



Ponts  
**JACQUES CARTIER +  
CHAMPLAIN**  
Bridges  
Canada



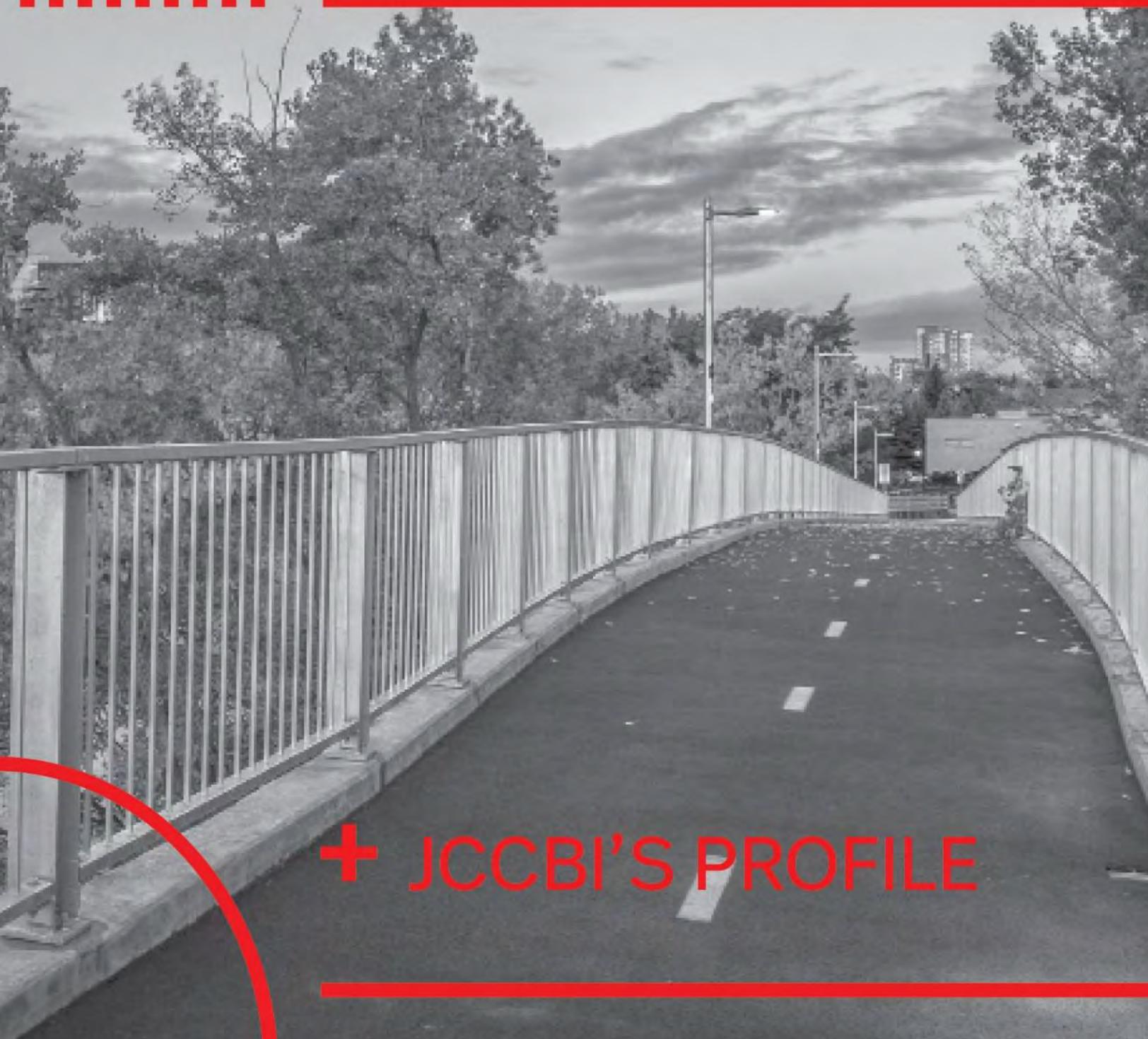
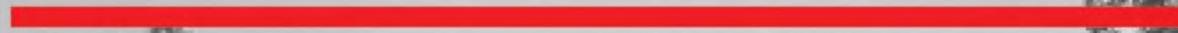
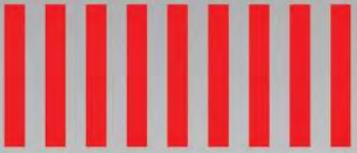
**CORPORATE PLAN SUMMARY**  
2018-2019 to 2022-2023

**OPERATING BUDGET 2018-2019 TO 2022-2023**

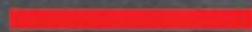
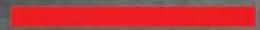
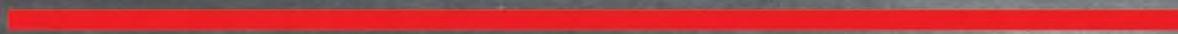
**CAPITAL BUDGET 2018-2019 TO 2022-2023**

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# + JCCBI'S PROFILE





# 1. JCCBI'S PROFILE

## 1.1 STATUS

JCCBI was incorporated on November 3, 1978, under the *Canada Business Corporations Act*. Up to September 30, 1998, JCCBI was a Crown corporation wholly owned by the St. Lawrence Seaway Authority (SLSA).

On October 1, 1998, it became a wholly-owned subsidiary of The Federal Bridge Corporation Limited (FBCL), an agent parent Crown corporation listed in Part I of Schedule III of the *Financial Administration Act* (FAA).

On February 13, 2014, JCCBI became a parent Crown corporation listed in Part I of Schedule III of the FAA. As a Crown corporation, JCCBI is subject to Part X of the FAA.

In addition, JCCBI is an agent Crown corporation of Her Majesty under *The Jacques Cartier and Champlain Bridges Inc. Regulations* (SOR/98-568).

## 1.2 INFRASTRUCTURES UNDER JCCBI'S RESPONSIBILITY

JCCBI manages most of the bridges and tunnels under federal jurisdiction located in the Greater Montreal metropolitan area, namely the original Champlain Bridge, the Jacques Cartier Bridge, the Île des Sœurs Bypass Bridge, the federal section of the Honoré Mercier Bridge as well as their approaches, the Melocheville Tunnel and two (2) related infrastructures, namely the federal section of the Bonaventure Expressway and the Champlain Bridge Ice Control Structure. As for the Samuel De Champlain Bridge corridor project (SDCBCP), it is managed by Infrastructure Canada (INFC). The Corporation's mission is to ensure the mobility of users as well as the safety and the longevity of the major infrastructure under its responsibility using a systemic management approach based on sustainable development, mission for which JCCBI has adopted the following values: commitment, thoroughness, transparency, innovation and team work.

JCCBI focuses on mobility as well as on the safety of people and sustainability of the infrastructures. JCCBI's team is made up of seasoned professionals with extensive know-how and experience in bridge and road infrastructures as well as in the engineering and management of bridges and structures. The strong partnerships JCCBI has established over the years play a key role in the management of its infrastructures and the execution of its projects.

The Corporation plays a vital role in the daily life of thousands of users whose modes of transportation are constantly evolving. Bridges are a must in the Montreal landscape as well as for the regional and Canadian economy. As an island city, Montreal will always depend on bridges, which ensure the passage and mobility of goods and people. To ensure mobility on its network, JCCBI has put in place various tools to communicate with users in order to keep them informed in real time of the network condition.

### 1.3 MAP OF INFRASTRUCTURES

The following map shows the geographic location of all infrastructures managed by JCCBI.

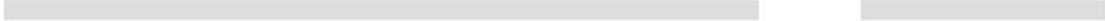


### 1.4 AREAS OF ACTIVITIES AND ORGANIZATIONAL STRUCTURE

JCCBI's main activities are divided into two (2) specific areas, namely the operations and the administrative departments. The operations include planning, engineering, expertise, environment and sustainable development, the Champlain Project Office, construction, and operations and maintenance. These groups are supported by project management and occupational health and safety teams. The Champlain Project Office is responsible for carrying out the major maintenance program for the original Champlain Bridge, and provides INFC with support as part of the SDCBC project. Administrative departments such as Legal Affairs, Procurement, Finance, Information Technology, Human Resources and Communications support these sectors. The Environment and Sustainable Development department ensures the protection and enhancement of the territory as well as the implementation of the sustainable development strategy.

The Planning, Environment and Sustainable Development, Engineering, Expertise, Projects and Construction departments plan and manage the activities pertaining to asset management and major construction, rehabilitation and repair projects related to the components of civil and road engineering structures, such as piers, girders, decks, steel structures, tunnels, foundations, paving and painting as well as the mechanical and electrical components and intelligent transportation systems associated with these structures.

The Operations and Maintenance department oversees and manages, among others, contracts for snow removal and spreading of abrasives, road cleaning and maintenance, landscaping, replacement of guardrails, sealing cracks and lubricating bearings, repairing potholes in the pavement and bridge decks, as well as maintenance and operations of lane control signal systems and surveillance cameras, electrical distribution, as well as road and architectural lighting.



The Corporation is currently carrying on various major projects such as the program to rehabilitate and reinforce the steel on the Jacques Cartier Bridge as well as the planning of the Champlain Bridge deconstruction project. The Corporation awards contracts, mainly to engineering consulting firms, for professional services in the fields of inspection, planning, engineering and work site supervision. Contracts for various activities related to its major maintenance program are awarded to contractors. In addition, various firms offering a variety of professional services assist the Corporation's various departments in carrying out their mandates.

The Sûreté du Québec (SQ), under the terms of a contractual agreement, polices the Jacques Cartier and Champlain Bridges, the Bonaventure Expressway and the Champlain Bridge Ice Control Structure. The Honoré Mercier Bridge is policed by the SQ, except at the approaches, which are policed by the Kahnawà:ke Peacekeepers.

## 1.5 RESEARCH AND APPLICATIONS DIVISION (RAD)

### INTRODUCTION

From its experience as an innovative manager, JCCBI has come to the conclusion that it needs to deepen its knowledge in order to extend the life of its infrastructures. In effect, today's standards and the engineering consulting firms' knowledge are more focused on the new structures than on the existing bridges, namely JCCBI's.

At the crossroads of a more precautionary (long-term) than curative (short-term) approach to the management of its infrastructures and more focused on sustainable development, strategic reflections led to actions to develop the knowledge deemed necessary for the sustainability of the assets under JCCBI's management.

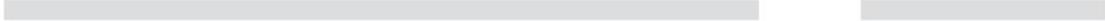
Resources have therefore been allocated to the research and development of innovative solutions in terms of improving behaviours, materials and construction techniques, in a framework of effective management of the life cycle of JCCBI's structures. The Research and Applications Department (RAD) was thus established.

In the context of the RAD, an innovation is a new way of doing or a new use of a material that gives rise to research and development and leads to an application. Two (2) types of projects are defined as follows:

- + The applied research projects that involve a novelty in the approach that results in experiments and a high level of depth in the knowledge acquisition that can lead, in the short term, to a pilot application and, in the long-term, to a construction project;
- + The technical development projects that apply a known but advanced approach to increase the level of knowledge with a high probability of leading, in the short or medium term, to a construction project.

To date, RAD's research and development opportunities focus both on defining appropriate performance criteria for JCCBI's infrastructures and on the development of a strategy to control their corrosion and combat their premature degradation.

The RAD identifies the opportunities that are implemented by researchers, external consultants and internal teams. The wind tunnel study of the main span of the Jacques Cartier Bridge made it possible to reduce by half the number of components to be strengthened, thus amply justifying the investment in this study. The potential contribution of the research and development projects for the sound management of the life cycle of



JCCBI's structures is significant. The results of the RAD's projects are in the process of being integrated into the asset management.

In summary, the results obtained from the research and development projects contribute to increasing the level of knowledge, identifying the long-term needs and optimizing the intervention costs, in order to effectively manage the life cycle of JCCBI's infrastructures. A business case will be submitted to the various government stakeholders to support the RAD.

## 1.6 FUNDING

JCCBI is almost entirely funded through parliamentary appropriations. Income from other sources, such as leases and permits, contributes to its funding, but only marginally.

Public utilities and municipal authorities use JCCBI's structures and properties under permits and leases granted by JCCBI. These leases and permits are subject to rents, which are based on the market value of the properties occupied and/or according to a rate per linear metre.

## 1.7 ACCOUNTABILITY AND GOVERNANCE

JCCBI is accountable to Parliament for the conduct of its affairs through the Minister of Infrastructure and Communities.

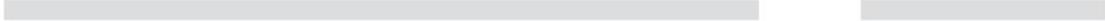
JCCBI is governed by a Board of Directors which, since June 2017, consists of seven (7) directors, including the Chairman of the Board and the Acting Chief Executive Officer. The directors are appointed by the Minister, with the approval of the Governor in Council. The Chairman of the Board and the Acting Chief Executive Officer were appointed by the Governor in Council on the recommendation of the Minister. The five-year term of the Chairman of the Board will end on November 5, 2019.

### **BOARD COMMITTEES**

In accordance with good governance practices, the Board of Directors has formed three (3) standing committees:

- + The *Governance and Ethics Committee*, which is responsible for evaluating all of JCCBI's governance means and practices. Its mandate is to propose to the Board the way in which JCCBI will address questions relating to its governance practices and will implement the guidelines relating to the governance of Crown corporations issued by the Treasury Board of Canada Secretariat;
- + The *Audit Committee*, whose responsibilities are as set out in the FAA. They include monitoring JCCBI's integrity and performance standards, the integrity and credibility of its financial statements and its internal control systems and practices; and
- + The *Human Resources Committee*. Its main role is to provide guidance with regard to the development of human resources policies, programs and practices that are consistent with JCCBI's mission, vision and values, as well as with its strategic plan and its objectives.

The Board of Directors has also formed various committees, which are listed in Appendix A. These advisory committees, which have no decision-making powers, ensure the smooth running of major projects.

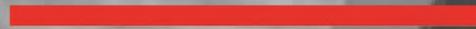
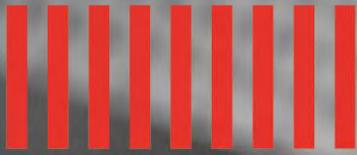


## AUDIT REGIME

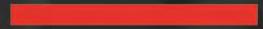
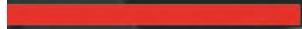
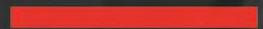
JCCBI's auditor is the Auditor General of Canada under *The Jacques Cartier and Champlain Bridges Inc. Regulations*. This body conducts an annual audit of JCCBI's operations in accordance with the FAA in order to ensure that the financial statements are presented fairly on the basis of accepted accounting principles and that JCCBI's operations were performed in accordance with the FAA and JCCBI's statutes and bylaws.

JCCBI develops multi-year plans of internal audits for its operations in order to determine, among other things, whether its risk management, control and governance systems enable it to fulfill its mission economically, efficiently and effectively in accordance with the applicable legislation. JCCBI hires external firms to produce these plans.





**+ OPERATING  
CONTEXT,  
RISKS AND  
STRATEGIC ISSUES**





## 2. OPERATING CONTEXT, RISKS AND STRATEGIC ISSUES

Together with JCCBI's management team, the Board of Directors reviews JCCBI's performance against the current fiscal year Corporate Plan, discusses changes in the operating context and updates its strategic direction.

The operating context, risks and strategic issues outlined below reflect JCCBI's internal planning sessions and form the basis for the 2018-2019 to 2022-2023 Corporate Plan.

### 2.1 OPERATING CONTEXT

In carrying out its mission, JCCBI has to deal with internal and external factors, which highlight its strengths, generate opportunities, create challenges and impact its key risks. After having identified these factors, JCCBI monitors them and realigns its planning.

**Traffic patterns:** The Greater Montreal area transportation system is a closely woven network. All South Shore bridges have an impact on one another, and each contributes to the development of metropolitan Montreal and the Montérégie Region.

Bridges in the Greater Montreal area are thus heavily used. The network is, in many sectors in the area, operating beyond capacity. The major infrastructure is aging and, in some cases, showing advanced signs of deterioration. Any disruption, either due to planned work or to a specific incident, has significant repercussions across the entire network which leads to extended rush hours and requires infrastructure managers to carry out the major part of the work during non-peak hours, thus contributing to higher costs.

**Relationships with partners:** JCCBI must coordinate and plan its activities in collaboration with many partners, thus adding a level of complexity to its operations and in the establishment of its policies and in the execution of its projects. These partners include federal partners such as INFC and Public Services and Procurement Canada (PSPC), as well as provincial and municipal governments and agencies and regulatory bodies thereof.

**Adjacent Traffic Networks (provincial and municipal partners):** The bridges and structures managed by JCCBI play a key role in ensuring the mobility of goods and people in the Greater Montreal area. Because of the strategic location of its structures, it is important that JCCBI consult many stakeholders, including municipal and regional administrations and the provincial government, in order to coordinate all its activities, work and closures. These consultations and coordination are essential to maintaining an acceptable level of mobility for all users of the road networks and bridges.

Many meetings are coordinated on a regular basis with all these partners (including the MTQ and the municipalities), as well as emergency services and the police (SPVM, Kahnawà:ke Peacekeepers and SQ). These meetings also include public transit corporations (STM, ARTM, RTM, RTL and CITSO), which support JCCBI in the implementation of mitigation measures during its major road work.

In addition, JCCBI participates at all four (4) levels of Mobility Montreal (technical, communications, advisory and steering committees), whose principal mandate is to plan and coordinate road work and the different mitigation measures required because of the numerous construction sites (federal, provincial and municipal) on the greater metropolitan area network.



**Labour Market (Planning/Engineering/Construction):** In the Montreal metropolitan area, municipal authorities and the Quebec government have major construction projects under way or in the planning stages. JCCBI must compete with these project authorities in procuring professional engineering services and awarding construction contracts to engineering firms and contractors in order to carry out its work program. The duration and cost for same may be influenced by this market, where competition is fierce given the large number of current and planned road work and scope thereof.

**Media and Road Network Users:** It is essential that JCCBI build relationships with the media and consult with the users, affected residents and the municipalities. Regular, frequent and transparent communication is required to ensure the issues and challenges faced by the Corporation are clearly conveyed. Further, communication tools enable users to opt for new routes, use public transit, prioritize carpooling or avoid certain bridges during major work undertaken by JCCBI. In addition, this communication serves to explain the nature of the work and the condition of the structures, and to reassure users about the safety of the infrastructure.

**Aboriginal Community of Kahnawà:ke:** The Honoré Mercier Bridge spans the Mohawk territory of Kahnawà:ke. At the time when SLSA was responsible for the federal section of the Honoré Mercier Bridge, the repairs on this section of the bridge were carried out by the Mohawk contractors and workers of Kahnawà:ke. Now that this responsibility rests with JCCBI, the situation remains the same. This is due to a number of factors, including the fact that this section of the bridge traverses the Kahnawà:ke Reserve and Order in Council P.C. 2675 dated December 7, 1932.

**Special Management of the Honoré Mercier Bridge (shared jurisdiction):** The Honoré Mercier Bridge is under both federal and provincial jurisdictions. It was completed in three (3) stages: in the 1930s, 1950s, and early 1960s. Today, the bridge management and maintenance are shared by JCCBI and the MTQ. The Honoré Mercier Bridge has a colourful history: initially consisting of a two-lane bridge with a steel structure, built in 1934, it was transferred to the Quebec government around 1942.

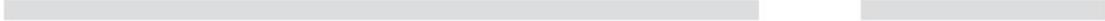
In order to allow the construction of the new St. Lawrence Seaway in 1957-1958, SLSA extended the existing bridge over the St. Lawrence Seaway, including new raised approaches on the South Shore side, thus crossing the Kahnawà:ke Mohawk Territory.

Consequently, the section of the bridge spanning the St. Lawrence Seaway and adjacent island as well as the ramps built on the South Shore that span the Mohawk Territory are under federal jurisdiction. As for the section of the bridge over the St. Lawrence River, it is under provincial jurisdiction.

The increase in traffic in the sixties led to the widening of the bridge by the addition of two (2) new traffic lanes along the old bridge upstream and attached to the federal section of the bridge. Thereupon, two (2) traffic lanes were in place in each direction. It should be noted that, pursuant to an agreement concluded at the time when the federal section of the bridge was built, the management of the road on that section, including marking, paving, signalling and electrical systems, is the responsibility of the MTQ.

The daily regular maintenance of the bridge, including traffic management, towing services, snow removal and de-icing operations are the responsibility of the provincial government, for the entire bridge, both on the federal and on the provincial sides.

**Construction of the Samuel De Champlain Bridge Corridor (SDCBC):** As the manager and operator of the Champlain Bridge and Highway 15 since 1978, JCCBI has been, and still is, extensively and continuously solicited in connection with the SDCBC project.



A collaboration agreement between JCCBI and Her Majesty the Queen in Right of Canada (represented by INFC), which forms an integral part of the “Project Agreement” (PA) between the federal government and the Private Partner (PP), was signed on March 4, 2015. This agreement provides for coordination mechanisms and establishes the responsibilities concerning the operation, inspection, maintenance and rehabilitation of the various structures located on and off the site of the SDCBC project that fall to Her Majesty the Queen, JCCBI and the PP, and provides a framework for activities during the construction of the SDCBC.

Several meetings have taken place with the PP to define strategies for this high-volume corridor in terms of snow removal, towing and major electrical maintenance, as well as the operational management of traffic hindrances and special passage permits.

In 2015-2016, JCCBI finalized the agreement with the private partner Sanexen Services environnementaux inc. for the contaminated groundwater containment and treatment project in the west sector of the Bonaventure Expressway. This project, which is being carried out at the same time as the SDCBC project, requires considerable coordination and collaboration between the two (2) partners. This collaboration is one of the elements implemented to foster the cohabitation of JCCBI with the PP of the SDCBC project, notably through the controlled use of lands in order to facilitate the operations.

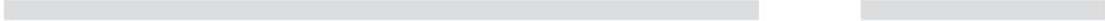
For the purposes of the SDCBC project, JCCBI has set up an interface management team, which coordinates all the activities of the original Champlain Bridge major maintenance program with those of the Samuel De Champlain Bridge (SDCB).

**Maintenance of the Original Champlain Bridge:** Until the commissioning of the SDBC, JCCBI must make sure that the original Champlain Bridge is maintained safe for users. To this end, JCCBI continued its major maintenance program in 2017-2018 by investing more than \$31.3 M to maintain both the structure and the vital link between the South Shore and the Island of Montreal.

**Neighbouring Municipalities:** In addition to road users, JCCBI must consider the people and companies who live or operate near its construction sites. The organization of information sessions and the formation of good neighbour committees are good examples of ways used to approach these residents. Meetings are also organized with companies whose offices are located close to the road network and that are liable to be impacted by JCCBI's work. Thus, JCCBI communicates on a regular basis with the Casino de Montréal, VIA Rail, the Société du parc Jean-Drapeau and Bell Canada. (Île des Sœurs campus).

## FRAUD AND CORRUPTION

Mitigation measures in place within JCCBI include internal audits that are carried out under the supervision of the Board's Audit Committee. JCCBI has incorporated, in its tender documents for construction contracts, contract clauses regarding probity. In this regard, in April 2013, JCCBI signed a Memorandum of Understanding with PWGSC (now PSPC), regarding services to audit tenderers and directors/officers via their “Integrity Database” where required. Furthermore, the contract clauses provide for the rejection of the bid by a tenderer holding a restricted license within the meaning of the *Building Act* (Quebec) or ineligible for public contracts under the *Act respecting Contracting by Public Bodies* (Quebec), and also forbids a tenderer to retain the services of a subcontractor who holds a restricted license. Furthermore, JCCBI has implemented a guide designed to provide a framework for the committees that evaluate proposals where the calls for tender are for professional services. JCCBI evaluates and documents the performance of the firms who provide professional services as well as that of contractors.



All employees and members of the Board of Directors must comply with JCCBI's policies on conflicts of interest and on the administration of construction, consultants or professional services contracts. In 2013, JCCBI updated its policy in order to establish clear rules of conduct regarding any form of payoffs, so that there are no misinterpretations. In addition, all employees are required to attest, on an annual basis, that they have acted in conformity with the conflict of interest rules.

JCCBI has put in place a procedure to comply with standard PS2200 "Related Party Disclosures". This standard, which has been in effect since April 1, 2017, sets out the information required to be disclosed in the financial statements of an enterprise if a related party transaction, carried out at a value other than the fair market value, is recognized.

## **ENVIRONMENTAL OBLIGATIONS**

As a parent Crown corporation, JCCBI became a "Federal Authority" within the meaning of the *Canadian Environmental Assessment Act (2012) (CEAA)*.

However, the repair and rehabilitation projects undertaken by JCCBI on its structures do not constitute "designated projects" within the meaning of the *Regulations Designating Physical Activities (SOR/2012-147)* and are therefore not subject to the environmental assessment process, unless they are the subject of a specific designation by the Minister of Environment and Climate Change, as provided in the CEAA (projects which may cause adverse environmental effects or public concerns with regard to these effects). It should be noted in this regard that JCCBI's repair and rehabilitation projects, by nature, generally have little impact on the environment and are subject to mitigation measures.

JCCBI participates in the Federal Contaminated Sites Action Plan (FCSAP), administered by Environment and Climate Change Canada (ECCC), for the implementation of the mitigation measures required to contain and treat contaminated groundwater on lands in the Bonaventure Expressway sector (west and east sectors) along the St. Lawrence River. JCCBI is also working with owners and stakeholders to study the contamination and implement mitigation plans in partnership. The environmental plan for the east and west sectors is developed with these partners.

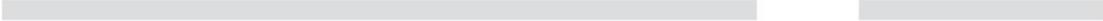
## **2.2 STRATEGIC ISSUES AND RISKS**

This section identifies the strategic issues and risks JCCBI will face over the next five (5) years.

### **BRIDGE SAFETY**

JCCBI's priority is to ensure the mobility of users, which involves the continued safety of the structures under its responsibility. The age of the infrastructures managed by JCCBI and the funding for their maintenance and rehabilitation are real risks that the Corporation must monitor to ensure the safety of its bridges and structures, as well that of its daily users.

Indeed, the bridges and other structures managed by JCCBI are old and have been subjected to years of heavy traffic, harsh weather conditions and extensive use of road salt. In order to determine the actual condition of its structures and their damage level, JCCBI has developed a management and inspection plan. Inspections, load capacity studies and instrumentation are the main sources of information that enable JCCBI to manage the risks associated with the safety of structures, prioritize interventions and prepare an investment plan over a ten-year period. The work is determined from a longer-term perspective to ensure the longevity of the structures and extend their useful life according to the vision established for each structure.



Intentional acts such as terrorism, protests and vandalism generate a risk for users of the bridges and related structures. Safety can be guaranteed only if in conjunction with risk reduction. Regular follow-up meetings and collaboration plans with the police address these specific issues. JCCBI has set up contingency plans for most emergency situations and several bridges and structures are equipped with monitoring systems.

## **SUSTAINABLE FUNDING**

Despite significant investments in recent years, JCCBI continues to be challenged by critical long-term deficits with regards to infrastructure. The lack of funding beyond 2022-2023 could limit JCCBI's ability to award multi-year contracts, which may lead to delays in the operational planning and increased costs.

For projects related to the contaminated groundwater in the Bonaventure Expressway sector, JCCBI received funding in Budget 2018 for the following five (5) years. JCCBI has also received funding from the FCSAP, whose Phase 3 was approved in February 2016. However, the FCSAP, including FCSAP3, only allows projects that last a maximum of four (4) years. This poses a real challenge, as the contaminated groundwater-related projects require a long-term action plan. Despite the funding received for years 2018-2019 to 2022-2023 and the FCSAP funding, the need for long-term funding over a 15-year period, starting in 2016-2017, is therefore imperative.

The Corporation is working with INFC to identify its financial requirements over the short and long term. JCCBI has received significant investment for specific needs related to assets or short-term operating requirements, but upcoming major projects are not currently funded.

## **ASSET MANAGEMENT**

### **Approach**

Considering the recent transformations and organizational growth of JCCBI, combined with the growing needs of the aging infrastructures under its management, it is appropriate to review the asset management processes and tools as well as the roles and responsibilities of the stakeholders within the framework of an integrated management system.

In that sense, an analysis of the gap between JCCBI's current management practices and standard ISO 55000 was carried out by an external firm on the basis of the criteria of the Institute of Asset Management (IAM) assessment guide to determine the maturity level of the Corporation and its potential for improvement in relation to this international standard.

Based on the analysis and findings, a series of value-generating projects have been identified to improve JCCBI's practices in physical asset management. These projects are the first steps in a structured asset management approach towards reaching the target maturity level.

The asset management improvement projects are part of an overall planning of JCCBI's various initiatives aimed at continuously improving its management practices in line with its vision.

### **Investment Approach**

In the last five (5) years, with the significant investment needs required to ensure the longevity of the structures, the Corporation has been working on adapted intervention approaches with a view to reducing the number of curative interventions and increasing the





number of preventive interventions. Significant efforts have been put in knowledge development as well as in the integration of good asset management principles, such as life cycle cost studies, load capacity studies, and grouping of interventions for the upgrade of complete portions of structures. In addition, the implementation of master plans makes it possible to establish a working plan with a long-term vision, thus making it possible to better plan the rehabilitation work on the basis of the condition and desired service life of the structures.

In order to have an integrated approach to the execution of the work, a project management approach was preferred over a contract management one. This management method aims at developing a systemic approach to project realization, aligning with best practices in the field of project management (mainly based on the Project Management Institute (PMI) approach), and at ensuring that the objectives of each project are well defined from the beginning and monitored throughout the project. This approach also helps to maintain a balance between the project timelines, costs and objectives in order to achieve project realizations that are of quality.

In addition, since social acceptability has become a must in the management of public projects and in order to ensure transparency, an approach aiming at being closer to users and citizens has now become part of JCCBI's business practices. All stages, from project planning to project realization, may be the subject of consultations with the stakeholders involved according to the specific projects needs, from the participation in public consultations to good neighbour committees. This approach has positive repercussions and reduces the risks associated both with additional delays in the course of the realization of the project and with cost increases.

## **SUSTAINABLE DEVELOPMENT**

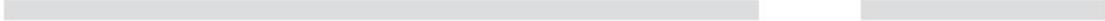
Sustainable development is an integral part of the Corporation's mission and vision. In this regard, JCCBI's commitment extends to its management methods, the realization of its infrastructure projects and the desire to generate a positive impact for the community.

To do so, the Corporation adapted its corporate mission and vision statements and subsequently adopted a sustainable development policy and a strategy, focused on four (4) status criteria: the Corporation's commitment, the programs implemented, the performance measurement as well as communication. Such strategy led to the development of a first five-year action plan (2016-2021) to take into account the environmental, social and economic aspects in how to carry out the asset management administrative and operational activities.

The sustainable development approach is used to enhance investment decision-making for certain projects. The objective is to ensure that the projects put forward by JCCBI meet today's needs, but also those of the generations yet to come.

## **ENVIRONMENT**

JCCBI conducts the environmental characterization of its territory in an orderly manner, integrating it into its project-based management. In certain cases, in order to increase its knowledge level, JCCBI conducts such characterization under circumstances other than as part of a project. Such characterization is ongoing, but it will diminish as the land cover progresses. In addition to protecting the environment, this program makes it possible to better forecast the costs of projects related to the management of contaminated soils. The biodiversity monitoring program is ongoing and provides for regular knowledge updates.



In 2018, JCCBI has undertaken an assessment of the potential impacts of climate change on its infrastructures. The mitigation measures to be put in place may thus be integrated into future projects.

Finally, JCCBI will undertake an opportunity study for the valorisation of its territory. Such study could target, among others, the banks and the shrub cover of the territory. The valorisation measures will be integrated in a coordinated way and will be planned in future projects.

## **OCCUPATIONAL HEALTH AND SAFETY (OHS)**

In accordance with the legal requirements under Part II – Occupational Health and Safety – of the *Canada Labour Code*, JCCBI has acquired various tools in order to meet its compliance obligations. In addition to having developed an employee prevention program, JCCBI ensures, through its construction work supervision contracts, that the contractors, that act as prime contractors of their construction site, comply with the OHS contractual obligations thereon imposed.

This prevention program is primarily intended to define the guidelines and to clarify and consolidate the basis for action and the requirements to be implemented for achieving better management of health and safety. The program contains the guiding principles and an approach to achieve such objectives. It also represents an opportunity for JCCBI to identify the best available practices and the characteristics of successful organizations as reference.

The implementation and follow-up of the 2017-2020 OHS framework program continues with the establishment of the conditions to progress towards a culture of “*Zero injury by choice*”, that is:

- a) A culture where leaders, managers and key players apply, in action, the best OSH leadership practices; and
- b) A culture where employees demonstrate safe behaviour and work habits at all times.

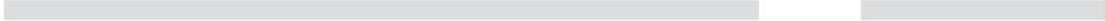
JCCBI also ensures that its due diligence obligations, which are based on three (3) fundamental duties: foresight, efficiency and authority, are met. To this end, adjustments and clarifications are made to construction contracts on a continuous basis in order to clearly define the role of the prime contractor, and well as that of the work supervisor and of JCCBI in order to reduce the OHS risks during the execution of the work.

Finally, the strategic OHS orientations are directly aligned with JCCBI's wish to be proactive in promoting the following, in the workplace: physical, mental and social well-being of workers, prevention and protection of workers against working conditions and factors that may affect their health and safety.

## **HUMAN RESOURCE MANAGEMENT**

JCCBI works in partnership with all employees and managers to improve performance. In 2018, JCCBI continues to put in place several organizational performance optimization initiatives in order to develop an enhanced capacity and rigorous management to achieve its strategic objectives.

In addition, JCCBI is conducting a strategic reflection through the revision of its workforce plan for the next three (3) years, namely from 2018-2019 to 2020-2021, in function of the 2018-2019 to 2022-2023 Corporate Plan in order to adapt to new realities such as sustainable development, working in partnership with the various stakeholders, the



reconstruction of engineering structures rather than repair thereof and a preventive intervention approach.

It should be noted that the collective agreements of both unions (*Syndicat des travailleuses et travailleurs (CSN)* – blue-collar workers) and the Canadian Union of Public Employees, local 4102 (white-collar workers) were signed during the last year and are in effect until December 31, 2020.

In order to compensate for the vulnerabilities of expertise caused by the actual or announced departure of a key individual in the organization, JCCBI updates its succession plan to develop the learning activities and performance support.

In connection with the OHS component, the prevention of mental health in the workplace is becoming increasingly important within the organization. The Corporation has developed and put in place a three-year (2017-2020) health and wellness program. In this regard, for the second consecutive year, a campaign was developed and activities are planned throughout the year.

## **INFORMATION TECHNOLOGIES**

In order to generate timely and reliable financial and management information, the processes of the Corporation's various functions must be based on tools that are effective and tailored to meet the realities of the Corporation. Following the implementation of the SAP By Design software package, improvements and additions of functionalities are gradually made to ensure a good integration and control of the tool by the users. Various development approaches have been identified and will be analyzed in collaboration with specialized firms in the coming years.

The implementation of an Electronic Document Management (EDM) system is expected to extend over a two-year period and to allow for the deployment of an Intranet, collaboration tools, document management as well as the electronic signature of documents.

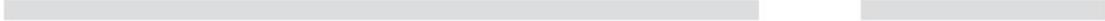
To ensure sound governance of information technologies and intelligent transportation systems as well as business continuity in the event of a failure, JCCBI has planned to implement various tools for managing and monitoring network components. The current backup strategy will also be reviewed and improved during this period and a request and incident management tool will be implemented and made available to all employees and collaborators of the Corporation.

With the assistance of specialized firms, JCCBI has implemented the most appropriate solutions to support its processes and ensure that all information technology components (technology infrastructures, systems and data) are aligned in order to ensure the achievement of its strategic goal.

### **Intelligent Transportation System (ITS)**

JCCBI's inventory of intelligent transportation systems (ITS) includes lane control signal systems, automated gates, remote monitoring via cameras, variable message signs as well as traffic counting and characterization systems, mainly on the Champlain and Jacques Cartier Bridges. Radars feedback signs and an automated access control system have also recently been installed at the Champlain Bridge Ice Control Structure.

The grouping and synergy of ITS systems constitute an intelligent transportation corridor. Such intelligent corridors make it possible to rapidly share and acquire quality information



among network operators to support effective operating decision-making in order to maintain and improve the overall user mobility at the regional level.

In order to better meet future needs, JCCBI began, in the spring of 2017, a project to extend and modernize the existing fibre optic network and to implement an “Integrated Traffic Management System” (ITMS).

The ITMS will make it possible to collect, combine and consolidate, in one platform, the information and data available across the entire ITS network. Such system will therefore centralize all the information available in the field and facilitate accessibility and processing thereof. A center-to-center link will also be established to allow the exchange of strategic data between JCCBI’s ITMS and that of other partners that have a data center.

## **TRAVEL, HOSPITALITY, CONFERENCE AND EVENT EXPENDITURES**

On July 16, 2015, under Order in Council P.C. 2015-1112, His Excellency the Governor General in Council directed JCCBI, under Section 89 of the FAA:

- a) To align its travel, hospitality, conference and event expenditure policies, guidelines and practices with the Treasury Board policies, directives and related instruments on travel, hospitality, conference and event expenditures in a manner that is consistent with its legal obligations;
- b) To report on the implementation of this directive in its next Corporate Plan.

The Corporation therefore began amending its travel, hospitality, conference and event expenditure policies and practices so as to align them with applicable Treasury Board policies and instruments. JCCBI has not identified any inconsistencies with its legal obligations. In December 2015, the Corporation completed its implementation strategy.





**+ OBJECTIVES,  
ACTIVITIES AND  
PERFORMANCE  
MEASURES**

### 3. OBJECTIVES, ACTIVITIES AND PERFORMANCE MEASURES

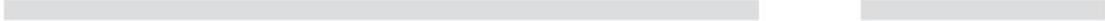
#### 3.1 ARCHITECTURE BY PROGRAM ACTIVITY



Government of Canada result  
a strong economic growth

Safe and efficient transit on the infrastructures  
managed by  
The Jacques Cartier and Champlain Bridges Incorporated

Management, maintenance and repairs of infrastructures  
such as bridges, highways, and tunnels, as well as  
properties to ensure safe passage for travelers



## 3.2 ACTIVITIES

In order to fulfill its mandate, JCCBI manages, maintains and rehabilitates infrastructures such as bridges, highways and tunnels as well as properties to ensure the mobility of users, the safety and the longevity of infrastructure.

### STRATEGIES

- + Align the Corporation's investments and business plans with the government's "Investing in Canada" plan;
- + Carry out inspections of bridges and other structures, identify maintenance and long-term major rehabilitation requirements according to the vision established for each structure through projects, and assign priority to such needs based on the risk level, and carry out all work, taking into account the available funding;
- + Improve maintenance by adopting innovative measures in structural inspection methods, construction techniques and materials, and tools;
- + Assess, according to a sustainable development approach, the investment choices to be made for each structure in order to ensure the longevity of the road links and thus continue to ensure a safe and efficient passage.

### CONTEXT

The transportation network managed and operated by JCCBI consists of various infrastructures such as bridges, viaducts, one highway and one tunnel ranging in age from 3 to 87 years. It is estimated that the number of vehicles using the infrastructures under JCCBI's responsibility is in the order of 100 million per year. In that context, the work on all infrastructures needs to be carefully planned in order to ensure the passage and mobility of goods and people.

Since their construction, the structures managed by JCCBI have undergone various repairs, always with the aim of ensuring their longevity and the safety of their users. Today, and despite JCCBI's efforts, certain structures and roads have already reached or will reach the end of their useful life and will need to be reconstructed. Furthermore, the accessibility and mobility needs identified during the construction of these structures often differ from current needs. It should be noted that the reconfiguration of both the SDCBC and the Bonaventure Expressway Downtown Gateway under the management of the City of Montreal require that the configuration of the section of the Bonaventure Expressway located between these two (2) axes be reviewed.

In addition, the City of Longueuil and the City of Montreal have developed at each end of Jacques Cartier Bridge and planning to integrate the structure into these new environments is essential to ensure the safety, accessibility and mobility thereof. These new realities are included in the reflection on future investments in order to ensure that they will meet the current and future needs in a context of sustainable development. It is no longer a question of repairing or redoing as the existing, but of improving the service offer and of proposing solutions according to the projected service life of each structure.



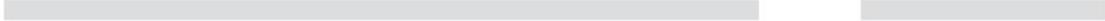
## FUNDING

Cost estimates are based on previous contracts, experience, life cycle of the various components, inspection and various studies, all combined with the inflation and indexing factors, as well as with a provision for risk mitigation for every structure. To these elements must be added the contribution of JCCBI's engineers and of consultants and technical experts, in addition to inputs from planning and project prioritization. As the structures are aging, additional major work to be carried out every year is being identified through inspections. JCCBI combines this work, to the extent possible, in order to achieve savings and promote the efficiency and functionality of construction sites. It is imperative that the appropriate multi-year funding levels be implemented to enable JCCBI to fulfill its mission effectively and efficiently.

## PLANNING AND PRIORITIZATION OF PROJECTS

Budget planning is carried out by the Planning team in close collaboration with JCCBI's Engineering, Operations and Maintenance, Construction, Projects, Environment and Expertise teams. Every year, the previous year's budget planning is refined in order to account for new available information obtained from inspections, studies, observations and various events that have occurred during the previous year. The projects include different types of work, which are planned in function of one or more of the following criteria:

- + The components associated with the work have reached their minimum level of structural performance. To this end, the minimum level of performance is evaluated according to the following testing and evaluation standards and methods:
  - o the performance level of all structural components is first assessed by the MTQ *Manuel d'inspection des structures (MIS)* inspection standards;
  - o for steel and concrete structures, the performance level is determined by the inspections and load capacity assessments according to standard S-6 of the *Canadian Highway Bridge Design Code*;
  - o for roadways, the performance level is assessed by rutting and cracking indexes;
  - o for the drainage systems, the performance level is assessed by blocking potential ratings as well as structural condition ratings;
- + The work is required to ensure the safety of users using the infrastructure and cannot be postponed;
- + The work is required to ensure the longevity of the structure and minimize long-term costs in a sustainable development perspective;
  - o As regards the paint systems, the inspection is complemented by a theoretical performance analysis of the system according to standards developed to assess the corrosion environment (ISO 9223) as well as the corrosion rate of steel and coating (ISO 12944-2 and ISO 14713-1). Inspections and theoretical performance analysis are tools allowing decision-making aimed at the longevity of the structure;
- + The work is required to improve the social and urban integration of the infrastructures in their setting;
- + The work is pulled ahead compared to the theoretical life of the components with a view to coordinating with external factors;
- + Work is not absolutely required according to the standards associated with the classification of the structure, but it is an opportunity created by a project to improve the level of service.



In addition, some projects have been identified “under evaluation” based on one or more of the following criteria:

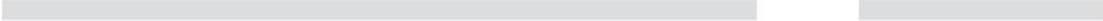
- + The work is not sufficiently documented and remains hypothetical at this time;
- + A justification is required to ensure that this work forms part of JCCBI’s mission;
- + Further studies or validations are required to determine the desired future of the structure concerned;
- + Business cases are required to validate the realization of the project.

The prioritization of the components to be considered in the management of major bridges is critical. The major structures under JCCBI’s responsibility are all distinct in their length and nature. Considering that the deterioration rate of similar components is generally uniform, JCCBI must begin rehabilitation programs early enough to cover all similar components before the end of their useful life, which will happen at the same time. The rehabilitation programs must therefore be completed before the last component has reached the end of its useful life. It should be noted that once the minimum performance level has been reached, some components will not be repairable and will need to be replaced. In such a case, the costs are significantly higher, the traffic hindrances much more constraining and the complexity of execution greatly increases. Considering this imperative, it is paramount to emphasize preventive work in order to maintain, at all times, an adequate level of service and to extend the service lives.

Annual inspections constitute an important source of information regarding the physical condition of a structure as well as that of its components and systems, observed at the date of inspection. They are used in conjunction with the surveys and additional detailed investigations conducted in order to provide a better diagnosis of the condition of the structure and to better guide the necessary interventions. These surveys and additional investigations may be used when issues are detected during annual inspections, or when studies or design work requires more detailed information.

Over the past few years, JCCBI has been developing life cycle cost analyses for its infrastructures, which analyses are subsequently used as investment decision support tools. The life cycle cost analyses consider both the past interventions and the costs, and subsequently make a projection of the rehabilitation work, over a forty-year horizon, according to summary theoretical rehabilitation frequencies. Thus, JCCBI’s investment planning also takes into account the theoretical service life of the various structures and respective components thereof.

Most of the work is thus planned according to the theoretical service life of its components. However, several components of the structures managed by JCCBI are now well beyond their theoretical service life, which significantly increases the scope of the rehabilitation work required. In some cases, it has become necessary to proceed with the complete replacement of the structures, as they cannot, through simple rehabilitation work, be restored to an acceptable condition because the repairs that were required have not, for various reasons, been carried out in due course.



JCCBI has defined its vision for each structure under its responsibility, vision from which the investment scenarios are established:

- + Jacques Cartier Bridge: keep the bridge safe and operational until its 150<sup>th</sup> anniversary by constantly integrating it into its urban environment, promoting alternative transportation, and maintaining traffic flow;
- + Champlain Bridge: keep the bridge safe until it is decommissioned; document and enhance the knowledge acquired in connection with this structure in order to share the expertise acquired;
- + Champlain Bridge Ice Control Structure: extend the service life of this key corridor for structural maintenance, ice control and active transportation, while enhancing its social and urban value;
- + Bonaventure Expressway: keep the expressway safe and integrate its vocation with the new corridors under development in the sector and with the needs for active mobility while improving access to the river, downtown, the Parc d'entreprises de la Pointe St. Charles (PEPSC) and the Port of Montreal using a sustainable development approach;
- + Environment: help protect the St. Lawrence by containing and treating contaminated groundwater flowing into the river; increase our knowledge in this area and share our expertise;
- + Île des Sœurs Bypass Bridge: optimize the use of this temporary structure using a sustainable development approach;
- + Honoré Mercier Bridge: keep the federal section of the bridge safe and operational until its 125<sup>th</sup> anniversary with a focus on integrating the bridge into the local environments while collaborating with the Mohawk community;
- + Melocheville Tunnel: ensure this road corridor remains safe and effective and integrates with St. Lawrence Seaway operations.



### 3.3 PERFORMANCE MEASURES 2018-2019

#### ACTIVITIES

Management, maintenance and rehabilitation of infrastructures such as bridges, highways and tunnels, as well as properties, to ensure safe passage for users.

OUTCOME	STRATEGIC OUTCOME	PERFORMANCE INDICATOR	EXPECTED OUTCOME
A strong economic growth.	Efficient and safe passage on the infrastructures managed by JCCBI.	Number of lane reductions on the structures during rush hours.	Maintenance or reduction of the number of closures compared to the previous year.
		Number of road accidents.	Maintenance or reduction of the number of road accidents compared to the previous year.
		Funding requested corresponds to planned work.	- Reprofiting of funds requested; - The funding requests are made.
		Percentage of projects started up according to the Corporate Plan.	Projects 100% started up.
		Percentage of annual inspections conducted according to the Corporate Plan.	Inspections 100% completed.
		Percentage of planned work carried out.	90% of the annual work program completed.

JCCBI will continue to conduct its operations in accordance with applicable government policies and regulations. JCCBI will collaborate with INFC as well as with central agencies and other stakeholders, and will remain responsive in order to achieve its strategic outcome. Based on best practices and policy trends in government policies, JCCBI will continue to improve its processes and procedures for planning and reporting.

JCCBI is establishing its Corporate Risk Management process in order to manage risks with a more systemic approach and strengthen accountability at all levels of the Corporation. JCCBI will engage in its activities in compliance with the applicable legislation such as the FAA, *Official Languages Act*, *Access to Information Act* and *Privacy Act*. JCCBI will also monitor, on an ongoing basis, the changes to applicable Treasury Board and central agencies' policies and will assess opportunities to streamline its systems and functional activities. JCCBI will continue to exercise caution to ensure optimal use of public funds.



**+ JCCBI'S  
PRO FORMA  
FINANCIAL  
STATEMENTS**

## 4. JCCBI'S PRO FORMA FINANCIAL STATEMENTS

The following section presents JCCBI's pro forma Statement of Financial Position, Statement of Operations, Statement of Change in Net Debt and Statement of Cash Flows.

### Statement of Financial Position – Pro forma

In thousands	Actual 2016-17	Actual 2017-18	Main Budget 2017-18	Budget				
				2018-19	2019-20	2020-21	2021-22	2022-23
	\$	\$	\$	\$	\$	\$	\$	\$
<b>Financial assets</b>								
Cash	40,361	60,525	73,996	60,525	60,525	60,525	60,525	60,525
Accounts receivable								
o Due from the Government of Canada	41,695	7,307	13,824	7,307	7,307	7,307	7,307	7,307
o Other	19,034	4,656	12,542	4,656	4,656	4,656	4,656	4,656
<b>Total financial assets</b>	<b>101,090</b>	<b>72,488</b>	<b>100,362</b>	<b>72,488</b>	<b>72,488</b>	<b>72,488</b>	<b>72,488</b>	<b>72,488</b>
<b>Liabilities</b>								
Accounts payable and accrued liabilities	79,157	57,634	84,258	57,634	57,634	57,634	57,634	57,634
Employee future benefits	667	517	1,613	498	498	497	497	497
Contractual holdbacks	19,098	12,241	12,810	12,241	12,241	12,241	12,241	12,241
Deferred revenue	230	268	269	268	268	268	268	268
Environmental obligations	46,675	24,402	24,770	22,084	20,200	18,310	16,675	15,138
<b>Total liabilities</b>	<b>145,827</b>	<b>95,062</b>	<b>123,720</b>	<b>92,725</b>	<b>90,841</b>	<b>88,950</b>	<b>87,315</b>	<b>85,778</b>
<b>Net debt</b>	<b>(44,737)</b>	<b>(22,574)</b>	<b>(23,358)</b>	<b>(20,237)</b>	<b>(18,353)</b>	<b>(16,462)</b>	<b>(14,827)</b>	<b>(13,290)</b>
<b>Non-financial assets</b>								
Tangible capital assets	561,812	581,283	643,781	628,004	676,127	679,848	705,092	773,797
Prepaid expenses	498	621	671	621	621	621	621	621
<b>Total non-financial assets</b>	<b>562,310</b>	<b>581,904</b>	<b>644,452</b>	<b>628,625</b>	<b>676,748</b>	<b>680,469</b>	<b>705,713</b>	<b>774,418</b>
<b>Accumulated surplus</b>	<b>517,573</b>	<b>559,330</b>	<b>621,094</b>	<b>608,388</b>	<b>658,395</b>	<b>664,007</b>	<b>690,886</b>	<b>761,128</b>

## Statement of Operations – Pro forma

In thousands	Actual 2016-17	Actual 2017-18	Main Budget 2017-18	Budget				
				2018-19	2019-20	2020-21	2021-22	2022-23
	\$	\$	\$	\$	\$	\$	\$	\$
<b>Revenues</b>								
Leases and permits	566	601	599	607	612	617	622	627
Interest	623	869	500	572	572	572	572	572
Other sources	22	54	-	-	-	-	-	-
<b>Total revenues</b>	<b>1,211</b>	<b>1,524</b>	<b>1,099</b>	<b>1,179</b>	<b>1,184</b>	<b>1,189</b>	<b>1,194</b>	<b>1,199</b>
<b>Expenses</b>								
Maintenance	195,411	115,574	232,197	289,478	230,529	286,276	310,205	119,331
Operations	3,067	3,145	3,520	3,431	2,688	2,735	2,775	2,815
Administration	14,795	13,884	15,891	16,814	16,424	16,424	16,645	16,766
Environmental obligations	16,711	(2,707)	(1,793)	(2,318)	(1,884)	(1,890)	(1,635)	(1,537)
Losses on disposal of assets	1,272	-	-	-	-	-	-	-
<b>Total expenses</b>	<b>231,256</b>	<b>129,896</b>	<b>249,815</b>	<b>307,405</b>	<b>247,757</b>	<b>303,545</b>	<b>327,990</b>	<b>137,375</b>
Deficit before Government of Canada funding	(230,045)	(128,372)	(248,716)	(306,226)	(246,573)	(302,356)	(326,796)	(136,176)
Portion of parliamentary appropriations for operating expenses	191,853	117,323	218,409	277,184	214,670	278,062	301,267	111,767
Portion of parliamentary appropriations for tangible capital assets	94,346	52,806	113,368	78,100	81,910	29,906	52,408	94,651
Required funding (potential reprofiling)	-	-	(6,818)	-	-	-	-	-
<b>Annual operating surplus</b>	<b>56,154</b>	<b>41,757</b>	<b>76,243</b>	<b>49,058</b>	<b>50,007</b>	<b>5,612</b>	<b>26,879</b>	<b>70,242</b>
<b>Accumulated operating surplus, beginning of the year</b>	<b>461,419</b>	<b>517,573</b>	<b>544,851</b>	<b>559,330</b>	<b>608,388</b>	<b>658,395</b>	<b>664,007</b>	<b>690,886</b>
<b>Accumulated operating surplus, end of the year</b>	<b>517,573</b>	<b>559,330</b>	<b>621,094</b>	<b>608,388</b>	<b>658,395</b>	<b>664,007</b>	<b>690,886</b>	<b>761,128</b>

## Statement of Change in Net Debt – Pro forma

In thousands	Actual 2016-17	Actual 2017-18	Main Budget 2017-18	Budget				
				2018-19	2019-20	2020-21	2021-22	2022-23
	\$	\$	\$	\$	\$	\$	\$	\$
<b>Annual operating surplus</b>	<b>56,154</b>	<b>41,757</b>	<b>76,243</b>	<b>49,058</b>	<b>50,007</b>	<b>5,612</b>	<b>26,879</b>	<b>70,242</b>
Acquisition of tangible capital assets	(94,346)	(52,806)	(111,482)	(78,100)	(81,910)	(29,906)	(52,408)	(94,651)
Amortization of tangible capital assets	33,444	33,335	36,889	31,379	33,787	26,185	27,164	25,946
Loss on sale of tangible capital assets	1,272	-	-	-	-	-	-	-
Gain on sale of tangible capital assets	-	(4)	-	-	-	-	-	-
Proceeds from sale of tangible capital assets	-	4	-	-	-	-	-	-
<b>Total variation due to total tangible capital assets</b>	<b>(59,630)</b>	<b>(19,471)</b>	<b>(74,593)</b>	<b>(46,721)</b>	<b>(48,123)</b>	<b>(3,721)</b>	<b>(25,244)</b>	<b>(68,705)</b>
Acquisition of prepaid expenses	(3,401)	(1,270)	-	-	-	-	-	-
Use of prepaid expenses	3,574	1,147	-	-	-	-	-	-
<b>Total variation due to prepaid expenses</b>	<b>173</b>	<b>(123)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Decrease (increase) in net debt	(3,303)	22,163	1,650	2,337	1,884	1,891	1,635	1,537
Net debt, beginning of the year	(41,434)	(44,737)	(25,008)	(22,574)	(20,237)	(18,353)	(16,462)	(14,827)
<b>Net debt, end of the year</b>	<b>(44,737)</b>	<b>(22,574)</b>	<b>(23,358)</b>	<b>(20,237)</b>	<b>(18,353)</b>	<b>(16,462)</b>	<b>(14,827)</b>	<b>(13,290)</b>

## Statement of Cash Flows – Pro forma

In thousands	Actual 2016-17	Actual 2017-18	Main Budget 2017-18	Budget				
				2018-19	2019-20	2020-21	2021-22	2022-23
	\$	\$	\$	\$	\$	\$	\$	\$
<b>Operating transactions</b>								
Annual operating surplus	56,154	41,757	76,243	49,058	50,007	5,612	26,879	70,242
Non-cash items								
Amortization of tangible capital assets	33,444	33,335	36,889	31,379	33,787	26,185	27,164	25,946
Loss (gain) on sale of tangible capital assets	1,272	(4)	-	-	-	-	-	-
Increase (decrease) in employee future benefits	(621)	(150)	143	(19)	-	(1)	-	-
Increase (decrease) in environmental obligations	3,505	-	(1,793)	(2,318)	(1,884)	(1,890)	(1,635)	(1,537)
Changes in non-cash working capital items								
Increase (decrease) in accounts receivable	(34,363)	48,765	-	-	-	-	-	-
Decrease in accounts payable and accrued liabilities	(2,170)	(5,278)	-	-	-	-	-	-
Increase (decrease) in contractual holdbacks	6,287	(6,857)	-	-	-	-	-	-
Increase (decrease) in deferred revenue	(40)	38	-	-	-	-	-	-
(Increase) decrease in prepaid expenses	174	(123)	-	-	-	-	-	-
Decrease in environmental obligations	-	(22,273)	-	-	-	-	-	-
<b>Cash flow provided by operating transactions</b>	<b>63,642</b>	<b>89,210</b>	<b>111,482</b>	<b>78,100</b>	<b>81,910</b>	<b>29,906</b>	<b>52,408</b>	<b>94,651</b>
<b>Tangible capital asset investment activities</b>								
Proceeds from disposal of tangible capital assets	-	4	-	-	-	-	-	-
Cash used to acquire tangible capital assets	(97,277)	(69,050)	(111,482)	(78,100)	(81,910)	(29,906)	(52,408)	(94,651)
Cash used for capital transactions	(97,277)	(69,046)	(111,482)	(78,100)	(81,910)	(29,906)	(52,408)	(94,651)
Increase (decrease) in cash	(33,635)	20,164	-	-	-	-	-	-
<b>Cash, beginning of the year</b>	<b>73,996</b>	<b>40,361</b>	<b>73,996</b>	<b>60,525</b>	<b>60,525</b>	<b>60,525</b>	<b>60,525</b>	<b>60,525</b>
<b>Cash, end of the year</b>	<b>40,361</b>	<b>60,525</b>	<b>73,996</b>	<b>60,525</b>	<b>60,525</b>	<b>60,525</b>	<b>60,525</b>	<b>60,525</b>



# + OPERATING AND CAPITAL BUDGETS

## 5. OPERATING AND CAPITAL BUDGETS

### 5.1 OPERATING BUDGET – PRO FORMA

In thousands	Budget					2017-2018			2016-2017		
	2018-19	2019-20	2020-21	2021-22	2022-23	Budget	Actual	Variance	Budget	Actual	Variance
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>Revenues</b>											
Parliamentary appropriations for operating expenses	277,184	214,670	278,062	301,267	111,767	218,409	117,323	(101,086)	270,248	191,853	(78,395)
Leases and permits	607	612	617	622	627	599	601	2	586	566	(20)
Interest	572	572	572	572	572	500	869	369	500	623	123
Other sources	-	-	-	-	-	-	54	54	-	22	22
<b>Total revenues</b>	<b>278,363</b>	<b>215,854</b>	<b>279,251</b>	<b>302,461</b>	<b>112,966</b>	<b>219,508</b>	<b>118,847</b>	<b>(100,661)</b>	<b>271,334</b>	<b>193,064</b>	<b>(78,270)</b>
<b>Expenses</b>											
Maintenance	289,478	230,529	286,276	310,205	119,331	232,197	115,574	(116,623)	252,038	195,411	(56,627)
Operations	3,431	2,688	2,735	2,775	2,815	3,520	3,145	(375)	4,315	3,067	(1,248)
Administration	16,814	16,424	16,424	16,645	16,766	15,891	13,884	(2,007)	13,503	14,795	1,292
Environmental obligations	(2,318)	(1,884)	(1,890)	(1,635)	(1,537)	(1,793)	(2,707)	(914)	(11,780)	16,711	28,491
Non-cash items	(29,042)	(31,903)	(24,294)	(25,529)	(24,409)	(35,239)	(11,049)	24,190	(29,736)	(36,920)	(7,184)
<b>Total expenses</b>	<b>278,363</b>	<b>215,854</b>	<b>279,251</b>	<b>302,461</b>	<b>112,966</b>	<b>214,576</b>	<b>118,847</b>	<b>(95,729)</b>	<b>228,340</b>	<b>193,064</b>	<b>(35,276)</b>
<b>Potential operations reprofiling (funding required)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4,932</b>	<b>-</b>	<b>(4,932)</b>	<b>42,994</b>	<b>-</b>	<b>(42,994)</b>

## 5.2 CAPITAL BUDGET – PRO FORMA

In thousands	Budget					2017-2018			2016-2017		
	2018-19	2019-20	2020-21	2021-22	2022-23	Budget	Actual	Variance	Budget	Actual	Variance
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>Revenues</b>											
Parliamentary appropriations for capital assets	78,100	81,910	29,906	52,408	94,651	113,368	52,806	(60,562)	97,277	94,346	(2,931)
<b>Total revenues</b>	<b>78,100</b>	<b>81,910</b>	<b>29,906</b>	<b>52,408</b>	<b>94,651</b>	<b>113,368</b>	<b>52,806</b>	<b>(60,562)</b>	<b>97,277</b>	<b>94,346</b>	<b>(2,931)</b>
<b>Capital assets</b>											
Jacques Cartier Bridge	59,251	60,342	11,137	17,415	28,071	54,247	35,414	(18,833)	63,322	61,436	(1,886)
Champlain Bridge	-	-	-	-	-	-	(962)	(962)	-	(1,144)	(1,144)
Honoré Mercier Bridge	6,411	13,182	11,506	18,338	19,233	25,345	14,320	(11,025)	36,170	23,323	(12,847)
Melocheville Tunnel	1,310	1,321	966	8,849	8,651	568	146	(422)	163	(415)	(578)
Bonaventure Expressway	3,582	4,341	6,297	7,650	38,277	558	(310)	(868)	1,739	1,163	(576)
Highway 15	-	-	-	-	-	-	21	21	-	(21)	(21)
Ice Control Structure	6,342	1,998	-	-	-	30,087	4,149	(25,938)	7,134	8,529	1,395
Bypass Bridge	-	-	-	-	-	-	(146)	(146)	-	146	146
Other capital assets	1,204	726	-	156	419	677	174	(503)	2,216	1,329	(887)
<b>Total capital assets</b>	<b>78,100</b>	<b>81,910</b>	<b>29,906</b>	<b>52,408</b>	<b>94,651</b>	<b>111,482</b>	<b>52,806</b>	<b>(58,676)</b>	<b>110,744</b>	<b>94,346</b>	<b>(16,398)</b>
<b>Potential reprofiling of capital assets (funding required)</b>	-	-	-	-	-	<b>1,886</b>	-	<b>(1,886)</b>	<b>(13,467)</b>	-	<b>13,467</b>
<b>Total potential reprofiling of operations and capital assets (funding required)</b>	-	-	-	-	-	<b>6,818</b>	-	<b>(6,818)</b>	<b>29,527</b>	-	<b>(29,527)</b>

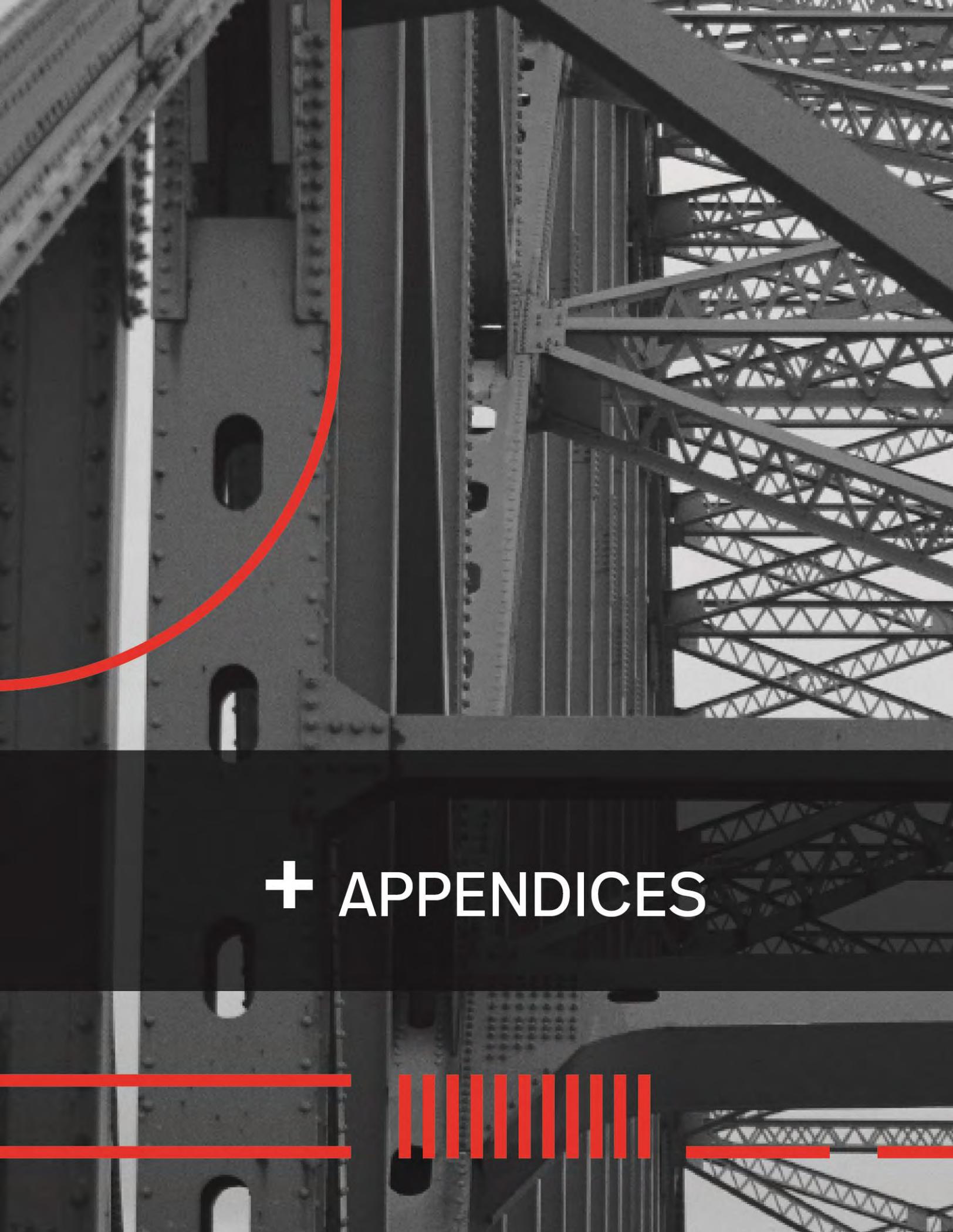


**+ PERFORMANCE  
REVIEW OF THE  
2017-2018 TO  
2022-2023  
CORPORATE PLAN**

## 6. PERFORMANCE REVIEW OF THE 2017-2018 TO 2022-2023 CORPORATE PLAN

Management, maintenance and rehabilitation of infrastructures such as bridges, highways and tunnels, as well as properties, to ensure safe passage for users.

OUTCOME	STRATEGIC OUTCOME	PERFORMANCE INDICATOR	EXPECTED OUTCOME	OUTCOME AS AT MARCH 31, 2018
A strong economic growth.	Efficient and safe passage on the infrastructures managed by JCCBI.	Number of lane reductions on the structures during rush hours.	Maintenance or reduction of the number of closures compared to the previous year.	2016-2017 = 32 closures 2017-2018 = 53 closures Mainly due to breakdowns or incidents.
		Number of road accidents.	Maintenance or reduction of the number of road accidents compared to the previous year.	- 2016-2017: 659 accidents - 2017-2018: 660 accidents
		Funding requested corresponds to planned work.	<ul style="list-style-type: none"> <li>▪ Reprofiting of funds requested;</li> <li>▪ The funding requests are made.</li> </ul>	2018-2023 Corporate Plan filed with Infrastructure Canada
		Percentage of projects started up according to the Corporate Plan.	Projects 100% started up.	100% of projects started up and 1 unplanned project
		Percentage of annual inspections conducted according to the Corporate Plan.	Inspections 100% completed.	93%
		Percentage of planned work carried out.	90% of the annual work program completed.	- Completion of the major work planned 52% - Completion of additional work 15%



# + APPENDICES





## 7. APPENDICES

**APPENDIX A** – List of Board Committees

**APPENDIX B** – Summary of the Main Risks

**APPENDIX C** – List of Abbreviations



## APPENDIX A – LIST OF BOARD COMMITTEES

As of January 21, 2019

### DIRECTORS

BOUCHARD, Dominique  
CACCHIONE, Richard  
KEFALAS, Paul T.  
LAVOIE, Catherine  
MARTEL, Sandra  
VILLIARD, M<sup>e</sup> Sylvain  
WILLIAMS, Dale Ellen

### OFFICERS

Chair ..... KEFALAS, Paul T.  
Vice-Chair ..... LAVOIE, Catherine  
Acting Corporate Secretary ..... PAPAGIANNIS, M<sup>e</sup> John  
Acting Chief Executive Officer ..... MARTEL, Sandra  
Treasurer ..... LACHANCE, Claude

#### AUDIT COMMITTEE

CACCHIONE, Richard/President  
VILLIARD, M<sup>e</sup> Sylvain  
WILLIAMS, Dale Ellen

#### GOVERNANCE AND ETHICS COMMITTEE

KEFALAS, Paul T./President  
VILLIARD, M<sup>e</sup> Sylvain  
LAVOIE, Catherine  
WILLIAMS, Dale Ellen

#### RISK COMMITTEE – INFRASTRUCTURES

LAVOIE, Catherine/President  
KEFALAS, Paul T.  
BOUCHARD, Dominique  
CACCHIONE, Richard

#### HUMAN RESOURCES COMMITTEE

WILLIAMS, Dale Ellen/President  
BOUCHARD, Dominique  
CACCHIONE, Richard

#### CHAMPLAIN TECHNICAL COMMITTEE

MARTEL, Sandra/President  
KEFALAS, Paul T.

#### CORPORATE RISK COMMITTEE

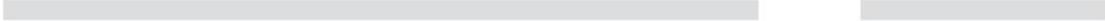
VILLIARD, M<sup>e</sup> Sylvain/President  
BOUCHARD, Dominique  
KEFALAS, Paul T.  
CACCHIONE, Richard

## APPENDIX B – SUMMARY OF THE MAIN RISKS

Title/Description of Risk	Category	Probability	Impact	Initial Level of Risk	Reaction	Residual Level of Risk
<p><i>Safety and security of JCCBI's infrastructures</i></p> <p>The infrastructures operated and maintained by JCCBI have deteriorated and have been exposed to heavy traffic, weather conditions and extensive use of road salt. The age of the infrastructures and the funding for their maintenance and rehabilitation are real risks for the safety of the structures and users thereof. In addition, intentional acts such as terrorism, vandalism or even protests could result in the closure of a bridge or of traffic lanes.</p>	Risks associated with the capacity	<p>Moderate</p> <p>Real risks, given the age of the infrastructures and degree of deterioration.</p>	<p>Safety and security risks may have an impact on:</p> <ul style="list-style-type: none"> <li>i. the regional and national economy,</li> <li>ii. the reputation of JCCBI and Canada</li> </ul> <p>in case of closure of traffic lanes, a bridge or the Seaway.</p> <p>These risks may also have an impact on the safety of users.</p>	High	<p>JCCBI conducts a proactive management of its assets and has undertaken a major repair and maintenance program with the funding received under Budget 2014 in order to extend the service life of its structures.</p> <p>JCCBI administers its major maintenance program wisely in order to extend the service life of its infrastructure as much as possible. The major maintenance program is based on annual inspections, surveys, detailed inspections, instrumentation, and load capacity studies. In addition, JCCBI is beginning the development of a master plan for each of its structures.</p> <p>JCCBI has an Emergency Response Plan, including a crisis communication protocol. In addition, JCCBI works with other partners, including national, provincial and municipal stakeholders, to ensure cohesion in emergency approaches and procedures.</p> <p>JCCBI organizes regular follow-up meetings and collaborative plans with police to manage the risks associated with terrorism, vandalism and protests. In addition, monitoring systems are installed on several structures to allow continuous monitoring.</p>	Moderate
<p><i>Sustainable funding</i></p> <p>Poor funding in the past for maintenance, repairs and rehabilitation have had a long-term impact on JCCBI's ability to maintain its structures in good condition to ensure the safety of infrastructures and users.</p> <p>Long term funds in connection with the major maintenance program and environmental projects are insufficient.</p>	Financial risks	<p>High</p> <p>Despite significant investments in the past few years, JCCBI continues to face critical long-term deficits for infrastructure due to the lack of long-term funding. Important upcoming projects are currently unfunded beyond March 31, 2018.</p>	<p>The sustainable funding risk may have an impact on the economy and reputation if there is closure of traffic lanes or of a bridge.</p> <p>In addition, the sustainable funding risk limits JCCBI's ability to award multi-year contracts, resulting in delays in the operational planning.</p> <p>The sustainable funding risk limits JCCBI's ability to continue to implement the mitigation measures required to contain and treat the contaminated groundwater on lands in the Bonaventure Expressway sector.</p>	High	<p>JCCBI continues to work with Infrastructure Canada to identify the short- and long-term funding needs with a ten-year funding plan that is reviewed annually. It is necessary to determine the source of funding beyond 2017-2018. Contingencies have been set aside in the Corporate Plan for the execution of projects. In addition, a general corporate reserve of 1% is provided. JCCBI re-uses the funds released as the maintenance program progresses in order to accelerate some priority work.</p>	High
<p><i>Organizational performance</i></p> <p>JCCBI must ensure that it has the operational capacity required to carry out its major maintenance program and comply with legal obligations.</p>	Risks associated with the capacity	<p>Moderate</p> <p>Risk present, but JCCBI manages its workforce plan dynamically.</p>	<p>The organizational performance risks may impact the costs and JCCBI's capacity to carry out its major work program if the Corporation does not have effective and integrated information resources as well as human resources who meet both the current and the future needs.</p>	Moderate	<p>JCCBI has implemented an organizational structure in project-based management mode. JCCBI maintains integration, training and development programs for its employees and managers. JCCBI maintains an IT master plan that comprises information systems for financial management, project management and asset management. These management systems enable JCCBI to provide reliable and timely management information.</p>	Low

Title/Description of Risk	Category	Probability	Impact	Initial Level of Risk	Reaction	Residual Level of Risk
			<i>In addition, there may be an impact on JCCBI's reputation in the event of non-compliance with statutory deadlines.</i>			
<p><i>Health and safety</i></p> <p>JCCBI must ensure that it has the tools in place to meet its health and safety obligations in a complex legal environment.</p>	<i>Legal risks</i>	<p><i>Moderate</i></p> <p><i>Legal implications arising from:</i></p> <ul style="list-style-type: none"> <li>- <i>Number, proximity and complexity of construction sites</i></li> <li>- <i>Number of stakeholders</i></li> <li>- <i>Increased number of JCCBI internal resources</i></li> <li>- <i>Legislative duality</i></li> </ul>	<p><i>Health and safety risks may impact the costs and affect JCCBI's reputation if JCCBI or an employee is subject to an offence notice or prosecution for breach of health and safety obligations. An incident could also affect the completion of the major maintenance program if work had to be stopped.</i></p>	<i>High</i>	<p><i>JCCBI has developed a framework program whose objective is "Zero Injury by Choice". JCCBI also improved the health and safety clauses in its construction contracts, upgraded its work supervision contracts to add resources dedicated to the health and safety component and awarded a comprehensive health and safety management contract. In addition, a health and safety team provides support to the teams.</i></p>	<i>Low</i>
<p><i>Coordination with the construction of both the SDCBC and the REM</i></p> <p>JCCBI must manage the projects for the rehabilitation and maintenance of its infrastructures located in the Champlain Bridge and Bonaventure Expressway sectors in close collaboration with INFC and the private partner as part of the SDCBC project and with CDPQ Infra as part of the REM project.</p>	<i>Capacity risks</i>	<p><i>Moderate</i></p> <p><i>Proximity and size of the construction sites.</i></p>	<p><i>The coordination issues may have an impact on the implementation of its major work program, notably the costs and timelines.</i></p>	<i>Moderate</i>	<p><i>JCCBI has dedicated resources for the coordination. It did so through its Champlain Project Office, which ensures the implementation of the major maintenance program for the original Champlain Bridge and provides support to INFC and the private partner. An agreement with CDPQ Infra or its subsidiary "Réseau Express Métropolitain" will be put in place for the construction and operation of the REM on the lands managed by JCCBI.</i></p>	<i>Low</i>

<b>Level of legal risk</b>	<input checked="" type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High	<i>Risk considered controlled through the implementation of mitigation measures.</i>
<b>Level of overall risk</b>	<input type="checkbox"/> Low <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> High	<i>Despite the implementation of mitigation measures, the level of overall risk remains "moderate" given the age and condition of the infrastructures managed by JCCBI and the lack of long-term funding, which remain real risks for the safety of the infrastructures and for users.</i>



## APPENDIX C – LIST OF ABBREVIATIONS

ARTM.....	AUTORITÉ RÉGIONALE DE TRANSPORT MÉTROPOLITAIN
CEAA.....	CANADIAN ENVIRONMENTAL ASSESSMENT ACT (2012)
CITSO.....	CONSEIL INTERMUNICIPAL DE TRANSPORT DU SUD-OUEST
ECCC.....	ENVIRONMENT AND CLIMATE CHANGE CANADA
EDM.....	ELECTRONIC DOCUMENT MANAGEMENT
FAA.....	FINANCIAL ADMINISTRATION ACT
FBCL.....	THE FEDERAL BRIDGE CORPORATION LIMITED
FCSAP.....	FEDERAL CONTAMINATED SITES ACTION PLAN
IAM.....	INSTITUTE OF ASSET MANAGEMENT
INFC.....	INFRASTRUCTURE CANADA
ISO.....	INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
ITS.....	INTELLIGENT TRANSPORTATION SYSTEM
JCCBI.....	THE JACQUES CARTIER AND CHAMPLAIN BRIDGES INCORPORATED
MELCC.....	MINISTÈRE DE L'ENVIRONNEMENT ET DE LA LUTTE CONTRE LES CHANGEMENTS CLIMATIQUES DU QUÉBEC
MTQ.....	MINISTÈRE DES TRANSPORTS DU QUÉBEC
OHS.....	OCCUPATIONAL HEALTH AND SAFETY
PEPSC.....	PARC D'ENTREPRISES DE LA POINTE SAINT CHARLES
PP.....	PRIVATE PARTNER (FOR THE SDCBC PROJECT)
PSPC.....	PUBLIC SERVICES AND PROCUREMENT CANADA
PWGSC.....	PUBLIC WORKS AND GOVERNMENT SERVICES CANADA
RAD.....	RESEARCH AND APPLICATIONS DIVISION
RTL.....	RÉSEAU DE TRANSPORT DE LONGUEUIL
RTM.....	RÉSEAU DE TRANSPORT MÉTROPOLITAIN
SDCB.....	SAMUEL DE CHAMPLAIN BRIDGE
SDCBC.....	SAMUEL DE CHAMPLAIN BRIDGE CORRIDOR
SLSA.....	THE ST. LAWRENCE SEAWAY AUTHORITY
SPVM.....	SERVICE DE POLICE DE LA VILLE DE MONTRÉAL
SQ.....	SÛRETÉ DU QUÉBEC
STM.....	SOCIÉTÉ DE TRANSPORT DE MONTRÉAL





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