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# 2021 CAPITAL BUDGET BRIEFING NOTE
# State of Good Repair (SOGR) Backlog

## Issue/Background:

This briefing note presents the State of Good Repair (SOGR) Backlog for Tax and Rate Supported City Programs and Agencies, and the impact investments in the 2021–2030 Staff Recommended Capital Budget and Plan will have on the City's SOGR Backlog.

The City owns an inventory of physical assets valued at $101.5 billion as shown in Table 1 below:

### Table 1: City's Physical Infrastructure

| Tax & Rate Supported Programs | | Estimated Asset Value |
|---|---|---|
| **Transportation Infrastructure** | - 5,600 km of roads<br>- 900 bridges/culverts and 6,960 sidewalks<br>- 2,420 traffic signals and 580 pedestrian crossovers<br>- 340 km of trails and 696 km of on-street bikeways | **$28.9 Billion** |
| **Water & Wastewater Infrastructure** | - 4 water filtration & 4 wastewater treatment plants<br>- 11 reservoirs, 4 elevated water storage tanks<br>- 7 storm storage and detention tanks<br>- 105 pumping stations<br>- 10,200 km for sanitary, combined and storm sewers<br>- 6,100 km of distribution and transmission watermains | **$28.8 Billion** |
| **Public Transit System** | - 2,101 buses & 260 streetcars/LRVs<br>- 800 subway<br>- Subway, buildings, trackwork, equipment,etc. | **$19.4 Billion** |
| **Buildings, Facilities & Fleet** | - 478 City-owned facilities covering more than 12.1 million sq. ft.<br>- More than 5,500 vehicles, ferries and vessels | **$9.6 Billion** |
| **TCHC** | - 58,500 public housing units (full responsibility) | **$10.5 Billion** |
| **Parkland & Other Land** | - 8,106 hectres of parkland (= *13%* of the land area of the City of Toronto) | **$4.2 Billion** |
| **Estimated Asset Value** | | **$101.5 Billion** |

The City has an expansive asset inventory and its infrastructure is aging. The City's capital program is driven largely by the cost of maintaining these physical assets in a state of good repair. Managing the accumulated SOGR backlog is a key capital strategic objective and priority for the City in order to ensure that current assets are able to support the delivery of City services and meet service outcomes.

When capital funding for planned SOGR capital works is less than the annual SOGR need, the unfunded balance is added to the accumulated SOGR backlog. Conversely, should the capital funding in SOGR exceed the planned SOGR need, the excess is applied against the accumulated SOGR backlog, effectively reducing the balance.

In the absence of comparable benchmarks, the City has established its own state of good repair performance measure; *"backlog as a percentage of total asset value (replacement value)"* that is applied across its portfolio of assets. The benefits of gathering accurate asset data is that it:

- provides a true picture of what the accumulated SOGR backlog is;

- identifies areas of growing need and attention to the City's asset condition; and

- shows the impact of City SOGR planned funding on the City's accumulated SOGR backlog for the capital planning period.

This metric provides the City with year over year comparisons and trends that assist City Council in determining how best to apply scarce resources in making strategic investments to reduce the City's SOGR Backlog by Program/Agency and/or by asset type. By employing this practice, the City can measure its progress in achieving SOGR objectives and conversely, can determine where additional investments are required. Details of the SOGR Backlog trend and percentage of total asset value for each Program and Agency can be found in their respective Budget Notes.

In addition to the SOGR backlog metric, the City employs practices that require comprehensive asset value condition assessments by asset type; the use of decision support tools to rank and prioritize reinvestment needs and debt funding scenario analysis, all of which form part of the City's regular capital planning process. These actions taken together improve asset lifecycle management, more accurately identify the SOGR needs in the City's portfolio, and reflect the City's strategic commitment to address the infrastructure deficit in a holistic fashion.

As City Programs and Agencies continue to mature its asset management best practices, SOGR backlog funding pressures continue to rise as better information is received about the condition of City infrastructure. Further funding strategies will be required to reduce the backlog in future years.

**Key Points:**

**Total City SOGR Backlog (Tax & Rate)**

- The 2021–2030 Staff Recommended Capital Budget & Plan (Tax & Rate) is allocating $23.012 billion or 51.6% of funding to capital works to address City infrastructure required to deliver services to the citizens of Toronto are maintained in a state of good repair;

- Despite the investment in SOGR, the total accumulated SOGR backlog estimate will increase from $8.362 billion at the end of 2020 to $14.994 billion by the end of 2030 and respectively the backlog as a percentage of asset value will increase from 8.5% to 13.0%;

- As summarized in table 2 below, the accumulated balance for Tax Supported Programs will increase by $7.969 billion which will be offset by $1.337 billion decrease in the Rate Supported Programs, consequently, the overall accumulated backlog balance will increase by $6.632 billion over the 10 year period;

- Rate Supported Programs includes Toronto Water and Toronto Parking Authority both of which will have their SOGR backlog nearly eliminated in the 10 year period;

**Table 2: SOGR Backlog by Program – Summary**

| SOGR Backlog ($M) | 2020 (beg. bal.) | 2021 (1 Year) | 2025 (5 Year) | 2030 (10 Year) | 2020-2030 Change |
|---|---|---|---|---|---|
| Tax Supported | 6,873 | 7,153 | 9,177 | 14,842 | 7,969 ▲ |
| Rate Supported | 1,489 | 1,375 | 496 | 152 | (1,337) ▼ |
| Total SOGR Backlog | 8,362 | 8,529 | 9,674 | 14,994 | 6,632 ▲ |
| Total Asset Value | 98,188 | 101,485 | 107,259 | 114,973 | 16,785 |
| SOGR as % Asset Value | 8.5% | 8.4% | 9.0% | 13.0% | |

**Tax Supported Program**

- The 2021–2030 Staff Recommended Tax Supported Capital Budget and Plan will invest $15.924 billion or 55.1% of its total $28.894 billion in SOGR projects to maintain assets in a state of good repair for the next 10 years.;

- The accumulated SOGR backlog balance is estimated to increase from $6.873 billion or 9.9% of total asset value at the end of 2020 to $14.842 billion or 18.4% of total asset value by the end of 2030 as shown in Chart 1 in the following page:

**Chart 1: 10 Year Capital SOGR Backlog – Tax Supported Programs**
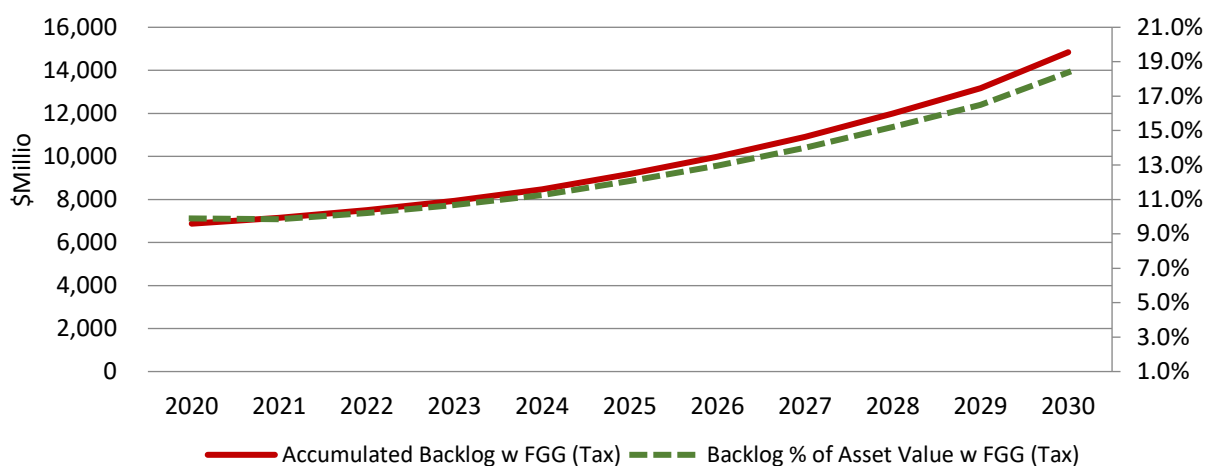


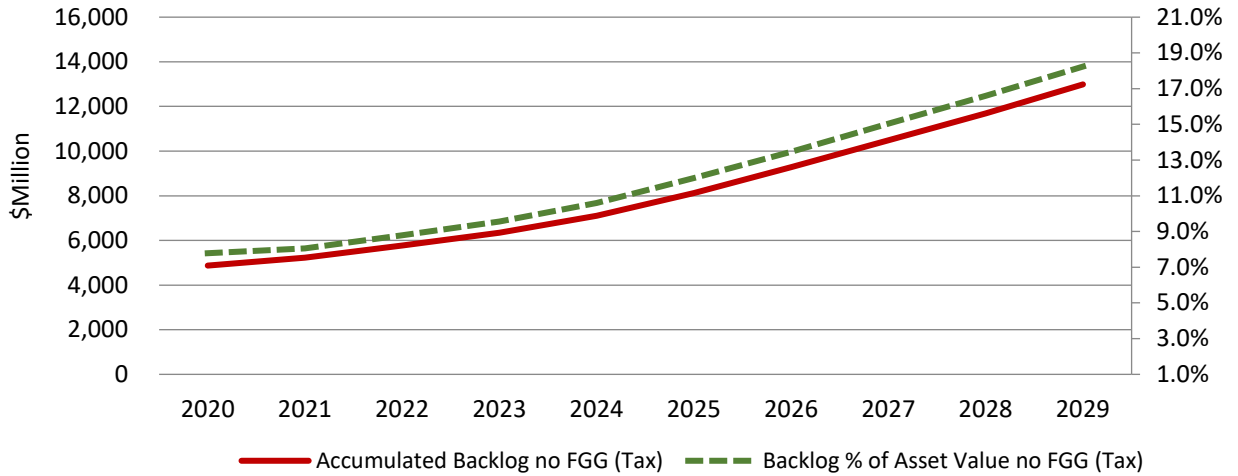| Tax Supported ($M) | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Asset Value | 69,450 | 72,628 | 73,475 | 74,335 | 75,213 | 76,081 | 76,983 | 77,913 | 78,839 | 79,786 | 80,747 |
| Accumulated Backlog | 6,873 | 7,153 | 7,496 | 7,939 | 8,463 | 9,177 | 9,986 | 10,916 | 11,995 | 13,166 | 14,842 |
| Backlog % of Asset Value (Tax) | 9.9% | 9.8% | 10.2% | 10.7% | 11.3% | 12.1% | 13.0% | 14.0% | 15.2% | 16.5% | 18.4% |

- The main contributors to the City's accumulated SOGR backlog for Tax Supported Programs are as summarized in Table 3;

  - Six program areas, namely, Toronto Community Housing Corporation (TCHC), Transportation Services, Parks, Forestry and Recreation, Corporate Real Estate Management (CREM), Toronto Public Library and Toronto Transit Commission make up $6,258 billion or 91% of the $6,873 billion accumulated SOGR backlog balance at the end of 2020;

- **Table 3: SOGR Backlog by Program – Summary**

| SOGR Backlog ($M) | 2021 (beg. bal.) | 2021 (1 Year) | 2025 (5 Year) | 2030 (10 Year) | 2020-2030 Change | |
|---|---|---|---|---|---|---|
| Toronto Transit Commission | 71 | 21 | 1,772 | 6,331 | 6,260 | ▲ |
| Transportation Services | 1,242 | 1,487 | 2,717 | 4,542 | 3,300 | ▲ |
| Corporate Real Estate Management | 580 | 685 | 931 | 1,025 | 445 | ▲ |
| Parks, Forestry & Recreation | 623 | 646 | 700 | 774 | 151 | ▲ |
| Toronto Public Library | 125 | 176 | 153 | 191 | 66 | ▲ |
| Toronto Housing Corporation | 1,616 | 1,607 | 1,280 | 1,261 | (355) | ▼ |
| Other | 615 | 609 | 529 | 576 | (39) | ▼ |
| Total City Backlog (Tax excl. Gardiner) | 4,870 | 5,231 | 8,082 | 14,699 | 9,828 | ▲ |
| F.G.Gardiner Expressway Rehabilitation | 2,002 | 1,922 | 1,095 | 143 | (1,860) | ▼ |
| Total SOGR Backlog (Tax) | 6,873 | 7,153 | 9,177 | 14,842 | 7,969 | ▲ |
| Total Asset Value (Tax) | 69,450 | 72,628 | 76,081 | 80,747 | 11,297 | |
| SOGR as % Asset Value | 9.9% | 9.8% | 12.1% | 18.4% | | |

- ▪ Over the 10 year period, dedicated investments is expected to reduce the accumulated SOGR backlog balance for TCHC and F.G. Gardiner Expressway Rehabilitation (FGG) project and other Programs/Agencies such as Children Services, Economic, Development and Culture, Senior Services and Long-Term Care, Shelter, Support & Housing Administration, TO Live, Toronto Police Services, and Toronto Region Conservation Authority (TRCA);

  - ▪ The accumulated SOGR backlog balance for five of the six main program areas will continue to increase over the 10 year period;

  - ▪ Other Programs/Agencies also contributing to the increase in SOGR backlog balance includes Fleet Services, Technology Services, Exhibition Place and Toronto Zoo

- • The 2021-2030 Staff Recommended Capital Budget and Plan will invest $2.002 billion to reduce the backlog of FGG project. Excluding FGG project, Transportation Services will be the second largest contributor to the City's SOGR backlog increase, projected to rise by $3.300 billion in the 10 year period;

- • Toronto Transit Commission will be the largest contributor to the City's SOGR Backlog increase, projected to rise by $6.260 billion in the 10 year period.

  - ▪ The increase in the TTC backlog and corresponding increase in the City's overall SOGR backlog is different from prior years as the TTC has taken a new approach for reporting SOGR backlog;

  - ▪ Projects previously identified as unfunded in the TTC's Capital Investment Plan are now also being reflected in the TTC's SOGR backlog;

  - ▪ While the SOGR Backlog will rise from $21.1 million or 0.1% of asset value in 2021 to $6.3 billion or 32.7% of asset value by the end of 2030, the SOGR Backlog would have been higher had it not been for the infusion of incremental funding through the City Building Fund for critical subway infrastructure state of good repair projects in 2020;

  - ▪ If one excludes the backlog associated with unfunded fleet overhaul and procurement investments, the SOGR Backlog would be $2.5 billion or 12.7% of asset value by the end of 2030, noting that unfunded vehicle needs make up two-thirds of this backlog.

- • As demonstrated in Chart 2 in the following page, excluding FGG, the SOGR backlog for the Tax Supported Programs will increase more steeply from $4.870 billion to $14.699 billion;

**Chart 2: 10 Year Capital SOGR Backlog – Tax Programs (excl. Gardiner)**



| Tax Supported - excl. Gardiner ($M) | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Asset Value | 62,570 | 64,971 | 65,666 | 66,370 | 67,088 | 67,794 | 68,530 | 69,291 | 70,044 | 70,816 | 71,597 |
| Accumulated Backlog | 4,870 | 5,231 | 5,756 | 6,335 | 7,075 | 8,082 | 9,231 | 10,444 | 11,636 | 12,923 | 14,699 |
| Backlog % of Asset Value (Tax) | 7.8% | 8.1% | 8.8% | 9.5% | 10.5% | 11.9% | 13.5% | 15.1% | 16.6% | 18.2% | 20.5% |

- As detailed in Appendix 1, $1.975 billion of SOGR needs will be added in 2021 of which $1.705 billion will be addressed by the planned investment in 2021 budget, as a result, the accumulated SOGR backlog balance will increase by 4.1% or $280.3 million in 2021.

- Over the 10 year period, $19.843 billion of SOGR needs will be added of which $11.874 billion will be addressed by the planned investments in the 2021-2030 Staff Recommended Capital Budget and Plan. Consequently, the accumulated backlog balance will be increased by $7.969 billion to $14.842 billion by the end of 2030.

**Issues and Strategies**

The City has implemented a series of capital investment strategies to help address the continued pressure from its accumulated SOGR backlog. This is evidenced by the near elimination of SOGR backlog in Toronto Water and FGG project, and other key areas such as TCHC, Toronto Parking Authority, TRCA, Children Services and Toronto Police Services. However, the backlog in other key program areas continues to grow.

Factors contributing to the increase in accumulated SOGR backlog for the City includes:

- City is continuing to receive updated asset values and condition assessments from asset inspections that more precisely account for SOGR needs. Also, as the City

continue to mature its asset management best practices and better information is received about the condition of the infrastructure, SOGR needs is expected to continue to rise;

- The readiness to process and capacity to spend analysis undertaken during the budget review process requiring project to adjust/recast planned cash flow estimates to better match actual spending to project activities. As such, the capital funding may be spread over a longer period;

The City will need to explore sustainable long term financing strategies to address this issue on an on-going basis and establish a balance between capital projects and funding priorities. This will be necessary to maintain the City's current $101.5 billion of assets in a state of good repair as well as improve and add assets to meet service demand and growth of the City.

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**Attachments:**
Appendix 1: 2021-2030 Increment/Decrement in State of Good Repair Backlog by Program

## Appendix 1: Change in Accumulated SOGR backlog 2021 to 2030 by Program

| Program Description ($Millions) | 2021 | | | | | 2021 - 2030 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Accum. Backlog Beginning Balance | SOGR Needs Added | SOGR Backlog Addressed | Backlog Incr./ (Decr.) | Accum. Backlog Ending Balance | SOGR Needs Added | SOGR Backlog Addressed | Backlog Incr./ (Decr.) | Accum. Backlog 2030 Balance |
| **Community and Social Services (CSS)** | | | | | | | | | |
| Children's Services | 3.7 | 1.6 | 1.5 | 0.1 | 3.8 | 12.4 | 15.0 | (2.6) | 1.1 ▼ |
| Economic Development and Culture | 47.5 | 5.3 | 6.3 | (1.0) | 46.5 | 45.5 | 59.4 | (13.9) | 33.7 ▼ |
| Parks, Forestry & Recreation | 622.7 | 99.8 | 77.0 | 22.8 | 645.5 | 835.4 | 684.0 | 151.4 | 774.1 ▲ |
| Seniors Services and Long-Term Care | 8.2 | 5.7 | 6.9 | (1.2) | 7.0 | 81.0 | 84.7 | (3.7) | 4.5 ▼ |
| Shelter, Support & Housing Administration | 14.2 | 11.2 | 12.0 | (0.8) | 13.4 | 37.1 | 37.9 | (0.8) | 13.4 ▼ |
| Toronto Housing Corporation | 1,616.2 | 270.7 | 280.0 | (9.3) | 1,606.9 | (355.4) | 0.0 | (355.4) | 1,260.8 ▼ |
| **Sub-Total CSS** | **2,312.6** | **394.3** | **383.7** | **10.6** | **2,323.2** | **656.0** | **880.9** | **(224.9)** | **2,087.7 ▼** |
| **Infrastructure and Development Serv. (IDS)** | | | | | | | | | |
| Transportation Services | 3,244.2 | 447.8 | 282.7 | 165.1 | 3,409.3 | 3,336.3 | 1,896.2 | 1,440.1 | 4,684.2 ▲ |
| **Sub-Total IDS** | **3,244.2** | **447.8** | **282.7** | **165.1** | **3,409.3** | **3,336.3** | **1,896.2** | **1,440.1** | **4,684.2 ▲** |
| **Corporate Services** | | | | | | | | | |
| Corporate Real Estate Management | 579.6 | 173.9 | 68.6 | 105.3 | 684.9 | 1,050.2 | 604.9 | 445.3 | 1,024.9 ▲ |
| Fleet Services | 37.2 | 71.0 | 67.5 | 3.5 | 40.7 | 752.6 | 745.1 | 7.5 | 44.7 ▲ |
| Technology Services | 0.0 | 26.7 | 21.3 | 5.4 | 5.4 | 284.5 | 213.0 | 71.5 | 71.5 ▲ |
| **Sub-Total Corporate Services** | **616.8** | **271.6** | **157.3** | **114.2** | **731.0** | **2,087.3** | **1,563.0** | **524.3** | **1,141.0 ▲** |
| **Total City Operations** | **6,173.5** | **1,113.6** | **823.7** | **289.9** | **6,463.4** | **6,079.6** | **4,340.1** | **1,739.4** | **7,913.0 ▲** |
| **Agencies** | | | | | | | | | |
| Exhibition Place | 32.3 | 14.2 | 5.4 | 8.7 | 41.1 | 230.6 | 143.3 | 87.3 | 119.6 ▲ |
| TO Live | 98.9 | 0.0 | 12.9 | (12.9) | 86.0 | (66.4) | 0.0 | (66.4) | 32.5 ▼ |
| Toronto & Region Conservation Authority | 251.5 | 5.2 | 16.6 | (11.4) | 240.1 | 72.0 | 191.9 | (119.9) | 131.6 ▼ |
| Toronto Police Service | 37.9 | 4.2 | 4.6 | (0.4) | 37.5 | 40.2 | 44.2 | (4.0) | 33.9 ▼ |
| Toronto Public Library | 124.5 | 73.4 | 21.8 | 51.6 | 176.1 | 253.4 | 187.4 | 66.0 | 190.5 ▲ |
| Toronto Zoo | 83.3 | 13.1 | 8.5 | 4.7 | 87.9 | 121.8 | 115.9 | 5.9 | 89.2 ▲ |
| **Sub-Total Other City Programs** | **628.4** | **110.1** | **69.8** | **40.3** | **668.7** | **651.7** | **682.8** | **(31.1)** | **597.4 ▼** |
| **Toronto Transit Commission (TTC)** | | | | | | | | | |
| Toronto Transit Commission | 71.0 | 761.3 | 811.2 | (49.9) | 21.1 | 13,111.4 | 6,851.2 | 6,260.2 | 6,331.2 ▲ |
| **Sub-Total TTC** | **71.0** | **761.3** | **811.2** | **(49.9)** | **21.1** | **13,111.4** | **6,851.2** | **6,260.2** | **6,331.2 ▲** |
| **Total - Tax Supported Programs** | **6,872.9** | **1,985.0** | **1,704.7** | **280.3** | **7,153.2** | **19,842.6** | **11,874.1** | **7,968.6** | **14,841.5 ▲** |

**Note:**

- Funding to address the state of good repair backlog for City-owned facilities for Paramedic Services, Toronto Fire and Toronto Public Health is included in CREM's 10-Year Capital Plan as asset management capital funding was transferred to CREM in 2010.
- TRCA includes other SOGR backlog and funding
- Adjusted SOGR based on new methodology used by TTC