

Public Procurement Notice

**A World-Class Integrated
Electric Automated Light Rail
Public Transit Project,
le Réseau Électrique Métropolitain
of Montreal**

May 2016

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1. INTRODUCTION

1.1 OBJECTIVE AND CONTENT OF THE PUBLIC PROCUREMENT NOTICE

CDPQ Infra Inc. (« CDPQ Infra ») has started the planning of a world-class integrated electric automated light rail public transit project including a South Shore Branch (the A10/Downtown Montréal corridor) and a Western Branch (from Downtown Montréal to the Pierre-Elliott-Trudeau airport, Sainte-Anne-de-Bellevue and Deux-Montagnes), hereinafter referred to as the “Project” or the “Réseau Électrique Métropolitain”.

This document, which is open to any party interested in participating in the Project, provides information on the context, scope and Project milestones. You will find:

- In section 1, a brief description of the Caisse de dépôt et de placement du Québec (“the Caisse”) and of CDPQ Infra, a subsidiary of the Caisse that will be in charge of carrying out the Project.
- In section 2, a description of the Project highlights, the planned route and the Project components.
- In section 3, the main Project completion deadlines.
- In section 4, information related to the Project procurement process.

Additional information is available on the CDPQ Infra website using the following links:

- « http://cdpqinfra.com/fr/Reseau_electrique_metropolitain” (French); or
- “http://cdpqinfra.com/en/Reseau_electrique_metropolitain” (English).

An information session will be organized on the date and at the location stated below to address questions from parties interested by the execution of the Project. Questions can also be sent in advance by email at “appro-projets@cdpqinfra.com”.

This information session will be held on June 7th, 2016, from 8h30 to 11h30, in CDPQ Infra’s offices which are located at 1000 place Jean-Paul-Riopelle, Montreal, Quebec, Canada. This information session will also be available through the web for people unable to attend.

All parties wishing to attend the meeting are asked to confirm their participation, either in person or through the web, as well as their names, titles, organizations by writing to “appro-projets@cdpqinfra.com”.

1.2 CAISSE DE DÉPÔT ET PLACEMENT DU QUÉBEC

Created in 1965, the Caisse de dépôt et de placement du Québec (the Caisse) is now one of the largest institutional fund managers in Canada and North America. It is the leading private equity investor in Canada, and is also one of the 10 largest real estate asset managers in the world.

The Caisse serves 34 depositors, which are primarily public and parapublic pension and insurance funds. As at December 31, 2015, its depositors’ net assets totaled \$248 billion (including \$13 billion in the infrastructure portfolio). The infrastructure portfolio includes major investments in the transportation sector, such as the following:

- Eurostar (30% stake) - Eurostar is the primary high-speed train operator in Europe and the only service provider between London and the European continent, carrying more than 10 million passengers annually via the Channel Tunnel.
- InTransit BC (33.3% stake) - InTransit BC is a 35-year concession for subway/light rail service on a 19.5 km transit line connecting downtown Vancouver with the City of Richmond and Vancouver International Airport.

- Heathrow Airport Holdings Limited (12.6% stake) - HAH, formerly known as BAA, is a leading airport operator that owns Heathrow Airport as well as Heathrow Express, the rail link between the Heathrow and Paddington stations in London.

The Caisse's solid financial position has earned it the best credit ratings issued by the following credit rating agencies: Moody's Investors Service ("AAA"), Standard and Poor's ("AAA") and DBRS ("AAA").

1.3 CDPQ INFRA INC.

CDPQ Infra, a wholly owned subsidiary of the Caisse, is a private company incorporated in 2015, under the Quebec *Business Corporations Act*. Its head office is located at 1000 place Jean-Paul-Riopelle, in Montréal, Québec, Canada.

Its principal activities consist in developing, managing and financing major infrastructure projects. The government of Québec and the Caisse have signed a business agreement setting out the general framework and the guiding principles allowing for the realization of infrastructure projects in Quebec. CDPQ Infra can also invest in projects elsewhere in Canada and in other countries, which are not subject to this agreement.

2. THE PROJECT

2.1 PROJECT OVERVIEW

Table 1 presents Project highlights as they are considered at the present time.

Table 1 : Project Highlights

	SOUTH SHORE BRANCH (A10/Downtown Montréal Corridor)	WESTERN BRANCH (Downtown Montreal to Pierre-Elliott-Trudeau Airport, Sainte-Anne-de-Bellevue, Deux-Montagnes)
Size	<ul style="list-style-type: none"> • 15 km of double tracks • 5 stations • 2 bus terminals • 2 park-and-ride facilities • 1.3 km of new cut-and-cover tunnel and 1.6 km of tunnel in the rock 	<ul style="list-style-type: none"> • 52 km of double tracks • 19 stations (including existing stations) • 7 bus terminals (including existing terminals) • 11 park-and-ride facilities (including existing facilities) • 2.5 to 6 kms of new tunnel, depending on preferred options
Chosen technology	<ul style="list-style-type: none"> • Electric light rail type of car • Automated system with no conductors • Platforms approximately 80 m long • Platform screen doors • Power supplied through catenary: 1,500 V • Elevators and escalators in stations • Wi-Fi throughout the network 	
Rolling stock	<ul style="list-style-type: none"> • Fleet of approximately 200 cars upon commissioning • Four-car trains at rush hour; two-car trains at off-peak times 	
Operation as well as regular and long-term maintenance	<ul style="list-style-type: none"> • Automated train operation • Attendants circulating in the trains and stations for information and inspection purposes • Integration of networks and feeder bus service provided by other operators at the stations • Tickets sold through depositaries and integrated into the Opus card or similar technology • Daily inspection, regular and long-term maintenance of rail infrastructure, civil engineering structures and buildings (e.g., rail line and right-of-way foundations, stations, maintenance facilities, storage centres, sub-stations and power cables, park-and-ride facilities, bridges and tunnels) • Regular and long-term maintenance of rolling stock, automated train control system, control centre, platform screen doors and all of the low current and high current systems 	

2.2 PLANNED ROUTE FOR THE PROJECT

Figure 1 shows the planned route for the Project.

South Shore Branch

The planned route is approximately 15 km long with tracks on fully dedicated lanes running in both directions. It begins south-east of the A10/A30 interchange, in the city of Brossard, runs along the centre of highway A10 until the new Champlain Bridge, using the right-of-way for the existing reserved bus lanes on the central median of highway A10, then continues along the central deck of the new Champlain Bridge, which will be reserved for public transit, until Nuns' Island.

After Nuns' Island, the route crosses the channel by way of a new bridge to be built for public transit needs, and then runs along Marc Cantin Street. The elevated route will be progressively lowered before Fernand-Séguin Street where it will enter a tunnel to pass under the CN rail tracks and the Lachine Canal.

In the Peel Basin sector, the route will be raised again and will run parallel to the elevated CN structure towards the west, ending at Central Station in downtown Montréal via the existing railway corridor.

Western Branch

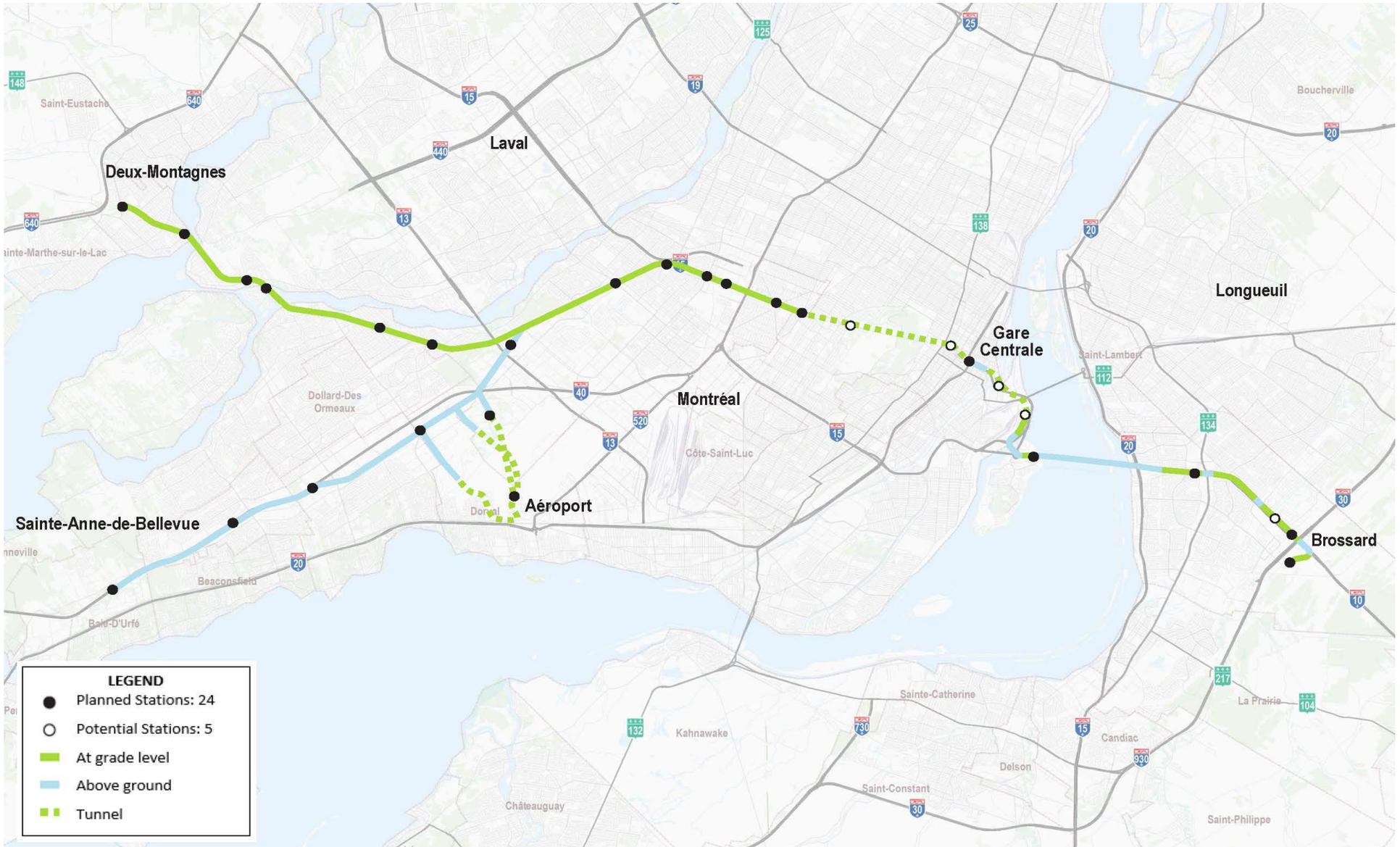
This route relies on use of the Deux-Montagnes line, an existing rail corridor used exclusively by commuter trains. This 33-km rail corridor connects Deux-Montagnes to Central Station, in the city's downtown core, by way of a tunnel under Mount Royal.

This railway corridor, currently used by heavy rail commuter trains, will be transformed to accommodate a light rail train system. This will require the elimination of all railroad crossings and the duplication of the railway tracks to maintain operations during the construction period.

Moreover, this route is to use the existing railway right-of-way and one-third of the Doney Spur property to create two new public transit lines: one to the Pierre-Elliott-Trudeau airport and the other to West Island, running along highway A40. The Doney Spur connects with the Deux-Montagnes line in the highway A13 sector and runs south of highway A40.

Various routes are being examined for the branch towards the Pierre-Elliott-Trudeau airport.

Figure 1 : Planned Route for the Project



2.3 PROJECT COMPONENTS

It is considered for the South Shore Branch that the Project includes the following:

- A terminal at the starting point of the South Shore route, three intermediate stations and one station in Downtown Montréal. Some intermediate stations will allow for buses to make stops without a terminal being built. Entrances will be enclosed and will be heated and air-conditioned. Platforms will be protected from the tracks by screen doors that open only when a train is present. Stations will be equipped with elevators and escalators. The terminals will also be designed to allow for the installation of turnstiles at access points for checking tickets.
- Two park-and-ride facilities and two bus terminals will allow for connections with other bus lines.
- Bike racks for active transportation users.

It is considered for the Western Branch that the Project will make it possible to develop a network of close to 52 km of track dedicated to commuter service. This will include:

- Converting the existing railway infrastructure for the Deux-Montagnes commuter train and its 12 stations to introduce automated light rail transit. The existing stations will have to be refurbished to take into account the smaller size of the light rail train cars. This will require adjustments to the height and width of platforms in all stations, including Central Station. Access points to the new, shorter platforms will have to be optimized according to the location of access points to the parking facilities.
- Construction of an elevated section, almost 16 km long starting from highway A13, to serve West Island through to Sainte-Anne-de-Bellevue, running along highway A40, using some or all of the Doney right-of-way.
- Construction of a section approximately 5.5 km long, starting from Des Sources Blvd., to serve the Pierre-Elliott-Trudeau airport.
- Seven new stations, including five intermediate stations, one terminal in the West Island branch and one station at Pierre-Elliott-Trudeau Airport. As is the case for the South Shore Branch, entrances will be closed and will be heated and air-conditioned (including those for the 12 existing stations of the Deux-Montagnes branch). Platforms will be protected from the tracks by screen doors that open only when a train is present. Stations will be equipped with elevators and escalators. They will also be designed to allow for the installation of turnstiles at access points to check people's tickets.
- Eleven park-and-ride facilities and seven bus terminals (including those of the Deux-Montagnes branch).
- Bike racks for active transportation users.

Components that are common to both corridors:

The Project may also include:

- A control centre for managing all operations in addition to providing information to commuters and ensuring their safety.
- Maintenance and storage facilities for storing trains at the end of the line during non-peak periods as well as during preventive or corrective maintenance operations, and for cleaning the cars and testing rolling stock once work has been completed before putting cars back into service. The facility also includes the operator's administrative offices.
- It will be possible to add additional stations at some locations according to changes in demand and the economic development landscape.

CDPQ Infra will remain the owner of the operating system related assets.

2.4 DIVISION OF RESPONSIBILITIES

The Project procurement process will lead, following requests for qualification, to the issuance of international requests for proposals and the signing of major contracts that may include:

- A contract targeting the infrastructure design and construction work under an Engineering, Procurement and Construction Contract (EPC Contract).
- A contract targeting the supply of rolling stock and systems and the long-term operating and maintenance services for the infrastructure, the rolling stock and the Project assets (RSSOM Contract).

For optimization purposes, one or several additional requests for proposals may also be issued for construction work packages involving certain peripheral work for the Project.

Table 2 presents the proposed division of responsibilities for design, construction, operation, regular maintenance and long-term maintenance activities between the EPC and RSSOM contracts.

Table 2 – Proposed Division of Responsibilities

	Design and Construction	Operation, Regular Maintenance and Long-Term Maintenance
Civil engineering work		
Rail line foundation	EPC	RSSOM
Drainage along the rail line	EPC	RSSOM
Conduit for traction system electrical wiring	EPC	RSSOM
Conduit for low-voltage electrical wiring	EPC	RSSOM
Telecommunications conduit	EPC	RSSOM
Foundations and massive for catenary systems	EPC	RSSOM
Park-and-ride facilities and outdoor lighting	EPC	RSSOM
Bus platform and terminal	EPC	Other
Pedestrian crossing	EPC	RSSOM
Sidewalk	EPC	RSSOM
Modifications to existing infrastructure		
Relocation of utilities	EPC	n/a
Engineering work		
Bridge, overpass and culvert	EPC	RSSOM
Tunnel and related equipment	EPC	RSSOM
Underground pedestrian crossing	EPC	RSSOM
Buildings		
Stations	EPC	RSSOM
Trainsets depot workshop	EPC	RSSOM
Bungalow for electrical sub-station	EPC	RSSOM
Bus terminal	EPC	Other
Maintenance facility	EPC	RSSOM
Control centre building	EPC	RSSOM
Superstructure		
Rails	EPC	RSSOM
Catenary equipment and system	EPC	RSSOM
Sound barriers, security measures and equipment, lighting, etc.	EPC	RSSOM
Rolling stock, systems and related equipment		
Rolling stock	RSSOM	RSSOM
Automatic train control system	RSSOM *	RSSOM
Control centre equipment	RSSOM	RSSOM
Traction power	EPC	RSSOM
Platform screen doors	RSSOM *	RSSOM
Telecommunications	RSSOM *	RSSOM
CCTV systems and surveillance equipment	RSSOM *	RSSOM

* Defined and procured by RSSOM; Installed by EPC.

2.5 KEY REQUIREMENTS FOR QUALIFICATIONS

For informational purposes, certain factors that are critical to the success of the contracts and that may be considered during the request for qualification stage include:

EPC Contract:

- Financial capacity.
- Integrated project management team, approach and experience.
- Team organization, experience, skill level and depth of knowledge.
- Approach to managing issues, risks and related mitigating factors.
- Ability to plan, organize and optimize work performance according to a specific and pre-defined allocation of work packages.
- Ability to perform construction work while maintaining commuter rail service.
- Experience with fully automated rail public transit projects in winter and changing weather conditions similar to the weather conditions of the Montreal area.
- Ability to construct ground-level, elevated, underground and bridged railway structures.
- Ability and experience making it possible to obtain the required environmental authorizations and permits and to carry out work in various types of environments (including in sectors with a high urban density or near highways, in sectors with an historic or a heritage character, across waterways, working with contaminated soil, etc.).

RSSOM Contract:

- Financial capacity.
- Operation of an automated electric light rail line, including its maintenance facilities, operating system, control centre, signalling equipment, train connection and disconnection and other factors.
- Integration of equipment for developing automated electric light rail-type cars.
- Long-term operation and maintenance under winter conditions similar to those of the Montreal area.
- Transformation of an existing rail transportation system.
- Testing and commissioning of the light rail service, which includes obtaining certification for the safe operation of a public transit system.
- Health, safety and environmental considerations.
- Project management.

3. PROJECT COMPLETION DEADLINES

Table 3 presents the principal targeted deadlines for the Project completion.

Table 3 : Timetable

	Deadlines
Public procurement notice	May 2016
Information session	June 7, 2016
Request for qualification for the EPC Contract	July 2016
Request for qualification for the RSSOM Contract	July 2016
BAPE public hearings	August and September 2016
Request for proposals for the EPC Contract	October 2016
Request for proposals for the RSSOM Contract	October 2016
Receipt of proposals for the EPC Contract	December 2016
Receipt of proposals for the RSSOM Contract	December 2016
Financial close for the EPC and RSSOM Contracts	March – April 2017
Beginning of work for the EPC and RSSOM Contracts	May 2017
Beginning of commercial service	December 2020

4. PROCUREMENT PROCESS

Governance and procurement process requirements will be structured in accordance with industry best practices so as to ensure that all interested parties receive fair, transparent and impartial treatment.

Two process auditors have been tasked with overseeing the procurement process and the selection of the winning contractors. Moreover, business relationships and conflicts of interests will be reviewed at each stage of the Project.

Specific components of the proposals will be evaluated by independent sub-committees comprised of internal and external evaluators. These evaluation sub-committees will provide specific recommendations which will be reviewed by a selection committee responsible for quality control, compliance and the elaboration of final recommendations.

CDPQ Infra will issue requests for qualification and proposals that include evaluation criteria and their weights.

4.1 AUTHORIZATION OF THE AUTORITÉ DES MARCHÉS FINANCIERS

Parties interested in presenting a proposal in response to a request for proposals in the context of the Project, along with their partners and subcontractors, will have to obtain beforehand an authorization from the Autorité des marchés financiers (AMF). Since obtaining this authorization can take some time, it is strongly recommended that potential bidders, along with their partners and subcontractors, take these steps as early as possible.

As part of the request for qualification, a respondent who has obtained the AMF authorization will be required to submit such authorization for its members and participants. A respondent who has not yet obtained the AMF authorization will be required to commit to providing such authorization for its members and participants when submitting its proposal.

The AMF provides a guide to Quebec-based and other enterprises to assist them in preparing their application for authorization. This guide is available via the following links:

- In French: <https://www.lautorite.qc.ca/files/pdf/contrats-public/guide-accompagnement-fr.pdf>.
- In English: <https://www.lautorite.qc.ca/files/pdf/contrats-public/guide-accompagnement-an.pdf>.

Other relevant information for preparing an application for authorization to be submitted to the AMF includes:

Type of Applicant	Source of Information	Website
Quebec-based enterprises	Application for authorization to be submitted using the AMF's on-line services.	https://www.lautorite.qc.ca/fr/services-en-ligne-autre.html (bilingual website)
Foreign enterprises or enterprises based in another province of Canada (1)	Application for authorization to be completed by hand	https://www.lautorite.qc.ca/fr/entreprises-etrangeres-cp.html (French website) https://www.lautorite.qc.ca/en/foreign-enterprises-pc.html (English website)

(1) *Foreign enterprises or enterprises based in another province of Canada include enterprises that are not constituted under the laws of Quebec and that do not have their head office or an establishment in Quebec where they primarily conduct their activities.*

4.2 REGISTER OF ENTERPRISES INELIGIBLE FOR PUBLIC CONTRACTS

The Register of enterprises ineligible for public contracts (Registre des entreprises non admissibles aux contrats publics, or RENA, in French) includes the names of enterprises that have committed an infraction as set out in Schedule 1 of the *Act respecting contracting by public bodies* (RSQ, Chapter C-65.1) (the ACPB). In addition, the ACPB also provides that the names of enterprises that are refused authorization by the AMF to enter into public contracts or subcontracts, or that have their authorization revoked, will be included in the register. Once an enterprise's name has been included in the register, the enterprise cannot be awarded a public contract or subcontract or continue to work on a contract already in progress.