



MIAMIBEACH

PRESENTATION TO FINANCE AND CITYWIDE
PROJECTS COMMITTEE

INTELLIGENT TRANSPORTATION SYSTEM AND SMART PARKING SYSTEM PROJECT



December 14, 2018

City of Miami Beach

- 2016 City of Miami Beach Community Satisfaction Survey pointed at traffic congestion and degraded traffic flow as the number one problem on resident's minds





Prior City Commission Action

- June 10, 2016: NCAC endorsed the project
- July 13, 2016: City Commission accepted the recommendation of the NCAC and directed the Administration to issue a Request for Proposal for Design, Build, Operation, and Maintenance DBOM Services and authorized City Manager and City Clerk to execute a contract with the selected firm

Given the new members of the City Commission the project is being re-introduced and funding strategies for future years are being presented to the FCWPC.



Current Traffic Management

- Existing Traffic Monitoring and Management Effort

Equipment

- 25 Cameras
- 32 Travel Time Detectors
- 9 Construction Dynamic Message Signs (DMS)

Process

- Incident or congestion observed on the cameras or travel time
- Reported via email to Traffic Management Distribution List
- Coordination with Transportation Department, PSCD, Police Department , and Communications Department
- Text Alert Issued
- In the case of lane closures: DMS are programmed remotely
- No travel time or parking capacity information is provided because of fluctuation in that information



Intelligent Transportation Systems (ITS)

- Cameras



- Travel Time Detection (Bluetooth)



- Vehicle Detection



- Dynamic Message Signs (DMS)





Traffic Management Center (TMC)

- Co-Location at FDOT District 6 SunGuide TMC
- Video Wall
- Management Software





Smart Parking System (SPS)

- Capacity in lots: All lots over 35 spaces
- Available Parking Monitoring
- Displayed on DMS outside garages





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Program Management Services

for an Intelligent Transportation Management System and Parking Management System

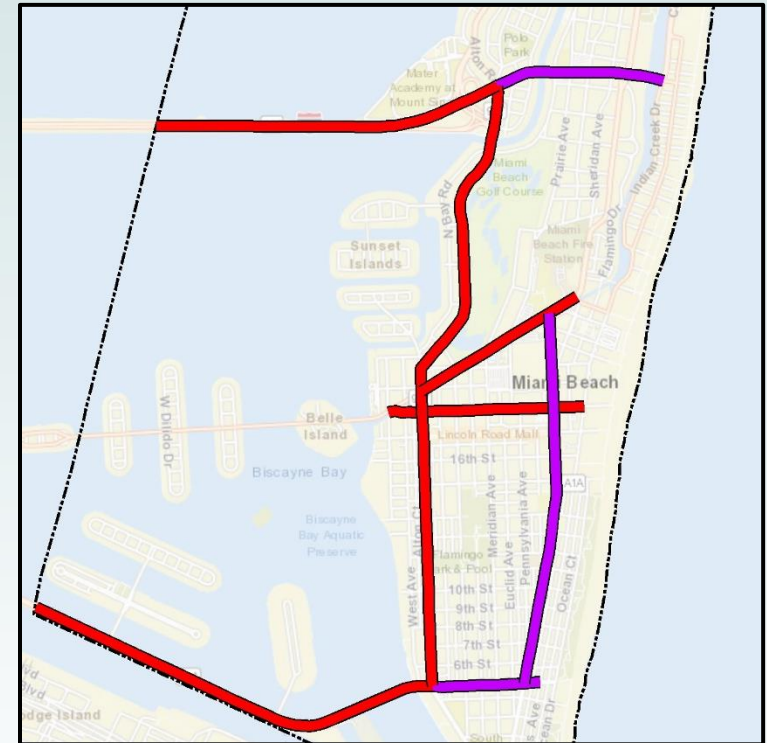
RFQ 2015-115-JR

Project Phasing



Project Corridors

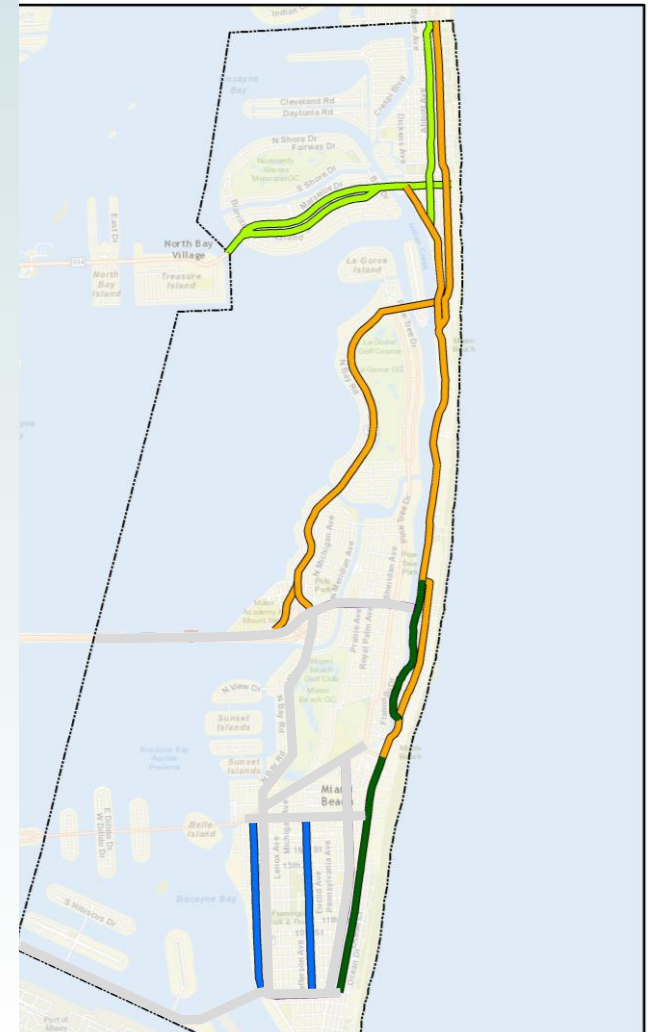
- 17th Street from Collins Avenue to Dade Boulevard
- Dade Boulevard from Alton Road to 23rd Street
- Alton Road from Julia Tuttle Causeway to 17th Street
- Alton Road from 5th Street to 17th Street
- Julia Tuttle Causeway from City Limits to Alton Road
- MacArthur Causeway from City Limits to 5th Street/Alton Road
- W 41st Street From Alton Road to Indian Creek Road
- 5th Street from Alton Road to Collins Avenue
- Washington Avenue from 5th Street to Dade Boulevard





Project Corridors

- Collins Avenue from North City Limit to 5th Street
- Indian Creek Drive from Collins Avenue to 71st Street
- Alton Road from Indian Creek Drive to Julia Tuttle Causeway
- Abbott Ave from City Limits to Collins Avenue
- Normandy Drive/ 71st Street from Western City Limits to 5th Street/Alton Road
- West Avenue from 17th Street to 5th Street
- Meridian Avenue from 17th Street to 5th Street





ITS/SPS Project Details

- Additional Corridors
 - Meridian Avenue
 - West Avenue
 - Harding Avenue/Abbott Avenue
 - Collins Avenue – 63rd Street to City Limits
 - 71st Street/Normandy Drive – Indian Creek Drive to City Limits
- Improvements to Existing Corridors
 - 27 Additional Traffic Monitoring Cameras (High-Definition)
 - Additional Travel Time Detector Devices and Volume Data Collection Devices
 - 27 Aesthetic High Definition Arterial Digital Message Signs
 - 2 Causeway Full-Color Causeway DMS
 - DMS at Parking Garages and 35 Parking Lots to show Parking Capacity
 - Traffic Management Center Co-Located with FDOT SunGuide Center



Funding- Design and Construction

- Approved Funds
 - All Phases Funded (Phases 1 through 6)
 - Funding Sources: County's Half-Cent Surtax, Concurrency Mitigation Fund, Parking Operation Fund
- Preliminary Project Timeline
 - Anticipated Project Completion Date: FY2022/2023



Funding- Operations and Maintenance

- Approved Funds
 - \$600,000 per Year Adopted in Transportation Funds
- Funding Strategy Based on 5-Year Projection of Transportation Budget (Total Per Year)

Fiscal Year	Funding Required Per Year
Fiscal Year 2019-2020	\$130,000.00
Fiscal Year 2010-2021	\$1,037,000.00
Fiscal Year 2021-2022	\$1,072,000.00
Fiscal Year 2022-2023	\$1,106,000.00
Fiscal Year 2023-2024	\$1,139,000.00

Note: Table does not include the cost for Operations and Maintenance for SPS (approximately \$30,640-\$37,860 per year) as this cost was already being covered by the Parking Department.

FY 2019/20 reflects the impact of the \$1.25M FDOT grant for the South Beach Trolley



Performance Based Contract

- Hours of Operation/Staffing
- Incident Response/Validation
- Equipment Accuracy (e.g. parking occupancy validation)
- Equipment Availability/Spare Parts
- Subsystem Availability (i.e. uptime)
- Others
 - Standard Operating Guidelines (SOG) Development/Updates
 - Meetings/Training (i.e. SunGuide® Training)
 - Preventative Maintenance



Parking Funds

- FY2018-2019
 - \$3M Set Aside for Renewal and Replacement
 - \$1.52M Transfer to Transportation Budget
 - \$1.17M Transfer to General Fund

	<u>FY14</u>	<u>FY15</u>	<u>FY16</u>	<u>FY17</u>	<u>FY18 (OBPI estimated as of Y/E)</u>	<u>FY19 Adopted</u>
<u>Operating Revenues</u>	40,534,422	42,850,715	52,253,637	47,489,549	48,583,000	50,696,000
<u>Operating Expenditures*</u>	32,603,266	33,208,823	41,248,202	43,270,595	44,170,000	44,653,800
<u>Net Annual Operating Surplus</u>	7,931,156	9,641,892	11,005,435	4,218,954	4,413,000	<u>6,042,200</u>

Assuming that the Plan to eliminate the General Fund contribution is followed, this would leave \$1.519 million in annual surplus available for other uses including ITS.



Recommendations

- FY2018-2019 : City budgeted a partial year of funding.
- Funding for each year is subject to budget appropriation
- Administration is seeking endorsement for on Funding Strategy for future years before entering the contract
- Administration recommends that the Trolley Advertising pilot be extended, and that some or all of the \$500,000 in projected advertising revenues be used for Transportation



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RFQ 2015-115-JR

Questions?