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Value for Money Assessment

East Rail Maintenance Facility



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Ms. Jennifer Quinn
Vice President, Transaction Finance
Infrastructure Ontario
777 Bay Street, 9th Floor
Toronto, ON M5G 2C8

10 April 2015

Dear Ms. Quinn:

Re: Value for Money Analysis – East Rail Maintenance Facility

Ernst & Young Orenda Corporate Finance (“EYOCF”) has prepared the Value for Money (“VFM”) assessment for the East Rail Maintenance Facility Project at the Financial Close (“FC”) stage. The analysis was prepared following an Infrastructure Ontario (“IO”) VFM analytical framework, which is generally consistent with approaches used in other jurisdictions.

The VFM assessment is based on a comparison of the total project costs of the East Rail Maintenance Facility Project under:

1. The Traditional delivery approach, as reflected in the Public Sector Comparator (“PSC”) model; and
2. The Alternative Financing and Procurement (“AFP”) model estimation of the total project costs, as reflected in the Adjusted Successful Bid.

The VFM assessment as noted above was prepared using the following information (collectively the “Information”) within the VFM model:

- i. A Risk Matrix developed for IO by Altus Helyar and adjusted to reflect project specific risks; and
- ii. Construction and other cost estimates as reflected in the Successful Bid. Other VFM model assumptions as provided by IO.

The cost information and underlying assumptions were not independently audited or verified for accuracy or completeness.

The results of the VFM assessment demonstrate an estimated VFM cost savings of 14.7% by using the AFP approach to deliver the Project in comparison to using the traditional delivery approach.

Yours sincerely,

*Ernst & Young Orenda
Corporate Finance Inc.*

ERNST & YOUNG ORENDA CORPORATE FINANCE INC.

A member firm of Ernst & Young Global Limited



February 24th, 2015

Alan Poon, Project Manager

Infrastructure Ontario

777 Bay Street, 6th Floor

Toronto, ON M5G 2C8

Dear Mr. Poon:

Re: The Request for Proposals to Design, Build, Finance, and Maintain the
East Rail Maintenance Facility Project - Infrastructure Ontario
RFQ No. 12-301P
RFP No. 12-580P – cancelled (RFP1), and RFP2 No. 14-097P – awarded (RFP2)

Knowles was retained as the Fairness Monitor for Infrastructure Ontario's (IO) and Metrolinx (to be referred to as the Sponsors) procurement of a partner to Design, Build, Finance and Maintain the East Rail Maintenance Facility Project to be constructed in Whitby, Ontario. Knowles was engaged as the Fairness Monitor on August 30th, 2012, during RFQ development (prior to issuance), and was able to provide input into the RFQ and RFP documents, amendments, and subsequent processes including meeting guidelines, evaluation process, and reviewed all applicable documentation as presented to us through the Project and Procurement leads. Infrastructure Ontario worked with Metrolinx to deliver the procurement process. Both IO and GO Transit/Metrolinx staff will evaluate the submissions, select a preferred Proponents proposal, and then negotiated a final contract. The company selected for the East Rail Maintenance Facility will pursue LEED® Silver or greater designation by incorporating sustainable practices in its design and construction plans.

Our responsibility was to monitor the project's RFQ and RFP procurement processes. This summary letter details our fairness findings for the RFP1 and RFP2 processes for which we were privy to, and provided fairness monitoring oversight. However for greater detail on each of these processes, our detailed report should be reviewed. This summary attest letter will provide detail on our specific findings of the RFP 2 (RFP No. 14-097P) process which was issued on June 27, 2014 and ended in January 2014, with the identification of the Preferred Proponent for this project was achieved, and which was the completion of our fairness monitoring services for this project.

We can confirm that the RFP1 process, issued March 5th, 2013, as issued by the Sponsors, completed and then subsequently cancelled by the Sponsors was fair open and transparent, and was generally administered as stipulated in the RFP documents. The process was administered in a consistent and diligent matter by the Sponsors as we observed, and all matters relating to conflicts of interest and confidentiality were adequately managed. As a result of a capital project cost budget matter, the RFP1 process administered by the Sponsors was cancelled, and the RFP was reissued in the form of RFP 2 which we determined to be

procedurally fair, open and transparent, and administered in accordance with the RFP documents. Our conclusions are based on our first hand observations of the RFP process, from the development of the RFP document prior to issuance, through to the completion of the RFP evaluation process. Our review also took into account the documents, policies and provincial directives applied during the RFP process and information issued or provided to us by the Sponsors and project or procurement representatives.

In our capacity as Fairness Monitor our monitoring was strictly limited to:

Our monitoring in the capacity as Fairness Monitor for the RFP process was strictly limited to:

- Strict monitoring of IO's practices to ensure consistency with the stipulations of the RFP and supporting Project Specific Output Specifications (PSOS) document which guided both the Sponsors and Proponents behaviour during the RFP open period. We take the stipulations of the RFP as a standard against which to audit the process.
- Review and adherence to the RFP document and all applicable processes described therein.
- Review and adherence to the document amendment process
- Review and adherence to the RFI Process
- Review and adherence to the CCM process and communicated Proponent feedback, and timelines scheduled and adjusted during the RFP open period.
- Review and adherence of the RFC Process
- Review and adherence to the Evaluation Process as per the RFP and supporting internal policies and methodologies of the Sponsors.

Specifically:

- We provided fairness related recommendations to the project Sponsors, project management and procurement team members as requested or deemed necessary throughout the duration of the RFP process.
- We monitored the adherence of IO staff and external advisors to conflict of interest, communication and confidentiality requirements procedures established by IO documents and processes, of which no issue was brought to our attention.
- Similarly we monitored the adherence of the Proponents during the course of the RFP process to ensure that all conflict of interest, communication and confidentiality requirements as per the RFP were not compromised, and that appropriate mitigation strategies were in place as required. To our knowledge, there was only one (1) instance when an issue arose which we were notified of and were satisfied that the way in which IO responded to the matter was sufficient.
- We attended all Commercially Confidential Proponent Meetings and provided fairness advice in the management and administration of those meetings, as needed.
- We attended the Evaluation Training, Consensus and Evaluation Committee due diligence meetings which took place.
- We monitored communications with Proponents made privy to us by the RFP contacts (including all written documentation via email, the e-builder project documentation management data room established for the project, which included all addendums, RFI's issued prior to RFP close.
- We reviewed all RFC's issued post submission receipt to the Proponents and subsequent responses back to IO for review during the evaluation process, to ensure that only appropriate and justifiable RFC's were being issued and reviewed by both the Proponents and the Evaluators.
- We reviewed the development of the Evaluation Framework, which identified amongst other items, the evaluation approach and application of the evaluation criteria as per the RFP requirements, the scoring workbook for each evaluation category with weightings and the defined rating scoring

matrix and evaluation methodology with regards to innovations and thresholds prepared which was approved post submission receipt but prior to the distribution of Proponent submissions to the Evaluators.

- We attended the mandatory Evaluator Training Session presentation led by procurement, prior to RFP close and submission receipt, which guided and supported the RFP evaluation process, and indicated the standard for which the evaluation participants took their direction.
- We monitored the adherence and application of the evaluation criteria, terms and conditions references, definitions, present in the RFP document, which were used to evaluate the Proponent responses.
- We provided oversight with regards to the consistency of appropriate Proponent treatment throughout the evaluation process.
- We monitored that the qualifications and preparedness of the evaluation team were generally appropriate to execute their roles and tasks, as needed.
- We objectively reviewed the diligence of the evaluation process and its participants.
- During the RFP open period we reported to IO's East Rail Maintenance Facility Project, Project Manager, and the Procurement Lead. In addition, we reported to the Evaluation Committee performing the due diligence function for the RFP evaluation process.

As Fairness Monitor for the RFP2 process we can attest to the fact that;

- The RFP documents were issued to the open market without bias to the bidding community.
- The RFP2 process incorporated lessons learned from the previous RFP1 process to successfully address budget and services related requirements into the RFP2 process, to meet Proponent and sponsor requirements diligently, (ie. White Paper process administered, and round of Financial CCM occurrences)
- The evaluation process was consistent with that outlined in the RFP and subsequent communication to the Proponents under the reserved rights of the RFP;
- The three (3) prequalified Proponent teams, submitted timely proposals to this request and were evaluated and ranked in accordance with the RFP documents as described, in a fair and consistent manner.
- We confirm that all Proponents successfully passed the compliance review as per RFP section 6.3.1.
- we confirm that all Proponents successfully passed the Project Management and Plans threshold.
- We confirm that all Proponents successfully passed the Operations Plan threshold.
- We confirm that all Proponents successfully passed the Design submission score threshold.
- We confirm that all Proponents successfully passed the Quality of Financing submission score threshold.
- Due to the nature of the concurrent (technical and financial) evaluation approach taken by IO, all proposals sections were ranked in the final proposal score stage shortly thereafter the technical evaluation presentation to the evaluation committee was complete. All proposals and had their bid prices presented to the evaluation committee at this time.
- All proposals passed all mandatory requirements and scoring thresholds and as such, were ranked for selection. The proposal with the highest evaluated proposal score was selected as Preferred Proponent and approved by the evaluation committee.

As per the intent of the RFP process, the shortlisted Proponents responded to the project requirements of the RFP with both a technical and financial submission proposed designs and implementation plans for the ERMF which were evaluated and scored for the purposes of selecting a Preferred Proponent.

As a result of the Technical and Financial Evaluation Sub-committee consensus processes, and presentation to the Evaluation Committee on December 11th, 2014, an approval of the RFP results and identification of the Preferred Proponent.

In accordance with the RFP, the Sponsors identified the highest ranking Proponent as the First Negotiations Proponent. The negotiations were not monitored by the Fairness Monitor. We understand that the negotiations process is complete and the Sponsors have named Plenary Infrastructure ERMF, with which the team endeavour lead was Plenary Group (Canada) Ltd. as the Preferred Proponent in this process.

As Fairness Monitors we can attest that the overall process followed was generally consistent with the stipulations of the RFP version 2.3 document and general principles of fairness as established at the onset of the process which were in general conformance with the province of Ontario's public procurement practices, and that of each respected agency, Infrastructure Ontario and Metrolinx.

We provided an independent assurance that RFP process was conducted in accordance with the provisions of the RFP and subsequent documents issued during the process which met the established principles of fairness, openness and transparency. Our recommendations were based on the encouraged adherence to public procurement best practices, the principles of fairness and the internal policies of the Sponsors for which we monitored. For the purposes of this report, our services ended at the identification of the Preferred Proponent.

As Fairness Monitors we can attest that the overall process followed was generally consistent with the stipulations of the RFP and general principles of fairness. We provided an independent assurance that RFP process was conducted in accordance with the provisions of the RFP and subsequent documents issued during the process which met the established principles of fairness, openness and transparency.

In conclusion, we can attest that, RFP, and Evaluation Framework established by the RFP, that the evaluation process was conducted in a procedurally fair, open and transparent manner.

Sincerely,



Andrea Robinson, Fairness Monitor
Senior Consultant, Knowles Consultancy Services Inc.

cc. Don Solomon, Senior Consultant, Knowles Consultancy Services Inc.
Bill Mocsan, Vice President, Knowles Consultancy Services Inc.

East Rail Maintenance Facility Artist's Rendering



Courtesy of Plenary Infrastructure ERMF GP

Project Highlights

The East Rail Maintenance Facility in Whitby, Ontario is designed to provide mechanical maintenance capabilities, body repair and day-to-day cleaning and operational services for GO Transit trains. A new facility is required to support regional rail expansion as part of the Government of Ontario's *Moving Ontario Forward* plan.

At approximately 469,000 square feet of infrastructure, the maintenance facility offers:

- Storage capability for 22 12-train car consists (13 tracks for substantial completion and capacity for 9 additional tracks in the future)
- 300 staff and visitor parking spaces, with capacity for 150 additional in the future
- Services and facility components:
 - Two progressive maintenance bays
 - Heavy maintenance and coach overhaul shops
 - Paint booth and wheel shops
 - Locomotive and train consist wash buildings
 - Coach and locomotive light maintenance and heavy maintenance shops
 - Supervisory and maintenance staff offices, crew quarters
 - Train wayside power, fueling, sanding
 - Design to accommodate future electrification of the facility

Environmentally Sustainable Design

Sustainable design and construction features, designed to Leadership in Energy and Environmental Design (LEED®) Gold certification. Highlights include:

- Integrated and holistic design for a highly efficient building system and aggressive energy targets to achieve lower energy consumption
- Roof installed with highly reflective materials that reduce the local heat island effect by significantly limiting absorption of solar radiation.
- Reducing water use by using highly efficient plumbing fixtures; re-use of greywater in the facilities operations; harvesting of rainwater for reuse in wash stations and building. This diversion and storage of rainwater will also contribute to stormwater quality and quantity control.
- Indoor environmental quality improved through use of natural light inside building (daylight in 75% of spaces) and use of low-emitting materials for adhesives, sealants, paints, coatings and carpets.
- Areas are lined with trees and plantings to address the urban heat island affect and for shading, and wind breaks.
- Installation of bicycle storage and showering facilities, transit access, preferred parking for carpoolers and electric vehicle charging stations to encourage active transportation and transit use/carpooling.

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Summary

Metrolinx is a partner in the Province of Ontario's long-term infrastructure plan to repair, rebuild and renew the province's roads and highways, bridges, public transit, schools and postsecondary institutions, hospitals and courthouses in communities across Ontario.

Over the last six years, the Province has averaged \$10 billion in infrastructure investments per year. In June 2011, the Province launched its new long-term infrastructure plan – *Building Together*. The Province expects to continue significant investments in public infrastructure, and will begin by investing more than \$35 billion over the next three years.

Infrastructure Ontario plays a key role in procuring and delivering infrastructure projects, on behalf of the Province. When Infrastructure Ontario was created, its mandate included using an Alternative Financing and Procurement (AFP) method to deliver large, complex infrastructure projects. In June 2011, the Province expanded Infrastructure Ontario's role to deliver projects of various sizes, including ones suitable for an AFP delivery model, as well as other delivery models.

The East Rail Maintenance Facility project is being delivered under the Province's AFP model. The project consists of a new 500,000 square-foot facility to support Metrolinx's regional rail expansion, including the introduction of Regional Express Rail service as part of the Government of Ontario's Moving Ontario Forward plan.

Infrastructure Ontario is working with Metrolinx to develop the new facility, which will remain publicly owned, publicly controlled and publicly accountable.

The purpose of this report is to provide a summary of the project scope, the procurement process and the project agreement, and to demonstrate how value for money was achieved by delivering the project through the AFP process.

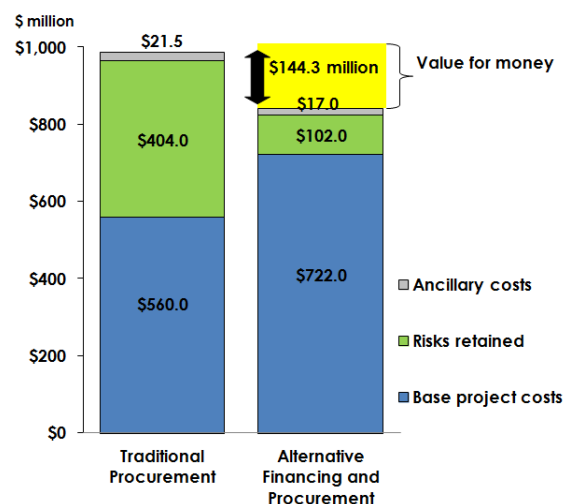
The value for money analysis refers to the process of developing and comparing the total project costs under two different delivery models, which are expressed in dollar values measured at the same point in time.

Value for money is determined by directly comparing the cost estimates for the following two delivery models:

Model #1 Traditional project delivery (Public sector comparator)	Model #2 Alternative Financing and Procurement
Total project costs that would have been incurred by the public sector to deliver an infrastructure project under traditional procurement processes.	Total project costs incurred by the public sector to deliver the same infrastructure project with identical specifications using the AFP approach.

The cost difference between model #1 and model #2 is the estimated value for money for this project.

The value for money assessment of the East Rail Maintenance Facility project indicates estimated cost savings of 14.7 percent or \$144.3 million, by using the AFP approach in comparison to traditional delivery.



Ernst & Young completed the value for money assessment of the East Rail Maintenance Facility project. Their assessment demonstrates projected cost savings of 14.7 percent by delivering the project using the AFP model, versus what it would have cost to deliver the project using a traditional delivery model.

Knowles Consulting acted as the Fairness Monitor for the project. They reviewed and monitored the communications, evaluations and decision-making processes associated with the East Rail Maintenance Facility project, ensuring the fairness, equity, objectivity, transparency and adequate documentation of the process. Knowles certified that these principles were maintained throughout the procurement process (see letter on page 4).

Project description

Background

Ontario's public infrastructure projects are guided by the five principles set out in the provincial government's *Building a Better Tomorrow Framework*, which include:

1. public interest is paramount;
2. value for money must be demonstrable;
3. appropriate public control and ownership must be preserved;
4. accountability must be maintained; and
5. all processes must be fair, transparent and efficient.

Project Scope

A new maintenance facility is required to support Metrolinx/GO Transit's planned service expansions for the Greater Toronto and Hamilton Area (GTHA) and is part of the Government of Ontario's *Moving Ontario Forward* plan for regional rail expansion.

The East Rail Maintenance Facility in Whitby will serve as a secondary rail maintenance facility to GO Transit's existing Willowbrook Facility in Etobicoke. A secondary site at the eastern edge of the GTHA will provide operational flexibility for GO Transit and improved service reliability for transportation users.

The facility is designed to provide mechanical maintenance capabilities, body repair and day-to-day cleaning and operational services for GO Transit trains.

Highlights include:

- Storage capability for 22 12-car train consists (13 tracks for substantial completion and capacity for 9 additional tracks in the future)
- 300 staff and visitor parking spaces, with capacity for 150 additional in the future
- Services and facility components
- Two progressive maintenance bays
- Heavy maintenance and coach overhaul shops
- Paint booth and wheel shops
- Locomotive and train consist wash buildings
- Coach and locomotive light maintenance and heavy maintenance shops
- Supervisory and maintenance staff offices, crew quarters
- Train wayside power, fueling, sanding
- Design to accommodate future electrification of the facility

Job Creation

The project is generating economic stimulus by creating and supporting jobs. At the peak of construction, it is estimated that 1,000 workers will be on the site daily.

Competitive selection process timeline

Metrolinx has entered into a project agreement with Plenary Infrastructure ERMF GP to design, build, finance and maintain the East Rail Maintenance Facility. The procurement stages for the project were as follows:

September 24, 2012

Request for Qualifications

Infrastructure Ontario issued a request for qualifications for the project which resulted in three building teams being short-listed:

East Rail Development Group

- SNC-Lavalin
- ACS Infrastructure
- Dragados Canada Inc.
- URS Canada
- National Bank
- Geo. A. Kelson Company Ltd.
- Guild Electric Ltd.

Integrated Rail Partners

- Aecon Construction Group Inc.
- Balfour Beatty Group Canada Inc.
- Pomerleau Inc.
- Black & McDonald Ltd
- Investec
- Parsons Brinckerhoff
- Sowinski & Sullivan Architects
- Strasman Architects
- Lea Consultants

Plenary Infrastructure ERMF GP

- Plenary Group (Canada) Ltd.
- Kiewit Canada Development Corp.
- Bird Capital Limited Partnership
- Bird Design-Build Construction Inc.
- Peter Kiewit Infrastructure Co.
- Honeywell Limited
- Toronto Terminals Railway
- Stantec Consulting
- Arup Canada Inc.
- TD Bank
- Bank of Montreal
- TD Securities

March 7, 2013

Request for Proposals

A request for proposals (RFP) was issued to the short-listed proponents, setting out the RFP process and proposed project agreement to design, build, finance and maintain the project.

November 14, 2013

Proposal submission

The RFP period closed and three proposals were received. The proposals were evaluated using the criteria set out in the RFP.

June 30, 2014 – October 30, 2014

Request for Proposals - revised

The evaluation process determined that the bids were higher than anticipated. Infrastructure Ontario and Metrolinx worked to de-scope the project and a revised RFP was issued to the three shortlisted teams in June 2014. Teams were provided until the end of October to refine their proposals and resubmit their bids.

January 22, 2015

Preferred proponent notification

Plenary Infrastructure ERMF GP was selected as the first ranked (preferred) proponent, based on predetermined criteria in the RFP, including technical requirements, construction schedule, price and financial backing, in accordance with the evaluation criteria set out in the RFP.

The **Plenary Infrastructure ERMF GP** team includes:

- Plenary Group (Canada) Ltd.
- Kiewit Canada Development Corp.
- Bird Capital Limited Partnership
- Bird Design-Build Construction Inc.
- Peter Kiewit Infrastructure Co.
- Honeywell Limited
- Toronto Terminals Railway
- Stantec Consulting
- Arup Canada Inc.
- TD Bank
- Bank of Montreal
- TD Securities

March 27, 2015

Commercial and Financial Close

A project agreement was executed between Her Majesty the Queen in Right of Ontario, Plenary Infrastructure ERMF GP and Metrolinx.

June 2015 – late 2017

Construction Phase

During the construction period, the builder's construction costs will be funded by its lenders in monthly installments based on the construction program set out by Plenary Infrastructure ERMF GP.

Construction will be carried out in accordance with the project agreement. The project will be overseen by a joint building committee made up of representatives from Infrastructure Ontario and Metrolinx.

Completion and payment

Plenary Infrastructure ERMF GP will receive a payment from the Province when the project reaches substantial completion, which is expected at the end of 2017. This payment will be followed by monthly service payments over a 30-year period for construction of the facility, building maintenance, lifecycle repair and renewal and project financing.

2018- 2048

Maintenance

Plenary Infrastructure ERMF GP will maintain the East Rail Maintenance Facility for 30 years and be responsible for building maintenance, repair and lifecycle replacement during that period.

Project agreement

Legal and commercial structure

The Province entered into a project agreement with Plenary Infrastructure ERMF GP, comprising approximately 32 months of site work and construction and a 30-year maintenance timeframe. Under the terms of the project agreement, Plenary Infrastructure ERMF GP will:

- design and build the facility;
- finance the construction and capital costs over the term of the project;
- obtain a third-party independent certification that the facility is built to the requirements of the Province as outlined in the project agreement.
- provide facility management and lifecycle maintenance for the 30-year service period under pre-established maintenance performance standards in the project agreement; and
- ensure that, at the end of the contract term, the building meets the conditions specified in the project agreement.

During the maintenance phase, the Province will make monthly payments to Plenary Infrastructure ERMF GP, based on performance requirements defined in the project agreement. The Province will not commence these payments until the new facility is substantially completed. Moreover, if Plenary Infrastructure ERMF GP does not meet the standards set in the agreement, it will face financial deductions.

The province will make a substantial completion payment of approximately \$309.7 million for the East Rail Maintenance Facility once built. Once substantial completion has been reached, Plenary Infrastructure ERMF GP will be paid an average of \$20.4 million each year for a 30-year period for the maintenance, lifecycle repair and renewal of the facility, as well as project financing.

The East Rail Maintenance Facility will be publicly owned and publicly controlled by the Government of Ontario.

The building and maintenance team will be granted a license to access the site in order to provide the construction and facility maintenance services over the term of the agreement. However, as noted above, the new facility will at all times remain publicly owned and the building and maintenance team are contractually bound to follow the terms of the project agreement.

Facility management and maintenance

Facility management

These are services associated with the day-to-day management of the physical facility, such as maintaining the elevator, electrical and mechanical systems, ventilation systems and other similar maintenance work.

Lifecycle maintenance

Lifecycle maintenance represents the total cost of replacing, refurbishing and refreshing building structure and systems over their useful life. With respect to this project, "lifecycle costs" will involve the replacement of the facility's base building elements that have exceeded their useful life (e.g., floor finishes and certain mechanical and electrical components); these components must be left in a state acceptable to the government at the completion of the 30-year maintenance agreement. Lifecycle costs are typically capital costs.

Construction and completion risk

All construction projects have risks. Some project risks are retained in varying magnitude by the public sector. Examples of risks retained by the public sector under either the AFP or traditional model include planning, unknown site conditions, changes in law, public sector initiated scope change, and force majeure (shared risk).

Under the AFP model, some key risks that would have been retained by the public sector are contractually transferred to Plenary Infrastructure ERMF GP. On a traditional project, these risks and resource availability can lead to cost overruns and delays. Examples of risks transferred to the private sector under the AFP project agreement include:

Design and build price certainty

Plenary Infrastructure ERMF GP will design, build and finance the new facility, and will receive a payment from the government at substantial completion, which is expected at the end of 2017. This payment will be followed by monthly service payments over a 30-year period for building maintenance, lifecycle repair and renewal and project financing.

Plenary Infrastructure ERMF GP's payment may only be adjusted in very specific circumstances, agreed to in advance and in accordance with the detailed variation (or change order) procedures set out in the project documents.

Scheduling, project completion and delays

Plenary Infrastructure ERMF GP has agreed to reach substantial completion of the project by the end of 2017.

The project schedule can only be modified in very limited circumstances, in accordance with the project agreement. Payment to Plenary Infrastructure ERMF GP will not proceed until the facility has been certified as substantially complete by an independent consultant.

Costs associated with delays are the responsibility of Plenary Infrastructure ERMF GP.

Site conditions and contamination

Plenary Infrastructure ERMF GP accepted the site and the site conditions and shall not be entitled to make claims against the Province on any grounds relating to the site. Furthermore, Plenary Infrastructure ERMF GP is responsible for remediation of any contamination at the site that was disclosed in or could have been reasonably anticipated from the environmental report or any of the geotechnical reports, or that is caused by Plenary Infrastructure ERMF GP or any of its parties.

Development approvals

Plenary Infrastructure ERMF GP is responsible for applying, obtaining, maintaining, renewing and complying with all development approvals.

Mechanical and electrical systems responsibility

Plenary Infrastructure ERMF GP shall be responsible for:

- any issues with respect to the functionality, durability, maintainability and lifecycle cost of the mechanical and electrical systems specified in their design, including whether such systems will be adequate to meet the output specifications on a consistent basis for the duration of the operational term; and
- the operation and periodic replacement of all elements of the facility, whether part of the mechanical and electrical systems or otherwise, including finishes, seals, structural components, hardware and building fabric, as required to achieve the output specifications for the duration of the operational term.

Construction financing

Plenary Infrastructure ERMF GP is required to finance the construction of the project until the facility is substantially complete. Plenary Infrastructure ERMF GP will be responsible for all increased financing costs should there be any delay in reaching substantial completion. This shifts significant financial risk to Plenary Infrastructure ERMF GP in the case of late delivery.

Commissioning and facility readiness

Plenary Infrastructure ERMF GP must achieve a prescribed level of commissioning of the new facility at substantial completion and must coordinate the commissioning activity within the agreed-upon construction schedule. This ensures Metrolinx will receive a functional facility at the time payments to Plenary Infrastructure ERMF GP commence.

Activity protocols

Plenary Infrastructure ERMF GP and Infrastructure Ontario have established a schedule for project submittals taking into account the time for review needed by Infrastructure Ontario and Metrolinx's technical advisor.

This protocol mitigates against Plenary Infrastructure ERMF GP alleging delay as a result of an inability to receive responses in a timely manner in the course of the work.

Variation protocol

In addition to the variation procedure set out in the project documents, Infrastructure Ontario's protocols set out the principles for any changes to the project work/scope during the construction period, including:

- requiring approval and processing of variations from Infrastructure Ontario and Metrolinx;
- specifying the limited criteria under which variations will be processed and applied;
- timely notification of variations to Infrastructure Ontario and Metrolinx;
- approval by Infrastructure Ontario and Metrolinx for owner-initiated variations; and
- approval by Infrastructure Ontario and Metrolinx for any variations.

Facilities maintenance risk

As part of the project agreement, key risks associated with the maintenance responsibility (including lifecycle renewal) of the facility over the 30-year service period have been transferred to Plenary Infrastructure ERMF GP. Plenary's maintenance of the building's lifecycle repair and renewal must meet the performance requirements set out in the project agreement. Under the project agreement, Plenary Infrastructure ERMF GP faces deductions to its monthly payments if it does not meet its performance obligations.

In addition to the transfer of the above key risks to Plenary Infrastructure ERMF GP under the project documents, the financing arrangement entered into between Plenary Infrastructure ERMF GP and its lenders ensures that the project is subject to additional oversight, which may include:

- an independent budget review by a third-party cost consultant;
- monthly reporting and project monitoring by a third-party cost consultant; and
- the requirement that prior approval be secured for any changes made to the project budget in excess of a pre-determined threshold.

Achieving value for money

Ernst & Young's Value for Money assessment for the East Rail Maintenance Facility project demonstrates a projected cost savings of 14.7 per cent, or \$144.3 million, by using the alternative financing and procurement approach (AFP) approach in comparison to traditional delivery.

Ernst & Young was engaged by Infrastructure Ontario to independently assess whether – and, if so, the extent to which – value for money will be achieved by delivering this project using the AFP method. Their assessment was based on the value for money assessment methodology outlined in *Assessing Value for Money: A Guide to Infrastructure Ontario's Methodology*, which can be found at www.infrastructureontario.ca. The approach was developed in accordance with best practices used internationally and in other Canadian provinces, and was designed to ensure a conservative, accurate and transparent assessment. Please refer to the letter from Ernst & Young on page 2.

Value for money concept

The goal of the AFP approach is to deliver a project on time and on budget and to provide real cost savings for the public sector.

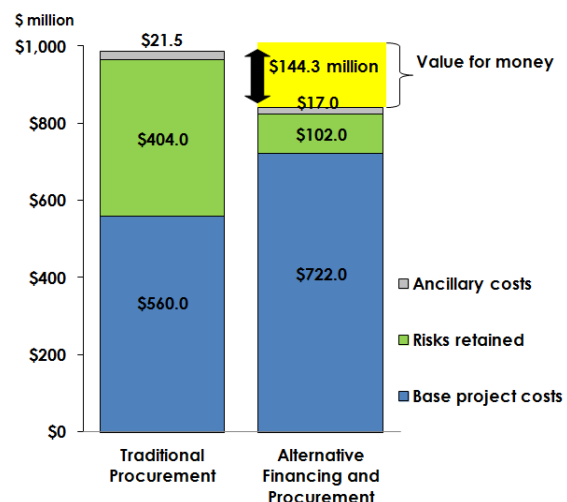
The value for money analysis compares the total estimated costs, expressed in today's dollars and measured at the same point in time, of delivering the same infrastructure project under two delivery models - the traditional delivery model (public sector comparator or "PSC") and the AFP model.

Model #1 Traditional project delivery (Public sector comparator)	Model #2 Alternative Financing and Procurement
Total project costs that would have been incurred by the public sector to deliver an infrastructure project under traditional procurement processes.	Total project costs incurred by the public sector to deliver the same infrastructure project with identical specifications using the AFP approach.

The cost difference between model #1 and model #2 is referred to as the value for money. If the total cost to deliver a project under the AFP approach (model #2) is less than the total cost to deliver a project under the traditional delivery approach (model #1), there is said to be positive value for money. The value for money assessment is completed to determine which project delivery method provides the greatest level of cost savings to the public sector.

The cost components in the VFM analysis include only the portions of the project costs that are being delivered using AFP. Project costs that would be the same under both models, such as land acquisition costs, furniture, fixtures and equipment, are excluded from this VFM calculation.

The value for money assessment is developed by obtaining detailed project information and input from multiple stakeholders, including internal and external experts in project management and construction project management. Components of the total project costs under each delivery model are illustrated below:



Estimated cost savings of 14.7 per cent or \$144.3 million, by using the AFP approach in comparison to traditional delivery.

It is important to keep in mind that Infrastructure Ontario's value for money calculation methodology does not attempt to quantify a broad range of qualitative benefits that may result from using the AFP delivery approach. For example, the use of the AFP approach will more likely result in a project being delivered on time and on budget. The benefits of having a project delivered on time cannot always be accurately quantified.

These qualitative benefits, while not expressly quantified in this value for money analysis, are additional benefits of the AFP approach that should be acknowledged.

Value for money analysis

For a fair and accurate comparison, the traditional delivery costs and AFP costs are present-valued to the date of financial close to compare the two methods of delivering a design, build and finance project at the same point in time. It is Infrastructure Ontario's policy to use the current public sector rate of borrowing for this purpose to ensure a conservative and transparent analysis. For more information on how project costs are time-valued and the value for money methodology, please refer to *Assessing Value for Money: A Guide to Infrastructure Ontario's Methodology*, which is available online at www.infrastructureontario.ca.

Base costs

Base project costs are taken from the price of the contract signed with Plenary Infrastructure ERMF GP and include all design, construction and financing costs. The base costs between AFP and the traditional delivery model mainly differ as follows:

- Under the AFP model, the private party charges an additional premium as compensation for the risks that the public sector transfers to them under the AFP project documents and as compensation for the cost of financing the project using private capital. In the case of traditional delivery, the private party risk premium is not included in the base costs as the public sector retains these risks.

- The financing rate that the private sector is charged under AFP is higher than the financing rate of the public sector.

In the case of the AFP model, the base costs are extracted from the price agreed among the parties under the project agreement. For the East Rail Maintenance Facility project, these were \$721.7 million. If the traditional model had been used, net base costs are estimated to be \$559.7 million.

Risks retained

Historically, on traditional projects, the public sector had to bear costs that go beyond a project's base costs.

Project risks are defined as potential adverse events that may have a direct impact on project costs. To the extent that the public sector retains these risks, they are included in the estimated project cost.

The concept of risk transfer and mitigation are keys to understanding the overall value for money assessment. To estimate and compare the total cost of delivering a project under the traditional delivery versus the AFP method, the risks borne by the public sector (which are called "retained risks") should be identified and accurately quantified.

Comprehensive risk assessment not only allows for a detailed value for money analysis, but also helps Infrastructure Ontario and the public sector sponsors to determine the party best able to manage, mitigate and/or eliminate the project risks and to appropriately allocate those risks under the project documents.

Under the traditional delivery method, the risks retained by the public sector are significant. As discussed on pages 11-13, the following are examples of risks retained by the public sector under the traditional delivery method that have been transferred under the project agreement to Plenary Infrastructure ERMF GP:

- design compliance with the output specifications;

- design and build price certainty;
- scheduling, project completion and potential delays;
- design and build co-ordination;
- site conditions and contamination;
- development approvals;
- construction financing;
- schedule contingency;
- activity protocols;
- mechanical and electrical systems responsibility;
- coordination of equipment procurement installation;
- commissioning and facility readiness; and
- activity protocols.

Examples of these risks include:

- *Design and build coordination/completion:* Under the AFP approach, the developer is responsible for design and build activities to ensure that the facility is constructed in full accordance with the output-based specifications in the project agreement. The builder is responsible for inconsistencies, conflicts, interferences or gaps in the design and build submittals, particularly in the plan drawings and specifications; and for design completion issues that are specified in these design documents but erroneously left out.
- *Scheduling, project completion and delays:* Under the AFP approach, the builder has agreed that it will provide Metrolinx with a completed facility by a fixed date and at a pre-determined price. Therefore, any extra cost (financing or otherwise) incurred as a result of a schedule overrun caused by the builder will not be paid by the Province, thus providing the builder a clear motivation to maintain the project's schedule. Further oversight includes increased upfront due diligence and project management controls imposed by the builder and the builder's lender.

Infrastructure Ontario retained an experienced, third-party construction consulting firm, Altus Helyar,

to develop a template for assessing the project risks that the public sector relinquishes under AFP compared to the traditional approach. Using data from actual projects as well as its own knowledge base, the firm established a risk profile under both approaches for infrastructure facilities. It is this risk matrix that has been used for validating the risk allocation for the specific conditions of the project.

Using the AFP model reduces these risks to the public sector. For example, had this project been delivered using the traditional approach, design coordination risks that arise would be carried out through a series of change orders issued during construction. Such change orders would, therefore, be issued in a non-competitive environment, and would typically result in a significant increase in overall project costs for the public sector.

The added due diligence brought by the private party's lenders, together with the risk transfer provisions in the project documents result in overall cost savings as these transferred risks will either be better managed or completely mitigated by Plenary Infrastructure ERMF GP.

A detailed risk analysis of the project concluded that the average value of project risks retained by the public sector under traditional delivery is \$403.7 million. The analysis also concluded that the average value of project risks retained by the public sector under the AFP delivery model decreases to \$102.0 million.

For more information on the risk assessment methodology used by Infrastructure Ontario, please refer to Altus Helyar's Risk Assessment Template DBFM projects, available at www.infrastructureontario.ca.

Ancillary costs and adjustments

There are significant ancillary costs associated with the planning and delivery of a large complex project that vary depending on the project delivery method.

For example, there are costs related to each of the following:

- *Project management:* These are essentially fees to manage the entire project. Under the AFP approach, these fees will also include Infrastructure Ontario costs.
- *Transaction costs:* These are costs associated with delivering a project and consist of legal, fairness and transaction advisory fees. Architectural and engineering advisory fees are also incurred to ensure the facility is being designed and built according to the output specifications.

The ancillary costs are quantified and added to both models for the value for money comparison assessment. Both project management and transaction costs are likely to be higher under AFP given the greater degree of up-front due diligence. The ancillary costs for the project under the traditional delivery method are estimated to be \$8.9 million as compared to \$17.0 million under the AFP approach.

An adjustment is made when estimating costs under traditional delivery. This adjustment is referred to as competitive neutrality and accounts for items such as taxes paid under AFP that flow back to the public sector and are not taken into account under the traditional model, and private sector insurance premiums that can be used as a proxy for valuing insurance costs when the public sector self-insures under the traditional method. In the case of this project, this adjustment is made by adding \$12.6 million to the traditional delivery costs (i.e. on the PSC side).

For a detailed explanation of ancillary costs, please refer to *Assessing Value for Money: A Guide to Infrastructure Ontario's Methodology*, which is available online at www.infrastructureontario.ca

Calculating value for money

The analysis completed by Ernst & Young concludes that the additional costs associated with the AFP model are more than offset by the benefits which

include: a much more rigorous upfront due diligence process, reduced risk to the public sector, and controls imposed by both the lenders and Infrastructure Ontario's standardized AFP procurement process.

Once all the cost components are determined, the aggregate costs associated with each delivery model (i.e., traditional delivery and AFP) are calculated, and expressed in Canadian dollars, as at financial close. In the case of the East Rail Maintenance Facility project, the estimated traditional delivery cost (i.e. PSC) is \$985.0 million as compared to \$840.7 million under the AFP delivery approach.

The positive difference of \$144.3 million or 14.7 per cent represents the estimated value for money by using the AFP delivery approach in comparison to the traditional delivery model.