

PUBLIC WORKS

DEPARTMENT MISSION STATEMENT

We 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 conscious, and solutions-oriented professionals who provide for the City's stakeholder needs and concerns in an efficient and socially responsible manner. This fosters a better, safer, and healthier community for all to live, work, and play.

Public Works Department Vision:

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

We are dedicated to enhancing the quality of life in our vibrant, tropical, and historic community by delivering reliable and efficient public works services. Through proactive management of the City's infrastructure, we prioritize the safety, health, and well-being of all our residents and visitors.

DEPARTMENT DESCRIPTION

The Public Works Department is a multi-disciplined department comprised of four divisions: Infrastructure, Engineering, Sanitation and Greenspace Management. 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, semiprofessional, and licensed disciplines working in administration, engineering, streets and streetlights infrastructure, water distribution, sewer collection, stormwater management, sanitation, and greenspace management.

The City's Public Works Department oversees our critical infrastructure, including the following:

- Bridges: 24 vehicular bridges and 6 pedestrian bridges
- Streets: 140 miles of streets, 242 miles of sidewalks, 200 miles of curb and gutter, and 33 miles of alleyways
- Street lighting: 7,487 streetlights, 1,275 landscape up-lights, and 841 bollard lights, with 286 miles of underground wiring
- Potable water distribution: 180 miles of water distribution piping mains, 4 water storage tanks with a total capacity of 14 million gallons, 6 water pumping stations, and 13,550 water meters
- Sanitary sewer collection: 152 miles of sewer mains, 122 miles of sanitary gravity sewer pipes, 3,160 sanitary sewer manholes, and 23 sewer pump stations



- Stormwater drainage: 110 miles of stormwater pipes, 367 stormwater outfalls, over 7,800 stormwater structures (including manholes, drains, and basins), more than 400 gravity wells, and 48 stormwater pump stations,
- Seawalls: 5 miles of City-owned seawalls

DEPARTMENT DESCRIPTION CONT'D

The Engineering Division is comprised of five sections: Engineering, Geographic Information Systems (GIS), Right of Way (ROW) Management, as well as ADA and Elevator Safety. Engineering is responsible for plan review of the public and private projects within the City's ROW and the engineering design of ROW projects. GIS is the keeper of the maps for the City's entire infrastructure, which includes water mains, sanitary sewer, and stormwater systems. ADA is responsible for reviewing and ensuring accessibility compliance in the City's construction projects and is also the liaison for employees, residents, and visitors for ADA accommodations and services. The Surveying Section is the first resource for all construction projects to coordinate the data acquisition of field information. Elevator Safety is responsible for the certification of all public and private elevators, escalators, moving walks and lifts within the city.

The Greenspace Management Division is responsible for providing a range of professional services including the design, installation, and ongoing maintenance of various city-designated properties. These properties encompass important locations such as the gateways to the City, municipal buildings, parking facilities, dunes, medians, swales, and landscape areas. Through meticulous planning and dedicated care, the Division ensures that these areas are aesthetically pleasing, well-maintained, sustainable and contribute to the overall beauty and functionality of the city's public spaces.

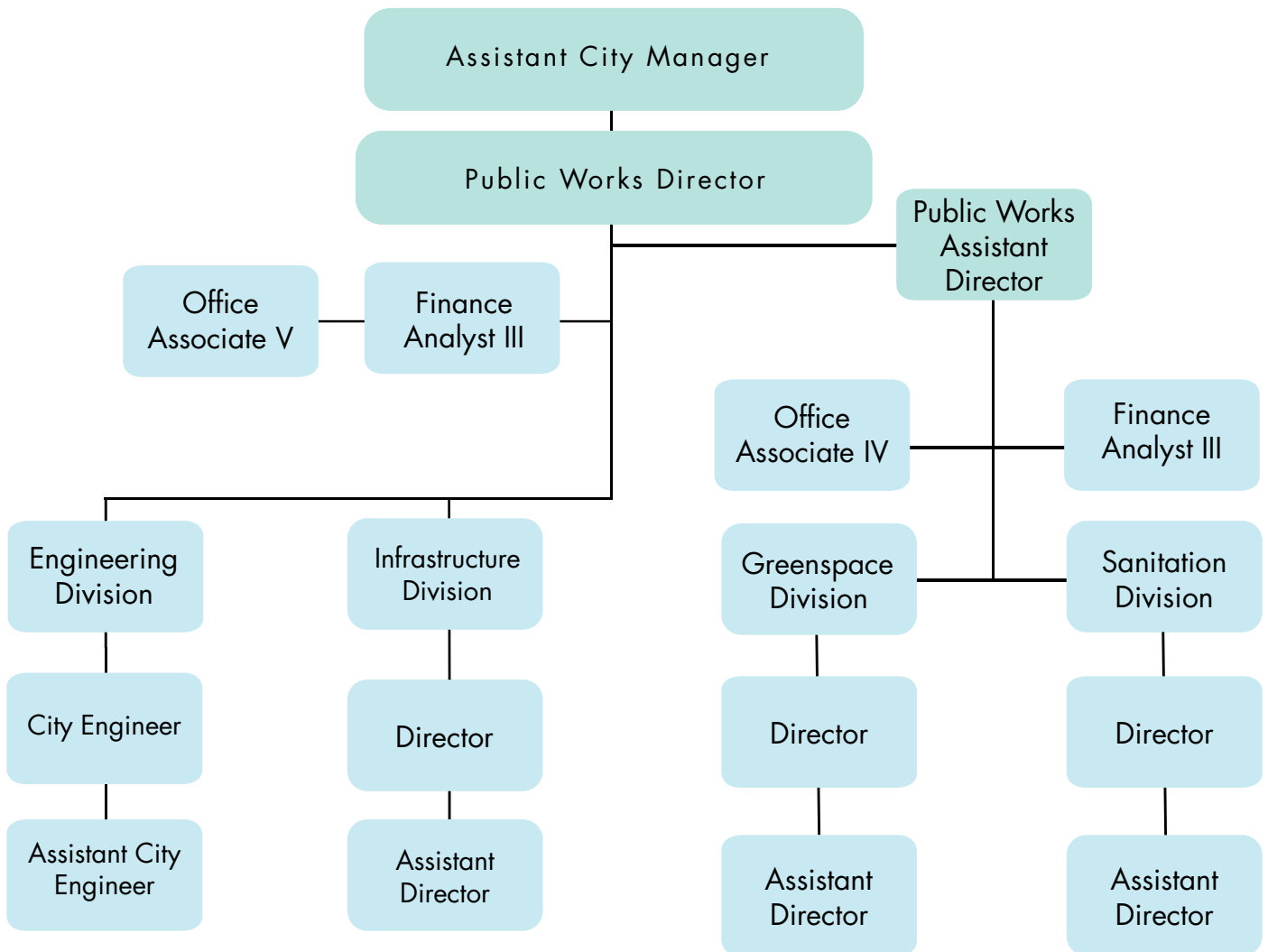
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DEPARTMENT DESCRIPTION CONT'D

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

DEPARTMENT DESCRIPTION CONT'D

The Sanitation Division is instrumental in maintaining the cleanliness and hygiene standards of the city, with a comprehensive array of equipment such as street sweepers, pressure washers, and specialized collection tools. With meticulous attention to detail, the division diligently maintains the cleanliness of the streets, parking lots, pedestrian paths, and sidewalks, ensuring these areas are consistently free of debris and litter to enhance the environment for residents and visitors. Beyond these core responsibilities, the division takes charge of overseeing and managing trash and recycling contracts, implementing strategic waste disposal practices that prioritize environmental sustainability and the overall well-being of the community.



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DEPARTMENT DESCRIPTION CONT'D

The Department of Public Works was recognized by the American Public Works Association as a nationally accredited Public Works agency in May 2007 and re-accredited in 2011, 2015, 2019, and 2023.

FISCAL ENVIRONMENT

The Public Works Department has multiple sources of funding. The Administration, Engineering, Streets and Street Lighting Infrastructure, as well as the Greenspace Division, are partially funded from revenue generated by elevator fees, right-of-way permits, outdoor dining concession permits/fees, electrical outlet fees, and plan review fees.

The Infrastructure Division, which includes water, wastewater, and storm water operations, is funded through revenue generated by utility billing rates for user services.

The Sanitation Division is funded primarily through service fees.

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

STRATEGIC ALIGNMENT

Main Vision Area:

Environmental & Infrastructure

Management Objectives:



• Prosperity

- Revitalize targeted areas and increase investment through master plans and business vibrancy efforts, as well as core services like safety and code enforcement. Better leverage our assets and parking lots. Areas include North Beach, Ocean Drive, 41st Street, Lincoln Road, and Washington Avenue.

• Neighborhoods

- Enhance the beautification, physical appearance and cleanliness of neighborhoods especially North Beach, City rights-of-way, town center areas, parks and beaches
- Modernize and streamline our old and complex land development regulations and City codes through routine and comprehensive reviews to be more user-friendly and to reduce conflicts.
- Work cooperatively with Miami-Dade County to reduce the possibility of disease outbreaks

STRATEGIC ALIGNMENT CONT'D

• Environment & Infrastructure

- Work regionally and nationally to protect Biscayne Bay water quality and to maintain a healthy dune and beach system that provides storm protection, recreation, and vital habitat for the public good
- Improve our aging drinking water and sewer infrastructure to protect drinking water quality, public health, and fire protection.
- Reduce risk from storms, high tides, groundwater, and sea level rise by continuously improving our sea level rise adaptation and integrated stormwater program through the best science and technology, including green and blue infrastructure and mobility priorities while minimizing construction disruption, optimizing design aesthetics, and community engagement. Keep the entire program on-time, on-budget, and moving forward with adequate financing.
- Improve condition of Streets in City of Miami Beach

• 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 Plan Actions:

- **IMPLEMENT** Ocean Drive Pedestrian Promenade 13 to 14 Place
- **INCREASE** compliance with the Building Code by streamlining the process and providing continued training to the public and applicants on the process
- **PROACTIVELY** monitor the City for mosquito breeding grounds and work cooperatively with Miami-Dade County to reduce the possibility of mosquito-transmitted disease
- **CONTINUE** implementing the water and sewer critical needs projects recommended by the Master Plan to address aging (drinking) water and sanitary sewer infrastructure
- **UPDATE** the Stormwater Master Plan, considering water quality treatment and Biscayne Bay protection and net improvement
- **CONTINUE** to implement the Stormwater Master Plan, considering water quality treatment and Biscayne Bay protection and net improvement
- **IMPLEMENT** blue-green infrastructure strategy as part of ongoing neighborhood improvement projects
- **CONTINUE** to implement blue-green infrastructure strategy as part of ongoing neighborhood improvement projects
- **CONTINUE** to implement the 2020 Neighborhood Project Prioritization and Road Elevation Strategy

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STRATEGIC ALIGNMENT CONT'D

- **CONTINUE** implementing the SmartCity Street Lighting improvement project
- **CONTINUE** to develop and implement the streets and sidewalk assessment throughout the City
- **IMPLEMENT** the streets and sidewalk assessment throughout the City
- **CONTINUE** street improvements associated with larger infrastructure projects such as West Avenue and First Street
- **INITIATE** street improvements associated with larger infrastructure projects such as North Shore Neighborhood
- **CONTINUE** implementing the Park View Action Plan

Budget Enhancement Actions:

- Additional Funding for Clean-up and Maintenance of the City's Waterways
- Residential Area Sidewalk Pressure Washing Program
- Additional Funding for Cat Program
- Decorative Lighting on the West Side of Ocean Drive
- Water and Sewer Master Plan Update
- Full-time Area Managers (3)
- Full-time Office Associate V Position

BUSINESS ENVIRONMENT

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

The Department has evaluated available services in the private sector and has competitively bid contracts to provide the core services of the departmental work plan, recognizing that not all City services can be outsourced. Some services are performed more efficiently in-house.

SIGNIFICANT ACCOMPLISHMENTS

Infrastructure Division

- Successfully completed the FY 2023 Warehouse Physical Inventory Audit in September 2023, where the estimated value was \$3,125,734.39 and verified sample physical counts identified one (1) deficiency. This is a 99.98% accuracy rate.
- Completed Improvements to Sewer Station 18
- Continued to make improvements to Sewer Station 28
- Replaced water main piping on the MacArthur Causeway to improve water quality to the City
- Improved drainage throughout the City in low-lying areas by cleaning over 400 gravity wells
- Implemented bi-annual inspection and maintenance of all stormwater pumps
- Sewer Division replaced over 2,500 liner feet of pipe

SIGNIFICANT ACCOMPLISHMENTS CONT'D

- Street Lighting Infrastructure Division replaced over 50 downed streetlights throughout the City
- At the April 2024 FERC meeting, the Administration proposed that the FERC recommend to the Mayor and City Commission the authorization for the Administration to execute a Declaration of Official Intent for \$85 million in new money proceeds, inclusive of issuance costs, to continue to improve the water and sewer critical infrastructure
- The Stormwater Division successfully purchased four (4) 60-horsepower submersible pumps to provide backup and replacement of the stormwater pumps along the West Avenue pumping system

Sanitation Division

- Beginning October 1, 2022, we provided maintenance services to 67 surface lots
- Hired Additional Heavy Equipment Operator II to assist with training and coordination
- Utilized CRA funds to enhance the visual aesthetic in the North Beach area
- Partnered with Miami Beach Police Department and Homeless Outreach to address homeless initiative. Beginning calendar year 2023, we started servicing the stairwells in City's parking garages
- Additional multi hogs (2) to the Mixed Use Entertainment District
- Replaced over 50 litter containers in Collins Park area and Lincoln Road
- At the April FERC meeting, a motion was passed to recommend a new waste consultant to evaluate the solid waste fund, explore a potential hybrid waste system, and assist with an RFP for commercial/multi-family waste procurement. This agenda item is scheduled to be addressed at the upcoming City Commission meeting in May.
- We have successfully procured the gum removal machines, and concurrently are underway to reclassify three existing MSW I positions to MSW II positions
- We welcomed 325 cats into our adoption program, rehoming 148, transporting 149, sterilizing over 650, and aiding 140 residents with cat-related issues

Engineering Division

- Completed the rehabilitation of Sewer Pump Station 31
- Completed the installation of a new water main and sewer force main between Belle Isle and Rivo Alto Island; and the rehabilitation of two aerial water transmission mains on the Mac Arthur bridge
- Completed the rehabilitation of Liberty Ave Pedestrian Bridge and the design, permitting, and construction procurement for rehabilitation of three vehicular bridges: Henedon Avenue Bridge over Biscayne Point Canal, 77th Street Bridge of Tatum Waterway, and 73rd Street Bridge over Tatum Waterway

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SIGNIFICANT ACCOMPLISHMENTS CONT'D

- Completed construction of seawalls located at Jefferson Avenue, Garden Avenue, and Indian Creek from 26th St. to 41st St.
- Completed construction of safety Bollards at Convention Center, Southscape Park, and South Point Park
- Completed citywide condition assessment of all streets and sidewalks; as well as the Washington Avenue mill and resurface restoration
- Completed the Asset Management Plan and the Stormwater Master Plan Update
- Completed the design and permitting of several water and sewer critical need projects including: Pine Tree Dr. and Flamingo Waterway force main replacement, 41st St. and Indian Creek Canal water main replacement, Sunset Islands water main and force main replacement, Fire Flow Safety Projects 1 and 2, Venetian Phase 2 water main and force main replacement, Sewer Pump Station 1 rehabilitation and hardening, Sanitary Sewer Pump Station 28 rehabilitation, and Collins Canal water mains replacement
- All water, wastewater, and stormwater operational permit submittals were delivered on schedule and are compliant with all County, State, and Federal regulations. Reverted the Moratorium status for Sewer Basins 6, 7, and 8; and certified two City Sewer Extension permits and two (2) Class II permits with DERM
- Completed CCTV activities for all Infiltration/Inflow Basins for the consent decree SSES program and commenced two new sewer trenchless rehabilitation projects
- Initiated the Conceptual Design for the North Shore D Neighborhood Improvement Project.

Geographic Information System Section

- Upgraded Geocortex GIS viewers to 4.15.0
- Created and deployed Water Editing GIS site
- Created and deployed Fire Administration for Hydrants GIS Site
- Created and deployed Transportation GIS site
- Created and deployed Transportation Editing GIS site
- Completed Cityworks Sanitary Pump Station Assets Upload
- Completed Cityworks Sanitary Pump Station Inspection Reports
- Completed Cityworks Stormwater Pump Station Inspection Reports
- Completed Cityworks Water Pump station Inspection Reports
- Completed 500+ Cityworks support cases successfully
- Updated/Created 20+ New Cityworks Custom Reports
- Updated CAD/911 Public Safety Addressing Geocoders
- Completed 25 Crisis Track Training Classes
- Created 5 new ArcGIS Dashboards
- Completed 4000+ GIS Work Orders
- Completed 100+ GIS map requests
- Entered 50+ Utility as-builts
- Completed the DERM Consent Decree as-builts requirements on time
- Completed the Department of Revenue address verification on time



SIGNIFICANT ACCOMPLISHMENTS CONT'D

- Continued review of accessibility of Pedestrian MOTs, Sidewalk Café, and Parklet permits, as well as Special Events on City Property not covered by the Building Departments (e.g. beach, parks, parking lots)
- Organized quarterly utility contractor workshops to address any concerns with permitting within city right-of-way as well as to review and update contractors on current city requirements and standards
- On-going working relationship with FDOT ADA coordinator, County ADA coordinator, Florida ADA Networks, and City contractors to improve accessibility, collaborate, and/or address accessibility issues on projects
- Completed 750+ Eden Address requests
- Completed 500+ ROW, Parcel Address requests
- Completed Creation of a Digital GIS As-Built Submittal App
- Completed Creation of a Digital GIS Request App
- Completed Creation of a GIS Hub for Maps & Apps
- Completed Updating Licensing Across 17 GIS Servers
- Completed Updating of Sanitary Attributes with All Available Data
- Completed Updating of Storm Attributes with All Available Data
- Completed Updating of Water Attributes with All Available Data

Right-of-Way Management Section

- Issued 909 right-of-way permits, including all permitting related to public rights of way, i.e., infrastructure upgrades, public utility installations, capital improvements projects, etc.
- Processed approximately 198 water and sewer verification applications for approval by Miami-Dade Water and Sewer Department and Department of Environmental Resources Management (DERM)
- Conducted 3,539 building permit plan reviews on all improvements potentially impacting public rights of way
- Provided IT Digital Document Accessibility training to all department with Web Content editors to ensure accessibility tools and knowledge is implemented for all digital documents with public access

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SIGNIFICANT ACCOMPLISHMENTS CONT'D

- Developed/improved policies for ADA reviews within Public Works for the Public Works Manual
- Developed/improved permitting policies and processes to simplify the overall process for applicants

ADA Section

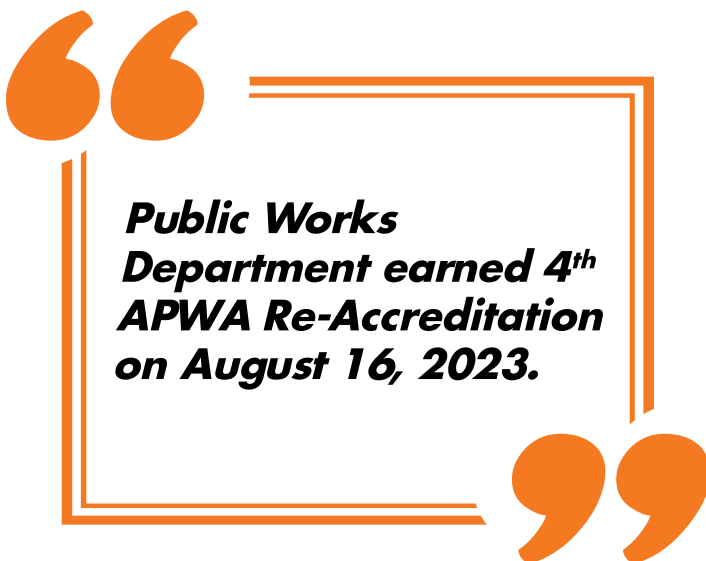
- Developed and implemented Parklet and Outdoor Dining Concession Design Guidelines with input from relevant City Departments and public meetings with relevant HOAs and/or neighborhood BIDs
- Continued review of accessibility on City projects (PW, CIP, Facilities Management), saving time by reviewing plans at 60% 90% development, including pre-design and construction site visits
- Celebrated the ADA anniversary in City Hall with participation of Neighborhood Police, Community Services and Disability Access Committee
- Participated in the 2023 December Human Rights Expo to share the role of the Disability Access Committee and ADA Office with the residents and visitors of Miami Beach
- Collaborated with the Elevator Division in the review of new elevator digital technology and its accessibility to the blind community
- Participated as Speaker with the Miami Beach Chamber of Commerce DE&I Council on the topic of Accessible Tourism
- Participated as Speaker with South Beach Jazz Festival on the topic of Disability in the Arts
- Worked with HR in employee accommodation cases.
- Continued review of accessibility on City projects (PW, CIP, Facilities Management), saving time by reviewing plans at 60% 90% development, including pre-design and construction site visits

SIGNIFICANT ACCOMPLISHMENTS CONT'D

- Continued review of accessibility of Pedestrian MOTs, Outdoor Dining Concessions, as well as Special Events on City Property not covered by the Building Departments (e.g. beach, parks, parking lots)
- On-going distribution of training materials, webinars, updated ADA references to City Departments including DEM, HR, IT/Marketing, Parking, Parks
- Continued American Sign Language lessons to approximately 100 City employees as part of Disability Sensitivity training to staff
- Continued consulting in IT Digital Document Accessibility training to all department with Web Content editors to ensure accessibility tools and knowledge is implemented for all digital documents with public access
- Continued overseeing expanded Closed Caption services (English and Spanish) to commission committee meetings to assist e.g. people who are hard of hearing, also providing CART services upon request
- Worked with the Disability Access Committee, GIS Division, Miami Dade County and Mt. Sinai in discussions to further improving wayfinding in Mt. Sinai Campus signage and buildings
- Worked with the Disability Access Committee and Bass Museum in improving access to arts programming and displays.
- Continued collaborating with Ocean Rescue in the beach wheelchair program
- On-going working relationship with FDOT ADA coordinator, County ADA coordinator, Florida ADA Network, and City contractors to improve accessibility, collaborate, and/or address accessibility issues on projects
- On-going working relationship with local agencies including Center for Independent Living, Vocational Rehab, Disability Rights Florida, Lighthouse for the Blind, Alliance for Aging, Service Dog Alliance, among others for referrals and consultation

Elevator Safety Section

- The elevator division passed an ordinance for stopping the installation of non- enclosed wheelchair lifts in Miami Beach due to safety concerns where an individual can be under the unit while it is moving in the down direction and can be possibly injured
- Worked in tandem with the disability committee in Miami Beach to make new technology for elevator car stations (touchscreens and keypads) more user friendly for the visually impaired
- Worked with other Chief Inspectors across the country and the lighthouse for the blind to implement better accessibility for the new technology being installed for the visually impaired on elevators
- Provided a demo unit for the Lighthouse for the blind for training purposes on the new technology being implemented on new elevators



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SIGNIFICANT ACCOMPLISHMENTS CONT'D

- Processed over 700 violations for buildings with expired certificates over the past year in an effort to make elevators safe for the riding public
- Implemented a process to suspend an inspector from working on Miami Beach after a number of monitoring inspections show the individual is not performing their work to the best of their ability creating a safety issue or the property and riding public

Greenspace Management Division

Greenspace Management manages the routine landscape maintenance contract, ensuring that the City's rights of way, parking lots, causeways, and coastal areas are maintained to City standards.

In addition to routine maintenance, Greenspace Management also performs landscape improvement projects. Landscape improvement projects can range from simply replacing dead, damaged or missing plant material within the landscape, transitioning older landscapes to a more Florida-friendly and lower-maintenance plant pallet, and/or increasing the aesthetic appeal of a site.

Notable renovation and enhancement landscape projects include:

- Renovated declining older plant materials in Crespi Neighborhood and eastern Normandy Shores bump-outs
- Replacement of palms at 71st Street Washington as a result of numerous vehicular accidents
- Replaced date palms and understory at 400 block of Lincoln Road Mall
- Redesigned Washington Avenue medians from Southpoint Drive to 5th Street
- Improved Beachwalk street entrance from South Pointe to 4th Street, 24th Street to 27th Street, 31st Street to 32nd Street, and 37th Street to 39th Street
- Replenished and renovated older plant materials at 11th Street Streetscape
- Redesigned right of way MacArthur Causeway entrances to Star, Palm, and Hibiscus Islands

CRITICAL SUCCESS FACTORS

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

- Maintain close collaboration with the Office of Capital Improvement Projects 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

CRITICAL SUCCESS FACTORS CONT'D

- Receive support from the Information Technology Department to ensure technology integration. The computerization of the department's data collection and expansion of staff computer literacy is critical to increase efficiency in the delivery of services
- 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
- In 2020, the City Commission approved funding for capital improvements to address critical needs in water and sewer infrastructure identified in the 2019 master plans. The Public Works Department has been working with consultants and contractors to plan and execute these projects. However, the pandemic in 2021 disrupted budgeting due to material scarcity and emergencies, leading to the prioritization of certain projects not originally planned. Material scarcity, market conditions, and price escalation have posed significant challenges to infrastructure budgeting.

FUTURE OUTLOOK

Under the leadership of the Mayor and City Commission, the department has accepted the challenge of rising above which includes enhancing storm water systems, raising road elevations, fortifying the City's shorelines to minimize the impact of sea level rise and the increased frequency of storm events. The department is looking at taking advantage of advances in technology and automation in providing manual services to maintain our City's infrastructure.