

PELICAN GOLF CLUB / RECONSTRUCTION PLAN Project Narrative

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PROJECT DESCRIPTION

The Pelican Golf Club is a redevelopment plan for the Belleview Biltmore Golf Club. The applicant intends to purchase the property from the Town of Belleair and make several site improvements relating to the buildings, landscaping, and the golf course. The applicant is seeking Preliminary Development Plan (PDP) approval; the applicant will seek construction plan and building permit approval as subsequent approvals. The PDP is intended to identify the project programming, preliminary design and general construction methods before seeking more detailed project approvals and individual permits. The project includes two distinct redevelopment areas, the clubhouse area and the golf course.

Clubhouse Redevelopment

The existing clubhouse will be demolished and the area will be completely redeveloped with a new primary building ("Main Clubhouse"), two accessory buildings ("Grill Room/Golf Shop" and "Pavilion"), a surface parking lot, outdoor gathering areas, and landscaping enhancements. The Main Clubhouse will generally include the golf course administration offices, locker rooms, lounge and restaurant area, leisure areas, fitness area, and meeting space. The Grill Room/Golf Shop will include a small grill area and golf shop. The Pavilion will house restrooms and changing areas associated with the Event Lawn. Further details related to the floor plans, layouts, and elevations of the buildings can be found later in this section or in the architecture sheets of the plan submittal.

The proposed surface parking area will provide 175 spaces (including some parking under the Main Clubhouse) and a customer drop-off/loading area will allow access to the main entry of Clubhouse. Additionally, golf cart storage will be located under the Main Clubhouse. All of the mature trees on perimeter of clubhouse parcel will be retained and new landscaping material will be installed between the existing trees to create a refreshed landscaping plan and to satisfy the vegetative buffer requirements of the Town Code (refer to the Landscape Plans in the plan submittal). A wall/wrought iron fence combination with a continuous hedge as shown on the Site Plan in the plan submittal will surround the parking area to screen the view of the parking lot from the surrounding neighborhoods.



Proposed clubhouse site plan (refer to plan submittal for enlarged version)

Golf Course Redevelopment

The intent for the golf course redevelopment is to create a completely revitalized golf experience. The original designer of the golf course, Donald Ross, was a famous designer that worked on many highly regarded courses throughout his career. Many of the principles applied by Ross during the original construction such as strategic bunkering, dramatic green contours, wide corridors to promote playability, and interesting green surrounds will be incorporated into the work. The wide corridors mentioned above are a fundamental criteria for achieving the desired strategy and playability. Golfers tend to spray shots across a wide dispersion so "wider" golf holes are more playable than more narrow golf holes. Wider golf holes also help set up strategy by creating a "reward" (an easier route to the hole) for being on the "proper" side of the hole; so a wider golf hole will help to exaggerate the reward. The site conditions today have considerably more vegetation and mature trees than the era of the original construction and in fact, many trees on the edges of golf holes have become overgrown. Recapturing some of the original corridor widths is an important part of the golf course redevelopment and this will help reintroduce the spirit of the original playability and strategy created by Ross.

From a technical standpoint, it is the intent to completely reconstruct all features to meet or exceed modern golf construction standards. This includes the replacement of all infrastructure such as drainage, irrigation, golf features (greens, tees, and bunkers), grass, and cart paths. Further, the proposed lakes have all been redesigned to best accommodate storm events. Most of the golf holes will be rebuilt exactly in place; the minor adjustments that have been proposed will allow the golf course to better accommodate advances in modern golf equipment.

The applicant is sensitive to preserving the vegetation and existing buffer along the project boundaries and adjacent to residential properties. Where perimeter vegetation currently exists between the homes and the golf course, the vegetation will remain undisturbed. In areas that currently have no vegetation between homes and the golf course, trees and shrubs will be added to satisfy the vegetative buffer requirements of the Town Code (refer to the Landscape Plans in the plan submittal). Many of the mature, Florida native trees within the golf course will also be retained. New understory vegetation will be added in some areas between holes to create another layer of texture and color underneath the taller trees.

Other miscellaneous details include: the existing golf cart crossings over Poinsettia Road will remain and restroom structures will be improved using the same architectural themes of the new clubhouse.



Proposed golf course redevelopment area (refer to plan submittal for more detailed golf plans)

PROPOSED BUILDINGS

The Pelican Golf Club redevelopment plan includes three buildings as part of the clubhouse area and two restroom buildings as part of the golf course. All buildings include complementary architecture and construction materials. Elevations, layouts, and floor plans can be found in the architecture sheets in the plan submittal.

Clubhouse Buildings

The clubhouse portion of the project includes three separate buildings; (i) the Main Clubhouse building, (ii) the Grill Room/Golf shop, and (iii) the Pavilion. These buildings are clustered at the project entry and accessible from the main customer parking lot and via interconnected pedestrian pathways.

Main Clubhouse Building

The Main Clubhouse building is designed with classic Florida vernacular architecture in terms of roof form, porches, breezeways, and window detail. The materials include a mix of white-wash brick, stone with mortar, concrete shingles, and wood accents. Refer to the architecture sheets in the plan submittal for specifics on floor plans of each building.

The Main Clubhouse is designed as a three level building consisting of a basement and two stories above grade; the dimension to the midpoint of the highest sloped roof of this structure is 32'. The main floor includes the primary reception areas, board room, locker rooms, event space, and kitchen/dining area; also several gathering areas are planned on the porches, breezeways and patios. The second level includes administrative offices and a fitness area. The lower level includes mechanical areas, operational functions, vehicle parking and golf cart storage. The Main Clubhouse building is intended to enhance the experience for the golf course patrons and accommodate administrative functions. The clubhouse also has meeting space to host periodic, private events by invitation only.



Example elevations and precedent imagery for Main Clubhouse (refer to architecture sheets in plan submittal for all elevations and full size plans)

Grill Room/Golf Shop

The second building includes a restaurant/grill and a golf shop. The golf shop will serve as the main check-in point for golfers and will sell goods and services that are intended to cater to golf course patrons. The restaurant/grill room is a small, full service eatery that is intended to serve golf patrons with relatively quick food options. The grill room includes an inside dining area and outside porch setting. The building will complement the clubhouse in terms of architectural style and construction materials. The dimension to the midpoint of the highest sloped roof of this structure is 23'7".





Floor plan and example elevations for Grill Room / Golf Shop (refer to architecture sheets in plan submittal for all elevations and full size plans)

Pavilion

The small Pavilion is located close to the Main Clubhouse and is part of an Event Lawn. The Pavilion includes a small lounge area for changing rooms and restrooms. The Pavilion is designed to architecturally complement the other buildings in the club house

portion of the project in terms of style and construction materials. The dimension to the midpoint of the highest sloped roof of this structure is 15'1".





Example elevation and floor plan for Pavilion (refer to architecture sheets in plan submittal for all elevations and full size plans)

Golf Course Buildings

The golf course will include two (2) restroom (comfort station) buildings. One restroom building will be placed on each side of Poinsettia Road. These buildings are intended to provide convenience to golf course patrons while playing the holes. The restroom buildings are designed to complement the architectural style and form of the main clubhouse buildings; similar materials are echoed through the project. The dimension to the midpoint of the highest sloped roof of these structures is 18'9".



Example elevation for restroom buildings (refer to architecture sheets in plan submittal for all elevations and full size plans)

Signage at Entry

Signage is planned to include the same architectural and material themes found on the proposed buildings. Signs will comply with Town of Belleair standards and will be designed and permitted as part of the construction plan / building permit phases of the project. The applicant will commit to signage designs that incorporate the same quality of materials, colors, and styles as proposed on the project buildings.

Wall and Fence Around Parking Lot

A wall and fence combination is proposed around the parking lot. The materials for the proposed wall will be solid brick with a white-wash finish to match the clubhouse, while the fence will be made out of wrought iron. Outside of the combination wall/fence, new landscaping will be installed to achieve the 15' wide Type-A or Type-B landscape buffer (depending on type of frontage road) requirements defined by Town Code. The intent is that this combination of wall, fence, and landscaping will create a visually pleasing entry feature. The wall will also, in conjunction with the landscape buffer, create a screen for the parking lot from the surrounding neighborhood. The height of the proposed wall will conform to the height standards outlined in the Town code. The location of the proposed wall is 15 feet from the property line and is driven by the need to maximize the area available for the parking lot. This proposed wall location is inside the designated "no structure" setback area which is stipulated as 25 feet. Thus, the applicant is requesting a variance to Section 74-287(e) prohibiting the placement of a wall in the front yard setback area of corner parcels. Refer to Variance Request #1 at the end of this document for the formal request.

Off Street Loading Zones

The proposed clubhouse has been designed to include one service entrance for the receiving of shipments, unloading of delivery vehicles, etc. This is a standard procedure for golf club operations. The proposed Loading Zone will be accessed by the alternate entry off of Poinsettia Road to minimize potential disruption to everyday customers of the site. In addition, delivery times will be closely coordinated by staff and the access to the service entrance will be closely monitored such that there are no conflicts with other neighborhood traffic. Thus, the applicant is requesting a variance for a reduction in the number of off-street loading zones required per Section 74-173 of the Town Code. Refer to Variance Request #2 at the end of this document for the formal request.

Summary

The following table summarizes some details of the proposed buildings. All other information related to conceptual building architecture can be found on the architecture sheets of the plan submittal.

Building	Area	Midpoint of Highest Sloped Roof
Primary Clubhouse Building	46,914 -sf	32'
Main Floor	20,185 -sf	
Second Floor	7,074 -sf	
Lower Level	19,655 -sf	
Grill Room / Golf Shop	5,257 –sf	23'7"
Pavilion (Sitting Lounge)	844-sf	15'1"
Course Restrooms	876-sf	18'9"
Restroom 1	438-sf	
Restroom 2	438-sf	
Total Building Area	53,891-sf	
Proposed Floor Area Ratio (FAR)	0.010	

PARKING

SUMMARY

The Pelican Golf Club redevelopment plan includes new parking facilities at the clubhouse portion of the project. The proposed plan includes 175 parking spaces provided in a surface parking lot and under the Main Clubhouse. The main parking lot has 145 spaces (including 9 ADA spaces), the side lot has 20 spaces, and an additional 10 spaces are located under the Main Clubhouse. A strict interpretation of the parking requirements in Section 74-172 of the Town code suggests a total of 392 parking spaces are needed (see table below for calculation). Thus the applicant is seeking a variance to reduce the amount of parking required. Refer to Variance Request #3 at the end of this document for the formal request. The following components of this section explain why the parking requirements stipulated in the code should not be applied literally to this project and why 175 spaces will be sufficient based on:

- the intent of on-site uses and their peak hours of operation
- a study of parking comparables at other similar golf course facilities
- the ability to utilize the body of the practice range for overflow parking as needed during occasional special events (another possible 236 spaces)

Parking	Use	Standard	Number/Size	Required
Sec. 74-172(a)16.	Golf Course	6 per hole	18 holes	108
Sec. 74-172(a)15.	Driving Range	1 space per tee	5 tees	5
Sec. 74-172(a)9.	Main Restaurant at Clubhouse*	1 per 75 sf up to 6000 GFA then 1 per 55 sf over 6000 GFA	6,352 sf	86
Sec. 74-172(a)9.	Grill Room at Golf Shop*	1 per 75 sf up to 6000 GFA then 1 per 55 sf over 6000 GFA	2,464 sf	45
Sec. 74-172(a)19.	Fitness Center	1 per 150 sf GFA	3,257 sf	22
Sec. 74-172(a)20.	Public Assembly / Conference Facility (non fixed seats)	1 per 35 sf GFA	4,091 sf	117
Sec. 74-172('e) ¹	Special Parking (ADA)	§316.1955 F.S	401-500	9
			Total	392
*Requirement ca	lculated based on 8,	816 sf TOTAL of restau	rant	
Gross Square Footag	e per Revised Architectu	ral Plans		
Restaurants (areas in	n sf)			
Main Building	Lower Level	Kitchen and Prep Area	1,043	
	Main Level	Lounge + Bar	1,288	
		Open Dining	1,602	
		Kitchen	2,419	6,352
Grill Room at Golf Shop		Dining (In and Out)	1,572	
		Service Bar	227	
		Kitchen	665	2,464
			8,816	
Other (areas in sf)				
		Event Space (assembly)	4,091	
	Upper Level	Fitness Center	3,257	

Onsite Uses and Peak Hours of Operations

The proposed buildings, and the corresponding uses in the proposed buildings such as grill room, restaurant, fitness center, driving range and pro shop, primarily exist to support the golf course operations. The proposed uses for the buildings are not typical "stand alone" uses; in fact, most of the proposed uses will be used by golfers on property who may visit the golf course, driving range, pro shop, grill room, and fitness center during one visit. Section 74-172 of the Town code only provides for "stand alone" uses, but there should be a mechanism to allow for the sharing of parking between several uses on one property.

Further, some brief details about how the various uses will be operated:

- Golf course tee times are expected to be 10 minute to 12 minute intervals; thus it is programmed that only 1 group will be on a hole at a time (corresponding to 4 cars / hole)
- The restaurant in the main clubhouse will be closed during lunch hours; thus, peak time at the restaurant (evening / night) will predominantly correspond with the golf course being closed.
- The main use for the grill room will be to serve food to golfers already on site to play golf; it is not intended that this space will be marketed as a separate destination. Also, it is expected that the Grill will operate from 8 AM to 4 PM and thus will not provide dinner service.
- The pro shop will act as the main point of check-in and check-out for golfers who are already on site to play golf and thus additional spaces are also not needed solely for the pro shop.
- The driving range will primarily support golfers and it will not be marketed to attract golfers only interested in practicing
- The intent for the meeting space is that it will be operated as a convertible type space that could be divided into 3 small rooms, 2 slightly larger rooms or 1 large room. It will be used for various types and sizes of meetings or parties held by professional associations, private functions, family events, etc. that are by invitation only. These events will happen on an irregular schedule and are not expected to occur on a daily basis. At peak times, the applicant is prepared to provide overflow parking as necessary on the body of the driving range.

The following table depicts how it is expected that each element will be used during an average day.

	Employee Parking	Golf Course and Golf Shop	Driving Range	Grill Room at Golf Shop	Fitness Center	Restaurant and Lounge	Clubhouse Meeting Rooms	Projected Number of Spaces Used	Projected Number of Spaces Available (not Including 9 ADA)
6 AM - 7 AM	20	10	0	0	22	0	0	52	114
7 AM - 8 AM	20	30	0	5	22	0	0	77	89
8 AM - 9 AM	20	45	3	5	22	0	0	95	71
9 AM - 10 AM	20	72	3	5	22	0	0	122	44
10 AM - 11 AM	20	72	5	5	12	0	0	114	52
11 AM - 12 PM	20	72	5	5	12	0	0	114	52
12 PM - 1 PM	20	72	5	10	12	0	0	119	47
1 PM - 2 PM	20	72	5	10	12	0	0	119	47
2 PM - 3 PM	20	72	5	5	7	0	0	109	57
3 PM - 4 PM	20	50	5	5	7	0	0	87	79
4 PM - 5 PM	20	20	5	0	22	0	0	67	99
5 PM - 6 PM	20	15	0	0	22	40	0	97	69
6 PM - 7 PM	20	10	0	0	10	86	0	126	40
7 PM - 8 PM	20	5	0	0	3	86	0	114	52
8 PM - 9 PM	20	0	0	0	2	86	0	108	58
9 PM - 10 PM	20	0	0	0	2	50	0	72	94

Assumptions

1. 166 Total Parking Spaces (Not Including 9 ADA Spaces)

2. Peak Golf Course Use is 9 AM - 3 PM; Golf Course Parking Peaks at 4 Cars / Hole = 72 Total Spaces

3. Driving Range Hours of Operation are 8 AM - 5 PM with Peak Between 10 AM - 5 PM; Parking Peaks at 5 Spaces per Town Code

4. Golf Shop Hours of Operation area 8 AM - 6 PM and ONLY Used by Golfers

5. Grill Room at Golf Shop Hours of Operation are 8 AM - 4 PM and ONLY Used by Golfers Except for Small Group of Lunch Customers from 12 PM - 2 PM (10 Cars)

6. Fitness Center Hours of Operation are 6 AM - 10 PM with Peak Uses from 6 AM - 10 AM and 4 PM - 6 PM; Fitness Center Parking Peaks at 22 Spaces per Town Code

7. Restaurant and Lounge Hours of Operation are 5 PM - 10 PM with Peak Use from 6 PM - 9 PM; Parking Peaks at 86 Spaces per Town Code

Since the meeting rooms will not be programmed to be used every day, no parking was assigned to this use in the table above. But the table demonstrates that, between the hours of 9 AM - 5 PM, there is an adequate surplus of parking spaces available that will accommodate the occasional special events that will occur in the meeting rooms.

Comparables of Parking at Other Golf Courses

Literal interpretation of the provisions of this Code would treat each proposed use on the property as "stand alone" uses and would require 392 parking spaces. This amount of parking would be a tremendous outlier in the world of operating golf courses. To create a "real world" baseline for how other golf courses in the area operate, several local golf clubs were analyzed. These numbers are also consistent with national standards where 18 hole golf courses routinely operate at less than 200 parking spaces. As shown in the table depicted below, the 175 parking spaces proposed at Pelican Golf Club would be more than the average parking available at several local golf courses.

Golf Course	Number of Holes	Estimated Number of Spaces
Bellair Country Club	36	250
Olde Memorial Golf Club	18	197
Westchase Golf Club	18	194
Avila Golf and Country Club	18	140
Cheval Golf and Athletic Club	18	128
TPC Tampa Bay	18	214
Ave	143	

Overflow Parking During Occasional Special Events

During extreme special events, the applicant has agreed to use the body of the practice range as a designated area for overflow parking if necessary. See below for a diagram showing 236 available overflow parking spaces. It is the intent that this overflow area will only be accessed by valet staff specifically trained in how the area should be used with regard to access and traffic flow. Also, as shown on the diagram, the overflow spaces have been carefully laid out to remain in higher areas and avoid elements such as possible low wet areas, greens, bunkers, etc. Further, if the overflow parking area is being used for car parking, the practice range will be closed to users and no golf cart traffic will be allowed in the area to eliminate potential conflicts between golf carts and cars.



Conclusion

It has been demonstrated that the hours of peak demand for parking associated with the different uses do not normally overlap and would not require 392 spaces on site as stipulated by the Town code. It has also been demonstrated that 175 parking spaces would be sufficient based on a comparable study of available parking at other golf clubs with similar programming in the area. Further, the applicant has identified an area for overflow parking that might be needed during occasional special events. Thus, the applicant's request for a reduction in the number of parking spaces required per the Town Code should be granted allowing for 175 on-site spaces. Refer to Variance Request #3 at the end of this document for the formal request.

LANDSCAPING

Summary

The applicant intends to preserve all vegetation along the project boundaries and adjacent to residential properties. Within the golf course property, trees have been proposed to be removed to allow for necessary construction activities. Removal of trees in some areas and cleaning up (pruning, removal of dead wood, etc.) of the remaining trees will create the foundation for the additional landscaping to be planted as shown on the Landscape Plans. The end result of the Landscaping Plan, both along the edges and within the golf course, is to have large trees and understory trees accented with pockets of colorful shrub-type plantings.

Within the property, the trees that are proposed to be removed are associated with various construction activities such as: grading for the new lake system, grading to improve drainage, removing of several open ditches (by adding pipe and grading), adjustments that will allow the new holes to better accommodate modern equipment, building of the new clubhouse, and a general widening of the most narrow of the existing golf corridors to create a more playable golf experience. It is the intent that all cleared trees will be chipped on site and reused on site as mulch. It is also important to note again that none of the perimeter trees between golf course and existing residences are proposed for removal.

The construction improvements associated with drainage and the new lake system are a critical part of the proposed work as the golf course currently has many areas that lack surface drainage, lack drainage pipe, or utilize open ditches that are unsightly and a hazard for golfers. Insufficient drainage can also cause tremendous daily challenges for the golf maintenance team and compromise their ability to maintain healthy turf.

The information shown on the Landscaping Plans in the plan submittal includes:

- detailed list of all trees identified for removal
- indication of which of the trees to be removed require mitigation as identified by the Town
- list of type, size, quantity, and species of material to be replanted
- location of material to be replanted

As outlined in the following "Details" section, the amount of proposed replanting does not meet the amount of proposed replanting suggested by the Town code. Thus, the applicant is requesting a variance to the replanting requirements stipulated in the Town code. Further information in support of the variance request can be found in this Landscaping section, while the specifics for the variance request can be found in Variance Request #4 at the end of this document.

With regard to buffer application, it is the intent that this project will be screened by vegetation as much as possible from adjacent roads and residences.

At the clubhouse area, Type-A and Type-B buffer requirements will be met as depicted on the plans. In addition, a continuous hedge and a combination wall of brick and wrought iron will be planted to surround the parking area to screen the view from the surrounding neighborhoods. Most of the internal landscaping that is located around the existing clubhouse building and within the existing parking areas will be removed; new landscaping will be placed around the new buildings, within courtyards, and within the new parking areas. The large trees on the edges of the clubhouse parcel will remain and they will be enhanced with understory plantings.

Regarding landscape buffer application on the golf course perimeter, the Type-A buffer or Type-B buffer will be met at critical interfaces where the golf course is currently exposed (little to no existing vegetation) to surrounding roads and houses, such as:

- Along Golf View Drive and Poinsettia Road
- Behind #1 Green and Behind #2 Green, for example

In areas along the remainder of the golf course perimeter where a buffer of mature trees and shrubs already exist, it is the intent that the existing vegetation will remain as is. Although there is very definitely an existing buffer of mature vegetation in these areas, they may not technically conform to the buffer requirements listed in the Town code. Thus, the applicant is requesting a variance to the buffer required along the perimeter of the golf course in areas where mature vegetation already exists. Refer to Variance Request #5 at the end of this document for the formal request.

Details of Tree Removal and Replanting

The tree survey performed for the entire site including the golf course area and clubhouse area counted 2,340 trees. The total number of trees proposed to be removed is 863 trees which corresponds to 13,248". This would still leave 1,477 mature trees on property. The table below provides an overview of some of the trees proposed to be removed. Thus, of the 863 trees proposed to be removed, 558 trees (65%) fall into the categories listed in the table below. A detailed list of the 863 trees (13,248") proposed to be removed was sent to the Town and the Town (Ricky Allison) has designated that 5,281" must be mitigated. This list, along with the designations, can be found on the Tree Removal Plans in the plan submittal.

	Number of Trees
Trees to be Removed Between Golf Holes and Adjacent Housing	0
Trees to be Removed to Accommodate Lake Expansion	170
Trees to be Removed to Accommodate Filling of Ditch Between Hole 10 Tees and 17 Green	97
Trees to be Removed to Accommodate New Hole 11 Green Location	118
Oleander Trees (hedge) to be Removed to Accommodate Creation of "Wider" Practice Range	105
Trees to be Removed that are Crape Myrtle, Bottle Brush, or Camphor; Considered to be Category 1 Invasive Species in Florida	68
	558

The Landscape Plan demonstrates that 400 trees and 10,500 shrubs will be replanted throughout the golf course and clubhouse area. The 400 trees to be planted adds up to 2,239.5" of trees. The following table shows a breakdown of type and size of the 400 trees to be planted. The 10,500 shrubs will be planted over a 3.9 acre area. The exact locations of the trees and shrubs are shown on the Landscape Plans in the plan submittal.

Type of Tree	Common Name	Caliper	Number of Trees	Inches
Quercus virginiana	Live Oak	18"+	20	360.00
		9"-10"	29	275.50
		6"	81	486.00
		Subtotal	130	
Acer Rubrem- Florida Flame (Improved Fall Color)	Red Maple	3"	50	150.00
		Subtotal	50	
Pinus Ellioti "Densa"	Densa Pine	6"	64	384.00
		4"	66	264.00
		Subtotal	130	
Magnolia grandiflora	Southern Magnolia	6"	30	180.00
		Subtotal	30	
Holly (Dahoon / Eagleston)	Holly	3"	20	60.00
		Subtotal	20	
Bottle Brush		2"	20	40.00
		Subtotal	20	
Crape Myrtle		2"	20	40.00
		Subtotal	20	
		TOTAL	400	2,239.50

The scope of the proposed replanting also includes installation of underground irrigation for watering of the planted materials, staking of trees / plants as necessary for support, and mulching of the landscaped areas.

Conclusion

The size and scale of this approximately 135 acre property make a strict application of the replanting requirements in the code challenging. Even after the removal of the proposed 863 trees, there will be 1,477 mature trees remaining. Then, an additional 400 trees and 10,500 shrubs will be replanted. From a big picture perspective, the end result will still be a large green space (the golf course) containing a large amount of mature trees and vegetation.

The applicant has also committed a significant amount of resources to the irrigating, planting, and mulching of the items shown on the Landscaping Plan. Additional requirements imposed on landscaping could put an undue financial burden on the project.

Further, a major intent of the golf course redevelopment is to recapture the playability and strategy elements found in the original Donald Ross design. The fundamental drivers of these elements are width and play space. There has been almost 100 years of tree growth (with minimal removal through the years as seen from periodic aerial photos) on the site since original construction and thus some tree removal is necessary to reestablish corridors more like the original corridors.

Given the scale of this property, the significant resources associated with the proposed Landscaping Plan as is, and the intent to recapture some of the original corridor widths in the manner of Ross, the applicant requests a variance to the tree replacement conditions stipulated in Section 74-383(b)(1), Section 74-383(b)(2), and Section 74-383(b)(3) allowing the project to proceed with the tree removal and replanting detailed above and indicated on the plans. See Variance Request #4 for the formal request.

Regarding the perimeter landscape buffer requirements, the Landscape Plans demonstrate that the Type-A buffer or Type-B buffer will be achieved around the perimeter of the Clubhouse parcel and areas of the golf course perimeter that are currently exposed to surrounding elements (such as along Golf View Drive, Poinsettia Road, behind #1 green, and behind #2 green to name a few). The remainder of the golf course perimeter has large trees and shrubs which already effectively serve the purpose of creating a buffer. Further, as pointed out by the Town in previous correspondence, it may not be "practical or feasible" to create the required buffer around the entire perimeter of the golf course. For these reasons, the applicant requests a variance to the buffer requirements set forth in Section 74-232(b) and to allow the project to proceed with the tree replanting detailed in the landscape plans. See Variance Request #5 for the formal request.

STORMWATER SUMMARY

Existing Condition

The Pelican Golf Club is located on the upper limit of the Belleair Creek / Rattlesnake Creek basin. Stormwater runoff generally sheet flows from south to north to the existing depressed areas within the golf course and eventually discharges to the existing ponds and ditches.

There are seven existing ponds within the project limits; four of them are located south of Poinsettia Road and the other three are on the north side. The four existing ponds that are located south of the Poinsettia Road are interconnected by an open conveyance system; which discharges to the north via a closed conveyance system across the Poinsettia Road (between the residential properties).

Proposed Condition

The proposed stormwater facilities including collection, conveyance and storage facilities mimics the existing condition. There are seven proposed ponds which are located in the same general locations as what exists.

The stormwater runoff from the proposed club house and the parking area will be collected and conveyed to Pond D for treatment and attenuation. The hydrology and hydraulic for existing and proposed conditions are modeled in ICPR to ensure the proposed project would not have any adverse impact on the adjacent properties.

Southwest Florida Water Management District criteria is used to analyze the hydrology and hydraulics for the existing and proposed conditions. The project site is located with an open drainage basin. Therefore, the 25-year storm event proposed construction flow rate will be equal to or less than the existing condition.

The following drainage criteria and assumptions were used in the development of the drainage design:

- > Curve Number Calculation:
 - o Based on SCS "Urban Hydrology for Small Watersheds"
 - o (TR-55) Table 2.2a.
- > Pipe Materials:
 - Pipe material is optional however, the maximum Manning's "N" Coefficient of the pipe is 0.012
- > Minimum Time of Concentration, Tc=10 minutes.

The stormwater analyses are included in Appendix A.

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for Pinellas County and Incorporated Areas Panel 12103C0116H show that the project area is above the 100-year flood elevation. Therefore the proposed project will have no floodplain impact. The plan sheets include detailed design relating to stormwater management.

CULTURAL AND WELLHEAD SUMMARY

The project includes a cultural resource and wellhead analysis. This analysis is displayed on separate plan sheets. The project is expected to have no impact on these existing features in and around the projects.

Cultural Resources

There are several Florida Master Site File of Historical Resources and Locally Designated Resources within a 1,000-ft buffer from the project. These historic features/structures are depicted on the Locally Designated Resources sheet; all are located within the surrounding neighborhoods. The proposed uses, structures, and site modifications are expected to have no negative impacts on these resources.

Wellhead Protection

There are several wells within a 1,000-ft buffer from the project. These wells are depicted on the Wellhead Protect Area plan sheets. The project is not expected to negatively impact any existing wells located on adjacent properties. The site includes an existing and replacement well located within the golf course portion of the project.

The existing well we be abandoned in accordance with all applicable SWFWMD regulations. The proposed replacement well will replace the existing deep well and will be constructed into the Floridian aquifer, same as the existing well. The replacement well will be located within 300 ft. of the existing well and located centrally and internally within the Pelican Golf Club boundary. There will be no direct connection to the surficial aquifer or water table. Also, a revised reclaimed water agreement is being negotiated which will allow the Town to supply two hundred ninety thousand (290,000) gallons of reclaimed water per day to the Pelican Golf Club or more to the extent larger quantities are available. Further analysis and design detail will be provided as part of the construction plan/building permit phase of the project.

FORMAL VARIANCE REQUESTS

Please refer to the letter at end of this section authorizing the applicant to submit variance requests. Also, the fees associated with all variance requests will be delivered separately to the Town.

1		TOWN OF BELLEAIR 901 Ponce de Leon Blvd. Belleair, Florida 33756-1096 Phone: (727) 588-3769 ext. 215 Fax: (727) 588-3768
		DATE_January 10, 2017
To the	e Town Commission of the Town of Belleai	r, Florida
1.	The undersigned, Dan Doyle	, owner of Lot*
	Block, Subdivis Commission of the Town of Belleair for a	a variance on the above-described property
2.	The property is presently zoned Golf Course	
3.	The present land use on the property is <u>R</u>	ecreation / Open Space
4.	The decision involves Article <u>w</u> Development Code.	_ Section 74-237(*) of the Belleair Land
5.	The Commissions power arises under Ar Code.	ticle V, Section 66.253 of the B elleair Land Development
б.	The Relief prayed by the applicant is: Req	estpennission to construct a combination wall and fence 15 feet from property line.
7.	The Institution for the manast is (mana	Za
	difficulty or unnecessary hardship which or equied budscaping bint of that are as usually attractive	sts for the variances must demonstrate the practical justifies the variance): The applicativous dike to create a wal (ortide uty teate a aid stillmaximizes the space available for a parking bit feet rio Variance
	difficulty or unnecessary hardship which or equiled bidscaphy builty that acts as usually attractive of Request #1 for further details.	sts for the variances must demonstrate the practical justifies the variance): <u>The applicantwoold lke to create a wal (ontide</u> only have and stillmark thesite space available to raparking bit Refer to Variance.
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VARIANCE REQUEST #1: Request for Variance to Location of Fence and Fence Walls, pursuant to Section 74-287(e) of Town Code.

JUSTIFICATIONS (per Section 66-253(b)(1) of Town Code):

1. Special conditions and circumstances exist which are peculiar to the land, structure or buildings involved.

The applicant would like to create an aesthetic wall feature that would act as an entry statement for the golf course clubhouse. The wall structure would be a combination of solid brick and wrought iron as depicted in the plan. The intent is that the proposed wall and landscaping (15' of vegetative buffer as required by Town Code) will create visual and physical separation between the parking lot and surrounding neighborhood. To maximize the size of the parking lot, it is necessary to push the wall toward the outer perimeter of the clubhouse parcel as much as possible. Thus, the proposed wall location is on the edge of the 15 foot landscape buffer (from property line) and is inside the designated "no structure" setback area which is stipulated as 25 feet from property line.

2. The special conditions and circumstances do not result from actions of the applicant.

The need for the proposed wall location is a function of trying to maximize the size of the parking lot which has been driven by the applicant's attempt to meet the Town's parking code.

3. Literal interpretation of the provisions of this Code would work unnecessary and undue hardship on the applicant.

Literal interpretation of the provisions of this Code would reduce the amount of parking spaces on the site and/or reduce the amount of space available for the greenspace (golf course).

4. The variance, if granted, is the minimum variance that will make possible the reasonable use of the land, structure or building.

The variance requested is the absolute minimum needed in order to create a functional and aesthetically pleasing entry sequence for the proposed project.

5. A grant of variance will be in harmony with the general intent and purpose of this Code, and that such variance will not be injurious to the zoning district involved or otherwise detrimental to the public interest.

The intent of the code is to allow reasonable and appropriate development with the Town and the granting of this variance will not be injurious to the zoning district or otherwise detrimental to the public interest. The end result of this wall will be an aesthetically pleasing wall and landscaping combination.

6. A grant of variance will not result in any land use not specifically provided for in the schedule of district regulations (section 74-82 of this Code) for the zoning district in which the property is located.

The granting of this variance will not result in any adverse land use.

Please refer to the letter at end of this section authorizing the applicant to submit variance requests.



TOWN OF BELLEAIR 901 Ponce de Leon Blvd. Belleair, Florida 33756-1096 Phone: (727) 588-3769 ext. 215 Fax: (727) 588-3768

DATE January 10, 2017

To the Town Commission of the Town of Belleair, Florida

1.	The undersigned, Dan Doyle, Jr.	, owner of Lot*	
	Block*	, Subdivision "Refer to Legal Decoptor or the effected Decomp Survey prepare by FDC anter 11.23.16	, property
	Commission of the Town of B	elleair for a variance on the above-described property.	

2.	The property is presently zoned Golf Course

The present land use on the property is <u>Recreation / Open Space</u>

4.	The decision involves Article 💷	Section 74-173(3)	of the Belleair Land
	Development Code.		

- 5. The Commissions power arises under Article V, Section 66.253 of the B elleair Land Development Code.
- 6. The Relief prayed by the applicant is: Permission to decrease the number of loading spaces provided to 1.
- 7. The Justification for the request is (requests for the variances must demonstrate the practical difficulty or unnecessary hardship which justifies the variance). The applicant provides an adequate amount of loading space for the uses on the site that have the need. Any additional loading spaces would decrease the parking area. Refer to Variance Request #2 for further details.
- Attached is a non-refundable fee to defray expenses incurred by the Town of Belleair in processing this application (** Note: All costs incurred by the Town of Belleair, above and beyond the variance application fee, will be the responsibility of the applicant regardless of approval or denial of the request**)
- I am aware that this request will be voided should I or my representative fail to appear at the public hearings scheduled to consider this request.
- 10. I am aware that any variance that may be granted will automatically expire twelve months after approval by the Town Commission unless a building permit id produced from the Town with respect to the improvements contemplated by this application for variance within said twelve month period unless the construction of said improvements is promptly commenced pursuant to the building permit and diligently pursued to completion thereafter.

FEE:	\$300.00	

Paid:____

Dan Doyle, Jr.	
Owner	
c/o Tom Nash; PO Box 1669; Clearwater, FL 3	3756
Address	
727-441-8966	

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VARIANCE REQUEST #2: Request for Variance a reduction in the number of off-street loading zones required per Section 74-173 of the Town Code.

JUSTIFICATIONS (per Section 66-253(b)(1) of Town Code):

1. Special conditions and circumstances exist which are peculiar to the land, structure or buildings involved.

Strict application of the code would suggest that 52,180 SF (approximate total gross floor area of Main Clubhouse plus Grill Room) would generate the need for six loading zones per 74-173(b)(3). Of that total area, the Restaurant at the Clubhouse (6,352 SF) and the Grill Room at the Golf Shop (2,464 SF) are the main uses that will be requiring loading space. Further, the one proposed loading zone has been purposefully located at the side entry from Poinsettia Road to minimize possible disruption to everyday customers in the main parking lot.

2. The special conditions and circumstances do not result from actions of the applicant.

The proposed uses for the new project will change slightly from the existing uses; namely, a fitness center and additional meeting rooms have been added. Neither of these two uses are associated with consistently cumbersome loading zone requirements. The existing uses include a golf course with pro shop, restaurant and meeting space and the site is currently served adequately by 1 loading zone. 3. Literal interpretation of the provisions of this Code would work unnecessary and undue hardship on the applicant.

Literal interpretation of the provisions of the Code would require six loading zones based on the total square footage of the buildings on site. If six loading zones were to be used, there would be a decrease in the number of on-site parking stalls that could be provided and there would be an inordinate amount of space for this type of project dedicated to loading zones.

4. The variance, if granted, is the minimum variance that will make possible the reasonable use of the land, structure or building.

This request is the minimum variance and will provide adequate loading access for the site. On occasion when there is an event that would require more than one delivery truck at a time, staff will coordinate deliveries to eliminate potential conflicts in the side parking lot.

5. A grant of variance will be in harmony with the general intent and purpose of this Code, and that such variance will not be injurious to the zoning district involved or otherwise detrimental to the public interest.

The granting of this variance will not be injurious to the GC, Golf Course zoning district or otherwise detrimental to the public interest. In fact, by only having 1 loading zone, the number of trucks going in and out of the surrounding residential area will be reduced thus serving the public interest.

6. A grant of variance will not result in any land use not specifically provided for in the schedule of district regulations (section 74-82 of this Code) for the zoning district in which the property is located.

Granting this variance will not result in any land use not specifically provided for with the GC, Golf Course District as stated in Section 74-82 of the Town Code. A loading zone is a necessary facility for this use and is a permitted use in the district.

Please refer to the letter at end of this section authorizing the applicant to submit variance requests.



TOWN OF BELLEAIR 901 Ponce de Leon Blvd. Belleair, Florida 33756-1096 Phone: (727) 588-3769 ext. 215 Fax: (727) 588-3768

DATE January 10, 2017

To the Town Commission of the Town of Belleair, Florida

1.	The undersigned, Dan Doyle, Jr.	, owner of Lot*	
	Block	, Subdivision "Refer to Legal Decoptor or the effected Decomp Survey prepare by FDC anter 11.23.16	, property
	Commission of the Town of B	elleair for a variance on the above-described property.	

2.	The property is presently zoned Golf Course	
		_

The present land use on the property is <u>Recreation / Open Space</u>

4.	The decision involves Article 🛄	1 <u> </u>	Section 74-172(9)	of the Belleair Land
	Development Code.			

 The Commissions power arises under Article V, Section 66.253 of the B elleair Land Development Code.

6. The Relief prayed by the applicant is: Request permission for reduction for mixed or joint use of parking spaces.

- 7. The Justification for the request is (requests for the variances must demonstrate the practical difficulty or unnecessary hardship which justifies the variance). The proposed uses in the proposed buildings that comprise the clubhouse are not "stand alone" uses. Refer to the expected peak parking hours data included in the Project Narrative and Variance Request #3 for more information.
- Attached is a non-refundable fee to defray expenses incurred by the Town of Belleair in processing this application (** Note: All costs incurred by the Town of Belleair, above and beyond the variance application fee, will be the responsibility of the applicant regardless of approval or denial of the request**)
- I am aware that this request will be voided should I or my representative fail to appear at the public hearings scheduled to consider this request.
- 10. I am aware that any variance that may be granted will automatically expire twelve months after approval by the Town Commission unless a building permit id produced from the Town with respect to the improvements contemplated by this application for variance within said twelve month period unless the construction of said improvements is promptly commenced pursuant to the building permit and diligently pursued to completion thereafter.

Paid:

Owner	
c/o Torn Nash; PO Box 1669; Clearwater, FL	33756
Address	
727-441-8966	

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VARIANCE REQUEST #3: Request for Reduction for Mixed or Joint Use of Parking Spaces, pursuant to Section 74-172(g) of Town Code.

JUSTIFICATIONS (per Section 66-253(b)(1) of Town Code):

1. Special conditions and circumstances exist which are peculiar to the land, structure or buildings involved.

Most of the proposed uses for this project such as golf course, driving range, grill room, pro shop, restaurant, and fitness center, exist to support the golf course operations. The proposed uses for the buildings are not typical "stand alone" uses; in fact, most of the proposed uses will be shared via golfers on property who may use the golf course, grill room, fitness center, and pro shop during one visit. Application of Section 74-172 of the Town code only provides for "stand alone" uses, but there should be a mechanism to allow for the sharing of parking between several uses on one property. The "Expected Parking" table shows the peak times of operations and the corresponding parking needs to demonstrate the overlapping users.

2. The special conditions and circumstances do not result from actions of the applicant.

The proposed uses for the new project will change slightly from the existing use; namely a fitness center and additional meeting rooms have been added. The existing uses include a golf course with pro shop, restaurant and meeting space. The existing parking lot contains 140 parking spaces and 2 ADA spaces and adequately serves the current uses.

3. Literal interpretation of the provisions of this Code would work unnecessary and undue hardship on the applicant.

Literal interpretation of the provisions of this Code would create an unnecessary and undue hardship on the applicant because the size of the clubhouse parcel and the desire to preserve green space make the required parking impossible to accomplish. Literal interpretation of the provisions of this Code treating each proposed use on the property as "stand alone" uses unnecessarily triggers a requirement of 392 parking spaces. This amount of parking would be a tremendous outlier in the world of operating golf courses and is inconsistent with the parking code requirements of other communities with golf course developments. Other comparable 18 hole golf courses in the same region routinely operate at less than 200 parking spaces as demonstrated in the table that lists several local golf courses.

4. The variance, if granted, is the minimum variance that will make possible the reasonable use of the land, structure or building.

Every possible alternative to maximize parking on the site has been considered. The applicant has also agreed to use the body of the Practice Range as a designated area for overflow parking during extreme special events. So all parking needs for operation, even during special events, will be accommodated on site. The variance requested is the absolute minimum needed in order to complete the development.

5. A grant of variance will be in harmony with the general intent and purpose of this Code, and that such variance will not be injurious to the zoning district involved or otherwise detrimental to the public interest.

The intent of the code is to allow reasonable and appropriate development with the Town and the granting of this variance will not be injurious to the zoning district or otherwise detrimental to the public interest.

6. A grant of variance will not result in any land use not specifically provided for in the schedule of district regulations (section 74-82 of this Code) for the zoning district in which the property is located.

The granting of this variance will not result in any adverse land use.

Please refer to the letter at end of this section authorizing the applicant to submit variance requests.



TOWN OF BELLEAIR 901 Ponce de Leon Blvd. Belleair, Florida 33756-1096 Phone: (727) 588-3769 ext. 215 Fax: (727) 588-3768

DATE January 10,2017

To the Town Commission of the Town of Belleair, Florida

1.	The undersigned, Dan Doyle, Jr.	, owner of Lot*	
	Block*	, Subdivision Betwee Least December of December Barriery Same presents & COL and MI.23.18 , property	
	Commission of the Town of B	elleair for a variance on the above-described property.	

2. The property is presently zoned Golf Course

The present land use on the property is <u>Recreation / Open Space</u>

- The decision involves Article <u>VI</u> Section <u>74383(b)</u> of the Belleair Land Development Code.
- 5. The Commissions power arises under Article V, Section 66.253 of the B elleair Land Development Code.
- 6. The Relief prayed by the applicant is: Request for permission to replant trees as desorbed in Project Narrative and as shown on Landscape Plans. Refer to Variance Request #4 for further details.
- 7. The Justification for the request is (requests for the variances must demonstrate the practical difficulty or unnecessary hardship which justifies the variance). Usralineme lake of the provisions of the Code would require the applicant logiant 5251° wor hof tees (amount of tees to be miligated as designated by the Towr). This could correspond to more than 1000 tees to be replanted which would not be feasible.
- Attached is a non-refundable fee to defray expenses incurred by the Town of Belleair in processing this application (** Note: All costs incurred by the Town of Belleair, above and beyond the variance application fee, will be the responsibility of the applicant regardless of approval or denial of the request**)
- I am aware that this request will be voided should I or my representative fail to appear at the public hearings scheduled to consider this request.
- 10. I am aware that any variance that may be granted will automatically expire twelve months after approval by the Town Commission unless a building permit id produced from the Town with respect to the improvements contemplated by this application for variance within said twelve month period unless the construction of said improvements is promptly commenced pursuant to the building permit and diligently pursued to completion thereafter.

LEC: \$200.00

Paid:

Dan Doyle, Jr.	
Owner	
c/o Tom Nash; PO Box 1669; Clearwater, FL 3	3756
Address	
727-441-8966	

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VARIANCE REQUEST #4: Request for Variance to Tree Replacement pursuant to Section 74-383(b)(1), Section 74-383(b)(2), and Section 74-383(b)(3)

JUSTIFICATIONS (per Section 66-253(b)(1) of Town Code):

1. Special conditions and circumstances exist which are peculiar to the land, structure or buildings involved.

The Town code governing tree replacement is difficult to apply literally to a project of this scale: a 135 acre golf course. The original Donald Ross design made use of a relatively wide-open site where there was plenty of width or play space for golfers. Decades of minimal tree removal (documented by aerial photos through the years) have caused the present condition of the golf course to become overgrown throughout the interior of the property. Also, there are significant issues with failing infrastructure on the site such as drainage and lake storage. Fixing these issues require clearing of trees in some areas and regrading. Finally, the intent of the Landscape Plans demonstrates that, even with the proposed tree clearing, the applicant has committed significant resources to creating an end result of large specimen trees accented by pockets of colorful shrub-type plantings on the "inside" of the property and a buffer of mature trees along the perimeter of the property.

2. The special conditions and circumstances do not result from actions of the applicant.

The applicant is taking over a golf course that has several elements of deferred maintenance including the overgrown condition of the trees and drainage challenges. The applicant is committed to the enhancement of the beauty of the golf course in general as depicted by the replanting shown on the Landscape Plans.

3. Literal interpretation of the provisions of this Code would work unnecessary and undue hardship on the applicant.

Literal interpretation of the provisions of this Code would require the applicant to plant 5,281" worth of trees (amount of trees to be mitigated as designated by the Town). This could correspond to more than 1,000 trees to be replanted which would not be financially feasible.

4. The variance, if granted, is the minimum variance that will make possible the reasonable use of the land, structure or building.

The proposed removal of trees is necessary to improve the overall presentation of the golf course (reduce the "overgrown" feel and fix drainage / infrastructure issues). The applicant has committed substantial resources to the execution of a thorough Landscape Plan that will further enhance the beauty of the golf course as a greenspace.

5. A grant of variance will be in harmony with the general intent and purpose of this Code, and that such variance will not be injurious to the zoning district involved or otherwise detrimental to the public interest.

The intent of the code is to allow reasonable and appropriate development with the Town and the granting of this variance will not be injurious to the zoning district or otherwise detrimental to the public interest.

6. A grant of variance will not result in any land use not specifically provided for in the schedule of district regulations (section 74-82 of this Code) for the zoning district in which the property is located.

The granting of this variance will not result in any adverse land use.

Please refer to the letter at end of this section authorizing the applicant to submit variance requests.



TOWN OF BELLEAIR 901 Ponce de Leon Blvd. Belleair, Florida 33756-1096 Phone: (727) 588-3769 ext. 215 Fax: (727) 588-3768

DATE January 10, 2017

To the Town Commission of the Town of Belleair, Florida

- Image: State of the s
- 2. The property is presently zoned Golf Course

The present land use on the property is <u>Recreation / Open Space</u>

- The decision involves Article <u>Section 74232(b)</u> of the Belleair Land Development Code.
- The Commissions power arises under Article V, Section 66.253 of the B elleair Land Development Code.
- 6. The Relief prayed by the applicant is: Request to utilize existing vegetation as the required buffer along the perimeter of the golf course. In areas along the perimeter that do not have existing vegetation, the required buffer will be achieved as shown on the Landscape Plans.
- 7. The Justification for the request is (requests for the variances must demonstrate the practical difficulty or unnecessary hardship which justifies the variance). The intert of the Type Abuffer is already achieved utilizing the existing vegetation. In addition, the ground disturbance activity required to plant new trees in the areas of existing trees may cause harm to the health of the existing trees.
- Attached is a non-refundable fee to defray expenses incurred by the Town of Belleair in processing this application (** Note: All costs incurred by the Town of Belleair, above and beyond the variance application fee, will be the responsibility of the applicant regardless of approval or denial of the request**)
- I am aware that this request will be voided should I or my representative fail to appear at the public hearings scheduled to consider this request.
- 10. I am aware that any variance that may be granted will automatically expire twelve months after approval by the Town Commission unless a building permit id produced from the Town with respect to the improvements contemplated by this application for variance within said twelve month period unless the construction of said improvements is promptly commenced pursuant to the building permit and diligently pursued to completion thereafter.

FEE: \$300.00	FEE:	\$300.00
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Paid:

Dwner	
xo Tom Nash; PO Box 1669; Clearwater, FL	33756
Address	
727-441-8966	

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VARIANCE REQUEST #5: Request for Variance to Required Landscaping in Buffer Zone of Golf Course, pursuant to Section 74-232(b)(4) of Town Code.

JUSTIFICATIONS (per Section 66-253(b)(1) of Town Code):

1. Special conditions and circumstances exist which are peculiar to the land, structure or buildings involved.

Around the Clubhouse parcel, the applicant has agreed to meet the standard required by the Type-A and or Type-B buffer. In areas of the golf course perimeter where there is little to no existing vegetation, the applicant has also agreed to meet the standard required by the Type-A and Type-B buffer. The variance request specifically pertains to the remaining golf course perimeter where existing groves of mature vegetation already exist. These large trees and shrubs already effectively meet the intent of the buffer requirements.

2. The special conditions and circumstances do not result from actions of the applicant.

The special condition is that there is already mature vegetation in place along most of the golf course perimeter that achieves the intent of the buffer requirements. The applicant intends to leave all trees and vegetation on the perimeter of the golf course. In fact, generally the intent of the Landscaping Plan is to create a visual and physical buffer between the golf course and surrounding uses.

3. Literal interpretation of the provisions of this Code would work unnecessary and undue hardship on the applicant.

Literal interpretation of the provisions of this Code would require the applicant to attempt to plant trees in the many areas along the golf course perimeter that already have large trees. This type of ground disturbance activity in groves of mature trees could jeopardize the health of the existing trees. There would also be survivability concerns for any new, smaller trees planted in the canopies of the mature groves of trees as competition for sunlight would be a challenge.

4. The variance, if granted, is the minimum variance that will make possible the reasonable use of the land, structure or building.

The Landscape Plans demonstrate that the applicant is meeting the intent of the landscape buffer on all perimeters of the property.

5. A grant of variance will be in harmony with the general intent and purpose of this Code, and that such variance will not be injurious to the zoning district involved or otherwise detrimental to the public interest.

The intent of the code is to allow reasonable and appropriate development with the Town and the granting of this variance will not be injurious to the zoning district or otherwise detrimental to the public interest.

6. A grant of variance will not result in any land use not specifically provided for in the schedule of district regulations (section 74-82 of this Code) for the zoning district in which the property is located.

The granting of this variance will not result in any adverse land use.
MACFARLANE FERGUSON & MCMULLEN

ATTORNEYS AND COUNSELORS AT LAW

ONE TAMPA CITY CENTER, SUITE 2000 201 NORTH FRANKLIN STREET P.O. BOX IS31 (ZIP 3360)1 TAMPA, FLORIDA 33602 1813) 273-4200 FAX (813) 273-4396

www.mfmlegal.com EMAIL: info@mfmlegal.com 625 COURT STREET P.O. BOX 1669 IZIP 33757) CLEARWATER, FLORIDA 33756 1727) 441-8966 FAX (727) 442-8470

IN REPLY REFER TO:

Clearwater

July 19, 2016

ATTN: Micah Maxwell Town of Belleair 901 Ponce de Leon Boulevard Belleair, FL 33756

> RE: Tow of Belleair sale of 1501 Indian Rocks Road to Pelican Golf LLC and Clubhouse Property (the "Property")

Dear Micah:

This letter is being sent to you in my capacity as counsel for Pelican Golf LLC as the purchaser of the above-referenced Property.

As you know pursuant to Purchaser's proposed development plans, a development application is scheduled to be filed next month. This is a unique situation since the applicant does not yet own the property. Therefore please allow this letter to serve as a formal request to your office and the Town Commission that Pelican Golf LLC be authorized to file the development application as the contract vendee, on behalf of the Town of Belleair, as the owner and contract vendor.

Thank you for your cooperation in this regard

Sincerely your Thomas C. Nash, II

TCN:koh

HYDROLOGY & HYDRAULICS ICPR Model

EXISTING CONDITION



EXISTING DRAINAGE BASIN DATA

PROJECT NAME:	Pelican Golf Club	LAND COVER	CN	
PROJECT NUMBER:		PAVEMENT	98	CN Values from EDOT
COUNTY:	Pinellas	GRASS	39	Hydrology
Date:	December 2, 2016	WATER	100	(Table T-7)

BASIN		AREA (AC)				
BASIN	PAVED	WATER	GRASS		WEIGHTED CN	
Ex_B_BBGP	2.20	1.00	6.39	9.59	58.9	

_____ Node: Ex_Pond-A Name: Ex B-A Status: Onsite Type: SCS Unit Hydrograph CN Group: BASE Unit Hydrograph: Uh256 Peaking Factor: 256.0 Rainfall File: Storm Duration(hrs): 0.00 Time of Conc(min): 20.00 Time Shift(hrs): 0.00 Max Allowable Q(cfs): 999999.000 Rainfall Amount(in): 0.000 Area(ac): 12.790 Curve Number: 42.10 DCIA(%): 0.00 _____ _____ Name: Ex_B-B Node: Ex_Pond-B Status: Onsite Type: SCS Unit Hydrograph CN Group: BASE Unit Hydrograph: Uh256 Peaking Factor: 256.0 Unit Hydrograph: Uh256 Rainfall File: Rainfall Amount(in): 0.000 Area(ac): 38.880 Curve Number: 43.20 Peaking Factor: 256.0 Storm Duration(hrs): 0.00 Time of Conc(min): 18.00 Time Shift(hrs): 0.00 Max Allowable Q(cfs): 999999.000 Curve Number: 43.20 DCIA(%): 0.00 Name: Ex_B-G Node: Ex_Pond-G Status: Onsite Node: Ex_rona-6 Type: SCS Unit Hydrograph CN Group: BASE Peaking Factor: 256.0 Storm Duration(hrs): 0.00 Time of Conc(min): 22.00 Time Shift(hrs): 0.00 Unit Hydrograph: Uh256 Rainfall File: Rainfall Amount(in): 0.000 Area(ac): 30.600 rve Number: 44.00 Max Allowable Q(cfs): 999999.000 Curve Number: 44.00 DCIA(%): 0.00 Node: Ex_Pond-E Status: Onsite Type: SCS Unit Hydrograph CN Name: Ex_B-H Group: BASE Unit Hydrograph: Uh256 Peaking Factor: 256.0 Storm Duration(hrs): 0.00 Rainfall File: Rainfall Amount(in): 0.000 Area(ac): 12.200 Time of Conc(min): 15.00 Time Shift(hrs): 0.00 Curve Number: 45.10 Max Allowable Q(cfs): 999999.000 DCIA(%): 0.00 _____ Name: Ex_B_BBGPNode: Ex_Pond-DStatus: OnsiteGroup: BASEType: SCS Unit Hydrograph CN Group: BASE Unit Hydrograph: Uh256 Rainfall File: Rainfall Amount(in): 0.000 Peaking Factor: 256.0 Peaking raccol. 2000 Storm Duration(hrs): 0.00 Time of Conc(min): 16.00 Time Shift(hrs): 0.00 Area(ac): 9.590 Curve Number: 58.90 Max Allowable Q(cfs): 999999.000 DCIA(%): 0.00 Nodo. Fy N-12 Status: Onsite _____ Name: Ex_B_BeFor Node: Ex_N-12 Group: BASE Type: SCS Unit Hydrograph CN Unit Hydrograph: Uh256 Peaking Factor. 2000 Storm Duration(hrs): 0.00 Peaking Factor: 256.0 J:\E2160\E2160208.00\modeling\icpr\EXISTING.EXISTING.ICP 12/2/2016 3:47:02 PM

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 37.000
 0.0800

 38.000
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 40.000
 0.2000
 41.000 42.000 0.2700 0.4400 _____ Name: Ex-N-5 Base Flow(cfs): 0.000 Init Stage(ft): 38.020 Group: BASE Warn Stage(ft): 43.000 Type: Stage/Area Stage(ft) Area(ac)
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 Name: Ex_N-1
 Base Flow(cfs): 0.000
 Init Stage(ft): 38.550

 Group: BASE
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nitial Stage = Initia	al Stage of	Downstream Pond	
Stage(ft)	Area(ac)		
37.580	0.0010		
42.020	0.2100		
44.000	1.0700		
Name: Ex_N-11		Base Flow(cfs): 0.000	Init Stage(ft): 38.020
Group: BASE Type: Stage/Area	a		Warn Stage(ft): 42.000
nitial Stage = Initia	al Stage of	Downstream Pond	
Stage(ft)	Area(ac)		
35.700	0.0010		
37.000	0.0500		
39.000	0.1500		
40.000	0.2000		
41.000	0.4000		
42.000	0.7000		
Name: Ex_N-12		Base Flow(cfs): 0.000	Init Stage(ft): 39.430
Group: BASE Type: Stage/Area	a		Warn Stage(It): 46.000
Stage(ft)	Area(ac)		
39.430	0.0010		
42.900	0.0010		
44.000	0.6200		
45.000	1.3600		
46.000	2.7100		
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Group: BASE Type: Stage/Area	a		Warn Stage(It): 42.000
nitial Stage = Initia	al Stage of	Downstream Pond	
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37.000	0.0500		
38.000	0.1200		
39.000	0.2000		
40.000	0.3500		
42.000	0.4600		
Name: Ex N-15		Base Flow(cfs): 0.000	Init Stage(ft): 39.490
Group: BASE			Warn Stage(ft): 43.000
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Stage(ft)	Area(ac)		

43.000	0.6500								
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nitial Stage = Pipe Ir	ivert.								
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41.000	0.3300								
42.000	0.7000								
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Group: BASE Type: Stage/Area					Warn	Stage(ft):	47.000		
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Name: Ex N-19		Base	Flow(cfs):	0.000	Init	 Stage(ft):	 39.460		
Group: BASE					Warn	Stage(ft):	45.000		
Type: Stage/Area									
Stage(ft)	Area(ac)								
39.460	0.0010								
43.020	0.0010								
44.000 45.000	0.0100								
Name: Ex_N-21		Base	Flow(cfs):	0.000	Init	Stage(ft):	37.850		
Group: BASE Type: Stage/Area					Warn	Stage(ft):	42.000		
nitial Stage = Higher	Elevation	n of t	he Initial	Stage of	Downstream	Pond, Lowe	st Weir	or Pipe	Inve
Stage(ft)	Area(ac)								
36.000	0.0030								
37.000	0.0250								
38.000	0.0340								
40.000	0.0400								
41.000	0.0750								
42.000	0.1250								
Name: Ex_N-3		Base	Flow(cfs):	0.000	Init	 Stage(ft):	38.650		
Group: BASE					Warn	Stage(ft):	45.000		
Type: Stage/Area									
Stage(ft)	Area(ac)								
38.650	0.0010								
	0 0 7 0 0								
39.000	0.0700								

41.000 42.000 43.000 44.000 45.000	0.1700 0.2100 0.2900 0.5500 1.2300		
Name: Ex_N-7 Group: BASE Type: Stage/Area		Base Flow(cfs): 0.000	Init Stage(ft): 38.660 Warn Stage(ft): 44.000
Stage(ft)	Area(ac)		
38.660 43.000 44.000 44.500	0.0010 0.0500 0.1600 0.2600		
Name: Ex_N-9 Group: BASE Type: Stage/Area		Base Flow(cfs): 0.000	Init Stage(ft): 38.020 Warn Stage(ft): 42.610
Initial Stage = Initia	l Stage o	f Downstream Pond	
Stage(ft)	Area(ac)		
37.400 42.610	0.0010 0.0010		
Name: Ex_Outfall Group: BASE Type: Time/Stage		Base Flow(cfs): 0.000	Init Stage(ft): 36.210 Warn Stage(ft): 36.210
Stage = Crown elevati	on of the	outfall pipe (approximatly	870' @ 34.09 NGVD = 33.021 NAVD)
Time(hrs)	Stage(ft)		
0.00 999.00	36.210 36.210		
Name: Ex_Pond-A Group: BASE Type: Stage/Area		Base Flow(cfs): 0.000	Init Stage(ft): 39.610 Warn Stage(ft): 45.000
Initial stage = outfal	l pipe in	vert	
Stage(ft)	Area(ac)		
$\begin{array}{c} 35.000\\ 36.000\\ 37.000\\ 38.000\\ 39.000\\ 40.000\\ 41.000\\ 42.000\\ 43.000\\ 43.000\\ 45.000\end{array}$	0.0700 0.1800 0.2700 0.5400 0.6600 0.7400 0.8300 1.0700 1.6600 2.2700		
Name: Ex_Pond-B Group: BASE Type: Stage/Area		Base Flow(cfs): 0.000	Init Stage(ft): 38.860 Warn Stage(ft): 43.000
Initial Stage = Lowest	Weir Ele [.]	vation	
Stage(ft)	Area(ac)		
37.000	0.2000		
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38.000 39.000 40.000 41.000 42.000 43.000	0.9300 2.3500 2.7000 3.0200 4.0000 7.9600			
Name: Ex_Pond-C Group: BASE Type: Stage/Area		Base Flow(cfs): 0.000	Init Stage(ft): 38.020 Warn Stage(ft): 43.000	
Initial Stage = Higher	Elevatio	n of the Initial Stage o	of Downstream Pond or Lowest Weir	
Stage(ft)	Area(ac)			
36.000 37.000 38.000 39.000 40.000 41.000 42.000 43.000	0.0100 0.0800 0.3400 0.4800 0.6100 0.9100 1.6800 2.4200			
Name: Ex_Pond-D Group: BASE Type: Stage/Area		Base Flow(cfs): 0.000	Init Stage(ft): 44.220 Warn Stage(ft): 45.500	
Outfall pipe elevation				
Stage(ft)	Area(ac)			
$\begin{array}{c} 38.000\\ 39.000\\ 40.000\\ 41.000\\ 42.000\\ 43.000\\ 43.000\\ 44.000\\ 45.000\\ 45.500\end{array}$	0.2100 0.2600 0.3200 0.4500 0.7000 0.9000 1.1000 1.5300 2.1000			
Name: Ex_Pond-E Group: BASE Type: Stage/Area		Base Flow(cfs): 0.000	Init Stage(ft): 42.970 Warn Stage(ft): 45.000	
Initial Stage = Existi	ng Outfal	l Pipe Invert Elevation		
Stage(ft) 38.000 39.000 40.000 41.000 42.000 43.000 44.000 45.000	Area(ac) 0.0100 0.1100 0.3000 0.6000 0.8200 1.1600 1.4400 2.1000			
Name: Ex_Pond-F Group: BASE Type: Stage/Area		Base Flow(cfs): 0.000	Init Stage(ft): 37.620 Warn Stage(ft): 42.000	
Initial Stage = Water	surface e	levation of the pond whi	ch is control by the lip/weir at th	e upstream of the pipe
Stage(ft)	Area(ac)			
35.000 36.000 37.000 38.000	0.0100 0.1900 0.3600 0.6000			
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39.000 40.000 41.000 42.000	0.6600 0.7500 0.9800 1.2000				
Name: Ex_Pond-G Group: BASE Type: Stage/Area		Base Flow(cfs)	: 0.000	Init Stage(ft Warn Stage(ft): 38.020): 42.000
Stage(ft)	Area(ac)				
$\begin{array}{c} 28.000\\ 29.000\\ 30.000\\ 31.000\\ 32.000\\ 33.000\\ 34.000\\ 35.000\\ 36.000\\ 36.000\\ 37.000\\ 38.000\\ 39.000\\ 40.000\\ 41.000\\ 42.000\end{array}$	0.0300 0.2200 0.6300 1.1400 1.3100 1.4900 1.9300 2.1700 2.3000 2.5000 3.1000 3.8300 4.4400				
===== Cross Sections ===					
Name: wie Encroachment: No	r_lake_g		Group:	BASE	
Station(ft) Eleva	tion(ft)	Manning's	N		
0.000 9.930 67.250 69.950 70.770 89.070 90.160 92.450 135.730 186.600	42.000 41.000 39.000 38.020 38.020 39.000 40.000 41.000 42.000	0.02000 0.02000 0.02000 0.02000 0.02000 0.01200 0.02000 0.02000 0.02000 0.02000	0 0 0 0 0 0 0 0 0 0 0 0 0 0		
===== Pipes ==========					
Name: Ex_P-1 Group: BASE UPSTREAM Geometry: Circular Span(in): 36.00 Rise(in): 36.00 Invert(ft): 38.550 Manning's N: 0.012000 Top Clip(in): 0.000 Bot Clip(in): 0.000	D C C C C C C C C C C C C C C C C C C C	From Node: To Node: DWNSTREAM ircular 5.00 5.00 3.060 .012000 .000 .000	Ex_N-1 Ex_Pond-A	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	157.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Upstream FHWA Inlet Edg	e Descrij	ption:			
Circular Concrete: Squa Downstream FHWA Inlet E Circular Concrete: Squa	re edge dge Desc: re edge 1	w/ headwall ription: w/ headwall			

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RCP
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Name: Group: Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in):	Ex_P-10 BASE UPSTREAM Horz Ellipse 72.00	From Node: To Node:	Ex_N-11 Ex_Pond-G	Length(ft):	21.00
Geometry: Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in):	UPSTREAM Horz Ellipse 72.00			Count :	1
Rise(in): Invert(ft): Manning's N: Top Clip(in):		DOWNSTREAM Horz Ellipse 72.00		Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef:	Automatic Most Restrictive Both 0.00
Invert(ft): Manning's N: Top Clip(in):	44.00	44.00		Exit Loss Coef:	1.00
Manning's N: Top Clip(in):	35.700	35.600		Bend Loss Coef:	0.00
	0.012000	0.012000		Outlet Ctrl Spec:	Use dc or tw
Bot Clip(in):	0.000	0.000		Stabilizer Option:	Use dc
Bot Clip(in).	0.000	0.000		Stabilizer Option.	None
Upstream FHWA I Horizontal Elli	Inlet Edge Des ipse Concrete:	cription: Square edge with	headwall		
Downstream FHWA Horizontal Elli	A Inlet Edge D ipse Concrete:	escription: Square edge with	headwall		
ECMP					
Name:	Ex_P-12	From Node:	Ex_Pond-E	Length(ft):	465.00
Group:	DASE	IO NODE:	EX_N-19	Friction Equation:	Automatic
	UPSTREAM	DOWNSTREAM		Solution Algorithm:	Most Restrictive
Geometry:	Circular	Circular		Flow:	Both
Span(in):	24.00	24.00		Entrance Loss Coef:	0.00
Rise(in):	24.00	24.00		Exit Loss Coef:	1.00
Manning's N:	42.970	0.012000		Outlet Ctrl Spec:	Use do or tw
Top Clip(in):	0.000	0.000		Inlet Ctrl Spec:	Use dc
Bot Clip(in):	0.000	0.000		Stabilizer Option:	None
Downstream FHW# Circular Concre CPP	A Inlet Edge D ete: Square ed	Description: lge w/ headwall			
Downstream FHW# Circular Concre CPP	A Inlet Edge D ete: Square ed	Description: lge w/ headwall			
Downstream FHWA Circular Concre CPP Name: Group:	A Inlet Edge E ete: Square ed Ex_P-13 BASE	Description: lge w/ headwall From Node: To Node:	Ex_N-19 Ex_Pond-F	Length(ft): Count: Friction Equation:	627.00 1 Automatic
Downstream FHWA Circular Concre CPP Name: Group:	A Inlet Edge E ete: Square ed Ex_P-13 BASE UPSTREAM	Description: lge w/ headwall From Node: To Node: DOWNSTREAM	Ex_N-19 Ex_Pond-F	Length(ft): Count: Friction Equation: Solution Algorithm:	627.00 1 Automatic Most Restrictive
Downstream FHWA Circular Concre CPP Name: Group: Geometry:	A Inlet Edge E ete: Square ed Ex_P-13 BASE UPSTREAM Circular 24 00	Pescription: lge w/ headwall From Node: To Node: DOWNSTREAM Circular 24 00	Ex_N-19 Ex_Pond-F	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Locat	627.00 1 Automatic Most Restrictive Both 0.00
Downstream FHWA Circular Concre CPP Name: Group: Geometry: Span(in): Rise(in):	A Inlet Edge E ete: Square ed Ex_P-13 BASE UPSTREAM Circular 24.00 24.00	Description: lge w/ headwall From Node: To Node: DOWNSTREAM Circular 24.00 24.00	Ex_N-19 Ex_Pond-F	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef:	627.00 1 Automatic Most Restrictive Both 0.00 1.00
Downstream FHWA Circular Concre CPP Name: Group: Geometry: Span(in): Rise(in): Invert(ft):	A Inlet Edge D ete: Square ed Ex_P-13 BASE UPSTREAM Circular 24.00 24.00 39.460	Description: lge w/ headwall From Node: To Node: DOWNSTREAM Circular 24.00 24.00 37.930	Ex_N-19 Ex_Pond-F	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef:	627.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00
Downstream FHWA Circular Concre CPP Name: Group: Span(in): Rise(in): Invert(ft): Manning's N:	A Inlet Edge D ete: Square ed Ex_P-13 BASE UPSTREAM Circular 24.00 24.00 39.460 0.012000	Description: lge w/ headwall From Node: To Node: DOWNSTREAM Circular 24.00 24.00 37.930 0.012000	Ex_N-19 Ex_Pond-F	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec:	627.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw
Downstream FHWA Circular Concre CPP Name: Group: Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in):	A Inlet Edge E ete: Square ed Ex_P-13 BASE UPSTREAM Circular 24.00 39.460 0.012000 0.000	Description: lge w/ headwall From Node: To Node: DOWNSTREAM Circular 24.00 24.00 37.930 0.012000 0.000 0.000	Ex_N-19 Ex_Pond-F	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec:	627.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc
Downstream FHWA Circular Concre CPP 	A Inlet Edge E ete: Square ed Ex_P-13 BASE UPSTREAM Circular 24.00 24.00 39.460 0.012000 0.000 0.000	Description: lge w/ headwall From Node: To Node: DOWNSTREAM Circular 24.00 24.00 37.930 0.012000 0.000 0.000	Ex_N-19 Ex_Pond-F	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	627.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Downstream FHWA Circular Concre CPP 	A Inlet Edge Desete: Square ed	Pescription: lge w/ headwall From Node: To Node: DOWNSTREAM Circular 24.00 24.00 37.930 0.012000 0.000 0.000 0.000 cription: lge w/ headwall	Ex_N-19 Ex_Pond-F	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	627.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Downstream FHWA Circular Concre CPP 	A Inlet Edge D ete: Square ed Ex_P-13 BASE UPSTREAM Circular 24.00 24.00 39.460 0.012000 0.000 0.000 0.000 Enlet Edge Des ete: Square ed A Inlet Edge D	Pescription: lge w/ headwall From Node: To Node: DOWNSTREAM Circular 24.00 24.00 37.930 0.012000 0.000 0.000 cription: lge w/ headwall	Ex_N-19 Ex_Pond-F	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	627.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Downstream FHWA Circular Concre CPP 	A Inlet Edge Dete: Square ed Ex_P-13 BASE UPSTREAM Circular 24.00 39.460 0.012000 0.000 0.000 0.000 Inlet Edge Des ete: Square ed A Inlet Edge Des	Pescription: lge w/ headwall From Node: To Node: DOWNSTREAM Circular 24.00 24.00 37.930 0.012000 0.000 0.000 0.000 Cription: lge w/ headwall Pescription: lge w/ headwall	Ex_N-19 Ex_Pond-F	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	627.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Downstream FHWA Circular Concre CPP 	A Inlet Edge Dete: Square ed Ex_P-13 BASE UPSTREAM Circular 24.00 24.00 39.460 0.012000 0.000 0.000 0.000 Inlet Edge Des ete: Square ed A Inlet Edge D	Pescription: lge w/ headwall From Node: To Node: DOWNSTREAM Circular 24.00 24.00 37.930 0.012000 0.000 0.000 Cription: lge w/ headwall Pescription: lge w/ headwall	Ex_N-19 Ex_Pond-F	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	627.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None 41.00
Downstream FHWA Circular Concre CPP 	A Inlet Edge Deste: Square ed Ex_P-13 BASE UPSTREAM Circular 24.00 39.460 0.012000 0.000 0.000 0.000 Cinlet Edge Deste: Square ed A Inlet Edge Deste: Square ed Ex_P-14 BASE	Pescription: lge w/ headwall From Node: To Node: DOWNSTREAM Circular 24.00 37.930 0.012000 0.000 0.000 0.000 0.000 0.000 0.000 Cription: lge w/ headwall Pescription: lge w/ headwall From Node: To Node:	Ex_N-19 Ex_Pond-F Ex_N-16 Ex_Pond-F	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option: Stabilizer Option:	627.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None 41.00 1

Geometry: Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in):	UPSTREAM Circular 48.00 37.850 0.012000 0.000 0.000	DOWNSTREAM Circular 48.00 37.780 0.012000 0.000 0.000		Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Upstream FHWA I Circular Concre	Inlet Edge Desc ete: Square edg	ription: e w/ headwall			
Downstream FHWA Circular Concre	A Inlet Edge De ete: Square edg	scription: e w/ headwall			
CPP					
Name: Group: Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in):	Ex_P-15 BASE UPSTREAM Circular 48.00 48.00 36.260 0.012000 0.000 0.000	From Node: To Node: DOWNSTREAM Circular 48.00 48.00 35.340 0.012000 0.000 0.000	Ex_Pond-F E_Outfall_)	Length(ft): Ditch Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	185.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Upstream FHWA I Circular Concre Downstream FHWA Circular Concre CMP	Inlet Edge Desc ete: Square edg A Inlet Edge De ete: Square edg	ription: e w/ headwall scription: e w/ headwall			
Name: Group: Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in):	Ex_P-16 BASE UPSTREAM Circular 18.00 18.00 44.870 0.012000 0.000 0.000	From Node: To Node: DOWNSTREAM Circular 18.00 43.160 0.012000 0.000 0.000	Ex_N-17 Ex_Pond-E	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	202.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Upstream FHWA D Circular Concre Downstream FHWA Circular Concre CPP	Inlet Edge Desc ete: Square edg A Inlet Edge De ete: Square edg	ription: e w/ headwall scription: e w/ headwall			
Name: Group: Geometry: Span(in): Rise(in): Invert(ft):	Ex_P-17 BASE UPSTREAM Circular 36.00 36.00 39.430	From Node: To Node: DOWNSTREAM Circular 36.00 36.00 37.880	Ex_N-12 Ex_N-13	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef:	450.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00

Pelican Golf Club Existing Condition

Top Clip(in): Bot Clip(in):	0.012000 0.000 0.000	0.012000 0.000 0.000		Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	Use dc or tw Use dc None
Upstream FHWA : Circular Concre	Inlet Edge Desc ete: Square edg	ription: e w/ headwall			
Downstream FHW Circular Concre	A Inlet Edge De ete: Square edg	scription: e w/ headwall			
RCP					
Name: Group:	Ex_P-18 BASE	From Node: To Node:	Ex_N-13 Ex_Pond-G	Length(ft): Count:	21.00 1 Jutomatic
Geometry: Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in):	UPSTREAM Circular 48.00 36.690 0.012000 0.000 0.000	DOWNSTREAM Circular 48.00 48.00 36.300 0.012000 0.000 0.000		Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Upstream FHWA : Circular Concre	Inlet Edge Desc ete: Square edg	ription: e w/ headwall			
Downstream FHWA Circular Concre	A Inlet Edge De ete: Square edg	scription: e w/ headwall			
VERIFY PIPE SI	ZE				
Name: Group: Geometry: Span(in): Rise(in):	Ex_P-19 BASE UPSTREAM Circular 15.00 15.00	From Node: To Node: DOWNSTREAM Circular 15.00 15.00	Ex_N-15 Ex_N-16	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef:	181.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00
Invert(ft): Manning's N: Top Clip(in): Bot Clip(in):	0.012000 0.000 0.000	0.012000 0.000 0.000		Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	Use dc or tw Use dc None
Invert(ft): Manning's N: Top Clip(in): Bot Clip(in): Upstream FHWA	0.012000 0.000 0.000 Inlet Edge Desc.	0.012000 0.000 0.000 ription: e w/ headwall		Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	Use dc or tw Use dc None
Invert(ft): Manning's N: Top Clip(in): Bot Clip(in): Upstream FHWA Circular Concre Downstream FHWA Circular Concre	0.012000 0.000 0.000 Inlet Edge Desc ete: Square edg A Inlet Edge De ete: Square edg	0.012000 0.000 0.000 ription: e w/ headwall scription: e w/ headwall		Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	Use dc or tw Use dc None
Invert(ft): Manning's N: Top Clip(in): Bot Clip(in): Upstream FHWA Circular Concre Downstream FHWZ Circular Concre	0.012000 0.000 0.000 Inlet Edge Desc. ete: Square edg A Inlet Edge De ete: Square edg	38.410 0.012000 0.000 ription: e w/ headwall scription: e w/ headwall		Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	Use dc or tw Use dc None

Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Name:	Ex_P-3	From Node: H	Ex_N-3	Length(ft):	544.00
Group:	BASE	To Node: H	Ex-N-5	Count:	1
				Friction Equation:	Automatic
	UPSTREAM	DOWNSTREAM		Solution Algorithm:	Most Restrictive
Geometry:	Circular	Circular		Flow:	Both
<pre>Span(in):</pre>	24.00	24.00		Entrance Loss Coef:	0.00
Rise(in):	24.00	24.00		Exit Loss Coef:	1.00
Invert(ft):	38.650	35.500		Bend Loss Coef:	0.00
Manning's N:	0.012000	0.012000		Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000		Inlet Ctrl Spec:	Use dc
Bot Clip(in):	0.000	0.000		Stabilizer Option:	None

Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

CPP

Name:	Ex_P-6	From Node: Ex_N-7	Length(ft):	25.00
Group:	BASE	To Node: Ex_Pond-C	Count:	1
			Friction Equation:	Automatic
	UPSTREAM	DOWNSTREAM	Solution Algorithm:	Most Restrictive
Geometry:	Circular	Circular	Flow:	Both
Span(in):	12.00	15.00	Entrance Loss Coef:	0.00
Rise(in):	12.00	15.00	Exit Loss Coef:	1.00
Invert(ft):	38.660	38.660	Bend Loss Coef:	0.00
Manning's N:	0.012000	0.012000	Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dc
Bot Clip(in):	0.000	0.000	Stabilizer Option:	None

Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

PVC

CHANGE OF SIZE

Name:	Ex_P-7	From Node:	Ex-N-5	Length(ft):	21.00
Group:	BASE	To Node:	Ex_Pond-C	Count:	1
				Friction Equation:	Automatic
	UPSTREAM	DOWNSTREAM		Solution Algorithm:	Most Restrictive
Geometry:	Circular	Circular		Flow:	Both
<pre>Span(in):</pre>	48.00	48.00		Entrance Loss Coef:	0.00
Rise(in):	48.00	48.00		Exit Loss Coef:	1.00
Invert(ft):	36.550	35.790		Bend Loss Coef:	0.00
Manning's N:	0.012000	0.012000		Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000		Inlet Ctrl Spec:	Use dc
Bot Clip(in):	0.000	0.000		Stabilizer Option:	None

Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

CMP

Name: Group:	Ex_P-8B BASE	From Node: To Node:	Ex_N-9 Ex_N-10	Length(ft): Count:	32.00
Geometry: Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in):	UPSTREAM Horz Ellipse 68.00 43.00 37.400 0.012000 0.000 0.000	DOWNSTREAM Horz Ellipse 68.00 43.00 37.800 0.012000 0.000 0.000		Friction Equation: Solution Algorithm: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Upstream FHWA Horizontal Ell	Inlet Edge Desc ipse Concrete:	ription: Square edge with	headwall		
Downstream FHW Horizontal Ell:	A Inlet Edge De ipse Concrete:	scription: Square edge with	headwall		
ERCP					
Name: Group: Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in):	Ex_P-9 BASE UPSTREAM Horz Ellipse 68.00 43.00 37.580 0.012000 0.000 0.000	From Node: To Node: DOWNSTREAM Horz Ellipse 68.00 43.00 37.020 0.012000 0.002 0.000	Ex_N-10 Ex_N-11	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	161.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Upstream FHWA Horizontal Ell Downstream FHWW Horizontal Ell ERCP	Inlet Edge Desc ipse Concrete: A Inlet Edge De ipse Concrete:	ription: Square edge with scription: Square edge with	headwall headwall		
Name:	Ex_P2	From Node:	Ex_Pond-A	Length(ft):	79.00
Geometry: Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in):	UPSTREAM Circular 24.00 39.610 0.012000 0.000 0.000	DOWNSTREAM Circular 24.00 24.00 39.270 0.012000 0.000 0.000		Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Upstream FHWA Circular Concre	Inlet Edge Desc ete: Square edg	ription: e w/ headwall			
Downstream FHW Circular Concre	A Inlet Edge De ete: Square edg	scription: e w/ headwall			
CPP - Corrugate	ed Polyethylene	Pipe			
===== Drop Stru	ctures =======				
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Name: Ex_DS-11 From Node: Ex_N-21 Length(ft): 21.00 Group: BASE To Node: Ex_N-16 Count: 1 UPSTREAM DOWNSTREAM Friction Equation: Automatic Geometry: Circular Circular Solution Algorithm: Most Restrictive Span(in): 48.00 Flow: Both 48.00 Rise(in): 48.00 48.00 Entrance Loss Coef: 0.000 Invert(ft): 37.120 36.870 Exit Loss Coef: 1.000 Manning's N: 0.012000 0.012000 Outlet Ctrl Spec: Use dc or tw Top Clip(in): 0.000 Bot Clip(in): 0.000 Inlet Ctrl Spec: Use dc Solution Incs: 10 0.000 0.000 Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall *** Weir 1 of 5 for Drop Structure Ex_DS-11 *** TABLE Count: 1 Bottom Clip(in): 0.000 Type: Horizontal Top Clip(in): 0.000 Flow: Both Weir Disc Coef: 3.200 Geometry: Rectangular Orifice Disc Coef: 0.600 Span(in): 51.60 Invert(ft): 41.700 Rise(in): 39.60 Control Elev(ft): 41.700 *** Weir 2 of 5 for Drop Structure Ex_DS-11 *** TABLE Count: 1 Bottom Clip(in): 0.000 Type: Vertical: Mavis Top Clip(in): 0.000 Flow: Both Geometry: Rectangular Weir Disc Coef: 3.200 Orifice Disc Coef: 0.600 Span(in): 25.20 Invert(ft): 40.800 Rise(in): 9.28 Control Elev(ft): 40.800 *** Weir 3 of 5 for Drop Structure Ex_DS-11 *** TABLE Bottom Clip(in): 0.000 Count: 1 Type: Vertical: Mavis Top Clip(in): 0.000 Flow: Both Weir Disc Coef: 3.200 Flow: Both Weir Disc Coef: 3.200 Geometry: Rectangular Orifice Disc Coef: 0.600 Span(in): 37.20 Invert(ft): 40.550 Rise(in): 12.30 Control Elev(ft): 40.550 *** Weir 4 of 5 for Drop Structure Ex_DS-11 *** TABLE Count: 1 Bottom Clip(in): 0.000 Type: Vertical: Mavis Flow: Both Top Clip(in): 0.000 Weir Disc Coef: 3.200 Geometry: Rectangular Weir Disc Coef: 3.200 Geometry: Rectangular Span(in): 25.20 Invert(ft): 40.730 Control Elev(ft): 40.730 Rise(in): 10.12 *** Weir 5 of 5 for Drop Structure Ex_DS-11 *** TABLE Bottom Clip(in): 0.000 Count: 1 Type: Vertical: Mavis Top Clip(in): 0.000 Flow: Both Weir Disc Coef: 3.200 Flow: BothWeir Disc Coef: 3.200Geometry: RectangularOrifice Disc Coef: 0.600 Span(in): 7.20 Invert(ft): 36.850 Rise(in): 44.40 Control Elev(ft): 36.850 _____ _____ Name: Ex_DS-4 From Node: Ex_Pond-B Length(ft): 31.00 Group: BASE To Node: Ex-N-5 Count: 1 J:\E2160\E2160208.00\modeling\icpr\EXISTING.EXISTING.ICP 12/2/2016 3:47:02 PM

UPSTREAM DOWNSTREAM Geometry: Circular Circular Span(in): 18.00 18.00 Rise(in): 19.00 Friction Equation: Automatic Solution Algorithm: Most Restrictive Flow: Both Rise(in): 18.00 18.00 Entrance Loss Coef: 0.000 Exit Loss Coef: 1.000 Outlet Ctrl Spec: Use dc or tw Invert(ft): 38.590 Manning's N: 0.012000 38.550 0.012000 Top Clip(in): 0.000 0.000 Inlet Ctrl Spec: Use dc Bot Clip(in): 0.000 0.000 Solution Incs: 10 Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall *** Weir 1 of 5 for Drop Structure Ex_DS-4 *** TABLE Bottom Clip(in): 0.000 Count: 1 Top Clip(in): 0.000 Type: Horizontal Flow: Both Weir Disc Coef: 3.200 Geometry: Rectangular Weir Disc Coef: 3.200 Geometry: Rectangular Span(in): 48.00 Invert(ft): 41.730 Rise(in): 36.00 Control Elev(ft): 41.730 *** Weir 2 of 5 for Drop Structure Ex_DS-4 *** TABLE Count: 1 Bottom Clip(in): 0.000 Type: Vertical: Mavis Top Clip(in): 0.000 Flow: Both Weir Disc Coef: 3.200 Geometry: Rectangular Orifice Disc Coef: 0.600 Span(in): 15.60 Invert(ft): 40.900 Rise(in): 7.96 Control Elev(ft): 40.900 *** Weir 3 of 5 for Drop Structure Ex_DS-4 *** TABLE Lype: vertical: MavisBottom Clip(in): 0.000Flow: BothTop Clip(in): 0.000Geometry: RectangularWeir Disc Coef: 3.200 Span(in): 15.60 Invert(ft): 40.960 Control Elev(ft): 40.960 Rise(in): 7.24 *** Weir 4 of 5 for Drop Structure Ex_DS-4 *** TABLE Bottom Clip(in): 0.000 Count: 1 Type: Vertical: MavisTop Clip(in): 0.000Flow: BothWeir Disc Coef: 3.200Geometry: RectangularOrifice Disc Coef: 0.600 Span(in): 26.40 Invert(ft): 40.790 Rise(in): 9.28 Control Elev(ft): 40.790 *** Weir 5 of 5 for Drop Structure Ex_DS-4 *** TABLE Count: 1Bottom Clip(in): 0.000Type: Vertical: MavisTop Clip(in): 0.000Flow: BothWeir Disc Coef: 3.200Geometry: RectangularOrifice Disc Coef: 0.600 Span(in): 4.80 Invert(ft): 38.860 Rise(in): 22.80 Control Elev(ft): 38.860 _____ Name: Ex_DS-5From Node: Ex_Pond-DLength(ft): 26.00Group: BASETo Node: Ex_N-7Count: 1 Group: BASE UPSTREAM DOWNSTREAM Friction Equation: Automatic Geometry: Horz Ellipse Horz Ellipse Solution Algorithm: Most Restrictive J:\E2160\E2160208.00\modeling\icpr\EXISTING.ICP 12/2/2016 3:47:02 PM

30.00 19.00 19.00 19.00 43.240 Manning's N: 0.012000 Top Clip(in): 0.000 Bot Clip(in): 0.000 9.000 0.000 0.000 0.000 Span(in): 30.00 30.00 Flow: Both Entrance Loss Coef: 0.000 Exit Loss Coef: 1.000 Outlet Ctrl Spec: Use dc or tw Inlet Ctrl Spec: Use dc Solution Incs: 10 Upstream FHWA Inlet Edge Description: Horizontal Ellipse Concrete: Square edge with headwall Downstream FHWA Inlet Edge Description: Horizontal Ellipse Concrete: Square edge with headwall *** Weir 1 of 2 for Drop Structure Ex_DS-5 *** Count: 1Bottom Clip(in): 0.000Type: HorizontalTop Clip(in): 0.000Weir Disc Coef: 3.200Weir Disc Coef: 0.600 TABLE Bottom Clip(in): 0.000 Count: 1 Geometry: Rectangular Orifice Disc Coef: 0.600 Span(in): 42.00 Invert(ft): 44.700 Rise(in): 60.00 Control Elev(ft): 44.700 *** Weir 2 of 2 for Drop Structure Ex_DS-5 *** TABLE Count: 1 Bottom Clip(in): 0.000 Type: Horizontal Top Clip(in): 0.000 Flow: Both Weir Disc Coef. 0.600 Geometry: Circular Orifice Disc Coef: 0.600 Invert(ft): 44.080 Span(in): 2.00 Rise(in): 2.00 Control Elev(ft): 44.080 _____ _____ Name: Ex_DS-8AFrom Node: Ex_Pond-CLength(ft): 171.00Group: BASETo Node: Ex_N-9Count: 1 UPSTREAMDOWNSTREAMFriction Equation: AutomaticGeometry: Horz EllipseHorz EllipseSolution Algorithm: Most RestrictiveSpan(in): 68.0068.00Flow: BothRise(in): 43.0043.00Entrance Loss Coef: 0.000Invert(ft): 37.40037.610Exit Loss Coef: 1.000Manning's N: 0.0120000.012000Outlet Ctrl Spec: Use dc or twTop Clip(in): 0.0000.000Inlet Ctrl Spec: Use dcBot Clip(in): 0.0000.000Solution Incs: 10 Upstream FHWA Inlet Edge Description: Horizontal Ellipse Concrete: Square edge with headwall Downstream FHWA Inlet Edge Description: Horizontal Ellipse Concrete: Square edge with headwall *** Weir 1 of 5 for Drop Structure Ex_DS-8A *** Count: 1 Type: Horizontal Flow: Both Bottom Clip(in): 0.000 Top Clip(in): 0.000 Weir Disc Coef: 3.200 Weir Disc Coef: 3.200 TABLE Count: 1 Geometry: Rectangular Orifice Disc Coef: 0.600 Span(in): 96.00 Invert(ft): 41.720 Rise(in): 48.00 Control Elev(ft): 41.720 *** Weir 2 of 5 for Drop Structure Ex_DS-8A *** TABLE Count: 1Bottom Clip(in): 0.000Type: Vertical: MavisTop Clip(in): 0.000Flow: BothWeir Disc Coef: 3.200 Count: 1 Flow: Both Geometry: Rectangular Weir Disc Coef: 3.200 Orifice Disc Coef: 0.600 Span(in): 22.80 Invert(ft): 40.550 J:\E2160\E2160208.00\modeling\icpr\EXISTING\EXISTING.ICP 12/2/2016 3:47:02 PM

Rise(in): 12.00 Control Elev(ft): 40.550 *** Weir 3 of 5 for Drop Structure Ex_DS-8A *** TABLE Count: 1Bottom Clip(in): 0.000Type: Vertical: MavisTop Clip(in): 0.000Flow: BothWeir Disc Coef: 3.200Geometry: RectangularOrifice Disc Coef: 0.600 Span(in): 60.00 Invert(ft): 40.450 Rise(in): 13.24 Control Elev(ft): 40.450 *** Weir 4 of 5 for Drop Structure Ex_DS-8A *** TABLE Count: 1Bottom Clip(in): 0.000Type: Vertical: MavisTop Clip(in): 0.000Flow: BothWeir Disc Coef: 3.200Geometry: RectangularOrifice Disc Coef: 0.600 Span(in): 4.80 Rise(in): 37.20 Invert(ft): 37.400 Control Elev(ft): 37.400 *** Weir 5 of 5 for Drop Structure Ex_DS-8A *** TABLE Count: 1Bottom Clip(in): 0.000Type: Vertical: MavisTop Clip(in): 0.000Flow: BothWeir Disc Coef: 3.200Geometry: RectangularOrifice Disc Coef: 0.600 Span(in): 24.00 Invert(ft): 40.600 Rise(in): 11.44 Control Elev(ft): 40.600 Name: Ex W-1 From Node: Ex_Pond-G Group: BASE To Node: Ex_Pond: Flow: Both Count: 1 Type: Vertical: Mavis Geometry: Irregular XSec: wier_lake_g Invert(ft): 38.020 Control Elevation(ft): 38.020 Struct Opening Dim(ft): 9999.00 TABLE Bottom Clip(ft): 0.000 Top Clip(ft): 0.000 Weir Discharge Coef: 3.200 Orifice Discharge Coef: 0.600 _____ Name: Ex_W-10From Node: Ex_N-11Group: BASETo Node: Ex_Pond-GFlow: BothCount: 1 Flow: Both Count: 1 Type: Vertical: Mavis Geometry: Trapezoidal Bottom Width(ft): 34.65 Left Side Slope(h/v): 22.64 Right Side Slope(h/v): 14.16 Invert(ft): 40.200 Control Elevation(ft): 42.000 Struct Opening Dim(ft): 9999.00 TABLE Bottom Clip(ft): 0.000 Top Clip(ft): 0.000 Weir Discharge Coef: 3.200 Orifice Discharge Coef: 0.600 J:\E2160\E2160208.00\modeling\icpr\EXISTING\EXISTING.ICP 12/2/2016 3:47:02 PM

Name: Ex_W-14 From Node: Ex_N-16 To Node: Ex_Pond-F Group: BASE Flow: Both Count: 1 Type: Vertical: Mavis Geometry: Trapezoidal Bottom Width(ft): 4.80 Left Side Slope(h/v): 40.75 Right Side Slope(h/v): 39.75 Invert(ft): 41.800 Control Elevation(ft): 42.000 Struct Opening Dim(ft): 9999.00 TABLE Bottom Clip(ft): 0.000 Top Clip(ft): 0.000 Weir Discharge Coef: 3.200 Orifice Discharge Coef: 0.600 _____ Name:Ex_W-15From Node:Ex_Pond-FGroup:BASETo Node:E_Outfall_Flow:BothCount:1 To Node: E_Outfall_Ditch Flow: Both Count: 1 Type: Vertical: Mavis Geometry: Trapezoidal Bottom Width(ft): 29.20 Left Side Slope(h/v): 26.36 Right Side Slope(h/v): 97.96 Invert(ft): 40.400 Control Elevation(ft): 42.000 Struct Opening Dim(ft): 9999.00 TABLE Bottom Clip(ft): 0.000 Top Clip(ft): 0.000 Weir Discharge Coef: 3.200 Orifice Discharge Coef: 0.600 _____ Name:Ex_W-18From Node:Ex_N-13Group:BASETo Node:Ex_Pond-Flow:BothCount:1 To Node: Ex_Pond-G Type: Vertical: Mavis Geometry: Trapezoidal Bottom Width(ft): 13.45 Left Side Slope(h/v): 20.88 Right Side Slope(h/v): 23.88 Invert(ft): 41.200 Control Elevation(ft): 42.000 Struct Opening Dim(ft): 9999.00 TABLE Bottom Clip(ft): 0.000 Top Clip(ft): 0.000 Weir Discharge Coef: 3.200 Orifice Discharge Coef: 0.600 _____ _____ Name: Ex_W-5From Node: Ex_Pond-DGroup: BASETo Node: Ex_N-7Flow: BothCount: 1 Flow: Both Count: 1 Type: Vertical: Mavis Geometry: Trapezoidal Bottom Width(ft): 8.00 Left Side Slope(h/v): 50.00 Right Side Slope(h/v): 80.00 Invert(ft): 45.200 Control Elevation(ft): 45.500 Struct Opening Dim(ft): 9999.00 TABLE Bottom Clip(ft): 0.000 Top Clip(ft): 0.000 Weir Discharge Coef: 3.200 J:\E2160\E2160208.00\modeling\icpr\EXISTING\EXISTING.ICP 12/2/2016 3:47:02 PM

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Orifice Discharge Coef: 0.600
                                          _____
      Name: Ex_W-6 From Node: Ex_N-7
                        To Node: Ex_Pond-C
     Group: BASE
      Flow: Both
                           Count: 1
      Type: Vertical: Mavis
                       Geometry: Trapezoidal
        Bottom Width(ft): 7.00
     Left Side Slope(h/v): 120.00
     Right Side Slope(h/v): 45.00
            Invert(ft): 44.100
     Control Elevation(ft): 44.500
    Struct Opening Dim(ft): 9999.00
                                 TABLE
         Bottom Clip(ft): 0.000
      Top Clip(ft): 0.000
Weir Discharge Coef: 3.200
    Orifice Discharge Coef: 0.600
                                        _____
_____
            _____
     Name: Ex_W-7From Node: Ex-N-5Group: BASETo Node: Ex_Pond-CFlow: BothCount: 1
      Flow: Both
                           Count: 1
      Type: Vertical: Mavis Geometry: Trapezoidal
        Bottom Width(ft): 31.20
     Left Side Slope(h/v): 100.00
     Right Side Slope(h/v): 35.00
            Invert(ft): 41.400
     Control Elevation(ft): 43.000
    Struct Opening Dim(ft): 9999.00
                                TABLE
         Bottom Clip(ft): 0.000
           Top Clip(ft): 0.000
      Weir Discharge Coef: 3.200
    Orifice Discharge Coef: 0.600
Name: Ex_WM_100Y_24H
   Filename: J:\E2160\E2160208.00\modeling\icpr\EXISTING\Ex_WM_100Y_24H.R32
    Override Defaults: Yes
   Storm Duration(hrs): 24.00
       Rainfall File: Flmod
   Rainfall Amount(in): 12.00
Time(hrs)
          Print Inc(min)
      _____
36.000
          5.00
     Name: Ex_WM_25Y_24H
   Filename: J:\E2160\E2160208.00\modeling\icpr\EXISTING\Ex_WM_25Y_24H.R32
    Override Defaults: Yes
   Storm Duration(hrs): 24.00
      Rainfall File: Flmod
   Rainfall Amount(in): 9.00
         Print Inc(min)
Time(hrs)
        5.00
36.000
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Name: Filename:	: Ex_WM_100 : J:\E2160\	Y_24H Hydr E2160208.00\mod	cology Sim: Weling\icpr	Ex_WM_100Y_24H \EXISTING\Ex WM 1	00Y 24H.I32	
Execute	: Yes : No	Restart: No	5, 1	Patch: No		
Max De Time Step Start Min Calc Bounda	elta Z(ft): Optimizer: Time(hrs): Time(sec): ary Stages:	1.00 10.000 0.000 0.5000	Max	Delta Z Factor: End Time(hrs): Calc Time(sec): Boundary Flows:	0.00500 24.00 60.0000	
Time(hrs)	Print In	c(min)				
999.000	15.000					
Group	Run					
BASE	Yes					
Name: Filename:	: Ex_WM_25Y : J:\E2160\	_24H Hydr E2160208.00\mod	cology Sim: deling\icpr	Ex_WM_25Y_24H \EXISTING\Ex_WM_2	25Y_24H.I32	
Execute: Alternative:	Yes No	Restart: No		Patch: No		
Max De Time Step Start Min Calc Bounda	elta Z(ft): Optimizer: Time(hrs): Time(sec): ary Stages:	1.00 10.000 0.000 0.5000	Max	Delta Z Factor: End Time(hrs): Calc Time(sec): Boundary Flows:	0.00500 24.00 60.0000	
Time(hrs)	Print In	c(min)				
999.000	15.000					
Group	Run					

BASE Yes

Pelican Golf Club Existing Condition

			Max Time	Max	Warning M	íax Delta	Max Surf	Max Time	Max	Max Time	Max	
Name	Group	Simulation	Stage	Stage	Stage	Stage	Area	Inflow	Inflow	Outflow	Outflow	
			hrs	ft	ft	ft	ft2	hrs	cfs	hrs	cfs	
E_Outfall_Ditch	BASE	Ex_WM_25Y_24H	13.50	37.59	42.00	0.0035	5634	13.39	27.21	13.49	27.14	
Ex-N-5	BASE	Ex_WM_25Y_24H	18.85	41.32	43.00	0.0016	8213	21.36	8.32	21.35	8.49	
Ex_N-1	BASE	Ex_WM_25Y_24H	15.18	41.94	46.00	0.0061	85285	12.17	46.07	12.23	13.67	
Ex_N-10	BASE	Ex_WM_25Y_24H	16.19	41.22	44.00	0.0145	167	12.08	22.51	14.76	27.93	
Ex_N-11	BASE	Ex_WM_25Y_24H	16.19	41.15	42.00	0.0032	19413	14.76	27.93	12.09	14.06	
Ex_N-12	BASE	Ex_WM_25Y_24H	12.44	43.35	46.00	-0.0114	12951	12.25	46.71	12.44	43.80	
Ex_N-13	BASE	Ex_WM_25Y_24H	16.17	41.15	42.00	0.0025	16148	12.44	43.80	12.48	37.70	
Ex_N-15	BASE	Ex_WM_25Y_24H	12.59	41.85	43.00	0.0028	9040	12.08	10.96	12.59	6.80	
Ex_N-16	BASE	Ex_WM_25Y_24H	16.20	39.92	42.00	0.0011	11269	16.04	19.46	16.20	19.45	
Ex_N-17	BASE	Ex_WM_25Y_24H	12.31	46.43	47.00	0.0050	13977	12.08	8.90	12.31	6.56	
Ex_N-19	BASE	Ex_WM_25Y_24H	13.41	40.56	45.00	0.0008	1180	13.34	4.93	13.41	4.93	
Ex_N-21	BASE	Ex_WM_25Y_24H	16.20	41.14	42.00	0.0014	3566	16.15	18.62	16.20	18.62	
Ex_N-3	BASE	Ex_WM_25Y_24H	15.60	41.79	45.00	0.0009	8810	12.96	11.82	13.96	7.38	
Ex_N-7	BASE	Ex_WM_25Y_24H	15.68	41.34	44.00	0.0011	1361	13.25	5.47	13.52	5.38	
Ex_N-9	BASE	Ex_WM_25Y_24H	16.19	41.19	42.61	0.0158	127	21.18	13.08	21.18	12.84	
Ex_Outfall	BASE	Ex_WM_25Y_24H	0.00	36.21	36.21	0.0000	651	13.49	27.14	0.00	0.00	
Ex_Pond-A	BASE	Ex_WM_25Y_24H	15.25	41.93	45.00	0.0016	35883	12.25	23.91	12.96	11.82	
Ex_Pond-B	BASE	Ex_WM_25Y_24H	20.68	41.39	43.00	0.0007	148234	12.25	35.74	24.00	3.27	
Ex_Pond-C	BASE	Ex_WM_25Y_24H	18.82	41.31	43.00	0.0016	50025	12.42	18.75	21.18	13.08	
Ex_Pond-D	BASE	Ex_WM_25Y_24H	13.25	45.21	45.50	0.0009	77007	12.08	21.03	13.25	5.47	
Ex_Pond-E	BASE	Ex_WM_25Y_24H	13.37	44.06	45.00	0.0009	65044	12.17	20.44	13.34	4.93	
Ex_Pond-F	BASE	Ex_WM_25Y_24H	13.41	38.39	42.00	-0.0030	28219	12.89	27.99	13.40	26.68	
Ex_Pond-G	BASE	Ex_WM_25Y_24H	16.20	41.15	42.00	0.0014	170697	12.22	76.16	16.15	18.62	

PROPOSED CONDITION



PROPOSED DRAINAGE BASIN DATA

PROJECT NAME:	Pelican Golf Club	LAND COVER	CN	
FPID:	0	PAVEMENT	98	CN Values from FDOT
COUNTY:	Pinellas	GRASS	39	Hydrology
Date:	December 2, 2016	WATER	100	(Table T-7)

BASIN		AREA (AC)			WEIGHTED CN
BASIN	PAVED	WATER	GRASS		(Area to Pond)
Pr_B_POND-D	2.70	0.86	3.84	7.40	68



TREATMENT VOLUME CALCULATION

PROJECT NAME: Pelican Golf Club

FPID: 0

COUNTY: Pinellas

Date: December 2, 2016

BASIN	_	PAVEMENT	AREA (AC)		TREATMENT VOLUME (AC-FT)		
	Treatment Facility	EXISTING	PROPOSED	TOTAL BASIN AREA (AC)	BASED ON 1" RUNOFF FROM PAVED AREA	REQUIRED IN AC-FT	
Pr_B_POND-D	Pond D	2.20	2.70	7.40	0.23	0.23	



POND STAGE VOLUME

PROJECT NAME: Pelican Golf Club

FPID: 0

COUNTY: Pinellas

Date: December 2, 2016

POND	AT SHW / POND BOTTOM / INITIAL STAGE		ABOVE T	HE WEIR	WEIR		ACTUAL QUALITY	
POND	ELEVATION	AREA (AC)	ELEVATION	AREA (AC)	ELEVATION (ft)		VOLUME (AC-FT)	
Pond D	43.50	0.85	45.00	0.98	43.78	0.87	0.24	



ORIFICE CALCULATIONS

PROJECT NAME: Pelican Golf Club

FPID:	0	Time (hr)	60
COUNTY:	Pinellas	Cd	0.6
Date:	December 2, 2016	2g	64.4

POND WEIB OBJEICE		POND	SURFACE ARE	ORIFICE			
POND	WEIR	ORIFICE	AT WEIR	AT ORFICE	AVERAGE	AREA (SF)	DIAMETER (IN)
Pond D	43.78	43.50	0.87	0.85	0.86	0.0079	1.20

_____ Node: PR_N_BeFor Name: PR_B_BeFor Status: Onsite Type: SCS Unit Hydrograph CN Group: BASE Unit Hydrograph: Uh256 Peaking Factor: 256.0 Rainfall File: Storm Duration(hrs): 0.00 Time of Conc(min): 27.00 Time Shift(hrs): 0.00 Max Allowable Q(cfs): 999999.000 Rainfall Amount(in): 0.000 Area(ac): 26.100 Curve Number: 60.40 DCIA(%): 0.00 _____ Name: PR_B_GVDN Node: Pr_N-GVDN Status: Onsite Group: BASE Type: SCS Unit Hydrograph CN Kainfall File:Peaking Factor: 256.0Rainfall Amount(in): 0.000Storm Duration(hrs): 0.000Area(ac): 3.140Time of Conc(min): 10.00 Peaking Factor: 256.0 Time of Conc(min): 10.00 Time Shift(hrs): 0.00 Curve Number: 60.70 Max Allowable Q(cfs): 999999.000 DCIA(%): 0.00 Name: PR_B_GVDSNode: PR_N_GVDSStatus: OnsiteGroup: BASEType: SCS Unit Hydrograph CN Group: BASE Peaking Factor: 256.u Storm Duration(hrs): 0.00 Time of Conc(min): 22.00 Time Shift(hrs): 0.00 Unit Hydrograph: Uh256 Rainfall File: Rainfall Amount(in): 0.000 Amount(in): 0.000 Area(ac): 22.690 Max Allowable Q(cfs): 999999.000 Curve Number: 61.30 DCIA(%): 0.00 Name: PR_B_HiRdNode: Pr_N_HiRdStatus: OnsiteGroup: BASEType: SCS Unit Hydrograph CN Unit Hydrograph: Uh256 Peaking Factor: 256.0 Storm Duration(hrs): 0.00 Rainfall File: Rainfall Amount(in): 0.000 Time of Conc(min): 16.00 Time Shift(hrs): 0.00 Area(ac): 4.400 Curve Number: 62.70 Max Allowable Q(cfs): 999999.000 DCIA(%): 0.00 _____ Name: PR_B_MAINNode: PR_N_MAINStatus: OnsiteGroup: BASEType: SCS Unit Hydrograph CN Group: BASE Unit Hydrograph: Uh256 Rainfall File: Rainfall Amount(in): 0.000 Peaking Factor: 256.0 Peaking raccol. 2000 Storm Duration(hrs): 0.00 Time of Conc(min): 10.00 Time Shift(hrs): 0.00 Area(ac): 8.310 Max Allowable Q(cfs): 999999.000 Curve Number: 46.50 DCIA(%): 0.00 ------_____ Name: PR_B_Pond-A Node: Pond-A Status: Onsite Type: SCS Unit Hydrograph CN Group: BASE Unit Hydrograph: Uh256 Rainfall File: Storm Duration(hrs): 0.00 Time of Conc(min): 18.00 Peaking Factor: 256.0 Time of Conc(min): 18.00 Rainfall Amount(in): 0.000

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Interconnected Channel and Pond Routing Model (ICPR) ©2002 Streamline Technologies, Inc.

Time Shift(hrs): 0.00 Max Allowable Q(cfs): 999999.000 Area(ac): 10.940 Curve Number: 43.50 DCIA(%): 0.00 Name: PR_B_Pond-BNode: Pond-BStatus: OnsiteGroup: BASEType: SCS Unit Hydrograph CN Unit Hydrograph: Uh256 Peaking Factor: 256.0 Storm Duration(hrs): 0.00 Rainfall File: Rainfall Amount(in): 0.000 Time of Conc(min): 13.00 Time Shift(hrs): 0.00 Area(ac): 8.690 Curve Number: 48.80 Max Allowable Q(cfs): 999999.000 DCIA(%): 0.00 _____ Name: PR_B_Pond-C Node: Pond-C Status: Onsite Group: BASE Type: SCS Unit Hydrograph CN Unit Hydrograph: Uh256 Peaking Factor: 256.0 Storm Duration(hrs): 0.00 Time of Conc(min): 39.00 Time Shift(hrs): 0.00 Max Allowable Q(cfs): 999999.000 Rainfall File: Rainfall Amount(in): 0.000 Area(ac): 57.360 Curve Number: 40.00 DCIA(%): 0.00 _____ _____ Name: PR_B_Pond-D Node: Pond-D Status: Onsite Group: BASE Type: SCS Unit Hydrograph CN Unit Hydrograph: Uh256 Peaking Factor: 256.0 Storm Duration(hrs): 0.00 Rainfall File: Rainfall Amount(in): 0.000 Time of Conc(min): 13.00 Time Shift(hrs): 0.00 Area(ac): 7.400 Curve Number: 68.00 Max Allowable Q(cfs): 999999.000 DCIA(%): 0.00 Name: PR_B_Pond-ENode: Pond-EStatus: OnsiteGroup: BASEType: SCS Unit Hydrograph CN Unit Hydrograph: Uh256 Peaking Factor: 256.0 Storm Duration(hrs): 0.00 Time of Conc(min): 10.00 Time Shift(hrs): 0.00 Rainfall File: Rainfall Amount(in): 0.000 Area(ac): 6.380 Curve Number: 54.40 Max Allowable Q(cfs): 999999.000 DCIA(%): 0.00 Name: PR_B_Pond-F Node: Pond-F Status: Onsite Group: BASE Type: SCS Unit Hydrograph CN Unit Hydrograph: Uh256 Peaking Factor: 256.0 Storm Duration(hrs): 0.00 Rainfall File: Rainfall Amount(in): 0.000 Time of Conc(min): 22.00 Time Shift(hrs): 0.00 Area(ac): 22.740 Max Allowable Q(cfs): 999999.000 Curve Number: 42.10 DCIA(%): 0.00 Name: PR_B_Pond-G Node: Pond-G Status: Onsite Group: BASE Type: SCS Unit Hydrograph CN Peaking Factor: 256.0 Unit Hydrograph: Uh256 J:\E2160\E2160208.00\modeling\icpr\PROPOSED\Proposed.ICP 12/2/2016 4:49:47 PM

Rainfall File: Rainfall Amount(in): 0 Area(ac): 3 Curve Number: 4 DCIA(%): 0	.000 2.220 3.00 .00	Storm Durati Time of Co Time Shi Max Allowable	ion(hrs): 0.00 onc(min): 25.00 ift(hrs): 0.00 e Q(cfs): 999999.000
Name: PR_B_PoRd Group: BASE		Node: PR_N_PoRd Type: SCS Unit Hy	Status: Onsite Ydrograph CN
Unit Hydrograph: U Rainfall File: Rainfall Amount(in): O Area(ac): 7 Curve Number: 6 DCIA(%): 0	h256 .000 .950 2.30 .00	Peaking Storm Durati Time of Co Time Shi Max Allowable	g Factor: 256.0 ion(hrs): 0.00 onc(min): 15.00 ift(hrs): 0.00 e Q(cfs): 999999.000
=== Nodes ====================================			
Name: DN_A Group: BASE Type: Stage/Area	Base	Flow(cfs): 0.000	Init Stage(ft): 39.000 Warn Stage(ft): 44.000
Stage(ft) Are	a(ac)		
39.000 0 44.000 0	.0010		
Name: DN_A2 Group: BASE Type: Stage/Area	Base	Flow(cfs): 0.000	Init Stage(ft): 35.000 Warn Stage(ft): 44.000
Stage(ft) Are	a(ac)		
35.000 0 44.000 0	.0010 .0010		
Name: DN_BeFor Group: BASE Type: Stage/Area	Base	Flow(cfs): 0.000	Init Stage(ft): 35.000 Warn Stage(ft): 45.000
Stage(ft) Are	a(ac)		
35.000 0 45.000 0	.0010		
Name: DN_C Group: BASE Type: Stage/Area	Base	Flow(cfs): 0.000	Init Stage(ft): 35.000 Warn Stage(ft): 43.000
Stage(ft) Are	a(ac)		
30.000 0 45.000 0	.0010 .0010		
Name: DN_D Group: BASE Type: Stage/Area	Base	Flow(cfs): 0.000	Init Stage(ft): 35.000 Warn Stage(ft): 46.000

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	Area(ac)						
30.000 46.000	0.0010 0.0010						
Name: DN_E Group: BASE Type: Stage/Are	 ea	Base	Flow(cfs):	0.000	Init Warn	Stage(ft): Stage(ft):	35.000 44.000
Stage(ft)	Area(ac)						
35.000 45.000	0.0010 0.0010						
Name: DN_G Group: BASE Type: Stage/Are		Base	Flow(cfs):	0.000	Init Warn	Stage(ft): Stage(ft):	35.000 42.000
Stage(ft)	Area(ac)						
30.000 45.000	0.0010 0.0010						
Name: Pond-A Group: BASE Type: Stage/Are		Base	Flow(cfs):	0.000	Init Warn	Stage(ft): Stage(ft):	39.000 43.000
Stage(ft)	Area(ac)						
27.000 40.000 41.000 42.000 43.000	0.2100 1.0400 1.1600 1.3000 1.6200						
Name: Pond-B Group: BASE Type: Stage/Are	ea	Base	Flow(cfs):	0.000	Init Warn	Stage(ft): Stage(ft):	38.000 43.000
Stage(ft)	Area(ac)						
28.000 40.000 41.000 42.000	0.7500 1.9200 2.1200 2.2900						
Name: Pond-C Group: BASE Type: Stage/Are	ea	Base	Flow(cfs):	0.000	Init Warn	Stage(ft): Stage(ft):	38.000 43.000
Stage(ft)	Area(ac)						
27.000 40.000 41.000 42.000	0.5200 1.5400 1.6600 1.9100						

Name: Pond-D Group: BASE Type: Stage/Area		Base	Flow(cfs):	0.000	Init Warn	Stage(ft): Stage(ft):	43.850 47.000
Stage(ft)	Area(ac)						
34.000 45.000 46.000	0.2300 0.9800 1.0900						
Name: Pond-E Group: BASE Type: Stage/Area		Base	Flow(cfs):	0.000	Init Warn	Stage(ft): Stage(ft):	42.900 46.000
Stage(ft)	Area(ac)						
35.000 45.000 46.000	0.8700 1.9400 2.1000						
Name: Pond-F Group: BASE Type: Stage/Area		Base	Flow(cfs):	0.000	Init Warn	Stage(ft): Stage(ft):	37.620 42.000
Stage(ft)	Area(ac)						
29.000 40.000	0.5600 1.4400						
Name: Pond-G Group: BASE Type: Stage/Area		Base	Flow(cfs):	0.000	Init Warn	Stage(ft): Stage(ft):	38.000 43.000
Stage(ft)	Area(ac)						
30.000 37.000 37.001 38.000 39.000 40.000 41.000 42.000	1.5800 2.3800 2.4500 2.6400 2.8000 2.9600 3.4200 4.0400						
Name: Pr_N-GVDN Group: BASE Type: Stage/Area		Base	Flow(cfs):	0.000	Init Warn	Stage(ft): Stage(ft):	44.870 47.000
Stage(ft)	Area(ac)						
44.800 46.000 47.000	0.0010 0.0010 0.7500						
Name: PR_N_BeFor Group: BASE Type: Stage/Area		Base	Flow(cfs):	0.000	Init Warn	Stage(ft): Stage(ft):	39.430 46.000
Stage(ft)	Area(ac)						

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39.430 42.900 43.000 44.000 45.000 46.000	0.0010 0.0010 0.1200 0.6200 1.3600 2.7100						
Name: PR_N_GVDS Group: BASE Type: Stage/Area		Base	Flow(cfs):	0.000	Init Warn	Stage(ft): Stage(ft):	38.550 46.000
Stage(ft)	Area(ac)						
38.550 45.000 46.000	0.0010 3.7200 12.6700						
Name: Pr_N_HiRd Group: BASE Type: Stage/Area		Base	Flow(cfs):	0.000	Init Warn	Stage(ft): Stage(ft):	39.490 43.000
Stage(ft)	Area(ac)						
39.490 42.000 43.000	0.0010 0.2200 0.6500						
Name: PR_N_MAIN Group: BASE Type: Stage/Area		Base	Flow(cfs):	0.000	Init Warn	Stage(ft): Stage(ft):	35.080 41.000
Stage(ft)	Area(ac)						
35.000 41.000	0.0010 0.0010						
Name: PR_N_PoRd Group: BASE Type: Stage/Area		Base	Flow(cfs):	0.000	Init Warn	Stage(ft): Stage(ft):	38.000 44.000
Stage(ft)	Area(ac)						
37.580 42.620 43.000 44.000	0.0010 0.0010 0.2100 1.0700						
Name: Pr_Outfall Group: BASE Type: Time/Stage		Base	Flow(cfs):	0.000	Init Warn	Stage(ft): Stage(ft):	36.330 36.330
Time(hrs)	Stage(ft)						
0.00 999.00	36.330 36.330						
= Pipes ====================================							

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Name: Group: Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in): Upstream FHWA Circular Concre	Outfall_Pipe BASE UPSTREAM Circular 36.00 35.080 0.012000 0.000 0.000 Unlet Edge Desc ete: Square edg A Inlet Edge De ete: Square edg	From Node: To Node: DOWNSTREAM Circular 36.00 33.330 0.012000 0.000 0.000 0.000 ription: e w/ headwall scription: e w/ headwall	PR_N_MAIN Pr_Outfall	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	870.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Name: Group: Geometry: Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in): Upstream FHWA Circular Concre	R-Pond-A BASE UPSTREAM Circular 30.00 36.000 0.012000 0.000 0.000 Unlet Edge Desc ete: Square edg A Inlet Edge De ete: Square edg	From Node: To Node: DOWNSTREAM Circular 30.00 30.00 39.000 0.012000 0.000 0.000 ription: e w/ headwall scription: e w/ headwall	Pond-A DN_A	Length(ft): Count: Friction Equation: Solution Algorithm: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	275.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Name: Group: Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in): Dot Clip(in): Upstream FHWA Circular Concre	R-Pond-A_2 BASE UPSTREAM Circular 36.00 39.000 0.012000 0.000 0.000 Unlet Edge Desc ete: Square edg A Inlet Edge De ete: Square edg	From Node: To Node: DOWNSTREAM Circular 36.00 35.000 0.012000 0.000 0.000 ription: e w/ headwall scription: e w/ headwall	DN_A DN_A2	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Bend Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	787.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Name: Group: Geometry: Span(in): Rise(in):	R-Pond-ABC BASE UPSTREAM Circular 42.00 42.00	From Node: To Node: DOWNSTREAM Circular 42.00 42.00	DN_A2 Pond-C	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef:	105.00 1 Automatic Most Restrictive Both 0.00 1.00

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Invert(ft):	35.000	34.000	Bend Loss Coe	f: 0.00
Manning's N:	0.012000	0.012000	Outlet Ctrl Spe	c: Use dc or tw
Top Clip(in):	0.000	0.000	Inlet Ctrl Spe	c: Use dc
Bot Clip(in):	0.000	0.000	Stabilizer Optio	n: None

Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Name:	R_BeFor	From Node:	PR_N_BeFor	Length(ft):	206.00
Group:	BASE	To Node:	DN_BeFor	Count:	1
				Friction Equation:	Automatic
	UPSTREAM	DOWNSTREAM		Solution Algorithm:	Most Restrictive
Geometry:	Circular	Circular		Flow:	Both
Span(in):	36.00	36.00		Entrance Loss Coef:	0.00
Rise(in):	36.00	36.00		Exit Loss Coef:	1.00
Invert(ft):	39.430	38.490		Bend Loss Coef:	0.00
Manning's N:	0.012000	0.012000		Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000		Inlet Ctrl Spec:	Use dc
Bot Clip(in):	0.000	0.000		Stabilizer Option:	None

Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Name:	R_BeFor2	From Node:	DN_BeFor	Length(ft):	680.00
Group:	BASE	To Node:	DN_G	Count:	1
				Friction Equation:	Automatic
	UPSTREAM	DOWNSTREAM		Solution Algorithm:	Most Restrictive
Geometry:	Horz Ellipse	Horz Ellipse		Flow:	Both
<pre>Span(in):</pre>	53.00	53.00		Entrance Loss Coef:	0.00
Rise(in):	34.00	34.00		Exit Loss Coef:	1.00
Invert(ft):	37.000	35.000		Bend Loss Coef:	0.00
Manning's N:	0.012000	0.012000		Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000		Inlet Ctrl Spec:	Use dc
Bot Clip(in):	0.000	0.000		Stabilizer Option:	None

Upstream FHWA Inlet Edge Description: Horizontal Ellipse Concrete: Square edge with headwall

Downstream FHWA Inlet Edge Description: Horizontal Ellipse Concrete: Square edge with headwall

Name:	R_CDG	From Node:	DN_G	Length(ft):	166.00
Group:	BASE	To Node:	Pond-G	Count:	1
				Friction Equation:	Automatic
	UPSTREAM	DOWNSTREAM		Solution Algorithm:	Most Restrictive
Geometry:	Horz Ellipse	Horz Ellipse		Flow:	Both
<pre>Span(in):</pre>	68.00	68.00		Entrance Loss Coef:	0.00
Rise(in):	43.00	43.00		Exit Loss Coef:	1.00
Invert(ft):	35.000	34.000		Bend Loss Coef:	0.00
Manning's N:	0.012000	0.012000		Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000		Inlet Ctrl Spec:	Use dc
Bot Clip(in):	0.000	0.000		Stabilizer Option:	None

Upstream FHWA Inlet Edge Description: Horizontal Ellipse Concrete: Square edge with headwall

Downstream FHWA Inlet Edge Description: Horizontal Ellipse Concrete: Square edge with headwall

Name:	R_GVDN	From Node:	Pr_N-GVDN	Length(ft):	226.00
Group:	BASE	To Node:	Pond-E	Count:	1
				Friction Equation:	Automatic
	UPSTREAM	DOWNSTREAM		Solution Algorithm:	Most Restrictive
Geometry:	Circular	Circular		Flow:	Both
Span(in):	18.00	18.00		Entrance Loss Coef:	0.00
Rise(in):	18.00	18.00		Exit Loss Coef:	1.00
Invert(ft):	44.870	40.000		Bend Loss Coef:	0.00
Manning's N:	0.012000	0.012000		Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000		Inlet Ctrl Spec:	Use dc
Bot Clip(in):	0.000	0.000		Stabilizer Option:	None

Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Name:	R_GVDS	From Node:	PR_N_GVDS	Length(ft):	218.00
Group:	BASE	To Node:	Pond-A	Count:	1
				Friction Equation:	Automatic
	UPSTREAM	DOWNSTREAM		Solution Algorithm:	Most Restrictive
Geometry:	Circular	Circular		Flow:	Both
Span(in):	36.00	36.00		Entrance Loss Coef:	0.00
Rise(in):	36.00	36.00		Exit Loss Coef:	1.00
Invert(ft):	38.550	35.000		Bend Loss Coef:	0.00
Manning's N:	0.012000	0.012000		Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000		Inlet Ctrl Spec:	Use dc
Bot Clip(in):	0.000	0.000		Stabilizer Option:	None

Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Name:	R_HiRd	From Node: Pr	r_N_HiRd	Length(ft):	181.00
Group:	BASE	To Node: Po	ond-G	Count:	1
				Friction Equation:	Automatic
	UPSTREAM	DOWNSTREAM		Solution Algorithm:	Most Restrictive
Geometry:	Circular	Circular		Flow:	Both
Span(in):	15.00	15.00		Entrance Loss Coef:	0.00
Rise(in):	15.00	15.00		Exit Loss Coef:	1.00
Invert(ft):	39.490	38.410		Bend Loss Coef:	0.00
Manning's N:	0.012000	0.012000		Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000		Inlet Ctrl Spec:	Use dc
Bot Clip(in):	0.000	0.000		Stabilizer Option:	None

Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Span(in): Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in): Upstream FHWA Circular Concre Downstream FHW. Circular Concre Name: Group:	0.000 0.000 Inlet Edge De ete: Square e A Inlet Edge ete: Square e R_Pond-E BASE	0.000 0.000 escription: edge w/ headwall Description: edge w/ headwall From Node: To Node:	Pond-E DN_E	Inlet Ctrl Spec: Stabilizer Option: Length(ft): Count:	Use dc None 179.00 1
Span(in): Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in): Upstream FHWA Circular Concre	0.000 0.000 Inlet Edge De ete: Square e A Inlet Edge ete: Square e	0.000 0.000 escription: edge w/ headwall Description: edge w/ headwall		Inlet Ctrl Spec: Stabilizer Option:	Use dc None
Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in):	0.000	0.000 0.000		Inlet Ctrl Spec: Stabilizer Option:	Use dc None
Name: Group:	R_Pond-D BASE UPSTREAM Circular 24.00 24.00 41.000 0.012000	From Node: To Node: DOWNSTREAM Circular 24.00 24.00 40.500 0.012000	Pond-D DN_D	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec:	33.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw
Upstream FHWA Circular Concr Downstream FHW. Circular Concr	Inlet Edge De ete: Square e A Inlet Edge ete: Square e	escription: edge w/ headwall Description: edge w/ headwall			
Name: Group: Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in):	R_Pond-C BASE UPSTREAM Circular 42.00 36.000 0.012000 0.000 0.000	From Node: To Node: DOWNSTREAM Circular 42.00 42.00 35.700 0.012000 0.000 0.000	Pond-C DN_C	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	132.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Upstream FHWA Circular Concr Downstream FHW. Circular Concr	Inlet Edge De ete: Square e A Inlet Edge ete: Square e	escription: edge w/ headwall Description: edge w/ headwall			
Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in):	UPSTREAM Circular 36.00 36.000 0.012000 0.012000 0.000	DOWNSTREAM Circular 36.00 35.000 0.012000 0.000 0.000		Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Geometry: Span(in):				Count: Friction Equation:	l Automatic

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<pre>Span(in):</pre>	24.00	24.00	Entrance Loss	Coef:	0.00
Rise(in):	24.00	24.00	Exit Loss	Coef:	1.00
Invert(ft):	39.500	39.000	Bend Loss	Coef:	0.00
Manning's N:	0.012000	0.012000	Outlet Ctrl	Spec:	Use dc or tw
Top Clip(in):	0.000	0.000	Inlet Ctrl	Spec:	Use dc
Bot Clip(in):	0.000	0.000	Stabilizer O	ption:	None

Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall

Name: Geometry: Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in):	R_PORd BASE UPSTREAM Horz Ellips 68.00 43.00 37.580 0.012000 0.000 0.000	From Node: To Node: DOWNSTREAM Horz Ellipse 68.00 43.00 36.000 0.012000 0.000 0.000	PR_N_PoRd DN_G	Length(ft): Count: Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Bend Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Stabilizer Option:	430.00 1 Automatic Most Restrictive Both 0.00 1.00 0.00 Use dc or tw Use dc None
Upstream FHWA Horizontal Ell	Inlet Edge D ipse Concret	escription: e: Square edge with	headwall		
Downstream FHW. Horizontal Ell	A Inlet Edge ipse Concret	e Description: e: Square edge with	headwall		
===== Drop Stru	 ctures				
Name: Group:	CS_Pond-C BASE	From Node: To Node:	DN_C PR_N_PoRd	Length(ft): Count:	203.00 1
Geometry: Span(in): Rise(in): Invert(ft): Manning's N: Top Clip(in): Bot Clip(in):	UPSTREAM Horz Ellips 68.00 43.00 37.400 0.012000 0.000 0.000	DOWNSTREAM Horz Ellipse 68.00 43.00 37.800 0.012000 0.000 0.000		Friction Equation: Solution Algorithm: Flow: Entrance Loss Coef: Exit Loss Coef: Outlet Ctrl Spec: Inlet Ctrl Spec: Solution Incs:	Automatic Most Restrictive Both 0.000 1.000 Use dc or tw Use dc 10
Horizontal Ell	ipse Concret	e: Square edge with	headwall		
Downstream FHW. Horizontal Ell	A Inlet Edge ipse Concret	e Description: e: Square edge with	headwall		
*** Weir 1 of	1 for Drop S	tructure CS_Pond-C	* * *		TABLE
	Count: 1		Bottom	Clip(in): 0.000	1
	Type: V	Yertical: Mavis	Top	Clip(in): 0.000	
	Geometry: R	ectangular	Orifice D	isc Coef: 0.600	
	Span(in): 3 Rise(in): 3	6.00 6.00	In Control	vert(ft): 38.000 Elev(ft): 38.000	

Name: CS_Pond-DFrom Node: DN_DLength(ft): 566.00Group: BASETo Node: DN_CCount: 1 Group: BASE
 UPSTREAM
 DOWNSTREAM

 Geometry: Circular
 Circular

 Span(in): 24.00
 24.00

 Rise(in): 24.00
 24.00

 Invert(ft): 39.000
 37.400

 Manning's N: 0.012000
 0.012000

 Top Clip(in): 0.000
 0.000
 Friction Equation: Automatic Solution Algorithm: Most Restrictive Flow: Both Entrance Loss Coef: 0.000 Exit Loss Coef: 1.000 Outlet Ctrl Spec: Use dc or tw Inlet Ctrl Spec: Use dc Solution Incs: 10 Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall *** Weir 1 of 2 for Drop Structure CS_Pond-D *** TABLE Count: 1Bottom Clip(in): 0.000Type: Vertical: MavisTop Clip(in): 0.000Flow: BothWeir Disc Coef: 3.200Geometry: CircularOrifice Disc Coef: 0.600 Span(in): 1.20 Invert(ft): 43.500 Control Elev(ft): 43.500 Rise(in): 1.20 *** Weir 2 of 2 for Drop Structure CS_Pond-D *** TABLE Count: 1 Bottom Clip(in): 0.000 Top Clip(in): 0.000 Weir Disc Coef: 3.200 Type: Vertical: Mavis Flow: Both Geometry: Rectangular Weir Disc Coef: 3.200 Orifice Disc Coef: 0.600 Span(in): 18.00 Invert(ft): 43.780 Control Elev(ft): 43.780 Rise(in): 18.00 _____ _____
 Name:
 CS_Pond-E
 From Node:
 DN_E
 Length(ft):
 1050.00

 Count:
 DN_E
 To Node:
 Dong
 Count:
 1
 Group: BASE To Node: Pond-F Count: 1
 UPSTREAM
 DOWNSTREAM

 Geometry: Circular
 Circular

 Span(in): 24.00
 24.00

 Rise(in): 24.00
 24.00

 Invert(ft): 39.960
 34.000

 Manning's N: 0.012000
 0.012000

 Top Clip(in): 0.000
 0.000
 Friction Equation: Automatic Solution Algorithm: Most Restrictive Flow: Both Entrance Loss Coef: 0.000 Exit Loss Coef: 1.000 Outlet Ctrl Spec: Use dc or tw Inlet Ctrl Spec: Use dc Bot Clip(in): 0.000 Solution Incs: 10 Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall *** Weir 1 of 1 for Drop Structure CS_Pond-E *** TABLE Count: 1Bottom Clip(in): 0.000Type: Vertical: MavisTop Clip(in): 0.000Flow: BothWeir Disc Coef: 3.200Geometry: RectangularOrifice Disc Coef: 0.600 Span(in): 6.00 Invert(ft): 42.900 Control Elev(ft): 42.900 Rise(in): 12.00 _____ Name: CS_Pond-FFrom Node: Pond-FLength(ft): 203.00Group: BASETo Node: PR_N_MAINCount: 1

UPSTREAM DOWNSTREAM Geometry: Circular Circular Span(in): 48.00 48.00 Rise(in): 48.00 48.00 uvert(ft): 33.500 Friction Equation: Automatic Solution Algorithm: Most Restrictive Flow: Both Entrance Loss Coef: 0.000 Kise(in): 40.00
Invert(ft): 33.500
Manning's N: 0.012000
Top Clip(in): 0.000
Pot Clip(in): 0.000 Exit Loss Coef: 1.000 Outlet Ctrl Spec: Use dc or tw 33.000 0.012000 0.000 Inlet Ctrl Spec: Use dc Bot Clip(in): 0.000 0.000 Solution Incs: 10 Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall *** Weir 1 of 2 for Drop Structure CS_Pond-F *** TABLE Bottom Clip(in): 0.000 Count: 1 Type: Vertical: Mavis Flow: Both Geometry: Rectangular Top Clip(in): 0.000 Weir Disc Coef: 3.200 Orifice Disc Coef: 0.600 Span(in): 18.00 Invert(ft): 37.620 Rise(in): 9999.00 Control Elev(ft): 37.620 *** Weir 2 of 2 for Drop Structure CS_Pond-F *** TABLE Count: 1 Bottom Clip(in): 0.000 Type: Vertical: Mavis Top Clip(in): 0.000 Weir Disc Coef: 3.200 Flow: Both Weir Disc Coef: 3.200 Geometry: Rectangular Orifice Disc Coef: 0.600 Span(in): 72.00 Invert(ft): 40.500 Rise(in): 9999.00 Control Elev(ft): 40.500 Name: CS_Pond-GFrom Node: Pond-GLength(ft): 23.00Group: BASETo Node: Pond-FCount: 1 Group: BASE
 UPSTREAM
 DOWNSTREAM

 Geometry: Circular
 Circular

 Span(in): 60.00
 60.00

 Rise(in): 38.00
 38.00

 Invert(ft): 34.700
 34.400

 Manning's N: 0.012000
 0.012000

 Top Clip(in): 0.000
 0.000

 Bot Clip(in): 0.000
 0.000
 Friction Equation: Automatic Solution Algorithm: Most Restrictive Flow: Both Entrance Loss Coef: 0.000 Exit Loss Coef: 1.000 Outlet Ctrl Spec: Use dc or tw Inlet Ctrl Spec: Use dc Solution Incs: 10 Upstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall Downstream FHWA Inlet Edge Description: Circular Concrete: Square edge w/ headwall *** Weir 1 of 1 for Drop Structure CS_Pond-G *** TABLE Bottom Clip(in): 0.000 Count: 1 Top Clip(in): 0.000 Weir Disc Coef: 3.200 Type: Vertical: Mavis Flow: Both Weir Disc Coef: 3.200 Geometry: Rectangular Orifice Disc Coef: 0.600 Span(in): 180.00 Invert(ft): 38.000 Control Elev(ft): 38.000 Rise(in): 36.00 _____

Name: Pr_WM_100Y_24H

Filename:	J:\E2160\E2160208.00\modeling\icpr\PROPOSED\Pr_WM_100Y_24H.R32
Override Storm Durat Raini Rainfall Ar	Defaults: Yes ion(hrs): 24.00 all File: Flmod nount(in): 12.00
Time(hrs)	Print Inc(min)
36.000	5.00
Name: Filename:	Pr_WM_25Y_24H J:\E2160\E2160208.00\modeling\icpr\PROPOSED\Pr_WM_25Y_24H.R32
Override Storm Durat Raini Rainfall Ar	Defaults: Yes ion(hrs): 24.00 all File: Flmod wount(in): 9.00
Time(hrs)	Print Inc(min)
36.000	5.00
===== Routing S	mulations ====================================
Name: Filename:	Pr_WM_100Y_24H Hydrology Sim: Pr_WM_100Y_24H J:\E2160\E2160208.00\modeling\icpr\PROPOSED\Pr_WM_100Y_24H.I32
Execute: Alternative:	Yes Restart: No Patch: No No
Max De Time Step (Start 1 Min Calc 1 Boundar	ta Z(ft): 1.00 Delta Z Factor: 0.00500 ptimizer: 10.000 End Time(hrs): 24.00 ime(hrs): 0.5000 Max Calc Time(sec): 60.0000 y Stages: Boundary Flows:
Time(hrs)	Print Inc(min)
999.000	15.000
Group	Run
BASE	Yes
Name: Filename:	Pr_WM_25Y_24 Hydrology Sim: Pr_WM_25Y_24H J:\E2160\E2160208.00\modeling\icpr\PROPOSED\Pr_WM_25Y_24.I32
Execute: Alternative:	Yes Restart: No Patch: No No
Max Del Time Step (ta Z(ft): 1.00 Delta Z Factor: 0.00500
Start 1 Min Calc 1 Boundar	Time(hrs): 0.000 End Time(hrs): 24.00 Time(sec): 0.5000 Max Calc Time(sec): 60.0000 Ty Stages: Boundary Flows:
Time(hrs)	Print Inc(min)
999.000	15.000
Group	Run
BASE	Yes

Pelican Golf Club Proposed Condition

			Max Time	Max	Warning N	4ax Delta	Max Surf	Max Time	Max	Max Time	Max	
Name	Group	Simulation	Stage	Stage	Stage	Stage	Area	Inflow	Inflow	Outflow	Outflow	
			hrs	ft	ft	ft	ft2	hrs	cfs	hrs	cfs	
DN_A	BASE	Pr_WM_25Y_24	17.32	41.06	44.00	0.0018	1149	13.61	12.55	13.63	12.39	
DN_A2	BASE	Pr_WM_25Y_24	17.74	41.01	44.00	0.0174	492	0.02	18.64	21.28	6.65	
DN_BeFor	BASE	Pr_WM_25Y_24	17.71	40.77	45.00	0.0049	463	12.36	45.69	12.39	45.62	
DN_C	BASE	Pr_WM_25Y_24	17.59	40.97	43.00	0.0301	125	0.01	20.71	17.40	13.66	
DN_D	BASE	Pr_WM_25Y_24	12.90	45.07	46.00	0.0802	115	0.00	19.45	12.90	7.07	
DN_E	BASE	Pr_WM_25Y_24	16.15	43.87	44.00	0.0825	122	0.02	21.09	16.15	1.53	
DN_G	BASE	Pr_WM_25Y_24	17.83	40.76	42.00	0.0192	462	12.39	56.33	12.17	54.24	
Pond-A	BASE	Pr_WM_25Y_24	14.01	41.27	43.00	0.0023	52308	12.56	33.88	13.61	12.55	
Pond-B	BASE	Pr_WM_25Y_24	17.79	41.01	43.00	0.0010	92483	12.08	13.61	0.02	18.64	
Pond-C	BASE	Pr_WM_25Y_24	17.71	41.00	43.00	0.0020	72339	12.50	18.08	0.01	20.71	
Pond-D	BASE	Pr_WM_25Y_24	12.90	45.18	47.00	0.0014	43533	12.08	23.71	0.00	19.45	
Pond-E	BASE	Pr_WM_25Y_24	16.15	43.88	46.00	0.0009	79428	12.08	20.78	0.02	21.09	
Pond-F	BASE	Pr_WM_25Y_24	17.87	40.62	42.00	0.0028	64884	12.34	47.43	17.92	25.50	
Pond-G	BASE	Pr_WM_25Y_24	17.84	40.72	43.00	0.0017	143422	12.25	84.09	12.35	29.36	
Pr_N-GVDN	BASE	Pr_WM_25Y_24	12.32	46.43	47.00	-0.0045	14050	12.08	9.00	12.31	6.63	
PR_N_BeFor	BASE	Pr_WM_25Y_24	12.36	43.10	46.00	-0.0050	7392	12.25	46.70	12.36	45.69	
PR_N_GVDS	BASE	Pr_WM_25Y_24	13.79	41.34	46.00	0.0019	70278	12.17	46.37	12.57	25.75	
Pr_N_HiRd	BASE	Pr_WM_25Y_24	12.59	41.85	43.00	0.0018	9040	12.08	10.96	12.78	6.93	
PR_N_MAIN	BASE	Pr_WM_25Y_24	17.59	37.62	41.00	0.0031	833	17.58	26.34	17.59	26.34	
PR_N_PoRd	BASE	Pr_WM_25Y_24	17.71	40.78	44.00	0.0047	741	17.40	14.91	17.71	16.43	
Pr_Outfall	BASE	Pr_WM_25Y_24	0.00	36.33	36.33	0.0000	324	17.59	26.34	0.00	0.00	

SWFWMD Pre Application Notes

THIS FORM IS INTENDED TO FACILITATE AND GUIDE THE DIALOGUE DURING A PRE-APPLICATION MEETING BY PROVIDING A PARTIAL "PROMPT LIST" OF DISCUSSION SUBJECTS. IT IS NOT A LIST OF REQUIREMENTS FOR SUBMITTAL BY THE APPLICANT.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT RESOURCE REGULATION DIVISION PRE-APPLICATION MEETING NOTES

PA 403673

Data:	8/30/2016		•						
Dale.	0/30/2010								
Time:	10:00								
Project Name:	Pelican Golf Club								
District Engineer:	Rob McDaniel								
District ES:	Joe Andress								
Attendees:	Hamid Faraji <u>hamid.faraji@cardno.com;</u> Tim Neldner <u>timothy.neldner@cardno.com</u> (Cardno)								
County:	Pinellas	Sec/Twp/Rge:	28/29/15						
Total Land Acreage:	136 acres	Project Acreage:	Approx 136 acres						

Prior On-Site/Off-Site Permit Activity:

 44001562.002 for Belleview Biltmore Golf Course rehabilitation. This permit expired in 2006 and was not transferred to operations.

Project Overview:

• Reconfiguring the golf course, with reshaped/resized wet detention stormwater ponds. Some additional impervious area will be constructed as part of the new clubhouse and parking area.

Environmental Discussion: (Wetlands On-Site, Wetlands on Adjacent Properties, Delineation, T&E species, Easements, Drawdown Issues, Setbacks, Justification, Elimination/Reduction, Permanent/Temporary Impacts, Secondary and Cumulative Impacts, Mitigation Options, SHWL, Upland Habitats, Site Visit, etc.)

- Provide the limits of jurisdictional wetlands which should be top-of-bank of the upland cut ponds and drainage ditches
- Wetland mitigation should not be required as the proposed impacts are to existing upland cut drainage ditches and re-configuration of upland-cut predominantly open water ponds.

Site Information Discussion: (SHW Levels, Floodplain, Tailwater Conditions, Adjacent Off-Site Contributing Sources, Receiving Waterbody, etc.)

- WBIDs need to be independently verified by the consultant WBID 1614 Rattlesnake Creek
- Listed as impaired for dissolved oxygen (nutrients) and fecal coliform.
- Any wells on site should be identified and their future use/abandonment must be designated. Water use permits will need to be modified.

Water Quantity Discussions: (Basin Description, Storm Event, Pre/Post Volume, Pre/Post Discharge, etc.)

- Demonstrate that discharges from proposed project area will not cause an adverse impact for a 25-year, 24-hour storm event.
- Demonstrate that site will not impede the conveyance of contributing off-site flows.
- Demonstrate that the project will not increase flood stages up- or down-stream of the project area(s).
- Please be aware that if there is credible historical evidence of past flooding or the physical capacity of the downstream conveyance or receiving waters indicates that the conditions for issuance will not be met without consideration of storm events of different frequency or duration, applicants shall be required to provide additional analyses using storm events of different duration or frequency than the 25-year 24-hour storm event, or to adjust the volume, rate or timing of discharges. [Section 3.0 Applicant's Handbook Volume II]

Water Quality Discussions: (Type of Treatment, Technical Characteristics, Non-presumptive Alternatives, etc.)

- Provide water quality treatment for entire project area and all contributing off-site flows.
- The project discharges to an impaired water body, must provide a net environmental improvement.
- Regarding the new clubhouse and parking area: Applicant must demonstrate a net improvement for the parameters of concern by performing a pre/post pollutant loading analysis based on existing land use and the proposed land use.
- Will acknowledge compensatory treatment to offset pollutant loads associated with portions of the project area that cannot be physically treated.

Sovereign Lands Discussion: (Determining Location, Correct Form of Authorization, Content of Application, Assessment of Fees, Coordination with FDEP)

• N/A

Operation and Maintenance/Legal Information: (Ownership or Perpetual Control, O&M Entity, O&M Instructions, Homeowner Association Documents, Coastal Zone requirements, etc.)

- The permit must be issued to the property owner(s).
- Provide proof of ownership in the form of a deed or contract for sale.
- Provide appropriate O&M instructions.
- Provide detailed construction surface water management plan.

Application Type and Fee Required:

- SWERP Individual, new permit (not a modification) Sections A, C, and E of the ERP Application.
- Between 100 and 640 acres of project area or between 10 and 50 acres of wetland or surface water impacts
 - \$3,105.75
- Consult the fee schedule for different thresholds.

Other: (Future Pre-Application Meetings, Fast Track, Submittal Date, Construction Start Date, Required District Permits – WUP, WOD, Well Construction, etc.)

 In accordance with Section 5.5.2.3 of the Applicant's Handbook Volume I (A.H.V.I), upon receipt by the District of an application for an individual permit to construct or alter a dam, impoundment, reservoir, or appurtenant work, a notice of receipt of the application must be published in a newspaper having general circulation (meeting the requirements of Section 50.031, F.S.) within the affected area in accordance with Sections 373.116, F.S., 373.118(3), 373.146, and 373.413(3), F.S. Please provide documentation that such noticing has been accomplished. Note that the published notices of receipt for an ERP can be in accordance with the language provided in Rule 40D-1.603(10), F.A.C., and receipt of an affidavit establishing proof of this publication will be considered a completeness item of this ERP Application.

40D-1.603(12) – "Applicants required to publish a notice of receipt of application must provide to the District a publisher's affidavit establishing proof of publication pursuant to Sections 50.041 and 50.051, F.S., before the application will be considered complete and the applicable timeframe for taking agency action on the application will commence."

- Provide a copy of the legal description (of all applicable parcels within the project area) in one of the following forms:
 - a. Deed with complete Legal Description attachment.
 - b. Plat.
 - c. Boundary survey of the property(ies) with a sketch.
- The plans and drainage report submitted electronically must include the appropriate information required under Rule 61G15-23.005(3)(d), F.A.C. The following text is acceptable to the Florida Board of Professional Engineers (FBPE) to meet this requirement and must appear where the signature would normally appear:

[Licensee] State of Florida, Professional Engineer, License No. X This item has been electronically signed and sealed by [Licensee, PE] on [DATE] using a SHA-1 authentication code. Printed copies of this document are not considered signed and sealed and the SHA-1 authentication code must be verified on any electronic copies

 Federal Supplemental Application Form - to be used with the Joint Application form under SWERP 2 (SWERP 2 has not been approved yet). This form will not be incorporated into rule but will be added to the electronic application. The Corps has requested that we begin using this form now to help them gather the information they need to process their permits. This should be provided during any pre-application meeting that proposed work in, on or over wetlands or surface waters.

Disclaimer: The District ERP pre-application meeting process is a service made available to the public to assist interested parties in preparing for submittal of a permit application. Information shared at pre-application meetings is superseded by the actual permit application submittal. District permit decisions are based upon information submitted during the application process and Rules in effect at the time the application is complete.

Hamid Faraji

From: Sent: To: Cc: Subject: Rob McDaniel <Rob.McDaniel@swfwmd.state.fl.us> Wednesday, August 31, 2016 8:11 AM Hamid Faraji Tim Neldner RE: Pre-application meeting Pelican Golf Club

Hamid,

Treatment will be required for the clubhouse area that is being modified, not the entire 136 acres. Please be sure to maintain any treatment function that is occurring for the clubhouse and parking in the existing conditions and account for any additional areas that will be modified. We are not sure that presumptive criteria will be sufficient; this will need to be demonstrated through the use of pollutant loading calculations. Thanks,

Rob

From: Hamid Faraji [mailto:Hamid.Faraji@cardno.com]
Sent: Tuesday, August 30, 2016 12:52 PM
To: Rob McDaniel <Rob.McDaniel@swfwmd.state.fl.us>
Cc: Tim Neldner <Timothy.Neldner@cardno.com>
Subject: RE: Pre-application meeting Pelican Golf Club

Hi Rob,

Regarding the first item under the Water Quality Discussion: It is my understanding to provide treatment (presumptive criteria) for the increased impervious area at club house only, not for the entire 136 ac. Please confirm.

Thanks.

Hamid Faraji PE

TRANSPORTATION DRAINAGE MANAGER ENGINEERING & ENVIRONMENTAL SERVICES DIVISION CARDNO

Office (+1) 727-531-3505 Direct (+1) 727-431-1596 Mobile (+1) 727-423-6296 Address 380 Park Place Blvd, Suite 300, Clearwater, FL 33759 Email <u>hamid.faraji@cardno.com</u> Web <u>www.cardno.com</u>

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From: Rob McDaniel [mailto:Rob.McDaniel@swfwmd.state.fl.us]
Sent: Tuesday, August 30, 2016 11:39 AM
To: Hamid Faraji Hamid Faraji https://www.englistance.com>
Subject: Pre-application meeting Pelican Golf Club

Rob McDaniel, P.E. Sr. Professional Engineer Environmental Resource Permit Bureau 7601 Highway 301 North Tampa, FL 33637-6759 813-985-7481 or 800-836-0797 ext. 2039 rob.mcdaniel@swfwmd.state.fl.us

Introducing ERP eCompliance Online Permit Condition Reporting at

