



**SOUTH FLORIDA WATER MANAGEMENT DISTRICT  
WATER USE INDIVIDUAL PERMIT**

**APPLICATION NO:** 181003-20

**PERMIT NUMBER:** 11-04010-W

**DATE ISSUED:** January 28, 2019

**EXPIRATION DATE:** January 28, 2021

**PERMITTEE:** CITY OF NAPLES  
295 RIVERSIDE CIRCLE  
NAPLES, FL 34102

**PROJECT NAME:** NAPLES BEACH RESTORATION & WQ IMPROVEMENT PROJECT

**PROJECT LOCATION:** Collier County, S4/T50S/R25E

**PROJECT DESCRIPTION/AUTHORIZING:**

Dewatering of the Water Table aquifer to facilitate the reconfiguration and renovation of the City of Naples stormwater management system infrastructure in Collier County.

This is to notify you of South Florida Water Management District's (District) agency action concerning Permit Application Number 181003-20, received October 3, 2018. 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 31 permit conditions.
3. The attached 9 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](mailto: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 28th day of January, 2019, 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](http://my.sfwmd.gov/ePermitting)).

BY: 

Simon Sunderland, P.G.  
Section Administrator  
Water Use Bureau

## SPECIAL PERMIT CONDITIONS

1. This permit is issued to:

City of Naples  
295 Riverside Circle  
Naples, FL 34102

2. This permit shall expire on January 28, 2021.

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 - 10" x 60 HP X 2260 GPM Centrifugal Pump  
1 - 6" x 60 HP X 2000 GPM Hydraulic 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](http://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 is necessary to facilitate reconfiguration and renovation of the City of Naples stormwater management system located along Gulf Shore Boulevard between approximately 250 feet south of 6th Avenue North and 2nd Avenue South. The work requiring dewatering consists of excavating the required trenches and laying the pipe therein, backfilling the trenches, and construction of the below grade concrete drainage structures. The Project will dewater using one pump in conjunction with a well point system for linear work occurring deeper than -5.0 feet North American Vertical Datum (NAVD). For linear work shallower than -5.0 feet NAVD, dewatering will be accomplished by sump pumping as needed. For non-linear work, dewatering will be accomplished using the sump method. The maximum depth of dewatering is -18 feet NAVD for pump station installation. Upon meeting the requirements outlined in the turbidity monitoring plan, the Permittee will direct dewatering effluent off-site into the existing stormwater management system for discharge through the Gulf of Mexico beach outfalls, and/or Alligator Lake. The dewatering plan, turbidity monitoring plan, and off-site discharge authorizations are presented in Exhibits 5, 6, and 7, respectively.

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

-18 feet NAVD or 22 feet below land surface.

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

The Permittee will direct dewatering effluent to settling tanks to reduce the initial turbidity. Upon meeting the requirements outlined in the turbidity monitoring plan, the dewatering effluent will be conveyed off-site to the existing stormwater management system for discharge through the beach outfalls, and/or Alligator Lake. The turbidity monitoring plan is presented in Exhibit 6. Authorization from the City of Naples and the Florida Department of Environmental Protection to discharge effluent to the stormwater management system and the Gulf of Mexico/Alligator Lake is provided in Exhibit 7.

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. The Permittee shall construct the proposed recharge trenches prior to dewatering and maintain water levels during active dewatering operations within one foot below land surface. Obstructions and sediments within the recharge trenches shall be removed to maintain the effectiveness of the recharge trenches.
19. 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.
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

Alternatively, please contact:  
Scott Korf, Water Use Compliance Analyst  
phone: (239) 338-2929, extension 7738  
email: SKorf@sfwmd.gov

## 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 Sections 120.569 and 120.60(3), Fla. Stat., the following is notice of the opportunities which may be available for administrative hearing or judicial review 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. Not all of the legal proceedings detailed below may be an applicable or appropriate remedy. 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** (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a SFWMD decision which affects or may affect their substantial interests shall file a petition for hearing with the Office of the District Clerk of the SFWMD, 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, Fla. Stat.; or (2) within 14 days of service of an Administrative Order pursuant to Section 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of written notice through mail, electronic mail, or posting that the SFWMD has or intends to take final agency action, or publication of notice that the SFWMD has or intends to take final agency action. Any person who receives written notice of a SFWMD 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 which materially differs from the noticed intended agency decision, persons who may be substantially affected shall, unless otherwise provided by law, have an additional Rule 28-106.111, Fla. Admin. Code, point of entry.

Any person to whom an emergency order is directed pursuant to Section 373.119(2), Fla. Stat., 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 SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD 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 that the SFWMD 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 of the SFWMD. 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 SFWMD 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 SFWMD's security desk does not constitute filing. It will be necessary to request that the SFWMD's security officer contact the Office of the District Clerk. An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by e-mail must be transmitted to the Office of the District Clerk at [clerk@sfwmd.gov](mailto: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. A party who files a document by e-mail shall (1) represent that the original physically signed document will be retained by that party for the duration of the proceeding and of any subsequent appeal or subsequent proceeding in that cause and that the party shall produce it upon the request of other parties; and (2) be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed.

#### INITIATION OF AN ADMINISTRATIVE HEARING

Pursuant to Sections 120.54(5)(b)4. and 120.569(2)(c), Fla. Stat., and Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD 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, SFWMD file number or any other SFWMD identification number, if known.
2. The name, address, any email address, any facsimile number, and telephone number of the petitioner and **petitioner's 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 SFWMD'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 SFWMD's **proposed action.**
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD'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 SFWMD to take with respect to the SFWMD's **proposed action.**

#### MEDIATION

The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401–.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

#### RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Section 120.68, Fla. Stat., and in accordance with Florida Rule of Appellate Procedure 9.110, a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal with the Office of the District Clerk of the SFWMD 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 clerk of the appropriate district court of appeal.

**WATER USE STAFF REPORT**

**Application Number:** 181003-20  
**Permit Number:** 11-04010-W  
**Project Name:** NAPLES BEACH RESTORATION & WQ IMPROVEMENT PROJECT

**Location:** COLLIER COUNTY, S4/T50S/R25E

**Applicant's Name and Address:** CITY OF NAPLES  
295 RIVERSIDE CIRCLE  
NAPLES, FL 34102

**Water Use Classification:** Dewatering

**Sources:**

Surface Water from: Water Table aquifer

**Proposed Withdrawal Facilities - Surface Water**

Source: Water Table aquifer  
1 - 6" X 60 HP X 2000 GPM Hydraulic Pump  
1 - 10" X 60 HP X 2260 GPM Centrifugal Pump

<b><u>Rated Capacity Source</u></b>	<b><u>Status Code</u></b>	<b><u>GPM</u></b>	<b><u>MGM</u></b>	<b><u>MGY</u></b>
Water Table aquifer	P	4,260	186.5	2,239
<b>Totals:</b>		<b>4,260</b>	<b>186.5</b>	<b>2,239</b>

**PURPOSE**

The purpose of this application is to obtain a new water use permit for dewatering to facilitate reconfiguration and renovation of the City of Naples stormwater management system in Collier County. Withdrawals are from the Water Table aquifer (WTA).

**PROJECT DESCRIPTION**

Naples Beach Restoration and WQ Improvement Project (Project) is a proposed stormwater management system improvement project located in a largely residential area from approximately 250 feet south of 6th Avenue North and 2nd Avenue South in Naples as shown in Exhibits 1 through 3. The Project requires dewatering to facilitate reconfiguration and renovation of the existing stormwater management system. The work requiring dewatering consists of excavating the required trenches and laying the pipe therein, backfilling the trenches, and construction of the below grade concrete drainage structures. The source of water for the Project is the WTA. The Project will

## **PROJECT DESCRIPTION (CONTINUED)**

dewater using one pump in conjunction with a well point system for linear work occurring deeper than -5.0 feet North American Vertical datum (NAVD) (e.g. stormwater trunkline). For linear work shallower than -5.0 feet NAVD, dewatering will be accomplished by sump pumping as needed. For non-linear work, dewatering will be accomplished using the sump method. The maximum depth of dewatering is -18 feet NAVD for pump station installation. The withdrawal facility specifications are shown in Exhibit 4. The Applicant requested a duration of two years to complete the proposed stormwater management system improvements. The two-year duration includes anticipated completion in 14 to 20 months plus a contingency to accommodate unforeseen delays.

### **Operational Plan:**

The maximum depth of dewatering is -18 feet NAVD or approximately 22 feet below the average land surface elevation. The estimated daily pumpage is approximately 0.3 million gallons (MG) and the total Project pumpage is approximately 57.9 MG. The dewatering plan along with drawings showing dewatering areas and dewatering effluent routes are included in Exhibit 5. Dewatering effluent will be directed from the pumps to settling tanks to reduce turbidity. Upon meeting the turbidity requirements, the effluent will be conveyed to the stormwater management system before ultimately discharging to the Gulf of Mexico beach outfalls and/or Alligator Lake. The turbidity monitoring plan is provided as Exhibit 6. The Applicant obtained authorization from the City of Naples and the Florida Department of Environmental Protection (FDEP) to discharge effluent into the stormwater management system and the Gulf of Mexico and/or Alligator Lake (Exhibit 7). If exceptional storm conditions occur that exceed the capacity of the dewatering effluent disposal system, 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 has provided estimated maximum dewatering volumes of 0.3 MG daily with a total Project pumpage of 57.9 MG.

## **IMPACT EVALUATION**

The Applicant estimated the radius of influence due to the proposed dewatering using the Sichert empirical equation. 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 592 feet for box culvert dewatering. The calculations are provided in Exhibit 5.

## **WATER RESOURCE IMPACT EVALUATION**

### **Water Resource Availability**

#### **Water Table aquifer**

The land surface elevation at the Project is approximately 4.0 feet NAVD. On-site soil boring logs indicate that the WTA extends to -21 NAVD. The maximum depth of dewatering is -18 feet NAVD or approximately 22 feet below the average land surface elevation. Therefore, the resultant saturated thickness of the WTA will be approximately three feet assuming no recharge. Dewatering will be transient in nature and no single dewatering point will be active for more than four weeks. Therefore, the potential for harm to occur to the water resource availability of the WTA as a result of the proposed dewatering activities is considered minimal.

### **Existing Legal Users**

#### **Water Table aquifer**

The nearest existing legal user of surface water or the WTA is the Naples Golf and Beach Club (Water Use Permit 11-00063-W) located approximately 1,320 feet north of the Project. Naples Golf and Beach Club is located beyond the Project's calculated radius of influence. Therefore, the potential for harm to occur to surrounding existing legal users as a result of the dewatering activities 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 primarily residential. The calculated radius of influence of the proposed dewatering activities is not expected to extend beyond 592 feet from the dewatering pits (Exhibit 5). Dewatering for this Project will be transient in nature, and no single dewatering point will be active for more than approximately four weeks. 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 off-site 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 surface water saline source is the Gulf of Mexico, located approximately 500 feet west of the Project site. The Project is located west (seaward) of the 250 milligrams per liter (mg/L) isochlor in the WTA, so the WTA is expected to be saline (Estimated Position of the Saltwater Interface, District, 2014). The saline dewatering effluent will be discharged to the saline Gulf of Mexico and Alligator Lake, which is consistent with Subsection 3.2.1 of the AH. Based on this information, the potential for saline water intrusion or upconing to occur as a result of the proposed dewatering

## **WATER RESOURCE IMPACT EVALUATION (CONTINUED)**

withdrawals is considered minimal.

### **Wetland Environments**

#### **Water Table aquifer**

There are no wetlands located within the Project site or within the calculated radius of influence for the proposed dewatering. Based on this information, the potential for wetland harm due to the proposed dewatering is minimal.

### **Sources of Pollution**

#### **Water Table aquifer**

The Applicant provided calculations (Sichardt's equation) to estimate the extent of the resultant drawdown caused by the proposed dewatering (Exhibit 5). The calculations show a maximum radius of influence of approximately 592 feet from the dewatered area. There are no identified potential sources of contamination within the calculated radius of influence. Therefore, the potential for migration of contaminants or pollution to occur as a result of the proposed dewatering withdrawals is considered minimal.

## **ADDITIONAL INFORMATION**

### **Project Site Issues**

#### **Legal Control and Land Use**

The City of Naples provided documentation that all work will occur within their rights-of-way and easements and the discharge of dewatering effluent will occur through their stormwater management system. All withdrawal facilities are located within the Project site and the water allocation requested is compatible with the land use at the Project (Subsection 2.1 of the AH).

#### **Permit Duration**

The duration of a water use permit is the time period that the Permittee demonstrates water will be needed to meet the projected demands (Subsection 1.5 of the AH) and during which the conditions for issuance in Rule 40E-2.301, Florida Administrative Code will be met. The Permittee has requested a two-year duration to complete the Project and has demonstrated reasonable assurance that the proposed use meets the conditions for issuance for the requested duration. Staff recommends a duration of two years per Subsection 1.5.1 of the AH.

### **ENVIRONMENTAL RESOURCE PERMIT STATUS:**

MODIFICATION TO PERMIT 11-100825-P, PROPOSED  
CONCURRENTLY WITH APPLICATION NO. 180703-667.

### **RIGHT OF WAY PERMIT STATUS:**

Not Applicable

## RECOMMENDATIONS

**Project Name:** NAPLES BEACH RESTORATION & WQ IMPROVEMENT PROJECT  
**Application Number:** 181003-20  
**Permit Number:** 11-04010-W

### RECOMMENDATION

Dewatering of the Water Table aquifer to facilitate the reconfiguration and renovation of the City of Naples stormwater management system infrastructure in Collier County.

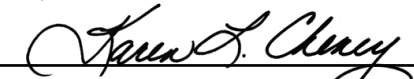
### STAFF EVALUATION

**REVIEWER:**



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Kimberly C. McNeely, NRM



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Karen L. Cheney, P.G., WU

**SUPERVISOR:**



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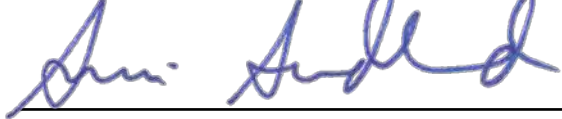
Laura Layman, NRM



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Brad D. Cook, P.G., WU

**WATER USE SECTION ADMINISTRATOR:**



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Simon Sunderland, P.G.

**Date:** January 22, 2019

## SPECIAL PERMIT CONDITIONS

1. This permit is issued to:

City of Naples  
295 Riverside Circle  
Naples, FL 34102

2. This permit shall expire on January 28, 2021.

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 - 10" x 60 HP X 2260 GPM Centrifugal Pump  
1 - 6" x 60 HP X 2000 GPM Hydraulic 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](http://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 is necessary to facilitate reconfiguration and renovation of the City of Naples stormwater management system located along Gulf Shore Boulevard between approximately 250 feet south of 6th Avenue North and 2nd Avenue South. The work requiring dewatering consists of excavating the required trenches and laying the pipe therein, backfilling the trenches, and construction of the below grade concrete drainage structures. The Project will dewater using one pump in conjunction with a well point system for linear work occurring deeper than -5.0 feet North American Vertical Datum (NAVD). For linear work shallower than -5.0 feet NAVD, dewatering will be accomplished by sump pumping as needed. For non-linear work, dewatering will be accomplished using the sump method. The maximum depth of dewatering is -18 feet NAVD for pump station installation. Upon meeting the requirements outlined in the turbidity monitoring plan, the Permittee will direct dewatering effluent off-site into the existing stormwater management system for discharge through the Gulf of Mexico beach outfalls, and/or Alligator Lake. The dewatering plan, turbidity monitoring plan, and off-site discharge authorizations are presented in Exhibits 5, 6, and 7, respectively.

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

-18 feet NAVD or 22 feet below land surface.

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

The Permittee will direct dewatering effluent to settling tanks to reduce the initial turbidity. Upon meeting the requirements outlined in the turbidity monitoring plan, the dewatering effluent will be conveyed off-site to the existing stormwater management system for discharge through the beach outfalls, and/or Alligator Lake. The turbidity monitoring plan is presented in Exhibit 6. Authorization from the City of Naples and the Florida Department of Environmental Protection to discharge effluent to the stormwater management system and the Gulf of Mexico/Alligator Lake is provided in Exhibit 7.

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



## SPECIAL PERMIT CONDITIONS

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. The Permittee shall construct the proposed recharge trenches prior to dewatering and maintain water levels during active dewatering operations within one foot below land surface. Obstructions and sediments within the recharge trenches shall be removed to maintain the effectiveness of the recharge trenches.
19. 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.
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

Alternatively, please contact:  
Scott Korf, Water Use Compliance Analyst  
phone: (239) 338-2929, extension 7738  
email: SKorf@sfwmd.gov

## 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.

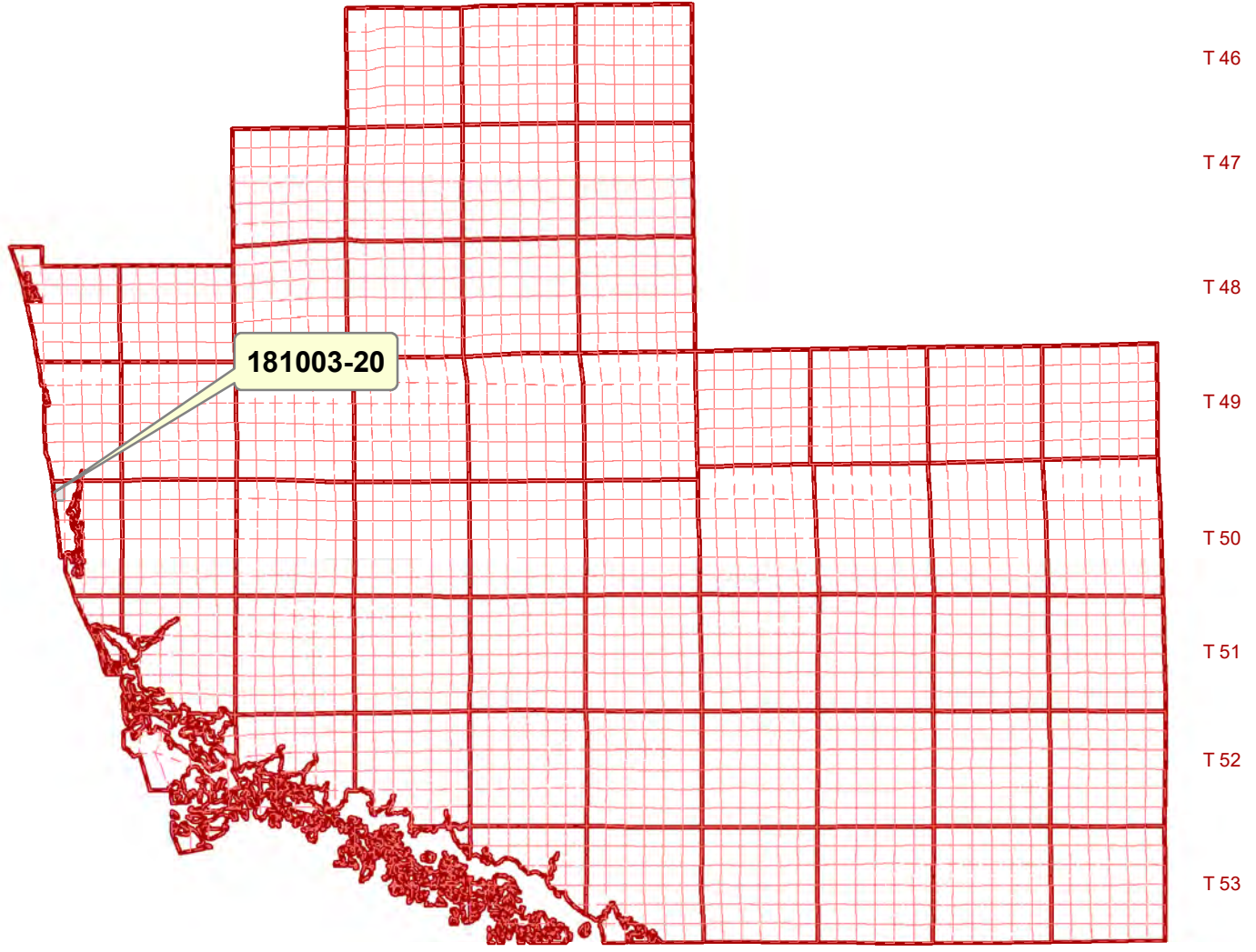
11. The Permittee shall mitigate harm to existing off-site land uses caused by the Permittee's withdrawals, as determined through reference to the conditions for permit issuance. When harm occurs, or is imminent, the District will require the Permittee to modify withdrawal rates or mitigate the harm.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

R 25    R 26    R 27    R 28    R 29    R 30    R 31    R 32    R 33    R 34



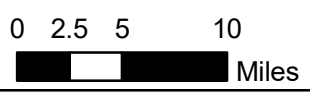
**COLLIER COUNTY, FLORIDA**

Application No: 181003-20

Permit No: 11-04010-W

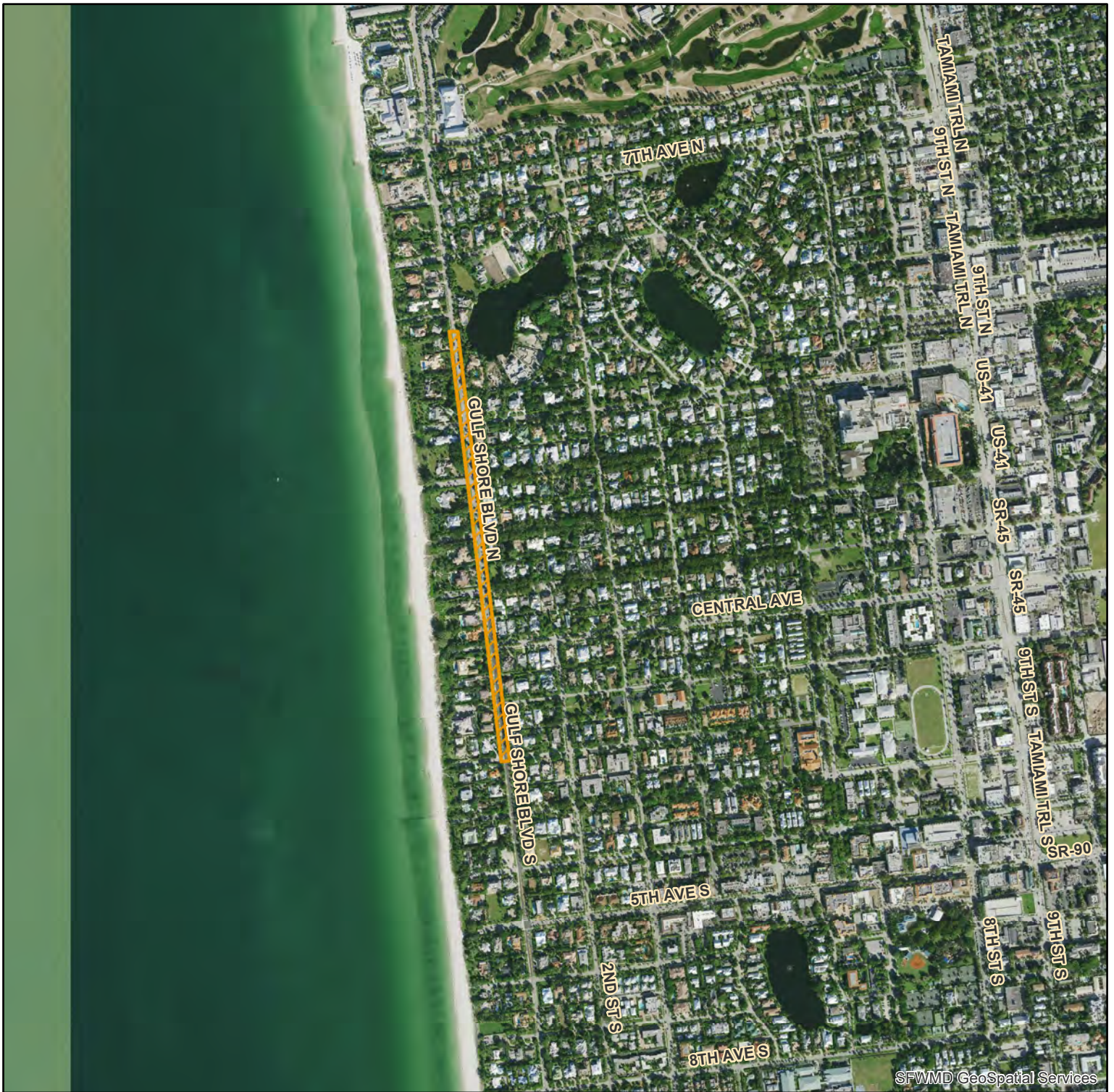
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Project Name: NAPLES BEACH RESTORATION & WQ IMPROVEMENT PROJECT

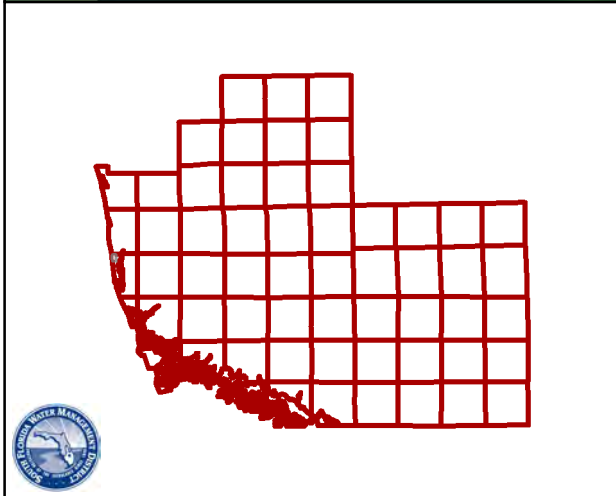


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Map Date: 2018-10-09





SFWMD GeoSpatial Services



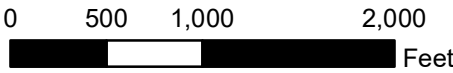
COLLIER COUNTY, FLORIDA

Legend  
 Application

Application No: 181003-20

Sec 33 / Twp 49 / Rge 25

Project Name: NAPLES BEACH RESTORATION & WQ IMPROVEMENT PROJECT



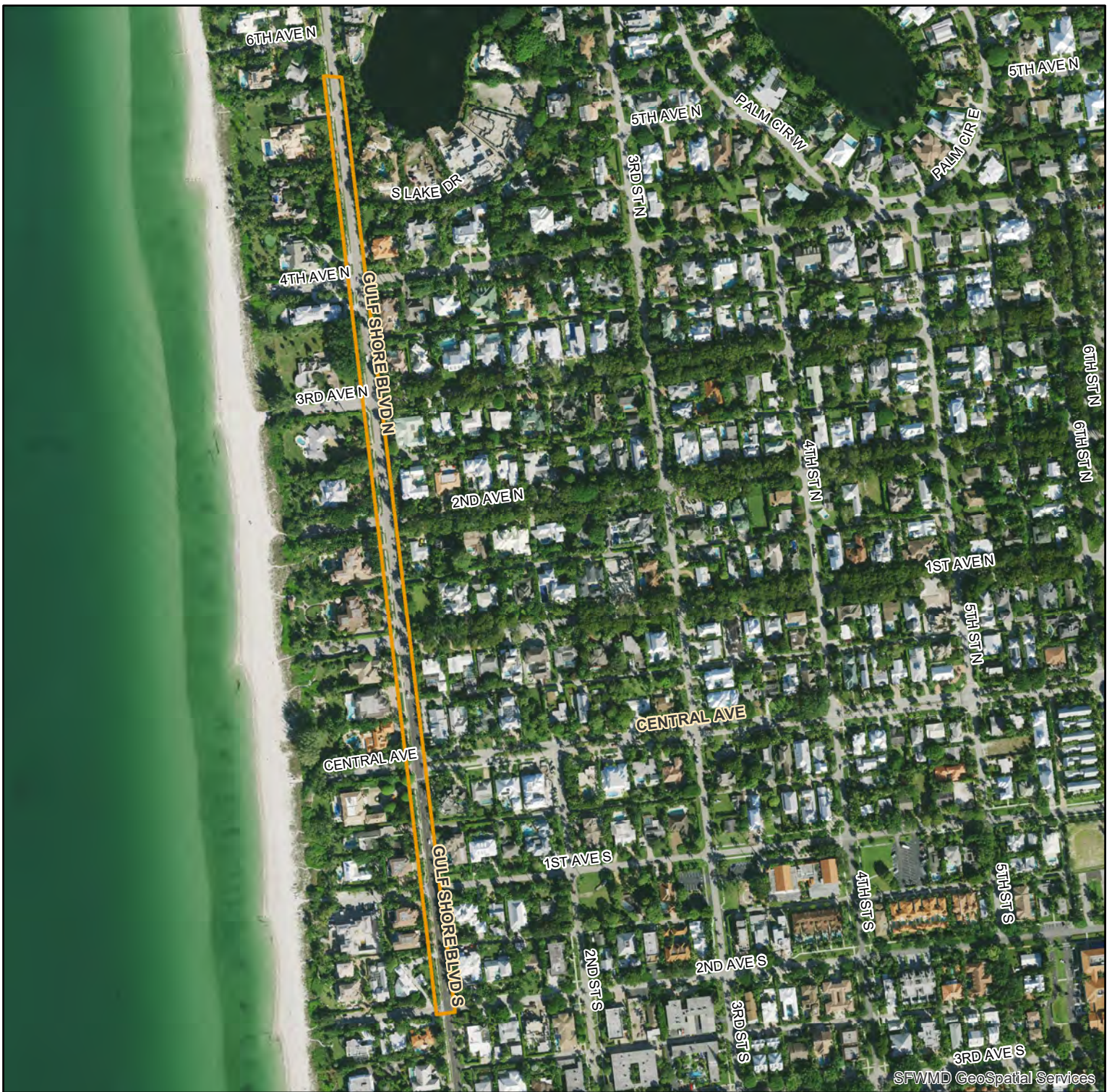
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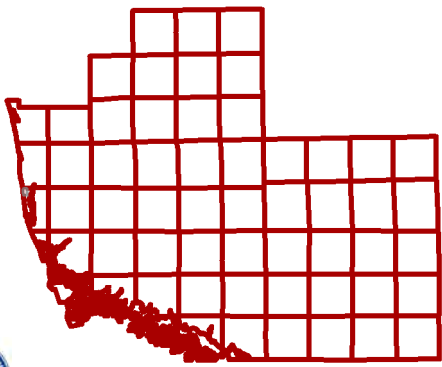
Map Date: 2018-10-09

Permit No: 11-04010-W

Exhibit No: 2



SFWMD GeoSpatial Services



COLLIER COUNTY, FLORIDA

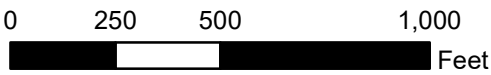
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 Application

Application No: 181003-20

Sec 33 / Twp 49 / Rge 25

Project Name: NAPLES BEACH RESTORATION & WQ IMPROVEMENT PROJECT



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Map Date: 2018-10-09

Permit No: 11-04010-W



Exhibit No: 3

**TABLE - B**  
**Description Of Surface Water Pumps**

**Application Number: 181003-20**

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<b>Pump ID</b>	280091	280092
<b>Name</b>	WP	SP
<b>Map Designator</b>	WP	SP
<b>Facility Group</b>		
<b>Existing/Proposed</b>	P	P
<b>Pump Type</b>	Centrifugal	Hydraulic
<b>Diameter(Inches)</b>	10	6
<b>Pump Capacity(GPM)</b>	2,260	2,000
<b>Pump Horse Power</b>	60	60
<b>Two Way Pump ?</b>	N	N
<b>Elevation (ft. NGVD)</b>	-5	0
<b>Planar Location</b>		
<b>Source</b>		
<b>Feet East</b>	391325	391318
<b>Feet North</b>	660825	660818
<b>Accounting Method</b>	None	None
<b>Use Status</b>	Primary	Primary
<b>Water Use Type</b>	Mining / Dewatering	Mining / Dewatering
<b>Surface Water Body</b>	Water Table aquifer	Water Table aquifer



# **DEWATERING PLAN (REVISION #1)**

## **NAPLES BEACH RESTORATION & WATER QUALITY IMPROVEMENT PROJECT**

The purpose of this document is to outline the Dewatering Plan during construction for the Project. The Contractor shall provide ample means and devices to promptly remove all water entering excavations, trenches and other parts of the work as necessary to execute the work and as described herein.

### **1. Project Location**

The Project is located in the City of Naples within SFWMD Drainage Basin II, sub-basins 6-10 as shown in Figure 1, along Gulf Shore Blvd between approximately 250 ft south of 6<sup>th</sup> Ave N and 2<sup>nd</sup> Ave S.

### **2. Project Description**

The Project consolidates the existing stormwater flow associated with sub-basins 5, 6, 7, 8, 9 and 10 (25-Yr) and conveys the flow to a pump station located at 3<sup>rd</sup> Avenue North with treatment and discharge (5-Yr) through a diffuser system using directional drilled deep pipelines offshore. An overflow line will be located at the existing Outfall 6 to convey stormwater during extreme storm events (Sub-Basins 5 and 6), when peak discharge volumes exceed the maximum rate for the pump stations, by diverting the flow from Alligator Lake. The remaining four existing beach outfalls will be removed.

The Project components include (Figure 1):

1. Stormwater consolidation and conveyance to the pump station
2. Pump station located at 3<sup>rd</sup> Ave N
3. Backup generator for pump station located at Alligator Lake
4. Directionally drilled pipelines for offshore discharge of stormwater\*
5. System overflow at existing Outfall 6 for extreme events
6. Pre-treatment/filtration for water quality improvement\*

\*work components do not require major excavation or dewatering.

Related Documents:

- Project Drawings (ERP 180703-667)
- Construction Schedule and Techniques Plan (ERP 180703-667)
- MS4 NPDES Permit FLO4E080
- Stormwater Pollution Prevention Plan
- Turbidity Monitoring and Compliance Plan

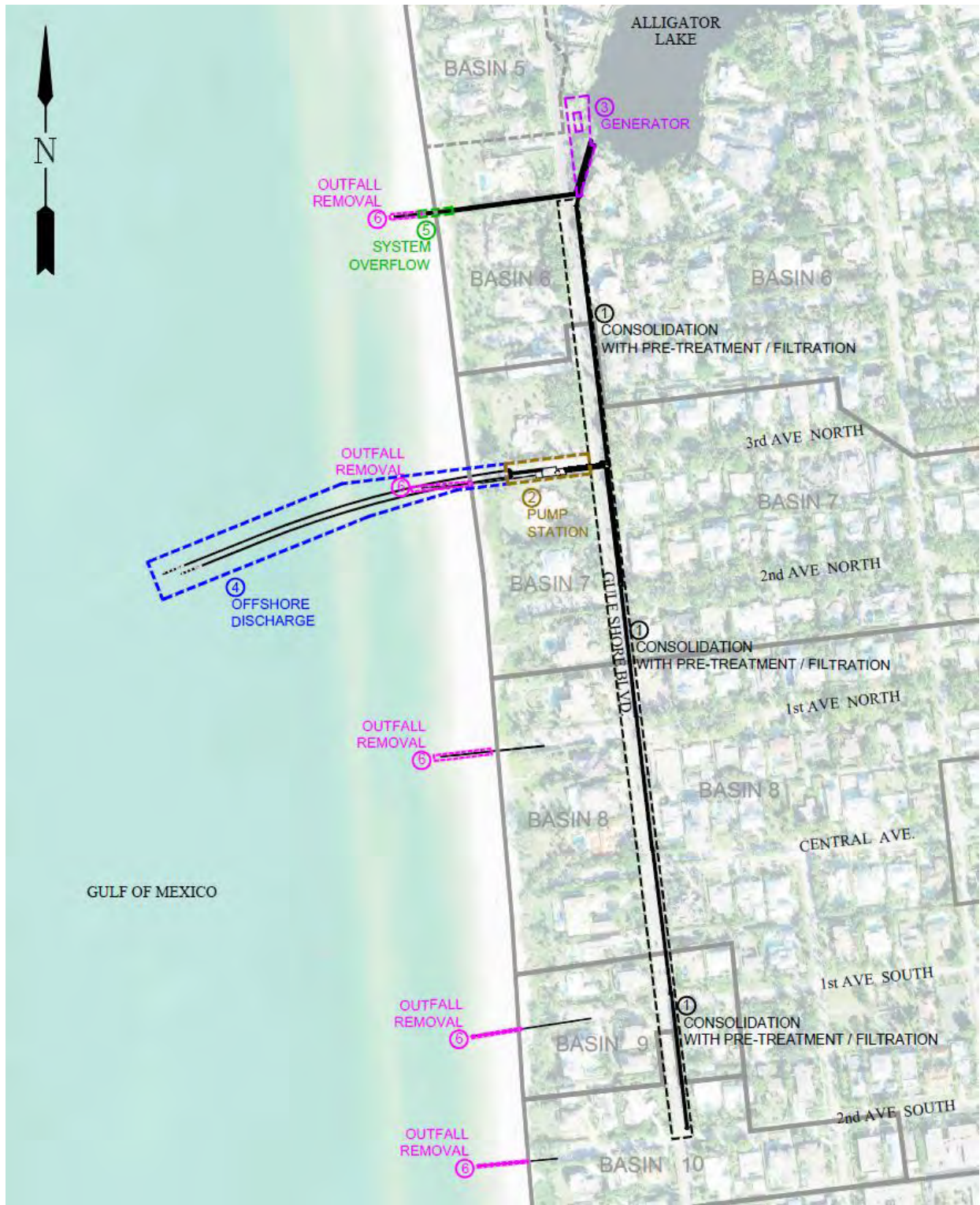


Figure 1. Project Key Components Overview

### 3. Existing Drainage Patterns

The existing roadway, Gulf Shore Blvd, is a two-lane divided roadway, with stormwater collecting into the sewer system at each major intersection and ultimately discharging through five (5) beach outfalls located at South Lake Drive, 3<sup>rd</sup> Ave N, 1<sup>st</sup> Ave N, 1<sup>st</sup> Ave S, and 2<sup>nd</sup> Ave S. The typical collection system, as shown in the vicinity of 2<sup>nd</sup> Ave S to Central Ave, is provided in Figure 2.

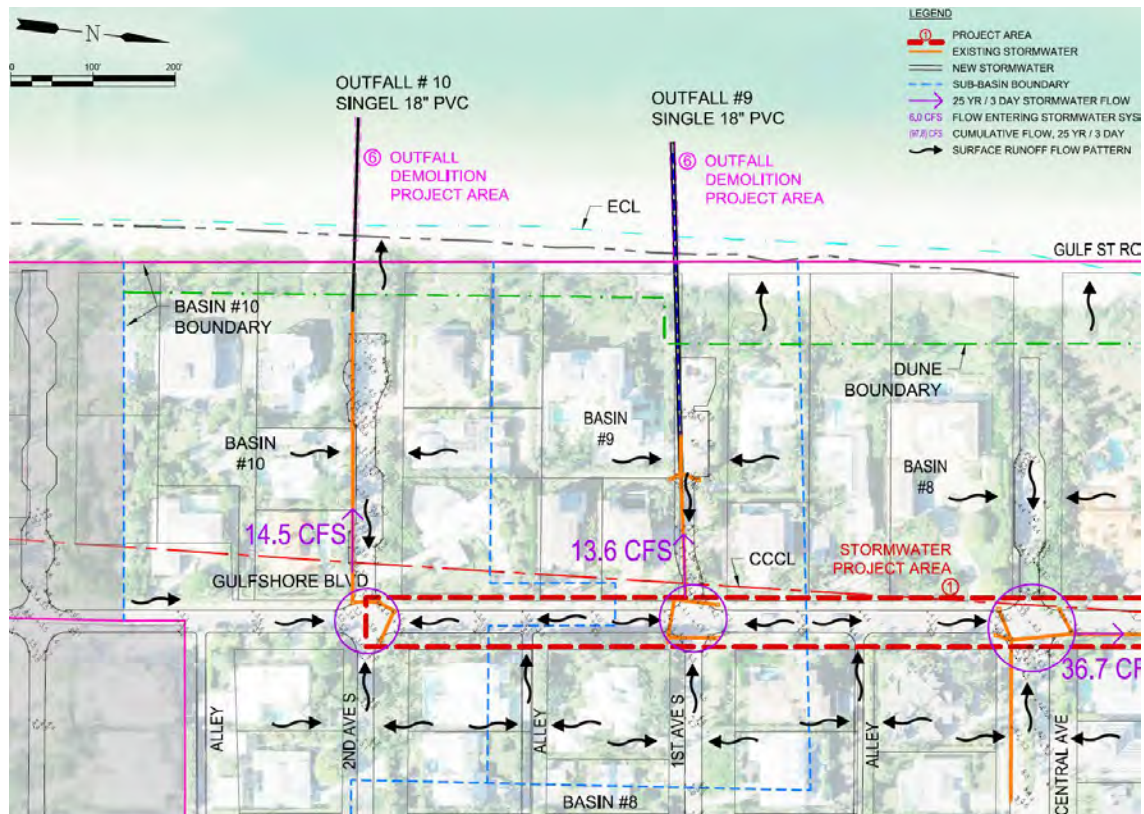


Figure 2. Existing Stormwater Flow (25 YR/3 Day)

### 4. Dewatering Methodology

#### 4.1 Storm Sewer System

The work requiring dewatering consists of excavating the required trenches and laying the pipe therein; backfilling the trenches; and of the construction of the below grade concrete drainage structures.

The dewatering methods employed will be a combination of vertical well points and/or sump pumping. For linear work occurring below  $\geq -5$  ft NAVD (e.g. storm sewer trunkline), a series of vertical well points will be placed immediately adjacent to the excavation trenches, stabilized by trench boxes or vertical sheet piling, unless otherwise restricted due to conflicts (e.g. underground utilities). Well points (1.5" PVC riser) will be installed along the trench line at

approximately 25 foot intervals. Well points will be connected by an approximately 6" diameter wellpoint header pipe. For linear work above -5 ft NAVD (e.g. secondary drainage culverts at intersections), dewatering will be by sump pumping as needed. A dewatering pump will carry the water through a settling tank(s) to the existing stormwater system for discharge through the beach outfalls, and/or to Alligator Lake.

For non-linear work, temporary sheet piling will stabilize the excavation banks for deep excavations (e.g. typically greater than 5 ft) and open sloped trenches will be used as space permits for shallow excavations. The majority of the deep non-linear excavations are anticipated on the order of 20-100 square ft and will be dewatering using the sump method. The exception is Vault 1 (anticipated excavation 30' x 30') which will be installed around the perimeter minimizing the dewatering required. Shallow excavations are expected to require minimal dewatering, and will utilize sump pumping when needed.

Sediment within the limits of excavation can be generally described as poorly graded sand (SP). Based upon geotechnical information from the on-site core data (Geotechnical Report, Attachment 1). The settling calculations are performed for a 0.09mm particle size (#170 sieve).

#### Summary

- Purpose of Dewatering: excavation and installation of pipeline and structures located below the water table.
- Dewatering Technique: Well Point (>2 ft drawdown) and Sump Pumping (<2 ft drawdown)
- Anticipated Dewatering Flow Rate: See Attachment 2
- Total Dewatering Duration: See attached by construction activity, total estimated at approximately 199 days (dewatering is not continuous, construction expected duration 14-20 months)
- Requested permit duration: 2 years
- Method of Effluent Discharge: through a settling tank, to the existing stormwater system with discharge to the Gulf of Mexico and/or Alligator Lake. See Construction Drawing Sheets 65-76.
- Controls: Settling Tank(s)
- Pump specifications: See attached.

Dewatering calculations, typical dewatering pumps used for this application and settling tank calculations are provided as Attachment 2.

## 4.2 Pump Station

All equipment at the pump station site, except the electrical panel and controls, are located below grade. Temporary sheet piling around the pump station will be utilized for the excavation. An excavating depth of 26-feet will allow the contractor to construct a tremie plug resulting in minimal dewatering for the construction of the pump station. Dewatering of the excavation will be intermittent to keep excavation dry from rain, minimal seepage and construction wash waters. A 3-inch diameter submersible pump will be utilize to discharge waters to a settling tank and directly back to existing stormwater system.

## 5. Construction Sequence and Timing

The general construction sequence and timeline is estimated as described in Table 1. The Contractor, at his/her discretion, may propose to alter the construction sequencing for approval by the City and Engineer.

Table 1. Construction Sequence and Timeline

Sequence	Project Component	Duration	Project Drawing Sheets
1	Directional Drill and Cap Offshore Discharge Pipelines*.	6 weeks	52-55
2A	Pump Station to Vault 1	6-9 Months	18, 30-48
2B	Storm Sewer Vault 1 to Vault 3 /Central Ave (Outfalls 7-8) and Drainage Structures Along Road Intersects East Side of GSB; West side to remain to convey s/w to outfalls; FPVC line from Structure 6-3 (Alligator Lake) to Vault 1; Outfall Diffuser System*	4-6 Months	12-15; 19-22; 56-58
2C	Vault 4 to Vault 5 (Outfall 9-10) and Drainage Structures Along Road Intersects East Side of GSB; West side to be constructed in phase 3; Construct Overflow system with pinch valve and rebuild beach outfall	4-6 Months	16-17; 22-23; 59-62
3	Remove outfalls (4) and replace beach access parking area (grades ok at present) drainage to flow east to GSB.	2-3 Months	80-81

4	Backup Generator	Expected to Occur Concurrently with Items 2C and 3.	49-51
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Note: \*The directional drill and installation of the outfall diffuser system, do not require major excavation or dewatering.

## **6. Stormwater Pollution Prevention Plan**

See attached drawings SWPPP and erosion control drawings (sheets 74-76). As described thereon, the Contractor is to provide erosion control/sedimentation barriers (siltation curtains) to prevent siltation of adjacent property, streets, storm sewer, and waterways. In addition, Contractor shall place straw, mulch, rip-rap/rock or other suitable material on ground in areas where construction related traffic is to enter and exit the site. If excessive quantities of earth are transported off-site either by natural drainage or by vehicular traffic, the Contractor is to remove said earth to the satisfaction of the City and the Engineer daily.

The Contractor shall be responsible for testing to establish background levels and testing during construction. The contractor shall limit the discharge of turbid waters off-site, or into on-site/off-site wetlands (if applicable), to no more than 50 JTU'S (Jackson Turbidity Units) OR 29 NTU'S (Nephelometric Turbidity Units), above background levels.

If wind erosion becomes significant during construction, the Contractor shall stabilize the affected area using sprinkling, irrigation or other acceptable methods.

Contractor shall inspect and maintain on a daily basis all erosion/sedimentation control facilities. The Contractor shall ensure that siltation accumulations greater than the lesser of 12 inches or one-half the depth of the siltation control barrier shall be immediately removed and placed in upland areas. Barriers are to be replaced if damaged.

Erosion and sediment control BMPs and a Stormwater Pollution Prevention Plan (SWPPP) shall be implemented as necessary to prevent turbid discharges from flowing onto adjacent properties or roadways, off site stormwater conveyances or receiving water, or on site wetlands and surface waters. BMPs shall be designed, installed, and maintained by the site operator to ensure that off-site surface water quality remains consistent with state and local regulations. The operator is the entity that owns or operates the construction activity and has authority to control those activities at the project necessary to ensure compliance.

The Operator shall ensure that adjacent properties are not impacted by wind erosion, or emissions of unconfined particulate matter in accordance with Rule 62-296.320(4)(C)1. F.A.C., by taking appropriate measures to stabilize affected areas.

Fuel and other petroleum product spills that enter stormwater drains or waterbodies, or fuel and other petroleum product spills that are in excess of 25 gallons shall be contained, cleaned up and immediately reported immediately to the City of Naples. Small ground surface spills shall be cleaned up as soon as practical.

If contaminated soil and/or groundwater is discovered during development of the site, all activity in the vicinity of the contamination shall immediately cease, and the Contractor shall notify the City of Naples.

The City's MS4 NPDES authorizes the discharge of stormwater through the five existing beach outfalls (Attachment 2). A copy of the SWPPP, as well as copies of the inspection and maintenance records shall be maintained at the project site, and shall be readily available to County or State inspectors.

The Contractor remains sole responsibility for means and methods including site dewatering and shall independently prepare a dewatering plan by a licensed professional prior to the commencement of construction. Should the Contractor's proposed dewatering methodology and equipment deviate significantly from this Plan, the Contractor shall submit an update to SFWMD prior to the commencement of Construction to modify the Water Use permit.

## **7. Dewatering Permit Application Supplemental Responses**

The following are supplemental responses to the Dewatering Permit Application.

### **Permit Type**

- 1. Which of the following types of land use/water use classification are you requesting?**  
Dewatering
  
- 2. Which of the following type of activity are you requesting?**  
A New Permit

### **Project Location**

- 3. Project Name:** Naples Beach Restoration & Water Quality Improvement Project
- 4. Project Acreage:** 7.17 Acres

5. **City, Town or Village:** Naples
6. **County:** Collier
7. **Section/Township/Range:** 33/49/25 ; 4/49/25

### **Project Description**

1. **Describe the mining / dewatering operation:** Wellpoint for linear trenching, sump pumping for non-linear excavations. See description on Pages 3-4.
2. **Why is Dewatering Necessary?** To promptly remove all water entering excavations and other parts of work as necessary to execute the work.
3. **Describe the method of excavation:** Trenching stabilized with trench boxes or vertical sheeting for linear work; vertical sheeting for deep non-linear excavations; open, sloped excavations for shallow, non-linear excavations. See description on Pages 3-4.
4. **Describe the areas that will be dewatered. Indicate if there are several segments or phases:** See the anticipated construction sequence on Pages 4-5, and construction drawing sheets 65-72.

### **Dewatering**

1. **What is the maximum daily pumpage in Million Gallons per Day (MGD)?** 0.48
2. **What is the total project pumpage in Million Gallons?** 57.9
3. **What is the duration of this request?** 2yrs
4. **Are you applying for a "master" dewatering permit?** No
5. **Provide the WET season elevation (ft, NGVD):** 3.3
6. **Provide the DRY season elevation (ft, NGVD):** 0.0
7. **Provide the elevation to which ground water will be drawn down (ft, NAVD):** -18.0 (2-3 ft below required excavation)
8. **Provide the maximum depth of excavation (ft, NAVD):** -16.0 (0.5 ft below invert of the lowest structure)
9. **Provide the operation schedule (Hours/day):** 10
10. **Provide the operation schedule (Days/weeks):** 5
11. **Will discharge remain on site?** No, effluent will go through a settling tank, to the existing stormwater system with discharge to the Gulf of Mexico via the existing beach outfalls.
12. **Provide calculations to show how flow volumes were derived.** See attachment 1 for dewatering calculations.
13. **Describe erosion controls.** See attached drawings for SWPPP and description of erosion



controls. Effluent will go through a settling tank before entry into the existing stormwater system for discharge to the Gulf of Mexico via the existing beach outfalls. Turbidity curtains will be used at the outfall locations during dewatering operations.

### **Potential Water Impacts**

- 1. Are there any wetland areas within the area of influence? If yes, provide an impact evaluation.** Alligator Lake is located at the North end of the Project Area (Figure 1). Excavation to install a new weir (Structure 6-4B) is the only activity expect to occur with a radius of influence extending to the lake shoreline. The excavation for this structure is limited to 120 SF plan and 7.5 ft deep, with a construction duration of approximately 7 days. A photograph of the shoreline in the vicinity of the future Structure 6-4B (weir) location is provided in Figure 3. No impacts to mangroves or other sensitive or protected wetland species are anticipated as a result of the excavation or dewatering operations. Vegetation impacts are expected to be limited as the existing ground cover is primarily comprised of rip rap.
  
- 2. Are there any contamination sites within the area of influence? If yes, provide details for the contamination sites.** There are no documented sources of contamination or pollution within the project limits.
  
- 3. What is the distance to the nearest source of saline water (ft)? 500**
  - a. If known, provide a signed/sealed impact assessment.** The nearest saline water is the Gulf of Mexico located approximately 500 ft to the west of Gulf Shore Blvd. The portions of the project that will be dewatered are located in upland cut areas. Negative impacts to the site or adjacent properties resulting from saline water intrusion are not expected due to the limited duration of the proposed dewatering activities and the linear nature of the project. Dewatering effluent will be returned to the Gulf of Mexico after passing through a settling tank.



Figure 3. Structure 6-4B Future Weir Location, Jan 2018 (Post-Irma)

## References

- Bennett, M. W. (1992). *Technical Publication 92-04 "A Three-Dimensional Finite Difference Ground Water Flow Model of Western Collier County, Florida*. SFWMD.
- J. Patrick Powers, A. B. (2007). *Construction Dewatering and Groundwater Control: New Methods and Applications*. Hoboken, New Jersey: John Wiley & Sons, Inc.
- SFWMD. (2015). *Applicant's Handbook for Water Use Permit Applications within the South Florida Water Management District*. [www.sfwmd.gov](http://www.sfwmd.gov): South Florida Water Management District.
- State Erosion and Sediment Control Task Force. (2013). *State of Florida Erosion and Sediment Control Designer and Reviewer Manual*. FDOT & FDEP.

**NAPLES BEACH RESTORATION & WATER QUALITY IMPROVEMENTS PROJECT  
DEWATERING CALCULATIONS**

**Assumptions:**

For Excavation Above -5 ft NAVD, dewatering by open trench pumping

Below -5 ft NAVD, dewatering by well points with bank stabilization using trench boxes

Water Table Elev: 0.6 m 2.0 ft NAVD

Well Pump

Total Head of Aquifer (H): 25 ft 15.24 m Source Hydrogeologic Unit Mapping Update for the Lower West Coast Water Supply Planning Area, Technical Publication WS-34

Hydraulic Conductivity (K): 100 ft/day 0.000352778 m/s Source Figure A-1 "Hydraulic Conductivity, Layer 1 (Surficial Aquifer), SFWMD

Radius of Influence (R<sub>o</sub>) = 3000(H-h)SQRT(K) (m) Sichardt Equation

Effective Radius of Influence: SQRT((Excavation Width x Length)/π)

Production Rate (Excavation, Pipeline Install, Backfill): 25 ft/day

Well Point Spacing (Typ): 25 ft

Wellpoint (PVC Riser): 1.5 in Header Pipe Size (in) 8

Dewatered Elev: 2.0 ft below required excavation

Flow rate per wellpoint (q):  $(H^2-h^2)(\pi k)/n(\ln R_o-\ln R_e)$  (m<sup>3</sup>/sec)

Sump Pump

Assumed Daily Dewatering Operations: 10 hrs/day

Estimated Seepage through Sheet Pile Cofferdam: 1.5 gal/hr/sq.ft wall

Dewatered Elev: 1.0 ft below required excavation

Assume average flow rate for sump pumping is equivalent to pump rate, estimated at 800 gpm

**Dewatering Calculations for Trunkline**

Pipe Dia	Length	Avg Existing Grade Elev	Excavation Width (Incl Side Slopes)	Excavation Depth	Dewatered Water Table Elev	Method of Dewatering	Δh		Radius of Influence (R <sub>o</sub> )		Equivalent Radius of Influence (R <sub>e</sub> )		Number of Well Points	Flow Rate per Wellpoint (q)			Estimated Duration of Dewatering	Total Discharge
							ft	m	ft	m	ft	m		m <sup>3</sup> /sec	gpm	gpd		
<b>North System</b>																		
36"	798	4.0	14	10.0	(8.0)	Well Points	10.0	3.0	563	172	60	18	32	0.00151	23.9	14,319	25	11,454,903
<b>South System</b>																		
24"	396	4.0	14	8.0	(6.0)	Well Points	8.0	2.4	451	137	42	13	16	0.00320	50.7	30,399	13	6,323,090
36"	420	4.0	16	8.0	(6.0)	Well Points	8.0	2.4	451	137	46	14	17	0.00301	47.7	28,615	21	10,215,709
42"	384	4.0	16	10.0	(8.0)	Well Points	10.0	3.0	563	172	44	13	16	0.00301	47.7	28,627	19	8,702,724
2-42"	337	4.0	20	10.0	(8.0)	Well Points	10.0	3.0	563	172	46	14	14	0.00344	54.5	32,719	17	7,787,064
5'x8' Box Culvert	140	3.5	24	10.5	(9.0)	Well Points	10.5	3.2	592	180	33	10	14	0.00339	53.8	32,255	7	3,161,018

**Dewatering Calculations for Secondary Drainage Culverts**

Pipe Dia	Length	Avg Existing Grade Elev	Excavation Width (Incl Side Slopes)	Avg Excavation Depth	Dewatered Water Table Elev	Method of Dewatering	Δh		Estimated Duration of Dewatering	Total Discharge
							ft	m		
12-24"	968	4	20	4	N/A					Not Likely Required

**Dewatering Calculations for Drainage Structures**

Structure ID	Length	Avg Existing Grade Elev	Excavation Width	Avg Excavation Depth	Dewatered Water Table Elev	Method of Dewatering	Δh		Estimated Duration of Dewatering	Total Discharge
							ft	m		
6-3	10.0	4.0	10.0	8.0	(5.0)	Sheet Pile, Sump Pumping	8.0	2.4	7	33,600
Pump Station	66.0	4.0	47.0	20.0	(18.0)	Sheet Pile, Sump Pumping	20.0	6.1	60	507,600
V-1	30.0	4.0	30.0	7.0	(4.0)	Sheet Pile, Sump Pumping	7.0	2.1	10	126,000
V-2	10.0	4.0	10.0	8.0	(5.0)	Open Trench Sump Pumping	8.0	2.4	5	2,400,000
V-3	10.0	4.0	10.0	8.0	(5.0)	Open Trench Sump Pumping	8.0	2.4	5	2,400,000
V-4	10.0	4.0	10.0	8.0	(5.0)	Open Trench Sump Pumping	8.0	2.4	5	2,400,000
V-5	10.0	4.0	10.0	6.5	(3.5)	Open Trench Sump Pumping	6.5	2.0	5	2,400,000
V-6	10.0	4.0	10.0	5.0	N/A		5.0	1.5		Not Likely Required

**Summary**

Method	Estimated Duration of Dewatering	Total Discharge
	Days	Gallons
Trench Box, Wellpoints*	102	47,644,508
Sheet Pile, Sump Pumping	77	667,200
Open Trench, Sump Pumping	20	9,600,000
<b>Total</b>	<b>199</b>	<b>57,911,708</b>

## NAPLES BEACH RESTORATION & WATER QUALITY IMPROVEMENTS PROJECT

### Typical Pump Options\*

Type	Map Designation	Diameter	Max Capacity (gpm)	Manufacturer
Rotary Wellpoint	WP	10"	2260	MWI (Model RotoFlow RWP010)
Hydraulic	SP	6"	2000	MWI (Model HTC006)

\*The above pumps are typical of the pumps the Contractor may select for dewatering. The Contractor retains the responsibility for construction means and methods including the selection of equipment.

# NAPLES BEACH RESTORATION & WATER QUALITY IMPROVEMENTS PROJECT

## DEWATERING SETTLING TANK CALCULATIONS

The proposed settling tank is similar to a 30 cubic yard container with the following dimensions:

Height	6 ft
Width	8 ft
Length	22 ft

### Assumptions:

Sediment within the limits of excavation can be generally described as poorly graded sand (SP). Based upon geotechnical information from the on-site core data (Geotechnical Report, Attachment 4). The settling calculations are performed for a 0.09mm particle size (#170 sieve).

Settling tank calculations for this site and the associated construction activities has been designed based upon the following assumptions for a sediment containment system (SCS), as recommended in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Updated July 2013), Page IV-10:

1. The discharge rate of water out of the SCS will equal the pumping rate.
2. The minimum volume of contained water will be that found for a Type-2 system.

### Settling Tank Calculations

Surface Area of Tank, $SA_T = L \times W =$	176 ft <sup>2</sup>	
Volume of Tank, $V_T = H \times W \times L =$	1056 ft <sup>3</sup>	
Discharge Rate, $Q_{out} =$	1600 gpm	3.6 cfs
Particle settling velocities at 70°F $V_s$ (Table IV-3) =	0.02443 fps	
Required Surface Area of Settling Tank, $SA_m = 1.2 * Q_{out} / V_s =$	175 ft <sup>2</sup>	
$SA_T \geq SA_m$	176	≥ 175
Required Volume of Settling Tank, $V_m = 2.2 * SA_m =$	385 ft <sup>3</sup>	
$V_T \geq V_m$	1056	≥ 385

Further settling of finer particles is provided by the volume provided above those required for the settling of particles equal to or greater than 0.09mm.

# NAPLES BEACH RESTORATION & WATER QUALITY IMPROVEMENTS PROJECT

## DEWATERING SETTLING TANK CALCULATIONS

A 24" CMP riser is proposed at the tank outfall to further mitigate for potential discharge of fine sediment. The top opening of the riser (horizontal orifice/weir) will be situated a minimum of four feet above the bottom of the container to allow for approximately one foot of freeboard to the top of the container. The invert of the v-notch weir is positioned three feet above the bottom of the container at the water quality treatment level. The v-notch weir is cut into the side of the riser and is designed to allow for the conveyance of the anticipated flows out of the container. The calculations below demonstrate that the v-notch weir configuration will allow for conveyance of the anticipated flow.

### V-Notch Weir Calculations

Coefficient of Discharge, C (Standard V-Notch Weir) = 2.5  
Riser, H = 24 in                      2 ft  
V-Notch Weir Discharge Equation,  $Q = C \tan(\Theta/2) H^{5/3}$   
 $\Theta = 10.6$

### Controls

1. The standards for discharging water a receiving body shall not exceed 29 nephelometric turbidity units (NTU's) above background.
2. Should effluent discharges into the Gulf exceed 29 NTUs above background, operations will cease and corrective measures will be taken, including; (a) remove accumulated sediment to increase settling capacity (i.e. still water depth) and (b) modify the vertical weir for additional settling within the tank by either raising the invert of the weir or closing off the weir completely. Modification of the weir can be accomplished by either bolting or welding metal plates directly to CMP riser. Should the vertical v-notch weir be closed completely, conveyance of effluent discharge will take place via the top opening of the riser (horizontal orifice/weir) that is situated a minimum of 4 feet above the bottom of the container.
3. Installation of erosion and pollution control measures (i.e. BMP's) including a turbidity curtain at the outfall discharge pipe and dewatering methods will take place prior to any other construction activities.

# NAPLES BEACH RESTORATION & WATER QUALITY IMPROVEMENTS PROJECT

## DEWATERING SETTLING TANK CALCULATIONS

Excerpts From:

STATE OF FLORIDA E&SC DESIGNER & REVIEWER MANUAL; LATEST EDITION: JULY 2013

**Table IV-1: Sediment Containment System Classifications**

Type-1 Sediment Containment System	Design-Size Particle $\leq 0.075$ mm (very fine sand and clays)
Type-2 Sediment Containment System	$0.075$ mm < Design-Size Particle $\leq 0.41$ mm (between very fine sand and medium sands)
Type-3 Sediment Containment System	Design-Size Particle $> 0.41$ mm (larger than medium sands)

**Table IV-2: Minimum Parameters for Sediment Containment Systems (Fifield, 2004)**

MINIMUM PARAMETERS	ENGLISH UNITS
Surface Area	$SA_m = (1.2 \times Q_{out}) \div V_s$
Flow-Path Length	$L = [(L \div W_e) \times SA_m]^{0.5}$
Effective Width	$W_e = SA_m \div L$
Type-1 System Volume (Select the larger value)	$VOL_m \geq 2.2 \times SA_m$ or $VOL_m \geq$ runoff from a 2-year, 24-hour storm event for a minimum 3,600 $ft.^3$ of disturbed upstream land and for 10 acres.
Type-2 System Volume	$VOL_m \geq 2.2 \times SA_m$
Net Effectiveness	$NE_{ff} = AE_{ff} \times PEG$
Average Depth	$D_{avg} \geq 2.2$ ft.
Outlet Depth	2.0 ft.

### LEGEND

$AE_{ff}$  = Apparent effectiveness (%) of the SCS to remove design size (and larger) particles suspended in runoff waters =  $20(L \div W_e) - (L \div W_e)^2$

$D_{avg}$  = (Actual volume)  $\div$  (actual surface area)

$V_s$  = Particle settling velocity (ft./sec.)

$L$  = Particle flow distance (ft.)

$VOL_m$  = Minimum water volume (ft.<sup>3</sup>)

$NE_{ff}$  = Net effectiveness (%) of the SCS to remove all particles suspended in runoff waters

$W_e$  = Effective pond width (ft.)

$PEG$  = Percent of particles that are equal to or greater than the design-size particle (%)

$SA_m$  = Minimum water-surface area of system (ft.<sup>2</sup>)

$Q_{out}$  = Outflow (ft.<sup>3</sup>/sec.)

**NAPLES BEACH RESTORATION & WATER QUALITY IMPROVEMENTS PROJECT**  
**DEWATERING SETTLING TANK CALCULATIONS**

**Table IV-3: Estimated Settling Velocities for Suspended Particles (Specific Gravity = 2.65) in Water at Different Temperatures as Calculated by Stokes' Law**

DIAMETER (mm)	SETTLING VELOCITY IN FEET PER SECOND						PARTICLE
	40°F	50°F	60°F	70°F	80°F	90°F	
0.01	0.00019	0.00023	0.00026	0.00030	0.00034	0.00039	FINE SILT
0.02	0.00076	0.00090	0.00105	0.00121	0.00137	0.00154	MEDIUM SILT
0.03	0.00172	0.00203	0.00236	0.00271	0.00308	0.00347	COARSE SILT
0.04	0.00305	0.00361	0.00420	0.00483	0.00548	0.00617	
0.05	0.00477	0.00564	0.00656	0.00754	0.00856	0.00963	
0.06	0.00687	0.00811	0.00945	0.01086	0.01233	0.01387	VERY FINE SAND
0.07	0.00935	0.01105	0.01286	0.01478	0.01678	0.01888	
0.08	0.01221	0.01443	0.01680	0.01930	0.02192	0.02466	
0.09	0.01545	0.01826	0.02126	0.02443	0.02774	0.03121	
0.10	0.01908	0.02254	0.02625	0.03016	0.03425	0.03854	
	4.4°C	10.0°C	15.6°C	21.1°C	26.7°C	32.2°C	

*COMMONLY USED CONVERSION FACTORS*

1.0 cm/sec. = 0.03281 ft. /sec. = 0.3937 in./sec.

1.0 m = 3.281 ft. = 39.37 in.

1.0 in. = 2.54 cm = 25.4 mm

1.0 ha. = 2.471 ac. = 107,637 ft.<sup>2</sup>

1.0 m<sup>3</sup> = 35.3 ft.<sup>3</sup>

°C = 5/9 (°F - 32°)

NOTE: Design size particles larger than 0.10 mm are assumed to accelerate downward through water based upon Newtonian principles.

A conservative approach to sizing SCSs is to use a settling velocity when a water temperature is at its lowest value.



**Technical Publication 92-04**

**A THREE-DIMENSIONAL FINITE DIFFERENCE  
GROUND WATER FLOW MODEL OF  
WESTERN COLLIER COUNTY, FLORIDA**

by

**Michael W. Bennett**

**April 1992**

DRE-312

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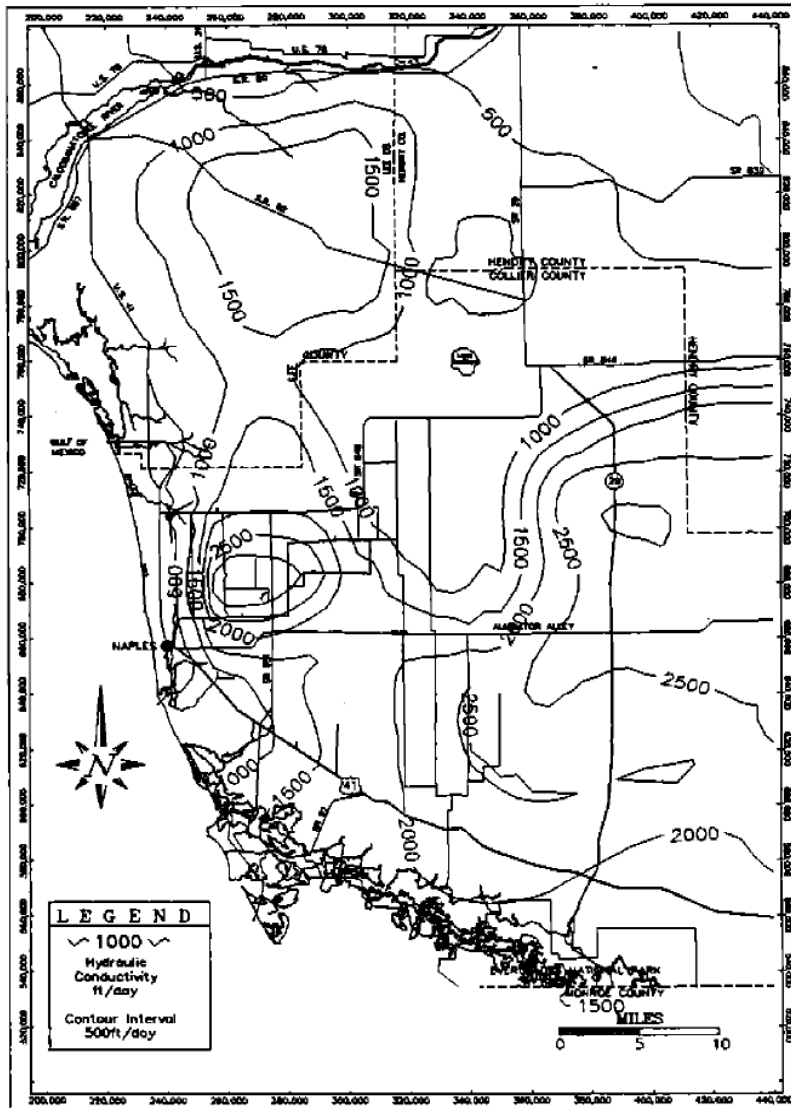


FIGURE A-1. Hydraulic Conductivity, Layer 1 (Surficial Aquifer)

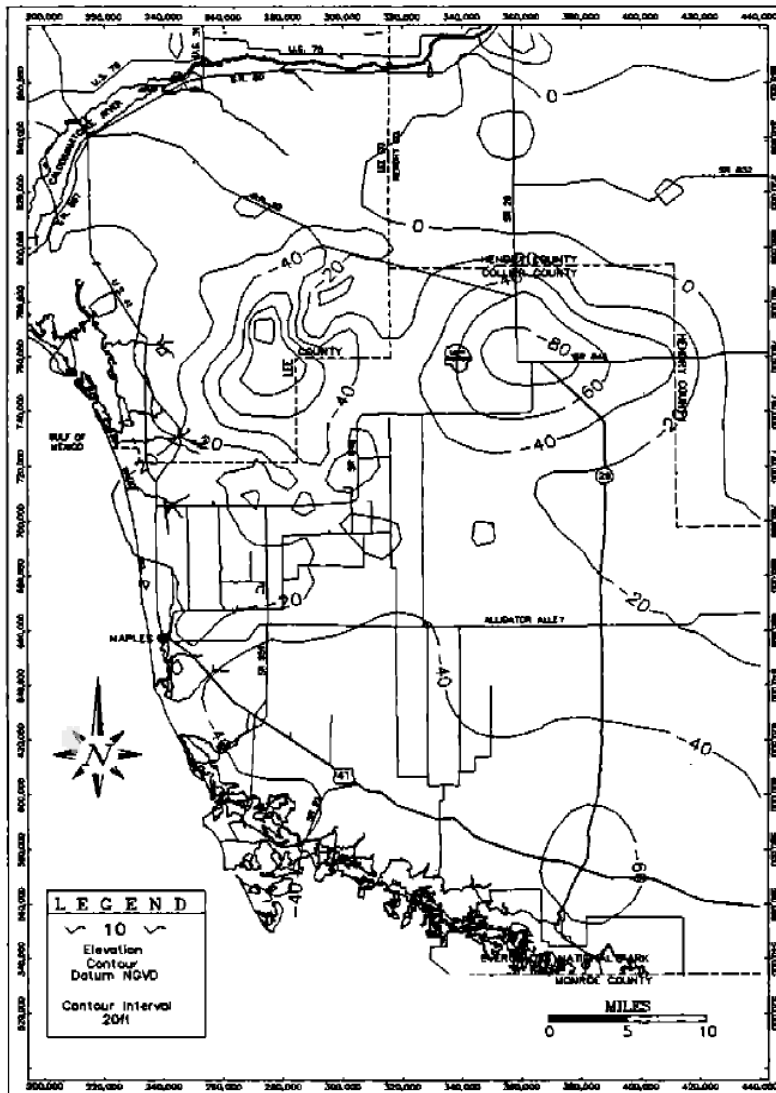


FIGURE A-2. Bottom Elevation of Layer 1 (Surficial Aquifer)

# NAPLES BEACH RESTORATION & WATER QUALITY IMPROVEMENT PROJECT SFWMD PERMIT DRAWINGS (Dewatering Permit Drawings)

Prepared For:  
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Gary Price, Vice Mayor  
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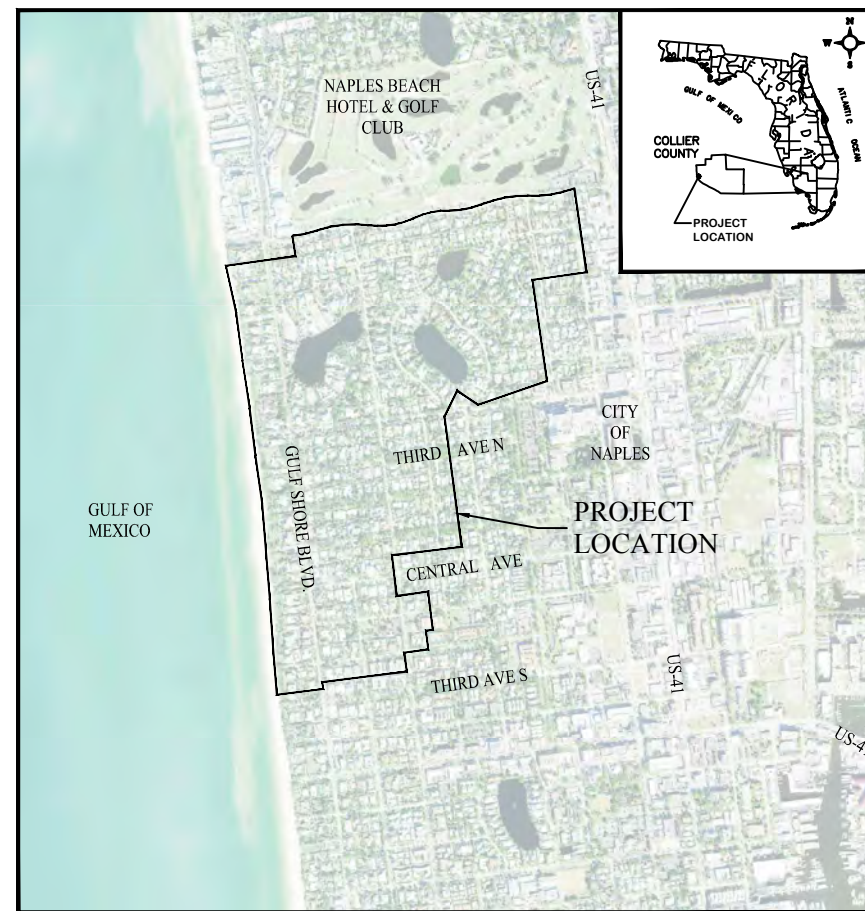
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Date: July 2018



VICINITY MAP

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ECE Project No.: 16-329

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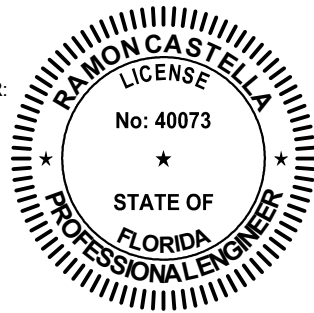
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**GENERATOR SYSTEM**

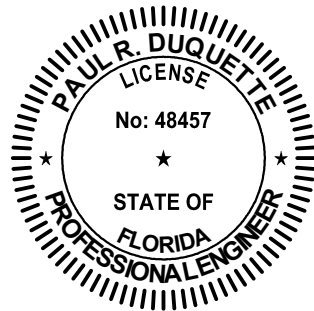
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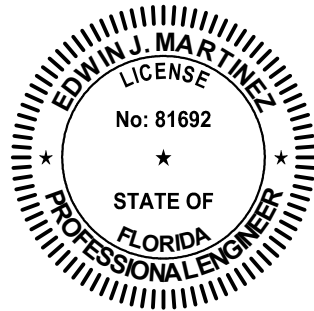
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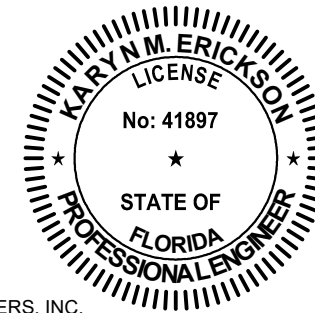
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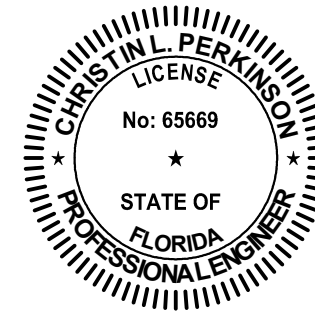
- 82 CONSTRUCTION ACCESS & STAGING PLAN - OFFSHORE DIRECTIONAL DRILL
- 83 CONSTRUCTION ACCESS & STAGING PLAN - OFFSHORE PIPE FUSING & STAGING
- 84 CONSTRUCTION ACCESS & STAGING PLAN - OFFSHORE DIFFUSER SYSTEM
- 85 CONSTRUCTION ACCESS & STAGING PLAN - THIRD AVENUE PUMP STATION
- 86 CONSTRUCTION ACCESS & STAGING PLAN - GENERATOR
- 87 CONSTRUCTION ACCESS & STAGING PLAN - BEACH OVERFLOW STRUCTURE

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

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 LICENSE NO. 41897  
 ERICKSON CONSULTING ENGINEERS, INC.  
 7201 DELAINEY COURT  
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CHRISTIN L. PERKINSON, P.E.  
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THE ABOVE NAMED PROFESSIONAL ENGINEERS SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

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REV#	RAI #1	By	Appd.	YY.MM.DD
REV#2	RAI #2	KME	APPROVED	18.11.27
REV#1	RAI #1	KME	APPROVED	18.08.21
Revision				

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File Name: 16-329\_Naples Outfalls SFWMD Dwg.dwg

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SIGNATURE SHEET

Project No. 16-329

Drawing No.

Scale AS NOTED

Sheet

Revision 0

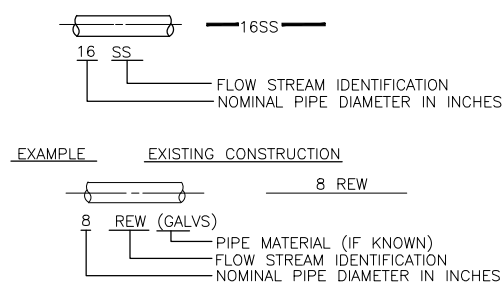
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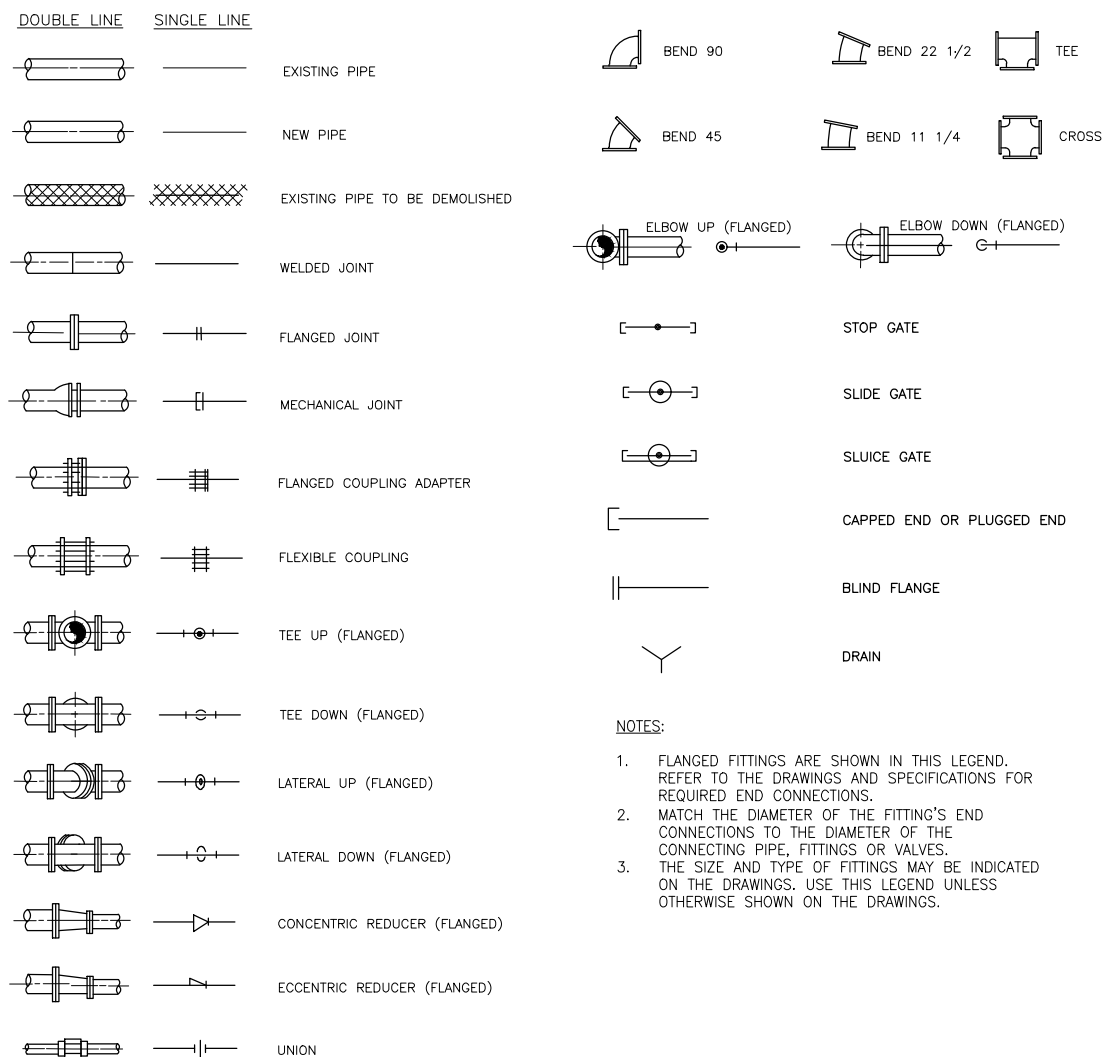
PLANT CONSTRUCTION

CIVIL/SURVEY/EXISTING LEGEND

PIPING DESIGNATIONS

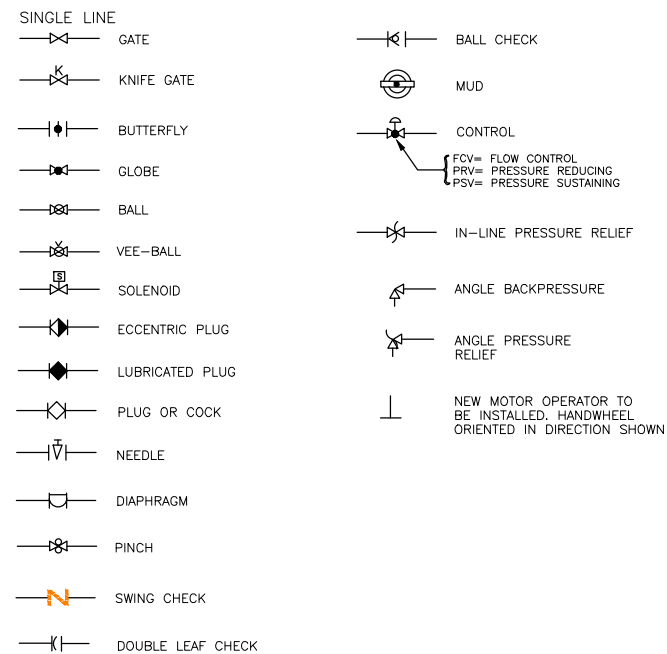


PIPE AND FITTING SYSTEM

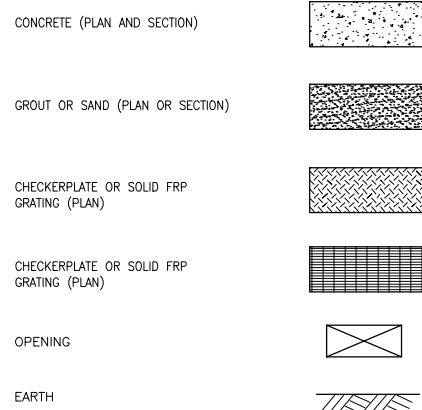


NOTES:  
 1. FLANGED FITTINGS ARE SHOWN IN THIS LEGEND. REFER TO THE DRAWINGS AND SPECIFICATIONS FOR REQUIRED END CONNECTIONS.  
 2. MATCH THE DIAMETER OF THE FITTING'S END CONNECTIONS TO THE DIAMETER OF THE CONNECTING PIPE, FITTINGS OR VALVES. THE SIZE AND TYPE OF FITTINGS MAY BE INDICATED ON THE DRAWINGS. USE THIS LEGEND UNLESS OTHERWISE SHOWN ON THE DRAWINGS.

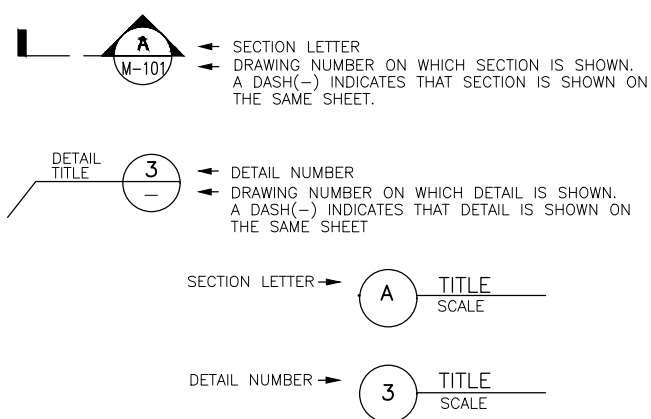
VALVE SYMBOLS



STRUCTURE SYMBOLS



DRAFTING LEGEND



SS	SANITARY SEWER	→	GUY ANCHOR	C	CABLE BOX
FM	SANITARY FORCE MAIN	⊗	CONCRETE UTILITY POLE	T	TELEPHONE RISER
WM	WATER MAIN	○	WOOD UTILITY POLE	⊕	TELEPHONE MANHOLE
SW	STORM WATER	E	ELECTRIC SERVICE	⊗	WATER METER
RWM	REUSE WATER MAIN	HH	HAND HOLE	⊗	WATER VALVE
GAS	NATURAL GAS LINE	F	TRANSFORMER AND SLAB	⊗	IRRIGATION VALVE
CATV	UNDERGROUND CABLE	E	ELECTRIC MANHOLE	⊗	IRRIGATION CONTROL BOX
T	UNDERGROUND TELEPHONE	⊕	LIGHT POLE	⊗	FIRE HYDRANT
BP	UNDERGROUND POWER LINE	⊕	ELECTRICAL PANEL	D	STORM MANHOLE
O/H	OVERHEAD POWER LINE	TC	TRAFFIC CONTROL BOX	S	SANITARY MANHOLE
5.30	EXISTING GRADE	▷	SANITARY CLEAN-OUT	○	SIGN
5.30	PROPOSED GRADE	—	EDGE OF PAVEMENT	—	CURB
—	ROW LINE	---	EASEMENT	---	EXISTING STORMWATER TO REMAIN
---	PROPERTY LINE	---	EXISTING DISCHARGE PIPELINE	---	NEW STORM TRUNKLINE
---	CCCL (COASTAL CONSTRUCTION LINE)	---	EXISTING CONCRETE SIDEWALK	---	EXISTING STORMWATER TO BE REMOVED AND/OR DECOMMISSIONED
---	CCSL (COLLIER COUNTY SETBACK LINE)	---	EXISTING CONCRETE DRIVEWAY	---	PROPOSED TRUNKLINE VAULT
---	ECL (EROSION CONTROL LINE)	---	PROPOSED DRAINAGE STRUCTURE	---	EXISTING DRAINAGE STRUCTURE TO REMAIN
---	HARD BOTTOM EDGE 2015	---	EXISTING DRAINAGE STRUCTURE TO BE REMOVED AND/OR DECOMMISSIONED	---	SPOT ELEV
---	HARD BOTTOM 2003	---	AC ASBESTOS CONCRETE PIPE	---	WATER SURFACE ELEVATION
---	ARTIFICIAL REEF 2007	---	BE BURIED ELECTRIC	---	FENCE (NEW)
---	DIP DUCTILE IRON PIPE	---	NO. NUMBER	---	
---	N NORTHING	---	E EASTING	---	
---	ELEV ELEVATION	---	DESC DESCRIPTION	---	
---	FM FORCE MAIN	---	FP&L FLORIDA POWER AND LIGHT	---	
---	HDPE HIGH DENSITY POLYETHYLENE PIPE	---	IRCF IRON ROD AND CAP FOUND	---	
---	NDS NAIL AND DISK SET	---	NDF NAIL AND DISK FOUND	---	
---	LB LICENSED BUSINESS	---	PVC POLY VINYL CHLORIDE PIPE	---	
---	RCP REINFORCED CONCRETE PIPE	---	TBM TEMPORARY BENCH MARK	---	
---	VVH VERIFIED VERTICAL AND HORIZONTAL	---	WM WATER MAIN	---	
---	MPS MASTER PUMP STATION	---	MCC MOTOR CONTROL CENTER	---	
---	ATS AUTOMATIC TRANSFER SWITCH	---	PID PROPORTIONAL INTEGRAL DERIVATIVE	---	
---	IO INPUT/OUTPUT	---		---	

REV#2	RAI #2	KME	APPROVED	18.11.27
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File Name: 16-329\_Naples Outfalls SFWMD Dwg.dwg

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Title

LEGEND & ABBREVIATIONS

Project No.	Scale	
16-329	AS NOTED	
Drawing No.	Sheet	Revision
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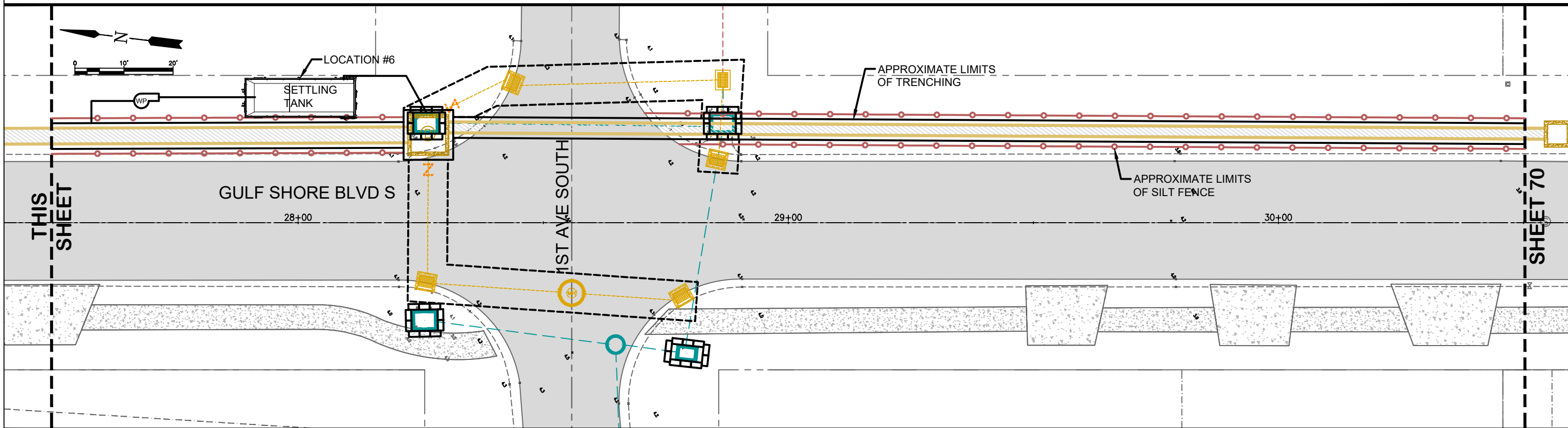
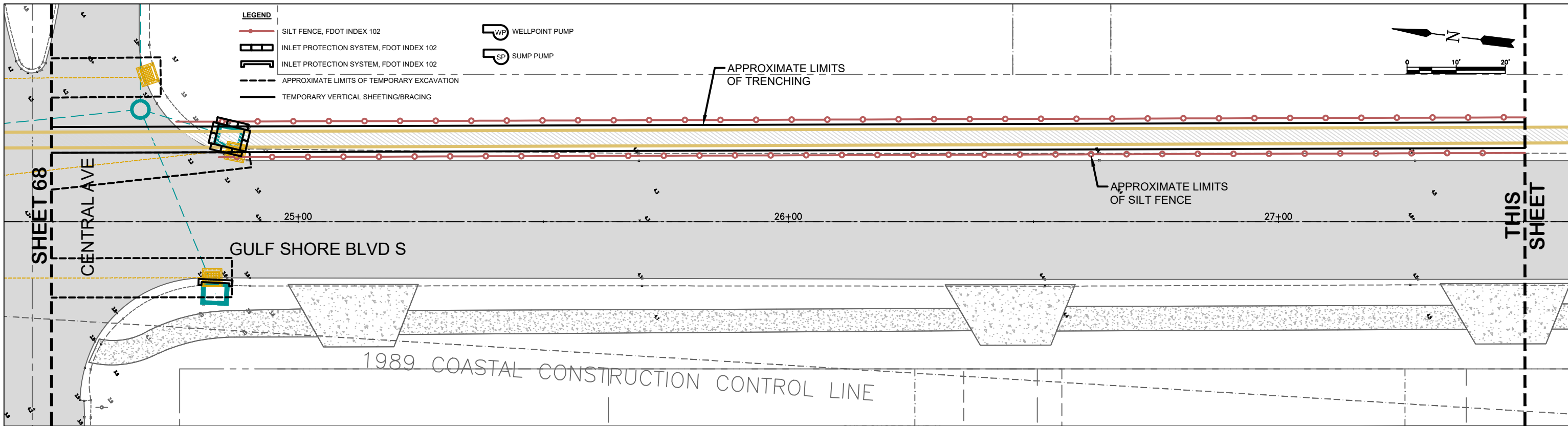








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REV#2	RAI #2	KME	APPROVED	18.11.27
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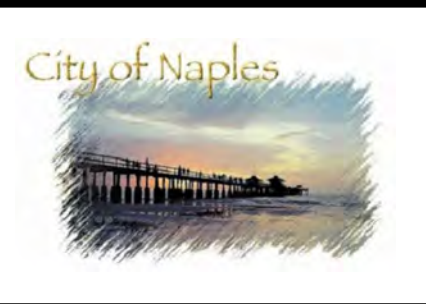
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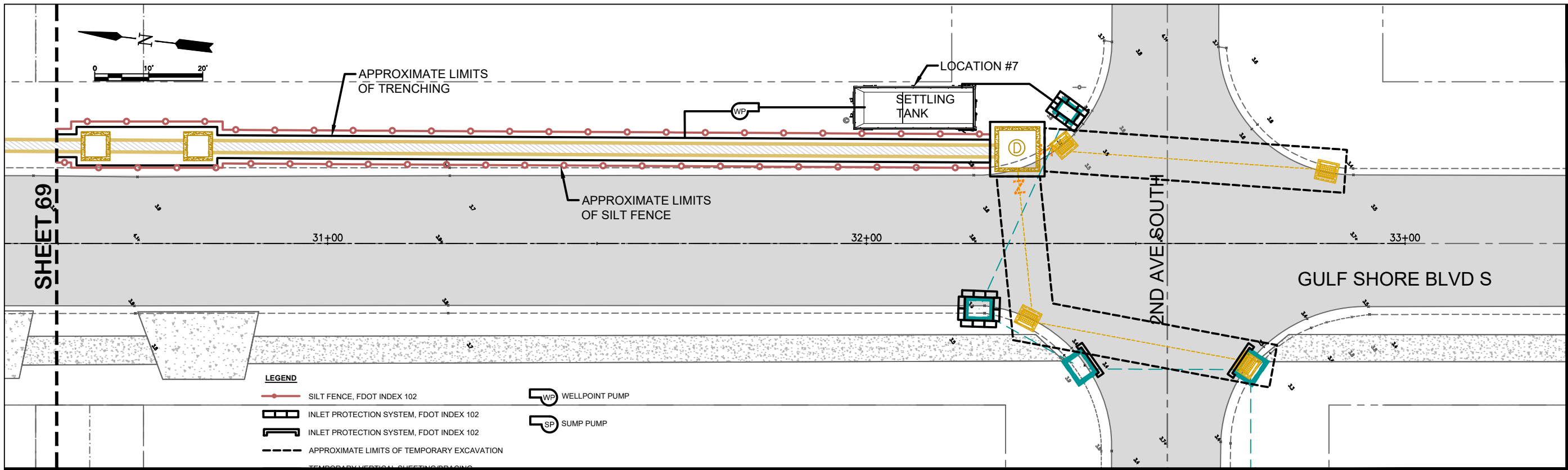
File Name: 16-329\_Naples Outfalls\_SFWMD Dwg.dwg

MDP	CLP	KME	18.07.02
Dwnl.	Chkd.	Dsgn.	YY.MM.DD



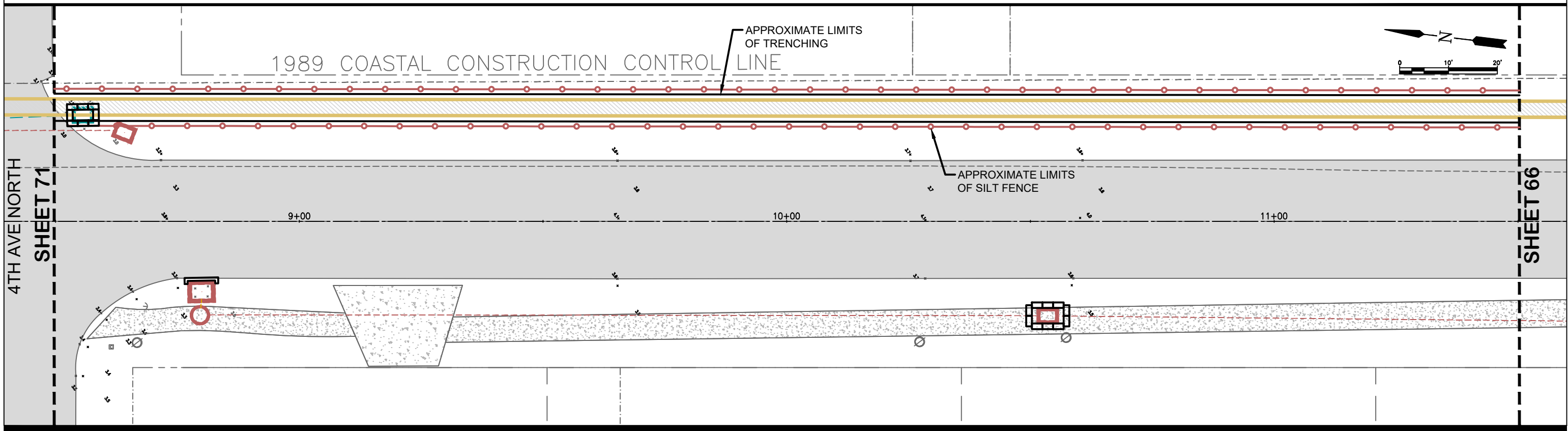
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DEWATERING & ETC PLANS TRUNKLINE STATIONS 24+50 - 27+50 TRUNKLINE STATIONS 27+50 - 30+50	
Project No. 16-329	Scale AS NOTED
Drawing No.	Sheet 69 of 87
	Revision 0

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**LEGEND**

	SILT FENCE, FDOT INDEX 102		WELLPOINT PUMP
	INLET PROTECTION SYSTEM, FDOT INDEX 102		SUMP PUMP
	INLET PROTECTION SYSTEM, FDOT INDEX 102		
	APPROXIMATE LIMITS OF TEMPORARY EXCAVATION		
	TEMPORARY VERTICAL SHEET PILING		



Revision	RAI #1	RAI #2	By	Appd.	YY.MM.DD

Issued	DESC	By	Appd.	YY.MM.DD

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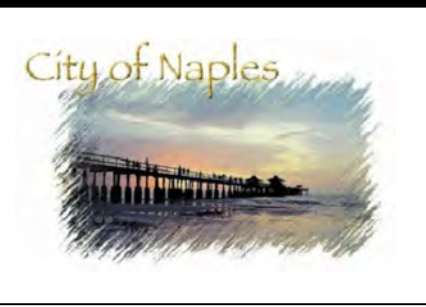
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Improvement Project

File Name: 16-329\_Naples Outfalls SFWMD Dwg.dwg

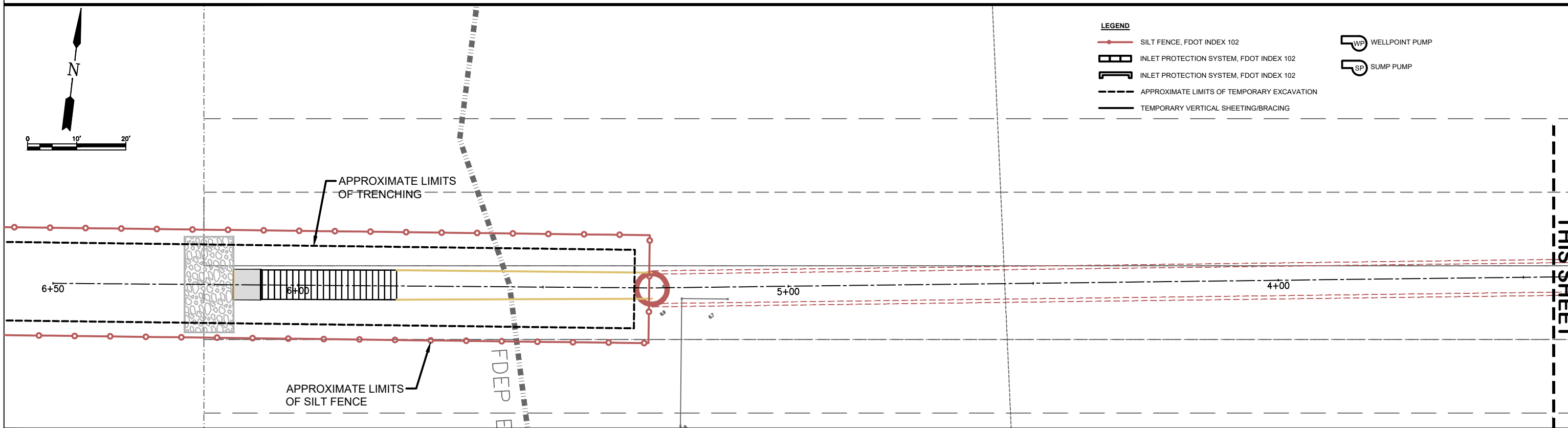
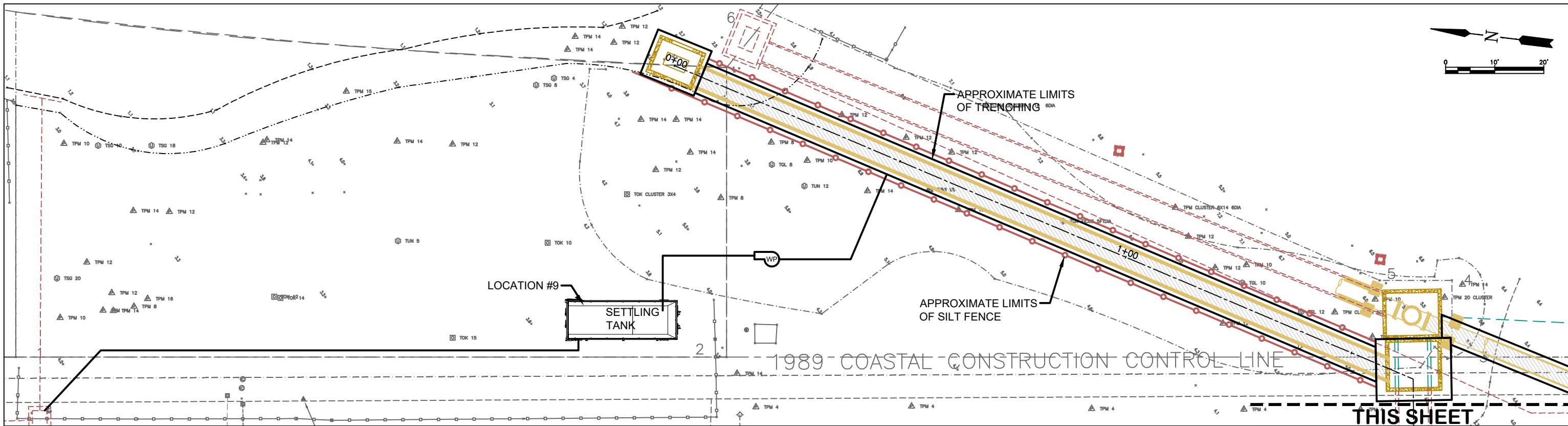
MDP	CLP	KME	18.07.02
Dwnt.	Chkd.	Dsgn.	YY.MM.DD



Title	
DEWATERING & ETC PLANS TRUNKLINE STATIONS 30+50 - 33+00 TRUNKLINE STATIONS 11+50 - 8+50	
Project No. 16-329	Scale AS NOTED
Drawing No.	Sheet 70 of 87
Revision	0



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- LEGEND**
- SILT FENCE, FDOT INDEX 102
  - INLET PROTECTION SYSTEM, FDOT INDEX 102
  - INLET PROTECTION SYSTEM, FDOT INDEX 102
  - APPROXIMATE LIMITS OF TEMPORARY EXCAVATION
  - TEMPORARY VERTICAL SHEETING/BRACING
  - WELLPOINT PUMP
  - SUMP PUMP

REV#	RAI #	By	Appd.	DATE
REV#2	RAI #2	KME	APPROVED	18.11.27
REV#1	RAI #1	KME	APPROVED	18.08.21
Revision				YY.MM.DD

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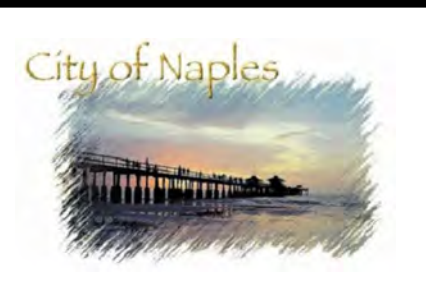
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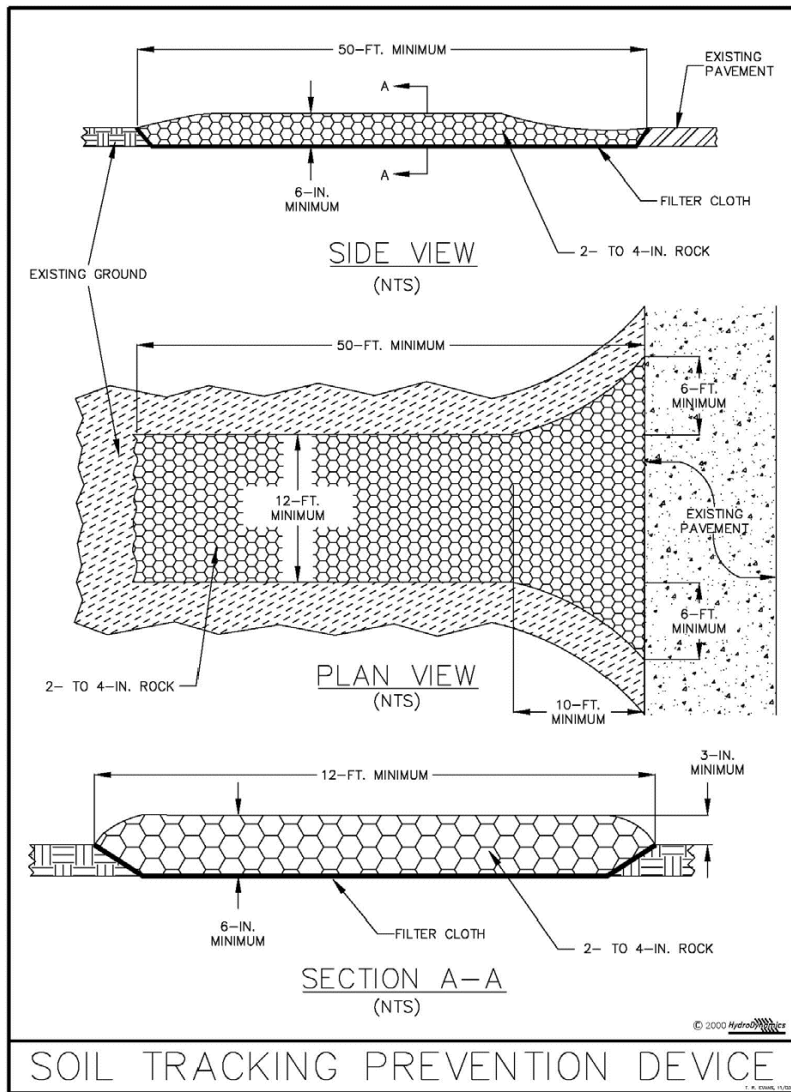
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DEWATERING & ETC PLANS SYSTEM OVERFLOW STATIONS 0+00 - 1+50 SYSTEM OVERFLOW STATIONS 4+00 - 6+50		
Project No.	Scale	
16-329	AS NOTED	
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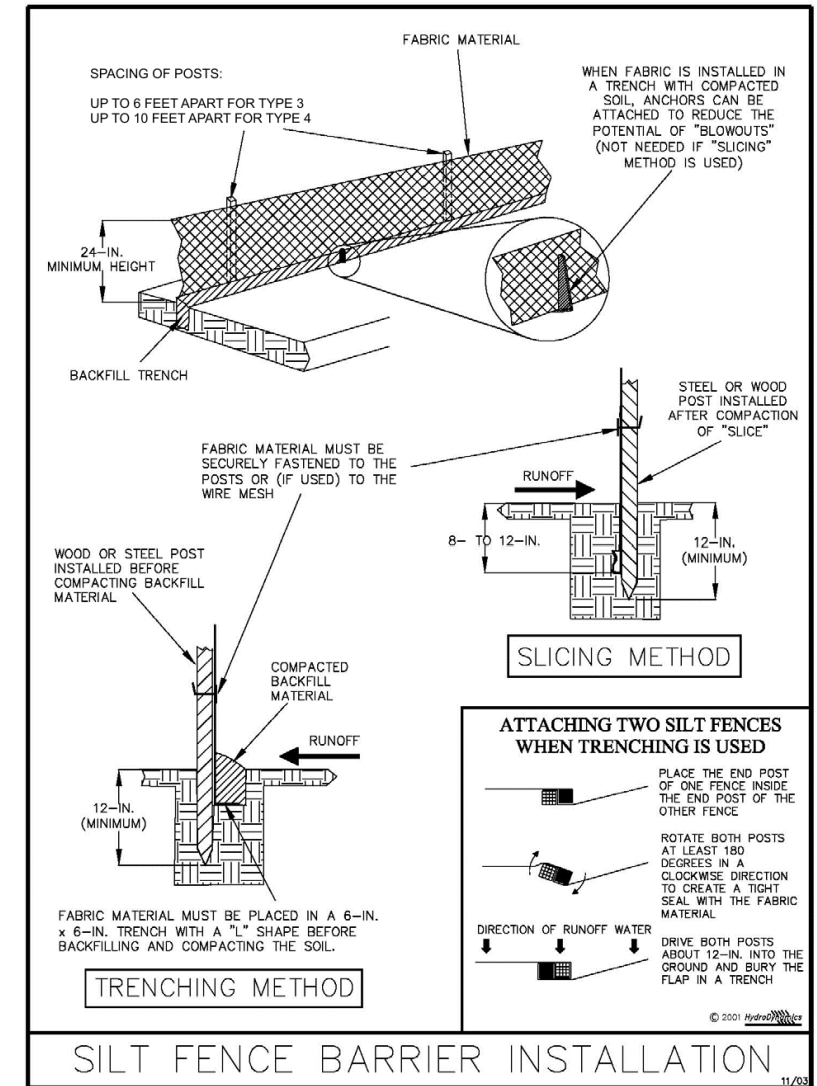
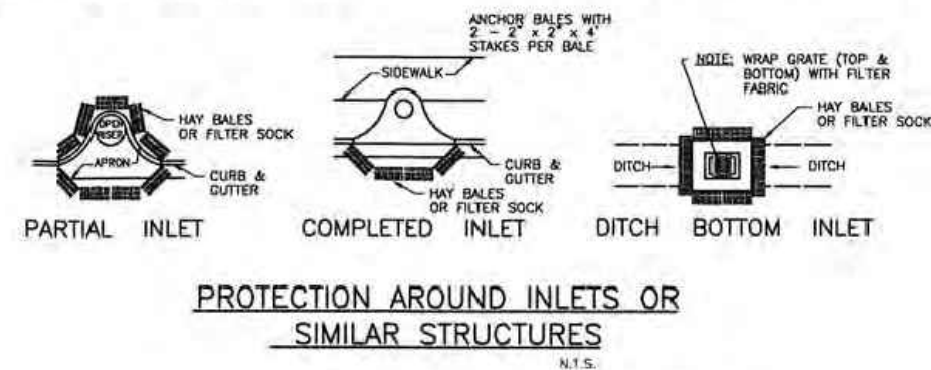


**NOTES:**

1. BALES SHOULD BE ANCHORED w/2-1"x2" (OR 1" DIA.)x4' WOOD STAKES. STAKES OF OTHER MATERIAL OR SHAPE PROVIDING EQUIVALENT STRENGTH MAY BE USED IF APPROVED BY ENGINEER. STAKES OTHER THAN WOOD SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.
2. RAILS AND POSTS SHALL BE 2"x4" WOOD. OTHER MATERIALS PROVIDING EQUIVALENT STRENGTH MAY BE USED IF APPROVED BY ENGINEER.
3. ADJACENT BALES SHALL BE BUTTED FIRMLY TOGETHER.
4. WHERE USED IN CONJUNCTION w/SILT FENCE, BALES SHALL BE PLACED ON THE UPSTREAM SIDE OF THE FENCE.

**NOTES:**

1. THE CONTRACTOR SHALL REMOVE TEMPORARY CONSTRUCTION ACCESS (INCLUDING CROSSING CULVERT) AND RESTORE GRADES (INCLUDING ROADSIDE SWALES) TO PRE-CONSTRUCTION ELEVATIONS; SOD ALL BARE EARTH SURFACES; REPAIR ANY DAMAGE TO THE ASPHALT ENTRANCE DRIVE.
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
3. THE CONTRACTOR SHALL PROVIDE A STABILIZED CONSTRUCTION ENTRANCE TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEEPED AS REQUIRED TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL TO AND FROM THE CONSTRUCTION SITE SHALL BE COVERED WITH A TARPULIN.
4. THE CONTRACTOR SHALL CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT AND SHALL USE WATER, STRAW MULCH, OR OTHER SUITABLE MATERIAL AS REQUIRED.
5. AT A MINIMUM, SILT FENCES, OR EQUIVALENT SEDIMENT CONTROLS ARE REQUIRED FOR ALL SIDE SLOPE AND DOWN SLOPE BOUNDARIES OF THE CONSTRUCTION AREA.
6. THE CONTRACTOR SHALL ERECT SILT FENCE, STAKED HAY BALES, STAKED TURBIDITY BARRIERS, AND FLOATING TURBIDITY BARRIERS PRIOR TO COMMENCEMENT OF EXCAVATION/GRADING ACTIVITY. FLOATING TURBIDITY BARRIERS MAY BE DEPLOYED IN SECTIONS AROUND ACTIVE CONSTRUCTION AND MOVED AS APPROPRIATE AS CONSTRUCTION AND RESTORATION IS COMPLETED.
7. REQUIRED EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSTALLED AND MAINTAINED AS REQUIRED THROUGHOUT THE DURATION OF THE CONSTRUCTION PROJECT.
8. ALL EROSION PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR IN ACCORDANCE WITH DISTRICT AND NPDES PERMIT REQUIREMENTS THROUGHOUT THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL INSPECT THE EROSION CONTROL DEVICES WEEKLY AND WITHIN 4 HOURS AFTER EACH RAINFALL EVENT OF 0.5 INCHES OR MORE. ALL MAINTENANCE SHALL BE PERFORMED WITHIN 24 HOURS OF INSPECTION.
9. ALL PRACTICABLE AND NECESSARY EFFORTS SHALL BE TAKEN DURING CONSTRUCTION TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT MATERIAL TO INLETS, WETLANDS AND OFFSITE AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RESTORATION EFFORTS THAT MAY BE REQUIRED.
10. EROSION AND SEDIMENT CONTROL DEVICES (SILT FENCE, TURBIDITY BARRIERS, ETC.) ARE DEPICTED IN APPROXIMATE LOCATIONS AND SHALL BE ADJUSTED AS NECESSARY WITH THE APPROVAL OF THE DISTRICT REPRESENTATIVE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND PROPER DISPOSAL OF ALL EROSION AND SEDIMENT CONTROL DEVICES AT THE COMPLETION OF THE PROJECT.
12. ALL EXCAVATION AND ACCESS TO AND FROM THE CONSTRUCTION AREAS SHALL BE WITHIN THE LIMITS OF THE PROJECT AREA.



**NOTES FOR ABOVE BMPS:**

1. REMOVE ACCUMULATED SEDIMENT FROM BEHIND ROCK BARRIERS WHEN IT IS WITHIN 6-IN. OF THE TOP OF THE ROCK.
2. REMOVE ACCUMULATED SEDIMENT FROM BEHIND ROCK BARRIERS WHEN IT IS OVER 24-IN. DEEP.
3. REMOVE ROCK BARRIER, POSTS, AND WIRE ONCE EROSION CONTROL PRACTICES ARE INSTALLED.
4. REMOVE SILT FENCE FABRIC AND POSTS ONCE EROSION CONTROL PRACTICES ARE INSTALLED.

REV#	RAI #	By	Appd.	YY.MM.DD
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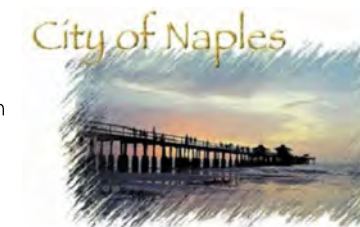
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Title

EROSION & TURBIDITY CONTROL  
DETAILS

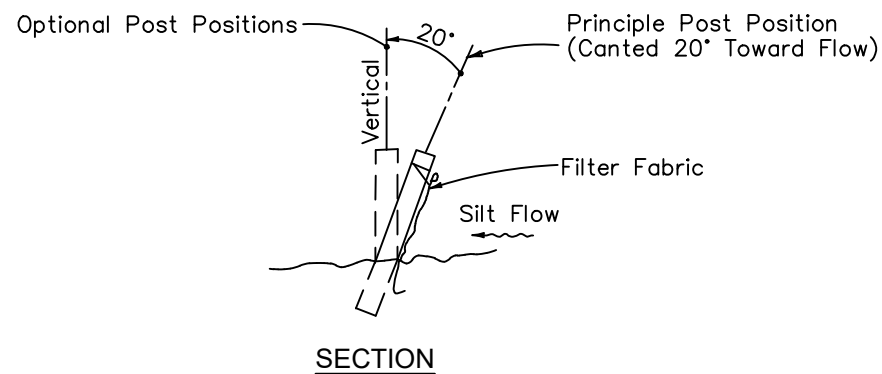
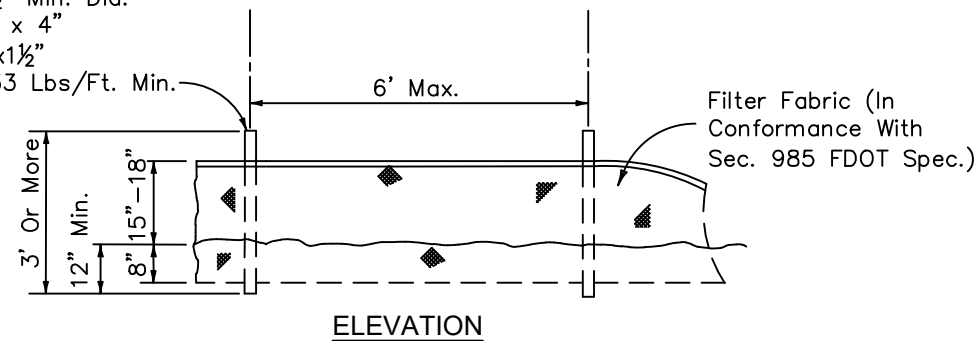
Project No.	Scale	
16-329	AS NOTED	
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Post Options:  
 Wood 2½" Min. Dia.  
 Wood 2" x 4"  
 Oak 1½"x1½"  
 Steel 1.33 Lbs/Ft. Min.

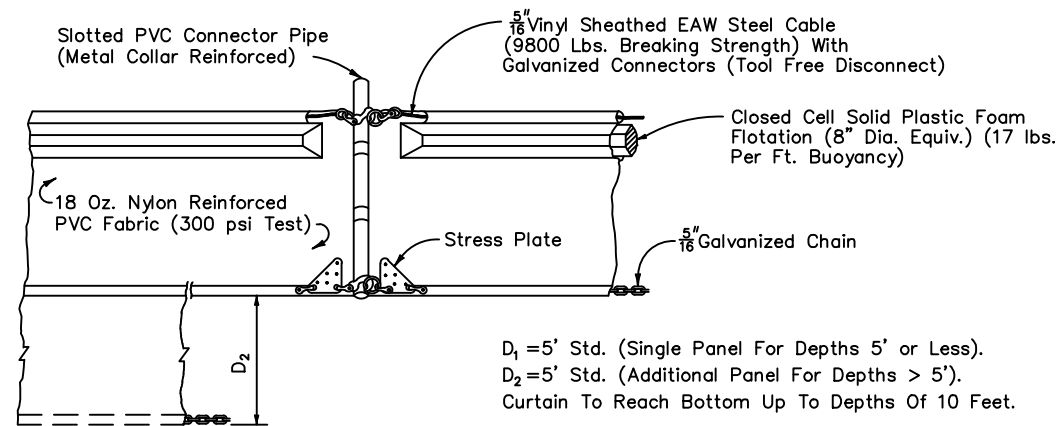


Note: Silt Fence to be paid for under the contract unit price for Staked Silt Fence (LF).

**TYPE III SILT FENCE**  
 FDOT INDEX #102

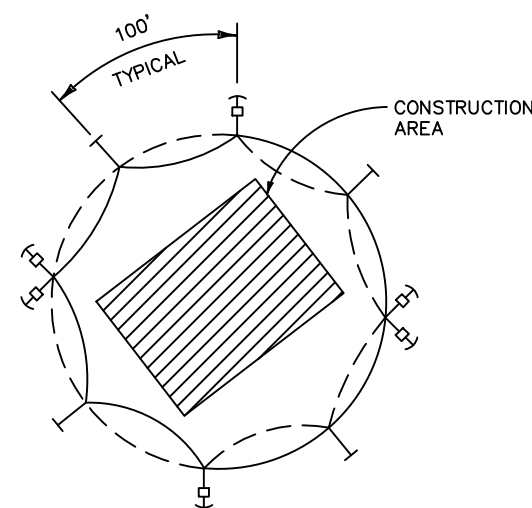
**NOTES:**

1. TYPE III SILT FENCE TO BE USED AT MOST LOCATIONS. WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH CHART 1, SHEET 1, FDOT INDEX #102.
2. DO NOT CONSTRUCT SILT FENCES ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
3. WHERE USED AS SLOPE PROTECTION, SILT FENCE IS TO BE CONSTRUCTED ON 0% LONGITUDINAL GRADE TO AVOID CHANNELIZING RUNOFF ALONG THE LENGTH OF THE FENCE.

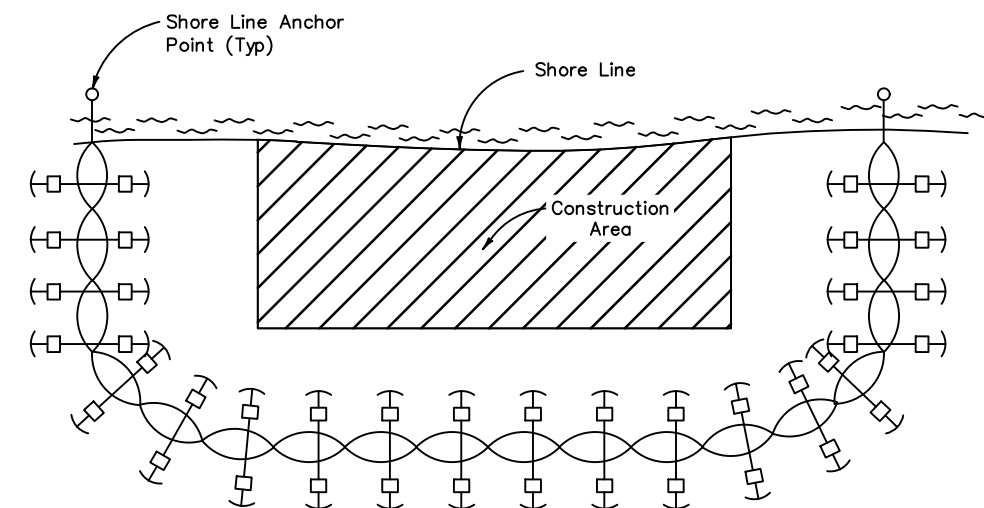


**TYPE II**  
**FLOATING TURBIDITY BARRIERS**

D<sub>1</sub> = 5' Std. (Single Panel For Depths 5' or Less).  
 D<sub>2</sub> = 5' Std. (Additional Panel For Depths > 5').  
 Curtain To Reach Bottom Up To Depths Of 10 Feet.



**OFFSHORE DETAIL**



**SHORELINE DETAIL**

**GENERAL NOTES:**

1. TURBIDITY BARRIERS TO BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF WATER DEPTH.
2. TYPE II FLOATING TURBIDITY BARRIERS DURING DEWATERING AND OUTFALL STRUCTURE INSTALLATION.
3. NUMBER AND SPACING OF ANCHORS DEPENDENT ON CURRENT VELOCITIES.
4. DEPLOYMENT OF BARRIERS MAY VARY TO ACCOMMODATE CONSTRUCTION OPERATIONS.
5. NAVIGATION MAY REQUIRE SEGMENTING BARRIER DURING CONSTRUCTION OPERATIONS.

**LEGEND**

- Construction Area
- Mooring Buoy w/Anchor
- Anchor
- Barrier Movement Due To Current Action

REV#	RAI #	By	Appd.	YY.MM.DD	ISSUED	DESC	ISSUED	APPROVED	YY.MM.DD
REV#2	RAI #2	KME	APPROVED	18.11.27					
REV#1	RAI #1	KME	APPROVED	18.08.21					
Revision		By	Appd.	YY.MM.DD	Issued		By	Appd.	YY.MM.DD

Consultants

**ECE**  
 Erickson Consulting Engineers

7201 Detainey Court  
 Sarasota, FL 32420  
 www.ericksonconsultingengineers.com

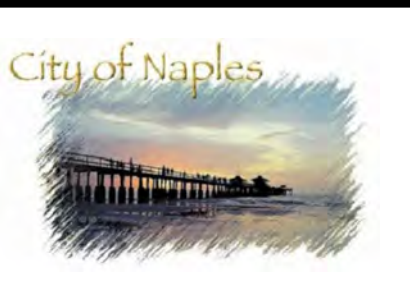
Copyright Reserved

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Erickson Consulting Engineers (ECE) without delay. The Copyrights to all designs and drawings are the property of ECE. Reproduction or use for any purpose other than that authorized by ECE is forbidden.

Client/Project  
**CITY OF NAPLES**  
 735 8th St S  
 NAPLES, FL.  
 Naples Beach Restoration  
 & Water Quality  
 Improvement Project

File Name: 16-329\_Naples Outfalls SFWMD Dwg.dwg

MDP	CLP	KME	18.07.02
Dwnl.	Chkd.	Dsgn.	YY.MM.DD



Title	
EROSION & TURBIDITY CONTROL DETAILS	
Project No.	Scale
16-329	AS NOTED
Drawing No.	Sheet
	Revision
76 of 87	0



*City of Naples*

STREETS & STORMWATER  
TELEPHONE (239) 213-5000 • FACSIMILE (239) 213-5010  
295 RIVERSIDE CIRCLE • NAPLES, FLORIDA 34102

December 13, 2018

South Florida Water Management District  
Ft Myers Regulatory Branch  
2301 McGregor Blvd  
Fort Myers, FL 33901

**Re: WU Application No. 181003-20**  
**Project: Naples Beach Restoration & WQ Improvements Project**

Dear Sir or Madam,

Please use this letter as confirmation that the City of Naples has legal control over the ROW and easements for which all dewatering and construction activities will occur as part of the above- referenced project.

Sincerely,

Gregg R. Strakaluse, P.E.  
Director-Streets & Stormwater Department  
City of Naples, FL  
239-213-5003

*Ethics above all else... Service to others before self... Quality in all that we do.*

GULF OF MEXICO



NOTE: THIS TOPOGRAPHIC SURVEY WAS PERFORMED TO LOCATE STORM WATER FACILITIES AND MEASURE INVERTS, PIPE SIZES AND INLET ELEVATIONS. TOPO WAS LIMITED TO CENTER LINE OF ROADS, EDGE OF PAVEMENT AND CURBS. OTHER UTILITIES WERE NOT LOCATED UNDER THE SCOPE OF THIS SURVEY.

MAP OF SPECIFIC PURPOSE TOPOGRAPHIC SURVEY, BEING A PART OF TIER 1, PLAN OF NAPLES, PLAT BOOK 1, PAGE 8, COLLIER COUNTY, FLORIDA.

PREPARED FOR: ERICKSON CONSULTING ENGINEERS, INC.  
FOR THE BENEFIT OF: ERICKSON CONSULTING ENGINEERS, INC.

STANTEC CONSULTING SERVICES, INC.  
REGISTERED ENGINEERS AND LAND SURVEYORS  
5801 PELICAN BAY BLVD., SUITE 300, (239) 649-4040  
NAPLES, FLORIDA 34108

BY: *John P. Maloney*  
JOHN P. MALONEY, PROFESSIONAL SURVEYOR AND MAPPER #LS4493  
MARCH 30, 2018  
DATE OF SURVEY

CERTIFICATE OF AUTHORIZATION #LB-7866

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

NO OTHER PERSON OR ENTITY MAY RELY UPON THIS SURVEY.

ABSTRACT NOT REVIEWED.

THIS TOPOGRAPHIC SURVEY IS ONLY FOR THE LANDS AS DESCRIBED. IT IS NOT A CERTIFICATE OF TITLE, ZONING, EASEMENTS OR FREEDOM OF ENCUMBRANCES.

GENERAL NOTES:

- BEARINGS ARE BASED ON THE STATE PLANE COORDINATE SYSTEM ESTABLISHED BY THE NATIONAL GEODETIC SURVEY FOR FLORIDA EAST ZONE, 1983 DATUM WITH 2011 ADJUSTMENT.
- UNLESS A COMPARISON IS MADE, MEASURED BEARINGS AND DISTANCES ARE IDENTICAL WITH PLAT VALUES.
- DIMENSIONS ARE IN FEET AND DECIMALS THEREOF.
- ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM, 1988, (N.A.V.D.)
- LINE SHOWN OUTSIDE OF THE LAND DESCRIBED ARE FOR REFERENCE USE ONLY AND WERE NOT SURVEYED.
- UNDERGROUND FOOTERS, ROOF OVERHANGS AND STUCCO FINISH WERE NOT TAKEN INTO CONSIDERATION IN PREPARING THIS MAP.
- P.C.P. = PERMANENT CONTROL POINT
- P.R.M. = PERMANENT REFERENCE MONUMENT
- R.O.W. = RIGHT-OF-WAY
- C.B.S. = CONCRETE BLOCK STRUCTURE
- A.E. = ACCESS EASEMENT, F.E. = FLOWAGE EASEMENT
- D.E. = DRAINAGE EASEMENT, P.U.E. = PUBLIC UTILITY EASEMENT
- T.U.E. = TECHNOLOGY UTILITY EASEMENT, C.A. = CONSERVATION AREA
- C.U.E. = COLLIER COUNTY UTILITY EASEMENT, S.W.E. = SIDEWALK EASEMENT
- P.D.E. = PRIMARY DRAINAGE EASEMENT, L.M.E. = LAKE MAINTENANCE EASEMENT
- L.B.E. = LANDSCAPE BUFFER EASEMENT
- EL. & ELEV. = ELEVATION
- C/L = CENTERLINE
- CONC. = CONCRETE
- A/C = AIR CONDITIONER
- F.P.L. = FLORIDA POWER & LIGHT
- TELE. = TELEPHONE SERVICE
- P = PLAT, M = MEASURED, C = CALCULATED, F = FIELD
- S.I.P. = SET 5/8" IRON PIN WITH CAP STAMPED LB-7866 24" LONG
- F.I.P. = FOUND IRON PIN
- S.C.M. = SET 4" X 4" CONCRETE MONUMENT 24" LONG STAMPED LB-43
- F.C.M. = FOUND CONCRETE MONUMENT
- D.H. = DRILL HOLES
- P.K. NAIL = PARKER KYLON NAIL
- B.M. = BENCH MARK
- P.V.C. = POLY VINYL CHLORIDE

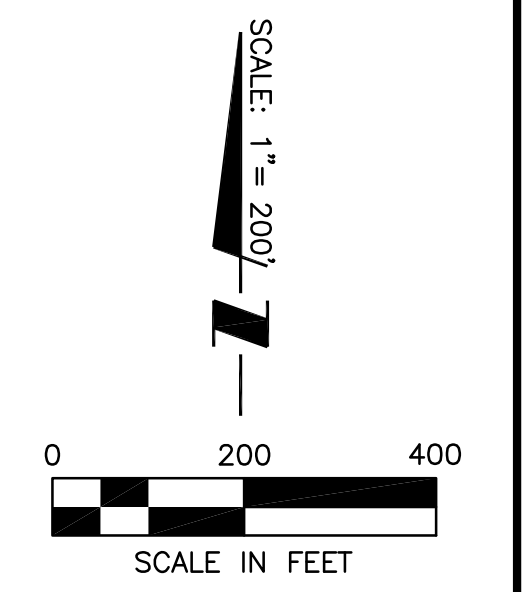
VERTICAL FEATURE ACCURACY: ELEVATIONS ARE BASED ON A CLOSED LEVEL LOOP WITH CLOSURE OF LESS THAN 0.05 TIMES THE SQUARE ROOT OF THE DISTANCE IN MILES. GROUND SHOTS ARE ROUNDED TO THE NEAREST TENTH OF A FOOT.

HORIZONTAL DATUM IS DERIVED FROM STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE, 83 (2011) GEOID 03 COUNTY SYSTEM.

HORIZONTAL FEATURE ACCURACY: HORIZONTAL FEATURES WERE LOCATED WITH A COMBINATION OF REAL-TIME KINEMATIC (RTK) GLOBAL POSITIONING SYSTEM (GPS) AND CONVENTIONAL TRAVERSE. CLOSURE FOR RTK GPS AND CONVENTIONAL TRAVERSE MET THE MINIMUM REQUIREMENTS FOR COMMERCIAL HIGH RISK: 1 FOOT IN 10,000 FEET.

BEARINGS AND COORDINATES ARE IN STATE PLANE COORDINATE FLORIDA EAST ZONE NAD 83/2011 US SURVEY FEET

SHEET INDEX:  
SHEET 1: COVER SHEET  
SHEET 2: VACATED FIFTH AVENUE NORTH DETAIL  
SHEET 3: THIRD AVENUE NORTH DETAIL  
SHEET 4: COASTAL CONSTRUCTION, SETBACK AND EROSION LINES



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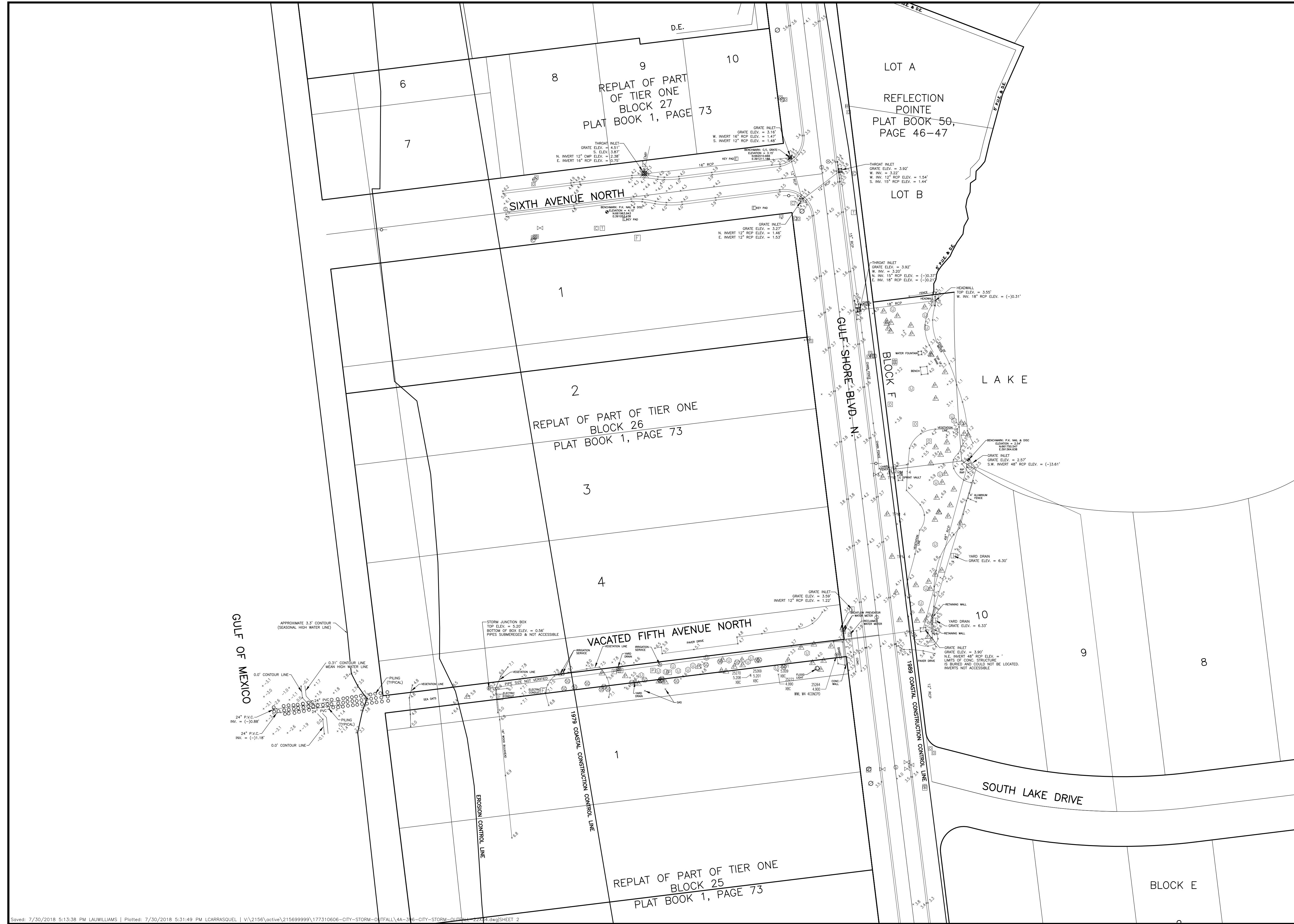
REV NO.	REVISION	MO/DAY/YR	DRAWN BY	EMP NO	CHECKED BY	EMP NO	FIELD BOOK/PAGE	701/1-48, 716/11-15, 18

APPROVED: *John P. Maloney*  
JOHN P. MALONEY, P.S.M.#LS4493

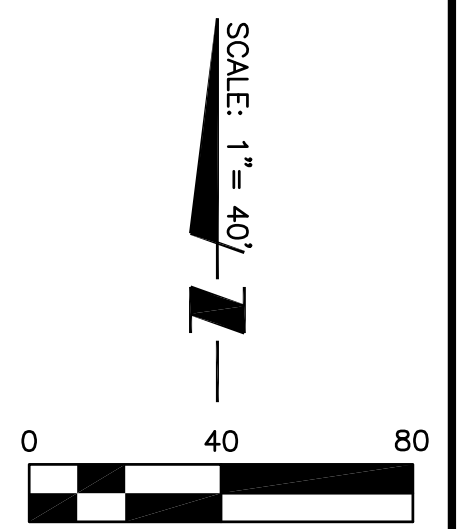
**Stantec**  
5801 Pelican Bay Blvd., Suite 300, Naples, Florida 34108  
Phone 239-649-4040 • Fax 239-643-5716 • Web-Site www.stantec.com  
Certificate of Authorization #7866

DESCRIPTION: MAP OF SPECIFIC PURPOSE TOPOGRAPHIC SURVEY  
BEING A PART OF TIER 1, PLAN OF NAPLES, PLAT BOOK 1, PAGE 8, COLLIER COUNTY, FLORIDA.

DATE: 03/18	CLIENT: ERICKSON CONSULTING ENGINEERS, INC.
SCALE: 1"=200'	CROSS REFERENCE FILE NO.:
PROJECT NO AND WORK ORDER: 177310606-F	N/SHEET NUMBER: 1 OF 4
FILE NO.: 4A-396	



LEGEND	
	- GUY ANCHOR
	- CONCRETE UTILITY POLE
	- WOOD UTILITY POLE
	- ELECTRIC SERVICE
	- HAND HOLE
	- TRANSFORMER AND SLAB
	- ELECTRIC MANHOLE
	- LIGHT POLE
	- ELECTRICAL PANEL
	- TRAFFIC CONTROL BOX
	- CABLE BOX
	- TELEPHONE RISER
	- TELEPHONE MANHOLE
	- WATER METER
	- IRRIGATION VALVE
	- IRRIGATION CONTROL BOX
	- FIRE HYDRANT
	- STORM MANHOLE
	- GRATE INLET
	- YARD DRAIN
	- MITERED END
	- FORCE MAIN MANHOLE
	- SANITARY MANHOLE
	- SANITARY CLEAN-OUT
	- SIGN
	- BENCH MARK
	- PALM TREE
	- SEAGRASS
	- OAK TREE
	- PINE TREE
	- GUMBO LIMBO
	- UNKNOWN TREE



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REV NO.	REVISION	MO/DAY/YR	DRAWN BY	EMP NO	CHECKED BY	EMP NO	FIELD BOOK/PAGE

ACTIVITY	INITIALS	EMP. NO.	MO.	DAY	YR.	APPROVED:
RESEARCH:						
FIELD WORK/CREW CHIEF	FB		03	20	18	
DRAFTED:	WAG	89362	03	20	18	
CHECKED BY:	JPM	89344	03	20	18	

JOHN P. MALONEY, P.S.M. #LS493

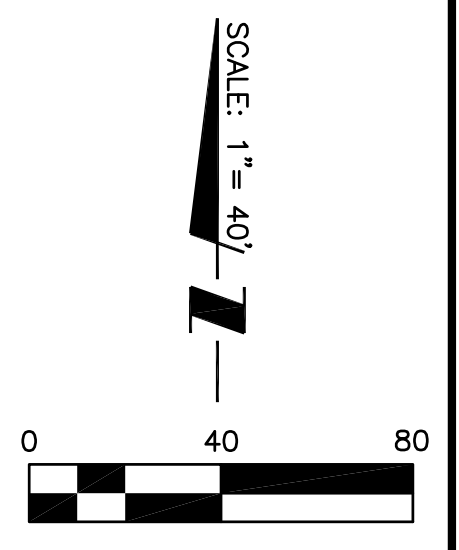
5801 Pelican Bay Blvd, Suite 300, Naples, Florida 34108  
 Phone 239-649-4040 • Fax 239-643-5716 • Web-Site www.stantec.com  
 Certificate of Authorization #7866

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 BEING A PART OF TIER 1, PLAN OF NAPLES, PLAT BOOK 1, PAGE 8, COLLIER COUNTY, FLORIDA.

DATE: 03/18	CLIENT: ERICKSON CONSULTING ENGINEERS, INC.
SCALE: 1"=40'	CROSS REFERENCE FILE NO.:
PROJECT NO. AND WORK ORDER NO. SHEET NUMBER: FILE NO.:	177310606-F 2 of 4 4A-396



LEGEND	
	GUY ANCHOR
	CONCRETE UTILITY POLE
	WOOD UTILITY POLE
	ELECTRIC SERVICE
	HAND HOLE
	TRANSFORMER AND SLAB
	ELECTRIC MANHOLE
	LIGHT POLE
	ELECTRICAL PANEL
	TRAFFIC CONTROL BOX
	CABLE BOX
	TELEPHONE RISER
	TELEPHONE MANHOLE
	WATER METER
	IRRIGATION VALVE
	IRRIGATION CONTROL BOX
	FIRE HYDRANT
	STORM MANHOLE
	GRATE INLET
	YARD DRAIN
	MITERED END
	FORCE MAIN MANHOLE
	SANITARY MANHOLE
	SANITARY CLEAN-OUT
	SIGN
	BENCH MARK
	PALM TREE
	SEAGRASS
	OAK TREE
	PINE TREE
	GUMBO LIMBO
	UNKNOWN TREE



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REV. NO.	REVISION	MO/DAY/YR	DRAWN BY	EMP. NO.	CHECKED BY	EMP. NO.	FIELD BOOK/PAGE

ACTIVITY	INITIALS	EMP. NO.	MO.	DAY	YR.
RESEARCH:					
FIELD WORK/CREW CHIEF:	FB	89362	03	20	18
DRAFTED:	WAG	89344	03	20	18
CHECKED BY:	JPM	89344	03	20	18

APPROVED:
<i>John P. Maloney</i> JOHN P. MALONEY, P.S.M.#15493

**Stantec**  
 5801 Pelican Bay Blvd., Suite 300, Naples, Florida 34108  
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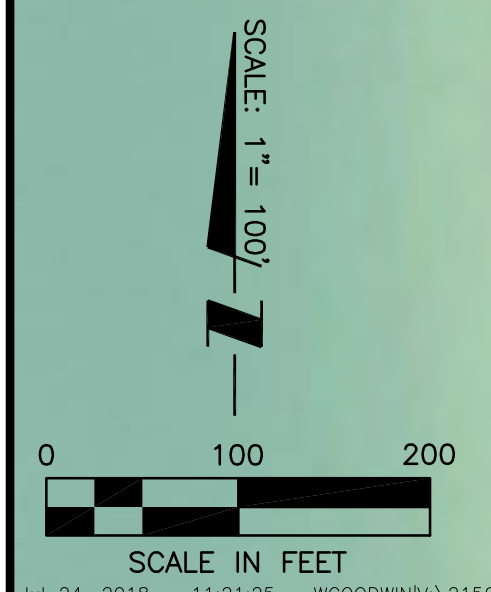
DESCRIPTION: MAP OF SPECIFIC PURPOSE TOPOGRAPHIC SURVEY  
 BEING A PART OF TIER 1, PLAN OF NAPLES, PLAT BOOK 1, PAGE 8, COLLIER COUNTY, FLORIDA.

DATE: 03/18	CLIENT: ERICKSON CONSULTING ENGINEERS, INC.
SCALE: 1"=40'	CROSS REFERENCE FILE NO.: 177310606-F
PROJECT NO. AND WORK ORDER NO. SHEET NUMBER: FILE NO.: 177310606-F	3 of 4 4A-396

COASTAL CONSTRUCTION CONTROL LINE AND COASTAL SETBACK LINE TIES  
TO DEPARTMENT OF NATURAL RESOURCES CONTROL MONUMENTS 64-78-A13 & 64-78-A14  
AND EROSION CONTROL LINE TIE TO R-67



LINE	LENGTH	BEARING
L1	39.47	S14°12'18"E
L2	52.32	S07°46'23"E
L3	49.42	S07°36'08"E
L4	52.51	S06°22'14"E
L5	19.84	S13°52'03"E
L6	53.28	S16°48'45"E
L7	53.18	S08°22'13"E
L8	56.54	S05°14'39"E
L9	28.78	S07°07'06"E
L10	16.35	S54°21'23"E
L11	25.11	S27°56'48"E
L12	12.32	S62°33'40"E
L13	188.00	S09°19'21"E
L14	48.75	S10°06'09"E
L15	26.21	S13°36'11"E
L16	20.00	S24°24'58"E
L17	19.54	S35°55'16"E
L18	8.92	S47°22'31"E
L19	10.32	S21°53'09"E
L20	53.79	S12°41'41"E
L21	235.18	S09°03'24"E
L22	103.28	S04°28'19"E
L23	55.61	S07°31'17"E
L24	64.42	S14°52'54"E
L25	97.35	S07°45'24"E
L26	101.11	S05°12'06"E
L27	83.84	S00°28'57"W
L28	6.75	N89°22'18"W
L29	166.93	S06°39'00"E
L30	25.58	S48°53'33"E
L31	64.16	S10°38'34"E
L32	76.22	S04°41'49"E
L33	56.62	S01°30'36"E
L34	26.17	S00°18'00"W
L35	31.42	S25°54'10"E
L36	41.45	S14°08'45"E
L37	41.62	S08°19'43"E
L38	102.31	S03°41'12"E
L39	52.25	S05°12'45"E
L40	91.28	S02°30'40"W
L41	17.19	S25°49'00"E
L42	84.96	S13°11'01"E
L43	185.14	S05°37'44"E
L44	181.77	S05°15'38"E
L45	286.44	S06°38'14"E
L46	192.80	S04°51'21"E



REV NO.	REVISION	MO/DAY/YR	DRAWN BY	EMP NO	CHECKED BY	EMP NO	FIELD BOOK/PAGE

ACTIVITY	INITIALS	EMP. NO.	MO.	DAY	YR.
RESEARCH:					
FIELD WORK/CREW CHIEF	FB		03	20	18
DRAFTED:	WAG	89362	03	20	18
CHECKED BY:	UPM	89344	03	20	18

APPROVED: *John P. Maloney*  
JOHN P. MALONEY, P.S.M.#LS4493

**Stantec**  
5801 Pelican Bay Blvd., Suite 300, Naples, Florida 34108  
Phone 239-649-4040 • Fax 239-643-5716 • Web-Site www.stantec.com  
Certificate of Authorization #7866

DESCRIPTION: MAP OF SPECIFIC PURPOSE  
TOPOGRAPHIC SURVEY  
BEING A PART OF TIER 1, PLAN OF NAPLES,  
PLAT BOOK 1, PAGE 8, COLLIER COUNTY, FLORIDA.

DATE: 03/18	CLIENT: ERICKSON CONSULTING ENGINEERS, INC.
SCALE: 1"=100'	CROSS REFERENCE FILE NO.:
PROJECT NO. AND WORK ORDER: 177310606-F	NDSHEET NUMBER: 4 OF 4
FILE NO.: 4A-396	

## **TURBIDITY MONITORING AND COMPLIANCE PLAN**

### **CITY OF NAPLES BEACH RESTORATION & WQ IMPROVEMENT PROJECT**

#### **General**

The Contractor shall be responsible for testing to establish background levels and testing during construction. The contractor shall limit the discharge of turbid waters off-site, or into on-site/off-site wetlands (if applicable), to no more than 50 JTU'S (Jackson Turbidity Units) OR 29 NTU'S (Nephelometric Turbidity Units), above background levels for discharge to the Gulf of Mexico and/or Alligator Lake. In situ turbidity measurements will be taken by a trained individual familiar with the proper calibration and operation of turbidimeters. Readings shall be taken with an electronic turbidity meter that has been appropriately calibrated. Readings shall be taken at the mid-depth, or alternatively at a minimum of 1 ft above the bottom when the total water depth is less than 2 ft. In situ turbidity will be measured in NTUs at least twice daily during dewatering operations.

A log shall be kept that includes the following:

- Date, time, and location of sampling
- A scaled schematic map with the sample site shown
- Turbidity reading (NTUs)
- Water depth
- Sample depth
- Weather, wind, and current conditions
- Approximate tide

#### **Background Sampling**

Prior to the commencement of any daily in-water work, a background turbidity reading shall be taken a minimum of 500 ft from the outfall discharge point to be used for that day's dewatering activities (Figure 1).

#### **Compliance Sampling**

Compliance samples shall be taken after the settling tank and prior to the discharge entering the City's stormwater conveyance system (Figure 2).



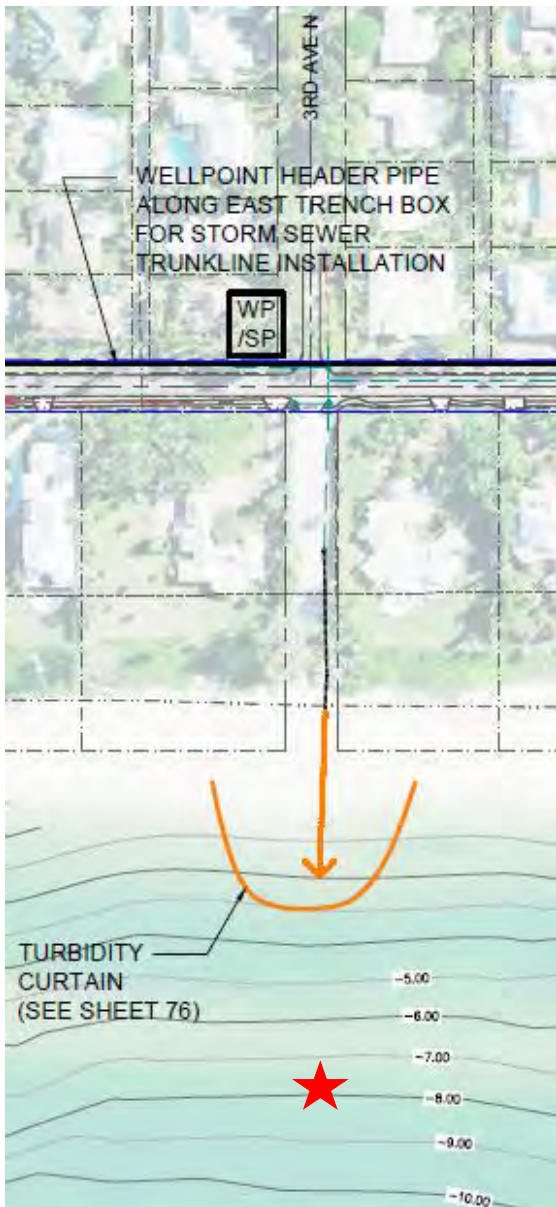


Figure 1. Background Sampling Location (Typical)  
(Excerpt from Sheet 65 of Construction Drawings)

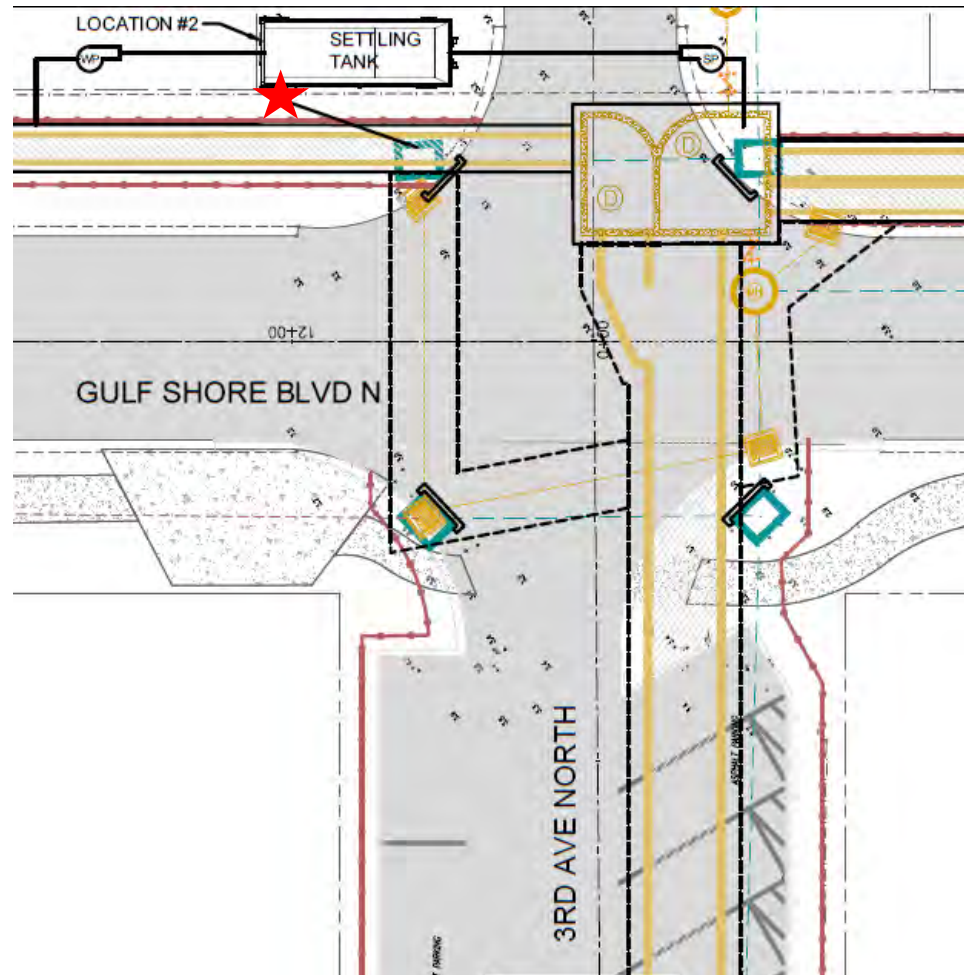
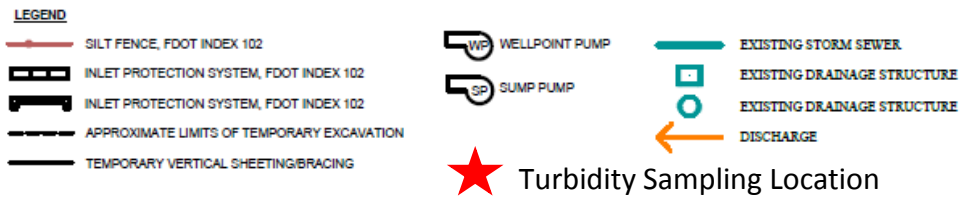


Figure 2. Compliance Sampling Location (Typical)  
(Excerpt from Sheet 67 of Construction Drawings)



### **Turbidity Limits and Exceedance Protocol**

If the turbidity at the compliance station described above exceeds 29 NTUs above the corresponding background levels, construction activities shall be cease and not resume until corrective measures have been taken and turbidity has returned to acceptable levels. If a turbidity problem persists, additional measures to alter construction methodology and erosion controls will be implemented to reduce turbidity. These measures may include temporary suspensions of work, varying the rate of pumping, or other appropriate measures to establish a reactive protocol.

### **Contingency Plan for Significant Storm Events**

Dewatering will cease immediately if continuation would create a condition hazardous to health, safety, and general welfare, or as directed by the SFWMD. Dewatering will be suspended if an approaching storm system has the potential to create hazardous conditions. The contractor will comply with SFWMD instructions during such an emergency situation. In the event of a significant storm, water stored in aboveground particulate settling basin/temporary retention areas will be drained, as necessary or as directed by SFWMD staff. Floating turbidity barriers will be removed from prior to the approach of a significant storm event, so as not to impede drainage from the site. No off-site discharge of dewatering effluent will occur until confirmation from the SFWMD is received that it is safe to do so, and that off-site discharge of dewatering effluent will not compromise the function of the drainage system.

### **Reporting**

The applicable regulatory agencies, including but not limited to FDEP, SFWMD, and the City of Naples, will be notified immediately upon any measured turbidity violation. In addition, copies of the turbidity monitoring logs will be provided to these agencies within thirty (30) days following construction.

In the absence of a violation, the turbidity logs will be submitted to the City of Naples on a bi-weekly basis.

### **Companion Documents**

- ❖ Dewatering Plan (October 2018)
- ❖ Construction Drawings (Dewatering, SWPPP, Turbidity and Erosion Control Sheets 65-76) (November 2018)

December 14, 2018

***Sent by E-mail to:***

Erickson Consulting Engineers, Inc.  
Karyn Ericksont, President  
295 Riverside Circle  
Naples, FL 34102  
[christin@ericksonconsultingengineers.com](mailto:christin@ericksonconsultingengineers.com)

Re: Naples Basin 2 Stormwater Improvements  
Gulf Shore Blvd. Between 6<sup>th</sup> Ave. and 2<sup>nd</sup> Ave.  
Naples, Florida 34102  
Collier County

Facility ID No.: FLG072306  
Coverage Ends: Dec. 13, 2023

Dear Ms. Erickson,

In response to your request for coverage under the Generic Permit for Discharge of Ground Water from Dewatering Operations, (discharging into the Gulf of Mexico), for the above referenced site, dated December 12, 2018. Coverage under the above-referenced rule became effective on December 14, 2018. Your permit number is FLG072306-001. Please refer to this number in all correspondence or permits inquiries.

A copy of the Generic Permit, DEP Document 62-621.300(2)(a) and a copy of Chapter 62-621.300(2), Florida Administrative Code (F.A.C.) are enclosed. You should become familiar with the permit and any reporting requirements for which you may be responsible. All correspondence concerning the Generic Permit shall be submitted to the South District Office.

Appropriate site specific Best Management Practices (BMPs) must be implemented upon commencement of the discharge under this Generic Permit.

This Generic Permit does not relieve the permittee from the responsibility for obtaining any other permits required by the Department or any federal, state or local agency, including Municipal Separate Storm Sewer Systems (MS4) Permittees (i.e. Florida Department of Transportation and local governments).

If you have any questions or comments regarding coverage under the Generic Permit, please contact me at (239) 344-5672 or by email at: [nolin.moon@floridadep.gov](mailto:nolin.moon@floridadep.gov).

Sincerely,



Nolin Moon, P.E.  
Environmental Manager

Enclosures:

Rule 62-621.300(2), F.A.C., Generic Permit for Discharge of Ground Water from Dewatering Operations  
DEP Document 62-621.300(2)(a), Generic Permit for Discharge of Ground Water from Dewatering Operations

**State of Florida**  
**Department of Environmental Protection**

**Generic Permit**  
**For**  
**Discharge Of**  
**Ground Water From**  
**Dewatering Operations**

**Effective Date: 02/2015**

This permit is issued under the provisions of Section 403.0885, Florida Statutes, and applicable rules of the Florida Administrative Code. Coverage under this permit constitutes authorization to discharge to waters of the State pursuant to the Department's federally-approved National Pollutant Discharge Elimination System (NPDES) program. Until coverage under this permit is terminated, revoked or expires, permittees using this generic permit are authorized to discharge ground water from dewatering operations to surface waters of the State in accordance with the terms and conditions of this permit

## Part I. Authorization to Discharge

Coverage under this generic permit constitutes authorization to discharge ground water from a dewatering operation through a point source to surface waters of the State. Until coverage under this permit is terminated, revoked or expires, permittees using this permit are authorized to discharge ground water in accordance with the terms and conditions of this permit.

## Part II. Definitions

For the purposes of this permit, the following terms have the following meanings unless the context clearly indicates otherwise:

- A. "Bypass" means the intentional diversion of waste streams from any portion of the treatment system.
- B. "Dewatering operations" means temporarily lowering the water table by draining or pumping of ground water from activities such as excavations, building foundations, vaults, trenches and aquifer performance tests for exploratory purposes.
- C. "Ground water" means water beneath the surface of the ground within a zone of saturation, whether or not flowing through known and definite channels.
- D. "Point source" means any discernible, confined, and discrete conveyance, including any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.
- E. "Surface Waters" means those waters defined in Section 403.031(13), F.S., excluding underground waters.
- F. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee.
  - (1) An upset does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, careless or improper operation.
  - (2) An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of upset provisions of Rule 62-620.610, F.A.C., are met.

## Part III. General Provisions

- A. Coverage under this permit
  - 1. Discharges from dewatering operations are limited to a term not to exceed 5 years from the effective date of coverage.
  - 2. Coverage under this generic permit shall be effective upon notification by the Department in accordance with Rule 62-621.101, F.A.C.
  - 3. To terminate coverage under this generic permit the permittee shall submit a Notice of Termination (DEP Form 62-621.300(2)(f)), to the appropriate Department district office within 14 days after completion of the discharge activity or upon expiration of coverage, whichever occurs first. Electronic submittal is preferred and may be available at <http://www.dep.state.fl.us/water/wastewater/iw/iw-forms.htm>.

### B. Effluent Limitations

- 1. Discharge of ground water from dewatering operations shall be limited and monitored by the permittee as specified below

Parameter	Units	Discharge Limitation	Monitoring Frequency	Sample Type
Flow*	gallons per day	Report	1/week when discharging	Actual or Estimated

\* The flow rate shall not exceed the design flow rate of the sediment control measure employed.

## Part IV. Best Management Practices

### A. Implementation of Best Management Practices

- 1 The permittee shall develop and implement site specific control measures (Best Management Practices) to minimize or eliminate pollutant discharges resulting from dewatering operations to surface waters of the State. Appropriate BMPs shall have been developed and must be implemented upon commencement of the discharge. The most common BMPs for sediment control include sediment traps and basins, weir and dewatering tanks, filters, and chemical treatment. These technologies and approaches provide a number of options to achieve sediment removal. The sizes of the particle that make up the sediments are a key consideration in selecting sediment control options. A description of the most common types of sediment control technologies are provided below along with design considerations of each. Appendix II of the State of Florida Erosion and Sediment Control Designer and Reviewer Manual 2013 is available online to provide technical guidance in the development and implementation of BMPs for sediment control at:
    - <http://www.stormwater.ucf.edu/publications/2013RevisedDesignerManual.pdf> or,
    - <http://www.flrules.org/Gateway/reference.asp?No=Ref-04227>.
- (a) Sediment Traps and Basins:
- Sediment traps and basins are temporary earthen basins formed by the excavation and/or construction of an embankment to detain runoff containing sediment and allow sediments to settle out before discharging.
  - Sediment traps are generally smaller than sediment basins and usually have flume outlets covered with rock or vegetation to control erosion. The larger sediment basins are designed with some type of control release structure (weir) and usually discharge through a pipe.
  - Sediment traps and basins are effective for the removal of large and medium-size particles (sand and gravel) and some metals that settle out with the sediment particles. Sediment basins can also be effective at removing smaller silt particles.
  - Design flow rates are 25 to 500 gpm.
- (b) Weir and Dewatering Tanks
- Weir tanks use a series of over-flow and under-flow weirs to maximize the residence time in the tank and achieve efficient settling and removal of sediments including gravel, sand, silt and metals (with the removed sediment). Some oil and grease can be removed by capture behind under-flow weirs. Design flow rates are 60 to 100 gpm.
  - Dewatering tanks are equipped with a fabric filter. Water flow enters the tank through the top, passes through the filter, and is discharges through the bottom of the tank. These tanks are effective for the removal trash, gravel, sand, silt, some visible oil and grease, and some metals (removed with the sediments). Design flow rates vary.
- (c) Filters (Gravity Filter Bags, Sand Media Filters, Pressurized Bag and Cartridge Filters)
- A gravity filter bag is a square or rectangular bag made of nonwoven geotextile fabric that filters out and removes sediments including gravel, sand, and silt. Some metals are removed with the sediment. Water is pumped into one side of the bag and seeps through the bottom and sides of the bag. A secondary barrier, such as a rock filter bed or geobarrier, is placed beneath and beyond the edges of the bag to capture sediments that escape the bag. Design flow rates are 300 to 800 gpm.
  - Sand media filters are metal canisters filled with sand media used for filtering out trash, gravel, sand, silt and some metals as well as the reduction of Biochemical Oxygen Demand (BOD) and turbidity. Generally, sand filters provide a final level of treatment. They are often used as a secondary or higher level of treatment after a significant amount of sediment and other pollutants has been removed using other methods. Design flow rates are 80 to 1000 gpm.
  - Pressurized bag filter units are composed of single-filter bags made from polyester felt material. The water filters through the unit and is discharged through a common header. Some units include a combination of bag filters and cartridge filters for enhanced contaminant removal. Pressurized bag filters are effective for the removal of sand, silt, some clays, and some metals, as well as the reduction of BOD and turbidity. Design flow rates are 50 to 1000 gpm.

- Cartridge filter units come with various cartridge configurations or with a larger single-cartridge filtration unit (with multiple filters within). They provide a high degree of pollutant removal. They are often used as a secondary or higher polishing level of treatment after a significant amount of sediment and other pollutants is removed. Cartridge filters are effective for the removal of sand, silt, some clays, and some metals, as well as the reduction of BOD and turbidity. Design flow rates are 50 to 1000 gpm.

**Note:** Backwash water should be managed such that it is not discharged directly to waters of the State. Backwash water may be hauled away for proper disposal or returned to the beginning of the treatment process.

(d) Chemical Treatment

- Chemical treatment includes the addition of carefully selected chemicals such as polymers (e.g., polyacrylamide, PAM), alum, or other flocculants to water to aid in the reduction of turbidity by the removal of smaller particulates such as clay and fine silt. Chemical treatment should be considered where turbid discharges to surface waters cannot be avoided using other available BMPs and turbidity needs to be reduced to levels less than the water quality standard of 29 nephelometric turbidity units (NTUs) above background.
- The design of and operation of a chemical treatment system shall consider the factors that determine the most optimum, cost-effective performance. Factors to consider include the following:
  - The right chemical used at the right dosage. There is usually an optimum dosage rate which can be determined by bench testing the chemical at a range of dosage concentrations. Chemical use shall be designed to ensure they do not cause or contribute to water quality standards violations.
  - The flocculant shall be mixed rapidly into the water to ensure proper dispersion and floc formation. Sufficient flocculation might occur in the pipe leading from the point of chemical addition to the settling basin.
  - The withdrawal system shall be designed to minimize outflow velocities and to prevent floc discharge. If possible, the discharge shall be directed through a physical filter such as a vegetated swale to catch any unintended floc discharge.
  - A pH-adjusting chemical shall be added, if needed, to control pH.
  - Treatment systems can be designed as flow-through continuous or batch-treatment systems.
  - Treatment chemicals shall be approved by FDEP for potable water use.
  - Primary sediment basins or grit pits may be required if the water to be treated has a high percentage of suspended solids. This will prevent the heavy solids load from impacting the performance of the downstream chemical treatment system.

B. Inspection and Maintenance

1. Visual inspections of earthen embankments and discharge flumes or swales shall be performed to prevent washout, scouring, and embankment blowouts. Areas subject to erosion shall be grassed or covered with some type of erosion control material.
2. Sediments accumulated in sediment traps and basins shall be removed as necessary to maintain treatment efficiency. Sediments removed during the maintenance of a dewatering device shall be handled in accordance with the BMPs developed for the site.
3. Periodic cleaning of tanks and associated piping and equipment shall be performed based on visual inspection or reduced flow.
4. Gravity filter bags shall be inspected for proper performance at a reasonable frequency based on amount of use. The bag shall be replaced when it no longer filters sediments or passes water at a reasonable rate.
5. Filters shall be operated and maintained in accordance with manufacturer's recommendation especially with respect to cleaning, backwashing, and replacing overused filter media to ensure an acceptable level of efficiency.
6. The permittee shall maintain records of weekly inspections and maintenance activities required to maintain treatment efficiency.

**PART V. Recordkeeping Requirements**

The permittee shall maintain the following records and make them available for inspection on the permitted site unless the permittee identifies another location on DEP Form 62-621.300(2)(b).

- A. Records of all data, including reports and documents, used to complete the Notice of Intent requesting coverage under the permit for at least 3 years from the date the Notice of Intent was filed.
- B. Records of flow monitoring as required in Part III.B.1., records of chemicals used for treatment, if any, and records of inspections and maintenance activities identified in Part IV.B.6. of this generic permit for at least 3 years from the date the record was created.
- C. Copy of the permit.
- D. Copy of coverage issued by the Department.

#### **PART VI. Other Conditions**

- A. The discharge authorized by this permit shall not cause a violation to surface water quality standards.
- B. The permittee shall report any characteristic in the effluent that could indicate the presence of a pollutant or pollutants not previously identified or anticipated, (e.g., visible oil sheen, odor), and the occurrence, or new knowledge of, any spills, leaks or contamination in the vicinity of the project that could impact the water quality of the effluent. Reporting procedures are listed in Part VII.I. of this permit.
- C. If contamination in the vicinity of the site that causes or contributes to violations of water quality standards is encountered, the permittee shall cease dewatering operations and contact the Department. The site may qualify for coverage under Rule 62-621.300(1), F.A.C., or under an individual permit under Rule 62-620, F.A.C.
- D. The discharge shall not include visible floating solids or foam; or cause or contain components that settle to form putrescent deposits or float as debris, scum, oil, or other matter in such amounts as to form nuisances, produce color, odor, taste or turbidity, in accordance with Rule 62-302.500(1)(a), F.A.C.
- E. When requested by the Department, the permittee shall provide any information required by law which is needed to determine whether there is cause for revoking and reissuing, or terminating coverage under this permit, or to determine compliance with the permit. The permittee shall also provide to the Department, upon request, copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrections reported to the Department within 10 days of discovery.
- F. Coverage under this permit may be suspended, revoked and reissued, or terminated in accordance with Rule 62-620.345, F.A.C., if the Secretary determines that there has been a violation of any of the terms or conditions of the permit, there has been a violation of state water quality standards or the permittee has submitted false, incomplete or inaccurate data or information.

#### **PART VII. General Conditions**

- A. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, F.S. Any permit noncompliance constitutes a violation of Chapter 403, F.S., and is grounds for enforcement action, permit termination, permit revocation and reissuance. [62-620.610(1), F.A.C.]
- B. As provided in Section 403.087(7), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. [62-620.610(3), F.A.C.]
- C. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. [62-620.610(4), F.A.C.]
- D. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely



affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [62-620.610(5), F.A.C.]

- E. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. [62-620.610(7), F.A.C.]
- F. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized EPA personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to:
  - 1. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;
  - 2. Have access to and copy any records that shall be kept under the conditions of this permit;
  - 3. Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and
  - 4. Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules.[62-620.610(9), F.A.C.]
- G. In accepting this permit, the permittee understands and agrees that all records and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such use is prescribed by Section 403.111, F.S., or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. [62-620.610(10), F.A.C.]
- H. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department. [62-620.610(14)]
- I. The permittee shall report to the Department any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
  - 1. The following shall be included as information which must be reported within 24 hours under this condition:
    - (a) Any unanticipated bypass which exceeds any effluent limitations in the permit,
    - (b) Any upset which exceeds any effluent limitation in the permit,
    - (c) Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit, if applicable, and
    - (d) Any unauthorized discharge to surface or ground waters.
  - 2. Oral reports as required by this subsection shall be provided as follows:
    - (a) For unauthorized releases or spills of treated or untreated groundwater from dewatering operations reported pursuant to subparagraph 1.(d) that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WARNING POINT TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Warning Point:
      - (1) Name, address, and telephone number of person reporting;
      - (2) Name, address, and telephone number of permittee or responsible person for the discharge;
      - (3) Date and time of the discharge and status of discharge (ongoing or ceased);
      - (4) Characteristics of the spill or release (untreated or treated);
      - (5) Estimated amount of the discharge;
      - (6) Location or address of the discharge;

- (7) Source and cause of the discharge;
  - (8) Whether the discharge was contained on-site, and cleanup actions taken to date;
  - (9) Description of area affected by the discharge, including name of water body affected, if any; and
  - (10) Other persons or agencies contacted.
- (b) Oral reports, not otherwise required to be provided pursuant to subparagraph 2.(a) above, shall be provided to the Department within 24 hours from the time the permittee becomes aware of the circumstances.
3. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department shall waive the written report. [62-620.610(20), F.A.C.]

J. Bypass Provisions.

1. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:
  - (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and
  - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
  - (c) The permittee submitted notices as required under General Condition J.2. of this permit.
2. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in General Condition I. of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.
3. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in General Condition J.1.(a) through (c) of this permit.
4. A permittee may allow any bypass to occur which exceeds effluent limitations in the permit if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of General Condition J.1. through 3. of this permit.

[62-620.610(22), F.A.C.]

K. Upset Provisions.

1. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - (a) An upset occurred and that the permittee can identify the cause(s) of the upset;
  - (b) The permitted facility was at the time being properly operated;
  - (c) The permittee submitted notice of the upset as required in General Condition I. of this permit; and
  - (d) The permittee complied with any remedial measures required under General Condition D of this permit.
2. In any enforcement proceeding, the burden of proof for establishing the occurrence of an upset rests with the permittee.
3. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.

[62-620.610(23), F.A.C.]

## 62-621.300

(2) Generic Permit for Discharge of Ground Water from Dewatering Operations.

(a) The document “Generic Permit for Discharge of Ground Water from Dewatering Operations,” document number 62-621.300(2)(a), issued by the Department and effective February 10, 2015, is hereby adopted and incorporated by reference. This document may be obtained by contacting either the local Department District Office, by writing to the Department of Environmental Protection, Industrial Wastewater Program, Mail Station #3545, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, from the Department’s website or from <http://www.flrules.org/Gateway/reference.asp?No=Ref-04262>.

(b) Form 62-621.300(2)(b), Notice of Intent to Use the Generic Permit for Discharge of Ground Water from Dewatering Operations, (NOI), effective February 10, 2015, is hereby adopted and incorporated by reference. This form may be obtained by either contacting the local Department District Office, by writing the Department of Environmental Protection, Industrial Wastewater Program, Mail Station #3545, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or from the Department’s website or from <http://www.flrules.org/Gateway/reference.asp?No=Ref-04263>.

(c) Applicability and Coverage.

1. Coverage under this generic permit is available for discharge of ground water from dewatering operations to surface waters of the State, provided all criteria specified in this generic permit are met. Applicants seeking coverage under this permit shall submit a Notice of Intent to Use the Generic Permit for Discharge of Ground Water from Dewatering Operations, DEP Form 62-621.300(2)(b) as specified in that form. The permittee shall meet the effluent limitations and requirements specified in this generic permit.

2. This generic permit authorizes the discharge of ground water from dewatering operations through a point source to surface waters of the State under the State’s Federally-approved NPDES program only and does not relieve the permittee of the responsibility of obtaining any other federal, state, or local government permit.

3. For the purposes of this section, ‘dewatering operations’ means temporarily lowering the water table by draining or pumping of ground water from activities such as excavations, building foundations, vaults, trenches and aquifer performance tests for exploratory purposes.

4. Beginning (February 10, 2015) dewatering operations as defined herein seeking coverage under the NPDES Generic Permit for Stormwater Discharges from Large and Small Construction Activities under subsection 62-621.300(4), F.A.C, are not required to obtain separate coverage under this permit.

5. Coverage under this generic permit shall not be effective until the applicant receives written notification from the Department.

(d) Discharges of ground water from dewatering operations are limited to a term not to exceed five years from the effective date of coverage.

(e) Requests for Coverage.

1. Requests for coverage under this generic permit shall be submitted at least 14 days prior to the planned commencement of discharge, to the industrial wastewater program at the local DEP office. Electronic submittal is preferred and may be available at the DEP Business Portal. The submission shall include the following: Completed Notice of Intent to Use Generic Permit for Discharge of Ground Water from Dewatering Operations, DEP Form 62-621.300(2)(b) and applicable fee as indicated in the form. Prior to the submittal of the NOI, the applicant shall develop best management practices consistent with Part IV of this generic permit (DEP Document 62-621.300(2)(a)), which shall be implemented upon commencement of discharge.

2. The permittee may request renewal of coverage under this generic permit by submitting DEP Form 62-621.300(2)(b) and applicable fee as indicated in the form at least 14 days before expiration of current coverage.

3. Request for transfer of ownership under this generic permit shall be submitted to the industrial wastewater program at the local DEP office using DEP Form 62-620.910(11) and a \$50.00 processing fee pursuant to Rule 62-4.050, F.A.C.

4. There is no annual fee for sites authorized to discharge under this generic permit pursuant to Rule 62-4.052, F.A.C.

5. Existing dewatering operations with current coverage under the Generic Permit for Discharge of Produced Ground Water From any Non-Contaminated Site Activity effective February 14, 2000, shall continue to meet the requirements of that permit unless the permittee elects to submit a complete DEP Form 62-621.300(2)(b), to convert to coverage under this generic permit.

(f) To terminate coverage under this generic permit the permittee shall submit DEP Form 62-621.300(2)(f). Notice of Termination Generic Permit for Discharge of Ground Water from Dewatering Operations effective February 10, 2015, which is hereby adopted and incorporated by reference. This form may be obtained by contacting the Florida Department of Environmental Protection, Bob Martinez Center, Industrial Wastewater Program, Mail Station #3545, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 or from the Department’s website, or from <http://www.flrules.org/Gateway/reference.asp?No=Ref-04264>.



*City of Naples*

STREETS & STORMWATER  
TELEPHONE (239) 213-5000 • FACSIMILE (239) 213-5010  
295 RIVERSIDE CIRCLE • NAPLES, FLORIDA 34102

December 12, 2018

South Florida Water Management District  
Ft Myers Regulatory Branch  
2301 McGregor Blvd  
Fort Myers, FL 33901

Florida Department of Environmental Protection  
NPDES Stormwater Section  
2600 Blair Stone Road, MS 2500  
Tallahassee, FL 32399-2400

**Re: Authorization to Utilize the City of Naples MS4 MPDES Permit No. FL04E080  
Project: Naples Beach Restoration & WQ Improvements Project**

Dear Sir or Madam,

Please use this letter as authorization for the City of Naples to utilize the above referenced MS4 permit for dewatering discharges related to the above referenced project. Please note that the City is actively pursuing the renewal of the MS4 permit as of the writing of this letter.

Sincerely,

Gregg R. Strakaluse, P.E.  
Director-Streets & Stormwater Department  
City of Naples, FL  
239-213-5003

*Ethics above all else... Service to others before self... Quality in all that we do.*

## Requirement by Permit Condition Report

**App No:** 181003-20

**Permit No:** 11-04010-W

**Project Name:** NAPLES BEACH RESTORATION & WQ IMPROVEMENT PROJECT

<b>Permit Condition No:</b>	15	<b>Permit Condition Code:</b>	<u>WUDWT002-4</u>		
<b>Facility Name</b>	<b>Requirement Name</b>	<b>Col Freq</b>	<b>Sub Freq</b>	<b>Due Date</b>	
PERMIT	Turbidity level at discharge point PERMIT	Twice Daily	Data Held On Site	01-MAY-2019	
PERMIT	Background turbidity level for PERMIT	Twice Daily	Data Held On Site	01-MAY-2019	

<b>Permit Condition No:</b>	16	<b>Permit Condition Code:</b>	<u>WUSTD022-7</u>		
<b>Facility Name</b>	<b>Requirement Name</b>	<b>Col Freq</b>	<b>Sub Freq</b>	<b>Due Date</b>	
PUMP - SP	Daily withdrawal for for Pump SP	Daily	Data Held On Site	30-APR-2019	
PUMP - WP	Daily withdrawal for for Pump WP	Daily	Data Held On Site	30-APR-2019	

<b>Permit Condition No:</b>	20	<b>Permit Condition Code:</b>	<u>WUDWT014-1</u>		
<b>Facility Name</b>	<b>Requirement Name</b>	<b>Col Freq</b>	<b>Sub Freq</b>	<b>Due Date</b>	
PERMIT	Dewatering Commencement Notification for PERMIT	One time Only	One time Only	01-MAY-2019	

# STAFF REPORT DISTRIBUTION LIST

NAPLES BEACH RESTORATION & WQ IMPROVEMENT PROJECT

**Application No:** 181003-20

**Permit No:** 11-04010-W

## **INTERNAL DISTRIBUTION**

X Karen L. Cheney, P.G.

## **EXTERNAL DISTRIBUTION**

X Permittee - City of Naples  
X Agent - Erickson Consulting Engineers, Inc.

## **GOVERNMENT AGENCIES**

X Engineer, City of Naples

Exhibit No:9