



Memorandum

Memorandum No: 23-054

Date: April 3, 2023

To: Honorable Mayor, Vice Mayor, and Commissioners

From: Greg Chavarria, City Manager 
Greg Chavarria (Apr 5, 2023 08:55 EDT)

Re: River Oaks Stormwater Project

Overview:

The River Oaks Stormwater Improvement Project is a \$25M neighborhood-wide stormwater infrastructure project that aims to reduce flooding for 40+ acres within the River Oaks neighborhood. The contractor, Ric-Man Construction Florida Inc. (Ric-Man) started in January 2022, with work expected to last approximately 30 months, resulting in a substantial completion date of May 2024. The project has advanced and is approximately 80% complete and almost one year ahead of schedule. The estimated date of substantial completion is now July 2023.

On February 24, 2023, the contractor received a Notification of Potential Enforcement Action (NOPEA) from the Broward County Environmental Permitting Division for excessive turbidity associated with dewatering discharges into the Coconut Drive drainage canal. On March 21, 2023, the contractor and the City received a NOPEA for excessive turbidity associated with unauthorized discharges into the River Oaks Wetland Preserve. On both occasions, staff took prompt action and followed up with a process to address each situation. This memorandum provides an overview of actions that led up to the two notifications and steps the City has taken to restore compliance with all environmental requirements.

Background:

The River Oaks Stormwater project is designed to work in conjunction with two other projects: Edgewood Stormwater Improvements (\$15 million) and River Oaks Pumpstations (\$11 million), both currently under construction. Stormwater runoff from both the Edgewood and River Oaks neighborhoods will be pumped to the South Fork of the New River via two pumpstations located within the River Oaks Preserve area.

As part of permitting for the River Oaks project, Ric-Man Construction obtained a dewatering permit (6-08219-W) which allows dewatering into the Coconut Drive drainage canal (one of several locations) and into the "City of Fort Lauderdale drainage system that ultimately drains to the South Fork of the New River". The dewatering discharge consists of ground water being pumped out of excavation pits when a large diameter pipe is being installed. This discharge is generally clean ground water but may have turbidity due to suspended siltation from the soils themselves.

The two main dewatering locations, utilized during construction, are the Coconut Drive drainage canal and the wetland pond located within River Oaks Preserve (part of the City of Fort Lauderdale drainage system as stipulated in the permit conditions). When all projects are complete, the River Oaks Preserve wetland pond will serve as the discharge point for one of the newly constructed pump stations serving the neighborhood and is an integral part of the City's new drainage system.

Coconut Drive Drainage Canal NOPEA:

The Coconut Drive drainage canal, located north of SW 20th Street, is approximately 1,000 feet long and heavily silted with an average depth of 6 inches during the dry season and up to 1.5 feet during wetter periods. The drainage canal is partially located within City Right-of-Way and partially in the adjacent marina property, with the City holding easement rights for drainage and conveyance.

To support construction, Ric-Man set a dewatering operation in the Coconut Drive drainage canal, as authorized by permit 06-8219-W. The discharge disrupted the canal bottom, increasing turbidity in the water body above allowable limits, prompting Broward County to issue the February 24, 2023, NOPEA (attached). In response, the City convened a meeting on February 28th, 2023 with Ric-Man, City consultants, and Broward County enforcement staff to discuss turbidity concerns and methods to reduce turbidity in the canal. Some of the methodologies explored included construction of a temporary dry retention as catchment area, baffle boxes, and gravel to dissipate the discharge energy and minimize canal bottom disturbance.

Following the February 28, 2023, meeting, Ric-Man implemented several measures to reduce turbidity, including adding washed #57 rock (the same type used in exfiltration trenches) to the canal as a way to filter and dissipate the energy of the dewatering discharge. Some residents reported this as an illegal dumping of waste construction materials; however, the rock was clean material, included as a line item in the construction contract, that has been used successfully in the past as a Best Management Practice (BMP) for this purpose. The described method was only intended to be a temporary measure to improve reduction of turbidity in the canal and was to be removed when the canal was restored as part of the project. Consequently, Broward County requested that the rock be removed from the canal, as it was not authorized within the project permits and the rock was removed by the contractor on March 17, 2023.

While Permit 06-8219-W allows dewatering into the Coconut Drive drainage canal, on March 16, 2023, Broward County directed that all dewatering activities stop to address impacts on the River Oaks Preserve. At this time, all dewatering into the Coconut Drive drainage canal have ceased and Ric-Man, has submitted additional project documentation, as requested by the County. Once conditions in the NOPEA are met, and clearance is given by the County, dewatering activities may resume.

The approved engineering permits for River Oaks Stormwater Improvements (SWM2018-081-5) includes replacing existing dual 42" culverts that traverse SW 20th Street within the Coconut drainage canal with larger capacity concrete box culverts and reshaping the bank/bottom in each direction. The existing culverts are 80% to 90% silted-in and cannot provide the increased water conveyance required for the system to operate. These improvements are fully permitted

and approved within the \$50M combined investment for the River Oaks Project/Edgewood Project/River Oaks Pump stations (see attached approved plan sheet [PDF CU-ST 18A](#)). During installation, this section of the canal will be dammed up with sheet piles/earthen dams, culverts replaced, and the banks reshaped and restored per the plan. The culvert installation and accompanying site work will be in full compliance with all regulatory guidelines and environmental regulations.

River Oaks Preserve NOPEA:

The River Oaks Wetland Preserve comprises approximately nine acres of constructed wetland ponds, uplands and stormwater infrastructure. The preserve was completed by the City of Fort Lauderdale in 2021 and will house two stormwater pumpstations needed to drain the River Oaks and Edgewood neighborhoods. The larger of the two pumpstations will be housed within the preserve area to attenuate stormwater runoff, discharging it via a dissipator in the South Fork of the New River that bypasses the wetland area entirely. The smaller pumpstation will attenuate a portion of the stormwater runoff from the River Oaks neighborhood (approximately 40 acres), discharging it into the onsite wetland. Once in the wetland, the runoff will be polished using natural vegetation and biota as an additional form of water quality treatment before discharging to the South Fork of the New River. All plans and permits for construction of the pumpstations have been approved and construction is expected to commence in May 2023, with construction expected to take approximately 18 months to complete.

Ric-Man construction was using the onsite wetland as a discharge point for the dewatering runoff from pipeline installation. The contractor believed this dewatering was authorized based on permit (06-8219-W) condition stating, "City of Fort Lauderdale drainage system that ultimately drains to the South Fork of the New River". Similar to the Coconut Drive drainage canal, discharges caused excessive turbidity and impacts in the wetland area with expanding siltation plumes, prompting Broward County to meet with City representatives on March 16, 2023, and issue a NOPEA on March 21, 2023. The NOPEA identifies violations of both Surface Water Management Licenses and Environmental Resources Permits, as the dewatering permit did not authorize discharging of dewatering into the preserve. Broward County directed specific corrective actions necessary to bring the project into compliance. City staff has directed both the contractor, Ric-Man, and our consultants to take all steps necessary to comply, including the following:

- All dewatering activities have ceased, and a revised dewatering plan will be developed to prevent excessive turbidity before any future dewatering is authorized.
- There will be no further discharges into the wetland preserve and the City will develop and implement a monitoring and sampling plan and wetland remediation plan.
- The City will increase Construction Engineering and Inspection (CEI) services to provide greater on-site quality assurance and verify Ric-Man's quality control procedures are adequate during future work.

Conclusion

The River Oaks and Edgewood neighborhoods are two of the most impacted areas in the City during heavy rain events and this new stormwater infrastructure will greatly reduce the flooding in these two historic neighborhoods. Due to the complexity and large scope of this stormwater project, dewatering is a necessary activity for the successful installation of stormwater infrastructure. This activity, however, resulted in negative and unacceptable environmental impacts to the Stormwater Preserve. Water conditions within the wetland have already started to show signs of improvement and with the upcoming rainfall season we expect it will recover drastically over the upcoming months. As this project moves forward, City staff, project consultants, and the contractor will be working closely with Broward County to monitor discharge turbidity to ensure the project remains in full compliance until its completion.

Attachments:

River Oaks Dewatering Permit 06-08219-W

Plan sheet from approved set sheet SW 20th Street Culvert Replacement

NOPEA Letter Dated February 24, 2023 (Coconut Canal)

NOPEA Letter Dated March 21, 2023 (Preserve)

c: Anthony G. Fajardo, Assistant City Manager
Susan Grant, Assistant City Manager
D'Wayne M. Spence, Interim City Attorney
David R. Soloman, City Clerk
Patrick Reilly, City Auditor
Department Directors
CMO Managers



APPLICATION NO: 211202-8

PERMIT NUMBER: 06-08219-W

DATE ISSUED: January 14, 2022

EXPIRATION DATE: January 14, 2025

PERMITTEE: RIC- MAN CONSTRUCTION FLORIDA INC
3100 S W 15TH STREET
DEERFIELD BEACH, FL 33442-8188

PROJECT NAME: RIVER OAKS STORMWATER IMPROVEMENTS

PROJECT LOCATION: Broward County, S15,16,21/T50S/R42E

PROJECT DESCRIPTION/AUTHORIZING:

Dewatering of the water table to facilitate the removal and replacement of stormwater infrastructure and relocation of utilities for a City of Fort Lauderdale project in Broward County.

This is to notify you of South Florida Water Management District's (District) agency action concerning Permit Application Number 211202-8, received December 2, 2021. This action is taken pursuant to Chapter 373, Part II, Florida Statutes (F.S.), Rule 40E-1.603 and Chapter 40E-2, Florida Administrative Code (F.A.C.). Based on the information provided, District rules have been adhered to and a Water Use Individual Permit is in effect for this project subject to:


1. Not receiving a filed request for an administrative hearing pursuant to Section 120.57, F.S. and Section 120.569, F.S., or a request for a judicial review pursuant to Section 120.68, F.S.
2. The attached 32 permit conditions.
3. The attached 7 exhibits.

By acceptance and utilization of the water authorized under this permit, the Permittee agrees to hold and save the District and its successors harmless from any and all damages, claims or liabilities that may arise by reason of the construction, maintenance or use of activities authorized by this permit. Should you object to the permit, please refer to the attached "Notice of Rights" that addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Should you wish to object to the proposed agency action or file a petition or request, please provide written objections, petitions, requests and/or waivers to: Office of the District Clerk, South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, FL 33406, or by email to clerk@sfwmd.gov.

CERTIFICATION OF SERVICE

I HEREBY CERTIFY THAT this written notice has been mailed or electronically transmitted to the Permittee (and the persons listed in the attached distribution list) this 14th day of January, 2022, in accordance with Section 120.60(3), F.S. Notice was also electronically posted on this date through a link on the home page of the District's website (my.sfwmd.gov/ePermitting).

BY:


Simon Sunderland, P.G.
Bureau Chief
Water Use Bureau

SPECIAL PERMIT CONDITIONS

1. This permit is issued to:
Ric- Man Construction Florida Inc
3100 S W 15th Street
Deerfield Beach FL 33442-8188
2. This permit shall expire on January 14, 2025.
3. Use classification is:

Dewatering
4. Source classification is:

Surface Water from:
Water Table aquifer
5. Pursuant to Subsection 2.3.2.B.2 of the Applicant's Handbook for Water Use Permit Applications within the South Florida Water Management District, neither maximum monthly nor annual allocation volumes are specified.
6. Withdrawal facilities:

Surface Water - Proposed:

1 - 12" x 100 HP X 3000 GPM Rotary Pump
7. The Permittee shall submit all data as required by the implementation schedule for each of the permit conditions to: SFWMD at www.sfwmd.gov/ePermitting, or Regulatory Support, 3301 Gun Club Road, West Palm Beach, FL 33406.
8. The Permittee must submit the appropriate application form incorporated by reference in Rule 40E-2.101, F.A.C., to the District prior to the permit expiration date in order to continue the use of water.
9. The excavation shall be constructed using sound engineering practices. If the excavation or dewatering activities endanger the properties of adjacent owners (through erosion, side wall collapse, flooding, etc.), the Permittee shall cease operations until a method to prevent such occurrences is found and instituted. The Permittee shall be responsible for finding and instituting methods to stop such occurrences.
10. The Permittee shall immediately cease dewatering when continued dewatering would create a condition hazardous to the health, safety, and general welfare of the people of the District.

11. The Permittee shall be responsible for clearing shoaling, if the Permittee's dewatering operation creates shoaling in adjacent water bodies.
12. The Permittee shall conduct dewatering activities in adherence to the following operating plan:

Dewatering will be conducted in accordance with the plans provided in Exhibit 5 (Application 211202-8). Effluent will be routed into the City of Fort Lauderdale drainage system. If exceptional storm conditions occur that exceed the capacity of the dewatering effluent disposal systems, the Permittee is required to cease dewatering operations until adequate storage is available to contain all dewatering discharge.
13. The Permittee shall not lower the water table below the following depths:

-12 feet NGVD (approximately 17 feet below land surface)
14. Off-site discharge may be made via the facilities and conditions that follow:

Dewatering effluent will be routed into the City of Fort Lauderdale drainage system that ultimately drain to the South Fork New River.
15. Turbidity measurements of the dewatering water shall be made daily at the point of discharge and a background location (upstream) in the receiving water body. If turbidity levels in the dewatering water exceed 29 NTU above background conditions in the receiving water body, or 0 NTU above background for discharge to Outstanding Florida Waters, the Permittee is required to correct the situation and cease dewatering operations until monitoring demonstrates turbidity standards are met. All turbidity data shall be retained on-site for inspection by District Staff.
16. The Permittee shall record daily withdrawals for each dewatering pump. This recorded information shall be maintained on-site and provided to District staff upon request.
17. A copy of the permit, its conditions, and dewatering plan is required to be kept on site at all times during dewatering operations by the lead contractor or site manager.
18. Within 30 days of completion of the dewatering operation, all dewatering facilities (such as impoundments, conveyances, and recharge trenches) shall be filled and regraded to ground elevation or to otherwise comply with the Environmental Resource Permit.
19. The Permittee shall submit to the District an updated "Summary of Groundwater (Well) or Surface Water (Pump or Culvert) Facilities" table ("Section IV - Sources of Water", Water Use Permit Application Form 1379) at least 30 days prior to a change in any facility status (e.g. installation, relocation, abandonment) to include all specifications of the well, pump or culvert (e.g. actual total and cased depths, pump manufacturer and model numbers, pump types, intake depths and type of meters, culvert type, length, cross-section, diameter, height, width, invert elevation, control

device, and water use accounting method).

20. At least 72 hours prior to initial dewatering, the Permittee shall contact the District to allow for a site visit to verify:
 - a. The location and design of the recharge trenches and on-site retention areas where dewatering water will be retained;
 - b. The location of monitoring facilities; and,
 - c. Other site-specific issues related to the protection of the resource or other existing legal users.

Failure of the Permittee, or the Permittee's representative, to notify the District before dewatering commences will result in enforcement action. If necessary, the District shall conduct a site visit.

Notification of commencement of dewatering can be made by contacting:
wucompliance@sfwmd.gov

21. The Permittee shall submit an Annual Dewatering Project Status Report, which shall, at a minimum, include a summary of the project's completed phases, an updated estimated project schedule/timeline for all remaining phases, and any anticipated changes to the original approved dewatering plans.

Reports shall be due to the District on a yearly basis and are due by December 31st of each year.

STANDARD PERMIT CONDITIONS

1. All water uses authorized by this permit shall be implemented as conditioned by this permit, including any documents incorporated by reference in a permit condition. The District may revoke this permit, in whole or in part, or take enforcement action, pursuant to Section 373.136 or 373.243, F.S., unless a permit modification has been obtained to address the noncompliance.

The Permittee shall immediately notify the District in writing of any previously submitted material information that is later discovered to be inaccurate.

2. The Permittee is advised that this permit does not relieve any person from the requirement to obtain all necessary federal, state, local and special district authorizations.
3. The Permittee shall notify the District in writing within 30 days of any sale, transfer, or conveyance of ownership or any other loss of permitted legal control of the Project and/or related facilities from which the permitted consumptive use is made. Where Permittee's control of the land subject to the permit was demonstrated through a lease, the Permittee must either submit a new or modified lease showing that it continues to have legal control or documentation showing a transfer in control of the permitted system/project to the new landowner or new lessee. All transfers of ownership are subject to the requirements of Rule 40E-1.6107, F.A.C. Alternatively, the Permittee may surrender the consumptive use permit to the District, thereby relinquishing the right to conduct any activities under the permit.
4. Nothing in this permit should be construed to limit the authority of the District to declare a water shortage and issue orders pursuant to Chapter 373, F.S. In the event of a declared water shortage, the Permittee must adhere to the water shortage restrictions, as specified by the District. The Permittee is advised that during a water shortage, reports shall be submitted as required by District rule or order. The Permittee is advised that during a water shortage, pumpage, water levels, and water quality data shall be collected and submitted as required by District orders issued pursuant to Chapter 40E-21, F.A.C.
5. This permit does not convey to the Permittee any property rights or privileges other than those specified herein, nor relieve the permittee from complying with any applicable local government, state, or federal law, rule, or ordinance.
6. With advance notice to the Permittee, District staff with proper identification shall have permission to enter, inspect, observe, collect samples, and take measurements of permitted facilities to determine compliance with the permit conditions and permitted plans and specifications. The Permittee shall either accompany District staff onto the property or make provision for access onto the property.
7. A. The Permittee may seek modification of any term of an unexpired permit. The Permittee is advised that Section 373.239, F.S., and Rule 40E-2.331, F.A.C., are applicable to permit modifications.

B. The Permittee shall notify the District in writing 30 days prior to any changes to the project that

could potentially alter the reasonable demand reflected in the permitted allocation. Such changes include, but are not limited to, change in irrigated acreage, crop type, irrigation system, large users agreements, or water treatment method. Permittee will be required to apply for a modification of the permit for any changes in permitted allocation.

8. If any condition of the permit is violated, the permit shall be subject to review and modification, enforcement action, or revocation pursuant to Chapter 373, F.S.
9. The Permittee shall mitigate interference with existing legal uses that was caused in whole or in part by the Permittee's withdrawals, consistent with the approved mitigation plan. As necessary to offset the interference, mitigation will include pumpage reduction, replacement of the impacted individual's equipment, relocation of wells, change in withdrawal source, or other means.

Interference to an existing legal use is defined as an impact that occurs under hydrologic conditions equal to or less severe than a 1-in-10 year drought event that results in the:

A. Inability to withdraw water consistent with provisions of the permit, such as when remedial structural or operational actions not materially authorized by existing permits must be taken to address the interference; or

B. Change in the quality of water pursuant to primary State Drinking Water Standards to the extent that the water can no longer be used for its authorized purpose, or such change is imminent.

10. The Permittee shall mitigate harm to the natural resources caused by the Permittee's withdrawals, as determined through reference to the conditions for permit issuance. When harm occurs, or is imminent, the District will require the Permittee to modify withdrawal rates or mitigate the harm. Harm, as determined through reference to the conditions for permit issuance includes:

A. Reduction in ground or surface water levels that results in harmful lateral movement of the fresh water/salt water interface,

B. Reduction in water levels that harm the hydroperiod of wetlands,

C. Significant reduction in water levels or hydroperiod in a naturally occurring water body such as a lake or pond,

D. Harmful movement of contaminants in violation of state water quality standards, or

E. Harm to the natural system including damage to habitat for rare or endangered species.

11. The Permittee shall mitigate harm to existing off-site land uses caused by the Permittee's withdrawals, as determined through reference to the conditions for permit issuance. When harm occurs, or is imminent, the District will require the Permittee to modify withdrawal rates or mitigate the harm. Harm as determined through reference to the conditions for permit issuance, includes:

A. Significant reduction in water levels on the property to the extent that the designed function of the water body and related surface water management improvements are damaged, not including aesthetic values. The designed function of a water body is identified in the original permit or other governmental authorization issued for the construction of the water body. In cases where a permit was not required, the designed function shall be determined based on the purpose for the original construction of the water body (e.g. fill for construction, mining, drainage canal, etc.)

B. Damage to agriculture, including damage resulting from reduction in soil moisture resulting from consumptive use; or,

C. Land collapse or subsidence caused by reduction in water levels associated with consumptive use.

NOTICE OF RIGHTS

As required by Chapter 120, Florida Statutes, the following provides notice of the opportunities which may be available for administrative hearing pursuant to Sections 120.569 and 120.57, Florida Statutes, or judicial review pursuant to Section 120.68, Florida Statutes, when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Some of the legal proceedings detailed below may not be applicable or appropriate for your situation. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Florida Statutes. Persons seeking a hearing on a District decision which affects or may affect their substantial interests shall file a petition for hearing in accordance with the filing instructions set forth herein within 21 days of receipt of written notice of the decision unless one of the following shorter time periods apply: (1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Florida Statutes; or (2) within 14 days of service of an Administrative Order pursuant to Section 373.119(1), Florida Statutes. "Receipt of written notice of agency decision" means receipt of written notice through mail, electronic mail, posting, or publication that the District has taken or intends to take final agency action. Any person who receives written notice of a District decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

If the District takes final agency action that materially differs from the noticed intended agency decision, persons who may be substantially affected shall, unless otherwise provided by law, have an additional point of entry pursuant to Rule 28-106.111, Florida Administrative Code.

Any person to whom an emergency order is directed pursuant to Section 373.119(2), Florida Statutes, shall comply therewith immediately, but on petition to the board shall be afforded a hearing as soon as possible.

A person may file a request for an extension of time for filing a petition. The District may grant the request for good cause. Requests for extension of time must be filed with the District prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and whether the District and any other parties agree to or oppose the extension. A timely request for an extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

FILING INSTRUCTIONS

A petition for administrative hearing must be filed with the Office of the District Clerk. Filings with the Office of the District Clerk may be made by mail, hand-delivery, or e-mail. Filings by facsimile will not be accepted. A petition for administrative hearing or other document is deemed filed upon receipt during normal business hours by the Office of the District Clerk at the District's headquarters in West Palm Beach, Florida. The District's **normal business hours are 8:00 a.m. – 5:00 p.m.**, excluding weekends and District holidays. Any document received by the Office of the District Clerk after 5:00 p.m. shall be deemed filed as of 8:00 a.m. on the next regular business day. Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the District Clerk, 3301 Gun Club Road, West Palm Beach, Florida 33406.

- Filings by hand-delivery must be delivered to the Office of the District Clerk. Delivery of a petition to the District's security desk does not constitute filing. It will be necessary to request that the District's security officer contact the Office of the District Clerk. An employee of the District's Clerk's office will receive and process the petition.
- Filings by e-mail must be transmitted to the Office of the District Clerk at clerk@sfwmd.gov. The filing date for a document transmitted by electronic mail shall be the date the Office of the District Clerk receives the complete document.

INITIATION OF AN ADMINISTRATIVE HEARING

Pursuant to Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes, and Rules 28-106.201 and 28-106.301, Florida Administrative Code, initiation of an administrative hearing shall be made by written petition to the District in legible form and on 8 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, District file number or any other District identification number, if known.
2. The name, address, any email address, any facsimile number, and telephone number of the petitioner, **petitioner's** attorney or qualified representative, if any.
3. An explanation **of how the petitioner's substantial** interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the District's **decision**.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the District's **proposed action**.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the District's **proposed action**.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the District to take with respect to the District's **proposed action**.

MEDIATION

The procedures for pursuing mediation are set forth in Section 120.573, Florida Statutes, and Rules 28-106.111 and 28-106.401–.405, Florida Administrative Code. The District is not proposing mediation for this agency action under Section 120.573, Florida Statutes, at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Section 120.68, Florida Statutes, and in accordance with Florida Rule of Appellate Procedure 9.110, a party who is adversely affected by final District action may seek judicial review of the District's final decision by filing a notice of appeal with the Office of the District Clerk in accordance with the filing instructions set forth herein within 30 days of rendition of the order to be reviewed, and by filing a copy of the notice with the appropriate district court of appeals via the Florida Courts E-Filing Portal.

WATER USE STAFF REPORT

Application Number: 211202-8
Permit Number: 06-08219-W
Project Name: RIVER OAKS STORMWATER IMPROVEMENTS
Water Use Permit Status: PROPOSED
Location: BROWARD COUNTY, S15,16,21/T50S/R42E
Applicant's Name and Address: RIC- MAN CONSTRUCTION FLORIDA INC
3100 S W 15TH STREET
DEERFIELD BEACH, FL 33442-8188
Water Use Classification: Dewatering

Sources:

Surface Water from: Water Table aquifer

Proposed Withdrawal Facilities - Surface Water

Source: Water Table aquifer
1 - 12" X 100 HP X 3000 GPM Rotary Pump

<u>Rated Capacity Source</u>	<u>Status Code</u>	<u>GPM</u>	<u>MGM</u>	<u>MGY</u>
Water Table aquifer	P	3,000	131.3	1,577
Totals:		3,000	131.3	1,577

PURPOSE

The purpose of this application is to obtain a water use permit for dewatering to allow for the removal and replacement of stormwater infrastructure and utility relocation for the River Oaks neighborhood. Withdrawals are from the water table aquifer (WTA).

PROJECT DESCRIPTION

River Oaks Stormwater Improvements (Project) is a City of Fort Lauderdale project located between Davie Road, SW 9th Avenue, State Road 84 and Interstate 95, in Broward County, Florida, as depicted in Exhibits 1 through 3. Dewatering is necessary to facilitate removal and replacement of stormwater infrastructure and utility relocation. Withdrawals are from the WTA via one proposed withdrawal facility as described in Exhibit 4.

Dewatering Operations:

Active dewatering will be completed in several phases, over a three-year period. The dewatering plan, profile, and calculations are provided in Exhibit 5. Additional plan, profile, and calculations are on file under the Application No: 211202-8. Dewatering is

PROJECT DESCRIPTION (CONTINUED)

to be accomplished via the use of rotary pump with wellpoint system. The dewatering effluent will be routed into the City of Fort Lauderdale drainage system. These stormwater systems discharge to local drainage canals with eventual discharge to the South Fork New River. The maximum depth of the dewatering is approximately -12 feet National Geodetic Vertical Datum (NGVD), which is approximately 17 feet below the average land surface elevation of 5 feet NGVD. The contractor will implement a turbidity monitoring plan, as depicted in Page 2 and Page 5 of Exhibit 5. If exceptional storm conditions occur that exceed the capacity of the dewatering effluent disposal systems, the Permittee is required to cease dewatering operations until adequate storage is available to contain all dewatering discharge.

PROJECTED WATER USE DEMANDS

Maximum month and annual allocations are not specified for dewatering permits [Subsection 2.3.2.B.2 of the Applicant's Handbook (AH) for Water Use Permit Applications within the South Florida Water Management District (District)], however, the Applicant provided estimated dewatering volumes of 0.36 million gallon maximum per day and 83.75 million gallons for the total dewatering Project as shown in pages 8 through 10 of Exhibit 5.

IMPACT EVALUATION

The Applicant estimated the radius of influence due to the proposed dewatering using the Sichardt empirical equation. The Sichardt empirical equation calculates the outer distance of the radius of influence for steady state conditions. The modeling data are consistent with the criteria for basic analytic and numerical impact assessments set forth in Subsection 3.1.2 of the AH. The maximum radius of influence was calculated to be 208.9 feet. The calculations are provided in Exhibit 5, Page 11.

WATER RESOURCE IMPACT EVALUATION

Water Resource Availability

Water Table aquifer

The average land surface land surface elevation at the Project site is approximately 5.0 feet NGVD. The WTA is considered to be the upper portion of the surficial aquifer system (SAS). The base of the SAS in the vicinity of the Project is approximately -220 feet NGVD based on District Technical Publication 92-05. The maximum depth of dewatering will be to an elevation of -12 feet NGVD leaving a saturated thickness of approximately 208 feet. Therefore, the potential for harm to occur to water resource availability of the WTA as a result of the dewatering operations is considered minimal.

Existing Legal Users

Water Table aquifer

There are three existing legal users of the SAS located adjacent to the Project boundary. They are Blu' On Marina Boulevard (Water Use Permit 06-06643-W), Broward Area Office (06-03545-W), and Rio A C Well (06-05305-W). Withdrawal facilities for these projects are located outside of the calculated radius of influence of the dewatering operations. Therefore, the potential for harm to occur to existing legal

WATER RESOURCE IMPACT EVALUATION (CONTINUED)

users as a result of the dewatering operations is considered minimal.

Existing Off Site Land Uses

Water Table aquifer

Land uses that are dependent upon water being on or near land surface and that existed prior to this application are protected from harm. The surrounding land use is bordered industrial, commercial, and residential urban areas. Only negligible off-site drawdown of the WTA is expected to occur as determined by the radius of influence calculations and the temporary nature of the dewatering activities for each phase of the Project. Therefore, pursuant to Subsection 3.6.2 of the AH, the use is not expected to result in significant reduction in water levels on the property of an existing offsite land use to the extent that: the designed function of a water body and related surface water management improvements are damaged (not including aesthetic values); or result in damage to agriculture, including damage resulting from reduction in soil moisture resulting from water use, or land collapse or subsidence caused by reduction in water levels associated with water use.

Migration of Saline Water

Water Table aquifer

The nearest source of surface saline water is the Intracoastal Waterway located 2.2 miles to the east of the Project, beyond the calculated dewatering radius of influence. The underlying WTA contains fresh water in this area. The maximum depth of dewatering is 17 feet below land surface. Significant drawdown of the WTA is not expected to occur due to the temporary nature of the dewatering activities for each phase of the Project. Therefore, the potential for lateral intrusion of surface saline water or upconing of saline groundwater as a result of the dewatering operations is considered minimal.

Wetland Environments

Water Table aquifer

There is a wetland preserve, which was authorized under Environmental Resource Permit No. 06-03146-P, within the Project site; however, the estimated radius of influence will not extend to the wetland area. Dewatering effluent will be discharged to nearby canals connecting to the South Fork New River. Turbidity curtains will be placed at the outfalls into the canals, and a turbidity monitoring plan will be required during the dewatering activities. Based upon application of the narrative standard that the hydrologic alteration of the water use shall not adversely impact the values of wetland functions so as to cause harm to the abundance, diversity and habitat of fish, wildlife and listed species, the potential for harm to occur to the off-site wetlands as a result of the dewatering operations is considered minimal.

Sources of Pollution

Water Table aquifer

There are several potential contaminated sites located in the vicinity of the Project.

WATER RESOURCE IMPACT EVALUATION (CONTINUED)

The Applicant has obtained authorization from the Broward County Environmental Engineering and Permitting Division issued an approval for Construction Dewatering Activities (BCDP ID 21165042 on file with the District) to evaluate the impact of construction dewatering on pollution migration. As noted in the Broward County Dewatering ID 21165042, if discovery of undocumented contamination is recorded or observed, dewatering activities shall cease, and Broward County and the District shall be notified immediately. Therefore, the potential for the induced movement of contaminants, if present, from known sources of pollution to occur as a result of the dewatering operations is considered minimal.

ADDITIONAL INFORMATION

Regional Issues

Regional Water Availability

The calculated radius of influence does not extend to any regional water body. Therefore, pursuant to Subsection 3.2.1 of the AH, the dewatering activities will not cause a net increase in the volume or cause a change in timing on a monthly basis of surface and groundwater withdrawn from the Everglades Waterbodies.

Project Site Issues

Legal Control and Land Use

The Permittee provided documentation demonstrating legal control of the Project site. The water withdrawals requested for dewatering for stormwater improvement is compatible with the zoning at this site (Subsection 2.1 of the AH).

Permit Duration

The Applicant provided a construction dewatering schedule that demonstrates a permit duration of three years will be required. Therefore, the water use permit duration shall be three years.

ENVIRONMENTAL RESOURCE PERMIT STATUS:

Not Applicable

RIGHT OF WAY PERMIT STATUS:

Not Applicable

RECOMMENDATIONS

Project Name: RIVER OAKS STORMWATER IMPROVEMENTS

Application Number: 211202-8


Permit Number: 06-08219-W

RECOMMENDATION

Dewatering of the water table to facilitate the removal and replacement of stormwater infrastructure and relocation of utilities for a City of Fort Lauderdale project in Broward County.

STAFF EVALUATION

REVIEWER:

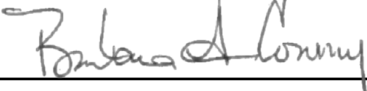


Morgan Reins, NRM



Priyantha Liyanage, WU

SUPERVISOR:



Barbara J. Conmy, NRM



Nicholas M. Vitani, P.G., WU

SPECIAL PERMIT CONDITIONS

1. This permit is issued to:
Ric- Man Construction Florida Inc
3100 S W 15th Street
Deerfield Beach FL 33442-8188

2. This permit shall expire on January 14, 2025.

3. Use classification is:

Dewatering

4. Source classification is:

Surface Water from:
Water Table aquifer

5. Pursuant to Subsection 2.3.2.B.2 of the Applicant's Handbook for Water Use Permit Applications within the South Florida Water Management District, neither maximum monthly nor annual allocation volumes are specified.

6. Withdrawal facilities:

Surface Water - Proposed:

1 - 12" x 100 HP X 3000 GPM Rotary Pump

7. The Permittee shall submit all data as required by the implementation schedule for each of the permit conditions to: SFWMD at www.sfwmd.gov/ePermitting, or Regulatory Support, 3301 Gun Club Road, West Palm Beach, FL 33406.

8. The Permittee must submit the appropriate application form incorporated by reference in Rule 40E-2.101, F.A.C., to the District prior to the permit expiration date in order to continue the use of water.

9. The excavation shall be constructed using sound engineering practices. If the excavation or dewatering activities endanger the properties of adjacent owners (through erosion, side wall collapse, flooding, etc.), the Permittee shall cease operations until a method to prevent such occurrences is found and instituted. The Permittee shall be responsible for finding and instituting methods to stop such occurrences.

SPECIAL PERMIT CONDITIONS

10. The Permittee shall immediately cease dewatering when continued dewatering would create a condition hazardous to the health, safety, and general welfare of the people of the District.
11. The Permittee shall be responsible for clearing shoaling, if the Permittee's dewatering operation creates shoaling in adjacent water bodies.
12. The Permittee shall conduct dewatering activities in adherence to the following operating plan:

Dewatering will be conducted in accordance with the plans provided in Exhibit 5 (Application 211202-8). Effluent will be routed into the City of Fort Lauderdale drainage system. If exceptional storm conditions occur that exceed the capacity of the dewatering effluent disposal systems, the Permittee is required to cease dewatering operations until adequate storage is available to contain all dewatering discharge.

13. The Permittee shall not lower the water table below the following depths:

-12 feet NGVD (approximately 17 feet below land surface)

14. Off-site discharge may be made via the facilities and conditions that follow:

Dewatering effluent will be routed into the City of Fort Lauderdale drainage system that ultimately drain to the South Fork New River.

15. Turbidity measurements of the dewatering water shall be made daily at the point of discharge and a background location (upstream) in the receiving water body. If turbidity levels in the dewatering water exceed 29 NTU above background conditions in the receiving water body, or 0 NTU above background for discharge to Outstanding Florida Waters, the Permittee is required to correct the situation and cease dewatering operations until monitoring demonstrates turbidity standards are met. All turbidity data shall be retained on-site for inspection by District Staff.
16. The Permittee shall record daily withdrawals for each dewatering pump. This recorded information shall be maintained on-site and provided to District staff upon request.
17. A copy of the permit, its conditions, and dewatering plan is required to be kept on site at all times during dewatering operations by the lead contractor or site manager.
18. Within 30 days of completion of the dewatering operation, all dewatering facilities (such as impoundments, conveyances, and recharge trenches) shall be filled and regraded to ground elevation or to otherwise comply with the Environmental Resource Permit.

SPECIAL PERMIT CONDITIONS

19. The Permittee shall submit to the District an updated "Summary of Groundwater (Well) or Surface Water (Pump or Culvert) Facilities" table ("Section IV - Sources of Water", Water Use Permit Application Form 1379) at least 30 days prior to a change in any facility status (e.g. installation, relocation, abandonment) to include all specifications of the well, pump or culvert (e.g. actual total and cased depths, pump manufacturer and model numbers, pump types, intake depths and type of meters, culvert type, length, cross-section, diameter, height, width, invert elevation, control device, and water use accounting method).
20. At least 72 hours prior to initial dewatering, the Permittee shall contact the District to allow for a site visit to verify:
 - a. The location and design of the recharge trenches and on-site retention areas where dewatering water will be retained;
 - b. The location of monitoring facilities; and,
 - c. Other site-specific issues related to the protection of the resource or other existing legal users.

Failure of the Permittee, or the Permittee's representative, to notify the District before dewatering commences will result in enforcement action. If necessary, the District shall conduct a site visit.

Notification of commencement of dewatering can be made by contacting: wucompliance@sfwmd.gov

21. The Permittee shall submit an Annual Dewatering Project Status Report, which shall, at a minimum, include a summary of the project's completed phases, an updated estimated project schedule/timeline for all remaining phases, and any anticipated changes to the original approved dewatering plans.

Reports shall be due to the District on a yearly basis and are due by December 31st of each year.

STANDARD PERMIT CONDITIONS

1. All water uses authorized by this permit shall be implemented as conditioned by this permit, including any documents incorporated by reference in a permit condition. The District may revoke this permit, in whole or in part, or take enforcement action, pursuant to Section 373.136 or 373.243, F.S., unless a permit modification has been obtained to address the noncompliance.

The Permittee shall immediately notify the District in writing of any previously submitted material information that is later discovered to be inaccurate.

2. The Permittee is advised that this permit does not relieve any person from the requirement to obtain all necessary federal, state, local and special district authorizations.
3. The Permittee shall notify the District in writing within 30 days of any sale, transfer, or conveyance of ownership or any other loss of permitted legal control of the Project and/or related facilities from which the permitted consumptive use is made. Where Permittee's control of the land subject to the permit was demonstrated through a lease, the Permittee must either submit a new or modified lease showing that it continues to have legal control or documentation showing a transfer in control of the permitted system/project to the new landowner or new lessee. All transfers of ownership are subject to the requirements of Rule 40E-1.6107, F.A.C. Alternatively, the Permittee may surrender the consumptive use permit to the District, thereby relinquishing the right to conduct any activities under the permit.
4. Nothing in this permit should be construed to limit the authority of the District to declare a water shortage and issue orders pursuant to Chapter 373, F.S. In the event of a declared water shortage, the Permittee must adhere to the water shortage restrictions, as specified by the District. The Permittee is advised that during a water shortage, reports shall be submitted as required by District rule or order. The Permittee is advised that during a water shortage, pumpage, water levels, and water quality data shall be collected and submitted as required by District orders issued pursuant to Chapter 40E-21, F.A.C.
5. This permit does not convey to the Permittee any property rights or privileges other than those specified herein, nor relieve the permittee from complying with any applicable local government, state, or federal law, rule, or ordinance.
6. With advance notice to the Permittee, District staff with proper identification shall have permission to enter, inspect, observe, collect samples, and take measurements of permitted facilities to determine compliance with the permit conditions and permitted plans and specifications. The Permittee shall either accompany District staff onto the property or make provision for access onto the property.

7. A. The Permittee may seek modification of any term of an unexpired permit. The Permittee is advised that Section 373.239, F.S., and Rule 40E-2.331, F.A.C., are applicable to permit modifications.

B. The Permittee shall notify the District in writing 30 days prior to any changes to the project that could potentially alter the reasonable demand reflected in the permitted allocation. Such changes include, but are not limited to, change in irrigated acreage, crop type, irrigation system, large users agreements, or water treatment method. Permittee will be required to apply for a modification of the permit for any changes in permitted allocation.

8. If any condition of the permit is violated, the permit shall be subject to review and modification, enforcement action, or revocation pursuant to Chapter 373, F.S.

9. The Permittee shall mitigate interference with existing legal uses that was caused in whole or in part by the Permittee's withdrawals, consistent with the approved mitigation plan. As necessary to offset the interference, mitigation will include pumpage reduction, replacement of the impacted individual's equipment, relocation of wells, change in withdrawal source, or other means.

Interference to an existing legal use is defined as an impact that occurs under hydrologic conditions equal to or less severe than a 1-in-10 year drought event that results in the:

A. Inability to withdraw water consistent with provisions of the permit, such as when remedial structural or operational actions not materially authorized by existing permits must be taken to address the interference; or

B. Change in the quality of water pursuant to primary State Drinking Water Standards to the extent that the water can no longer be used for its authorized purpose, or such change is imminent.

10. The Permittee shall mitigate harm to the natural resources caused by the Permittee's withdrawals, as determined through reference to the conditions for permit issuance. When harm occurs, or is imminent, the District will require the Permittee to modify withdrawal rates or mitigate the harm. Harm, as determined through reference to the conditions for permit issuance includes:

A. Reduction in ground or surface water levels that results in harmful lateral movement of the fresh water/salt water interface,

B. Reduction in water levels that harm the hydroperiod of wetlands,

C. Significant reduction in water levels or hydroperiod in a naturally occurring water body such as a lake or pond,

D. Harmful movement of contaminants in violation of state water quality standards, or

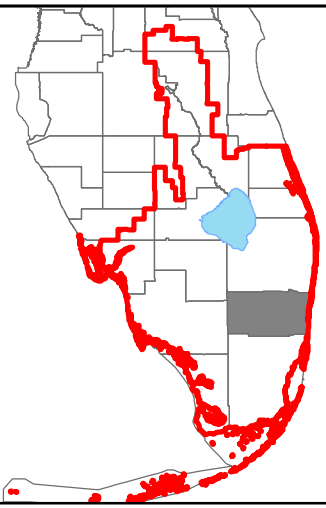
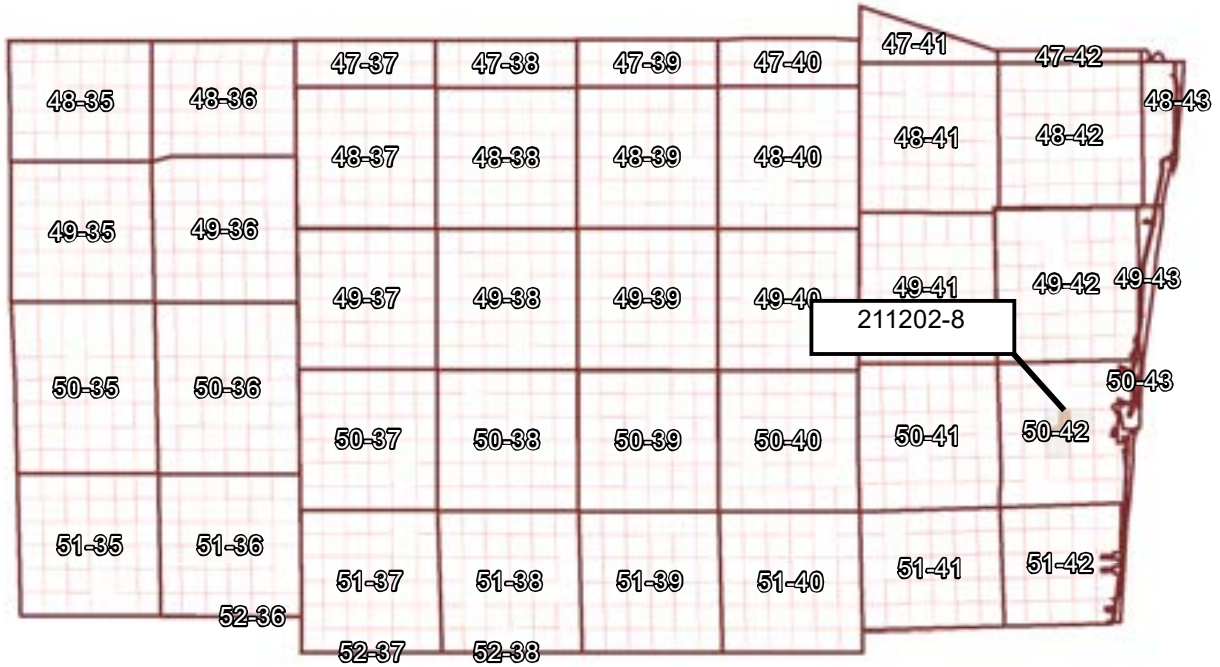
E. Harm to the natural system including damage to habitat for rare or endangered species.

11. The Permittee shall mitigate harm to existing off-site land uses caused by the Permittee's withdrawals, as determined through reference to the conditions for permit issuance. When harm occurs, or is imminent, the District will require the Permittee to modify withdrawal rates or mitigate the harm. Harm as determined through reference to the conditions for permit issuance, includes:

A. Significant reduction in water levels on the property to the extent that the designed function of the water body and related surface water management improvements are damaged, not including aesthetic values. The designed function of a water body is identified in the original permit or other governmental authorization issued for the construction of the water body. In cases where a permit was not required, the designed function shall be determined based on the purpose for the original construction of the water body (e.g. fill for construction, mining, drainage canal, etc.)

B. Damage to agriculture, including damage resulting from reduction in soil moisture resulting from consumptive use; or,

C. Land collapse or subsidence caused by reduction in water levels associated with consumptive use.



BROWARD COUNTY, FLORIDA



Map Date: 2022-01-12

Application No: 211202-8

Permit No: 06-08219-W

Sec 15,16,21 / Twp 50 / Rge 42

Project Name: RIVER OAKS STORMWATER IMPROVEMENTS

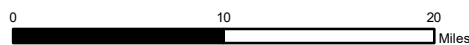
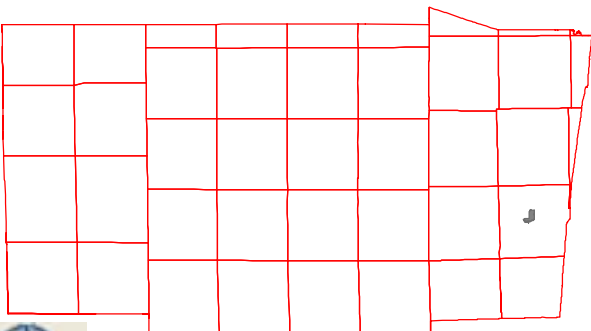
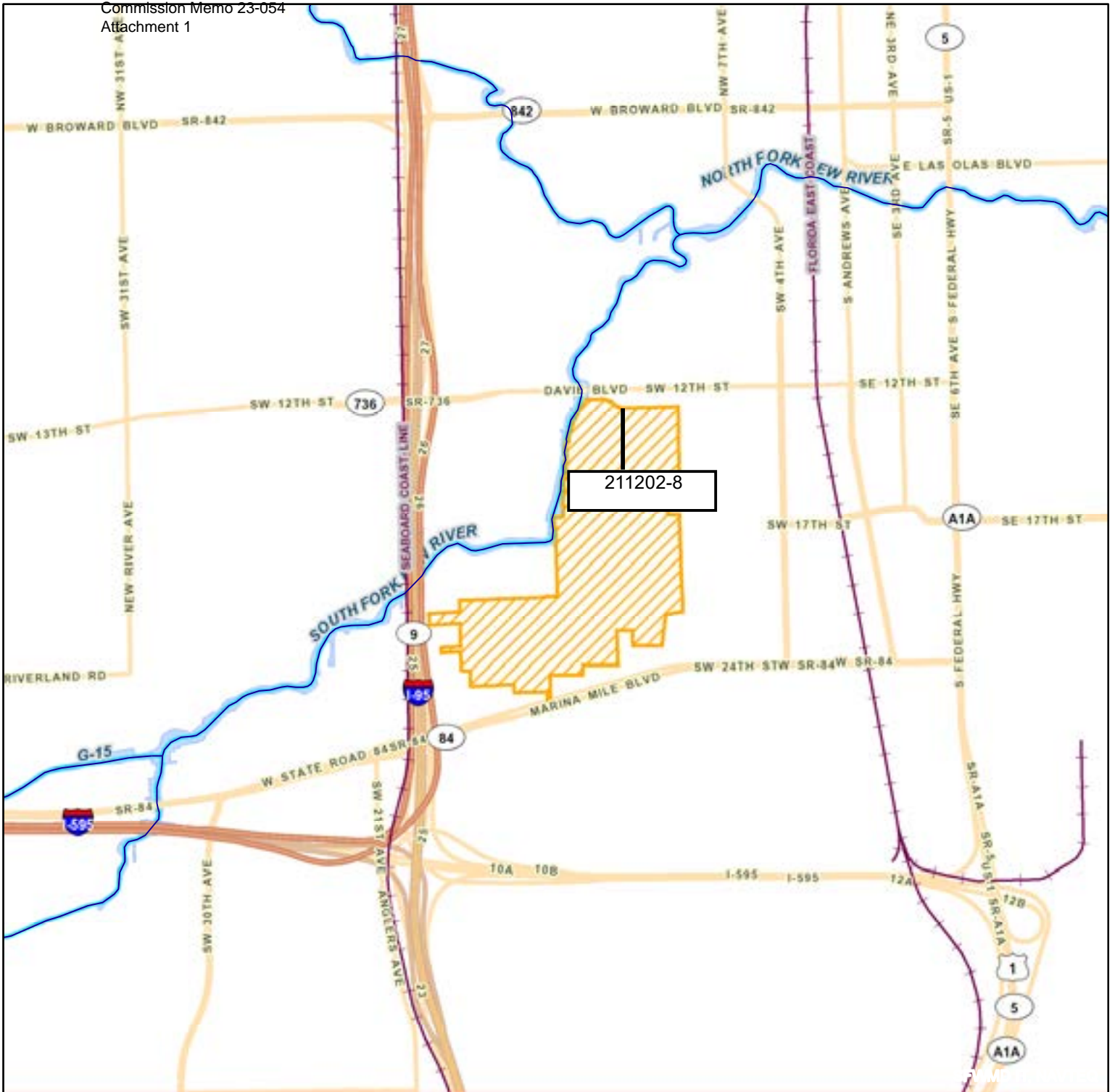


Exhibit No: 1



Application BROWARD COUNTY, FLORIDA

N



Map Date: 2022-01-12

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Sec 15,16,21 / Twp 50 / Rge 42

Project Name: RIVER OAKS STORMWATER IMPROVEMENTS

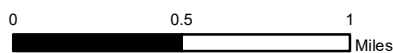
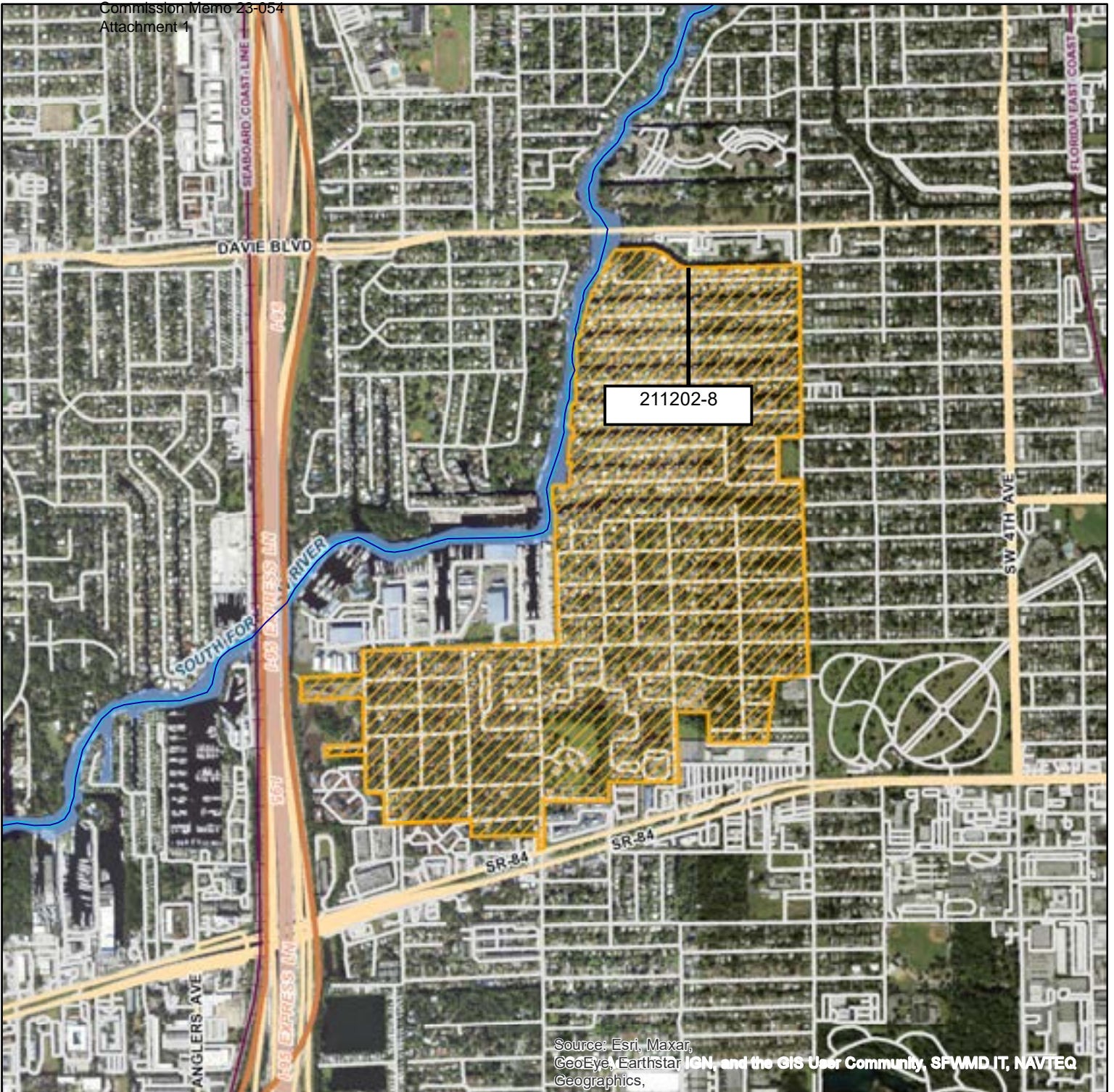


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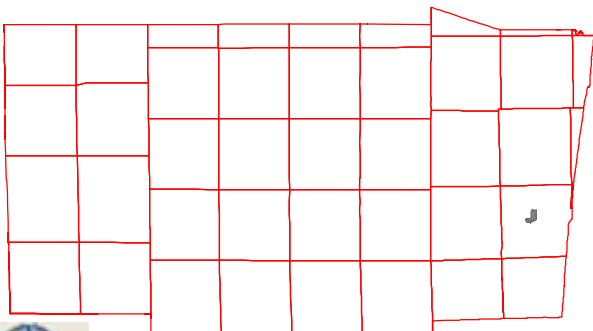
Source: Esri, Maxar, GeoEye, Earthstar, IGN, and the GIS User Community, SPWMD IT, NAVTEQ Geographics,

Application BROWARD COUNTY, FLORIDA

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Map Date: 2022-01-12



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Sec 15,16,21 / Twp 50 / Rge 42

Project Name: RIVER OAKS STORMWATER IMPROVEMENTS

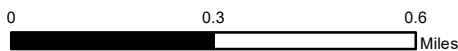


Exhibit No: 3



TABLE - B
Description Of Surface Water Pumps

Application Number: 211202-8

Pump ID	289181
Name	PUMP-TEMP
Map Designator	PUMP-TEMP
Facility Group	
Existing/Proposed	P
Pump Type	Rotary
Diameter(Inches)	12
Pump Capacity(GPM)	3,000
Pump Horse Power	100
Two Way Pump ?	N
Elevation (ft. NGVD)	12
Planar Location	
Source	
Feet East	
Feet North	
Accounting Method	Time Clock
Use Status	Primary
Water Use Type	Mining / Dewatering
Surface Water Body	Water Table aquifer



River Oaks Stormwater Improvements – Dewatering Plan (Dec. 26th, 2021)

Dewatering Configuration

This project involves stormwater infrastructure removal and installation, pump station installation, water main relocation, and pipe lining within the River Oaks neighborhood in Fort Lauderdale. The project area is located between Davie Road, SW 9th Avenue, State Road 84 and Interstate 95. All piping is to be installed via conventional open trench method. Due to high groundwater, dewatering along the trench alignment is expected and planned. The proposed dewatering plan consists of dewatering in 300-foot increments for stormwater piping, for a duration of no longer than 5 days for any one increment of 66-inch and 72-inch piping and no longer than 3 days for any one increment of all smaller diameter piping. This dewatering operation can be described as a “rolling” dewatering operation leading the pipe installation. Once the pipe is installed the trench will be backfilled and the dewatering system (i.e., well points, header pipe, and pump) will be moved to prepare for a subsequent 300-foot segment of pipe installation. In actuality, it is expected that the two complete sets of dewatering equipment will be used in a “leap-frog” fashion such that the removed dewatering equipment is moved ahead of an operational set of equipment such that the pipe installation can continue without interruption. To complete the entire project, we anticipate setting up 103 total rolling 300-foot dewatering systems. The total project dewatering duration is expected to be no longer than 342 days.

Each 300-foot dewatering system set-up will generally include approximately one hundred fifty-two (152) 1 1/2-inch diameter well points spaced at 4 feet. The well points will be placed along both sides of the trench and extended to a depth of at least 3 feet below the bottom of the trench. The pump used will be a 12” rotary lobe pump with a pumping capacity up to 3,000 GPM. Based on analysis of the site-specific hydro-geologic conditions and using the above described well pointing and dewatering configuration, it is expected that each well will discharge flow in the range of 0.9 to 14.9 gallons per minute (gpm) with the larger flows seen during installation of deeper structures. It can be expected that the maximum volume pumped for each segment will range from approximately 259,167 gallons to 1,800,826 gallons. These rates have an equivalent daily volume of 86,389 gallons and 360,165 gallons, respectively. However, as expected with most dewatering systems, there will be an initial drawdown period with peak discharge rates followed by a less intense period while maintaining the dewatering level.

The calculated dewatering rates and volumes for all 103 dewatering zones is presented in Table 1. As listed at the bottom of the table, the average dewatering depth is expected to be 10.9 feet below

land surface, while the average radius of influence is expected to be 122.3 feet. The maximum radius of influence is expected to be 208.9 feet.

Pump Discharge

The dewatering flow will be discharged through the nearby existing drainage outfalls into the secondary canal system connecting to the South Fork New River. In areas where stormwater piping does not currently exist, the Contractor will generally start laying pipe on the downstream end near an outfall and discharge to newly installed stormwater piping while working upstream. Please see dewatering plan map with location of dewatering discharge point and planned monitoring locations. A floating turbidity curtain will be placed during dewatering procedures at the dewatering discharge point. A flow meter will be installed on the pump's discharge line. All dewatering activities will cease during a storm or major rainfall event.

Turbidity Monitoring

Compliance and background turbidity readings will be taken daily to confirm dewatering turbidity does not exceed 29 NTUs above background conditions. Compliance samples will be collected at the discharge location and background samples will be taken at least 100 feet upstream of the discharge point. A log of daily turbidity measurements will be kept on site for the duration of dewatering activities, along with daily measurements of the flow rate in gallons per day. The use of a well point system typically reduces the effluent turbidity to less than 29 NTUs. However, should dewatering turbidity exceed background conditions by more than 29 NTUs, discharge will cease, and the Permittee will be required to correct the situation.

Projected Pumpage Rates Summary

Based on the results of the engineering evaluation presented in herein, we anticipate the following water volumes and pumping rates (see Table 1):

- Maximum Requested Allocation = 83,748,085 gallons
- Maximum Theoretical daily pumpage = 360,165 gallons
- Average estimated daily pumpage (Anticipated Maximum Average) = 238,543 gallons

Provided Attachments

Attachment A: Pump Information

Attachment B: Turbidity Log

Attachment C: Dewatering Plan

Attachment D: Contaminated Sites

Attachment E: Radius of Influence Map



River Oaks Stormwater Improvements – Dewatering Plan (Dec. 26th, 2021)

Dewatering Configuration

This project involves stormwater infrastructure removal and installation, pump station installation, water main relocation, and pipe lining within the River Oaks neighborhood in Fort Lauderdale. The project area is located between Davie Road, SW 9th Avenue, State Road 84 and Interstate 95. All piping is to be installed via conventional open trench method. Due to high groundwater, dewatering along the trench alignment is expected and planned. The proposed dewatering plan consists of dewatering in 300-foot increments for stormwater piping, for a duration of no longer than 5 days for any one increment of 66-inch and 72-inch piping and no longer than 3 days for any one increment of all smaller diameter piping. This dewatering operation can be described as a “rolling” dewatering operation leading the pipe installation. Once the pipe is installed the trench will be backfilled and the dewatering system (i.e., well points, header pipe, and pump) will be moved to prepare for a subsequent 300-foot segment of pipe installation. In actuality, it is expected that the two complete sets of dewatering equipment will be used in a “leap-frog” fashion such that the removed dewatering equipment is moved ahead of an operational set of equipment such that the pipe installation can continue without interruption. To complete the entire project, we anticipate setting up 103 total rolling 300-foot dewatering systems. The total project dewatering duration is expected to be no longer than 342 days.

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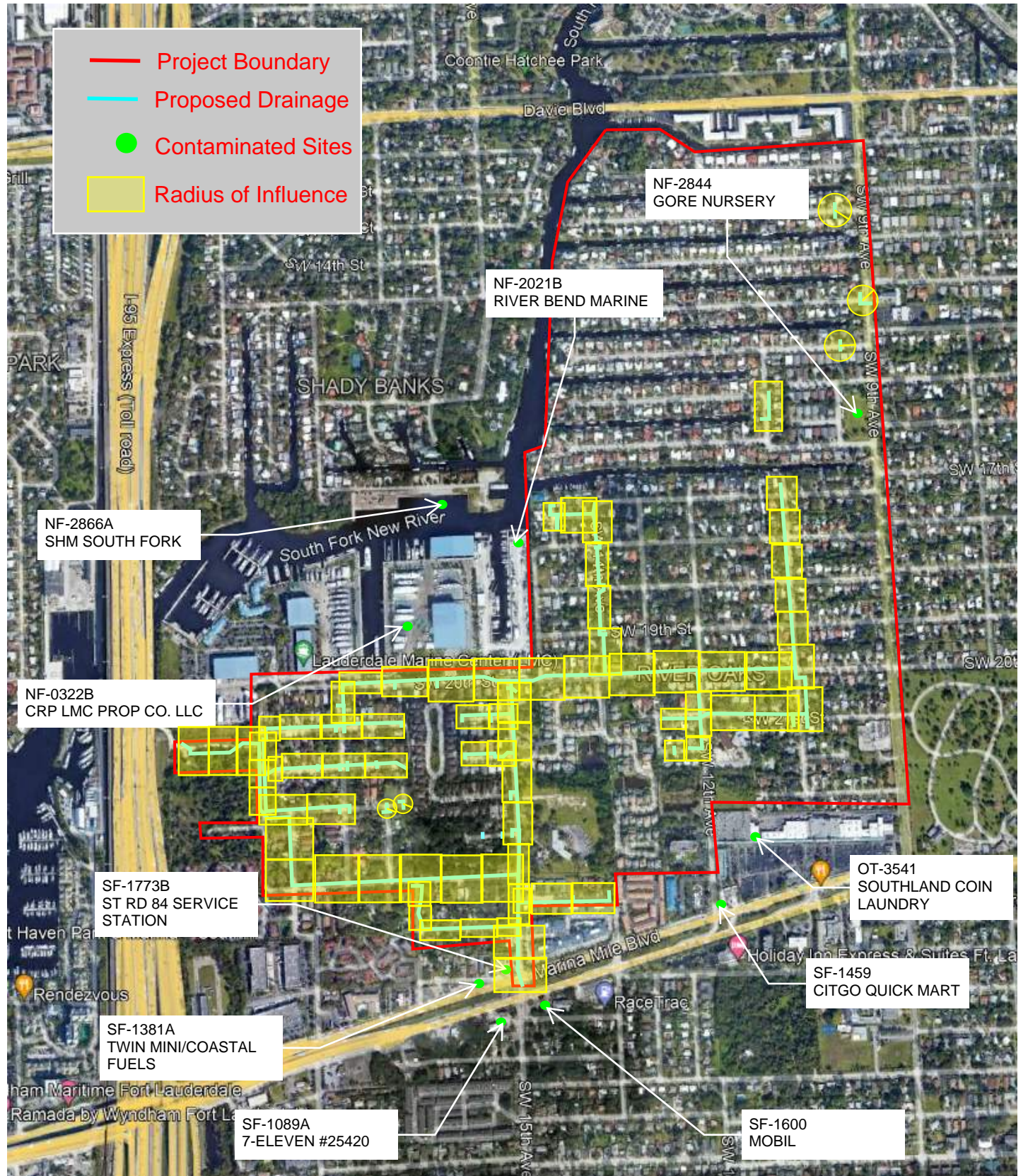
11486 Corporate Blvd
Suite 190
Orlando, FL 32817
407.381.2192
FAX: 937.461.0743

RIVER OAKS
STORMWATER IMPROVEMENTS
**PROJECT
DEWATERING PLAN**

PROJECT NO. _____

DATE _____

DR. _____



11486 Corporate Blvd
Suite 190
Orlando, FL 32817
407.381.2192
FAX: 937.461.0743

RIVER OAKS
STORMWATER IMPROVEMENTS

RADIUS OF INFLUENCE

PROJECT NO. _____

DATE _____

DR. _____

Hazen


HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021
Certificate of Authorization No: 2771

CRAVEN • THOMPSON AND ASSOCIATES, INC.
ENGINEERS • PLANNERS • SURVEYORS
3563 N.W. 53RD STREET, FORT LAUDERDALE, FLORIDA 33309
FAX: (954) 739-6409 TEL: (954) 739-6400
FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. C000114
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- NOTES:**
- 4,196 LF OF NEW/RESTORED SWALE PROPOSED FOR ENTIRE PROJECT.
 - EXISTING PAVEMENT MARKINGS & SIGNAGE TO BE REMOVED & REPLACED TO CURRENT BCTD STANDARDS.

ENGINEER: PATRICK J. GIBNEY
REG. NO: 49428
DATE: 06/01/2017
TEL: 954-987-0066
FAX: 954-987-2949

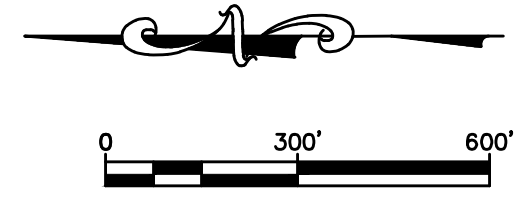
DATE: 01/07/2019
DRAWN BY: XXX
DESIGNED BY: SCALE: VERT 1"=2'
CHECKED BY: XXX
FIELD BOOK: XXX

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS		DESCRIPTION
NO.	DATE	BY

PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
PAVING & GRADING OVERALL
PLAN

SHEET NO.
CP-KY-02
TOTAL: 255
CAD FILE: 11868-CP-KY01
DRAWING FILE NO. 4-142-42



- Phase 1, 12/13/21-6/24/22
- Phase 2, 6/24/22-2/28/23
- Phase 3, 3/01/23-12/31/23
- Phase 4, 1/02/23-9/30/24

Patrick J. Gibney, State of Florida, Professional Engineer, License No. 49428. This item has been electronically signed and sealed by Patrick J. Gibney on the date indicated here using an S/A authentication code. Printed copies of this document are not considered signed and sealed and the S/A authentication code must be verified on any electronic copies.
8/26/2021

CONSTRUCTION SET

Table 1
River Oaks Stormwater Improvements Project Dewatering
Dewatering Pump Location and Pumpage Summary

Pump Location	From Station Number	To Station Number	Max Wellpoint Depth (ft)	Dewatering Duration (days)	Total Radius of Influence (ft)	Number of Well Points	Total Flow Rate (gpm)	Flow Rate per Well Point (gpm)	Maximum Daily Volume (GPD)	Total Volume (gallons)
1	0+05	1+15	9.5	3	105.4	53	120.9	2.3	174,153	522,459
2	0+10	0+41	10.5	3	106.9	18	95.6	5.3	137,697	413,090
3	0+10	1+90	9.5	3	102.1	92	139.8	1.5	201,372	604,116
4	1+26	1+59	10	3	115.4	19	101.4	5.3	146,029	438,086
5	0+48	92+08	8.5	3	75.1	152	185.2	1.2	266,661	799,983
6	92+08	101+71	8.5	3	75.1	152	185.2	1.2	266,661	799,983
7	101+71	104+37	10.5	3	108.0	152	171.1	1.1	246,343	739,029
8	104+37	107+24	11	3	141.0	152	192.1	1.3	276,604	829,813
9	107+24	110+24	11	3	141.0	152	192.1	1.3	276,604	829,813
10	110+24	113+24	11	3	144.3	152	208.6	1.4	300,345	901,036
11	109+92	-	12.5	3	149.8	14	133.2	9.5	191,751	575,252
12	110+39	-	15	3	190.8	14	154.9	11.1	223,042	669,127
13	113+24	116+24	11	3	132.8	152	188.5	1.2	271,482	814,446
14	116+24	119+24	11	3	132.8	152	188.5	1.2	271,482	814,446
15	119+24	122+24	11.5	3	141.0	152	192.1	1.3	276,604	829,813
16	122+24	125+24	11	3	132.8	152	188.5	1.2	271,482	814,446
17	125+24	127+80	11	3	130.7	130	178.0	1.4	256,273	768,819
18	0+05	0+76	8	3	76.7	38	95.5	2.5	137,554	412,663
19	2+05	3+45	9.5	3	108.1	86	140.1	1.6	201,681	605,042
20	0+09	0+37	7.5	3	73.6	16	74.9	4.7	107,914	323,743
21	1+68	1600+05	8.5	3	89.5	14	81.8	5.8	117,739	353,216
22	1200+05	1202+90	9.5	3	108.0	152	171.1	1.1	246,343	739,029
23	1202+90	1205+08	8	3	83.4	152	174.1	1.1	250,683	752,048
24	1205+08	1207+88	8	3	91.6	152	170.2	1.1	245,064	735,192
25	1207+88	1210+74	8	3	91.6	152	170.2	1.1	245,064	735,192
26	1210+74	1213+32	9	3	104.5	131	160.1	1.2	230,494	691,483
27	1600+05	1603+05	8	3	91.6	152	170.2	1.1	245,064	735,192
28	1603+05	1605+40	10	3	121.5	120	161.9	1.3	233,178	699,535
29	0+31	-	15	3	189.3	13	139.7	10.7	201,229	603,688
30	1700+10	1702+14	9.5	3	124.4	152	176.7	1.2	254,449	763,348
31	1702+14	1705+03	9.5	3	124.4	152	176.7	1.2	254,449	763,348
32	1705+03	1708+03	9	3	116.2	152	173.5	1.1	249,901	749,703
33	1708+03	1711+03	9.5	3	116.2	152	173.5	1.1	249,901	749,703
34	1711+03	1714+03	9	3	108.0	152	171.1	1.1	246,343	739,029
35	1714+03	1715+79	9.5	3	102.0	90	139.0	1.5	200,176	600,528
36	0+31	3+31	14	5	183.2	53	179.7	3.4	258,764	1,293,818
37	0+84	-	14	3	174.1	10	137.7	13.8	198,293	594,878
38	3+31	4+96	13	5	163.7	85	188.7	2.2	271,769	1,358,845
39	299+95	302+55	10	3	91.6	152	170.2	1.1	245,064	735,192
40	302+55	305+30	10	3	90.5	140	162.6	1.2	234,146	702,438
41	305+30	307+98	9.5	3	83.4	152	174.1	1.1	250,683	752,048
42	307+98	310+38	9.5	3	80.6	122	152.8	1.3	219,983	659,950
43	400+07	402+40	10	3	91.6	152	170.2	1.1	245,064	735,192
44	402+40	405+40	10	3	91.6	152	170.2	1.1	245,064	735,192
45	405+40	407+65	10.5	3	91.6	152	170.2	1.1	245,064	735,192
46	407+65	410+35	10	3	83.5	154	175.2	1.1	252,252	756,757
47	0+00	0+20	16.5	3	181.7	22	131.1	6.0	188,760	566,280
48	0+15	-	16.5	3	185.9	14	152.3	10.9	219,383	658,148
49	0+78	1+15	10.5	3	85.9	25	91.4	3.7	131,622	394,866
50	0+00	0+45	10.5	3	86.9	29	96.1	3.3	138,417	415,252
51	8+80	11+25	16	5	196.6	125	232.0	1.9	334,134	1,670,668
52	700+00	701+00	9.5	3	74.1	52	103.9	2.0	149,657	448,971
53	500+75	503+25	10	3	115.3	142	168.7	1.2	242,860	728,579
54	503+25	505+28	10	3	116.2	152	173.5	1.1	249,901	749,703
55	505+28	505+45	9.5	3	66.9	16	70.4	4.4	101,432	304,296
56	0+00	0+40	9	3	61.8	29	79.9	2.8	115,065	345,196
57	508+45	509+62	9	3	67.1	61	107.4	1.8	154,719	464,156

Commission Memo 23-054
Attachment 1

58	0+71	3+71	16	5	198.2	152	246.0	1.6	354,241	1,771,203
59	0+65	-	18	3	208.9	11	164.1	14.9	236,252	708,755
60	3+71	4+40	16	3	180.6	37	167.9	4.5	241,779	725,337
61	703+70	705+40	9.5	3	98.1	237	223.8	0.9	322,218	966,655
62	4+40	6+35	12.5	5	153.8	125	211.1	1.7	303,915	1,519,573
63	6+45	9+00	13	5	159.6	176	241.2	1.4	347,291	1,736,453
64	700+95	703+75	8.5	3	77.1	175	208.2	1.2	299,797	899,390
65	1000+00	1002+41	9	3	85.9	183	196.9	1.1	283,500	850,500
66	8200+15	8201+45	7.75	3	98.9	78	131.4	1.7	189,181	567,544
67	8000+14	8003+10	9.5	3	124.3	170	183.7	1.1	264,522	793,566
68	0+04	2+45	8	3	89.9	152	170.6	1.1	245,688	737,063
69	2+45	3+90	9	3	98.5	75	129.3	1.7	186,207	558,621
70	0+04	2+41	9.5	3	106.4	152	170.7	1.1	245,796	737,388
71	2+41	3+70	9.5	3	97.5	67	124.5	1.9	179,220	537,659
72	Sheet 43A	-	10.5	3	114.1	20	102.3	5.1	147,279	441,836
73	15+95	18+95	15	5	203.1	152	248.5	1.6	357,783	1,788,913
74	18+95	21+95	15.5	5	186.7	152	240.4	1.6	346,169	1,730,844
75	21+95	24+95	16	5	186.7	152	240.4	1.6	346,169	1,730,844
76	24+95	27+95	16	5	186.7	152	240.4	1.6	346,169	1,730,844
77	27+95	30+95	16.5	5	194.9	152	244.4	1.6	351,904	1,759,519
78	30+95	32+15	16.5	3	182.4	62	188.9	3.0	272,002	816,005
79	600+00	602+73	9.5	3	71.9	152	193.7	1.3	278,871	836,612
80	0+00	0+30	9	3	46.0	17	60.0	3.5	86,389	259,167
81	602+73	605+73	9	3	104.7	152	170.4	1.1	245,317	735,951
82	605+73	606+60	10	3	103.0	59	123.0	2.1	177,128	531,385
83	700+25	703+25	9	3	112.9	152	172.5	1.1	248,333	745,000
84	703+25	705+99	9	3	112.9	152	172.5	1.1	248,333	745,000
85	705+99	706+76	8.5	3	102.2	54	119.7	2.2	172,436	517,309
86	11+95	14+95	14.5	5	206.4	152	250.1	1.6	360,165	1,800,826
87	14+95	16+00	14.5	3	192.6	55	189.2	3.4	272,376	817,129
88	0+00	2+63	10	3	88.3	153	171.5	1.1	246,992	740,977
89	40+80	37+80	14.5	5	194.9	152	244.4	1.6	351,904	1,759,519
90	37+80	34+80	13.5	5	178.5	152	236.5	1.6	340,630	1,703,151
91	34+80	31+90	14.5	5	194.3	147	241.8	1.6	348,120	1,740,601
92	1100+00	1102+81	9.5	3	91.6	152	170.2	1.1	245,064	735,192
93	1102+81	1104+93	9.5	3	90.5	140	162.9	1.2	234,582	703,746
94	1102+80	-	9.5	3	75.9	11	85.0	7.7	122,437	367,310
95	1104+93	1106+50	9.5	3	116.2	152	173.5	1.1	249,901	749,703
96	1106+50	1108+80	9.5	3	116.2	152	173.5	1.1	249,901	749,703
97	1108+80	1111+18	10	3	124.4	152	176.7	1.2	254,449	763,348
98	1111+18	1113+17	9	3	105.2	122	155.8	1.3	224,293	672,880
99	0+00	2+58	10	3	124.4	152	176.7	1.2	254,449	763,348
100	2+58	5+58	10	3	124.4	152	176.7	1.2	254,449	763,348
101	5+58	6+50	8.5	3	80.0	48	104.2	2.2	150,031	450,093
102	0+00	3+20	10.5	3	124.4	152	176.5	1.2	254,132	762,397
103	-	-	13.5	3	155.2	9	116.9	13.0	168,274	504,822
Total Volume Pumped During Entire Dewatering Operation									83,748,085	

Avg. Dewatering Depth (ft BLS)	Max Radius of Influence (ft)	Avg. Radius of Influence (ft)	Max Daily Pumpage (GPD)	Maximum Pump Rate (gpm)	Avg. Daily Pumpage (GPD)	Total Pumpage (Gallons)
10.9	208.9	122.1	360,165	250	238,543	83,748,085

NOTES:

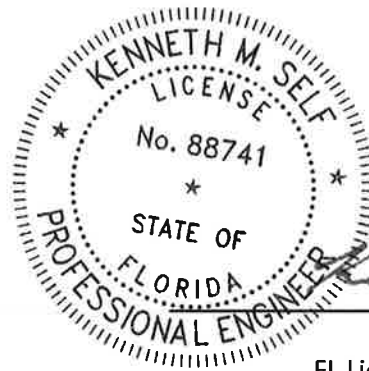
1. The above groundwater withdrawals are calculated using Sichardt's equation $w/H=44.2$, $h=H$ -drawdown and $k=0.00003$
2. Well points will be spaced at 4-foot intervals on a 300-foot header pipe
3. Dewatering operation will be performed as a rolling operation, setting well points and dewatering in 300-foot increments
4. Discharge will be to secondary canal system

Calculation results presented hereon prepared by



Pipe Trench Dewatering Calculations

Commission Memo 23-054
Attachment 1



Ken Self, PE
FL License No. 88741

Structure Dewatering

Sheet 37A Station **0+65**

Length	5.49 m	18 ft			
Width	7.32 m	24 ft	Avg. Surface Elev	6.00	
Perimeter	10.97 m	36 ft	Avg. GW Elev	0.00	
n	11 number of well points		4 foot spacin	Avg. Excav. Elev	-9.00
Depth to dewater (maximum drawdown)	3.66 m	12.00 ft	Max Wellpoint (ft)	18.00	
			Max Drawdown (ft)	12.00	

Radius of Influence

(3' below Excav. Elev.)

$$R_o = 3000(H - h)\sqrt{k} \quad \text{Sichardt's equation}$$

H	44.20 Total head of water table aquifer, m
h	40.54 Total head of dewatered aquifer, m
k	0.00003 Hydraulic conductivity, m/s

R_o 60.10 Radius of Influence, m **197.2 ft**

$$r_e = \sqrt{\frac{L \times W}{\pi}} \quad \text{Equivalent Radius of Influence for Rectangular Pits}$$

L	5.49 m
W	7.32 m
r_e	3.57 Equivalent Radius of Influence, m 11.7 ft

Total Radius of Influence

$$R_{total} = R_o + r_e$$

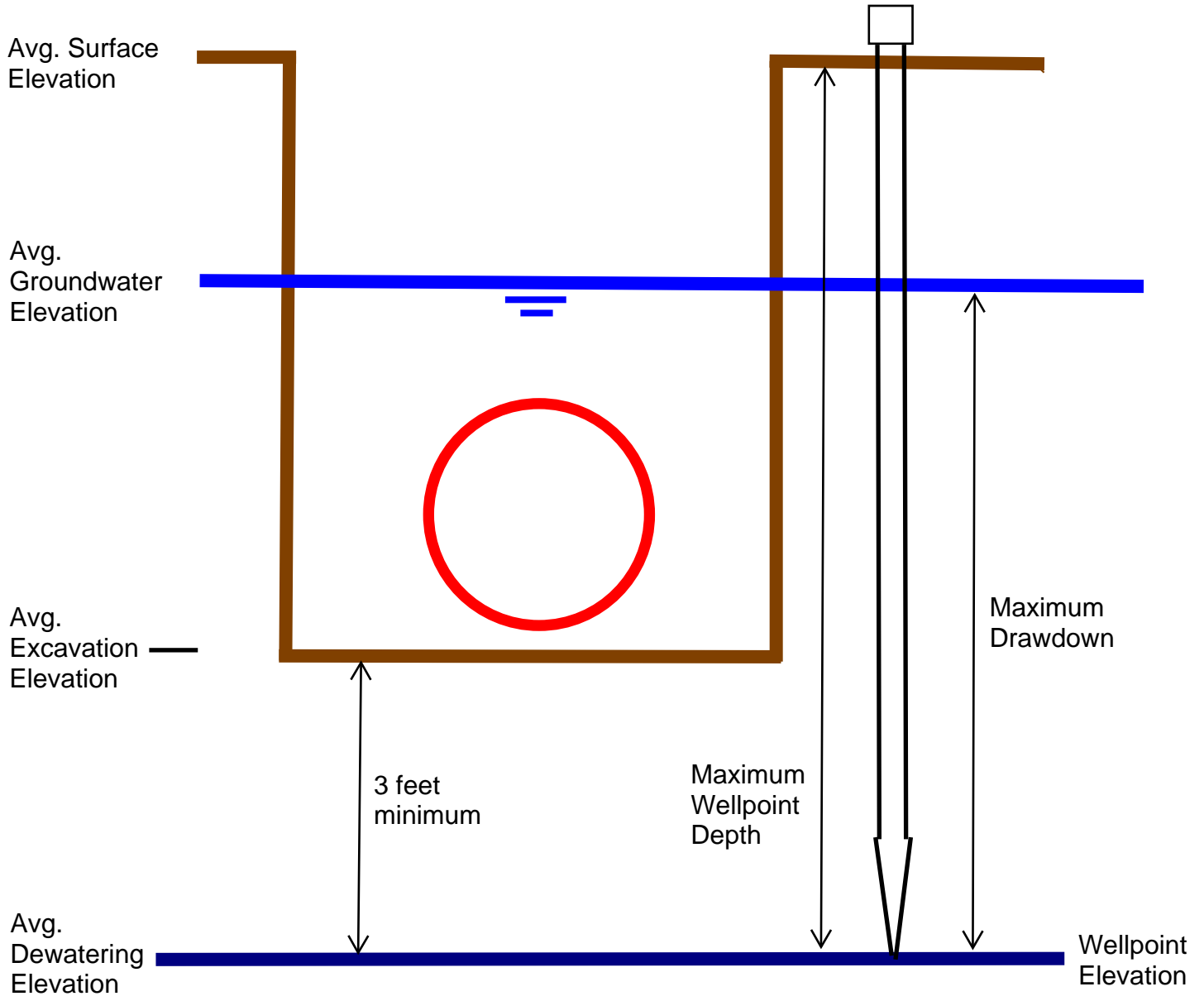
R_{total}	63.7 Total Radius of Influence from Center of Dewatering Area, m
	208.9 Total Radius of Influence from Center of Dewatering Area, ft

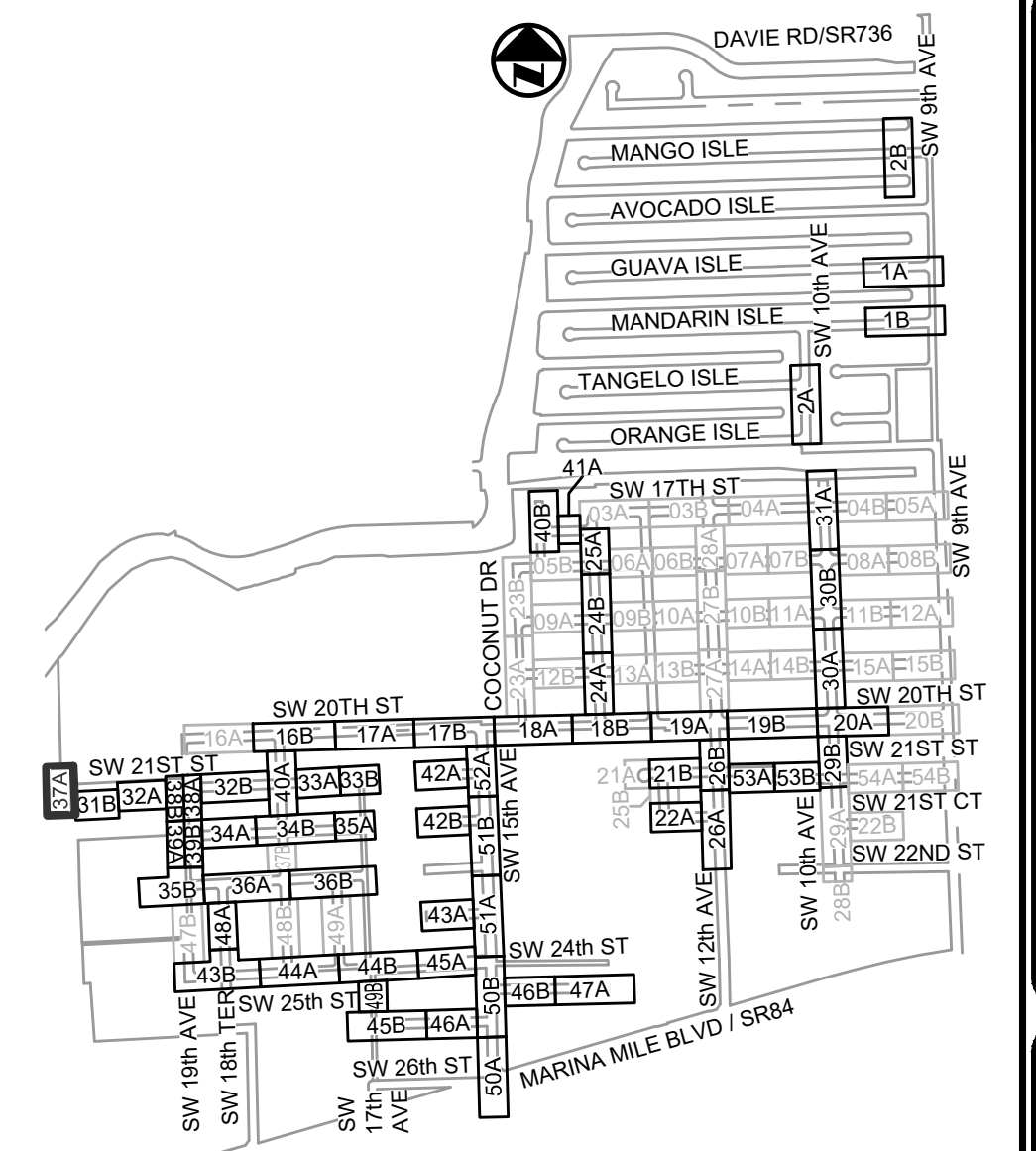
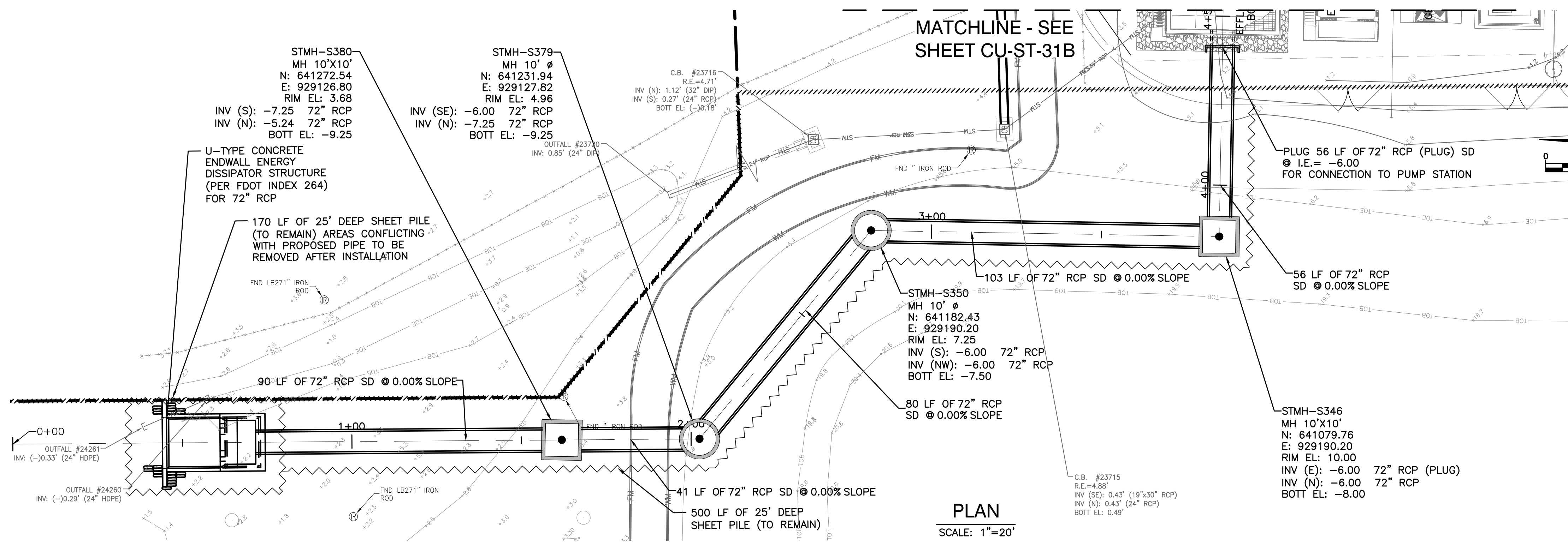
Dewatering Flow Rates

$$Q = \frac{\pi k (H^2 - h^2)}{(\ln R_o - \ln r_e)}$$

Q	0.010351 Total flow rate for dewatering operation, m^3/s
Q_{per well point}	0.000941 Flow rate per well point, m^3/s
Q_{total}	164.0636 Total flow rate for dewatering operation, $gal./min.$
Q_{per well point}	14.91487 Flow rate per well point, $gal./min.$

Trench/Dewatering Cross Section (NTS)

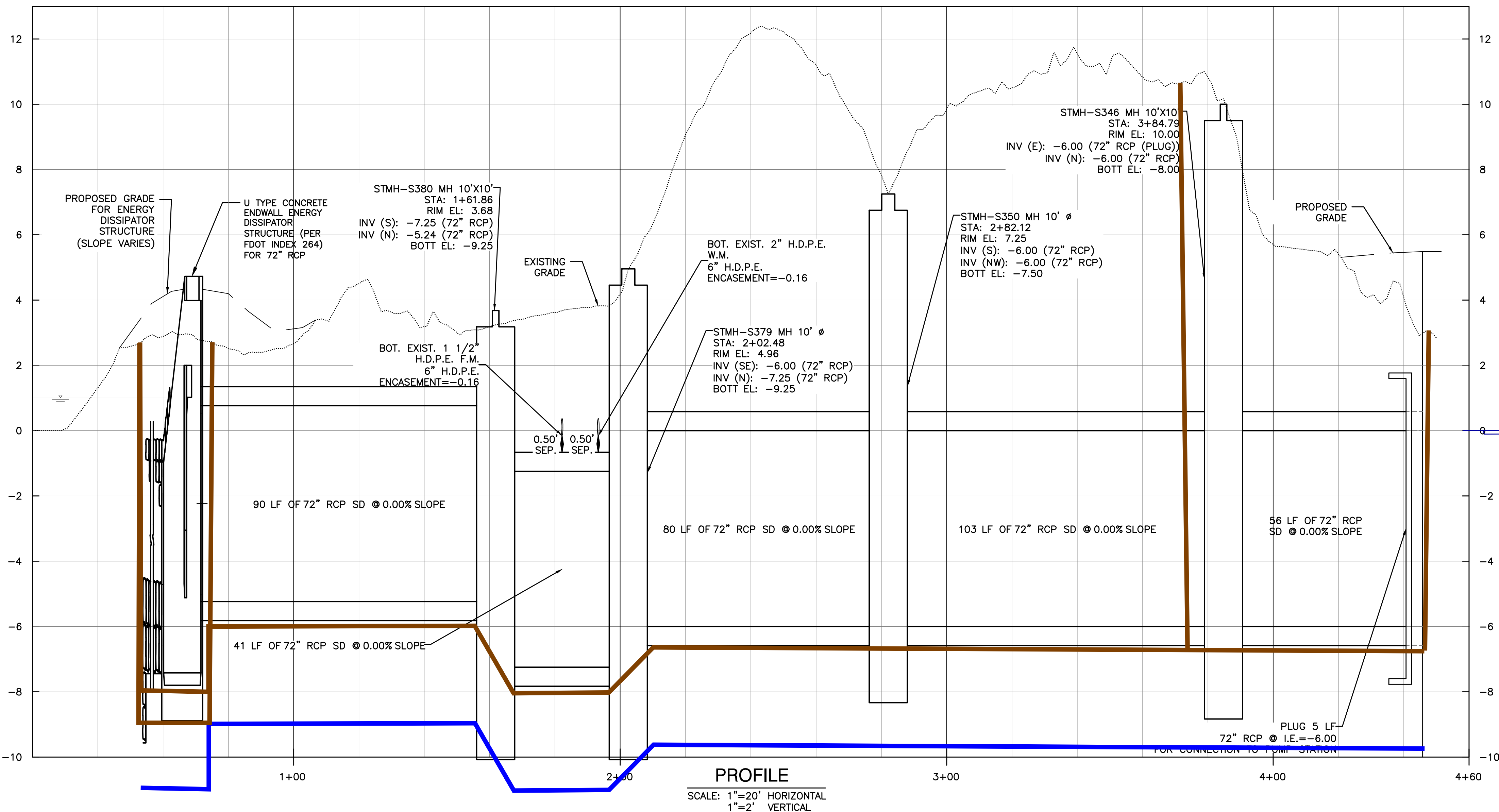




ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 1988)

NOTES:

- EXISTING UTILITY DEPTHS ARE UNKNOWN UNLESS OTHERWISE INDICATED. LOCATIONS AND DEPTHS ARE ESTIMATED.
- 4,196 LF OF NEW/RESTORED SWALE PROPOSED FOR ENTIRE PROJECT (SEE DETAIL ON SHEET CZ-DT-22).



- EXCAVATION ELEVATION / SEGMENT BREAK
- AVG DEWATERING ELEVATION / WELLPOINT ELEVATION
- GROUNDWATER ELEVATION

Patrick J. Gibney, State of Florida, Professional Engineer, License No. 49428. This item has been electronically signed and sealed by Patrick J. Gibney on the date indicated here using his SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

8/25/2021

CONSTRUCTION SET

PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
STORM DRAINAGE PLAN & PROFILE

SHEET NO.
CU-ST-37A
TOTAL: 255
CAD FILE: 11868-CU-ST-B
DRAWING FILE NO. 4-142-42



Requirement by Permit Condition Report

App No: 211202-8

Permit No: 06-08219-W

Project Name: RIVER OAKS STORMWATER IMPROVEMENTS

Permit Condition No:		Permit Condition Code:			
Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date	
PERMIT	Turbidity level at discharge	Daily	Data Held On Site	01-APR-2022	
PERMIT	Turbidity level at background	Daily	Data Held On Site	01-APR-2022	
Permit Condition No:		Permit Condition Code:			
Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date	
PUMP-TEMP	Daily withdrawal for Pump PUMP-TEMP	Daily	Data Held On Site	01-OCT-2022	
Permit Condition No:		Permit Condition Code:			
Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date	
PERMIT	Dewatering Commencement Notification	One time Only	One time Only	01-APR-2022	
Permit Condition No:		Permit Condition Code:			
Facility Name	Requirement Name	Col Freq	Sub Freq	Due Date	
PERMIT	Annual Dewatering Status Report	Yearly	Yearly	31-DEC-2022	

STAFF REPORT DISTRIBUTION LIST

RIVER OAKS STORMWATER IMPROVEMENTS

Application No: 211202-8

Permit No: 06-08219-W

INTERNAL DISTRIBUTION

X Priyantha Liyanage

EXTERNAL DISTRIBUTION

- X Permittee - Ric- Man Construction Florida Inc
- X Engr Consultant - Woolpert

GOVERNMENT AGENCIES

- X Broward County - Director, Water Mgmt Div
- X Dept of Environmental Protection - West Palm Beach
- X Engineer, City of Fort Lauderdale
- X FDEP Div of Recreation and Park - District 5

OTHER INTERESTED PARTIES

- X Natural Resources Defense Council

Exhibit No:7



Resilient Environment Department

ENVIRONMENTAL PERMITTING DIVISION

1 North University Drive, Mailbox 201, Plantation, Florida 33324 • 954-519-1483 • FAX 954-519-1412

NOTIFICATION OF POTENTIAL ENFORCEMENT ACTION

February 24, 2023

Daniel Mancini
3100 SW 15th Street
Deerfield Beach, FL 33442

**RE: Turbidity to marine surface waters as a result of dewatering activities:
SW 20th Street and Coconut Drive
(Sent via Certified Mail RRR: 7003 1010 0003 0970 6696
Electronic Mail – JSamuel@fortlauderdale.gov; cc: jfeinberg@ric-manfl.com)**

Mr. Mancini,

On 2/15/2023 (Service Request 1107303), Broward County Environmental Permitting Division (EPD) received a complaint concerning the turbidity as a result of discharges that occurred on 2/15/2023 at SW 20th Street and Coconut Drive. During a site visit on 2/16/2023, EPD staff discovered that the discharge from dewatering activities flowing to the canal at SW 20th Street and Coconut Drive was causing turbid water in the canal. This incident amounts to a violation of the Broward County Code of Ordinances, §27-196(a), which states: “*No waste discharge to surface waters shall exceed the effluent limitation requirements contained in 40 C.F.R. Subchapter N or the conditions of any NPDES permit or State of Florida permit, whichever are more stringent. Discharges shall also: (1) Comply with the water quality standards in Section 27-195, Broward County Natural Resource Protection Code; and (2) Comply with State of Florida regulations for thermal requirements; and (3) Comply with turbidity standards contained in license conditions for activities licensed under Article XI of Chapter 27.*”

To avoid enforcement action please cease all dewatering activities around SW 20th Street and Coconut Drive immediately and submit the following information within 7 days of receipt:

1. Submit all monitoring reports.
2. Submit the procedures for the use of dewatering pumps and sediment tanks.
3. Submit a location map for the settlement pond.
4. Submit SWPP Inspection reports.
5. Submit the daily withdrawals for each dewatering pump.
6. Provide an amended SWPP that establishes appropriate BMPs for land disturbed areas.

Please contact Ashok Raichoudhury at 954-519-1490 or araichoudhury@broward.org with any questions you may have regarding this matter.

Sincerely,

ASHOK
RAICHOUDHURY

Digitally signed by ASHOK
RAICHOUDHURY
Date: 2023.02.24 09:08:56 -05'00'

Ashok Raichoudhury, Licensed Engineer
NPDES Non-Domestic Wastewater Program

Cc: Juan Carlos Samuel, Joel Feinberg



Resilient Environment Department

ENVIRONMENTAL PERMITTING DIVISION

1 North University Drive, Mailbox 201, Plantation, Florida 33324 • 954-519-1483 • FAX 954-519-1412

NOTICE OF POTENTIAL ENFORCEMENT ACTION

March 21, 2023

Mr. Greg Chavarria, City Manager
City of Fort Lauderdale
100 N Andrews Avenue
Fort Lauderdale, Florida 33301
Via email: city.manager@fortlauderdale.gov

Mr. Alan Dodd, Director of Public Works
City of Fort Lauderdale
100 N Andrews Avenue
Fort Lauderdale, Florida 33301
Via email: Adodd@fortlauderdale.gov

Ric-Man Construction Florida, Inc.
c/o Mr. Daniel Mancini, Registered Agent
3100 SW 15th Street
Deerfield Beach, Florida 33442
Via email: dmancini@ric-manfl.com

**Ref: River Oaks Stormwater Park and Preserve
(Broward County's ERL DF13-1113 and SWM2015-091-0, and SFWMD's ERP 06-07241-P)
Fort Lauderdale Stormwater MPI - River Oaks Stormwater
(Broward County's ERL DF21-1148 and SWM2018-081-5, and SFWMD's ERP 06-80003-P
and Letter Modification dated May 26, 2021)**

Messrs. Chavarria, Dodd, and Mancini:

During site inspections conducted March 7, 8, 9, 15 and 20, 2023, Department staff noted multiple violations of the above referenced County's Environmental Resource Licenses (ERL) and Surface Water Management Licenses (SWM) and the South Florida Water Management District's (SFWMD) Environmental Resource Permits (ERP). These violations include unauthorized discharges into a wetland preserve area. The applications received for these projects, as well as those for SFWMD's and Broward County's Dewatering Approvals, did not propose any discharges into the wetland area nor did the licenses, permits, and dewatering approvals authorize or approve the discharge of dewatering effluent into this area.

The Quarter 6 Mitigation Monitoring Report for the River Oaks Preserve, received February 17, 2023, prepared and submitted by Chappell Group, Inc., reported visible turbidity within the preserve, water elevations exceeding the control water elevation, and that the number of installed plants has decreased since the Time Zero Report in November 2021. No recruitment was observed, and currently the project is not trending toward success. Further, during the March 15, 2023, inspection, a sample taken in the preserve about 130 feet from the discharge point and outside of the turbidity curtains had a turbidity value of 382 NTUs.

The following violations of individual permit/license conditions for each project are noted:

River Oaks Stormwater Park and Preserve
SFWMD ERP 06-07241-P General Conditions:

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with Rule 62-330.315, FAC. Any deviations that are not so authorized may subject the permitted to enforcement action and revocation of the permit under Chapter 373, F.S.
3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as need, to prevent adverse impacts to the water resources and adjacent lands...
4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed form 62-330.350(1), "Construction Commencement Notice", indicating the expected start date and completion dates. A copy of this form may be obtained from the Agency, as described in subsection 62-330.010(5), F.A.C. If available, an Agency website that fulfills this notification requirement may be used in lieu of the form.

SFWMD ERP 06-07241-P Special Conditions:

1. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result for the construction or operation of the surface water management system.
2. Measures shall be taken during construction to ensure that sedimentation and/or turbidity problems are not created in the receiving water.

Broward County ERL DF13-1113 and SWM2015-091-0 General Conditions:

3. In the event the licensee is temporarily unable to comply with any of the conditions of the license, the licensee shall notify EPGMD within twelve (12) hours. Within five (5) working days of the event, the licensee shall submit a written report to EPGMD that describes the incident, its cause, the measures being taken to correct the problem and prevent its reoccurrence, the owner's intention toward repair, replacement, and reconstruction of destroyed facilities, and a schedule of action leading toward operation within the license conditions.

Broward County SWM2015-091-0 Specific Conditions:

3. The licensee shall prosecute the work authorized in a manner so as to minimize any adverse impact of the works of fish, wildlife, natural environmental values and water quality. The licensee shall institute necessary measures during the construction period, including fill compaction of any fill material placed around newly installed structures, to reduce erosion, turbidity, nutrient loading and sedimentation in the receiving waters. Any erosion, shoaling or deleterious discharges due to permitted actions will be corrected promptly at no expense to the County.
13. The operation or construction will be in accordance with the approved details and plans submitted with the application. Any modification must be submitted to ELBPD in writing and receive prior approval.
17. The licensee shall notify the ELBPD in writing within twenty-four hours of the start, finish, suspension and/or abandonment of any construction or alteration of works authorized by this license.

Broward County ERL DF13-1113 Standard Conditions:

- A.1. Any project caused environmental problem(s) shall be immediately reported to the Department's Environmental Response Line at 954-519-1499.
- A.7. Turbidity screens or equivalent shall be properly employed and maintained as necessary during construction activities so that turbidity levels do not exceed 29 NTU's above natural background

- 50' downstream of point of discharge. If turbidity levels exceed these limits, project activities shall immediately cease, and work shall not resume until turbidity levels drop within these limits.
- A.8. Turbidity levels shall be monitored and recorded if a visible turbidity plume is observed leaving the site during construction activities. If monitoring reveals that turbidity levels exceed 29 NTU's above the natural background 50' downstream of the point of discharge, project activities shall immediately cease, and work shall not resume until turbidity levels drop within these limits.
- A.9. If an observable turbidity plume is visible leaving the site, the licensee shall:
- immediately cease all work contributing to the water quality violation. Operations may not resume until the Department gives authorization to do so.
 - Notify the Development and Environmental Regulation Division (954) 519-1230 within 24 hours of the time the first violation is detected.
 - Stabilize all exposed material contributing to the water quality violation. Modify the work procedures that were responsible for the violation and install more turbidity containment devices and/or repair any non-functioning turbidity containment devices. If required by the Department, a turbidity monitoring program shall be initiated.
- B.3. Any wetland areas or water bodies which are adjacent to the specific limits of construction authorized by this license shall be protected from erosion, sedimentation, siltation, scouring, excess turbidity or dewatering.
- C.2. Long-term management and maintenance of the Stormwater Park mitigation shall be the perpetual responsibility of the City of Fort Lauderdale. The conservation areas shall be the perpetual responsibility of the City of Fort Lauderdale and may in no way be altered from their natural or licensed state as documented in this license, with the exception of restoration activities. Activities prohibited within the conservation area(s) include, but are not limited to: construction or placement of soil or other substances such as trash; removal or destruction of trees, shrubs or other vegetation (with the exception of exotic/nuisance vegetation) removal; excavation, dredging, or removal of soil material; diking or fencing; and any other activities detrimental to drainage, flood control, water conservation, erosion control or fish and wildlife habitat conservation or preservation.
- C.9. Should the Department determine that the Areas are not achieving the listed criteria during some portion of the monitoring period, the licensee shall determine the reasons for failure and prepare plans that demonstrated clearly how the problem(s) will be corrected and submit such plans immediately to the Department for approval. Those plans shall be implemented within 30 days from the Department's approval.

A Notice of Non-Compliance was issued by the Department on February 25, 2022, for SWM and ERL license/construction inconsistencies. To date, the inconsistency issues have not been fully addressed.

Fort Lauderdale Stormwater MPI - River Oaks Stormwater

Broward County SWM2018-081-5 Specific Conditions:

- In the event the licensee is temporarily unable to comply with any of the conditions of the license, the licensee shall notify EPGMD within twelve (12) hours. Within five (5) working days of the event, the licensee shall submit a written report to EPGMD that describes the incident, its cause, the measures being taken to correct the problem and prevent its reoccurrence, the owner's intention toward repair, replacement, and reconstruction of destroyed facilities, and a schedule of action leading toward operation within the license conditions.

Inspection of March 20, 2023

An inspection was also conducted on March 20, 2023, by the staff of the Aquatic and Wetlands Resources Program and the Surface Water Management Program. That inspection noted the following:

River Oaks Stormwater Park and Preserve

ERP 06-07241-P, ERL DF13-1113, SWM2015-091-0:

- 1) Perimeter berm approved under Broward County Surface Water Management License No. SWM2015-091-0 at elevation 4.0' NAVD was not constructed per license approval.

Fort Lauderdale Stormwater MPI - River Oaks Stormwater

ERP 06-80003-P, ERL DF21-1148, SWM2018-081-5 as modified:

- 2) Unauthorized gravel fill has been placed in two locations in the Coconut Canal.
- 3) Clearing along the banks of the Coconut Canal on the north side of SW 20th St along Coconut Drive exceed the 50' (Sheet CA-DT-21), resulting in more mangrove alteration than proposed.
- 4) The location of structure STMH-S377 appears not to match the proposed/licensed location.
- 5) Per approved plans, a pollution retardant baffle was licensed and was shown on the as-built drawings dated March 3, 2022, but was not observed during this inspection.

Corrective Actions

To bring the Fort Lauderdale Stormwater Park and Preserve project into compliance, 1) immediately cease all dewatering activities into the wetland mitigation / preservation area and use only the pre-approved dewatering locations, 2) provide a monitoring and sampling plan (water quality and turbidity levels, core samples, bathymetric survey, vegetation survey, etc.) within thirty (30) days of the date of this notice to evaluate the impacts of the dewatering activities on the wetland area, 3) prepare a remediation plan to restore the wetland area, 4) measure water table elevations weekly and document, 5) contact the Engineer of Record to discuss system layout changes on site and 6) modify or apply for new license(s)/permit(s) as necessary to reflect changes made. Since the prior permit/license (ERP 06-07241-P, ERL DF13-1113, SWM2015-091-0) has expired, a new ERP/ERL/SWM will be required for the remediation work. Quarterly monitoring of the mitigation area shall continue to document the decline and/or recovery of the area. Additional monitoring may be required after remediation/restoration.

To bring the Fort Lauderdale Stormwater MPI – River Oaks Stormwater project into compliance, 1) immediately remove the unauthorized gravel fill from Coconut Canal, and 2) apply for a modification of ERP 06-80003-P, ERL DF21-1148, SWM2018-081-5 to show the proposed revised location of structure STMH-S377, 3) contact the Engineer of Record to discuss system layout changes on site, 4) modify or apply for new license(s)/permit(s) as necessary to reflect changes made and 5) address the additional mangrove alteration.

Please be advised that each violation of a general or specific condition is a separate violation of the license/permit.

You are hereby notified that a Notice of Violation will be issued in accordance with the Broward County's Natural Resource Protection Code. Evidence of continued violations at this site may result in civil penalties of up to \$15,000 per day per violation. If you have any questions, please do not hesitate to contact me at lsunderland@broward.org or 954-519-1454.

Sincerely,

Linda Sunderland

Linda Sunderland, PWS
Environmental Program Supervisor

C: Tyler Chappell, The Chappell Group, Inc.