



Report to: General Committee

Meeting Date: June 20, 2023

SUBJECT: 134-S-23 Automated Material Handling Equipment for Angus Glen, Markham Village, Milliken Mills Libraries

PREPARED BY: June Fry, Ext. 2539
Sugun Rao, Ext. 4868
Rosemarie Patano, Ext. 2990

RECOMMENDATION:

1. THAT the report entitled “134-S-23 Automated Material Handling Equipment for Angus Glen, Markham Village, Milliken Mills Libraries” be received; and
2. THAT staff be authorized to award a contract to Bibliotheca Canada Inc. for Angus Glen Branch for one (1) flex AMH System 9-bin sorter with one (1) patron return and one (1) staff induction station; for twelve (12) RFID Staff Workstations (4 for Angus Glen, and 4 for Markham Village (Admin) and 4 for Milliken Mills), for four (4) self-check kiosks for Angus Glen, and four (4) RFID security gates (1 for Angus Glen, 1 for Milliken Mills and 2 for Markham Village) in the amount of \$ 385,730.58 (including freight, installation, training and HST impact); and,
3. THAT the capital costs for lifecycle replacement of these items for Angus Glen, Markham Village and Milliken Mills branches be funded from capital project 23415, Library Bibliotheca Replacement, GL account 049-6150-23415-005, with an available budget of \$ 559,680.00; and,
4. THAT the net operating budget impact for maintenance is a cost savings of \$3,315.62 inclusive of HST to the ITS Computer Hardware Acct #400-404-5460 following the expiry of the one-year warranty period, which will be addressed during the 2025 operating budget process; and further,
5. THAT the tendering process be waived in accordance with Purchasing By-Law 2017-8, Part II, Section 11.1 (b) Non Competitive Procurement, “Where there is only one source of supply for the goods to be purchased; and,
6. THAT Bibliotheca Canada Inc. be designated as the preferred vendor for the City’s Library Automated Material Handling Equipment needs at the sole discretion of the City and Bibliotheca Canada Inc. Automated Material Handling Equipment [Library Hardware] for the remaining four (4) out of the five (5) year life cycle term (2025 to 2028) in the estimated amounts of;
 - a. Life Cycle (Year 1: 2025) - None
 - b. Life Cycle (Year 2: 2026) - \$ 787,059*
 - c. Life Cycle (Year 3: 2027) - None
 - d. Life Cycle (Year 4: 2028) - \$ 91,991**
\$ 879,050

* Subject to Council approval of the 2025 capital budget for the Aaniin, Markham Village and Thornhill Branches

**Subject to Council approval of the 2027 capital budget for Milliken Mills Libraries

7. THAT the Chief Administrative Officer and Commissioner, Community Services be authorized to approve any new purchases related to this contract needed due to growth and/or future Library Automated Material Handling Equipment [Library Hardware] upgrades due to change in technology related to the project during the remaining four (4) out of the five (5) year lifecycle term (2025 to 2028), subject to the Expenditure Control Policy and budget approval, in a form satisfactory to the City Solicitor and at the sole discretion of the City; and further,
8. THAT Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

The purpose of this report is to obtain approval to award the contract 134-S-23 Automated Material Handling Equipment for Angus Glen, Markham Village, Milliken Mills Libraries

BACKGROUND:

In October 2015, Bibliotheca Canada Inc. acquired the 3M Library Systems business (including 3M Canada Company), with the intention of creating a single library-focused business dedicated to the delivery and support of security gate, sorter, self-check and staff RFID technologies that are used by the library.

Since 2001, library staff have sourced library equipment from 3M Canada Company every year.

In 2009, the City issued a request for quotation on behalf of the Markham Library for the provision of two (2) 7420 RFID/Barcode enabled self-check units from 3M Canada Company for the Thornhill Community Library. The bid was released to the market and closed with only one (1) submission from 3M Canada Company. Of the proponents that picked up the bid document but did not submit a bid, it was advised either they could not supply the commodity or integrate with the current system. One supplier advised that their library business was sold to 3M Canada Company and they were unable to comply with the City's requirements.

Rationale for Non-Competitive Award

Based on the feedback received and further research undertaken, it was determined that Bibliotheca Canada Inc. is the only supplier that could supply compatible equipment that integrates seamlessly with our existing 3M hardware and software. Some of the benefits to use their technology includes:

- Full compatibility with existing our hardware, software and Integrated Library System.

-
- Consistency in provision of service and familiarity with use of the same equipment at all locations for both customers and staff.
 - Switching to a different vendor is cost prohibitive as existing RFID tags, and equipment would all have to be replaced.
 - 3M/Bibliotheca equipment has proven to be reliable and user-friendly. In the occasional event of breakdown, service response both with respect to response time and problem resolution has been excellent to date.
 - At this moment there are no other providers that can supply equipment which is compatible with the tags and other equipment from 3M Canada Company.
 - Since 2009, sorter equipment has been procured for the Cornell, Markham Village, Milliken Mills, Thornhill CC and Aaniin Library.

Sorters – Driving Efficiency

Sorter technology is fundamental to Markham Public Library's position as one of the most efficiently operated public library systems in Canada. Sorters reduce the need for material handling by staff by automating the process of checking in and sorting returned items. When library items are returned through the sorter, the sorter places the items into predetermined bins (based on shelving location within the library). Staff then empty the contents of the bins onto carts and arrange them based on the call number affixed to the item, making them ready for shelving. This process reduces the turnaround time for re-shelving, ensuring that items get into the hands of customers faster. This improves resident access to library materials, increases usage, and delivers a higher ROI on municipal budgets for library materials. With time saved sorting items coming off the sorter, staff can be deployed to the delivery of higher-value services, including promotion, outreach, educational programs and support for literacy, including Science, Technology, Engineering and Mathematics (STEM) and digital literacy. In addition to more convenient and efficient automated return and check-in of library materials, users will experience shorter queues at the service desk and improved access to staff support.

OPTIONS/ DISCUSSION:

Regular life cycle replacement of self-service equipment at Angus Glen (one 9-bin sorter, four self-check kiosks, four RFID staff workstations and one RFID security gate), Milliken Mills (one RFID security gate and four RFID staff workstations) and Markham Village (two RFID security gate and four RFID staff workstations).

Library customers have readily embraced and are accustomed to using self-service technology in all MPL branches. Automated self-check-in technology permits customers to return their own Library materials and receive a receipt confirmation of their returns. Automated self-checkout technology allows customers to check out their library items using an automated kiosk. This technology improves customer service through reduced wait times, as people no longer have to wait for staff to manually check in or out their materials. Staff RFID workstations are required by staff in order to handle material workflow and provide customer service to members of the public borrowing materials. Finally, the RFID security gates ensure library materials are not stolen as the gates will trigger an alarm if someone walks out without checking out their item. These gates also track customer traffic to the library and allows library staff to monitor traffic patterns for service and scheduling considerations.

Circulation of materials in Markham has remained high relative to comparator municipalities over the past number of years. MPL leads our comparator libraries, in the GTHA (including Vaughan, Richmond Hill and Toronto), in borrows and visits per capita. In 2019 (our last full year of regular service pre-pandemic), MPL had a total circulation of 5.6 million borrows, an increase of 3% over the year prior. Of these materials borrowed, approximately 85% of check-outs and check-ins were done through the library's automated self-service machines.

In general, there is strong public demand for physical materials across the public library sector, and this trend is anticipated to rebound in the post-pandemic environment. Customer surveys indicate that users view library materials as the most important aspect of public library services

FINANCIAL CONSIDERATIONS

The cost of award includes the following components:

- **Angus Glen, Markham Village, Milliken Mills Branches** – Cost for replacement hardware equipment (inclusive of freight, installation, and training), as follows: one (1) 9-bin sorter with one (1) patron return and one (1) staff induction station for the Angus Glen branch, twelve (12) staff RFID workstations (4 for Angus Glen, 4 for Markham Village and 4 for Milliken Mills), four (4) self-check machines for Angus Glen, and four (4) RFID security gates (1 for Angus Glen, 1 for Milliken Mills and 2 for Markham Village).
- **Angus Glen, Markham Village, Milliken Mills Branches** – Recurring operating costs for maintenance services.

Capital Costs

The cost for replacement of hardware equipment (inclusive of freight, installation, and training) is \$385,730.88 inclusive of HST. These costs will be funded from Capital Project 23415, Library Bibliotheca Replacement, with an available budget of \$ 559,680.00.

Project	Amount
Budget Available	
23415 - Library Bibliotheca Replacement	\$559,680.00 (A)
Acquisition of Hardware Equipment (inclusive of freight, installation, and training) Angus Glen, Markham Village, Milliken Mills Branches	
Total Capital Costs	<u>\$385,730.88</u> (B)
Budget Remaining	<u>\$173,949.12*</u> (C)=(A) - (B)

*The remaining budget in the amount of \$15,264 inclusive of HST will be retained for the disposal of the old equipment and construction work (retrofitting of the wall opening for the new customer induction kiosk) for the new sorter intake at Angus Glen Library. The remaining balance of \$158,685.12 will be returned to the original funding source

Operating Costs

It is expected that the replacement work will commence in late-2023 and is expected to continue till mid-2024 to cover all three locations. A 12-month warranty will follow each successful replacement. New maintenance costs for the replacement equipment in the amount of \$39,193.20, inclusive of HST impact, will commence after the warranty periods have expired.

The current maintenance cost for the existing equipment is \$42,508.82, inclusive of HST impact. The net operating budget saving resulting from this project is \$3,315.62. The saving is due to technology improvement as Bibliotheca is replacing legacy technology by 3M with their own technology. The saving will effect GL account 400-404-5460 following the expiry of the warranty in mid-2025 and will be addressed during the 2025 operating budget process.

2025 Budget Impact		
Current Annual Budget for Maintenance	\$ 42,508.82	(D)
2 nd Year Maintenance Cost	<u>\$ 39,193.20</u>	(E)
2025 Operating Budget Saving	\$ 3,315.62	(F) = (D) - (E)

The Life Cycle Reserve Study will be updated upon project completion.

HUMAN RESOURCES CONSIDERATIONS

Not applicable

ALIGNMENT WITH STRATEGIC PRIORITIES:

Not applicable

BUSINESS UNITS CONSULTED AND AFFECTED:

Markham Public Library

RECOMMENDED BY:

Catherine Biss
Chief Executive Officer Markham
Services

Morgan Jones
Commissioner, Community
Public Library

Trinela Cane
Commissioner, Corporate Services

ATTACHMENTS:

None