CITY OF MIAMI BEACH

Light Rail/Modern Streetcar Project in Miami Beach

RESPONSE TO PRD 2016-071-KB

June 16, 2016

www.connectmiamibeach.com

THE FUTURE IS
Agenda

1. Who is Connect Miami Beach
2. What does the Connect Miami Beach bring to YOU
3. Technology solution
4. Costs/Vehicle Views/Stations
5. Design-Build Approach
6. Schedule
7. Financing
8. Communication
9. Conclusion
10. Questions & Answers
Who is CONNECT MIAMI BEACH

We are a Prime Respondent
(Lead Investor - Lead Operator - Lead Maintenance)

Lead Contractor

Lead Designer

Systems Integrator

Vehicle/Systems Supplier

Dedicated Subcontractors

Rolling Stock Maintenance

Financial Advisor

Legal Advisor

Strategic Advisor

Comms & Public Outreach
What does CONNECT MIAMI BEACH bring to YOU

60 DBFOM projects delivered
16 rail DBFOM projects delivered on time and within budget
Rail construction experience all around the world
LRTs built on four continents
82 accumulative years of Experience with Revenue Operations
47 Projects in which team members have collaborated

What does CONNECT MIAMI BEACH bring to YOU
780M passengers have travelled safely, reliably and 110M on CAF’s wireless streetcar

679 train units delivered in 38 countries

3 projects under wireless revenue operations (3 more will come shortly)

Maintenance over 150 LRT’s/Streetcars

What does CONNECT MIAMI BEACH bring to YOU
What sets the State-of-the-art, proven, interoperable, fully wireless streetcar technology...
The perfect solution for Miami Beach!

CAF URBOS Streetcars

Streetcar Platform:
- Service PROVEN PLATFORM all over the world (including Kansas City and Cincinnati)
- **100%** low floor with **ON BOARD** energy storage system
- U.S. standards **COMPLIANT**
- Vehicles are **MODULAR** to meet growth with minimal cost

**5 MODULE**
CAF URBOS Wireless Streetcars

Wireless Streetcar Technology
- Powered by a modular Onboard Energy Storage System (OESS)
  - Supercapacitors and batteries technology
  - Able to recover braking energy
  - Overhead recharge at stations
  - 20 seconds for charging
  - Overhead charging
    = NO THIRD RAIL SHOCK HAZARDS

CAF URBOS Wireless Streetcar best Value for Money to clients worldwide
- Savings in power supply equipment, reduced substructure and infrastructure costs
- Third Rail the most expensive catenaryless technology to build and maintain
  - Bordeaux’s third rail segment (23% of total length) costs more to maintain than the other 77% non-APS segments combined
- URBOS energy efficiency enhanced by its onboard regenerative braking system
  - 25% energy saving

Overall investment of an APS system consists of:
(a) Cost of power supply equipment : 7 times higher
(b) Cost of rolling stock : 10-15% increase
(c) Costs related to superstructure and substructure : 4 times higher
The Environmentally Resilient Solution

Overhead Charging Technology only environmentally resilient solution for areas prone to flooding due to storms or sea level rise:

- No Electrical Equipment at or below ground Level
- Sea water creates operational and safety issues for third rail systems, deteriorating utilities at a high cost to the City
  - The City of Miami Beach is already spending $400M mitigating flooding and sea level rise

Proven technology in climates similar to Miami Beach
- CAF’s experience in cities with similar climate conditions e.g. Kaohsiung (Taiwan), Seville, Zaragoza
Wireless Experience

Wireless Technology in Revenue Service for 12 years (110 million passengers)
- Seville – Overhead Charging
- Zaragoza – Ground Level and Overhead Charging
- Kaohsiung – Overhead Charging

On-going Projects (Granada, Birmingham and Luxembourg)

Overhead vs. Third Rail Safety

Third Rail Technology is subject of FTA Safety Advisory 16-2 circular - issued May 16, 2016
- FTA has detected ongoing safety hazards associated with third rail traction power equipment (TPE)
- FTA requires all agencies to reports back on safety hazards and incidents
- This adds certification schedule and cost risk to third rail providers, in addition to O&M cost burden
- CAF URBOS overhead charging unaffected by FTA Safety Advisory-no schedule or cost overrun risk.

Overhead charging technology safer than Third Rail

“The safety performance of these rail contact TPE systems can deteriorate with age, inattention, and exposure to environmental conditions.”
The Only Unconditionally Interoperable Solution

Wireless technology fully interoperable and scalable
- Expandable to meet growth within Miami Beach over long-term
- Compatible with the options being reviewed for the broader Baylink project (wired or wireless)

CAF does NOT use proprietary technology
- Other vehicle manufacturers could operate their vehicles in our proposed infrastructure
- No limitation on vehicle length
- The City not forced into sole source

Modern, aesthetically pleasing interior design
- High degree of passenger comfort
- Vehicle fully customizable to meet the vision of City
- 100 % Low Floor throughout the length of the vehicle
- ADA Compliant:
  - Level-boarding doors
  - Fully accessible at all doors
  - Priority Seating
  - Wheelchair areas
- Fully accessible for bicycles or baby strollers
Station View
### Design-Build Team

**Lead Contractor**
- OHL Community Asphalt
- COMSA

**Lead Designer**
- ATKINS

**Systems Integrator**
- SENER

**Vehicle/Systems Supplier**
- CAF

**Dedicated Subcontractors**
- RAILWORKS

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### Local

**We are already part of the community**
- We **HAVE/ARE** building in the City now
- We have **LOCAL** resources
- We **KNOW** the local Subcontractors
- We are **TAXPAYERS** and this is **OUR** community

**Our familiarity with the City and the landscape is an economic advantage for the Project**
- Atkins – 56 years
- OHL-Community Asphalt – 36 years
- OHL-Arellano – 40 years
  - 7 projects in Miami Beach in last 12 years

**+2,000 Local Employees**
Reliable Construction Team

Local resources
- Personnel
- Offices
- Plants
- Quarry
- Equipment

Local knowledge
- Local regulatory agencies
- Local utility awareness & coordination
- Soil and weather conditions
- Comprehensive Resiliency Program

Local relationships
- Stakeholders
- Excellent subcontractor relationships
- Purchasing power
- Knowledge of local market
- Excellent SBE/DBE track record
- Maximum local workforce

Successful Track Record

Design-Build Team

Significant Design Build Experience
- Delivered 31 DB projects over the last decade
- +$1.8 Billion
- 18 LRTs
- 2 DB finance/unsolicited proposal
- Design-Build philosophy – ONE TEAM
**Significant Local Projects**

- DBF 826/836 Interchange
- AirportLink/Orange line Metrorail Extension
- I-75/Heft Interchange
- DB 826/I-75 Express Lane
- DB Florida Turnpike Service Plazas
- All Aboard Florida Passenger Rail
- Miami Beach Projects:
  - La Gorce Country Club House
  - Lincoln East Garage
  - Miami Beach Multi-Purpose Garage
  - Alton Road MOB, retail, and parking
  - Lincoln Road 5 story mix use

**Proven Design Team**

- Local full-service team
- Long-term partnerships
- Leader in FL transit, environmental, and ITS
- Global transit/rail practice
- Expertise in alternative delivery
- DBE outreach program
- Integration with partners/subs
Construction Priorities

- Safety
- Access – minimize disruption to local business & public
- Maintenance of traffic
- Coordination with adjacent projects

- Flexible proactive approach to build phase 1 and phase 2 simultaneously, if necessary
- Integrated project delivery process
- Single point of accountability
- Committed schedule

ALTON ROAD SAMPLE CONSTRUCTION AREA

Design-Build Team
Delivering the Project

- We can deliver this project on-time, within budget
- Stream-lined negotiation of Project Agreements

Schedule

Development to Day 1 Operations

- Development Period: 8.5 Months
- Financial Close: 1 Month
- Phase 1 Construction: NTP +32/33 months
- Phase 2 Construction: 4-7 months following Phase 1
Financing

- Societe Generale is ranked #1 in U.S. project finance advisory
- Strong Financial Capability across the Team
- Streamlined approach to reaching Financial Close
Approach to Project Financing

- Market-tested approach
  - Optimizing risk allocation
  - Tapping all funding options
- Financial objectives:
  - Minimizing costs and maximize value
  - Selecting funding solutions early
  - Streamlining lenders’ due diligence process
  - Negotiating full term-sheet approach
  - Minimizing activities between Comprehensive Agreement and Financial Close
Communications

- Inclusive and comprehensive communication plan
- Create a platform for information, education, and transparency
- Groundwork laid for extensive use of social media - website (up and running), Facebook and Twitter (domains reserved and accounts active)

+67,000 people reached from social to website
+800 unique website visitors
+800 Likes
+70,000 post reach
+4,000 post engagement
+2,800 clicks to website

Over 300 Companies/Organizations have viewed our site
Why Connect Miami Beach

1. Extensive experience
2. Best Technology
3. Sustainable Resilient Solution
4. O&M Expertise
5. Financial Strength/Capacity
6. Local
7. Proven
8. Collaborative
9. Lowest Cost Solution
10. State-of-the-Art Global Solution for the City of Miami Beach