

RESOLUTION NO. _____

A RESOLUTION OF THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, TO PROCEED WITH OPTION 3A FOR THE LOCATION OF THE ABOVE AND BELOW GROUND COMPONENTS OF THE STORMWATER TREATMENT SYSTEM, AS PART OF THE WEST AVENUE PHASE II IMPROVEMENTS PROJECT, AS SET FORTH IN ATTACHMENT 1 ACCOMPANYING THIS RESOLUTION, TO PLACE ALL COMPONENTS AT 1671 WEST AVENUE (CITY PARKING LOT P24) WITH THE DISCHARGE OUTFALL AT 17TH STREET AND COLLINS CANAL.

WHEREAS, the West Avenue Phase II Improvements (the "Project") is a comprehensively defined neighborhood improvement project that is focused on resolving challenges associated with climate impacts and the City's aging infrastructure; and

WHEREAS, the proposed improvements within the West Avenue neighborhood include raising the paved roadway, harmonization to the adjacent properties, installation of a new robust storm water treatment and pumping system ("Stormwater Treatment System" or "SWTS"), replacement of the existing water distribution/transmission system, gravity sanitary sewers, installation of new street lighting, pedestrian lighting, replace existing and install new signalized intersection with mast arms, new landscaping, irrigation and construction of a new baywalk segment; and

WHEREAS, the Project will incorporate the improvements on West Avenue between 8 Street and Lincoln Road, including side streets, and Bay Road between 14 Street and Collins Canal; and

WHEREAS, the City Engineer's office, acting as the Design Criteria Professional, identified the need for an additional SWTS based on a drainage report prepared by a AECOM, and determined the location for the SWTS to be at the street end on Lincoln Road and the bay; and

WHEREAS, a SWTS is a mechanical system that accelerates the movement or discharge of stormwater, and the simplest way to analyze this STWS is to divide it into above ground and below ground components; and

WHEREAS, the above ground components are all related to power supply and controlling the SWTS, including an electrical panel platform, an auxiliary power generator, and FPL electrical vault structure; and

WHEREAS, the below ground components of the SWTS mechanically separate contaminant particulates from the stormwater, provide short term storage of the stormwater, and mechanically force the collected and treated stormwater into injection wells and Biscayne Bay, and the components also include stormwater drains, bar screen (trash rack), pollution control structures (Vortex), floatable separation, stormwater injection wells, wet well, outfall and emergency by-pass pipes; and

WHEREAS, the location of the SWTS components is a major aspect of the scope of work for the West Avenue Phase II Improvements Project, and the location of these critical components requires in depth analysis of numerous factors, including engineering feasibility, constructability,

operation/maintenance, safety, regulatory requirements, community impact, aesthetics, impact to other facilities (i.e. parking), and cost; and

WHEREAS, on July 31, 2017, the design-builder, Ric-Man Construction Florida (the "Design/Builder") began working on the West Avenue Phase II Improvement Project, and the Design/Builder's team includes and CES Consultants as the engineer of record; and

WHEREAS, the Design/Builder is a heavy civil construction firm that has been in the construction industry for over 35 years and are leaders in the industry that have earned their reputation for delivering challenging projects on time, on budget, and in a safe environment, and they specialize in offering innovative solutions to a wide range of projects, from pipeline and sea level rise work to marine construction and old underground systems rehabilitations; and

WHEREAS, CES Consultants is a minority-owned corporation providing engineering services to municipal, governmental, and private sectors throughout Florida and New York, and CES Consultants has engineered some of the largest infrastructure improvement projects in Florida; and

WHEREAS, throughout the entire Project, the team has conducted extensive public outreach, including continuous communication with the West Avenue Neighborhood Association (WAVNA), electronic email updates, open office hours, neighborhood walk-throughs, property specific one-on-one meetings with the project team, regular updates at the Land Use and Sustainability Committee, and more; and

WHEREAS, in preparation for property specific meetings, the Project team has prepared harmonization plans for 192 locations and community feedback related to the SWTS has been garnered on numerous occasions, via private and publicly noticed meetings; and

WHEREAS, in preparation for the Special City Commission Meeting on October 28, 2020, the Project team has prepared a virtual presentation for the community to provide feedback and the project information was shared via dedicated emails and included in the twice-a-week email updates that are distributed citywide and the information has also been shared on Nextdoor and other social media; and

WHEREAS, at the May 6, 2020 Land Use and Sustainability Committee ("LUSC") meeting, the recommended location of the SWTS components, including all analyzed alternative locations, for the Project were presented and discussed, and the presentation of the siting of the SWTS components included an overview of the multiple alternate locations and iterations and the challenges posed by each and the Committee's recommendation was to perform additional feasibility studies on alternate locations; and

WHEREAS, the LUSC also inquired how the community had been kept informed of the Project and how additional feasibility studies could impact the Project, and City staff provided an overview of the delays the Project could face and the impact that it will have on the design for the water quality enhancements required by Miami-Dade County Department of Environmental Resources Management; and

WHEREAS, the LUSC passed a motion to direct City staff to conduct additional feasibility studies and provide an order of magnitude construction cost estimate and address if the SWTS can be re-engineered to work at an alternate location; and

WHEREAS, in response to the feedback from LUSC, as well as input from the community, the City Administration determined that the Project was best served by expanding the scope of the recommendation of LUSC, and proceeding with an accelerated feasibility study for a total of 12 options for the location of the SWTS; and

WHEREAS, a directive was given to the Design/Builder to proceed with the accelerated feasibility study for the additional locations and iterations in the amount of \$207,776; and

WHEREAS, the accelerated feasibility study identifies, validates, and compares various options for the final location of the project's SWTS, and the accelerated feasibility study is attached to the Commission Memorandum accompanying this Resolution as Exhibit B; and

WHEREAS, the feasibility study identifies additional potential locations, to determine if it is possible to relocate the SWTS, and what kind of impact will it have on the Project and the community and in order to determine if an option is feasible and if the option meets the minimum requirements of the Project's needs; and

WHEREAS, the Project minimum requirements include meeting a 10-year theoretical storm event, identifying potential environmental contamination at each site, and identifying any potential permitting issues, and once it was determined that an option is feasible for relocation, the physical impacts to the City and its residents' day to day lives were analyzed; and

WHEREAS, physical impacts to the City and its residents' day to day lives include potential visual impairment, loss of parking, potential impacts to utility corridors within the public right of way, and impacts to operations, maintenance, and safety of city's public works employees; and

WHEREAS, the design team evaluated 12 options at various locations for the placement of the SWTS, including the generator, and provided an accelerated feasibility study which includes a Summary of Options attached to this Resolution as "Attachment 1"; and

WHEREAS, the Summary of Options explains the 12 options and prioritizes them into four (4) categories:

1. Base recommendation: includes the original option recommended by the Design/Builder team and currently included in the design;
2. Highly Preferred recommendation: includes a compromised option, that takes into consideration both the engineering and safety factors and the community concerns;
3. Preferred recommendation: includes four (4) feasible options that are less desirable due to operations and safety concerns; and
4. Not recommended: includes five (5) options that were studied and are not recommended; and

WHEREAS, Option 3A relocates above ground and below ground components of the SWTS at 1671 West Avenue (City Parking Lot P24) with the discharge outfall at 17th Street and Collins Canal; and

WHEREAS, Option 3A provides the location preferred by the Community, and it meets the design parameters, with the exception of having the ability to accommodate emergency bypass piping; and

WHEREAS, Option 3A has an estimated cost impact of \$2,875,000: and

WHEREAS, it is anticipated that the selection of this option will have a time impact of 325 days for the start of the construction on the Project, representing an additional 175 days from the base recommendation; and

WHEREAS, other options in the feasibility study pose many challenges, including engineering, regulatory, safety, parking, cost, scheduling, impact to adjacent properties, operation/maintenance and traffic circulation, especially when considering the technical requirements necessary for the placement of the equipment; and

WHEREAS, this Project has been separated into two distinct areas, with 14th Street serving as the dividing boundary; and

WHEREAS, the overall original Project budget was originally \$56,108,748, and additional funds were added to the Project related to hardscape scope, to incorporate scope related to the Columbia Resiliency Accelerator program, and for design costs associated with additional water quality treatment system as requested by DERM, bringing the total project budget to \$90,140,819; and

WHEREAS, in addition to any additional costs associated with the siting of the SWTS components, the Project will also require additional funding for construction of the additional water quality enhancements required by Miami-Dade County Department of Environmental Resources Management (approx. \$10M- \$15M) and construction costs for upsized stormwater piping resulting from the change of stormwater criteria from a 5-year to a 10-year design storm event (approx. \$3M); and

WHEREAS, at the September 13, 2017 commission meeting, the City Commission passed a Resolution providing that the SWTS would require auxiliary power generators, and as a result, a change order was issued to the Design/Builder team to include the installation of nine (9) generators at the existing and proposed SWTS, located at the street-ends of 5th Street, 6th Street, 10th Street, 14th Street, Bay Road and at the new SWTS proposed for Lincoln Road; and

WHEREAS, on October 14th, 2020, the City Commission passed a Resolution implementing auxiliary power generators for SWTS on a case-by-case basis; and

WHEREAS, FP&L has introduced a new program that provides independent redundant electrical service system for critical infrastructure, including SWTS and this program could potentially reduce some of the concerns regarding power outages and the operation of the SWTS; and

WHEREAS, the City Administration is prepared to recommend excluding auxiliary power generators from the West Avenue Project, contingent on evaluation of the electrical reliability data that will be provided by FP&L; and

WHEREAS, excluding auxiliary power generators from the West Avenue Project could result in a savings of approximately \$4.5 million; and

WHEREAS, once a determination is made regarding the siting of the SWTS, City staff will issue a directive to the Design/Builder to submit a proposal for the re-design and construction of the revised SWTS, and a change order will be presented at a forthcoming Commission Meeting; and

Stormwater Treatment System at Lincoln Road, Summary of Options

Option	Location	Underground Component Location	Generator Location	FPL Vault Location	Control Pane(s) Location	10-Year Storm Piping	Emergency Gravity Bypass	Cost Impact	Δ To Option 1	Construction Time Impact (Days)	Recommendation
1	Lincoln Court & Bay Road; SWTS at Lincoln Road	Lincoln Rd	Lincoln Ct and Bay Rd	Lincoln Ct and Bay Rd	Lincoln Ct and Bay Rd	✓	✓	\$1,805,000	\$0	150	Base
2	Control Panels at Lincoln Road; All else at 1671	Lincoln Rd	1671 West Ave	1671 West Ave	Lincoln Ct and Bay Rd	✓	✓	\$2,620,000	\$815,000	150	Highly Preferred
3	SWTS and all EQ to 1671 – Discharge at Lincoln Road	1671 West Ave	1671 West Ave	1671 West Ave	1671 West Ave	✓	X	\$4,296,000	\$2,491,000	360	Preferred
3A	SWTS and EQ to 1671; Discharge at 17th	1671 West Ave	1671 West Ave	1671 West Ave	1671 West Ave	✓	X	\$2,875,000	\$1,070,000	325	Preferred
4	5-year Storm / 10-year Piping	Lincoln Rd	Lincoln Rd End	Lincoln Rd End	Lincoln Rd End	✓	✓	(\$2,632,876)	(\$4,437,876)	90	Not Recommended
4A	5-year Storm / 10-year Piping & Structures	Lincoln Rd	Lincoln Ct and Bay RD	Lincoln Ct and Bay Rd	Lincoln Ct and Bay Rd	✓	✓	\$2,028,900	\$223,900	180	Not Recommended
5	2 SWTS @ Lincoln Road & Bay Road	Lincoln Ct and Bay Rd	Lincoln Ct and Bay RD	Lincoln Ct and Bay Rd	Lincoln Ct and Bay Rd	✓	✓	\$2,129,076	\$324,076	360	Not Recommended
6	SWTS at Lincoln; All EQ at 1671	Lincoln Rd	1671 West Ave	1671 West Ave	1671 West Ave	✓	✓	\$1,857,000	\$52,000	150	Preferred
7	Upgrade 6 th , 10 th , 14 th St SWTS; Downgrade Lincoln SWTS	6th,10th,14th, Lincoln	6th,10th,14th, Lincoln	6th,10th,14th, Lincoln	6th,10th,14th, Lincoln	✓	✓	(\$87,000)	(\$1,892,000)	480	Not Recommended
8	Eliminate Gen Set; SWTS and EQ at Lincoln	Lincoln Rd	N/A	Lincoln Ct and Bay Rd	Lincoln Ct and Bay Rd	✓	✓	\$468,537	(\$1,336,463)	150	Not Recommended
9	SWTS at Lincoln Rd; All EQ at 1625	Lincoln Rd	1625 West Ave	1625 West Ave	1625 West Ave	✓	✓	\$1,810,000	\$5,000	150	Preferred
10	Above Ground EQ @ Gaythering Hotel	Lincoln Rd	Gaythering Hotel	Gaythering Hotel	Gaythering Hotel	✓	✓	\$3,200,000	\$1,395,000	Min. 420	Not Recommended

Engineering & Construction Perspective:

Base: D/B Team Recommended

Highly Preferred Recommendation

Preferred Recommendation

Not Recommended