



Professional Engineers, Planners & Land Surveyors

July 3, 2018

Mr. Pakorn Sutitarnnontr
South Florida Water Management District
2301 McGregor Boulevard
Fort Myers, Florida 33901

REFERENCE: ORCHID COVE AT PINE ISLAND - LAKE EXCAVATION
APP NO.: 180511-9
PERMIT NO.: 36-06753-P

Dear Pakorn:

This letter is written in response to your review comments dated May 28, 2018, regarding the above referenced project. With this letter, we are submitting the following additional information you requested:

1. Engineering Plans
2. Check for \$300 for remaining application fee
3. Lee County Perpetual Stormwater Drainage & Maintenance Easement
4. Boundary & Topographic Survey
5. Soil Borings
6. Stormwater Narrative
7. Ownership & Maintenance for Unified Control

Presented below are responses to each review comment:

Please provide the following information in regards to the application and application authorization:

Comment 1a: The permit application fee is \$4,500 for a major modification to Permit No. 36-06753-P. The District has received the application fee in the amount of \$3,000. Please remit the remaining fee balance. The application cannot be deemed complete until all required application fees have been paid.

Response: The additional \$300 review has been paid with this resubmittal.

Comment 1b: As required by Permit No. 36-06753-P/Application No. 170106-18, please provide the executed perpetual stormwater drainage and maintenance easement between the applicant and Lee County for the offsite conveyance ditch running west-east through the project site.

Response: Please find attached the recorded Stormwater Drainage & Maintenance Easement with Lee County.

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Comment 2: Please provide the updated boundary and topographic survey for the 55.36-acre project site with legal parcel description and acreage of the total project area. The requested survey should include the location and description of benchmarks and vertical datum (NGVD 1929 or NAVD 1988) along with the conversion factor. The requested survey should also provide information on the mean annual higher high tide.

Response: *Please see the attached boundary survey for the 55.36-acre project site. The topographic information is shown on the enclosed plans and the datum is NGVD 1929. The eastern boundary of the project was established in previous permits and it has not changed therefore mean tide information is not necessary.*

Comment 3: Please provide the soil boring(s) in the area of the proposed stormwater management lake or supporting documentation to demonstrate the excavation of the stormwater management lake will not breach any existing confining layer or aquitard. The requested soil boring(s) should extend to a depth of at least two feet below the proposed bottom elevations of the stormwater management lakes.

Response: *Please find attached soil borings that were provided with the original permit application.*

Comment 4: Please provide supporting calculations demonstrating that the proposed construction activities will not increase the existing discharge of nutrients (i.e., total nitrogen and phosphorus) into the Matlacha Pass Aquatic Preserve, which is designated by the Florida Department of Environmental (FDEP) as an Outstanding Florida Water (OFW). In accordance with Appendix E of the Environmental Resource Permit Applicant's Handbook Volume II, please provide a site-specific pollutant loading analysis to demonstrate that the proposed construction activities will not degrade the water quality of the receiving waterbody.

Response: *The site is located within WBID 2092E which is only impaired for bacteria in shellfish. The site does not discharge directly into Matlacha Pass as shown in the boundaries determined by DEP. The site discharges directly to Pine Island Creek which is not an OFW. Nutrient loading calculations do not apply to this site.*

Comment 5: Please revise plan sheet 03 to clearly depict and identify the boundary of the property owned/controlled by the applicant and the boundary of the project area requested for construction and operation under this application.

Response: *Sheet 03 has been revised to show the correct boundaries.*

Comment 6: Please clarify the information identified in the land use table and on plan sheet 03. Please identify the acreage and percentage of the following in the table:

- a. Construction activity area previously permitted under Application No. 170106-18 (including 3.38-acre lake, lake banks, offsite conveyance ditch within the Lee County drainage easement with associated open space area);
- b. Conservation easement (including wetland preserve and 50-foot upland buffer); and

- c. Construction activity area to be authorized under this application.

Response: *The table has been revised.*

Comment 7: On plan sheet 03, please include the land use information for the project area to be authorized for construction and operation under this application. The requested land use table should identify the acreage and percentage of the following:

- a. Impervious surfaces (excluding buildings, wetlands and other surface waters);
- b. Building coverage;
- c. Pervious surfaces (green areas not including wetlands); and
- d. Wet detention/retention areas (at control elevation).

Response: *This information was added to sheet 03.*

Comment 8: Please provide the water quality analysis including a description of the proposed stormwater treatment methodology and supporting calculations that addresses the type of treatment, pollution abatement volumes, and recovery analysis as well as engineering methodology, assumptions and references used in the water quality analysis to demonstrate the proposed construction activities meet the design requirements for the stormwater quality specified in Parts 4 and 5 of the ERP Applicant's Handbook Volume II.

Response: *Please see the attached Stormwater Narrative.*

Comment 9: Please provide the water quality analysis demonstrating that the project, as proposed, meets the design requirements for the stormwater quantity (e.g., offsite discharge rate) specified in Parts 3 and 5 of the ERP Applicant's Handbook Volume II. The requested analysis should include:

- a. Runoff characteristics, including area, runoff curve number or runoff coefficient, and time of concentration for each drainage basin in the pre-development and post-development conditions;
- b. Basin and node diagram clearly illustrating the boundary of drainage basins, locations nodes and links, and related hydrological elements with their identifications corresponding to the hydrologic/hydraulic models to assist staff in review of hydrological connections between the drainage basins;
- c. Design storms used including rainfall depth, duration, frequency, and distribution;
- d. Runoff hydrograph(s) for each drainage basin, for all required design storm event(s);
- e. Stage-storage computations for any area such as a reservoir, closed basin, detention area, or channel, used in storage routing;
- f. Stage-discharge computations for any storage areas at a selected control point, such as control structure or natural restriction;
- g. Flood routings through on-site conveyance and storage areas;
- h. Water surface profiles in the primary drainage system for each required design storm event(s);
- i. Runoff peak rates and volumes discharged from the site for each required design storm event(s); and

- j. Design tailwater elevation(s) for each storm event at all points of discharge (include source or method of estimate).

Response: *The assumptions for the above requested information are consistent with the previously approved permit. Please see the attached narrative for further clarification.*

Please provide the following information in regards to the stormwater management design and plans:

Comment 10a: Please demonstrate the proposed configuration of the wet detention lake meets the wet detention area dimensional criteria in accordance with Section 5.4.2, Volume II.

Response: *A dimension was added to the most narrow part of the lake to confirm the minimum dimensions are met.*

Comment 10b: Please clearly identify the required 20-foot wide perimeter maintenance and operation easements outlined in Section 5.5, Volume II on the plan (overhead) views in all cross-sections related to the wet detention/detention lake.

Response: *The 20' LME is now shown.*

Please provide the following information in regards to the operation and maintenance (O&M) entity (or entities) of the onsite stormwater management facilities and preserve areas:

Comment 11a: By nature of the residential subdivision development, a property owner's or homeowner's association is commonly established and assigned to be the O&M entity of the onsite stormwater management system and preserve areas, once the project is transferred to the operational phase. Please submit the property owner's or homeowner's association documents including the deed restrictions and articles of incorporation.

Response: *The project will be under unified control; please find attached a maintenance letter from the property owner.*

Comment 11b: Please provide a completed checklist and affidavit for the condominium association documents to assist staff in verifying that all requirements of the Subsection 12.3.3, Volume I are addressed in the condominium association documents. The electronic copy of the checklist and affidavit can be found on the District's environmental resource permits website.

Response: *The project will be under unified control; please find attached a maintenance letter from the property owner.*

Comment 12: Will landscape irrigation water be required as part of the project under this phase of construction? Please identify the proposed source for the landscape irrigation water, if required. If the source of irrigation water is to be potable or reclaimed water, please provide a letter of potable or reclaimed water service availability from the pertinent supplier. If groundwater will be used for the irrigation water source, please apply for a Water Use Permit for irrigation. Because of the inseparable nature of water use and stormwater management, District staff will review the ERP and Water Use Permit applications concurrently and final agency action will be taken once both applications

have been deemed complete. Please contact Brad Cook, P.G. at 239-338-2929 ext. 7746 for additional information on the Water Use Permit application.

Response: *No landscape irrigation is proposed.*

Comment 13: Will temporary dewatering be required as part of the construction activities under this authorization? Please contact Brad Cook, P.G. at (239) 338-2929, extension 7746 to determine if a Water Use Permit will be required for dewatering. Because of the inseparable nature of water use and surface water management, and in accordance with Subsection 2.3(b), Environmental Resource Permit Applicant's Handbook Volume II, District staff will review these applications concurrently and final agency action will be taken once both applications are deemed complete.

Response: *No dewatering is proposed.*

If you have any questions or I may be of further assistance, please feel free to contact me at our Fort Myers office.

Sincerely,
BANKS ENGINEERING

A handwritten signature in blue ink, appearing to read "D. Brent Addison", with a long horizontal flourish extending to the right.

D. Brent Addison, P.E.
Vice President

DBA:jms