

# PUBLIC WORKS

## DEPARTMENT MISSION STATEMENT

We are a multi-disciplined department comprised of Operations, Engineering, Sanitation, and Greenspace Management divisions. Together, these divisions ensure the technologically advanced design, maintenance, functionality, delivery, and cleanliness of the City's water services and resources, roadways and greenways.

We place the utmost importance in valuing our employees and ensuring all are trained to be the most reliable, knowledgeable, environmentally-conscientious and solutions-oriented professionals who provide for the City's stakeholder needs and concerns in an efficient and socially-responsible manner to foster a better, safer, and healthier community for all to live, work, and play.

### Public Works Department Vision:

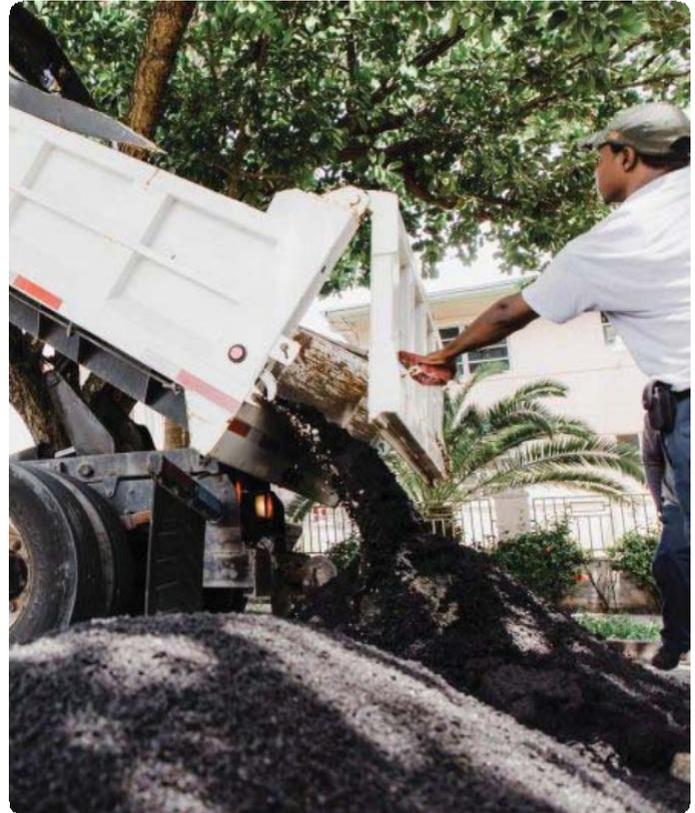
To be the most proactive, innovative, and dependable network of highly knowledgeable professionals who are skilled in providing stakeholders optimal service and solutions to our community's most pressing infrastructure and environmental needs.

We are committed to providing effective and efficient public works services and managing the City's infrastructure to ensure the safety, health and well-being of all who live, work, and play in our vibrant, tropical, historic community.

## DEPARTMENT DESCRIPTION

The Public Works Department is a large, full service organization consisting of four divisions: Operations, Sanitation, Engineering, and Greenspace. Our department provides project management, planning, design, construction, maintenance, repairs and operation services for City infrastructure, including utility systems, roadways and greenways. The department is also responsible for City cleanliness and manages the Solid Waste/Recycling Collection and Disposal Program. The department is represented by professional, semi-professional and licensed disciplines working in Administration, Engineering, Streets and Streetlights, Water Distribution, Sewer Collection, Storm Water Management, Sanitation, and Greenspace Management.

The City infrastructure managed by the Public Works Department is comprised of 23 City owned bridges; 140 miles of streets; 242 miles of sidewalks; 200 miles of curb and gutter; 33 miles of alleyways; 7,200 street lights; 1,200 landscape up-lights; 263 miles of underground wiring; 180 miles of water distribution piping mains; 4 water storage tanks with total storage capacity of 14 million gallons; 6 water pumping stations; 13,550 water meters; 152 miles of sewer mains; 122 miles of sanitary gravity sewer pipes; 3,160 sanitary sewer manholes; 23 sewer pump stations; 110 miles of storm water pipes; 367 storm water outfalls; more than 7,800 stormwater structures (stormwater manholes, storm drains, and catch basins); 49 storm water pump stations.



## DEPARTMENT DESCRIPTION CONT'D

The Engineering Division is comprised of five (5) sections (Engineering, Geographic Information Systems [GIS], ROW Management, Surveying and Elevator Safety). The Engineering Section is responsible for plan review of the public and private projects within the City's right-of-way (ROW) and the project design/management of ROW projects. The GIS Section is the keeper of the maps of the City's entire infrastructure, which includes water mains, sanitary sewer, and storm water systems. Our Right-of-way Management Section oversees, and issues permits for all activities within the public's right-of-way to include utility connections, café dining, lane/sidewalk closures and coordination of special events. The Surveying Section is the first resource for all construction projects to coordinate the data acquisition of field information. The Elevator Safety Section is responsible for the certification of all public and private elevators, escalators, moving walks and lifts within the City.

The Greenspace Management Division provides the design, installation and maintenance service at all city designated properties including: the gateways to the City, all municipal buildings, parking facilities, dunes, medians, swales and landscape areas.

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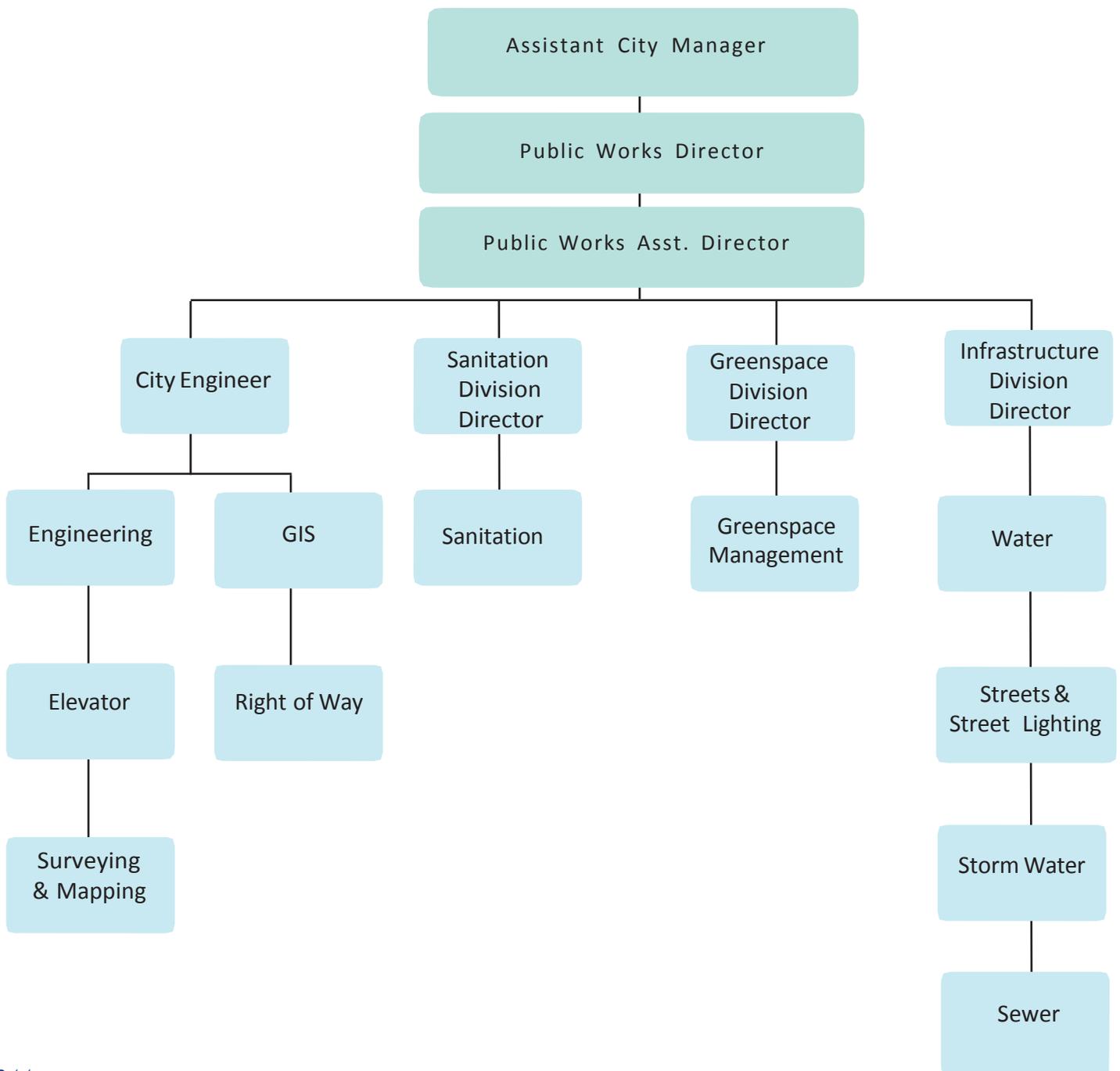
## DEPARTMENT DESCRIPTION

The Operations Division oversees the operation and maintenance of the City's water distribution, wastewater collection, stormwater, street and street lighting systems. Each year they ensure the safe transmission of billions of gallons of fresh water to the City and the transport of wastewater to the treatment plant. In addition, they ensure that all the streets, streetlights, sidewalks, and storm drains are operational and maintained.

## DEPARTMENT DESCRIPTION CONT'D

The Sanitation Division with its fleet of street sweepers, pressure washers, and other collection equipment maintains the streets, parking lots, pedestrian paths, and sidewalks free and clear of debris and litter. The division also manages the trash and recycling contracts.

The Department of Public Works was recognized by the American Public Works Association as a nationally accredited Public Works agency in May 2007, re-accredited in June 2011, 2015, and 2019.



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## FISCAL ENVIRONMENT

The Public Works Department has a diverse funding composition. The Administration, Engineering, Streets and Streets Lighting, and Greenspace Divisions are partially funded from revenues generated through elevator fees, right of way permits, side walk café permits, electrical outlets, and plans review fees.

The Infrastructure Division, which includes water, wastewater, and storm water operations is funded through revenues generated through utility billing rates for services provided to users.

The Sanitation Division is funded primarily through fees generated for services provided.

The Public Works Department continuously analyzes our rate structures to ensure we are bringing services to our residents and tourists at a cost-effective rate that maintains our systems and provides for a sustainable system.

## BUSINESS ENVIRONMENT

The City is undergoing significant growth in commercial and residential development.

The department has evaluated the services that are being performed in the private sector and have competitively bid contracts to provide the core services of the departmental work plan where applicable, recognizing that not all services that the City provides can be outsourced and there are some services that are performed more efficiently in house.

## SIGNIFICANT ACCOMPLISHMENTS

### Operations Division

- Completed new variable-frequency drive (VFD) installations for all 29 water and sewer pump station
- Lummus Park Lighting Improvements - Replaced 114 existing light poles with LED dimmable Louis Poulsen fixtures along Lummus Park. This project was the result of a joint effort with the Police Department to assist with its crime deterrence efforts. The replacement of the existing lights with LED's has improved lighting, reduced energy consumption, and enhanced public safety
- Completed a total 54,7171 of sidewalk restoration
- FPL Contract Negotiation - Successfully negotiated agreement with Florida Power & Light (FPL) for conversion of FPL lights to LED on May 16, 2018. The goal of this project is to replace the existing FPL lighting along the City's alleys and other Right-of-ways with newer technology to meet the residents' needs and assist the Police Department in crime preventative measures. The new LED lights will significantly improve lighting, reduce energy consumption, and enhance public safety.

## SIGNIFICANT ACCOMPLISHMENTS CONT'D

- Completed 1,472 Right-of-Way Inspections
- Completed a total of 7,576 service requests, which was a 42% increase from the service completed in the previous fiscal year
- Cleaned 100% of the City's stormwater structures
- Completed restoration of Sewer Pump Station #30 (Terminal Island) and as a result the pump station was successfully lifted out of Moratorium status

### Sanitation Division

- Successfully negotiated a new Residential Agreement with Progressive Waste Solutions Inc. that will be effective January 1, 2019
- Acquired an additional area for maintaining cleanliness from 53rd St to 63rd Street known as North Beach Recreational Corridor
- Installed (21) litter cans in this area for litter control
- Participated in North Beach Elementary School Career Day
- Conducted vehicle demonstrations for students
- Participants were able to have hands on interactive experience with Heavy Equipment each Operator on how to safely operating the equipment used for cleaning our City
- During the 2018 calendar year, (23) employee(s) successfully completed the Public Works Certification Course at Barry University's PACE Institute

### Engineering Division

- Continued the coordination of the design and construction of eight seawalls
- Completed Phase I of 11th Street
- Completed Indian Creek Phase I and II
- Completion Indian Creek ITB Package for Phase III
- Assisted GIS division with the uploading of Water as-builts edits and continuing Sanitary & Storm as-builts edits
- Co-managed City of Miami Beach Water & Sewer Renewal and Replacement Report



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## SIGNIFICANT ACCOMPLISHMENTS CONT'D

### Geographic Information System Section

- Created infrastructure for AutoCad and GIS software to access, edit, and create features within the same database
- Completed 315,129 Water as-builts edits. Continuing Sanitary & Storm as-builts edits
- Completed the annual Consent Decree requirements of delivering Water & Sanitary as-builts to DERM
- Completed cleanup and delivery of Water and Sanitary as-builts to Hazen & Sawyer for the models
- Deployed and configuring 4 servers to support GIS operations
- Two of the GIS Staff received the City's Betterment Award.
- Completed delivery of 3,550 documents from document requests



**Reaccredited by the American Public Works Association, with three policies recognized as models for public works departments across North America**

### Right-of-Way Management Section

- Issued 1,313 right-of-way permits, including all permitting related to public rights-of-way. i.e. infrastructure upgrades, public utility installations, capital improvement projects, etc.
- Processed 55 water meter services establishing metered service connections for water use for domestic consumption or irrigation
- Processed approximately 171 Water and Sewer verification applications for approval by Miami-Dade Water and Sewer Department and Department of Environmental Resources Management (DERM)
- Processed 651 street/lane closure permits for work on public right-of-way, which involved routing and coordinating with the Transportation Department, Police Chief and City Manager's office
- Reviewed and approved approximately 284 applications for Sidewalk Café renewal/permits
- Maintained approximately 389 news rack locations for compliance citywide
- Conducted 3,584 Building permit plan reviews on all improvements potentially impacting public rights-of-way

## SIGNIFICANT ACCOMPLISHMENTS CONT'D

### Surveying Section

- Coordinated, performed and prepared approximately 25 Grade Determination Surveys and Grade Determination letter per City Code for Planning Department Permit Requirements
- Coordinated and performed approximately 40 various types of Surveys and/or related documents for the Engineering Department as well as other City Departments
- Maintained City-wide Survey Benchmark Network (NAVD1988) both in the field and office and assure availability to the public through the City Web Site with real time updates
- Performed, reviewed and reported 25 record searches of resolutions, official record books, agreements, easements, conveyances, deeds, and rights-of-ways etc.

### Elevator Safety Section

- Oversaw 2,928 conveyances throughout the City of Miami Beach
- Oversaw 23 Inspection companies
- Monitored more than 75 + inspectors
- Oversaw more than 75+ elevator companies

### Greenspace Management Division

- Rue Granville & Bay Rd. Street end landscape restoration and enhancement
- Trouville Esplanade & Bay Rd. Street end landscape restoration and enhancement
- Rue Bordeaux & Bay Rd. Street end landscape restoration and enhancement
- Rue Notre Dame & Bay Rd. Street end landscape restoration and enhancement
- 10th St. Street end landscape restoration and enhancement
- 14th St. Street end landscape restoration and enhancement
- Construction and landscaping of the North Beach Dog Area
- Installed a total of 623 new trees Citywide

## CRITICAL SUCCESS FACTORS

The City has recognized the challenges of having underground infrastructure that is 100 years old and has implemented plans to aggressively replace the aging components.

- Maintain close collaboration with the Capital Improvement Projects Department as new project plans are being developed to ensure a full comprehensive review and comment process is conducted by all departments that will have responsibility when the projects are constructed
- Receive support from the Information Technology Department to ensure technology integration. The computerization of the

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## CRITICAL SUCCESS FACTORS CONT'D

Department's data collection and expansion of staff's computer literacy is critical to increase efficiency in the delivery of service

- Engage closely with the Human Resources Department to recruit and process the best qualified personnel necessary for the department workforce as well as specially planned programming
- Encourage staff to obtain higher levels of education and training. Maintain the ongoing in-service/ local training education of all staff in the department to improve productivity, efficiency, and customer satisfaction. Seek and schedule staff to attend training issued by professional industry organizations for staff to be knowledgeable of existing and new industry standards and opportunities.

## STRATEGIC ALIGNMENT

### Main Vision Area:

### Environmental & Infrastructure

### Management Objectives:



- **Neighborhoods**
  - Enhance the beautification, physical appearance and cleanliness of neighborhoods
  - Proactively monitor the city for mosquito breeding grounds
  - Evolve parks and green spaces to meet the changing needs of the community
- **Environment & Infrastructure**
  - Work regionally and nationally to protect Biscayne Bay water quality and to maintain a healthy dune and beach system
  - Improve our aging drinking water and sewer infrastructure
  - Reduce risk from storms, high tides, groundwater, and sea level rise
- **Organization Innovation**
  - Support all objectives to improve strategic decision making and financial stewardship, making the city more business friendly and user friendly, with an employee culture of problem solving and engagement

## STRATEGIC ALIGNMENT CONT'D

### Strategic Plan Actions:

- **DEVELOP** a plan to address aging water and sanitary sewer infrastructure.
- **CONTINUE** the Storm Water program and have projects fully underway South, Mid and North Beach. Start immediately upon completion of Jacob's analysis.
- **IMPLEMENT** controls to prevent issues of unpermitted work to work exceeding (permits) on city projects.
- **IMPLEMENT** creative two-way engagement plan for projects.

### Budget Enhancement Actions:

- Neighborhood Improvement Design Criteria Package
- Three Full-Time positions for Maintenance Demands of Storm Water Program

### Resilient305 Actions:

- **SUPPORT** Resilience Hubs
- **PRESERVE** and Restore Biscayne Bay
- **REDUCE** "Back-Bay Flooding"
- **NATURE-BASED** Infrastructure – More than Just Habitat!
- **IMPLEMENT** Sea Level Rise strategy
- **CREATE** Development Review Checklist
- **DEMONSTRATE** the Costs and Benefits of Resilience Improvements

