



Staff Report for Capital Sustainability Steering Committee

Date of Meeting: September 17, 2024

Report Number: SRCS.24.14

Department: Community Services
Division: Public Works Operation

Subject: **SRCS.24.14 – Operations Centre and Yard Improvements**

Purpose:

This is to provide an update on the status of various growth-related capital improvements to the Operations Centre and Yard as recommended in the 1999 Master Development Study and Plan, updated in 2003 and 2016. This also recommends a phased approach for the remaining capital improvements and an Operational Needs Assessment in lieu of the previously approved Value Engineering Review, to ensure the functionality of the facility for the next 10, 20 and 40 years.

Recommendation(s):

- a) That staff report SRCS.24.14 regarding the Operations Centre and Yard Renovations be received.
- b) That staff complete an Operational Needs Assessment and implementation roadmap that details the future Operations Centre and Yard needs in order to determine the recommended future capital improvements for the facility over the next 10-20-40 years.
- c) That staff not proceed with the previously approved Value Engineering Review.
- d) That staff continue to move forward, pending budget availability, with phased construction commencing in 2027 of the high priority remaining items from the 2016 update of the Master Development Study and Plan.
- e) That the City pause construction of the Frost-Free Storage building pending the completion of the Operational Needs Assessment that will confirm the scope and scale of the future facilities, as well as the Richmond Green Master Plan that will impact the existing equipment storage facility on that site.
- f) That staff report back on interim debt financing for future Public Works projects in advance of the 2026 capital budget process.

Page 2

Contact Person(s):

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- Andrew Nichols, Manager, Public Works Support Services, x6582

Report Approval:

All reports are electronically reviewed and/or approved by the Treasurer, Commissioner, and City Manager. Details of the report's approval are attached.

Page 3

Key Messages:

- The Operations Centre and Yard are critical to the delivery of public works services in Richmond Hill.
- A 1999 Master Planning Study, subsequently updated in 2003 and 2016, guided the implementation of Operations Centre and Yard improvements over the last 20 years to ensure ongoing functionality of the facility.
- Future improvements to the Operations Centre and Yard are fully designed and are planned to be funded 80% from Development Charges.
- An Operational Needs Assessment is recommended to refine the identified facility upgrade needs over the next 10-20-40 years, inform future Development Charge Background Studies, and ensure that the functionality of the Operations Centre and Yard continues to keep pace with City growth.

Background:

The Public Works Operations facility located at 1200 Elgin Mills Road East was constructed in 1985. The facility is attached to a second building at 1150 Elgin Mills Road that was constructed in 1983 by Richmond Hill Hydro.

A Master Planning Study for the Operations Centre was completed in 1999. The objective was to develop a strategic long-range vision that would ensure the Operations Centre is functional and appropriately equipped to accommodate future growth. This was conducted in two phases.

The first phase (“Phase 1”) of the work focused on the long-term needs to 2021, including a fulsome review of the facility, its operations, and future requirements given the anticipated growth in Richmond Hill. The construction work completed between 2007 and 2009 under this phase included the following:

- Access road into the site was widened;
- Building consolidation including Fire Administration and Training Area was commissioned and an outdoor fire training facility (tower) was constructed;
- Artifact storage area was constructed;
- Various improvements internal to the main operation building;
- A new salt storage building, a truck wash facility, a fuel island, and related works were constructed.

The second phase (“Phase 2”) was to detail a recommended implementation strategy, including life cycle costing analysis of the facility renovation, options, and design concepts for the recommended future configuration. This Phase included the following activities which were undertaken between 2011 and 2020:

Page 4

- AMEC Foster Wheeler Feasibility Report (2016) that reviewed the remaining items included in the Master Plan and re-assessed the feasibility of completing the Phase 2 works.
- Urgent structural repair of a retaining wall in the yard was completed.
- AECOM Detailed Design for the Phase 2 works, previously identified and approved, was completed in early 2020. This included design of a 13,000 sq. ft. frost free storage building and covered facilities to accommodate equipment growth; extend underground services to the northernmost part of the yard; design of proper stormwater management facilities as well as an engineered wet earth fill decanting area; dedicated and covered outside material storage space; and asphalt paved areas throughout the site including landscaping.

Upon completion of the AECOM detailed design, a capital funding request to construct the designed work was initially anticipated for the 2020 budget but was deferred by council with a recommendation to review all remaining items in the plan. The construction estimate for the designed works was recently updated based on 2024 pricing and is now \$39.2 million.

Note, contrary to the original 2019 plan, the work needs to be phased through multiple contracts and subdivided into smaller work packages. It is possible that construction costs could increase slightly to account for added coordination and the mobilization and, or demobilization of multiple contracts.

In 2023, a full roof replacement of the Operations Centre was completed to deal with the rapid degradation of the existing roof structure. This now leaves the remaining Phase 2 works from the original plan to be completed. Also remaining to be completed is the Value Engineering Review requested at the 2019 Capital Sustainability Steering Committee meetings.

Discussion:

The Operations Centre and Yard improvements completed to date have been sufficient to ensure the overall functionality of the site is maintained. Continued growth, even if at a slower rate than originally anticipated, will however continue to create new pressures.

Designed Works

The works that have been fully designed by AECOM and are awaiting construction funding are estimated at \$39.2 million based on a December 2023 review (2024 dollars). As mentioned earlier, phasing the work plus annual inflation, could increase the future estimated costs. These works in order of priority are as follows:

- Extend underground services to the northern portion of the yard. Water, wastewater, stormwater, and lighting services are non-existent or insufficient across much of the yard. A significant portion of the yard was never properly serviced and the evolution

Page 5

of activities and usage since its original construction has created drainage and stormwater issues that need to be addressed. A basic stormwater management facility is included in this work.

- The existing asphalt paved areas remain in fair condition, but usage of unpaved gravel surfaces has increased significantly. Increasingly, large equipment and materials are stored in unpaved dusty or muddy areas where the gravel surfaces are routinely damaged by heavy rainfall and winter plowing. These need to be paved as the current patchwork of paved areas in the northern half of the yard no longer provides sufficient and adequate storage space. Paving the entire yard north of the building is therefore recommended as the underground servicing listed above will tear up significant portions of the existing pavement.
- An engineered wet earth fill decanting area is needed as the volume of wet material handled continues to increase. Hydrovac excavations are now more common, and this type of excavation generates materials that need to be properly dewatered before disposal.
- The increased volumes and turnover of stored granular materials, sand and various soils has strained the on-site material storage capacity. Increased covered storage would ensure proper material separation and minimize material run-off and contamination during rain events.
- Addition of canopy roof structures in the north and south end of the yard will increase the total amount of outdoor covered area for the storage of vehicles and equipment, providing some added protection from the elements for up to 34 dump trucks or 25 articulated sidewalk tractors. Both of these improvements are included as part of the Decanting and Material Storage improvements.
- The renovation of the buildings attached to the Salt Shed and the original truck wash station. Renovating each of these existing buildings will improve their functionality, accommodate growth, and give staff more on-shelf and other forms of storage space in temperature and moisture-controlled environments.
- Construction of a new 13,000 sq. ft. frost free storage building and covered facility to accommodate additional equipment resulting from city growth over the last number of years as well as anticipated growth in future years. Yard space for off-season protected storage has not kept pace with growth. Inadequate off-season storage results in faster than anticipated deterioration of certain equipment.

Additional Considerations

Richmond Green “Cattle Barn”:

The Richmond Green Master Plan is expected to be completed in 2025 and will likely recommend that the Public Works storage “Cattle Barn” on that site be vacated, torn down, and the site turned over to Richmond Green for park use. This would require that equipment stored in-doors at the Richmond Green site be relocated to the Operations Centre Yard. There is no storage capacity at this time to accommodate the move.

Page 6

North Operations Yard Expansion (aka Connor Building - Oak Ridges):

Some very limited relief may be available at the end of 2026 when the refurbishment of the Connor Building at 39 King Road is scheduled to be completed (pending capital budget approval). The building is being upgraded to accommodate some growth-related operational staff and equipment dedicated to the Oak Ridges area of Richmond Hill. It is expected that summer grass cutting and winter sidewalk plowing crews servicing Oak Ridges can be launched daily from that location. The property is not large enough for significant equipment storage, but the garage area will be expanded to provide some added in-door climate-controlled space. Seasonally, some of the small equipment dedicated to servicing that part of Oak Ridges could be stored at that site. This will however not substantially relieve the space pressures that exist at the Operations Centre Yard.

John McRae Street:

In the early 2000's, the City and Region collaborated with the developers of the property immediately west of the Operations Centre (and the Regional Community Environmental Centre) to increase in the size of the stormwater management pond and create a new north/south road (John McRae Street) with a signalized intersection on Elgin Mills Road East. The construction of the stormwater management pond, and the construction of John McRae Street are underway and scheduled for completion in the fall of 2024. The impact of the development, the pond, and the modified access to all three sites should also be considered when assessing the current and future demands of the Operations Centre and Yard.

Miscellaneous Operations Centre Building Improvements:

A variety of other minor improvements in the operations and maintenance work areas continue to be funded through both the Public Works Operations budget and capital to deal with end-of-life furnishings, health and safety measures, and urgent needs as they arise. For example, a Parks shop improvement is underway as this area has not undergone any improvements in nearly 20 years. The scope includes repair and repainting high traffic areas, lighting and ventilation improvements, reconfiguring workspaces, creating a larger staff meeting area, and splitting an existing smaller meeting room.

Operational Needs Assessment

Storage and daily mobilization remain key functions of the Operations Centre Yard. Over the years, the number and type of stored equipment has changed and as such a much larger portion of the total footprint is currently occupied.

With the 20-year planning horizon of the initial 1999 Master Development Study and Plan (modified in 2004 and updated in 2016) now exceeded, new facility pressures, technologies and services need to be reviewed to ensure effective and efficient use of the Operations Centre and Yard for the next 10, 20 and 40 years. An Operational Needs

Page 7

Assessment would identify issues that should be considered and planned for over the next 10-20-40 years and would include a scan of industry trends, technologies, changes in regulations, service pressures, and projected City growth. The results would help confirm or identify new needs and assist in further prioritizing/staging any future capital improvements.

New and evolving technologies need to be considered. For example, the original Master Plan had never contemplated the City's long term Green House Gas reduction and Net Zero plans. Consequently, future measures to decarbonize the City fleet will introduce alternative fuel vehicles. For example, electrification of the City fleet will require an increased power supply to the site to match the rate of eventual conversion to electric vehicles. In addition, site security and monitoring technologies have improved considerably in recent years and the functionality of existing systems should be reviewed.

Given the need to establish a facility and site plan (or "Roadmap") for the next 10-20-40 years, and the decision to pause the construction of the previously recommended frost-free storage building (detailed below), staff believe the previously approved Value Engineering Review is no longer necessary. The remaining work already designed by AECOM and awaiting capital funding is needed and sequencing in accordance with the priority list provided in this report and funding availability is recommended.

Recommended Next Steps

The 1999 Master Development Study and Plan (including the 2004 and 2016 amendments) was all encompassing. It considered the needs of Richmond Hill and what was needed to accommodate the 20 years of growth that was forecasted at that time. 2024 is now beyond the planning horizon of the original study and a new plan, or Operational Needs Assessment, and Roadmap is needed to properly plan and execute improvements to the Operations Centre and Yard on a timely basis in the future. This plan/assessment and Roadmap should consider the City's current needs, services, and accommodate the future needs of Richmond Hill as increased growth and urban intensification continues.

Staff believe that there are some items from the 1999 Master Development Plan and Study that are now a high priority and need to be constructed to improve site functionality, safety, increase immediate storage, and optimize the use of the yard. As such, staff recommend re-engaging the consultant who completed the design of the Phase 2 works, to update the design where necessary, and break the work into smaller individual contracts that could be tendered in order of priority. This would help optimize the current use of the yard and resolve the more immediate and outstanding site servicing issues. The most costly component of the designed works, the frost-free storage facility, would be paused pending the results of the Operational Needs Assessment.

Page 8

The primary objective of the Value Engineering Review was to validate the design of the frost-free storage facility and recommend improvements or cost-efficient alternatives. The staff recommendation to pause the development of the frost-free storage facility therefore eliminates the need for the Value Engineering Review. Staff recommend that the Operational Needs Assessment be used to also assess the designed frost-free storage and if possible propose cost efficient alternatives for future consideration.

The staff recommended Operational Needs Assessment would help confirm or identify new needs over the next 10-20-40 years and assist in prioritizing and staging the recommended new capital improvements that will be identified. This assessment would also be used to inform future Development Charge Studies in order to ensure the availability of future funding when it is needed.

Subject to budget approval and any refinements arising through the 2026 Operational Needs Assessment, it is currently recommended that Operations Yard projects should be included in the 10 Year Capital Forecast as indicated in Table 1. The proposed project schedule in Table 1 uses updated budgets and phases the various projects over several years to mitigate impacts to the Development Charge reserve.

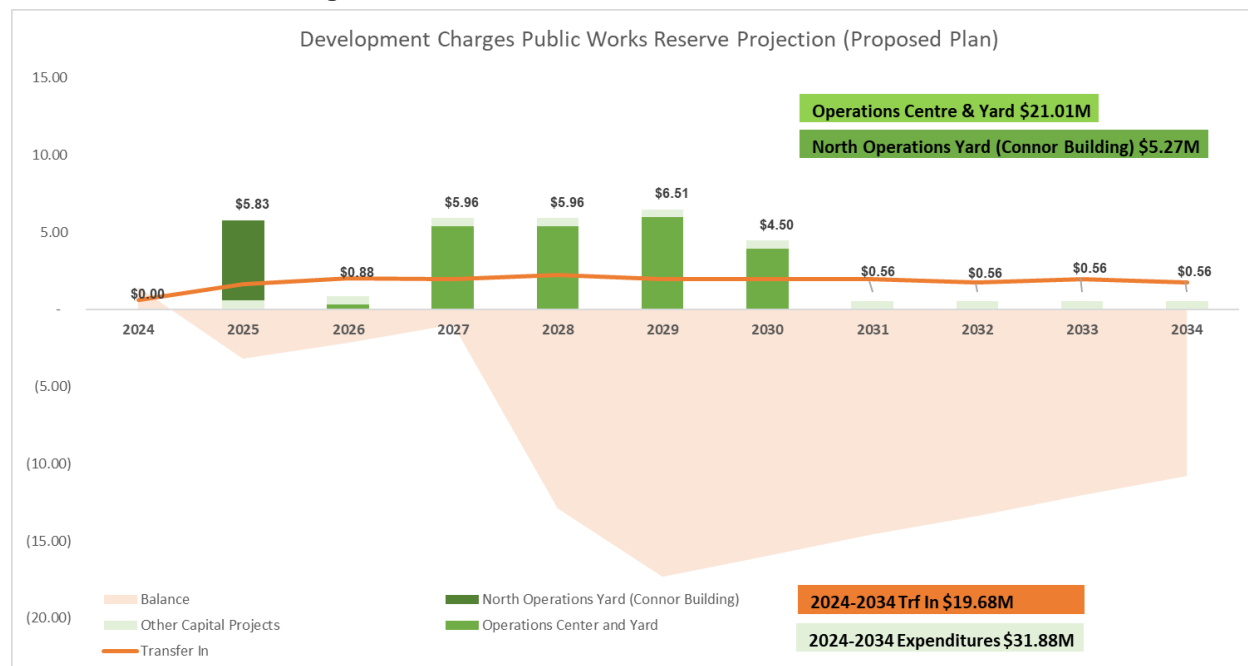
Page 9**Table 1: Proposed Capital Implementation and Budget Plan**

Year (Place Holders)	Description	Benefits	Estimated Budget (\$) includes Contingency
2026	Operational Needs Assessment	<ul style="list-style-type: none"> Needs Assessment will detail other needs (plan) for the site over the next 20 year and provide a roadmap for implementation. Objective is to ensure site functionality is preserved and new works are delivered when needed 	\$0.4 M
2027/28	Construction of Site Works – High Priority Items	<ul style="list-style-type: none"> Provide water, wastewater, and storm services Additional lighting Security improvements New & increased asphalt coverage 	\$13.5 M
2029	Renovation of existing Storage Building. Add shelving. Decanting and added covered storage – High Priority Work	<ul style="list-style-type: none"> Convert old wash bay to temperature controlled high-shelf storage area Improved contaminated material handling & safe disposal 18 Covered Outdoor Parking Space 	\$7.44 M
2030	New canopies and improvements to salt storage area. High Priority Work	<ul style="list-style-type: none"> Improved material storage and coverage 16 Covered Outdoor Parking Spaces. Convert open storage area to enclosed frost free area Store loader and other yard equipment for improved winter use 	\$4.92 M
Deferred	Frost Free Storage Building Construction - Lower Priority, package with future works. Priority may increase pending outcome of Richmond Green Master Plan.	<ul style="list-style-type: none"> 13,000 sq. ft. building 36 vehicle lifts 17 Covered Outdoor Parking Space 	\$13.2M

Financial Implications:

The 10 Year Capital Forecast presented to Council last year and the current Development Charges By-Law include \$18.5 million in capital costs associated with future Operations Centre and Yard works to be funded 80% through Development Charges and 20% tax supported.

Updated project cost estimates (Table 1) are an estimated \$26.26 million (does not include the deferred Frost Free Storage Building). Figure 1 illustrates the annual balance of the Public Works Development Charge Reserve including the current \$2.14 million balance of the reserve, the \$5.85 million 2025 request for the North Operations Yard (Connor Building) project (90% of which is to be funded through Development Charges), and the Operations Centre and Yard projects identified in Table 1.

Page 10**Figure 1: Estimated Public Works Reserve Cashflow**

While the proposed Table 1 scheduling plan begins to mitigate the financial impact of the anticipated future Operations Centre and Yard project, as shown in Figure 1, it continues to result in a significant deficit in the Public Works Reserve arising in 2028. In order to further mitigate the financial impact, the recommended Operational Needs Assessment will evaluate the extent to which components of the project can be further delayed, merged, scaled down or eliminated. Additionally, the timeframe for an update to the Development Charge Background Study will be shortened to incorporate the updated estimated costs into the Development Charge earlier. Finally, Finance will assess and report back on the extent to which it is recommended that alternate funding or debt financing could and should be used.

Relationship to Strategic Plan 2024-2027:

The proposed operations centre and yard improvements relate to Pillar 1: Growing a Livable, Sustainable Community, Priority 3, Make decisions that meet the needs of today's residents without compromising the ability of future generations to meet their own needs. Improvements to site servicing such as the stormwater and sanitary services, as well as the decanting facilities will help the City improve the environmental management of on-site activities through better handling of stormwater runoff and the safe disposal of contaminated materials. This will align with Priority 2 dealing with environmentally sustainable practices.

The completion of the proposed site improvements also relates to Pillar 3: Strengthening our Foundations, Priority 1, make decisions that are evidenced-based and data-driven to enable the City's long term financial sustainability, as well as social,

Page 11

environmental, and economic sustainability. The City has assessed the current and future needs and has to date only implemented the immediate requirements. The recommended approach for future works will ensure these are constructed and phased to meet future needs as these needs arise.

Page 12

Report Approval Details

Document Title:	SRCS.24.14 - Operations Centre - Yard Upgrade and Expansion.docx
Attachments:	
Final Approval Date:	Sep 12, 2024

This report and all of its attachments were approved and signed as outlined below:

Tracey Steele - Sep 12, 2024 - 11:16 AM

Darlene Joslin - Sep 12, 2024 - 3:21 PM