
MIAMI BEACH
MOBILITY PARTNERS

# AGENDA

01 Management & Organization

02 Financial Approach & Capacity

03 Design, Construction, Operations & Maintenance

04 Vehicle System Supplier

05 Why MBMP?

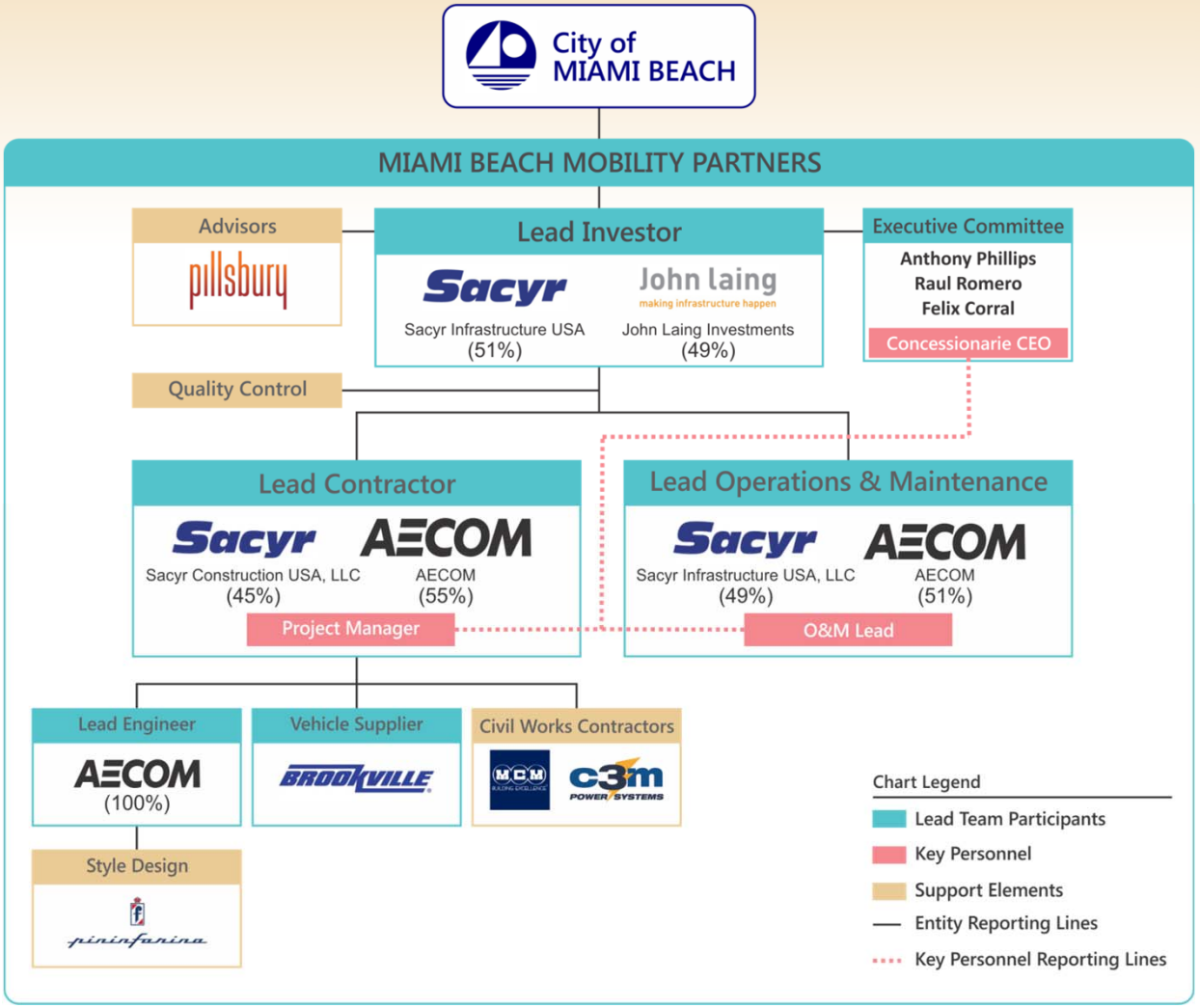
MIAMI BEACH
MOBILITY PARTNERS

# 01

# Management & Organization

# Team Organization

MIAMI BEACH
MOBILITY PARTNERS



# We've Committed the Best in the Industry to Deliver Your Project

Arnon Klein

Financing Lead

Anthony Phillips

Executive Committee

Raul Romero

Executive Committee

Felix Corral

Executive Committee

Fernando Castro

Bid Manager

John Thompson

Technical Director

Greg Evans

Design
Quality Manager

Everette Adams

Independent
Quality Manager

Fernando Rodriguez

Legal Advisor

MIAMI BEACH
MOBILITY PARTNERS

Edward F. Hrinewski, STS

Project Manager
(Construction)

Bill Houppermans, PE

Design Manager

Mickey Geiser

Lead
Design Engineer

Karl Niedzwecki

Construction
Manager

Steve Vecerina

Operations &
Maintenance

# Panama Canal Expansion

## Case Study

- 4.5 million cubic meters of structural concrete.
  - 2 Egyptian pyramids
- 220,000 tons of steel reinforcement.
  - 22 Eiffel towers
- 81 million cubic yards of excavation.
- 7.1 million cubic meters dredged material.
  - Enough to fill 2,840 Olympic swimming pools.
- 16 gates (the largest being 33 meters in height and with a weight of 4,300 tons)
- More than 10,000 highly-qualified workers at all levels

# Panama Canal Expansion

## Case Study

- The new locks fill and empty more rapidly, 7% less water; the nine lateral basins employed for the reuse of water make it possible to save up to 60% of this precious commodity.
- Unique design, manufacture, transfer and installation of the new gates (16 in total), of enormous dimensions and requiring a meticulous installation,


MIAMI BEACH
MOBILITY PARTNERS

# 02

# Financial Approach & Capacity

# Contract Negotiation and Financial Plan Execution

**Interim Agreement**

- Business Plan with financial feasibility confirmed
- Risk Matrix outlining principles of risk transfer
- Scope of Work with Schedule and Key Milestones

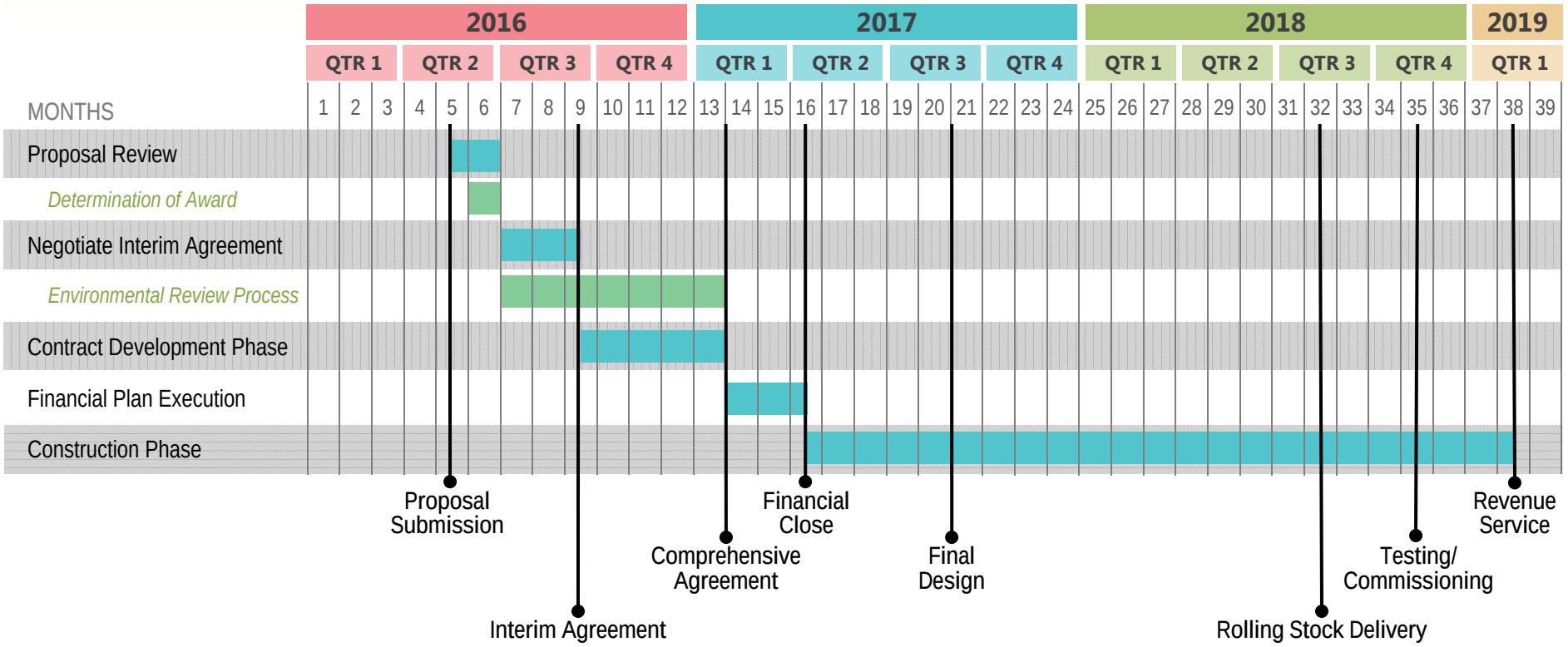
**Comprehensive Agreement**

- Design and Construction Obligations
- Light Rail Vehicle (LRV) Specifications
- Operations and Lifecycle Maintenance Performance Standards

**Financial Plan**

- Project Equity ~ $20 - $30 million
- Milestone Debt Facility ~ $80 - $120 million
- Long-term Debt Facility ~ $80 - $120 million

# Estimated Schedule



# Denver Eagle P3

## Case Study

- Design, Build, Finance, Maintenance and Operation of two new commuter rail lines in the Denver Metropolitan area
  - East Line, 23 mile route to airport
  - Gold Line, 11 mile route to western suburbs
- Deliver and operate the entire rail system, from civil works and structures right through to the rolling stock and related systems

| Client: | Regional Transportation District (Denver, CO) |
|---|---|
| John Laing Interest: | 45% equity stake |
| Contract Value: | $1.55 billion |
| Contract Term: | 30-year operating term following 6-year construction |
| Contract Status: | Operations (Line 1) |

# I-4 Ultimate

## Case Study

- Design, build, finance, maintenance and operation of new express lanes along a 21 mile section in Orlando
  - Reconstruction of 15 major interchanges
  - Construction of 145 bridges
- Operations, maintenance and lifecycle of the full right of way, including O&M during construction

| Client: | Florida Department of Transportation (Orlando, FL) |
|---|---|
| John Laing Interest: | 50% equity stake |
| Contract Value: | $2.3 billion |
| Contract Term: | 30-year operating term following 6-year construction |
| Contract Status: | Construction |

MIAMI BEACH
MOBILITY PARTNERS

# 03

## Design, Construction, Operations & Maintenance


**Innovative track slab design:**
reduced cost and saves time

**Construction Sequence to minimize community disruption/outreach:**
keeps businesses open, streetcar program becomes part of the community fabric, maintains vehicular and pedestrian traffic, ensures public safety during construction.

1 2 3 4

MIAMI BEACH
MOBILITY PARTNERS

**We Will Deliver**

**Utility coordination & leave in place where possible:**
reduces impact to the third-party utilities, saving cost and minimizes schedule risk

**Design & Construction begins with O&M in mind:**
ensures quality and maintainability in finished product, minimizes risk of delays achieving rail activation

# We Design to Budget

## Our Approach

- Establish baseline design
  - Retrofit where possible
  - Look for efficiencies
  - Establish project scope (60%)
- Analyze each design element
  - Essential
  - Ancillary
  - Discretionary / betterments
- Design with construction approach in mind
  - Minimize scope
  - Minimize disruption
  - Public outreach


Minimize construction footprint

# Construction Sequencing to Keep Businesses Open

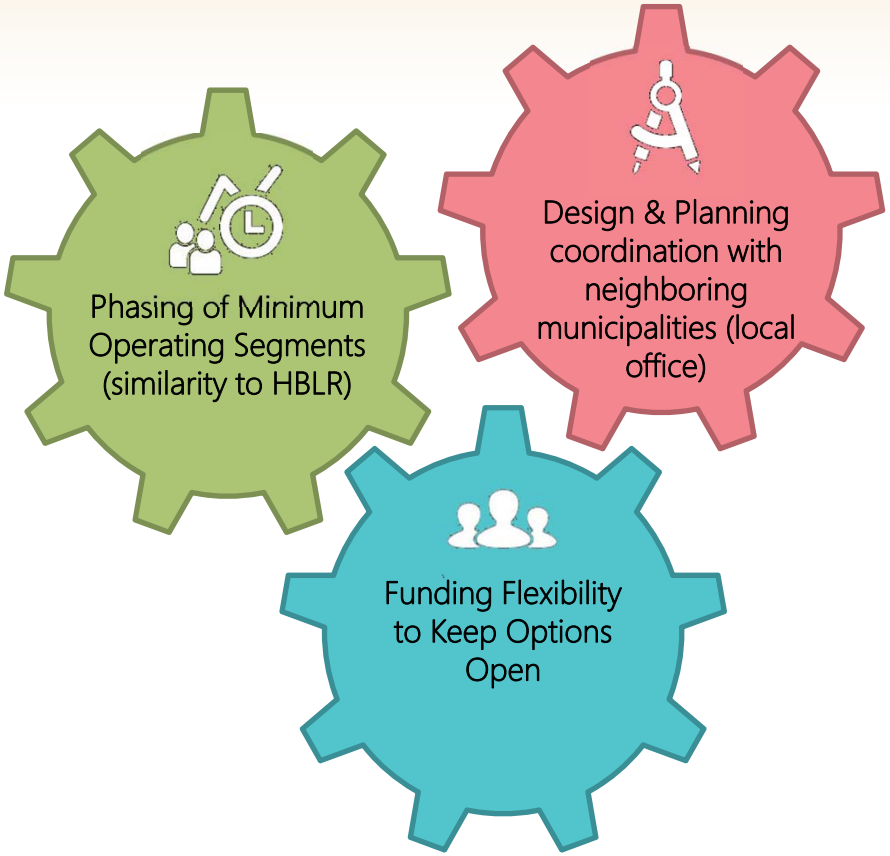
# Built to Integrate with the Fabric of the Community

- Two Phased Approach
- Streetcar to Operate in Exclusive Lanes
- Catenary-free / Off-wire Technologies
- Bi-directional Loop
- Interoperable with Future Extension to Miami

# Built to Integrate with the Fabric of the Community

- Two Phased Approach
- Streetcar to Operate in Exclusive Lanes
- Catenary-free / Off-wire Technologies
- Bi-directional Loop
- Interoperable with Future Extension to Miami

# Keeping Options Open for Future Expansion



# Hudson-Bergen Transit System
## Case Study

- It is the largest public works program in New Jersey history as well as the first and largest completed DBOM transit project in the United States.

- With a weekday daily ridership of over 52,000, the success and contribution of the HBLR is clearly demonstrated by the enormous growth of commercial and residential development in this formerly depressed area along the Hudson River waterfront.

| Client: | New Jersey Transit Corporation (Hudson County, New Jersey) |
|---|---|
| AECOM Role: | Designer, Constructor, Operator, Maintainer |
| Contract Value: | $2.25 Billion |
| Contract Term: | 30-year operating term following 6-year construction |
| Contract Status: | NTP: 1996 DB: 1996 to 2011 O&M: 2000 to 2020 |

# Rail Activation & Transition to Operations – A Unique Approach

**Engineering Start-up**
- System Level Tests
- Integrated Tests
- Operational Tests

**Activation**
- Develop Operational Rulebooks, Maintenance Plans & Special Instructions
- Hire, Train & Certify staff
- Plan for Special Events & interrupted service
- First Responder drills and exercises
- Operational Demonstration & Shakedown

**Safety Certification**
- Demonstrate & Certify that system is safe to enter into revenue service

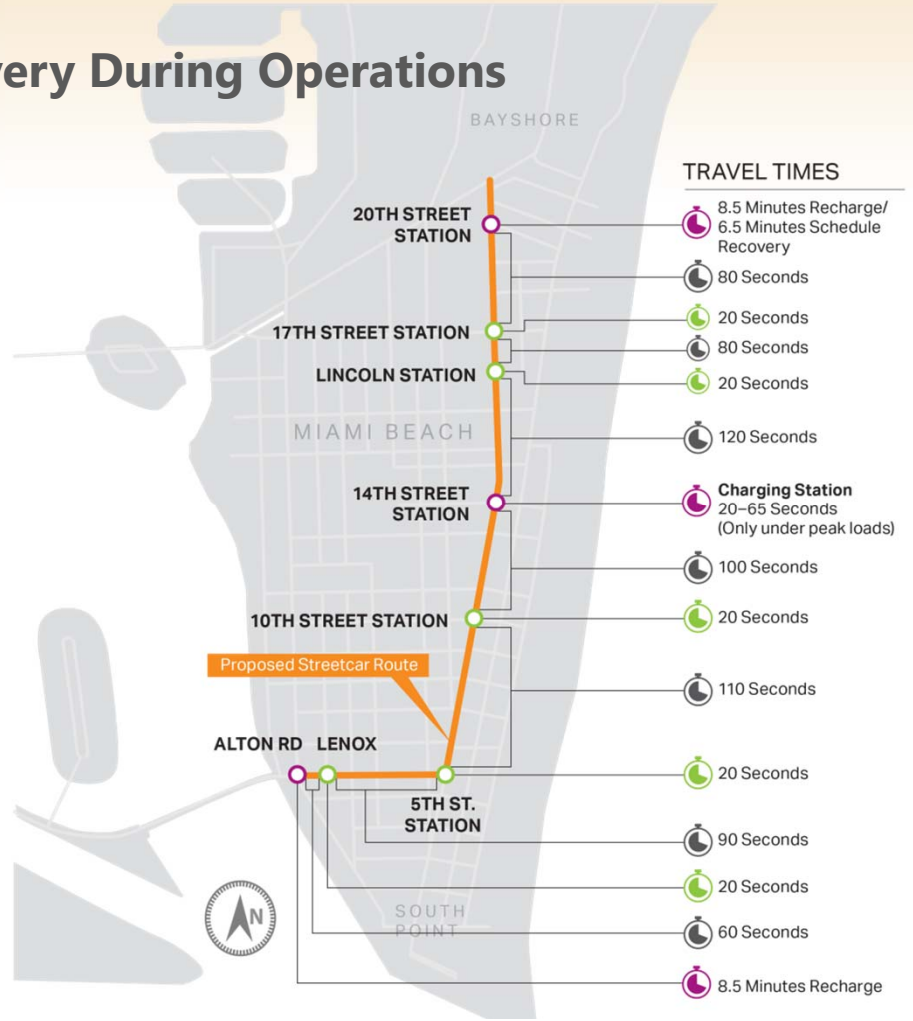
## Red Phase
- Qualify first vehicle

## Orange Phase
- Commission balance of vehicles
- Validate rulebook & maintenance practices

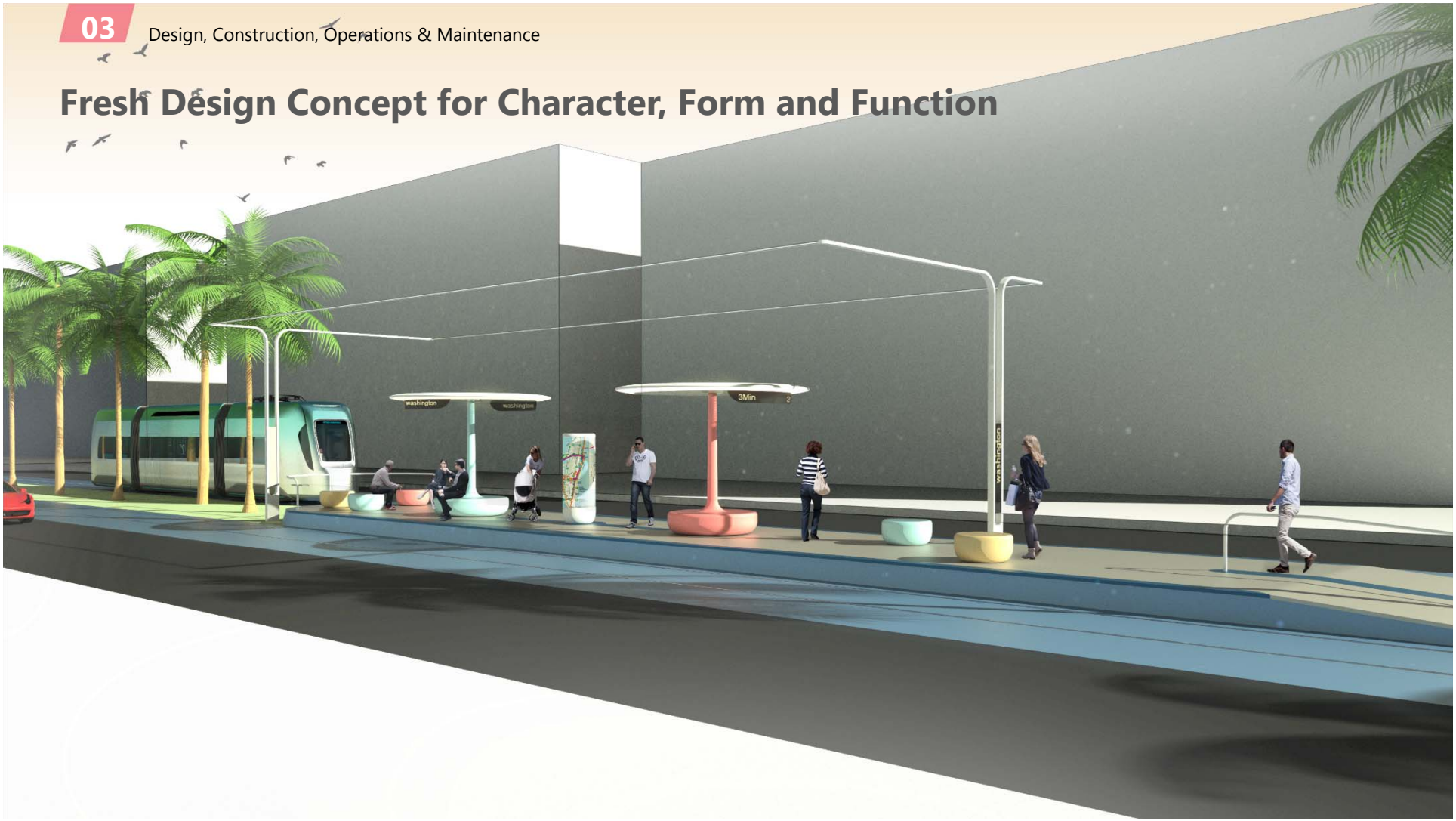
## Blue Phase
- Train & Certify Operators

## Green Phase
- Complete remaining integrated testing over entire system length

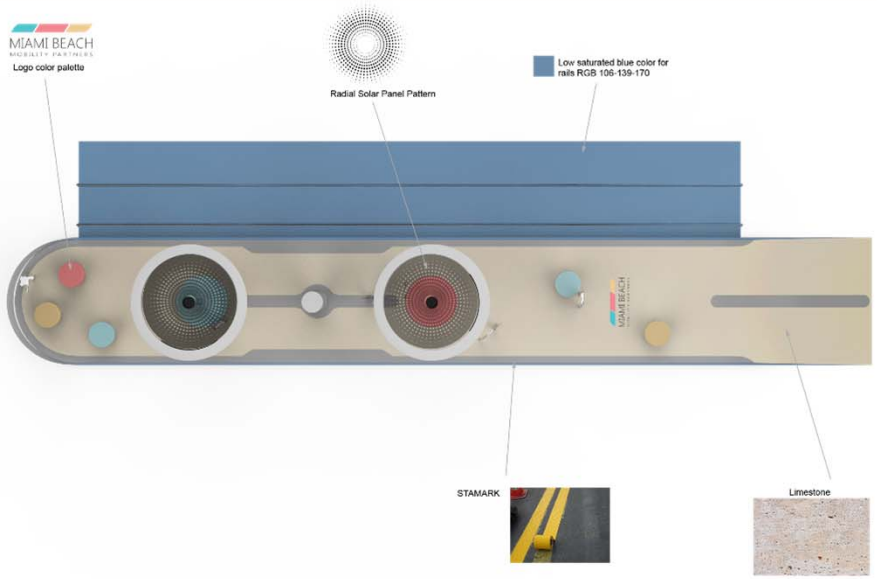
# Service Delivery During Operations

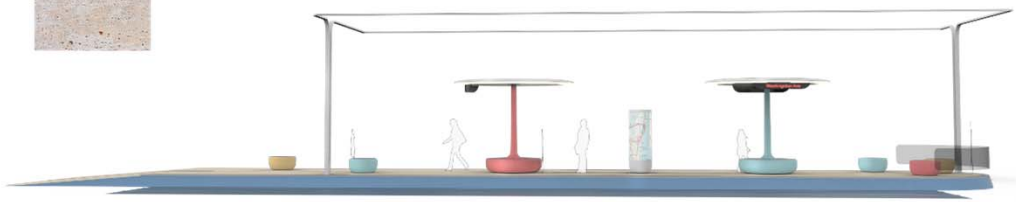


# Fresh Design Concept for Character, Form and Function



# Fresh Design Concept for Character, Form and Function



# We Design to Budget

## Case Studies


### OKC Streetcar

$131M Budget
2.5 route-miles
6 streetcars

-Wireless Streetcars (ESS)
-Vehicle Delivery
5 months early
-Projected to be
within budget

### First Hill Streetcar

$133M Budget
2.5 route-miles
6 streetcars

Wireless Streetcars (ESS)
-Delivered within
budget

### Portland Streetcar

$149M Budget
3.5 route-miles
6 streetcars

$2M Under Budget

### Interstate MAX

$360M Budget
6.5 route-miles
17 LRT vehicles

$10M Under Budget

4 Months Early

MIAMI BEACH
MOBILITY PARTNERS

# 04

# Vehicle Systems

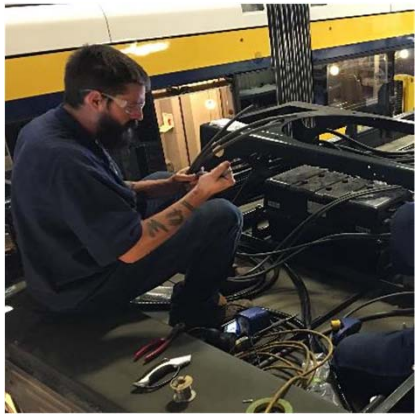

BROOKVILLE

# Vehicle Built for the Future

- American Designed and Manufactured (Buy American)
- Right-sized for Miami Beach (length, turning radius, etc.)
- All doors fully ADA accessible with 100% level boarding
- Proven climate control in similar environment
- Fastest vehicle delivery available in the market
- Configurable to match Miami Beach to mesh with the fabric of the City


# Truly Wireless Operation
# Reliable, Safe and Seamless

- 20+ years experience with battery technology
- The most advanced battery technology
- Built in reliability
- Resilient design - key to safe operation in flood prone environments
- Seamless and flexible operation on future expansions

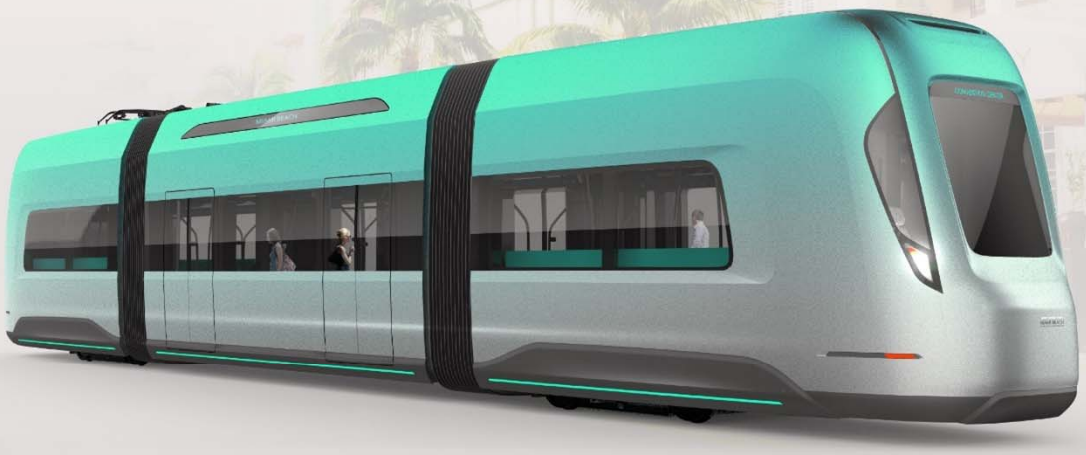
# Dallas Streetcar
## Case Study

- Design & Build low floor modern streetcars for the new Downtown to Oak Cliff starter line
- Vehicles requires OESS for extended off-wire operation traveling 2 miles on wireless segment
- Base vehicle delivered 24 months from NTP
- Option vehicle delivered 11 months from NTP

| Client: | Dallas Area Rapid Transit (Dallas, TX) |
|---|---|
| Number of Vehicles | 4 Vehicles |
| Contract Value: | $15.8 million |
| Contract Term: | 5 Years |
| Contract Status: | Vehicles In Service (Inauguration: April 2015) |

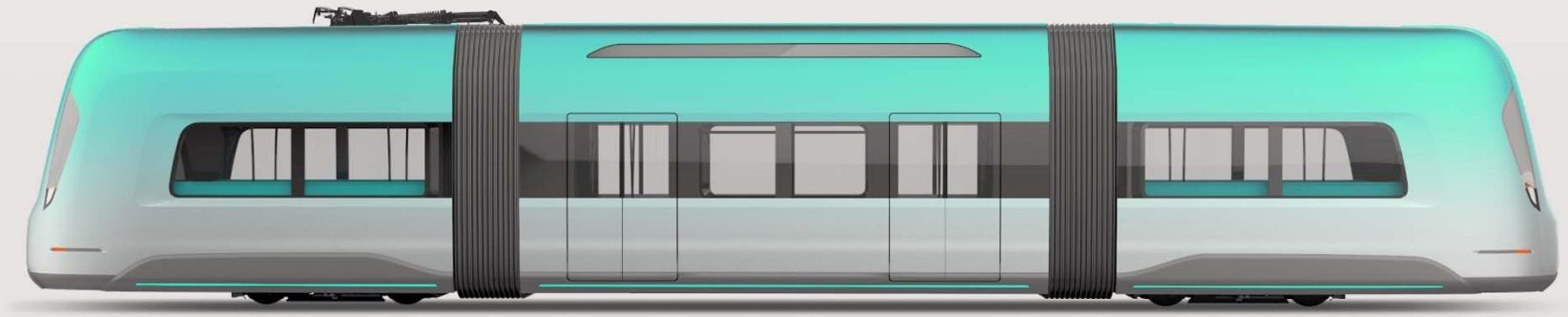

04 Vehicle System Supplier

# Streetcar Enhancements by Pininfarina

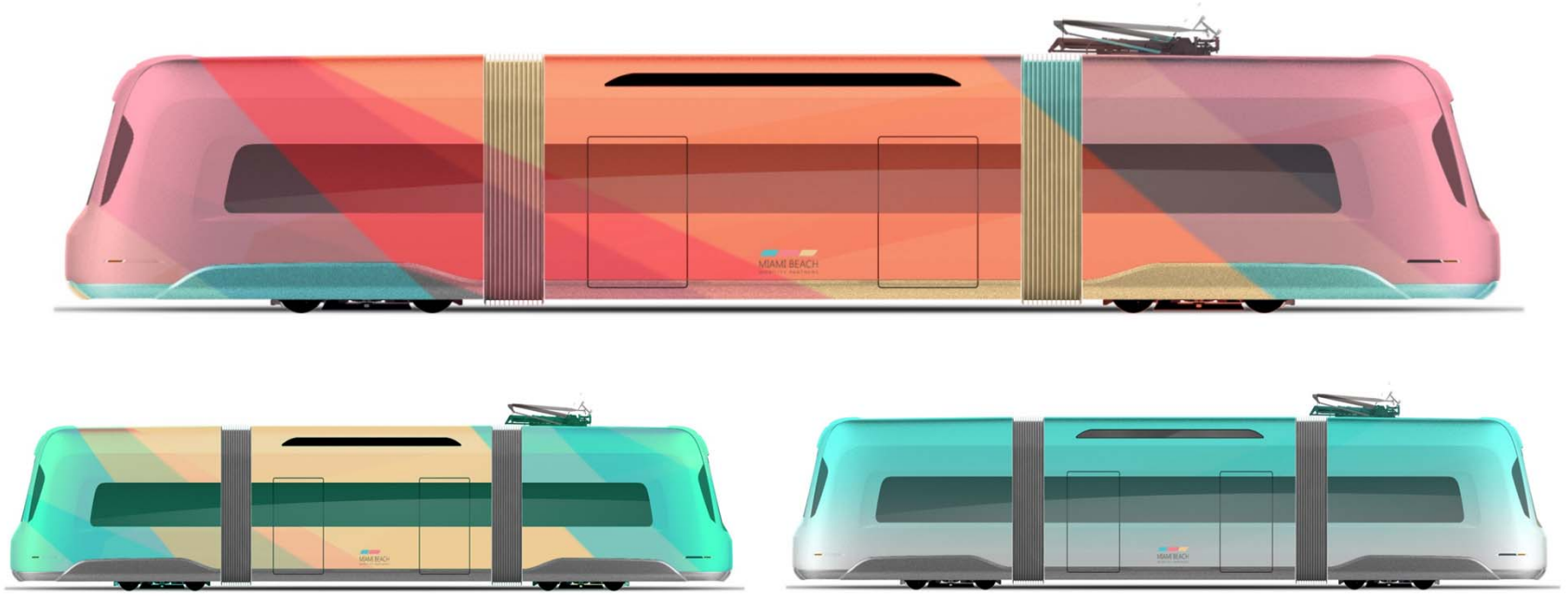
04 Vehicle System Supplier

# Streetcar Enhancements by Pininfarina



04 Vehicle System Supplier

# Streetcar Enhancements by Pininfarina



MIAMI BEACH
MOBILITY PARTNERS

# 05

# Why MBMP?

# A Partnership for Success

- World renowned successful financial partners with unparalleled P3 experience
- Seasoned design veterans having designed 80% of US streetcars in operation, on time and within budget
- Vehicle provider with the only wireless streetcar currently in operation in the US
- World class, cutting edge, vehicle and architectural design options provided by Pininfarina
- A strong local presence and in-depth understanding of Miami Beach issues and concerns
- Team members have decades of work experience in Miami Beach including current work on the Resiliency Program
- Unwavering commitment to quality, safety and delivering a successful project, on time and on budget

MIAMI BEACH

MOBILITY PARTNERS

www.miamibeachmobilitypartners.com