s Standardizations (PW08029) - (City Wide)

RECOMMENDATION:

(a) That “Stihl” be approved as a Manufacturer’s Standardization for a period of five years relative to the purchase of string and hedge trimmers, chainsaws, concrete saws, leaf blowers and multi-purpose “Kombi” system engines and attachments for Public Works Department programs;

(b) That “Honda” be approved as a Manufacturer’s Standard for a period of five years, relative to the purchase of walk behind lawnmowers, generators and water pumps for Public Works Department programs;

(c) That Honda be approved as a Manufacturer’s Standard for a period of five years relative to the engine component of items such as lawn edgers and aerating equipment, roto-tillers, compactors, debris loaders, and walk-behind leaf blowers;

(d) That staff be authorized to negotiate “house accounts” for the supply of new equipment, parts, and repair and maintenance services with original equipment manufacturers and/or licensed distributors of the approved standardized products.

Scott Stewart, C.E.T.
General Manager
Public Works

EXECUTIVE SUMMARY:

This report proposes fixed term “manufacturer standardizations” affecting the Operations & Maintenance Division’s Small Equipment Inventory (749 units) to achieve
improvements in program “productivity” and “cost efficiency”. The proposed manufacturer standardization is in accordance with Purchasing Policy #14, and will improve the Division’s Program Performance through:

- Enhanced Equipment Availability i.e.
  - Improved reliability - less down time
  - Streamlined Repair and Maintenance workload
  - Reduced Equipment Training Requirements
- Improved Administration and Support
  - Streamlined Procurement Administration
  - Streamlined Parts Inventory and supply chain

In addition the proposal will improve program cost efficiency through:

- Larger scale purchases and House Accounts
- Increased Equipment Salvage value
- Reduced back up requirements through reduced down time
- Reduction in part inventories
- Improved worker Health and Safety

Report recommendations seek approval for a fixed five year manufacture standardization to achieve the opportunities as noted and detailed further within the report.

**BACKGROUND:**

The information/recommendations contained within this report have City wide implications.

Operations & Maintenance owns and operates approximately 749 pieces of small equipment. This equipment includes items such as: weed trimmers, chainsaws, lawn mowers, water pumps and generators. Equipment is located at all the O&M works yards and is essential to the provision of effective and efficient program delivery. Operators perform minor running repairs on this equipment, such as changing cutters, replacing filters and sparkplugs. Major repairs and most service work are performed using external repair vendors and limited in house technicians; with the exception of Forestry and Cemeteries which employ dedicated on-site small engine mechanics. Each equipment inventory item is tracked and managed with the support of the Hansen system. Life cycle replacements are planned based on experience data to time replacement for value optimization and replacement acquisitions are coordinated within an annual tender call.

**ANALYSIS/RATIONALE:**

Purchasing Policy #14 - Policy for Standardization, Section 4.14, sub section (1) allows for a management decision making process to select a Good and/or Service that meets common needs or requirements. Sub section (2) further states that “when more than one City application exists for any Good and/or Service, a standard will be established.”

All four sections of Operations & Maintenance use similar small equipment to various degrees. Standardization will provide professional commercial quality reliable equipment to front line staff with reduced break down time coupled with reduced staff
Program efficiencies will be enhanced as the recommended equipment has been proven by our field staff to be preferred and is fully accepted by staff as first rate equipment. Staff acceptance goes a long way in creating a positive work environment and confidence that management considers their needs when purchasing equipment.

The recommended equipment has proven to be a leader in the industry. Staff has contacted outside municipalities and Contractors and found that in many cases, they too have standardized their small equipment to Stihl and Honda. Staff contacted twelve municipalities and received seven written responses indicating a preference to Stihl and Honda equipment. No replies indicated a negative response to the use of Stihl or Honda equipment. Two major local rental companies, who put high demands on small equipment, have communicated their preferences to Honda and Stihl whenever possible in their fleets.

The task of selecting small equipment is made extremely difficult due to an overwhelming number of manufacturers and models. A review of weed trimmers shows that of ten manufacturers available in this area, there are 112 different weed trimmer models; chainsaws have 122 different models from eleven manufacturers. These examples are representative of the types of equipment purchased by Operations & Maintenance. The variances in these models may appear minor when reviewing the specifications; it is only when this equipment is used that its true usefulness and durability can be determined. One manufacturer states, “there are no industry standards set for rating the horsepower of a two stroke engine. Due to that fact that there are no set standards this allows too many variables to come into play allowing for possibly an incorrect or misleading horsepower rating.” With a lack of industry standards or a governing body, the purchase of quality equipment requires experience, testing and evaluation over a period of time as the Stihl and Honda equipment has been proven to be preferred by similar related businesses and other municipalities.

Availability of parts and authorized service facilities is vital. Not all manufacturers can provide local service and parts. Stihl and Honda both have numerous local authorized repair facilities with proven track records of quick and efficient repair turnaround times and supply of new equipment which minimizes equipment downtime and increases our ability to maintain 100% outputs of affected programs. For purchases of weed trimmers, hedge trimmers, chainsaws, concrete saws, leaf blowers (hand and backpack models) and multi-purpose “Kombi” system engines and attachments, Stihl is the recommended standard. For purchases of walk behind lawnmowers, generators and water pumps, Honda is the recommended standard. For purchases of equipment types not listed above, brands offering Honda engines are the recommended standard.

Standardization allows for reduced stock levels of spare parts. Works yards often keep supplies of blades, trimmer line, heads, spark plugs and filters available for installation by front line staff, thus saving time and money. Standardized equipment means less inventory, reduces confusion of which part for which machine and reduces the likelihood of obsolete inventory when the next machine arrives.

Small equipment requires operator intervention on a regular basis; items such as changing sparkplugs, replacing guards, filters and other wear items along with
adjustments or cutting tool changes. Each manufacturer has its own procedures, service intervals and special tools for these tasks. Once an operator becomes proficient with a certain piece of equipment they can more easily identify when something is going wrong, before the breakdown happens or mitigate the amount of damage done by performing preventative service. Familiarity increases repair or adjustment efficiency and reduces in shop downtime.

All staff require equipment specific training on new equipment. Standardization of equipment will reduce training, enhance product knowledge and further service delivery. Equipment familiarity will help mitigate Health and Safety issues.

Equipment downtime is costly in terms of program performance, service delivery and results in increased costs. Reliable equipment reduces the number of spares required and reduces the costs of administering the repair process. Staff in the field relies on quality and reliable equipment, any breakdowns can bring a full crew to a halt waiting for a replacement unit.

As part of life cycle costing, the value of traded in equipment must be considered. In the first few years of use, most equipment will be operated efficiently and without many repairs in the early years of its life cycle. At some point, which our lifecycles identify, the downtime and repair costs start to become unreasonable and should be replaced. Weed trimmers do well for three years after that annual repairs start to approach replacement value; this is the point we replace this equipment.

Our experience shows that all Stihl and Honda powered equipment is in great demand at public salvage auctions. We receive an average of $50 for each unit as salvage value.

We benefit from using the equipment in its prime and not dealing with breakdowns and excessive maintenance, while then enjoying a higher salvage/resale value. These resale funds are returned to the reserve to offset the cost of purchasing new equipment once they have reached the end of their lifecycle.

Standardization allows for greater flexibility in staff time to manage the replacement and ad hoc purchase process compared to the current process of one yearly tender and additional specification writing.

From time to time it becomes necessary to replace a single piece of equipment. When that happens, we may not benefit from volume pricing as we do when issuing a tender. A “house account” would ensure that all purchases benefit from economies of scale.

Recent product testing took place on weed eaters in the Parks Section. A major vendor’s Regional District Manager was invited in and brought what they determined to be comparable equivalent equipment to the Stihl equipment currently in service. The initial equipment proved to be less than comparable so the vendor brought in another model of trimmer. This second model proved to be less suitable than the first model. This vendor was not able to provide other models to meet the Stihl equipment currently in service.

To remain in compliance with Purchasing Policies, Operations & Maintenance has reviewed all available records for small equipment, reviewed current equipment life cycles, reliability and ability to perform the tasks required and in conjunction with front line staff recommend the use of Stihl and Honda equipment.
ALTERNATIVES FOR CONSIDERATION:

a) City purchases the lowest priced equipment tendered. Staff does not recommend this as it will result in the City being required to purchase substandard equipment that may lead to increased repair costs, increased inventory costs due to having to keep additional parts in inventory, increased repair times due to the shortage of repair parts, increased employee downtime costs due to more frequent breakdowns, additional staff training in the use of new equipment and lower resale value.

b) City standardizes the purchase of small equipment as recommended but develops a procedure for manufacturers to submit new equipment for testing and evaluation.

FINANCIAL/STAFFING/LEGAL IMPLICATIONS:

a) Equipment to be purchased from the Annual Small Equipment Capital Project Account funded by the Reserve.

b) Legal issues addressed in the development of Purchasing Policy #14.

POLICIES AFFECTING PROPOSAL:

Purchasing Policy #14 - Policy for Standardization - Section 4.14

Public Works Strategic Plan - This report’s recommendations support Public Work's Strategic Plan by “Building on Our Core Capacities.” The use of “smart processes to match our needs,” is the primary focus of this report and directly supports the strategic plan by finding creative and better ways to leverage resources. The strategic plan states that we need to work on mastering Employee-Centred initiatives. Front line staff input is being recognized in this report.

The maintenance of our Parks, Cemeteries, Forestry, Horticulture, Roads and Traffic should demonstrate excellence in the area of service delivery through a high quality, well equipped workforce that takes pride in their efforts and in the community where they live. The development of a maintenance program based on cost-efficiency and job excellence necessitates the purchase of proper equipment.

RELEVANT CONSULTATION:

- Purchasing Section of Financial Services
- Central Fleet and Energy, Fleet and Facilities, in regards to past practice and experiences while this equipment was within their mandate.
- Front Line Staff, including operators, mechanics, and supervisors from all sections of Operations & Maintenance

CITY STRATEGIC COMMITMENT:

By evaluating the “Triple Bottom Line”, (community, environment, economic implications) we can make choices that create value across all three bottom lines, moving us closer to our vision for a sustainable community, and Provincial interests.

Community Well-Being is enhanced. ☑ Yes ☐ No

Properly maintained outdoor facilities contribute to making Hamilton a great City in which to live in.
Environmental Well-Being is enhanced. ☑ Yes ☐ No
Both equipment manufacturers are considered leaders in technological advances with regards to reduced fuel use and lower emissions.

Economic Well-Being is enhanced. ☑ Yes ☐ No
A City that spends wisely and invest strategically, by selecting equipment that is economical based on lifecycle expenses.

Does the option you are recommending create value across all three bottom lines? ☑ Yes ☐ No

Do the options you are recommending make Hamilton a City of choice for high performance public servants? ☑ Yes ☐ No