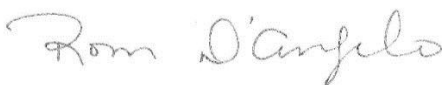




INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	May 30, 2022
SUBJECT/REPORT NO:	Capital Lifecycle Renewal - Facilities Roof Replacements (PW18065(c)) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Janet Warner (905) 546-2424 Ext. 7041
SUBMITTED BY:	Rom D'Angelo Director, Energy, Fleet and Facilities Management Public Works Department
SIGNATURE:	

COUNCIL DIRECTION

Not Applicable.

INFORMATION

The purpose of Information Report PW18065(c) is to provide an update to the Public Works Committee on funding currently available to address lifecycle renewal needs for the replacement of roofs at existing facilities, as well as document future impacts in the upcoming years.

The 2022 Capital Budget year marks the third year of a multi-year strategic plan whereby a significant portion of the Facilities Capital Block Funding will be redirected to a much-needed Roof Management Program in order to ensure a state of good repair and prevent further deterioration to a critical building component. Therefore, being proactive with the health of a roofing system will ultimately reduce the building financial liability.

At the November 27, 2020 General Issues Committee, staff from the Energy, Fleet & Facilities Management Division (Public Works Department) presented an Information Report PW18065(b) which outlined the need for funding in addition to the allotted Facilities Block Funding as part of the 2021 Capital Budget. Information Report PW18065(b) was to highlight and address the urgent priority for the replacement of

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.

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unfunded roofs, based on the considerations previously outlined for investment in the roof infrastructure renewal such as end-of-life assets and public perception. The primary focus and consideration of the roof replacements is not only limited to this critical component of a building but in consideration of health and safety in regards to in-door air quality and mould issues as it relates to roof leaks within public buildings and the impacts it may have to the patrons and employees of the building, as well as prevent continued (potential) damage to the rest of the facility.

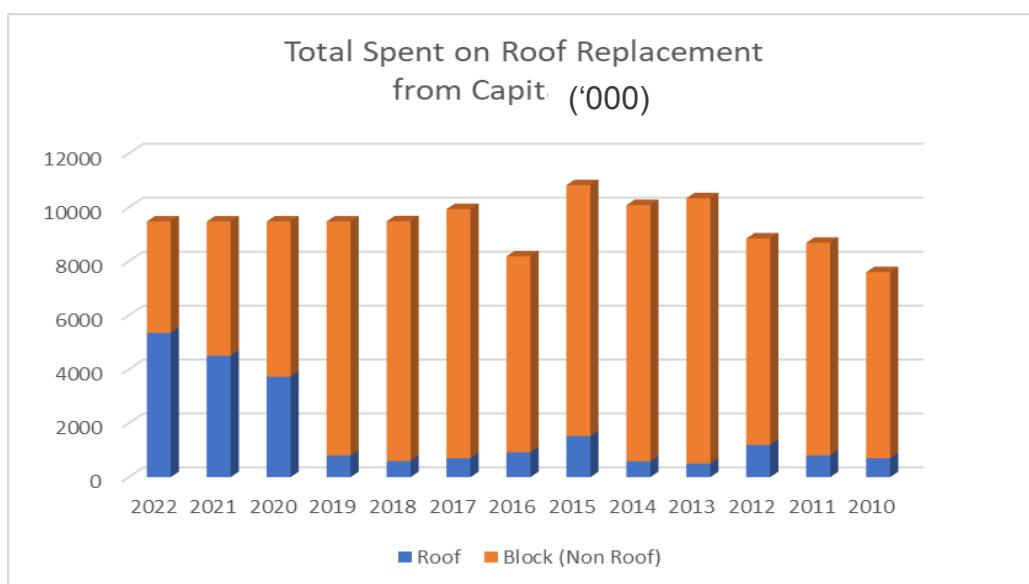
The basis of the Roof Replacement Report PW18065(b), was predicated on staff's earlier introduction of Reports PW18065 and PW18065(a) – Capital Lifecycle Renewal – Strategic Renewal of Facilities which outlined a growing capital backlog of over \$216M at that time (2018), translating to significant end-of-life infrastructure and in particular, roofs - failing or at risk of failing.

BACKGROUND

The total cost of all current priority roofs which have reached or will soon exceed end-of-life is anticipated to be a significant investment at multiple locations across the City of Hamilton (City).

As illustrated in Chart 1, over a 11-year period (2010–2022), approximately 18% of the annual Corporate and Recreation Capital Block Funding, or \$22M out of approximately \$122M, has been allocated to the repair and replacement of aging and failing roofs in order to maintain both the health and safety to the public and staff.

Chart 1:



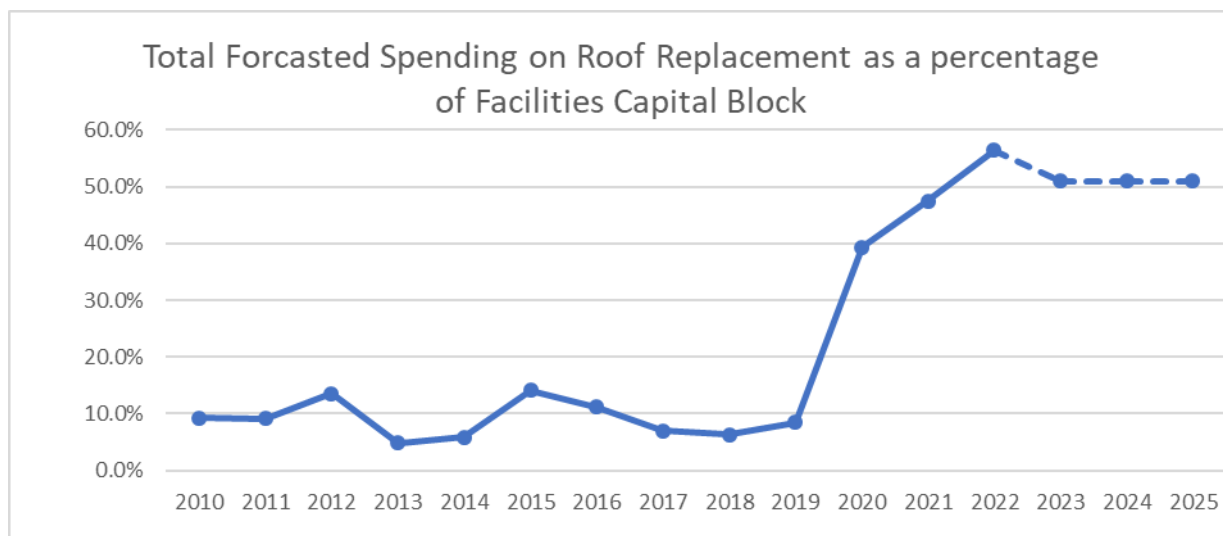
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The most cost-efficient way to maintain any building is to proactively plan for repairs and upgrades. As budgets for annual asset maintenance and annual capital stay static, or increase marginally, the priorities for spending that money can change rapidly.

Unlike previous years, 2020 and 2021 have seen a significant priority shift in the Roof Management Program whereby approximately 43% (\$4M) of the annual Facilities Block Funding went towards a number of roof replacements in order to address leaking roofs and roofs beyond their end of life at various arenas, recreation centres and other public facing facilities. Additionally, a further \$3.6M in WIP funding was reprioritized to critical roof replacement through the 2021 Capital budget process, thus deferring other priority infrastructure repairs and replacement.

The 2022 Facilities Capital allocation is no different, where a large portion of the funding was allocated towards the Roof Management Program. In fact, the roofing program accounts for 56% of the Facilities gross capital budget in 2022.

Chart 2:



In order to address the most urgent roofs by 2025, assuming no funding from other levels of government, approximately 51% of the Facilities Block funds would need to be expended on roof replacements across all facilities portfolios.

As infrastructure priorities shift, the City-owned facility roofs will continue to be reviewed and assessed through the Roof Management Program and Facilities' Building Condition Assessments (BCA) to determine priorities on a yearly and as-needed basis. Future capital will be requested and required to undertake the necessary roof replacements either as separate projects or where possible, as part of a larger capital project in order to benefit from synergies. Combining works within a larger-scale project will realize and

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maximize capital savings, time as well as minimize disruption to the public and those who utilize the facility.

A reprioritization of Facilities Block Funding toward the Roof Management Program effectively requires delaying or ultimately reducing the funding distribution of the following block-funded Facilities Capital Programs & Projects in order to address roof replacement:

- Mechanical Infrastructure Life-cycle Renewal;
- Parking Lot Rehabilitation;
- Facility Upgrades to Hamilton Public Libraries;
- Fire stations Facility Upgrade;
- Recreation Centre Retrofits;
- Senior Centre Retrofits;
- Arena Retrofits;
- Park & Fieldhouse Retrofits;
- Community Halls Retrofits;
- Yard capital renewal;
- Facility Capital Maintenance.

This was the case in 2021 where it was determined that the Dundas Public Works Yard roof was resulting in health and safety concerns and was immediately placed on the priority list, utilizing funds that were previously allocated for mechanical improvements within the City.

Roofs nearing end of life-cycle that have yet to be assessed or are not included to be replaced under the block funding program continue to bump those that are deemed in poor condition such as the example of the Dundas Public Works Yard previously noted.

Respectively, Appendix 'A' & 'B' attached to Report PW18065(c) addresses and summarizes priority replacement projects scheduled for 2022-2023, as well as roof replacements currently in progress and/or completed between 2020-2021. The list of roof replacements in Appendix 'A' & 'B' attached to Report PW18065(c) are all funded from the annual Facilities Capital Block funding program.

Further deferring these capital programs may result in failure of other key end-of-life infrastructure, for example, failure in the mechanical infrastructure used to heat a facility. This may result in staff returning to Public Works Committee for funding for emergency repairs. For under-funded facilities, delaying budgets for capital repairs elevates risks on the feasibility of keeping select facilities open to the public in coming years.

OTHER FUNDING SOURCES

Report FCS19-080, Investing in Canada Infrastructure Program (ICIP) - Community, Culture and Recreation (CCR) Stream Intake, was presented and approved by General Issues Committee (GIC) on October 16, 2019. Staff brought forward several roofing priorities in Recreation Facilities, of which the following roofs were approved:

- Mohawk Quad Pad (partially funded through capital block);
- Dundas Recreation/Pool;
- Bennetto Recreation Centre;
- Chedoke Golf Clubhouse.

Appendix 'C' attached to Report PW18065(c) includes a summary of the roof replacement projects scheduled for 2022-2023, funded by the ICIP CCR program.

Additionally, the Facilities Capital team worked with Facilities Operations & Maintenance in completing smaller needed repairs leveraging maintenance dollars. Preventive and demand maintenance (general repairs) minimizes the total and annualized cost of ownership of roofing systems through regularly scheduled inspections and periodic repairs of common problematic components. Over a three-year period (2019 – 2021) the City issued 355 workorders to address the ongoing regular monitoring, preventative maintenance and roof repairs across an extensive building stock. The maintenance cost over the three-year time period is valued at \$687,498.

Even with the proposed replacement of the roofs outlined in this report (Reference Appendix 'D' attached to Report PW18065(c)), many roofs remain in poor condition (nearing failure) and are in need of replacement within the next 1-3 years (2023-2025) at a current estimated value of approximately \$17.5 M. (*Note that these cost estimates are subject to internal fees, escalation, consulting costs and contingencies totalling an additional 20%. Additionally, current escalation costs for every year deferred is currently at approximately 10% due to current industry pressures.)

Furthermore, and as mentioned, priority roofs and those of concern continue to be reviewed as part of our annual Building Condition Assessments (BCA) process to prioritize roof replacements over the next 3 years. BCAs are undertaken and assessed by respective portfolios which will increase the list of roofs to be prioritized and replaced on an annual basis until all City facilities in need of roof replacement have been upgraded.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" attached to Report PW18065(c) –Roof Replacement Scheduled for 2022-2023 (Block Funding Approved - In Design Phase)

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Appendix "B" attached to Report PW18065(c) - Roof Replacement (Block Funding
Approved – In-Progress / Complete)

Appendix "C" attached to Report PW18065(c) - Roof Replacement Scheduled for 2022 -
2023 Investing in Canada Infrastructure
Program (ICIP) Funded (In-Progress)

Appendix "D" attached to Report PW18065(c) - Roof Replacement Scheduled for
2023-2025