PNWER Summit - Successful Leadership in Public Private Partnerships Session
Mass Transit: The Canada Line
SNC-Lavalin – A global fully integrated professional services and project management firm

$8.5 billion in revenues

$10.7 billion backlog

Listed on the Toronto Stock Exchange (TSX: SNC)

SNC-Lavalin acquires Atkins

The acquisition of WS Atkins plc creates a global fully integrated professional services and project management company – including capital investment, consulting, design, engineering, construction, sustaining capital and operations and maintenance. Together, we will have over 50,000 employees and annual revenues of approximately C$12 billion.
The Canada Line

Connecting downtown Vancouver, the city of Richmond and Vancouver Airport

18.5 km
3 water crossings
16 stations

Since operation began in 2009
99.91% System Availability
99.74% Punctuality
> 300,000,000 passengers since 2009
Average weekday ridership of 128,000

1.9 billion p3 project (2003 Dollars)
Delivered over 3 months ahead of schedule
31 years of O&M
Public Private Partnership Structure

- **Concession Agreement**
  - **CLCO/TransLink***
    - **Public Funding (Federal, Provincial, YVR & GVTA)** $1.33 billion
  - **Concessionaire**
    - **INTRANSIT BC**
    - **SNC-Lavalin (33.3%)**
    - **bcIMC (33.3%)**
    - **CDPQ (33.3%)**
  - **Debt Providers** $600 million
  - **Equity Providers** $120 million
  - **Design Build Agreement**
    - **Design/Builder**
      - **SNC-Lavalin**
  - **Operating Agreement**
    - **Operator**
      - **ProTrans BC (SNC-Lavalin O&M)**

* South Coast British Columbia Transportation Authority (TransLink)

2005 CAD $
The Canada Line

› The Canada Line is the first air-rail link in Canada
› Automated light rail rapid transit system linking downtown Vancouver with both Richmond and Vancouver International Airport.
› Designed, built, operated and maintained by SNC-Lavalin
› Construction commenced in August of 2005.
› Opened on August 17, 2009, 3 months ahead of schedule.
Elevated in Richmond, on airport lands and in Vancouver to 63rd Ave.

At-grade section on airport lands

Cut & cover tunnel, side by side conf.

Cut & cover tunnel, stacked configuration

Bored tunnel

18.5 km fully automated system
7.6 km elevated
1.8 km at-grade
9.1 km underground
16 stations (6 elevated, 2 at-grade, 8 underground)
3 water crossings (2 bridges, 1 tunnel)

Project Alignment
Construction Methods

› Bored Tunnels

› Cut & Cover Tunnels

› Elevated & At-grade Guideways
Operations

Operated by Protrans, a wholly owned subsidiary of SNC-Lavalin Inc.

- Operator of the Canada Line
- 4 years mobilization
- 31 years O&M

Headquartered- Canada Line OMC in Richmond

Resources
- 207 FTE employees,
- BCGEU representative union
- Subcontracted 100
A highly used, transformative project

› Highest single day ridership: 287,379 during the 2010 Olympics
› Daily Canada Line boarding’s at **YVR station in 2009: 5,400 In 2015: 7,800 (44% growth)
› 85% ridership growth expected by 2045
› Transportation capacity of the Canada Line is equivalent to 10 lanes of commuter traffic
› Has taken thousands of cars off the roads eliminating 16,800 tonnes of greenhouse gas emissions annually
› Significant and ongoing development around stations
Canada Line
Contract Structure & Financing

- The first transit PPP in Canada
- DBFOM
- 35-year Concession Agreement
- Construction Payments: Milestone
- Operating Payments: Performance
- Public: fares, faregates, police, bus integration
- Private: build, partially finance, operates and maintain all assets (including vehicles)

$92 million of value for money using the P3 model versus the public sector comparator
Funding Partners

FUNDING $2.05 B (2005 CAD)

- Federal: 22%
- YVR (Airport): 13%
- TransLink: 17%
- Province: 12%
- City of Vancouver: 1%
- Private Partner: 35%
Performance-based payments

- Availability (70%)
  - Getting Passengers from A to B on Time
  - Peak Vehicle Availability
  - Off-Peak Vehicle Availability
  - Station Availability

- Quality (20%)
  - Providing a Pleasant Journey
  - Vehicle Quality
  - Station Quality

- Ridership Volume (10%)
  - Year-over-Year Ridership Growth

### Operating Performance

<table>
<thead>
<tr>
<th>Operating Performance</th>
<th>Q4 2016 Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability</td>
<td>100%</td>
</tr>
<tr>
<td>Quality</td>
<td>99.7%</td>
</tr>
<tr>
<td>Ridership Volume</td>
<td>&gt;100%</td>
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A P3 model that works

The public sector received a project that:
   › Was delivered early within committed contract price
   › Provided full risk transfer during construction
   › Compensates operator based on meeting performance criteria
   › Has operated successfully for >7 years

The P3 contract model accommodates system flexibility:
   › New stations being added
   › Fare gate system installed by owner
   › New vehicles (federally funded) being added to system

The project has been a showcase for several cities and transit authorities that are interested in the P3 model for transit projects
Awards

› International Bridge Conference – Gustav Lindenthal Medal for Outstanding Achievement (Fraser River crossing, first extradosed bridge in Canada)
› Engineers Canada – 2011 National Award for an Engineering Project of Achievement
› GARA’s – 2011 Service of the Year Award
› Canadian Consulting Engineer – Schreyer Award for most technically innovative product
› Illuminating Engineering Society – Energy and Environmental Design Award of Excellence
› Consulting Engineers of BC – Lieutenant Governor’s Award for Transportation Engineering Excellence
› CCPPP – 2009 Innovation & Excellence, Gold Award
› Project Finance International Awards – 2006 Infrastructure Deal of the Year (America’s)
› Euro Money Project Finance Magazine – 2005 North American Transport Deal of the Year
Values that guide us

**Teamwork & excellence**
We’re innovative, collaborative, competent and visionary.

**Customer focus**
Our business exists to serve and add long-term value to our customers’ organizations.

**Strong investor returns**
We seek to reward our investors’ trust by delivering competitive returns.

**Health, safety, security and environment**
We have a responsibility to protect everyone who comes into contact with our organization and the environment we work in.

**Ethics and compliance**
We’re committed to ethical business.

**Respect**
Our actions consistently demonstrate respect toward our stakeholders.