



December 10, 2019

HAND DELIVERY

Catherine Riiska, Principal Planner
Martin County Growth Management Department
2401 S.E. Monterey Road
Stuart, FL 34996

RE: THE RESERVE AT JENSEN BEACH – Major Revised Master and Final Site Plan – Second Resubmittal in Response to Staff Report Dated August 19, 2019 (MC Project #S185-012; Lucido #18-021)

Dear Catherine:

In response to the above-referenced staff report, please find enclosed the original resubmittal packet containing the documents and plans referenced below, and a CD with PDF copies of the resubmitted materials, and an additional set of the 24x36 plans.

The enclosed revised materials are listed as follows:

1. The proposed revised master/final site plan;
2. Final PAMP with updated FLUCS/FNAI Map;
3. Open space exhibit reviewed during workshop;
4. Density transition compliance analysis;
5. Landscape plans (project area);
6. Landscape plans (Savannah Road roundabout)
7. Signed & sealed lighting plans (Savannah Road roundabout)
8. Photograph of proposed 7' high decorative fence;
9. 11-26-19 email from Michelle Cullum confirming timber bridge by York Bridge Concepts
10. Reduced copy (11x17) of the architectural elevations;
11. Signed & sealed stormwater report;
12. Signed & sealed land clearing and erosion control plan;
13. Signed & sealed construction plans (Savannah Road roundabout); and
14. Signed & sealed construction plans including CO phasing plan (sheet 4).

The application materials have been revised as outlined in the following itemized responses to the staff comments as discussed during the workshop and in follow up meetings with county staff. Please note the entire comments have not been repeated. Please refer to the staff report for the actual comments within each section. Our responses have been *italicized* for clarity.

Itemized Responses to Staff Report

A. Application information

Agree.

B. Project description and analysis

Agree.

C. Staff recommendation

See responses to the non-comply comments below.

D. Review Board/Committee action
Agree.

E. Location and site information
Agree.

F. Determination of compliance with Comprehensive Growth Management Plan requirements
Item #1: Open Space

Suggestion/Remedy/Clarification:

Thank you for submitting the requested open space graphic. Please submit a revised master/final site plan and open space graphic to resolve the following identified inconsistencies:

1. The resolution of the open space exhibit, provided on a single sheet without relevant dimensions, is insufficient for staff to be able to confirm the inclusion or exclusion of areas contributing to open space. a. Please submit a revised open space exhibit of sufficient resolution to demonstrate compliance with the open space requirements, similar to the site plan resolution.

b. Please include the relevant dimensions within the graphics, such as 2' dimension in each parking row proposed for vehicle overhangs into pervious area.

c. Please change the graphic fill for landscape areas to a solid color whose extent does not overrun or underrun the related graphic linework, for clarity.

d. Please also provide all data in square feet, in addition to the acreages given. and site data shown on the revised master/final site plan.

It was agreed during the workshop discussion that the open space exhibit was sufficient to document compliance with the minimum open space requirement and all agreed that no additional analysis of open space was required or needed. The minor omissions and additions that were identified on the enclosed open space exhibit during the workshop have been reflected correctly on the enclosed master/final site plan site data.

2. The open space and the pervious area cited in the site plan data tables are the same. However, the project design and the submitted open space graphic depict areas that are pervious but that do not qualify as open space, so these numbers could not be identical. Please revise the appropriate materials (site plan and/or open space exhibit) for consistency with each other and the proposed buildout conditions.

The minor omissions and additions that were identified on the attached open space exhibit during the workshop have been reflected correctly on the enclosed master/final site plan site data.

3. The following areas appear to be ineligible to contribute to project open space but also appear to be proposed to contribute to open space on the open space exhibit. Please revise either the site plan or the open space exhibit for consistency and to eliminate areas that are ineligible consistent with the proposed buildout conditions. Some of the following inconsistencies may be due to the lack of resolution, inappropriate graphic 'green fill', and lack of dimensions on the open space exhibit. (Please see comment #1 above). Although almost all of the proposed parking landscape overhang areas are depicted too ambiguously for verification, due to the provided coloring/fill overspill and the lack of dimensions and resolution, the following areas appear to be non-compliant: a. Parking overhangs in the lot immediately south of the pool,

b. Parking overhangs in the lot immediately north of Building 1,

c. Bike rack pad area immediately southwest of Building 1,

d. A/C pads located immediately west of Building 3,

e. Portion of A/C pads located immediately east of Building 9,

f. Portions of building entrance walkways for Buildings 5, 6, 7, and 8.

It was agreed during the workshop discussion that the open space exhibit was sufficient to document compliance with the minimum open space requirement and all agreed that no additional analysis of open space was required or needed. The minor omissions and additions that were identified on the enclosed open space exhibit during the workshop have been reflected correctly on the enclosed master/final site plan site data.

Item #2: Maximum Allowable Height

The submitted elevations do not demonstrate compliance with Section 3.14, LDR, Martin County, Fla. (2005) which requires the building height to be measured as “the vertical distance between (1) the lowest permissible elevation above the existing grade which complies with finished floor elevation requirements as established by flood maps, the Health Department, or building code, along the front of a building and (2) the highest point of the coping of a flat roof.” Please submit revised elevations that address the following:

1. The building types for Building #9 and Buildings #1, 3, 5, 6, and 7, are both identified as “Building Type I.2.”, yet appear to be different and have separate architectural plans provided. Please rename these building types on the architectural plans and within the building matrix on the site plan to distinguish between the different building types proposed for clarity.

Building type designations have been revised to reflect different footprints and building height allowances.

2. Please label the base starting point of the building height vertical dimension in NAVD88, as established via the codified methodology pursuant to Section 3.14.A., LDR, Martin County, Fla. (2005), instead of the currently shown “FFE” or “0.0” to demonstrate compliance.

As reviewed, discussed and agreed during the workshop, the starting point for measuring height can continue to be shown as “0.0” with the note, “Min. flood elevation as determined by civil engineer”.

3. Please revise top-end height dimensions to the appropriate points as required by the codified methodology. The currently depicted “roof el” does not appear to comply with the methodology based upon the building design as shown.

The reference to “roof el” and other points not required by code have been removed.

4. The provided elevations indicate that the maximum vertical height proposed for parapets is 5.5’, which does not comply with Section 3.14.B.2., Martin County, Fla. (2005), which limits parapet heights to 4’ maximum.

It was agreed during the workshop that parapet height can be greater than 4’ provided the maximum building height is not exceeded.

5. The applicant submitted several “Roof Plan” documents to demonstrate structures proposed above the maximum allowable height meet the maximum 10% of horizontal plane of the roof. This is not the appropriate analysis. The code requirement refers to the roofline across a defined horizontal view which is one dimensional and measured in feet, not to a two-dimensional area within a bird’s-eye view.

Parapets do not exceed the 4’ allowance, therefore the 10% calculation is not necessary.

6. Please revise the building matrix, to address the following: a. Building type correction per Comment #1 above.

See revised building matrix on master/final site plan enclosed.

b. Maximum allowable height for RM-8 zoning district is 40’.

See revised building matrix.

c. Remove the “with allowable parapet extensions” height column.

See revised building matrix.

d. Add ‘Proposed Height’ and cite the height per 3.14. to the top of coping of the flat roof, as required by the code, disregarding any parapets.

See revised building matrix.

e. Add other buildings proposed, such as the garages and clubhouse, to the building matrix.

See revised building matrix.

f. Remove net square footage, which is not applicable to the codified standards.

See revised building matrix.

Item #3: Density Transition

Remedy/Suggestion/Clarification:

Thank you for submitting a detailed density transition analysis with graphics. However, the analysis did not appear to include any discussion or analysis of the “compatible dwelling unit types” required by Policy 4.1F.2.(2)., CGMP, Martin County, Fla. (2019). Please submit a revised analysis.

See revised analysis that includes a discussion of compatible dwelling unit types.

G. Determination of compliance with land use, site design standards, zoning and procedural requirements

Unresolved Issues:

Item #1: Site Plan Data

1. Please provide all site data, both overall and by zoning district, in both square-feet and acres, in addition to the percent of total site area where applicable.

See revised master/final site plan enclosed.

2. Please provide corrected building height data consistent with the restrictions and exemptions of the code requirements, including the corrections requested in Item #2, Section F.

See revised master/final site plan enclosed.

3. Please include “Max.” and “Min.” to indicate where the required values are related to maximums or minimums pursuant to the applicable regulation. For example, a building height of exactly X’, a side setback of X’, and an open space of 50% of site area are not required, instead a maximum building height, minimum setback, and minimum open space are stipulated. Please revise all applicable cited standards.

See revised master/final site plan enclosed.

4. Remove all references to “with allowable parapet extensions”. The measurement for determination of a building’s height does not include the top of parapets. Parapets of maximum 4’ height are allowed to extend above the maximum allowable height, but building height is not measured to include proposed parapets. Please see Item #2, Section F of this report.

See revised master/final site plan enclosed.

5. Revise the proposed heights of the garages and clubhouse consistent with the methodology set forth in Section 3.15., LDR, and all other project plans and materials. Submitted elevations appear to indicate that the proposed heights of the garages and clubhouse are actually approximately 13.5 and 22.5 feet, respectively.

Building heights have been revised to be consistent with Section 3.15.

6. Please correct the parking calculations and data to be consistent with the site plan. Staff has verified 388 standard, 32 garage, and 10 handicap spaces on the site plan graphics. Please also correct the grouping number provided in the far southeast parking area on sheet 3, which appears to be counting a “turn around space, no parking” area towards the provided parking.

See revised master/final site plan enclosed. As discussed at the workshop 1 of the 11 handicap spaces is located within the garage.

7. Are the clubhouse and the garages included with the apartment buildings in the overall site data for impervious area? Please cite them separately to demonstrate they have been included and the project complies with the requirements and restrictions.

Yes. The clubhouse is included in the building data and the garages are part of the vehicular use area (i.e. parking). Per our discussion at the workshop, for the calculation of impervious areas, there is no requirement or need to distinguish the clubhouse from the other buildings or to distinguish the garages from the parking area.

8. The required setbacks cited for the RM-8 area are incorrect. Please revise.

As reviewed and verified during the workshop, the setbacks as shown are correct.

Item #2: Site Plan Graphics

1. Please add typical details for the proposed dumpster enclosures, bike racks, and 'entry feature and wall'.

The entry feature and sign has been removed. Details for the dumpster enclosures and bike racks have been added. See revised master/final site plan enclosed.

2. As previously requested, please completely remove the depiction of the monument signage feature at the project entrance, which will be permitted via building permit in accordance with the sign regulations. If a separate perimeter or feature wall is proposed that does not intend to be part of the monument sign, or is not intended to be in conformance with the monument sign requirements, please label this graphic as a feature wall only and provide a dimensioned detail on sheet 3 to demonstrate compliance with Section 3.204., LDR, Martin County, Fla. (2002).

The entry feature and sign have been removed. See revised master/final site plan enclosed.

3. Please revise Sheet 2 of 3 (COR-2 Zoning Area) as follows:

a. Please revise or relocate the proposed "7' Security Fence" located adjacent to the north property line to comply with Section 3.204., LDR, Martin County, Fla. (2002).

The 10' setback as shown was reviewed and confirmed during the workshop.

Please also provide a dimensioned detail of the proposed fencing in this area.

A photograph of the proposed 7' fence is enclosed.

4. Please revise Sheet 3 of 3 (RM-8 Zoning Area) as follows:

a. Please dimension the setbacks to the dumpster and recycling enclosure on the western property edge to demonstrate compliance with minimum setbacks.

The setback as shown was reviewed and confirmed during the workshop.

b. Please provide dimensioned details of the different types of fencing proposed in this area.

See additional notes on revised master/final site plan enclosed.

c. As previously requested, please dimension the landscape islands in the central parking areas and the eastern parking rows where vehicle overhangs appear to be proposed.

See revised master/final site plan enclosed.

Item #3: Proposed Phasing

1. Pursuant to Section 10.2.D.1., LDR, Martin County, Fla. (2019), a master site plan is required for any multi-phase development, or PUD. Pursuant to Section 10.2.D.1.f., LDR, Martin County, Fla. (2019), the master site plan development order shall consist of the resolution and any other documents required to demonstrate site compliance with the Plan, the LDR and the Code including, but not limited to, the master site plan and the phasing plan. Please submit a phasing plan.

Please note that only the Certificates of Occupancy are requested to be phased. See enclosed CO Phasing Plan that has been reviewed and discussed to date (see Sheet 4 of 28). Also, please note that the Clubhouse and Pool are the first CO to be requested, and the preserve area restoration and perimeter buffers will be completed prior to any CO requests.

2. Preliminary project phasing comments for the applicant's consideration based upon review of the proposed sub-phasing plan are:

a. Please revise the phases to have a consistent and discrete boundary for all improvements required for that phase, instead of different phases proposed for different infrastructure types.

Acknowledged, please refer to the enclosed CO Phasing Plan that has been revised per staff's comments.

b. Please remove the proposed phasing by structure within a single phase. Each phase must be completed with all required infrastructure prior to CO for any structure within the proposed phase.

The enclosed CO Phasing Plan that has been revised per staff's comments with the understanding that one apartment building requires approximately 10 months to construct and the next building will begin construction approximately 30 days after the prior building construction start. It is not physically possible to build all buildings together in each phase. The work for each "trade" must be staggered to allow the crews to move from building to building efficiently. The applicant respectfully requests approval of the revised CO Phasing as revised per our meetings with staff.

c. Please revise the phasing to include completion of the amenities as part of first phase, prior to first residential building CO.

Per staff's request, the Clubhouse and Pool will be the first CO to be requested, and the preserve area restoration and perimeter buffers will be completed prior to any CO requests.

d. Preserve area must be completed as part of first phase, prior to first building CO. SECTION 10.2.d.3.a., LDR, MARTIN COUNTY, FLA. (2019)

The preserve area restoration and perimeter buffers are proposed to be completed prior to any CO requests.

H. Determination of compliance with urban design and community redevelopment requirements

Not applicable.

Agree.

I. Determination of compliance with property management requirements

Unresolved Issues:

It has been determined that the Applicant needs to convey 7.5 feet of right of way for NE Savannah Road to the County. In addition, the Applicant has requested that the County convey the 45-foot strip of land over the Applicant's property that was conveyed to the County in 1980 in exchange for a blanket Utility, Drainage, Access and Maintenance Easement from Savannah Road to approximately 40 feet east of Warner Creek. This exchange will need to go to the Board of County Commissioners for approval.

The following due diligence materials need to be provided by the Applicant:

Item #1: TITLE COMMITMENT - for the 7.5-foot right-of-way and the blanket Utility, Drainage, Access and Maintenance Easement:

- 1. Original Title Commitment for the proposed dedication site(s).**
- 2. The Proposed Insured is: Martin County, a political subdivision of the State of Florida**
- 3. The Insurable Amount is subject to approval by the Real Property Division.**
- 4. Legible copies of all documents listed on the Title Commitment as B-II Exceptions must be provided with the Title Commitment.**

The above-referenced documents are in process and will be provided directly to Property Management and the Growth Management department upon receipt.

Item #2: SURVEY – SKETCH AND LEGAL DESCRIPTION - for the 7.5 foot right of way (sketch and legal description only for the blanket Utility, Drainage, Access and Maintenance Easement).

1. Two (2) original signed and sealed Surveys of the dedication site (s).
2. The Survey must be certified to Martin County, a political subdivision of the State of Florida and to the Title Company.
3. The Survey must be prepared with the benefit of the Title Commitment and include the Commitment Number, Name of the Title Company and Date and Time of the Commitment.
4. Parcel ID number(s) must be included.
5. All title exceptions that can be plotted must be shown on the Survey.
6. The legal description for the dedication site(s) on the Survey must match the legal description on the proposed Plat or Planned Unit Development (PUD), if applicable.
7. Two (2) original 8 ½" by 11" signed and sealed Sketch and Legal Descriptions of the dedication site(s) must be provided.

The above-referenced documents are in process and will be provided upon receipt.

Item #3: ENVIRONMENTAL SITE ASSESSMENT - for the 7.5 foot right of way

1. A Phase I Environmental Site Assessment must be provided stating that there are No Recognized Environmental Conditions in accordance with the current standards of the American Society for Testing Material (ASTM15271).
2. The Phase I report must be dated within 180 days of submission or include a current updated letter from the ESA firm.
3. The Phase I Environmental Site Assessment and/or the update letter must state that Martin County, a political subdivision of the State of Florida can rely on the results of the report.

The above-referenced documents are in process and will be provided upon receipt.

**J. Determination of compliance with environmental and landscaping requirements
Environmental**

Unresolved Issues:

Item #1: Environmental Assessment

As previously requested, all native habitats shall be classified using FNAI (Florida Natural Areas Inventory) pursuant to the definitions of common native upland habitat and Endangered, unique or rare native upland habitats under Section 4.31.C, LDR, Martin County, Fla. Please update your FLUCCS map in the assessment to be a FLUCCS/FNAI map with classification of mesic flatwoods and sand pine scrub using FNAI.

See revised FLUCCS/FNAI map in final PAMP enclosed..

Item #2:

Land Clearing Page

The land the most recent land clearing and erosion control page was reviewed. The following shall be included on the land-clearing page:

1. Locations of perimeter native vegetation to be retained as un-cleared during construction.
2. Locations of preserve area/construction barricades (orange mesh safety fence) to be placed on the preserve boundary.
3. Erosion control devices located at least 5 feet landward of preserve area boundary.
4. Location of tree protection barricades (where warranted).
5. Locations of any materials to be temporarily stockpiled to include land clearing debris or excavated materials.
6. Construction details for the installation of preserve area barricades.
7. Proposed method for soil stabilization following land clearing.

8. Include the text: 'Property corners shall be located by a licensed land surveyor and clearly marked in the field prior to the Engineering Department's pre-construction meeting for site development.'

9. Include the text: 'Authorization to install erosion control devices and preserve barricades will be granted at the pre-construction meeting. This authorization shall be posted on the site, in the permit box, its location shown elsewhere on this page.'

10. Include the text: 'No additional land clearing shall commence until a satisfactory inspection of the required erosion control barricades has been obtained.'

11. Include the text: 'All construction barricades and silt fences will remain in place and be monitored for compliance by the permit holder during the permitted development activities.'

12. Include the text: 'Prior to scheduling a final environmental inspection for the infrastructure, all barricades and erosion control devices shall be removed and disposed of by the contractor.'

See revised land clearing page enclosed.

Item #3: Phasing Plan

Please be aware the county requires that the upland preserve areas with the overall project be in compliance with the requirements in the approved PAMP. Any exotic removal, restoration planting, removal of vegetative debris, etc. outlined in the PAMP shall be completed prior to the certificate of occupancy of the first building.

Acknowledged, see the revised CO Phasing Plan enclosed.

Landscape

Unresolved Issues:

Item #1: Landscape Design Standards

Remedy/Suggestion/Clarification:

Trees proposed along the entry road have been shifted some but are still shown as very close, within 4 feet of the sidewalk. Oak trees are the appropriate trees for this area, however it seems that these trees could be installed a little further away from the sidewalk towards the retention area. As an alternative a root barrier can be utilized to reduce future impact to the sidewalk.

See revised landscape plans enclosed which reflect a min. 10' setback from the sidewalk.

Item #2: Landscape Bufferyard Fence, Wall, Berm

Remedy/Suggestion/Clarification:

The response comment states that the fence has been changed to an opaque vinyl fence along the south property line. The site plan and landscape plans still label the proposed fence as being chain link fence. Since proposed shrub plantings have been revised to provide a double row of shrubs, this demonstrates compliance with Martin County Land Development Regulations Section 4.663.B.7. which allows that when vegetation is to be utilized to meet requirements for an opaque screen. However, please verify labelling as to what type of fence is being proposed.

A 6' high chain link fence is proposed along the south property line with a double row of hedge material.

Also note that if the fence north of the entry road is proposed to be 7 ft in height it must meet site setbacks.

As reviewed and confirmed during the workshop, the 7' fence as shown meets the minimum 10' setback.

Item #3: Buffers for Res Uses along Railroad Right-of-Ways

Remedy/Suggestion/Clarification:

The landscape data table correctly states a 30 foot Type 5 Buffer requires 3 trees per 300 sq. ft., however, only 1 tree per 300 sq. ft. has been specified. Please review and modify to demonstrate compliance.

Additional plant material has been added. The plant specifications and quantities have been checked and verified.

Item #4: Landscape Irrigation

The plan shall identify the irrigation source for the plant material, also please affirm if an Irrigation system is to be provided for the proposed landscaping on the plans.

Irrigation systems are not required; however all required plantings must remain viable, healthy, neat and orderly in appearance. If an irrigation system is to be installed, irrigation plans shall be submitted with the certificate of completion prepared by a landscape architect prior to Certification of Occupancy is granted. The landscape architect, licensed plumbing contractor or licensed irrigation sprinkling contractor shall certify that irrigation plans shall meet or exceed the minimum compliance regulations set forth within the Standards and Specifications for Turf and Landscape Irrigation Systems published by the Florida Irrigation Society as amended.

If an irrigation system is not proposed, the plans shall describe how to provide adequate irrigation of landscaped areas for the first full growing season and continue thereafter only as necessary to maintain required vegetation in good and healthy condition. (Sec 4.663.D, LDR)

The applicant may consider providing an irrigation plan during the development review process to assist in expediting the C.O. of proposed development, post approval. Irrigation Plans shall provide the required information as cited in Section 4.662.B. and 4.663.D, LDR.

The landscape contractor will coordinate with an irrigation designer and install an irrigation plan in conjunction with site development. An as-built will be submitted prior to the issuance of a CO in accordance with the CO sub-phasing plan.

Item #5: Landscape Native Tree Protect & Survey

Remedy/Suggestion/Clarification:

The response letter states that now no trees on the site can be preserved, Round 1 review had protected about 18 of the protected 115 trees identified. The site plan has been revised and additional trees that had been in the preserve are now proposed to be removed, these additional trees need to be included in the tree summary disposition table.

No trees in the required preserve areas will be removed.

The 18 previously protected trees are also now shown as to be removed, it appears to construct the retention berm. Section 4.663.B indicates that existing native vegetation within buffer areas should be retained as opposed to clearing and replanting; Section 4.663.B.8 states that physical improvements should not be placed in bufferyards. Section 4.666.C provides criteria for removal of protected trees. Please explain why, contrary to the above Code sections, alternative creative design could not be utilized or attempted to protect any trees on site, except those within Preserve areas.

As discussed during the workshop, the significant grade differential throughout the site, the stormwater management requirements, firewise requirements, ADA requirements, and preserve area protection requirements make it impossible to protect trees outside of the preserve areas. Alternative Landscape Compliance request for Section 4.666.E. has been provided to address the minimum 10% protected tree requirement.

Item #6: Sec. 4.667. Alternative compliance.

Remedy/Suggestion/Clarification:

The request for alternative compliance references criteria for removal of protected trees. Section 4.666.E states that preservation of 10% of trees is required unless it can be shown that the property would be precluded of reasonable use if trees are not removed. Please explain how protection of existing trees within buffer areas precludes reasonable use. Please elaborate in narrative to document which trees are being removed for ADA, firewise, access, or other such requirements. What alternatives were considered and why are they not feasible?

Existing trees within 30 feet of buildings must be removed to meet firewise guidelines. Existing trees must also be removed in development areas to provide gently sloping grades for protection of preserve areas and to provide building access to meet ADA requirements. Perimeter buffer areas require grade alterations to meet stormwater requirements. Protecting trees in these areas would impact site engineering, stormwater retention, parking and other site elements that would ultimately reduce density and preclude reasonable use of the property consistent with existing land use and zoning rights.

1. Please expand on how proposed plantings of silver buttonwood and cocoplum are compatible with scrub habitat.

There are no naturally occurring native species in scrub habitat that provide an effective hedge within the required perimeter buffers. Cocoplum and silver buttonwood are the closest compatible native species because both are drought-tolerant native species that provide an effective hedge that requires minimal irrigation, fertilizer and maintenance consistent with the adjacent natural areas.

2. Alternative compliance is favored when it is utilized to protect native habitat and vegetation. See comments italicized above.

As discussed at the workshop, the significant grade changes, stormwater requirements and the extreme measures that are necessary to protect required preserve areas (i.e. retaining walls and increased setbacks for transition slopes) impair the ability to protect trees in the development area, and therefore, requires a request for alternative compliance.

3. Please explain how leveling the site which ranges from elevations of 15 down to 4 is designing to be compatible with attributes of existing soils, slope and vegetation. Comment not addressed.

Please note that the site is not being leveled, but substantial grading effort in the development areas is required to provide gently sloping grades for protection of preserve areas and provide access to and from buildings to meet ADA requirements. Perimeter buffer areas require grade alterations to meet stormwater requirements. Protecting trees in these areas is not possible to comply with MC LDR requirements for site engineering, stormwater retention, parking and other site elements that would ultimately reduce density and preclude reasonable use of the property consistent with existing land use and zoning rights.

Item #7: Preserve Area Interface Requirements

Remedy/Suggestion/Clarification:

Retention areas adjacent to the preserves must be planted with native species. The landscape plan has been revised to include native plantings but still contains a label indicating sod within the southern retention area, please remove this label. What is the planting in the area of dashed lines?

All materials within the dry retention areas are native species. Sod is only proposed outside the retention area at the top of bank at the top of bank to provide immediate stabilization. See revised landscape plan enclosed.

Item #8:

Additional Landscape Condition

The sub-phasing plan is proposing a complicated and fragmented installation of landscape buffers. All required landscaping must be installed and certified prior to any project C.O.

The revised CO Phasing Plan shows all buffers to be completed prior to the first CO.

K. Determination of compliance with transportation requirements

Findings of Compliance:

The Traffic Division of the Public Works Department finds this application in compliance.

Agree

L. Determination of compliance with county surveyor

Agree.

M. Determination of compliance with engineering, stormwater and flood management requirements

Unresolved issues:

Item #1:

Right-of-way Improvements

1. As previously requested, a 7.5' right-of-way dedication along NE Savannah Road is required for this project. Display line work and label the proposed dedication on the Final Site Plan and Construction Plans accordingly. Note: Additional right-of-way may be required near the eastern leg of the proposed roundabout to accommodate the crosswalk and refuge islands.

The requested 7.5 ft right-of-way dedication along SE Savannah Road has been added to the Final Site Plan and Construction Plans.

2. As previously requested, extend the surveyed limits to include the existing eastbound right turn lane into the Tropical Acres development.

Additional survey information for the subject area was obtained from the Savannah Road Multi Modal Enhancements project plans (the Bike Lanes Plans) and has been added (see Sheet 9).

3. There appears to be a power pole which is missing from the survey. The pole is location on the eastern side of the right-of-way at approximately STA 56+80.

The subject power pole was added to the roundabout plans at the indicated station (see Sheet 9).

4. The minimum radius for all splitter island curbing shall be 3-feet.

Acknowledged, the splitter island curbing radii were adjusted to 3-feet (see Sheet 9).

5. The bicycle ramps shall have the same minimum width as the bicycle lanes, which is 5-feet.

Acknowledged, the bicycle ramps were adjusted to 5-feet (see Sheet 9).

6. The northeast bicycle ramp is currently shown with a cross slope of approximately 14%. Slope should be reduced to 2% max.

Acknowledged, the northeast bicycle ramp was adjusted to 2% max cross slope (see Sheet 9).

7. Some of the bicycle ramps exceed the maximum allowable angle from parallel to the roadway/sidewalk. The typical angle permitted by FDOT is roughly 20-degrees and the maximum allowable angle is 35-degrees. [FDOT Design Manual Figure 213.8.1 (2019)]

Acknowledged, the bicycle ramps were adjusted to between 20-degrees and 35-degrees from parallel to the roadway/sidewalk (see Sheet 9).

8. Provide directional indicators at the top of the bicycle ramps to provide a tactile cue for visually impaired pedestrians to continue down the sidewalk. [FDOT Design Manual 213.8.2 (2019)]

Directional indicators have been added at the top of the bicycle ramps to provide a tactile cue for visually impaired pedestrians to continue down the sidewalk (see Sheet 9).

9. Provide additional detail at the intersection of the northwest bicycle ramp and the roadway. It is unclear how the curb transitioning will work in this area.

The northwest bicycle ramp design has been revised (see Sheet 9).

10. At STA 55+60, the proposed sidewalk width shall be increased to 8-feet within the location of the right-of-way (Including the proposed right-of-way dedication). Additionally, the sidewalk should be reconfigured to eliminate the 90-degree bend resulting in an alignment with the crosswalk.

Acknowledged, this area was revised (see Sheet 9).

11. The pedestrian refuge area within the northern crosswalk is shown to have a running slope of 5%. The refuge area shall act as an ADA landing, and therefore the maximum allowable slope is 2% in both directions. Revise grading accordingly.

Acknowledged, this area was revised (see Sheet 9).

12. The pedestrian refuge area within the eastern crosswalk does not meet the minimum required dimensions and shall be eliminated. The crosswalk at this location will now be continuous.

Acknowledged, this area was revised (see Sheet 9).

13. As previously requested, the proposed eastern crosswalk is shown with a cross slope exceeding 2%. Revise grading accordingly.

Acknowledged, this area was revised (see Sheet 9).

14. Provide additional grading information for the proposed western crosswalk, including the curb ramps.

Acknowledged, this area was revised (see Sheet 9).

15. Provide F-Curbing for the central island in lieu of D-Curbing.

Acknowledged, the central island curbing was changed to Type F curb (see Sheet 9).

16. The construction plans appear to propose grading within the Tropical Acres property. The plans indicate a construction easement will be granted for the work within private property; however, the County will need the ability to maintain the banks of the new slope in perpetuity. Therefore, a permanent maintenance and access easement or a right-of-way dedication will be required in this area. Another option would be to use a gravity wall and pedestrian handrail to eliminate the need for offsite grading.

Per the project meeting with the County Engineer on September 25, 2019, the roundabout grading was lowered on the east side of the roundabout adjacent to the Tropical Acres property. With the grading change, all back-slope grading is now contained within the Savannah Road right-of-way (see Sheet 9).

17. The County does not permit the removal of pavement striping via water blasting or painting. Therefore, as previously requested, extend the limits of the mill and overlay to match the limits of the proposed striping.

The limits of the mill and overlay have been extended to match the limits of the proposed striping, and the future Savannah Road Multi-Modal Enhancement Plans (see Sheet 9).

18. Provide the radius of curvature for the profile grade lines on the Project Control Sheet.

Acknowledged, radius of curvature for the profile grade lines were added to the Project Control Sheet 6.

19. The realignment of the northbound travel lane on NE Savannah Road requires the right turn lane into Tropical Acres to be reconfigured. The bicycle ramp should not be located within the taper of the turn lane.

Acknowledged, this area was revised (see Sheet 9).

20. Extend the median north of the roundabout to STA 60+15. Additionally, revise the end of the median to become a bull nose rather than a taper.

The median north of the roundabout was extended to STA 60+15, and the end of the median was revised to a bull nose rather than a taper. Please refer to Sheet 9.

21. For maintenance purposes, revise the grading around storm structure SD-2 to eliminate the need for a slotted box.

Per the September 25, 2019 project meeting with the County Engineer, the drainage design was revised to change this structure to a manhole and to capture the area drainage with an additional pipe and MES.

22. Remove the storm pipe shown between structures SD-2 and SD-3 that crosses the road in a non-perpendicular manner. Relocate the pipe to connect structures SD-3 and SD-6 instead.

Per the September 25, 2019 meeting with the County Engineer, this storm pipe was deleted (see Sheet 9).

23. Revise the roadway cross slopes throughout the complete circulation of the roundabout to be a consistent slope (Min. 2%).

Acknowledged, the roundabout cross slopes were revised (see Sheet 9).

24. Revise the minimum profile slope of the northbound travel lane (STA 57+20 to 58+10) to be 0.3%.

Acknowledged, the minimum profile slope of the northbound travel lane was revised (see Sheet 9).

25. It is not clear why the northbound profile grade line is approximately 1-foot higher than the southbound profile grade line within the roundabout. Consider lowering the northbound elevation to match the southbound elevation. This revision should help other grading related issues.

Acknowledged, the northbound profile grade line was lowered to match the southbound profile grade line to help with the other grading issues (see Sheets 9, 12 and 13).

26. Provide an additional cross section through the center of the roundabout.

The cross section at STA 56+49 is through the center of the roundabout (see Sheet 12).

27. Review the proposed roundabout plans for consistency with the Savannah Road Resurfacing and Bike Lanes Plans. Ensure the locations of all proposed bike ramps and bike lanes align with the bike lanes on the Resurfacing Plans. Additionally, review the notes and specifications sheets to ensure they are consistent.

The Savannah Road Resurfacing and Bike Lanes Plans were reviewed, and the roundabout plans were revised for consistency.

28. In anticipation of the roundabout construction as an alternative bid to the Savannah Road Resurfacing project, revise the proposed pay item numbers to be consistent with the Resurfacing project. Note: Do not include the FM# on the roundabout plans.

Acknowledged, the pay item numbers on Sheet 2 were revised to be consistent with the Resurfacing project.

29. Remove all proposed utility work from the plans. All utility related work will be permitted separately with a separate Martin County Right-of-Way Use Permit.

Acknowledged, there is no utility work in the roundabout plans; only valve box adjustments (see Sheet 14).

30. The proposed project is not Martin County funded. Therefore, remove all Martin County logos and BOCC information from the plans.

Per the September 25, 2019 project meeting with the County Engineer, the construction contract will be funded by the developer's pre-payment of impact fees to Martin County. The contractor will be paid by, and the roundabout construction contract will be administered by, Martin County using the pre-paid impact fees and developer funding. It was decided that the current format and MC logos are appropriate.

31. Include Martin County Standard Detail R-60 within the detail sheets.

Acknowledged, Martin County Standard Detail R-60 was added to Sheet 5.

Item #2: Off-Street Parking

1. As previously requested, provide adequate vehicular turnaround space where pavement comes to a dead end. This occurs south of the proposed clubhouse (STA 15+00), north of Building 1 (STA 17+15), and south of Building 8 (STA 37+60). If dead end length exceeds 150', which appears to occur at STA 35+95 to STA 37+70, provide fire apparatus turnaround per NFPA 1 latest standards. The

geometrics of all turnarounds shall allow vehicles to complete the turning maneuver with a maximum three-point movement.

A parking space is marked as no parking at each location for turnaround purposes.

2. As previously requested, provide separate resident and guest entry lanes to the development. Additionally, the location of the electronic entry gate box shall be relocated such that vehicles can make a U-turn if access to the development is denied.

The gated entry has been deleted.

3. Provide a minimum of 3 queuing spaces for the gated entrance. Driveways shall be designed with adequate on-site storage for entering and exiting vehicles to reduce unsafe conflicts with through traffic or on-site traffic and to avoid congestion at the entrance. [Martin County, Fla., LDR Section 4.845.G.8 (2001)]

The gated entry has been deleted.

Item #3: Consistency with Other Plans

1. The bearings and distances were correctly shown on the Final Site Plan in the first submittal, but they seem to have been omitted with the second submittal. Revise the Final Site Plan to display the bearings and distances again.

See revised master/final site plan enclosed.

2. As previously requested, display all traffic control items, such as stop bars and pedestrian crosswalks, on the Final Site Plan to be consistent with the Horizontal Control Plan.

See revised master/final site plan enclosed.

3. Some of the proposed ADA parking stalls appear to be missing curb ramps on the Horizontal Control Plan. The ramps are correctly shown on the Final Site Plan and Paving, Grading, and Drainage plan; so, it appears that a layer was accidentally turned off on the Horizontal Control Plan. Revise for consistency. [Martin County, Fla., LDR Section 4.627.E (2009)]

Acknowledged, this has been revised (see Sheet 5 of 28).

Item #4: Stormwater Management Construction Plans

1. Revise the box culvert phasing plan to allow full flow of Warner Creek during both phases. Staff suggests moving the sheet piles roughly 5-feet to the east during Phase 1. This will allow for the partial construction of the headwalls on the east side of the eastern headwall. The sheet piles for Phase 2 can then be tied into the partially constructed headwall while allowing both culverts to be fully open.

A Timber Bridge will be constructed in lieu of the box culvert. The developer has hired York Bridge Concepts, a design-build engineering contractor that will design and install the bridge. Warner Creek will remain completely open during bridge construction (no phasing is required to build the bridge). As per the enclosed email from Michelle Cullum dated 11-26-19, construction plans for the bridge will be provided prior to construction.

2. As previously requested, there appears to be insufficient room to match to existing grades without entering the 5' preserve setback at the location of the dumpster pads (STA 36+10). Consider using a retaining wall at that location, or provide a cross section to demonstrate that the current grading works.

Acknowledged, this has been revised as noted (see Sheet 9 of 28).

3. Note: The detailed design elements the box culvert system, including but not limited to the structural calculations as well as construction details for the culvert/wingwall foundations, culvert headwall, culvert toe slab, wingwalls, and roadway traffic barriers, will be reviewed at post-approval. The pre-construction meeting will not be scheduled until the final design is reviewed and approved by the County Engineer.

Acknowledged, please note that a box culvert will not be constructed for the Warner Creek crossing. A Timber Bridge will be constructed for the Warner Creek crossing and the detailed design elements, including but not limited to, the structural calculations as well as construction details for the abutments, pile bents, girders and decking, wingwalls, and roadway traffic barriers, will be provided for review at post-approval by York Bridge Concepts, a design-build engineering contractor. This approach was confirmed in the 11-26-19 email from Michelle Cullum.

Item #5: Development Phasing Plan

1. The current notes associated with the phasing plan appear to describe the sequence of construction within each phase. All references to sequencing or scheduling shall be removed. Instead, the requirements for the Core Infrastructure and Certificate of Occupancy shall be listed for each phase. See Pennock Preserve PUD phasing plan as an example.

Please refer to the enclosed revised CO Phasing Plan (see Sheet 4 of 28), which has been revised per our meetings with staff. The detail is provided to ensure all required items are constructed for each Certificate of Occupancy requested, as previously requested by the Development Review Administrator.

2. The sub-phasing of required design elements on a building by building basis will not be permitted. Revise the phasing boundaries to be consistent between the Earthwork, Drainage, Utility, Paving, and Landscaping plans.

Acknowledged, please refer to the enclosed revised CO Phasing Plan (see Sheet 4 of 28).

3. The Club House and Pool shall be completed within Phase I and finished before the issuance of the first apartment building certificate of occupancy.

Acknowledged, please refer to the enclosed revised CO Phasing Plan (see Sheet 4 of 28).

4. The proposed pavement shown on the paving plan for Phase II should be revised to include the main access drive up to STA 28+80, as stated in bullet point four under the Phase 2 notes.

Acknowledged, only one plan view is now included (see Sheet 4 of 28).

5. The stormwater management report utilizes two basins for the post-development design and assumes the whole site will be constructed at the same time. The proposed phasing of construction will result in calculation values which are different than the final design. Provide additional calculations, or a supplemental section within the report which demonstrates that each phase of construction will have the required stormwater infrastructure available to meet the design storms.

Although the project stormwater management system will be constructed as two (2) drainage basins, all ponds will be constructed in Phase 1. The first drainage basin is for all area east of Warner Creek, and the second basin is for all area west of Warner Creek. Note that this matches the CO Phasing, because clearing, grubbing & mass grading of drainage basin 2 cannot be constructed until the bridge is built to provide access across Warner Creek. Once the bridge is completed, the mass grading and the basin 2 drainage system (including all ponds for CO Phases 2 and 3) will be constructed prior to requesting the Building No. 2 Certificate of Occupancy. Please refer to Sheet 4 of 28.

N. Determination of compliance with addressing and electronic file requirements

Addressing and Electronic File Submittal

Findings of Compliance:

Agree.

O. Determination of compliance with utilities requirements

Water and Wastewater Service

Unresolved Issues:

Item #1: Drawings Must Be Approved

The construction drawings must be approved by the Utilities and Solid Waste Department prior to sign off by the Department of permit applications and agreements.

Agree. The revised permit drawings have been submitted directly to the Utilities Department.

Item #2: Water And Wastewater Service Agreement

The applicant must submit an executable, final draft water and wastewater service agreement to the Growth Management Department for review by the Legal and Environmental Services departments prior to approval of the final site plan. The 'Water and Wastewater Service Agreement' must be executed and the applicable fees paid within sixty 60 days of final Martin County approval of the request.

Agree.

Wellfield and Groundwater Protection

Findings of Compliance:

Agree.

P. Determination of compliance with fire prevention and emergency management requirements

Fire Prevention

Findings of Compliance:

Agree.

Emergency Preparedness

Findings of Compliance:

Agree.

Q. Determination of compliance with ADA requirements

Unresolved Issues:

Item #1: The sidewalk cross slopes exceed 2% at the location of the Warner Creek Maintenance Access Driveways. Revise elevations accordingly.

The sidewalk cross slopes for the Warner Creek maintenance access turnouts have been revised to 2% maximum and the access driveways will be constructed with 6-inch minimum thickness concrete.

R. Determination of compliance with Martin County Health Department and School Board Requirements:

Findings of Compliance.

Agree.

S. Determination of compliance with legal requirements

Review Ongoing

T. Determination of compliance with adequate public facilities requirements

Noted.

U. Post-approval requirements

Noted.

V. Local, State and Federal Permits

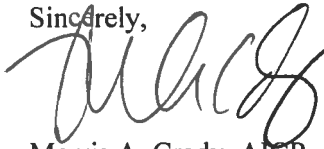
Noted.

- W. Fees**
Noted.
- X. General application information**
Agree.
- Y. Acronyms**
Noted.
- Z. Attachments**
Noted.

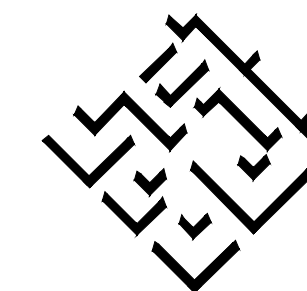
I trust these responses and the revised plans satisfactorily address the comments contained in the staff report and allow this project to move forward to the next available County Commission meeting.

Please feel free to contact me if you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Crady', written over the word 'Sincerely,'.

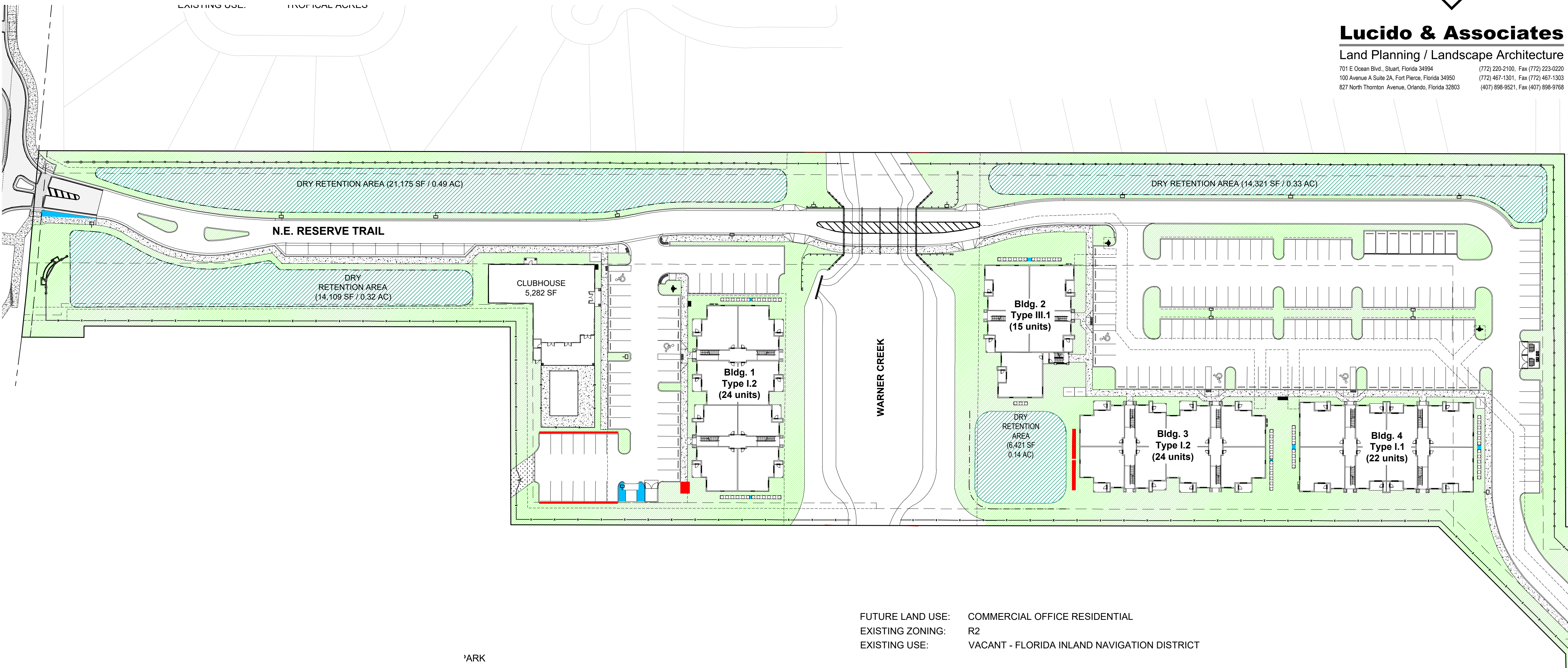
Morris A. Crady, AICP
Senior Vice President
Encl.



Lucido & Associates

Land Planning / Landscape Architecture

701 E Ocean Blvd., Stuart, Florida 34994 (772) 220-2100, Fax (772) 223-0220
100 Avenue A Suite 2A, Fort Pierce, Florida 34950 (772) 467-1301, Fax (772) 467-1303
827 North Thornton Avenue, Orlando, Florida 32803 (407) 898-9521, Fax (407) 898-9768



OPEN SPACE SITE DATA

Total Site Area:	23.01 acres (100%)
Required Open Space:	11.5 acres (50%)
Provided Open Space:	14.55 acres (63.2%)

	Landscape Areas:	5.97 ac.
	Retention Areas:	2.66 ac.
	Upland Preserve:	5.50 ac.
	Excess Upland Restoration:	0.42 ac.

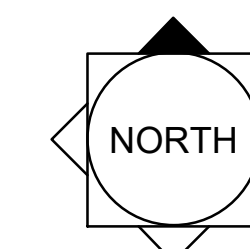
-  Area Previously Included as Open Space but not Allowable
-  Area Previously Not Included as Open Space but is Allowable



The Reserve at Jensen Beach

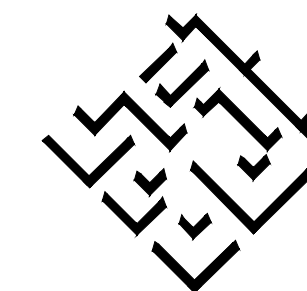
Open Space Exhibit

Jensen Beach, Martin County, Florida



Scale
Drawn by S.L.S.
Checked By M.C.
Computer File --
Computer Station --
Project Number 18-020
Date 08.30.2018

Revisions
Sheet



Lucido & Associates

Land Planning / Landscape Architecture

701 E Ocean Blvd., Stuart, Florida 34994 (772) 220-2100, Fax (772) 223-0220
100 Avenue A Suite 2A, Fort Pierce, Florida 34950 (772) 467-1301, Fax (772) 467-1303
827 North Thornton Avenue, Orlando, Florida 32803 (407) 898-9521, Fax (407) 898-9768

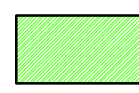
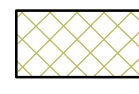
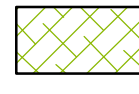
FUTURE LAND USE: MOBILE HOME DENSITY
EXISTING ZONING: TP
EXISTING USE: PINELAKE VILLAGE MOBILE HOMES

S89°53'38"E 1718.61'

UPLAND PRESERVE

DRY RETENTION AREA
(59,864 SF / 1.37 AC)

OPEN SPACE SITE DATA

Total Site Area:	23.01 acres (100%)
Required Open Space:	11.5 acres (50%)
Provided Open Space:	14.55 acres (63.2%)
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-  Area Previously Included as Open Space but not Allowable
-  Area Previously Not Included as Open Space but is Allowable

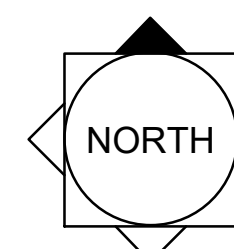
SCALE

0 20' 40' 80'

The Reserve at Jensen Beach

Open Space Exhibit

Jensen Beach, Martin County, Florida



Scale 1" = 40'
Drawn by S.L.S.
Checked By M.C.
Computer File --
Computer Station --
Project Number 18-020
Date 08.30.2018

Revisions
Sheet

**Martin County Comprehensive Growth Management Plan (CGMP)
Density Allocation and Intensity Standards**

**The Reserve At Jensen Beach
Compliance Analysis
November 19, 2019**

Density Calculations:

Future Land Use: COR - up to 10 units per acre (upa)
Medium Density - up to 8 upa
Existing Zoning: COR-2 and RM-8

Total Site Area: 23.01 ac.
COR Land Use: 8.71 ac.
Medium Density: 14.30 ac.

Maximum Density Calculations Per CGMP Policy 4.1E.4

COR-2: 8.71 ac. x 10 upa = 87 units
RM-8: 14.30 ac. x 8 upa = 114 units

Proposed Density Per CGMP Policy 4.1E.4

Proposed Units in COR-2: 85 units
Proposed Density in COR-2: 9.8 upa

Proposed Units in RM-8: 112 units
Proposed Density in RM-8: 7.8 upa

Proposed Dwelling Unit Type:

Multi-family

Surrounding Property Characteristics:

The subject property abuts developed Mobile Home properties to the north. The properties to the south consist of developed industrial uses including the VFW meeting hall, vacant property owned by the Florida Inland Navigation District (FIND) that is designated for COR future land use, and the FEC Railroad tracks, which also extends to the eastern corner of the site. NE Savannah Road is adjacent to the western border of the property.

There are no single-family homes adjacent to the proposed development.

Comprehensive Growth Management Plan Density Transition Policies:

Policy 4.1F.1. Projects directly adjacent to lands used or designated for higher intensity use may be given maximum density.

Compliance response and analysis: The adjacent industrial use and the FEC railroad tracks are higher intensity uses. The future land use on the adjacent mobile home park allows up to 8 units per acre, which is comparable to the proposed density. However, within the density transition zone, the proposed project has been designed at significantly less density than the existing mobile home development.

Policy 4.1F.2. Projects immediately adjacent to lands used or designated for lower density use should be given less than maximum density.

(1) In all such cases the project with higher density shall provide for reduced density next to the existing lower density residential area.

(2) Within the urban service districts where lot sizes in the existing residential development are two acres or less and density is more than 1 unit per 2 acres, the following shall apply:

For the residential portion of said project abutting the existing development or area of lesser density, a density transition zone of comparable density and compatible dwelling unit types shall be established in the new project for a depth from the shared property line that is equivalent to the depth of the first tier of the adjoining development's lower density (i.e., the depth of the first block of single-family lots).

Policy 4.1F.3. The following criteria shall be met when applying Policy 4.1F.2.

(1) For purposes of this policy, abutting property is the same as "adjacent" or "adjoining" or "immediately adjacent" property and shall refer to property with a shared property line regardless of easements on the abutting properties. Properties separated by an existing road with a minimum 30 foot right of way shall not be considered abutting.

(2) Lands outside the urban service district, agricultural property and residential lots 2 acres or larger shall be protected by buffers and by 4.1F.2. but the tiering Policy in 4.1F.2. (2) shall not apply.

(3) Where the tiering Policy 4.1F.2. (2) applies, there shall be no requirement to construct residential units within the applicable area of the proposed development. However, if the area is left vacant, no other construction shall be allowed except for underground utilities, sidewalks, swales, stormwater ponds and dry retention areas.

Compliance response and analysis:

Density transition does not apply to the south, east or west boundaries because the adjacent properties are designated for nonresidential uses.

Density transition does apply to the tier of mobile home units to the north, which is approximately 100 feet deep.

Mobile Home Tier Analysis

As demonstrated on the attached Density Transition Exhibit, the proposed project has been designed with a density transition zone with significantly reduced density than the existing mobile home development. Specifically, the first tier of mobile home lots adjacent to the COR

land use is approximately 100 feet in depth and consists of approximately 4.06 acres. Within the mobile home tier, there are 29 mobile home units and/or vacant lots, which represents a density of 7.14 units per acre. Within the adjacent tier on the proposed project a portion of apartment building #4 (i.e. 4 units) is within the density transition zone (3.61 acres), which equates to a density of only 1.11 units per acre.

The first tier of mobile home lots adjacent to the Medium Density land use is also approximately 100 feet in depth and consists of approximately 3.29 acres. Within the mobile home tier, there are 15 mobile home units which represents a density of 4.56 units per acre. Within the adjacent tier on the proposed project no units are proposed. The density transition zone along this portion of the site is composed entirely of upland preserve and a small dry retention area.

Compatible Dwelling Unit Type

While it is the applicant's preference to eliminate all proposed units within the density transition zone (DTZ), the current policy interpretation prohibits roads (i.e. entrance road) within the DTZ unless a building or a portion of a building is also located within the DTZ. To this end, staff required a portion of building #2 to be located within the DTZ and directed the applicant to reduce the height of that portion from 3 stories to 2 stories to address compatibility of dwelling types. From a planning perspective, mobile home development is considered a transitional land use between multi-family and single family development and is therefore considered a compatible dwelling unit type.

(4) Other buffers required by the Comprehensive Plan or Land Development Regulations shall also be applicable.

Compliance response and analysis:

As demonstrated on the site and Landscape Plans required buffers have been provided in accordance with the Comprehensive Plan and the land development regulations.

(5) Residential structures within a Mixed Use Overlay. A mixed use development containing residential units within a Mixed Use Overlay shall not be required to have a residential structure on that part of the project abutting existing development or area of lesser density within the Mixed Use Overlay. Buffers shall be as provided in Policy 4.3A.7.

Compliance response and analysis:

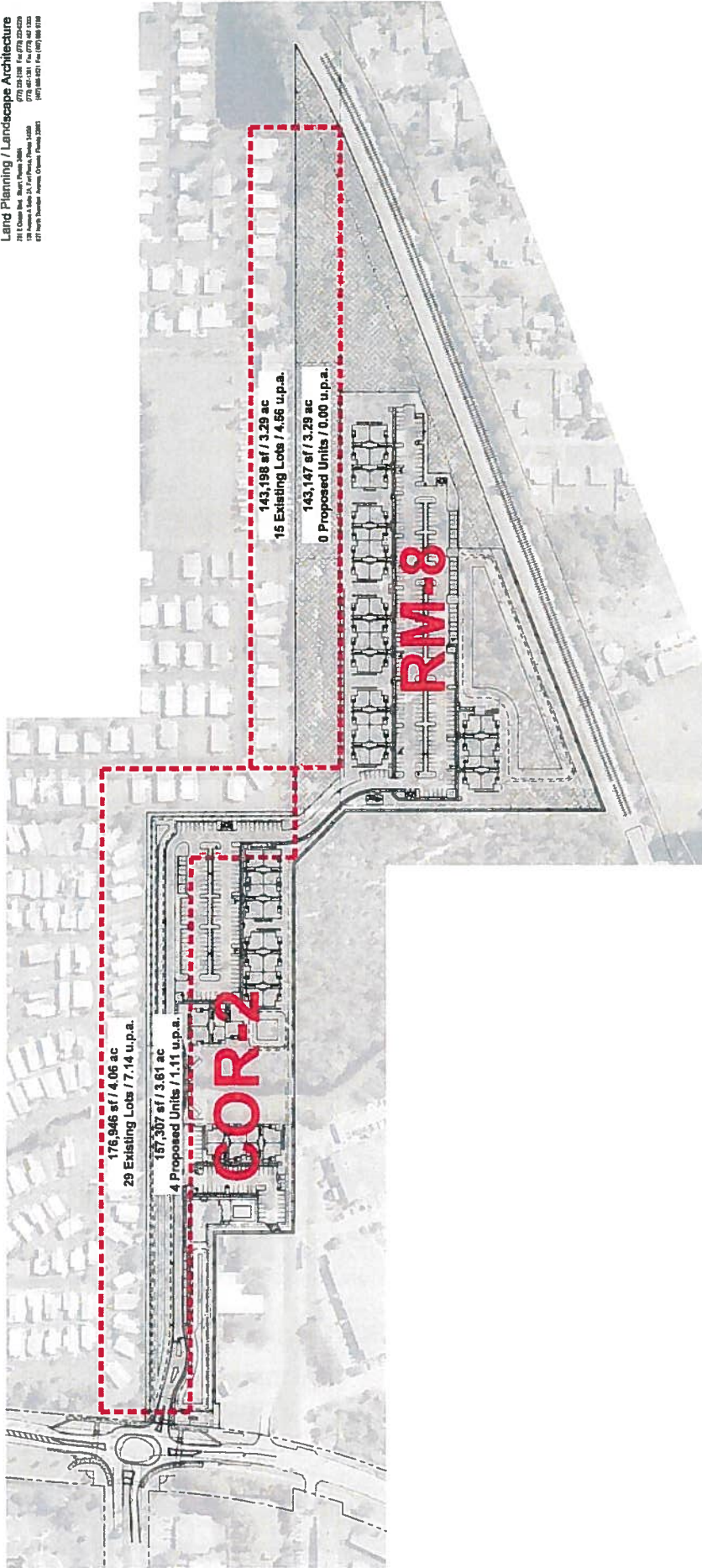
Not applicable. The project is not located within a mixed use overlay.

CONCLUSION:

The project is in compliance with the density allocations and intensity standards of the Martin County Comprehensive Growth Management Plan and Land Development Regulations.



Lucido & Associates
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201 E. Ocean Blvd., Suite 200, Fort Myers, FL 33901
239.487.1331 Fax 239.487.1332
239.487.1333 Fax 239.487.1334
239.487.1335 Fax 239.487.1336



SCALE
0 50 100 150



Location Map



The Reserve at Jensen Beach
Density Transition Exhibit
Jensen Beach, Martin County, Florida

Scale: 1" = 50' P-UDG
Drawn By: JLC
Checked By: JLC
Computer Plot: JLC
Project Number: 18-020
Date: 09.21.2018

Sheet
1 of 1



Morris Crady

From: Michelle Cullum <mcullum@martin.fl.us>
Sent: Tuesday, November 26, 2019 8:23 AM
To: Morris Crady
Cc: Lisa Wichser; David Moore; Catherine Riiska
Subject: RE: The Reserve at Jensen Beach -Timber Bridge

Good Morning Morris,

Thank you for the update. Yes, that approach is acceptable. We will include a condition in the Development Order that will require the signed and sealed structural plans for the timber bridge to be submitted with the post approval documents. We did this for a similar project in Palm City.

Please let me know if you have any questions.

Have a Happy Thanksgiving!

Michelle Cullum, P.E.
Development Review Administrator
Public Works Department
Martin County Board of County Commissioners
772-288-5512 (office)

From: Morris Crady <mcrady@lucidodesign.com>
Sent: Monday, November 25, 2019 1:14 PM
To: Michelle Cullum <mcullum@martin.fl.us>; Lisa Wichser <lwichser@martin.fl.us>; David Moore <davidm@martin.fl.us>
Subject: FW: The Reserve at Jensen Beach -Timber Bridge



Hi Michelle,

We are getting closer to a resubmittal, which will include a timber bridge over Warner Creek by York Bridge Concepts, who I believe has done other work in the County.

Our client has entered into a contract for the bridge construction plans but it will be 60 to 90 days before the plans are completed.

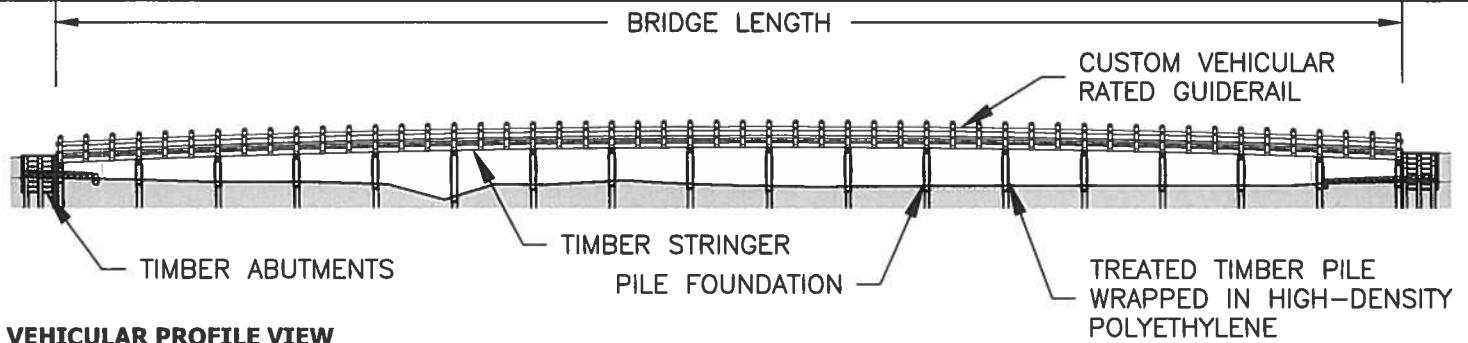
Rather than wait on the plans and resubmit in 60 to 90 days, we would like to resubmit without the final bridge construction plans.

The site and construction plans will show the transition on each side of the creek and the specific plan view details. And we will include the attached documents and e-mails below to show our commitment to York Bridge Concepts as the supplier.

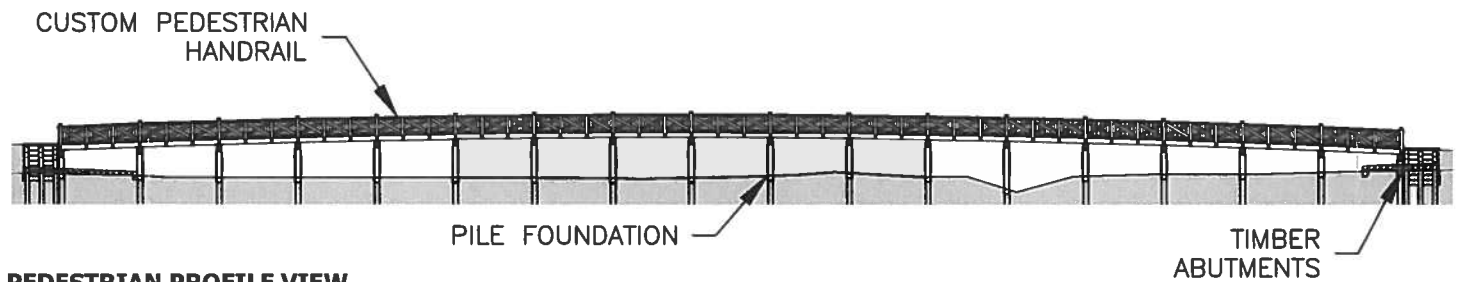
Since the company is well known and has a qualified set of specifications, can you condition the engineering department's review on providing the final bridge construction details prior to scheduling the pre-construction meeting? We would like to avoid another round of review based on the bridge construction plan alone.

Please confirm this approach is acceptable.

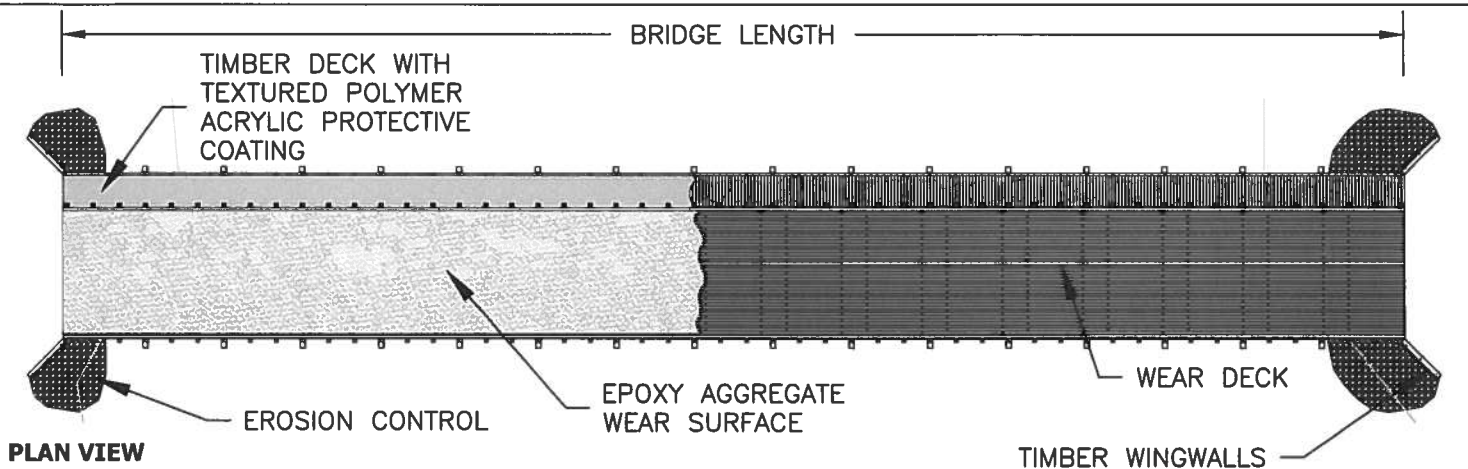
VEHICULAR REPETITIVE SPAN (DOUBLE LANE) WITH PEDESTRIAN SECTION



VEHICULAR PROFILE VIEW



PEDESTRIAN PROFILE VIEW



PLAN VIEW

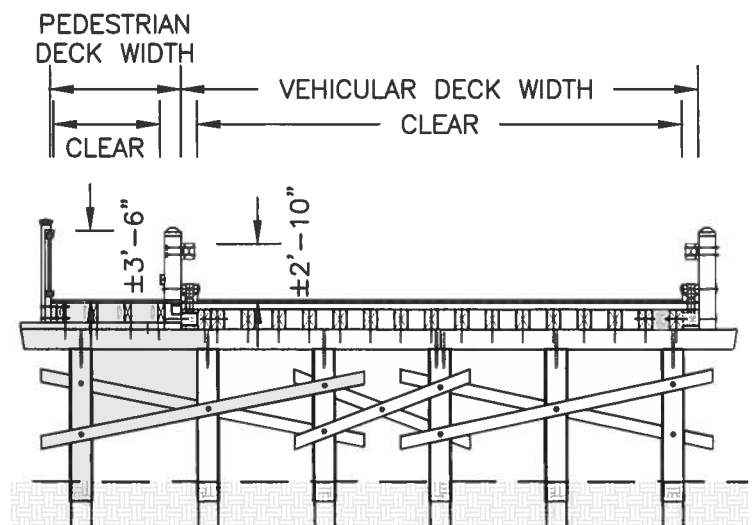
NOTES & SPECIFICATIONS:

- THIS BRIDGE DESIGNED AT HS-20 CAPACITY
 - UPGRADES TO HS-25 OR HL-93 AVAILABLE
- DECK WIDTHS AVAILABLE OF 20'-0" TO 32'-0"
- ANY LENGTH AVAILABLE
- ALL WOOD IS .60 CCA TREATED SOUTHERN YELLOW PINE (TREATED DOUGLAS FIR OPTION AVAILABLE FOR WESTERN APPLICATIONS)
 - PEDESTRIAN SECTION HAS .23 CA-C ON SOME COMPONENTS
- TRANSLUCENT OIL ON RAILING SYSTEM, AND OUTSIDE STRINGER
- ACRYLIC/POLYMER ON PILE FOUNDATION

VENDOR CONTACT INFO

YORK BRIDGE CONCEPTS
 813.482.0613 | WWW.YBC.COM
 2420 BRUNELLO TRACE | LUTZ, FL 33558

SECTION VIEW





The Reserve at Jensen Beach

Savannah Road, Martin County, Florida

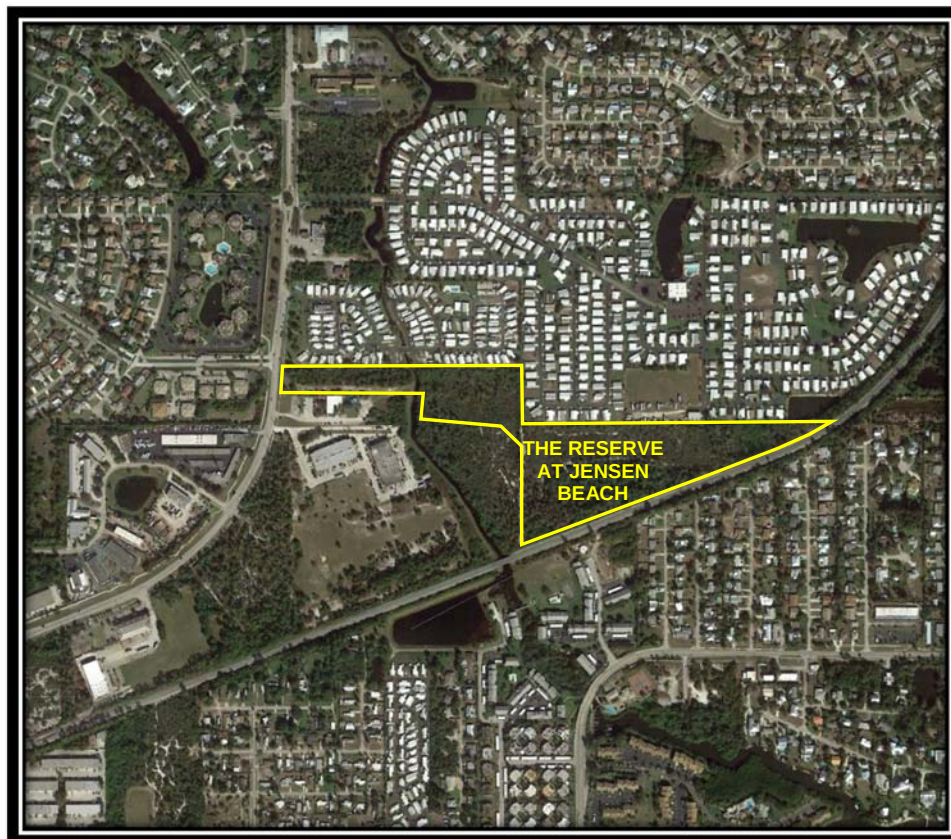
Project No. 1329.2



STORMWATER MANAGEMENT REPORT

PREPARED FOR:

**MARTIN COUNTY ENGINEERING &
SOUTH FLORIDA WATER MANAGEMENT DISTRICT**



PREPARED BY:



CAPTEC Engineering, Inc.
301 NW Flagler Avenue
Stuart, Florida 34994
(772) 692-4344
EB-0007657
December 2019

JOSEPH W. CAPRA, P.E.
FLORIDA P.E. LICENSE NO. 37638

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List of Attachments

Exhibits:

- Exhibit 1** - Location Map
- Exhibit 2** - Site Aerial
- Exhibit 3** – FEMA Flood Map
- Exhibit 4** – USGS Quadrangle Map
- Exhibit 5** – Soils Map Survey
- Exhibit 6A** – SFWMD Rainfall Record (10 year/1 day)
- Exhibit 6B** – SFWMD Rainfall Record (25 year/3 day)
- Exhibit 6C** – SFWMD Rainfall Record (100 year/3 day)
- Exhibit 7** – Floodplain Compensation Exhibit
- Exhibit 8** – Overall Site Drainage Area Map
- Exhibit 9** – Pre-Development Nutrient Loading Map
- Exhibit 10** – Pre-Development Land Coverage Map
- Exhibit 11** – Post Development Land Coverage Map
- Exhibit 12** – Roundabout (Off-site)
- Exhibit 13** – Informal Wetland Delineation
- Exhibit 14** – SFWMD ERP #43-02364 (No Sovereign/Submerged Lands (SSL) on-site)

Appendices:

1. Drainage Calculations (with BMP Trains)
2. Existing Conditions ICPR Reports
3. Proposed Conditions ICPR Reports
4. Summary of Existing and Proposed ICPR Model Conditions
5. Geotechnical Reports
 - A. Geotechnical Engineering Report River's Edge Apartments (*ECS Florida, LLC – 12/18/17*)
 - B. Limited Subsurface Soil Exploration and Preliminary Geotechnical Engineering Evaluation, Reserve at Jensen Beach, Proposed Residential Development (*Andersen Andre Consulting Engineers, Inc. 9/7/18*)

1.0 INTRODUCTION

This report presents the design of the surface water management system of the proposed Reserve at Jensen Beach project. The proposed development consists of Multi-Family Apartments and is located in Jensen Beach, within Martin County, Florida. The report also describes related information discovered during the pre-design site reconnaissance and data research.

2.0 BACKGROUND

2.1 Project Location

The project site is located at longitude 80°13'37" West and latitude 27°13'37" North, within Section 27, Township 37 South, Range 41 East in Jensen Beach, Martin County, Florida. The project site is comprised of two adjacent land parcels: a rectangular shaped west parcel; and a triangular shaped east parcel. The rectangular west parcel is bordered to the west by NE Savannah Road, to the north by the Tropical Acres Mobile Home Park, to the east by the Pinelake Village Mobile Home subdivision, to the south by the Veterans of Wars (VFW), and the Florida Inland Navigation District (FIND) Parcel. The project land parcels are joined by an easement granted by FIND recorded in OR Book 02107 Pp. 1544-1552. Warner Creek flows from north to south through the center of the west parcel. The triangular east parcel is bordered to the north by the Pinelake Village Mobile Home Park, to the south by the Florida East Coast (FEC) Railroad Right of Way, and to the west by the FIND Parcel. Refer to the attached Location Map on **Exhibit 1**.

2.2 Project Description

The total project area is 23.15± acres, and is divided into two basins. Basin #1 is the portion of the site west of Warner Creek. Basin #2 is the portion of the site east of Warner Creek and includes the FIND easement and the upland preserve area that is located entirely within the triangular shaped east parcel of the site. The proposed improvements will consist of nine multi-family apartment buildings (totaling 197 units), on-site paved surfaces (roadways, parking areas and sidewalks), an on-site surface water management system (dry retention areas, inlets and pipe conveyance systems), a potable water distribution system, and a wastewater collection / transmission system. The project will also provide water quality for the proposed NE Savannah Road and Coy Senda Roundabout project (see Section 4.5) that is adjacent to the project site as well as the installation of a drainage bypass system for off-site flows from Jensen Park Estates and NE Savannah Road to Warner Creek (see Section 4.6).

3.0 EXISTING CONDITIONS

3.1 Existing Land Use

The site is currently vacant and heavily vegetated. The triangular shaped east parcel currently drains predominately by overland sheet flow, from north to south to the swale along the north side of the FEC railroad, and then west into Warner Creek. The triangular shaped east parcel will contain upland preserve area, all of which is located within Basin #2. The rectangular shaped west parcel is bisected by Warner Creek with the west half currently draining, predominately by overland sheet flow, into an existing ditch, which also conveys off-site flows to Warner Creek. The east half of the rectangular parcel currently drains predominately by overland flow from the

northeast to the southwest and into Warner Creek. The site contains existing ditches and berms which will be regraded and replaced during construction. An existing ditch located on the western parcel, conveys off-site surface water from Jensen Park Estates and NE Savannah Road to Warner Creek. During construction, the ditch will be filled, regraded and piped with 42"- 54" diameter Reinforced Concrete Pipes (RCPs) to Warner Creek. This project area has not been previously permitted for any development. Refer to the attached Aerial Map on **Exhibit 2**.

SFWMD conducted a Jurisdictional Determination site inspection on April 19, 2018. Based on provided information and the results of the site inspection, jurisdictional other surface waters (OSW) as defined in Chapter 62-340, Florida Administrative Code, exist on the property, as shown on **Exhibit 13**, which identifies the boundaries of the property inspected and the approximate landward limits of the other surface waters. Also, the section of Warner Creek through the project site is NOT Sovereign/Submerged Lands (SSL) according to FDEP as shown on **Exhibit 14**.

3.2 Flood Zone

The project area lies within FEMA Flood Zone "X" and Flood Zone "AE-7" as shown on FEMA Map Number 12085C0151G (Effective March 16, 2015). The majority of the project area lies in FEMA Flood Zone "X" which is outside the boundary of the 100-year frequency flood. Warner Creek, however, is located in Flood Zone "AE-7" which lies within areas of 100-year flood zone with a predicted flood stage of EL 7.00 NAVD. Therefore, floodplain compensation is required for all floodplain encroachment related to development of the site. Refer to Section 4.7 for further information about the Floodplain Compensating Storage. Refer to the attached FEMA Flood Zone Map on **Exhibit 3**.

3.3 Soils

The Soil Survey of the Martin County Area, Florida (USDA, SCS 1981) indicates that the surficial soils are primarily Paola and St Lucie sands - 0 to 8 percent slopes (6), Jonathan sand - 0 to 5 percent slopes (41) and traces of Waveland and Immokalee fine sands (4). Refer to the attached Soil Conservation Survey (SCS) Map on **Exhibit 4**.

Two geotechnical reports have been completed for the project, both include limited subsurface exploration, laboratory testing and geotechnical analyses of the soils encountered. The first report was conducted by ECS Florida, LLC, dated December 18, 2017 and concentrated in the area of the proposed roundabout on NE Savannah Road. The report contains design recommendations for pavement, earthwork operations and general construction considerations. A copy of the report is included in **Appendix 5A**.

The second geotechnical report was conducted by Andersen Andre Consulting Engineers, Inc. (AACE) dated September 7, 2018. The report consisted of 24 hand augers, laboratory testing, and engineering analysis. The AACE geotechnical report also provides preliminary geotechnical design recommendations for structures and pavement, retention ponds, and the suitability of encountered soils for use as fill material. A copy of the report is included in **Appendix 5B**.

Refer to **Exhibits 9-11** for Pre-Development Nutrient Loading Map, and Pre & Post Land Coverage Maps. These exhibits depict land coverage / soil information on-site. They also include

tables indicating how nutrient loading parameters (BMPTrains – **Appendix 1.15**) were determined. Due to the site's existing and proposed conditions, the maximum nutrient load reduction practical limit was set at 90% by the South Florida Water Management District during the Pre-Application Meeting.

3.4 Groundwater Elevations

During AACE's geotechnical evaluation of the site, groundwater was observed in hand augers for an average depth of about 7' below ground for Basin #1 (the area west of Warner Creek) and 3' below ground for Basin #2 in the low area adjacent to the FEC Railroad tracks. Based on the existing conditions topographic survey and the locations of the hand auger borings, approximate surface elevations for each hand auger boring was established and the normal groundwater elevation is estimated to be Elevation 0.50' NAVD. The seasonal high groundwater elevation is assumed to be two (2) feet above the normal groundwater elevation level (2.50 NAVD).

3.5 Topography

All elevations reference North American vertical Datum of 1988 (NAVD 1988) unless otherwise noted. According to the topographic survey prepared by Betsy Lindsay, Inc., the site elevations range from approximately EL 2.4 to EL 24.0. The rectangular shaped parcel west of Warner Creek is relatively flat gradually sloping eastward to the top of bank of Warner Creek. The rectangular shaped parcel east of Warner Creek is also relatively flat with natural ground elevations between EL 15.6 to 11.2 NAVD and gradually sloping west to the top of bank of Warner Creek.

In the triangular shaped east parcel east of Warner Creek, a high ridge is located through the north central portion of the property with elevations ranging between EL 20.0 and EL 24.0 NAVD. From this ridge, natural ground slopes north to elevations between EL 10.0 and EL 15.00 NAVD along the north property line, and slopes southward to an existing ditch along the FEC Railroad Right-of-Way with elevations ranging between 2.90 and 6.80 NAVD, and then westward to Warner Creek. There are other surface waters as determined by SFWMD in the eastern portion of the project site that borders the FEC Railroad Tracks (as noted above in Section 3.1).

The majority of the site outfalls to Warner Creek by overland flow, or through existing ditches. Additionally, the existing NE Savannah Road fronting the property has a centerline elevation ranging from approximately EL 14.10 to EL 13.70 NAVD. Martin County LIDAR information substantiates these elevations, contours and slope patterns. Refer to the attached USGS Quadrangle Map on **Exhibit 5** for additional topographic information.

4.0 SURFACE WATER MANAGEMENT SYSTEM

4.1 Stormwater Modeling

In 2009, CAPTEC Engineering completed the Leilani Heights / Warner Creek Basin Storm Water Quality Retrofit Storm Water Management Study for Martin County (ERP #43-02364-P). This study modeled the over 5,000-acre Warner Creek watershed. This model was utilized as the existing condition model for the Reserve at Jensen Beach project (See **Appendix 2** for Existing ICPR Model Reports).

4.2 Proposed Drainage Basin and Control Elevation

The SWM site area consists of 23.15± acres, and is modeled as two separate basins. Basin #1 consists of the northwest portion of the site, located west of Warner Creek. Basin #2 consists of the remainder of the northwest portion east of Warner Creek, the FIND easement, and the entire southeast parcel, which includes the proposed upland preserve areas. Warner Creek bisects the rectangular, northwest portion of the site and is the drainage divide for the two drainage basins.

From the geotechnical report, normal groundwater elevations were assumed at an elevation of 0.50 NAVD. Seasonal high groundwater elevations were assumed to be approximately two feet above observed groundwater depths (2.50 NAVD). These elevations were used for the recovery analysis in the drainage calculations (**Appendix 1**).

Storm event rainfalls were determined using the South Florida Water Management District (SFWMD) Rainfall Records (**Exhibit 6A-6C**). Refer to **Exhibit 8** for the Proposed Drainage Area Map depicting the drainage area boundaries and additional site data information.

4.3 Water Quality Treatment

The stormwater management system provides water quality treatment for the proposed development by means of five dry retentions areas. For Basin #1, two interconnected dry retention areas are proposed to provide water quality treatment. The provided water quality volume for Basin #1 is in excess of the required SFWMD Water Quality requirements and meets the required pollutant reductions per the BMP Trains Calculations (up to 90% practical limit reduction). An FDOT Type E Inlet (CS-1) is the Basin #1 control structure which outfalls into Warner Creek, which has a normal elevation of -0.25 NAVD.

For Basin #2, three interconnected dry retention areas are proposed to provide water quality treatment. The provided water quality volume is in excess of the required SFWMD Water Quality requirements and meets the required pollutant reductions per the BMP Trains Calculations (up to 90% reduction). An FDOT Type E Inlet (CS-2) is the Basin #2 control structure which also outfalls into Warner Creek, which has a normal elevation of -0.25 NAVD. Refer to **Appendix 1** for the water quality calculations.

4.4 Allowable Discharge

In 2009, CAPTEC Engineering completed the Leilani Heights / Warner Creek Basin Storm Water Quality Retrofit Storm Water Management Study for Martin County. This study modeled the over 5,000-acre Warner Creek watershed and was the basis for the three Warner Creek basin water quality retrofit projects. This model was utilized as the existing condition model for the Reserve at Jensen Beach project (See **Appendix 2** for Existing ICPR Model Reports).

The proposed project site is located within the existing model basins, “VFW”, “49+58” and “FIND”. The pre-development allowable discharge rates for the project site were determined on a per acre discharge rate established in the existing model and multiplied by the acres for each proposed basin. The existing maximum runoff discharge rates are provided in **Table 4.4** below.

Table 4.4 – Allowable Discharge Rates – 25 Year / 3 Day Storm Event

Basin	Area (ac)	Existing Maximum Runoff (cfs)	Discharge Rate (cfs/acre)
VFW	5.88	15.81	2.68
FIND	36.98	43.09	1.16
049+58	4.74	11.59	2.44

Basin #1 (3.30 acres) falls entirely within the VFW basin, which results in an allowable maximum discharge of 8.84 cfs. Basin #2 (11.37 acres) falls within two basins: the FIND basin (6.63 acres) and the 049+58 basin (4.74 acres). Applying the discharge rate of the existing basins to the proposed areas of Basin #2 results in a total maximum discharge rate of 19.25 cfs (7.69 + 11.56).

The combined Post-development discharge rates for the 25-year, 3-day storm event for Basin #1 and Basin #2 do not exceed the pre-development allowable discharge rates as shown below and in the Post Development ICPR Model Model Reports (**Appendix 3**). A summary of existing and proposed model conditions is included as **Appendix 4**.

Basin	Allowable Discharge 25-year 3-day (cfs)	Proposed Discharge 25-year 3-day (cfs)
Basin 1	8.84	4.59
Basin 2	19.25	23.08
TOTAL	28.09	27.67

4.5 Storm Water Attenuation

The surface water management system will provide storage volume to maintain the proposed pavement above the ICPR routed 10-year 1-day storm stage. A perimeter berm is provided above the ICPR routed 25-year 3-day storm stage. The Finished Floor Elevations of the proposed buildings are provided at or above the 100-year 3-day (zero discharge) storm stage calculated in the drainage and stage/storage calculations in **Appendix 1**.

Table 4.5 – Stormwater Attenuation

<i>Basin 1</i>			<i>Basin 2</i>		
Storm Event	Required	Provided	Storm Event	Required	Provided
10 year – 1 day (routed)*	8.94	9.50	10 year – 1 day (routed)*	8.70	9.00
25 year – 3 day (routed)*	9.64	10.20	25 year – 3 day (routed)*	9.43	9.65
100 year – 3 day (zero discharge) **	10.75	11.05	100 year – 3 day (zero discharge) **	11.00	11.10

*Required elevation derived from ICPR Proposed Conditions Model

**Required elevation derived from Drainage Calculations (Appendix 1)

4.6 NE Savannah Road Drainage

The existing on-site ditch located on the western portion of the rectangular parcel conveys existing runoff from NE Savannah Road, and outfalls via double – 36” CMPs into Warner Creek. The existing ditch will be replaced by a piped stormwater bypass system, and the ditch will be filled and regraded as shown on the construction plans. The proposed pipe system will provide conveyance for this offsite flow through the project site and into Warner Creek. Although, the majority of NE Savannah Road will be conveyed to the proposed pipe system, the eastern half of the NE Savannah Road Roundabout (approximately 0.62 ac) will outfall into the on-site Basin #1. The Required Water Quality Volume for the entire NE Savannah Road Roundabout is included in the total treatment volume of Basin #1 (Refer to **Appendix 1**). The existing Martin County drainage easement over the ditch will be replaced with the proposed Drainage, Utility and Access Easement shown on Sheet 5 of the Construction Plans.

4.7 Proposed Bypass Pipe Sizing

As noted above, the existing ditch located in the western portion of the site conveys flow from the existing Jensen Park Estates and NE Savannah Road and outfalls into Warner Creek via double 36” CMPs. The proposed pipe system will provide conveyance for this offsite flow through the project site to Warner Creek. The Pre-Development 100-yr/3-day storm ICPR calculations indicate that the existing double 36” RCPs under Savannah Road discharge 62.35 cfs to the existing on-site ditch. The Post-Development discharge will consist of the offsite flow and the Basin #1 Control Structure CS-1 flow (51 cfs for the 25-yr/3-day and 66 cfs for the 100-yr/3-day). The proposed 42” RCP and 54” RCP pipe system has been designed to convey and discharge the offsite Savannah Road flow into Warner Creek at non-erosive velocities.

4.8 Warner Creek Floodplain Compensating Storage

Refer to **Exhibit 7** for the Floodplain Compensation Exhibit for Warner Creek. The portion of Warner Creek located on-site lies in FEMA Flood Zone “AE-7”, which is within areas of 100-year flood zones with a predicated stage of EL 7.00 NAVD. Modifications to Warner Creek for the project development must maintain the 100-year pre-development volume of the Creek within the project limits. The existing 100-year floodplain contains 6,636 CY (4.11 ac-ft) at EL 7.00 NAVD, and the attached **Exhibit 7** shows that the post-development 100-year floodplain volume exceeds the pre-development volume.

5.0 CONCLUSION

The proposed Reserve at Jensen Beach project is located on NE Savannah Road just east of Jensen Park Estates. The site is currently vacant and heavily vegetated on the southeastern portion. The proposed improvements will consist of multi-family apartment buildings and its infrastructure. As described above, the proposed design meets or exceeds Martin County and SFWMD criteria for storm water management requirements.

6.0 REFERENCE MATERIAL

1. SFWMD ERP Information Manual Volume IV
2. Soil Survey of the Martin County Area, Florida (USDA, SCS 1981)
3. USGS Quad Map
4. FEMA Flood Map

The Reserve at Jensen Beach

Savannah Road, Martin County, Florida

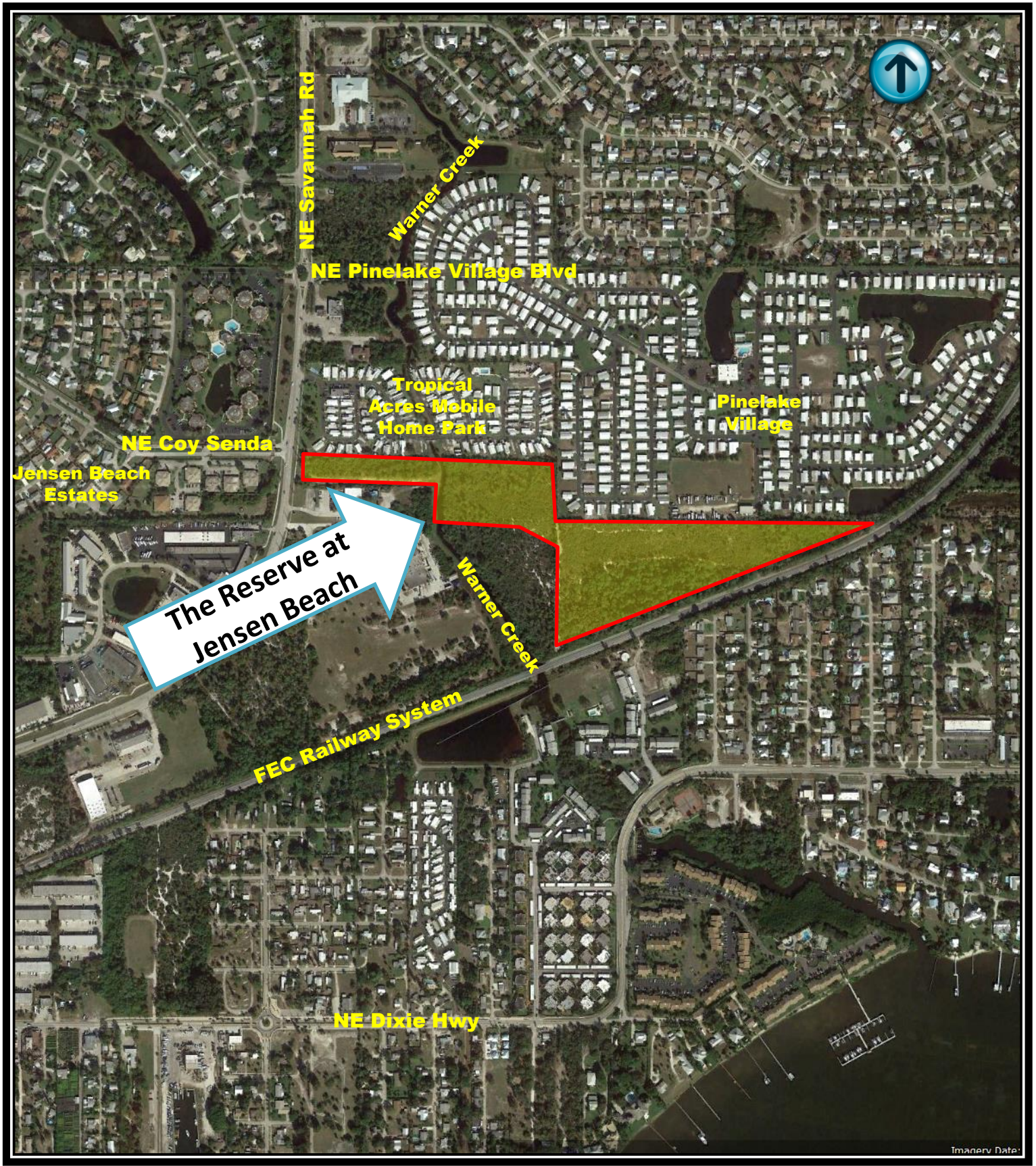
Project No. 1329.2

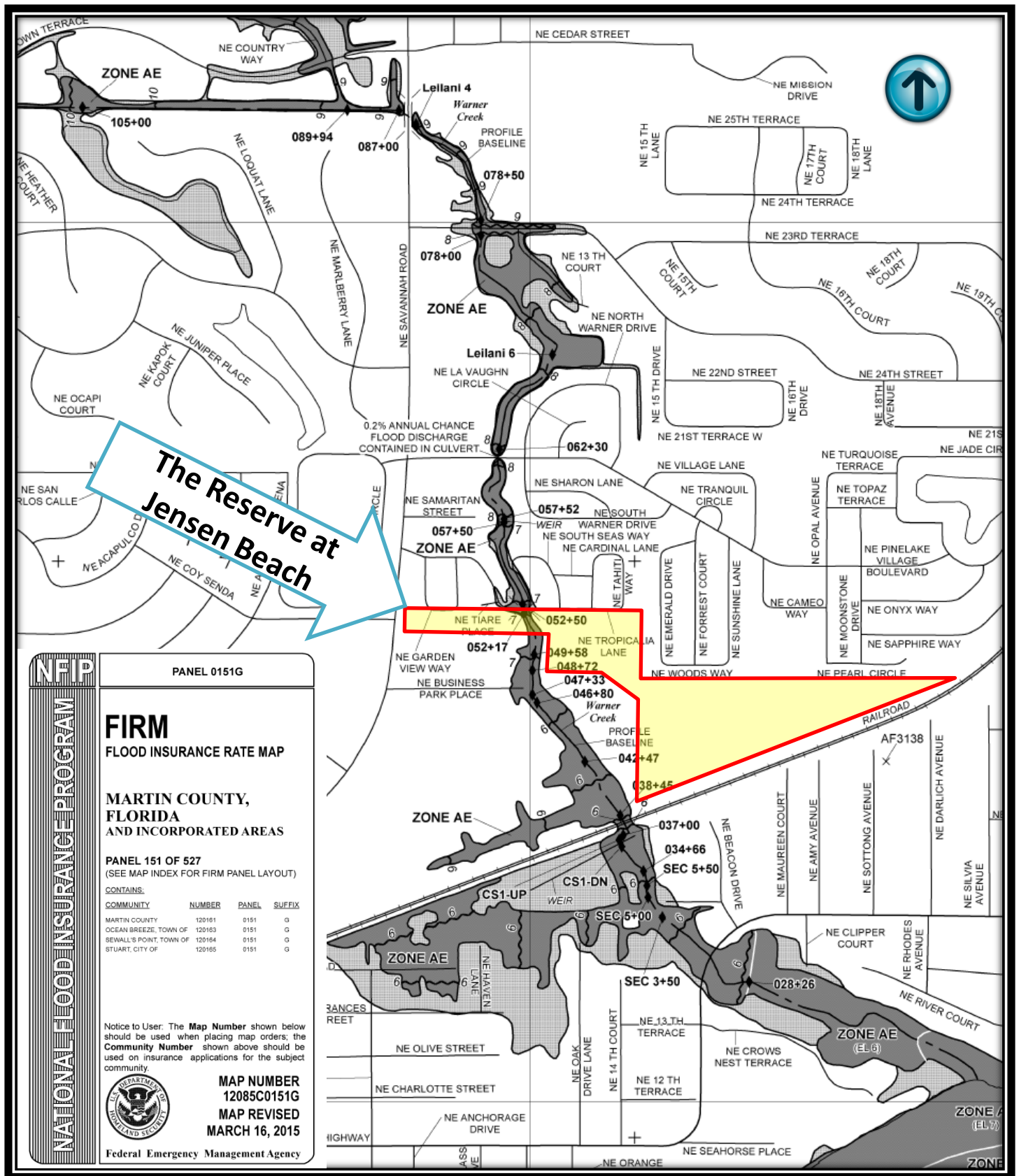
EXHIBITS

Exhibit 1	Location Map
Exhibit 2	Site Aerial
Exhibit 3	FEMA Flood Map
Exhibit 4	USGS Quadrangle Map
Exhibit 5	Soils Survey Map
Exhibit 6A	SFWMD Rainfall Record (10-year / 1-day)
Exhibit 6B	SFWMD Rainfall Record (25-year / 3-day)
Exhibit 6C	SFWMD Rainfall Record (100-year / 3-day)
Exhibit 7	Floodplain Compensation Exhibit
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Exhibit 12	Roundabout (Off-site)
Exhibit 13	Informal Wetland Delineation
Exhibit 14	SFWMD ERP #43-02364 (No Sovereign/Submerged Lands (SSL) on-site)



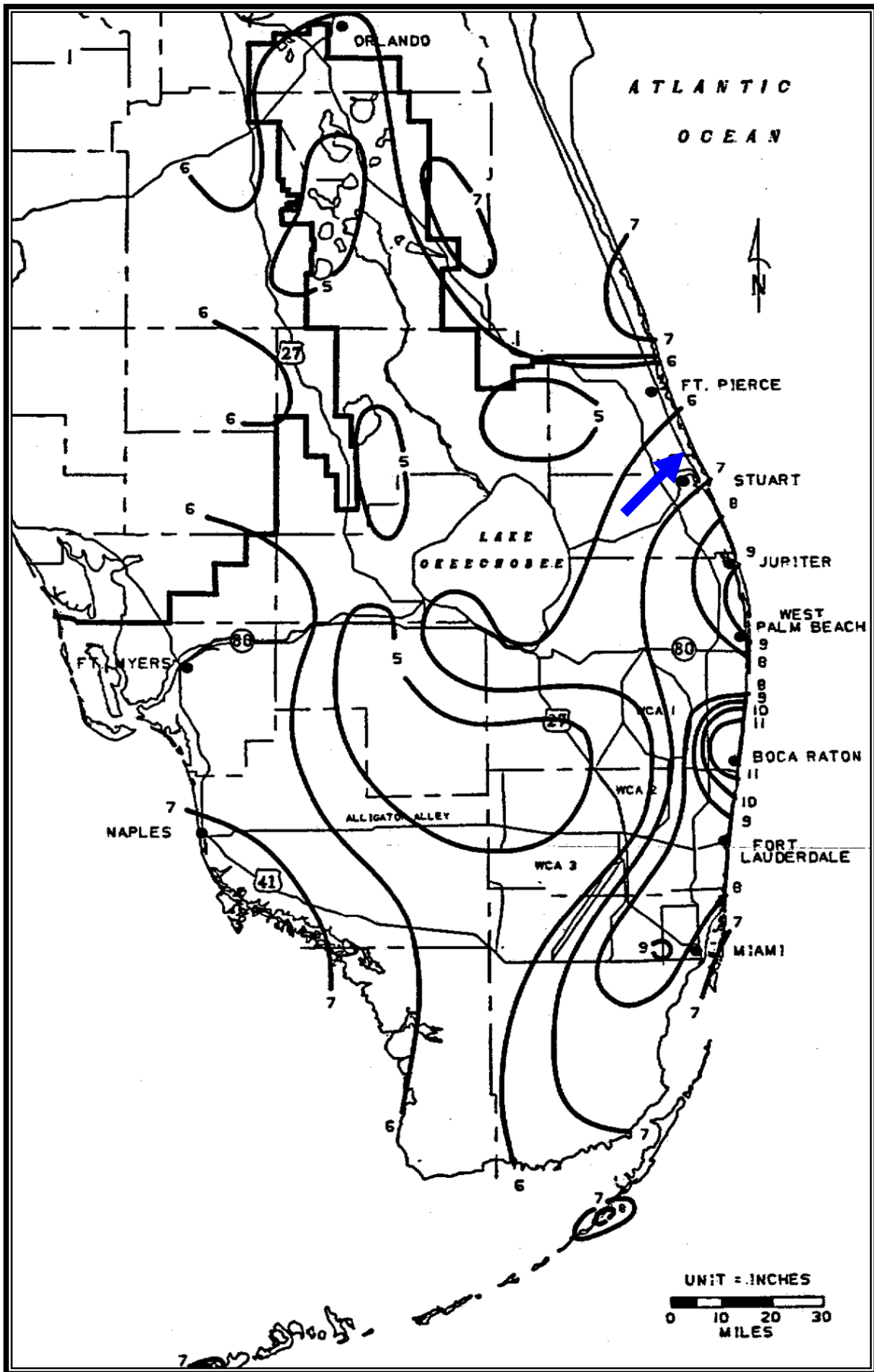


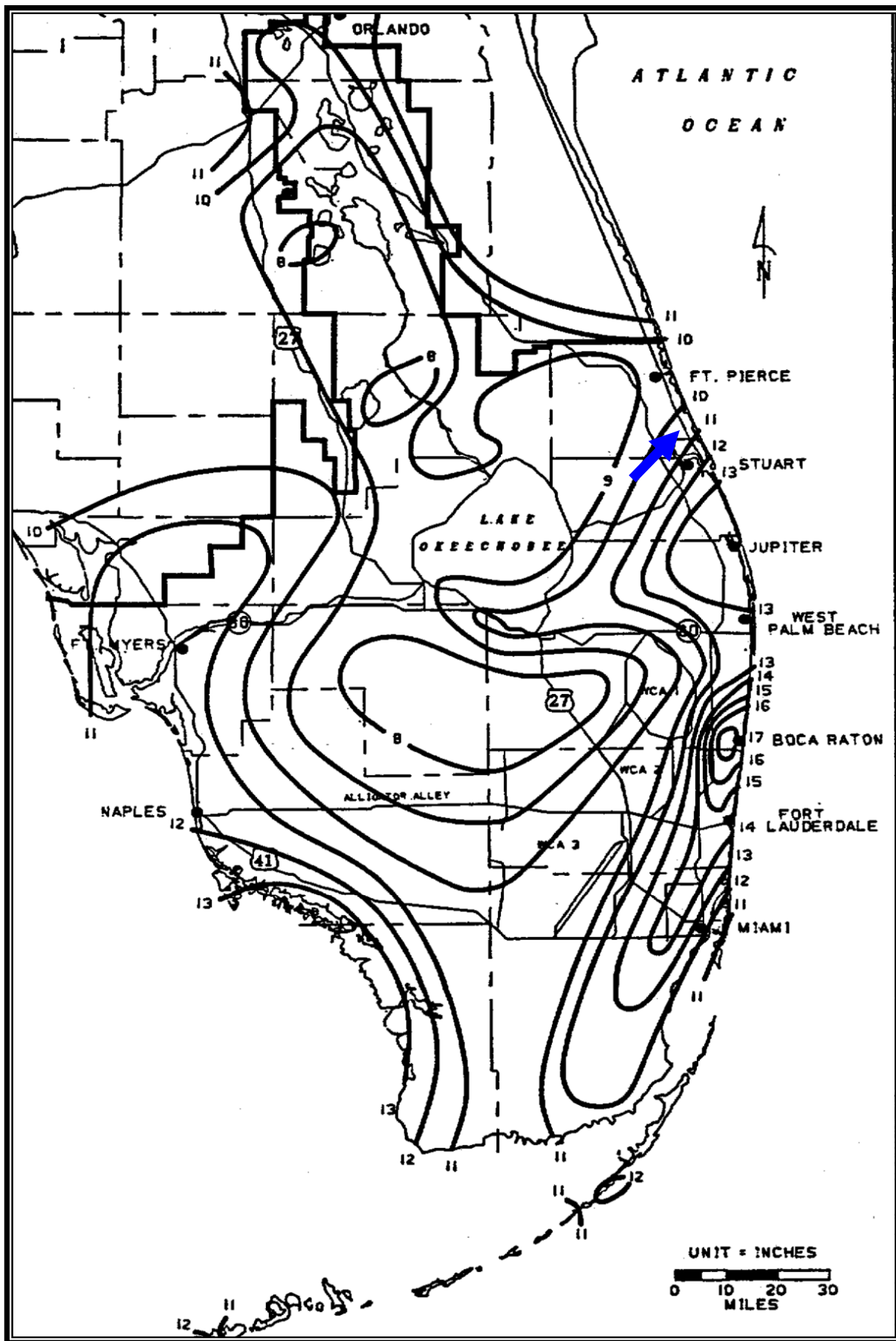


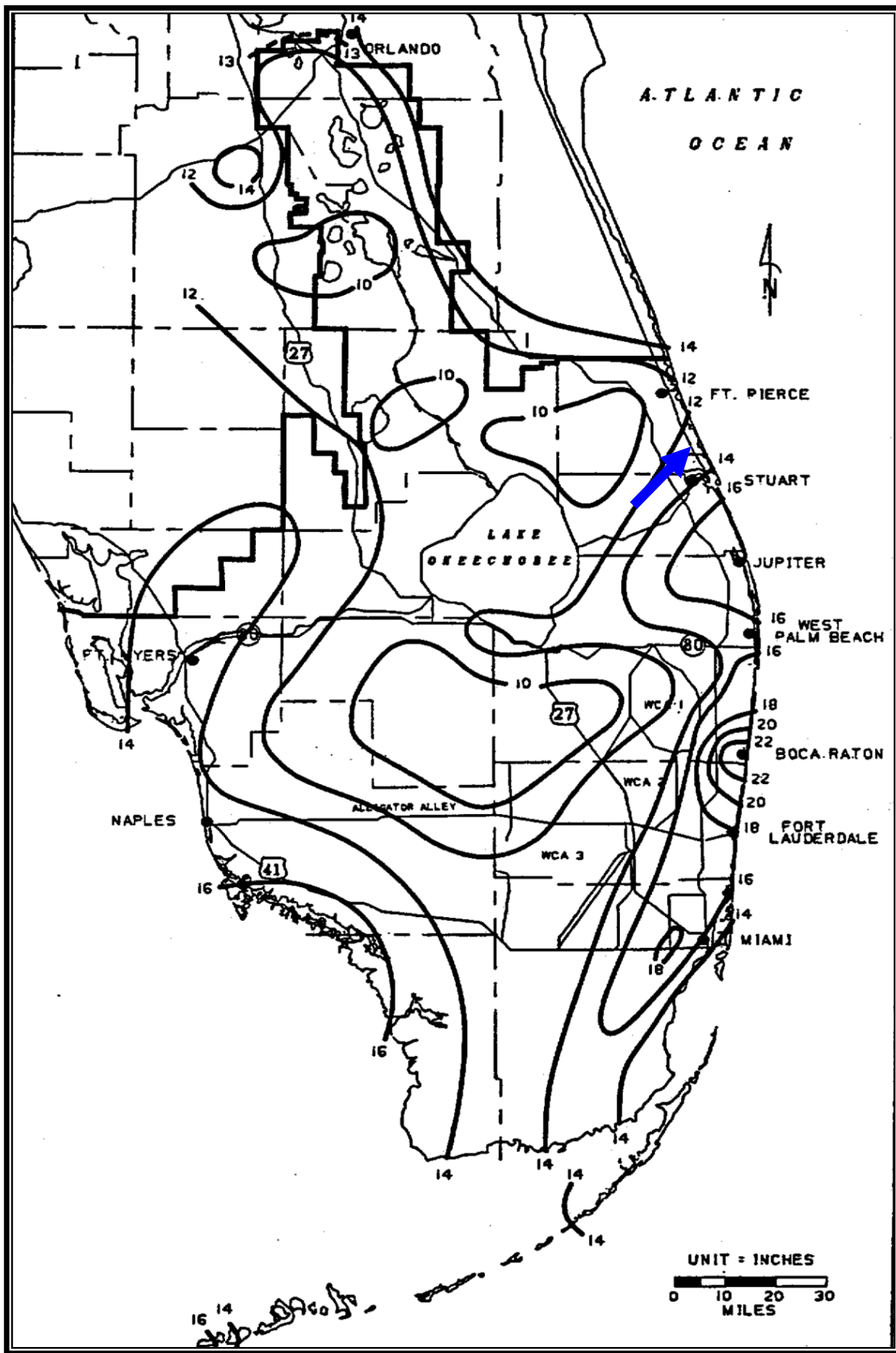


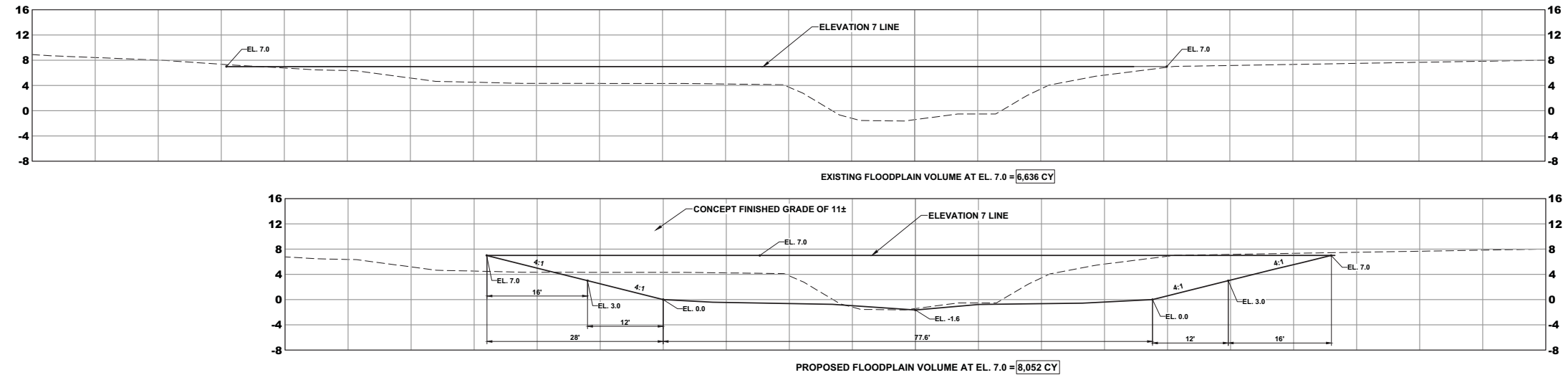




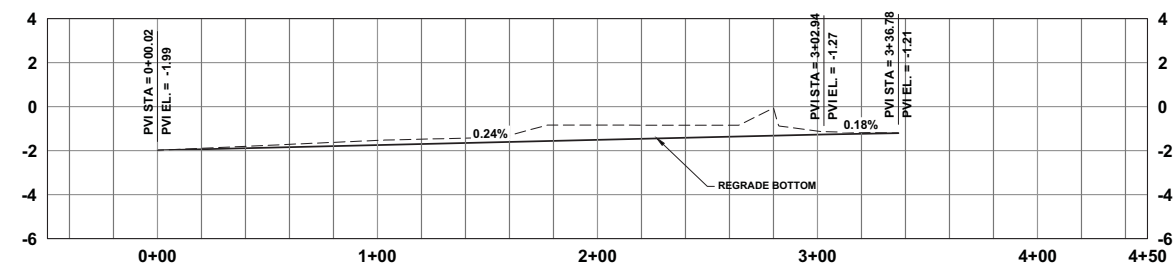








SECTION AA
SCALE 1"= 10'



PROFILE WARNER CREEK

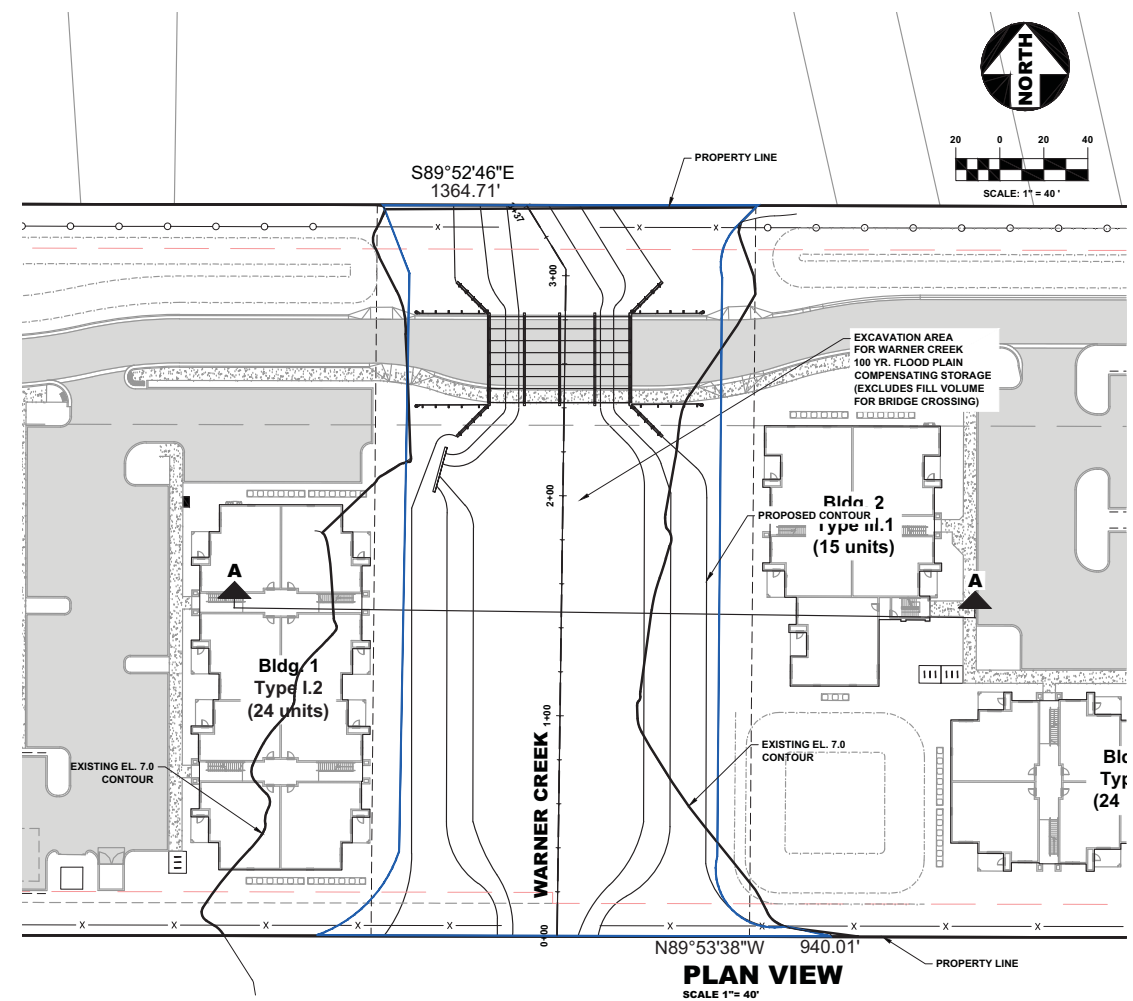
SCALE
HORZ. = 1"= 10'
VERT. = 1"= 1'



WARNER CREEK EXISTING



WARNER CREEK PROPOSED



PLAN VIEW
SCALE 1"= 40'

THE RESERVE AT JENSEN BEACH
MARTIN COUNTY, FLORIDA
WARNER CREEK
FLOODPLAIN COMPENSATION EXHIBIT (EXHIBIT #7)

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SHEET
IDENTIFICATION
JOB No.: 1329.2

SHEET
1 OF 1

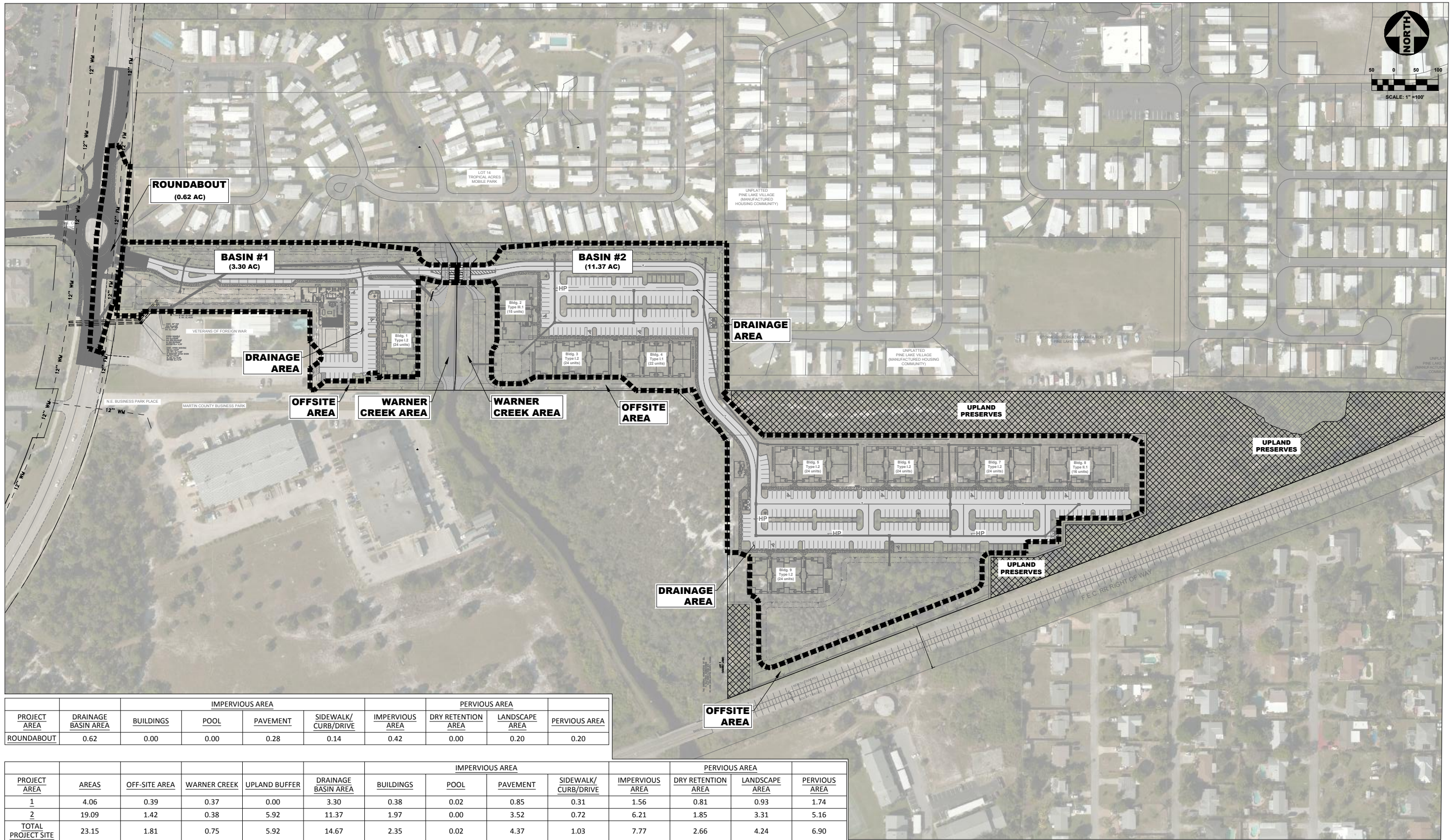


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Engineering Business
No. EB-0007657

DATE:
DRAWN BY: MDB
DESIGNED BY: SPM
CHECKED BY: HLT
PROJECT No.: 1329.1
HORZ. SCALE: 1"= 40'
VERT. SCALE:

SCALE
VERIFICATION
0 1
SOLID BAR IS EQUAL
TO ONE INCH ON
ORIGINAL DRAWING.
ADJUST ALL SCALED
DIMENSIONS
ACCORDINGLY

REVISIONS				
NO.	BY	DESCRIPTION	DATE	
1	MDB	REVISED	1-9-18	



		IMPERVIOUS AREA					PERVIOUS AREA		
<u>PROJECT AREA</u>	<u>DRAINAGE BASIN AREA</u>	<u>BUILDINGS</u>	<u>POOL</u>	<u>PAVEMENT</u>	<u>SIDEWALK/ CURB/DRIVE</u>	<u>IMPERVIOUS AREA</u>	<u>DRY RETENTION AREA</u>	<u>LANDSCAPE AREA</u>	<u>PERVIOUS AREA</u>
<u>ROUNDBOUT</u>	0.62	0.00	0.00	0.28	0.14	0.42	0.00	0.20	0.20

PROJECT AREA	AREAS	OFF-SITE AREA	WARNER CREEK	UPLAND BUFFER	DRAINAGE BASIN AREA	BUILDINGS	IMPERVIOUS AREA			IMPERVIOUS AREA	PERVIOUS AREA		
							POOL	PAVEMENT	SIDEWALK/CURB/DRIVE		DRY RETENTION AREA	LANDSCAPE AREA	PERVIOUS AREA
1	4.06	0.39	0.37	0.00	3.30	0.38	0.02	0.85	0.31	1.56	0.81	0.93	1.74
2	19.09	1.42	0.38	5.92	11.37	1.97	0.00	3.52	0.72	6.21	1.85	3.31	5.16
TOTAL PROJECT SITE	23.15	1.81	0.75	5.92	14.67	2.35	0.02	4.37	1.03	7.77	2.66	4.24	6.90



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Engineering Business
No. EB-0007657

DATE: 11/27/2019
DRAWN BY: TJS
DESIGNED BY: SPM
CHECKED BY: JWC
PROJECT No.: 1329.2
HORZ. SCALE: 1" = 100'
VERT. SCALE:

SCALE VERIFICATION
0 1
SOLID BAR IS EQUAL TO ONE INCH ON ORIGINAL DRAWING, ADJUST ALL SCALED DIMENSIONS ACCORDINGLY

REVISIONS		
NO.	BY	DESCRIPTION

THE RESERVE AT JENSEN BEACH
MARTIN COUNTY, FLORIDA
OVERALL SITE DRAINAGE AREA MAP
(EXHIBIT #8)

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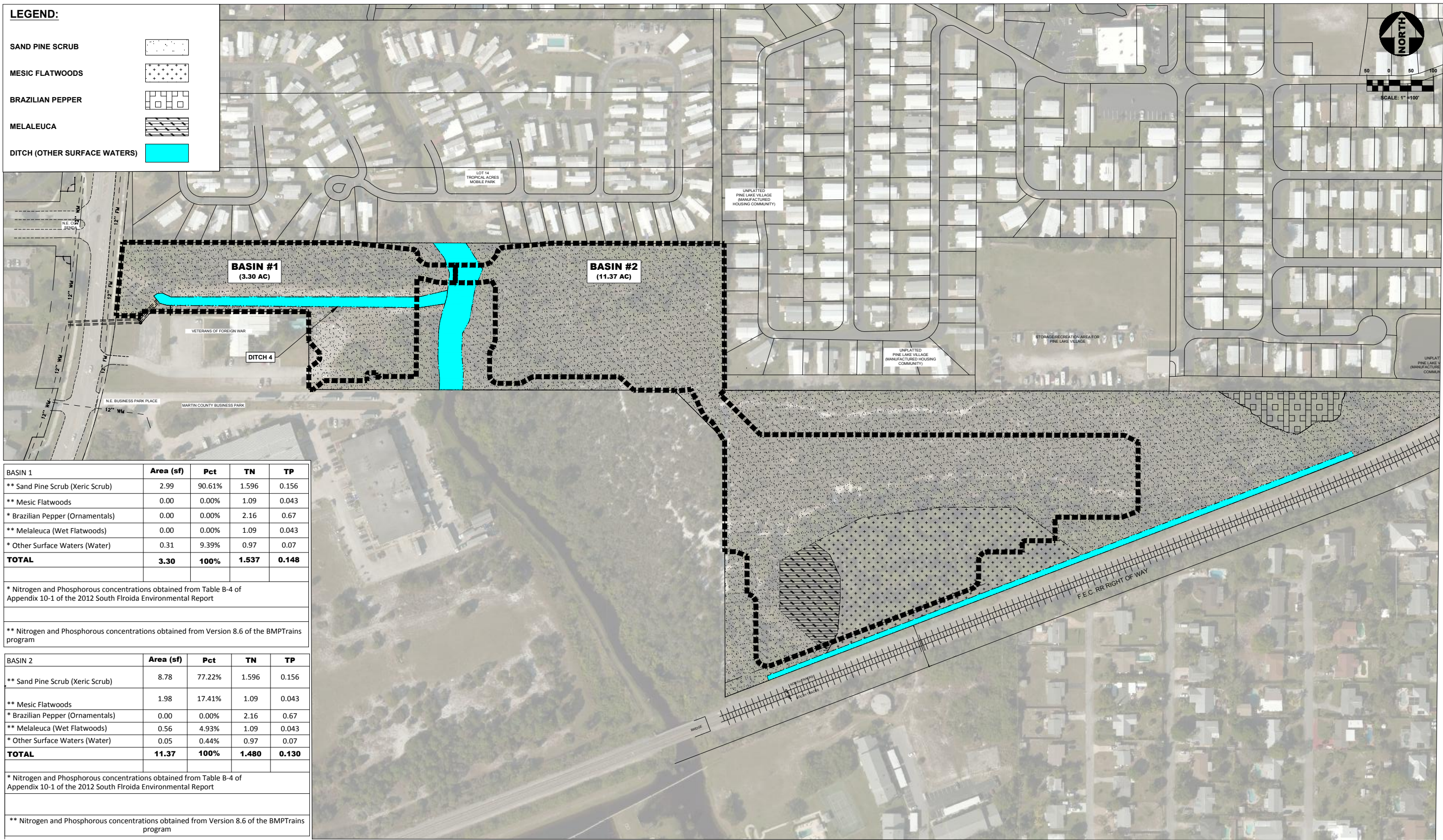
1329.2 OVERALL SITE DRAINAGE AREA MAP
CADD FILE:

SHEET IDENTIFICATION
JOB No.: **1329.2**

SHEET
SHEET **1** OF **1**

LEGEND:

SAND PINE SCRUB	
MESIC FLATWOODS	
BRAZILIAN PEPPER	
MELALEUCA	
DITCH (OTHER SURFACE WATERS)	



BASIN 1	Area (sf)	Pct	TN	TP
** Sand Pine Scrub (Xeric Scrub)	2.99	90.61%	1.596	0.156
** Mesic Flatwoods	0.00	0.00%	1.09	0.043
* Brazilian Pepper (Ornamentals)	0.00	0.00%	2.16	0.67
** Melaleuca (Wet Flatwoods)	0.00	0.00%	1.09	0.043
* Other Surface Waters (Water)	0.31	9.39%	0.97	0.07
TOTAL	3.30	100%	1.537	0.148

* Nitrogen and Phosphorous concentrations obtained from Table B-4 of Appendix 10-1 of the 2012 South Florida Environmental Report

** Nitrogen and Phosphorous concentrations obtained from Version 8.6 of the BMPTrains program

BASIN 2	Area (sf)	Pct	TN	TP
** Sand Pine Scrub (Xeric Scrub)	8.78	77.22%	1.596	0.156
** Mesic Flatwoods	1.98	17.41%	1.09	0.043
* Brazilian Pepper (Ornamentals)	0.00	0.00%	2.16	0.67
** Melaleuca (Wet Flatwoods)	0.56	4.93%	1.09	0.043
* Other Surface Waters (Water)	0.05	0.44%	0.97	0.07
TOTAL	11.37	100%	1.480	0.130

* Nitrogen and Phosphorous concentrations obtained from Table B-4 of Appendix 10-1 of the 2012 South Florida Environmental Report

** Nitrogen and Phosphorous concentrations obtained from Version 8.6 of the BMPTrains program

NOTE: REFER TO APPENDIX 1.15 FOR ALL NUTRIENT LOADING CALCULATIONS (BMPTRAINS VER 8.6)



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Engineering Business
No. EB-0007657

DATE: 11/27/2019
DRAWN BY: TJS
DESIGNED BY: SPM
CHECKED BY: JWC
PROJECT No.: 1329.2
HORZ. SCALE: 1" = 100'
VERT. SCALE:

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SOLID BAR IS EQUAL
TO ONE INCH ON
ORIGINAL DRAWING,
ADJUST ALL SCALED
DIMENSIONS
ACCORDINGLY

REVISIONS			
NO.	BY	DESCRIPTION	DATE

THE RESERVE AT JENSEN BEACH
MARTIN COUNTY, FLORIDA
PRE-DEVELOPMENT NUTRIENT LOADING MAP
(EXHIBIT #9)

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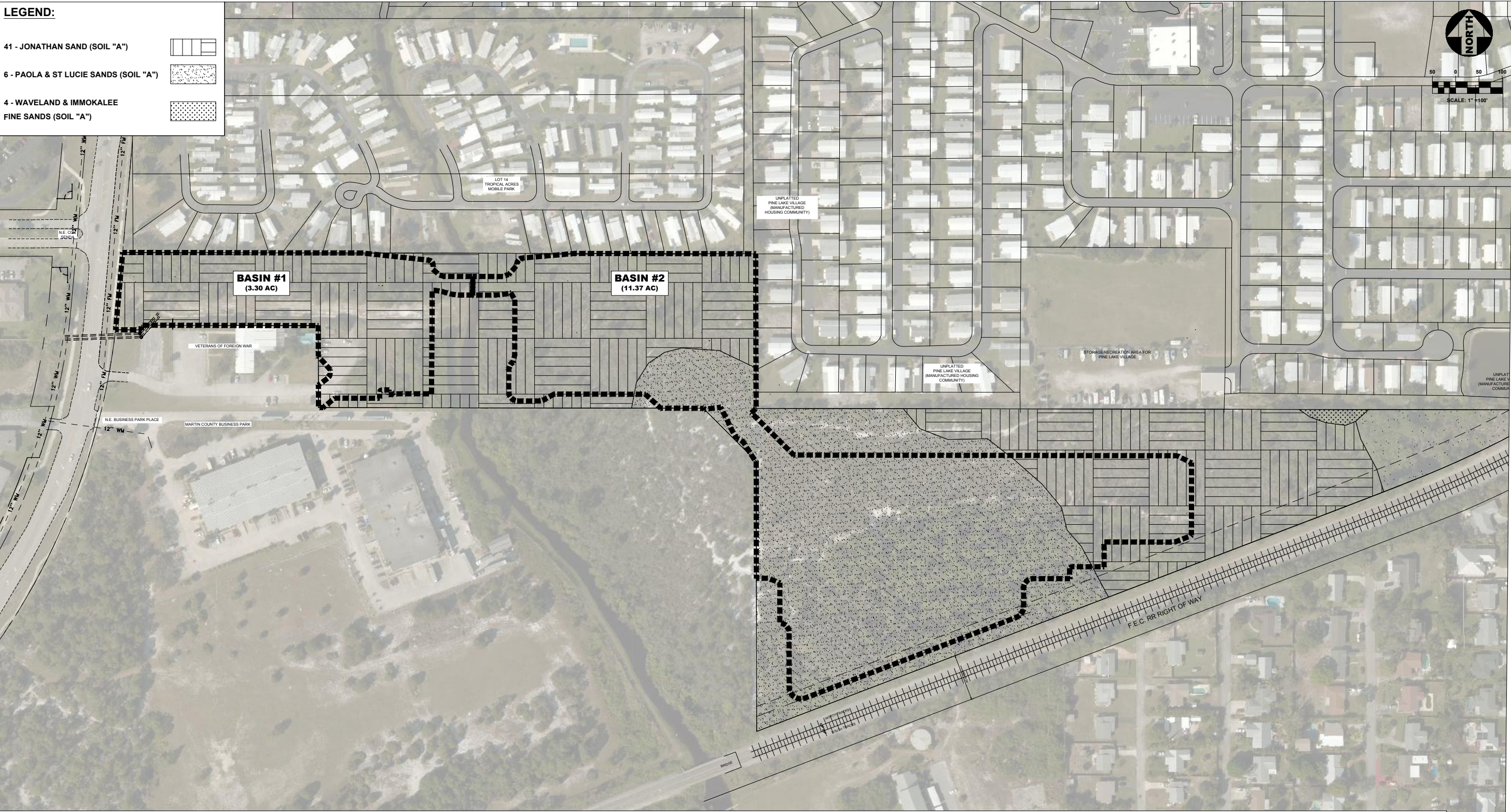
LAND COVERAGE AND SOIL EXHIBITS
CADD FILE:

SHEET
IDENTIFICATION
JOB No.: 1329.2

SHEET
1 of 1

LEGEND:

- 41 - JONATHAN SAND (SOIL "A")
- 6 - PAOLA & ST LUCIE SANDS (SOIL "A")
- 4 - WAVELAND & IMMOKALEE FINE SANDS (SOIL "A")



		BASIN 1							BASIN 2							OFFSITE (INCLUDING UPLAND BUFFERS)							WARNER CREEK						
Land Coverage	CN (Land Type)	Area (AC)	Eff. CN	Non-DCIA Area	Non-DCIA Eff CN	DCIA Area	DCIA Eff CN	DCIA Pct	Area (AC)	Eff. CN	Non-DCIA Area	Non-DCIA Eff CN	DCIA Area	DCIA Eff CN	DCIA Pct	Area (AC)	Eff. CN	Non-DCIA Area	Non-DCIA Eff CN	DCIA Area	DCIA Eff CN	DCIA Pct	Area (AC)	Eff. CN	Non-DCIA Area	Non-DCIA Eff CN	DCIA Area	DCIA Eff CN	DCIA Pct
Soil Type (A)	39	3.30		3.30	39.00				11.37		11.37	39.00				7.73		7.73	39.00				0.75	0.00	0.75	0.00			
TOTAL		3.30		3.30	39.00	0.00	0.00	0.00%	11.37		11.37	39.00	0.00	0.00	0.00%	7.73		7.73	39.00	0.00	0.00	0.000%	0.75	0.00	0.75	0.00	0.00	0.00	0.000%

NOTE: REFER TO APPENDIX 1.15 FOR ALL NUTRIENT LOADING CALCULATIONS (BMPTRAINS VER 8.6)



301 N.W. Flagler Ave
Stuart, Florida 34994
Phone: (772) 692-4344
Fax: (772) 692-4341
E-mail: captecinfo@gocaptec.com

Engineering Business
No. EB-0007657

DATE: 11/27/2019
DRAWN BY: TJS
DESIGNED BY: SPM
CHECKED BY: JWC
PROJECT No.: 1329.2
HORZ. SCALE: 1" = 100'
VERT. SCALE:

SCALE
VERIFICATION
0 1
SOLID BAR IS EQUAL
TO ONE INCH ON
ORIGINAL DRAWING,
ADJUST ALL SCALED
DIMENSIONS
ACCORDINGLY

REVISIONS		
NO.	BY	DESCRIPTION

THE RESERVE AT JENSEN BEACH

MARTIN COUNTY, FLORIDA

PRE-DEVELOPMENT LAND COVERAGE
MAP (EXHIBIT #10)

Joseph W. Capra
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638

LAND COVERAGE AND SOIL EXHIBITS
CADD FILE:

SHEET
IDENTIFICATION
JOB No.: 1329.2

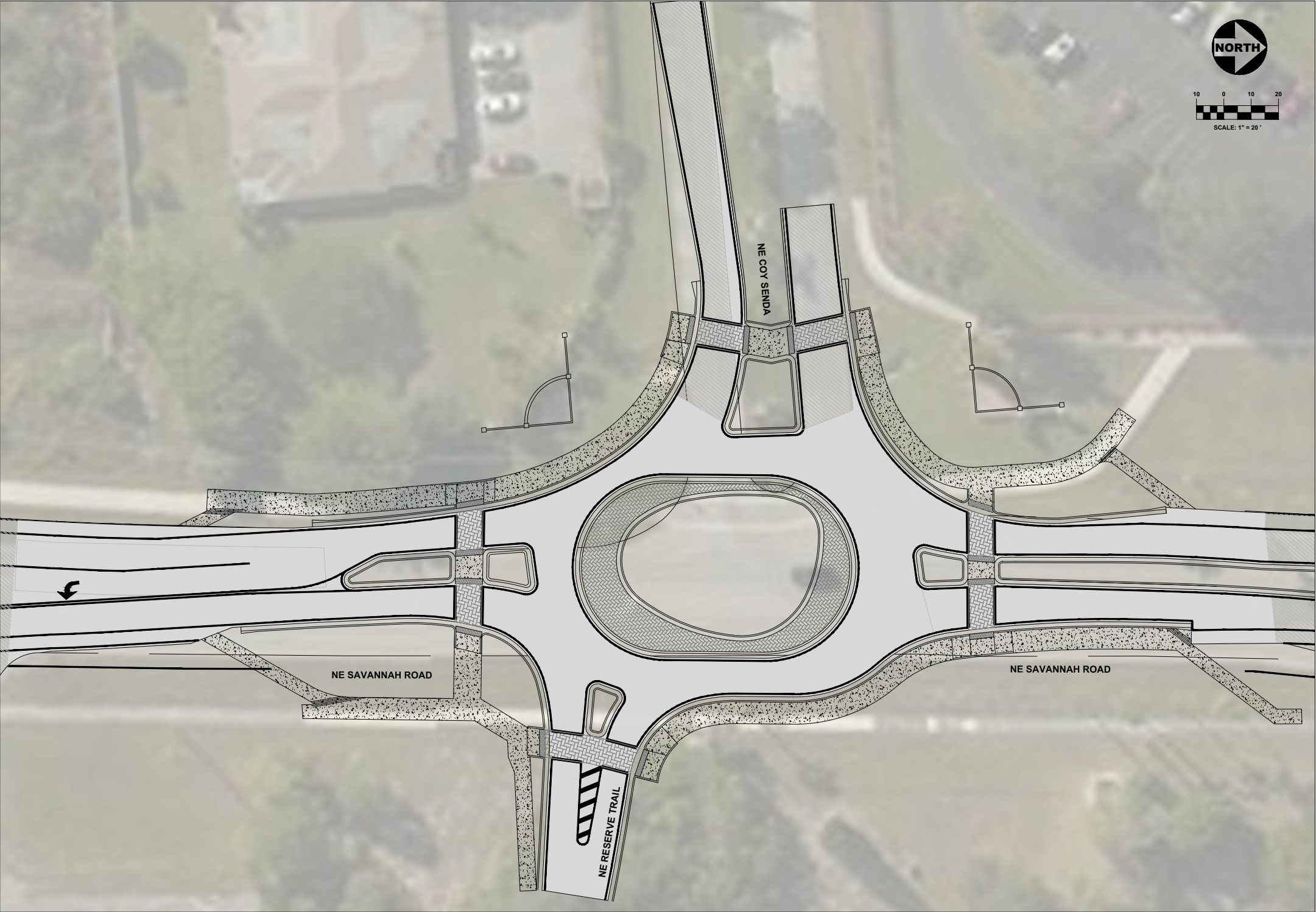
SHEET
1 of 1

NOTE:
REFER TO APPENDIX 1.2 FOR NE SAVANNAH
ROUNDBOUT SITE DATA / WATER QUALITY
CALCULATIONS

PROPOSED IMPERVIOUS AREA (ADDITIONAL)
0.298 AC.

EXISTING / REMOVED IMPERVIOUS AREA
0.130 AC.

NET IMPERVIOUS AREA
PROPOSED IMPERVIOUS AREA (ADDITIONAL) -
EXISTING / REMOVED ASPHALT
0.168 AC.



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Engineering Business
No. EB-0007657

DATE: 11/27/2019
DRAWN BY: TJS
DESIGNED BY: SPM
CHECKED BY: JWC
PROJECT No.: 1329.2
HORZ. SCALE: 1" = 20'
VERT. SCALE:

SCALE
VERIFICATION
0 1
SOLID BAR IS EQUAL
TO ONE INCH ON
ORIGINAL DRAWING,
ADJUST ALL SCALED
DIMENSIONS
ACCORDINGLY

REVISIONS			
NO.	BY	DESCRIPTION	DATE

THE RESERVE AT JENSEN BEACH
MARTIN COUNTY, FLORIDA
ROUNDBOUT (OFF-SITE)
(EXHIBIT #12)

Joseph W. Capra
301 N.W. Flagler Ave.
Stuart, Florida 34994
P.E. No. 37638

1329.2 ROUNDBOUT EXHIBIT
CADD FILE:

SHEET
IDENTIFICATION
JOB No.: **1329.2**

SHEET
SHEET **1** OF **1**



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

April 25, 2018

** Delivered via email*

David Christenson
Davelu LLC
759 South Federal Highway
Stuart, FL 34994

**Subject: River's Edge Apartments
Application No. 180410-464
Informal Wetland Determination No. 43-100226-P
Martin County**

Dear Mr. Christenson:

The District reviewed your request for an informal determination of the jurisdictional wetland and other surface water boundaries within the subject property, which is located as shown on the attached Exhibit 1. A site inspection was conducted on April 19, 2018.

Based on the information provided and the results of the site inspection, jurisdictional other surface waters as defined in Chapter 62-340, Florida Administrative Code, exist on the property. Exhibit 2, attached, identifies the boundaries of the property inspected and the approximate landward limits of the other surface waters.

This correspondence is an informal jurisdictional wetland determination pursuant to Section 373.421(6), Florida Statutes, and Section 7.3 of Environmental Resource Permit Applicant's Handbook Volume I. It does not bind the District, its agents or employees, nor does it convey any legal rights, expressed or implied. Persons obtaining this informal jurisdictional determination are not entitled to rely upon it for purposes of compliance with provision of law or District rules.

Sincerely,

A handwritten signature in black ink that reads "Barbara Conmy".

Barbara Conmy
Section Leader

c: Daniel Saskowsky, Daniel M Saskowsky Environmentalconsultant *
Lucido and Associates *

Exhibits

The following exhibits to this permit are incorporated by reference. The exhibits can be viewed by clicking on the links below or by visiting the District's ePermitting website (<http://my.sfwmd.gov/ePermitting>) and searching under this application number 180410-464.

[Exhibit 1](#)

[Exhibit 2](#)

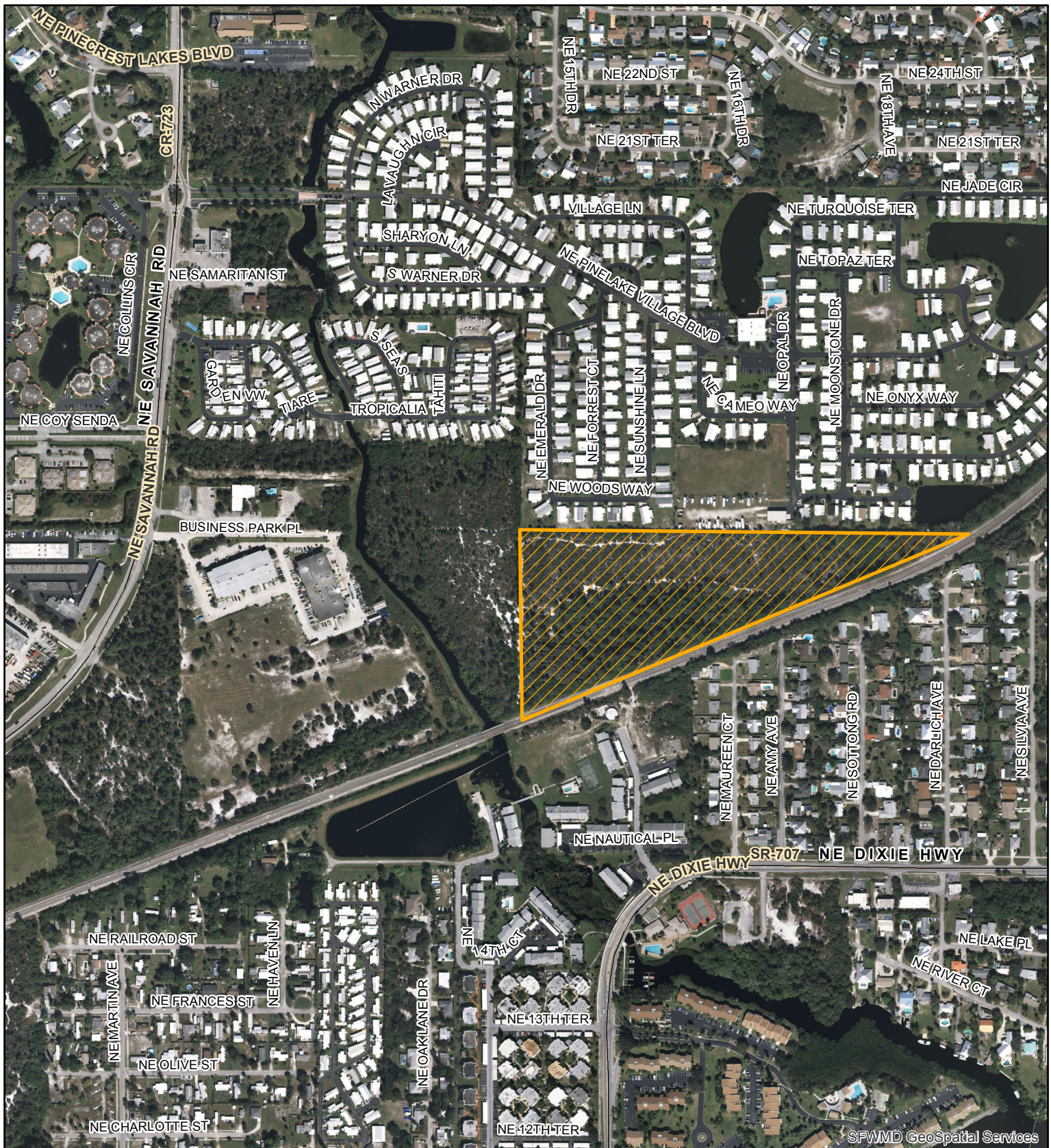


Exhibit No: 1	Exhibit Created On: 2018-04-20	MARTIN COUNTY, FL	 Application Application Number: 180410-464
REGULATION DIVISION Project Name: River's Edge Apartments			



EXHIBIT 14

Last Date For Agency Action: May 2, 2010

INDIVIDUAL ENVIRONMENTAL RESOURCE PERMIT STAFF REPORT

Project Name: Warner Creek Storm Water Quality Retrofit

Permit No.: 43-02364-P

Application No.: 090128-6 090218-3 WU Related

Application Type: Environmental Resource (New Construction/Operation)

Location: Martin County, S27/T38S/R41E

Permittee : Martin County Board Of County Commissioners

Operating Entity : Martin County Board Of County Commissioners

Project Area: 10.50 acres

Project Land Use: Other

Drainage Basin: MIDDLE COASTAL

Sub Basin: WARNER CREEK

Receiving Body: ST. LUCIE RIVER

Class: CLASS III

Special Drainage District: NA

Total Acres Wetland Onsite: .45

Total Acres Wetland Preserved Onsite: .13

Total Acres Impacted Onsite : .32

Total Acres Presv/Mit Compensation Onsite: .42

Conservation Easement To District : No

Sovereign Submerged Lands: No

**FINAL APPROVED BY THE
EXECUTIVE DIRECTOR
MARCH 29, 2010**

PROJECT PURPOSE:

This application is a request for an Environmental Resource Permit to authorize construction and operation of a stormwater treatment area and surface water management system to serve the existing Warner Creek Basin.

dependent endangered/threatened species or species of special concern. Therefore, no adverse impacts to wetland-dependent endangered/threatened species or species of special concern are anticipated as a result of the proposed project. This permit does not relieve the applicant from complying with all applicable rules and any other agencies' requirements in accordance with the Special Conditions.

LEGAL ISSUES:

The applicant is responsible for the successful completion of the mitigation program and the continued preservation and maintenance of the onsite preservation/mitigation areas in perpetuity in accordance with Exhibit 3.1 and the Special Conditions.

CERTIFICATION AND MAINTENANCE OF THE WATER MANAGEMENT SYSTEM:

It is suggested that the permittee retain the services of a Professional Engineer registered in the State of Florida for periodic observation of construction of the surface water management (SWM) system. This will facilitate the completion of construction completion certification Form #0881 which is required pursuant to Section 10 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, and Rule 40E-4.361(2), Florida Administrative Code (F.A.C.).

Pursuant to Chapter 40E-4 F.A.C., this permit may not be converted from the construction phase to the operation phase until certification of the SWM system is submitted to and accepted by this District. Rule 40E-4.321(7) F.A.C. states that failure to complete construction of the SWM system and obtain operation phase approval from the District within the permit duration shall require a new permit authorization unless a permit extension is granted.

For SWM systems permitted with an operating entity who is different from the permittee, it should be noted that until the permit is transferred to the operating entity pursuant to Rule 40E-1.6107, F.A.C., the permittee is liable for compliance with the terms of this permit.

The permittee is advised that the efficiency of a SWM system will normally decrease over time unless the system is periodically maintained. A significant reduction in flow capacity can usually be attributed to partial blockages of the conveyance system. Once flow capacity is compromised, flooding of the project may result. Maintenance of the SWM system is required to protect the public health, safety and the natural resources of the state. Therefore, the permittee must have periodic inspections of the SWM system performed to ensure performance for flood protection and water quality purposes. If deficiencies are found, it is the responsibility of the permittee to correct these deficiencies in a timely manner.

SOVEREIGN/SUBMERGED LANDS:

On February 12, 2009, documentation was received from the Division of State Lands Title and Land Records Section (DSL) indicating that DSL staff was unable to determine whether or not the submerged lands of Warner Creek within the vicinity of the proposed activity are State-owned. Therefore, DSL staff recommends that proprietary requirements normally applied to State-owned lands not apply to this project. Please refer to Exhibit 4.

02 / 11 / 2009
16:49.54FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
TITLE AND LAND RECORDS SECTION
BOARD OF TRUSTEES LAND DATABASE SYSTEM
WORKSHEET SHORT FORM (FOR INTERNAL DEP USE ONLY)Page 1 of 1
WSMPRT02

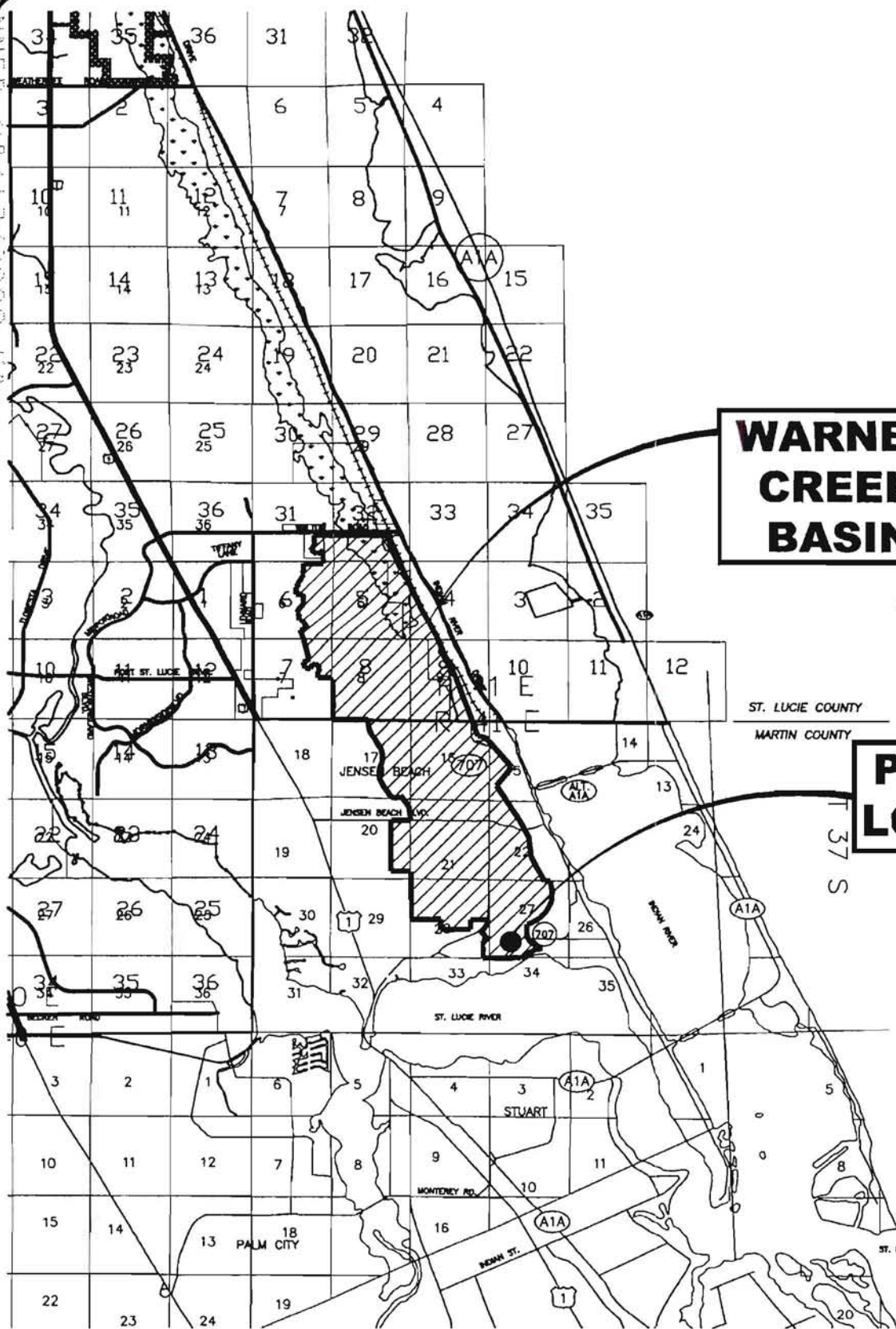
FILE NUMBER: 090128-6
WORKSHEET ID: 86566
COUNTY: MARTIN
APPLICANT: JOSEPH CAPRA, PE, AGENT
COMPANY: BOARD OF COUNTY COMM, MARTIN COUNTY
SITE: BEACON 21 CONDO PHASE II SEWER PLANT (14 NE 14TH CT, STUART
LOCATED @ S SIDE OF RR RWY, WEST OF WARNER CREEK)
TYPE OF ACTIVITY: STORMWATER MGMT IMPROVEMENTS
PROJECT LOCATION: SECTION TOWNSHIP RANGE
27 37S 41E
AQUATIC PRESERVE: N/A
WATER BODY: WARNER CREEK

COMMENTS: RECORDS INDICATE THAT THE SUBMERGED LANDS LYING BELOW THE MEAN HIGH WATER LINE OF WARNER CREEK PRIOR TO ALTERATIONS OF THE NATURAL SHORELINE ARE STATE OWNED AND ARE SUBJECT TO EXISTING ESMT NOS. 00209(4048-43), 29057(4401-43), AND 29463(4714-43). HOWEVER, BASED ON AVAILABLE INFORMATION WE ARE UNABLE TO DETERMINE WHETHER THE SUBMERGED LANDS OF THE CREEK WITHIN THE VICINITY OF THE PROPOSED ACTIVITY ARE STATE OWNED. THEREFORE, WE RECOMMEND THAT PROPRIETARY REQUIREMENTS NORMALLY APPLIED TO STATE OWNED LANDS NOT APPLY TO THIS PROJECT.

✓

PREPARER:
DATE PREPARED: 02 / 11 / 2009

NOTICE: THE CONCLUSIONS AND DETERMINATIONS SET FORTH IN THIS TITLE WORKSHEET ARE BASED ON A REVIEW OF THE RECORDS CURRENTLY AVAILABLE WITHIN THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AS SUPPLEMENTED, IN SOME CASES, BY INFORMATION FURNISHED BY THE REQUESTING PARTY. SINCE THE ACCURACY AND COMPLETENESS OF THE TITLE INFORMATION REVIEWED MAY VARY, THE CONCLUSIONS AND DETERMINATIONS SET FORTH HEREIN DO NOT CONSTITUTE A LEGAL OPINION OF TITLE AND SHOULD NOT BE RELIED ON AS SUCH.



**WARNER
CREEK
BASIN**

*Atlantic
Ocean*

ST. LUCIE COUNTY
MARTIN COUNTY

**PROJECT
LOCATION**

EXHIBIT 1

Application# 090128-6

Page 1 of 1



• Joseph W. Capra
301 N.W. Flagler Ave
Stuart, Florida 34994
P.E. No. 37638
Phone: (772) 692-4344
Fax: (772) 692-4344

Engineering Business
No. EB-0007857

DATE: 07-19-07
DRAWN BY: DHR
DESIGNED BY:
CHECKED BY: JWC
PROJECT No.: 830.6
HORIZ. SCALE: N.T.S.
VERT. SCALE: N.T.S.
CADD FILE:

**WARNER CREEK
STORMWATER QUALITY RETROFIT
MARTIN COUNTY, FLORIDA**
**EXHIBIT 1
LOCATION MAP**

**SCALE
VERIFICATION**
0 1/2" = 100'
SOLID BAR IS EQUAL TO
HALF AN INCH ON ORIGINAL
DRAWING. ADJUST ALL
SCALED DIMENSIONS
ACCORDINGLY

Sheet No. 1 of 1