

COCONUT POINT MPD/DRI (Tract 1D-3)

Mixed Use Planned Development Amendment Zoning Staff Report

PROJECT NAME:

HILTON GARDEN INN ON TRACT 1D-3

CASE TYPE:

PLANNED DEVELOPMENT AMENDMENT

CASE NUMBER:

DCI2017 - E003

PLANNING & ZONING BOARD DATE:

April 17, 2018 (continued from March 20, 2018)

COUNCIL FIRST READING DATE:

May 9, 2018

REQUEST AND STAFF RECOMMENDATION

The applicant is requesting an amendment to the Coconut Point MPD Mixed-use Planned Development Zoning to allow a hotel with 120 rooms and a height of 55 feet (5 stories) on Tract 1D-3, a 2.16-acre parcel within the Coconut Point DRI. The amendment is needed because the hotel land use is not allowed on this tract and there is a height limitation of 45 feet.

The 2.16-acre site is located east of South Tamiami Trail (US-41), west of Via Villagio, and south of Sweetwater Ranch Boulevard, adjacent to the Estero Fire Department fire station and the Rapallo development.

This case was reviewed by the Planning and Zoning Board on April 17 and March 20, 2018. The Planning and Zoning Board has recommended that this case not be reviewed by Council until additional stormwater information is provided satisfactory to the Village engineer showing that the hotel development will not have any adverse offsite impacts, including the lakes at Rapallo.

Staff does not recommend scheduling a second reading until this is resolved.

APPLICATION SUMMARY

Applicant

Equity, Inc.

Location

The subject property is located at the southeast corner of Sweetwater Ranch Boulevard and Via Villagio at 8009 Sweetwater Ranch Boulevard. The subject property STRAP number is 04-47-25-E3-301D3.0000.

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Request

Amend the Mixed-Use Planned Development (MPD) zoning to allow a hotel use with a height not to exceed 55 feet on Tract 1D-3 of the Coconut Point DRI. Applicant seeks height deviations for the proposed height of the building and architectural features as well as a right of way buffer deviation.

LAND USE CATEGORY

Urban Community (Proposed Transitional Mixed Use)

PUBLIC INFORMATION WORKSHOP

A public information workshop for this application was held at the Planning and Zoning Board on August 15, 2017. A summary of guestions and the applicant's responses are below:

- 1. Whether a hotel will still be an allowed use on Tract 1C of the Coconut Point DRI and whether a hotel could still be developed there in the future. During a meeting with a group of Rapallo residents, representatives of the applicant stated they would consider removing the hotel use from Tract 1C upon approval of a hotel on Tract 1D-3.
- 2. The Line of Sight and accompanying exhibit. The applicant's representative explained that the building is already situated so that it has minimal impact on Rapallo, as the bulk of the building is facing the flowway to the south and the road intersection to the north.
- 3. Whether the access point from Coconut Parkway is shared with the neighboring fire station. It is a shared access point via an easement, and maintenance is shared as well. This was planned via the Coconut Point MPD/DRI Master Concept Plan and can accommodate Fire trucks.
- 4. Whether the traffic light will be activated at the intersection of Sweetwater Ranch Boulevard and US 41. The applicant's representative explained that although Sweetwater Ranch Boulevard has been designed for use with a traffic light, this development will most likely not generate enough traffic to meet requirements for a traffic light.
- 5. Whether anything is in place to handle stormwater runoff, due to the increase in impervious surfaces. The applicant's representative explained that there has been a development order issued for an office building with the same percentage of impervious surfaces on the site. Runoff has been designed to remain on site for pretreatment and then join the Rapallo lake systems.
- 6. Whether the development will impact the flowway adjacent to the south. The applicant's representative explained that the parcel has already been filled and there will be no impacts to the flowway.

A resident spoke on behalf of a group of Rapallo residents stating they approved of a relocation of the hotel location to Tract 1D-3 from Tract 1C as it will have less impact on their community. However, the applicant does not plan to remove the hotel use from Tract 1C, but has proposed a condition to limit further development on Tract 1C that is discussed later in this staff report.

An email was also read disapproving the project, as they believe it is not compatible with Rapallo for causing too much traffic and an overuse of land.

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PROJECT HISTORY

The Coconut Point MPD zoning and the Development of Regional Impact (DRI) was approved in 2002 by Lee County pursuant to Zoning Resolution No. Z-02-009 as a mixed-use project consisting of residential, office, hotel, and retail development and rezoning the property from Agricultural (AG 2) to MPD. The Coconut Point MPD/DRI has developed with a variety of residential and commercial uses, including Hertz Corporate Headquarters and Lee Health.

The subject property, located within the Coconut Point MPD/DRI, is currently vacant and is identified as Tract "1D-3" of the Coconut Point-Area 1 Subdivision Plat, as recorded in Plat Book 83, Pages 1 through 13, in the Public Records of Lee County, Florida. The property consists of (1) one STRAP Number: 04-47-25-E3-301D3.0000. The current request is to allow a hotel use to be developed on Tract 1D-3 at a height not to exceed 55 feet.

The development approval for Tract 1D was last amended by Lee County Zoning Resolution Z-07-040 and currently allows for a variety of retail, office, and fire station uses at a height not to exceed 45-feet. The fire station was constructed on Tract 1D-2 in 2004 and abuts the vacant Tract 1D-1 adjacent to US-41. The hotel land use, at a height of 55 feet, is currently allowed on Tract 1C, east of US 41 and north of the subject property.

The Village Council adopted zoning and DRI amendments, the 9th Development Order Amendment, on July 26, 2017. The applicant in that amendment proposed eliminating 200 assisted living facility units from Tract 1A and 18,900 square feet of commercial retail uses from Tract 1C and proposed adding 180 multi-family apartment units on Tract 1A. This request is proposing to add 120 hotel rooms to Tract 1D-3.

PROJECT DESCRIPTION

The current request is for a zoning amendment affecting Tract 1D-3, a 2.16-acre parcel within Development Area 1 to allow a hotel use to be developed at a height not to exceed 55 feet, rather than the maximum permitted height of 45 feet, measured in accordance with LDC Sec. 34-2171. The hotel land use at a height of 55 feet is currently only allowed on Tract 1C, east of US 41 and north of the subject property. The applicant does not plan to remove the hotel use from Tract 1C in this application, but has proposed a condition to remove the use at a later time through an administrative amendment.

The site plan proposes ingress and egress to the proposed hotel from Sweetwater Ranch Boulevard off US 41, utilizing an existing, shared access with the fire station, and from Via Villagio. There are existing sidewalks, part of the overall Coconut Point pedestrian system, along both Sweetwater Ranch Boulevard and Via Villagio. This amendment includes deviations that will be discussed later in the staff report.

The Coconut Point DRI approval includes a maximum number of hotel units permitted within Development Area 1 specifically, but does not limit their location. Those limitations are contained in both the zoning and the Site Plan. No changes to the DRI are necessary to approve the request.

SITE PLAN

The applicant's site plan proposes the addition of a 120-room hotel use on Tract 1D-3. Tract 1D-3 has road frontage on both Sweetwater Ranch Boulevard and Via Villagio. Tract 1D includes maximum totals of 5,000 square feet of retail, 35,000 square feet of office, and the fire station.

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Ingress and egress to the proposed hotel will be from Sweetwater Ranch Boulevard, utilizing an existing, shared access with the fire station, and from Via Villagio. A proposed location for an off-site parking area, to be utilized by employees of the hotel, was identified across Sweetwater Ranch Boulevard on Tract 1C. This off-site parking area will provide up to 10 parking spaces and will be accessed by way of easement to be provided at the time of Development Order. There are existing sidewalks along Via Villagio and the south side of Sweetwater Ranch Boulevard. Staff recommends that a condition should be included in any approval of the hotel use on Tract 1D-3 that a sidewalk connection, including the provision of crosswalks, be provided from the off-site parking area to the hotel.

PATTERN BOOK

The applicant has submitted a Supplemental Pattern Book for the "Hilton Garden Inn at Coconut Point". The Pattern Book includes information concerning the architectural style of the proposed facility including building details. The Pattern Book also includes a conceptual site plan that provides the building footprint and parking lot layout. The Site Plan provides information concerning pedestrian interconnections with adjacent properties as well as internal pedestrian facilities. The Pattern Book also includes a conceptual landscape plan. The site plan shows a 15-foot wide perimeter landscape buffer around the site, with proposed additional plantings in the buffer adjacent to the conservation area.

The architectural treatment of the proposed hotel is shown to be Mediterranean, as depicted on the conceptual elevation, which is a consistent "theme" within Coconut Point and also consistent with the Coconut Point Design Guidelines. The Pattern Book includes two color scheme options. One is similar to the style and colors of Rapallo. The other color scheme (option 1) is white and grey shades.

The Pattern Book has been supplemented to include all the elevations for the architecture.

The Pattern Book also contains a Line of Sight Diagram that illustrates that the top floor will be visible to some of the Rapallo residents.

SURROUNDING ZONING AND LAND USE

- North Sweetwater Ranch Boulevard and Via Villagio Stormwater then vacant parcels (Tract 1-C) and residences, zoned MPD, within Rapallo designated as Urban Community Future Land Use category (Proposed Transitional Mixed Use).
- East Via Villagio then residences, zoned MPD, in Rapallo as well as stormwater management areas designated as Urban Community and Wetlands Future Land Use categories (Proposed Transitional Mixed Use).
- South Wetlands/Halfway Creek (Proposed Wetlands).
- West Fire station Estero Fire Protection and Rescue Service District then vacant commercial parcel (Tract 1-D1) (approved for 5,000 square feet of retail and 35,000 square feet of office use then U.S. 41 designated as Urban Community Future Land Use category (Proposed Transitional Mixed Use).

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STAFF ANALYSIS

The staff analysis section of this report includes information on various issues, such as environmental issues, transportation impacts, height, and Comprehensive Plan considerations (including Estero-specific goals and policies).

Staff has provided a summary of the project's advantages and disadvantages below. Following this section is more information on each of the issues.

Summary of Advantages and Disadvantages

Disadvantages:

- Located near residences in the Rapallo community. Hotel will be visible to some residents.
- Routes stormwater through the Rapallo lake system.
- The Applicant does not plan to remove the hotel use from Tract 1C until a later date, when a Certificate of Compliance is issued for a hotel on Tract 1D-3.
- The height requested for the project is higher than the immediately adjacent uses, with the exception of the approved but unbuilt 120-room hotel on Tract 1C that was previously approved for a maximum height of 55 feet.

Advantages:

- The architectural style is Mediterranean consistent with the architectural style of the Coconut Point DRI and Village design requirements.
- The applicant proposes additional building articulation of the roofline, utilizing parapets, towers, and enhanced architectural treatments, which exceed the minimum requirements of the Land Development Code. These elements will help to soften the appearance of the building when compared to a poorly articulated roofline and will increase its visual interest.
- Ingress and egress to the proposed hotel will be from Sweetwater Ranch Boulevard, utilizing an existing, shared access with the fire station, and from Via Villagio.

Height

Section 33-229 of the Land Development Code limits height of buildings outside of the Highway Interchange Areas to a maximum of three stories or 45 feet, whichever is less. This section of the code also provides that "Elements that enhance visibility, create focal points or amenities, such as turrets, sculpture, clock tower and corner accentuating rooflines, may exceed the maximum height limitations with an approved variance or deviation". The applicant requests an increase in the allowable height for Tract 1D-3 to 55 feet or three stories, and 77 feet for the architectural features. A Line of Sight Diagram has been provided to illustrate the view from Rapallo. It appears that the top floor of the hotel will be visible from some Rapallo residences.

Environmental Issues

Staff has performed an environmental inspection on the property. The following are the findings:

- The property has been cleared.
- There are no wetlands on the site.

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- There are no native vegetative communities or critical habitat that could support listed species.
- There are no imperiled (listed) species on the site and no potential since there is no critical habitat.
- Halfway Creek is located adjacent to the south of the subject site.
- The site falls within the Special Flood Hazard Area (AE-EL 15) and therefore will need to adhere to the criteria in LDC Sections 6-401, which applies to development in a flood hazard area and 10-253, regarding soil conditions in a flood hazard area.
- This is a highly disturbed site. The site is maintained in a mowed state.

Flood and Flowway Issues

As mentioned above, the site falls within the Special Flood Hazard Area (AE-EL 15). The proposed building is located within the AE-EL 15 flood zone. Staff recommends that a condition be included in any zoning amendment approval confirming that the finished first floor must meet base flood elevation (AE – EL 15) plus one foot of free board. The applicant has indicated that the first floor elevation will be 17.0 NGVD.

The applicant was asked to address whether there is the potential for adverse impacts on the adjacent flowway. The Applicant advised that stormwater management for the entirety of the Coconut Point MPD/DRI has been designed, and accommodates in its design the protection and maintenance of the adjacent flowway. The subject site has already been cleared and filled and a berm is already in place between the flowway and the subject property. Drainage from the site will be detained/treated prior to flow into the Coconut Point North Village lake system. No fill will be placed within the flowway, and no stormwater will be directed into the flowway from this tract.

The subject site drains into the Rapallo lakes (see Attachment). Staff asked the applicant to provide a narrative concerning stormwater/surface water management for the site. In part the applicant provides the following:

Tract 1D-3 lies within a Master Surface Water Management system known as Basin 5A of the Coconut Point Mixed Planned Development and is permitted through SFWMD as permit #36-00288-S. The SFWMD permit for Basin 5A construction was issued in May 2004.

The predominant surface water treatment is provided by storage in lakes that have a normal water level at elevation 12.5 ft NGVD. The lakes are interconnected by large underground storm sewer pipes so they are equalized so the water levels do not fluctuate between the lakes even during peak rainfall times. As an example, Tract 1D-3 has an underground storm sewer pipe connecting to the existing lakes within Rapallo subdivision, so the site will drain to the existing lakes.

The General Manager of The Club at Rapallo has provided a letter to staff (see Attachment) expressing concerns with utilizing the communities' lake system for storm water management for additional properties:

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A little background, in the Spring and early Summer, the retention ponds were extremely low, in fact, at record lows. In August of 2017, with the tropical system that moved in and bombarded Florida with continuous rainfall, we experienced flooding due to overflow of retention ponds into the Rapallo Community. In fact, the streets were flooded high enough that vehicles could not pass through and residents could not make it in and out of their homes. To top that off, two weeks later, in September, with our retention ponds already full, we were hit with a Hurricane that brought another overwhelming amount of rain and flooding to the streets of Rapallo and the streets surrounding the Community. Our residents have expressed their fear, after experiencing these rain events, that should we have had any more water brought into the retention ponds and into the Community that their homes would be flooded out as it was such a close call because water went up to driveways and into their lanais.

Our concern now as a Community is about water that is saturated into the ground of the parcels that are empty will now be diverted from that developed land into our retention ponds. Our other concern is what would have happened if our lakes weren't empty and we had all of this water flowing into our retention ponds?

The letter concludes by stating that they would like to see additional retention ponds used exclusively for the parcels being developed or an alternative storm water management plan that does not direct the flow of the additional rainwater from these parcels into the Rapallo retention ponds.

Additional Stormwater Information

At the March 20th Planning and Zoning Board meeting, the applicant had indicated that he had been meeting with Rapallo to help alleviate concerns. The applicant indicated a draft stormwater report was available with additional information. The Planning and Zoning Board continued the case for a month. Subsequently, the applicant met with staff to review and also submit the report "Coconut Point North Village Surface Water Management Analysis - Basin 5A" prepared by the Hole Montes engineering firm. The report is attached (with the exception of the appendices of technical computer model outputs, which are on file with the Village).

The report recommends the addition of emergency overflow structure(s) so that the lake system would spill over to the downstream flowway and provide redundancy for flood protection. Possible locations are evaluated. The structures will require review and approval of the South Florida Water Management District and the Village.

In the recent staff meeting with the applicant, the engineers also noted that lack of periodic maintenance created issues with the flow being obstructed or impeded, which exacerbated flooding issues from the August and September 2017 storm events. The report recommends a periodic maintenance program be initiated for all of the Rapallo surface water management system piping and the key offsite drainage structures affecting the Halfway Creek flowway.

The staff review of the report indicates that buildout of Coconut Point could increase water levels in the Rapallo lakes. The applicant's engineer has provided some additional information to the Village engineer subsequent to the Planning and Zoning Board meeting and will be providing additional clarification of the effects of building a hotel on the Rapallo stormwater system.

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Transportation Issues

The applicant has stated that the proposal does not increase allowable intensity within the Coconut Point DRI/MPD and, therefore, is not anticipated to increase vehicular trips above what has already been approved. A traffic analysis will be required with a development order.

The staff analysis indicates that the proposed 120-unit hotel will generate 701 daily trips. The nearest arterial street to which the project will discharge its traffic is US-41 link between Old 41 Road & Corkscrew Road. This link, according to the 2016 Lee County Concurrency Report and the 2016 Coconut Point Biennial Traffic Monitoring Report, is currently operating at LOS "B" and is projected to continue to operate at LOS "B" with the hotel traffic at build-out (2019).

According to the applicant's Coconut Point DRI 2016 Biennial Traffic Monitoring Report, the trip generation of the existing uses constructed within the Coconut Point DRI is a total of 2,238 weekday PM two-way peak hour vehicle trips which is well below the approved 5,909 two-way vehicles approved for the subject DRI. The addition of 72 two-way PM peak hour trips from the hotel development will mean that the DRI will be at approximately 39% of the built-out maximum trips.

The nearest major intersection to which this project will discharge its traffic is the US-41/Fountain Lakes Boulevard/Sweetwater Ranch intersection. The Village of Estero area-wide Traffic Study completed in 2017 shows that the eastbound approach of the intersection of US 41 and Fountain Lakes Boulevard currently operates and is anticipated to operate over capacity in the future 2027 conditions. Both the eastbound and westbound (Sweetwater Ranch Boulevard) approaches are anticipated to operate with failing level of service (LOS "F") during the a.m. and p.m. peak hour periods in the future (2027). This condition is the result of side street delays at this intersection. The northbound and southbound approaches on US-41 currently operate at a satisfactory level of service (LOS "A") and are projected to operate at a satisfactory level of service in 2027 (LOS "C") according to the Village Study.

A total of 25 crashes were reported at the subject intersection for the five-year period 2011-2015. The crashes included six injury crashes resulting in seven injuries, and one fatal crash resulting in one fatality. The fatal crash was a single vehicle crash at 7:31 p.m. in 2012 on dry pavement under dark conditions not involving alcohol. The number of crashes per year fluctuated over the five-year period: three crashes were reported in 2011, six crashes in 2012, three crashes in 2013, four crashes in 2014, and nine crashes in 2015. The crash data were evaluated to determine significant trends in the circumstances surrounding each crash. The following observations were made:

- Nearly 24 percent of the crashes occurred during dark conditions.
- Four crashes (16 percent) occurred on wet pavement.
- The peak in crash frequency occurred from 7:00 p.m. to 8:00 p.m. with five crashes.
- The peak day of the week for crashes was Friday (24 percent). Overall, 84 percent of the crashes occurred on a weekday and the remaining 16 percent occurred on a weekend.
- The most predominant crash types were rear-end crashes (28 percent) and sideswipe crashes (20 percent).

Along this roadway segment FDOT signal spacing requires 2,640 feet. The intersection of US 41 & Fountain Lakes Boulevard is located approximately 2,300 feet north of the nearest signal

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at the intersection of US 41 & Coconut Road, and 3,250 feet south of the intersection of US 41 & Williams Road. The intersection does not meet signal spacing standards. However, the intersection of US 41 & Fountain Lakes Boulevard currently operates with a flashing signal due to the emergency services located on the eastern side of the intersection. The area-wide Traffic Study recommended to coordinate with FDOT and consider the signalization of the intersection of US 41 & Fountain Lakes Boulevard, if warranted. Since signalization is deemed to be a site related improvement, developments benefitting from the signalization would be expected to participate in contributing to the cost on a prorated basis.

Utilities

The subject property is located in the Bonita Springs franchise area for both potable water and wastewater services. Connection to water and sewer service will be required as part of the development order.

Fire/Emergency Medical Services (EMS)

In an e-mail dated June 6, 2017, Estero Fire Rescue staff stated that they have no comments with respect to this application.

Solid Waste

In an e-mail dated June 6, 2017, Lee County Solid Waste Division staff stated that they have no comments with respect to this application.

Lee Tran

The subject property is ±0.3 miles from Lee Tran Stop No. 1631 on Routes 140S and 240S at 22400-450 S. Tamiami Trail (Galloway Ford) and ±0.5 miles from Lee Tran Stop No. 1755 on Route LinC 600 at 8000-8006 Mediterranean Drive (Plaza del Lago).

Comprehensive Plan Considerations

The subject property is near residential development to the north and southeast and adjacent to a conservation area to the south. Entitled and existing commercial uses are present to the southwest and west along S. Tamiami Trail. The property is within an Urban Community designation on the Future Land Use Map (proposed as Transitional Mixed Use). These areas of "relatively intense commercial and residential uses" are encouraged to be developed as "mixed-use" pursuant to Policy 1.1.4 of the Transitional Comprehensive Plan. This policy also provides for a standard density range from one dwelling unit per acre (1 du/acre) to six dwelling units per acre (6 du/acre). The Coconut Point MPD/DRI is consistent with this policy by incorporating assisted living, office, hotel, retail, and residential uses, and the applicant's request does not increase the project's overall density or intensity if conditioned to ensure no increase in traffic.

The site can be accessed from Sweetwater Ranch Boulevard and Via Villagio, is located in the Urban Services area, and is largely surrounded by entitled or existing development. This is consistent with **Goal 2**, **Objective 2.1**, and **Policy 2.2.1** of the Transitional Comprehensive Plan that encourage infill development to minimize the cost of services and energy and conserve natural resources.

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Policy 2.12.3 provides that development in the Urban Community future land use category is encouraged to be a mixture of two or more of the following uses: residential, commercial (including office), and research and development. The greater Coconut Point MPD/DRI is designated as Urban Community and is consistent with this policy by incorporating assisted living, office, hotel, retail, and residential uses.

Policy 4.1.1 provides that development designs will be evaluated to ensure that land uses and structures are well integrated, properly oriented, and functionally related to the topographic and natural features of the site and to the existing street pattern. The proposed development is integrated into the greater Coconut Point MPD/DRI with existing access from Sweetwater Ranch Boulevard and Via Villagio.

Policy 4.3.2 also provides that a careful mixture of complementary uses can reduce overall trip lengths and support multi-modal transit opportunities. The Coconut Point MPD/DRI provides a mixture of residential and nonresidential uses, including retail, office, medical office, and assisted living in proximity to an existing sidewalk network and public transit stops that can reduce overall trip lengths and support multi-modal transportation options.

Policy 5.1.5 aims to protect existing and future residential areas from an encroachment of uses that are potentially destructive to the character and integrity of the residential environment.

Policy 2.2.1 also states that rezonings will be evaluated as to their compatibility with the surrounding land uses. The top floor of the hotel at a height of 55 feet will be visible from some Rapallo residences. The applicant provided a Line of Sight Diagram reflecting that the building will be partially screened by the existing boundary wall, berm, and landscaping buffer at Rapallo, and an additional 15-foot landscaped buffer proposed by the applicant. The applicant also provided in its response to the sufficiency review comments dated November 20, 2017 that the proposed new location will have less visual impact on Rapallo than the current approved location, as the building is now located near the southwestern corner of Rapallo and situated so that the bulk of the building is facing the flowway to the south and the intersection to the north.

Estero-Specific Policies

Goal 19 of the Transitional Comprehensive Plan and related Objectives and Policies specifically address the Estero Planning Community and "promote the development of Estero as a community with a unique quality of life, distinct character, and diverse housing, economic, recreational, and social opportunities..." Policy 19.2.6 also specifically encourages commercial developments within Estero to provide interconnect opportunities with adjacent commercial uses in order to minimize access points onto primary road corridors: and residential developments to provide interconnect opportunities with commercial areas, including, but not limited to, bike paths and pedestrian access ways.

The development proposes ingress and egress to the proposed hotel from Sweetwater Ranch Boulevard, utilizing an existing, shared access with the fire station, and from Via Villagio. The project will utilize existing sidewalks that are part of the overall Coconut Point pedestrian system along both Sweetwater Ranch Boulevard and Via Villagio in a manner consistent with these policies.

Deviations

The applicant has requested three deviations from the Land Development Code. The following provides an explanation of each deviation requested.

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Deviation 1 is from the LDC Section 33-229, "Maximum Height," which limits maximum building height outside of the Interstate Highway Interchange Areas to a maximum of three (3) stories or 45-feet, to allow a maximum building height of 55 feet, as measured in accordance with LDC Section 34-2171(1).

The hotel land use at a height of 55 feet is allowed on Tract 1C, where the hotel is currently permitted. The applicant has proposed a corresponding reduction in allowed height from 55 feet to 45 feet for Tract 1C. The applicant does not, however, propose to remove the hotel land use from Tract 1C at this time. Staff recommends that any approval include a condition that reduces the building height on Tract 1C to 45 feet and removes the hotel use from that tract.

Deviation 2 is from LDC Section 33-229, "Maximum Height," which requires a deviation to exceed the maximum height limitations for architectural elements that enhance visibility or create focal points or amenities, such as turrets, sculpture, clock tower, and corner accentuating rooflines, to allow for architectural elements not to exceed an additional 22 feet in height for a maximum architecture feature height of 77 feet as depicted in the Pattern Book.

The applicant states that the architectural elements make the design of the proposed building visually appealing from all directions and provide some visual relief in a manner consistent with the Village's architectural standards and supplementary standards required by the Coconut Point Design Guidelines. Staff agrees that the architectural elements illustrated within the Supplemental Pattern Book provide relief, articulation, and interest, which is preferable to an unarticulated roof line.

Deviation 3 seeks a deviation from the LDC Section 33-351, "Landscaping Buffers," which requires a 20-foot Type D landscape buffer between commercial and right-of-way uses, to allow a 15-foot Type D landscape buffer, of which 10 feet will be located in a utility easement.

The applicant states that there is an existing approximately 15-foot wide landscape buffer and sidewalk located within the adjacent right-of-way, both along Sweetwater Ranch Boulevard and Via Villagio. The applicant proposes to augment these existing areas with an additional 15 feet of landscaping, of which 10 feet will be located within a utility easement. Shrubs and groundcover will be placed within the utility easement and trees will be placed outside of the utility easement. Bonita Springs Utilities does not object to this deviation. The staff recently met on site with the applicant to evaluate the landscaping. The applicant will also supplement an area of missing and dead vegetation in existing buffers.

FINDINGS AND CONCLUSIONS

Findings of fact are included below for the Planning and Zoning Board's consideration.

- 1. The applicant has provided sufficient justification for the zoning amendment by demonstrating compliance with the Comprehensive Plan, the Land Development Code, and other applicable codes.
- 2. The proposal, as conditioned, does not increase allowable intensity within the DRI/MPD and, therefore, is not anticipated to increase vehicular trips above what has already been anticipated.
- 3. The application is generally compatible with existing or planned uses in the surrounding area. Staff notes that the proposed use is set back approximately 140 feet from the fire station and 170 feet from the nearest residence in Rapallo. The Line of Sight exhibit

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illustrates that the hotel top floor will be visible from some Rapallo residences, but the approved hotel use on Tract C (which is being eliminated) would have the same visual impact.

- 4. Urban services will be available and adequate to serve the proposed use.
- 5. The request will not adversely affect environmentally critical areas and natural resources.
- 6. The proposed use, with the proposed conditions, is appropriate at the subject location.
- 7. The recommended conditions provide sufficient safeguards to the public interest and are reasonably related to impacts on the public's interest created by or expected from the proposed development.
- 8. The deviations recommended for approval:
 - a. Enhance the planned development; and
 - b. Preserve and promote the general intent of the LDC to protect the public, health, safety and welfare.

ATTACHMENTS

- A. Zoning Map
- B. Future Land Use Map
- C. Conditions of Approval
- D. Minutes of Planning and Zoning Board Meetings
- E. Site Drainage
- F. Letter from The Club at Rapallo
- G. Applicant's Information
 - Supplemental Pattern Book (Revised)
 - · Concept Plan (Site Plan for Hotel Tract)
 - · Master Concept Plan
 - Coconut Point North Village Surface Water Management Analysis Basin 5A (excluding ICPR Stormwater Model Output files)
- H. Zoning Resolution Z-02-009
- I. 9th DRI Development Order Amendment

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ZONING MAP



ATTACHMENT B



Future Land Use Map

ATTACHMENT C COCONUT POINT MPD/DRI (Tract 1D-3) HILTON GARDEN INN PROPOSED CONDITIONS

Conditions:

Master Concept Plan

The development of the 120 unit hotel building on Tract 1D-3 must be substantially consistent with the Master Concept Plan for Coconut Point MPD last revised on 05/18/2018 and with the 120 room hotel shown as struck through on Tract 1C.

2. Previous Approvals

The previous approvals (contained in Ordinance No. 2017-02) including conditions and deviations remain in effect except as modified by the conditions contained in this approval.

3. Maximum Building Height

Maximum Building Height Tract 1D-3 only: 55 feet or 5 stories.

Maximum Building Height Tract 1C only: 45 feet or 3 stories. Hotel Use is eliminated from Tract 1C.

4. Pattern Book

The project design must be consistent with the Pattern Book, titled "Hilton Garden Inn at Coconut Point, Supplemental Pattern Book, Tract 1D-3", stamped received April 9, 2018.

Base Flood Elevation

The finished first floor of the hotel must meet base flood elevation (AE – EL 15 NAVD) at a minimum plus one foot of free board.

6. Off-site Parking Sidewalk Connection & Easement

The applicant must provide a sidewalk connection, including the provision of crosswalks across Sweetwater Ranch Boulevard, to the offsite parking lot on the north side of Sweetwater Ranch Boulevard to the hotel. These improvements must be made prior to a certificate of compliance being issued for the Development Order for the proposed hotel. This off-site parking area will provide up to 10 parking spaces and will be accessed by way of easement to be provided at the time of Development Order.

7. Stormwater Management

The applicant shall provide additional stormwater information at time of development order satisfactory to Village staff, showing that the hotel development will not have any adverse impacts offsite, including the lakes at Rapallo.

Deviations:

Deviation 1 is from the LDC Section 33-229, "Maximum Height," which limits maximum building height outside of the Interstate Highway Interchange Areas to a maximum of three (3) stories or

45-feet, to allow a maximum building height of 55 feet, as measured in accordance with LDC Section 34-2171(1). **Approved** as depicted in the Pattern Book.

Deviation 2 is from LDC Section 33-229, "Maximum Height," which requires a deviation to exceed the maximum height limitations for architectural elements that enhance visibility or create focal points or amenities, such as turrets, sculpture, clock tower, and corner accentuating rooflines, to allow for architectural elements not to exceed an additional 22 feet in height for a maximum architecture feature height of 77 feet as depicted in the Pattern Book. **Approved** as depicted in the Pattern Book.

Deviation 3 seeks a deviation from the LDC Section 33-351, "Landscaping Buffers," which requires a 20-foot Type D landscape buffer between commercial and right-of-way uses, to allow a 15-foot Type D landscape buffer, of which 10 feet will be located in a utility easement. **Approved** as depicted in the Pattern Book with required trees planted outside of the utility easement.

Attachment D

MARCH 20, 2018 PLANNING AND ZONING BOARD MEETING EXCERPT

DRAFT

FINAL ACTION AGENDA/MINUTES

Planning and Zoning Board Meeting

Village of Estero 9401 Corkscrew Palms Circle Estero, FL 33928

March 20, 2018 5:30 p.m.

(b) Public Hearings:

Chairman Wood provided information regarding Board business and quasijudicial hearings. All audience members and staff providing testimony for all hearings were sworn in by Land Use Counsel Stroud. No ex parte communications or conflicts of interest were noted.

(3) Coconut Point DRI/MPD Tract 1D-3 Hotel (DCI2017-E003) (District 6). 2.16-acre parcel in the Coconut Point Mixed Planned Development at the southwest corner of the intersection of Via Villagio and Sweetwater Ranch Boulevard adjacent to the Estero Fire Station. Amendment to the Coconut Point MPD zoning to add a hotel use to Tract 1D-3 and to increase the maximum height to 55 feet, with deviations. Public Information Meeting held August 15, 2017.

No ex parte communications or conflicts of interest were noted. Ms. Gibbs stated that there was a letter received from the Rapallo Homeowners Association.

Principal Planner Matt Noble provided a brief introduction and stated that staff recommends a continuance on this item due to additional discussions needing to be held on the proposed landscape buffer along the roadway to take into account the views from the Rapallo community as well as concerns raised by the neighbors regarding drainage to the Rapallo lake system.

Presentation/Information by: Ned Dewhirst, PE, Oakbrook Properties; Mike Concilla, Equity, Inc.

Mr. Dewhirst provided background information on the proposed project, introduced the project team, and presented an overview of the planned development area.

Mr. Concilla provided an overview of the proposed site plan.

Mr. Dewhirst presented an overview of requested deviations which included: 1) maximum height to 55-feet; 2) maximum height for limitation on architectural elements for an additional 22-feet (77 feet total); and 3) LDC Section 33-351 landscaping buffers requires 20-foot Type D landscape buffer between commercial and right of way uses, to allow a 15-foot Type D landscape buffer, of which 10-feet will include a maintenance easement. He then explained stormwater drainage on the proposed site and noted that they have been in contact with residents at the Rapallo community and that the developer is taking a proactive stance on drainage concerns.

Board Questions or Comments: None.

Public Comment:

Marcia Green, Rapallo Anthony Rossi, Rapallo David Yellen, Rapallo Joseph Herceg, Rapallo Frank Moser, Rapallo Bill Bitonti, Rapallo

Summary of Public Comment: Requested that the Board wait to make a decision until the independent drainage tests are completed and results can be analyzed.

Ms. Gibbs requested that a copy of the study be provided to the Village and reiterated that staff recommends continuance of the request to resolve some outstanding issues including stormwater, Pattern Book, and deviation items. She explained that staff will need to draft conditions for the Board to review prior to approval.

Mr. Dewhirst responded to comments regarding roadway flooding and stated that roads in Southwest Florida are designed to flood.

Motion: Move to continue this item until the April 17, 2018 meeting.

Motion by: Board Member Tatooles
Seconded by: Board Member King

Action: Continued this item to the April 17, 2018 meeting.

Vote:

Aye: Unanimous

Nay:

Abstentions:

Attachment D

APRIL 17, 2018 PLANNING AND ZONING BOARD MEETING EXCERPT

DRAFT

FINAL ACTION AGENDA/MINUTES

Planning and Zoning Board Meeting

Village of Estero 9401 Corkscrew Palms Circle Estero, FL 33928

April 17, 2018 5:30 p.m.

(c) Public Hearings:

(2) Coconut Point DRI/MPD Tract 1D-3 Hotel (DCI2017-E003) (District 6). Continued from the March 20, 2018 meeting. 2.16-acre parcel in the Coconut Point Mixed Planned Development at the southwest corner of the intersection of Via Villagio and Sweetwater Ranch Boulevard adjacent to the Estero Fire Station. The applicant is requesting an amendment to the Coconut Point MPD zoning to add a hotel use to Tract 1D-3 and to increase the maximum height to 55 feet with deviations. The Public Information Meeting was held on August 15, 2017.

There were no ex parte communications or conflicts of interest noted. Community Development Director Gibbs provided a brief introduction.

Presentation/Information by: Ned Dewhirst, PE, Oakwood Properties; and Rick Brylanski, Hole Montes

Mr. Dewhirst provided an overview of the site plan, optional color scheme, building elevations, and landscaping. He stated that they are proposing a condition to reduce the height and use on Tract 1C prior to development of Tract 1D-3.

Mr. Dewhirst then provided an overview of the drainage report regarding the lakes at the Rapallo community. He explained that the report was completed and provided the timeline of meetings they have had with the residents of Rapallo, Village staff, South Florida Water Management, and Village constituents. He stated that the report concluded that there should be overflow structures to accommodate super storms, reduce the berm height to accommodate overflow, and proposing another overflow near the hotel.

Board Questions or Comments: Questions were asked and comments were made about how the applicant worked with the community to address their concerns and expressed appreciation in their efforts to keep the community abreast of the process.

Community Development Director Gibbs stated that there is a disconnect between the Planning and Zoning Board and Design Review Board regarding the roof height and that Village staff is trying to find a balance between the two Boards' opinions on rooflines. She also noted that Village Public Works Director David Willems is working with the applicant on the stormwater management on the proposed project and suggested that Condition #7 be reworded to strike the verbiage that states "...will be addressed at time of Development Order" to "applicant will provide prior to Village Council review." She also recommended not to include the applicant's proposed condition regarding Tract 1C.

Public Comment:

Anthony Rossi, Rapallo, President of the Rapallo Homeowners Association, spoke in support of the project but urged the Board to include conditions for approval: 1) have report certified and approved by the Village Public Works Director; and 2) have South Florida Water Management review mitigation plans proposed in the report.

Frank Moser, Rapallo, spoke in support of the project with inclusion of the two conditions suggested by Mr. Rossi. He urged the Board to continue this item until the conditions are met.

John Gotti, Jr., Rapallo, urged the Board to continue this item until the conditions are met and shared concerns regarding development in the area.

Community Development Director Gibbs explained that there is a stormwater study currently underway and that Village staff is working on the Capital Improvement Plan to address flooding issues.

Board Comments:

The Board applauded the applicant's efforts to keep the Rapallo community involved and apprised of the flooding report and the proposed project. Board Member Campos addressed the height limit stated in the Land Development Code and stated that the Planning and Zoning Board and Design Review Board is constantly in conflict with interpretation of the roofline height. He stated that the Council will need to address the conflict in the near future.

Motion:

Move to recommend that Village Council approve an amendment to the Coconut Point MPD zoning with the following conditions: 1) the development of the 120-unit hotel building on Tract 1D-3 must be substantially consistent with the Master Concept Plan for Coconut Point MPD last revised on 05/18/2018 and with the 120-room hotel shown as struck through on Tract 1C; 2) the previous approvals (contained in Ordinance No. 2017-02) including conditions and deviations remain in effect except as modified by the conditions contained in this approval; 3) maximum building height for Tract 1D-3 only is 55 feet or 5 stories and the maximum building height for Tract 1C only is 45 feet or 3 stories, and Hotel Use is eliminated from Tract 1C; 4) the project design must be consistent with the Pattern Book, titled "Hilton Garden Inn at Coconut Point, Supplemental Pattern Book, Tract 1D-3",

stamped received April 9, 2018; 5) the finished first floor of the hotel must meet base flood elevation (AE – EL 15 NAVD) at a minimum plus one foot of free board; 6) the applicant must provide a sidewalk connection, including the provision of crosswalks across Sweetwater Ranch Boulevard, to the offsite parking lot on the north side of Sweetwater Ranch Boulevard to the hotel. These improvements must be made prior to a certificate of compliance being issued for the Development Order for the proposed hotel. The off-site parking area will provide up to 10 parking spaces and will be accessed by way of easement to be provided at the time of Development Order; 7) the applicant shall provide additional stormwater information prior to Village Council review, showing that the hotel development will not have any adverse impacts offsite, including the lakes at Rapallo; and 8) acceptance and approval of stormwater report from the Village Public Works Director.

Motion by: Board Member Campos Seconded by: Board Member Gargano

Action:

Recommended that Village Council approve an amendment to the Coconut Point MPD zoning with the following conditions: 1) the development of the 120-unit hotel building on Tract 1D-3 must be substantially consistent with the Master Concept Plan for Coconut Point MPD last revised on 05/18/2018 and with the 120-room hotel shown as struck through on Tract 1C; 2) the previous approvals (contained in Ordinance No. 2017-02) including conditions and deviations remain in effect except as modified by the conditions contained in this approval; 3) maximum building height for Tract 1D-3 only is 55 feet or 5 stories and the maximum building height for Tract 1C only is 45 feet or 3 stories, and Hotel Use is eliminated from Tract 1C; 4) the project design must be consistent with the Pattern Book, titled "Hilton Garden Inn at Coconut Point, Supplemental Pattern Book, Tract 1D-3", stamped received April 9, 2018; 5) the finished first floor of the hotel must meet base flood elevation (AE – EL 15 NAVD) at a minimum plus one foot of free board; 6) the applicant must provide a sidewalk connection, including the provision of crosswalks across Sweetwater Ranch Boulevard, to the offsite parking lot on the north side of Sweetwater Ranch Boulevard to the hotel. These improvements must be made prior to a certificate of compliance being issued for the Development Order for the proposed hotel. The off-site parking area will provide up to 10 parking spaces and will be accessed by way of easement to be provided at the time of Development Order; 7) the applicant shall provide additional stormwater information prior to Village Council review, showing that the hotel development will not have any adverse impacts offsite, including the lakes at Rapallo; and 8) acceptance and approval of stormwater report from the Village Public Works Director.

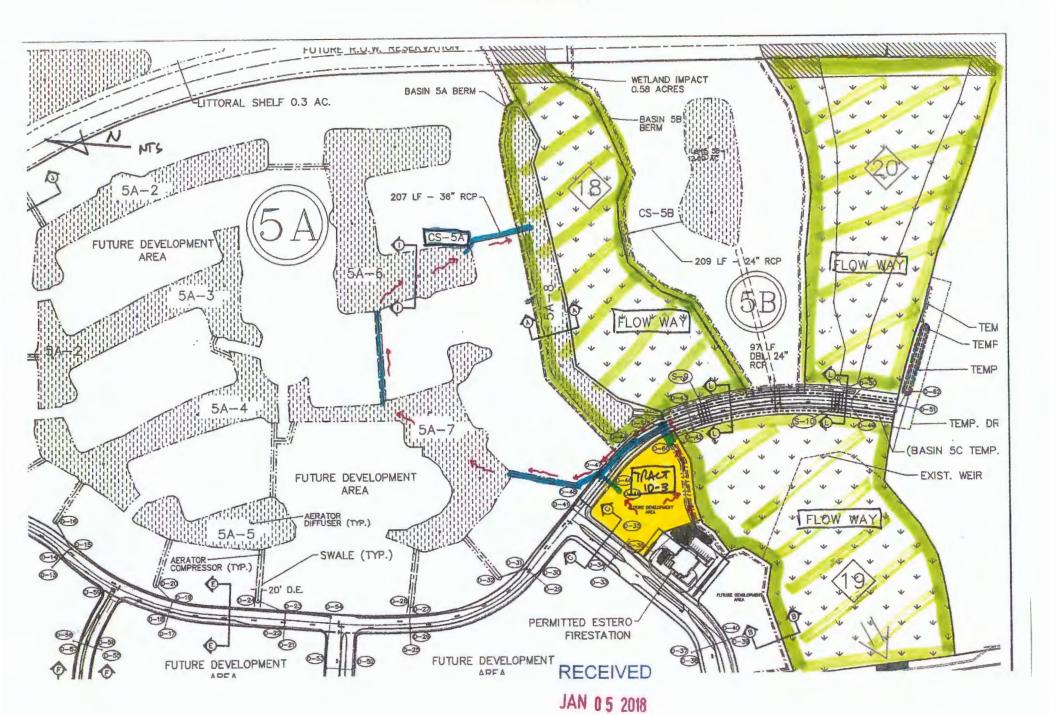
Vote:

Aye: Unanimous

Nay:

Abstentions:

Attachment E



VILLAGE OF ESTERO

The Club at
Rapallo
at Coconut Point

8551 Via Rapalfo Drive Estero, FL 33928 Phone: (239) 949-3347 Fax: (239) 390-9474

February 23, 2018

Via Email Only: gibbs@estero-fl.gov

Ms. Mazy Gibbs Director, Community Development 21500 Three Oaks Parkway Estero, FL 33928

Re: Rapallo Drainage Issues

Dear Ms. Gibbs:

On April 16, 2016, Ned Dewhirst of Oakbrook Properties made a presentation to Rapallo residents discussing the potential development to be located around the surrounding Rapallo property, specifically here at the front entrance of Rapallo or next to the Fire Station. Ned was gracious enough to ask the Rapallo Community their opinion on which parcel they would prefer this potential building be developed on. During the presentation that was made by Ned, it was revealed what was to be built on either of the parcels of land would be a Hilton Garden Inn. Unit Owners had several questions and concerns regarding the impact to both traffic and design. Many Unit Owners were concerned and wanted to make sure that the design was within the Village design parameters, specifically, a Mediterranean theme, for which the design plans lacked detail. Ned was very patient during his presentation and listened to the concerns of the residents and provided feedback as such. At that time, nobody thought about drainage and water issues that could potentially impact the Rapallo community. These potential issues became apparent in the Summer rainy season, where we had record rainfall in the months of June, August and September, including Hurricane Irma.

As you may or may not be aware, all rain water from the parcels surrounding Rapallo, including the North end of Coconut Point and Hertz, drain into the Rapallo retention ponds.

A little background, in the Spring and early Summer, the retention ponds were extremely low, in fact, at record lows. In August of 2017, with the tropical system that moved in and bombarded Florida with heavy continuous rainfall, we experienced flooding due to overflow of retention ponds into the Rapallo Community. In fact, the streets were flooded high enough that vehicles could not pass through and residents could not make it in and out of their homes. To top that off, two weeks later, in September, with our retention ponds already full, we were hit with a

Ms. Mary Gibbs February 23, 2018 Page 2

Hurricane that brought another overwhelming amount of rain and flooding to the streets of Rapallo and the streets surrounding the Community. Our residents have expressed their fear, after experiencing these rain events, that should we have had any more water brought into the retention ponds and into the Community that their homes would be flooded out as it was such a close call because water went up to driveways and into their lanais.

Our concern now as a Community is about water that is saturated into the ground of the parcels that are empty will now be diverted from that developed land into our retention ponds. Our other concern is what would have happened if our lakes weren't empty and we had all of this water flowing into our retention ponds?

We take no issue with the land being developed, however, our concern is for our property Owners' investment and making sure that their investment is not ruined by introducing more water into the Rapallo Community without a plan of how to alleviate it should another rain event occur and we are faced with more water being introduced into our retention ponds with no way to divert it.

In conclusion, we would like to see additional retention ponds used exclusively for the parcels being developed or an alternative storm water management plan that does not direct the flow of the additional rainwater from these parcels into the Rapallo retention ponds.

Sincerely

Jim Matzke General Manager The Club at Rapallo

Anthony J. Rossi Master Board President The Club at Rapallo

/lt

cc: Mr. Frank Moser

ECCL Representative The Club at Rapallo

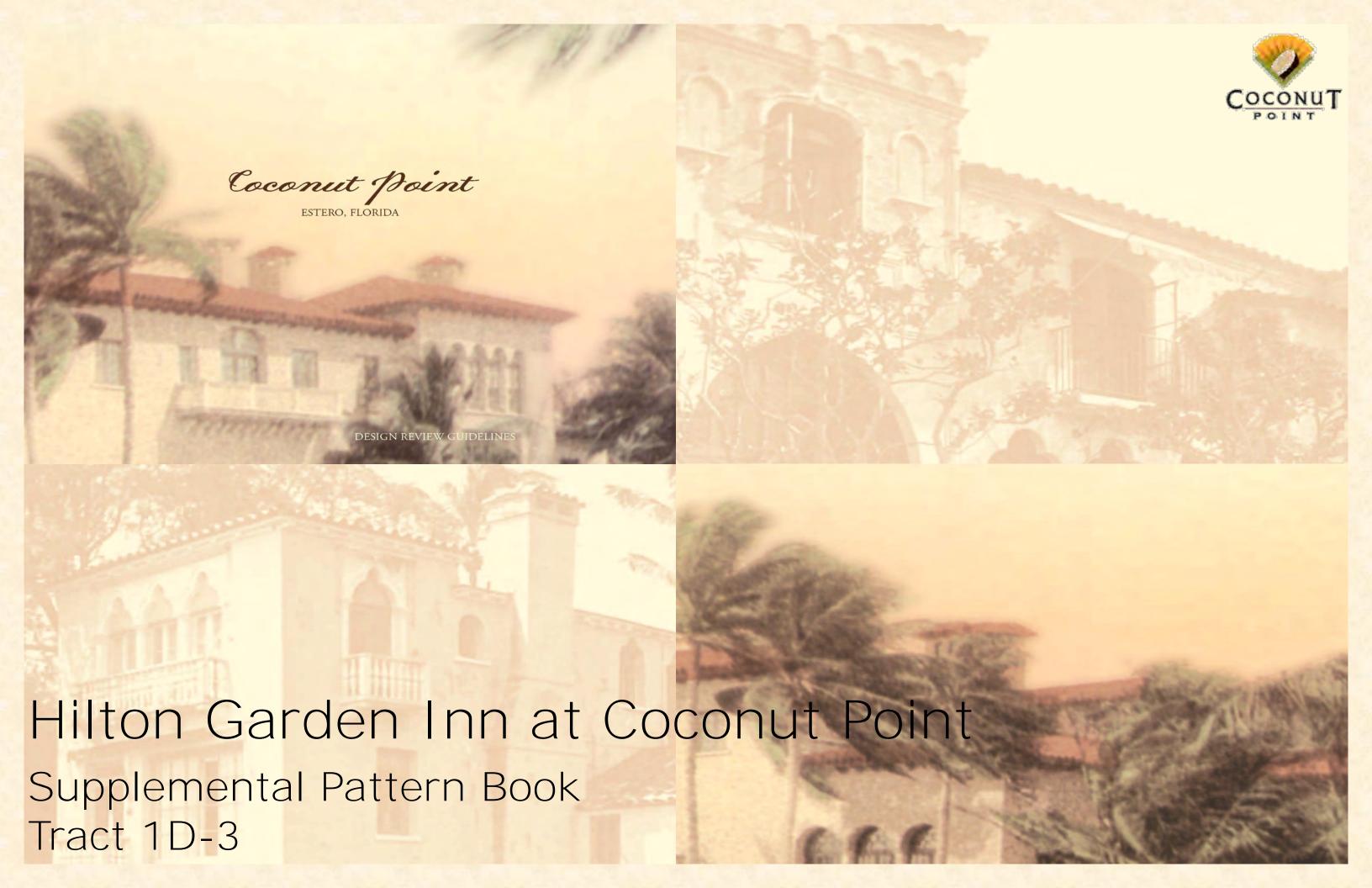
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Master Board of Directors The Club at Rapallo

ATTACHMENT G

Applicant's Information

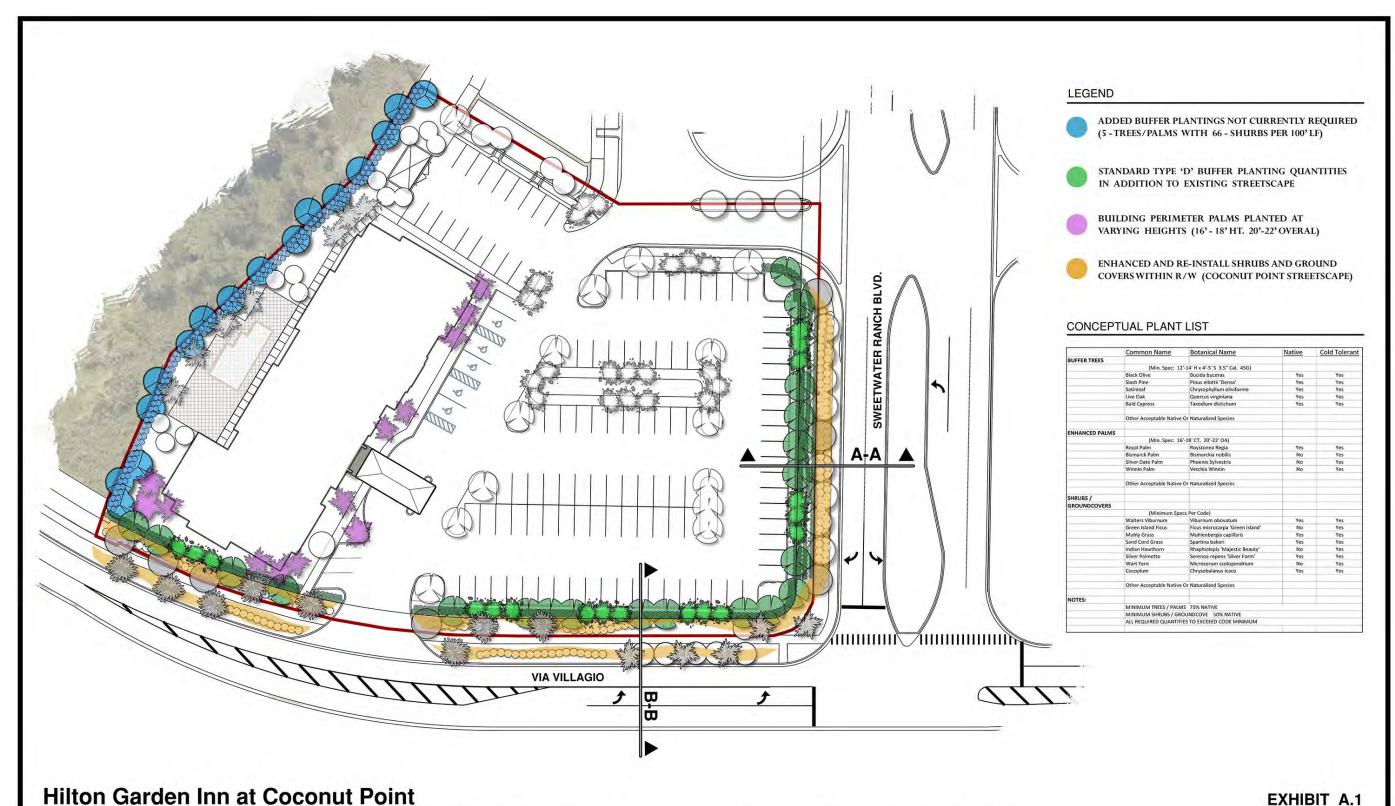
- Supplemental Pattern Book (Revised)
- Concept Plan (Site Plan for Hotel Tract)
- Master Concept Plan
- Coconut Point North Village Surface Water Management Analysis – Basin 5A





nceptual Site Plan Tract 1D-3





CONCEPTUAL LANDSCAPE ENHANCED PLAN

DATE: 11-13-17

DATE: 11-13-17

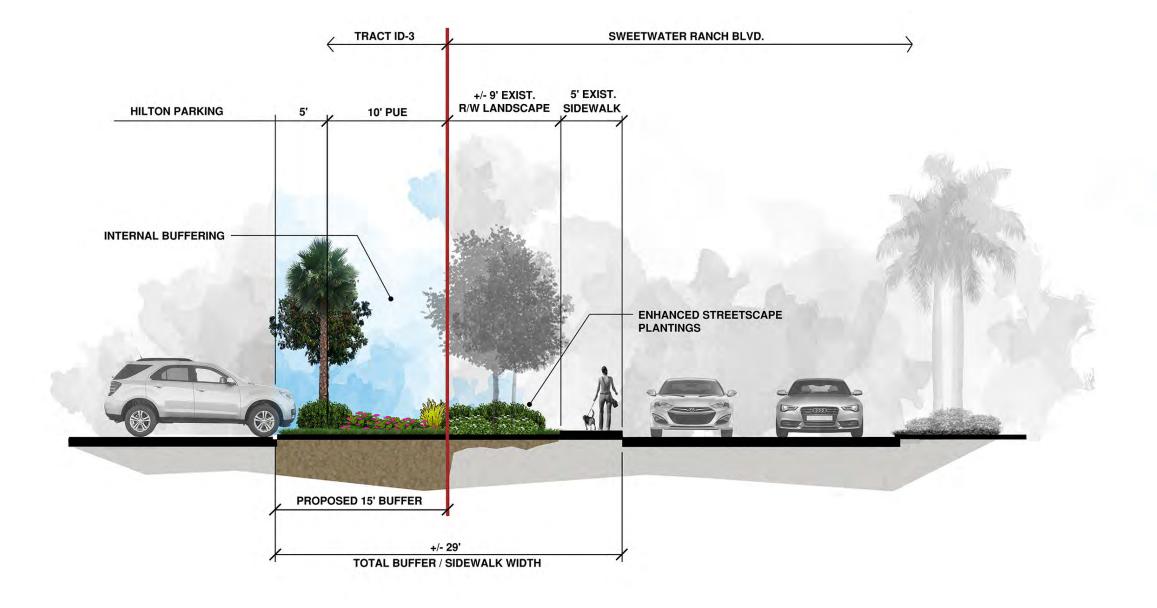
PREPARED BY



PREPARED FOR







CROSS SECTION 'A-A' - SWEETWATER RANCH BLVD.

Hilton Garden Inn at Coconut Point

EXHIBIT A.2

DATE: 11-13-17

PREPARED BY

yers, Florida 33919 mail@l AIELA com

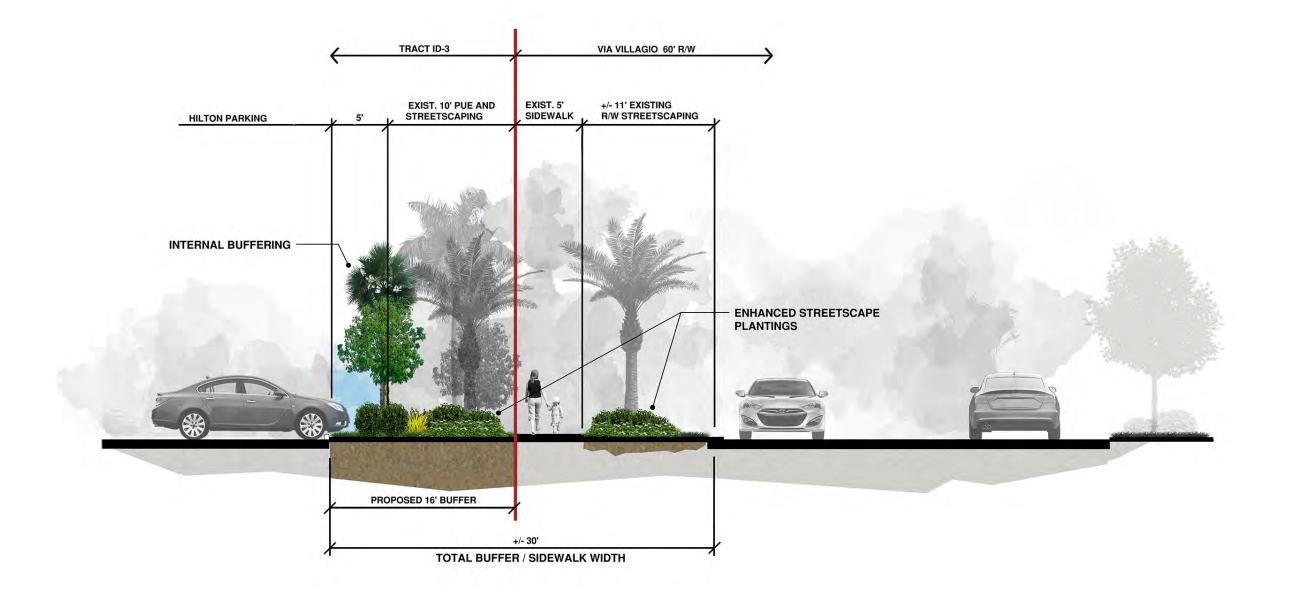
6208 Whiskey Creek Drive | Fort Myers, Florida 33919 239.334.9144 | www.LAIFLA.com | mail@LAIFLA.com

ARCHITECTS 3D Animation | Virtual Design | Digital Imagery | Land Planning & Graphics | Landscape Architecture



PREPARED FOR





Hilton Garden Inn at Coconut Point

EXHIBIT A.3

CROSS SECTION 'B-B' - VIA VILLAGIO

DATE: 11-13-17

PREPARED BY





PREPARED FOR



Color Scheme -



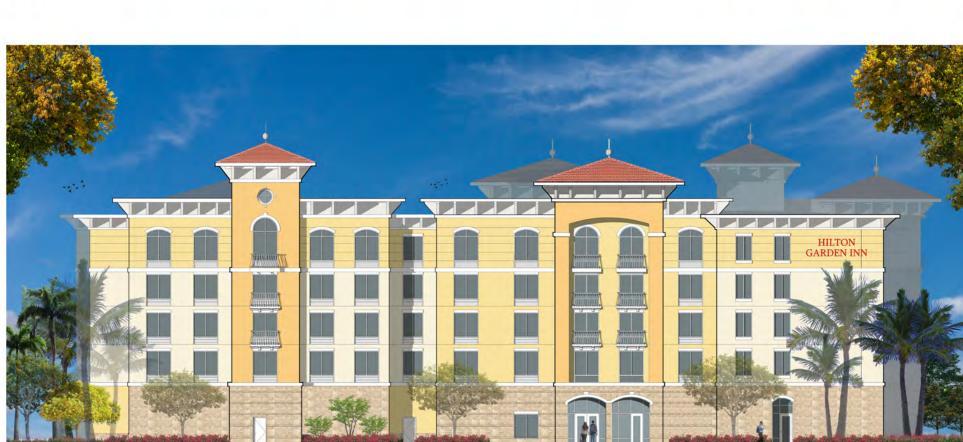


Elevations Building



HILTON GARDEN ESTERO, FL. PROJECT NUMBER: 17101 ELEVATIONS

A2.1 05/28/2018



SOUTH SIDE ELEVATION

NORTH SIDE ELEVATION

COCONUT

Building Elevations



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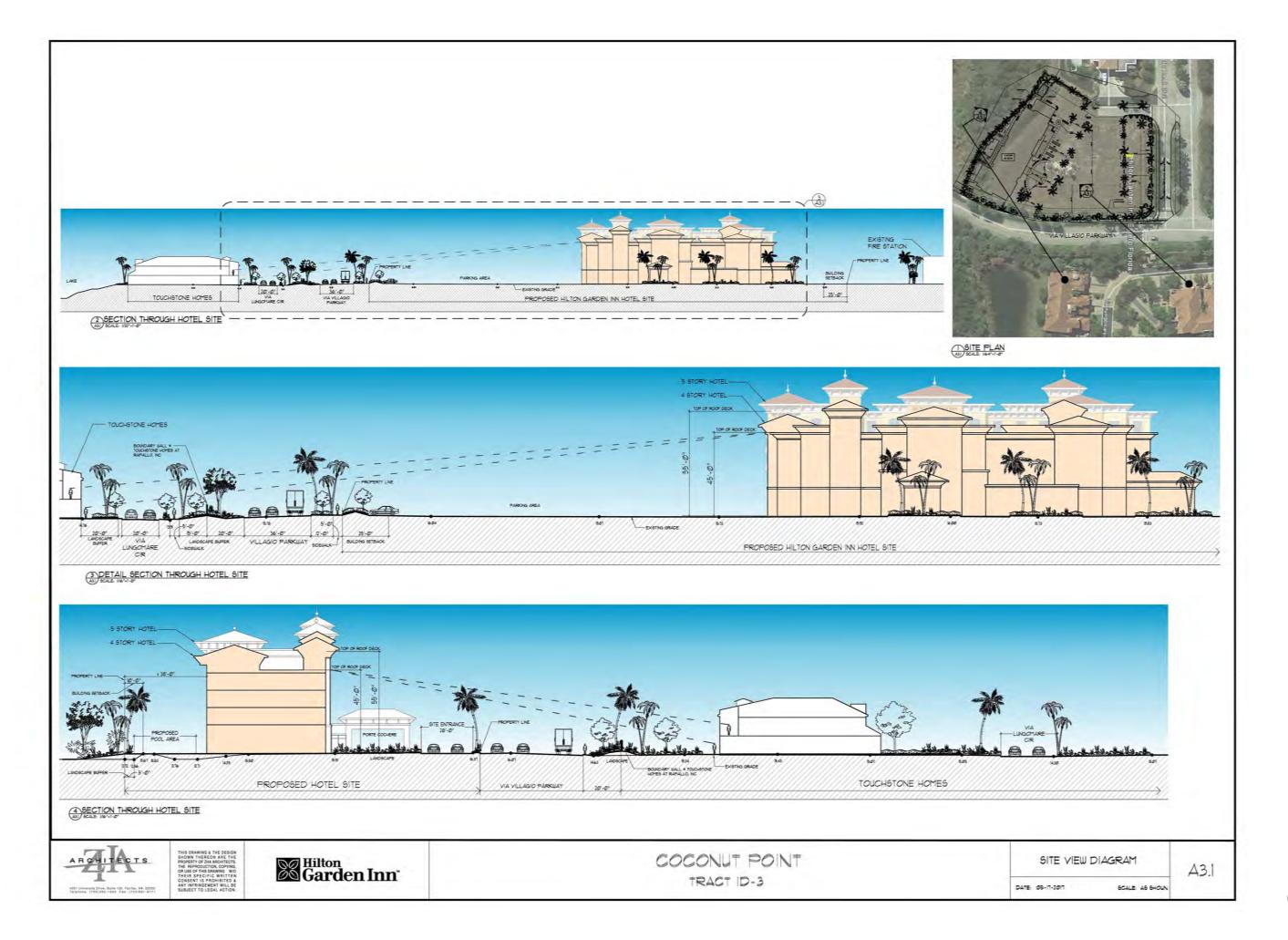
A2.2



EAST SIDE ELEVATION



WEST SIDE ELEVATION







- DEVIATION I SEEKS RELIEF FROM THE LDC SECTION 33-229, MAXIMUM HEIGHT, WHICH LIMITS MAXIMUM BUILDING HEIGHT OUTSIDE OF THE INTERSTATE HIGHWAY INTERCHANGE AREAS TO A MAXIMUM OF THREE STORIES OR 45 FEET, TO ALLOW A MAXIMUM BUILDING HEIGHT OF 55 FEET, MEASURED PER SEC. 34-2171 (1) OF THE LAND DEVELOPMENT CODE.
- DEVIATION 2 SEEKS RELIEF FROM LDC SECTION 33-229, MAXIMUM HEIGHT, WHICH REQUIRES A DEVIATION TO EXCEED THE MAXIMUM HEIGHT LIMITATIONS FOR ARCHITECTURAL ELEMENTS THAT ENHANCE VISIBILITY, OR CREATE FOCAL POINTS OR AMENITIES, SUCH AS TURRETS, SCULPTURE, CLOCK TOWER AND CORNER ACCENTUATING ROOFLINES, TO ALLOW FOR ARCHITECTURAL ELEMENTS NOT TO EXCEED AN ADDITIONAL 22 FEET IN HEIGHT.



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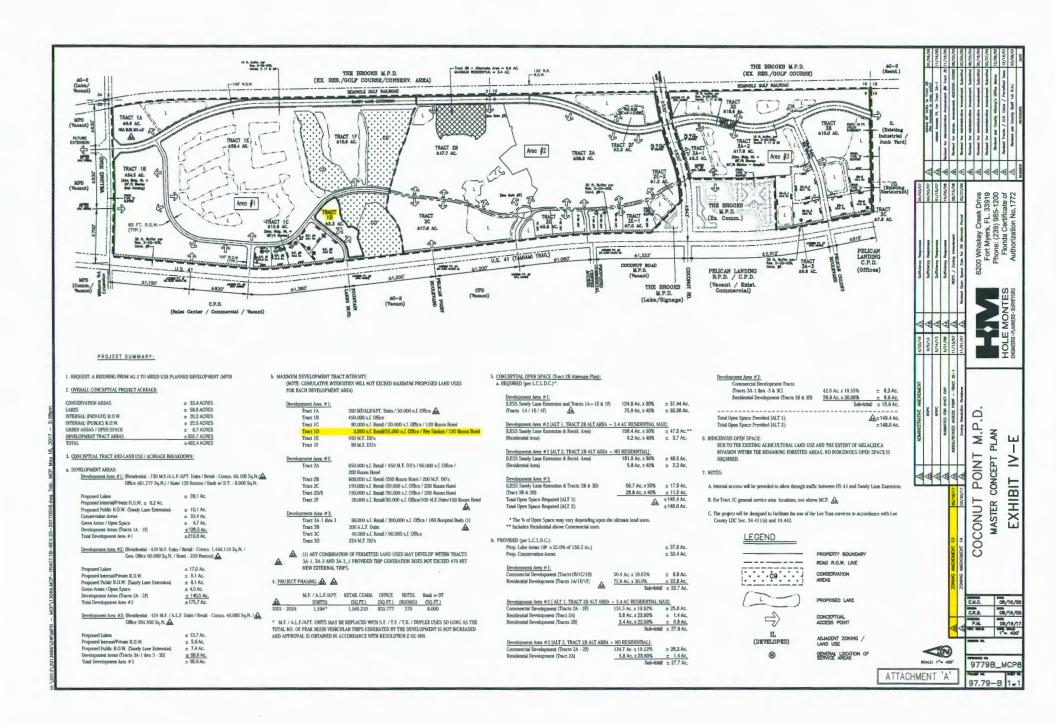
HILTON GARDEN INN ESTERO, FL. DEVIATION 1 & 2 BUILDING HEIGHT

DATE: 12/18/2017

SCALE: N.T.S







Coconut Point North Village Surface Water Management Analysis – Basin 5A

Prepared For:

Coconut Point North Village Association, Inc.



Prepared By:



6200 Whiskey Creek Dr., Fort Myers, FL 33919 239.985.1200 FAX: 239.985.1259

March 27, 2018

EXECUTIVE SUMMARY

In the summer of 2017, a series of large unprecedent rainfall events over 2 ½ weeks occurred within the southern Lee County area. These rainfall events led to various flood stages within the many Village of Estero communities, including the Coconut point North Village Basin 5A. On August 26 -28, approximately 17 inches of rainfall fell on the Coconut Point / Brooks developments, exceeding the SFWMD 100 year – 3-day design storm event. On September 10, Hurricane Irma produced approximately 10 inches over 1 day, exceeding the SFWMD 100 year – 1-day design storm event. Observations of the Coconut Point North Village Basin 5A surface water management (SWM) system during these storm events revealed the following:

- The main backbone road within the basin (Via Villagio) had ponding water at the low / inlet points as anticipated per design.
- The Rapallo community had ponding water within the lakes and roadways that appeared to peak at approximately 15.8 -15.9 NGVD.
- The outfall into the Halfway Creek flowway based on monitoring data peaked at approximately 15.2 NGVD.
- Certain low / inlet points within Rapallo roadways ponded more water than anticipated, leading one to conclude possible pipe blockage or reduced capacity.
- The Basin 5A control structure did not bleed down to control elevation (12.5 NGVD) in between storms.

Because of the above flood stages and observations, the Coconut Point North Village Association requested an analysis of the Coconut Point Basin 5A SWM system to determine the effect of buildout of the remaining Coconut Point North Village vacant lands and to recommend any improvements if needed.

BACKGROUND

Coconut Point is a 482-acre master planned mixed-use development within the Village of Estero. The project was conceptually permitted by SFWMD in 1997 as part of an overall 3014-acre project known as The Brooks of Bonita Springs and Sweetwater Ranch MPD. A Conceptual Environmental Resource Permit (ERP) Modification was approved in 2003 and later a series of ERP Construction / Operation permits were approved between 2004-2005.

The Basin 5A SWM system consists of a drainage area of 152.4 acres generally bounded by US 41 on the west, Williams Road on the north, the Seminole Gulf Railroad on the east, and the Halfway Creek flowway area on the south, refer to attachment "Drainage Exhibit" for a graphical depiction of the Basin 5A boundary and projects served. Basin 5A contains 22. 2 acres of lakes all interconnected by equalizer pipes, with a control structure that discharges into the southern Halfway Creek flowway and ultimately to the Estero River. Basin 5A generally serves all commercial lands along US 41 and Williams Road, the residential parcel Tract 1A in the northeast portion of the basin, the basin's backbone roadways, a portion of Via Coconut public roadway and the Rapallo residential community. The majority of the SWM system's wet detention lakes are located within the Rapallo residential community. There are also dry pretreatment stormwater areas that treat the first flush of runoff within the commercial tracts that provide additional storage. See attached Exhibit A depicting the Master Drainage Plan for Basin 5A.

SFWMD permitted design parameters are as follows:

Control Elevation: 12.50 NGVD

5 Year - 1 Day storm event Design High Water (DHW): 14.31 NGVD;

Discharge (Q) = 8.78 cfs

25 Year – 3 Day storm event DHW: 15.14 NGVD

Discharge Q = 13.80 cfs

100 Year - 3 Day storm event DHW: 15.96 NGVD

Discharge Q = 0.0 cfs

Minimum Roads = 15.0 NGVD

Minimum Perimeter Berm = 15.2 NGVD

Minimum Finished Floor = 16.50 NGVD

ANALYSIS

The following are the results from four (4) computer design models completed to simulate the function of the Coconut Point North Village Basin 5A SWM system under different design criteria. This will help predict future peak storm events under various development scenarios while also indicating where possible drainage improvements could lessen such peak storm levels within the Basin 5A SWM system.

The models compared the results of the system to provide flood protection utilizing performance criteria as established by SFWMD and Lee County as being the 5-year (24 hour) and 3-day (72 Hour) design storm events, while maintaining minimum allowable release of excess storm runoff from the site. The performance of the system is required to provide that minimum center line of roadway elevations are above the peak stage resulting from a 5-year event and provide storm water attenuation of excess runoff so as to not increase the flow off-site resulting from a 25-year design event. The perimeter berm of the development must meet or exceed the 25-year design peak water elevation, and a control structure is designed to limit the offsite flow or discharge to meet the allowable release rate. Basin 5A has a control structure in place and perimeter berm constructed for the system.

The four scenarios of development modeled are summarized as follows:

Model 1: The first model analyzed the series of interconnected lakes and development using "as-constructed" record information that included the actual lake volumes for estimating storm water storage and used the maximum built-out land cover for developed areas that provided the impervious surface to estimate

the rate of storm runoff. This model differed from the model completed at the time of permitting Basin 5A through SFWMD (Permit # 36-00288-S) because the former model only used "estimates" for future development, while this Model 1 uses actual values for the actual current developments. Known future development plans were used for Tract 1A (apartment site) and Tract 1D-3 (hotel site). The remaining vacant tracts (Tract 1C and 1D-1) used the same permitted assumptions for development. The same assumed outfall conditions used at time of permitting was used. The model also reduced the basin time of concentration to 20 minutes versus the original model of 60 minutes to reflect more directly connected impervious areas suited to the urban development of the basin.

The results of the model compared to the estimates derived at the time of permit review are tabulated below (Please note that Model 1 provided peak stages for each lake as more detailed information as to connectivity of the lake system is available) The comparison of the two models showed a slight increase of the 25-year peak stage for Lake 5A-3 and Lake 5A-4, of 0.21 ft, or about 3 inches.

<u>5 yea</u>	ar/ 1 Day (ft NGVD)	25 year/3 Day (ft NGVD)	Peak Q (CFS)
Original Permit	14.31	15.14	13.8
Model 1:			
Lake 5A-1	14.34	15.18	
Lake 5A-2	14.34	15.18	
Lake 5A-3	14.37	15.36	
Lake 5A-4	14.46	15.35	
Lake 5A-5	14.45	15.34	
Lake 5A-6	14.33	15.18	14.40
Lake 5A-7	14.42	15.30	

Note: Lake 5A-6 water level at 10 days after rain event recedes to 12.57, or 0.07 ft above control elevation 12.5 ft NGVD.

Model 1A: Model 1A used the same data provided within Model 1 for lake storage and input used to estimate runoff from development lands. The difference between Models 1 and 1A is that Model 1A used actual tail-water stages to reflect the elevation measured by staff gage from the "above design" storm events witnessed during the 2017 storm season. The observed tail water were elevations measured in the downstream flow way within Coconut Point and are the location where the Basin 5A system outfalls from on-site lakes through the control structure to the flow-way via a 36" diameter culvert. A comparison of the tailwater stages estimated in the original permit versus observed are summarized below and they are inputted into the model with varying time to simulate the rising and falling of the tailwater stage:

Model 1	Model 1A
Hour Tail Water (ft NO	Tail Water (ft NGVD)
0 12.0 24 12.4	12.5 12.8
48 13.1	14.8
72 14.3	15.1
168	14.1
200 12.5	
336	12.5
360 12.0	12.5

A comparison of the Model 1A versus the Original Permit data is provided below, and the lake nearest the outfall structure exhibited an increase of 0.37 ft, or about 4.5 inches for the 25-year event due to the higher tailwater affects. The peak outfall discharge reduced to only 11.31 cfs as well:

	5 year (ft NGVD)	25 year (ft NGVD)	Peak Disch. (CFS)
Original Permit	14.31	15.14	13.8
Model 1A:			
Lake 5A-1	14.83	15.51	
Lake 5A-2	14.83	15.51	
Lake 5A-3	14.83	15.64	
Lake 5A-4	14.83	15.64	
Lake 5A-5	14.83	15.63	
Lake 5A-6	14.83	15.51	11.31
Lake 5A-7	14.83	15.60	

Note: Lake 5A-6 water level at 10 days after rain event recedes to 13.06, or 0.56 ft above control elevation 12.5 ft NGVD.

Model 2: Model 2 utilized much of the same data for lake storage, estimated development runoff and tailwater stage in Model 1A, but analyzed the potential mitigating conditions for currently undeveloped tracts as potentially ponding excess runoff and lessening the overall peak stage witnessed during the 2017 "above design" storm events. The undeveloped tracts were altered in the model so they could store excess runoff. The runoff from these lots were also changed from a potential "build-out" impervious land cover to their generally pasture land cover, or Curve Number of 83 to be exact. Current / existing ground elevations

were used for storage purposes. The affects of the undeveloped lots and potential storage had a reduction to the peak stage of Lake 5A-6 of about 0.15 ft or around 2 inches, and there was a reduction of the peak discharge to about 9.3 cfs. The comparison of Model 2 versus Model 1A is summarized as follows:

	5 year (ft NGVD)	25 year (ft NGVD)	Peak Disch. (CFS)
Original Permit	14.31	15.14	13.8
	Model 1A/Model 2:		
Lake 5A-1	14.83/14.79	15.51/15.42	
Lake 5A-2	14.83/14.79	15.51/15.42	
Lake 5A-3	14.83/14.79	15.64/1 <mark>5.50</mark>	
Lake 5A-4	14.83/14.79	<i>15.64/15.49</i>	
Lake 5A-5	14.83/14.79	15.63/ <mark>15.48</mark>	
Lake 5A-6	14.83/14.79	<i>15.51/15.41</i>	11.31/9.33
Lake 5A-7	14.83/14.79	<i>15.60/</i> 15.47	

Note: Lake 5A-6 water level at 10 days after rain event recedes to 13.12, or 0.62 ft above control elevation 12.5 ft NGVD.

Model 3: One last simulation was performed that analyzed the improvement of the control structure so that the system could discharge excess runoff as was allowed by the original permit, or the pre versus post benchmark. The original permit allowed the Basin to discharge up to 13.8 cfs, while the results of Model 1A determined with the higher tailwater condition only about 11.3 cfs was being

discharged. Model 3 increases the size of the control structure opening so more flow can exit increasing the notch from 16" width to 17.5 inches. However, to get more discharge it was found that the 36" outfall pipe also was limiting the discharge to the flow-way. Increasing the flow required the outfall pipe exiting the Control Structure 5A to also be increased from 36" diameter to 48" diameter to attain the desired flow. The results of this option are summarized as follows:

	5 year (ft NGVD)	25 year (ft NGVD)	Peak Disch. (CFS)
Original Permit	14.31	15.14	13.8
	Model 1A/Model 3:		
Lake 5A-1	14.83/14.86	15.51/15.49	
Lake 5A-2	14.83/14.86	15.51/15.49	
Lake 5A-3	14.83/14.86	15.64/15.65	
Lake 5A-4	14.83/14.86	15.64/15.65	
Lake 5A-5	14.83/14.86	15.63/15.64	
Lake 5A-6	14.83/14.86	15.51/15.48	11.31/13.7
Lake 5A-7	14.83/14.86	15.60/15.60	

Note: Lake 5A-6 water level at 10 days after rain event recedes to 13.02, or 0.52 ft above control elevation 12.5 ft NGVD.

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Results and Recommendations

The model used in the original permit included estimates for the future development of the basin and what lakes would be constructed to provide flood protection for the community. This model also evaluated a control structure to limit flow to the downstream flow way based upon assumed water elevations of the downstream natural flow way or tail water condition. Since the permit was issued, the community experienced extreme storm events in the 2017 season that observed downstream stages at high elevations for a longer duration than originally assumed under SFWMD criteria for design storms. This negatively affected the performance of the system to provide flood protection and allow the system to recede or re-charge for the next storm event. The proper time for recharge is generally 10 days after the storm event passes.

If the results and comparison of Model 3 are used as a benchmark, a modification of the existing control structure to increase the peak discharge for the 25-year event required not only modifying the control structure, but increasing the outfall pipe capacity as well. However, this reduction in peak storm elevation is modest in terms of flood protection and the cost for renovation of the existing control structure and the outfall pipe is not practical. Furthermore, this modification would never provide additional assurance that in the case of an extreme storm event greater than estimated, that the lake system would not be subject to the same extents of flooding since the location of the existing control structure is internal to the Rapallo development rather than in a more beneficial location as adjacent to the outfall/flow-way.

It is our professional opinion, that the addition of emergency overflow structure(s) so that the lake system would spill over to the downstream flow way would be more effective and advantageous, as well as providing redundancy for flood protection. The overflow structure offers assurance for the system to outfall excess runoff rather than reliance on the control structure or underground storm sewer exiting the structure that can get clogged or further restricts capacity for storm events beyond the 25-year design event. The emergency overflow structure(s) can be designed so when the lake system exceeds the permitted 25-year design stage, 15.14 ft NGVD, that it starts allowing water to discharge to the downstream natural flow way. This practice should be permissible and is in

accordance with SFWMD criteria in that the 25-year design event has to be contained within the site and the perimeter berms. The addition of a spillway would not compromise the surface water management system as long as the elevation of the overflow structure is at or exceeds the 25-year peak stage elevation and is properly stabilized to prevent erosion.

In determining a preferred location for an overflow structure, it should be located so the source or lake system is contiguous and hydraulically connected so once the lake stage is exceeded, it can flow freely. Secondly, it should be as close to the downstream natural flow way as possible. Since most the existing lake system constructed is landlocked by buildings, Lake 5A-1 is potentially a location adjacent to the railroad grade offering such a possibility due to the lake proximity to the railroad grade/ditch that is connected to the upstream portion of the flow-way. An additional and possibly superior location would be near or within the future development tracts between the natural flow way and Sweetwater Ranch Road that provide close proximity to the downstream flow-way closer to US 41. At this area, there is a combination of underground storm sewer connecting Lake5A-7 under Via Villagio roadway just south of the intersection of Sweetwater Ranch Road that serves as a drainage connection to swale near the Estero Fire Station development. The swale within the undeveloped tract could be improved with portions of the southern bank of the swale to serve as an overflow structure should the lake elevation exceed 15.12 ft. In addition, if permissible with SFWMD, this location could also serve as an additional control structure so the allowable discharge rate for the overall Basin 5A could be attained to meet the allowable rate of 13.8 cfs, while it apparently does not due to the witnessed tailwater conditions. This would allow the existing control structure within 5A-6 to remain "as-is", and then construct another control structure in combination for the overflow structure to attain the overall discharge rate allowed.

There are other possible locations where flood mitigation can be provided such as the southern edge of the Rapallo property adjacent to the flow way. There are multiple minor drainage structures that collect roof drains and yard swales to convey the runoff to the Rapallo storm sewer and ultimately the lakes. It may be possible to have these systems provide reverse flow during peak stage events where they would act as overflow devices to convey water from the lakes to the flowway – again only when the lake level exceeds the 25-year design event.

In either case, the overflow structure(s) and yard drain pipes will need review and approval through the relevant agencies, including but not limited to Village of Estero and SFWMD. The overflow structures should be armored to resist erosion of the crest and would include some type of energy dissipater downstream to reduce the velocity of the excess runoff to the receiving waters. Depending on the extent of the overflow structures desired, the costs of each overflow structure are in the range of \$15,000-\$20,000 including costs relative to design, permitting and construction. A new control structure would be much less than the costs to modify the existing control structure and replace the outfall pipe. A new structure would be approximately \$8,000 and should be integrated with the overflow structure to save overall cost.

We would recommend a pre-application meeting with SFWMD staff to review this analysis and its recommendations.

Please refer to Exhibit A for a graphical depiction of the recommendations suggested.

In addition, based on storm event observations, an inspection and periodical maintenance program should be initiated for all of the Rapallo SWM system piping, and the key offsite drainage structures affecting the Halfway Creek flowway and ultimately the SWM system's outfall control structure and pipe.

The existing control structure CS5A located within the Coconut Point Basin 5A was modified to increase the overflow area (above the 25 year / 3 day storm event) in 2008. Notches in the walls were constructed so water could enter the structure in case debris or such affected the flow of water. The structure could be modified further to i) increase the overflow capacity of the structure; and / or ii) widen the weir in order to account for higher tailwater conditions. The costs to modify the structure would be approximately \$3000 to widen or cut new notches within the concrete walls of the structure and approximately \$2500 to widen / cut the existing weir plate. Again SFWMD review and approval would be required.

ATTACHMENTS

Basin 5A - DRAINAGE EXHIBIT

EXHBIT A - CONCEPTUAL SPILLWAY LOCATIONS

