IMPLEMENTATION OF A PUBLIC TRANSPORTATION NETWORK FOR QUEBEC CITY (TRAMWAY COMPONENT)

MANDATE

The Structuring Transit Network (RSTC – Réseau structurant de transport en commun) Project is part of the priorities of the governments of Quebec and Canada with respect to sustainable mobility. This public transit network development in the Quebec agglomeration is comprised of:

- One tram line;
- An east-west articulated bus route on open exclusive bus lanes.
- Transit-only lanes on open exclusive right-of-way with preferential measures;
- One major and complete overhaul of the transit system.

The Tramway Line

The 22-km tramway line will include 33 stations (including 3 underground ones), 1 tunnel, 1 maintenance and operation centre and 3 intermodal transportation hub. The system will include:

- Important, comfortable and sustainable infrastructures: stations, dedicated lanes, intermodal equipment and user information systems;
- Measures that ensure its reliability by giving it priority over other modes of transport;
- A high frequency, i.e. every 4 minutes during rush hour. The maximum interval will be 12 minutes between 2 passes;
- High capacity and commercial speed.

DESCRIPTION

Planning Phase (ongoing)

With a view to carrying out a pre-project design of the Québec City tramway system, enabling it to move on to the implementation phase by responding to the specific needs of the Québec City agglomeration, SYSTRA Canada is assisting the RTC and the City in the preliminary project design and to identify the methods and processes of maintenance and operation of the tram system.

CONFIDENCE MOVES THE WORLD
The purpose of the services is to ensure that the best design decisions are made, both in terms of the scope of the project and its cost and timeline. Preliminary design decisions for which consulting services are expected cover all components of a tramway system.

SYSTRA’s mandate consists in the overall owner’s engineer role for the tramway system, and more precisely:

- Activities related to drafting of business plan, ridership, validation of mode (tram vs metro);
- Assisting in the obtention of the various regulatory approvals, including environmental approval;
- Defining the master schedule, including construction schedule;
- Drafting of preliminary operating plan;
- Definition of functional specifications of the tramway system;
- Development of preliminary design of the system;
- Drafting of reference concept design and associated specifications for upcoming procurement of D&Bs;
- Review of specifications the infrastructure package.

Execution Phase

During the execution phase, SYSTRA’s role will consist in:

- Technical and organizational assistance in the overall management of project execution (detailed studies, works, testing);
- Management of the integration and interfaces of the transport system;
- Overall assistance in the testing and commissioning of the system;
- Assistance in the future operation of the tramway by the Owner.
**Operation Phase**

The operation of the new RSTC must promote integrated management of safe and efficient travel for the users. Therefore, the information on bus movement flows and detours, as well as events on the network, must be centralized to ensure the regulation, reliability, event management and safety of tramway operations, high-frequency trails and other types of bus travel in the agglomeration of Québec.

The project will bring about significant changes in many of the operational and security processes.

More specifically, SYSTRA Canada’s assistance will aim at:

- Enabling the acquisition of the skills required to control the operational performance of the new system;
- Integrating through integrated process all the operations necessary for the operation and regulation of the tramway;
- Establishing the optimum operating procedures for overall management and integrate the operation of the system;
- Structuring, organizing and deploying a transition plan for the shift to operation;
- Ensuring and facilitating the integration of new modes of transport in operation;
- Establishing procedures related to the safety issues of the customers on board and the boarding platforms of the tram and to other users of public roads (pedestrians, cyclists and motorists);
- Analyzing current regulations and, if necessary, make recommendations for the required amendments or new legislation.