ONTARIO SCIENCE CENTRE MODERNIZATION

BUSINESS CASE

MARCH 8, 2023

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Infrastructure Ontario

Lord Cultural Resources

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EXECUTIVE SUMMARY

i. Context: An Operational Crisis

Opened in 1969, the Ontario Science Centre ("OSC") at 770 Don Mills Avenue, Toronto, has become one of the Province's most recognized institutions and a globally respected brand. Widely regarded as one of the leading science centres in the world and a pioneer in interactive science education, the OSC is currently facing a series of operational issues that threaten its long-term sustainability, including:

- ***Building Deterioration and Critical Maintenance Requirements****:* Over the next 20 years, the cost of undertaking necessary deferred and critical maintenance is estimated to be $369 million. In June 2022, the OSC facility started to fail with the emergency closure of the main bridge connecting the entrance building to the rest of the facility.
- ***Exhibition and Visitor Experience:*** Many of the OSC public areas and exhibits have not benefited from modernization for 10+ years. Some parts of the OSC have not been updated since it opened in 1969. To remain competitive in the tourist and education market, an additional investment of $109 million is required to modernize the exhibits and undertake cosmetic improvements to the public areas.
- ***Required OSC Closure:*** Undertaking the $369 million of required critical maintenance and building repairs will require complete closure of the OSC for an unknown duration (estimated to be a minimum of one year and potentially up to three years). Closure will impact revenue generation and may cause negative public perception of the building's safety as a family destination.
- ***Immediate Health & Safety Risks****:* Of the required building critical maintenance, $23 million is in health and safety measures that must be completed immediately. An additional $20.5 million for other critical repair works is required by March 31, 2024. In October 2022, Treasury Board approved $7 million in emergency funding to address operating pressures incurred to date, including $3.3 million for health and safety repairs, however the balance of repairs remains unfunded.
- ***Functional Obsolescence of current OSC:*** The 568,000 square feet OSC is expansive and spread across three buildings and multiple levels, creating a highly inefficient structure. The OSC's sub-optimal building layout results in a significant amount of inefficient spaces: less than 25% of the OSC is dedicated to permanent exhibits (100,000 net square feet)[1], compared to up to 50% of floor area in other major North American science centres. Permanent exhibit space at the Don Mills site cannot be expanded without major interior renovation.
- ***High Operating Costs due to inefficiencies:*** The multi-level oversized building footprint results in a disjointed visitor experience as visitors move across levels and buildings, as well as high operating and maintenance costs due to the inefficient building design. Aging building systems and inefficient utilization of the building will result in rising operating costs year over year.
- ***Declining Attendance and Revenues:*** A lack of investment in visitor experience has resulted in a long-term decline in attendance and related revenues. Between 2009 and 2020 (pre COVID-19), annual

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[1] OSC is unique amongst science centres as it also houses of 40,000 square feet fabrication facility that supports exhibition creation, and generates revenue for the OSC, in addition the public spaces.

attendance declined by more than 40% from a high of almost 1.287 million visitors to 766,487 visitors. Whilst OSC is seeing increasing attendance in the post COVID-19 related shutdown period, the long-term trend remains.

- ***Increased Market Competitiveness and Shrinking Market Share:*** Several high-profile new attractions have entered the Toronto tourism market over the past decade (i.e., Ripley's Aquarium and new investment in Royal Ontario Museum, Art Gallery of Ontario, St Lawrence Market, Rogers Centre and CN Tower enhancements). Locals and tourists have a breadth of choice in attractions in the downtown core. The OSC's suburban location, coupled with its limited investment in an improved visitor experience has challenged its ability to stay competitive in the Toronto attractions market.
- ***Lack of Provincial Control Over Site:*** The entire 50-acre OSC site is leased from the City of Toronto ("the City") and the Toronto Regional Conservation Authority ("TRCA"). The Government of Ontario ("the Government" or "the Province") requires permission from the City to modify or upgrade the existing building elevations/exterior, site grades and parking facilities.
- ***New Provincial and Municipal Initiatives Impacting Site Operations:*** Various provincial and municipal initiatives around the OSC are impacting the site, including the construction the Ontario Line Subway, associated transit-oriented communities and CreateTO developments. Construction and related new developments on the Don Mills site will reduce parking on site and hinder visibility of the facility from both Eglington and Don Mills frontages, likely impacting visitation and related revenues.

In summary, **the OSC at Don Mills is not sustainable under status quo conditions** and is in operational crisis due to a failing structure with mounting critical building maintenance costs, long term trend in declining attendance, declining revenues, and stagnant operating subsidies. These compounding realities challenge the ongoing viability of the OSC at its current site.

Concurrent with its assessment of OSC's future, the Province is evaluating the future opportunity of another iconic provincial institution: Ontario Place. Opened in 1971, Ontario Place – like the Ontario Science Centre – was built for all Ontarians as a statement of provincial innovation, education and creativity. After over 40 years of operations and faced with declining attendance and limited public investment, the Province announced partial closure of Ontario Place in 2012.

In 2019, the Government announced its vision which would position Ontario Place as *"A world-class year-round destination that would attract local, provincial, and international visitors, with a focus on family-friendly entertainment and recreation. The development aims at recognizing and celebrating the legacy of Ontario Place and making it a centerpiece for the province's heritage, tourism, recreation, and culture, with potential landmarks such as sports, entertainment attractions, and retail. These landmarks could be complemented by recreational facilities, improved waterfront access, parkland, free public spaces, and the existing amphitheater."*

In 2021, following an international Call for Development, the Province identified two private sector partners - Therme Group and Live Nation - as anchor commercial tenants for a revitalized Ontario Place. The Government also confirmed preliminary discussions with the OSC to deliver science programming as part of the renewed Ontario Place. Securing a publicly owned cultural anchor, such as the OSC, could be an important addition to counter negative perceptions of the commercialization and privatization of this unique waterfront public asset.

As part of the Government's announced vision, a commitment was made to rehabilitate the heritage Pod complex and Cinesphere as a central feature of a redeveloped Ontario Place. Despite including these unique assets as part of the international Call for Development for Ontario Place redevelopment, no viable commercial tenant was identified and the 77,700 square feet Pod and Cinesphere complex remains vacant. As a *Provincial Heritage Property of Provincial Significance*, the Government is obligated to maintain the Pods and Cinesphere even in an untenanted condition.

The concurrent planning of these two public assets provides Government with a unique opportunity to simultaneously revitalize two provincial assets through one capital investment.

ii. Approach

In 2022 Infrastructure Ontario ("IO") was directed by the Ministry of Infrastructure ("MOI") to seek Stage Two (construction) approval for the relocation of the OSC from its current Don Mills site to Ontario Place. This was to be supported by a comprehensive business case that demonstrates the qualitative and quantitative analysis on how a modernized OSC at Ontario Place is best achieved. The business case was led by IO with support from a team of external advisors, including Lord Cultural Resources (Cultural Feasibility), Ernst & Young ("EY") (Fiscal and Economic Impact), Ontario Science Centre Staff (baseline condition and evaluation support) and the Ministry of Tourism, Culture and Sport ("MTCS").

The two options under consideration for modernizing the OSC include:

1. **Option 1: Remain on Site** - address all capital repairs/deferred maintenance issues and undertake refresh of public areas and exhibits at the current 770 Don Mills site. No consolidation or rationalization of space / programming is contemplated under this option.
2. **Option 2: Relocate OSC to Ontario Place** - construct a new, smaller OSC facility as cultural anchor on provincially-owned land with new exhibits and modernized program. The smaller sized facility must be of a scale to allow OSC to successfully deliver its current mandate.

Option 1 results in a restored building and exhibits (as per the existing 568,000 square feet asset; no alternative configuration of the OSC at Don Mills were considered beyond current size and layout due to nature of facility and site-specific constraints identified in Section 3).

Option 2 results in a hybrid structure which includes a new purpose-built Science Pavilion (approximately 200,000 square feet) plus the repurposing of the existing pod and Cinesphere structures at Ontario Place (approximately 77,700 square feet). All new exhibits and program are contemplated.

Both options provide a new home for the OSC with renewed exhibits and program that allow the OSC to remain relevant, maintain or increase attendance and its related revenues, and effectively fulfill its education and innovation mandate for future generations.

The business case does not compare the options against a status quo scenario (remain in its current space without renovation). Status quo is not a viable alternative as investment in the OSC is necessary to avoid critical building failure.

The business case evaluates the performance of Option 1 compared to Option 2 as the basis for the recommended modernization option. The two options were evaluated against three Government priorities, as identified by MOI and MTCS:

i. Financial and Economic Impact
ii. Program Sustainability and Enhanced Visitor Experience
iii. Maximizing Accessibility and Integration

iii. Summary of Evaluation Outcomes

For ***Option 1: Remain*****, the total project costs are $2.3 billion (nominal) or approximately $1.3 billion (NPV) for all expenses** related to design and construction, exhibit modernization, operations, maintenance and lifecycle for a 50-year period. This large expense can be attributed to a larger capital requirement, high on-going operating expenses and more modest increase in visitors and/or revenues.

For ***Option 2: Relocate*****, the total project costs are $1.7 billion (nominal) or approximately $1.05 billion (NPV) for all expenses** related to design and construction, exhibit modernization, operations, maintenance and lifecycle for a 50-year period. This lower cost is due to a lower capital requirement, reduced operating and maintenance requirements as well as increases in visitors and/or revenues.

Over a 50 year period, relocating OSC to Ontario Place will save Government $596 million nominal costs ($257 million NPV) relative to the Remain option.

Based on the evaluation methodology and scoring, *Option 2: Relocate OSC to Ontario Place* is the recommended option as it scores more favourably for the financial and economic criteria and the same or better for both qualitative criteria. A more detailed description of the favourable aspects of the preferred option is provided below the tables.

Table 1 - Summary of Quantitative Evaluation of Options (blue indicates favourable option against criteria)

Financial and Economic Criteria	Option 1: Remain	Option 2: Relocate	Difference
Total Project Costs (NPV)[2,3]	$ 1,304.1m	$ 1,047.1m	**$ 256.9m**
Total Project Costs (nominal) [2]	$ 2,320.0m	$ 1,723.5m	**$ 596.5m**
Fiscal Impacts / Funding Req. (2yr.)[4]	$ 143.3m	$ 64.8m	$ 78.5m
Fiscal Impacts / Funding Req. (5yr.)[4]	$ 304.3m	$ 152.7m	$ 151.6m
Fiscal Impacts / Funding Req. (10yr.)[4]	$ 546.4m	$ 319.0m	$ 227.4m
Jobs (annual, during construction)	323	888	565
Jobs (annual, during operations)	409	356	(53)
GDP (over 50-year term)	$ 2,438.6m	$ 2,032.1m	($ 406.5)
Forecasted Tax Revenue (annual personal, corporate and sales taxes)	$ 6.2m	$ 5.2m	($ 1.0)

Table 2 – Summary of Qualitative Evaluation of Options (blue indicates favourable option against criteria)

Qualitative Criteria	Option 1: Remain	Option 2: Relocate
Program Sustainability / Experience	Poor to Satisfactory	Good
Accessibility / Integration	Good	Good

Note that savings to Government ($256.9 million) is considered conservative and could be greater than this estimate. This is due to the conservative positioning of some assumptions used in the financial analysis, including:

- a **modest decrease to FTE count for the Relocate option**. Although the new facility will be approximately 50% smaller than the current Don Mills complex, OSC have suggested that FTE count at the new OSC be decreased by only 14% (35 FTE) of current allocation;
- using the full **cost estimated for interim operations** as part of the Relocation option ($45 million). Depending on the final decision from government with regard to interim operations, the costs could be significantly lower than the assumed $45 million;
- using the full **decommissioning cost** estimate of $21 million under the Relocate option. This cost could be lower, depending on outcome from City negotiations;
- no financial gain-share benefit is assumed for the Relocate option resulting from an early lease break and negotiations with the municipality;
- although the Relocate option provides better opportunities for increased capital campaign and sponsorship revenues, revenues generated through capital campaigns and sponsorship are not included as part of analysis; and
- an optimistic 1-year closure period is assumed in the Remain option to implement certain deferred maintenance work. Given scope of deferred maintenance and critical repairs this could be as long as a 3-year closure.

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[2] Total costs in net present value ("NPV") terms, i.e. discounted to today's dollars.

[3] Total for useful life of a newly constructed facility plus planning and construction period; approximately 50 years

[4] Detailed fiscal analysis to be completed as capital costs are preliminary and high-level and the gains (or costs) associated with vacating the existing OSC lands are yet to be determined. Net fiscal impacts of OSC only and after factoring in the current OSC operating grant is: Option 1: Remain; $104.5 mil. (2 yr.); $207.3 mil. (5 yr.); $352.4 mil. (10 yr.); and Option 2: Relocate; $26.0 mil. (2 yr.); $55.7 mil. (5 yr.); $125.0 mil. (10 yr.).

The following provides a description of the favourable aspects of the preferred option.

Financial and Economic Considerations

- Option 2 ‘Relocate OSC to Ontario Place’ reduces costs to Government relative to Option 1 ‘Remain on Site’ in both the near-term and long-term.
- The cost of moving the OSC and building a new, more efficient facility optimizes value for money with a reduced cost of approximately $256.9 million on a net present value basis (approximately 20% savings) as compared to staying at the current site. This includes a savings of approximately $8.2 million per year compared to Option 1 due primarily to a smaller building with significantly reduced maintenance and operating costs.
- Based on initial cost estimates, building a new, more efficient, OSC with a modernized program and new exhibits requires a similar capital investment as undertaking deferred and critical maintenance and refreshing the existing exhibits and public-facing areas at the current OSC site.
- The Relocate option creates more jobs for construction while the Remain option creates more jobs for operations. This also results in increased GDP and tax revenues over a 50-year period for the Remain option. However, this is primarily a result of additional FTEs required to operate the OSC, as well as higher maintenance costs and higher occupancy costs for the Remain option.
- The Relocate option moves the OSC to provincially-owned land and allows for future redevelopment of 770 Don Mills site. If vacated early, the Province and City could potentially work together to unlock land value at Don Mills (via some form of ‘gain-share’ arrangement). Preliminary discussions with the City of Toronto have confirmed support for opening the OSC lease to enable a relocation and facilitate the redevelopment of the 770 Don Mills site.

Program Sustainability & Visitor Experience Considerations

- Relocation to a new facility with all new exhibits will allow the OSC to reinvent and fully modernize its visitor experience, positioning itself as a ‘Fourth Wave’ science centre able to compete against other contemporary attractions.
- A move to a central waterfront location will facilitate the re-imagination and re-branding of the OSC to deliver a more contemporary, flexible and innovative program and allows for revitalization and re-use of the existing Pod and Cinesphere complex. The move could also offer an increased likelihood of commercialization of the sciences sector.
- Developing a renewed OSC at Ontario Place would leverage their joint potential and facilitate shared programming opportunities (around such possible themes as: water, innovation, play & learning, sustainability, ecology and health) and amongst Ontario Place tenants, to create a higher quality offering and stronger destination experience for visitors.
- A new program offer at Ontario Place could support a modernized mandate for the OSC. This repositioning could broaden the appeal of the OSC to capture a larger tourist-based market and create a more diverse, lucrative and resilient visitor profile than that at the current Don Mills site.

Accessibility & Integration Considerations

- The Ontario Place location has a strong fit with central Toronto and its many destinations. The central location will help increase visibility of the OSC brand and support increased access for residents.
- Both locations will benefit from government's investment in transit (Ontario Line), however, the Ontario Place location is in closer proximity to regional rail and provincial highway network.
- The OSC at Ontario Place is part of a strong cluster of complementary uses with Exhibition Place, the Central Waterfront and downtown Toronto that will facilitate opportunities for an integrated neighbourhood destination. Projected attendance across the Exhibition Place/Ontario Place precinct is 12 million visitors annually by 2030. Strong growth in the local residential communities will also help drive admissions from new visitor segments.

iv. Conclusions

The current OSC at Don Mills is failing both operationally and physically. To address this, a minimum capital investment of $478 million[5] is required.

The total capital investment required to remain at Don Mills site exceeds the cost of constructing a new, more efficient OSC facility at Ontario Place as part of the government's redevelopment efforts.

Even after making the required $478 million capital investment at the current OSC site, the ongoing subsidy required for the Remain option is greater than that required for the Relocate option. This cost differential is due to additional costs required at the Don Mills site related to operations of a much larger facility, cost premiums related to its inefficient building layout and costs related to the upkeep of the 50-acre City-owned property.

The business case analysis supports a relocation of OSC to Ontario Place (Option 2) based on its ability to meet Government's priorities for modernization relative to remaining on site (Option 1). Relocating and operating OSC at Ontario Place will save Government a minimum of $596 million nominal costs ($257 million NPV) over a 50-year period, while delivering and maintaining a high efficiency, state-of-the-art science facility for future generations of Ontarians. The total costs to Relocate represents a savings to government of ~25% over the Remain option (on an NPV basis).

Since an investment is required for the OSC if it is to remain operational, construction of a new, modern facility at Ontario Place would address two Government priorities through a single capital investment:

(1) ensuring continued operations and long-term viability of the OSC; and

(2) expediting the redevelopment of Ontario Place by delivering a third anchor tenant to occupy the vacant pods + Cinesphere and make Ontario Place a year round, family-friendly destination.

Overall, the Relocate option optimizes value for money, minimizes fiscal impacts, and creates a sustainable program of science and innovation that will attract increased interest from businesses, visitors, and tourists.

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[5] Includes deferred and critical maintenance (nominal) + exhibits (one-time cost not adjusted for inflation) + cosmetic upgrades (one time cost not adjusted for inflation).

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1. INTRODUCTION

Opened in 1969, the Ontario Science Centre (“OSC”) at 770 Don Mills Avenue, Toronto, has become one of the Province’s most recognized institutions and a globally respected brand. As a truly innovative and forward-thinking facility for its time, the OSC has attracted over 54 million visitors since opening and is widely regarded as one of the leading science centres in the world. Today, however, due to shifting markets, high operating costs, unaddressed deferred maintenance and extensive capital repairs required, the OSC is facing a series of program and operational issues that challenge its longer-term sustainability.

Designed by Moriyama & Teshima Architects in a modernist style, the original buildings were constructed between 1966 and 1969, with subsequent additions in 1990 and 1995. The OSC complex encompasses a floor area of approximately 568,000 gross square feet across three interlinked buildings. Of the approximately 400,000 net square feet, 100,000 net square feet is dedicated to permanent exhibition space plus an additional 27,500 net square feet for temporary exhibition space and approximately 285,000 net square feet for back-of-house and administration functions. Parking for 675 cars and 21 busses is currently provided on site. Refer to Appendix A for a generalized spatial analysis for the existing OSC.

As science centres have evolved in the last 50 years, the existing OSC would now be comparably over-sized and highly inefficient. As a purpose-built concrete structure, the complex has a highly inflexible design and no longer meets the expectations of modern visitors (e.g., wi-fi and accessibility). The complex is showing its age and extensive repairs are required to address immediate health and safety needs and building system repairs. A total investment of $369 million is required in the next 20 years to address building repair works. This investment would be largely invisible to visitors – as it is primarily for building structures and systems (e.g., electrical systems, water systems, heating and cooling system, upgrades to elevators, asbestos abatement, building envelope and roof repairs) and does not include investment needed to modernize the exhibits or improve the public areas.

1.1. The Opportunity

The OSC was a pioneer in the creation of the world’s first interactive science centre and an important advancement in engaging audiences with science, in an experience distinct from the traditional museum. Prior to its opening in September 1969, science museums were largely collection-based institutions that employed a traditional museum approach to exhibit curation; the experiences were largely based on viewing rather than interacting. The opening of the OSC signaled a major shift in the science engagement landscape and this interactive approach began to be adopted worldwide as the new model for engaging audiences with science. Today, there are nearly 500 interactive science centres registered with the Association of Science-Technology Centers around the world.

In more recent years, however, access to digital content, globalization, shifting preferences of audiences, increased competition and economic instability have had significant impacts on attendance at place-based institutions such as science centres, museums, and art galleries. To remain competitive, institutions need to re-evaluate how their business is delivered to retain audiences, attract new audiences and remain relevant into the future. See further Appendix F for an analysis of trends in successful cultural institutions.

Since its peak attendance in 2009/10, attendance has fallen year-over-year. The OSC attracted 40% fewer visitors in 2019/20 than it did at its peak a decade earlier, resulting in a significant decline in admission revenues. With attendance (and related revenues) in decline, critical building maintenance costs for the aging facility increasing, and stagnant revenues and operating subsidies, the ongoing viability of the OSC is challenged.

Relevance and sustainability are key issues facing the OSC as it looks at how it can position itself for ongoing success. The OSC celebrated its 50th anniversary in 2019, and in light of recent world events, such as the impact of COVID-19 and the evolution to a more digital world experience, now is the ideal time to look at the science engagement model of the future. The success of its past is a foundation to be built upon as the OSC works to establish itself once again as a leader in public science engagement.

In addition to contemplating the future role and business model for the OSC, the Province is also assessing the future function and opportunity of another iconic provincial brand: Ontario Place. Opened in 1971, Ontario Place – like the Ontario Science Centre – was built for all Ontarians as a statement of provincial innovation, education and creativity. Located on Toronto's Central Waterfront, Ontario Place brought a sense of discovery and fun to the people of Ontario for more than 40 years. However, facing declining attendance and limited public investment, the provincial Government announced partial closure of Ontario Place in 2012.

In 2019, the Government announced its vision which would position Ontario Place as:

"A world-class year-round destination that would attract local, provincial, and international visitors, with a focus on family-friendly entertainment and recreation. The development aims at recognizing and celebrating the legacy of Ontario Place and making it a centerpiece for the province's heritage, tourism, recreation, and culture, with potential landmarks such as sports, entertainment attractions, and retail. These landmarks could be complemented by recreational facilities, improved waterfront access, parkland, free public spaces, and the existing amphitheater."

Following an international Call for Development, Therme Group and Live Nation have been identified by the Province as anchor commercial tenants for a revitalized Ontario Place. The Government also identified that they are working with the OSC to explore opportunities to deliver science programming as part of the revitalized Ontario Place.

The concurrent planning of these two provincial assets provides an opportunity for the Government to consider whether the OSC should remain on its current site and undertake critical maintenance and renewal of its exhibits or, alternatively, relocate to Ontario Place as a state-of-the art cultural anchor and centerpiece of the new redevelopment. If relocated, the OSC at Ontario Place is contemplated to adaptively re-use the elevated Pod complex and IMAX Cinesphere as well as construct a brand-new mainland building, giving the OSC the opportunity to reinvent itself as a science centre for the 21st century.

The potential relocation of the OSC to Ontario Place creates a unique opportunity to reconsider the future function of the existing City-owned Don Mills site. If vacated early, the Province and the City could potentially work together to unlock land value at Don Mills (via some form of 'gain-share' arrangement). With the impending completion of the Eglinton Crosstown LRT, and the future Ontario Line Subway, both with stations within walking distance of the current OSC site, the City has confirmed its interest in discussing future development opportunities that leverage the Province's transit investment – with a focus to create new housing and mixed-use opportunities. The City has proactively updated the planning framework to contemplate high-rise residential and complementary uses on both the OSC site and its surrounding areas.

1.2. Business Case Objectives

This business case was prepared by IO on behalf of the Ministry of Infrastructure ("MOI"), working closely with the Ministry of Tourism, Culture and Sport ("MTCS"). The business case serves to provide analysis on how a modernization of the OSC is best achieved by either:

1. **Option 1: Remain on Site** - address all capital repairs/deferred maintenance issues and undertake refresh of the building's interior and exhibits at the current 770 Don Mills site.
2. **Option 2: Relocate OSC to Ontario Place** - construct a new, smaller OSC facility as cultural anchor on provincially-owned land with new exhibits and modernized program.

Regardless of the investment in the building, the business case assumes an investment must also be made in the exhibits and program of the OSC for it to remain relevant and continue to effectively deliver its education and innovation mandate.

Typically, business case analyses compare options against the status quo, also referred to as the base case or 'do nothing' scenario, to demonstrate performance of the options against the scenario where no investment is made. For the OSC, significant investment is required to continue safe operation. A status quo scenario where no investment is made is not a feasible option and therefore not applicable to this business case. The business case therefore compares the two options for modernization of the OSC.

This report provides a qualitative and quantitative assessment of the above two options against MOI's priorities to identify a preferred option for modernization of the OSC. The business case was prepared in response to the December 2021 direction to identify order of magnitude costing and capital requirements associated with relocating the OSC to the Ontario Place site and subsequent April 2022 direction to seek Stage Two (construction) approval for the project.

1.3. Government Priorities

The two options are assessed against a series of criteria that reflect the Government's priorities for the modernization of OSC. The Government's priorities are presented below.

1.3.1 Financial and Economic

The preferred option will seek to minimize overall costs and fiscal impacts of the program and associated building operating costs. It will also consider the economic impacts (e.g., tax revenues, GDP and job growth). This priority will be assessed through the identification and evaluation of:

- ***Costs:*** Total long-term cost to Government (net present value; "NPV")

- ***Fiscal Impact:*** Short term fiscal impacts to Government
- ***Economic Impact:*** Economic impacts for Ontario

1.3.2 Program Sustainability and Visitor Experience

Long-term sustainability of the OSC program will come, in part, from its ability to offer a competitive, consistently available, and evolving product for visitors and tourists. Four criteria support this priority, including:

- ***Competitiveness of the offer***: The degree to which the option positively attracts increased tourism, local visitors, and new delivery partners (research, innovation, community partners).
- ***Program and building flexibility:*** The ability of the OSC to quickly and effectively change usage/space design to respond to evolving trends and market forces.
- ***Construction impact***: How the construction of a new facility and/or significant renovations will impact the OSC visitor experience and the experience of other stakeholder groups.
- ***Commercialization of innovation:*** The degree to which the option:
  - i. facilitates ongoing showcasing of leading-edge research and innovation and science education;
  - ii. includes the prospect of the OSC acting as a support hub and incubator; serves as a platform for development and investment in technology and sciences; and
  - iii. facilitates investment and partnership opportunities.

1.3.3 Accessibility and Integration

The OSC is an important facility for Ontarians. The preferred option must ensure that this facility remains accessible for Ontarians from all parts of the province and integrates well into local residential and business communities. Two criteria support this priority, including:

- ***Accessibility, integration, and profile (City, Region, and Province***): Degree to which:
  - i. the OSC is able to be recognized as a pre-eminent facility showcasing science and innovation to business, community and tourists, and accessible to all Ontarians; and
  - ii. the selected option respects organizational history and nostalgia that Ontarians have towards the brand.
- ***Neighborhood fit:*** Degree to which the facility and its program are a complementary and appropriate fit within the context of neighbouring properties and communities.

1.4. Delivering the Business Case

As presented in Figure 1, the process for the business case development involved working with MTCS and MOI as the client to help set project parameters and define Government priorities. Based on these project priorities, the project team (IO and external advisors) worked with MTCS and MOI to establish a series of evaluation criteria to assess the options. The agreed criteria were then weighted based on the defined Government priorities, listed in Section 1.3. After collecting and compiling all necessary baseline data and information, the project team and representatives from, OSC, MTCS and MOI – undertook an evaluation of the options against the criteria to arrive at a recommendation. The evaluation included both qualitative and quantitative (fiscal and economic) considerations.

Figure 1 - OSC Modernization Business Case Study Process

1.4.1 Roles & Responsibility

To respond to the demands of the project requirements, IO resourced a broad variety of internal expertise, including:

- ***IO Development***: Managed the internal and external team to secure individual outputs. Led the options evaluation, provided advice on land valuations, and authored the business case.
- ***IO Transaction Structuring***: Managed the external team preparing the financial and economic models to identify total project costs and fiscal impact, and high-level operating model for OSC. Provided advice on the financial model and supported development of the business case.
- ***IO Development – Transit Oriented Communities (TOC):*** Initiated preliminary discussions with the City of Toronto to confirm willingness to open the existing OSC lease to facilitate relocation and future redevelopment opportunities of 770 Don Mills.
- ***IO Project Delivery:*** Managed the external team to secure inputs related to the updated OSC functional program, project costing and related financial modelling.
- ***IO Land Use Planning:*** Advised on the planning elements of the OSC site, including development capacity and land valuation.
- ***IO Heritage:*** Advised on constraints related to heritage status of existing OSC.
- ***IO Realty Management:*** Advised on building management best practice and advised projected existing OSC facility deferred maintenance and decommissioning.

A team of external advisors were also retained to provide subject matter expertise and advisory services:

- ***Ontario Science Centre:*** Acted as specialist advisor. Provided all data relating to current OSC operations. Identified critical issues affecting current operations. Defined future program.
- ***Lord Cultural Resources Inc.:*** Provided cultural advisory services relating to the development of a new Science Centre at Ontario Place, including functional program, costs (operational and capital requirements), attendance projections and science centre trends.
- ***Ernst & Young Inc.:*** Led the economic and fiscal impact analysis, and supported business case drafting.
- ***Pinchin Limited:*** Led Building Condition Assessment update (20-year deferred maintenance requirements) and provided costs for decommissioning of OSC at Don Mills.

- ***BDP Quadrangle Architects Limited:*** Completed preliminary Test-Fit and a Block/Stack plan as per functional program.
- ***A.W. Hooker Associates Limited:*** Provided cost consultant advisory services.
- ***Fotenn Planning + Design:*** Provided planning framework and highest and best use land evaluation to inform land valuation analysis for 770 Don Mills site.

1.5. Limitations of Business Case

In preparation of this business case, the services provided by IO and/or its external advisors did not include (i.e., out of scope):

- An assessment of a rationalized or consolidated OSC at the Don Mills location (either new-build or adaptively re-purposed on site). No alternative configuration of the OSC at Don Mills was considered beyond current size and layout due to nature of facility and site-specific constraints identified in Section 3.
- A strategy for consolidation of operations or restructuring of the OSC facility on the existing site (partial closure or new build on site).
- An assessment of any other locations for the relocation of the OSC at Ontario Place other than a new mainland building connected to a retrofitted Cinesphere and pod complex.
- A fulsome assessment of the constructability and deliverability of the proposed approach to modernize and relocate (including the associated timelines) OSC to Ontario Place. This will be completed as part of a future design process.
- An assessment of the appropriate delivery model as part of the business case analysis and evaluation of options, for construction of a new facility or the refurbishment of the existing OSC. *Note:* A Delivery Options Analysis Tool (DOAT), which provides a summary of the considerations and recommendation of a delivery model for the relocated OSC, has been completed separately and is appended to the Treasury Board Submission.

From an asset and building management perspective, this report utilizes the information within the latest Building Condition Assessment Report (dated April 2022).

For the purposes of analysis, this business case utilizes the OSC financial and operating performance for the fiscal year 2019/20 as the baseline to be representative of the most recent information. While COVID-19 had some impact on OSC operations in 2019/20 (due to closure beginning at the 2020 March Break), there was a material impact on OSC's operations in 2020/21 onwards due to the sustained closure and impacts to operations due to continuing restrictions. This approach allows the business case to use the latest available information prior to the material impact of COVID-19 interruptions to operations.

2. THE NEED FOR MODERNIZATION OF THE OSC

This section discusses the challenges faced by the OSC at the 770 Don Mills Site, identifying key issues that will impact the modernization strategy.

Today, the OSC building at Don Mills is facing several critical issues that threaten its on-going operations and long-term sustainability including:

- Building Deterioration, Instability and Critical Maintenance Requirements
- Immediate Health and Safety and Program Requirements
- Expenditure Profile
- Functional Obsolescence
- Increased Occupancy Costs
- Declining Attendance and Revenues
- Shrinking Market Share and Increased Market Competitiveness

Each of these issues are presented in detail below.

2.1. Building Deterioration, Instability and Critical Maintenance Requirements

A building condition assessment report prepared by Pinchin Limited ("Pinchin") in April 2022 identified multiple critical deficiencies in the existing facility relating to the roof systems, wall systems, elevator systems, interior finishes, site features, fire and life safety equipment, mechanical and electrical systems. Risks to occupant health and safety, and failure of critical systems impacting operations and programming have also been identified.

Some of these conditions should not be unexpected due to the age of the OSC facility, limited capital lifecycle investment to date, high volume of visitors year over year and specialized design of the facility. The average expected lifetime of major building systems such as the building envelope (i.e., exterior walls, windows, exterior doors and roof systems), conveying systems, HVAC, fire and life safety systems, is typically between 30 and 50 years, while the majority of the OSC assets are now 54 years old (circa 1969).

The Pinchin report found that the cumulative capital repair cost to the Government for the existing OSC facility is projected to be a total of $164 million in the next five years to address all required repairs, including building envelope, roof structure, elevator and escalator systems, sanitary and storm drainage system water services and air distribution system. Over the next 20 years, the total capital repair costs are estimated to be $369 million (accumulative cost to 2042), as presented in Table 3.

Table 3 - 20-year spend summary of deferred maintenance and building repair works at 770 Don Mills.

OSC Timeline for Investment	Estimated Accumulative Cost
Total Immediate Requirements (i.e. 2023-2024)	$43.5 million
Total 5 Year Expenditure Requirements	$164 million
Total 20 Year Expenditure Requirements	$369 million

To reach the estimated accumulative costs in Table 3, a mark-up of 40% has been applied to the inflation-adjusted costs estimated by Pinchin (Appendix E). This mark-up has been applied to account for uncertain and rapidly increasing cost pressures due to such factors as: global supply chain pressures; opportunity pricing; interest/financing rates fluctuations; construction costs; and labour supply and costs (refer to Appendix I for further information of cost pressures). This has also been informed by cost escalations experienced on other projects currently being delivered.

Note that the $369 million building repair investment is exclusive of an additional $109 million required for the refurbishment of exhibits and cosmetic updates to public-facing spaces necessary to modernize the visitor experience.

Based on an engineering assessment (Pinchin, 2022, Appendix E), many assets are in large part original and have simply exceeded their expected service lives, such as HVAC systems, interior finishes, plumbing systems and electrical systems. Building systems that have reached or exceeded their useful life, while often remaining operational, generally require higher levels of maintenance, higher annual repair costs, and carry an elevated risk of sudden failure that could limit or prevent the use of a facility for extended periods. These unexpected failures often result in higher costs as work needs to be performed on an emergency basis. Evidence of this risk was recently demonstrated by the June 2022 failure of the bridge linking the main entrance building of the OSC (see call out box below).

It should be noted that in October 2022, MTCS received approval for $7.0 million in short-term operating and capital stabilization for the OSC ($3.3 million provided to address health & safety requirement). However, these funds fall short of covering the immediate maintenance required, with an additional $40.2 million required in 2023/24 alone.

Undertaking the required repair to the above critical building systems, such as asbestos abatement and structural repair, will likely require partial or complete closure of the OSC for an unknown period (estimated to be a minimum of one year and potentially as long as three years). Closure will not only result in a loss of immediate revenues to OSC but may also have a trailing impact due to negative perceptions regarding the safety and attractiveness of the OSC as a family-based tourism and educational destination even after critical repairs have been completed (refer to Section 2.7 for additional information).

A detailed year-on-year summary of critical repair and deferred maintenance requirements is provided in Appendix E, summarizing immediate repairs required (health and safety related and facilities operation), and the deferred maintenance required over the five- and twenty-year period for the building and the grounds.

Since 2015/16, MTCS has been reporting the condition of the existing OSC as high risk for structural and/or system failure. In June 2022, the main bridge that connects the OSC entrance building to the rest of the facility was closed due to risk of structural failure. A preliminary estimate suggests that an investment of $16 million is required to address the safety of the bridge. A detailed engineering and costing for bridge repair are expected in late March 2023. The bridge closure has resulted in increased operating costs (shuttle buses, creation of new entrance) and lower attendance, creating an immediate financial impact for the agency.

2.2. Immediate Health and Safety and Program Requirements

A total of $43.5 million is required for critical repairs in 2023/24, of which $23 million is required for urgent health and safety hazards that have arisen due to the deferred maintenance and age of the facility components, and $20.5 million is required for immediate repairs to maintain program operations. Both costs are part of the forecasted twenty-year $369 million critical repair and deferred maintenance costs, and are outlined further below:

- Health and safety repair costs are specific to key building repairs such as the link bridge, structural repairs, suspended access equipment, floor finishes, elevator systems, escalator systems, exhaust ventilation systems, sprinkler and fire protection systems, metal platforms, emergency generator fuel tanks and exterior signages. Health and safety spend should be prioritized and is required to keep the OSC open.
- Immediate repairs required to maintain program operations are to mitigate conditions impacting program usage and operation of the facility, such as building envelope, interior finishes, sanitary and storm drainage system water services, air distribution system, and loading dock equipment. Failure to make these immediate repairs may jeopardise the OSC's ongoing operations.

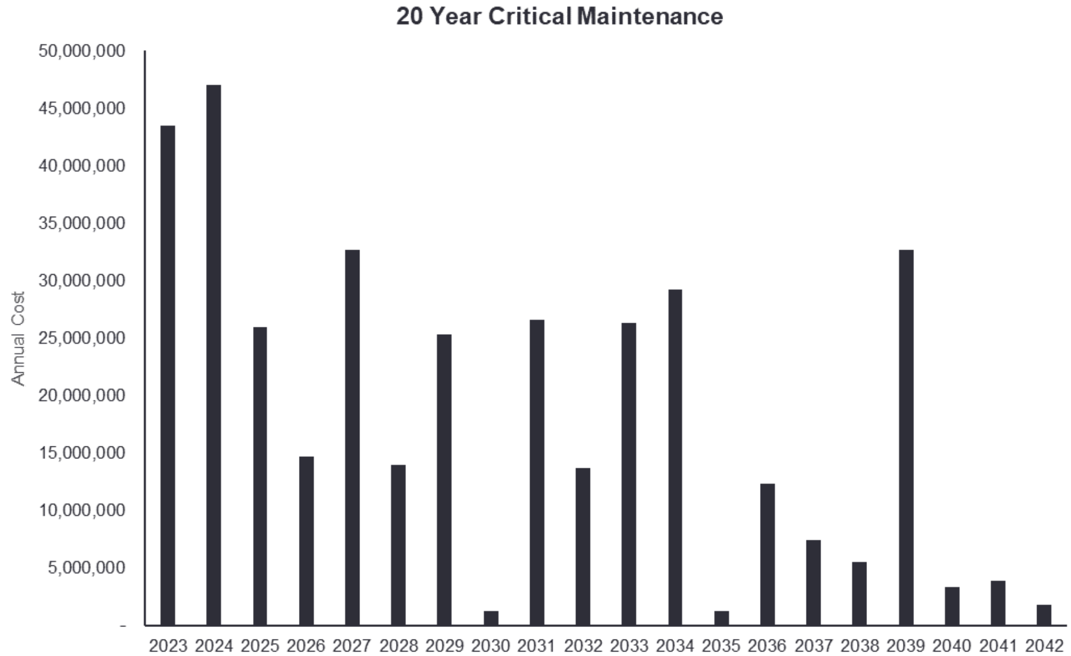
The recommended repairs and replacements were identified as high risk and very high risk, as noted in Appendix E. It should be noted that high risk items require prioritized action, while the very high-risk (catastrophic risk) items require immediate corrective action within the projected year.

2.3. Expenditure Profile

Figure 2 provides a year-on-year breakdown of anticipated $369 million expenditures for the OSC facility over the next twenty years. It shows that whilst the required investment in deferred maintenance is front-loaded over the next five years (to avoid the critical building failure and operational health and safety risks discussed above), this investment stretches over a twenty-year period.

Since 2015/16, MTCS has been reporting the condition of the existing OSC as high risk for structural and/or system failure, indicating a three- to five-year residual asset life expectancy of some systems. A Facility Condition Index (FCI) assessment completed in September 2021 (prior to the bridge failure, rated the overall building at 17% (or condition C), which assesses that the facility and its components are functioning as intended, normal deterioration and minor distress are observed and repairs will be required within the next five years to maintain functionality. Whilst it is impossible to know exactly when critical OSC systems will fail, analysis shows the majority of the OSC assets are past their useful lives, and the likelihood of significant and catastrophic failure increases with every passing year that critical repairs and maintenance are deferred. Further context on the FCI assessment can be found in Appendix E.

Figure 2 -Twenty Year Expenditure for Critical Repair and Deferred Maintenance ($369 million)



Within a more immediate timeframe (within next five years), a total investment of $164 million is required to address all required repairs and replacement of the building components. This amount includes the immediate needs, key and other building components over coming years such as sub-structure, shell, interiors, electrical, HVAC and fire and life safety systems. This excludes any investment required to update exhibits or public areas. Table 4 provides a five-year expenditure summary.

Table 4 - Summary of 5 Year Expenditures of Required Health + Safety, Deferred Maintenance and Critical Repairs (CAD $)

Year 1	Year 2	Year 3	Year 4	Year 5	Total
2023-24	2024-25	2025-26	2026-27	2027-28	
$43,522,357	$47,037,571	$26,002,191	$14,689,494	$32,647,293	**$163,898,906**

2.4. Functional Obsolescence

The design of the OSC reflected the needs of a museum and science facility of its era (1960s). However, since that time, the function of museums and interactive experience centres has evolved, but the purpose-built design of the OSC has prevented it from adapting to new program needs and revenue generating opportunities.

In addition to poor adaptability, the OSC building design has also resulted in a highly inefficient building with a large 'back of house' area and extensive corridors, utility, and circulation areas. Of the OSC's 568,000 gross square feet, 50% is dedicated to non-public areas, including utility spaces, corridors and circulation spaces, servicing areas and office space (approximately 285,000 square feet). Less than 25% (100,000 net square feet) of the net area is dedicated to its permanent exhibit space, with an additional

27,500 net square feet of temporary exhibit space available.[6] This compares unfavorably to other leading North American science centres, that dedicate up to one-half of their facilities to exhibition space (refer to Appendix F). Only 7% (30,000 square feet) of the total OSC net area is available for revenue generating spaces such as the retail store, restaurant, OMNIMAX, rental spaces. This space allocation results in limited revenue generating opportunities, high maintenance cost, capital repair requirements and operating costs and a less enjoyable user experience (e.g., challenging wayfinding and long travel distances).

Although there is a significant amount of underutilized space at the OSC, the existing exhibition and program space is at capacity. Without a re-design of the building, there are limited opportunities to reimagine exhibition and program areas. This limits future opportunities for diversification of programming.

2.5. Increased Occupancy Costs

The OSC continues to struggle with rising occupancy costs. OSC does not own its building but leases it from IO. In 2019/20 OSC received a grant of $3.9 million from the then Ministry of Tourism, Culture and Sport for occupancy costs as part of its overall operating grant of $19.4 million, which is less than the occupancy cost of $5.4 million reported in 2019/20. Occupancy costs are expected to continue to rise (due to costs of maintaining the building) which will put continued pressure on current operating resources. Reducing occupancy costs should be a key goal for creating a more sustainable OSC.

2.6. Declining Attendance and Revenues

Until 2012, the OSC regularly attracted more than 1 million visitors annually. However, since 2009/10, attendance has declined sharply, from a peak of 1.287 million visitors to 766,487 visitors in 2019/20[7]. This represents a decline in attendance of more than 40% over a ten-year period. Even if measured from a year other than the peak year of 2009/10, attendance has consistently been declining (-20% between 2015/16 and 2019/20). By comparison, in 2019/20 the ROM attracted 1,163,000 visitors (1% less than their forecast) while the AGO had one of its strongest years, attracting 845,000 visitors.

Regularly decreasing attendance figures have had a direct impact on earned revenues. As shown in Table 5 in four of the past eight years of pre COVID-19 operations, the OSC witnessed a decline in revenue. Annual attendances have yet to return to pre COVID-19 levels.

Revenue earned through general admissions was $4.6 million in 2019/20, 31% below the peak over a decade prior. Ancillary revenue streams have not increased in a sustained manner over the past several years to address the shortfall in admission revenues. In addition, over this period the OSC's operating grant was reduced, and has remained flat, thereby further impacting the financial sustainability of the organization.

As a result of decreasing revenues, the OSC has focused on reducing operating costs with most savings realized through HR/LR strategies. This approach is not sustainable.

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[6] OSC is unique amongst science centres as it also houses of 40,000 square feet fabrication facility (non-public facing) that supports exhibition creation and generates revenue for the OSC through sale and rental of exhibitions and exhibits, in addition to the public spaces.
[7] OSC was closed under pandemic directions in mid-March 2020. The March school holiday break is typically a period of high visitation for the OSC, and therefore the impact of the closure contributed to lower annual attendance figures and revenue for 2019/20.

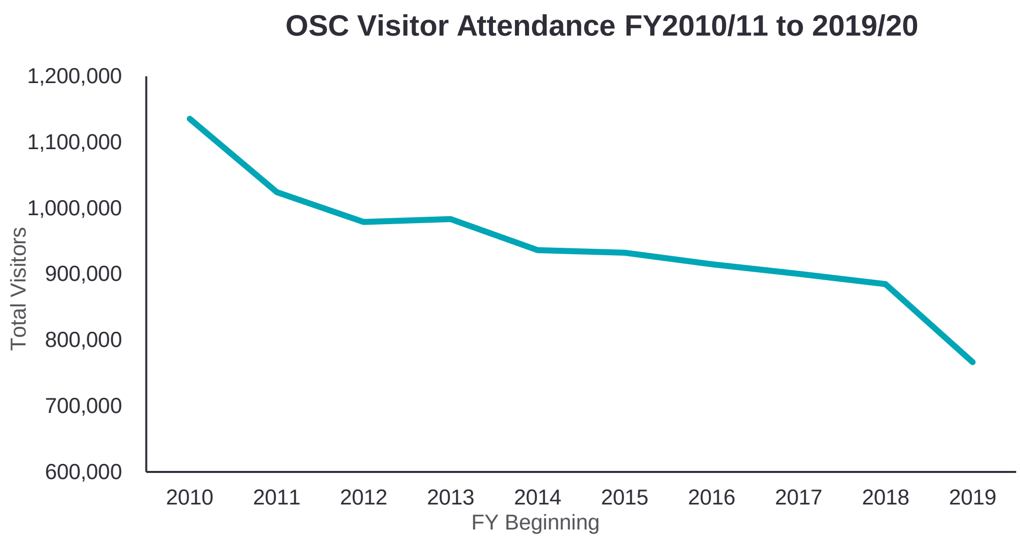
Table 5 - OSC Revenue between 2009 and 2020 (in CAD $000s)

Financial Year	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
General Admission Revenue	6,679	6,037	5,082	4,876	5,070	4,615	5,201	5,110	5,556	5,320	4,596
General Admission Revenue – Year on Year Growth		-10%	-16%	-4%	4%	-9%	13%	-2%	9%	-4%	-14%
Ancillary Operations Revenue	12,320	10,393	11,065	10,743	11,089	9,884	12,182	11,527	11,402	12,419	11,951
Ancillary Operations Revenue[8] - Year on Year Growth		-16%	6%	-3%	3%	-11%	23%	-5%	-1%	9%	-4%
Total Revenue	18,999	16,430	16,147	15,619	16,159	14,499	17,383	16,637	16,958	17,739	16,547
Total Revenue – Year on Year Growth		-14%	-2%	-3%	3%	-10%	20%	-4%	2%	5%	-7%
Accumulative Change		-14%	-15%	-18%	-15%	-24%	-9%	-12%	-11%	-7%	-13%

2.7. Shrinking Market Share and Increased Market Competitiveness

Visitor attendance to OSC has been in steady decline over the past decade, as demonstrated in Figure 3. Since 2009/10, the OSC has only had one year (2013/14) where this trend was reversed, and visitation increased over the previous year (a modest 0.3% increase).

Figure 3 - OSC Visitor Attendance FY2010/11 to 2019/20, based on data from OSC Annual Reports



An important component of visitor number are tourists. Toronto's tourism offerings are becoming more sophisticated with new attractions all competing for the out-of-town (tourism) market. The OSC has not

[8] Ancillary revenue includes revenue from the OMNIMAX Theatre, International Sales and Rentals, Educational Programs, Recreation and Family Learning Experiences, Memberships, Concessions, Adult and Corporate Learning Experiences, Development (e.g., Sponsorship), Program Support and Other Revenue and Interest.

been able to effectively compete with new attractions to grow its share of the tourism market. Between 2016 and 2019, approximately 21% of visitors to the OSC were tourists (non-GTA residents).

OSC is under-performing as a tourist attraction and visitor destination. Its 21% tourism attendance rate compares less favourably with other major provincially operated tourist attraction, such as the Art Gallery of Ontario (“AGO”). In 2016, the AGO attracted 37% of its visitors from beyond the GTA (provided by AGO through MTCS). This shows there is an opportunity to significantly grow attendance at the OSC by attracting more tourists.

Lord Cultural Resources identified that when OSC opened its doors in 1969 it was a leader of the ‘second wave’ of science museums, taking a pedagogical approach to science through interactivity and hands on learning aimed at children and youth. Today, ‘second wave’ science centres are far behind the times, with contemporary science centres now onto the ‘fourth wave’ with a focus on co-creation, clustering, and innovation. Refer to Appendix F for additional details on ‘fourth wave’ Science Centre trends and precedents from around the world. Current visitor trends suggest that a new approach to bring OSC more in line with the latest best practice is required if it is to reverse attendance trends, through growing audience segments (e.g., tourism, teen, adult).

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3. THE ONTARIO SCIENCE CENTRE SITE

This section provides an overview of the opportunity of the 770 Don Mills OSC site, including an overview of the site characteristics, planning considerations and land value capture opportunities.

3.1. 770 Don Mills Road

The OSC is located on a 50-acre (20.4 hectare) site in inner-suburbs of Toronto. Situated in the north-east part of the city, the site is accessible to major highways and new transit corridors (see Figure 4).

Figure 4 - The current OSC site in context

1. Ontario Science Centre Site
   - A. Building A
   - B. Building B
   - C. Building C
2. OSC Parking- North Lot
3. 770 Don Mills CreateTO Site
4. 805 Don Mills CreateTO Site
5. Science Centre Station – Ontario Line
6. Aspen Ridge Homes (formally Celestica)
7. Potential TOC Site
8. OSC Parking – South Lot (includes bus parking)
9. Science Centre – TTC Bus Terminal
10. Crosstown LRT – Science Centre Station
11. Flemingdon Park Station – Ontario Line

Type	Area in Sq.ft
Building A	146,780
Building B	148,182
Building C	273,465
Total GFA	**568,427**

The OSC site is located in the Flemingdon Park community of Toronto. Anchoring the south-west corner of Don Mills Road and Eglinton Avenue East, the OSC site is currently under lease from City of Toronto and Toronto Region Conservation Authority (TRCA) and is made up of table lands and valley lands. Of the 50 acres leased by the OSC, approximately 18 acres is table land, with the balance of the site being environmentally sensitive ravine lands (valley lands). Table lands includes several surface parking lots (for 675 cars and 21 busses), the Ontario Science Centre Entrance Pavilion (Building A) and Science Plaza). The valley lands accommodate Building B and Building C (Weston Family Innovation Centre).

Although not easily accessible by transit currently, in future the site will benefit from significant access improvements. A new transit hub is being developed adjacent to the OSC site on the intersection of Eglinton Avenue East and Don Mills Road, which will connect the Ontario Line Subway, Eglinton Crosstown Light Rail Transit (ECLRT) and local bus services. A second transit station is planned for the southern portion of the site, creating a direct link to the new Ontario Line Flemingdon Park station.

3.2. Land Lease Considerations

Although the OSC complex was constructed and owned by the Province, the site itself is leased from the City of Toronto and the TRCA. The lease establishes that 49.96 acres of the 55-acre site is leased for a term of 99 years, commencing July 1, 1965, at $1.00/year. There is one option to renew for a further term of 99 years at the same rent (through to June 2164). The balance of the site (5.49 acres) was leased for parking on a short-term basis. However, this lease has now expired and there is no long-term lease in place over these lands.

Under the lease, the City of Toronto has approval rights over any changes to existing building elevations, site grades and parking facilities. There is no termination right for either the City or Province and no termination payment provision. As the Crown cannot breach its covenants, any termination of the lease would need to be negotiated and agreed between the City and the Province. Due to the nominal rent paid, potential termination penalties are expected to be low.

The Lease does not contain any requirement for the Province to remove any buildings from the site upon termination or expiry of the Lease. Upon termination or expiry of the Lease, the Province is obligated to restore the parking lot land to its original condition.

Refer to Appendix D for a summary of the existing lease terms.

3.3. The Planning Framework

Planning permissions are currently highly restrictive onsite, however recently the City initiated a multi-faceted Planning Study in the area of Don Mills Road and Eglinton Avenue that may potentially impact future permissions (zoning classifications and official plan designations), in addition to implementing the Don Mills Crossing Secondary Plan, which supports higher density housing in the immediate vicinity of the OSC site.

The site currently supports two City of Toronto Official Plan land use designations:

- ***Institutional Area*** generally the table lands along the Don Mills and Eglington Avenue frontages. Institutional Areas are intended to house major educational, health and governmental uses. These areas largely correspond to the tablelands (see Figure 8).
- ***Natural Area*** for the balance of the site / valley lands. Natural Areas are to be maintained primarily in a natural state, while allowing compatible recreational, cultural, and educational uses. Conservation projects, public transit and utilities are permitted when there is no reasonable alternative. The site also supports a split zoning of Semi-Public Open Space and Open Space - Natural Zone. These areas also largely correspond to the valley lands.

Appendices B & C include a comprehensive summary of the planning controls impacting the OSC site.

3.4. Natural Heritage Considerations

A Natural Heritage Constraints Assessment was completed in March 2022 to understand the environmental constraints, feature boundaries and development limits.

The Constraints Assessment resulted in the production of a Natural Heritage Constraints Map indicating opportunities and constraints for potential “developable areas”, rating areas as high and/or medium constraint based on an evaluation of identified natural heritage features (see Appendices B and C).

The valley lands shown in Figure 8 (approximately 37 acres) consist of woodlots, water bodies (rivers) and floodplains. Due to the sensitivity of these lands, there are environmental regulations in place to protect these features. Notwithstanding these constraints, opportunity exists to redevelop in the valley lands in accordance with City of Toronto and TRCA policies. A TRCA permit would be required, and the bulk of development would have to be a reuse and/or expansion of the existing OSC Building C located in the valley land.

Refer to Appendices B and C for the full report prepared on the natural heritage constraints assessment.

3.5. Impact of the Ontario Line Subway

Planning and construction of the new Ontario Line (OL) subway began in 2022 and is expected to continue into 2031. While large parts of the OL are underground the last three stations north of the Don Valley (Thorncliffe Park, Flemingdon Park and Science Centre) are elevated along the entire Don Mills frontage of the OSC facility.

Due to the duration of construction as well as the elevated nature of the OL post-construction, there will be both immediate and long-term impacts to the operation of the OSC, including but not limited to:

- Dust, noise and vibration impacts from construction through to 2031.
- A reduction in parking (and related revenues) to accommodate construction staging, storage areas and future station and/or TOC developments.
- Reduced accessibility from Don Mills for visitors / cars / buses during construction.
- Permanently reduced visibility along length of Don Mills frontage due to this portion of the Ontario Line subway being elevated.
- Permanently reduced visibility along the length of Eglinton due to CreateTO proposal.

The impacts of the above on visitation and related revenues (both beneficial from greater accessibility to the site, and detrimental due to the construction impacts) cannot be quantified at this time.

3.6. Current Development Interest impacting the OSC site

Given the transit improvements on-going along both the Eglinton Ave and Don Mills Rd frontages of the OSC site, there is significant interest in capitalizing on these improvements and redeveloping the site with higher magnitude development. There are two key redevelopment proposals that will impact the OSC site.

3.6.1 Transit Oriented Communities at 770 Don Mills

The 3.8-acre parking lot immediately west of the Flemingdon Park subway station as shown in Figure 5 has been identified as the potential location of a Transit Oriented Community (TOC). If realized, this development would remove almost 4 acres of land from the site, reduce OSC revenue via a reduction in parking by approximately 40% (284 spaces), and introduce up to 740,000 square feet of Residential GFA across 2 towers onto the site.

Figure 5 – Potential TOC location, west of planned Flemingdon Park Station on OSC site

3.6.2 CreateTO Housing Now at 770 & 805 Don Mills Road

In June 2018, CreateTO, an agency of the City of Toronto responsible managing the City's real estate portfolio, applied for Official Plan and zoning amendment for 770 Don Mills Road and 805 Don Mills Road. The 770 Don Mills site is located in the OSC's north parking lot and is planned to be a mixed-use development of three residential towers for a total of 1254 dwellings, approximately 640 parking spaces and a Toronto District School Board school. To realize this opportunity, the City will need to reopen the OSC lease. Refer to Appendices B & C (the Planning memorandum) for more information on the Official Plan Amendment and Zoning By-law Amendment Application. The 805 Don Mills site is on the east side of Don Mills Road and its development has no impact on the OSC site.

3.7. An Evolving Community

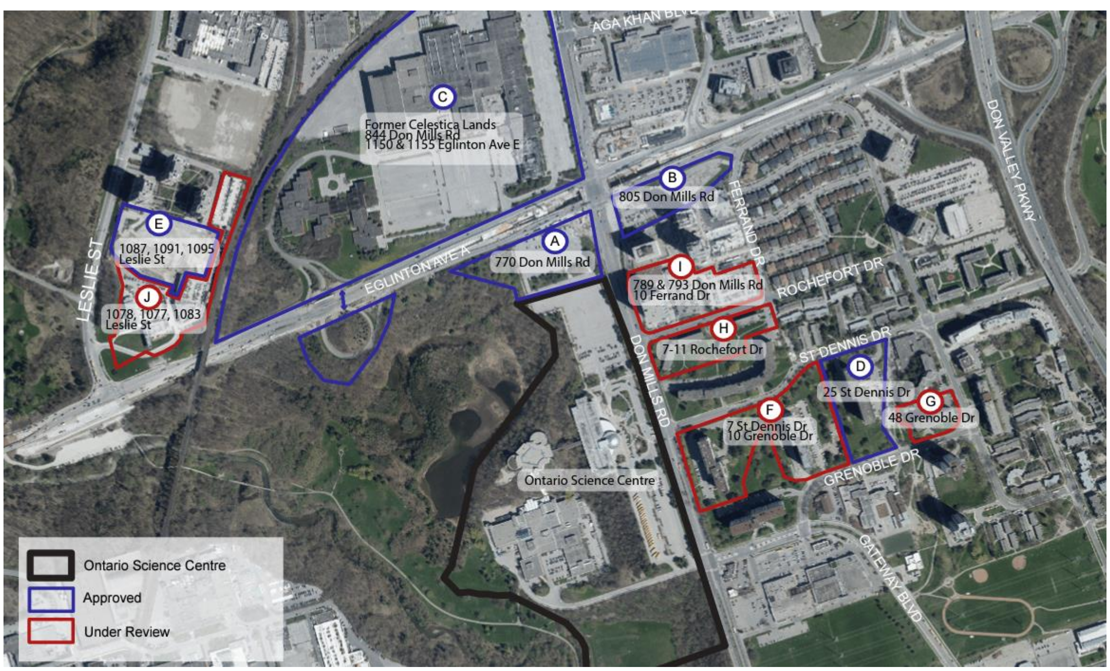
This provincial transit investment has spurred significant urban revitalization and intensification in the area, with the most notable being the 60.5-acre redevelopment on the former Celestica campus, immediately north of the OSC site (refer to Appendices B & C for additional details). If fully realized, this could see nearly 5000 units and over 85,000 m^2 of office, retail and community spaces across townhouses, mid-rise and up to 13 high-rise towers, and this may have some direct benefit to OSC at its current site through increased visitation and revenues (not quantifiable at this stage, and therefore not considered in the financial model). Refer to Table 6 and
Figure *6* for further details.

Given the on-going transit expansion projects in the OSC neighbourhood, there have been numerous high-density planning applications submitted for lands surrounding the OSC. The trend has seen numerous site re-development proposals ranging from multi-storey residential condominiums to mixed-use projects. Including the Aspen Ridge Homes development (formally Celestica), there are more than 9,000 residential units approved in the immediate area (Table 6), with another over 8,500 residential units under review.

Table 6 - High-density developments (approved and under review) proximate to OSC – See Figure 6 for location relative to OSC.

ID	Status	Address	Applicant	Total Units	Other
A	Approved	770 Don Mills Rd	CreateTO	1254	6,191 m² Non-Residential GFA 1,065 m² Parkland
B	Approved	805 Don Mills Rd	CreateTO	840	4,130 m² Non-Residential GFA 992 m² Parkland
C	Approved/ Individual Blocks Under Review	844 Don Mills Rd/1150 & 1155 Eglinton Ave E	Aspen Ridge Homes (formally Celestica Campus)	4921	11,119 m² Retail 59,966 m² Office 14,460 m² Institutional/Other ~6.0 acres Parkland
D	Approved	25 St Dennis Dr	25 St. Dennis Inc. c/o Preston Group	849	676 m² Parkland
E	Approved	1087/91/95 Leslie St	Park Residences Inc.	1180	2,580 m² Parkland
F	Under Review	7 St Dennis Dr & 10 Grenoble Dr	Osmington Gerofsky Development Corporation	2197	2,797 m² Parkland
G	Under Review	48 Grenoble	Tenblock	993	676 m² Parkland
H	Under Review	7-11 Rochefort Dr	1294511 Ontario Inc. (Damis Properties Inc.)	1322	199 m² Retail 2130 m² Parkland
I	Under Review	789 & 793 Don Mills Rd, 10 Ferrand Dr	Menkes Developments Ltd.	2263	Existing 23 Storey Office Building Retained (Foresters Financial)
J	Under Review	1078, 1077 & 1083 Leslie St	Rowbry Holdings Limited	1846	565 m² Non-Residential GFA 2,734.2 m² Parkland

Figure 6 - Current Development Applications proximate to the OSC site



3.8. Land Value Uplift of 770 Don Mills

Reflecting both the transit investment and related shift towards higher density development in the area, the OSC site has benefited from a significant uplift to its land value over the past 15 years. In 2005, Altus undertook an appraisal for 24 acres of 'developable' lands on the OSC site, resulting in a valuation of $24.6 million (approximately $1M/acre).

In June 2022, Fotenn and EY completed a capacity analysis and land valuation for up to 13 acres (the developable table lands), generating an estimate of $283 million to $305 million assuming a Floor Space Index (FSI) of 4.27 to 4.47 ($22.0 million to $23.5 million per acre).

Figure 7 – Table Lands and Valley Lands

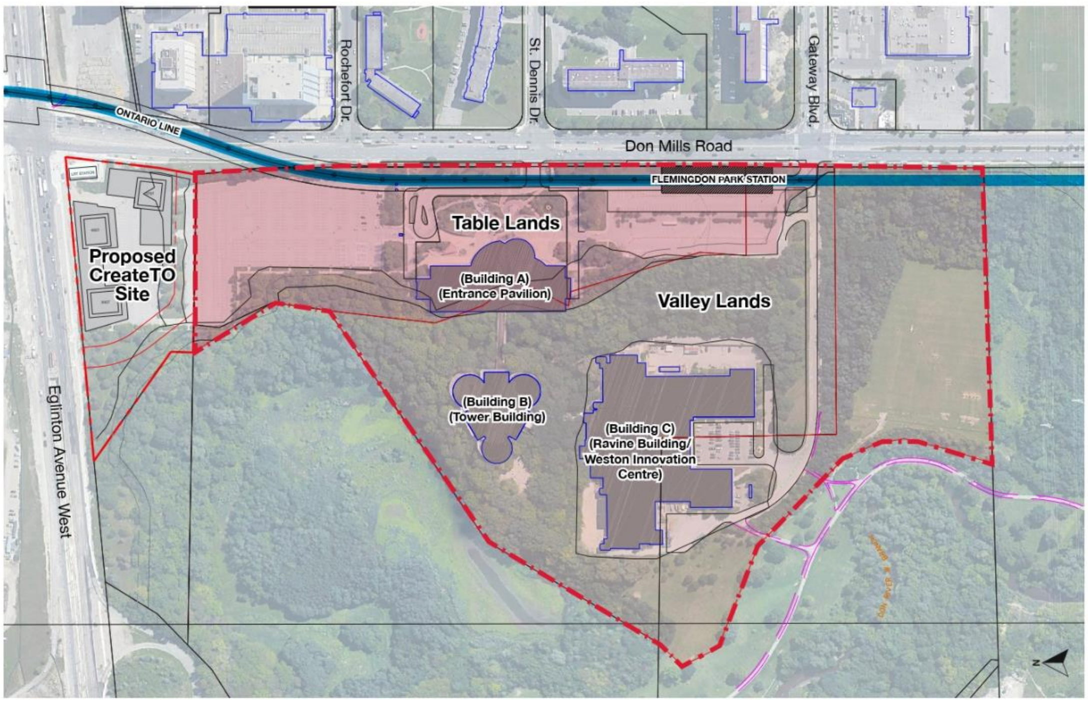


Table 7 - Summary of the Evaluation of the Table Lands (EY, 2022)

Tablelands Option (~13 acres)	Total Gross Floor Area (sq. m.)	Total Residential Units	Floor Space Index (FSI)	Estimated Value
1. Retain and repurpose existing OSC in its entirety. Intensify balance of Table Lands.	219,536	1,882	4.27	$283,770,000 (~$22 million/acre)
2A. Demolish portion of Building A for redevelopment. Intensify balance of Table Lands.	229,696	1,931	4.47	$305,669,000 (~$23.5 million/acre)

In addition to the table lands, there may be an opportunity to redevelop 7.6 acres of the valley lands (the existing Building C), however this is a heavily protected environmental area and redevelopment may prove challenging. If redevelopment could be achieved, the land value for this 7.6 acres is estimated to range from $5.6M to $39.9M. Refer to Appendix L for additional information.

3.9. City of Toronto Authorities and Interests

The 770 Don Mills site is owned by the City of Toronto. As presented above, the site and the wider area are under transition and the appropriateness of the site for a large-scale institutional use with expansive surface parking may be shifting. This shift has been recognized by the City through their proactive update to the area's planning framework as well as recent approvals of high-density mixed-use developments. However, for the site to be redeveloped, the existing lease would need to be opened and terminated or renegotiated.

Under the current lease, there is no termination right for either the City or Province. As such, to facilitate a relocation, any termination of the lease would need to be negotiated and agreed between the City and the Province. Preliminary discussions with the City held in 2022 have confirmed support for a relocation and a willingness to consider early termination of the lease.

Although preliminary discussions were positive with the City, detailed conversations could not be advanced due to three existing conditions impacting the City's ability to engage more fully in negotiations:

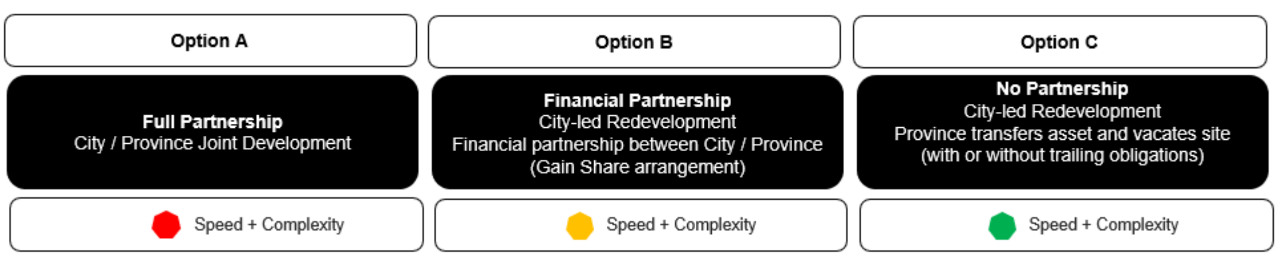
1. Limited resources and capacity of municipal staff to participate in a formal negotiation process;
2. Uncertainty of provincial expropriation requirement at 770 Don Mills specific to the Subways program and implementation of the Ontario Line; and
3. Uncertainty of provincial expropriation requirements at 770 Don Mills specific to the Transit Oriented Community program.

The City has confirmed that once these three conditions are addressed, they will be able to initiate formal negotiations in 2023.

Regardless of the City's inability to advance more detailed negotiations at this time, the intention of the City with regard to their vision for the site evidenced through the Don Mills Secondary Plan is well documented (refer to Section 3.3). Creating a higher density mixed used precinct is a municipal priority that can only be realized if the site is either vacated by the OSC or if the Province agrees to work in partnership with the City to deliver a future redevelopment.

If the Province has an interest in exploring future redevelopment opportunities, there is a range of ways that this could be realized through negotiations with the City, depicted in Figure 8.

Figure 8 - Options for negotiating positions between the Province and the City on future of 770 Don Mills



Negotiations that result in a formal partnership between the City and the Province (Option A or Option B where a development partnership or a financial partnership is formed) will likely require extended negotiations and several years to implement, with the land value capture opportunity at the limited to only a portion of the total land value before costs. Depending on the negotiation outcomes, Option C could require the province to fund all, some or none the asset's trailing obligations (such as decommissioning, select building repairs, heritage restoration, etc.).

Due to the time required to realize Options A or B, the Province may prefer to pursue Option C with an expedited negotiations process that prioritizes lease cancellation and allows the site to be transferred back to the City on an 'as is, where is' basis with no trailing obligations. Trailing obligations to be negotiated include decommissioning costs (approximately $21 million), any potential costs related to returning the building in a state of good repair as required in the lease (see Appendix D) and costs related to an interim OSC location (rent and fit-out costs if OSC is located in a City asset).

Due to the uncertainty of City-Province negotiations related to the future redevelopment of the 770 Don Mills site, the business case does not presume any of the above options but takes a conservative position with: (a) no allocation of future 'gain share' benefit through land value capture described in Section 3.8; and (b) full allocation of all trailing obligations as a provincial expense.

The next steps for City engagement related to negotiations would be to revisit preliminary discussions that reconfirm:

- interest in future redevelopment;
- City's willingness to re-open the Ontario Science Centre lease; and
- explore opportunities to unlock value to the benefit of both parties, while enabling the science centre to form a part of the visitor experience at Exhibition Place and Ontario Place.

If the City confirms their interest, formal direction and authorities would be required through both Treasury Board (for Province) and City Council (for City Staff) in order to engage in formal negotiations with regard to future redevelopment and partnership opportunities related to the 770 Don Mills site.

4. THE ONTARIO PLACE SITE

Opened in 1971 as a showcase for provincial innovation and excellence, Ontario Place – like the Ontario Science Centre – was built for all Ontarians as a statement of pride to celebrate innovation and creativity.

Over the subsequent decades, Ontario Place evolved from an exhibition centre to a destination for play. By the 1980s, Ontario Place had established itself as a popular ticketed amusement park. However, by the late 1990s, attendance was in decline and the site struggled to compete in an increasingly crowded destination marketplace. In 2012, most of the Ontario Place amusement attractions were closed, after which only the Cinesphere and the seasonal Budweiser Stage remained in operation. Since the park's closure in 2012, there has been some physical revitalization undertaken on site, most notably the creation of the 7.5-acre Trillium Park at the site's east end.

The redevelopment of Ontario Place offers an opportunity to consider whether the OSC should be relocated to this provincially-owned waterfront site as a cultural anchor for Ontario Place redevelopment. Securing a publicly owned cultural anchor, such as the OSC, could be an important addition to counter negative perceptions of the commercialization and privatization of this waterfront public asset.

Relocating and reimagining the Ontario Science Centre as one of the anchor uses for the "world-class year-round family-focused destination for all Ontarians" may provide the Government with a unique opportunity to maximize value for money by leveraging a single capital investment to the benefit of both OSC and Ontario Place. Investment in the OSC at Ontario Place can simultaneously achieve the revitalization of these two provincial assets through one financial commitment.

4.1. The Site

The Ontario Place site is 155 acres of land and water in central Toronto (see Figure 9). At the heart of the site are a cluster of heritage uses, including the marina, the complex of five pods suspended above the central lagoon, and the Cinesphere. To the east is the Budweiser Stage and East Common event space, while to the west is the West Island containing derelict amusement rides (Wilderness Log Flume and North Now Silos) and outlooks. To the north is the 20-acre mainland parcel, currently dominated by surface parking.

Figure 9 - Current Ontario Place site

Due to a legacy of inadequate funding, Ontario Place has deteriorated over the past decades and needs significant Government investment. The current Government has recognized this need and as part of Ontario Place Redevelopment project has initiated a program of renewal and rehabilitation. Key issues that will be addressed through this program are summarized in Figure 10.

Figure 10 - Issues to be addressed through Ontario Place modernization

Relocating and reimagining the Ontario Science Centre as a cultural anchor may provide the Government with a unique opportunity to maximize value for money by leveraging a single capital investment. Consolidating provincial assets – both of which need investment – can simultaneously achieve the revitalization of these two provincial assets through one financial commitment.

4.2. Current Site Management and Maintenance

Today, much of the site is underutilized with its on-going maintenance remaining a provincial obligation. Under a reduced operating budget, Ontario Place Corporation ("OPC") has been tasked with managing and maintaining the site on a day-to-day basis.

Prior to closing in 2012, Ontario Place had evolved into a gated amusement park that could no longer attract sufficient visitation to sustain its operations. In 2015 Ontario Place re-opened on an interim basis, leveraging the site as an outdoor venue space for third party rentals such as Cirque du Soleil, food and music festivals, as well as resuming operation of the Cinesphere and marina. The addition of the popular Trillium Park and William G. Davis Trail served as a bellwether for the future of Ontario Place as a reimagined and iconic tourism destination. Due to the shortage of outdoor venue space in Toronto, Ontario Place's interim operations proved to be successful, leading to an accumulated operating surplus of $11 million by the end of 2022.

4.3. Advancing Ontario Place Redevelopment

4.3.1 The Provincial Vision

In 2019 the Province announced their intentions to bring Ontario Place back into full use and to comprehensively redevelop the site as a "*world-class year-round destination that would attract local, provincial, and international visitors, with a focus on family-friendly entertainment and recreation. The development aims at recognizing and celebrating the legacy of Ontario Place and making it a centerpiece for the province's heritage, tourism, recreation, and culture, with potential landmarks such as sports, entertainment attractions, and retail. These landmarks could be complemented by recreational facilities, improved waterfront access, parkland, free public spaces, and the existing amphitheater".*

Ontario Place is now being brought back to life; New recreation and entertainment tenants will bring up to 7 million visitors a year to the site, all anchored by a renewed and exciting public realm that will seamlessly integrate destinations across the site.

Figure 11 presents the preliminary vision for a redeveloped Ontario Place, offering a range of family-friendly activities across the site in a mix of cultural and commercial uses. Once redeveloped, Ontario Place will once again be a centerpiece of the Province's tourism, recreation and culture sectors.

Figure 11 - Vision for Ontario Place Redevelopment (subject to change)

4.3.2 Ontario Place Call for Development Process

In May 2019, an international Call for Development was launched to attract new anchor tenants to the waterfront property. The Call for Development was flexible to various commercial concepts but was guided by the objective of aligning Ontario Place's future with its iconic stature and legacy uses of recreation, innovation and play. Several priorities were identified:

- the entire site is to remain in public ownership;
- preference for a family-friendly destination that is active all-seasons;
- no residential or casino uses permitted, preservation of Trillium Park and the main marina and restoration of pods and Cinesphere; and

- the need to demonstrate long-term financial viability.

The Call for Development successfully attracted interest from around the world and in 2021 the preferred program partners were announced to advance the Government's vision: Therme Canada and Live Nation Entertainment. At the same time, it was announced that science programming may also be a component of a revitalized Ontario Place.

4.3.3 Therme Group

Therme Group ('Therme') will introduce an all-season waterpark and wellness destination on the West Island (depicted in Figure 12). Projected to attract up to 3 million visitors annually, key features of the proposal include an enclosed all-season waterpark, indoor and outdoor pools and mineral baths, wellness amenities, sports rehabilitation, botanical gardens, restaurants and arts and cultural programming. The concept (depicted in) will be set within a new 12-acre park, providing a new public beach, public canoe and kayak docks, a swimming pier, wetlands and a waterfront trail. Therme's waterpark features echo Ontario Place's historical uses and aligns with the site's legacy of family-friendly recreational destination.

Figure 12 - Artistic render of the future Therme Group site at Ontario Place

4.3.4 Live Nation

Live Nation is proposing to grow the success of the existing Budweiser Stage and Echo Beach to fully redevelop their amphitheatre into a state-of-the-art all-season entertainment venue with both indoor and outdoor space (see Figure 13.) The expanded entertainment venue protects the lawns and amphitheatre experience and increase its capacity to 20,000 seats. Integrated into the design of the East Island, the new facility will offer a gateway plaza with bars and restaurants that will be open and accessible to all.

Figure 13 - Artistic render of the future Budweiser Stage at Ontario Place

4.3.5 The OSC at Ontario Place

Ontario Place is being redeveloped as a multi-anchor tourist destination. Immediately adjacent to Ontario Place is Exhibition Place – a regional destination for sports, conferences, trade shows and entertainment. Combined, this precinct is projected to attract 12 million visitors a year by 2032. The OSC will be located centrally within the precinct and will benefit from the synergies generated by co-location high-profile attractions. The precinct will be an active destination 365 days a year, from early morning to late evening.

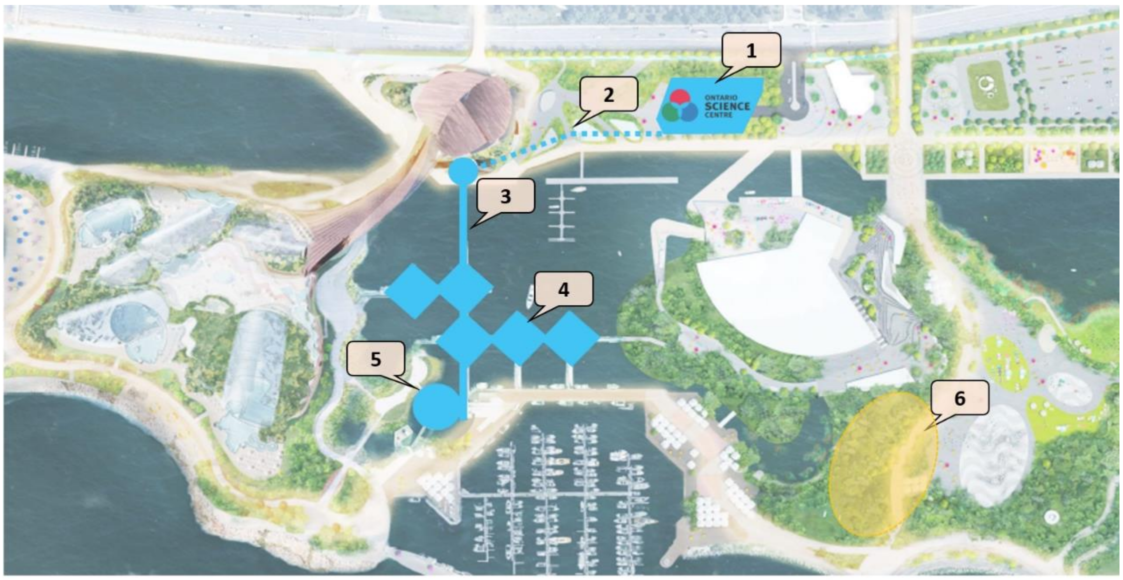
Redevelopment of Ontario Place will be phased and is expected to extend over a ten-year period, concluding in 2032. Construction is envisioned to move from west to east, creating the earliest possible opportunity for a new destination attraction at Ontario Place on the West Island. The OSC has the opportunity to be one of the earliest projects delivered on site. The proposed location and footprint of the OSC at Ontario Place is shown in Figure 14.

The OSC at Ontario Place could continue the site's legacy of education, innovation and play. Adaptatively repurposing Ontario Place's original exhibition spaces – the iconic Pod and Cinesphere structure – as well as benefiting from a purpose build structure on the mainland, the OSC remains consistent with the original Zeidler design mandate of a space for exhibition and technological showcase.

Repairs to the Pods are currently underway, advancing Government's commitment to rehabilitate this heritage complex as a central feature of a redeveloped Ontario Place. Despite including these unique assets as part of the international Call for Development for Ontario Place redevelopment, no viable commercial tenants have been identified for these unique assets and they remain untenanted and vacant. As a *Provincial Heritage Property of Provincial Significance*, the Government is obligated to maintain the Pods and Cinesphere even in an untenanted condition. As such, securing a tenant for these unique assets as soon as possible would provide Government a net aggregate maintenance cost reduction for the Pods, Cinesphere and OSC.

Refer to Appendix K for preliminary thinking on programming across the Pods, Cinesphere and in a new purpose-built science building on the mainland at Ontario Place.

Figure 14 – Potential location and general footprint of a new Ontario Science Centre at Ontario Place



1. Science Entrance Pavilion
2. Science Link (pedestrian circulation)
3. Connecting Bridges
4. Pods
5. Cinesphere
6. Outdoor Programming consideration for OSC+

5. OPTIONS FOR MODERNIZATION

This section presents the assumptions underlying the two options for the modernization of the OSC which include: remaining on site and undertaking repairs to remain operational or, alternatively, relocate to provincial land and construct a new facility as an anchor component for the Ontario Place revitalization.

The assumptions supporting this business case are as of the date of this report. Subsequent changes to these assumptions may impact the analysis and outcome. Detailed assumptions and sources can be found in the Assumptions Registry as part of Appendix I.

5.1. Option 1: Remain on Site

The Remain on Site option contemplates remaining on the current City of Toronto owned site and investing $164 million in the property to address deferred maintenance issues over the next five years with a further $205 million in building repair work from Year 6 to Year 20. In addition to deferred maintenance costs, the business case assumes a refurbishment cost of $109 million to enable the OSC to update exhibits and undertake cosmetic refurbishments to 50% of the OSC (primary public areas). This Government investment is required to refresh the OSC program offering to prevent deterioration of the facility, provide renewed exhibits, to reflect emerging and new Government priorities over the next 50 years and to keep the OSC relevant for future generations of Ontarians.

5.1.1 Spatial Requirements

- Maintains status quo - no major change to building design or layout. Assumes a 568,000 square feet facility. OSC continues to be limited in using approximately 30% of its building footprint for public exhibitions and related revenue generation activities.
- The future of the parking areas remains uncertain. 275 parking spaces in the northernmost lot have been reclaimed by the City due to the lease on the lot expiring. This lot is contemplated to be used as the CreateTO development site. The fate of the remaining parking spaces remains in flux as the anticipated needs of TOC projects along the Ontario Line evolve. Revenues for remaining active parking spaces will remain with the OSC. To be conservative, no impact to revenues has been reflected due to reduced parking.

5.1.2 Program Cornerstones

- A one-time investment of $66 million will allow OSC modernize its exhibits. An additional one-time investment of $43 million has been earmarked for cosmetic upgrades to public spaces.

5.1.3 Attendance and Admissions

- Attendance is made up of local and regular visitors (including members), school groups, tour groups, tourism, facility rental guests, IMAX theatre admissions and recreation programs (camps, birthday parties, sleepovers), among others.
- Since a peak in 2009/10, attendance has declined from 1.287 million visitors to 766,487 visitors in 2019/20. For the first two years, the financial model assumes attendance remains consistent with the 766,487 visitors in 2019/20. Following the planned refresh of the exhibits, the financial model assumes attendance will stabilize at 885,000. The financial model assumes the OSC will be closed prior to that

date to undertake critical repairs (including asbestos abatement). Preliminary estimates indicate this could be up to three years, although to ensure a degree of conservatism in this analysis a closure period of only one year has been assumed. As such, on-site attendance will drop to zero for one year, although there may be opportunities to continue to engage visitors through virtual channels.

- The OSC is located adjacent to two highly disruptive long-term construction projects (Eglington Crosstown LRT and the Ontario Line Subway). While these projects will likely negatively impact attendance through to 2031 (during construction), a conservative position has been taken with no drop in attendance contemplated due to LRT or subway construction projects. The LRT will be completed before the Ontario Line.

5.1.4 Capital Requirements

For *Option 1: Remain,* the total construction capital cost is $478 million. Refer to Appendix I for a full summary of capital requirements for the Remain on Site option for the next 50 years.

5.1.4.1. Deferred Maintenance

- Deferred maintenance repairs on the OSC building and its systems will be required to allow the Science Centre to continue operations. The cumulative capital repair costs to the Government are projected to be $369 million over the next 20 years (to 2042).
- As part of the total $369 million, $164 million is required in the next five years (to March 2028) to address health and safety and critical repairs to building systems and structures.
- Refer to Section 2.3 for additional details on deferred maintenance.
- To ensure the asset quality of the OSC following catch-up of deferred maintenance repairs is properly maintained over the life of the asset, lifecycle spending is required. Annual lifecycle spending7F9 has been estimated following best practice guidance and allocated on an annual basis for the analysis, although typical lifecycle spending is cyclical, with increased spending in years that align with asset lifecycles and repair and replacement needs of major building components and systems. Annual lifecycle spending is estimated to be $7.5 million per year for the Remain Option.

5.1.4.2. Building Refurbishment/Renovation/Exhibition Renewal

- The deferred maintenance investment of $369 million will allow the building to remain operational. The business case assumes that the Government would not undertake this significant investment to the building without also ensuring that the public content/exhibits also benefit from a refresh to extend their lifespan. This will require the following additional investment:
  - $66 million of additional funding is required for the modernization of exhibits. The range for exhibition costs is generally between $400 per square foot and $1,000 per square foot.[10]

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[9] Lifecycle costs are costs typically associated with planned or scheduled replacement, refreshment or refurbishment of building systems, equipment and fixtures that have reached the end of their useful service life. These costs are considered in both options.

[10] The type of exhibit within the $400 per square foot range would include conventional exhibits and some simple electronic interactives and audio/visual. At the higher end at $1,000 per square foot would include immersive environments, complex electrical/mechanical interactive exhibits, higher-end finishes, and major film/video production in special theatres. OSC has not yet developed a specific exhibit plan, following which more precise costing will be undertaken.

  - $43 million of additional funding is required for cosmetic refresh to public-facing areas (up to 284,000 square feet).

- Although this additional one-time $109 million investment will allow for an update of most public areas, it will not be sufficient to fully replace all exhibits or modernization of all internal spaces. As only 50% of the 568,000 square foot OSC will benefit from upgrades, it does not guarantee that the OSC at Don Mills will perform as a ‘fourth wave’ Science Centre even after this investment (refer to Appendix F).

5.1.5 Revenues and Subsidy Requirements

- The OSC had annual revenues from operations of approximately $16.9 million in 2019/20, which represents a decrease of approximately 11% since 2009/10, primarily due to declining attendance.
- With annual expenses of $36 million exceeding OSC’s revenue generation by approximately $19 million, there is an annual subsidy required from Government. In 2019/20 the OSC received $19.4 million for general operating activities. Until such time as the operations plan is developed for the OSC at Ontario Place, it is premature for the Ministry to determine if this same level of subsidy would be required if OSC is relocated to Ontario Place.
- Other than provincial funding, operating revenues come from earned sources (ticketing, parking, IMAX, memberships, concessions, etc.), corporate sponsorships, private donors and international sales and rentals.
- The Remain on Site option includes a significant increase in capital spending for deferred maintenance and exhibit renewal. Refer to Appendix I for a full summary of operational requirements for the Remain on Site option over the next 50 years.

5.1.6 Sponsorship Opportunities

- The OSC reports that 11% (approximately $4 million) of its total operating budget is from sponsorship and fundraising (in 2019/20).
- OSC has previous experience running successful fundraising campaigns. In 2003/04, the $47.5 million ‘Agents of Change’ transformation resulted in the Weston Family Innovation Centre, the outdoor plaza in 2006 (formerly TELUSCAPE), KidsPark and two permanent art installations.
- Sponsorship and philanthropic activities have the greatest potential to increase earned revenues, but it has been difficult to attract these investments given the current state of the OSC building and exhibits. This has created challenges in developing partnerships and growing earned revenues through sponsorship and philanthropy.
- Improved programming related to OSC’s mission (e.g., critical science-related issues, innovation and research) could support attraction of private support for the OSC. A broadening of its audience beyond children and families could also appeal more to funders and sponsors.

5.1.7 Expenses

5.1.7.1. Occupancy Costs

Annual lease and lease-related occupancy costs are approximately $5.2 million, representing approximately 17% of the annual operating budget, including $4.7 million as an occupancy payment to IO (rent and associated operating and maintenance costs, management fees, etc.)

5.1.7.2. Staffing/Salaries/Wages/Benefits

The OSC currently employs 250 staff on-site

Table 8 - Breakdown of OSC staffing numbers (Source OSC, 2023)

Role / Level	# of Staff
Senior Management	5
Learning and Engagement Staff	116
External Relations Staff	58
Corporate Services & Operations Staff	71

Per OSC's Annual Report, the total for salaries, wages, and benefits for the current OSC is $20.54 million (FY21/22).

- Salaries and wages represent the largest expense, accounting for 63% of annual operating budget.
- The OSC is currently planning some changes to its operating model that will result in some labour reduction in the near term. The specific FTE impact has not yet been fully determined. Due to the uncertainty, this has not been reflected in the financial model.
- The remaining operating expenses, other than labour and occupancy costs, are $12.1 million.

5.1.7.3. Ontario Place Expenses

- Under Option 1: Remain, Government would continue to be responsible for all costs associated with maintaining the vacant Pods and Cinesphere, as well as a proportional share of all site maintenance. In the interest of being conservative, these costs are not reflected in the financial analysis of the Remain option as they are not OSC-borne costs plus there is a high level of uncertainty around the magnitude of costs (these costs are included in the Relocate option as the Pods and Cinesphere would be part of the OSC).

5.1.8 Financial and Economic Impacts

5.1.8.1. Total Project Costs (Cash Basis Financial Impact)

- The total project costs for *Option 1: Remain,* both in nominal terms for a 50-year period (equivalent to the life of a newly constructed building) as well as on a Net Present Value (NPV) basis, are presented in Table 9. Refer to Appendix I for detailed assumptions.

Table 9 - Total Project Costs (Cash Basis Financial Impact) Summary

All figures in $ CAD millions[12]	50 Year Total (NPV)	50 Year Total (Nominal)	FY 23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29	FY29/30	…	FY72/23
Attendance			766,487	766,487	0	885,000	885,000	885,000	885,000		885,000
Revenues	$625.8	$1321.2	$15.2	$15.4	$4.4	$18.4	$18.7	$19.0	$19.3		$38.8
Expenses											
Operating Expenses	($1220.8)	($2524.6)	($33.9)	($34.4)	($27.1)	($36.5)	($37.0)	($37.6)	($38.1)		($71.0)
Deferred Maintenance	($306.1)	($368.7)	($43.5)	($47.0)	($26.0)	($14.7)	($32.6)	($14.0)	($25.4)		$0.0
Lifecycle Maintenance	($297.0)	($632.1)	($7.5)	($7.6)	($7.8)	($7.9)	($8.1)	($8.3)	($8.4)		($19.7)
Capital Expenses (exhibits + cosmetic upgrades)	($105.9)	($115.8)	-	-	($37.8)	($38.6)	($39.4)	-	-		-
Total	**($1304.1)**	**($2320.0)**	**($69.7)**	**($73.6)**	**($94.3)**	**($79.3)**	**($98.4)**	**($40.8)**	**($52.5)**		**($51.9)**

- For a 50-year period, as noted in the Table 9, **the costs for *Option 1: Remain* are $2.32 billion (nominal) or $1.3 billion (NPV) for all expenses** related to design and construction, exhibit modernization, operations, maintenance and lifecycle. This large expense can be attributed to a larger capital requirement, high on-going operating expenses and more modest increase in visitors and/or revenues.

5.1.8.2. Fiscal Impact Analysis

- Fiscal impacts under this option are also negative given the increased subsidy required to fund capital repairs and the ongoing operating losses.[11] The fiscal impact, or funding required for the OSC, for the next six years is as follows:

Table 10 - Summary of Fiscal Impacts of Option 1

All figures in nominal $ CAD millions[12]	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29
Remain On Site - Total Fiscal Impact	($69.7)	($73.6)	($56.5)	($40.7)	($63.7)	($45.4)
Forecasted OSC Operating Grant	$19.4	$19.4	$19.4	$19.4	$19.4	$19.4
Incremental Fiscal Impact*	($50.3)	($54.2)	($37.1)	($21.3)	($44.3)	($26.0)

** refers to amount above current operating grant.*

[11] Note that the annual fiscal impact fluctuates due to the critical maintenance costs are note amortized.
[12] Numbers may not add due to rounding

- The accumulative fiscal impacts for the next 5, 10 and 50 years are as follows:

Table 11 - Accumulative fiscal impact of Option 1 (in real $CAD millions)

All figures in nominal $ CAD millions12	**5-Year Fiscal Impact**	**10-Year Fiscal Impact**	**50-Year Fiscal Impact**
Remain on Site - Total Fiscal Impact	($304.3)	($546.4)	($2,320.0)
Incremental Fiscal Impact	($207.3)	($352.4)	($1,350.0)

- Refer to Appendix J for a full summary of economic and fiscal impacts for the Remain on Site option over a 50-year period.

5.1.8.3. Economic Impact Analysis

Overall economic benefits associated with the renewal of the OSC are measured in terms of Gross Domestic Product (GDP) impacts. Both options generate an estimated level of spending (total project cost, see Table 9). The incremental GDP impact is determined based on how much net new spending occurs in the provincial economy because of the construction and ongoing operation of either option. Major activities influencing the GDP calculations include tourism, construction, and operations. Operations include the ongoing operating costs of public institutions, and commercial businesses. The greatest GDP impacts are therefore found among the option with the highest level of construction activity, operating institutions and attractions.

Inputs into economic impact include the following:

- ***Job creation:*** Considered in 3 categories: construction, operations, and tourism. The Remain on Site option will result in approximately 732 jobs.

Table 12 - Estimated annual jobs created from Option 1: Remain

Estimated Annual Results	Remain on Site
Jobs from construction	323
Jobs from operations	391
Jobs from tourism	18
Total	**732**

- ***Tax Revenue:*** Based on capital, operational and tourism spending. Tax revenues under this option are forecasted to be approximately $312 million over the 50-year term.

Table 13 - Tax Revenue based on Option 1 (in real $CAD millions)

Results	Remain on Site
Personal taxes	115.9
Sales taxes	83.3
Corporate taxes	60.8
Other taxes	52.3
Total	**312.2**
Estimated annual results	
Personal taxes	2.3
Sales taxes	1.7

Results	Remain on Site
Corporate taxes	1.2
Other taxes	1.0
Total	**6.2**

- ***Tourism and GDP***: This brings new dollars to Ontario's economy and is therefore included as a component of GDP calculations. The benefit of tourism to the Province is measured in incremental spending. The modernization on site is forecasted to generate approximately $2.4 billion in total GDP spend over the 50-year term.

Table 14 - Estimated economic contribution from Tourism in Option 1 (in real $CAD millions)

Total economic contribution	Remain on Site
Number of years of construction	3
GDP from construction	104.7
GDP from operations	2,277.9
GDP from tourism	50.6
Total	**2,438.6**
Estimated annual results	
GDP from construction	34.9
GDP from operations	45.6
GDP from tourism	1.1
Total	**81.6**

5.2. Option 2: Relocate OSC to Ontario Place

Option 2 contemplates relocating OSC from City-owned land to a provincially controlled waterfront site as part of the Ontario Place Redevelopment project. The OSC would be reimagined and fully modernized as part of a renewed Ontario Place precinct that offers year-round entertainment, projected to attract up to 7 million visitors annually. The capital investment would result in a new, more efficient facility designed to meet the needs of the Science Centre and its partners over the next 50 years.

5.2.1 Spatial Requirements

- Spatial planning analysis and related costings were used to inform the business case and establish operational requirements and costs, based on conceptual designs. Spatial planning and costings were provided by Lord Cultural Resources, global leaders in museum and institutional planning and development.
- Contemporary museum spaces demand less space (gross square footage) than earlier models. The new building, although smaller, will operate more functionally and efficiently than the current OSC and will dedicate the same net square footage for permanent exhibition space (like-for-like core program area). The total gross floor area for the relocated OSC is 275,700 square feet (including the pods and Cinesphere). The existing facility at Don Mills is approximately 568,000 square feet, including a fabrication shop, with is not proposed to be housed in the core gross floor area at Ontario Place (see further Section 8.4 for a discussion on a potential fabrication facility at Ontario Place.)

- Lord Cultural Resources, working with the OSC, prepared a functional program and space plan for the new OSC at Ontario Place (refer to Appendix K). The space plan proposes a 275,700 square foot facility:
  - A new 198,000 square foot Science Centre building on the mainland.
  - The mainland Science Centre building will be directed connected with the five pods and Cinesphere complex, that will provide an additional 77,700 square feet of OSC space.
- Approximately 110,000 square feet of public permanent exhibition space will be provided. This equates to approximately 40% of the gross floor area of the new facility (including pods and Cinesphere), compared to less than 25% at the existing site.
- Of the total permanent exhibition space, 80% will be used for displays and exhibits that demonstrate a high level of interactivity and multi-media functionality. The remaining 20% of the permanent exhibition halls will be dedicated to other participatory programming including laboratory and innovative uses.
- The Science Centre at Ontario Place will join a number of other new and existing uses on site. In order to meet the expected parking demand of the full complement of uses, a comprehensive campus-wide parking solution is required. With the parking obligations to the other tenants and anticipated parking needs of the OSC, it is expected that 2,000 to 3,000 parking spaces will be required on-site. While some of the existing parking spaces will continue to be used for parking purposes, it is expected that the balance of required parking will be achieved through the construction of a new underground parking structure. Parking is a Government obligation and is being addressed as a precinct-wide solution (shared parking solution across all tenants). Further, parking revenue will be claimed by Government and not by individual tenants. As such, neither parking revenues nor costs specific to the OSC at Ontario Place are included in this business case. A separate and stand-alone funding request for the new parking structure will made to Treasury Board by the Ministry of Infrastructure.
- Refer to Appendix K and Appendix M respectively for a detailed space program and costings for the proposed new Science Centre at Ontario Place.

5.2.2 Program Cornerstones

The programming of the OSC at Ontario Place will reflect the latest trends in successful cultural destinations (refer to Appendix K), including:

- ***Clustering***: Successful destinations are those that cluster activities and institutions into walkable accessible places. These can be in an urban downtown setting, or in a park-like place. The visitors arrive (by personal car, public transit, or tour bus-vehicle) and then can freely explore a variety of activities. The Relocate option allows for a clustering of the cultural, recreation and tourism uses with Exhibition Place (which attracts more than 5.5 million visitors/year), the Central Waterfront and the downtown Toronto tourism offer.
- ***Branding***: Branding is a critical element of successful communication. The Relocate option allows for a compete rebranding of both the OSC and Ontario Place.
- ***Visibility***: The site is located at the western gateway to Ontario's capital city and Toronto's main gateway for tourism from much of Ontario, Canada, and the US. The Relocate option provides a downtown waterfront site with high visibility for tourists, commuters, and residents.

- ***Leadership***: Research and partnerships with universities, institutes and industry to create and apply new knowledge ensuring new science centres remain relevant and contemporary. Being physically isolated from partners with low visibility is currently inhibiting the OSC from expanding and fulfilling its leadership potential.

5.2.3 Attendance and Admissions

- A re-imagined OSC will attract a higher number of visitors on a year-round basis than the current site, due to its proximity to the downtown tourist market as well as being co-located within the Ontario Place/Exhibition Place precinct (currently attracting 7.5 million visitors year and expecting to grown to 12 million by 2032), It is estimated that up to 1.15 million people will visit the OSC in early years before stabilizing at one million visitors annually in Year 3 of operations. In the stabilized state, this represents an increase of approximately 13% in annual attendance over Option 1.
- It is assumed that during FY28/29 the current OSC will be closed to move the facility from 770 Don Mills to Ontario Place. The OSC will have to be closed for a period of time while the physical relocation to OP takes place. The number of visitors for the four months of FY28/29 that the relocated OSC is assumed to be open, has been adjusted to one-third of forecasted annual visitors.
- It is assumed that the resident market for the relocated OSC will remain the same as the current resident market visitation. Any lost visitation from the east (Scarborough) and northeast (Markham) GTA visitors will be equal to the gains by residents from the west (Peel region) and northwest (Vaughan).
- Currently approximately half of visitors to the Don Mills OSC visit using a membership or other discounted admission. These groups benefit from a subsidized admission price. Although it is assumed that a new more central OSC will increase its market share of tourism, providing opportunities to increase the average admission price, to remain conservative the analysis does not build in any assumption related to attendance reprofiling.
- School group attendance would remain consistent with current levels. The OSC typically receives approximately 170,000 student group visitors per year, approximately 18 to 20 per cent of its total annual visitors. It is assumed, that new school visits from the west and northwest part of the GTA would balance any lost school visits from downtown, the east and northeast.
- To remain affordable and competitive, the OSC is careful to not to raise its admissions price year after year. The financial model assumes consistency in average revenue per visitor (parking and ticket price revenues combined). However, since there are no parking revenues under the Relocate option, for the purposes of the financial model, the average ticket price per visitor is subject to a modest increase of only $0.50 per visitor at the new location (to account for lost parking revenue). Final decisions on ticket pricing at Ontario Place is subject to confirmation by OSC, based on operational requirements and market conditions.

5.2.4 Capital Requirements

For *Option 2: Relocate,* the total design and construction capital expenses are $386 million. This is $92 million less than Option 1: Remain. Refer to Appendix M for a full summary of capital requirements for the Relocate option over 50 years.

5.2.4.1. Building Construction and Site Preparation

- The total estimated design and construction costs for a new Ontario Science Centre at Ontario Place including rehabilitation of the heritage Pods is **$322 million** (excluding exhibits). This estimate is based on the Class D Cost Estimate prepared by AW Hooker (Appendix M) with government adjustments applied by IO Project Controls to better reflect escalation, market condition costs and experience on past projects.
- As part of government's commitment to heritage repair at Ontario Place, the Province is currently investing in building repair works to the exterior of the pods and Cinesphere complex, estimated to cost approximately $25.5 million. It is expected that on OSC's occupancy of the Pod and Cinesphere complex, the internal fit-out and operational costs will be borne by the OSC. This fit-out cost is included in the $321 million construction costs.
- To ensure the asset quality of the OSC is properly maintained over the life of the asset, lifecycle spending is needed. Lifecycle spend has been estimated following best practice guidance and allocated on an annual basis for the analysis, although typical lifecycle spending is cyclical, with increased spending in years that align with asset lifecycles and repair and replacement needs of major building components and systems. Due to the smaller building footprint and the ability to design and construct a more modern and efficient OSC building at Ontario Place, annualized lifecycle spending is estimated to be $5.8 million per year (a 25% reduction from Option 1).
- The existing structures were designed with sufficient load capacity to permit programming. The load capacity of the existing structures has generally not been compromised by deterioration, and where conditions of deterioration have been identified, the goal of the existing repair project is to reinstate the original load carrying capacity of the existing structures. The Pods roofs were not originally designed to accommodate public assembly occupancy. The load capacity of the existing pod roofs has been analyzed and OSC programming may be feasible on the roof with some load limitations, or minor reinforcement of the existing roof structure. Further structural investigation will be undertaken as part of the detailed design process following Treasury Board Stage 2 approval.
- The capital costs of the new construction are annualized in the breakdown provided in Appendix M. See Section 5.2.1 for a discussion on the proposed precinct-wide solution for car parking.

5.2.4.2. Exhibits

- The total allocated costs for new exhibits, including design, fabrication, and installation, is **$64 million**. The range for exhibition costs is generally between $400 per square foot and $1,000 per square foot.[13]

5.2.5 Revenues and Subsidy Requirements

- Annual revenues from ticket sales, memberships, and other revenue sources are modelled with modest increases when the OSC is relocated. The increase is attributable to a higher number of visitors and ticket price increase of 50 cents.

[13] The type of exhibit within the $400 per square foot range would include conventional exhibits and some simple electronic interactives and audio/visual. At the higher end at $1,000 per square foot would include immersive environments, complex electrical/mechanical interactive exhibits, higher-end finishes, and major film/video production in special theatres. OSC has not yet developed a specific exhibit plan, following which more precise costing will be undertaken.

- The OSC hosts several events, programs and functions in its public spaces and rental facilities. Just over 3% of OSC's current operating revenue is derived through rental income. Given the new waterfront location, its proximity to conventions and trade shows and a new hotel at Exhibition Place, OSC should see an increase in facility rentals at the new location (of approximately 10% to 20%), but to ensure a degree of conservatism in the pro forma estimated revenues no increases were included in the analysis.
- Revenues and expenses from the Cinesphere are estimated to replace revenues and expenses from the OMNIMAX and grow with visitor growth at OP (and considered in cost estimates). The Cinesphere is a multi-use space which offers a doubling of seating capacity, programming opportunities and an enhanced cinematic experience. Further study of the market, audience and product must be conducted to provide more accurate projections for the Cinesphere.
- Revenues and expenses from international sales are assumed to be absent for the OSC at OP since no fabrication is contemplated in this option (see Section 8.4 for considerations on adding a fabrication facility to the relocated OSC).
- All other revenue sources for the OSC were assumed to grow in line with increased visitation by approximately 13%. This includes commissions for retail and food services, memberships, public and educational services and recreational and family learning experiences.
- It is typical for cultural facilities in Canada to be financially dependent on Government funding. It is assumed that any new publicly operated cultural opportunities for Ontario Place will therefore need substantial levels of governmental support to pay for operating costs.

5.2.6 Sponsorship and Partnering opportunities

- Sponsorship and philanthropic activities have strong potential to increase earned revenues. In the Relocate option, the increase in tourist visitors, coupled with a broadening of OSC's audience beyond children and families will appeal to funders and sponsors.
- For fundraising and sponsorship, Lord Cultural Resources advise that new build programs are generally more successful than capital campaigns for refurbishment of existing facilities. Further, high profile facilities in a central location have greater success at attracting funding (Appendix O). Due to this high-profile location within the heart of the GTA tourist, philanthropic and corporate markets - coupled with the educational mandate of the OSC and legacy of the Ontario Place site - it is estimated that up to 40% of the construction costs could be supported by a capital campaign (approximately $60 million to $130 million in capital contributions / sponsorship / philanthropic donations).
- Examples of capital campaigns for Canadian museums include:
  - The Telus Spark Science Museum in Calgary which raised almost one-quarter of its $160 million capital requirement through corporate and individual donors ($36.5 million in 2011).
  - The Canadian Museum for Human Rights in Winnipeg exceeded their corporate and individual donor capital campaign target of $150 million (2012)
  - 'Garden at the Leaf' in Winnipeg raised $60 million of its $135 million capital requirement (2021)
  - In Toronto, both the ROM and AGO have benefited from significant capital campaigns, including $30 million raised for the ROM Crystal (2003) and $100 million donated for AGO expansion (2009).

- A new building in a highly visible waterfront location, and a new vision will help attract increased sponsorship, naming rights and philanthropic contributions, which may be a significantly higher than the $4 million OSC generated in 2019/20 at Don Mills. As this funding is not guaranteed, to remain conservative, no one-off or special contributions were included in the financial analysis for either options.
- Further discussion on Sponsorship and Partnering opportunities can be found in Appendix O.

5.2.7 Expenses

5.2.7.1. Occupancy Costs

- The new building will have a reduced floor area (45% of the existing gross square footage of the current OSC) and could target LEED Gold standards. LEED certified buildings contribute to more efficient and sustainable operations. The impacts of LEED certification and circulation efficiency through reduced non-useable space could provide significant savings in occupancy costs (potentially $2 per square foot). Due to the conceptual designs, the cost savings are not able to be accurately estimated, and therefore have not been included in the financial model.
- It is assumed that OSC will pay occupancy costs based on a similar formula to what occurs currently at the Don Mills site (and adjusted for the reduction in space occupied). To ensure a degree of conservatism, no cost savings due to increased energy efficiency of the building have been assumed in the analysis.
- Common area expenses (e.g., maintenance, landscaping, solid waste) have been calculated based on acreage that the OSC occupies at Ontario Place (consistent with other tenants on site).

5.2.7.2. Staffing/Salaries/Wages/Benefits

- Given a much smaller footprint and changes to operations, staffing levels may be reduced at a new OSC from 250 to 215 FTE reducing salaries, wages and benefits by 14% (or $2.5 million annually). This is considered a modest reduction and further reductions may be possible, depending on final FTE count. Staff transition planning is underway, and assessment of the impacts are being undertaken. For the purposes of the financial analysis a one-time severance cost in 2028 of approximately $6.8 million has been assumed.
- As new programming and more detailed operating plans for a relocated OSC have not been developed, it is challenging to provide a more detailed estimate of FTE requirements and/or related costs and savings. More refined estimates of FTE requirements will be determined by OSC and MTCS in future point, which may result in additional reductions. As staff transition planning, including FTE impacts, are further defined specific estimates for severance including with respect to cost and timing will be required. Given operational uncertainties, it was assumed that FTEs would be reduced to meet the cap set by MTCS.

5.2.7.3. Other Operating Expenses

- Other operating expenses include administrative costs, exhibitions and programs, educational programs, and marketing. These expense items are tied more closely to programming. It is therefore assumed that these expenses remain fixed.

5.2.8 Financial and Economic Impacts

5.2.8.1. Total Project Costs (Cash Basis Financial Impact)

- Total project costs are presented in Table 15 on a nominal basis for a 50-year period building, as well as on a Net Present Value (NPV) basis. Refer to Appendix I for detailed assumptions.

Table 15 - Total Project Costs for Option 2

All figures in $ CAD millions [14]	50 Year Total (NPV)	50 Year Total (Nominal)	FY23-27[15] (at Don Mills)	FY28/29[16]	FY29/30	FY30/31	FY31/32	…	FY72/23
Attendance			885,000	333,333	1,150,000	1,050,000	1,000,000		1,000,000
Revenues	$602.8	$1279.4	$17.5	$4.4	$22.5	$20.8	$20.1		$37.1
Expenses									
Operating Expenses	($984.1)	($2024.7)	($39.0)	($24.6)	($32.1)	($31.6)	($31.6)		($56.3)
Deferred Maintenance	($30.5)	($32.3)	($0.4)	-	-	-	-		-
Lifecycle Maintenance	($242.3)	($507.5)	($7.5)	($6.5)	($6.6)	($6.8)	($6.9)		($15.6)
Capital Expenses (exhibits + design and construction + one time relocation costs*)	($393.0)	($438.5)	$0.0	($63.7)	($4.5)	-	-		-
Total	**($1047.1)**	**($1723.5)**	**($29.3)**	**($88.4)**	**($20.7)**	**($17.6)**	**($18.4)**		**($34.8)**

**includes severance costs.*

- Over a 50 year period, as noted in Table 15, **the costs for *Option 2: Relocate* are $1.72 billion (nominal) or $1.05 billion (NPV) for all expenses** related to design and construction, exhibit modernization, operations, maintenance and lifecycle**.** This lower cost is due to a lower capital requirement, reduced operating and maintenance requirements as well as increases in visitors and/or revenues.
- *Option 2: Relocate* provides government with a savings of approximately $257 million (NPV) over a 50-year period, when compared to *Option 1: Remain.*

5.2.8.2. Fiscal Impact Analysis

- As per the Remain on Site option, fiscal impacts for the Relocate option are negative given that an increased subsidy is required to fund the new build, moving, decommissioning and other costs, as well as interim revenue impacts.
- The fiscal impact for the next six years is as follows:

[14] Numbers may not add due to rounding
[15] Note FY23/24 - FY26/27 is showing years prior to construction completion (i.e., operating at Don Mills)
[16] FY28/29 represent the current OSC being closed from April 2028 onwards and the relocated OSC opening in December 2028

Table 16 - Fiscal impacts of Option 2 over next six years

All figures in nominal $ CAD millions [17]	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29
Relocate - Total Fiscal Impact	($29.3)	($35.5)	($32.4)	($29.3)	($26.2)	($45.2)
Forecasted OSC Operating Grant	$19.4	$19.4	$19.4	$19.4	$19.4	$19.4
Incremental Fiscal Impact* (OSC only)	($9.9)	($16.1)	($13.0)	($9.9)	($6.8)	($25.8)

** refers to amount over and above current operating grant.*

The accumulative fiscal impact for the next 5, 10 and 50 years is as follows:

Table 17 - Accumulative fiscal impacts of Option 2

All figures in nominal $ CAD millions 17	5-Year Fiscal Impact	10-Year Fiscal Impact	50-Year Fiscal Impact
Relocate Option Fiscal Impact [2.]	($152.7)	($319.0)	($1,723.5)
Incremental Fiscal Impact (OSC only)	($55.7)	($125.0)	($753.6)

- The fiscal impact of the Relocate option is significantly less than the Remain On Site option over both the short and long-term (i.e., the Relocate option has a lower cost to Government than the Remain On Site option). This indicates that the Relocate option would considerably reduce the pressures the OSC puts on the provincial fiscal framework when compared to the Remain On Site option (refer to Section 6.3 for a comparison of costs and savings to Government).

  This fiscal impact analysis should be considered indicative only as a detailed line-by-line analysis has not been completed given: i) the level of detail in the capital cost estimates, and ii) an outstanding real estate strategy (along with any associated financial gains or losses) specific to the existing OSC lands, should the OSC be relocated.

- Refer to Appendix J for a summary of the 50 year fiscal and economic impacts for the Relocate.

5.2.8.3. Economic Impact to Province

The 50-year economic impact for the relocating OSC to Ontario Place is as follows:

- ***Job Creation:*** Given the new construction for a new facility that is required under the Relocate scenario, additional jobs are generated from construction and development. The Relocate scenario is forecasted to provide approximately 1,245 jobs.

Table 18 - Estimated annual jobs from Option 2

Estimated annual results	Relocate
Jobs from construction	888
Jobs from operations	336
Jobs from tourism	20
Total	**1,245**

[17] Numbers may not add due to rounding

- ***Tax Revenue:*** Tax revenue is forecasted at approximately $5.2 million per annum.

Table 19 - Tax revenue attributable to Option 2 (in real $CAD millions)

	Relocate
Personal taxes	96.5
Sales taxes	69.4
Corporate taxes	50.7
Other taxes	43.6
Total	**260.2**
Estimated annual results	
Personal taxes	1.9
Sales taxes	1.4
Corporate taxes	1.0
Other taxes	0.9
Total	**5.2**

- ***Tourism and GDP:*** The Relocate scenario is forecasted to generate approximately $2.0 billion in total GDP over the 50-year term.

Table 20 - Tourism contribution to GDP for Option 2 (in real $CAD millions)

	Relocate
Number of years of construction	4
Results for 2022-2072	
GDP from construction	384.1
GDP from operations	1,584.5
GDP from tourism	63.6
Total	**2,032.1**
Estimated annual results	
GDP from construction	96.0
GDP from operations	31.7
GDP from tourism	1.3
Total	**129.0**

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6. EVALUATION

6.1. Methodology

This section details both the quantitative and qualitative analysis of the two options. The two options are scored against the three Government priorities as identified by MTCS:

A. **Financial and Economic Impact (50%)**
    a. Total project costs (in net present value terms)
    b. Fiscal impacts
    c. Economic impacts (quantifiable)
    d. Economic impacts (unquantifiable)

B. **Program Sustainability and Visitor Experience (25%)**
    a. Competitiveness of the offer as a tourist attraction
    b. Program and building flexibility
    c. Construction impacts
    d. Commercialization of innovation, opportunities for 'hub' and incubator activities

C. **Accessibility and Integration (25%)**
    a. Accessibility, integration and profile, visibility, heritage and history
    b. Neighbourhood fit

The evaluation of the options was carried out by industry and subject matter experts including IO, OSC and EY. Government was represented in the evaluation process by representatives from both MTCS and MOI. A summary of the supporting discussion points and the scores agreed to in the workshop are provided in the following sections. The performance of the options against the above stated Government objectives were scored using the following guide:

Table 21 - Scoring Guide Against Government Stated Objectives

Grade	Description	Score
Very Good	Substantially delivers against nearly all of the stated objectives applicable to the criteria.	100%
Good	Delivers against many of the stated objectives applicable to the criteria.	80%
Satisfactory	Delivers against some of the stated objectives applicable to the criteria but will not deliver against some of the objectives without increasing risk and costs.	60%
Poor	Does not deliver many of the stated objectives applicable to the criteria and/or will increase risks and costs borne by the OSC and Province of Ontario.	40%
Very Poor	Does not deliver against substantially all of the stated objectives applicable to the criteria and/or will increase risks and costs borne by the OSC and Province of Ontario significantly.	20%
Unacceptable	Does not meet objectives in any way.	0%

6.2. Financial Analysis Comparison

Table 22 provides a comparison of the financial impact for both options.

Table 22 - Summary of Financial Analysis ($CAD, NPV)[18]

Financial Impact	Option 1: Remain on Site	Option 2: Relocate	Difference
General Admissions	213,343,708	242,756,484	29,412,776
Ancillary Operations[19]	405,546,717	378,124,108	(27,422,609)
Interest Income	6,956,486	7,915,546	959,060
Interim Revenue Impacts[20]	-	(26,017,582)	(26,017,582)
Total Revenue ($)	**625,846,911**	**602,778,556**	**(23,068,355)**
Operating Expense	(1,220,830,654)	(984,108,157)	236,722,497
Severance Costs	-	(6,867,638)	(6,867,638)
Total Operating Expense ($)	**(1,220,830,654)**	**(990,975,795)**	**229,854,859**
Total Deferred Maintenance ($)	**(306,089,768)**	**(30,528,632)**	**275,561,136**
OSC Building Lifecycle Costs	(297,031,408)	(231,386,757)	65,644,650
Common Area Maintenance @ Ontario Place	-	(10,914,042)	(10,914,042)
Total Maintenance ($)	**(297,031,408)**	**(242,300,799)**	**54,730,608**
OSC Construction Cost – Exhibits	(64,578,670)	(63,949,759)	628,911
OSC Construction Cost – Cosmetic Upgrades	(41,369,193)	-	41,369,193
OSC Construction Cost – New Build + Pods	-	(290,028,437)	(290,028,437)
OSC One-Time Relocate-Specific Expenses [21]	-	(32,124,675)	(32,124,675)
Total Capital Expenses ($)	**(105,947, 863)**	**(386,102,871)**	**(280,155,008)**
Total Project Surplus / (Shortfall)	**(1,304,052,782)**	**(1,047,129,541)**	**256,923,241**

6.3. Fiscal Impact Comparison

- Fiscal Impacts are the funding requirements for a particular option from a fiscal accounting perspective net of forecasted revenue under the given option. The figures represent the total program funding requirements – they do not consider the current program funding from the Province.
- Listed below is a comparison of the fiscal impacts of the Remain on Site and Relocate options, respectively. Based on this information, the Relocate option would have less of a fiscal impact than the Remain option over both the short and long-term.
- *Option 2: Relocate* option saves Government $151.6 million over 5 years, $227.4 million over ten years and $596.5 million over a 50-year period over *Option 1: Remain*.

[18] Numbers may not add due to rounding

[19] The reduced ancillary operations revenues for the Relocate option are due to the relocated OSC not having a fabrication facility which removes the “international sales and rentals” revenues by $59,433,036 in NPV terms (50 year period).

[20] It is assumed that OSC would consolidate into a smaller footprint during interim operations at Don Mills prior to its relocation to Ontario Place. To reflect this reduced building footprint, a reduction in revenue has been calculated for this interim period.

[21] This includes decommissioning costs, moving costs and costs for trailing obligations.

Table 23 - Comparative fiscal impacts between Options 1 and 2

All figures in nominal $ CAD millions [22]	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29
Remain	($69.7)	($73.6)	($56.5)	($40.7)	($63.7)	($45.4)
Relocate	($29.3)	($35.5)	($32.4)	($29.3)	($26.2)	($45.2)
Difference in Fiscal Impact	$40.4	$38.1	$24.1	$11.5	$37.5	$0.2

A comparison of the accumulative fiscal impact for the next 5/10/50 years is as follows:

Table 24 - Comparative 5-, 10- and 50-Year Fiscal Impacts

All figures in nominal $ CAD millions22	5-Year Fiscal Impact	10-Year Fiscal Impact	50-Year Fiscal Impact
Remain	($304.3)	($546.4)	($2,320.0)
Relocate	($152.7)	($319.0)	($1,723.5)
Difference in Fiscal Impact	$151.6	$227.4	$596.5

[22] Numbers may not add due to rounding

6.4. Evaluation

Table 26 presents the analysis of the options against the agreed criteria.

Table 25 - Evaluation Scoring Rubric

Category	Option 1: Remain on Site	Option 2: Relocate OSC to OP
Non-Financial Considerations - 50%	Scored Out of 50	Scored Out of 50
Financial and Economic Score - 50%	Scored Out of 50	Scored Out of 50
TOTAL SCORE - 100%	100	100

Table 26 - Detailed Integrated Evaluation

A. Financial and Economic	Option 1: Remain on Site	Option 2: Relocate OSC to OP
Net Present Value: A dollar amount, in present value terms, which represents the total surplus of funds generated (or costs incurred if negative). A 50-year term will be used to match the useful life of a new building, and the number will include all revenues and costs for both sites to ensure appropriate comparability.	Total Project Costs $ 1,304.1 million	Total Project Costs $ 1,047.1 million Savings of $256.9 million or 20% relative to Option 1
Fiscal Impacts: Impact to the financial statements of the Province over the next five years due to forecasted revenues and expenses.	▶ 5 year: ($304.3 million) ▶ 10 year: ($546.4 million) ▶ 50 Year: ($2,320.0 million)	▶ 5 year: $(152.7 million) ▶ 10 year: $(319.0 million) ▶ 50 Year: $(1,723.5 million) ▶ Savings over a 50-Year Period: $596.5 million
Economic Impacts (Quantifiable): Quantifiable economic impacts, such as incremental tax revenues, GDP impacts, and job growth.	Good ▶ Positive tax impacts estimated at $312.2 million ▶ Total positive GDP impacts at approximately $2,438.6 million ▶ 323 jobs from construction ▶ 391 jobs from operations ▶ 18 jobs from tourism	Good ▶ Positive tax impacts estimated at $260.2 million ▶ Total positive GDP impacts at approximately $2,032.1 million ▶ 888 jobs from construction ▶ 336 jobs from operations ▶ 20 jobs from tourism

A. Financial and Economic	Option 1: Remain on Site	Option 2: Relocate OSC to OP
Economic Impacts (Other): **Other economic impacts** will be for consideration, such as: opportunities for Sponsorship funding, impacts to the tourism industry as a whole, impacts to the local community, etc.	Good ▶ Potential increase in use by tourism market ▶ Potential for increased sponsorship ▶ Potential for institutional and business partnerships ▶ Stronger positive impacts to local community	Very Good ▶ Strong potential for increased sponsorship ▶ Stronger potential for new community, institutional and business partnerships ('commercialization of science') ▶ Increased tourism and positive impacts to the local community

B. Program Sustainability & Visitor Experience	Option 1: Remain on Site	Option 2: Relocate OSC to OP
Competitiveness of the offer as a tourist attraction: The degree to which the option positively attracts increased tourism, science, innovation, and a growing audience for the OSC.	Satisfactory: ▶ Updating of exhibits will result in renewed interest ▶ Heritage building and history of site will continue to be appealing for some Ontarians ▶ Transit and access will be significantly improved with the Eglinton Crosstown LRT and Ontario Line Subway ▶ Other tourism experiences in the area remain limited	Good: ▶ Newly constructed OSC will result in renewed interest, including from new markets ▶ Better access for OSC to tourism market with downtown location ▶ Waterfront site is attractive for OSC attendees given complementary options given clustering of multiple draws across adjacent properties (including 5.5 million visitors to Exhibition Place) ▶ Transit options are available, but there may still be some access / last mile challenges
Program and building flexibility: Ability of the OSC to quickly and effectively change usage/space design to respond to needs and market forces. Building size, configuration, services, systems and/or location may impact the ability to change and modify space.	Poor: ▶ Planned deferred maintenance to be undertaken will help address some core building flexibility constraints, but significant footprint and layout challenges remain ▶ Current design of building limits program uses and flexibility (e.g., due to concrete shell, multiple levels, inefficient gross to net usability, locations of spaces)	Good: ▶ New and modern design will increase flexibility, enhance access, and flexible and multi-use throughout programming space ▶ Future expansion on site is possible given size of precinct, although some challenges given build near/over water will persist but are manageable
Construction impact: Construction of a new facility and/or signification renovations will impact the OSC user experience as well as other key stakeholder groups (e.g., neighbours, partners).	Poor: ▶ Planned closure and staged deferred maintenance activities will be very disruptive for visitor experience ▶ Full closure of OSC for asbestos abatement may have long-term impacts to brand and attractiveness of the OSC generally	Good: ▶ Limited impact overall because of the ongoing use of current site during construction of new facility at Ontario Place, although there will be some disruption to OSC during move to Ontario Place ▶ Construction is somewhat challenging given the Ontario Place site (e.g., water levels, constraints of

B. Program Sustainability & Visitor Experience	Option 1: Remain on Site	Option 2: Relocate OSC to OP
		existing structures, logistics) but these complexities have been factored into the total project costs
Commercialization of innovation; opportunities for incubators; 'hub' activities: Degree to which the option: i) facilitates ongoing showcasing of leading-edge research and innovation and science education; ii) includes the prospect of the OSC increasingly acting as a support hub and incubator for researchers, entrepreneurs, investors and mentors in the sciences; iii) supports start-up and acceleration of businesses and serves as a platform for development and investment in technology and sciences; and iv) facilitates investment and partnership opportunities that result in direct financial and non-financial support of the OSC.	Satisfactory: ▶ Strong history of partnerships (e.g., Ministry of Education) and opportunities continue to be explored which will be enhanced through a refreshed facility ▶ Some hub and cluster opportunities available but limitations due to location of OSC ▶ Redevelopment of the community is largely residential with minimal commercial partnership opportunity	Good: ▶ Opportunities for new partnerships due to a new and modern facility closer to sector partners (business, institutional and community) ▶ Dedicated space planned for hub, innovation, and incubator activities not currently available at existing site ▶ Co-location options and specific designs would need to be fully articulated

C. Accessibility and Integration	Option 1: Remain on Site	Option 2: Relocate OSC to OP
Accessibility of Site and Profile of OSC within City, Region, and Province; Heritage and History: Degree to which the OSC is able to be recognized as a pre-eminent facility showcasing science and innovation to business, community and tourists and accessible to all Ontarians. Degree to which selected option honours organizational history and nostalgia that Ontarians express towards the institution.	Good: ▶ Strong history at current site ▶ Iconic structure which is architecturally significant ▶ Existing brand and strength remain ▶ Strong affinity for many users to the organization will continue ▶ Space at Ontario Place would remain available for other redevelopment opportunities ▶ Site in close proximity to new LRT and subway lines, and highway networks	Good: ▶ Brings a provincially owned brand onto a provincially owned site ▶ Located on public waterfront site on shores of Lake Ontario ▶ Opportunity for new iconic building and design ▶ Location offers will capture new market (e.g., west end Toronto, Mississauga, broader GTA) but may lose some east end market ▶ Site in close proximity to regional train and highw ay networks ▶ Opportunity for re-branding of OSC as more than a family destination ▶ Change of current OSC site use may be perceived as a negative ▶ Increased profile and visibility due to location ▶ Opportunity to meet accessibility (AODA) requirements

C. Accessibility and Integration	Option 1: Remain on Site	Option 2: Relocate OSC to OP
Neighborhood fit: Degree to which the facility and program is fitting with neighbouring properties and community.	Good: ▶ Current gathering location for the local community ▶ Strong existing relationships with local schools ▶ Site is accessible by foot, bicycle and transit (integrated with local neighbourhood)	Good: ▶ Emerging demographic in the community supports OSC growth ▶ Facilitates opportunities for integrated neighbourhood destination (e.g., play, sustainability, innovation, water) ▶ Site is accessible by foot, cycle and transit (integrated with downtown and local neighbourhood), although located farther away from adjacent community than current site

6.5. Scoring

The following table presents a summary of the scores allocated based on the performance of each option against the evaluation criteria.

Table 27 - Integrated scoring assessment

Category & WEIGHTING	Option 1: Remain	Option 2: Relocate
Financial and Economic - 50%	**Score: 29.0 / 50.0**	**Score: 48.0 / 50.0**
Net Present Value (20 points)	($1,304.1 million) 24.5% more expensive Lose 24.5% of points 15 / 20	($1,047.1 million) 20 / 20
Fiscal Impacts (20 points)	Premium over Option 2: 5-Year: 99% 10-Year: 71% 50-Year: 35% Average 68% Lose 68% of points 6 / 20	20 / 20
Economic Impacts (10 points)	80%	80%
Program Sustainability and Visitor Experience - 25%	**Score: 12.5 / 25.0**	**Score: 20.0 / 25.0**
Competitiveness of the offer as a tourist attraction	60%	80%
Program and building flexibility	40%	80%
Construction impact	40%	80%
Commercialization of innovation; opportunities for incubators; 'hub' activities	60%	80%
Accessibility and Integration - 25%	**Score: 20.0 / 25.0**	**Score: 20.0 / 25.0**
Accessibility, Integration and Profile/Visibility of the City, Region, and Province; Heritage and History	80%	80%
Neighborhood fit	80%	80%
TOTAL SCORE - 100% **Financial and Economic (Category A)** **Qualitative (Categories B & C)**	**61.5 / 100.0** **29.0 / 50.0** **32.5 / 50.0**	**88.0 / 100.0** **48.0 / 50.0** **40.0 / 50.0**

Based on the evaluation methodology and scoring as outlined above, **Option 2: Relocate OSC to Ontario Place, scores more favourably across most quantitative categories**. Not only does it offer considerably lower costs to Government over the long-term relative to Option 1: Remain ($257 million in net present value terms; or $596 million in nominal dollars), it also offers a lesser impact in the near term from a fiscal accounting perspective (i.e., savings of 50% and 42% over 5 and 10 years respectively).

The Relocate option also scores the same or better across all qualitative considerations. It allows the OSC to establish a much more sustainable program and growth model given a more flexible, cost-effective facility, and allows for increased commercialization of the science sector, given hub and incubator activities that may be optimized.

NOTE: Relative to the Status Quo (i.e., do nothing), both options to modernize the OSC will require additional subsidies from Government. Savings in this context are relative to the options presented.

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7. IMPLEMENTATION CONSIDERATIONS

In addition to the analysis presented above, there are a series of issues specific to project implementation that the Province should consider when making its decision. These issues are presented below.

7.1. Offset Opportunities for Capital and Operational Expenditure

The opportunity to relocate the OSC from City-owned lands to provincially-owned land unlocks potential financial offset opportunities. These capital and operational expenditure offset opportunities include:

- ***Capital Investment Horizon:*** The phasing of development could be programed so payments from Government could be deferred several years, depending on construction schedule.
- ***Capital Campaign Offset:*** Opportunities to raise capital through a public capital campaign are significantly greater for new build projects in a high-profile location than for a building refurbishment project. Relocating OSC to the central waterfront at Ontario Place offer opportunities for capital campaign offsets that are much more limited at the Don Mills location. Further, Ontario Place may also present new opportunities by raising the profile and visibility of the OSC. This would provide benefits in addition to those already identified in this business case, since none of these capital campaign opportunities have been included in the financial analysis. A capital campaign for the OSC at Ontario Place could be expected to raise between $60 million to $130 million.
- ***Investing in Canada – Infrastructure Funding:*** There is the potential for the Province to realize some Ontario Science Centre revitalization through Federal infrastructure funding. This might include the Investing in Canada Infrastructure Plan (ICIP) community and culture stream ($403 million allocated to Ontario, $10 million unallocated as of February 2023) or the New Building Canada – National and Regional Projects Fund ($9.5 billion in total available funding across Canada, $115 million unallocated as of February 2023)
- ***Lease Break Incentive:*** Whilst the Province is notionally locked into a 99-year lease on the site (until 2064), the notional lease value, and the land value capture opportunities that the 770 Don Mills site offers create a compelling opportunity, for mutual benefit of both the Province and the City. Further considerations for negotiating the break of the current lease (and future opportunities on the site), are discussed in Section 3.9.
- ***Tax Gain:*** Based on land valuation for the 770 Don Mills site and property tax revenue estimates from the Feasibility Analysis (Appendix L, which considers an expansive development of the sites table lands and valley lands), the present value of future tax revenue accruing to the City of Toronto could be as large as between $601 million to $785 million over a 50-year period. This significant tax benefit is a further incentive to the City to support an early lease break. To be conservative, the financial model does not consider any gain-share relating to land sale or recurring property tax revenues.

7.1.1 Operational Subsidy

- ***Operating Subsidy***: The $19.4 million annual provincial operating subsidy OSC receives is transferable to any location, including Ontario Place. Over a 50-year term, the value of this subsidy is approximately $970 million.
- ***No new operating subsidy*** is required if the OSC relocates to Ontario Place. Critically, any other new provincial anchor use at Ontario Place is likely going to require a new operating subsidy in addition to a capital commitment. However, the existing operating subsidy upon which the OSC relies is not considered 'new' money and is fully transferable.
- Ontario Place offers OSC an ***enhanced opportunity to collaborate and partner with other tenants, and partners to increase revenues***, and reduce reliance on government subsidy. Examples of this may include adoption of shared services such as marketing and promotion, joint admissions and ticketing. Further revenue cost reduction opportunities are explored in Appendix O.

7.2. Ontario Place Operating Model

The operating model represents how value is created and by whom and relates to how the Science Centre generates revenues balanced against operating costs. The business case does not include any specific considerations of how relocation to Ontario Place will impact the operating model of the Science Centre. However, it is recognized that with a relocation, re-organization may be required and developing a target operating model is a key preliminary step. Continuing with the current operating model in this analysis should not be interpreted as an endorsement by Infrastructure Ontario. Currently there are still multiple variables to be validated and therefore no specific deep capabilities analysis, governance impact or budget estimates have been developed.

A high-level current state operating model assessment has been conducted. The assessment identified potential top ten future capability needs and highlighted gaps. This work is currently being finalized in a Preliminary Operating Model Report, to be completed by EY in early March 2023. Future work will be required that would consider detailed assessment of capabilities, roles and responsibilities, and actions required to reach the target state operating model.

7.3. Scope of Design of New Building to Available Budget

This business case contemplates a 275,700 square feet Science Centre at Ontario Place, with a total estimated construction cost of $321 million (including refurbishment of the Pod complex and Cinesphere). As the design of the building advances, the building size, design and program can be refined to best meet the future needs of the OSC, its exhibits, stakeholders/partners and visitor experience. There can also be opportunities to scope the final building design to accommodate different levels of investment, depending on budget availability. At this early stage of planning there is significant opportunity to devise a program and building that can accommodate various budgetary constraints.

7.4. Locational Value

The community around the current Science Centre site is evolving and maturing into a mid- to high-density, mixed-income, mixed-use community. As discussed in Section 3.8 there is potentially an opportunity to participate in land value capture at the Don Mills site. The City of Toronto is supportive of this transformation and has created a planning policy framework that enables mixed use high-density development across the wider area including portions of the OSC site.

If terms could be agreed, an early termination would result in the OSC lands being returned to the City and made available for redevelopment. Through this process, the Province could potentially negotiate either a long-term partnership with the City ('gain share') or a more immediate arrangement that would allow the site to be transferred back to the City on an 'as is, where is' basis. The latter could limit any trailing obligations, including but not limited to:

- decommissioning costs (approximately $21 million); and
- costs related to returning the building in a state of good repair (up to $369 million).

Refer to Appendix L for a detailed analysis of the estimated land value for the OSC site.

7.5. Implementation Considerations for Interim Operations

The new OSC at Ontario Place is expected to take up to five years to approve, procure, design, construct and fit-out. In the interim, Government may wish to retain a physical or virtual OSC presence (at the existing site, at an alternative location, at pop-ups across the province or online). Any interim solution will entail operational impacts and short-term transition costs. Both the duration and scale of interim operations will impact operational and total transitional costs.

While preliminary planning and costing of interim operations are underway, initial cost estimates suggest a range of $30 to $55 million (refer to Appendix Q). These options all assume a physical presence is maintained at 770 Don Mills for a minimum of two years, including all related operating costs. Further direction from Government is required with regards to scale and duration of interim operations, and whether to close the facility in 2024, 2025, 2028 or alternatives.

Due to this uncertainty, a conservative position has been taken in the business case and it has been assumed that OSC will remain at its current location for five years until March 31, 2028, operating with a reduced footprint. Based on estimates from MTCS, this will cost Government approximately $45 million (including a minimum of $32 million in building repairs over five years and decommissioning costs). This cost includes estimated impacts to revenues and costs due to reduced footprint. This entire cost has been allocated to the Relocate option as an interim operations cost.

An alternative option that minimizes costs to Government would be to close the existing OSC earlier and prioritize a virtual province-wide presence, while the new OSC is being planned, designed and constructed.

7.6. Heritage

Despite significant modifications and additions over its life, the OSC is considered to have provincially significant heritage value. As such, under the Heritage Act, there are ongoing maintenance obligations on the Province as long as it remains in provincial ownership (even if vacated). If, however, the building is gifted or sold to the City (title transfer), the Province will no longer be required to support any on-going maintenance obligations.

Heritage designations also impose some constraints on any future adaptive re-use strategy for the site. Should the OSC relocate to a new facility, the Province may choose to modify the asset or demolish portions or all of the existing building. However, as a heritage asset, demolition will require Ministry of Citizenship and Multiculturalism (MCM) Minister's Consent. Assuming a demolition cost of $40 per square foot, the entire 568,000 square foot complex could be demolished for approximately $25 million. Alternatively, if the original Moriyama & Teshima designed components were to be retained and adaptively re-used (approximately 350,000 square feet), demolition costs of the remaining 218,000 square feet are estimated at up to $10 million. Additional due diligence is required to confirm demolition costs estimates.

It should be noted that the Ministry of Citizenship and Multiculturalism has also recognized Ontario Place as a cultural heritage landscape of provincial significance (2013). The Pod complex, bridges and Cinesphere structure were identified as supporting particularly strong heritage attributes. This designation obliges the province to maintain the landscape and built form in an ongoing state of good repair.

8. OSC+

The 275,700 square feet OSC presented in this business case was identified by the OSC as being the smallest possible to contain all core programming that will allow them to successfully meet their current mandate.

Through the development of the Functional Program (Appendix K), the OSC identified several unique features that could be layered onto the Function Program to further enhance OSC operations or visitor experience (Appendix P). These features are referred to as "**OSC+**" and are summarized below with an order of magnitude capital cost estimate. No revenue or operating cost analysis has been performed at this time.

Should Government choose to support the inclusion of any or all of the OSC+ components as part of a new OSC, further due diligence will be required and a future funding request will be necessary to augment current budget estimates.

8.1. OSC+ Feature no. 1: The Immersive Experience

Immersive spaces are critical features in science centres. The experience allows participants to fully engage with the environment and inspires them to learn more and further pursue the experience. A unique, multi-sensory, must-see and fully immersive experience will draw visitors to relive the experience multiple times. An immersive experience requires approximately 3,000 square feet.

The capital cost is expected to range between $4.5 and $5.2 million, including fit-out and exhibits.

8.2. OSC+ Feature no. 2: Outdoor Adventure Park

The outdoor experience is envisaged to be an adventure playground and iconic climbing/play structure within a large, defined outdoor space. It will be designed for year-round use. It is expected that an area of approximately six acres would be required for the full envisaged outdoor experience at a similar scale to the former EcoRecreo site. The outdoor adventure experience could be a distinct revenue generating activity if a separate or supplementary ticket was used for entry and may also be considered valuable by organizations for its naming rights and sponsorship potential.

The capital cost is expected to range from $19.4 million to $39 million.

8.3. OSC+ Feature no. 3: The Planetarium

Planetariums are designed to draw participants' attention to new worlds and discovery. The GTA has no planetarium, and this would be a unique draw to Ontario Place and the OSC. The OSC is proposing a large planetarium with a 90-foot screen and 285 seats, distinct from the Cinesphere offering. The Planetarium would also be a distinct source of revenue generation as a separate ticket would be required for entry.

The capital cost is expected to range from $28.5 million to $38.5 million.

8.4. OSC+ Feature no. 4: The Fabrication Facility

The existing fabrication facility at the current OSC constructs exhibits not only for the OSC itself but also for clients from around the world. However, given its relatively large size (40,000 square feet) and the reduced size of the proposed new OSC at Ontario Place, it has been excluded from the functional program.

Demands for services are unpredictable and over the past twenty years, the fabrication facility had a net neutral impact on revenue. Beyond revenue, however, other benefits include opportunities for training and skills development programs, employment of skilled workers, and opportunity for exhibit flexibility and renewal.

Infrastructure Ontario has engaged CBRE to undertake a market scan for suitable third-party leased space within vicinity to Ontario Place that could house the fabrication facility. A total of 9 current listings were identified with leases ranging from $420,000 to $690,000 per year. Fit-out and set-up costs would be in addition to this. Should Government choose to fund the fabrication facility, it is proposed that the OSC through MOI would enter into a long-term lease with the owner of a suitable site.

9. CONCLUSIONS

The current OSC at Don Mills is failing both operationally and physically. To address this, a capital investment of $478 million is required, comprised of:

- $369 million in deferred maintenance and critical building repairs, including $43.5 million in 2023/24.
- $66 million in exhibit upgrades and modernization to keep the OSC relevant and curb the long-term declining attendance trend.
- $43 million in cosmetic upgrades to public spaces to create a better visitor experience.

The $478 million capital investment required in the Don Mills facility requires a greater level of investment than the estimated $387 million capital to construct a brand new OSC facility at Ontario Place (with new exhibits). Even with additional one-time costs of up to $40M required to enable the relocation of the OSC to Ontario Place (e.g. decommissioning, moving, severance, etc.), the total capital investment required remains lower than the Remain option.

Even after making the required $478 million capital investment at the current site, the ongoing subsidy required for the Remain option is greater than that required for the Relocate option. This is due to additional costs required for the operations and maintenance of a much larger building, premiums related to its inefficient building layout and costs required for the upkeep of the 50-acre City-owned property.

To design and construct a new OSC at Ontario Place will cost government $387M. To operate and maintain the new OSC at Ontario Place over a 50-year period, an additional cost of $660 million will be required (net of revenues). The total cost for Relocate compares favourably to the Remain option, with the Remain option being 25% more expensive (on an NPV basis). Over a 50-year period, relocating OSC to Ontario Place will save Government $596 million nominal costs ($257 million NPV) relative to the Remain option. It will also deliver a brand-new, state-of-the-art, science facility as a central feature of a redeveloped Ontario Place in central Toronto.

The analysis contained in this business case is summarised below and supports the option to modernize the OSC through a relocation to Ontario Place.

9.1. Financial and Economic Considerations

Relocating the OSC to Ontario Place reduces the pressures OSC puts on the provincial fiscal framework, resulting in reduced costs to Government of $78.5 million, $151.6 million, and $227.4 million (accrual basis) over 2, 5 and 10 years, respectively, when compared with the Remain on Site option.

Significant savings are available if the OSC is relocated. The cost of moving the OSC and building a new, more efficient facility **optimizes value for money with a reduction in NPV costs of approximately $257 million (or 20%)** as compared to staying at the current site. This is due to the fact that the current facility is operationally inefficient which cannot be addressed given the building design and layout. Less than **30% of the current building is used** for exhibit space and revenue generating space as compared to more than 50% for a newly designed, more modern **and sustainable asset with lower on-going operating costs and higher revenue generating opportunities**.

Both the Remain on Site and Relocate options will result in **hundreds of new jobs across the construction and tourism industries** given significant spending on construction and maintenance, and a **substantially equivalent impact on GDP**.

The Relocate option **moves the OSC to provincially owned lands** and allows the City of Toronto to redevelop their lands at the current site. The market value of the site is estimated to be between $284 million to $306 million for the tablelands, plus significant additional tax revenues over the long-term. If vacated early, the Province could avoid any future liability for the site.

9.2. Program Sustainability & Visitor Experience Considerations

The OSC faces a long-term declining attendance trend due to a stale product offering. A move from its current suburban locale to a central waterfront location will **facilitate the re-imagination and re-branding of the OSC in order to better deliver a more stable and flexible program** which better meets Government priorities.

The move offers an increased likelihood of **commercialization of the sciences sector**. The OSC at Ontario Place is **part of a strong cluster of complementary uses** with Exhibition Place (5.5 million visitors per year), the Central Waterfront and the downtown Toronto tourist offer that will help drive admissions, expand partnership and incubation opportunities and support other revenue generating activities (rentals, food and drink, events, etc.) over the longer term.

Developing a renewed Ontario Science Centre at Ontario Place would simultaneously achieve revitalization of two iconic provincial assets and leverage their joint potential to create a stronger destination, attract more visitors to the site and allow for shared programming to maximize value for money.

9.3. Accessibility & Integration Considerations

The Ontario Place location is seen as having a **strong fit with the neighbouring community**, increasing the visibility of the OSC brand and allowing for increased access for residents.

If relocated to Ontario Place, the vacated OSC building may be an appropriate candidate for 're-purposing' as a community hub, an institutional cluster (for higher/further education), a cultural centre (such as an indigenous centre or design centre) or a unique bespoke use, such as a TRCA Environmental Centre. The building is located in the heart of the Flemingdon Park community and could support several different services on its premises.

9.4. Conclusion

The status quo is no longer a viable option and the current OSC operational model is not sustainable. The Government faces a significant required investment into the existing OSC facility and program if it is to remain on site while a relocation of the OSC to Ontario Place can address two Government priorities through a single infrastructure investment.

A modernized and re-imagined OSC, set within a revitalized Ontario Place offering a new innovative program, a high-profile waterfront location, easy visitor access and proximity to complementary tourist, cultural and educational assets will halt OSC's decline and reposition it as a cutting-edge Science & Discovery Centre and renewed provincial brand for the next generation of Ontarians. OSC will remain as one of Ontario's premier cultural destination for the next 50 years.

10. APPENDICES AND REFERENCES

10.1. List of Appendices

The table below provides a list of all of the relevant Appendices referred to throughout this business case.

Appendix	Description	Author
A	Existing Ontario Science Centre Spatial Analysis	CBRE
B & C	Land Use Planning Review Memo	Fotenn and IO (internal) - Land Use Planning Memo
D	OSC Lease Review Memo	Dentons Canada LLP
E	Building Condition Assessment Executive Summary and 20 Year Deferred Maintenance Summary	Pinchin
F	Environmental Scan	Lord Cultural Resources
G	The Government's Announced Vision for Ontario Place	Ministry of Tourism, Culture and Sport
H	Eglinton Crosstown LRT and Ontario Line Information Sheets	Metrolinx
I	Financial Model and Assumptions	Ernst & Young Orenda Corporate Finance Inc.
J	Fiscal and Economic Impact Analysis	Ernst & Young Orenda Corporate Finance Inc.
K	Functional Program	Lord Cultural Resources
L	Ontario Science Centre Site Land Value Analysis	Ernst & Young Orenda Corporate Finance Inc.
M	Class D Cost Estimate: Relocate Option	A.W. Hooker Quantity Surveyors
N	Attendance Projections for OSC	Lord Cultural Resources
O	Interim Report for Revenue Opportunities, Cost Reductions & Benefits of Relocating	Lord Cultural Resources
P	OSC+ Components	OSC and IO
Q	Interim Operating Estimates	IO and Ministry of Tourism, Culture and Sport (CCT Presentation to MO: January 26, 2023)

10.2. Glossary

The below table provides a definition for acronyms in the document.

Reference	Definition
AGO	Art Gallery of Ontario
DMCSP	Don Mills Crossing Secondary Plan
ECLRT	Eglinton Crosstown Light Rail Transit
EY	Ernst and Young
FCI	Facility Condition Index
FSI	Floor Space Index
GFA	Gross Floor Area
GTA	Greater Toronto Area
IO	Infrastructure Ontario
MOI	Minister of Infrastructure
MTCS	Ministry of Tourism, Culture and Sport
NPV	Net present value
OH&S	Occupational Health & Safety
OL	Ontario Line subway
OP	Ontario Place
OPC	Ontario Place Corporation
OPS	Ontario Public Sector
OSC	Ontario Science Centre
The City	City of Toronto
The Province	The Provincial Government of Ontario (also referred to as the ‘Government’)
TOC	Transit Oriented Communities
TRCA	Toronto Regional Conservation Authority

10.3. List of Figures and Tables

Infrastructure
Ontario