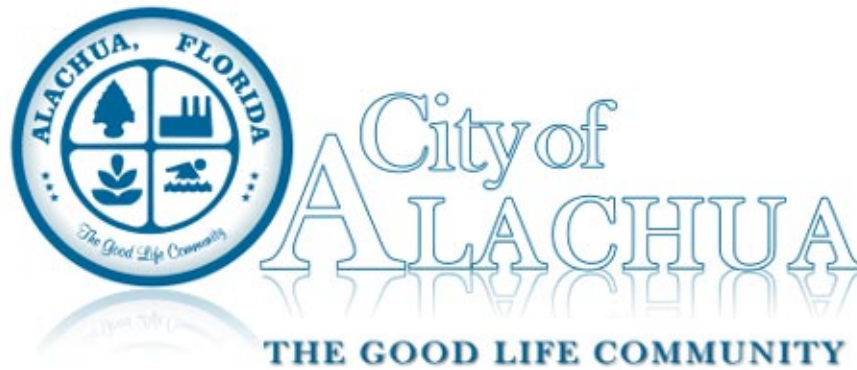




Planning and Zoning Board Agenda December 10, 2019

Chair Gary Thomas
Vice Chair Anthony Wright
Member Sandy Burgess
Member James Sajczuk
Member Virginia Johns
School Board Member Tina Certain

City Manager Adam Boukari

Planning and Zoning Board At 7:30 PM

Meeting Date: December 10, 2019

Meeting Location: James A. Lewis Commission Chambers

Notice given pursuant to Section 286.0105, Florida Statutes. In order to appeal any decision made at this meeting, you will need a verbatim record of the proceedings. It will be your responsibility to ensure such a record is made.
--

PLANNING AND ZONING BOARD MEETING AGENDA
--

CALL TO ORDER

INVOCATION

PLEDGE TO THE FLAG

APPROVAL OF THE AGENDA

I. OLD BUSINESS

II. NEW BUSINESS

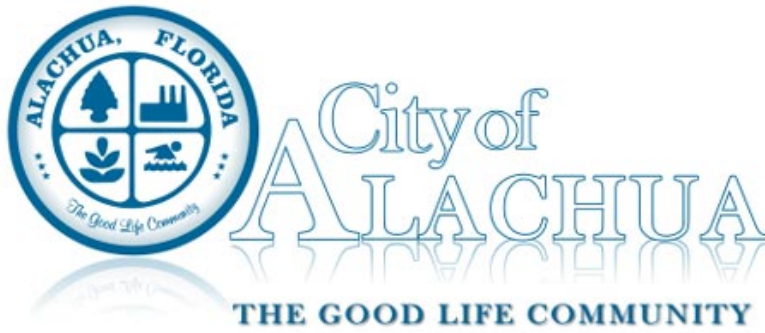
- A. Approval of the Minutes of the November 12, 2019 PZB Meeting
- B. Site Plan - Golf Plaza: A request by Daniel Young, P.E. of CHW, inc., applicant and agent for

Nature Valley Harvest, Ltd, property owner, for consideration of a Site Plan to construct three commercial buildings totaling $\pm$ 25,028 square feet, with associated paving, grading, drainage, landscaping and infrastructure improvements, on a $\pm$ 8.25 acre subject property, located southeast of the Intersection of US HWY 441 and Turkey Creek Boulevard, north of the Turkey Creek Subdivision; Tax Parcel Numbers 05900-004-001 through 05900-004-010 (Quasi-Judicial Hearing).

III. BOARD COMMENTS/DISCUSSION

IV. CITIZENS COMMENTS

ADJOURN



Board/Committee Agenda Item

MEETING DATE: 12/10/2019

SUBJECT: Approval of the Minutes of the November 12, 2019 PZB Meeting

PREPARED BY: Kenyata Curtis, Planning Assistant

RECOMMENDED ACTION:

Approve the Minutes of the November 12, 2019 PZB Meeting.

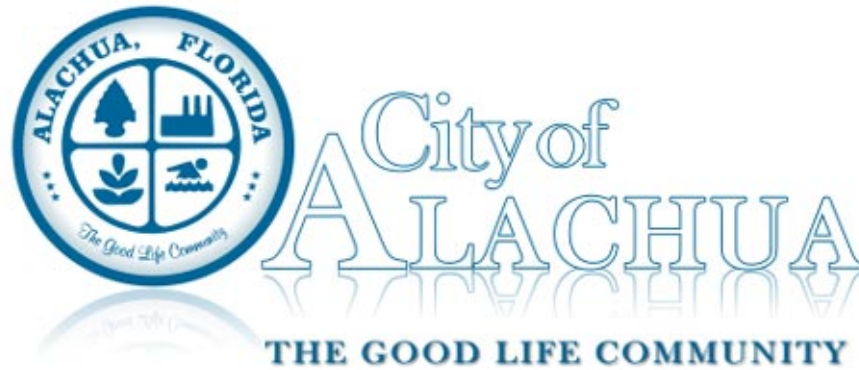
Summary

Approval of the Minutes of the November 12, 2019 PZB Meeting.

ATTACHMENTS:

Description

- ☐ Minutes of the 11/12/19 PZB Meeting



Planning and Zoning Board Minutes November 12, 2019

Chair Gary Thomas

City Manager Adam Boukari

Vice Chair Anthony Wright

Member Sandy Burgess

Member James Sajczuk

Member Virginia Johns

School Board Member Tina Certain

**Planning and Zoning Board
At 6:00 PM**
to address the item(s) below.

Meeting Date: November 12, 2019

Meeting Location: James A. Lewis Commission Chambers

Notice given pursuant to Section 286.0105, Florida Statutes. In order to appeal any decision made at this meeting, you will need a verbatim record of the proceedings. It will be your responsibility to ensure such a record is made.
--

PLANNING AND ZONING BOARD MEETING MINUTES

CALL TO ORDER

Chair Gary Thomas called the meeting to order. School Board Member Tina Certain was absent.

INVOCATION

Vice Chair Anthony Wright led the invocation.

PLEDGE TO THE FLAG

Led by the Board.

APPROVAL OF THE AGENDA

Member James Sajczuk moved to approve the minutes; seconded by Member Virginia Johns.

I. OLD BUSINESS

None.

II. NEW BUSINESS

- A. Approval of the Minutes of the October 8, 2019 PZB Meeting

Member Sandy Burgess moved to approve the minutes; seconded by Vice Chair Wright.

Passed by unanimous consent.

- B. Pilot Forest, Lot 29 Final Plat: A request by Sean Barnes of Geoline Surveying, Inc., applicant and agent for Timothy B. Tees & Pamela J. Tees-Pinedo, property owners, for consideration of the replat of a $\pm$.60 acre subject property located at 15703 NW 118th Place. Tax Parcel No. 03980-003-029 (Quasi-Judicial Hearing)

Department Director Kathy Winburn introduced the item.

Planning Assistant Kenyata Curtis swore in all parties entering testimony during the hearing.

Planner Adam Hall, AICP, presented the Staff Report.

Vice Chair Wright moved that based upon the competent substantial evidence presented at this hearing, the presentation before this Board, and Staff's recommendation, this Board finds the application to be consistent with the City of Alachua Comprehensive Plan and in compliance with the Land Development Regulations and transmits the application to the City Commission, with a recommendation to approve; seconded by Member Johns.

Member Johns inquired as to the purpose of the replat.

Planner Hall, AICP, responded.

Member Burgess inquired about the procedures for replats.

City Attorney Marian Rush responded.

Motion Passed 5-0 in a roll call vote.

- C. Site Plan - Kolomyiko: A request by Craig Hedgecock, P.E., P.S.M., applicant and agent for Ivan and Galina Kolomyiko, property owners, for consideration of a Site Plan to construct a $\pm$ 5,880 square foot light manufacturing facility, with associated paving, grading, drainage, landscaping and infrastructure improvements, on a $\pm$ 1.61 acre subject property, located 14000 block of West SR235, south of SR235, east of the intersection of SR235 and CR 241; Tax Parcel Number 03129-001-000 (Quasi-Judicial Hearing).

Department Director Winburn introduced the item.

Planning Assistant Curtis swore in all parties entering testimony during the hearing.

Planner Hall, AICP, presented the Staff Report.

Craig Hedgecock, P.E., P.S.M., applicant and agent for Ivan and Galina Kolomyiko, accepted the conditions and availed himself for questions.

Member Sajczuk moved that based upon the competent substantial evidence presented at this hearing, the presentation before this Board, and Staff's recommendation, this Board finds the application to be consistent with the City of Alachua Comprehensive Plan and in compliance with the Land Development Regulations and approves the Site Plan, subject to the four (4) conditions provided in Exhibit "A" and on page 20 of the July 9, 2019 Staff Report to the Planning & Zoning Board; seconded by Member Johns.

Motion Passed 5-0 in a roll call vote.

- D. Site Plan – Alachua Retail Center: A request by Robert Walpole, P.E., of Causseaux, Hewett, & Walpole, Inc., applicant and agent for Om Namah Shivaay, LLC, property owner, for consideration of a Site Plan to construct a ±8,400 square foot commercial building with site improvements, on a ±1.24 acre subject property, located at 15405 NW US Highway 441 and at 15419 NW US Highway 441; Consisting of Tax Parcel Numbers 03583-000-000 and 03583-001-000; FLUM: Commercial; Zoning: Commercial Intensive (CI).

Department Director Winburn introduced the item.

Planning Assistant Curtis swore in all parties entering testimony during the hearing.

Principal Planner Justin Tabor, AICP, presented the Staff Report.

Member Sajczuk inquired about Staff's condition to complete Pod 2 improvements within 90 days.

Principal Planner Tabor, AICP, responded.

Robert Walpole, P.E., applicant and agent for Om Namah Shivaay, LLC, accepted the conditions and availed himself for questions.

Vice Chair Wright moved that based upon the competent substantial evidence presented at this hearing, the presentation before this Board, and Staff's recommendation, this Board finds the application to be consistent with the City of Alachua Comprehensive Plan and in compliance with the Land Development Regulations and approves the Site Plan, subject to the seven (7) conditions provided in Exhibit "A" and located on page 20 of the November 12, 2019 Staff Report to the Planning & Zoning Board; seconded by Member Johns.

Motion Passed 5-0 in a roll call vote.

- E. Special Exception Permit - San Felasco Tech City (SFTC) – Restaurant with Drive-Through: A request by Sergio Reyes, P.E., of EDA Engineers – Surveyors – Planners, Inc., applicant and agent for The Laser Investment Group, LLC, property owner, for consideration of a Special Exception Permit to allow a restaurant with a drive-through in the Corporate Park (CP) zoning district and located within Phase 3 of SFTC, located at 13025 NW US Highway 441; Consisting

of a portion of Tax Parcel Number 05962-002-000; FLUM: Corporate Park; Zoning: Corporate Park (CP).

Department Director Winburn introduced the item.

Planning Assistant Curtis swore in all parties entering testimony during the hearing.

Principal Planner Tabor, AICP, presented the Staff Report.

Stephanie Sutton, P.E., of EDA, applicant and agent for the Laser Investment Group, LLC, availed herself for questions.

Member Burgess moved that based upon the competent substantial evidence presented at this hearing, the presentation before this Board, and Staff's recommendation, this Board finds the application to be consistent with the City of Alachua Comprehensive Plan and in compliance with the Land Development Regulations and approves the Special Exception Permit for a Permit for a restaurant drive-through at 13025 NW US Highway 441; seconded by Member Sajczuk.

Motion Passed 5-0 in a roll call vote.

- F. Site Plan – San Felasco Tech City (SFTC) Phase 3: A request by Sergio Reyes, P.E., of EDA Engineers – Surveyors – Planners, Inc., applicant and agent for The Laser Investment Group, LLC, property owner, for consideration of a Site Plan to construct a ±3,200 square foot restaurant with drive-through and 74 attached and detached dwelling units, with associated site improvements, on a ±82.68 acre subject property, consisting of a ±23.35 acre project area, located at 13025 NW US Highway 441; Consisting of portions of Tax Parcel Numbers 05962-002-000, 05844-004-001, 05855-005-000 and 05855-004-000; FLUM: Corporate Park and Industrial; Zoning: Corporate Park (CP) and Industrial General (IG).

Department Director Winburn introduced the item.

Planning Assistant Curtis swore in all parties entering testimony during the hearing.

Planner Hall, AICP, presented the Staff Report.

Stephanie Sutton, P.E., of EDA, applicant and agent for the Laser Investment Group, LLC, accepted the conditions and availed herself for questions.

Member Sajczuk moved that based upon the competent substantial evidence presented at this hearing, the presentation before this Board, and Staff's recommendation, this Board finds the application to be consistent with the City of Alachua Comprehensive Plan and in compliance with the Land Development Regulations and approves the Site Plan for SFTC Phase 3, subject to the five (5) conditions provides in Exhibit "A" and located on page 25 of the November 12, 2019 Staff Report to the Planning & Zoning Board; seconded by Vice Chair Wright.

Motion Passed 5-0 in a roll call vote.

III. BOARD COMMENTS/DISCUSSION

Member Sajczuk thanked the Planning & Zoning Board Meeting attendees.

Department Director Winburn stated the next meeting will be December 10, 2019 at 7:00 p.m.

City Attorney Rush wished the Board a Happy Thanksgiving.

IV. CITIZENS COMMENTS

None.

ADJOURN

Vice Chair Wright moved to adjourn; seconded by Member Johns.

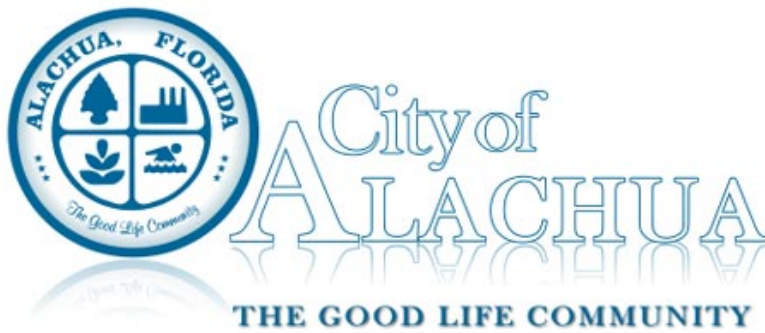
Passed by unanimous consent.

ATTEST:

PLANNING AND ZONING BOARD OF THE
CITY OF ALACHUA, FLORIDA

Presiding Officer

Staff Liaison



Board/Committee Agenda Item

MEETING DATE: 12/10/2019

SUBJECT: Site Plan - Golf Plaza: A request by Daniel Young, P.E. of CHW, inc., applicant and agent for Nature Valley Harvest, Ltd, property owner, for consideration of a Site Plan to construct three commercial buildings totaling $\pm 25,028$ square feet, with associated paving, grading, drainage, landscaping and infrastructure improvements, on a ± 8.25 acre subject property, located southeast of the Intersection of US HWY 441 and Turkey Creek Boulevard, north of the Turkey Creek Subdivision; Tax Parcel Numbers 05900-004-001 through 05900-004-010 (Quasi-Judicial Hearing).

PREPARED BY: Adam Hall, AICP

RECOMMENDED ACTION:

Based upon the competent substantial evidence presented at this hearing, the presentation before this Board, and Staff's recommendation, this Board finds the application to be consistent with the City of Alachua Comprehensive Plan and in compliance with the Land Development Regulations and approves the Site Plan, subject to the five (5) conditions provided in Exhibit "A" and on page 24 of the December 10, 2019 Staff Report to the Planning & Zoning Board.

Summary

The proposed site plan is a request by Daniel Young, P.E., of CHW, Inc. , applicant and agent for Nature Valley Harvest, Ltd. , property owner, for the construction of three buildings totaling $\pm 25,028$ square feet with employee and customer parking, storm water management facility improvements, paving, grading, landscaping and associated utility infrastructure. While final tenants are not known at this time, the proposed typical uses include retail sales, office, and restaurants.

The subject property is ± 8.25 acres in area and is located southeast of the Intersection of US 441 and Turkey Creek Boulevard, north of the Turkey Creek Subdivision. Access to the subject property would be provided by two (2) proposed ingress/egress driveways; one is proposed to be located on US 441 approximately 590 feet south of Turkey Creek Boulevard, and one ingress/egress is proposed to be located on NW 59th Terrace, approximately 160 feet south of US 441. Turkey Creek and associated wetlands are located on the subject property, resulting in development being clustered to the northern area of the subject property.

The proposed development will convey the development's stormwater runoff to 2 proposed stormwater system drainage areas located at the western extent of the subject property and one central to the development. An existing FDOT drainage easement and associated culvert shall remain.

ATTACHMENTS:

Description

- ☐ Staff Report and Staff Supporting Materials
- ☐ Site Plan (Part 1 of 5)
- ☐ Site Plan (Part 2 of 5)
- ☐ Site Plan (Part 3 of 5)
- ☐ Site Plan (Part 4 of 5)
- ☐ Site Plan (Part 5 of 5)

- Site Plan (Part 3 of 3)
- ▢ Application and Supporting Materials- Part 1
- ▢ Application and Supporting Materials- Part 2
- ▢ Public Notice Materials for 12/10/19 PZB Hearing



City of Alachua

Planning & Community Development Department Staff Report

Planning & Zoning Board Hearing Date: December 10, 2019
Quasi-Judicial Hearing

SUBJECT: A request for a Site Plan for the construction of three buildings totaling $\pm 25,028$ square feet with employee and customer parking, storm water management facility improvements, paving, grading, landscaping and associated utility infrastructure

APPLICANT/AGENT: Daniel Young, P.E., of CHW, Inc.

PROPERTY OWNER: Nature Valley Harvest, Ltd.

LOCATION: Southeast of the Intersection of US 441 and Turkey Creek Boulevard, north of the Turkey Creek Subdivision

PARCEL ID NUMBERS: 05900-004-001 through 05900-004-010

FLUM DESIGNATION: Commercial and Medium Density Residential

ZONING: Planned Unit Development (PUD)

OVERLAY: NA

ACREAGE: ± 8.25 acres

PROJECT PLANNER: Adam Hall, AICP

RECOMMENDATION: Staff recommends that the Planning & Zoning Board approve the Site Plan, subject to the five (5) conditions provided in Exhibit "A" of this Staff Report.

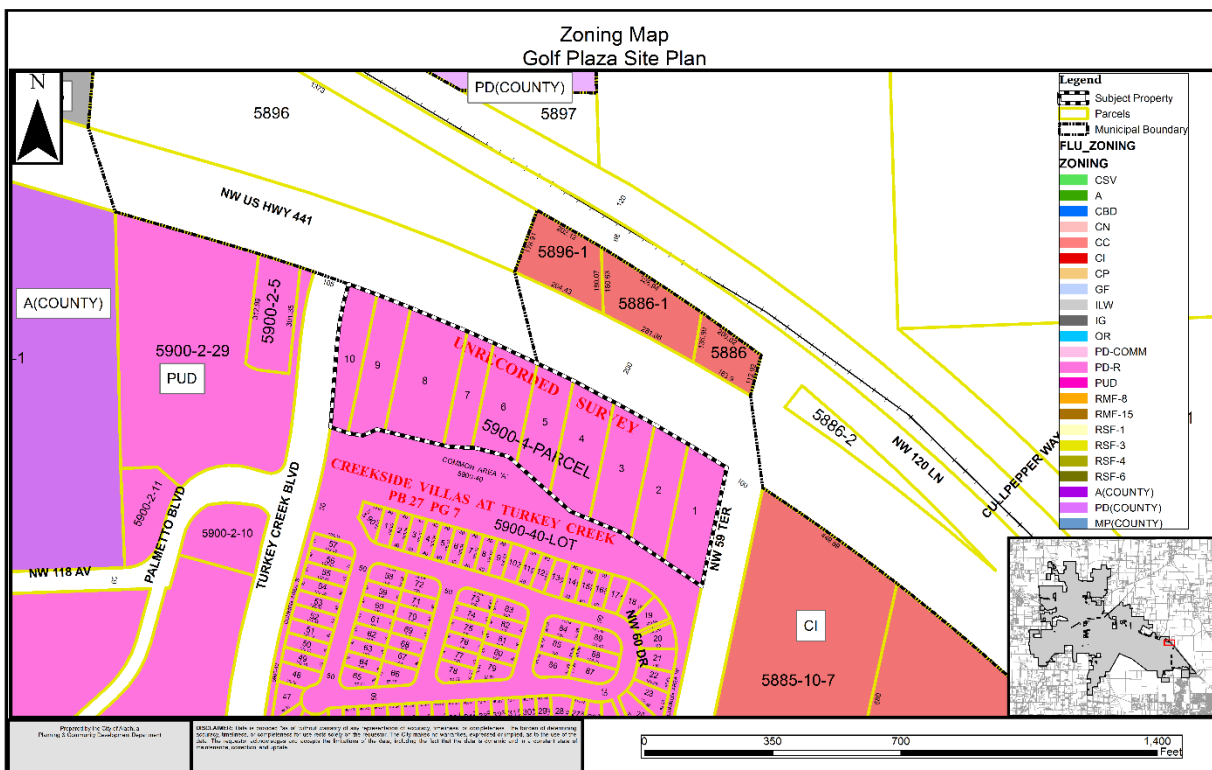
RECOMMENDED MOTION: *Based upon the competent substantial evidence presented at this hearing, the presentation before this Board, and Staff's recommendation, this Board finds the application to be consistent with the City of Alachua Comprehensive Plan and in compliance with the Land Development Regulations and approves the Site Plan, subject to the five (5) conditions provided in Exhibit "A" and on page 24 of the December 10, 2019 Staff Report to the Planning & Zoning Board.*

SUMMARY

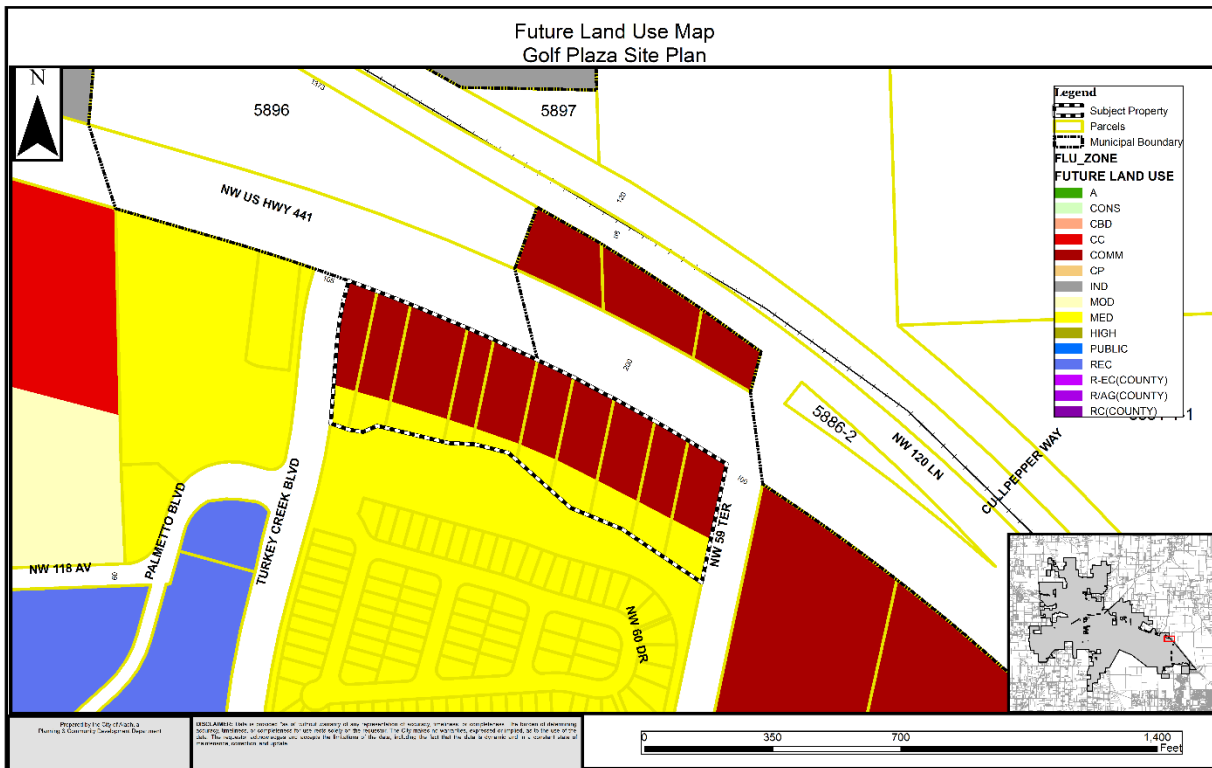
The proposed site plan is a request by Daniel Young, P.E., of CHW, Inc. , applicant and agent for Nature Valley Harvest, Ltd. , property owner, for the construction of three buildings totaling ±25,028 square feet with employee and customer parking, storm water management facility improvements, paving, grading, landscaping and associated utility infrastructure. While final tenants are not known at this time, the proposed typical uses include retail sales, office, and restaurants.

The subject property is ±8.25 acres in area and is located southeast of the Intersection of US 441 and Turkey Creek Boulevard, north of the Turkey Creek Subdivision. Access to the subject property would be provided by two (2) proposed ingress/egress driveways; one is proposed to be located on US 441 approximately 590 feet south of Turkey Creek Boulevard, and one ingress/egress is proposed to be located on NW 59th Terrace, approximately 160 feet south of US 441. Turkey Creek and associated wetlands are located on the subject property, resulting in development being clustered to the northern area of the subject property.

Map 1. Subject Property with Zoning



Map 2. Subject Property with Future Land Use



The proposed development will convey the development's stormwater runoff to 2 proposed stormwater system drainage areas located at the western extent of the subject property and one central to the development. An existing FDOT drainage easement and associated culvert shall remain.

Illustration 1a. Proposed Site Plan for Golf Plaza (Sheet 1 of 2)

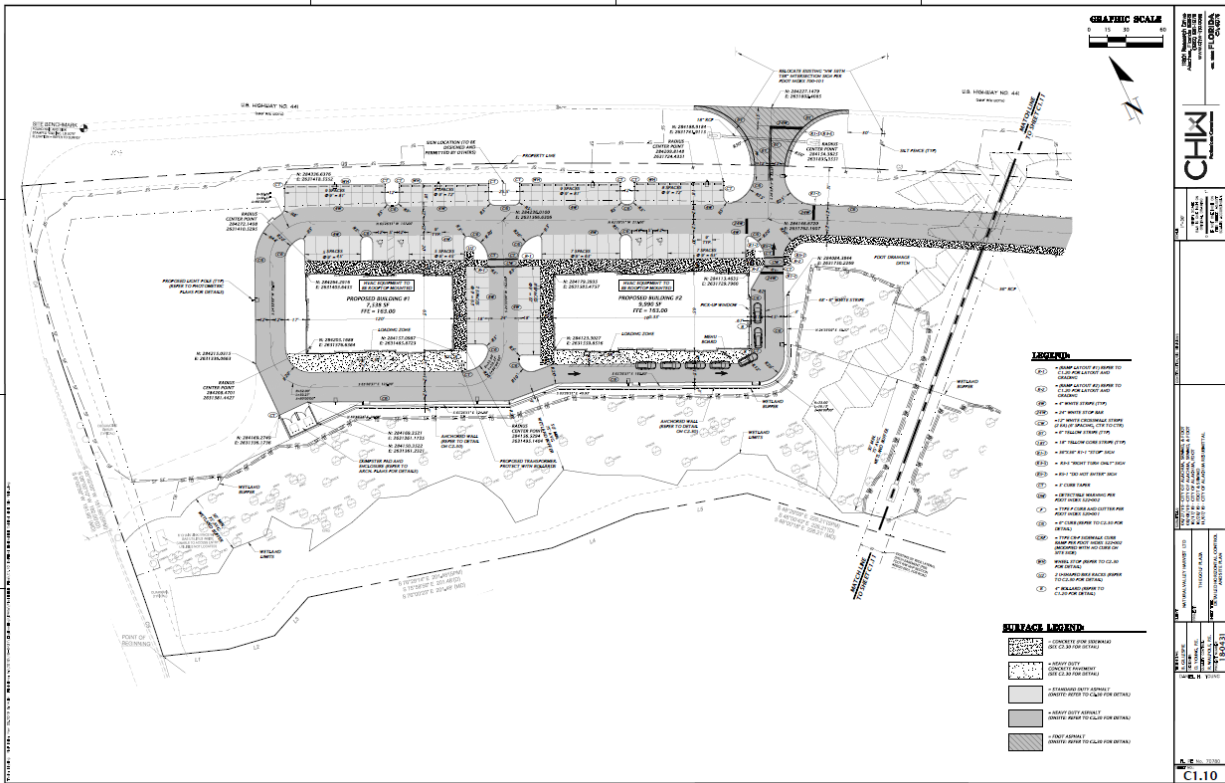


Illustration 1b. Proposed Site Plan for Golf Plaza (Sheet 2 of 2)

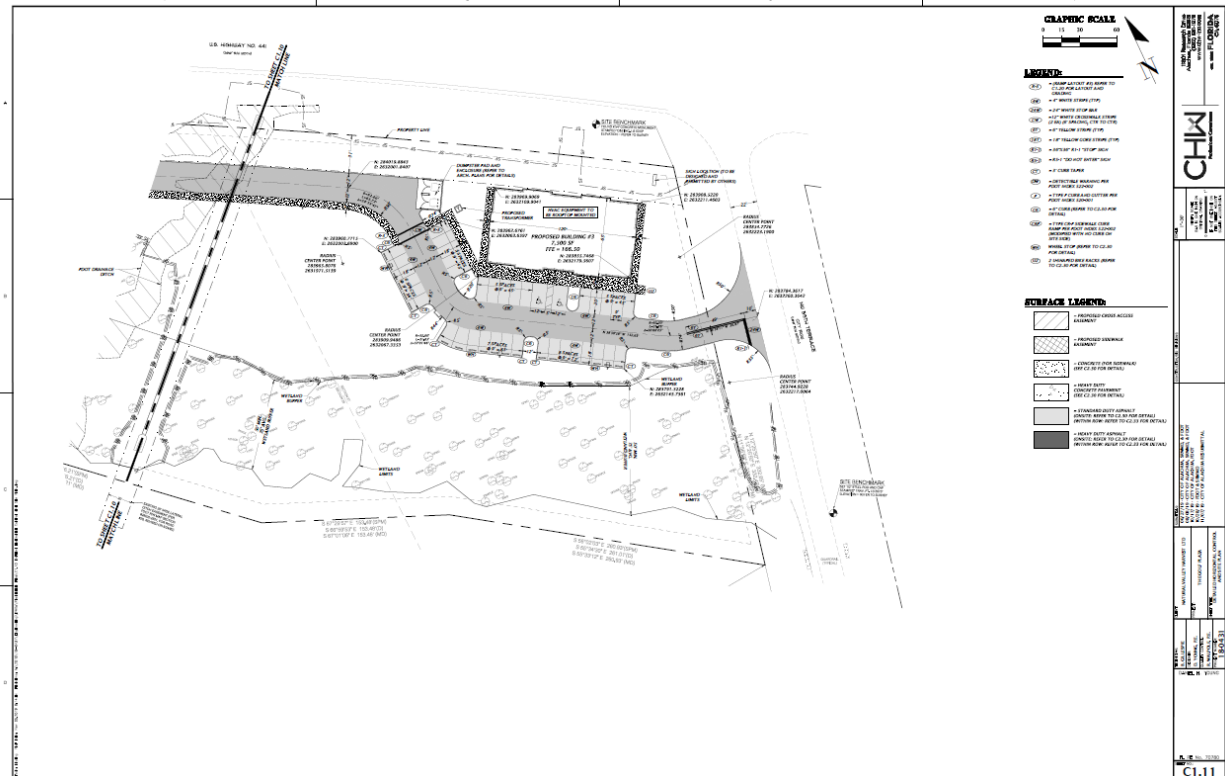


Illustration 2a . Proposed Landscape Plan for Golf Plaza (Sheet 1 of 2)

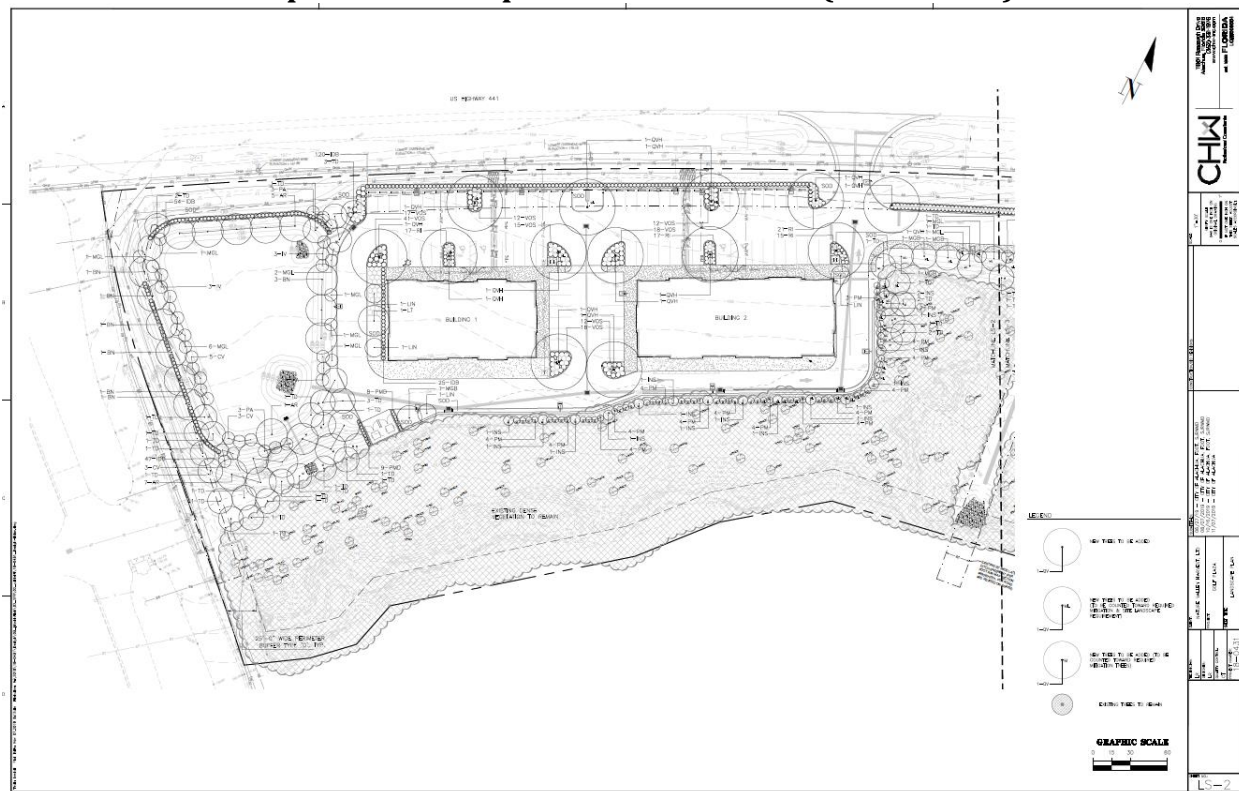
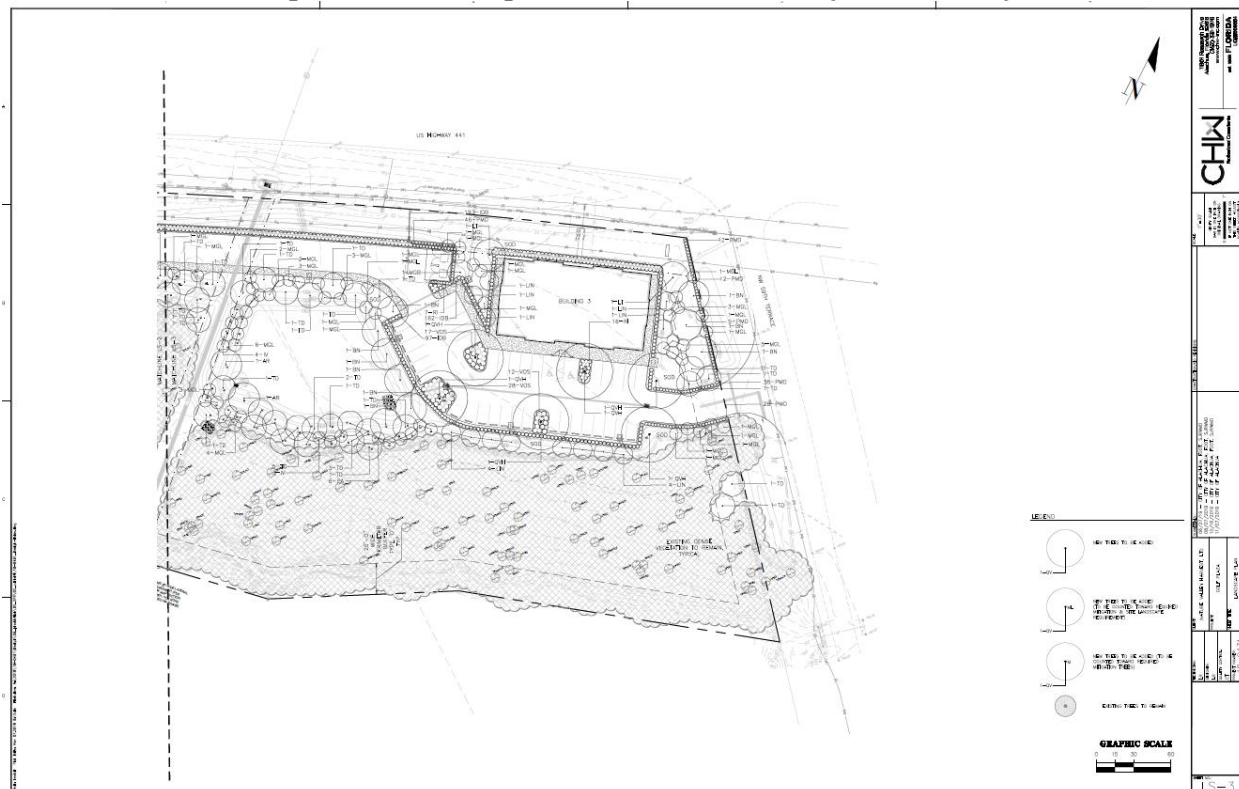


Illustration 2b . Proposed Landscape Plan for Golf Plaza (Sheet 2 of 2)



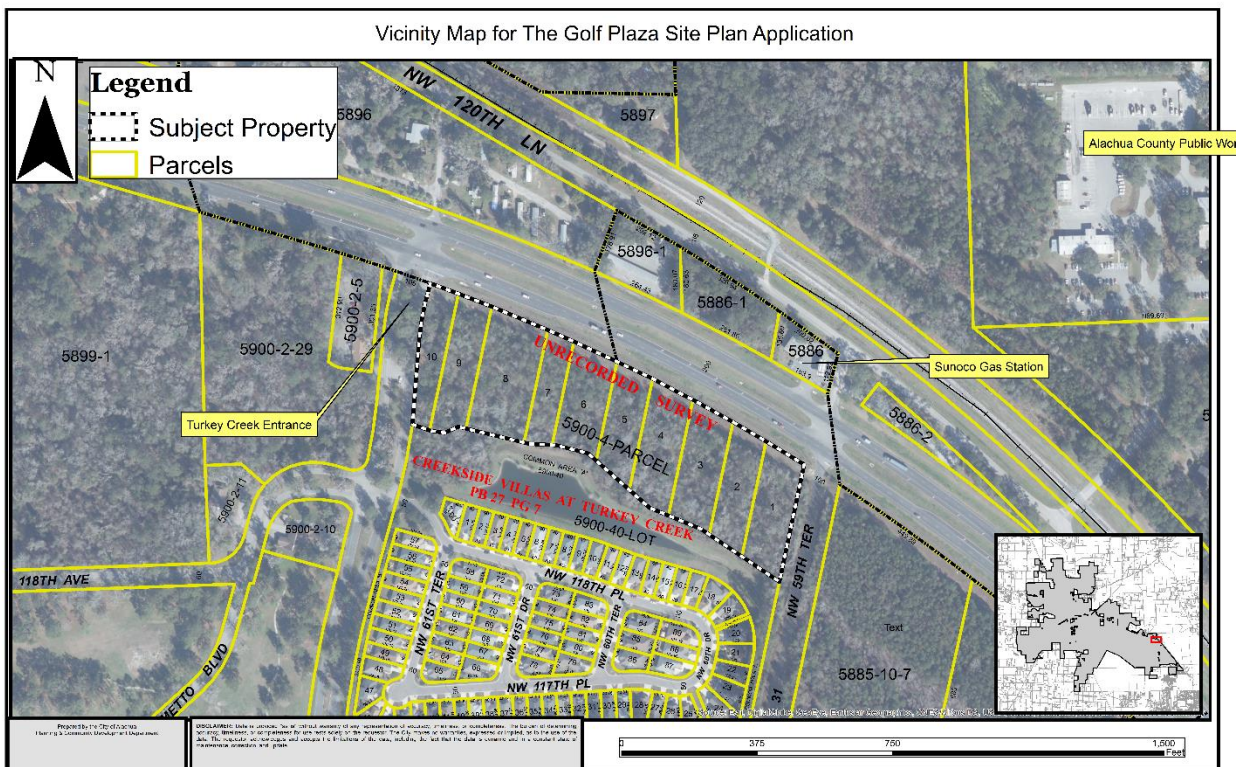
SURROUNDING USES

The existing uses, Future Land Use Map (FLUM) Designations, and zoning districts of the surrounding area are identified in Table 1. Map 3 provides an overview of the vicinity of the subject property. (NOTE: The information below is intended to provide a general overview of the area surrounding the subject property and to generally orient the reader. It is not intended to be all-inclusive, and may not identify all existing uses, FLUM Designations, and/or zoning districts surrounding the subject property.)

Table 1. Surrounding Land Uses

Direction	Existing Use(s)	FLUM Designation(s)	Zoning District(s)
North	Existing & Vacant Commercial/ Mobile Home Park	Commercial/ Rural Employment Center	CI/ RM (Mobile Home Park) (Alachua County)
South	Residential	Medium Density Residential	PUD (Turkey Creek)
East	Vacant Commercial	Commercial	CI
West	Multi-Family residential, vacant residential	Medium Density Residential	PUD (Turkey Creek)

Map 3. Vicinity Map



NEIGHBORHOOD MEETING

The purpose of a Neighborhood Meeting is to educate the owners of nearby land and any other interested members of the public about the project and to receive comments regarding the project. As required by Section 2.2.4 of the LDRs, all property owners within 400 feet of the subject property were notified of the meeting and notice of the meeting was published in a newspaper of general circulation.

A Neighborhood Meeting was held on April 24, 2019 at the office of CHW, Inc in Progress Park. The applicant's agent was present and available to answer questions. As evidenced by materials submitted by the applicant, the meeting was attended by 41 individuals from the public. A copy of the notice materials for Neighborhood Meeting has been provided by the applicant and is included within the application materials.

CONSISTENCY WITH THE COMPREHENSIVE PLAN

The Goals, Objectives, and Policies (GOPs) identified below are provided to establish a basis of the application's consistency with the Comprehensive Plan. There may be additional GOPs which the application is consistent with that are not identified within this report. An evaluation and findings of consistency with the identified GOPs is also provided below.

Future Land Use Element

GOAL 1: Future Land Use Map 2025:

The City of Alachua shall maintain a Future Land Use Map in order to effectively guide development in a sustainable manner and to ensure economic prosperity and stability while maintaining a high quality of life for all of its present and future citizens.

Objective 1.3: Commercial

The City of Alachua shall establish three commercial districts: Community Commercial, Commercial and Central Business District. These districts shall provide a broad range of retail sales and services, as well as office uses, in order to provide for the availability of goods and services, both to the citizens of Alachua and to the citizens of the North Central Florida region.

Policy 1.3.b: Commercial: The Commercial land use category is established to provide for general commercial uses, as well as more intense commercial and highway commercial uses. This is the land use category in which large-scale, regional commercial uses may locate. The following uses are allowed within the Commercial land use category:

1. Retail sales and services;
2. Personal services;
3. Financial Institutions;
4. Outdoor recreation and entertainment;
5. Tourist-related uses;
6. Hotels, motels;

7. Commercial shopping centers;
8. Auto-oriented uses;
9. Traditional Mixed-use Neighborhood Planned Developments;
10. Employment Center Planned Developments;
11. Commercial recreation centers;
12. Office/business parks;
13. Limited industrial services;
14. Eating Establishments

Evaluation and Findings of Consistency with Goal 1, Objective 1.3, and Policy

1.3.b: The subject property has a Commercial FLUM Designation where development is proposed to occur. The small portion to the south of the Turkey Creek with the Medium Density Residential FLUM designation is not being developed and will remain in its current state. The zoning of the subject property is Planned Unit Development (PUD), which permits retail sales, office uses, and restaurants.

Policy 1.3.d: Design and performance standards: The following criteria shall apply when evaluating commercial development proposals:

1. Integration of vehicular and non-vehicular access into the site and access management features of site in terms of driveway cuts and cross access between adjacent sites, including use of frontage roads and/or shared access;
2. Buffering from adjacent existing/potential uses;
3. Open space provisions and balance of proportion between gross floor area and site size;
4. Adequacy of pervious surface area in terms of drainage requirements;
5. Placement of signage;
6. Adequacy of site lighting and potential impacts of lighting upon the surrounding area. Lighting should be designed to minimize impacts and preserve the ambiance and quality of the nighttime sky by reducing light trespass and light pollution on adjacent properties by utilizing lighting at an appropriate intensity, direction and times to ensure light is not overused or impacting areas where it is not intended;
7. Safety of on-site circulation patterns (patron, employee and delivery vehicles, trucks), including parking layout and drive aisles, and points of conflict;
8. Landscaping, as it relates to the requirements of the Comprehensive Plan and Land Development Regulations;
9. Unique features and resources which may constrain site development, such as soils, existing vegetation and historic significance; and
10. Performance based zoning requirements that may serve as a substitute for or accompany land development regulations in attaining acceptable site design.
11. Commercial uses shall be limited to an intensity of less than or equal to .50 floor area ratio for parcels 10 acres or greater, .50 floor area ratio for parcels less than 10 acres but 5 acres or greater, a .75 floor area ratio for parcels less than 5 acres but greater than 1 acre, and 1.0 floor area ratio to parcels 1 acre or less.

Evaluation and Findings of Consistency with Policy 1.3.d: The applicant has demonstrated through the site plan, application, and supporting documentation that each of these sub-policies have been sufficiently addressed.

Objective 2.4: Landscaping and Tree Protection Standards: The City shall adopt landscaping and tree protection standards in order to achieve the aesthetic design values of the community and preserve tree canopies, as well as specimen protected, heritage and champion trees.

Policy 2.4.a: Landscaping: General – The City shall require landscaping plans to be submitted with each nonresidential and multiple family residential site plan. The minimum landscaped area shall be 30% of the development site. Landscaping designs shall incorporate principles of xeriscaping, where feasible. The City shall develop a list of preferred planting materials to assist in the landscape design. Landscape plans shall include perimeter and internal site landscaping.

Policy 2.4.b: Landscaping: Buffering – A buffer consists of horizontal space (land) and vertical elements (plants, berms, fences, walls) that physically separate and visually screen adjacent land uses. The City shall establish buffer yard requirements that are based on the compatibility of the adjacent uses and the desired result of the buffer.

Evaluation and Findings of Consistency with Objective 2.4 and Policies 2.4.a and 2.4.b: The site plan includes a landscaping plan which demonstrates that the proposed development will comply with all applicable landscaping and buffering standards required by the City's Comprehensive Plan and Land Development Regulations.

Objective 2.5: Open Space Standards: The City shall utilize open space requirements to preserve the rural character of Alachua, protect natural resources, and provide spaces for people to recreate and gather.

Policy 2.5.a: There shall be a minimum of 10% percent open space required. The City shall establish incentives for the provision of open space beyond minimum requirements.

Evaluation and Findings of Consistency with Objective 2.5 and Policy 2.5.a: The site plan indicates that the subject property will include 5.87 acres of open space (71.20 % of the site), exceeding the minimum 10% open space requirement.

Objective 5.1: Natural features: The City shall coordinate Future Land Use designations with appropriate topography, soils, areas of seasonal flooding, wetlands and habitat during review of proposed amendments to the Future Land Use Map and the development review process. Natural features may be included as amenities within a development project.

Evaluation and Findings of Consistency with Objective 5.1: An environmental conditions and site suitability analysis has been provided in this report, and indicates that the development will not adversely affect natural features.

Objective 5.2: Availability of facilities and services: The City shall utilize a concurrency management system to ensure that the adopted level of service standards are maintained.

Policy 5.2.a: All new development shall meet level of service requirements for roadways, potable water and sanitary sewer, stormwater, solid waste, public schools, and improved recreation in accordance with LOS standards adopted in the elements addressing these facilities.

Evaluation and Findings of Consistency with Objective 5.2 and Policy 5.2.a: An analysis of the development's impact to public facilities has been provided within this report. This analysis demonstrates that the development will not adversely affect the level of service (LOS) standard of any monitored public facilities.

Policy 9.1: Any new development within a Commercial or Industrial Future Land Use Map Designation within the corporate limits, where potable water and wastewater service are available, as defined in Policy 1.2.a and Policy 4.2.a of the Community Facilities and Natural Groundwater Aquifer Recharge Element of the City of Alachua Comprehensive Plan, shall connect to the City of Alachua's potable water and wastewater system.

Evaluation and Findings of Consistency with Policy 9.1: The proposed development will connect to potable water and wastewater facilities.

Transportation Element

Objective 1.1: Level of Service

The City shall establish a safe, convenient and efficient level of service standard for all motorized and non-motorized transportation systems.

Evaluation and Findings of Consistency with Objective 1.1: An analysis of the development's impacts to transportation facilities is provided within this report. The development will not adversely affect the level of service for transportation facilities.

Policy 1.3.a: The City shall establish minimum and maximum parking standards in order to avoid excessive amounts of underutilized parking areas.

Policy 1.3.d: The City shall require landscaping within parking areas, with an emphasis on canopy trees. The City shall consider establishing incentives for landscaping in excess of minimum standards.

Policy 1.3.g: The City shall require spaces to accommodate persons with physical disabilities as required by the Americans with Disabilities Act.

Evaluation and Findings of Consistency with Objective 1.1 and Policies 1.3.a, 1.3.d,, and 1.3.g: The site plan complies with the applicable standards of Section 6.1, Off-street parking and loading standards, of the City's Land Development Regulations. Required landscaping materials and pedestrian crossings and connections will be provided within parking areas. The site plan also provides the minimum number of required accessible parking spaces.

Community Facilities & Natural Groundwater Aquifer Recharge Element

Policy 1.1.d:

The City hereby establishes the following level of service standards for sanitary sewer facilities:

Levels of Service

- a. **Quality:** Compliance with all applicable standards of the U.S. Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP).
- b. **Quantity:** System-wide wastewater collection and treatment will be sufficient to provide a minimum of 250 gallons per day per equivalent residential unit (ERU) on an average annual basis. Plant expansion shall be planned in accordance with F.A.C. 62-600.405, or subsequent provision. This level of service standard shall be re-evaluated one year from the adoption date for the amended Plan.
- c. **System capacity:** If the volume of existing use in addition to the volume of the committed use of the City's wastewater facility reaches 85% of the permitted capacity design, no further development orders for projects without reserved capacity will be issued until additional capacity becomes available or funds to increase facility capacity are committed in accordance with a development agreement.

Evaluation and Findings of Consistency with Policy 1.1.d: An analysis of the development's impacts to sanitary sewer facilities is provided within this report. The development will not adversely affect the level of service for sanitary sewer facilities.

Policy 1.2.a: The City shall establish a Community Wastewater Service Area, which includes all areas where wastewater service is available. Wastewater service shall be deemed available if:

3. A gravity wastewater system, wastewater pumping station, or force main exists within $\frac{1}{4}$ mile of the property line of any residential subdivision with more than 5 units, or any multi-family residential development, or any commercial development, or any industrial development and the gravity wastewater system, wastewater pumping station, or force main can be accessed through public utility easements or right of ways. The distance

shall be measured as required for construction of the infrastructure along public utility easements and right of ways.

Evaluation and Findings of Consistency with Policy 1.2.a: The proposed development is located within the City's utility service area and will connect to the City's wastewater system.

Policy 2.1.a: The City hereby establishes the following level of service standards for solid waste disposal facilities:

<u>FACILITY TYPE</u>	<u>LEVEL OF SERVICE STANDARD</u>
Solid Waste Landfill	.73 tons per capita per year

Evaluation and Findings of Consistency with Objective 2.1.a: An analysis of the development's impacts to solid waste facilities is provided within this report. The development will not adversely affect the level of service for solid waste facilities.

Objective 3.1: Ensure provision of drainage and stormwater retention through level of service standards and design requirements to minimize flooding and to protect and improve water quality.

Policy 4.1.b: The City shall establish a Community Potable Water Service Area, which includes all areas where potable water service is available. Water service shall be deemed available if:

3. A water main exists within $\frac{1}{4}$ mile of any residential subdivision with more than 5 units, or any multi-family residential development, or any commercial development, or any industrial development and water service can be accessed through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.

Evaluation and Findings of Consistency with Policy 4.1.b: The proposed development is located within the City's utility service area and will connect to the City's potable water system.

Policy 4.1.c: The City establishes the following level of service standards for potable water:

1. Quality: Compliance with all applicable standards of the U.S. Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection.
2. Quantity: System-wide potable water distribution and treatment will be sufficient to provide a minimum of 275 gallons per day per equivalent residential unit (ERU) on an average annual basis. Plant expansion shall be planned in accordance with Florida Administrative Code.

3. **System Capacity:** If the volume of existing use in addition to the volume of the committed use of the City's potable water facility reaches 85% of the permitted design capacity, no further development orders or permits for projects without reserved capacity will be issued until additional capacity becomes available or funds to increase facility capacity are committed in accordance with a development agreement.

Evaluation and Findings of Consistency with Objective 4.1.c: An analysis of the development's impacts to potable water facilities is provided within this report. The development will not adversely affect the level of service for potable water facilities.

Conservation & Open Space Element

Policy 1.2.a:

The City shall ensure that land use designations, development practices and regulations protect native communities and ecosystems, and environmentally sensitive lands.

Policy 1.3.e:

The City's land use designations shall offer the best possible protection to threatened and endangered species.

Evaluation and Findings of Consistency with Policy 1.2.a and 1.3.e: The subject property does not contain any environmentally sensitive lands, and is not located adjacent to large tracts of land or land designated for conservation. The development therefore will encourage development practices which provide for the protection of native communities and ecosystems.

Objective 1.10: Wetlands. The City shall protect and preserve wetland values and functions from adverse, human caused, physical and hydrologic disturbances.

Policy 1.10.g: The City shall require natural vegetative buffers around wetlands to protect the fragile ecosystems they sustain. Buffers, measured from the outer edge of the wetland, shall be created as established in the following table.

Evaluation and Findings of Consistency with Objective 1.10 and Policy 1.10.g: Turkey Creek and associated wetlands are located on the subject property. Buffers from the Creek and associated wetlands have been provided in accordance with the requirements of the City of Alachua Comprehensive Plan and Land Development Regulations. The development therefore will encourage development practices which provide for the protection of native communities and ecosystems.

Map 4. Environmental Features



Evaluation: Wetlands have been identified on the subject property and appropriate development standards have been adhered to, including minimum natural buffer from wetland boundary.

Strategic Ecosystems were identified by an ecological inventory project in a report prepared for Alachua County Department of Growth Management in 1987. The purpose of the inventory was to identify, inventory, map, describe, and evaluate the most significant natural biological communities in private ownership in Alachua County. The subject property is not located within or adjacent to a Strategic Ecosystem.

Evaluation: The subject property is not located within or adjacent to a Strategic Ecosystem, therefore, the development will not adversely impact any Strategic Ecosystem(s) identified within the ecological inventory report.

Regulated Plant & Animal Species

The subject property is not known to contain any species identified as endangered, threatened, or of special concern. The Florida Natural Areas Inventory (FNAI) has identified areas throughout the State of Florida which may contain good quality natural communities. This data layer is known as the Potential Natural Areas (PNA) data layer, and identifies privately owned lands that are not managed or listed for conservation purposes. These areas were delineated by FNAI scientific staff through interpretation of natural vegetation from 1988-1993 FDOT aerial photographs and from input received during Regional Ecological Workshops held for each regional planning council. These workshops were attended by experts familiar with natural areas in the region. Potential Natural Areas were assigned ranks of Priority 1 through Priority 5 based on size, perceived quality, and type of natural community present. The areas included in Priority 5 are exceptions to the above criteria. These areas were identified through the same process of aerial photographic interpretation and regional workshops as the PNA 1 through 4 ranked sites, but do not meet the standard criteria.

Evaluation: No species identified as endangered, threatened, or of special concern are known to exist on the subject property. The FNAI PNA data layer does indicate that there are lands classified as potentially having habitat which could support species identified as endangered, threatened, or of special concern, but this data is not intended for use in a regulatory decision making process. If a regulated plant or animal species is identified during development, the applicant must adhere to the applicable standards in the City of Alachua Comprehensive Plan and the Land Development Regulations.

Soil Survey

Each soil type found on the subject property is identified below. The hydrologic soil group is an indicator of potential soil limitations. The hydrologic soil group, as defined for each specific soil, refers to a group of soils which have been categorized according to their runoff-producing characteristics. These hydrologic groups are defined by the Soil Survey of Alachua County, Florida, dated August 1985. The chief consideration with respect to runoff potential is the capacity of each soil to permit infiltration (the slope and kind of plant cover are not considered, but are separate factors in predicting runoff.) There are four hydrologic groups: A, B, C, and D. "Group A" soils have a higher infiltration rate when thoroughly wet and therefore have a lower runoff potential. "Group D" soils have very lower infiltration rates and therefore a higher runoff potential.

Table 2. Soils

Soil Type	Hydrologic Group	Drainage Class	Small Commercial Buildings	% of Subject Property (may not total to 100% due to rounding)
Pelham Sand	B/D	Poorly Drained	Very Limited	77.70%
Millhopper sand, 0 to 5 percent slopes	A	Moderately well drained	Not Limited	22.30%

Evaluation: The soil types present on the subject property do pose some limitations for small commercial buildings. According to the geotechnical report submitted by the applicant, conventional reinforced shallow foundations are not recommended as the clayey soils pose a high risk for expansiveness. Special foundation design consideration and undercutting of expansive soils will be required to address the soil limitations.

Flood Potential

Panel 0143E of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Series, dated November 2, 2018, indicates that the site is located in Flood Zone X (areas determined to be outside of the 500-year floodplain). See Map 4 above.

Evaluation: The subject property is located in Flood Zone X (areas determined to be outside of the 500-year floodplain), therefore there are no issues related to flood potential.

Karst-Sensitive Features

Karst sensitive areas include geologic features, such as fissures, sinkholes, underground streams, and caverns, and are generally the result of irregular limestone formations. The subject property is located within an area where sinkholes may potentially allow hydrologic access to the Floridan Aquifer System, however, best available data indicates that no sinkholes or known indicators of sinkhole activity are located on the subject property.

Evaluation: There are no geologic features located on the subject property which indicate an increased potential for karst sensitivity.

Wellfield Protection Zones

Policy 7.2.1 of the Future Land Use Element of the City's Comprehensive Plan establishes a 500 foot radius area around each city-owned potable water well.

Evaluation: The subject property is not located within a City of Alachua wellhead protection zone as identified on the City of Alachua Wellfield Primary Protection Zones Map of the City's Comprehensive Plan, therefore, there are no issues related to wellfield protection.

Historic Structures/Markers and Historic Features

The subject property does not contain any historic structures as determined by the State of Florida and the Alachua County Historic Resources Inventory. Additionally, the subject property is not located within the City's Historic Overlay District, as established by Section 3.7 of the City's Land Development Regulations.

Evaluation: There are no issues related to historic structures or markers.

COMPLIANCE WITH LAND DEVELOPMENT REGULATIONS

SITE PLAN STANDARDS

Section 2.4.9(E) of the City's Land Development Regulations (LDRs) establishes the standards with which all site plans must be found to be compliant. The application has been reviewed for compliance with the standards of Section 2.4.9(E.) An evaluation and findings of the application's compliance with the standards of Section 2.4.9(E) is provided below.

(E) Site Plan Standards

A Site Plan shall be approved only upon a finding the applicant demonstrates all of the following standards are met:

(1) *Consistency with Comprehensive Plan*

The development and uses in the Site Plan comply with the Goals, Objectives and Policies of the Comprehensive Plan.

Evaluation & Findings: An analysis of the application's consistency with the Comprehensive Plan has been provided in this report.

(2) *Use Allowed in Zone District*

The use is allowed in the zone district in accordance with Article 4: *Use Regulations*.

Evaluation & Findings: The subject property is zoned PUD (Planned Unit Development), which permits the uses specified in the site plan. The site plan proposes 7,500 square feet of general office building, 14,198 square feet of shopping center (retail) and 3,300 square feet of drive through restaurant uses with customer and employee parking, storm water management facility improvements, paving, grading, and associated utility infrastructure. While exact final uses are not known, any proposed use in the future would be required to abide by the conditions of this site plan, and any other conditions or standards found in the PUD Zoning Ordinance (Ordinance 05-07).

Type of Trade _____ §

Supermarket
Eating and Drinking
Books and Stationery
Hardware, Paint
Health Services
Apparel and Accessories
Real Estate
Bank/S & L
Professional Services
(Barber Shop, Beauty Salon,
Laundry)
Service Station
Movie Theatre
Miscellaneous

(3) Zone District Use-Specific Standards

The development and uses in the Site Plan comply with Section 4.3, *Use-Specific Standards*.

Evaluation & Findings: While specific uses are unknown at this time, there are no use specific standards applicable to the office or sales establishment uses. Section 4.3.4(A)(2) provides for use specific standards for restaurants with drive through service. The proposed application conforms with those use-specific standards.

(4) Development and Design Standards

The development proposed in the Site Plan and its general layout and design comply with all appropriate standards in Article 6: *Development Standards*.

Evaluation & Findings: The application has been reviewed for and is found to be in compliance with all relevant provisions of Article 6, *Development Standards*, including but not limited to *Section 6.1*, Off Street Parking & Loading Standards, *Section 6.2*, Tree Protection/Landscape/Xeriscape Standards, *Section 6.3*, Fencing Standards, *Section 6.4*, Exterior Lighting Standards, *Section 6.7*, Open Space Standards, *Section 6.8*, Design Standards for Business Uses, and *Section 6.9*, Environmental Protection Standards. Compliance with the relevant provisions of the aforementioned LDR sections is demonstrated within the Site Plan.

The applicant has applied for and received approval for an Alternative Landscape Plan through the Land Development Regulations Administrator because of the site constraints created by the presence of Turkey Creek and associated wetland, and the presence of utilities at the front property line.

While the total number of landscape trees is less than required, the total number of trees required to meet mitigation standards has been met.

(5) *Subdivision Standards*

In cases where a subdivision has been approved or is pending, the development proposed in the Site Plan and its general layout and design comply with all appropriate standards in Article 7: *Subdivision Standards*.

Evaluation & Findings: No subdivision is proposed as a part of this application.

(6) *Complies with All Other Relevant Laws and Ordinances*

The proposed site plan development and use complies with all other relevant City laws and ordinances, state and federal laws, and regulations.

Evaluation & Findings: The application is consistent with all other relevant City ordinances and regulations, including Ordinance 05-07 (Rezoning Ordinance).

COMPLIANCE WITH SECTION 6.6.3, RESIDENTIAL PROTECTION STANDARDS

Section 6.6.3 of the City's Land Development Regulations (LDRs) establishes additional conditions that may be imposed for development located within 500 feet of any residential district or adjacent to any existing single-family or two-family development. The site is currently a predominantly wooded area and adjacent to single – family development located to the south. To mitigate any potential impacts, conditions of site plan approval have are proposed that would limit delivery activity and specific uses on the property.

COMPLIANCE WITH SECTION 6.8, DESIGN STANDARDS FOR BUSINESS USES

Section 6.8 of the City's Land Development Regulations (LDRs) establishes design standards for business uses. The standards established within Section 6.8.2 apply to business use types, except for single tenant retail sales and services uses greater than or equal to 20,000 square feet or unless otherwise exempted within Subsection 6.8.1(B.). Uses exempt from the design standards pursuant to Subsection 6.8.1(B) include use types within the industrial services, manufacturing and production, warehouse and freight movement, waste-related services, and wholesale sales use categories, except when all or a portion of a building utilized for one of these uses is located within 500 feet of US Highway 441 right-of-way. The standards established within Section 6.8.3 apply to single tenant retail sales and services uses greater than 20,000 square feet.

The proposed development is classified as a “business use type” that is not a single tenant retail sales and service use greater than 20,000 square feet, and therefore subject to the requirements of Section 6.8.2. The proposed application has been reviewed for and found to be in compliance with the standards of Section 6.8.2.

PUBLIC FACILITIES IMPACT

Traffic Impact

Table 4. Affected Comprehensive Plan Roadway Segments¹

Segment Number ^{2, 3}	Segment Description	Lanes	Functional Classification	Area Type	LOS
6 (106)	US 441 (from CR25A to NW 126 th Ave)	4/D	Principle Arterial	Urban	D
7 (4127)	US 441 (from MPO Boundary to CR 25A)	4/D	Principle Arterial	Urban	D

¹ Source: City of Alachua Comprehensive Plan, Transportation Element.
² For developments generating fewer than 1,000 trips, affected roadway segments are identified as those located partially or wholly within ½ mile of the development's ingress/egress [Section 2.4.14(H)(2) of the LDRs.]
³ FDOT roadway segment number shown in parenthesis (when applicable.) For the purposes of concurrency management, COA Comprehensive Plan segments that make up a portion of a larger FDOT roadway segment will be evaluated together when determining post development roadway capacity.

Table 5. Trip Generation¹

Land Use	AADT (Enter/Exit) ²	AM Peak Hour (Enter/Exit) ²	PM Peak Hour (Enter/Exit) ²
General Office Building (ITE Code 710)	86 (30/30)	34 (29/5)	10 (2/8)
Shopping Center (ITE Code 820)	1,594 (797/797)	13 (8/5)	128 (61/67)
Fast Food Restaurant with Drive-through Restaurant (ITE Code 934)	1,568 (784/784)	134 (68/66)	109 (57/52)
Total Trips	3,248 (1,624/1,624)	181 (105/76)	247 (120/127)

¹ Source: ITE Trip Generation, 10th Edition.
² Formulas: **ITE Code 710**– AADT–Ln(Trips)= 0.97(Ln(7.50))+2.50 (50% entering/50% exiting); AM Peak Hour – (Trips)=0.94(7.50)+26.49 (86% entering/14 % exiting); PM Peak Hour – Ln(Trips)= 0.95 (Ln(7.50))+0.36 (16 % entering/ 84% exiting). **ITE Code 820**- AADT- Ln(Trips)= .68 (Ln(14.198))+5.57 (50% entering; 50% exiting); AM Peak Hour – 0.94 trips per ksf gfa = 0.94 x 14.198 = 13.34 trips (62% entering/ 38% exiting); PM Peak Hour- Ln(Trips)= 0.74 (Ln(14.198))+2.89 (48% entering/ 52% exiting). **ITE Code 934** – AADT- 470.95 trips per ksf gfa= 470.95 x 3.33 = 1,568 trips (50% entering/ 50% exiting); AM Peak Hour - 40.19 trips per ksf gfa = 40.19 * 3.33= 128 (51% entering/ 49% exiting); PM Peak Hour- 32.67 trips per ksf gfa = 32.67 x 3.33 = 109(52% entering/ 48% exiting).

Table 6a. Projected Impact on Affected Comprehensive Plan Roadway Segments (AADT)

Traffic System Category	US 441 (from CR25A to NW 126 th Ave) ¹	US 441 (from MPO Boundary to CR 25A)
Average Annual Daily Trips		
Maximum Service Volume ²	45,700	43,000
Existing Traffic ³	18,579	21,000
Reserved Trips ⁴	23	5
Available Capacity ⁴	27,098	21,995
Increase/Decrease in Daily Trips Generated by Development ⁵	3,248	2274
Residual Capacity After Development's Impacts⁶	23,850	19,721
¹ FDOT roadway segment number shown in parenthesis (when applicable.) For the purposes of concurrency management, COA Comprehensive Plan segments that make up a portion of a larger FDOT roadway segment will be evaluated together when determining post development roadway capacity. ² Source: FDOT 2018 Quality/Level of Service Handbook, Generalized Annual Average Daily Volumes and Generalized Peak Hour Two-Way Volumes for Areas Transitioning to Urbanized Areas or Areas of 5,000 Not in Urbanized Areas. ³ Florida State Highway System Level of Service Report 2016, Florida Department of Transportation, District Two (published August 2017). ⁴ Source: City of Alachua November 2019 Development Monitoring Report. ⁵ Trip Distribution: US 441 (from CR25A to NW 126 th Ave)- 100%; US 441 (from MPO Boundary to CR 25A- 70%. ⁶ The application is for a Final Development Order. Facility capacity and concurrency will be reserved.		

Table 6b. Projected Impact on Affected Comprehensive Plan Roadway Segments (PM Peak Hour)

Traffic System Category	US 441 (from CR25A to NW 126 th Ave)) ¹	US 441 (from MPO Boundary to CR 25A)
Maximum Service Volume ²	4,110	3,870
Existing Traffic ³	1,765	1,890
Reserved Trips ⁴	2	19
Available Capacity ⁴	2,343	1,961
Increase/Decrease in PM Peak Hour Trips Generated by Development ⁵	247	173
Residual Capacity After Development's Impacts⁶	2,096	1,788
¹ FDOT roadway segment number shown in parenthesis (when applicable.) For the purposes of concurrency management, COA Comprehensive Plan segments that make up a portion of a larger FDOT roadway segment will be evaluated together when determining post development roadway capacity. ² Source: FDOT 2018 Quality/Level of Service Handbook, Generalized Annual Average Daily Volumes and Generalized Peak Hour Two-Way Volumes for Areas Transitioning to Urbanized Areas or Areas of 5,000 Not in Urbanized Areas. ³ Florida State Highway System Level of Service Report 2016, Florida Department of Transportation, District Two (published August 2017). ⁴ Source: City of Alachua November 2019 Development Monitoring Report. ⁵ Trip Distribution- US 441 (from CR25A to NW 126 th Ave)- 100%; US 441 (from MPO Boundary to CR 25A- 70%. ⁶ The application is for a Final Development Order. Facility capacity and concurrency will be reserved.		

Evaluation: The impacts generated by the development will not adversely affect the Level of Service (LOS) of the roadway segment identified above; therefore, the demand generated by the development is acceptable.

Driveway Connection to 441

As a part of Staff’s review of this application, the City contracted with Volkert, Inc. to complete an independent review of the Traffic Impact Analysis and proposed site design. Because the driveway connection is being made to a State maintained roadway (US 441), the City’s authority is limited over the design and potential required improvements. The City has forwarded its concerns regarding the design of the driveway connection to the Florida Department of Transportation (FDOT). The letter from the City and the response letter from FDOT are included with this staff report in Exhibit “B”. To mitigate any potential impacts caused by the design of the driveway, Staff has proposed a condition of site plan approval that would limit the number and size of drive-through restaurant uses as these uses generate a high amount of traffic. The proposed condition indicates that if the applicant wishes to increase the size or add more than one drive-through restaurant, then a new traffic impact analysis would be required to determine whether additional improvements to the site would be needed.

Potable Water Impacts

Table 7. Potable Water Impacts

System Category	Gallons Per Day
Current Permitted Capacity ¹	2,300,000
Less Actual Potable Water Flows ¹	1,295,603
Reserved Capacity ¹	115,938
Available Capacity	888,459
Projected Potable Water Demand from Application ³	4,125
Residual Capacity	884,334
Percentage of Permitted Design Capacity Utilized	61.56%
<i>Sources:</i> ¹ City of Alachua May 2019 Development Monitoring Report. ² Source: Chapter 64E-6, Florida Administrative Code; Formula: 110% of wastewater demand = 15 gp 100 sf (25,000/100 x 15 = 3,750x 1.10 = 4,125)	

Evaluation: The impacts generated by the development will not adversely affect the Level of Service (LOS) for potable water facilities; therefore, the demand generated by the development is acceptable.

Sanitary Sewer Impacts

Table 8. Sanitary Sewer Impacts

System Category	Gallons Per Day
Treatment Plant Current Permitted Capacity ¹	1,500,000
Less Actual Treatment Plant Flows ¹	729,000
Reserved Capacity ¹	109,855
Available Capacity	661,145
Projected Sanitary Sewer Demand from Application ²	3,750
Residual Capacity	692,301
Percentage of Permitted Design Capacity Utilized	56.17%
<i>Sources:</i> ¹ City of Alachua May 2019 Development Monitoring Report. ² Source: Chapter 64E-6, Florida Administrative Code; Formula: $15 \text{ gp } 100 \text{ sf } (25,000/100 \times 15 = 3,750)$	

Evaluation: The impacts generated by the development will not adversely affect the Level of Service (LOS) for sanitary sewer facilities; therefore, the demand generated by the development is acceptable.

Solid Waste Impacts

Table 9. Solid Waste Impacts

System Category	Pounds Per Day	Tons Per Year
Demand from Existing Development ¹	40,620.00	7,413.15
Reserved Capacity ²	8,380.67	1,529.47
Demand Generated by Application ²	300	54.75
New River Solid Waste Facility Capacity ⁴	50 years	
Sources: 1 City of Alachua June 2019 Development Monitoring Report. 2 Sincero and Sincero; Environmental Engineering: A Design Approach. Prentice Hall, New Jersey, 1996		

Evaluation: The impacts generated by the development will not adversely affect the Level of Service (LOS) of solid waste facilities; therefore, the demand generated by the development is acceptable.

Recreation Facilities

The proposed development is a nonresidential development. Therefore, there are no impacts to recreation facilities. The development will have no impact to the Level of Service (LOS) of recreation facilities.

Public School Facilities

The proposed development is a nonresidential development. Therefore, there are no impacts to public school facilities. The development will have no impact to the Level of Service (LOS) of public school facilities.

EXHIBIT “A”
TO
GOLF PLAZA; NATURE VALLEY HARVEST, LTD.

SITE PLAN
STAFF REPORT

CONDITIONS:

1. The applicant agrees it shall obtain all other applicable local, state, and federal permits before the commencement of the development.
2. The applicant agrees it shall provide Public Utilities Easements as depicted on the Site Plan. Public Utilities Easements as depicted on the Site Plan shall be approved by the City and recorded in the Public Records of Alachua County prior to applying for a building permit. The applicant shall incur all costs associated with the preparation and recordation of such Public Utilities Easements.
3. The subject property shall be limited to one drive through restaurant use not to exceed 3,300 square feet. If the applicant proposes more than one drive through restaurant use or a single drive through restaurant use that exceeds 3,300 square feet, a revised traffic impact analysis (in a form acceptable to the City) shall be provided and all applicable local, state, and federal permits shall be obtained. Prior to the approval of more than one drive-through restaurant or a drive through restaurant use that exceeds 3,300 square feet, the applicant shall apply for any required permits and construct, at the developer’s or applicant’s expense, any needed improvements identified in the traffic impact analysis.
4. Deliveries to the subject property by any vehicle with a Gross Vehicle Weight Rating greater than 22,000 pounds shall be limited to between 7:00 AM and 7:00 PM on week days (Monday through Friday) and to between 8:00 AM and 6:00 PM on weekend days (Saturday and Sunday).
5. The applicant agrees that Conditions 1-4 as stated above do not inordinately burden the land and shall be binding upon the property owner, including any subsequent property owners, successors, or assigns, and that the development shall comply with Conditions 1 -4 as stated herein.

**EXHIBIT “B”
TO
GOLF PLAZA; NATURE VALLEY HARVEST, LTD.
SITE PLAN
STAFF REPORT**

**SUPPORTING APPLICATION MATERIALS
SUBMITTED BY CITY STAFF TO THE
PLANNING AND ZONING BOARD**



City of Alachua

ADAM BOUKARI
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR KATHY WINBURN, AICP

November 20, 2019

Daniel Young, P.E.
CHW, Inc.
11801 Research Drive
Alachua, FL 32615

Also submitted electronically to daniely@chw-inc.com

RE: Notice of Hearing to be Scheduled for Golf Plaza Site Plan

Dear Mr Young:

On November 6, 2019 the City of Alachua received your updated application for the above referenced project.

Based on review of the materials submitted, the City has determined that the application can now be scheduled for a hearing before the Planning and Zoning Board.

You must provide two (2) *double-sided, three-hole punched, color sets* of each **complete** application package, seven (7) full size sets of site plans, and a digital copy of all materials in PDF format on a CD *no later than 10 business days prior to the PZB Meeting at which your application is scheduled to be heard*. The application has been scheduled for the **December 10, 2019 Planning and Zoning Board meeting** (please note meeting time has been moved to 7:30 PM); therefore, the above referenced materials must be submitted to the City no later than 5 PM on **Tuesday, November 26, 2019**. Materials may be submitted earlier than this date.

Should you have any questions, please feel free to contact me at (386) 418-6100, ext. 108 or via email at ahall@cityofalachua.com.

Sincerely,

Adam Hall, AICP
Planner

c: Kathy Winburn, AICP, Planning Director
Justin Tabor, AICP, Principal Planner
File



JBrown Professional Group

CIVIL ENGINEERING • LAND SURVEYING • PLANNING

3530 NW 43rd Street • Gainesville, FL 32606 • 352.375.8999 • JBProGroup.com

November 19, 2019

Mr. Adam Hall, AICP
Planner
City of Alachua
Office of Planning & Community Development
P.O. Box 9
Alachua, FL 32616-0009

Re:

Dear Mr. Hall:

As you requested, we have reviewed the Golf View Plaza drawings and other materials provided to us for the above referenced project. The drawings reviewed were created by CHW and dated November 17, 2019. The latest plans have addressed all of our comments, and we find the project approvable from an engineering review standpoint.

Sincerely,

A. J. "Jay" Brown, Jr., PE
President, JBrown Professional Group Inc.

Cc: Daniel Young



City of Alachua

ADAM BOUKARI
CITY MANAGER

RODOLFO VALLADARES, P.E.
PUBLIC SERVICES DIRECTOR

INTER-OFFICE COMMUNICATION

DATE: Oct 31th, 2019

TO: Kathy Winburn, AICP
Planning & Community Development Director

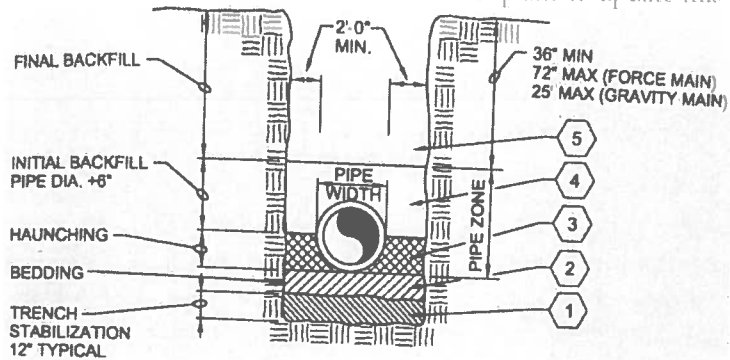
FROM: Rodolfo Valladares, P.E.
Public Services Director
Tom Ridgik, P.E.
Engineering Supervisor

TR 10/31/2019

RE: Final Development Plans – Golf Plaza – Public Services Review

Public Services has reviewed the Golf Plaza (October 21st Submittal) Final Development Plans and offer the following comments. Review was specific to the Public Services Utilities.

NO.	COMMENTS
1.	Previous Submittal Comment Sheet C0.10 Water and Wastewater General Notes • Modify Note 1 so it includes a reference to "City of Alachua, Department of Public Services, Requirements for Design and Construction, Potable Water, Reclaimed Water and Wastewater." • Minor Comment, Note 13, change spelling to "CONTRACTOR". Current Submittal Comment Approved
2.	Previous Submittal Comment Sheet C0.10 Electric Service General Notes • It appears that someone other than "GRU Energy Delivery" is providing the electric design. Thus, please modify Note 2. Current Submittal Comment Approved

NO.	COMMENTS
3.	Previous Submittal Comment Sheet C0.11 Wastewater Legend Existing gravity wastewater mains are called out as "SS". Please call out on the abbreviation list Current Submittal Comment Approved
4.	Previous Submittal Comment Sheet C2.30 - Suggest that a detail be added for a cleanout. - Suggest that a detail be added for a PRZ Backflow Preventer. Previous August Submittal Comment Cleanout: DWG C3.10 says that City of Alachua (CoA) maintenance ends at the existing SS lines, meaning CoA is not responsible for maintaining the laterals. Please confirm. If CoA is responsible for maintaining the laterals, the CoA would prefer that tracer wires be added to the laterals. - As requested, a detail for a backflow preventer has been added to C 2.30. Please confirm that the CoA is responsible to maintain the backflow preventers that are shown on several insets on C3.10. If so, the applicable CoA detail requires freeze protection. The backflow preventers as shown are 1-inch, which are susceptible to freezing. CoA's standard detail requires freeze protection for above ground pipe, but does not call out methods. Suggest that this issue be discussed at the next planning meeting, or call Tom Ridgik @ (352) 418-6162. Revise and Resubmit after discussion. Current Submittal Comment Approved
5.	Previous Submittal Comment CoA Standard Detail 420 is in need of revision. The CoA plans to update this detail in the soon-to-be- 

NO.	COMMENTS
	revised Design and Construction Manual. In the interim, please replace the detail as shown below. (Note: CHW may have already revised this detail in a previous project.) NOTES: 1. TRENCH STABILIZATION SHALL BE PROVIDED TO A DEPTH OF 12-INCHES. THE MATERIAL SHALL BE NO. 57 STONE. 2. BEDDING SHALL BE A MINIMUM OF 6-INCHES AND COMPOSED OF IMPORTED GRANULAR FILL. COMPACT TO 95% STANDARD PROCTOR, AASHTO T-99. 3. HUNCHING PORTION OF THE PIPE ZONE SHALL BE PLACED TO THE SPRINGLINE OF THE PIPE AND COMPOSED OF IMPORTED GRANULAR FILL. COMPACT TO 95% STANDARD PROCTOR ASSHTO T-99. 4. INITIAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180. FROM THE SPRINGLINE OF THE PIPE TO TWO (2) FEET ABOVE THE PIPE THE SOIL SHALL BE CAREFULLY BACKFILLED IN 6-INCH LIFTS AND THE SOIL CONSOLIDATED WITH THE HAND OPERATED TAMPING MACHINE (OR AS REQUIRED BY CITY, COUNTY, OR STAT INSPECTORS). 5. FINAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180. AFTER PLACEMENT AND COMPACTION OF THE INITIAL BACKFILL, THE BALANCE OF THE BACKFILL MATERIAL MAY BE MACHINE PLACED OR AS REQUIRED BY THE INSPECTOR AND SHALL NOT CONTAIN ANY ROCKS OR DEBRIS. 6. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION. 7. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW. 8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. UTILITIES SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION. THE BOTTOM OF THE TRENCH SHALL NOT BE EXCAVATED BELOW THE SPECIFIED GRADE. IF UNDERCUTTING OCCURS, THE BOTTOM OF THE TRENCH SHALL BE BROUGHT UP TO THE ORIGINAL GRADE WITH APPROVED MATERIAL AND THOROUGHLY COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR. 9. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. Previous August Submittal Comment The revised detail now shown on C 2.30 does not call out the trench width. Please add the dimensions called out on the above detail (2 feet 0 inches on either side of the pipe). Approved as Noted. Current Submittal Comment Approved
6.	Previous Submittal Comment Sheet C3.10 • Inset CC: Item 7 is a 12- x 3-inch tap and wet valve. Inasmuch as 3-inch piping and fittings are not a CoA standard, please replace with a 12- x 4-inch tap and wet valve. Please select downstream piping such that 3-inch piping is not installed. Please change fitting schedule. Current Submittal Comment Approved

NO.	COMMENTS
7.	Previous Submittal Comment Sheet C3.11 • Inset CC: Same comment as above. Current Submittal Comment Approved
8.	Previous Submittal Comment Sheets C3.10 and C3.11 • Please show the existing easement on these two drawings. Also add note referencing this easement: namely, "Alachua County Clerk of the Court, Book 3866, Page 12". Current Submittal Comment Approved
9.	Previous Submittal Comment Sheet E-1: Please modify Construction Notes on this Drawing as per Attachment L. Current Submittal Comment Approved
END OF COMMENTS	

Please advise if you have any questions or require additional information.

cc: Justin Tabor – AICP Principal Planner

Adam Hall – AICP Planner

Harry Dillard – Lead Engineering Technician



City of Alachua

ADAM BOUKARI
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR KATHY WINBURN, AICP

October 30, 2019

Adam Doyle
FDOT
5301 NE 39th Ave
MS 2402
Gainesville, FL 32609

Also submitted electronically to adam.doyle@dot.state.fl.us

RE: Golf Plaza Site Plan Application – Access Permit 2019-A-291-00027

Dear Mr Doyle:

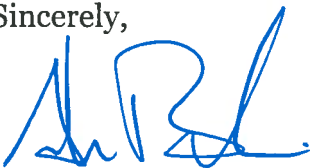
On October 17, 2019 the City of Alachua received a revised application for the approval of a Site Plan for the Golf Plaza project, which proposes the construction of 9,880 square feet of retail space, 7,800 square feet of office space, and 8,320 square feet of restaurant space in three proposed buildings located on a 8.24 acre subject property (Alachua County Parcel Nos. 05900-004-001 through 05900-004-010). The related FDOT Access Permit Number is 2019-A-291-00027. The development application was forwarded to Volkert, Inc. for an independent review. Based on the review from Brian Kanely, P.E., of Volkert, Inc., the City has significant concern regarding the proposed design of the point of ingress/egress onto US Highway 441 associated with the project and the need for an inbound right turn lane on US Highway 441 into the project. I am writing today to both request the Department further review the driveway connection permit associated with this project, and to formally notify the Department of the City of Alachua's significant concerns regarding the same.

City of Alachua staff believes that the current proposed design for the project's ingress/egress onto US Highway 441 may create a potential for an increased number of rear end crashes between southbound vehicles on US 441 slowing to enter the site and southbound vehicles accelerating to leave the acceleration lane from Turkey Creek Boulevard onto US Highway 441. The distance between the end of the taper for the acceleration lane and the proposed entry point is approximately 150 feet and given the speed of vehicles on that segment of US Highway 441 (65 mph or greater), there will be less than 2 seconds for a driver who has accelerated up to merge speed to realize a car has slowed or stopped to turn into the proposed development. Generally, drivers using the acceleration lane are focused on the merging maneuver, especially during peak traffic times, to ensure the right most lane on US 441 is safe to enter from the acceleration lane. Additionally, glare may be of concern during certain times of the year.

While the City realizes that the FDOT Driveway Information Guide would not necessarily require the placement of a right turn lane in a typical situation, it is also true that the Information Guide does not consider the presence of an acceleration lane so close to the driveway connection. It is the City's opinion that this unique situation warrants special consideration by the Florida Department of Transportation.

City of Alachua Staff would be more than happy to meet to further discuss this project. If there are any questions or if you would like to set up a meeting, please feel free to reach out to Adam Hall, AICP at 386-418-6125 or at ahall@cityofalachua.com.

Sincerely,



Adam Boukari
City Manager

Attachment: Letter dated October 30, 2019 from Volkert, Inc. "Independent Review of the Golf Plaza for the City of Alachua, FL"

cc: Kathy Winburn, AICP, Planning & Community Development Director
Justin Tabor, AICP, Principal Planner
Adam Hall, AICP, Planner
Project File



Volkert, Inc.

3501 South Main Street
Suite 2
Gainesville, FL 32601

Office 352.372.9594
Fax 352.371.3988
gainesville@volkert.com

www.volkert.com

October 30, 2019

Mr. Adam Hall, AICP
Planner, Office of Planning and Community Development
City of Alachua
15100 NW 142nd Terrace
P.O. Box 6
Alachua, FL 32616

Subject: Independent Review of the Golf Plaza for the City of Alachua, FL.

Dear Mr. Hall:

Attached is the completed independent review of the Traffic Study for the Golf Plaza located on the south/west side of US 441 immediately north of NW 59th Terrace.

Thank you for the opportunity to provide transportation engineering services for the City of Alachua, FL. If you have any questions or comments or require additional information, please contact me at 352-240-7459 (direct line) or 352-262-3580 (cell phone).

Sincerely,

Volkert, Inc.

Brian Kanely, P.E.
Senior Traffic Engineer

CC: Gene Quinn

Attachment: Independent Review

Office Locations:

Birmingham, Foley, Huntsville, Mobile, Alabama • Gainesville, Orlando, Pensacola, Tampa, Florida • Atlanta, Georgia
Collinsville, Illinois • Baton Rouge, Slidell, Louisiana • Biloxi, Mississippi • Jefferson City, Missouri • Raleigh, North Carolina
Chattanooga, Tennessee • Alexandria, Virginia • Washington, D.C.



**Independent Review of the Traffic Study and Site Plan for the Golf Plaza
Located on the West/South Side of US 441 between Turkey Creek Blvd
And NW 59th Terrace in the City of Alachua, Florida
Prepared by Volkert, Inc., October, 2019**

At the request of the City of Alachua, FL, Planning and Community Development Department, Volkert, Inc., conducted an independent review of the Traffic Study and site plan for the Golf Plaza. This project is located on the west/south side of US 441, immediately north of NW 59th Terrace and south of Turkey Creek Blvd in the City of Alachua, Florida. The Traffic Study and site plan was submitted to the City of Alachua in June, 2019.

Per the Traffic Study (Study), the project will consist of three buildings and is planned to provide approximately 14,200 square feet of retail space, 3,330 square feet for a fast food restaurant with a drive through window and 7,500 square feet of General Office Building space. The site is located on the west/south side of US 441 (FDOT highway) between Turkey Creek Blvd (private road) and NW 59th Terrace (City of Alachua road). Per the Study, the buildout year for the project is 2020. The Project is expected to generate a total of 3,248 daily trips. The Project will be accessed via a full access driveway off of NW 59th Terrace (just south of US 441) and a right in/right out driveway on US 441.

The independent review of the Study and site plan has produced the following findings.

Trip Generation

This section of the Study calculates the anticipated project trip generation using the Institute of Transportation Engineers Trip Generation Manual, 10th Edition for the anticipated land uses. The daily, AM peak and PM peak hour trips generated by the project were correctly calculated. The Study uses total driveway volumes to analyze the site access (no adjustments were made for pass-by capture traffic). The average weekday total trips generated are calculated to be 3,248 trips with AM peak hour trips of 181 entering and 105 exiting and PM peak hour trips of 120 entering and 127 exiting. The Study matches the proposed land uses shown on the site plan. The trip generation data is correctly calculated and there are no comments.

Data Collection

This section of the Study documents the existing traffic volumes at the following two intersections adjacent to the project:

- US 441 at Turkey Creek Blvd (private road).
- US 441 at NW 59th Terrace (City of Alachua road).

The existing traffic volumes were adjusted based on the peak season factor provided by the FDOT. The actual historical annual growth rate on US 441 at the project location is less than 1%. Per the project Methodology Letter, an adjusted growth rate of 1% was used. Based on the FDOT peak season factor and the 1% growth rate, the Study calculates the 2020 traffic volumes (anticipated project buildout year) at the two adjacent intersections. The 2020 year traffic volumes were correctly calculated and shown on the figures in the Study and there are no comments.

Trip Distribution

This section of the Study assigned project trips to the adjacent roadways. Traffic counts obtained at the two adjacent intersections were used to estimate the project trip generation to the north (towards the City of Alachua) and to the south (towards the City of Gainesville). A distribution of 30% to the north and 70% to the south was calculated and applied to the project trips. The 30/70 distribution is reasonable and consistent with other traffic studies Volkert has reviewed for the City of Alachua along this portion of US 441.

The distributed project trips were added to the 2020 traffic counts to produce the 2020 buildout AM and PM peak hour traffic volumes at the two adjacent intersections and at the right in/right out project driveway on US 441. The 2020 buildout traffic volumes were correctly calculated and shown on the figures in the Study and there are no comments.

Analysis

This section of the Study performed an analysis to determine the level of service (LOS), delay, volume over capacity (v/c) ratio and 95% queue length at the project intersections and right in/right out driveway during the AM and PM peak hours. The deficiencies found were on the adjacent intersection side/minor streets and documented in the Study. These deficiencies are expected due to the delay the minor street experiences during peak traffic hours due to the volume of through traffic on US 441. The Study points out that since the v/c ratios are less than 1.0, traffic backups on the minor streets would not be excessive and improvements to mitigate the minor street backups would not be recommended.

The analysis numbers and conclusions were reviewed and determined to be properly calculated. Volkert concurs with the Study analysis and conclusions.

Access Management

This section of the Study reviews the location of the right in/right out project driveway onto US 441 and does this driveway satisfy FDOT access management standards. The Study points out that the location of the right in/right out project driveway falls just short of meeting the FDOT access management spacing requirements. However, the spacing deficiency is very minor and locating the driveway as shown on the site plan is not anticipated to negatively impact the adjacent intersections on US 441. With the right in/right out driveway, project traffic is more evenly distributed with respect to accessing US 441. Also, the right in/right out driveway provides a second access to the project for emergency vehicles. Volkert concurs with the access management conclusions in the Study.

Right Turn Lane Warrant Review

This section of the Study examines whether or not a right turn lane on southbound US 441 is warranted for traffic entering the project via the right in/right out driveway. Documentation in the FDOT Driveway Information Guide (speed limit on US 441 and number of vehicles turning right into the project) was utilized to make the determination that a right turn lane was not warranted. This determination is correct based on the FDOT guidelines.

Conclusions and Recommendations

The Study concluded that the operational analysis of the anticipated project traffic would not create any traffic operational deficiencies at the two adjacent intersections on US 441. The location of the right in/right out driveway falls just short on meeting the FDOT guidelines. However, Volkert's conclusion is that the driveway is located at an acceptable location between the two adjacent intersections and having a second access to the project from US 441 is very beneficial with respect to project trip distribution and emergency vehicle access. The review of the right turn lane analysis at the right in/right out driveway correctly states a right turn lane is not warranted based on the criteria contained in the FDOT Driveway Information Guide.

Additional Volkert Comments

Volkert has two additional comments on the Golf Plaza project for the City's consideration; (1) the issue of the right turn lane at the project's right in/right out driveway on US 441, and, (2) the width of NW 59th Terrace between US 441 and the project full access driveway on NW 59th Terrace.

Right turn lane on US 441 at the right in/right out driveway: The determination of whether or not a right turn lane on US 441 for southbound traffic entering the project via the right in/right out driveway was examined in the Study. The FDOT Driveway Information Guide (Guide) was utilized to address this issue. The Guide uses a combination of the speed limit and vehicles entering to determine whether or not a right turn lane is warranted. Based on the criteria in the Guide, a right turn lane is not warranted. However, this section of US 441 has a southbound acceleration lane for traffic exiting Turkey Creek Blvd that is headed south on US 441 towards Gainesville. The end of the taper for the acceleration lane is approximately 150 – 200 feet north of the right in/right out driveway. Traffic entering the Golf Plaza project at the right in/right out driveway will be significantly decelerating to turn into the right in/right out driveway just as traffic using the acceleration lane will be merging into the outside through lane on southbound US 441. A valid question is whether or not a right turn lane is warranted on US 441 at the project's right in/right out driveway in order to reduce the potential for rear end crashes between southbound vehicles exiting the southbound acceleration lane from Turkey Creek Blvd onto US 441 and southbound vehicles on US 441 slowing to enter the right in/right out driveway. This situation is not addressed in the Guide. Volkert recommends that the City of Alachua request FDOT to review this issue given the unusual situation of the end of the southbound acceleration lane taper being so close to the right in/right out driveway on US 441 at the Golf Plaza project.

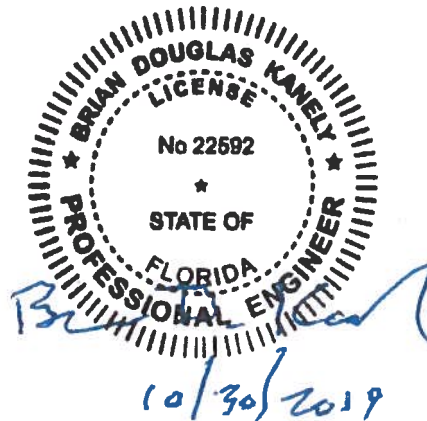
Width of NW 59th Terrace: The Golf Plaza project has a full access driveway onto NW 59th Terrace approximately 160 feet south of US 441. At the full access driveway, NW 59th Terrace is approximately 20 to 22 feet in width. The auto-turn exhibits show that the design vehicles can make their ingress/egress turns at this driveway without running off the pavement but that is only if a perfect turn is made by the driver. If the vehicle does not make a perfect turn, the tires will run off the pavement, creating tire ruts along the roadway shoulder. Volkert recommends the City of Alachua consider requiring a minimum pavement width of 24 feet along NW 59th Terrace between the project driveway and US 441. This slightly wider pavement cross section would reduce the potential for vehicles leaving the pavement and making tire ruts along the roadway shoulder. The

pavement width of NW 59th Terrace would be a maintenance issue that the City could address at some time in the future.

Volkert, Inc. appreciates the opportunity to assist the City of Alachua with this Independent Review for the Golf Plaza Project. Please contact me if you have any questions or need additional information.

Volkert looks forward to working with the City of Alachua on future projects.

Prepared by:
Brian D. Kanely, P.E.
Senior Traffic Engineer
Volkert, Inc.
October 30, 2019





City of Alachua

ADAM BOUKARI
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR KATHY WINBURN, AICP

October 31, 2019

Daniel Young, P.E.
CHW, Inc.
11801 Research Drive
Alachua, FL 32615

Also submitted electronically to daniely@chw-inc.com

RE: Golf Plaza Site Plan Application – Outstanding Development Review Comments

Dear Mr Young:

On October 17, 2019 the City of Alachua received your revised application for the approval of a Site Plan for the Golf Plaza project, which proposes the construction of 9,880 square feet of retail space, 7,800 square feet of office space, and 8,320 square feet of restaurant space in three proposed buildings located on a 8.24 acre subject property (Parcel Nos. 05900-004-001 through 05900-004-010). A DRT meeting was held on July 24, 2019 to discuss this application. The application was submitted first on June 27, 2019.

The application has been reviewed for compliance with the applicable review standards, including the City's Comprehensive Plan and Land Development Regulations (LDRs). Based upon Staff's review, revisions must be made to the application before it may be scheduled for a public hearing before the City's Planning & Zoning Board (PZB). Please address all insufficiencies outlined below in writing and provide an indication as to how they have been addressed by 5:00 PM on **Thursday, November 7, 2019**. A total of four (4) copies of the complete application package (i.e., all application materials and attachments) and a CD containing a PDF of all application materials (or Cloudlink) must be provided by this date. Upon receipt of your revised application, Staff will notify you of any remaining insufficiencies which must be resolved, if any, before the item may be scheduled for a public hearing before the PZB.

Please address the following outstanding insufficiencies (begins on next page):

Deficiencies to be Addressed

Unless otherwise noted, references to code Sections refer to City of Alachua Land Development Regulations. Where applicable, new comments are noted.

A. Comprehensive Plan Consistency

1. Future Land Use Element, Policy 1.3.d.1- See attached review comments from Brian Kanely, P.E., Sr. Traffic Engineer, of Volkert, Inc.

New Comment: Please see attached Independent Review from Volkert, Inc. regarding traffic study and site plan layout. The letter has been forwarded to FDOT for their consideration.

C. Development Standards

2. Section 6.2- Tree protection/landscape/xeriscape standards
 - b. Trees provided for mitigation cannot also be used to meet the other landscape requirements. However, Section 6.2.1 (D)(4)(b) states that the up to 25% of the trees provided for landscaping may also be counted towards trees required for mitigation. Please denote on the landscape plans, which trees are being used to meet both landscaping and mitigation trees and those trees being provided solely to meet mitigation.

***New Comment: There still appears to be a deficiency of mitigation trees. The proposed number of trees totals 310 (please verify as this number has decreased since previous submittal), 58 of which are shown to be used for mitigation only. 83 trees are proposed to be used to meet both mitigation and site landscaping requirements. Per Section 6.2.1 (D)(4), a maximum of 25% of the trees provided to meet site landscaping requirements can be counted for mitigation as well. In the latest submission, the total number of trees being provided for landscaping is 252 trees (310 total trees less 58 trees provided for mitigation only). This means that the total number of trees that count towards both landscaping and mitigation would be 63 (25% of 252). The latest submittal indicates that there are 83 trees proposed to count towards both landscaping requirements and mitigation. This is 20 trees more than the permitted amount under Section 6.2.1 (D) (4).**

Alternative Landscape Compliance: Generally, the City is in agreement with the use of the alternative landscape compliance given the presence of the overhead utility lines along the subject property's US Highway 441 frontage and the presence of the wetland and associated wetland buffer. There do, however, appear to be opportunities for at least two additional landscape islands located in front of Building 2, which could contain canopy trees. Please address.

D. Fire Marshal/Public Services/Outside Engineering Review Comments

2. The applicant must address the comments provided by Jay Brown, P.E., in a letter dated July 19, 2019 (attached to this memo).

New Comment: Please see revised comments provided by JBrown Professional Group in a letter dated October 28, 2019 (attached).

If you have any questions regarding the information above, please contact me at 386-418-6100 x 108 or via e-mail at ahall@cityofalachua.com. We look forward to receiving your revised application.

Sincerely,



Adam Hall, AICP
Planner

cc: Kathy Winburn, AICP, Planning & Community Development Director
Justin Tabor, AICP, Principal Planner
Project File



JBrown Professional Group

CIVIL ENGINEERING • LAND SURVEYING • PLANNING

3530 NW 43rd Street • Gainesville, FL 32606 • 352.375.8999 • JBProGroup.com

October 28, 2019

Mr. Adam Hall, AICP
Planner
City of Alachua
Office of Planning & Community Development
P.O. Box 9
Alachua, FL 32616-0009

Re: Golf Plaza - Development Plan Engineering Review #3

Dear Mr. Hall:

As you requested, we have reviewed the Golf Plaza Development Plan submittal drawings and other materials provided to us for the above referenced project. The drawings reviewed were created by CHW and dated October 17, 2019. Our review generated the following comments and recommendations that are outlined below.

Sheet C0.21

1. Please ensure that all leaders and callouts are pointing to the appropriate location. There are several that appear to be outdated.

Sheet C1.10

1. The "CW" callout calls out the (2) 12" white crosswalk stripes. The 12W callout is not needed. Please remove from the legend.

Sheet C1.11

1. The "CW" callout calls out the (2) 12" white crosswalk stripes. The 12W callout is not needed. Please remove from the legend and plan sheets.

Sheet C1.20

1. All previous comments have been satisfied.

Sheet C2.10

1. The Mitered End Section for S-1 appears to discharge at the bottom of the basin. Due to this, the invert elevation should be 158.00.
2. The NE invert elevation should be located at a slightly higher elevation than the NW elevation.

Sheet C2.10

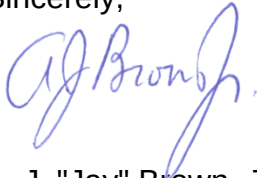
1. Please add S-14 and S-15 to the structure table on this sheet.
2. There is concern for S-14 to account for the full flow of the 36" flared end coming from the north side of US-441. Consider providing a weir on the north side of S-14 with capacity to handle the full flow. Alternatively, consider providing a conflict structure with a pipe which could connect the flared end to S-14.

3. Consider re-grading the swale to the northwest of S-12 to allow for positive discharge. If the swale is re-graded approximately 220 feet to connect to the spot elevation of 158.4, there will not be any concerns for pooling up of water at this driveway.
4. The NE invert of S-8 should be located at a higher elevation than the NW invert.
5. The invert of the Mitered End Section for S-1 is located above the basin bottom. Suggest placing this invert at the bottom of the basin.
6. The cross section shows the basin bottom to be 159.00; however there is a spot elevation in the middle of the basin which reads 158.50. Please revise for consistency.

Sheet C2.20

1. The invert of the Mitered End Section for S-18 is slightly lower than the basin bottom. Suggest setting this invert to 161.00.

Sincerely,

A handwritten signature in blue ink, appearing to read "A. J. Brown, Jr.", with a stylized flourish at the end.

A. J. "Jay" Brown, Jr., PE
President, JBrown Professional Group Inc.

Cc: Daniel Young, CHW



Volkert, Inc.

3501 South Main Street
Suite 2
Gainesville, FL 32601

Office 352.372.9594
Fax 352.371.3988
gainesville@volkert.com

www.volkert.com

October 30, 2019

Mr. Adam Hall, AICP
Planner, Office of Planning and Community Development
City of Alachua
15100 NW 142nd Terrace
P.O. Box 6
Alachua, FL 32616

Subject: Independent Review of the Golf Plaza for the City of Alachua, FL.

Dear Mr. Hall:

Attached is the completed independent review of the Traffic Study for the Golf Plaza located on the south/west side of US 441 immediately north of NW 59th Terrace.

Thank you for the opportunity to provide transportation engineering services for the City of Alachua, FL. If you have any questions or comments or require additional information, please contact me at 352-240-7459 (direct line) or 352-262-3580 (cell phone).

Sincerely,

Volkert, Inc.

Brian Kanely, P.E.
Senior Traffic Engineer

CC: Gene Quinn

Attachment: Independent Review

Office Locations:

Birmingham, Foley, Huntsville, Mobile, Alabama • Gainesville, Orlando, Pensacola, Tampa, Florida • Atlanta, Georgia
Collinsville, Illinois • Baton Rouge, Slidell, Louisiana • Biloxi, Mississippi • Jefferson City, Missouri • Raleigh, North Carolina
Chattanooga, Tennessee • Alexandria, Virginia • Washington, D.C.



**Independent Review of the Traffic Study and Site Plan for the Golf Plaza
Located on the West/South Side of US 441 between Turkey Creek Blvd
And NW 59th Terrace in the City of Alachua, Florida
Prepared by Volkert, Inc., October, 2019**

At the request of the City of Alachua, FL, Planning and Community Development Department, Volkert, Inc., conducted an independent review of the Traffic Study and site plan for the Golf Plaza. This project is located on the west/south side of US 441, immediately north of NW 59th Terrace and south of Turkey Creek Blvd in the City of Alachua, Florida. The Traffic Study and site plan was submitted to the City of Alachua in June, 2019.

Per the Traffic Study (Study), the project will consist of three buildings and is planned to provide approximately 14,200 square feet of retail space, 3,330 square feet for a fast food restaurant with a drive through window and 7,500 square feet of General Office Building space. The site is located on the west/south side of US 441 (FDOT highway) between Turkey Creek Blvd (private road) and NW 59th Terrace (City of Alachua road). Per the Study, the buildout year for the project is 2020. The Project is expected to generate a total of 3,248 daily trips. The Project will be accessed via a full access driveway off of NW 59th Terrace (just south of US 441) and a right in/right out driveway on US 441.

The independent review of the Study and site plan has produced the following findings.

Trip Generation

This section of the Study calculates the anticipated project trip generation using the Institute of Transportation Engineers Trip Generation Manual, 10th Edition for the anticipated land uses. The daily, AM peak and PM peak hour trips generated by the project were correctly calculated. The Study uses total driveway volumes to analyze the site access (no adjustments were made for pass-by capture traffic). The average weekday total trips generated are calculated to be 3,248 trips with AM peak hour trips of 181 entering and 105 exiting and PM peak hour trips of 120 entering and 127 exiting. The Study matches the proposed land uses shown on the site plan. The trip generation data is correctly calculated and there are no comments.

Data Collection

This section of the Study documents the existing traffic volumes at the following two intersections adjacent to the project:

- US 441 at Turkey Creek Blvd (private road).
- US 441 at NW 59th Terrace (City of Alachua road).

The existing traffic volumes were adjusted based on the peak season factor provided by the FDOT. The actual historical annual growth rate on US 441 at the project location is less than 1%. Per the project Methodology Letter, an adjusted growth rate of 1% was used. Based on the FDOT peak season factor and the 1% growth rate, the Study calculates the 2020 traffic volumes (anticipated project buildout year) at the two adjacent intersections. The 2020 year traffic volumes were correctly calculated and shown on the figures in the Study and there are no comments.

Trip Distribution

This section of the Study assigned project trips to the adjacent roadways. Traffic counts obtained at the two adjacent intersections were used to estimate the project trip generation to the north (towards the City of Alachua) and to the south (towards the City of Gainesville). A distribution of 30% to the north and 70% to the south was calculated and applied to the project trips. The 30/70 distribution is reasonable and consistent with other traffic studies Volkert has reviewed for the City of Alachua along this portion of US 441.

The distributed project trips were added to the 2020 traffic counts to produce the 2020 buildout AM and PM peak hour traffic volumes at the two adjacent intersections and at the right in/right out project driveway on US 441. The 2020 buildout traffic volumes were correctly calculated and shown on the figures in the Study and there are no comments.

Analysis

This section of the Study performed an analysis to determine the level of service (LOS), delay, volume over capacity (v/c) ratio and 95% queue length at the project intersections and right in/right out driveway during the AM and PM peak hours. The deficiencies found were on the adjacent intersection side/minor streets and documented in the Study. These deficiencies are expected due to the delay the minor street experiences during peak traffic hours due to the volume of through traffic on US 441. The Study points out that since the v/c ratios are less than 1.0, traffic backups on the minor streets would not be excessive and improvements to mitigate the minor street backups would not be recommended.

The analysis numbers and conclusions were reviewed and determined to be properly calculated. Volkert concurs with the Study analysis and conclusions.

Access Management

This section of the Study reviews the location of the right in/right out project driveway onto US 441 and does this driveway satisfy FDOT access management standards. The Study points out that the location of the right in/right out project driveway falls just short of meeting the FDOT access management spacing requirements. However, the spacing deficiency is very minor and locating the driveway as shown on the site plan is not anticipated to negatively impact the adjacent intersections on US 441. With the right in/right out driveway, project traffic is more evenly distributed with respect to accessing US 441. Also, the right in/right out driveway provides a second access to the project for emergency vehicles. Volkert concurs with the access management conclusions in the Study.

Right Turn Lane Warrant Review

This section of the Study examines whether or not a right turn lane on southbound US 441 is warranted for traffic entering the project via the right in/right out driveway. Documentation in the FDOT Driveway Information Guide (speed limit on US 441 and number of vehicles turning right into the project) was utilized to make the determination that a right turn lane was not warranted. This determination is correct based on the FDOT guidelines.

Conclusions and Recommendations

The Study concluded that the operational analysis of the anticipated project traffic would not create any traffic operational deficiencies at the two adjacent intersections on US 441. The location of the right in/right out driveway falls just short on meeting the FDOT guidelines. However, Volkert's conclusion is that the driveway is located at an acceptable location between the two adjacent intersections and having a second access to the project from US 441 is very beneficial with respect to project trip distribution and emergency vehicle access. The review of the right turn lane analysis at the right in/right out driveway correctly states a right turn lane is not warranted based on the criteria contained in the FDOT Driveway Information Guide.

Additional Volkert Comments

Volkert has two additional comments on the Golf Plaza project for the City's consideration; (1) the issue of the right turn lane at the project's right in/right out driveway on US 441, and, (2) the width of NW 59th Terrace between US 441 and the project full access driveway on NW 59th Terrace.

Right turn lane on US 441 at the right in/right out driveway: The determination of whether or not a right turn lane on US 441 for southbound traffic entering the project via the right in/right out driveway was examined in the Study. The FDOT Driveway Information Guide (Guide) was utilized to address this issue. The Guide uses a combination of the speed limit and vehicles entering to determine whether or not a right turn lane is warranted. Based on the criteria in the Guide, a right turn lane is not warranted. However, this section of US 441 has a southbound acceleration lane for traffic exiting Turkey Creek Blvd that is headed south on US 441 towards Gainesville. The end of the taper for the acceleration lane is approximately 150 – 200 feet north of the right in/right out driveway. Traffic entering the Golf Plaza project at the right in/right out driveway will be significantly decelerating to turn into the right in/right out driveway just as traffic using the acceleration lane will be merging into the outside through lane on southbound US 441. A valid question is whether or not a right turn lane is warranted on US 441 at the project's right in/right out driveway in order to reduce the potential for rear end crashes between southbound vehicles exiting the southbound acceleration lane from Turkey Creek Blvd onto US 441 and southbound vehicles on US 441 slowing to enter the right in/right out driveway. This situation is not addressed in the Guide. Volkert recommends that the City of Alachua request FDOT to review this issue given the unusual situation of the end of the southbound acceleration lane taper being so close to the right in/right out driveway on US 441 at the Golf Plaza project.

Width of NW 59th Terrace: The Golf Plaza project has a full access driveway onto NW 59th Terrace approximately 160 feet south of US 441. At the full access driveway, NW 59th Terrace is approximately 20 to 22 feet in width. The auto-turn exhibits show that the design vehicles can make their ingress/egress turns at this driveway without running off the pavement but that is only if a perfect turn is made by the driver. If the vehicle does not make a perfect turn, the tires will run off the pavement, creating tire ruts along the roadway shoulder. Volkert recommends the City of Alachua consider requiring a minimum pavement width of 24 feet along NW 59th Terrace between the project driveway and US 441. This slightly wider pavement cross section would reduce the potential for vehicles leaving the pavement and making tire ruts along the roadway shoulder. The

pavement width of NW 59th Terrace would be a maintenance issue that the City could address at some time in the future.

Volkert, Inc. appreciates the opportunity to assist the City of Alachua with this Independent Review for the Golf Plaza Project. Please contact me if you have any questions or need additional information.

Volkert looks forward to working with the City of Alachua on future projects.

Prepared by:
Brian D. Kanely, P.E.
Senior Traffic Engineer
Volkert, Inc.
October 30, 2019





City of Alachua

ADAM BOUKARI
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR KATHY WINBURN, AICP

August 22, 2019

Daniel Young, P.E.
CHW, Inc.
11801 Research Drive
Alachua, FL 32615

Also submitted electronically to daniely@chw-inc.com

RE: Golf Plaza Site Plan Application – Outstanding Development Review Comments

Dear Mr Young:

On August 8, 2019 the City of Alachua received your revised application for the approval of a Site Plan for the Golf Plaza project, which proposes the construction of 9,880 square feet of retail space, 7,800 square feet of office space, and 8,320 square feet of restaurant space in three proposed buildings located on a 8.24 acre subject property (Parcel Nos. 05900-004-001 through 05900-004-010). A DRT meeting was held on July 24, 2019 to discuss this application. The application was submitted first on June 27, 2019.

The application has been reviewed for compliance with the applicable review standards, including the City's Comprehensive Plan and Land Development Regulations (LDRs). Based upon Staff's review, revisions must be made to the application before it may be scheduled for a public hearing before the City's Planning & Zoning Board (PZB). Please address all insufficiencies outlined below in writing and provide an indication as to how they have been addressed by 5:00 PM on **Thursday, September 5, 2019**. A total of four (4) copies of the complete application package (i.e., all application materials and attachments) and a CD containing a PDF of all application materials (or Cloudlink) must be provided by this date. Upon receipt of your revised application, Staff will notify you of any remaining insufficiencies which must be resolved, if any, before the item may be scheduled for a public hearing before the PZB.

Please address the following outstanding insufficiencies (begins on next page):

Deficiencies to be Addressed

Unless otherwise noted, references to code Sections refer to City of Alachua Land Development Regulations. Where applicable, new comments are noted.

A. Comprehensive Plan Consistency

1. Future Land Use Element, Policy 1.3.d.1- See attached review comments from Brian Kanely, P.E., Sr. Traffic Engineer, of Volkert, Inc.

New Comment: Please see revised comments from Brian Kanely in an email dated August 12, 2019 (attached).

B. Concurrency Impact Analysis

1. Traffic Study appears to report a higher average daily trip count than provided in concurrency report. Please address.

New Comment: Traffic Study indicates daily trips of 1,948 and PM peak trips of 162. Concurrency report indicates daily trips of 748 and PM peak trips of 77. How is 1,948 being calculated in traffic study? Please clarify.

2. If a drive-through restaurant is proposed please include in trip calculations.

New Comment: Page 2 of response letter states no drive through restaurant is being proposed, yet plans show a drive through facility and floor plan identifies restaurant space. Please clarify. The proposed drive through facility must be removed or included in calculations for traffic generation as it generates significantly more trips than a shopping center use (ITE Land Use Code 820 for shopping center is 37.75 daily trips per 1,000 square feet gfa. ITE Land Use Code 934 for drive through restaurant is 470.95 daily trips per 1,000 square feet gfa).

C. Development Standards

2. Section 6.2- Tree protection/landscape/xeriscape standards

- b. Trees provided for mitigation cannot also be used to meet the other landscape requirements. However, Section 6.2.1 (D)(4)(b) states that the up to 25% of the trees provided for landscaping may also be counted towards trees required for mitigation. Please denote on the landscape plans, which trees are being used to meet both landscaping and mitigation trees and those trees being provided solely to meet mitigation.

New Comment: Proposed landscaping plan shows 265 trees being provided to meet landscaping requirements (64 trees being provided for mitigation). The above referenced Section permits up to 25% of the trees required for landscaping to also count towards mitigation. In this instance, the maximum amount of trees that could be counted towards both the landscaping requirements and tree mitigation would be 66 trees (265 x .25). Proposed landscape plan shows 76 trees being use to meet both landscaping and mitigation. Ten additional trees for mitigation required to be provided on site or, if not feasible to be provided on site, a payment may be made under Section 6.2.1 (D)(7).

- e. Per Section 6.2.2 (H), the minimum amount of landscaping for any individual landscaping requirement is 20% of required amount.

New Comment: At least one canopy tree needs to be provided north of Building 3 to meet 20% minimum requirement (5 required, none provided).

- f. Perimeter buffers provided in accordance with Section 6.2.2(D) (3) are not calculated or provided.

New Comment: Need further justification as to why required canopy trees for east perimeter buffer (NW 59th Terrace side) cannot be met (13 trees required, 11 provided= 2 additional canopy trees needed).

***New Comment: There appears to be some opportunities for providing additional canopy trees along arterial frontage. Additional landscape islands could be provided to accommodate additional canopy trees. Please provide or provide further explanation/ justification as why canopy tree provision along arterial buffer cannot be provided.**

5. Section 6.6.3 – Residential Protection Standards

- a. Address Residential Protection Standards found in Section 6.6.3.

New Comment: Response letter indicates this response was provided on photometric sheet. The response was not located. Please provided analysis of proposed site plan with regards to the following:

- (1)Hours of operation and deliveries.** Hours of operation and deliveries.
- (2)Activities that generate potential adverse impacts.** Location on a site of activities that generate potential adverse impacts on adjacent uses such as noise and glare.
- (3)Placement of trash receptacles.** Placement of trash receptacles.
- (4)Loading and delivery area.** Location of loading and delivery areas.
- (5)Lighting.** Lighting location, intensity, and hours of illumination.
- (6)Placement of outdoor machines and activities.** Placement and illumination of outdoor vending machines, telephones, or similar outdoor services and activities.
- (7)Additional landscaping and buffering to mitigate adverse impacts.** Additional landscaping and buffering to mitigate adverse impacts.
- (8)Height restrictions.** Height restrictions to preserve light and privacy and views of significant features from public property and rights-of-way.
- (9)Preservation of natural lighting and solar access.** Preservation of natural lighting and solar access.
- (10)Ventilation and control of odors and fumes.** Ventilation and control of odors and fumes.
- (11)Paving and parking areas.** Paving to control dust.
- (12)Placement or configuration of site design.** Placement or configuration of site design

- d. Please identify location and screening of any mechanical equipment such as HVAC equipment.

New Comment: Please verify through notation or architectural elevations that the HVAC equipment will be screened from view by parapet wall or other means.

- e. Delivery hours may be limited to mitigate aural impacts to residential areas.

New Comment: As a condition of site plan approval, deliveries by any vehicle with a Gross Vehicle Weight Rating greater than 22,000 pounds shall be limited to between 7:00 am and 7:00 pm on week days (Monday through Friday) and to between 8:00 am and 6:00 pm on weekend days (Saturday and Sunday).

6. Section 6.8- Design Standards for Business Uses

- b. Per Section 6.8.2 (A) (2) (b) (i), requires an offset at least ten feet in width and 2' in depth every thirty feet or that one of the offset alternatives have been provided. Please review span of Building 2 between control point 3 and 5 as it does not appear the minimum building massing requirement has been met. Unable to verify offset depths from elevations.

New Comment: Building massing requirements not met. There does not appear to be a projection or recess of at least two feet between points 3 and 5. This appears to also possibly apply to Building 1. Consider utilizing offset alternative as provided in Section 6.8.2 (A)(2)(b)(ii), such as façade color change use of pilasters, or roofline change with material change.

D. Fire Marshal/Public Services/Outside Engineering Review Comments

- 1. The applicant must address the comments provided by Brian Green, Alachua County Fire Rescue in an email dated July 17, 2019 (attached to this memo).

New Comment: Please see revised comments provided by Brian Green, Alachua County Fire Rescue in an email dated August 22, 2019 (attached).

- 2. The applicant must address the comments provided by Jay Brown, P.E., in a letter dated July 19, 2019 (attached to this memo).

New Comment: Comment letter is forthcoming and is anticipated to be delivered by outside review no later than Friday, August 23, 2019. These comments will be forwarded when received by the City.

- 3. The applicant must comply with all comments provided by the Public Services Department in a memo dated July 24, 2019 (attached to this memo).

New Comment: Please see revised comments from Public Services in a memo dated August 19, 2019 (attached).

- 4. The applicant must address the comments provided by Brian Kanely, P.E., Sr. Traffic Engineer, of Volkert, Inc. in an email dated July 16, 2019 (attached to this memo).

New Comment: Please see revised comments from Brian Kanely in an email dated August 12, 2019 (attached).

If you have any questions regarding the information above, please contact me at 386-418-6100 x 108 or via e-mail at ahall@cityofalachua.com. We look forward to receiving your revised application.

Sincerely,



Adam Hall, AICP
Planner

cc: Kathy Winburn, AICP, Planning & Community Development Director
Justin Tabor, AICP, Principal Planner
Project File



City of Alachua

ADAM BOUKARI
CITY MANAGER

RODOLFO VALLADARES, P.E.
PUBLIC SERVICES DIRECTOR

INTER-OFFICE COMMUNICATION

DATE: August 19th, 2019

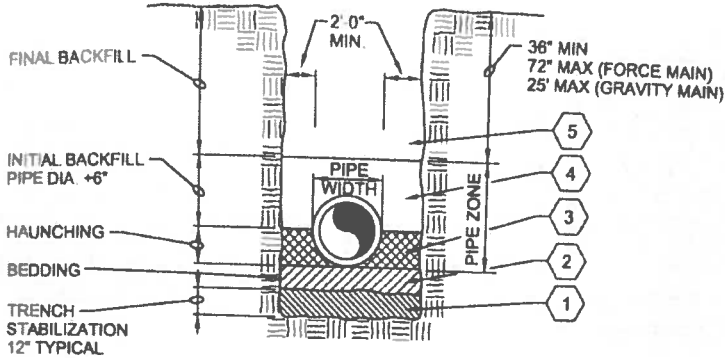
TO: Kathy Winburn, AICP
Planning & Community Development Director

FROM: Rodolfo Valladares, P.E.
Public Services Director
Tom Ridgik, P.E. *TR*
Engineering Supervisor

RE: Final Development Plans – Golf Plaza – Public Services Review

Public Services has reviewed the Golf Plaza (August 8th Submittal) Final Development Plans and offer the following comments. Review was specific to the Public Services Utilities.

NO.	COMMENTS
1.	Previous Submittal Comment Sheet C0.10 Water and Wastewater General Notes - Modify Note 1 so it includes a reference to "City of Alachua, Department of Public Services, Requirements for Design and Construction, Potable Water, Reclaimed Water and Wastewater." - Minor Comment, Note 13, change spelling to "CONTRACTOR". Current Submittal Comment Approved
2.	Previous Submittal Comment Sheet C0.10 Electric Service General Notes It appears that someone other than "GRU Energy Delivery" is providing the electric design. Thus, please modify Note 2. Current Submittal Comment Approved

NO.	COMMENTS
3.	Previous Submittal Comment Sheet C0.11 Wastewater Legend Existing gravity wastewater mains are called out as "SS". Please call out on the abbreviation list Current Submittal Comment Approved
4.	Previous Submittal Comment Sheet C2.30 - Suggest that a detail be added for a cleanout. - Suggest that a detail be added for a PRZ Backflow Preventer. Current Submittal Comment Cleanout: DWG C.3.10 says that City of Alachua (CoA) maintenance ends at the existing SS lines, meaning CoA is not responsible for maintaining the laterals. Please confirm. If CoA is responsible for maintaining the laterals, the CoA would prefer that tracer wires be added to the laterals. - As requested, a detail for a backflow preventer has been added to C 2.30. Please confirm that the CoA is responsible to maintain the backflow preventers that are shown on several insets on C3.10. If so, the applicable CoA detail requires freeze protection. The backflow preventers as shown are 1-inch, which are susceptible to freezing. CoAs standard detail requires freeze protection for above ground pipe, but does not call out methods. Suggest that this issue be discussed at the next planning meeting, or call Tom Ridgik @ (352) 418-6162. Revise and Resubmit after discussion.
5.	Previous Submittal Comment CoA Standard Detail 420 is need of revision. The CoA plans to update this detail in the soon-to-be-revised Design and Construction Manual. In the interim, please replace the detail as shown below. (Note: CHW may have already revised this detail in a previous project.) 

NO.	COMMENTS
	NOTES: 1. TRENCH STABILIZATION SHALL BE PROVIDED TO A DEPTH OF 12-INCHES. THE MATERIAL SHALL BE NO. 57 STONE. 2. BEDDING SHALL BE A MINIMUM OF 6-INCHES AND COMPOSED OF IMPORTED GRANULAR FILL. COMPACT TO 95% STANDARD PROCTOR, AASHTO T-99. 3. HUNCHING PORTION OF THE PIPE ZONE SHALL BE PLACED TO THE SPRINGLINE OF THE PIPE AND COMPOSED OF IMPORTED GRANULAR FILL. COMPACT TO 95% STANDARD PROCTOR ASSHTO T-99. 4. INITIAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180. FROM THE SPRINGLINE OF THE PIPE TO TWO (2) FEET ABOVE THE PIPE THE SOIL SHALL BE CAREFULLY BACKFILLED IN 6-INCH LIFTS AND THE SOIL CONSOLIDATED WITH THE HAND OPERATED TAMPING MACHINE (OR AS REQUIRED BY CITY, COUNTY, OR STAT INSPECTORS). 5. FINAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180. AFTER PLACEMENT AND COMPACTION OF THE INITIAL BACKFILL, THE BALANCE OF THE BACKFILL MATERIAL MAY BE MACHINE PLACED OR AS REQUIRED BY THE INSPECTOR AND SHALL NOT CONTAIN ANY ROCKS OR DEBRIS. 6. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION. 7. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW. 8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. UTILITIES SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION. THE BOTTOM OF THE TRENCH SHALL NOT BE EXCAVATED BELOW THE SPECIFIED GRADE. IF UNDERCUTTING OCCURS, THE BOTTOM OF THE TRENCH SHALL BE BROUGHT UP TO THE ORIGINAL GRADE WITH APPROVED MATERIAL AND THOROUGHLY COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR. 9. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. Current Submittal Comment The revised detail now shown on C 2.30 does not call out the trench width. Please add the dimensions called out on the above detail (2 feet 0 inches on either side of the pipe). Approved as Noted.
6.	Previous Submittal Comment Sheet C3.10 • Inset CC: Item 7 is a 12- x 3-inch tap and wet valve. Inasmuch as 3-inch piping and fittings are not a CoA standard, please replace with a 12- x 4-inch tap and wet valve. Please select downstream piping such that 3-inch piping is not installed. Please change fitting schedule. Current Submittal Comment Approved
7.	Previous Submittal Comment Sheet C3.11 • Inset CC: Same comment as above. Current Submittal Comment

NO.	COMMENTS
	Approved
8.	Previous Submittal Comment Sheets C3.10 and C3.11 Please show the existing easement on these two drawings. Also add note referencing this easement: namely, "Alachua County Clerk of the Court, Book 3866, Page 12". Current Submittal Comment Approved
9.	Previous Submittal Comment Sheet E-1: Please modify Construction Notes on this Drawing as per Attachment L. Current Submittal Comment Approved
END OF COMMENTS	

Please advise if you have any questions or require additional information.

cc: Justin Tabor – AICP Principal Planner

Adam Hall – AICP Planner

Harry Dillard – Lead Engineering Technician

RE: Request for Independent Review of Traffic Study and Site Plan for The Golf Plaza (Alachua, FL)

From : Kanely, Brian <brian.kanely@volkert.com>

Mon, Aug 12, 2019 02:26 PM

Subject : RE: Request for Independent Review of Traffic Study and Site Plan for The Golf Plaza (Alachua, FL)

To : Adam Hall <ad_hall@cityofalachua.org>

Cc : Kathy Winburn <kwinburn@cityofalachua.org>

Adam:

I looked over the new info and have the following questions:

1. In the August 8th response from CHW, page 4, it is stated that the Shopping Center land use provides the best trip generation given the unknown commercial land uses and CHW is not proposing a change to the trip generation. However, on the site plan, page C1.10, proposed building #2 has a menu board and pickup window and shows a line of cars queueing in line, typical for a fast food restaurant. The obvious conclusion is the site plan anticipates a fast food restaurant as a component of the project. I do not see how the responses to the traffic study can state some of the uses are unknown when a fast food restaurant is shown on the site plan. My recommendation is the City either require the traffic study to account for a typical fast food restaurant (6,000 SF) or the site plan be modified to omit the fast food facility. I do not see how the petitioner can have it both ways; show a fast food facility on the site plan but ignore it in the traffic study.
2. In the August 8th response, it is stated that FDOT has approved the right in/right out driveway just south of the end of the taper for the southbound acceleration lane on US 441 for traffic exiting Turkey Creek. I recommend that you request FDOT to send you a copy of their response/approval pertaining to the right in/right out driveway. This will provide the ability for you to respond to any citizen/commission inquiries concerning the justification/approval/safety of this driveway.
3. With respect to NW 59th Terrace, does a width of 22 feet meet city standards?
4. On page 16 of the traffic study, the box for SBLTR is shaded red, indicating the deficiency occurs to added project trips. There are no SB added trips. The wrong box appears to be shaded red by mistake.

Except for the above, the remainder of the traffic study and site plan are acceptable.

Let me know how you want to deal with the trip generation/fast food facility. I will hold off on a final letter until that item is resolved.

Contact me if questions.

Thanks.

Brian

Brian Kanely, P.E.
Sr. Traffic Engineer

Volkert, Inc.
3501 S Main Street, Suite 2
Gainesville, FL 32601
352-240-7459 - Direct Line
352-372-9594 x3006
Cell: 352-262-3580

brian.kanely@volkert.com

The information contained in this e-mail, including any accompanying documents or attachments, is from Volkert, is intended only for the use of the individual or entity named above, and is privileged and confidential. If you are not the intended recipient, be aware that any disclosure, dissemination, distribution, copying or use of the contents of this message is strictly prohibited. If you have received this message in error, please notify Volkert immediately at our corporate office (251) 342-1070. Thank you for your cooperation

From: Adam Hall [mailto:ad_hall@cityofalachua.org]

Sent: Thursday, August 8, 2019 5:40 PM

To: Kanely, Brian <brian.kanely@volkert.com>

Cc: Kathy Winburn <kwinburn@cityofalachua.org>

Subject: Re: Request for Independent Review of Traffic Study and Site Plan for The Golf Plaza (Alachua, FL)

Brian:

The City has received a revised application, including an updated traffic study, for the Golf Plaza site plan application. I have attached the applicant's response letter and the autoturn exhibit.

RE: Request for Review: Golf Plaza Site Plan

From : Brian Green <bgreen@AlachuaCounty.US>
Subject : RE: Request for Review: Golf Plaza Site Plan
To : Adam Hall <ad_hall@cityofalachua.org>

Thu, Aug 22, 2019 10:42 AM

 7 attachments

Adam,

I have not located all fire hydrants the full scale plan.

**Brian Green**

Plans Review- Inspector, Fire Rescue
PO Box 5038, Gainesville, FL 32627-5038
352.384.3103 (office) 352.494-3140 (cell)



From: Adam Hall <ad_hall@cityofalachua.org>

Sent: Monday, August 12, 2019 9:11 AM

To: Brian Green <bgreen@AlachuaCounty.US>; Rodolfo Valladares <ro_valladares@cityofalachua.org>; Adam Hall <ad_hall@cityofalachua.org>; Adam Boukari <aboukari@cityofalachua.org>; Winburn, Kathy <kwinburn@cityofalachua.org>; Justin Tabor <jtabor@cityofalachua.org>; Keith Bennett <ke_bennett@cityofalachua.org>; Thomas Ridgik <th_ridgik@cityofalachua.org>; Harry Dillard <hdillard@cityofalachua.org>

Subject: Request for Review: Golf Plaza Site Plan

DRT Members:

The Planning Department has received a revised application for a Site Plan from CHW, Inc. The application proposes the construction of 9,880 square feet of retail space, 7,800 square feet of office space, and 8,320 square feet of restaurant space in three proposed buildings located on a 8.24 acre subject property (Parcel Nos. 05900-004-001 through 05900-004-010). The subject property is located southeast of the intersection of US Highway 441 and Turkey Creek Boulevard.

Initial Application Submittal: [June 27, 2019](#)Staff DRT was held: [July 22, 2019](#)Applicant DRT was held: [July 24, 2019](#)Submittal 2: [August 8, 2019](#)

Future DRT meetings are not anticipated, but if required the DRT will be notified.

Please review the application and provide any comments in writing no later than [12 PM on Thursday, August 22, 2019](#).

Plans are accessible via the X: Drive at: X:\Planning and Community Development\Planning Division\Development Applications\Site Plans\Golf Plaza SP\Submittals\2019_08_08

The plans are also accessible by following this link: [LINK TO APPLICATION MATERIALS](#)A direct link to the FIRE FLOW information can be found here: [LINK TO FIRE FLOW CALCULATIONS](#)

If you have any questions about this application, please let me know.

Thank you,

--

Adam Hall, AICP | Planner | Office of Planning and Community Development
City of Alachua | ahall@cityofalachua.com | Phone: 386.418.6121 | Direct: 386.418.6125

--

This message has been scanned for viruses and

DEVELOPMENT REVIEW TEAM SUMMARY

PROJECT NAME: The Golf Plaza

APPLICATION TYPE: Site Plan

APPLICANT/AGENT: Daniel Young, P.E., CHW, Inc.

PROPERTY OWNER: Natural Valley Harvest, Ltd.

DRT MEETING DATE: July 24, 2019

DRT MEETING TYPE: Applicant

FLUM DESIGNATION: Commercial/Moderate Density Residential

ZONING: PUD

OVERLAY: N/A

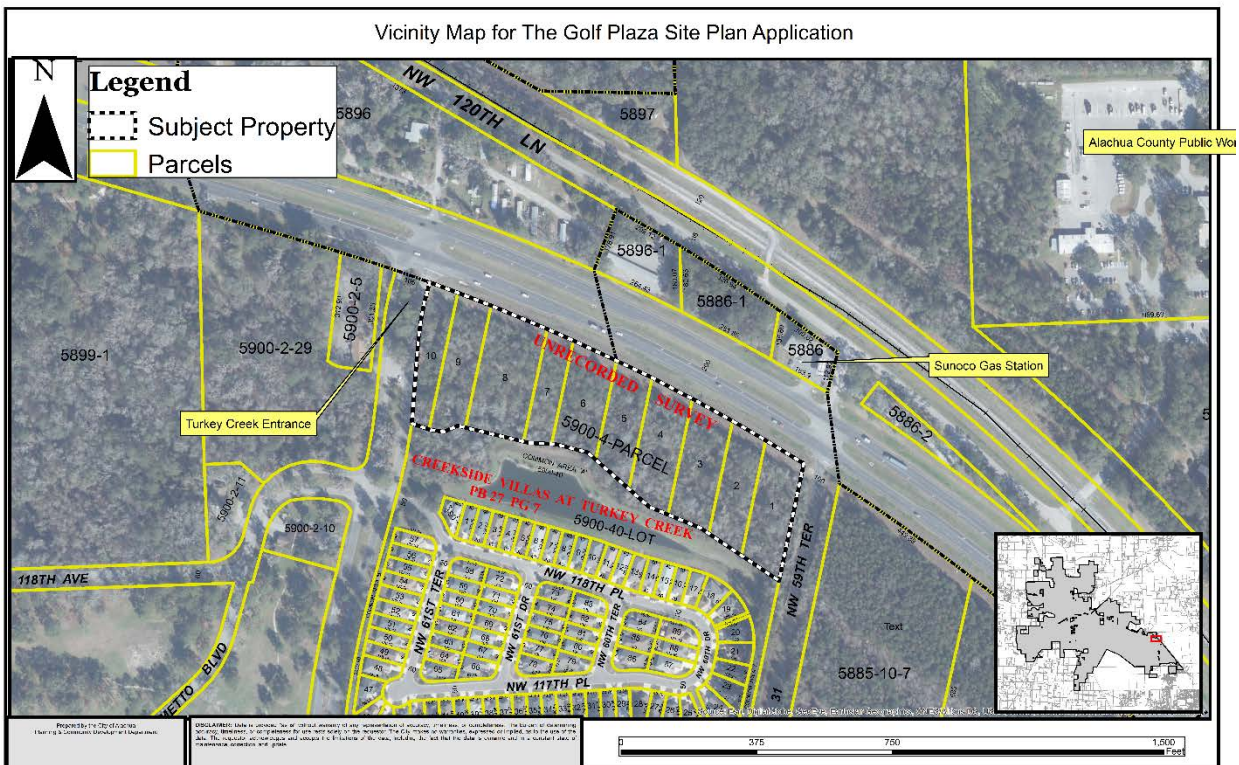
DEVELOPMENT AREA ACREAGE: ± 8.24 acres

PARCEL: 05900-004-001, 05900-004-002,...05900-004-010

PROJECT LOCATION: South of US Highway 441 between NW 59th Terrace and Turkey Creek Boulevard

PROJECT SUMMARY: A request for a Site plan for three new buildings consisting of 7,800sf office space, 8,320 sf restaurant space, and 9,880 sf retail space with associated paving, grading, landscaping, and utility infrastructure improvements

RESUBMISSION DUE DATE: All data, plans, and documentation addressing the insufficiencies identified below must be received by the Planning Department on or before **5:00 PM on Wednesday, August 7, 2019.**



Deficiencies to be Addressed

Unless otherwise noted, references to code Sections refer to City of Alachua Land Development Regulations.

A. Comprehensive Plan Consistency

1. Future Land Use Element, Policy 1.3.d.1- See attached review comments from Brian Kanely, P.E., Sr. Traffic Engineer, of Volkert, Inc.
2. Conservation and Open Space Element, Policy 1.10.g: Please show wetland delineation on geometry/ development and tree removal plan demonstrating that the average setback is 75' with a minimum of 50' from wetland boundary.

B. Concurrency Impact Analysis

1. Traffic Study appears to report a higher average daily trip count than provided in concurrency report. Please address.
2. If a drive-through restaurant is proposed please include in trip calculations.
3. Water and sewer impact analysis states that impact will be "3,900 gallons per year". Please verify as this appears this should be 3,900 gallons per day.

C. Development Standards

1. Section 6.1, Parking and Loading Standards
 - a. If drive through facility is being proposed, please illustrate location of order box and pick up window and demonstrate that auto stacking requirements of Section 6.1.8 (A) and Section 6.1.8 (B)(2) have been met.
 - b. Illustrate location and dimensions of loading zone as required by Section 6.1.5 (C).
2. Section 6.2- Tree protection/landscape/xeriscape standards
 - a. 142 regulated trees identified as proposed to be removed. Are split trunks being considered as one tree?
 - b. Trees provided for mitigation cannot also be used to meet the other landscape requirements. However, Section 6.2.1 (D)(4)(b) states that the up to 25% of the trees provided for landscaping may also be counted towards trees required for mitigation. Please denote on the landscape plans, which trees are being used to meet both landscaping and mitigation trees and those trees being provided solely to meet mitigation.
 - c. No calculation for tree credits has been provided.
 - d. Additional reduction in required landscaping may be possible through provision of natural wooded open space area. See Section 6.2.2 (D) (6) for more information.
 - e. Per Section 6.2.2 (H), the minimum amount of landscaping for any individual landscaping requirement is 20% of required amount.
 - f. Perimeter buffers provided in accordance with Section 6.2.2(D) (3) are not calculated or provided.
3. Section 6.3- Fencing Standards
 - a. Provide additional information (in form of cross section, detail, or note) demonstrating compliance with Section 6.3.3 (B) for retaining wall.
4. Section 6.4- Exterior lighting Standards

- a. Verify light mounting height for lights next to retaining wall.
- b. See Compliance with Zoning Ordinance regarding pedestrian scale lighting.
- 5. Section 6.6.3 – Residential Protection Standards
 - a. Address Residential Protection Standards found in Section 6.6.3.
 - b. If drive through restaurant is being proposed, additional screening (wall or vegetation) may be required along affected buffer.
 - c. Please identify any outdoor seating areas.
 - d. Please identify location and screening of any mechanical equipment such as HVAC equipment.
 - e. Delivery hours may be limited to mitigate aural impacts to residential areas
- 6. Section 6.8- Design Standards for Business Uses
 - a. Please provide glazing calculations for each façade of all buildings proposed.
 - b. Per Section 6.8.2 (A) (2) (b) (i), requires an offset at least ten feet in width and 2' in depth every thirty feet or that one of the offset alternatives have been provided. Please review span of Building 2 between control point 3 and 5 as it does not appear the minimum building massing requirement has been met. Unable to verify offset depths from elevations.
- 7. Section 6.9- Environmental protection Standards
 - a. Please verify compliance with Section 6.9.3. (C)(3), regarding stormwater discharge into surface water bodies.

D. Fire Marshal/Public Services/Outside Engineering Review Comments

- 1. The applicant must address the comments provided by Brian Green, Alachua County Fire Rescue in an email dated July 17, 2019 (attached to this memo).
- 2. The applicant must address the comments provided by Jay Brown, P.E., in a letter dated July 19, 2019 (attached to this memo).
- 3. The applicant must comply with all comments provided by the Public Services Department in a memo dated July 24, 2019 (attached to this memo).
- 4. The applicant must address the comments provided by Brian Kanely, P.E., Sr. Traffic Engineer, of Volkert, Inc. in an email dated July 16, 2019 (attached to this memo).

E. Compliance with Other Laws and Ordinances

- 1. Section 2, Finding 10, of Ordinance 05-07 (attached) states that the lighting shall be provided at a pedestrian scale. The proposed lighting has a mounting height of 25'. Pedestrian scale lighting is generally considered to be lighting with a mounting height less than 16'.

F. Miscellaneous/General Issues

- 1. Will telecomm lines along US Highway 441 frontage be raised? They appear to be relatively low, which may be damaged by larger trucks/ emergency vehicles.
- 2. "XX Zoning" referred to on site plan cover sheet should be updated to reflect PUD zoning district.
- 3. Sheet C0.10, General Note 14 is not applicable.
- 4. Sheet C0.10, General Note 25 should reference FDOT and/or the City of Alachua Public Services Department.
- 5. Paving and Grading General Note 8 should reference City of Alachua Public Services.
- 6. HC pavement marking detail on Sheet C1.20 is not legible (dark).

7. While reviewed under separate permit, the potential monument sign location appears to be close to electrical facilities. See Section 6.5.4(D).

ALL COMMENTS AND REQUIREMENTS LISTED ABOVE MUST BE COMPLIED WITH AND PROVIDED TO CITY STAFF ON OR BEFORE 5:00 PM ON THE RESUBMISSION DATE OF WEDNESDAY, AUGUST 7, 2019.

RE: Golf Plaza Site Plan Application - Request for Review by Development Review Team

From : Brian Green <bgreen@AlachuaCounty.US>
Subject : RE: Golf Plaza Site Plan Application - Request for Review by Development Review Team
To : Adam Hall <ad_hall@cityofalachua.org>

Wed, Jul 17, 2019 04:57 PM

7 attachments

Adam,

As we discussed, Fire hydrants are required within 500 feet of the remote corner of any building. Additional fire hydrant are needed.

**Brian Green**

Plans Review- Inspector, Fire Rescue
PO Box 5038, Gainesville, FL 32627-5038
352.384.3103 (office) 352.494-3140 (cell)



From: Adam Hall <ad_hall@cityofalachua.org>
Sent: Wednesday, July 17, 2019 1:26 PM
To: Brian Green <bgreen@AlachuaCounty.US>
Subject: Fwd: Golf Plaza Site Plan Application - Request for Review by Development Review Team

Brian:

I was checking to see if you had had a chance to take a look at this yet? It is the commercial development (3 retail/office/ restaurant buildings) proposed for the area in front of Turkey Creek on 441. The fire flow appears to be OK, but I only see one fire hydrant, which is on NW 59th Terrace and not one directly in front of the other two buildings. Another potential issue that you may want to investigate as well is the low hanging wires at entries to site. [LINK to Streetview](#). I would wager they are just TV/Telecom lines, but still probably wouldn't want to rip them down each time a fire truck pulled in.

Please let me know if you have any questions or comments.

Thanks,

Adam Hall
City of Alachua

From: "Adam Hall" <ad_hall@cityofalachua.org>
To: "Brian Green" <bgreen@AlachuaCounty.US>, "Rodolfo Valladares" <ro_valladares@cityofalachua.org>, "Adam Hall" <ad_hall@cityofalachua.org>, "Adam Boukari" <aboukari@cityofalachua.org>, "Kathy Winburn" <kwinburn@cityofalachua.org>, "Justin Tabor" <jtabor@cityofalachua.org>, "Keith Bennett" <ke_bennett@cityofalachua.org>, "Thomas Ridgik" <th_ridgik@cityofalachua.org>, "Marian Rush" <marian@robertarushpa.com>, "William DaRoza" <wi_daroza@cityofalachua.org>
Cc: "Kenya Curtis" <ke_curtis@cityofalachua.org>
Sent: Tuesday, July 2, 2019 5:54:11 PM
Subject: Golf Plaza Site Plan Application - Request for Review by Development Review Team

DRT Members:

The Planning Department has received an application for a Site Plan from CHW, Inc. The application proposes the construction of 9,880 square feet of retail space, 7,800 square feet of office space, and 8,320 square feet of restaurant space in three proposed buildings located on a 8.24 acre subject property (Parcel Nos. 05900-004-001

RE: Request for Independent Review of Traffic Study and Site Plan for The Golf Plaza (Alachua, FL)

From : Kanely, Brian <brian.kanely@volkert.com> Tue, Jul 16, 2019 01:08 PM
Subject : RE: Request for Independent Review of Traffic Study and Site Plan for The Golf Plaza (Alachua, FL) 📎 1 attachment
To : Adam Hall <ad_hall@cityofalachua.org>
Cc : Kathy Winburn <kwinburn@cityofalachua.org>

Adam:

My initial comments on the Golf Plaza Traffic Study and Site Plan are as follows:

Traffic Study:

1. The trip generation numbers need to be modified to reflect what the development anticipates with respect to actual land uses.
 - a. In the attachment, I show three different scenarios with significantly different total trips. Given the range of total trips, the attachment demonstrates the need to accurately list potential land uses.
 - b. The ITE trip generation land use codes need be included in the Appendix for reference.
2. With the change to the total trips, the Traffic Study will need to be reworked to reflect the new total trips generated. This may/may not change the Study conclusions.
3. Once the new Study is submitted, I will review it.

Site Plan:

1. The right in/right out driveway on US 441 should be changed to a right out only driveway. This driveway is approximately 150 feet south of the end of the acceleration lane taper for southbound traffic exiting Turkey Creek Blvd and merging into mainline southbound US 441 traffic at highway speeds of 55+ MPH. At 60 MPH (88 Ft./sec), this provides less than 2 seconds for southbound traffic from Turkey Creek to maneuver and respond to a vehicle slowing down to enter the project site. Plus, SB traffic from Turkey Creek will be focused on merging into the SB mainline US 441 traffic and not anticipating a vehicle slowing down to turn into the project driveway.
2. The right out driveway should be constructed so an emergency vehicle could enter the driveway if the need arose. Using the appropriate curbing for the driveway could address this design issue.
3. The driveway on the south side of the building with the drive thru window is 15 feet wide. If the intent is to allow vehicles to pass other vehicles this driveway should be several feet wider. Are only drive thru customers to use this driveway? If yes, need signage.
4. Recommend the enter/exit driveway on 59th Terrace have 15 foot lanes and taper to 24 foot lanes at the start of the parking lot. The appropriate width should be confirmed by auto-turn plots.
5. The majority of traffic exiting the fast food drive thru window and headed SB on US 441 would use the right out only driveway. The distribution for traffic exiting the project site needs to reflect this. The Study should contain a table showing for each land use the traffic volumes that will exit the right only driveway and the 59th Terrace driveway.

-
NW 59th Terrace (City of Alachua maintained roadway).

1. With the right out only driveway, all SB entering traffic will use NW 59th Terrace. A SB right turn lane on US 441 into NW 59th Terrace needs to be examined in the Traffic Study.
2. The Traffic Study does not discuss improvements to NW 59th Terrace. I paced the width of 59th Terrace this morning at 21/22 feet. Auto turn plots need to be prepared to determine the appropriate width of NW 59th Terrace from US 441 to the entrance/exit driveway. The existing roadway width is not adequate.
3. The City of Alachua and CHW need to agree on the appropriate design vehicle for the on and off site improvements (fire tower truck, FDOT standard design vehicle, etc.).
4. The Traffic Study should address whether or not an acceleration lane is needed for traffic exiting NW 59th Terrace and headed SB on US 441.
5. Show on site plan that NW 59th Terrace is a City of Alachua roadway.

-
These are my preliminary comments at this time.

The updated Traffic Study and site plan will need to be reviewed when it is resubmitted.

Please contact me is questions.

Brian

Brian Kanely, P.E.
Sr. Traffic Engineer
Volkert, Inc.

The Golf Plaza Trip Generation Rates

Traffic Study (from ITE Trip Gen. 10th Edition)

Land Use	ITE LU Code	Variable	Quantity	Average Rate	Daily Trips
Gen. Office Bldg.	710	SF x(1000)	7.8	?	89
Shopping Ctr.	820	SF x(1000)	17.8	?	1,859

Total Project Daily Trips: 1,948

Revised Trip Generation using 10th Edition for Shopping Center

Land Use	ITE LU Code	Variable	Quantity	Average Rate	Daily Trips
Gen. Office Bldg.	710	SF x(1000)	7.8	11.41	89
Shopping Ctr.	820	SF x(1000)	17.8	37.75	672

Total Project Daily Trips: 761

Trip Generation Using 6,000 SF Drive Thru Restaurant

Land Use	ITE LU Code	Variable	Quantity	Average Rate	Daily Trips
Gen. Office Bldg.	710	SF x(1000)	7.8	11.41	89
Fast Food with Drive-Thru Window Restaurant	934	SF x(1000)	6.0	496.12	2,977
Specialty Ret. Ctr.	814	SF x(1000)	11.8	44.32	523

Total Project Daily Trips: 3,589

City Of Alachua

ORDINANCE 05 – 07

AN ORDINANCE OF THE CITY OF ALACHUA, FLORIDA, RELATING TO THE REZONING OF A CERTAIN 27.7 CONTIGUOUS ACRES OF LAND, PURSUANT TO AN APPLICATION REQUEST BY CAUSSEAU AND ELLINGTON, INC. AND DURATION BUILDERS, AGENTS FOR MULTI-INVESTOR TRUST A-1, B-2, C-3, D-4, E-5, F-6, G-7, H-8, I-9, J-10, OWNERS; PROVIDING FOR AN AMENDMENT TO A PUD (PLANNED UNIT DEVELOPMENT) ON CERTAIN LANDS WITHIN THE CORPORATE LIMITS OF THE CITY OF ALACHUA, FLORIDA; (TAX PARCEL #05900-004-001 THROUGH 05900-004-010); PROVIDING AN EFFECTIVE DATE.

WHEREAS, an application for a rezoning, as described below, to the Official Zoning Atlas, has been filed with the City; and,

WHEREAS, notice was provided to property owners pursuant to Chapter 166.041(3)(c)1, Florida Statutes; and,

WHEREAS, the Planning and Zoning Board held a public hearing on October 14, 2004, continued to November 9, 2004 with public notice having been provided in the Gainesville Sun, on the amendment, and at the public hearing, the Planning and Zoning Board reviewed and considered all comments received during the public hearing concerning the application and made recommendations to the City Commission; and,

WHEREAS, the City Commission, held the required public hearings on November 15, 2004, continued to December 6, 2004, continued to December 20, 2004, continued to March 07, 2005 and March 21, 2005 with public notice having been provided in the Gainesville Sun and Alachua County Today, on the application for the amendment, and at the public hearing, the City Commission reviewed and considered all comments received including the recommendations of the Planning and Zoning Board; and,

WHEREAS, the City Commission has determined and found said application for the amendment, to be compatible with the City of Alachua Comprehensive Plan and Land Development Regulations and Turkey Creek Development of Regional Impact ; and,

WHEREAS, the City Commission has determined and found that approval of said application for the amendment would promote the public health, safety, morals, order, comfort, convenience, appearance, prosperity, or general welfare.

***NOW, THEREFORE, BE IT ORDAINED BY THE PEOPLE OF THE
CITY OF ALACHUA, FLORIDA***

Section 1. Planned Unit Development Amendment

The Official Zoning Atlas designation of Planned Unit Development for the subject parcels is hereby amended to implement conditions for development and a PUD master plan on Tax parcel #05900-004-001 through 05900-004-010 in accordance with the legal description found in Exhibit A attached hereto.

Section 2. Findings

1. The City Commission finds that the proposed amendment to the Official Zoning Atlas is consistent with the City of Alachua Comprehensive Plan.
2. The PUD shall be conditioned as follows:

- 1) Residential building standards will apply as follows:

Minimum Lot Size	4,000 sq. ft.
Minimum Lot Width at building line	40 ft.
Minimum Setback requirements:	
<i>Front</i>	20 ft.
<i>Side Interior</i>	3 ft. for each yard
<i>Side Street</i>	7.5 ft.
<i>Rear</i>	7.5 ft.
Maximum Building Height	35 ft.

- 2) Site area breakdown will apply as follows:

Proposed Land Uses:	Acres	Percent of 26-acre total
<i>Residential</i>	9.6	37
<i>Commercial</i>	1.7	7
<i>Wetlands</i>	1.3	5
<i>Wetlands Buffer</i>	3.0	12
<i>Right-of-Way</i>	5.4	21
<i>Common Open Space</i>	8.1	31
<i>Gross Density (90 dwelling units/26 acres)</i>		3.46
<i>Floor Area Ratio</i>		0.24

- 3) Maximum residential density of 90 units.
- 4) Maximum commercial size of 72,400 square feet.
- 5) Shall conform to sign regulations stipulated in Section 4.2 of the City of Alachua's Land Development Regulations for the construction of all site signs.
- 6) Accessory uses and structures, constructed on the proposed project will be in keeping with the character of the district (Section 4.18.3.2).
- 7) Homeowners association may be created to maintain common open space area, which will be privately owned by the association.
- 8) Any requests for PUD revisions shall be supported by a written statement and by revised plans demonstrating the reasons for the revisions consistent with the LDR Section 4.18.8.
- 9) Retail sales and services will be consistent with those uses described in the Application for Development Approval of the Turkey Creek Development of Regional Impact.
- 10) The site will be divided into two distinct sections, residential and commercial, and will provide sound and light buffering to protect the residential character. Lighting shall be provided at a pedestrian scale.
- 11) The PUD designed to be residential and commercial development will be internally compatible and functional. Units of similar size and density must be clustered together.
- 12) The PUD may include pedestrian connections from the residential district to the commercial district. Sidewalks, meeting the requirement for the security of Turkey Creek, may be constructed along Turkey Creek Boulevard and along the section of NW 59th Terrace, adjacent to the site, and serve as a link between homes and open spaces.
- 13) All of the roadways will provide suitable transportation arteries and will be constructed and scaled to provide safety for pedestrians. The alignment of the roadways shown on the master plan may be adjusted slightly to accommodate vehicles and pedestrian safety.
- 14) The access to the commercial development will be at two points of ingress/egress. One on US Highway 441 one on NW 59th Terrace as shown on the master plan. An ingress/egress on Turkey Creek Boulevard may be constructed in the future, without amendment to the PD, if an access point is granted or requested by the Turkey Creek Master Homeowners Association.

15) The off-street parking shall meet the requirements specified for the uses found in the District Regulations and Section 4.2 of the City of Alachua Land Development Regulations. Shared parking and the use of pervious surfaces shall be utilized.

16) The development's perimeter will be landscaped in accordance to the spirit and intent of 4.2.11. Particular attention shall be paid to landscaping and buffering along US Highway 441.

17) Housing will be screened from surrounding roadways and commercial uses using landscape elements and buffer elements.

18) There will be permanently screened landscaped buffer areas located at those portions of the site that are adjacent to street and around perimeter.

19) Commercial buildings visible from US Highway 441 will be designed to maintain aesthetic design principles consistent with surrounding properties. Building shall be designed so that the "back" of the buildings shall not face US Highway 441. In instances where, due to design, the "back" of a building must face US 441, it shall be designed with a façade that is consistent with the public façade.

20) Business uses that are located adjacent to existing residential development or vacant land in residential districts, shall turn off exterior lighting during non-operating hours, except lighting that is necessary for security purposes. The public and business uses may activate on-site by-motion sensor devices for emergency purposes.

21) Wall-mounted lights shall have fully shielded luminaires (such as shoebox or canstyle fixtures) to direct all light downward, and to prevent the light source from being visible from any adjacent residential development, vacant land in a residential district, or public street. Wallpack lights visible from any location off of the site are prohibited.

22) No light sources shall be directed outward toward property boundaries or adjacent rights-of-way.

23) No light source shall directly illuminate facades of buildings visible from adjacent residential development.

24) Lighting of nonresidential development in all residential districts shall be directed downward, except for low-voltage architectural lighting.

25) Architectural, landscape, and decorative lighting used to illuminate flags, statues, or any other objects shall use a narrowly directed light whose light source is not visible from adjacent residential lands or public streets.

26) A common sign plan shall be developed as a part of the final development plan.

27) If mutually agreeable, the developer and the Turkey Creek Master Home Owners Association may enter into an easement agreement that provides emergency egress from Turkey Creek Boulevard through the residential district of the development to NW 59th Terrace, without further amendment to the Planned Development. Removable devices, may be utilized for security, to prohibit access from the general public to the development.

28) The developer shall pave, or cause to have paved, the portion of NW 59th Terrace from US 441 along the extent of the commercial portion of the property. This project shall also include any drainage projects as a result of paving. Consideration may be given to paving NW 59th Terrace south of the creek to the emergency exit.

29) During the course of the designing and permitting of the stormwater management facilities for the project and NW 59th Terrace, particular consideration and attention shall be given to correcting flooding problems within the scope of the project site. Development shall not contribute to or cause off-site flooding.

3) The development shall comply with the PUD master plan, attached hereto as Exhibit B. Minor variations, such as shifts in lot and road alignment, may occur. If there are minor deviations in the master plan, a revised plan will be submitted for the City's records.

4) The residential portions of the PUD will be required to submit construction plans and final plat documents, in accordance with the Subdivision Regulations, and receive approval of the plat prior to the commencement of any site work or construction. The commercial portions of the PUD will be

required to submit site plan documents, in accordance with the City of Alachua Land Development Regulations, and receive approval prior to the commencement of any site work or construction.

Section 3. Effective Date.

This ordinance shall take effect immediately after its passage and adoption.

PASSED on first reading the 7th day of March 2005.

PASSED and ADOPTED, in regular session, with a quorum present and voting, by the City Commission, upon second and final reading this 21st day of March 2005.

**CITY COMMISSION OF THE
CITY OF ALACHUA, FLORIDA**



Jean B. Calderwood

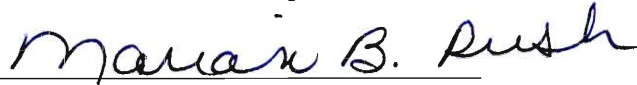
Mayor

ATTEST:



Clovis Watson, Jr. MPA
City Manager

APPROVED AS TO FORM:



Marian Rush, City Attorney

July 19, 2019

Mr. Adam Hall, AICP
Planner
City of Alachua
Office of Planning & Community Development
P.O. Box 9
Alachua, FL 32616-0009

Re: Golf Plaza - Development Plan Engineering Review

Dear Mr. Hall:

As you requested, we have reviewed the Golf Plaza Development Plan submittal drawings and other materials provided to us for the above referenced project. The drawings reviewed were created by CHW and dated 06-27-2019. Our review generated the following comments and recommendations that are outlined below.

General Notes

1. In the title block, the project name is spelled "Gulf Plaza" rather than "Golf Plaza" as stated on the cover sheet.

Sheet C0.00

1. On item 2 – Minimum Building/Yard Setbacks, the setbacks have not been filled out. Please update.

Sheet C0.10

1. Item 1 references a Topographic Survey performed on February 5, 2010. The provided survey was completed on April 15, 2019.

Sheet C0.21

1. The SWPP legend shows the symbol for tree barricade; however this tree barricade is not called out on the plan.
2. The Silt Fence callout on the north side of the property does not line up with the Silt Fence line type in some areas. Please revise
3. The Silt Fence and Tree Protection details are located on Sheet C2.30. The legend states to "refer to C0.22 for SWPP details." Please revise.
4. No detail is provided for the outflow protection.

Sheet C0.22

1. There is both outflow and inflow protection called out for S-14. Only inflow protection is required here.

Sheet C0.30

1. Proposed pavement markings should be turned off for this sheet.
2. The 19" pine near the southeast limits of the tree barricade is marked for removal however appears to be on the south side of the tree barricade fencing. Please move the tree barricade slightly further south if this tree is to be removed.
3. The legend calls out a hatch to be used for "existing improvements to be removed." This hatch does not appear to be used anywhere on the sheet.
4. Please provide a callout for the tree barricade fencing.

Sheet C0.31

1. Proposed pavement markings should be turned off for this sheet.
2. The legend calls out a hatch to be used for "existing improvements to be removed." This hatch does not appear to be used anywhere on the sheet.
3. Please provide a callout for the tree barricade fencing.

Sheet C1.10

1. Suggest labeling each building on this sheet.

Sheet C1.11

1. Suggest labeling each building on this sheet.

Sheet C1.20

1. Please provide a north arrow and graphic scale for this sheet.
2. The FDOT index 711 callout is placed on a black hatch and is very difficult to read. Please revise.
3. Callout the curb cut ramp on each building.
4. Detectable warning pads will be required at the bottom of each curb cut ramp. Please add these to each ramp and provide an FDOT callout.
5. The elevations on the east side of the Building 1 viewport are not visible.
6. The east sidewalk in front of Building 3 calls for nearly a 1 foot drop from the sidewalk to the parking lot. Please revise.

Sheet C2.10

1. Suggest labeling Buildings 1 and 2 on this sheet.
2. Label the retaining wall and provide note specifying where the details are located.
3. Provide a callout in front of the buildings specifying to see the detailed grading on Sheet C1.20.
4. Coordinate with the FDOT on whether a swale with positive runoff slope to the west from S-12 is required. We recommend this improvement.

Sheet C2.10

1. Suggest labeling Building 3 on this sheet.
2. Suggest labeling the erosion control pad on this sheet.
3. The basin labels appear to be incorrect on the north side of the basin.
4. Cross Section B-B should be drawn perpendicular to the slope.

5. Label the back slope and provide callout to denote it to be sodded.
6. Design and label a swale from S-21 for positive slope away from S-21.
7. Provide a callout to sod and pin all back slopes at 3:1 or steeper on the Cross Section B-B detail.

Sheet C3.10

1. No south invert is provided for the Sanitary Sewer Manhole located north of Building 1, yet there is a pipe that is shown to have a south invert.
2. Provide typical note about the connection to existing 8" PVC water main with fitting.
3. No fire hydrants are called out on the water main. A fire hydrant is required within 500 ft. from each building, as the truck travels.

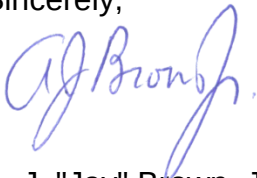
Sheet C3.11

1. No fire hydrants are called out on the water main. A fire hydrant is required within 500' from the building, as the truck travels.

SUR 1

1. Many of the items and line types presented on the legend are not located on the survey. Please remove.
2. There are several unidentified hatched rectangles located on this sheet. Please provide a callout for these or remove.

Sincerely,

A handwritten signature in blue ink, appearing to read "A. J. Brown, Jr.", is positioned above the typed name.

A. J. "Jay" Brown, Jr., PE
President, JBrown Professional Group Inc.

Cc: Daniel Young, CHW



City of Alachua

ADAM BOUKARI
CITY MANAGER

RODOLFO VALLADARES, P.E.
PUBLIC SERVICES DIRECTOR

INTER-OFFICE COMMUNICATION

DATE: July 24, 2019

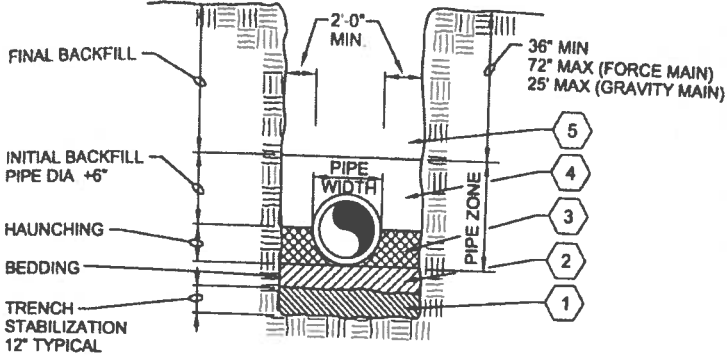
TO: Kathy Winburn, AICP
Planning & Community Development Director

FROM: Rodolfo Valladares, P.E.
Public Services Director
Tom Ridgik, P.E.
Engineering Supervisor

RE: Final Development Plans – Golf Plaza – Public Services Review

Public Services has reviewed the Golf Plaza (June 27 Submittal) Final Development Plans and offer the following comments. Review was specific to the Public Services Utilities. Overall submittal rating is **Revise and Resubmit**.

NO.	COMMENTS
1.	Sheet C0.10 Water and Wastewater General Notes - Modify Note 1 so it includes a reference to "City of Alachua, Department of Public Services, Requirements for Design and Construction, Potable Water, Reclaimed Water and Wastewater." - Minor Comment, Note 13, change spelling to "CONTRACTOR".
2.	Sheet C0.10 Electric Service General Notes It appears that someone other than "GRU Energy Delivery" is providing the electric design. Thus, please modify Note 2.
3.	Sheet C0.11 Wastewater Legend Existing gravity wastewater mains are called out as "SS". Please call out on the abbreviation list
4.	Sheet C2.30 - Suggest that a detail be added for a cleanout. - Suggest that a detail be added for a PRZ Backflow Preventer.

NO.	COMMENTS
5.	CoA Standard Detail 420 is need of revision. The CoA plans to update this detail in the soon-to-be-revised Design and Construction Manual. In the interim, please replace the detail as shown below. (Note: CHW may have already revised this detail in a previous project.)  NOTES: - TRENCH STABILIZATION SHALL BE PROVIDED TO A DEPTH OF 12-INCHES. THE MATERIAL SHALL BE NO. 57 STONE. - BEDDING SHALL BE A MINIMUM OF 6-INCHES AND COMPOSED OF IMPORTED GRANULAR FILL. COMPACT TO 95% STANDARD PROCTOR, AASHTO T-99. - HUNCHING PORTION OF THE PIPE ZONE SHALL BE PLACED TO THE SPRINGLINE OF THE PIPE AND COMPOSED OF IMPORTED GRANULAR FILL. COMPACT TO 95% STANDARD PROCTOR ASSHTO T-99. - INITIAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180. FROM THE SPRINGLINE OF THE PIPE TO TWO (2) FEET ABOVE THE PIPE THE SOIL SHALL BE CAREFULLY BACKFILLED IN 6-INCH LIFTS AND THE SOIL CONSOLIDATED WITH THE HAND OPERATED TAMPING MACHINE (OR AS REQUIRED BY CITY, COUNTY, OR STAT INSPECTORS). - FINAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180. AFTER PLACEMENT AND COMPACTION OF THE INITIAL BACKFILL, THE BALANCE OF THE BACKFILL MATERIAL MAY BE MACHINE PLACED OR AS REQUIRED BY THE INSPECTOR AND SHALL NOT CONTAIN ANY ROCKS OR DEBRIS. - WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION. - ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW. - DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. UTILITIES SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION. THE BOTTOM OF THE TRENCH SHALL NOT BE EXCAVATED BELOW THE SPECIFIED GRADE. IF UNDERCUTTING OCCURS, THE BOTTOM OF THE TRENCH SHALL BE BROUGHT UP TO THE ORIGINAL GRADE WITH APPROVED MATERIAL AND THOROUGHLY COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR. - FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES.

NO.	COMMENTS
6.	Sheet C3.10 Inset CC: Item 7 is a 12- x 3-inch tap and wet valve. Inasmuch as 3-inch piping and fittings are not a CoA standard, please replace with a 12- x 4-inch tap and wet valve. Please select downstream piping such that 3-inch piping is not installed. Please change fitting schedule.
7.	Sheet C3.11 Inset CC: Same comment as above.
8.	Sheets C3.10 and C3.11 Please show the existing easement on these two drawings. Also add note referencing this easement: namely, "Alachua County Clerk of the Court, Book 3866, Page 12".
10.	Sheet E-1: Please modify Construction Notes on this Drawing as per Attachment 1.
END OF COMMENTS	

Please advise if you have any questions or require additional information.

cc: Justin Tabor – AICP Principal Planner

Adam Hall – AICP Planner

Harry Dillard – Lead Engineering Technician

ATTACHMENT 1

SUGGESTED MODIFICATIONS TO CONSTRUCTION NOTES ON DRAWING E-1

SCOPE OF PROJECT: AT NO COST TO THE CITY, THE WORK SHALL INCLUDE (BUT NOT BE LIMITED TO) THE FOLLOWING COMPLETE (AND OPERATING) SYSTEMS AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. CONTRACTOR SHALL FURNISH THE FOLLOWING PRODUCTS: ALL PRIMARY CABLES, ALL SECONDARY CABLES, ALL TRANSFORMERS AND MAKE-UP MATERIALS. THE CITY OF ALACHUA WILL ORDER THESE PRODUCTS, WHICH SHALL BE PAID FOR BY THE CONTRACTOR . ONCE ON SITE, THESE PRODUCTS WILL BE INSTALLED BY THE CITY OF ALACHUA. ALL PRIMARY MAKEUP, SECONDARY MAKEUP, CONNECTIONS AND TESTING WILL BE COMPLETED BY THE CITY OF ALACHUA. ALL WORK DONE BY THE CITY OF ALACHUA WILL BE BACKCHARGED TO THE CONTRACTOR. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL OTHER MATERIALS, INCLUDING, BUT NOT LIMITED TO ALL CONDUIT, ENCLOSURES, POLES, LUMINAIRES, TRANSFORMER PADS AND SWITCHGEAR BASES.

1.1 THE CONTRACTOR SHALL SCHEDULE AN ELECTRICAL COORDINATION MEETING AT THE START OF THE PROJECT. REQUIRED ATTENDEES INCLUDE THE CONTRACTOR, THE ELECTRICAL SUB CONTRACTOR, THE ENGINEER OF RECORD, THE CITY OF ALACHUA PROJECT MANAGER AND CITY OF ALACHUA ELECTRICAL STAFF.

Development Review Team (DRT) Meeting

Meeting Date: July 24, 2019 (Applicant)

Name	Email	Mailing Address	Phone
------	-------	-----------------	-------

[illegible]



City of Alachua

ADAM BOUKARI
CITY MANAGER

PLANNING & COMMUNITY DEVELOPMENT
DIRECTOR KATHY WINBURN, AICP

July 2, 2019

Daniel Young, P.E.
CHW, Inc.
11801 Research Drive
Alachua, FL 32615

Also submitted electronically to daniely@chw-inc.com

**RE: Conditional Application Acceptance for The Golf Plaza Site Plan –
Parcel Nos. 05900-004-001 through 05900-004-010**

Dear Mr Young:

On June 27, 2019 the City of Alachua received your site plan application for the Golf Plaza project, which proposes the construction of 9,880 square feet of retail space, 7,800 square feet of office space, and 8,320 square feet of restaurant space in three proposed buildings located on a 8.24 acre subject property (Parcel Nos. 05900-004-001 through 05900-004-010).

According to Section 2.2.6 of the Land Development Regulations (LDRs), upon receipt of an application, a completeness review shall be conducted to determine that the application contains all the necessary information and materials, is in proper form and of sufficient detail, and is accompanied by the appropriate fee. The Planning Department has reviewed the aforementioned application for completeness and finds that the application is complete, conditional upon submission of certain information found below. This information must be submitted not later than 5 PM on July 8, 2019.

Please note, the comments below are based solely on a preliminary review of your application for completeness. The contents of the applications **have not** been thoroughly reviewed. An in-depth review of the content of the application will be performed subsequently and any further issues with content will be provided to you at the Development Review Team meeting, which will be scheduled separately from this letter.

Please address the following:

1. Mailing Labels
 - a. Submitted mailing labels appear to not include 24 parcels located within 400' of the subject property. Please provide updated mailing labels that include the following parcels:

Tax Parcel Numbers

05900-040-022	05900-040-073
05900-040-023	05900-040-074
05900-040-024	05900-040-075
05900-040-025	05900-040-081
05900-040-026	05900-040-082
05900-040-028	05900-040-083
05900-040-055	05900-040-085
05900-040-056	05900-040-087
05900-040-057	05900-040-088
05900-040-058	05900-040-089
05900-040-059	92060-503-901
05900-040-072	05900-002-010

2. Submission of traffic study is required. The City will consult with outside traffic engineering consultant for review of study.

Should you have any questions, please feel free to contact me at (386) 418-6100, ext. 108 or via email at ahall@cityofalachua.com.

Sincerely,



Adam Hall, AICP
Planner

c: Kathy Winburn, AICP, Planning Director
Justin Tabor, AICP, Principal Planner
File

City Of Alachua

ORDINANCE 05 – 07

AN ORDINANCE OF THE CITY OF ALACHUA, FLORIDA, RELATING TO THE REZONING OF A CERTAIN 27.7 CONTIGUOUS ACRES OF LAND, PURSUANT TO AN APPLICATION REQUEST BY CAUSSEAU AND ELLINGTON, INC. AND DURATION BUILDERS, AGENTS FOR MULTI-INVESTOR TRUST A-1, B-2, C-3, D-4, E-5, F-6, G-7, H-8, I-9, J-10, OWNERS; PROVIDING FOR AN AMENDMENT TO A PUD (PLANNED UNIT DEVELOPMENT) ON CERTAIN LANDS WITHIN THE CORPORATE LIMITS OF THE CITY OF ALACHUA, FLORIDA; (TAX PARCEL #05900-004-001 THROUGH 05900-004-010); PROVIDING AN EFFECTIVE DATE.

WHEREAS, an application for a rezoning, as described below, to the Official Zoning Atlas, has been filed with the City; and,

WHEREAS, notice was provided to property owners pursuant to Chapter 166.041(3)(c)1, Florida Statutes; and,

WHEREAS, the Planning and Zoning Board held a public hearing on October 14, 2004, continued to November 9, 2004 with public notice having been provided in the Gainesville Sun, on the amendment, and at the public hearing, the Planning and Zoning Board reviewed and considered all comments received during the public hearing concerning the application and made recommendations to the City Commission; and,

WHEREAS, the City Commission, held the required public hearings on November 15, 2004, continued to December 6, 2004, continued to December 20, 2004, continued to March 07, 2005 and March 21, 2005 with public notice having been provided in the Gainesville Sun and Alachua County Today, on the application for the amendment, and at the public hearing, the City Commission reviewed and considered all comments received including the recommendations of the Planning and Zoning Board; and,

WHEREAS, the City Commission has determined and found said application for the amendment, to be compatible with the City of Alachua Comprehensive Plan and Land Development Regulations and Turkey Creek Development of Regional Impact ; and,

WHEREAS, the City Commission has determined and found that approval of said application for the amendment would promote the public health, safety, morals, order, comfort, convenience, appearance, prosperity, or general welfare.

NOW, THEREFORE, BE IT ORDAINED BY THE PEOPLE OF THE CITY OF ALACHUA, FLORIDA

Section 1. Planned Unit Development Amendment

The Official Zoning Atlas designation of Planned Unit Development for the subject parcels is hereby amended to implement conditions for development and a PUD master plan on Tax parcel #05900-004-001 through 05900-004-010 in accordance with the legal description found in Exhibit A attached hereto.

Section 2. Findings

1. The City Commission finds that the proposed amendment to the Official Zoning Atlas is consistent with the City of Alachua Comprehensive Plan.
2. The PUD shall be conditioned as follows:

- 1) Residential building standards will apply as follows:

Minimum Lot Size	4,000 sq. ft.
Minimum Lot Width at building line	40 ft.
Minimum Setback requirements:	
<i>Front</i>	20 ft.
<i>Side Interior</i>	3 ft. for each yard
<i>Side Street</i>	7.5 ft.
<i>Rear</i>	7.5 ft.
Maximum Building Height	35 ft.

- 2) Site area breakdown will apply as follows:

Proposed Land Uses:	Acres	Percent of 26-acre total
<i>Residential</i>	9.6	37
<i>Commercial</i>	1.7	7
<i>Wetlands</i>	1.3	5
<i>Wetlands Buffer</i>	3.0	12
<i>Right-of-Way</i>	5.4	21
<i>Common Open Space</i>	8.1	31
<i>Gross Density (90 dwelling units/26 acres)</i>		3.46
<i>Floor Area Ratio</i>		0.24

- 3) Maximum residential density of 90 units.
- 4) Maximum commercial size of 72,400 square feet.
- 5) Shall conform to sign regulations stipulated in Section 4.2 of the City of Alachua's Land Development Regulations for the construction of all site signs.
- 6) Accessory uses and structures, constructed on the proposed project will be in keeping with the character of the district (Section 4.18.3.2).
- 7) Homeowners association may be created to maintain common open space area, which will be privately owned by the association.
- 8) Any requests for PUD revisions shall be supported by a written statement and by revised plans demonstrating the reasons for the revisions consistent with the LDR Section 4.18.8.
- 9) Retail sales and services will be consistent with those uses described in the Application for Development Approval of the Turkey Creek Development of Regional Impact.
- 10) The site will be divided into two distinct sections, residential and commercial, and will provide sound and light buffering to protect the residential character. Lighting shall be provided at a pedestrian scale.
- 11) The PUD designed to be residential and commercial development will be internally compatible and functional. Units of similar size and density must be clustered together.
- 12) The PUD may include pedestrian connections from the residential district to the commercial district. Sidewalks, meeting the requirement for the security of Turkey Creek, may be constructed along Turkey Creek Boulevard and along the section of NW 59th Terrace, adjacent to the site, and serve as a link between homes and open spaces.
- 13) All of the roadways will provide suitable transportation arteries and will be constructed and scaled to provide safety for pedestrians. The alignment of the roadways shown on the master plan may be adjusted slightly to accommodate vehicles and pedestrian safety.
- 14) The access to the commercial development will be at two points of ingress/egress. One on US Highway 441 one on NW 59th Terrace as shown on the master plan. An ingress/egress on Turkey Creek Boulevard may be constructed in the future, without amendment to the PD, if an access point is granted or requested by the Turkey Creek Master Homeowners Association.

15) The off-street parking shall meet the requirements specified for the uses found in the District Regulations and Section 4.2 of the City of Alachua Land Development Regulations. Shared parking and the use of pervious surfaces shall be utilized.

16) The development's perimeter will be landscaped in accordance to the spirit and intent of 4.2.11. Particular attention shall be paid to landscaping and buffering along US Highway 441.

17) Housing will be screened from surrounding roadways and commercial uses using landscape elements and buffer elements.

18) There will be permanently screened landscaped buffer areas located at those portions of the site that are adjacent to street and around perimeter.

19) Commercial buildings visible from US Highway 441 will be designed to maintain aesthetic design principles consistent with surrounding properties. Building shall be designed so that the "back" of the buildings shall not face US Highway 441. In instances where, due to design, the "back" of a building must face US 441, it shall be designed with a façade that is consistent with the public façade.

20) Business uses that are located adjacent to existing residential development or vacant land in residential districts, shall turn off exterior lighting during non-operating hours, except lighting that is necessary for security purposes. The public and business uses may activate on-site by-motion sensor devices for emergency purposes.

21) Wall-mounted lights shall have fully shielded luminaires (such as shoebox or canstyle fixtures) to direct all light downward, and to prevent the light source from being visible from any adjacent residential development, vacant land in a residential district, or public street. Wallpack lights visible from any location off of the site are prohibited.

22) No light sources shall be directed outward toward property boundaries or adjacent rights-of-way.

23) No light source shall directly illuminate facades of buildings visible from adjacent residential development.

24) Lighting of nonresidential development in all residential districts shall be directed downward, except for low-voltage architectural lighting.

25) Architectural, landscape, and decorative lighting used to illuminate flags, statues, or any other objects shall use a narrowly directed light whose light source is not visible from adjacent residential lands or public streets.

26) A common sign plan shall be developed as a part of the final development plan.

27) If mutually agreeable, the developer and the Turkey Creek Master Home Owners Association may enter into an easement agreement that provides emergency egress from Turkey Creek Boulevard through the residential district of the development to NW 59th Terrace, without further amendment to the Planned Development. Removable devices, may be utilized for security, to prohibit access from the general public to the development.

28) The developer shall pave, or cause to have paved, the portion of NW 59th Terrace from US 441 along the extent of the commercial portion of the property. This project shall also include any drainage projects as a result of paving. Consideration may be given to paving NW 59th Terrace south of the creek to the emergency exit.

29) During the course of the designing and permitting of the stormwater management facilities for the project and NW 59th Terrace, particular consideration and attention shall be given to correcting flooding problems within the scope of the project site. Development shall not contribute to or cause off-site flooding.

3) The development shall comply with the PUD master plan, attached hereto as Exhibit B. Minor variations, such as shifts in lot and road alignment, may occur. If there are minor deviations in the master plan, a revised plan will be submitted for the City's records.

4) The residential portions of the PUD will be required to submit construction plans and final plat documents, in accordance with the Subdivision Regulations, and receive approval of the plat prior to the commencement of any site work or construction. The commercial portions of the PUD will be

required to submit site plan documents, in accordance with the City of Alachua Land Development Regulations, and receive approval prior to the commencement of any site work or construction.

Section 3. Effective Date.

This ordinance shall take effect immediately after its passage and adoption.

PASSED on first reading the 7th day of March 2005.

PASSED and ADOPTED, in regular session, with a quorum present and voting, by the City Commission, upon second and final reading this 21st day of March 2005.

**CITY COMMISSION OF THE
CITY OF ALACHUA, FLORIDA**



Jean B. Calderwood

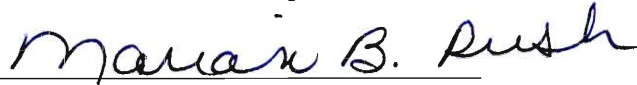
Mayor

ATTEST:



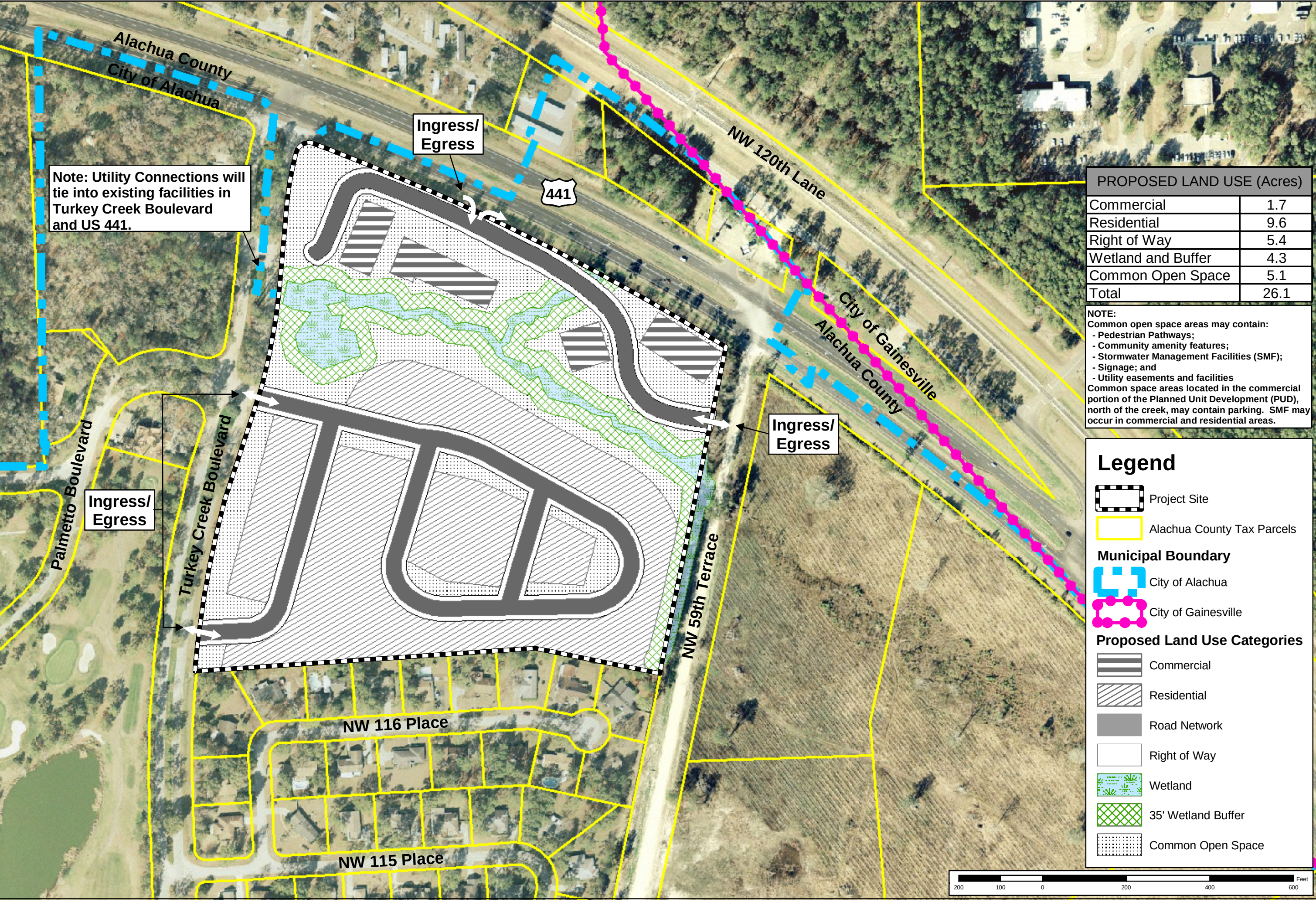
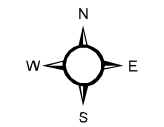
Clovis Watson, Jr. MPA
City Manager

APPROVED AS TO FORM:



Marian Rush, City Attorney

DURATION BUILDERS
PLANNED UNIT DEVELOPMENT



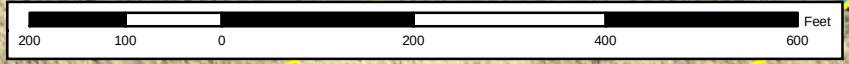
Note: Utility Connections will tie into existing facilities in Turkey Creek Boulevard and US 441.

PROPOSED LAND USE (Acres)	
Commercial	1.7
Residential	9.6
Right of Way	5.4
Wetland and Buffer	4.3
Common Open Space	5.1
Total	26.1

NOTE:
Common open space areas may contain:
- Pedestrian Pathways;
- Community amenity features;
- Stormwater Management Facilities (SMF);
- Signage; and
- Utility easements and facilities
Common space areas located in the commercial portion of the Planned Unit Development (PUD), north of the creek, may contain parking. SMF may occur in commercial and residential areas.

Legend

- Project Site
- Alachua County Tax Parcels
- Municipal Boundary**
 - City of Alachua
 - City of Gainesville
- Proposed Land Use Categories**
 - Commercial
 - Residential
 - Road Network
 - Right of Way
 - Wetland
 - 35' Wetland Buffer
 - Common Open Space



SECTION 43. SHOPPING CENTERS

A. INDICATE WHETHER THE TENANTS OF THE PROPOSED SHOPPING CENTER WILL BE NEW TO THE REGION, ESTABLISHING A NEW BRANCH IN THE REGION, OR RELOCATING WITHIN THE REGION. SPECIFY BY TYPE OF TRADE.

Most of the tenants of the proposed shopping center will be establishing new branches in the region. The neighborhood shopping center will contain approximately 72,000 square feet of gross leaseable area. A breakdown of the potential mix of services offered by a typical neighborhood shopping center is presented below.

<u>Type of Trade</u>	<u>Square Footage</u>	<u>Percent</u>
Supermarket	21,500	30
Eating and Drinking	5,400	7.5
Books and Stationery	3,500	4.8
Hardware, Paint	8,500	11.7
Health Services	9,500	13.2
Apparel and Accessories	3,500	4.8
Real Estate	1,500	2.1
Bank/S & L	3,000	4.2
Professional Services	4,000	5.6
(Barber Shop, Beauty Salon, Laundry)		
Service Station	1,500	2.1
Movie Theatre	8,000	11.2
Miscellaneous	2,000	2.8
	71,900	100%

**EXCERPT PAGE FROM ORIGINAL, ADOPTED
TURKEY CREEK DRI
APPLICATION FOR DEVELOPMENT APPROVAL
INCLUDED FOR REFERENCE**

B. DESCRIBE THE PRIMARY AND SECONDARY TRADE AREAS WHICH THE PROPOSED SHOPPING CENTER WILL SERVE. ESTIMATE ANNUAL SALES TO CUSTOMERS BY COUNTY OF THEIR RESIDENCE.

The proposed shopping center will serve the development itself as the primary trade area. Secondary trade area would be areas surrounding the development. The annual sales expected from the shopping center is projected to be 7.8 to 8.2 million dollars in 1981 dollars. The shopping center customers will be Alachua County residents.

C. IF AVAILABLE WHAT WILL BE THE COST RANGE PER UNIT OR SQUARE FOOT FOR TENANTS TO OCCUPY THE SITE?

The lease cost of the shopping center is expected to be between \$5 to \$10 per square foot per year depending on the size of the establishment.

**EXCERPT PAGE FROM ORIGINAL, ADOPTED
TURKEY CREEK DRI
APPLICATION FOR DEVELOPMENT APPROVAL
INCLUDED FOR REFERENCE**

FINAL DEVELOPMENT PLANS

FOR:

THE GOLF PLAZA

CITY OF ALACHUA

SECTION 27, 28, TOWNSHIP 8 SOUTH, RANGE 19 EAST

SUBMITTED TO:

CITY OF ALACHUA

SUWANNEE RIVER WATER MANAGEMENT DISTRICT

FLORIDA DEPARTMENT OF TRANSPORTATION

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

GENERAL NOTES

1. DEVELOPMENT DATA:

TOTAL SITE AREA =	359,272 S.F.	100.0%	8.25 ACRES
TOTAL IMPERVIOUS AREA =	103,426 S.F.	28.8%	
OPEN SPACE =	255,846 S.F.	71.2%	

DESCRIPTION: THE PROPOSED GOLF PLAZA PROJECT WILL CONSIST OF THREE COMMERCIAL BUILDINGS AND THE ASSOCIATED PARKING, STORMWATER IMPROVEMENTS AND UTILITIES.

ZONING & LAND USE DESIGNATION:
ZONING = PLANNED UNIT DEVELOPMENT (PUD)
FUTURE LAND USE = COMMERCIAL

2. MINIMUM BUILDING / YARD SETBACKS PER PUD ZONING ARE AS FOLLOWS:

PRIMARY BUILDING	
FRONT:	0
SIDE:	0
REAR:	0
MINIMUM LOT AREA:	0
MINIMUM LOT WIDTH:	0
MAX BUILDING HEIGHT:	0
MAX LOT COVERAGE:	0

3. PARKING CALCULATIONS:

REQUIRED PARKING SPACES

RETAIL (1 SPACE PER 305 SF OF FLOOR SPACE) = 14,198 SF / 305 SF = 47 REQUIRED SPACES

OFFICE (1 SPACE PER 330 SF OF FLOOR SPACE) = 7,500 SF / 330 SF = 23 REQUIRED SPACES

RESTAURANT (1 SPACE PER 150 SF OF FLOOR SPACE) = 3,330 SF / 150 SF = 22 REQUIRED SPACES

TOTAL REQUIRED SPACES = 92
TOTAL PARKING SPACES PROVIDED = 115

ACCESSIBLE PARKING REQUIRED SPACES = 5 (101 TO 150 PARKING SPACES)
ACCESSIBLE PARKING SPACES PROVIDED = 5

REQUIRED BICYCLE PARKING

1 SPACE PER 10 REQUIRED PARKING SPACE = 92 SPACES / 10 = 9 REQUIRED SPACES
BICYCLE PARKING SPACES PROVIDED: 12

4. DATE OF BOUNDARY SURVEY:
A BOUNDARY AND TOPOGRAPHIC SURVEY WAS COMPLETED BY CHW AND DATED APRIL 15, 2019.

5. UTILITIES:
- POTABLE WATER SERVICE WILL BE TIED INTO THE EXISTING 12" WM LOCATED ON THE NORTH SIDE OF THE PROJECT WITHIN THE US 441 ROW.

- SANITARY SEWER SERVICE WILL BE TIED INTO THE EXISTING 8" SANITARY SEWER MAIN LOCATED ON THE NORTH SIDE OF THE PROJECT WITHIN THE US 441 ROW.

- ELECTRIC SERVICE WILL BE PROVIDED FROM EXISTING CITY OF ALACHUA ELECTRIC LOCATED ON THE NORTH SIDE OF THE PROJECT WITHIN THE US 441 ROW.

- RECLAIM WATER SERVICE IS NOT AVAILABLE TO THE PROJECT SITE AT THE CURRENT TIME.

6. RESIDENTIAL PROTECTION STANDARDS

(1) HOURS OF OPERATION AND DELIVERIES. PROJECT SITE SHALL HAVE NORMAL HOURS OF OPERATION AS 7:00AM TO 10:00PM. DELIVERIES MADE BY ANY VEHICLE WITH A GROSS VEHICLE WEIGHT RATING GREATER THAN 22,000 POUNDS SHALL BE LIMITED TO BETWEEN 7:00AM AND 7:00PM ON WEEK DAYS (MONDAY THROUGH FRIDAY) AND TO BETWEEN 8:00AM AND 6:00PM ON WEEKEND DAYS (SATURDAY AND SUNDAY).

(2) ACTIVITIES THAT GENERATE POTENTIAL ADVERSE IMPACTS. THERE ARE NO ACTIVITIES PROPOSED WITH POTENTIAL ADVERSE EFFECTS.

(3) PLACEMENT OF TRASH RECEPTACLES. DUMPSTER ENCLOSURES HAVE BEEN PLACED TO NOT CAUSE A VISIBLE DISTURBANCE TO NEARBY RESIDENTS. DUMPSTER ENCLOSURE IS GREATER THAN 150' AWAY FROM ANY RESIDENTIAL AREAS.

(4) LOADING AND DELIVERY AREA. LOADING AREAS HAVE BEEN PLACED BEHIND THE PROPOSED BUILDINGS. LOADING AREAS ARE SCREENED FROM VIEW BY THE 50' WETLAND BUFFER TO THE SOUTH.

(5) LIGHTING. REFER TO LIGHTING AND PHOTOMETRIC PLANS FOR LOCATION AND INTENSITY OF LIGHTS. LIGHTS WILL BE UTILIZED DURING HOURS OF OPERATION AND UTILIZE FULL CUT-OFF FIXTURES.

(6) PLACEMENT OF OUTDOOR MACHINES AND ACTIVITIES. NO OUTDOOR MACHINES OR ACTIVITIES ARE PROPOSED AT THIS TIME.

(7) ADDITIONAL LANDSCAPING AND BUFFERING TO MITIGATE ADVERSE IMPACTS. LANDSCAPING HAS BEEN PROPOSED TO PROVIDE ADEQUATE BUFFER FROM RESIDENTIAL AREAS. MINIMUM 50' WETLAND BUFFER TO THE SOUTH IS ALSO USED AS BUFFER TO MITIGATE ADVERSE IMPACTS.

(8) HEIGHT RESTRICTIONS. THE MAXIMUM BUILDING HEIGHT IS 29'0".

(9) PRESERVATION OF NATURAL LIGHTING AND SOLAR ACCESS. THIS PROJECT DOES NOT PROPOSE ANY NATURAL LIGHTING OR SOLAR ACCESS RESTRICTIONS.

(10) VENTILATION AND CONTROL OF ODORS AND FUMES. VENTILATION AND CONTROL OF ODORS AND FUMES WILL BE PROVIDED WITHIN THE BUILDING'S HVAC SYSTEM.

(11) PAVING AND PARKING AREAS. DUST CONTROL WILL BE CONTROLLED BY WATERING TRUCKS OR OTHER BEST MANAGEMENT PRACTICES.

(12) PLACEMENT OR CONFIGURATION OF SITE DESIGN. PROPOSED SITE DESIGN CONFIGURATION HAS BEEN SELECTED TO PROVIDE MINIMAL ADVERSE IMPACTS TO THE NEIGHBORING RESIDENTIAL AREAS. A DENSE BUFFER IS EXISTING BETWEEN THE RESIDENTIAL AREA AND PROPOSED IMPROVEMENTS.

7. DRAINAGE:

THE PROJECT PROPOSES TWO NEW STORMWATER MANAGEMENT FACILITIES (SMF-1 AND SMF-2) TO ACCOMMODATE THE PROPOSED CONSTRUCTION. THE SMFS WILL DISCHARGE TO THE TURKEY CREEK TRIBUTARY TO THE SOUTH OF THE PROJECT.

8. NATURAL FEATURES: TOPOGRAPHY WILL SLOPE FROM NORTH TO SOUTH WITH TURKEY CREEK RUNNING THROUGH THE SOUTH PORTION OF THE SITE.

9. CONCURRENCY IMPACT ANALYSIS: SUBMITTED UNDER SEPARATE COVER

10. LEGAL DESCRIPTION: (PREPARED BY THIS OFFICE, PROJECT NUMBER 04-446.01, DATED FEBRUARY 20TH, 2006)

A PARCEL OF LAND LYING IN SECTIONS 27 & 28, TOWNSHIP 8 SOUTH, RANGE 19 EAST, CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A 4"x4" CONCRETE MONUMENT (C&E INC. LB 5075) AT THE NORTHWEST CORNER OF DRY CREEK, AS RECORDED IN PLAT BOOK 'J', PAGE 23, PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, SAID MONUMENT BEING ON EASTERLY LINE OF TURKEY CREEK BOULEVARD, AS RECORDED IN OFFICIAL RECORDS BOOK 1116, PAGE 479, OF SAID PUBLIC RECORDS, AND BEING ON A CURVE CONCAVE EASTERLY, HAVING A RADIUS OF 2395.00 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE AND ALONG THE SAID EASTERLY LINE, AN ARC DISTANCE OF 418.27 FEET, THROUGH AN ARC ANGLE OF 10'00'23", SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF NORTH 10°54'58" EAST, 417.74 FEET TO A 4"x4" CONCRETE MONUMENT (C&E INC. LB 5075) AT THE POINT OF TANGENCY; THENCE CONTINUE ALONG THE SAID EASTERLY LINE NORTH 15°55'10" EAST, A DISTANCE OF 275.00 FEET TO A 4"x4" CONCRETE MONUMENT (C&E INC. LB 5075) AND THE POINT OF CURVATURE OF A TANGENT CURVE, CONCAVE WESTERLY, HAVING A RADIUS OF 1505.00 FEET; THENCE NORTHERLY ALONG THE ARC OF SAID CURVE AND ALONG THE SAID EASTERLY LINE, AN ARC DISTANCE OF 204.56 FEET, THROUGH AN ARC ANGLE OF 07°47'16", SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF NORTH 12°01'52" EAST, 204.40 FEET TO A 4"x4" CONCRETE MONUMENT (C&E INC. LB 5075) AND THE POINT OF BEGINNING; THENCE DEPARTING SAID EASTERLY LINE SOUTH 70°29'10" EAST, A DISTANCE OF 53.18 FEET; THENCE SOUTH 80°58'19" EAST, A DISTANCE OF 38.89 FEET; THENCE NORTH 66°40'39" EAST, A DISTANCE OF 41.37 FEET; THENCE SOUTH 75°58'56" EAST, A DISTANCE OF 201.48 FEET; THENCE SOUTH 86°38'04" EAST, A DISTANCE OF 73.08 FEET; THENCE SOUTH 75°12'45" EAST, A DISTANCE OF 52.13 FEET; THENCE SOUTH 48°00'43" EAST, A DISTANCE OF 226.21 FEET; THENCE SOUTH 66°59'53" EAST, A DISTANCE OF 153.48 FEET; THENCE SOUTH 55°34'30" EAST, A DISTANCE OF 261.01 FEET TO THE EASTERLY LINE OF THE LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 2288, PAGE 2230 OF SAID PUBLIC RECORDS; THENCE NORTH 12°25'50" EAST, ALONG THE SAID EASTERLY LINE, A DISTANCE OF 5579.58 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE AND SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 332.40 FEET TO A 4"x4" CONCRETE MONUMENT (C&E INC. LB 5075) ON THE SOUTHERLY RIGHT OF WAY LINE OF U.S. HIGHWAY No. 441 (A 200' RIGHT OF WAY), SAID POINT AT THE NORTHEAST CORNER OF THE LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 2288, PAGE 2230 OF SAID PUBLIC RECORDS AND BEING ON A CURVE CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 1143.57 FEET, THROUGH AN ARC ANGLE OF 11°44'35", SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF NORTH 63°22'57" WEST, 1141.57 FEET TO A 4"x4" CONCRETE MONUMENT (C&E INC. LB 5075) AT THE BEGINNING OF A CURVE CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 745.00 FEET; THENCE SOUTHERLY ALONG THE ARC OF SAID CURVE AND THE AFOREMENTIONED EASTERLY LINE OF TURKEY CREEK BOULEVARD, A DISTANCE OF 160.54 FEET, THROUGH AN ARC ANGLE OF 12°20'48", SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF SOUTH 12°10'34" WEST, 160.23 FEET TO A 4"x4" CONCRETE MONUMENT (C&E INC. LB 5075); THENCE SOUTH 06°00'10" WEST, ALONG SAID EASTERLY LINE, A DISTANCE OF 182.00 FEET TO A 4"x4" CONCRETE MONUMENT (C&E INC. LB 5075) AT THE BEGINNING OF A TANGENT CURVE CONCAVE WESTERLY, HAVING A RADIUS OF 1505.00 FEET; THENCE SOUTHERLY ALONG THE ARC OF SAID CURVE AND SAID EASTERLY LINE, A DISTANCE OF 55.92 FEET, THROUGH AN ARC ANGLE OF 2°07'45", SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF SOUTH 07°04'02" W, 55.92 FEET TO THE POINT OF BEGINNING.

CONTAINING 8.25 ACRES, MORE OR LESS.

DEVELOPER/OWNER

MR. USMAN MAZHARRANA
NATURE VALLEY HARVEST, LTD
632 TURKEY CREEK
ALACHUA, FL 32615

SURVEYOR OF RECORD

AARON H. HICKMAN, P.L.S.
CHW
11801 RESEARCH DRIVE
ALACHUA, FL 32615
(352) 331-1976

ENGINEER OF RECORD

DANIEL H. YOUNG, P.E.
CHW
11801 RESEARCH DRIVE
ALACHUA, FL 32615
(352) 331-1976

LANDSCAPE ARCHITECT

CAELI TOLAR, PLA
CHW
11801 RESEARCH DRIVE
ALACHUA, FL 32615
(352) 331-1976

PHOTOMETRIC

BILL STORMANT, PE
5304 NW 173 STREET
ALACHUA, FL 32615
(352) 472-3642
stormantwt@cox.net

SHEET INDEX

SHEET NUMBER	DESCRIPTION
C0.00	COVER SHEET AND INDEX
C0.10	GENERAL NOTES
C0.11	LEGEND
1 - 3 OF 3	BOUNDARY AND TOPOGRAPHIC SURVEY
C0.20	STORMWATER POLLUTION PREVENTION PLAN NOTES
C0.21 - C0.22	STORMWATER POLLUTION PREVENTION PLAN
C0.30 - C0.31	DEMOLITION AND TREE PROTECTION PLAN
C1.10 - C1.11	DETAILED HORIZONTAL CONTROL AND SITE PLAN
C1.20	ACCESSIBLE SITE PLAN AND DETAILS
C2.10 - C2.11	DETAILED GRADING AND DRAINAGE PLAN
C2.30	CONSTRUCTION DETAILS
C3.10	DETAILED UTILITY PLAN
LS-1	LANDSCAPE NOTES
LS-2 - LS-3	LANDSCAPE PLAN
IR-1 - IR-2	IRRIGATION DIAGRAM
E-1 - E-4	PHOTOMETRIC PLAN
A110, A120, A130	ARCHITECTURAL FLOOR AND ROOF PLANS
A210, A220, A230	ARCHITECTURAL EXTERIOR ELEVATIONS

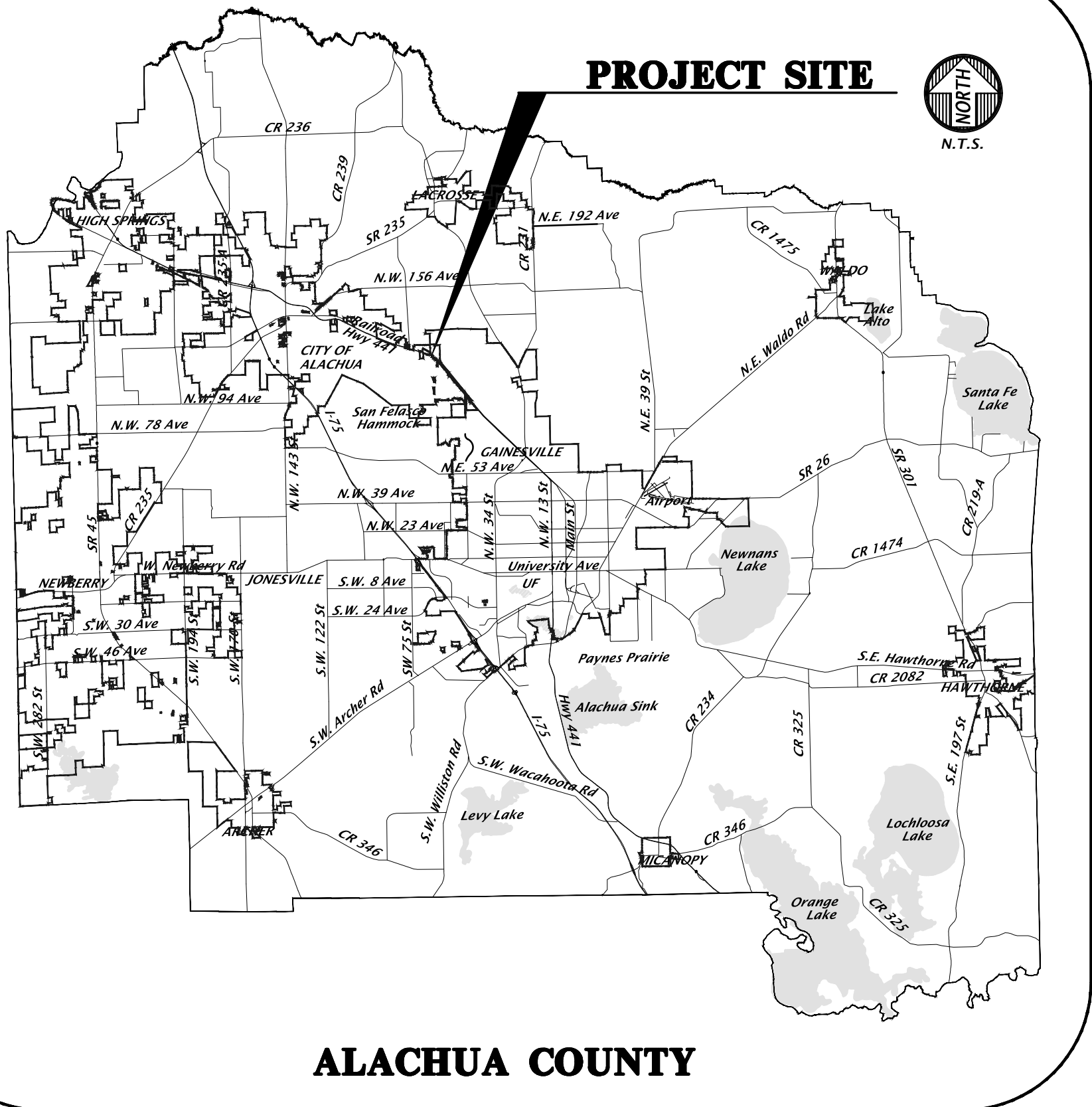
BEFORE YOU DIG !
CALL SUNSHINE STATE ONE CALL OF FLORIDA
AT LEAST TWO FULL BUSINESS DAYS BEFORE
DIGGING OR DISTURBING EARTH

1-800-432-4770

811

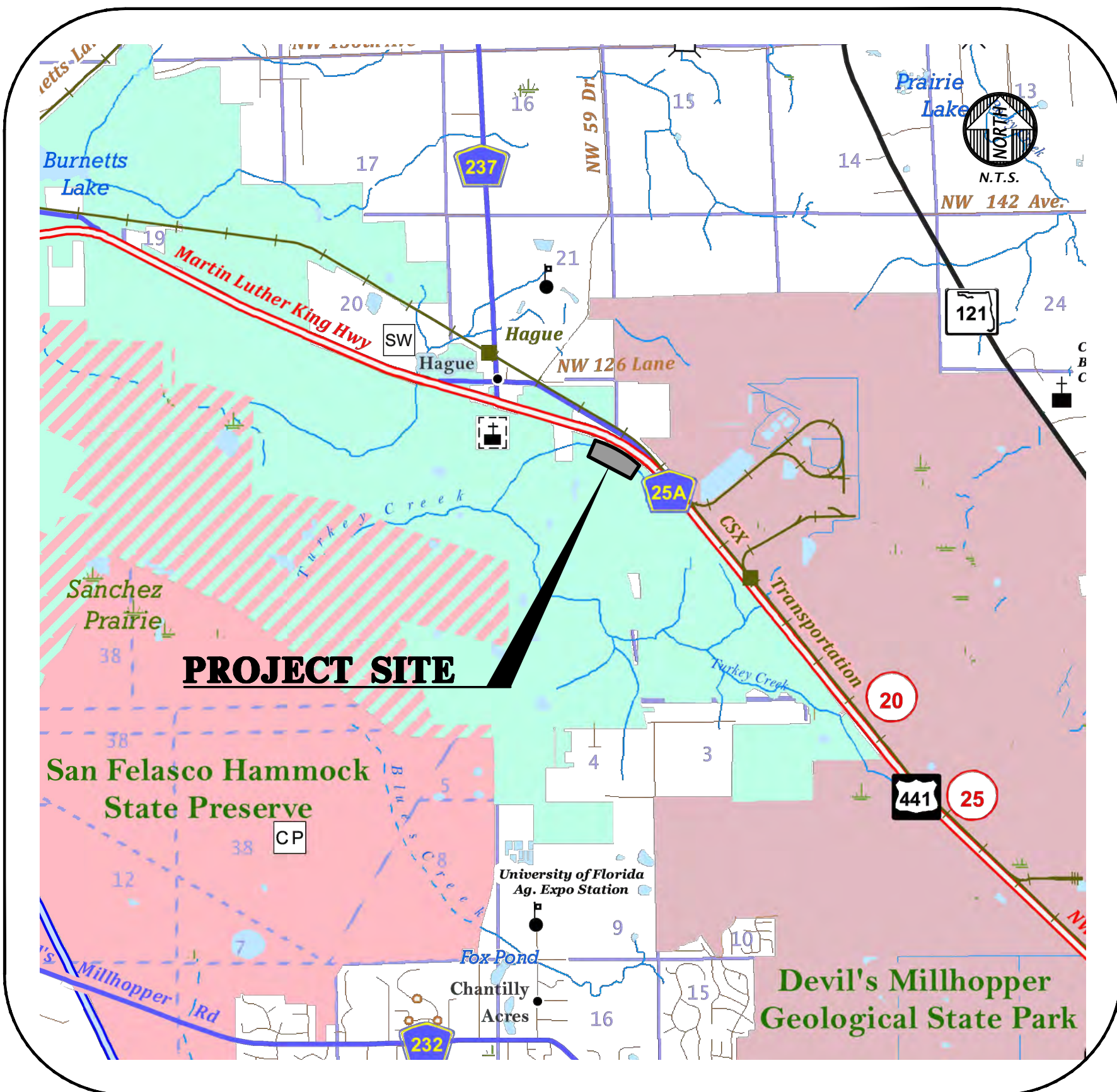
Know what's below.
Call before you dig.

PROJECT SITE



VICINITY MAP

PROJECT SITE



LOCATION MAP

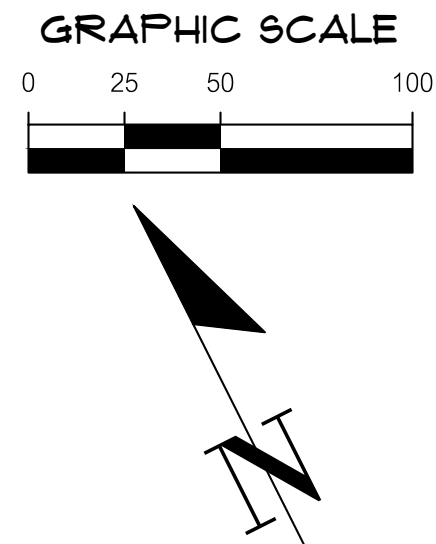
SYMBOLS		N	
'	FEET (WHEN USED WITH LENGTHS)	N	NORTH
°	DEGREES	NE	NORTHING - EASTING
'	MINUTES (WHEN USED WITH ANGLES)	N/A	NOT APPLICABLE
"	SECONDS	NAVD	NORTH AMERICAN VERTICAL DATUM OF 1988
%	PERCENT	NGVD	NATIONAL GEODETIC VERTICAL DATUM OF 1929
@	AT	NO	NUMBER
A		NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
AASHTO	ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	NTS	NOT TO SCALE
AC	ACRES	O	
ADA	AMERICAN WITH DISABILITIES ACT	OC	ON CENTER
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	OHW	OVERHEAD WIRE
ARCH	ARCHITECT	ORB	OFFICIAL RECORDS BOOK
ASTM	AIR RELEASE VALVE	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
AWWA		P	
		PAVT	PAVEMENT
B		PC	POINT OF CURVATURE
BC	BACK OF CURB	PCC	POINT OF COMPOUND CURVE
BFP	BACKFLOW PREVENTER	PERF	PERFORATED
BLDG	BUILDING	PROP	PROPOSED
BM	BENCHMARK	PT	POINT OF TANGENCY
BMP	BEST MANAGEMENT PRACTICE	PVC	POLYVINYL CHLORIDE
BOC	BACK OF CURB	PVI	POINT OF VERTICAL INTERSECTION
BVCs	BEGIN VERTICAL CURVE STATION	R	
BVCE	BEGIN VERTICAL CURVE ELEVATION	RCP	RADIUS
BSL	BOTTOM OF WALL	RC	REINFORCED CONCRETE PIPE
BSL	BUILDING SETBACK LINE	RPM	RAISED REFLECTIVE PAVEMENT MARKER
C		RPZ	REDUCED PRESSURE ZONE
CATV	CABLE TELEVISION	RT	RIGHT
CI	CURB INLET	RWM	RECLAIMED WATER MAIN
CIP	CAST IRON PIPE	R/W	RIGHT-OF-WAY
CMP	CORRUGATED METAL PIPE	S	
CO	CLEANOUT	S	SOUTH
CONC	CONCRETE	SAN	SANITARY
COORD	COORDINATE	SHWE	SEASONAL HIGH WATER ELEVATION
CR	COUNTY ROAD	SL	SLOPE
C/O	CLEANOUT	SP	SUPERPAVE
D		SR	STATE ROAD
DBH	DIAMETER AT BREAST HEIGHT	SS	SANITARY SEWER
DE	DRAINAGE EASEMENT	ST	STORM
DEG	DEGREE	STA	STATION
DIA	DIAMETER	STD	STANDARD
DIP	DUCTILE IRON PIPE	T	
DWG	DRAWING	TCE	TEMPORARY CONSTRUCTION EASEMENT
E		TEMP	TEMPORARY
e	RATE OF ELEVATION	TOB	TOP OF BANK
E	EAST	TV	TELEVISION
EA	EACH	TW	TOP OF WALL
EL	ELEVATION	TYP	TYPICAL
ELEV	ELEVATION	U	
EOP	EDGE OF PAVEMENT	USF	UNITED STATES FOUNDRY
EOR	ENGINEER OF RECORD	USGS	UNITED STATES GEOLOGICAL SURVEY
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE	UTIL	UTILITY
ESMT	EASEMENT	V	
EVCS	END VERTICAL CURVE STATION	VC	VERTICAL CURVE
EVCE	END VERTICAL CURVE ELEVATION	VCP	VITRIFIED CLAY PIPE
EX	EXISTING	W	
F		W	WEST
FAC	FLORIDA ADMINISTRATIVE CODE	W	WATER
FBR	FLORIDA BEARING RATIO	W/	WITH
FC	FRICTION COEFFICIENT	WM	WATER MAIN
FDEP	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION	WW	WASTEWATER
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION	WWF	WELDED WIRE FABRIC
FFE	FINISHED FLOOR ELEVATION		
FH	FIRE HYDRANT		
FHWA	FLORIDA HIGHWAY ADMINISTRATION		
FIG	FIGURE		
FM	FORCE MAIN		
FOC	FACE OF CURB		
FS	FLORIDA STATUTES		
FT	FEET		
G			
GALV	GALVANIZED		
GM	GAS MAIN		
GV	GATE VALVE		
H			
HDPE	HIGH DENSITY POLYETHYLENE		
HP	HIGH POINT		
I			
ID	IDENTIFICATION		
INV	INVERT		
INV EL	INVERT ELEVATION		
IP	IRON PIPE		
K			
K	VERTICAL CURVE RATE OF CHANGE		
L			
L	LENGTH		
LA	LANDSCAPE ARCHITECT		
LBR	LIMEROCK BEARING RATIO		
LDR	LAND DEVELOPMENT REGULATION		
LF	LINEAR FEET		
LP	LOW POINT		
LT	LEFT		
M			
MAX	MAXIMUM		
ME	MATCH EXISTING		
MH	MANHOLE		
MIN	MINIMUM		
MISC	MISCELLANEOUS		
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES		

 R1-1 "STOP" - SEE PLANS FOR SIZE

FOR PURPOSES ONLY. UNLESS NOTED OTHERWISE, SYMBOLS IN THE PLANS MAY NOT BE REPRESENTATIVE OF SIZE.

LICENSED SURVEYOR AND MAP

BOUNDARY & TOPOGRAPHIC SURVEY
LYING IN SECTIONS 27 & 28, TOWNSHIP 8 SOUTH, RANGE 19 EAST,
CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA
SKETCH - NOT A BOUNDARY SURVEY



SURVEYOR'S NOTES:

- BEARINGS SHOWN HEREON ARE REFERRED TO A VALUE OF NORTH 12°25'0" EAST FOR THE EASTERLY BOUNDARY LINE OF THE SUBJECT PARCEL, SAID BEARING BEING IDENTICAL WITH THE DESCRIPTION, FOR COMPARISON TO SPM, ROTATE DEED BEARINGS COUNTER-CLOCKWISE 00°28'51".
- BOUNDARY BASED ON PREVIOUS SURVEY PREPARED BY THIS OFFICE, PROJECT NUMBER 04-446.01, DATED FEBRUARY 20TH, 2006.
- NO UNDERGROUND INSTALLATION OF UTILITIES OR IMPROVEMENTS HAVE BEEN LOCATED EXCEPT AS SHOWN. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
- THE SURVEYOR HAS NO KNOWLEDGE OF UNDERGROUND FOUNDATIONS WHICH MAY ENCROACH.
- INSTRUMENTS OF RECORD REFLECTING EASEMENTS, RIGHTS-OF-WAY, AND OR OWNERSHIP WERE NOT FURNISHED TO THE SURVEYOR EXCEPT AS SHOWN. SEARCH OF THE PUBLIC RECORDS HAS NOT BEEN DONE BY THE SURVEYOR.
- INFORMATION FROM FEDERAL EMERGENCY MANAGEMENT AGENCY (F.E.M.A.) FLOOD INSURANCE RATE MAP(S), SHOWN ON THIS MAP WAS CURRENT AS OF THE REFERENCED DATE. MAP REVISIONS AND AMENDMENTS ARE PERIODICALLY MADE BY LETTER AND MAY NOT BE REFLECTED ON THE MOST CURRENT MAP.
- FENCES, SYMBOLS, MONUMENTATION AND UTILITIES SHOWN HEREON MAY BE EXAGGERATED FOR PICTORIAL PURPOSES ONLY AND MAY NOT BE SHOWN TO SCALE.
- IN THE OPINION OF THIS SURVEYOR, THE PERIMETER LINES AS SHOWN HEREON REPRESENT THE LOCATION OF THE BOUNDARY LINES OF THE SUBJECT PARCEL IN RELATION TO THE DESCRIPTION OF RECORD AND THOSE EXISTING LAND CORNERS FOUND TO BE ACCEPTABLE BY THIS SURVEYOR.
- ELEVATIONS SHOWN HEREON ARE (NVD 29) BASED ON FLORIDA DEPARTMENT OF TRANSPORTATION TBM 19 HAVING A PUBLISHED ELEVATION OF 52.245 METERS (171.417 FEET). FOR RELATION TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988), ADJUST ALL ELEVATIONS -0.79 FEET.
- ADDITIONAL POINTS MAY BE FOUND BY TURNING ON THE SV-NODE LAYERS IN THE SUPPLIED DIGITAL FILE.
- THIS SURVEY CONSIST OF THREE (3) SHEETS AND IS NOT COMPLETE WITHOUT ALL SHEETS. SEE SHEET ONE (1) FOR DETAILED BOUNDARY AND WETLAND INFORMATION. SEE SHEET TWO (2) AND THREE (3) FOR DETAILED IMPROVEMENTS AND TOPOGRAPHIC INFORMATION.

LEGEND:

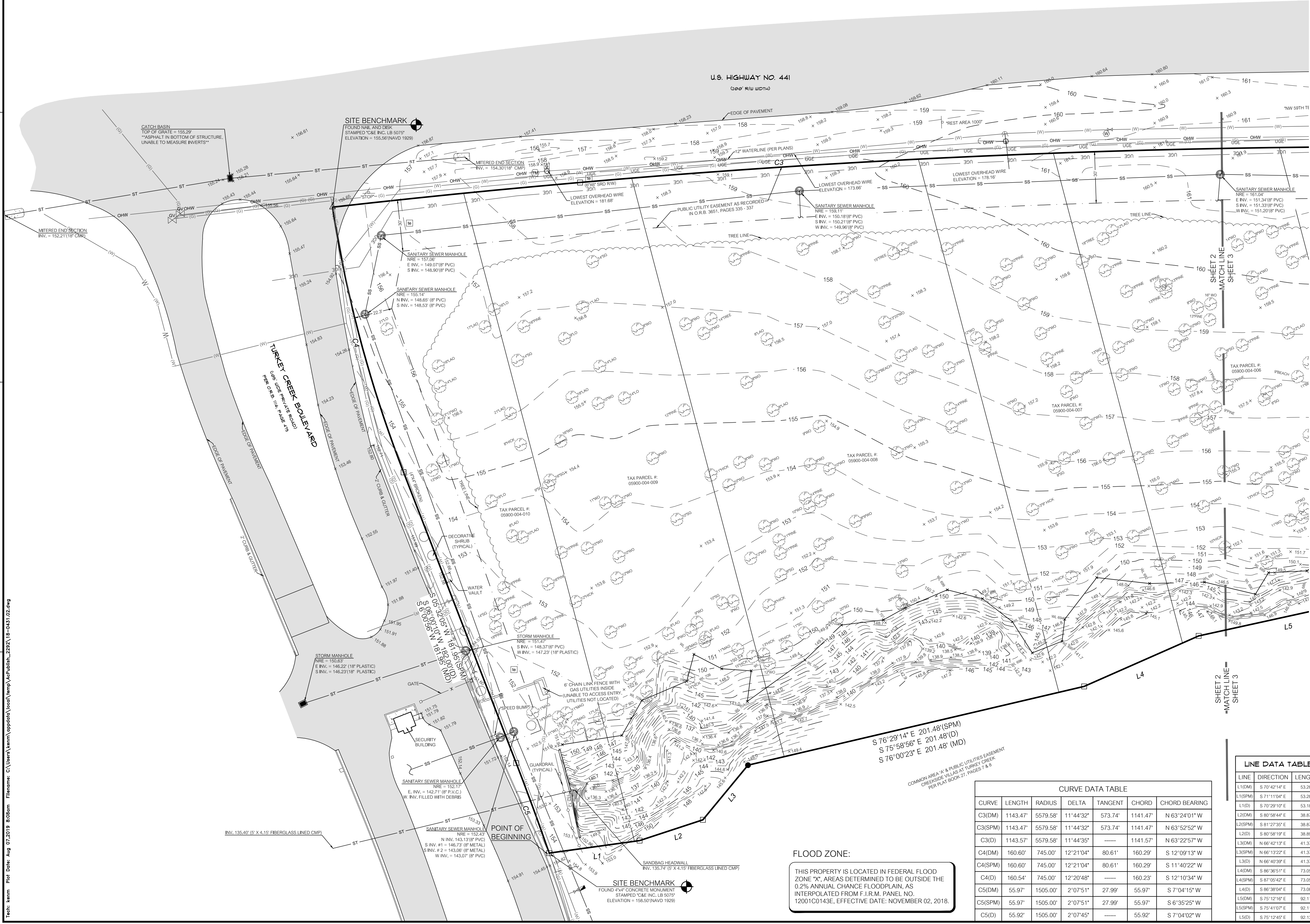
- BENCHMARK
- FOUND 4"x4" CONCRETE MONUMENT STAMPED "C&E INC. LB 5075", UNLESS OTHERWISE NOTED
- FOUND NAIL AND DISK STAMPED "C&E INC. LB 5075", UNLESS OTHERWISE NOTED
- SET 5/8" STEEL REBAR AND CAP MARKED "CHW INC LB 5075"
- FIRE HYDRANT
- TELEPHONE JUNCTION BOX
- GAS LINE MARKER
- GAS VALVE
- GUY ANCHOR
- SIGN
- DECORATIVE SHRUB
- TREE (SIZE AND TYPE AS NOTED)
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- TELEPHONE LINE MARKER
- TELEPHONE PEDESTAL
- WATER LINE MARKER
- WOODEN POWER POLE
- WATER VALVE
- WATER METER
- STORM INLET
- OVERHEAD WIRE
- SANITARY SEWER LINE
- GUARD RAIL
- STORM SEWER LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- CONTOUR LINE
- END OF FEATURE NOT DETERMINED
- ASPHALT SURFACE
- CONCRETE SURFACE

(D) = DATA BASED ON DESCRIPTION
(MD) = DATA BASED ON FIELD MEASUREMENTS
(SPM) = DATA BASED ON STATE PLANE MEASUREMENTS
O.R.B. = OFFICIAL RECORDS BOOK
RW = RIGHT OF WAY
NRE = NORTH RIM ELEVATION
FEMA = FEDERAL EMERGENCY MANAGEMENT AGENCY
NAVD = NORTH AMERICAN VERTICAL DATUM
X 155.5 = SPOT ELEVATION (PERVIOUS SURFACE)
X 155.75 = SPOT ELEVATION (IMPERVIOUS SURFACE)
X WL 640 = WETLAND FLAG DESTINATION NUMBER
F.I.R.M. = FLOOD INSURANCE RATE MAP
LO = LIVE OAK
LAO = LAUREL OAK
WQ = WATER OAK
HICK = HICKORY
MAG = MAGNOLIA
BO = BLUFF OAK
SC = SWAMP CHESTNUT
RO = RED OAK
SG = SWEETGUM
CAM = CAMPHOR
INV = INVERT
RCP = REINFORCED CONCRETE PIPE
PVC = POLYVINYL CHLORIDE
CMP = CORRUGATED METAL PIPE

LINE	DIRECTION	LENGTH
L1(DM)	S 70°42'14" E	53.28'
L1(SPM)	S 71°11'04" E	53.28'
L1(D)	S 70°29'10" E	53.18'
L2(DM)	S 80°58'44" E	38.87'
L2(SPM)	S 81°27'35" E	38.87'
L2(D)	S 80°58'18" E	38.89'
L3(DM)	N 66°42'13" E	41.37'
L3(SPM)	N 66°13'22" E	41.37'
L3(D)	N 66°40'39" E	41.37'
L4(DM)	S 96°35'11" E	73.05'
L4(SPM)	S 97°32'42" E	73.05'
L4(D)	S 96°38'04" E	73.08'
L5(DM)	S 75°12'18" E	82.11'
L5(SPM)	S 75°41'03" E	82.11'
L5(D)	S 75°12'48" E	82.13'

CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHORD BEARING
C3(DM)	1143.47'	5579.58'	11°44'32"	573.74'	1141.47'	N 63°24'01" W
C3(SPM)	1143.47'	5579.58'	11°44'32"	573.74'	1141.47'	N 63°52'52" W
C3(D)	1143.57'	5579.58'	11°44'35"	-----	1141.57'	N 63°22'57" W
C4(DM)	160.60'	745.00'	12°21'04"	80.61'	160.29'	S 12°09'13" W
C4(SPM)	160.60'	745.00'	12°21'04"	80.61'	160.29'	S 11°40'22" W
C4(D)	160.54'	745.00'	12°20'48"	-----	160.23'	S 12°10'34" W
C5(DM)	55.97'	1505.00'	2°07'51"	27.99'	55.97'	S 7°04'15" W
C5(SPM)	55.97'	1505.00'	2°07'51"	27.99'	55.97'	S 6°35'25" W
C5(D)	55.92'	1505.00'	2°07'45"	-----	55.92'	S 7°04'02" W

FLOOD ZONE:
THIS PROPERTY IS LOCATED IN FEDERAL FLOOD ZONE "X". AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS INTERPOLATED FROM F.I.R.M. PANEL NO. 12001C0143C, EFFECTIVE DATE: NOVEMBER 02, 2018.



REVISIONS: 08/07/2019: ADDRESSED COMMENTS AND PUBLIC UTILITY EASEMENT. REVISED 08/13/2019: ADDED AND REVISED UTILITY EASEMENT, SANITARY SEWER MANHOLES AND INVERTS.

SWORN: AARON H. HICKMAN
DATE: 04/15/2019
REVISION DATE: 08/13/2019
CHECKED BY: AHH
PROJECT NUMBER: 18-0431.02
FIELD BOOK & PAGE: 73, 75, 77, 78, 79

This map prepared by:
AARON H. HICKMAN
SEE SHEET ONE OF THREE
Certificate of Authorization No. LB 5075
NOT VALID WITHOUT THE ORIGINAL
SIGNATURE AND SEAL OF A FLORIDA
LICENSED SURVEYOR AND MAPPER
Professional Surveyor & Mapper Fla. License No. 6791

SHEET NO.: 2 OF 3

CHW
Professional Consultants

11001 Research Drive
Alachua, Florida 32015
(352) 331-1976
www.chw-inc.com
est. 1988 FLORIDA
CA-5075

SURVEYOR'S NOTES:

1. BEARINGS SHOWN HEREON ARE REFERRED TO A VALUE OF NORTH 12°25'50" EAST FOR THE EASTERLY BOUNDARY LINE OF THE SUBJECT PARCEL. SAID BEARING BEING IDENTICAL WITH THE DESCRIPTION. FOR COMPARISON TO SPM, ROTATE DEED BEARINGS COUNTER-CLOCKWISE 00°28'51".
2. BOUNDARY BASED ON PREVIOUS SURVEY PREPARED BY THIS OFFICE, PROJECT NUMBER 04-446.01, DATED FEBRUARY 20TH, 2006.
3. NO UNDERGROUND INSTALLATION OF UTILITIES OR IMPROVEMENTS HAVE BEEN LOCATED EXCEPT AS SHOWN. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
4. THE SURVEYOR HAS NO KNOWLEDGE OF UNDERGROUND FOUNDATIONS WHICH MAY ENCROACH.
5. INSTRUMENTS OF RECORD REFLECTING EASEMENTS, RIGHTS-OF-WAY, AND OR OWNERSHIP WERE NOT FURNISHED TO THE SURVEYOR EXCEPT AS SHOWN. SEARCH OF THE PUBLIC RECORDS HAS NOT BEEN DONE BY THE SURVEYOR.
6. INFORMATION FROM FEDERAL EMERGENCY MANAGEMENT AGENCY, (F.E.M.A.) FLOOD INSURANCE RATE MAP(S), SHOWN ON THIS MAP WAS CURRENT AS OF THE REFERENCED DATE. MAP REVISIONS AND AMENDMENTS ARE PERIODICALLY MADE BY LETTER AND MAY NOT BE REFLECTED ON THE MOST CURRENT MAP.
7. FENCES, SYMBOLS, MONUMENTATION AND UTILITIES SHOWN HEREON MAY BE EXAGGERATED FOR PICTORIAL PURPOSES ONLY AND MAY NOT BE SHOWN TO SCALE.
8. IN THE OPINION OF THIS SURVEYOR, THE PERIMETER LINES AS SHOWN HEREON REPRESENT THE LOCATION OF THE BOUNDARY LINES OF THE SUBJECT PARCEL IN RELATION TO THE DESCRIPTION OF RECORD AND THOSE EXISTING LAND CORNERS FOUND TO BE ACCEPTABLE BY THIS SURVEYOR.
9. ELEVATIONS SHOWN HEREON ARE (NGVD 29) BASED ON FLORIDA DEPARTMENT OF TRANSPORTATION TBM 19 HAVING A PUBLISHED ELEVATION OF 52.248 METERS (171.417 FEET). FOR RELATION TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988), ADJUST ALL ELEVATIONS -0.79 FEET.
10. ADDITIONAL POINTS MAY BE FOUND BY TURNING ON THE SV-NODE LAYERS IN THE SUPPLIED DIGITAL FILE.
11. THIS SURVEY CONSIST OF THREE (3) SHEETS AND IS NOT COMPLETE WITHOUT ALL SHEETS. SEE SHEET ONE (1) FOR DETAILED BOUNDARY AND WETLAND INFORMATION. SEE SHEET TWO (2) AND THREE (3) FOR DETAILED IMPROVEMENTS AND TOPOGRAPHIC INFORMATION.

BOUNDARY & TOPOGRAPHIC SURVEY

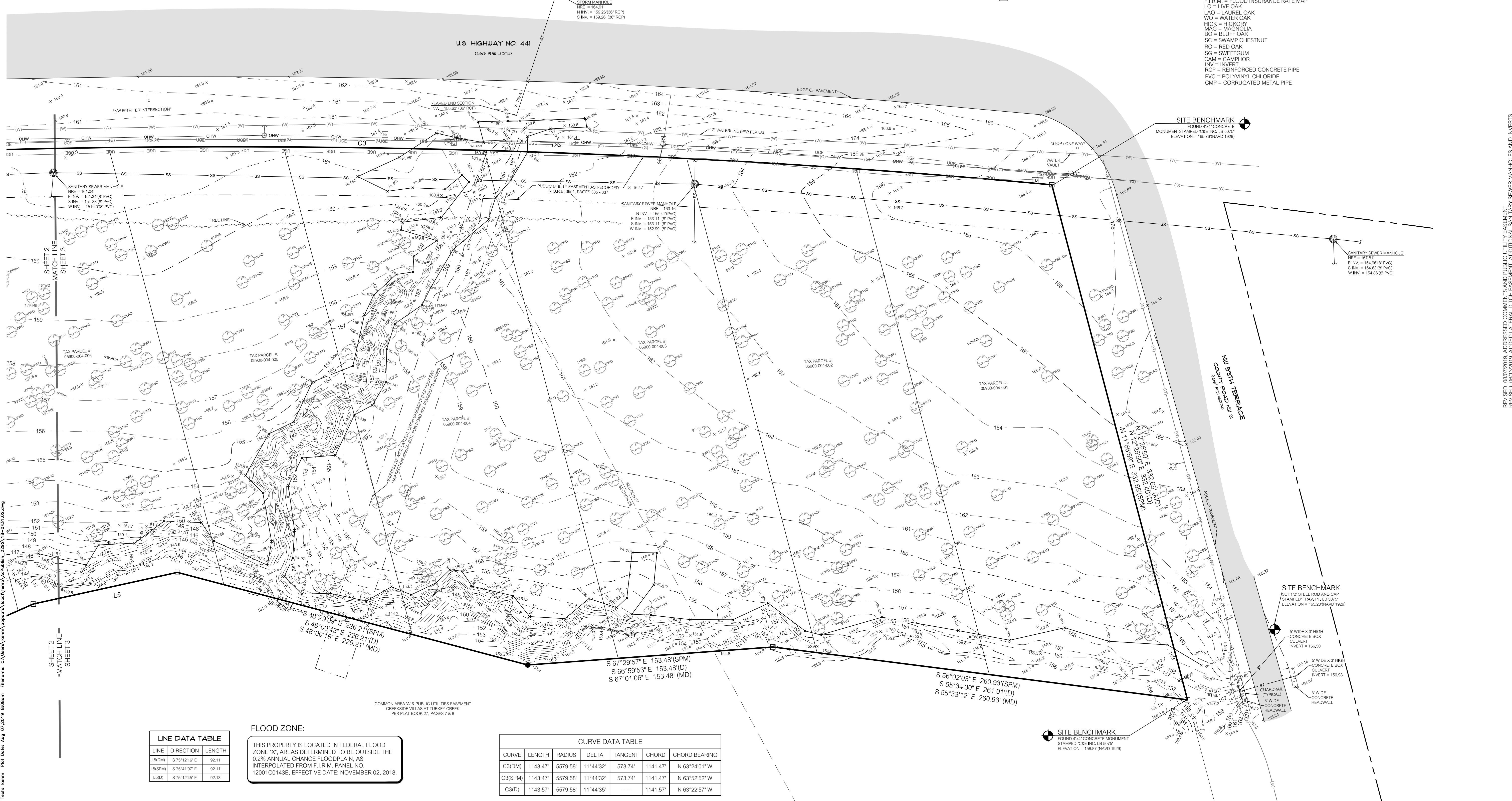
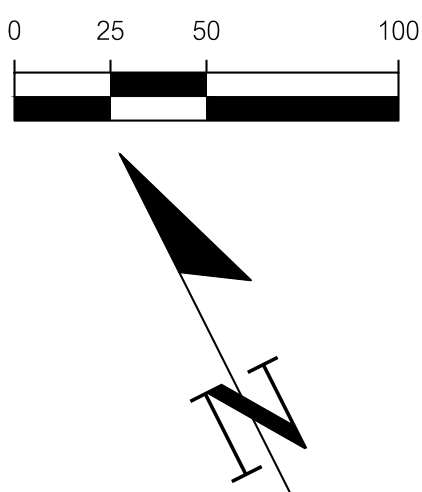
LYING IN SECTIONS 27 & 28, TOWNSHIP 8 SOUTH, RANGE 19 EAST,
CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA
SKETCH - NOT A BOUNDARY SURVEY

LEGEND:

- = BENCHMARK
- = FOUND 4"x4" CONCRETE MONUMENT STAMPED "C&E INC. LB 5075", UNLESS OTHERWISE NOTED
- = FOUND NAIL AND DISK STAMPED "C&E INC. LB 5075", UNLESS OTHERWISE NOTED
- = SET 5/8" STEEL REBAR AND CAP MARKED "CHW INC LB 5075"
- = FIRE HYDRANT
- = TELEPHONE JUNCTION BOX
- = GAS LINE MARKER
- = GAS VALVE
- = GUY ANCHOR
- = SIGN
- = DECORATIVE SHRUB
- = TREE (SIZE AND TYPE AS NOTED)
- = SANITARY SEWER MANHOLE
- = STORM SEWER MANHOLE
- = TELEPHONE LINE MARKER
- = WATER LINE MARKER
- = WOODEN POWER POLE
- = WATER VALVE
- = WATER METER
- = STORM INLET

- CHW = OVERHEAD WIRE
- SS = SANITARY SEWER LINE
- ST = GUARD RAIL
- UGE = STORM SEWER LINE
- W = UNDERGROUND ELECTRIC LINE
- WU = UNDERGROUND WATER LINE
- WG = UNDERGROUND GAS LINE
- CONTOUR LINE
- = END OF FEATURE NOT DETERMINED
- = ASPHALT SURFACE
- = CONCRETE SURFACE
- (D) = DATA BASED ON DESCRIPTION
- (MD) = DATA BASED ON FIELD MEASUREMENTS
- (SPM) = DATA BASED ON STATE PLANE MEASUREMENTS
- Q.R.B. = OFFICIAL RECORDS BOOK
- R/W = RIGHT OF WAY
- NRE = NORTH RIM ELEVATION
- FEMA = FEDERAL EMERGENCY MANAGEMENT AGENCY
- NAVD = NORTH AMERICAN VERTICAL DATUM
- X 155.5 = SPOT ELEVATION (PREVIOUS SURFACE)
- X 155.75 = SPOT ELEVATION (IMPERVIOUS SURFACE)
- X WL 640 = WETLAND FLAG DESTINATION NUMBER
- F.I.R.M. = FLOOD INSURANCE RATE MAP
- LO = LIVE OAK
- LAO = LAUREL OAK
- WO = WATER OAK
- HICK = HICKORY
- MAG = MAGNOLIA
- BO = BLUFF OAK
- SC = SWAMP CHESTNUT
- RO = RED OAK
- SO = SWEETGUM
- CAM = CAMPHOR
- INV = INVERT
- RCP = REINFORCED CONCRETE PIPE
- PVC = POLYVINYL CHLORIDE
- CMP = CORRUGATED METAL PIPE

GRAPHIC SCALE



LINE DATA TABLE		
LINE	DIRECTION	LENGTH
L5(DM)	S 75°12'40" E	62.11'
L5(SPM)	S 75°41'07" E	62.11'
L5(D)	S 75°12'40" E	62.13'

FLOOD ZONE:

THIS PROPERTY IS LOCATED IN FEDERAL FLOOD ZONE "X". AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS INTERPOLATED FROM F.I.R.M. PANEL NO. 12001C0143E, EFFECTIVE DATE: NOVEMBER 02, 2018.

CURVE DATA TABLE					
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD BEARING
C3(DM)	1143.47'	5579.58'	11°44'32"	573.74'	1141.47' N 63°24'01" W
C3(SPM)	1143.47'	5579.58'	11°44'32"	573.74'	N 63°52'52" W
C3(D)	1143.57'	5579.58'	11°44'35"	-----	1141.57' N 63°22'57" W

REVISION: 08/07/2019, ADDRESSED COMMENTS AND PUBLIC UTILITY EASEMENT
REVISED 08/13/2019, ADDED AND REMOVED DIGITIZATION, ADDITIONAL SANITARY SEWER MANHOLES AND INVERTS

DATE: 04/15/2019
REVISION DATE: 08/13/2019
PROJECT NUMBER: 18-0431.02

DESIGNED BY: AARON H. HICKMAN
CHECKED BY: AHH
FIELD BOOK & PAGE: 73, 75, 77, 78, 79

THIS MAP PREPARED BY: AARON H. HICKMAN

SEE SHEET ONE OF THREE

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

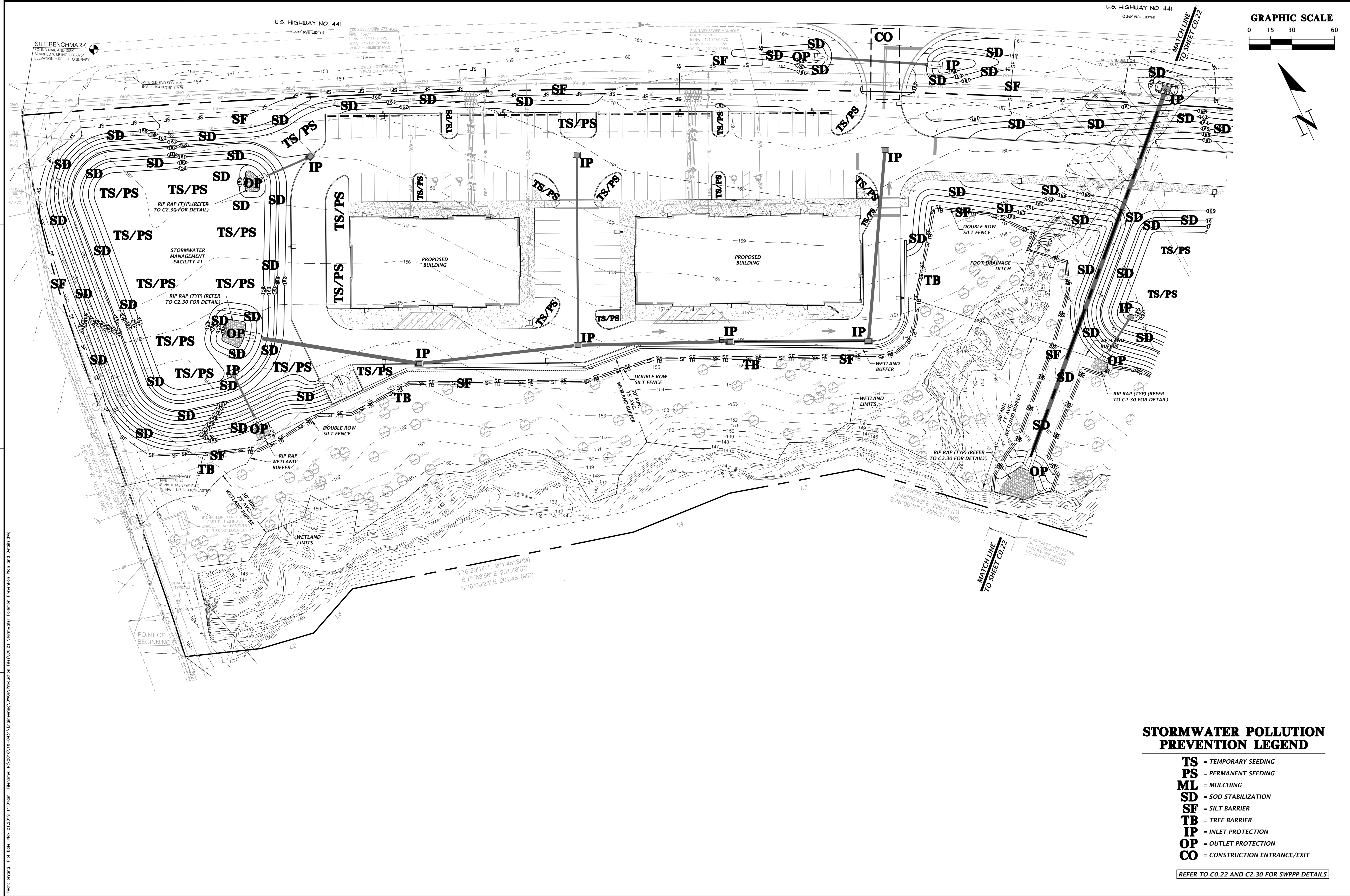
SHEET NO.: 3 OF 3

Professional Surveyor & Mapper Fla. License No. 6791

NATURAL VALLEY HARVEST, LTD.

CHW
Professional Consultants

11001 Research Drive
Alachua, Florida 32015
(352) 331-1976
www.chw-inc.com
est. 1988 FLORIDA
CA-5075

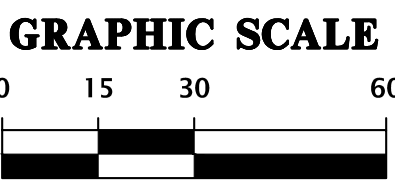


STORMWATER POLLUTION PREVENTION LEGEND

- TS** = TEMPORARY SEEDING
- PS** = PERMANENT SEEDING
- ML** = MULCHING
- SD** = SOD STABILIZATION
- SF** = SILT BARRIER
- TB** = TREE BARRIER
- IP** = INLET PROTECTION
- OP** = OUTLET PROTECTION
- CO** = CONSTRUCTION ENTRANCE/EXIT

REFER TO C0.22 AND C2.30 FOR SWPPP DETAILS

11801 Research Drive Alachua, Florida 32615 (352) 331-1976 www.chw-inc.com	
est. 1988 FLORIDA CA-5075	
CHW Professional Consultants	
SCALE: 1"=30'	PER'S SCALE ON BAR SCALE. SCALE ON ORIGINAL DRAWING 0' 15' 30' 45' 60' THIS SHEET, ADJUST SCALES ACCORDINGLY.
CONSTRUCTION/REV. REVISIONS	
DATE: 06/27/19 - CITY OF ALACHUA, SRWMD & FOOT 08/08/19 - CITY OF ALACHUA, SRWMD & FOOT 10/17/19 - CITY OF ALACHUA, SRWMD & FOOT 11/07/19 - CITY OF ALACHUA, SRWMD & FOOT 11/21/19 - 100% CONSTRUCTION DOCUMENTS	
CLIENT: NATURAL VALLEY HARVEST LTD	PROJECT: THE GOLF PLAZA
DESIGNER: D. YOUNG, P.E.	QUALITY CONTROL: R. WALPOLE, P.E.
SHEET TITLE: STORMWATER POLLUTION PREVENTION PLAN AND DETAILS	
PROJECT NUMBER: 18-0431	
FL PE No. 70780	
SHEET NO: C0.21	



- NOTE:
- CONTRACTOR SHALL HAVE ALL SILT FENCE & TREE BARRICADES INSTALLED PRIOR TO ANY SITE WORK.
 - CONTRACTOR SHALL REPAIR/RESTORE ANY DISTURBED AREAS TO EXISTING OR BETTER CONDITION.
 - CONTRACTOR TO COORDINATE WITH DOH OR FDEP FOR PROPER REMOVAL AND DISPOSAL OF ANY EX. ONSITE SEPTIC SYSTEMS OR WELL SYSTEMS.
 - CONTRACTOR TO USE EXTREME CAUTION WHEN WORKING AROUND EXISTING ABOVE AND UNDERGROUND UTILITIES.
 - CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITY COMPANY AS NEEDED TO SUPPORT POLES DURING CONSTRUCTION.

X = EX. TREE TO BE REMOVED

[Cross-hatched box] = EX. IMPROVEMENTS TO BE REMOVED

1801 Research Drive
Alachua, Florida 32615
(352) 331-1976
www.chw-inc.com

est. 1988 FLORIDA
CA-5075

CHW

Professional Consultants

GRAPHIC SCALE
0 15 30 60

1"=30'

VERTICAL SCALE
BASED ON THE VERTICAL
ORIGINAL DRAWING
0 10 20 30 40 50 60
1"=10'

CLIENT: CITY OF ALACHUA, SRWD & FDOT
06/27/19 - CITY OF ALACHUA, SRWD & FDOT
08/08/19 - CITY OF ALACHUA, SRWD & FDOT
10/17/19 - CITY OF ALACHUA, SRWD & FDOT
11/07/19 - CITY OF ALACHUA, SRWD & FDOT
11/21/19 - 100% CONSTRUCTION DOCUMENTS

PROJECT: THE GOLF PLAZA

SHEET TITLE: DEMOLITION AND TREE PROTECTION PLAN

SHEET NUMBER: 18-0431

DESIGNED BY: E. CILLESPIE

DESIGNED BY: D. YOUNG, P.E.

DESIGNED BY: R. WALPOLE, P.E.

DESIGNED BY: DANIEL H. YOUNG

FL PE No. 70780

SHEET NO: C0.30

Test: bryang Plot Date: Nov 21,2019 11:02am Filename: N:\2018\18-0431\Engineering\DWG\Production Files\03.30 Demolition and Tree Protection Plan.dwg



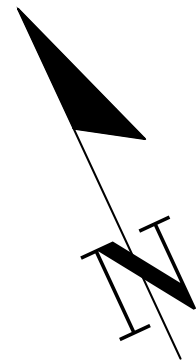
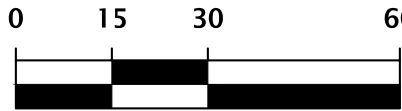
NOTE:

- CONTRACTOR SHALL HAVE ALL SILT FENCE & TREE BARRICADES INSTALLED PRIOR TO ANY SITE WORK.
- CONTRACTOR SHALL REPAIR/RESTORE ANY DISTURBED AREAS TO EXISTING OR BETTER CONDITION.
- CONTRACTOR TO COORDINATE WITH DOH OR FDEP FOR PROPER REMOVAL AND DISPOSAL OF ANY EX. ONSITE SEPTIC SYSTEMS OR WELL SYSTEMS.
- CONTRACTOR TO USE EXTREME CAUTION WHEN WORKING AROUND EXISTING ABOVE AND UNDERGROUND UTILITIES.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITY COMPANY AS NEEDED TO SUPPORT POLES DURING CONSTRUCTION.

X = EX. TREE TO BE REMOVED

[Cross-hatched box] = EX. IMPROVEMENTS TO BE REMOVED

GRAPHIC SCALE



11901 Research Drive
Alachua, Florida 32615
(352) 331-1976
www.chw-inc.com
est. 1988 FLORIDA
CA-5075

CHW
Professional Consultants

GRAPHIC SCALE ON
THIS SHEET. ALL
DIMENSIONS ARE IN
FEET UNLESS
OTHERWISE NOTED.
THIS SHEET, ADJUST
SCALES ACCORDINGLY.

CONSTRUCTION/BD RELEASE

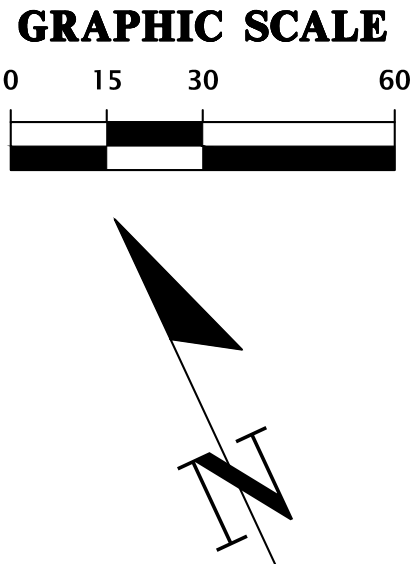
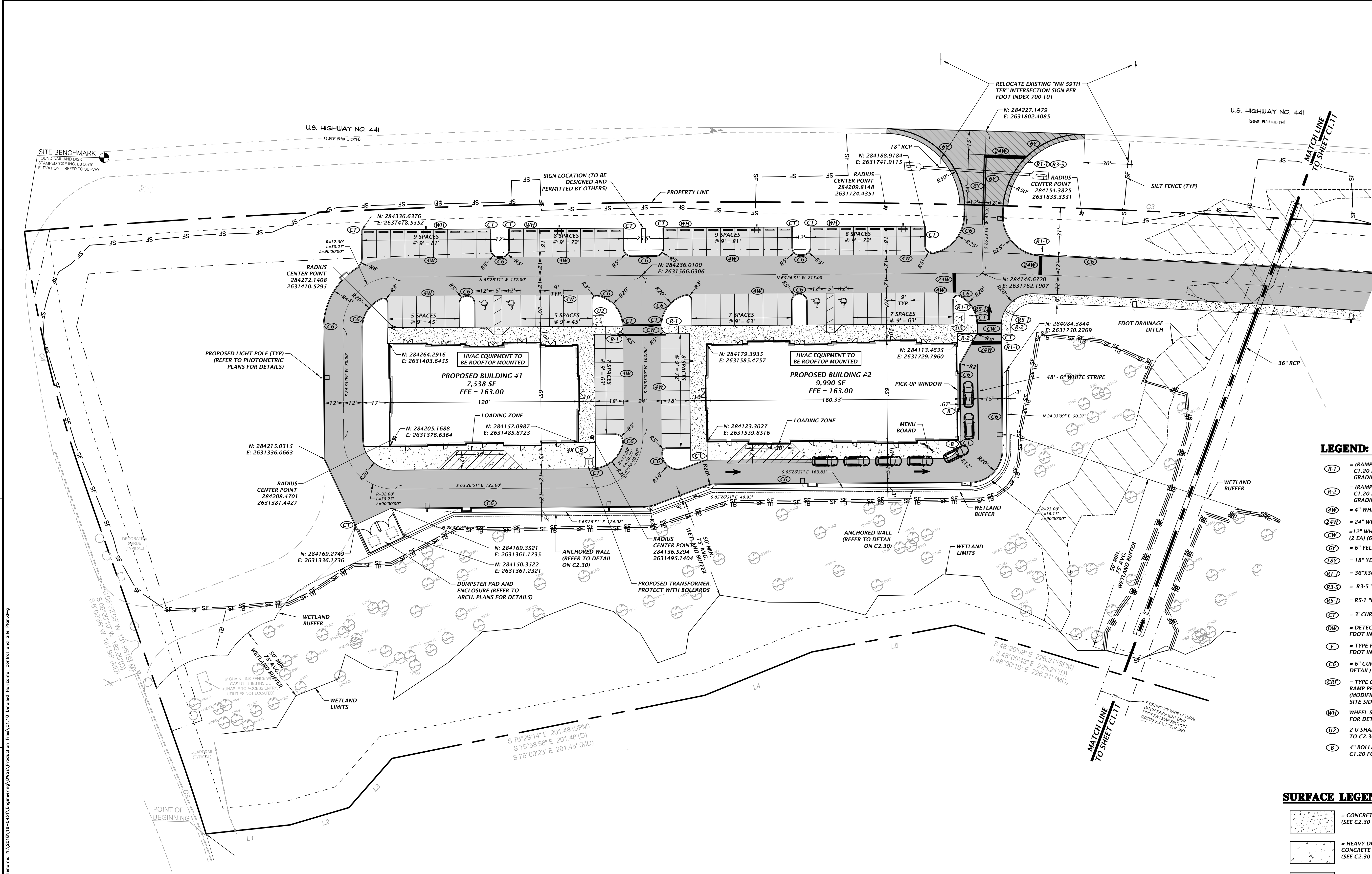
DATE: 06/27/19
BY: [Signature]
FOR: CITY OF ALACHUA, SRWD & FDOT
PROJECT: 10/17/19 - CITY OF ALACHUA, FDOT
11/07/19 - CITY OF ALACHUA RESUBMITTAL
11/21/19 - 100% CONSTRUCTION DOCUMENTS

CLIENT: NATURAL VALLEY HARVEST LTD
PROJECT: THE GOLF PLAZA
SHEET TITLE: DEMOLITION AND TREE PROTECTION PLAN
SHEET NUMBER: 18-0431

DANIEL H. YOUNG

FL PE No. 70780
SHEET NO:

C0.31



LEGEND:

- (R-1) = (RAMP LAYOUT #1) REFER TO C1.20 FOR LAYOUT AND GRADING
- (R-2) = (RAMP LAYOUT #2) REFER TO C1.20 FOR LAYOUT AND GRADING
- (4W) = 4" WHITE STRIPE (TYP)
- (24W) = 24" WHITE STOP BAR
- (CW) = 12" WHITE CROSSWALK STRIPE (2 EA) (6" SPACING, CTR TO CTR)
- (6Y) = 6" YELLOW STRIPE (TYP)
- (18Y) = 18" YELLOW GORE STRIPE (TYP)
- (R1-1) = 36"x36" R1-1 "STOP" SIGN
- (R3-5) = R3-5 "RIGHT TURN ONLY" SIGN
- (R5-1) = R5-1 "DO NOT ENTER" SIGN
- (CT) = 3' CURB TAPER
- (DW) = DETECTIBLE WARNING PER FDOT INDEX 522-002
- (F) = TYPE F CURB AND GUTTER PER FDOT INDEX 520-001
- (C6) = 6" CURB (REFER TO C2.30 FOR DETAIL)
- (CR1) = TYPE CR1 SIDEWALK CURB RAMP PER FDOT INDEX 522-002 (MODIFIED WITH NO CURB ON SITE SIDE)
- (WH) = WHEEL STOP (REFER TO C2.30 FOR DETAIL)
- (UZ) = 2 U-SHAPED BIKE RACKS (REFER TO C2.30 FOR DETAIL)
- (B) = 4" BOLLARD (REFER TO C1.20 FOR DETAIL)

SURFACE LEGEND:

- = CONCRETE (FOR SIDEWALK) (SEE C2.30 FOR DETAIL)
- = HEAVY DUTY CONCRETE PAVEMENT (SEE C2.30 FOR DETAIL)
- = STANDARD DUTY ASPHALT (ONSITE: REFER TO C2.30 FOR DETAIL)
- = HEAVY DUTY ASPHALT (ONSITE: REFER TO C2.30 FOR DETAIL)
- = FDOT ASPHALT (ONSITE: REFER TO C2.30 FOR DETAIL)

11801 Research Drive
Alachua, Florida 32615
(352) 331-1976
www.chw-inc.com
est. 1988 FLORIDA
CA-5075

CHW
Professional Consultants

GRAPHIC SCALE
1"=30'
BAR SCALE ON
ORIGINAL DRAWING
0 15 30 60
DO NOT SCALE DRAWING
THIS SHEET. ADJUST
SCALES ACCORDINGLY.

CONSTRUCTION/BUILDING RELEASES

DATE: 11/21/19
BY: [Signature]
FOR: CITY OF ALACHUA, SRWMD & FDOT
PROJECT: THE GOLF PLAZA
SHEET TITLE: DETAILED HORIZONTAL CONTROL
AND SITE PLAN

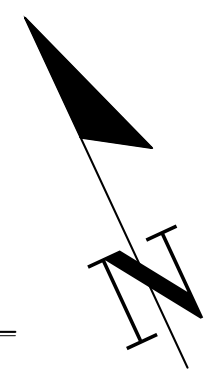
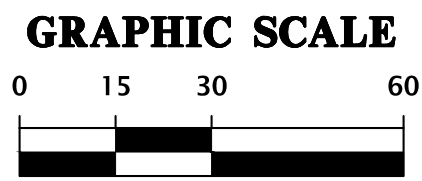
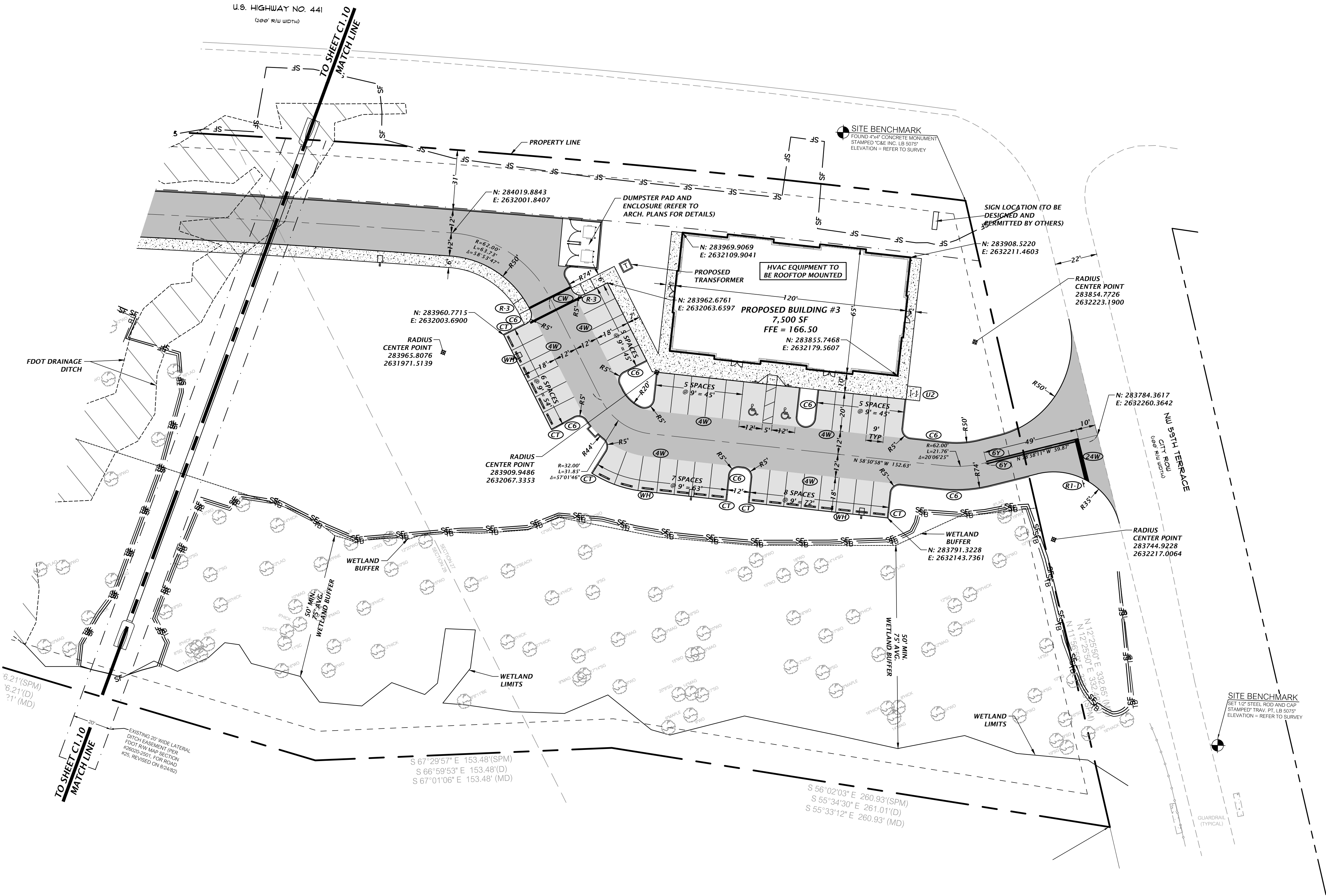
CLIENT: NATURAL VALLEY HARVEST LTD
DESIGNER: D. YOUNG, P.E.
QUALITY CONTROL: R. WALPOLE, P.E.
PROJECT NUMBER: 18-0431

REVISIONS:
E. GILLESPIE
D. YOUNG, P.E.
R. WALPOLE, P.E.
DANIEL H. YOUNG

FL PE No. 70780
SHEET NO:

C1.10

Test: bryong Plot Date: Nov 21, 2019 11:02am Filename: \\A\2018\18-0431\Engineering\DWG\Production Files\C1.10 Detailed Horizontal Control and Site Plan.dwg



LEGEND:

- (R-3) = (RAMP LAYOUT #3) REFER TO C1.20 FOR LAYOUT AND GRADING
- (4W) = 4" WHITE STRIPE (TYP)
- (24W) = 24" WHITE STOP BAR
- (CW) = 12" WHITE CROSSWALK STRIPE (2 EA) (6" SPACING, CTR TO CTR)
- (6Y) = 6" YELLOW STRIPE (TYP)
- (8Y) = 18" YELLOW GORE STRIPE (TYP)
- (R1) = 36"x36" R1-1 "STOP" SIGN
- (RS1) = RS-1 "DO NOT ENTER" SIGN
- (CT) = 3' CURB TAPER
- (DW) = DETECTIBLE WARNING PER FDOT INDEX 522-002
- (F) = TYPE F CURB AND GUTTER PER FDOT INDEX 520-001
- (CB) = 6" CURB (REFER TO C2.30 FOR DETAIL)
- (CRF) = TYPE CR-F SIDEWALK CURB RAMP PER FDOT INDEX 522-002 (MODIFIED WITH NO CURB ON SITE SIDE)
- (WS) = WHEEL STOP (REFER TO C2.30 FOR DETAIL)
- (U2) = U-SHAPED BIKE RACKS (REFER TO C2.30 FOR DETAIL)

SURFACE LEGEND:

- [Pattern] = PROPOSED CROSS ACCESS EASEMENT
- [Pattern] = PROPOSED SIDEWALK EASEMENT
- [Pattern] = CONCRETE (FOR SIDEWALK) (SEE C2.30 FOR DETAIL)
- [Pattern] = HEAVY DUTY CONCRETE PAVEMENT (SEE C2.30 FOR DETAIL)
- [Pattern] = STANDARD DUTY ASPHALT (ONSITE: REFER TO C2.30 FOR DETAIL) (WITHIN ROW: REFER TO C2.33 FOR DETAIL)
- [Pattern] = HEAVY DUTY ASPHALT (ONSITE: REFER TO C2.30 FOR DETAIL) (WITHIN ROW: REFER TO C2.33 FOR DETAIL)

11901 Research Drive
Alachua, Florida 32615
(352) 331-1976
www.chw-inc.com
est. 1988 FLORIDA
CA-5075

CHW
Professional Consultants

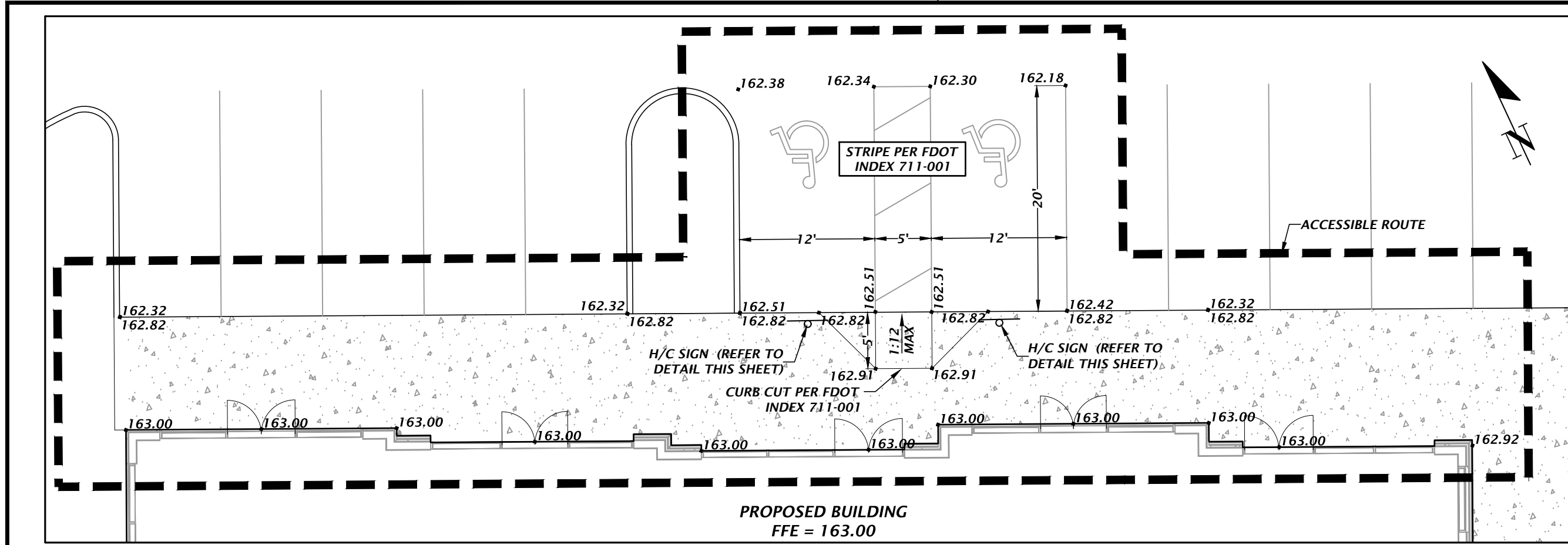
GRAPHIC SCALE
1"=30'
BAR SCALE ON
ORIGINAL DRAWING
0' 15' 30' 45' 60'
DO NOT SCALE DRAWING
THIS SHEET, ADJUST
SCALES ACCORDINGLY.

REVISIONS
DATE
DESCRIPTION
11/21/19 - 100% CONSTRUCTION DOCUMENTS
11/07/19 - CITY OF ALACHUA RESUBMITTAL
10/17/19 - CITY OF ALACHUA, FDOT
08/08/19 - CITY OF ALACHUA, SRWMD, & FDOT
06/27/19 - CITY OF ALACHUA, SRWMD, & FDOT

CLIENT: NATURAL VALLEY HARVEST LTD
PROJECT: THE GOLF PLAZA
SHEET TITLE: DETAILED HORIZONTAL CONTROL AND SITE PLAN
PROJECT NUMBER: 18-0431

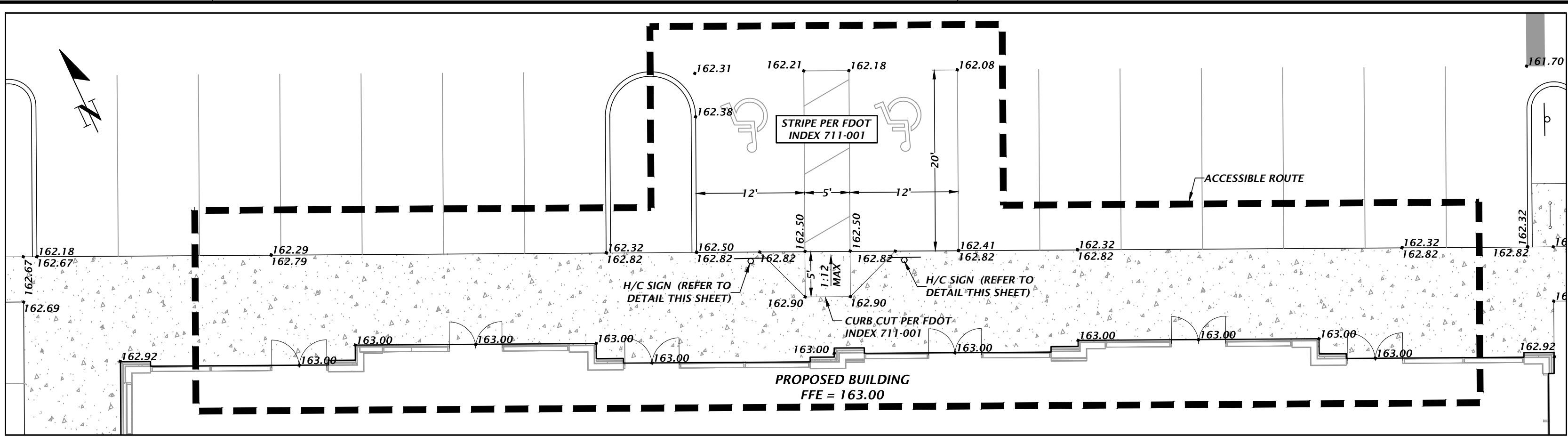
DESIGNED BY: E. GILLESPIE
DRAWN BY: D. YOUNG, P.E.
CHECKED BY: R. WALPOLE, P.E.
QUALITY CONTROL: D. YOUNG, P.E.
PROJECT NUMBER: 18-0431

DANIEL H. YOUNG
FL PE No. 70780
SHEET NO.: C1.11

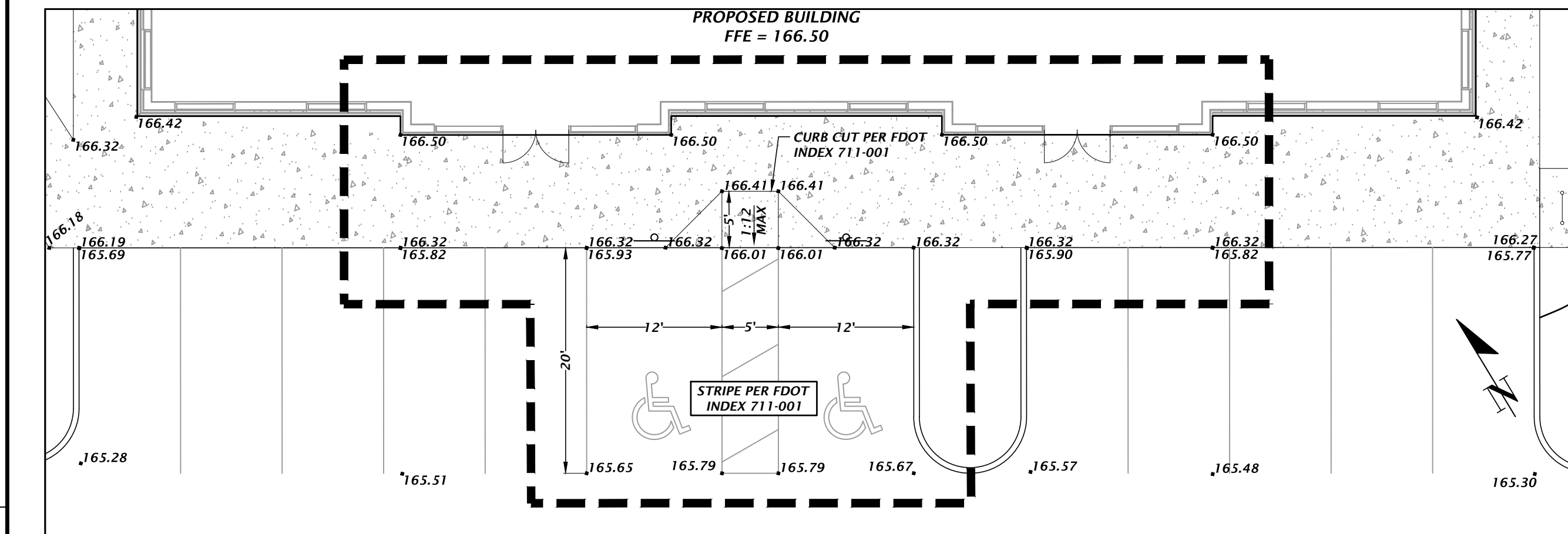


BUILDING #1

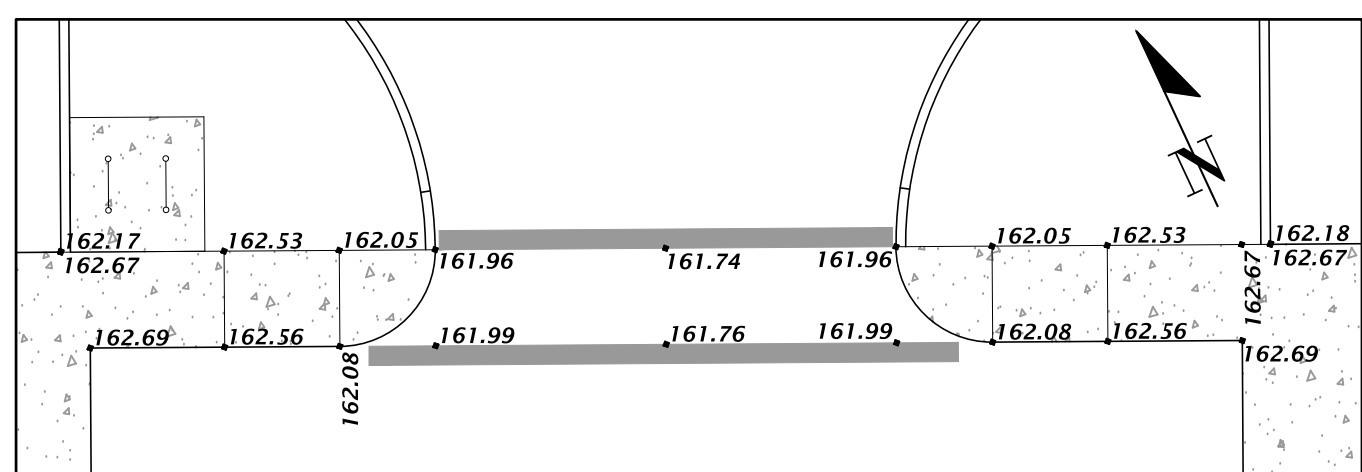
GRAPHIC SCALE
0 5 10 20



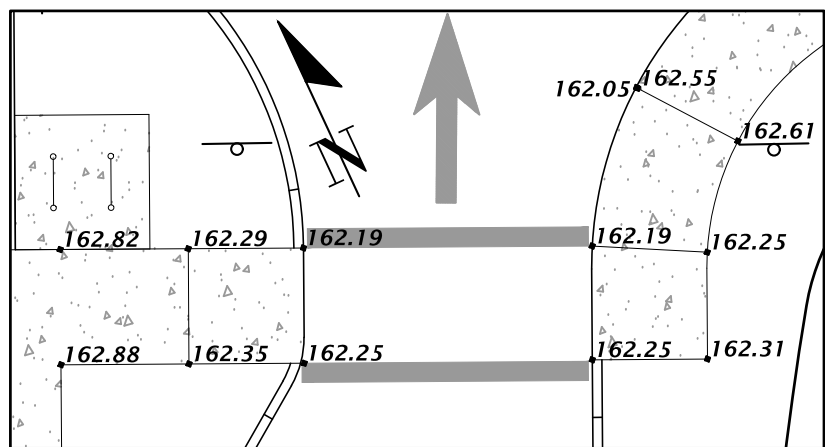
BUILDING #2



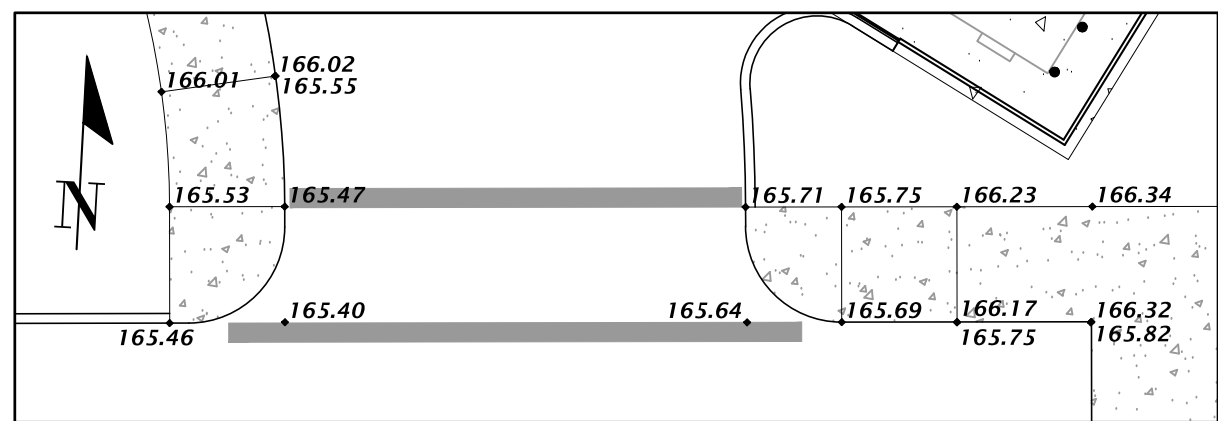
BUILDING #3



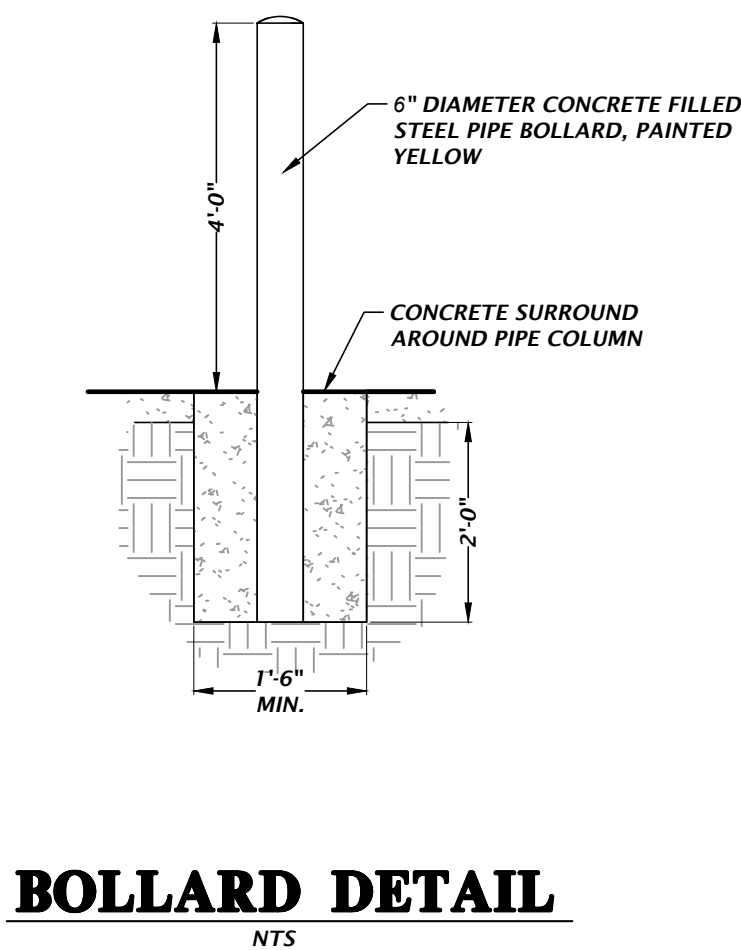
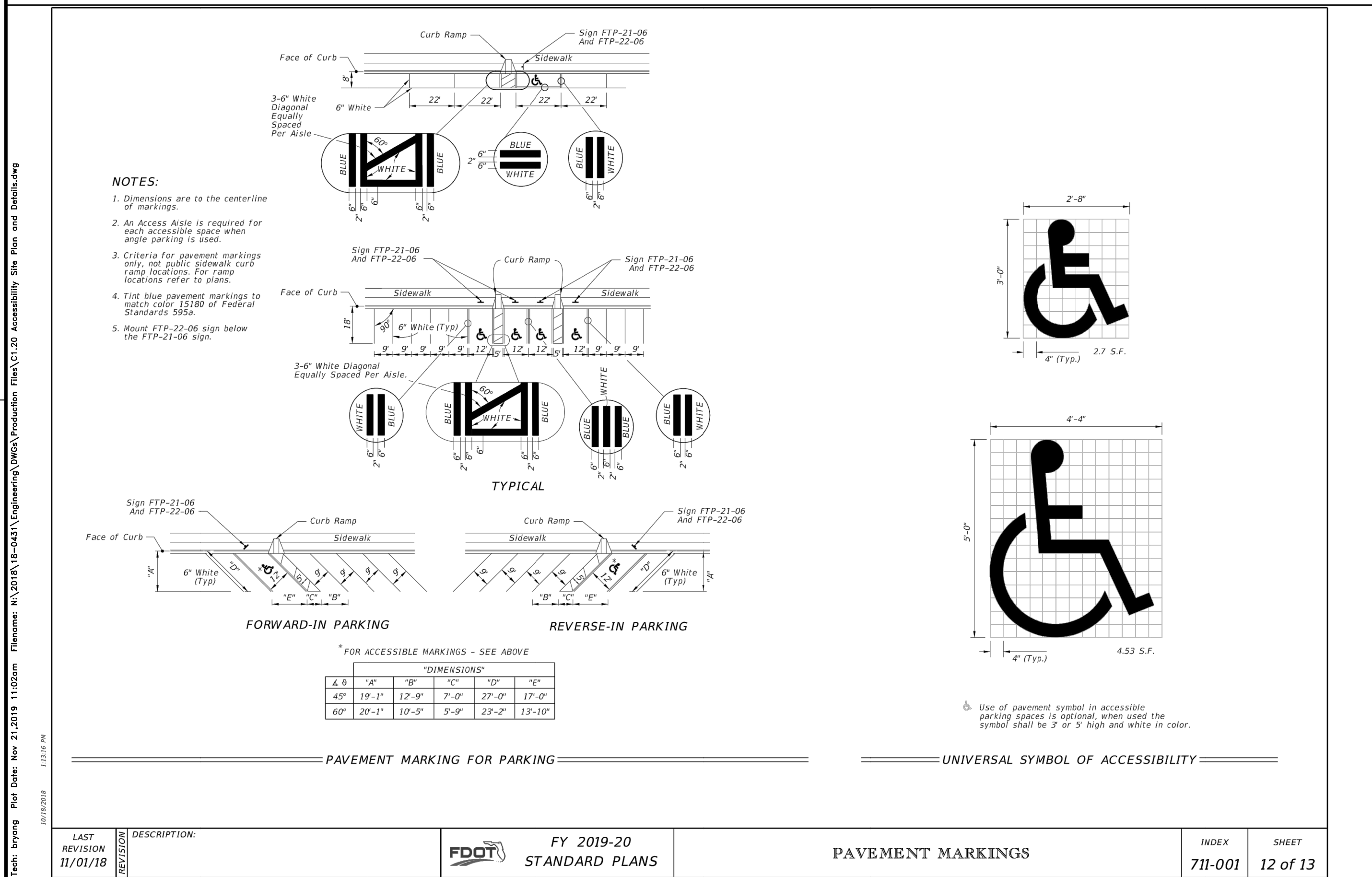
RAMP LAYOUT #1



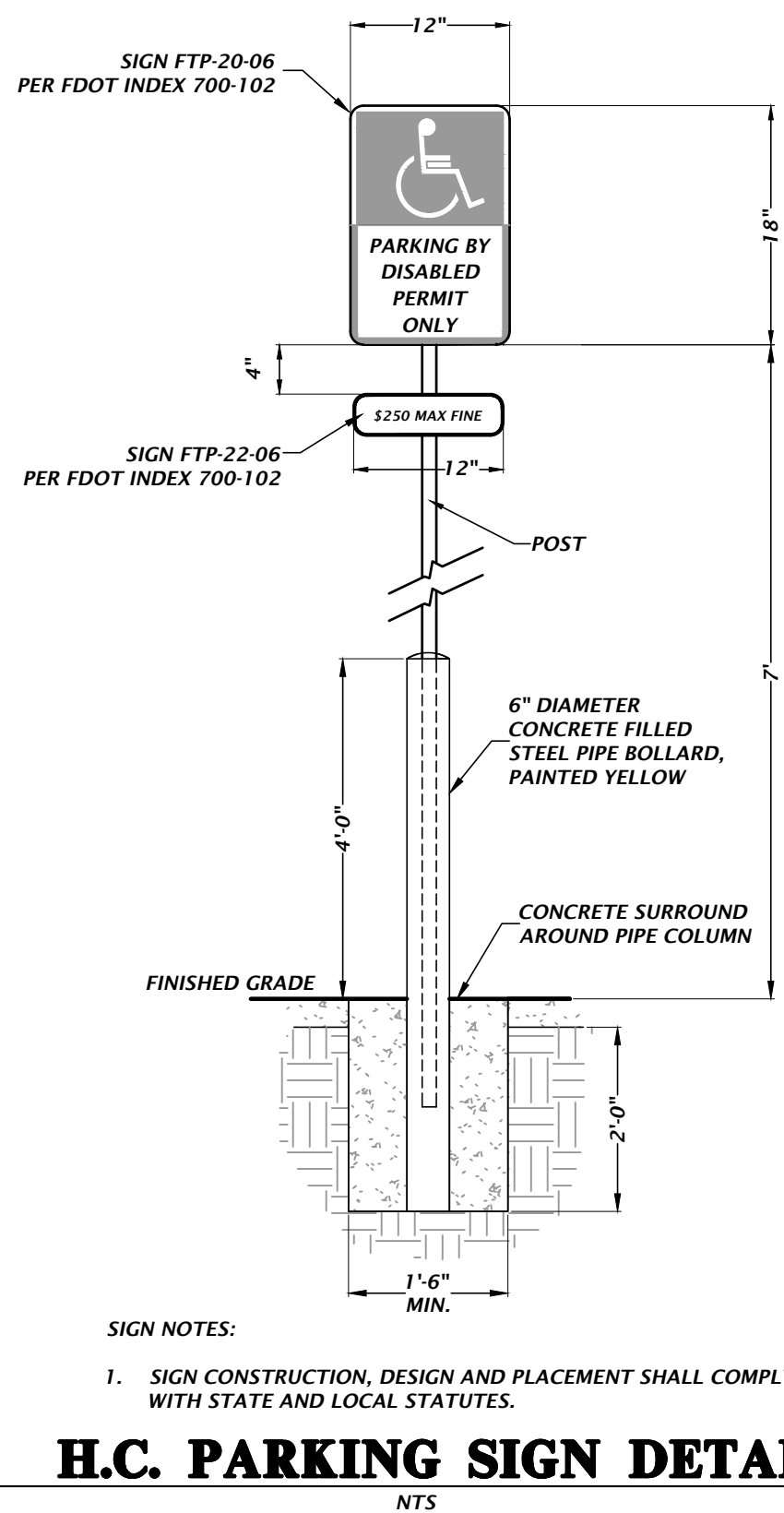
RAMP LAYOUT #2



RAMP LAYOUT #3



BOLLARD DETAIL
NTS



SIGN NOTES:
1. SIGN CONSTRUCTION, DESIGN AND PLACEMENT SHALL COMPLY WITH STATE AND LOCAL STATUTES.

H.C. PARKING SIGN DETAIL
NTS

11801 Research Drive
Alachua, Florida 32615
(352) 331-1976
www.chw-inc.com
est. 1988 FLORIDA
CA-5075

CHW
Professional Consultants

GRAPHIC SCALE
0 5 10 20
1"=10'
DO NOT SCALE DRAWING
ON THIS SHEET, ADJUST
SCALES ACCORDINGLY.

CONSTRUCTION/BDI RELEASE

REVISIONS:
06/27/19 - CITY OF ALACHUA, SRWMD, & FDOT
08/08/19 - CITY OF ALACHUA, SRWMD, & FDOT
10/17/19 - CITY OF ALACHUA, FDOT
11/07/19 - CITY OF ALACHUA RESUBMITTAL
11/21/19 - 100% CONSTRUCTION DOCUMENTS

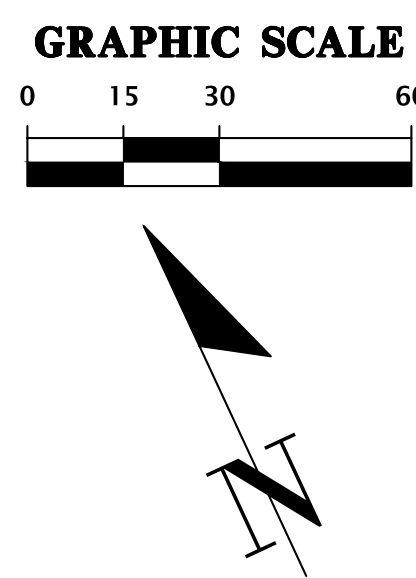
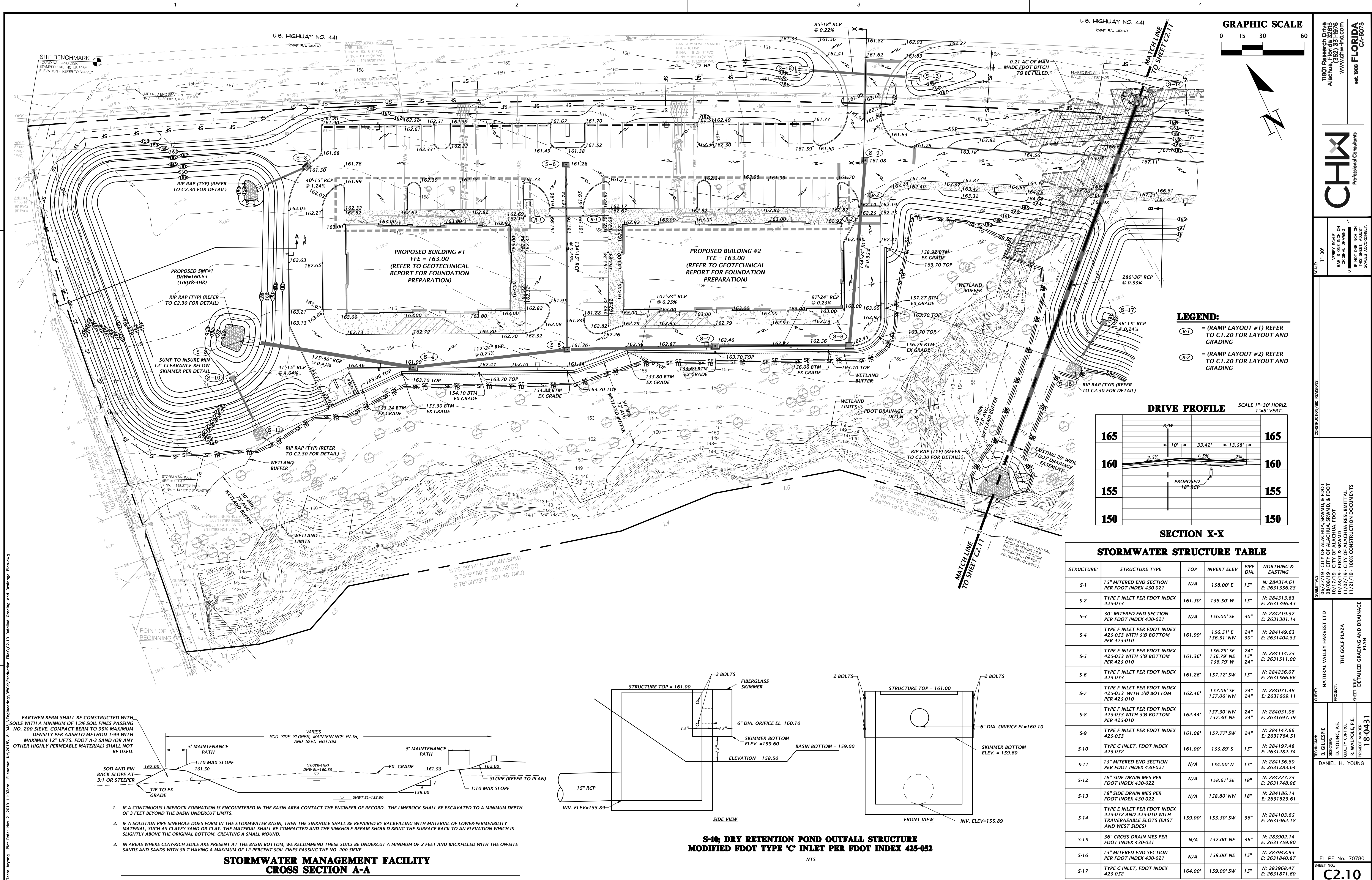
CLIENT: NATURAL VALLEY HARVEST LTD
PROJECT: THE GOLF PLAZA
SHEET TITLE: ACCESSIBILITY SITE PLAN AND DETAILS

DESIGNER: E. GILLESPIE
DESIGNER: D. YOUNG, P.E.
QUALITY CONTROL: R. WALPOLE, P.E.
PROJECT NUMBER: 18-0431

DANIEL H. YOUNG

FL PE No. 70780

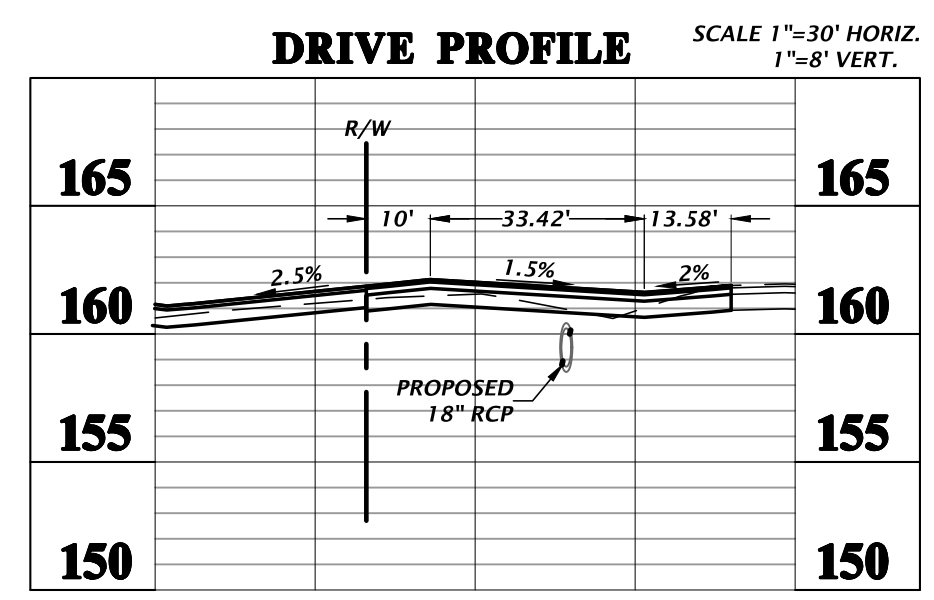
SHEET NO.:
C1.20



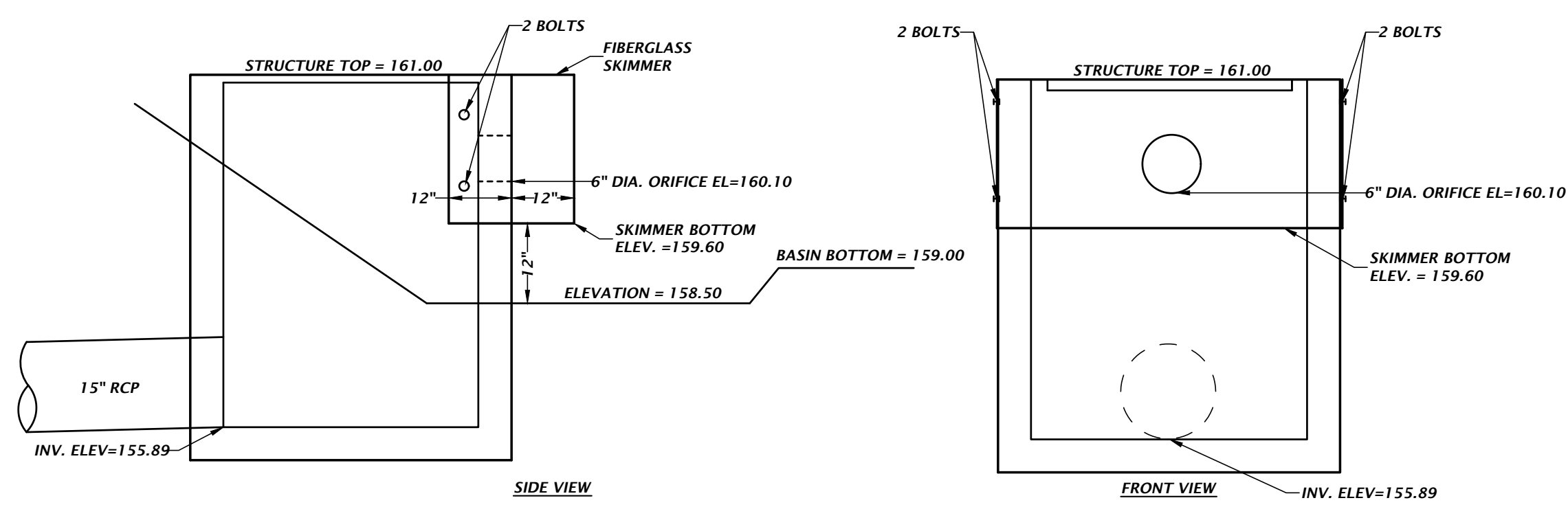
LEGEND:

(R-1) = (RAMP LAYOUT #1) REFER TO C1.20 FOR LAYOUT AND GRADING

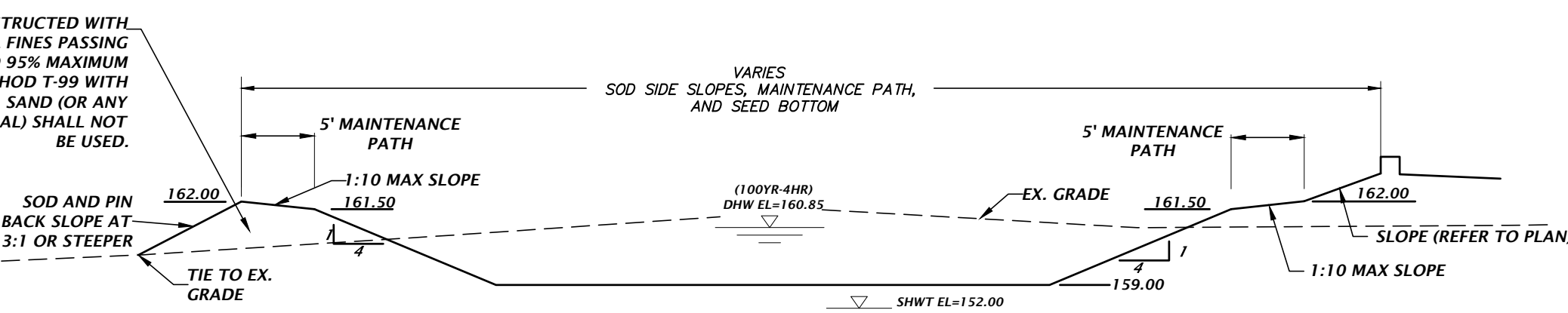
(R-2) = (RAMP LAYOUT #2) REFER TO C1.20 FOR LAYOUT AND GRADING



STORMWATER STRUCTURE TABLE									
STRUCTURE:	STRUCTURE TYPE	TOP	INVERT ELEV.	PIPE DIA.	NORTHING & EASTING				
S-1	15" MITERED END SECTION PER FDOT INDEX 430-021	N/A	158.00' E	15"	N: 284314.61 E: 2631356.23				
S-2	TYPE F INLET PER FDOT INDEX 425-053	161.50'	158.50' W	15"	N: 284313.83 E: 2631396.45				
S-3	30" MITERED END SECTION PER FDOT INDEX 430-021	N/A	156.00' SE	30"	N: 284219.32 E: 2631301.14				
S-4	TYPE F INLET PER FDOT INDEX 425-053 WITH 5'Ø BOTTOM PER 425-010	161.99'	156.51' E 156.51' NW	24"	N: 284149.63 E: 2631404.35				
S-5	TYPE F INLET PER FDOT INDEX 425-053 WITH 5'Ø BOTTOM PER 425-010	161.36'	156.79' SE 156.79' NE 156.79' W	24"	N: 284114.23 E: 2631511.00				
S-6	TYPE F INLET PER FDOT INDEX 425-053	161.26'	157.12' SW	15"	N: 284236.07 E: 2631566.66				
S-7	TYPE F INLET PER FDOT INDEX 425-053 WITH 5'Ø BOTTOM PER 425-010	162.46'	157.06' SE 157.06' NW	24"	N: 284071.48 E: 2631609.11				
S-8	TYPE F INLET PER FDOT INDEX 425-053 WITH 5'Ø BOTTOM PER 425-010	162.44'	157.30' NW 157.30' NE	24"	N: 284031.06 E: 2631697.59				
S-9	TYPE F INLET PER FDOT INDEX 425-053	161.08'	157.77' SW	24"	N: 284147.66 E: 2631764.51				
S-10	TYPE C INLET, FDOT INDEX 425-052	161.00'	155.89' S	15"	N: 284197.48 E: 2631282.54				
S-11	15" MITERED END SECTION PER FDOT INDEX 430-021	N/A	154.00' N	15"	N: 284186.14 E: 2631283.61				
S-12	18" SIDE DRAIN MES PER FDOT INDEX 430-022	N/A	158.61' SE	18"	N: 284227.23 E: 2631748.96				
S-13	18" SIDE DRAIN MES PER FDOT INDEX 430-022	N/A	158.80' NW	18"	N: 284186.14 E: 2631283.61				
S-14	TYPE E INLET PER FDOT INDEX 425-052 AND 425-010 WITH TRAVERSABLE SLOTS (EAST AND WEST SIDES)	159.00'	153.50' SW	36"	N: 284103.65 E: 2631962.18				
S-15	36" CROSS DRAIN MES PER FDOT INDEX 430-021	N/A	152.00' NE	36"	N: 283902.14 E: 2631759.80				
S-16	15" MITERED END SECTION PER FDOT INDEX 430-021	N/A	159.00' NE	15"	N: 283948.95 E: 2631840.87				
S-17	TYPE C INLET, FDOT INDEX 425-052	164.00'	159.09' SW	15"	N: 283968.47 E: 2631871.60				

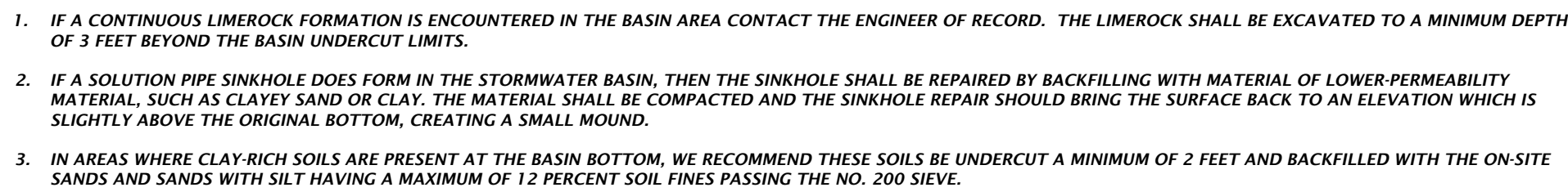


**S-10; DRY RETENTION POND OUTFALL STRUCTURE
MODIFIED FDOT TYPE 'C' INLET PER FDOT INDEX 425-052**



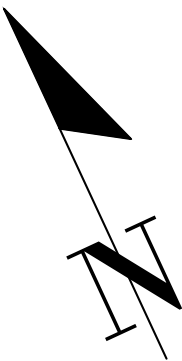
**STORMWATER MANAGEMENT FACILITY
CROSS SECTION A-A**

- IF A CONTINUOUS LIMEROCK FORMATION IS ENCOUNTERED IN THE BASIN AREA CONTACT THE ENGINEER OF RECORD. THE LIMEROCK SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 3 FEET BEYOND THE BASIN UNDERCUT LIMITS.
- IF A SOLUTION PIPE SINKHOLE DOES FORM IN THE STORMWATER BASIN, THEN THE SINKHOLE SHALL BE REPAIRED BY BACKFILLING WITH MATERIAL OF LOWER PERMEABILITY MATERIAL, SUCH AS CLAYEY SAND OR CLAY. THE MATERIAL SHALL BE COMPACTED AND THE SINKHOLE REPAIR SHOULD BRING THE SURFACE BACK TO AN ELEVATION WHICH IS SLIGHTLY ABOVE THE ORIGINAL BOTTOM, CREATING A SMALL MOUND.
- IN AREAS WHERE CLAY-RICH SOILS ARE PRESENT AT THE BASIN BOTTOM, WE RECOMMEND THESE SOILS BE UNDERCUT A MINIMUM OF 2 FEET AND BACKFILLED WITH THE ON-SITE SANDS AND SANDS WITH SILT HAVING A MAXIMUM OF 12 PERCENT SOIL FINES PASSING THE NO. 200 SIEVE.



**S-17; DRY RETENTION POND OUTFALL STRUCTURE
MODIFIED FDOT TYPE 'C' INLET PER FDOT INDEX 425-052**

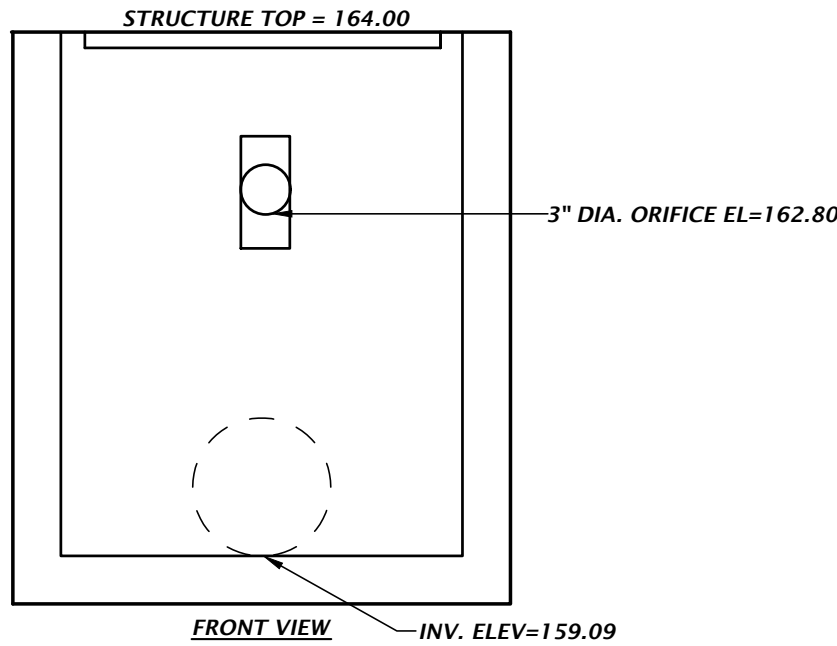
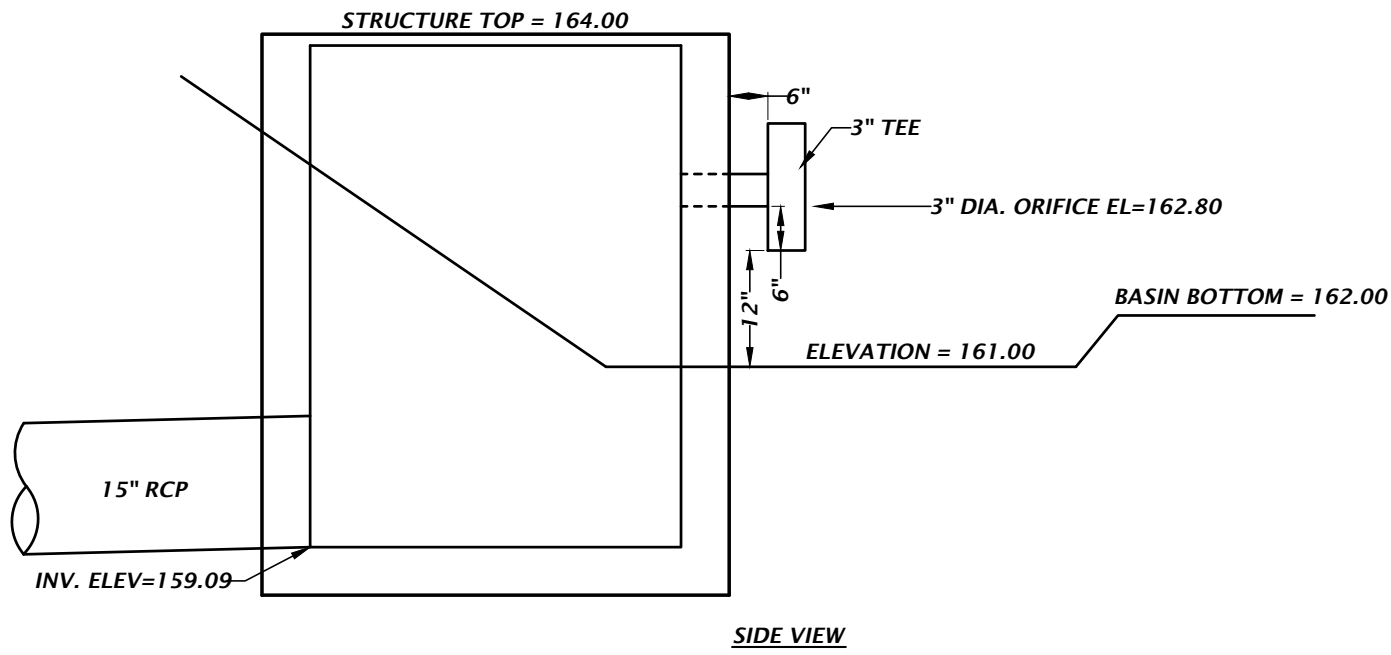
NTS



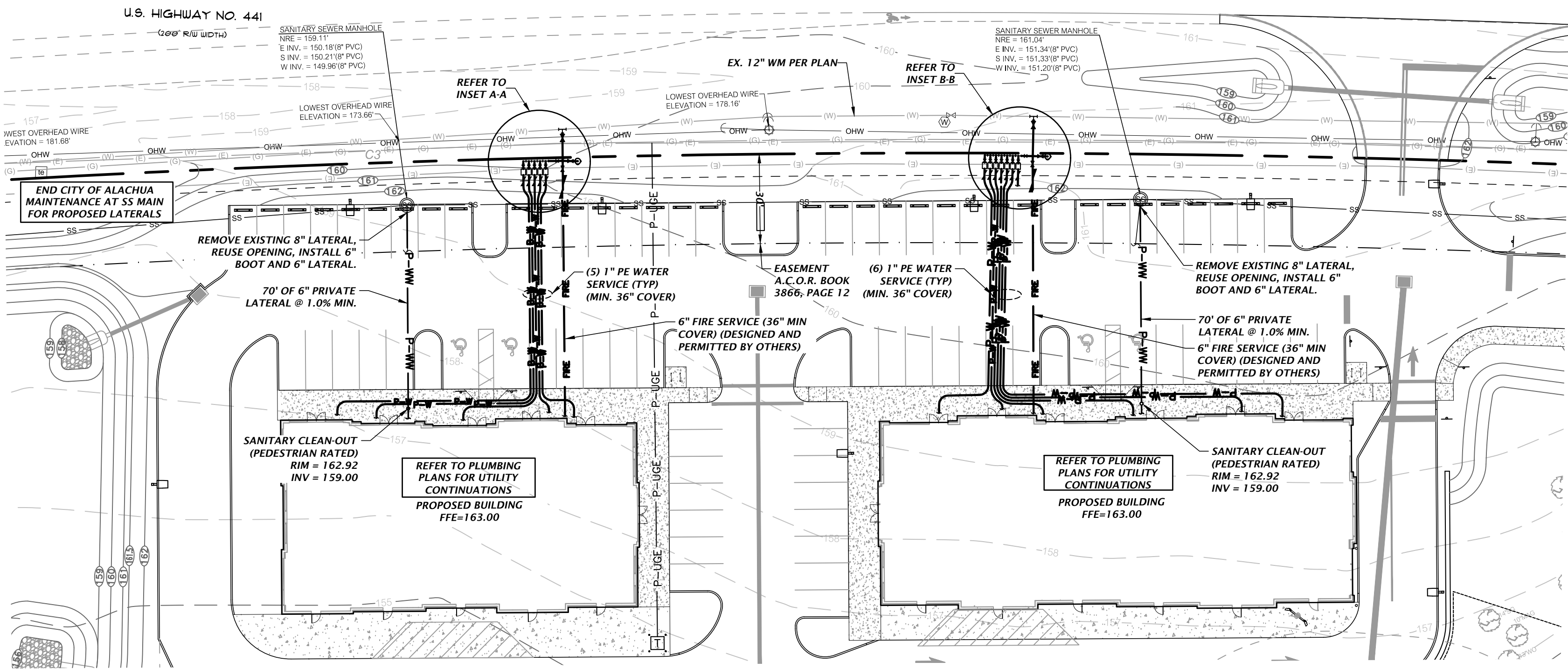
STORMWATER STRUCTURE TABLE					
STRUCTURE:	STRUCTURE TYPE	TOP	INVERT ELEV	PIPE DIA.	NORTHING & EASTING
S-14	TYPE E INLET PER FOOT INDEX 425-052 AND 425-010 WITH TRAVERSABLE SLOTS (EAST AND WEST SIDES)	159.00'	153.50' SW	36"	N: 284103.65 E: 2631962.18
S-15	36" CROSS DRAIN MES PER FOOT INDEX 430-021	N/A	152.00' NE	36"	N: 283902.14 E: 2631759.80
S-16	15" MITERED END SECTION PER FOOT INDEX 430-021	N/A	159.00' NE	15"	N: 283948.95 E: 2631840.87
S-17	TYPE C INLET, FOOT INDEX 425-052	164.00'	159.09' SW	15"	N: 283968.47 E: 2631877.60
S-18	15" MITERED END SECTION PER FOOT INDEX 430-021	N/A	161.00' E	15"	N: 283904.89 E: 2631981.06
S-19	TYPE F INLET PER FOOT INDEX 425-053	164.62'	161.12' SE 161.12' W	15" 15"	N: 283896.39 E: 2632025.85
S-20	TYPE F INLET PER FOOT INDEX 425-053	164.97'	161.65' NW	15"	N: 283814.41 E: 2632163.53
S-21	18" SIDE DRAIN MES PER FOOT INDEX 430-022	N/A	163.00' N	18"	N: 283762.71 E: 2632224.25
S-22	18" SIDE DRAIN MES PER FOOT INDEX 430-022	N/A	163.15' S	18"	N: 283819.97 E: 2632235.71

LEGEND:

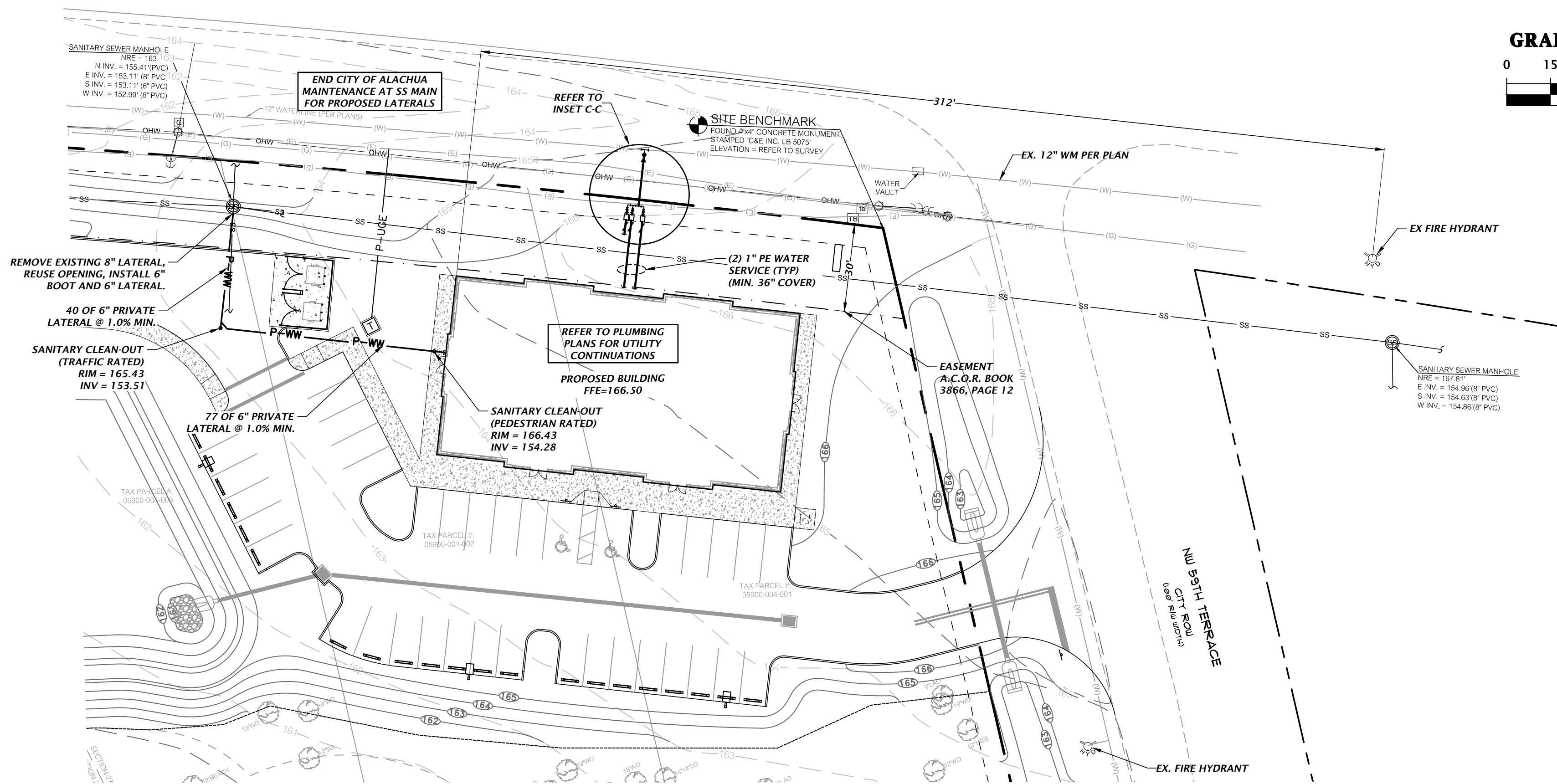
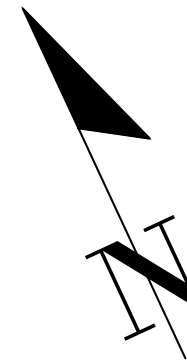
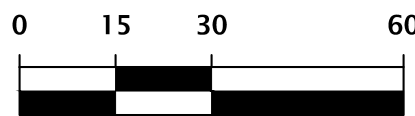
(R-3) = (RAMP LAYOUT #3) REFER TO C1.20 FOR LAYOUT AND GRADING



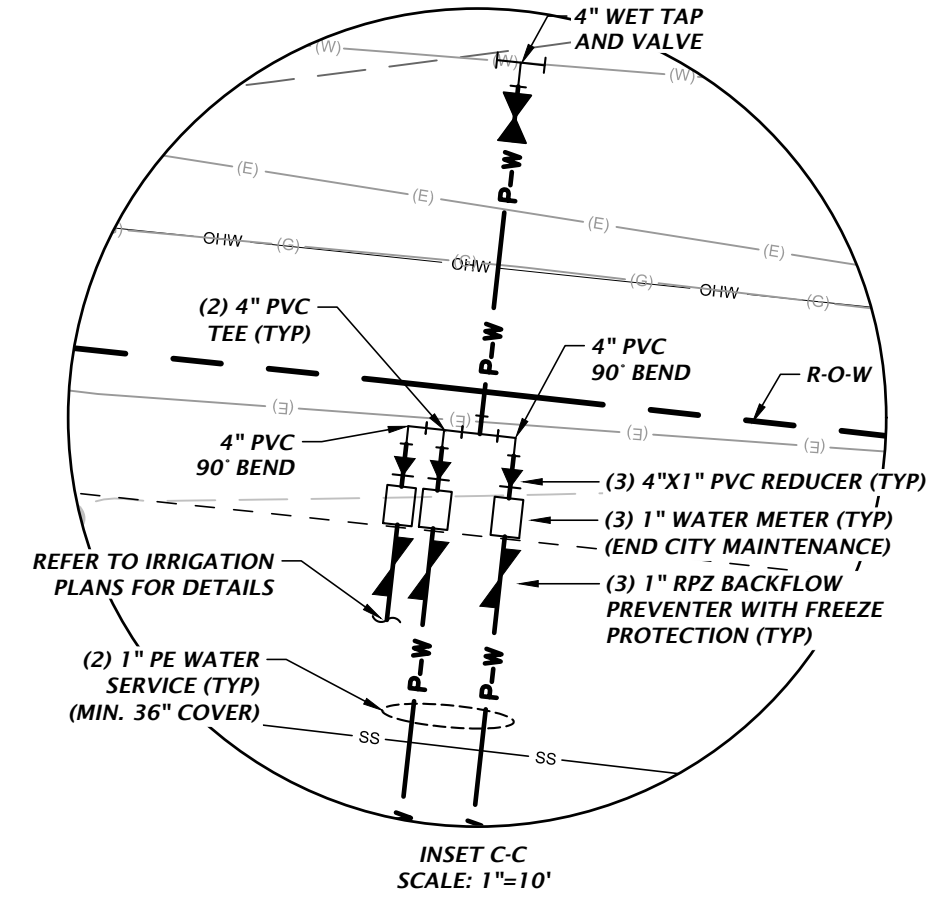
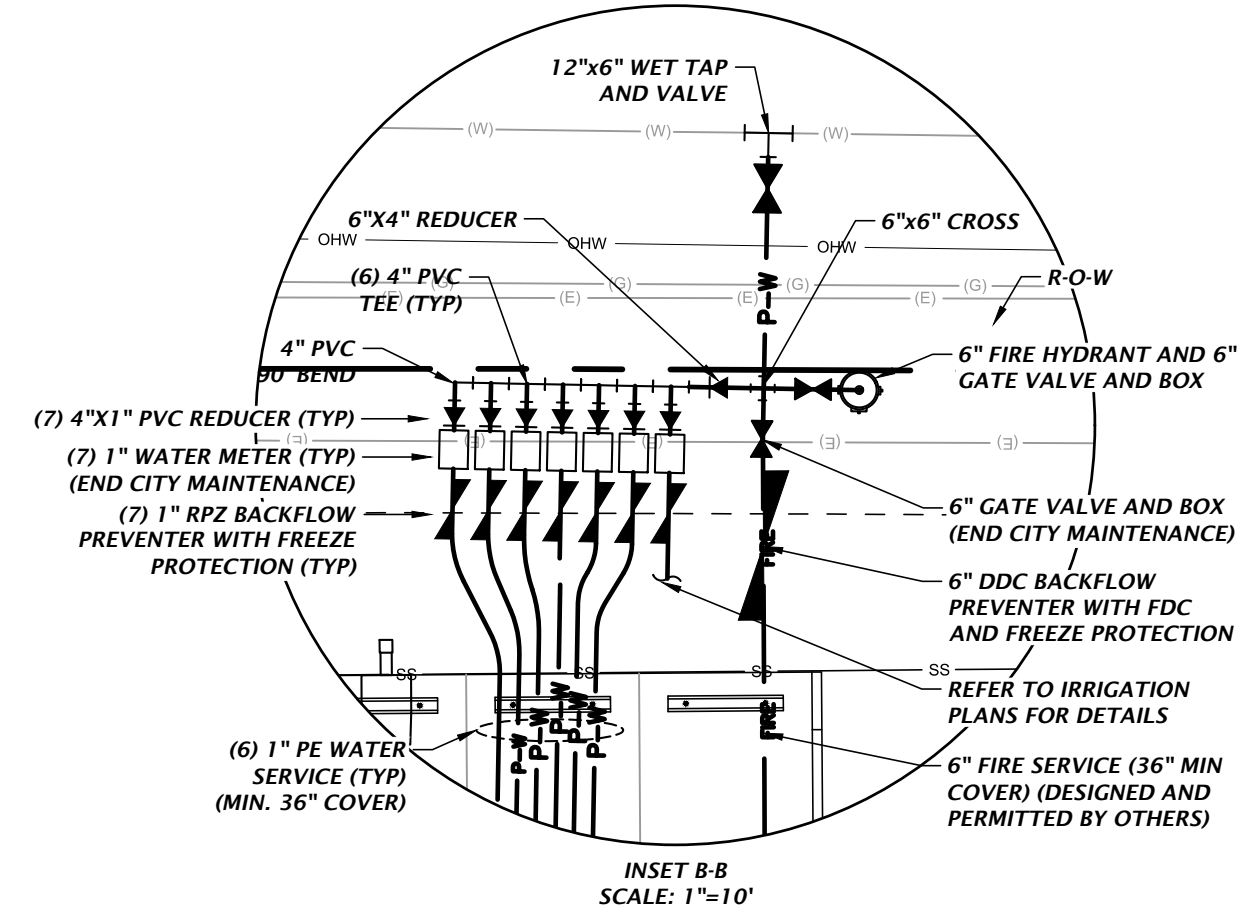
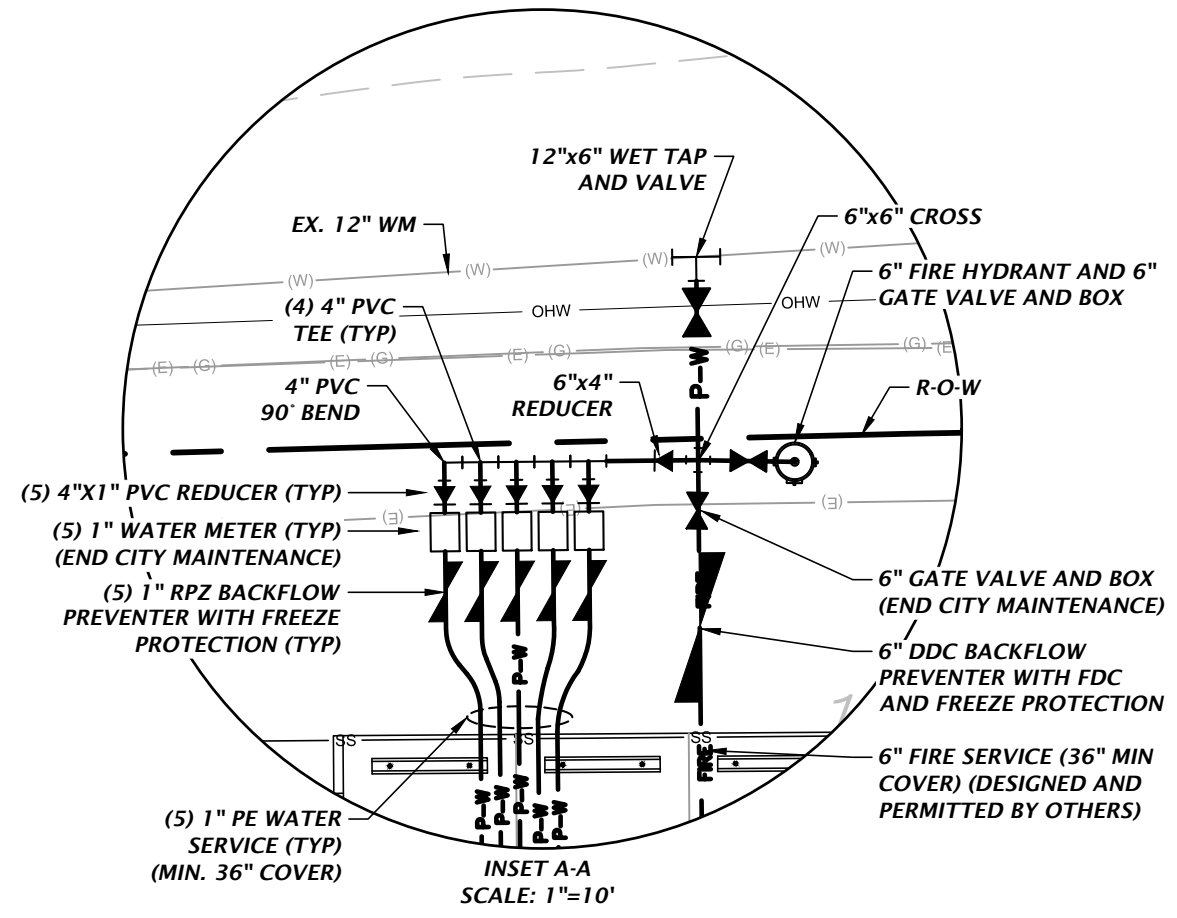
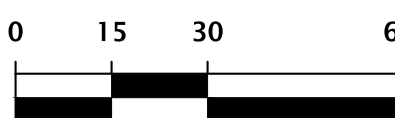
1
2
3
4
A
B
C
D
Title: bryang Plot Date: Nov 21, 2019 11:03am Filename: \\A\2018\18-0431\Engineering\DWG\Production Files\3.10 Detailed Utility Plan.dwg



GRAPHIC SCALE



GRAPHIC SCALE



11801 Research Drive
Alachua, Florida 32615
(352) 331-1976
www.chw-inc.com
est. 1988 FLORIDA
CA-5075

CHW
Professional Consultants

VERTICAL SCALE
BASED ON
ORIGINAL DRAWING
0" = 1' (NOT SHOWN)
THIS SHEET ADJUST
SCALES ACCORDINGLY.

SCALE: 1"=30'

CONSTRUCTION/BD RELEASE

REVISIONS
06/27/19 - CITY OF ALACHUA, SRWD, & FDOT
08/08/19 - CITY OF ALACHUA, SRWD, & FDOT
10/17/19 - CITY OF ALACHUA, FDOT
11/07/19 - CITY OF ALACHUA RESUBMITTAL
11/21/19 - 100% CONSTRUCTION DOCUMENTS

CLIENT: NATURAL VALLEY HARVEST LTD
PROJECT: THE GOLF PLAZA
SHEET TITLE: DETAILED UTILITY PLAN

DESIGNED BY: B. CULLESPIE
DESIGNER: D. YOUNG, P.E.
QUALITY CONTROL: R. WALPOLE, P.E.
PROJECT NUMBER: 18-0431

DANIEL H. YOUNG

FL PE No. 70780
SHEET NO.

C3.10

GENERAL NOTES

ALL ASPHALT, LIMESTONE, AND CONSTRUCTION DEBRIS SHALL BE REMOVED FROM PLANTING BEDS AND SOD AREAS PRIOR TO LANDSCAPE INSTALLATION. IF ENCOUNTERED DURING CONSTRUCTION OR INSTALLATION, THESE SHALL BE EXCAVATED AND REMOVED FROM THE SITE. PLANTING DEPTH OF SOIL IN SUCH AREAS SHOULD BE AT LEAST 3". IF FILL MUST BE ADDED, IT MUST BE FLORIDA CLEAN DEEP FILL (FREE OF WEED SEEDS) WITH pH 5.5-6.5.

ALL LANDSCAPED AREAS SHALL BE MULCHED WITH 3" THICKNESS OF MULCH. PINE BARK MULCH SHALL BE USED IN ALL AREAS, EXCEPT RETENTION AREAS. PINE STRAW MULCH SHALL BE USED IN RETENTION AREAS.

NEW TREES OUTSIDE OF MULCHED LANDSCAPED BEDS WILL BE PROTECTED FROM MOWER AND STRING TRIMMER DAMAGE WITH 10" OF PLASTIC DRAIN TUBING.

LEADER SHOOTS AND MAIN STRUCTURAL LIMBS OF TREES SHALL NOT BE TOPPED OR PRUNED. TREES WILL BE STAKED AS NEEDED. GUYLINES WILL BE OF NON-SYNTHETIC BIODEGRADABLE MATERIAL.

REFER TO CIVIL PLANS FOR TREE BARRICADE DETAILS AND INFORMATION.

GRASSING

ALL DISTURBED AND UNPAVED AREAS TO BE GRASSED WITH SOD THAT IS FREE OF NOXIOUS WEEDS INCLUDING TROPICAL SODA APPLE OR SHALL BE SEEDED AND MULCHED. SEE CIVIL SITE PLANS FOR ADDITIONAL RELATED INFORMATION.

PLANT MATERIAL

ALL PLANT MATERIAL TO BE FLORIDA NO.1 OR BETTER, GRADED IN ACCORDANCE WITH THE STATE OF FLORIDA DEPARTMENT OF AGRICULTURE, DIVISION OF PLANT INDUSTRY'S 'GRADES AND STANDARDS FOR NURSERY PLANTS', CURRENT EDITION AT THE TIME PLANS ARE ISSUED. CALL THE LANDSCAPE ARCHITECT PRIOR TO PURCHASING ANY PLANT MATERIAL FOR AN ON SITE INSPECTION AND REVIEW OF LANDSCAPE PLAN.

PLANT QUANTITIES SHOWN ARE FOR PERMITTING PURPOSES ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM ALL QUANTITIES SHOWN ON THE PLAN.

10% OPEN SPACE REQUIREMENT

AS PER CITY OF ALACHUA LDR SECTION 6.7.3 (A), THE MINIMUM OPEN SPACE SET ASIDE SHALL BE 10% OF THE DEVELOPMENT SITE. REFER TO CIVIL PLANS FOR OPEN SPACE CALCULATIONS.

IRRIGATION

LANDSCAPE IRRIGATION TO BE PROVIDED BY AUTOMATIC IRRIGATION SYSTEM IN ACCORDANCE WITH CITY OF ALACHUA LDR SECTION 6.2.2(D)(6)(B)(V).

30% LANDSCAPED AREA REQUIREMENT

PER CITY OF ALACHUA COMPREHENSIVE PLAN FUTURE LAND USE ELEMENT, OBJECTIVE 2.4, POLICY 2.4.A

TOTAL SITE AREA.....	359,272 S.F.
TOTAL PROPOSED LANDSCAPED AREA.....	255,846 S.F.
LANDSCAPED AREA % OF TOTAL SITE AREA.....	71.2% (MIN. 30%)

TREE MITIGATION CALCULATIONS

CATEGORY	MITIGATION CALCULATIONS
INCH-FOR-INCH REPLACEMENT	HERITAGE TREES N/A
1:1 REPLACEMENT	TOTAL TREES TO BE MITIGATED AT 1:1 REPLACEMENT.....140 TREES TOTAL TREES REQUIRED FOR MITIGATION @ 1:1 REPLACEMENT.....140 TREES TOTAL REPLACEMENT TREES PROVIDED.....140 TREES TOTAL PRESERVATION CREDITSN/A TOTAL MITIGATION DEFICIT/SURPLUS.....0 TREES

PARKING AREA LANDSCAPE REQUIREMENTS [Sec. 6.2.2(D)(2)(a) & (b)]

DESCRIPTION	LANDSCAPE REQUIRED	LANDSCAPE PROVIDED
PARKING AREA PERIMETER LANDSCAPE	PARKING PERIMETER = 509 L.F. 4 CANOPY TREES PER 100 L.F. 2 UNDERSTORY/ORNAMENTAL PER 100 L.F. CONTINUOUS ROW OF SHRUBS 21 CANOPY TREES REQUIRED 11 UNDERSTORY TREES REQUIRED CONTINUOUS ROW OF SHRUBS	SEE ALTERNATIVE COMPLIANCE NOTE A* CONTINUOUS ROW OF SHRUBS PROVIDED
INTERIOR PARKING AREA LANDSCAPE: BUILDINGS 1 & 2	PARKING AREA = 22,626 S.F. 1 CANOPY TREE REQUIRED PER 1,800 S.F. 10 SHRUBS REQUIRED PER LANDSCAPE ISLAND 13 CANOPY TREES REQUIRED 130 SHRUBS REQUIRED	13 CANOPY TREES PROVIDED 130 SHRUBS PROVIDED
INTERIOR PARKING AREA LANDSCAPE: BUILDING 3 - SEE NOTE BELOW	PARKING AREA = 11,950 S.F. 1 CANOPY TREE REQUIRED PER 3,600 S.F. 5 SHRUBS REQUIRED PER LANDSCAPE ISLAND 4 CANOPY TREES REQUIRED 40 SHRUBS REQUIRED	4 CANOPY TREES PROVIDED 40 SHRUBS PROVIDED

PER SECTION 6.2.2(D)(2)(iii)(F), INTERIOR PLANTING REQUIREMENTS FOUND IN 6.2.2(D)(iii)(A) AND (B) ARE REDUCED BY 50% WHEN ALL PARKING BAYS WITHIN THE PARKING LOT AREA ARE LOCATED IN THE REAR OR SIDE OF THE PROPERTY.

ARTERIAL FRONTAGE LANDSCAPE REQUIREMENTS [Section 6.2.3(E)]

LOCATION	BUFFER LENGTH & TYPE	LANDSCAPE REQUIRED	LANDSCAPE PROVIDED
441 FRONTAGE	1,112 L.F.	4 CANOPY TREES PER 100 LIN. FT = 45 CANOPY TREES REQUIRED 3 UNDERSTORY TREES PER 100 LIN. FT. = 34 UNDERSTORY TREES REQUIRED CONTINUOUS ROW OF SHRUBS	SEE ALTERNATIVE COMPLIANCE NOTE C* 34 UNDERSTORY TREES PROVIDED CONTINUOUS ROW OF SHRUBS

ALTERNATIVE COMPLIANCE*

DUE TO SITE SPACE CONSTRAINTS AND EXISTING CONDITIONS, THE REQUIRED AMOUNT OF LANDSCAPE CANNOT BE PLANTED ON THE PROJECT SITE. THE PROPOSED LANDSCAPE PLAN MEETS THE INTENT OF THE CITY OF ALACHUA CODE REQUIREMENTS THROUGH ALTERNATIVE METHODS.

CITY OF ALACHUA CODE SEC. 6.2.2(D)(10) STATES THAT AN ALTERNATIVE LANDSCAPE PLAN MAY BE USED "WHERE UNREASONABLE OR IMPRACTICAL SITUATIONS WOULD RESULT FROM APPLICATION OF THIS SECTION ... ALTERNATIVE PLANS, MATERIALS OR METHODS MAY BE JUSTIFIED FROM PHYSICAL CONDITIONS RELATED TO THE SITE. THE LOT CONFIGURATION AND EXISTING CONDITIONS MAY JUSTIFY AN ALTERNATIVE LANDSCAPE PLAN. ALLOWABLE DEVIATIONS FROM THE STANDARDS OF THIS SECTION INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

- (i) A REDUCTION IN THE TOTAL NUMBER OF REQUIRED TREES AND/OR ALTERATION OF THE SPACING REQUIREMENTS BETWEEN TREES WHEN UNDERGROUND CONNECTIONS TO PUBLIC FACILITIES OR PUBLIC UTILITIES, OR PUBLIC EASEMENTS OR RIGHTS-OF-WAY, ARE LOCATED UPON OR IN CLOSE PROXIMITY TO THE PARCEL OR WHENEVER A FEWER NUMBER OF TREES WOULD BE MORE DESIRABLE IN TERMS OF GOOD LANDSCAPE PLANNING PRACTICE.
- (ii) A REDUCTION IN THE COUNT, SPACING, OR SPECIES DIVERSITY STANDARDS WHICH WOULD BE MORE DESIRABLE IN TERMS OF GOOD LANDSCAPE PLANNING PRACTICE CONSIDERING THE NATURE OF THE PARCEL AND ADJACENT PARCELS.
- (iii) UP TO A 33 PERCENT REDUCTION IN THE TOTAL NUMBER OF REQUIRED TREES PROVIDED THAT THE CUMULATIVE CALIPER SIZE OF ALL TREES TO BE PLANTED MEETS OR EXCEEDS THE TOTAL CALIPER INCHES THAT WOULD HAVE BEEN PROVIDED OTHERWISE.

DUE TO THE SITE SPACE CONSTRAINTS FROM LOT CONFIGURATION AND UTILITY EASEMENTS, ALTERNATE PLANTINGS AND PLANTING LOCATIONS HAVE BEEN PROVIDED TO MEET THE CANOPY TREE REQUIREMENT. AS AN ALTERNATIVE, UNDERSTORY TREES HAVE BEEN PROVIDED AT A RATE OF 2 UNDERSTORY TREE PER 1 CANOPY TREE.

- A) PARKING AREA PERIMETER LANDSCAPE [SECTION 6.2.2(D)(2)(b)]: EXISTING GAS, ELECTRIC, WATER, AND SANITARY UTILITY LINES ARE LOCATED BETWEEN THE PROJECT SITE AND 441. DUE TO EXISTING UTILITY LINES AND THEIR REQUIRED CLEARANCE FROM TREES, TREES ARE UNABLE TO BE PLANTED ALONG THE NORTHERN PERIMETER OF THE PARKING LOT.

21 CANOPY TREES AND 11 UNDERSTORY TREES ARE REQUIRED PER THE CALCULATIONS. THE PLAN PROVIDES 13 CANOPY TREES AND 16 UNDERSTORY TREES AROUND THE PERIMETER OF THE PARKING LOT ALONG THE SOUTHERN, EASTERN, AND WESTERN SIDES. THEREFORE, A DEFICIT OF 8 CANOPY TREES REMAINS. THE PLAN PROPOSES AN ADDITIONAL 5 UNDERSTORY TREES BEYOND THE REQUIREMENT. CANOPY AND UNDERSTORY TREES HAVE BEEN PROVIDED AROUND THE PARKING LOT PERIMETER TO SATISFY THE INTENT OF THE PARKING BUFFER REQUIREMENT AND HAVE BEEN PLANTED WITH ADEQUATE SPACE TO GROW TO MATURE SIZE, ACCORDING TO GOOD LANDSCAPE PLANNING PRACTICE.

- B) BUILDING FACADE PLANTING REQUIREMENTS [SECTION 6.2.2(D)(1)(c)]: DUE TO THE CONFIGURATION OF THE SITE, THE REQUIRED NUMBER OF CANOPY TREES ALONG THE BUILDING FACADE ARE UNABLE TO BE PROVIDED. ALONG THE BUILDING FACADES, SIDEWALKS ARE PROPOSED IMMEDIATELY ADJACENT TO THE BUILDINGS. MUCH OF THE SITE IS PRESERVED TO PROVIDE A WETLAND BUFFER. SITE HAS BEEN DESIGNED IN ORDER TO PRESERVE THE MAXIMUM AMOUNT OF EXISTING TREES ALONG THE SOUTHERN PORTION OF THE SITE. THEREFORE, ADDITIONAL LANDSCAPE SPACE IS UNABLE TO BE PROVIDED IN FRONT OF THE BUILDINGS.

16 CANOPY TREES ARE REQUIRED ALONG THE BUILDING FACADE PER THE CALCULATIONS. ALONG THE SIDES OF THE BUILDINGS WHERE LANDSCAPE AREA CAN BE PROVIDED, 6 CANOPY TREES AND 20 UNDERSTORY TREES ARE PROPOSED. THEREFORE, A DEFICIT OF 13 CANOPY TREES REMAINS. THE 7 UNDERSTORY TREES HAVE BEEN PROVIDED TO SATISFY THE INTENT OF THE REQUIREMENT. A DEFICIT OF 6 TREES ALONG THE BUILDING FACADE REMAINS. ADDITIONAL TREES ARE UNABLE TO BE PLANTED DUE TO THE LIMITED AREA. THE TREES ARE LOCATED WITH ADEQUATE SPACE TO GROW TO MATURE SIZE, ACCORDING TO GOOD LANDSCAPE PLANNING PRACTICE.

- C) ARTERIAL FRONTAGE REQUIREMENT [SECTION 6.2.3(E)(3)]: DUE TO THE EXISTING GAS, ELECTRIC, WATER, AND SANITARY UTILITY LINES LOCATED BETWEEN THE PROJECT SITE AND 441, THE REQUIRED CANOPY AND UNDERSTORY TREES ARE UNABLE TO BE PROVIDED. A CONTINUOUS ROW OF SHRUBS HAS BEEN PROVIDED. THE TREES IN THE PARKING LOT ISLANDS AND ALONG THE CONNECTING DRIVE ARE LIVE OAKS, WHICH WILL PROVIDE CANOPY TREES ALONG THE ARTERIAL FRONTAGE. THE NORTHERN EDGES OF THE BASINS ARE ALSO PLANTED WITH CANOPY AND UNDERSTORY TREES CLOSE TO THE ARTERIAL FRONTAGE.

- D) PERIMETER BUFFER 'D' REQUIREMENT [SECTION 6.2.1(D)(3)]: DUE TO THE EXISTING GAS, ELECTRIC, WATER, AND SANITARY UTILITY LINES LOCATED BETWEEN THE PROJECT SITE AND 441, AS WELL AS BETWEEN THE PROJECT SITE AND THE WESTERN ADJACENT PARCEL, THE PERIMETER BUFFER REQUIREMENT CANNOT BE MET. THE EXISTING DENSE VEGETATION TO REMAIN ON THE SOUTHERN AND EASTERN PERIMETER MEETS THE INTENT TO SCREEN COMMERCIAL USES FROM THE SINGLE-FAMILY RESIDENTIAL PARCELS.

112 CANOPY TREES, 70 UNDERSTORY TREES, AND 1 EVERGREEN HEDGE ARE REQUIRED ALONG THE 2,800 LF PERIMETER AS PER THE CALCULATIONS. IN AREAS WHERE LANDSCAPE CAN BE PROVIDED, 15 CANOPY TREES, 7 UNDERSTORY TREES, AND AN EVERGREEN HEDGE ARE PROPOSED.

SITE LANDSCAPE CALCULATIONS [Sec. 6.2.2(D)(1)(c)]

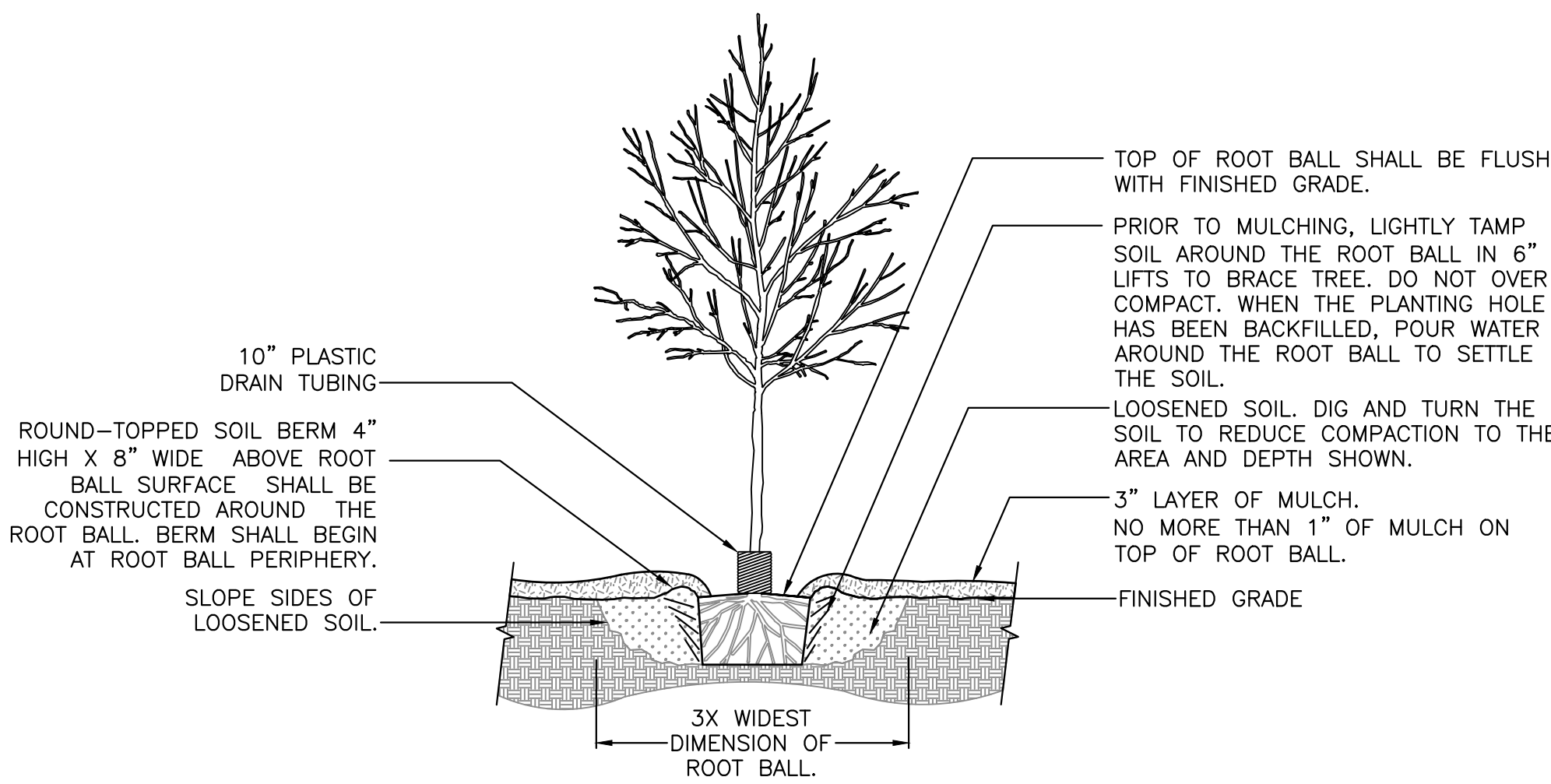
DESCRIPTION	TREE REQUIREMENTS	TREES PROVIDED
PRIMARY SIDE CANOPY TREES (NORTH SIDE)	3 TREES PER ACRE X 8.25 ACRES = 25 CANOPY TREES REQUIRED	50 UNDERSTORY TREES (= 25 CANOPY TREES, SEE ALTERNATIVE COMPLIANCE NOTE) PROVIDED
REAR SIDE CANOPY TREES (SOUTH SIDE)	2 TREES PER ACRE X 8.25 ACRES = 17 TREES REQUIRED	11 CANOPY TREES PROVIDED + EXISTING TREES TO REMAIN
EAST SIDE CANOPY TREES	2 TREES PER ACRE X 8.25 ACRES = 17 TREES REQUIRED	17 CANOPY TREES PROVIDED
WEST SIDE CANOPY TREES	2 TREES PER ACRE X 8.25 ACRES = 17 TREES REQUIRED	34 UNDERSTORY TREES (=17 CANOPY TREES, SEE ALTERNATIVE COMPLIANCE NOTE) PROVIDED
SITE UNDERSTORY TREES	6 UNDERSTORY TREES PER ACRE X 8.25 ACRES = 50 TREES REQUIRED 50% IN FRONT = 25 TREES REQUIRED 25% ON EAST SIDE = 12 TREES REQUIRED 25% ON WEST SIDE = 13 TREES REQUIRED 25 UNDERSTORY TREES REQUIRED	FRONT SIDE 25 UNDERSTORY TREES PROVIDED EAST SIDE 12 UNDERSTORY TREES PROVIDED WEST SIDE 13 UNDERSTORY TREES PROVIDED 50 UNDERSTORY TREES PROVIDED
BUILDING FACADE	398 LINEAR FEET 4 CANOPY TREES PER 100 LIN. FT. REQUIRED = 16 CANOPY TREES REQUIRED + ROW OF SHRUBS	6 CANOPY TREES PROVIDED 20 UNDERSTORY TREES (= 10 CANOPY TREES, SEE ALTERNATIVE COMPLIANCE NOTE) PROVIDED ROW OF SHRUBS PROVIDED

PERIMETER BUFFER CALCULATIONS [Sec. 6.2.1(D)(3)]

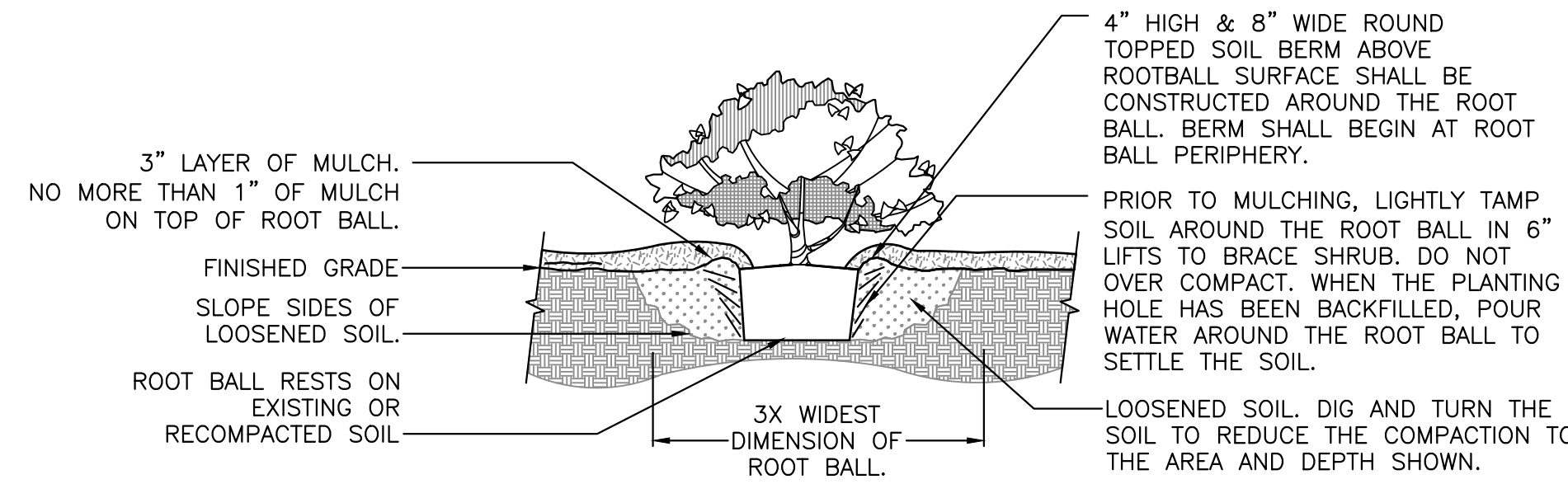
BUFFER TYPE	SCREENING REQUIREMENTS	SCREENING REQUIREMENTS
D) OPAQUE - 25' WIDE (OPTION 1)	1 CANOPY TREE / 25 LF X 2,800 LF = 112 CANOPY TREES REQUIRED 1 UNDERSTORY / 40 LF X 2,800 LF = 70 UNDERSTORY TREES REQUIRED EVERGREEN HEDGE REQUIRED	SEE ALTERNATIVE COMPLIANCE NOTE D* EVERGREEN HEDGE PROVIDED

PLANT SCHEDULE

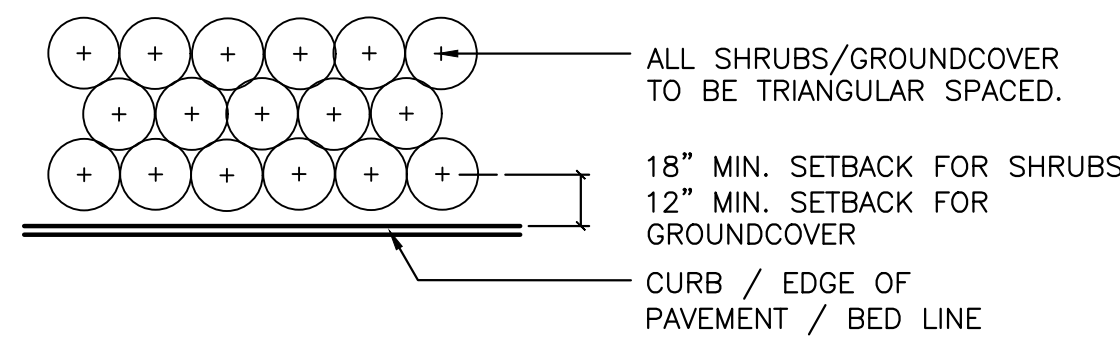
TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AR	15	ACER RUBRUM 'FLORIDA FLAME'	FLORIDA FLAME RED MAPLE	8' MIN HEIGHT, 2" CALIPER MIN
BN	18	BETULA NIGRA 'DURA HEAT'	DURA HEAT RIVER BIRCH	8' MIN HEIGHT, 2" CALIPER MIN
CV	11	CHIONANTHUS VIRGINICUS	WHITE FRINGETREE	1.5" CALIPER, MIN.
INS	16	ILEX X 'NELLIE R. STEVENS'	NELLIE R. STEVENS HOLLY	1.5" CALIPER, MIN.
IV	13	ILEX VOMITORIA	YAUPON HOLLY	1.5" CALIPER, MIN.
LIN	17	LAGERSTROEMIA INDICA 'NATCHEZ'	NATCHEZ CRAPE MYRTLE	1.5" CALIPER, MIN.
LT	3	LIRODENDRON TULIPIFERA	TULIP TREE	8' MIN HEIGHT, 2" CALIPER MIN
MGB	5	MAGNOLIA GRANDIFLORA 'BRACKEN'S BROWN BEAUTY'	BRACKEN'S BROWN BEAUTY MAGNOLIA	8' MIN HEIGHT, 2" CALIPER MIN
MGL	65	MAGNOLIA GRANDIFLORA 'LITTLE GEM'	LITTLE GEM MAGNOLIA	1.5" CALIPER, MIN.
PA	15	PRUNUS ANGUSTIFOLIA	CHICKASAW PLUM	1.5" CALIPER, MIN.
PM	57	PODOCARPUS MACROPHYLLUS	PODOCARPUS	1.5" CALIPER, MIN.
QVH	17	QUERCUS VIRGINIANA 'HIGHRISE'	HIGHRISE LIVE OAK	8' MIN HEIGHT, 2" CALIPER MIN
TD	67	TAXODIUM DISTICHUM	BALD CYPRESS	8' MIN HEIGHT, 2" CALIPER MIN
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
IDB	698	ILEX CORNUTA 'DWARF BURFORDII'	DWARF BURFORD HOLLY	3 GAL, FULL
PMD	158	PODOCARPUS MACROPHYLLUS 'DWARF PRINGLES'	DWARF PODOCARPUS	3 GAL, FULL
RI	93	RHAPHIOLEPIS INDICA 'ELEANOR TABER'	ELEANOR TABER INDIAN HAWTHORN	3 GAL, FULL
VOS	202	VIBURNUM OBOVATUM 'MRS. SCHILLER'S DELIGHT'	MRS. SCHILLERS DELIGHT VIBURNUM	3 GAL, FULL
SOD/SEED		BOTANICAL NAME	COMMON NAME	SIZE
SOD		PASPALUM NOTIATUM 'ARGENTINE'	BAHIA GRASS	WEED FREE AND SAND GROWN SOD



1 TREE PLANTING DETAIL
SCALE: N.T.S.



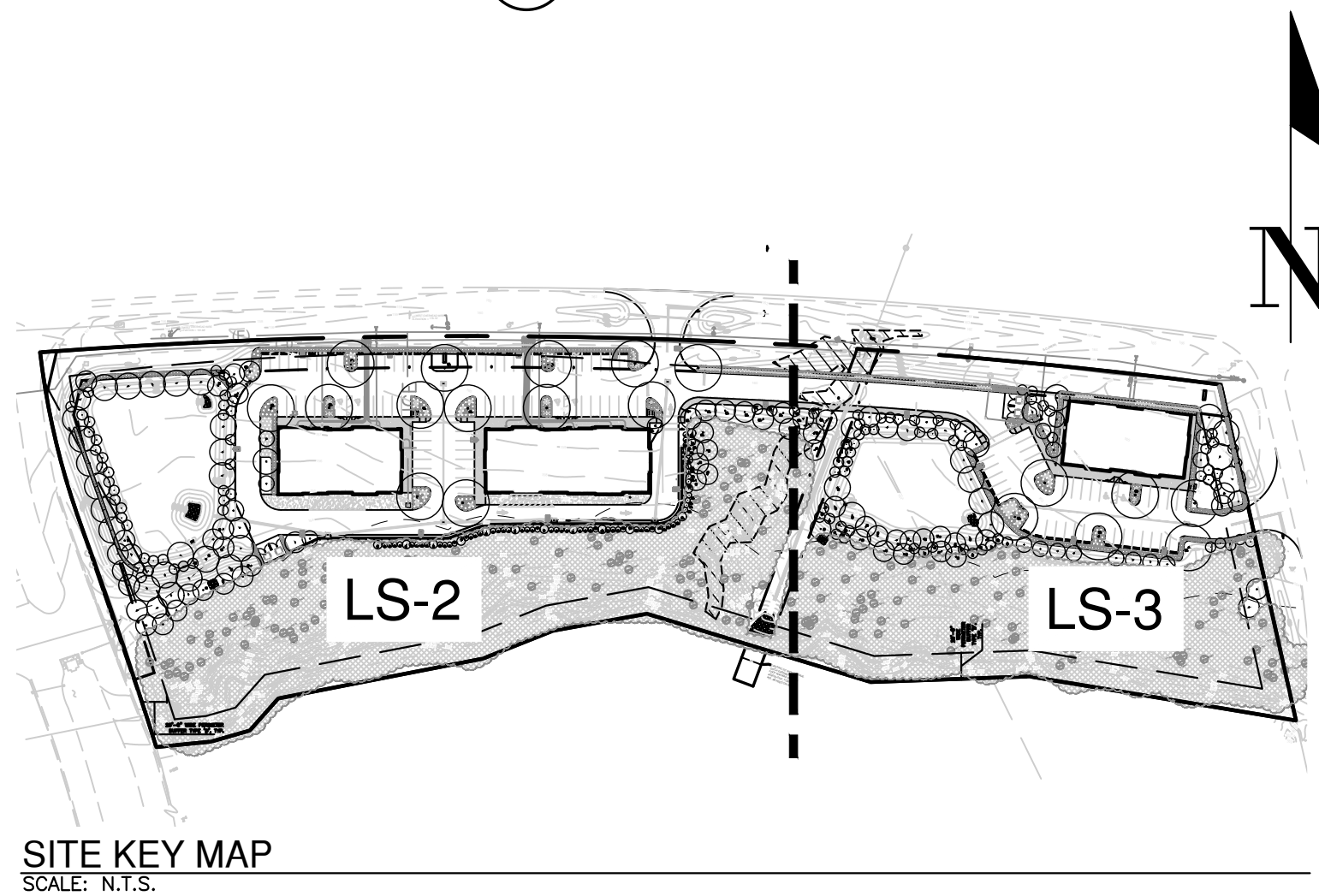
2 SHRUB PLANTING DETAIL
SCALE: N.T.S.



NOTE: THE PERIMETER OF ALL CURVED PLANTING BEDS SHALL BE PLANTED WITH A ROW OF SHRUBS AS SHOWN IN THE PLANS AND AT THE SPACING SHOWN IN THE PLANT LIST. INTERIOR PORTIONS OF EACH BED SHALL BE PLANTED AT APPROPRIATE SPACING ACCORDING TO THIS PLANT SPACING DETAIL.

3 MULCH DETAIL
SCALE: N.T.S.

4 SHRUB PLANTING DETAIL
SCALE: N.T.S.



SITE KEY MAP
SCALE: N.T.S.

Filename: N:\2018\18-0431\Design\03_production\02_SRF\02_current\18-0431_Design-Base.dwg
Tech: hencor Plot Date: Nov 07, 2019 8:12am

1801 Research Drive
Alachua, Florida 32615
www.chw-inc.com
est. 1988 FLORIDA
LC28000564

CHW
Professional Consultants

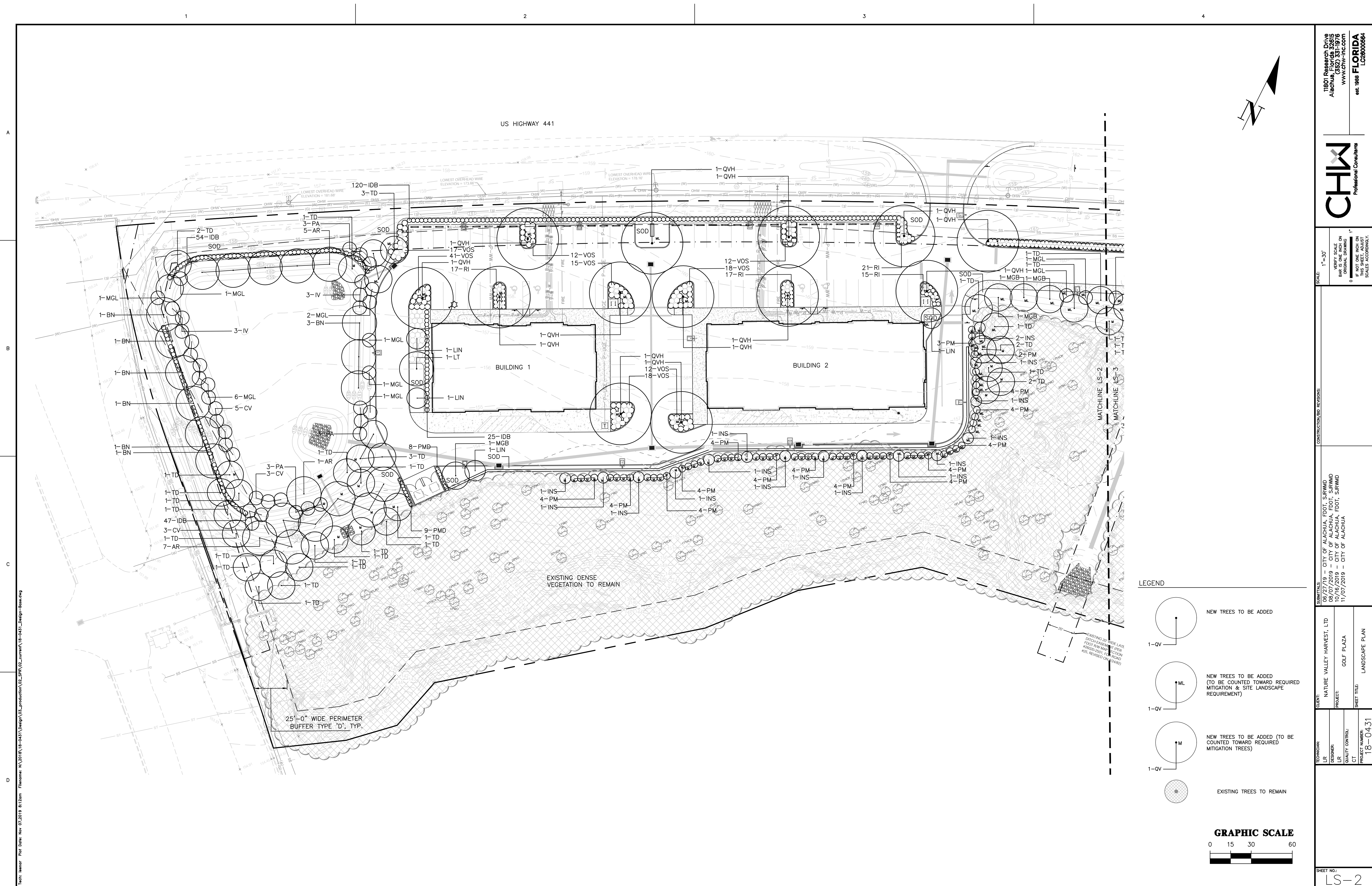
SCALE: N/A
VERIFY SCALE
BASED ON THE
ORIGINAL DRAWING
0 INCHES = 1 FOOT
THIS SHEET, ADJUST
SCALES ACCORDINGLY.

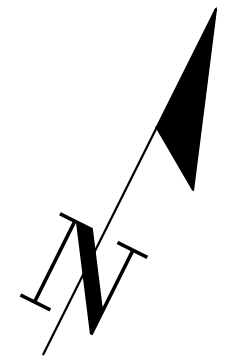
CONSTRUCTION/BDI REVISIONS

REVISIONS
08/07/19 - CITY OF ALACHUA, FOOT, SURVMD
09/07/2019 - CITY OF ALACHUA, FOOT, SURVMD
10/16/2019 - CITY OF ALACHUA, FOOT, SURVMD
11/07/2019 - CITY OF ALACHUA

CLIENT: NATURE VALLEY HARVEST, LTD
PROJECT: GOLF PLAZA
SHEET TITLE: LANDSCAPE NOTES
PROJECT NUMBER: 18-0431

DESIGNER: LR
DESIGNER: LR
QUALITY CONTROL: CT
SHEET NO.: LS-1





GRAPHIC SCALE

0 15 30 60

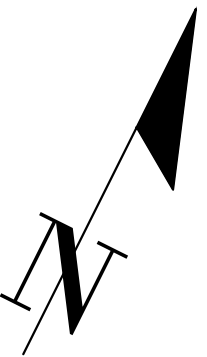
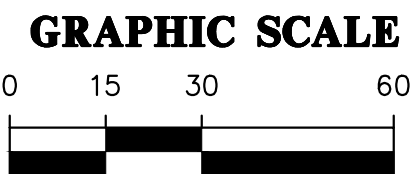


A horizontal scale bar with a total length of 60 units. It is divided into three equal segments of 20 units each. The first segment (0 to 20) is black, the second segment (20 to 40) is white, and the third segment (40 to 60) is black. The segments are separated by thin white lines. Above the bar, the numbers 0, 15, 30, and 60 are marked at regular intervals.

SHEET NO.:
LS-3

Tech: Iteanar Plot Date: Nov 07, 2019 8:12am Filename: N:\2018\18-0431\Design\03_production\02_SRP\02_current\18-0431_Design-Base.dwg

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Hunter PC-1000-PL 10 Station Controller
	Hunter Solar-Sync Weather Sensor
	Water Meter $\frac{3}{4}$ " (Refer to Civil Engineer's Plans)
	Wilkins 975XL 1" Backflow Preventer
	Irrigation Mainline: PVC 1-1/2" Class 200 SDR 21
	Pipe Sleeve: PVC Schedule 40



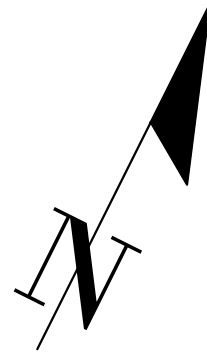
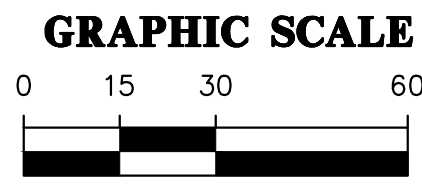
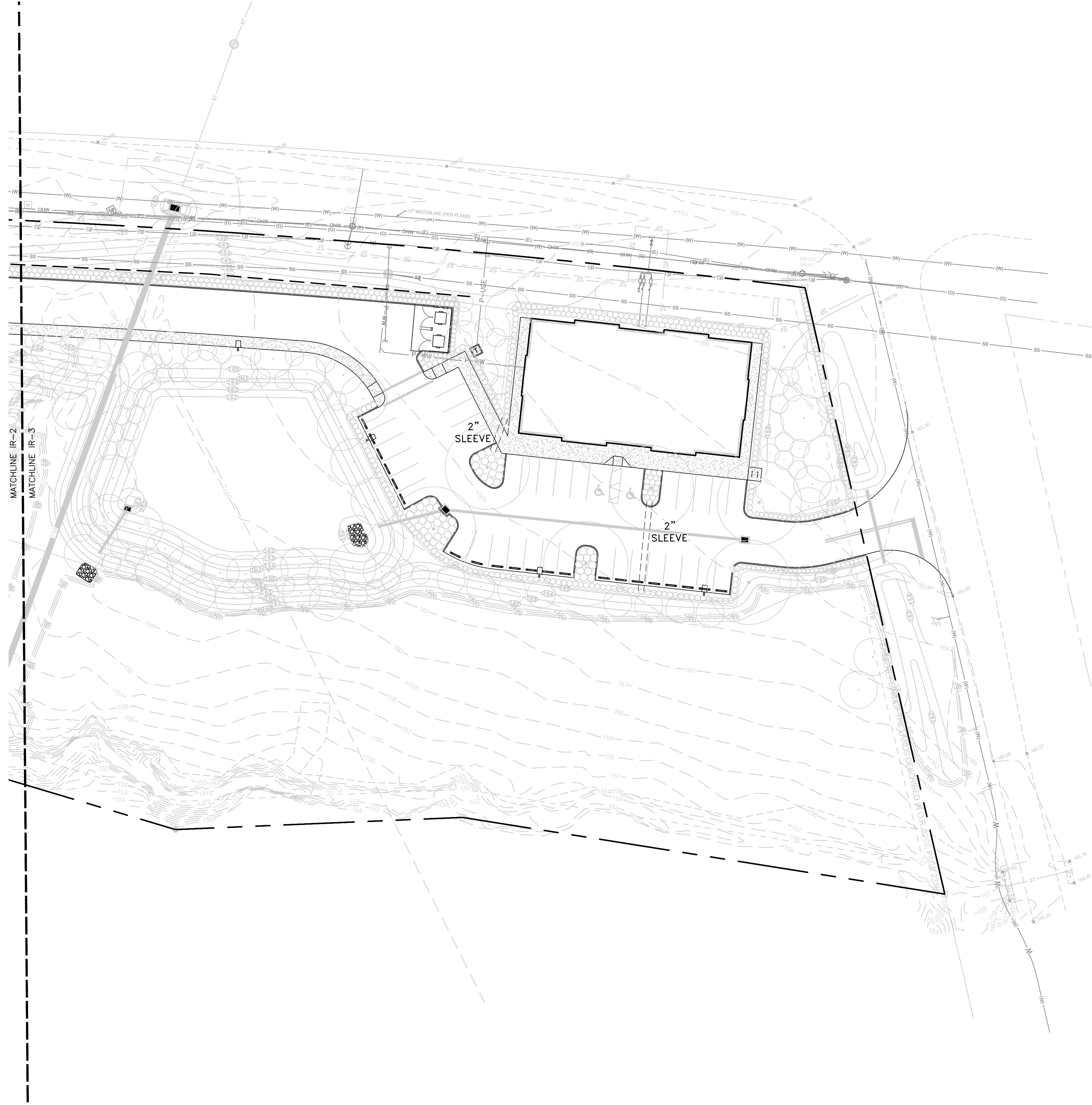
CONSTRUCTION/BID REVISIONS:

TECHNICIAN:	CLIENT:
LR	NATURE VALLEY HARVEST, LTD
DESIGNER:	PROJECT:
LR	GOLF PLAZA
QUALITY CONTROL:	SHEET TITLE:
CT	IRRIGATION DIAGRAM
PROJECT NUMBER: 18-0431	

SHEET NO.: IR-1

A
B
C
D

\\chv\hvac\18-0431\Design\02_SRF\02_current\18-0431_Design-Base - IR.dwg
Tech: hencor Plot Date: Nov 07/2019 8:12am



SHEET NO:
IR-2

REVISION:
LR
DESIGNER:
LR
QUALITY CONTROL:
CT
PROJECT NUMBER:
18-0431

CLIENT: NATURE VALLEY HARVEST, LTD
PROJECT: GOLF PLAZA
SHEET TITLE: IRRIGATION DIAGRAM

DATE: 08/27/19 - CITY OF ALACHUA, FOOT, SURMID
09/07/2019 - CITY OF ALACHUA, FOOT, SURMID
10/16/2019 - CITY OF ALACHUA, FOOT, SURMID
11/07/2019 - CITY OF ALACHUA

CONSTRUCTION/REV RELEASE

SCALE: 1"=30'

FOR SCALE
BASED ON
ORIGINAL DRAWING
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000

CHV
Professional Consultants

11801 Research Drive
Alachua, Florida 32615
(352) 331-1976
www.chv-inc.com
est. 1988 FLORIDA
LC28000564

Test: bryong Plot Date: Aug 08,2019 4:13pm Filename: N:\2018\18-0431\Engineering\DWG\Production Files\1-1-18-0431.dwg

CONSTRUCTION NOTES:

1. SCOPE OF PROJECT - AT NO COST TO THE CITY, THE WORK SHALL INCLUDE (BUT NOT BE LIMITED TO) THE FOLLOWING COMPLETE (AND OPERATING) SYSTEMS AND AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. CONTRACTOR SHALL FURNISH THE FOLLOWING PRODUCTS: ALL PRIMARY CABLES, ALL UTILITY SECONDARY CABLES, ALL TRANSFORMERS AND MAKE UP MATERIALS. THE CITY OF ALACHUA WILL ORDER THESE PRODUCTS, WHICH SHALL BE PAID BY THE CONTRACTOR. ONCE ON SITE, THESE PRODUCTS WILL BE INSTALLED BY THE CITY OF ALACHUA. ALL PRIMARY MAKE UP, UTILITY SECONDARY MAKE UP, CONNECTIONS AND TESTING WILL BE BACK CHARGED TO THE CONTRACTOR. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL OTHER MATERIALS, INCLUDING, BUT NOT LIMITED TO ALL CONDUIT, ENCLOSURES, TRANSFORMER PADS, SWITCHGEAR BASES, ALL MATERIALS NECESSARY FOR SITE PRIVATE LIGHTING SYSTEM AND ALL CONDUITS NEEDED FOR FUTURE SERVICE LATERALS.

1.1. THE CONTRACTOR SHALL SCHEDULE AN ELECTRICAL COORDINATION MEETING AT THE START OF THE PROJECT. REQUIRED ATTENDEES INCLUDE THE CONTRACTOR, THE ELECTRICAL SUB CONTRACTOR, THE ENGINEER OF RECORD, THE CITY OF ALACHUA PROJECT MANAGER AND CITY OF ALACHUA ELECTRICAL STAFF.

1.2. PROVIDE A COMPLETE PRIVATE STREET LIGHTING SYSTEM WITH PANELS, METER SOCKETS, TIMERS, ETC..

1.3. PROVIDE 4" CONDUITS FOR FUTURE SERVICES TO THE BUILDINGS. VERIFY LOCATION AND QUANTITY WITH OWNER.

1.4. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS FOR THIS TYPE FACILITY AND MEET CITY OF ALACHUA UTILITIES POLICIES AND PRACTICES.

1.5. ALL SPECIFICATIONS AND PLANS SHALL BE APPROVED BY THE ELECTRIC DEPARTMENT PRIOR TO BIDDING.

1.6. "PROVIDE" SHALL MEAN FURNISH, INSTALL, CONNECT, ADJUST, AND TEST EXCEPT WHERE NOTED.

2. MATERIALS AND EQUIPMENT SHALL BE NEW AND SUITABLE FOR THE PURPOSE INTENDED. CUT SHEETS SHALL BE SUBMITTED TO THE ELECTRIC DEPARTMENT PRIOR TO ORDERING FOR APPROVAL.

2.1. UNDERGROUND 15 KV 1/0 AWG AL, 19 STRAND, JACKETED PRIMARY CABLE SHALL HAVE STRAND FILLED CENTRAL CONDUCTOR, SEMI-CONDUCTING CONDUCTOR SHIELD, 175 MIL VIRGIN TREE RETARDANT CROSS-LINKED POLYETHYLENE INSULATION, BLACK CROSS-LINKED POLYETHYLENE SHIELD, FULL CONCENTRIC CU NEUTRAL, WITH INSULATING, BLACK LINEAR LOW DENSITY POLYETHYLENE JACKET EXTRUDED OVER THE NEUTRAL. APPROVED MANUFACTURERS ARE HENDRIX, PIRELLI, PRYSMIAN AND SOUTHWIRE.

2.2. UNDERGROUND SECONDARY STREET LIGHT CABLES SHALL BE COPPER WITH THWN-2 INSULATION WITH PHASES, NEUTRAL, AND GROUNDS IDENTIFIED AS PER THE NEC.

2.3. THE LOAD BREAK ELBOWS SHALL HAVE EPDM RUBBER INSULATION. VERIFY CABLE DIMENSIONS FOR APPLICABILITY. APPROVED MANUFACTURERS ARE ELASTIMOLD, COOPER POWER SYSTEMS, AND RTE.

2.4. THREE PHASE PAD MOUNTED TRANSFORMERS SHALL BE DEAD FRONT, LOOP FEED CAPABILITY, HIGH VOLTAGE 12470 GRD Y 7200 VOLTS, LOW VOLTAGE 208 GRD Y/120 VOLT, 95 KV BIL, COMPARTMENTAL TYPE, RATINGS BASED ON 65 DEGREE C WINDING RISE, HIGH GRADE, COLD REDUCED, GRAIN ORIENTED SILICON STEEL CORE, 8.3/14.4 KV CLASS BUSHING WELLS AND LOAD BREAK INSERTS, LOW VOLTAGE TERMINALS SHALL BE STUD TYPE, TANK SHALL BE SEALED AND FURNISHED COMPLETE WITH PCB FREE DIELECTRIC OIL, AND DOORS SHALL BE PAD LOCKABLE. TRANSFORMERS SHALL BE PROTECTED WITH A BAYONET FUSE. HIGH AND LOW VOLTAGE SEGMENTS SHALL BE SEPERATED WITH A RIGID STEEL PARTITION. EQUIPPED WITH 2 1/2% ABOVE AND BELOW TAP CHANGER, OIL TEMPERATURE AND LEVEL GAUGES, AND PRESSURE RELIEF DEVICE. TRANSFORMERS WILL BE MOUNTED ON A WINDOWED, PRECAST PAD SUITABLE FOR THE TRANSFORMER. APPROVED PRE-CAST PAD MANUFACTURER IS TRENWA (TEC 2001317) OR APPROVED EQUAL. APPROVED TRANSFORMER MANUFACTURERS ARE COOPER SYSTEMS, HOWARD, GENERAL ELECTRIC AND ABB.

2.5. SECONDARY CABLES SHALL BE TERMINATED WITHIN THE TRANSFORMERS ON SPADE TYPE TRANSFORMER TERMINALS WITHIN THREE PHASE TRANSFORMERS. APPROVED MANUFACTURERS UTILCO, CMC, ESP AND PREFORMED LINE PRODUCTS.

2.6. BURIED WIRE ENCLOSURE" (SBWE), SECONDARY JUNCTION BOX SHALL BE MADE OF HIGH DENSITY POLYETHYLENE AND TOP. APPROXIMATE DIMENSTIONS 10" TOP DIAMETER, 19" DEPTH. BASIS OF DESIGN PENCELL PLASTICS PE-10HDH EITH ELECTRIC ID.

2.7. SECONDARY CONNECTIONS MADE WITHIN ENCLOSURES SHALL BE DIRECT BURIAL, BOLTED TYPE. APPROVED MANUFACTURERS ARE UTILCO, CMC, AND ESP.

2.8. PVC CONDUIT SHALL BE SCHEDULE 40, HEAVY WALL, RATED FOR 90C, CABLE, UL LISTED IN 10 OR 20 FOOT LENGTHS WITH INTEGRAL BELLS. ALL 6" ELBOWS SHALL BE PVC SCHEDULE 80 WITH 48" RADIUS. VERTICAL 6" ELBOWS SHALL BE ANCHORED WITH TWO BAGS OF CEMENT. ALL OTHER ELBOWS SHALL BE PVC SCHEDULE 40 WITH LONG RADIUS SWEEPS.

2.9 PROVIDE PARKING STAND ARRESTORS TO BE INSTALLED AT EACH OPEN POINT AND ELBOW ARRESTORS AT END POINT. APPROVED MANUFACTURER IS ELASTIMOLD.

2.10. ALL SECTIONALIZING CABINETS SHALL HAVE SCHWEITZER ENGINEERING LABORATORIES (SEL) 3 PHASE FAULT INDICATORS INSTALLED ON B SIDE OF JUNCTION BAR, - SHALL BE SEL 3BCRB0200IR.

2.11. SECTIONALIZING CABINET (S.C.) SHALL BE A FIBERGLASS ENCLOSURE WITH A FIBERGLASS BASE MADE BY NORDIC FIBERGLASS CATALOG # ND552454-MG-101-X-X-215J4U OR APPROVED EQUAL.

2.12. TYPE 3 LED LUMINAIRE: LUMINAIRE SHALL BE LED, FULL CUTOFF, UNIVERSAL VOLTAGE, TYPE 3 DISTRIBUTION, BLACK FINISH, TENON MOUNTED, 56 WATT, 6715 INITIAL LUMENS, 4000K CCT, DOUBLE FUSED. APPROVED LUMINAIRE GARDCO ECOFORM SMALL AREA LIGHT, MODEL NUMBER IS ECF-S-32L-530-NW-G2-SF-3-UNV-F2-BK, PROVIDE TENON MOUNTING HARDWARE. STOCK NUMBER PTF2-ECF-S/L-1-90-(F).

2.13. LUMINAIRE SHALL BE WIRED 208V AND DOUBLE FUSED WITH THE FUSES INSTALLED IN THE POLE AT THE HANDHOLE LOCATION.

2.14. LIGHT POLES: POLE SHALL BE PRE-STRESSED CONCRETE, TYPE II, SHAFT LENGTH 20', DIRECT BURIED 5', 2 3/8" O.D. X 6" TENON, MINIMUM EPA FOR 140 MPH WIND SHALL BE 8 SQUARE FEET, HOLLOW SHAFT WIREWAY, HANDHOLES AT 36" AND 66" FROM BOTTOM. POLE SHALL BE BLACK. APPROVED MANUFACTURER IS SEMINOLE POLE, MODEL NUMBER SP2015TII OR APPROVED EQUAL.

2.15. SITE LIGHTING SHALL BE CONTROLLED BY AN ASTRONOMIC TIME CLOCK WITH 4 SPST CIRCUIT CAPABILITY. BASIS OF DESIGN IS INTERMATIC 2815CR.

GENERAL NOTES:

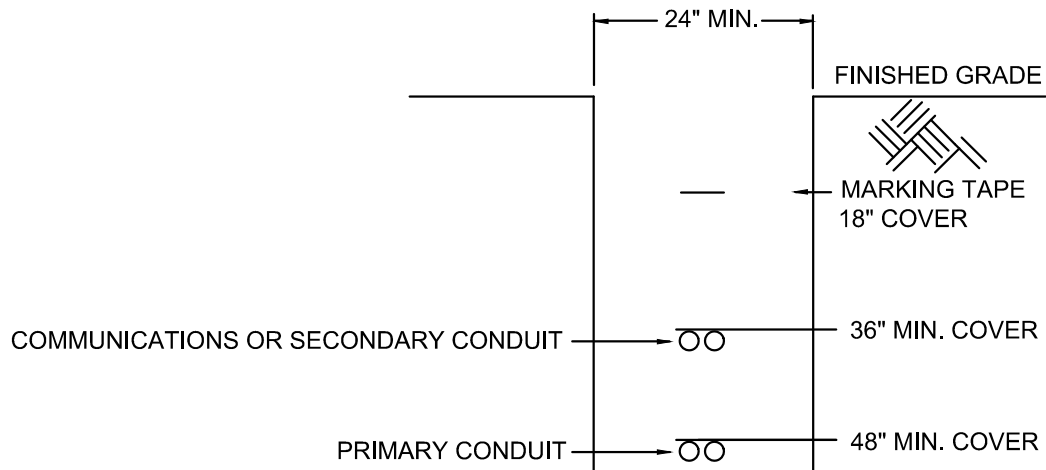
THE DRAWINGS ARE IN PART DIAGRAMMATIC AND ARE INTENDED TO CONVEY THE SCOPE OF THE WORK, INDICATE THE GENERAL LOCATION AND ARRANGEMENT OF CONDUIT AND PADS OR BASES, AND THE LIKE. IT IS NOT INTENDED TO SHOW IN MINUTE DETAIL EVERY AND ALL ACCESSORIES REQUIRED AT EACH LOCATION FOR THE EXECUTION OF THE WORK, BUT IT IS INTENDED THAT ALL ACCESSORIES REQUIRED FOR A COMPLETE SYSTEM BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

EXAMINE ALL DRAWINGS FOR COORDINATION AND ALLOCATION OF SPACE AND AVOID INTERFERENCE WITH SURROUNDS. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS PRACTICAL IN PERFORMING THE WORK. DISCREPANCIES BETWEEN THE ELECTRICAL CONDUIT SYSTEM AND WORK OF OTHER TRADES SHALL BE COORDINATED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER AND AS REQUIRED BY FIELD CONDITIONS.

DISCREPANCIES DISCOVERED DURING THE BID PROCESS SHALL BE REFERRED TO THE ENGINEER PRIOR TO SUBMITTING A BID. THE ENGINEER WILL ISSUE INSTRUCTIONS BY ADDENDUM WHEN NECESSARY. INTERPRETATION OF THE DRAWINGS WILL BE BY THE ENGINEER.

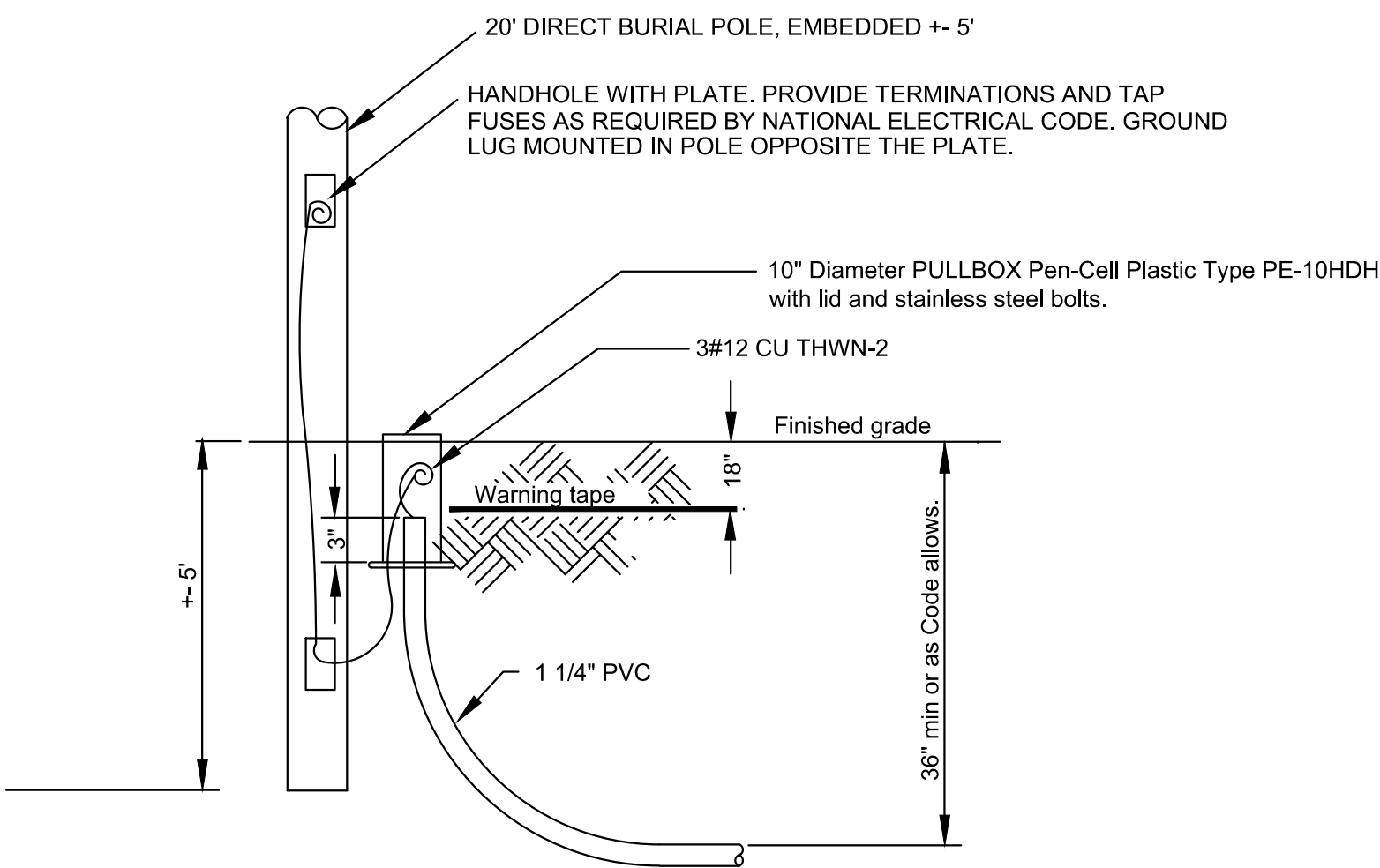
CHANGES FROM THE DRAWINGS THAT ARE NECESSARY TO MAKE WORK CONFORM TO FIELD CONDITIONS, TO FIT WORK OF OTHER TRADES, OR TO RULES OF BODIES HAVING JURISDICTION, WILL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. IN CASE OF DISPUTE, THE ENGINEER WILL RENDER A DECISION ON HOW TO PRECEED.

WARNING TAPE SHALL BE RED WITH CONTINUOUS BLACK MARKINGS
"CAUTION CAUTION - CITY OF ALACHUA - ELECTRIC LINE BURIED BELOW
SHALL BE ALLENSYSTEM "MARKLINE" OR EQUAL REEFINDUSTRIES OR THORENTERPRISES.



TYPICAL CONDUIT TRENCH DETAIL

NOT TO SCALE



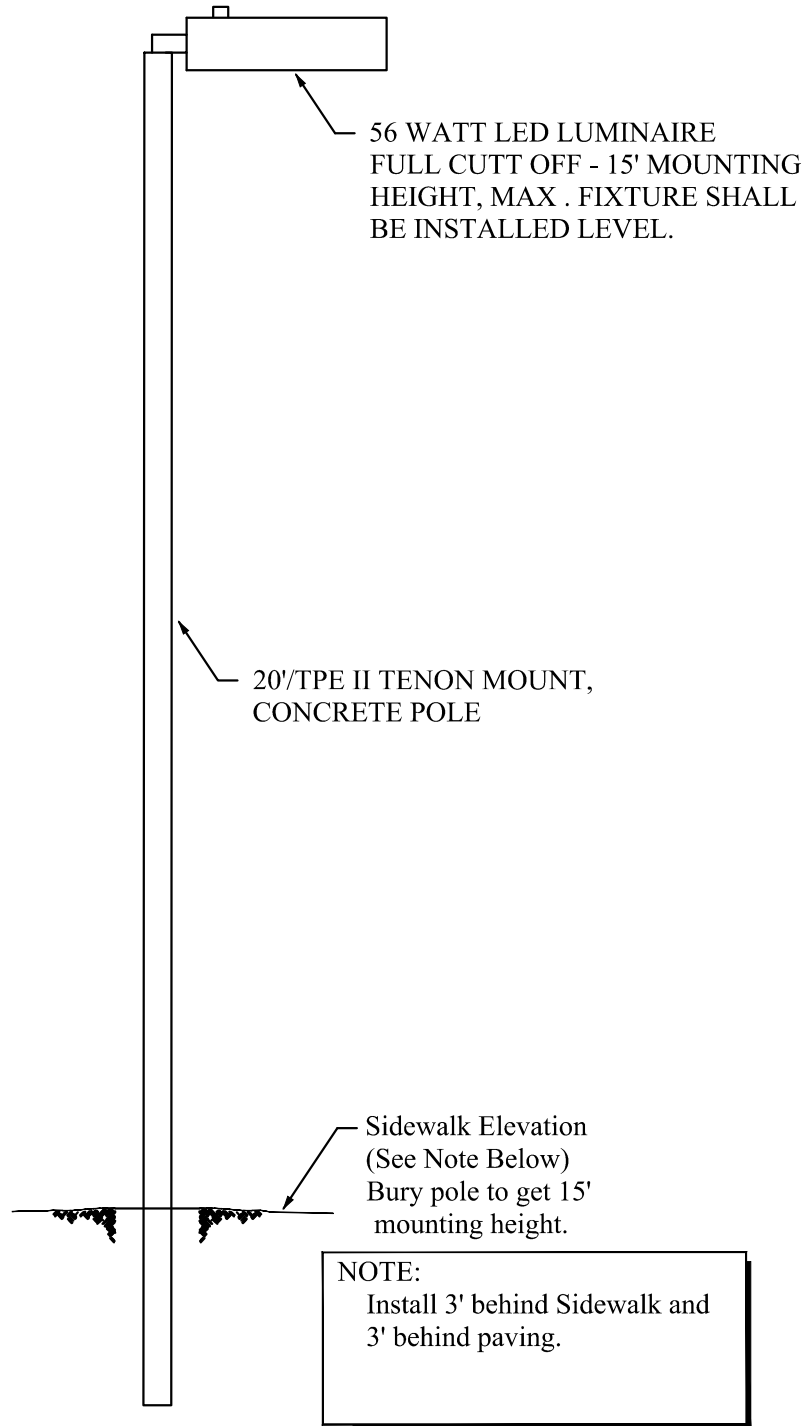
NOTE:
CONTRACTOR SHALL FURNISH AND INSTALL ALL POLE MOUNTED LIGHT FIXTURES, POLES, AND 10" DIAM. SECONDARY ENCLOSURES AS SHOWN ON THE DRAWINGS.

STREETLIGHT DETAIL (TYP.)

NOT TO SCALE

ELECTRICAL UTILITIES LEGEND

	NEW TRANSFORMER ON CONCRETE PAD, 75 KVA THREE PHASE, 120/208 VOLT FOR BUILDING SERVICES AND SIL FEED.
	NEW 3-1/0 AL PRIMARY CABLE IN 4" PVC AT 48" MIN. COVER
	NEW SECONDARY CONDUCTORS AT 36" MIN. CONDUCTOR SIZE AND QUANTITY AS MARKED. FOR PRIVATE LIGHTING SYSTEM REFER TO PANEL SCHEDULES FOR QUANTITY AND SIZE OF CONDUCTORS. CONDUIT FOR 4/0 IS 2 1/2", #2 IS 2", #8 IS 1 1/4", AND #10 IS 1 1/4" PVC.
	EXISTING 4" PRIMARY CONDUIT AND 3-4/0 PRIMARY, VERIFY LOCATION FOR S.C.
	NEW PRIMARY SECTIONALIZING CABINET ON FIBERGLASS BASE - FOR 1/0 PRIMARY TAPS - WILL BE SOURCE FOR COMMERCIAL LOT TRANSFORMERS.
	NEW 56 WATT LED, FULL CUTOFF LIGHT ON 20' CONCRETE POLE, WHICH IS DIRECT BURIED WITH 15' MOUNTING HEIGHT. EACH SHALL HAVE 10" ROUND BURIED WIRE ENCLOSURE. LIGHT HAS A TYPE 3 DISTRIBUTION.
	P2 INDICATES WHAT PANEL THE LIGHT IS SOURCED FROM. 3.5 INDICATES WHAT CIRCUITS ARE USED.



(PROVIDE)
56 WATT LED LUMINAIRE ON 20' POLE

NOT TO SCALE

WILLIAM T. STORMANT PE
ELECTRICAL ENGINEER
5304 NW 173 STREET
ALACHUA, FLORIDA 32615
STORMANTWT@COX.NET
(352) 665-1426

SCALE
VERIFY SCALE
BASED ON THE
ORIGINAL DRAWING
0 INCHES = 1 FOOT
1" = 10 FEET
THIS SHEET, ADJUST
SCALES ACCORDINGLY.

CONSTRUCTION/REV. REVISIONS

DATE: 06/27/19
BY: CITY OF ALACHUA, SKIMMID, & FDOT

CLIENT: NATURAL VALLEY HARVEST LTD
PROJECT: THE GOLF PLAZA
SHEET TITLE: ELECTRIC DETAILS

DESIGNED BY: E. CULLESPIE
DRAWN BY: W. STORMANT
QUALITY CONTROL: W. STORMANT
PROJECT NUMBER: 18-0431

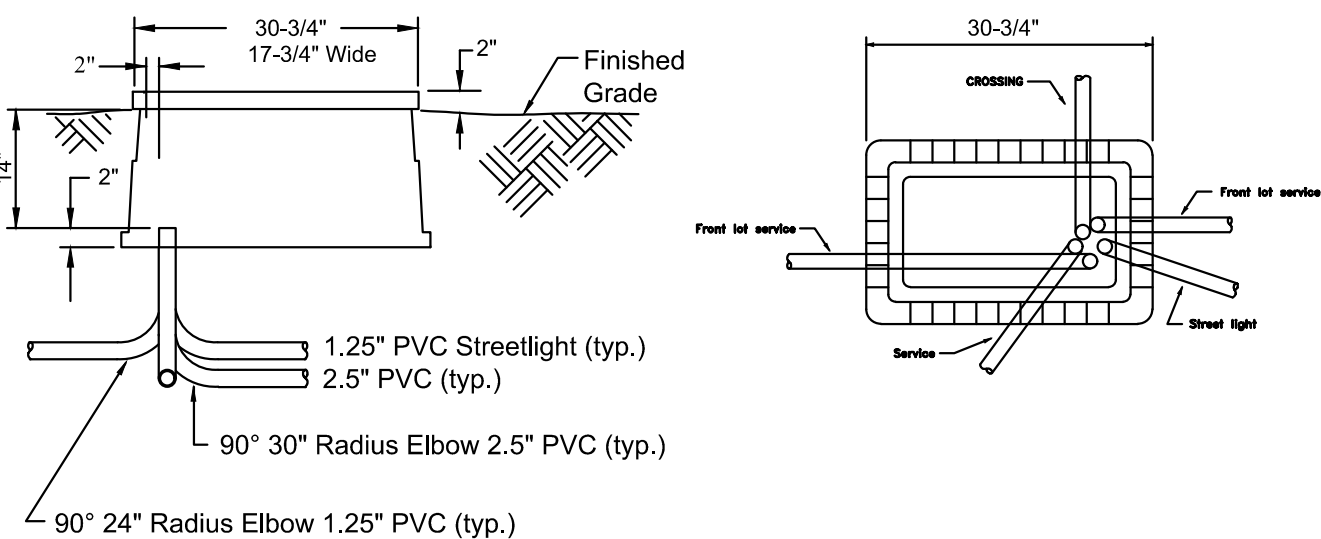
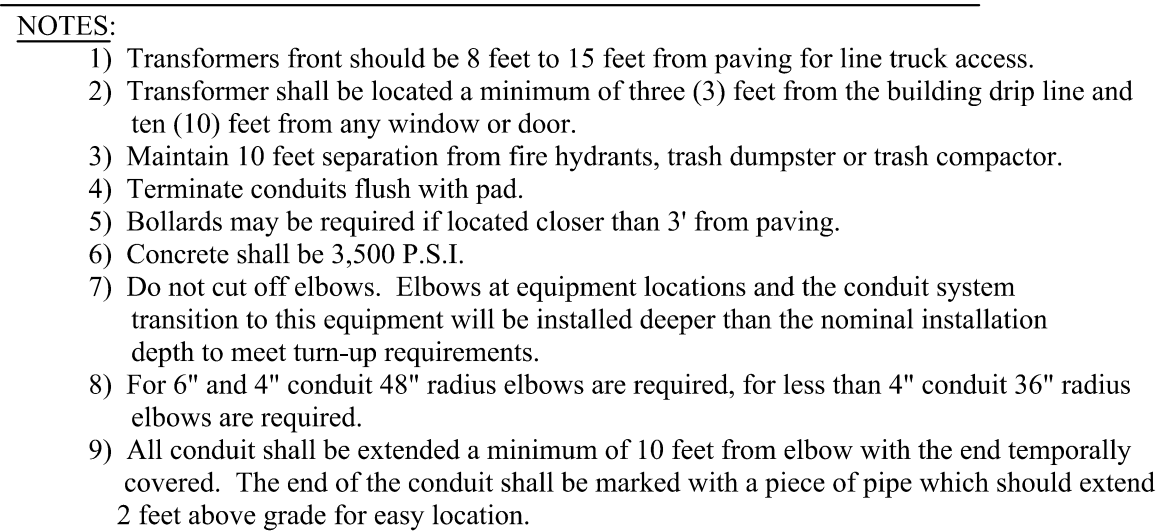
WILLIAM T. STORMANT

FL PE No. 44156
SHEET NO:

E1

- 1) Pad dimensions for transformers should be verified.
- 2) Transformer bushings will accommodate up to eight sets of 750 KCMIL conductor.
- 3) Pad shall be precast.
- 4) Concrete shall be 3500 PSI minimum.
- 5) Terminate conduits flush with pad.
- 6) Ground transformer per City of Alachua instructions.

Transformer pads shall be placed on compacted earth.
VERIFY ADEQUACY OF ALL DIMENSIONS.



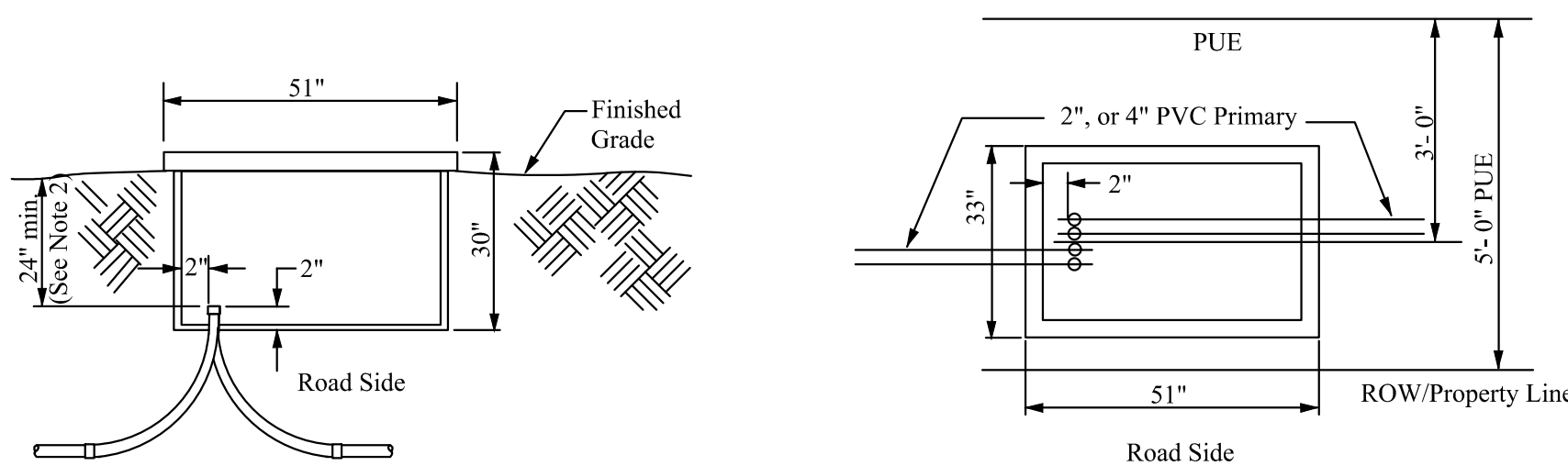
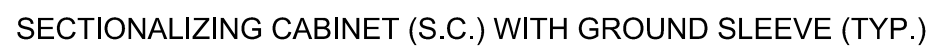
ELECTRICAL CONDUIT SYSTEM AND CONCRETE PRODUCTS INSTALLATION DETAILS

EXISTING

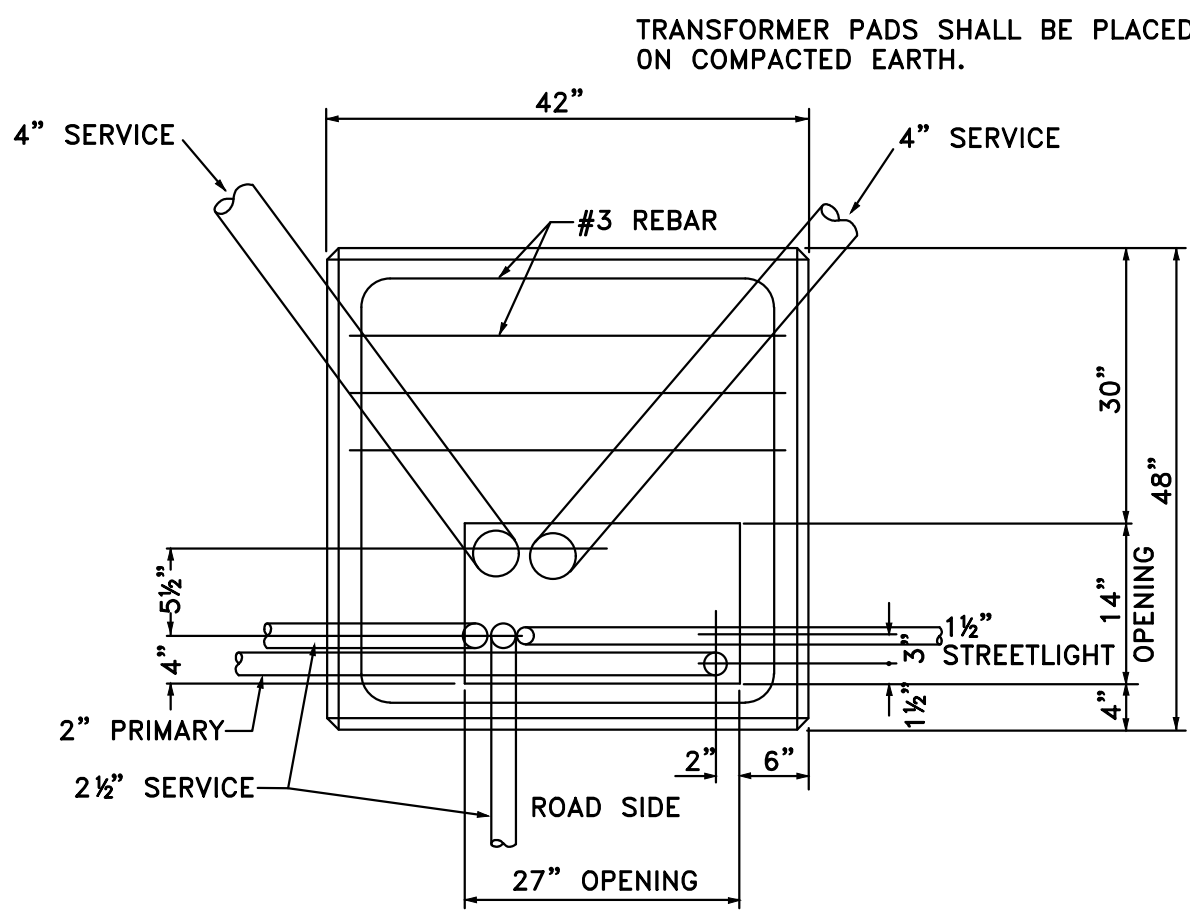
TRANSFORMER BUSHINGS WILL ACCOMMODATE
UP TO 8 SETS OF 500 KCMIL CONDUCTORS.

SINGLE PHASE TRANSFORMER PAD DETAIL (TYP.)

- 1) Do not cut off elbows. Elbows at equipment locations and the conduit system transition to this equipment will be installed deeper than the nominal installation depth to meet turn-up requirements. Elbows shall be turned up in center portion of base.
- 2) 2" or 4" conduit shall be used as shown on the site plan.
- 3) Provide three 4-way junction boxes at all locations. Ground per National Electrical Safety Code.
- 4) For 4" conduit, 48" radius elbows are required; for less than 4" conduit elbows are required.
- 5) Fiberglass enclosure made by Nordic Fiberglass Catalog # ND552454-MG-101-X-X-215J4U, or approved equal. (TOP 23"Dx55"Wx24"H) (BASE 51"Dx81"Wx30"H)
- 6) The centerline of the base shall be located 2" 6" from right of way line.
- 7) The base flares out to 81" at bottom (Not shown in profile view).

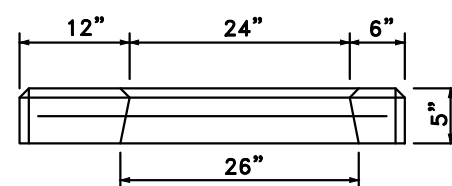


NOT TO SCALE



FIRE HYDRANTS SHALL BE 5'-0" MINIMUM CLEAR FROM TRANSFORMERS.

WARNING:
CONTRACTOR SHALL NOT OPEN TRANSFORMER, PUSH CONDUIT UNDER TRANSFORMER, OR INSTALL CONDUCTORS WHEN TRANSFORMER IS ENERGIZED. LIFE THREATENING ELECTRICAL SHOCK MAY OCCUR.



TRANSFORMER BUSHINGS WILL ACCOMMODATE
UP TO 8 SETS OF 500 KCMIL CONDUCTORS.

20'

2-3/8" x 6" Galv. Tenon

Tapered Hollow Core

2 1/2" x 5" Hand Hole @ 6' 6"

5/8" Ground Lug Internally Bonded to Prestressing Cables and Tenon**

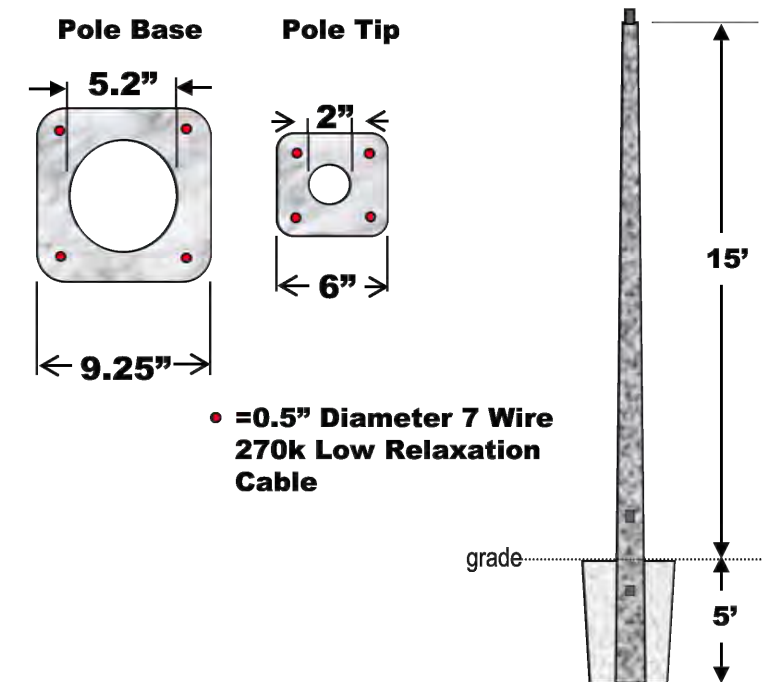
3" x 5" Entry Hole @ 3' 6"

5'

www.SeminolePole.com Email: SeminolePole@gmail.com
Phone: 866-246-5545 Fax: 229-524-2866

Project:

Pole O.A.	Burial Depth	Wind Speed	Gust	EPA Capacity
20'	5'	140mph	3 sec.	8.0
Min. Brk. Strength	Strand Info	Concrete	Pole Weight (lb)	
3,500#	0.5" Diameter	6,500psi	1,000	



Gardco EcoForm 2-in-2 combines economy with performance in an LED area luminaire. Capable of delivering up to 26,400 lumens or more in a compact, low profile LED luminaire, EcoForm offers a new level of customer value. EcoForm features an innovative retrofit arm kit, simplifying site conversions to LED by eliminating the need to drill additional holes in most existing poles. Integral control systems available for further energy savings. Includes Service Tag, our innovative way to provide assistance throughout the life of the product.

Project:

Location:

Cat.No:

Type:

Lamps: Qty:

Notes:

example: ECF-S-64L-900-NW-G2-AR-5-120-HIS-MGY

Series	Number of LEDs	Drive Current	LED Color-Generation	Mounting	Distribution	Voltage	Options	Motion sampling rate	Position accuracy	Resolution	Lifetime	Finish
ECF-S												
ECF-S Go!-form series and area small	32L 32 LEDs 2 modules	530 30mA 2 modules	WW-G2 Warm White 5000mK, 70°CRI Generation 2	AR Anti-Reflect	Type 2 2 Type 2 20-20 340° Rotated right 20°	120 120V 240 240V 360 240V 480 240V 60 277V WV 340-480V	0-10V External dimming (the others) #3 DCC 24V External Dimmer FAWS Field Adjustable Wavelength Selector #3 SW Interlock module IMC 120-277V LAL Interlock wireless module MRO 3-6V Blue-white functionality	MRE1 Interlog with 433MHz MRE2 Interlog with Wavelength Selector #3 MRE3 Interlog with 87MHz MRE4 Polymounted motion sensor (see accessories)	PCB Photocured Buttons #3 TLR05 TMR05 TMR06 TMR07 TMR08 TMR09 TMR10 TMR11 TMR12 TMR13 TMR14 TMR15 TMR16 TMR17 TMR18 TMR19 TMR20 TMR21 TMR22 TMR23 TMR24 TMR25 TMR26 TMR27 TMR28 TMR29 TMR30 TMR31 TMR32 TMR33 TMR34 TMR35 TMR36 TMR37 TMR38 TMR39 TMR40 TMR41 TMR42 TMR43 TMR44 TMR45 TMR46 TMR47 TMR48 TMR49 TMR50 TMR51 TMR52 TMR53 TMR54 TMR55 TMR56 TMR57 TMR58 TMR59 TMR60 TMR61 TMR62 TMR63 TMR64 TMR65 TMR66 TMR67 TMR68 TMR69 TMR70 TMR71 TMR72 TMR73 TMR74 TMR75 TMR76 TMR77 TMR78 TMR79 TMR80 TMR81 TMR82 TMR83 TMR84 TMR85 TMR86 TMR87 TMR88 TMR89 TMR90 TMR91 TMR92 TMR93 TMR94 TMR95 TMR96 TMR97 TMR98 TMR99 TMR100 TMR101 TMR102 TMR103 TMR104 TMR105 TMR106 TMR107 TMR108 TMR109 TMR110 TMR111 TMR112 TMR113 TMR114 TMR115 TMR116 TMR117 TMR118 TMR119 TMR120 TMR121 TMR122 TMR123 TMR124 TMR125 TMR126 TMR127 TMR128 TMR129 TMR130 TMR131 TMR132 TMR133 TMR134 TMR135 TMR136 TMR137 TMR138 TMR139 TMR140 TMR141 TMR142 TMR143 TMR144 TMR145 TMR146 TMR147 TMR148 TMR149 TMR150 TMR151 TMR152 TMR153 TMR154 TMR155 TMR156 TMR157 TMR158 TMR159 TMR160 TMR161 TMR162 TMR163 TMR164 TMR165 TMR166 TMR167 TMR168 TMR169 TMR170 TMR171 TMR172 TMR173 TMR174 TMR175 TMR176 TMR177 TMR178 TMR179 TMR180 TMR181 TMR182 TMR183 TMR184 TMR185 TMR186 TMR187 TMR188 TMR189 TMR190 TMR191 TMR192 TMR193 TMR194 TMR195 TMR196 TMR197 TMR198 TMR199 TMR200 TMR201 TMR202 TMR203 TMR204 TMR205 TMR206 TMR207 TMR208 TMR209 TMR210 TMR211 TMR212 TMR213 TMR214 TMR215 TMR216 TMR217 TMR218 TMR219 TMR220 TMR221 TMR222 TMR223 TMR224 TMR225 TMR226 TMR227 TMR228 TMR229 TMR230 TMR231 TMR232 TMR233 TMR234 TMR235 TMR236 TMR237 TMR238 TMR239 TMR240 TMR241 TMR242 TMR243 TMR244 TMR245 TMR246 TMR247 TMR248 TMR249 TMR250 TMR251 TMR252 TMR253 TMR254 TMR255 TMR256 TMR257 TMR258 TMR259 TMR260 TMR261 TMR262 TMR263 TMR264 TMR265 TMR266 TMR267 TMR268 TMR269 TMR270 TMR271 TMR272 TMR273 TMR274 TMR275 TMR276 TMR277 TMR278 TMR279 TMR280 TMR281 TMR282 TMR283 TMR284 TMR285 TMR286 TMR287 TMR288 TMR289 TMR290 TMR291 TMR292 TMR293 TMR294 TMR295 TMR296 TMR297 TMR298 TMR299 TMR300 TMR301 TMR302 TMR303 TMR304 TMR305 TMR306 TMR307 TMR308 TMR309 TMR310 TMR311 TMR312 TMR313 TMR314 TMR315 TMR316 TMR317 TMR318 TMR319 TMR320 TMR321 TMR322 TMR323 TMR324 TMR325 TMR326 TMR327 TMR328 TMR329 TMR330 TMR331 TMR332 TMR333 TMR334 TMR335 TMR336 TMR337 TMR338 TMR339 TMR340 TMR341 TMR342 TMR343 TMR344 TMR345 TMR346 TMR347 TMR348 TMR349 TMR350 TMR351 TMR352 TMR353 TMR354 TMR355 TMR356 TMR357 TMR358 TMR359 TMR360 TMR361 TMR362 TMR363 TMR364 TMR365 TMR366 TMR367 TMR368 TMR369 TMR370 TMR371 TMR372 TMR373 TMR374 TMR375 TMR376 TMR377 TMR378 TMR379 TMR380 TMR381 TMR382 TMR383 TMR384 TMR385 TMR386 TMR387 TMR388 TMR389 TMR390 TMR391 TMR392 TMR393 TMR394 TMR395 TMR396 TMR397 TMR398 TMR399 TMR400 TMR401 TMR402 TMR403 TMR404 TMR405 TMR406 TMR407 TMR408 TMR409 TMR410 TMR411 TMR412 TMR413 TMR414 TMR415 TMR416 TMR417 TMR418 TMR419 TMR420 TMR421 TMR422 TMR423 TMR424 TMR425 TMR426 TMR427 TMR428 TMR429 TMR430 TMR431 TMR432 TMR433 TMR434 TMR435 TMR436 TMR437 TMR438 TMR439 TMR440 TMR441 TMR442 TMR443 TMR444 TMR445 TMR446 TMR447 TMR448 TMR449 TMR450 TMR451 TMR452 TMR453 TMR454 TMR455 TMR456 TMR457 TMR458 TMR459 TMR460 TMR461 TMR462 TMR463 TMR464 TMR465 TMR466 TMR467 TMR468 TMR469 TMR470 TMR471 TMR472 TMR473 TMR474 TMR475 TMR476 TMR477 TMR478 TMR479 TMR480 TMR481 TMR482 TMR483 TMR484 TMR485 TMR486 TMR487 TMR488 TMR489 TMR490 TMR491 TMR492 TMR493 TMR494 TMR495 TMR496 TMR497 TMR498 TMR499 TMR500 TMR501 TMR502 TMR503 TMR504 TMR505 TMR506 TMR507 TMR508 TMR509 TMR510 TMR511 TMR512 TMR513 TMR514 TMR515 TMR516 TMR517 TMR518 TMR519 TMR520 TMR521 TMR522 TMR523 TMR524 TMR525 TMR526 TMR527 TMR528 TMR529 TMR530 TMR531 TMR532 TMR533 TMR534 TMR535 TMR536 TMR537 TMR538 TMR539 TMR540 TMR541 TMR542 TMR543 TMR544 TMR545 TMR546 TMR547 TMR548 TMR549 TMR550 TMR551 TMR552 TMR553 TMR554 TMR555 TMR556 TMR557 TMR558 TMR559 TMR560 TMR561 TMR562 TMR563 TMR564 TMR565 TMR566 TMR567 TMR568 TMR569 TMR570 TMR571 TMR572 TMR573 TMR574 TMR575 TMR576 TMR577 TMR578 TMR579 TMR580 TMR581 TMR582 TMR583 TMR584 TMR585 TMR586 TMR587 TMR588 TMR589 TMR590 TMR591 TMR592 TMR593 TMR594 TMR595 TMR596 TMR597 TMR598 TMR599 TMR600 TMR601 TMR602 TMR603 TMR604 TMR605 TMR606 TMR607 TMR608 TMR609 TMR610 TMR611 TMR612 TMR613 TMR614 TMR615 TMR616 TMR617 TMR618 TMR619 TMR620 TMR621 TMR622 TMR623 TMR624 TMR625 TMR626 TMR627 TMR628 TMR629 TMR630 TMR631 TMR632 TMR633 TMR634 TMR635 TMR636 TMR637 TMR638 TMR639 TMR640 TMR641 TMR642 TMR643 TMR644 TMR645 TMR646 TMR647 TMR648 TMR649 TMR650 TMR651 TMR652 TMR653 TMR654 TMR655 TMR656 TMR657 TMR658 TMR659 TMR660 TMR661 TMR662 TMR663 TMR664 TMR665 TMR666 TMR667 TMR668 TMR669 TMR670 TMR671 TMR672 TMR673 TMR674 TMR675 TMR676 TMR677 TMR678 TMR679 TMR680 TMR681 TMR682 TMR683 TMR684 TMR685 TMR686 TMR687 TMR688 TMR689 TMR690 TMR691 TMR692 TMR693 TMR694 TMR695 TMR696 TMR697 TMR698 TMR699 TMR700 TMR701 TMR702 TMR703 TMR704 TMR705 TMR706 TMR707 TMR708 TMR709 TMR710 TMR711 TMR712 TMR713 TMR714 TMR715 TMR716 TMR717 TMR718 TMR719 TMR720 TMR721 TMR722 TMR723 TMR724 TMR725 TMR726 TMR727 TMR728 TMR729 TMR730 TMR731 TMR732 TMR733 TMR734 TMR735 TMR736 TMR737 TMR738 TMR739 TMR740 TMR741 TMR742 TMR743 TMR744 TMR745 TMR746 TMR747 TMR748 TMR749 TMR750 TMR751 TMR752 TMR753 TMR754 TMR755 TMR756 TMR757 TMR758 TMR759 TMR760 TMR761 TMR762 TMR763 TMR764 TMR765 TMR766 TMR767 TMR768 TMR769 TMR770 TMR771 TMR772 TMR773 TMR774 TMR775 TMR776 TMR777 TMR778 TMR779 TMR780 TMR781 TMR782 TMR783 TMR784 TMR785 TMR786 TMR787 TMR788 TMR789 TMR790 TMR791 TMR792 TMR793 TMR794 TMR795 TMR796 TMR797 TMR798 TMR799 TMR800 TMR801 TMR802 TMR803 TMR804 TMR805 TMR806 TMR807 TMR808 TMR809 TMR810 TMR811 TMR812 TMR813 TMR814 TMR815 TMR816 TMR817 TMR818 TMR819 TMR820 TMR821 TMR822 TMR823 TMR824 TMR825 TMR826 TMR827 TMR828 TMR829 TMR830 TMR831 TMR832 TMR833 TMR834 TMR835 TMR836 TMR837 TMR838 TMR839 TMR840 TMR841 TMR842 TMR843 TMR844 TMR845 TMR846 TMR847 TMR848 TMR849 TMR850 TMR851 TMR852 TMR853 TMR854 TMR855 TMR856 TMR857 TMR858 TMR859 TMR860 TMR861 TMR862 TMR863 TMR864 TMR865 TMR866 TMR867 TMR868 TMR869 TMR870 TMR871 TMR872 TMR873 TMR874 TMR875 TMR876 TMR877 TMR878 TMR879 TMR880 TMR881 TMR882 TMR883 TMR884 TMR885 TMR886 TMR887 TMR888 TMR889 TMR890 TMR891 TMR892 TMR893 TMR894 TMR895 TMR896 TMR897 TMR898 TMR899 TMR900 TMR901 TMR902 TMR903 TMR904 TMR905 TMR906 TMR907 TMR908 TMR909 TMR910 TMR911 TMR912 TMR913 TMR914 TMR915 TMR916 TMR917 TMR918 TMR919 TMR920 TMR921 TMR922 TMR923 TMR924 TMR925 TMR926 TMR927 TMR928 TMR929 TMR930 TMR931 TMR932 TMR933 TMR934 TMR935 TMR936 TMR937 TMR938 TMR939 TMR940 TMR941 TMR942 TMR943 TMR944 TMR945 TMR946 TMR947 TMR948 TMR949 TMR950 TMR951 TMR952 TMR953 TMR954 TMR955 TMR956 TMR957 TMR958 TMR959 TMR960 TMR961 TMR962 TMR963 TMR964 TMR965 TMR966 TMR967 TMR968 TMR969 TMR970 TMR971 TMR972 TMR973 TMR974 TMR975 TMR976 TMR977 TMR978 TMR979 TMR980 TMR981 TMR982 TMR983 TMR984 TMR985 TMR986 TMR987 TMR988 TMR989 TMR990 TMR991 TMR992 TMR993 TMR994 TMR995 TMR996 TMR997 TMR998 TMR999 TMR1000 TMR1001 TMR1002 TMR1003 TMR1004 TMR1005 TMR1006 TMR1007 TMR1008 TMR1009 TMR1010 TMR1011 TMR1012 TMR1013 TMR1014 TMR1015 TMR1016 TMR1017 TMR1018 TMR1019 TMR1020 TMR1021 TMR1022 TMR1023 TMR1024 TMR1025 TMR1026 TMR1027 TMR1028 TMR1029 TMR1030 TMR1031 TMR1032 TMR1033 TMR1034 TMR1035 TMR1036 TMR1037 TMR1038 TMR1039 TMR1040 TMR1041 TMR1042 TMR1043 TMR1044 TMR1045 TMR1046 TMR1047 TMR1048 TMR1049 TMR1050 TMR1051 TMR1052 TMR1053 TMR1054 TMR1055 TMR1056 TMR1057 TMR1058 TMR1059 TMR1060 TMR1061 TMR1062 TMR1063 TMR1064 TMR1065 TMR1066 TMR1067 TMR1068 TMR1069 TMR1070 TMR1071 TMR1072 TMR1073 TMR1074 TMR1075 TMR1076 TMR1077 TMR1078 TMR1079 TMR1080 TMR1081 TMR1082 TMR1083 TMR1084 TMR1085 TMR1086 TMR1087 TMR1088 TMR1089 TMR1090 TMR1091 TMR1092 TMR1093 TMR1094 TMR1095 TMR1096 TMR1097 TMR1098 TMR1099 TMR1100 TMR1101 TMR1102 TMR1103 TMR1104 TMR1105 TMR1106 TMR1107 TMR1108 TMR1109 TMR1110 TMR1111 TMR1112 TMR1113 TMR1114 TMR1115 TMR1116 TMR1117 TMR1118 TMR1119 TMR1120 TMR1121 TMR1122 TMR1123 TMR1124 TMR1125 TMR1126 TMR1127 TMR1128 TMR1129 TMR1130 TMR1131 TMR1132 TMR1133 TMR1134 TMR1135 TMR1136 TMR1137 TMR1138 TMR1139 TMR1140 TMR1141 TMR1142 TMR1143 TMR1144 TMR1145 TMR1146 TMR1147 TMR1148 TMR1149 TMR1150 TMR1151 TMR1152 TMR1153 TMR1154 TMR1155 TMR1156 TMR1157 TMR1158 TMR1159 TMR1160 TMR1161 TMR1162 TMR1163 TMR1164 TMR1165 TMR1166 TMR1167 TMR1168 TMR1169 TMR1170 TMR1171 TMR1172 TMR1173 TMR1174 TMR1175 TMR1176 TMR1177 TMR1178 TMR1179 TMR1180 TMR1181 TMR1182 TMR1183 TMR1184 TMR1185 TMR1186 TMR1187 TMR1188 TMR1189 TMR1190 TMR1191 TMR1192 TMR1193 TMR1194 TMR1195 TMR1196 TMR1197 TMR1198 TMR1199 TMR1200 TMR1201 TMR1202 TMR1203 TMR1204 TMR1205 TMR1206 TMR1207 TMR1208 TMR1209 TMR1210 TMR1211 TMR1212 TMR1213 TMR1214 TMR1215 TMR1216 TMR1217 TMR1218 TMR1219 TMR1220 TMR1221 TMR1222 TMR1223 TMR1224 TMR1225 TMR1226 TMR1227 TMR1228 TMR1229 TMR1230 TMR1231 TMR1232 TMR1233 TMR1234 TMR1235 TMR1236 TMR1237 TMR1238 TMR1239 TMR1240 TMR1241 TMR1242 TMR1243 TMR1244 TMR1245 TMR1246 TMR1247 TMR1248 TMR1249 TMR1250 TMR1251 TMR1252 TMR1253 TMR1254 TMR1255 TMR1256 TMR1257 TMR1258 TMR1259 TMR1260 TMR1261 TMR1262 TMR1263 TMR1264 TMR1265 TMR1266 TMR1267 TMR1268 TMR1269 TMR1270 TMR1271 TMR1272 TMR1273 TMR1274 TMR1275 TMR1276 TMR1277 TMR1278 TMR1279 TMR1280 TMR1281 TMR1282 TMR1283 TMR1284 TMR1285 TMR1286 TMR1287 TMR1288 TMR1289 TMR1290 TMR1291 TMR1292 TMR1293 TMR1294 TMR1295 TMR1296 TMR1297 TMR1298 TMR1299 TMR1300 TMR1301 TMR1302 TMR1303 TMR1304 TMR1305 TMR1306 TMR1307 TMR1308 TMR1309 TMR1310 TMR1311 TMR1312 TMR1313 TMR1314 TMR1315 TMR1316 TMR1317 TMR1318 TMR1319 TMR1320 TMR1321 TMR1322 TMR1323 TMR1324 TMR1325 TMR1326 TMR1327 TMR1328 TMR1329 TMR1330 TMR1331 TMR1332 TMR1333 TMR1334 TMR1335 TMR1336 TMR1337 TMR1338 TMR1339 TMR1340 TMR1341 TMR1342 TMR1343 TMR1344 TMR1345 TMR1346 TMR1347 TMR1348 TMR1349 TMR1350 TMR1351 TMR1352 TMR1353 TMR1354 TMR1355 TMR1356 TMR1357 TMR1358 TMR1359 TMR1360 TMR1361 TMR1362 TMR1363 TMR1364 TMR1365 TMR1366 TMR1367 TMR1368 TMR1369 TMR1370 TMR1371 TMR1372 TMR1373 TMR1374 TMR1375 TMR1376 TMR1377 TMR1378 TMR1379 TMR1380 TMR1381 TMR1382 TMR1383 TMR1384 TMR1385 TMR1386 TMR1387 TMR1388 TMR1389 TMR1390 TMR1391 TMR1392 TMR1393 TMR1394 TMR1395 TMR1396 TMR1397 TMR1398 TMR1399 TMR1400 TMR1401 TMR1402 TMR1403 TMR1404 TMR1405 TMR1406 TMR1407 TMR1408 TMR1409 TMR1410 TMR1411 TMR1412 TMR1413 TMR1414 TMR1415 TMR1416 TMR1417 TMR1418 TMR1419 TMR1420 TMR1421 TMR1422 TMR1423 TMR1424 TMR1425 TMR1426 TMR1427 TMR1428 TMR1429 TMR1430 TMR1431 TMR1432 TMR1433 TMR1434 TMR1435 TMR1436 TMR1437 TMR1438 TMR1439 TMR1440 TMR1441 TMR1442 TMR1443 TMR1444 TMR1445 TMR1446 TMR1447 TMR1448 TMR1449 TMR1450 TMR1451 TMR1452 TMR1453 TMR1454 TMR1455 TMR1456 TMR1457 TMR1458 TMR1459 TMR1460 TMR1461 TMR1462 TMR1463 TMR1464 TMR1465 TMR1466 TMR1467 TMR1468 TMR1469 TMR1470 TMR1471 TMR1472 TMR1473 TMR1474 TMR1475 TMR1476 TMR1477 TMR1478 TMR1479 TMR1480 TMR1481 TMR1482 TMR1483 TMR1484 TMR1485 TMR1486 TMR1487 TMR1488 TMR1489 TMR1490 TMR1491 TMR1492 TMR1493 TMR1494 TMR1495 TMR1496 TMR1497 TMR1498 TMR1499 TMR1500 TMR1501 TMR1502 TMR1503 TMR1504 TMR1505 TMR1506 TMR1507 TMR1508 TMR1509 TMR1510 TMR1511 TMR1512 TMR1513 TMR1514 TMR1515 TMR1516 TMR1517 TMR1518 TMR1519 TMR1520 TMR1521 TMR1522 TMR1523 TMR1524 TMR1525 TMR1526 TMR1527 TMR1528 TMR1529 TMR1530 TMR1531 TMR1532 TMR1533 TMR1534 TMR1535 TMR1536 TMR1537 TMR1538 TMR1539 TMR1540 TMR1541 TMR1542 TMR1543 TMR1544 TMR1545 TMR1546 TMR1547 TMR1548 TMR1549 TMR1550 TMR1551 TMR1552 TMR1553 TMR1554 TMR1555 TMR1556 TMR1557 TMR1558 TMR1559 TMR1560 TMR1561 TMR1562 TMR1563 TMR1564 TMR1565 TMR1566 TMR1567 TMR1568 TMR1569 TMR1570 TMR1571 TMR1572 TMR1573 TMR1574 TMR1575 TMR1576 TMR1577 TMR1578 TMR1579 TMR1580 TMR1581 TMR1582 TMR1583 TMR1584 TMR1585 TMR1586 TMR1587 TMR1588 TMR1589 TMR1590 TMR1591 TMR1592 TMR1593 TMR1594 TMR1595 TMR1596 TMR1597 TMR1598 TMR1599 TMR1600 TMR1601 TMR1602 TMR1603 TMR1604 TMR1605 TMR1606 TMR1607 TMR1608 TMR1609 TMR1610 TMR1611 TMR1612 TMR1613 TMR1614 TMR1615 TMR1616 TMR1617 TMR1618 TMR1619 TMR1620 TMR1621 TMR1622 TMR1623 TMR162			

- | | | |
|--|--|--|
| 1. BL-MR332/3 equipped with out-boarded bore for housing when MR332/3 is supplied (347-840V) | 7. Available only in 120 or 277V | 14. HIS not available with Type 5 and DW options |
| 2. Mounts to a 4" round pole with adapter included for square poles. | 8. Not available in 347 or 480V | 15. Available only with SW, LCL and BL control options |
| 3. Limited to a "maximum pole of 45 degrees aiming above horizontal" | 9. Must specify input voltage | 16. Available only with SW and BL control options. |
| 4. Not available with all dimming control options. | 10. Dimming will not be connected to NEMA receptacle if ordering with control other options. | |
| 5. Not available with motion sensor. | 11. Not available in 480V | |
| 6. Not available with photocell. | 12. Not available with DDC. | |
| | 13. Not available with SF and WS. RPAs provided with black finish standard | |



ECF-S_EcoForm_area_small 04/19 page 1 of 8

WILLIAM T. STORMANT PE
ELECTRICAL ENGINEER
5304 NW 173 STREET
ALACHUA, FLORIDA 32615
STORMANTWT@COX.NET
(352) 665-1426

VERIFY SCALE
BAR IS ONE INCH ON
ORIGINAL DRAWING

1

IF NOT ONE INCH ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY.

SUBMITTALS: 06/27/19 - CITY OF ALACHUA, SRWMD, & FDOT

CLIENT: NATURAL VALLEY HARVEST

TECHNICIAN:
B. GILLESPIE

WILLIAM T. STORMANT

FL PE No. 44156
SHEET NO.:

E2

Test: bryang Plot Date: Aug 05,2019 11:33am Filename: \\A:\2018\18-0421\Engineering\DWG\Production Files\18-0421 Production Files\18-0421.dwg

SERVICE ENTRANCE PANELBOARD SCHEDULE PBD. NO. P1									
FOR 208/120 VOLT, SINGLE-PHASE, 3-WIRE SERVICE. FURNISH ALL SPARE BREAKERS. PROVIDE GROUND BAR, 22,000 AIR SYMMETRICAL, 100 AMP MAIN BREAKER WITH FULLY RATED BRANCH BREAKERS FOR 22K AIR APPLICATION.									
SERVING	WIRE	BREAKER	OR	CONNECTED	OR	BREAKER	WIRE	SERVING	
	HOT	NEUT/GRD	AMP	POLES	NO	POLES	AMP	HOT	
TIME CLOCK	12	12	12	20	1	1	100	2	
LIGHTING (6002VA)	8	8	20	2	3	3	372	4	
	5							6	
LIGHTING (10062VA)	8	8	20	2	7	7	620	8	
	9							10	
	11							12	
	13							14	
	15							16	
	17							18	
	19							20	
	21							22	
	23							24	
	25							26	
	27							28	
	29							30	

LIGHTING 992 X 1.25
TIME CLOCK
PANEL TOTAL

1,240 VA
100 VA
1,340 VA (6 AMPS)
PROVIDE 100 AMP SERVICE

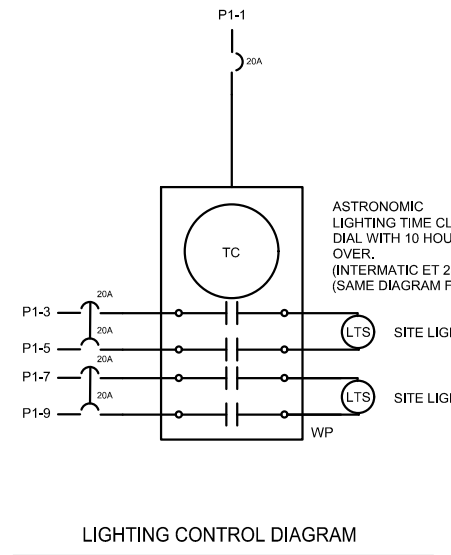
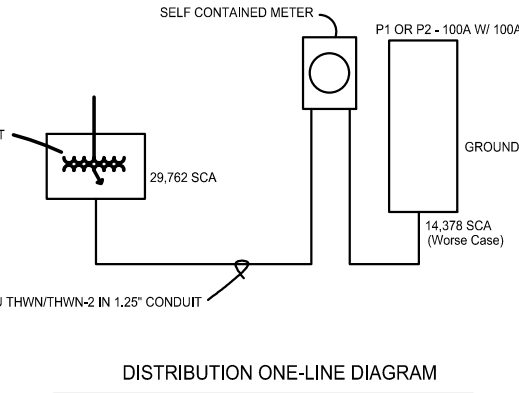
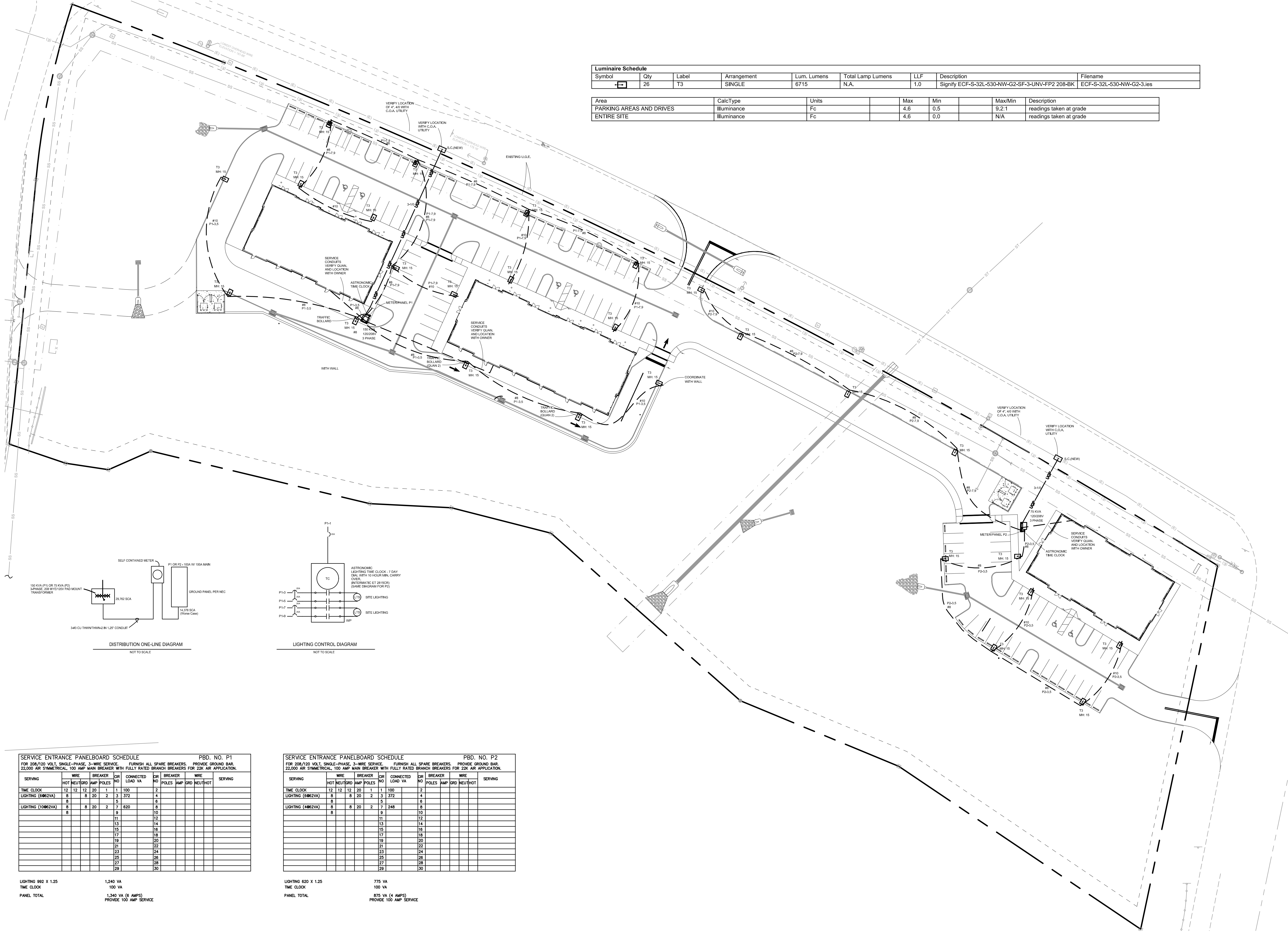
SERVICE ENTRANCE PANELBOARD SCHEDULE PBD. NO. P2									
FOR 208/120 VOLT, SINGLE-PHASE, 3-WIRE SERVICE. FURNISH ALL SPARE BREAKERS. PROVIDE GROUND BAR, 22,000 AIR SYMMETRICAL, 100 AMP MAIN BREAKER WITH FULLY RATED BRANCH BREAKERS FOR 22K AIR APPLICATION.									
SERVING	WIRE	BREAKER	OR	CONNECTED	OR	BREAKER	WIRE	SERVING	
	HOT	NEUT/GRD	AMP	POLES	NO	POLES	AMP	HOT	
TIME CLOCK	12	12	12	20	1	1	100	2	
LIGHTING (6002VA)	8	8	20	2	3	3	372	4	
	5							6	
LIGHTING (40062VA)	8	8	20	2	7	7	248	8	
	9							10	
	11							12	
	13							14	
	15							16	
	17							18	
	19							20	
	21							22	
	23							24	
	25							26	
	27							28	
	29							30	

LIGHTING 620 X 1.25
TIME CLOCK
PANEL TOTAL

775 VA
100 VA
875 VA (4 AMPS)
PROVIDE 100 AMP SERVICE

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Lum. Lumens	Total Lamp Lumens	LLF
	26	T3	SINGLE	6715	N.A.	1.0
Description			Filename			
Signify ECF-S-32L-530-NW-G2-SF-3-UNV-FP2 208-BK			ECF-S-32L-530-NW-G2-3.ies			

Area	CalcType	Units	Max	Min	Max/Min	Description
PARKING AREAS AND DRIVES	Illuminance	Fc	4.6	0.5	9.2:1	readings taken at grade
ENTIRE SITE	Illuminance	Fc	4.6	0.0	N/A	readings taken at grade



WILLIAM T. STORMANT PE
ELECTRICAL ENGINEER
5304 NW 173 STREET
ALACHUA, FLORIDA 32615
STORMANTWT@COX.NET
(352) 665-1426

VERIFY SCALE
BASED ON
ORIGINAL DRAWING
0. IF NOT SAME, ADJUST
THIS SHEET, ADJUST
SCALES ACCORDINGLY.

CONSTRUCTION/BD RELEASE

DATE: 06/27/19 CITY OF ALACHUA, SRWMD, & FDOT

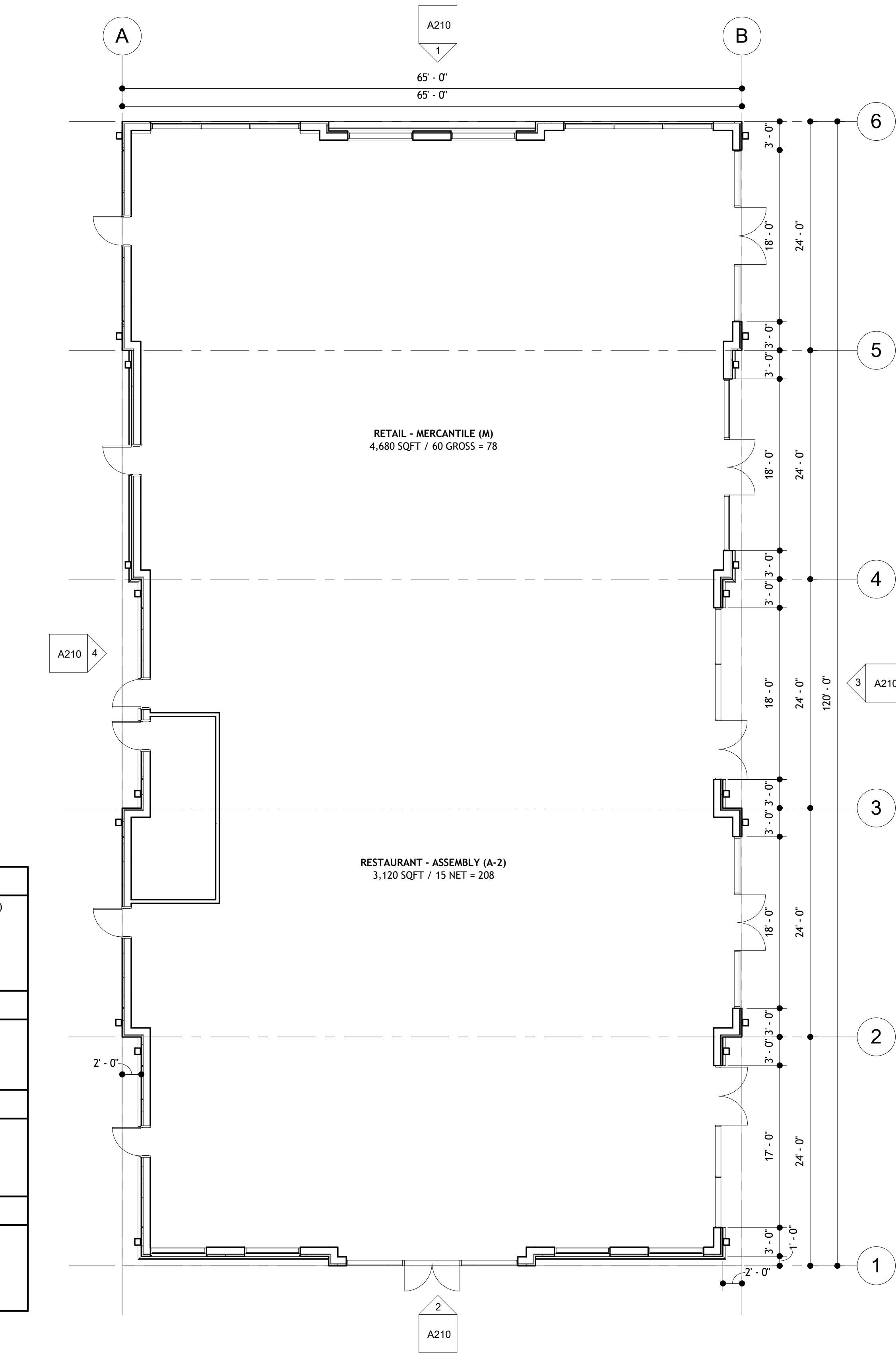
CLIENT: NATURAL VALLEY HARVEST LTD
PROJECT: THE GOLF PLAZA
SHEET TITLE: ELECTRIC SITE AND LIGHTING PLAN

DESIGNED BY: E. GILLESPIE
DRAWN BY: W. STORMANT
QUALITY CONTROL: W. STORMANT
PROJECT NUMBER: 18-0431

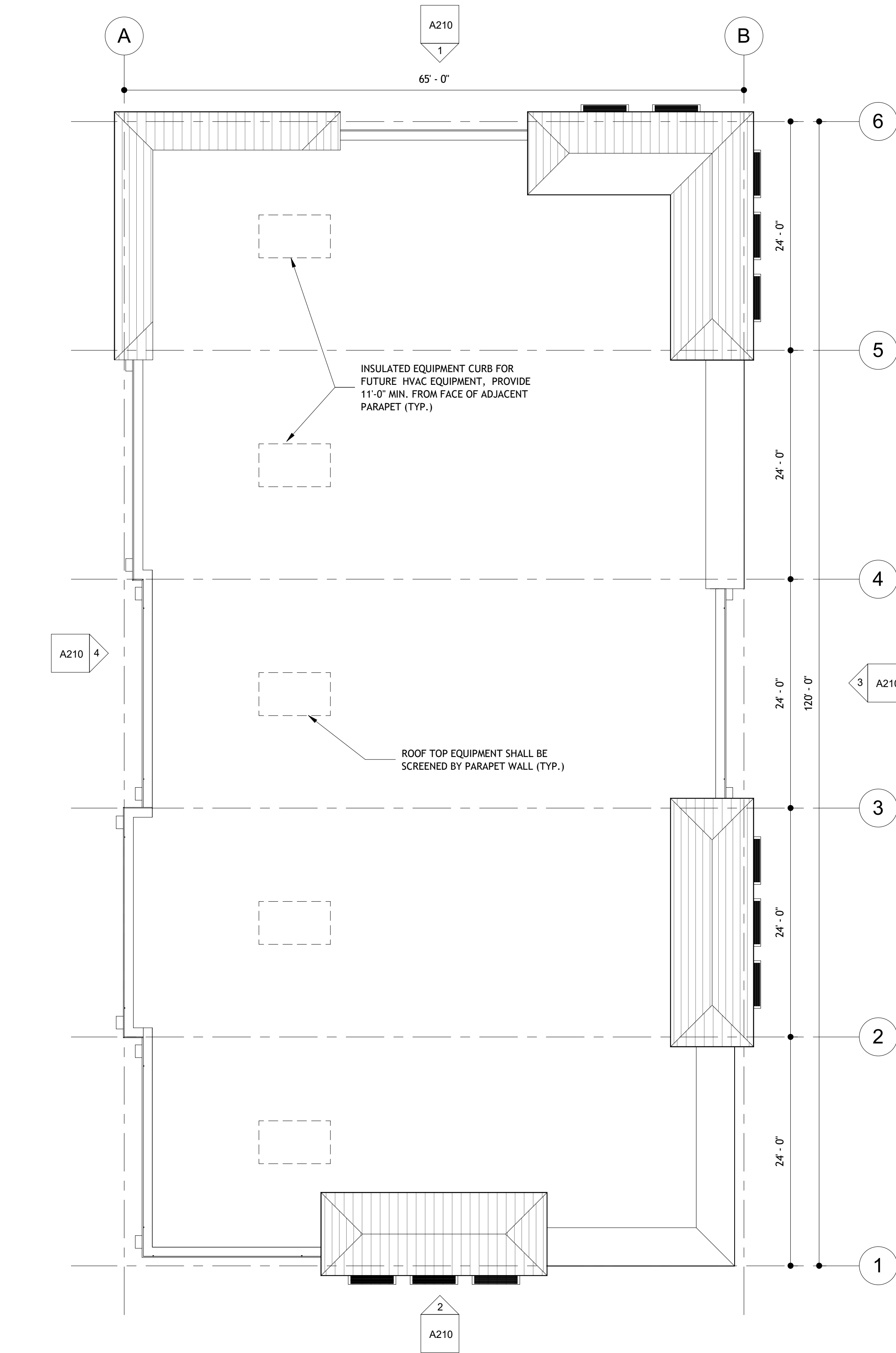
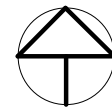
WILLIAM T. STORMANT

FL PE No. 44156
SHEET NO: E3

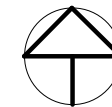
BUILDING CODE SUMMARY:	
OCCUPANCY CLASSIFICATION	OCCUPANCY = ASSEMBLY (A-2) AND MERCANTILE (M)
EXISTING CONSTRUCTION TYPE	BUILDING TYPE = TYPE II B
FIRE SUPPRESSION SYSTEM	SPRINKLERED
PORTABLE FIRE EXTINGUISHERS	PROVIDE 75 FT. MAX.
PROJECT SQUARE FOOTAGE	
MERCANTILE	4,680 SQFT
ASSEMBLY (A-2)	3,120 SQFT
TOTAL PROJECT AREA = 7,800 SQFT	
OCCUPANT LOAD	
MERCANTILE	4,680 SQFT / 60 GROSS = 78
ASSEMBLY (A-2)	3,120 SQFT / 15 NET = 208
TOTAL 1ST FLOOR OCC. LOAD = 286	
EGRESS REQUIREMENTS	
MINIMUM CORRIDOR WIDTH	286 OCC. X 0.2 INCH = 57.2 (44" MIN.)
MAXIMUM TRAVEL DISTANCE	250' (SPRINKLERED)
COMMON PATH OF TRAVEL	75' (SPRINKLERED)
MAXIMUM DEAD END CORRIDOR	20' (SPRINKLERED)



1 ARCHITECTURAL FLOOR PLAN
1/8" = 1'-0"



2 ARCHITECTURAL ROOF PLAN
1/8" = 1'-0"



STUDIO MJG, LLC
5206 SW 91ST TERRACE, SUITE A
GAINESVILLE, FLORIDA 32608
WWW.STUDIOMJG.COM

Golf Plaza Commercial Development - Bldgs - 1, 2 & 3

Enter address here

Design Development

Michael J. Gilfilen
AR94453

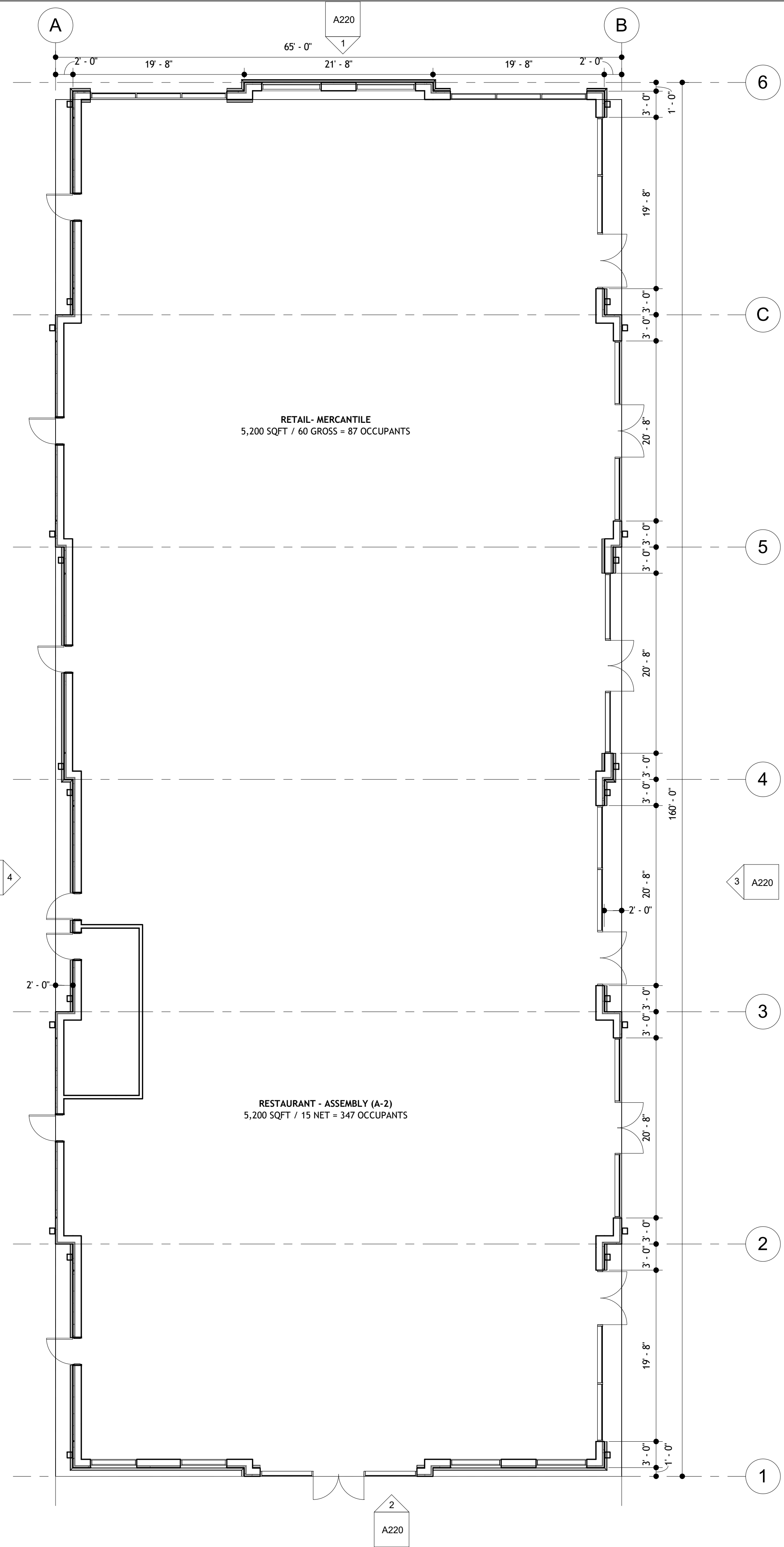
No.	DESCRIPTION	DATE

PROJECT NUMBER:	19018
ISSUE DATE:	20 SEPTEMBER 2019
CREATED BY:	MJG
CHECKED BY:	CCG

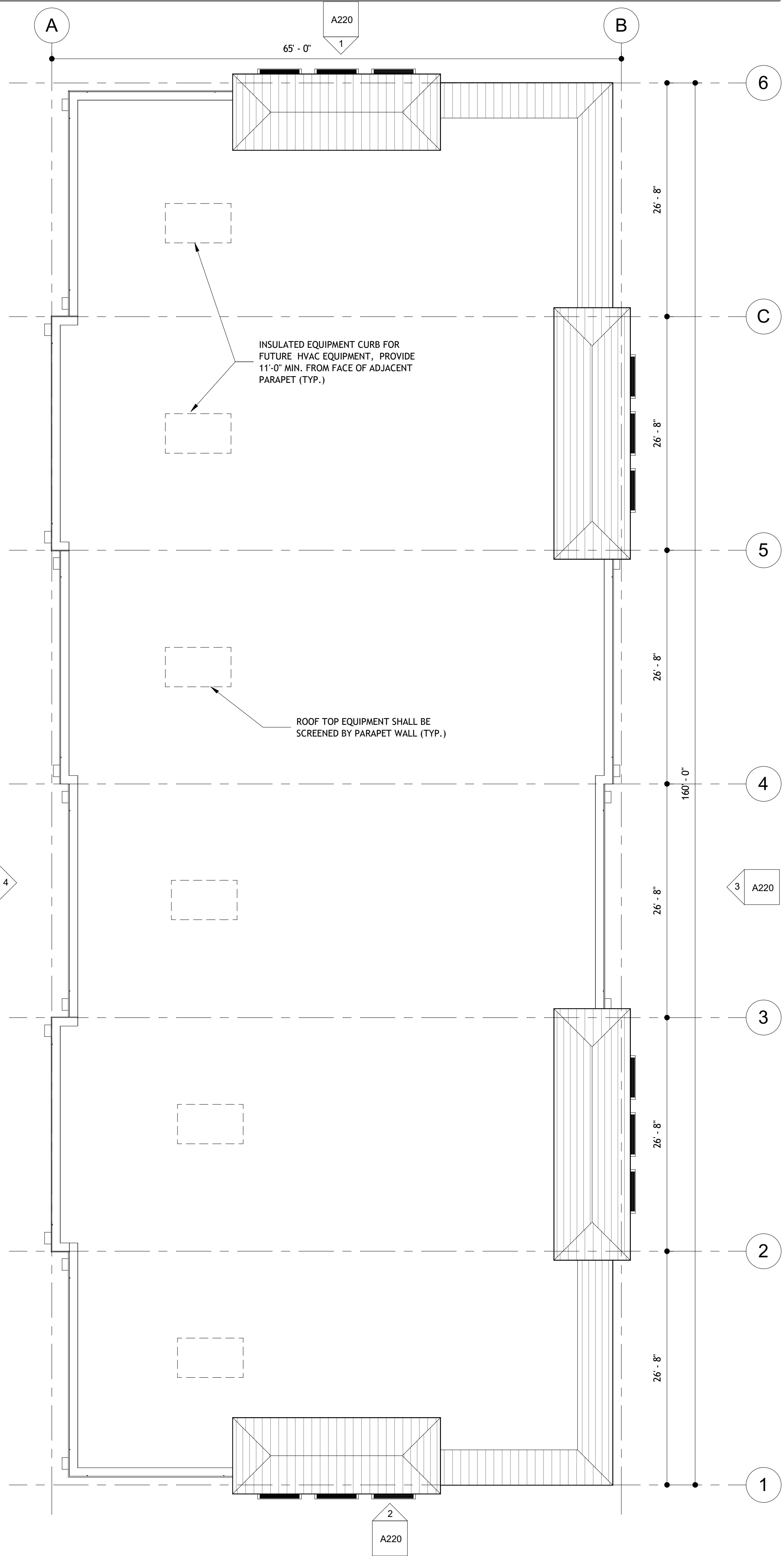
A110

ARCHITECTURAL
FLOOR AND ROOF
PLAN

BUILDING CODE SUMMARY:	
OCCUPANCY CLASSIFICATION	OCCUPANCY = ASSEMBLY (A-2) AND MERCANTILE (M)
EXISTING CONSTRUCTION TYPE	BUILDING TYPE = TYPE II B
FIRE SUPPRESSION SYSTEM	SPRINKLERED
PORTABLE FIRE EXTINGUISHERS	PROVIDE 75 FT. MAX.
PROJECT SQUARE FOOTAGE	
ASSEMBLY (A-2)	5,200 SQFT
MERCANTILE (M)	5,200 SQFT
TOTAL PROJECT AREA = 10,400 SQFT	
OCCUPANT LOAD	
ASSEMBLY (A-2)	5,200 SQFT / 15 NET = 347
MERCANTILE (M)	5,200 SQFT / 60 GROSS = 87
TOTAL OCCUPANT LOAD = 434 TOTAL OCCUPANTS	
EGRESS REQUIREMENTS	
MINIMUM CORRIDOR WIDTH	434 OCC. X 0.2 INCH = 86.8 (44" MIN.)
MAXIMUM TRAVEL DISTANCE	250' (SPRINKLERED)
COMMON PATH OF TRAVEL	100' (SPRINKLERED)
MAXIMUM DEAD END CORRIDOR	20' (SPRINKLERED)



① ARCHITECTURAL FLOOR PLAN
1/8" = 1'-0"



② ARCHITECTURAL ROOF PLAN
1/8" = 1'-0"



STUDIO MJG, LLC
5206 SW 91ST TERRACE, SUITE A
GAINESVILLE, FLORIDA 32608
WWW.STUDIOMJG.COM

Golf Plaza Commercial Development - Bldg-2

Enter address here

Design Development

Michael J. Gilfilen
AR94453

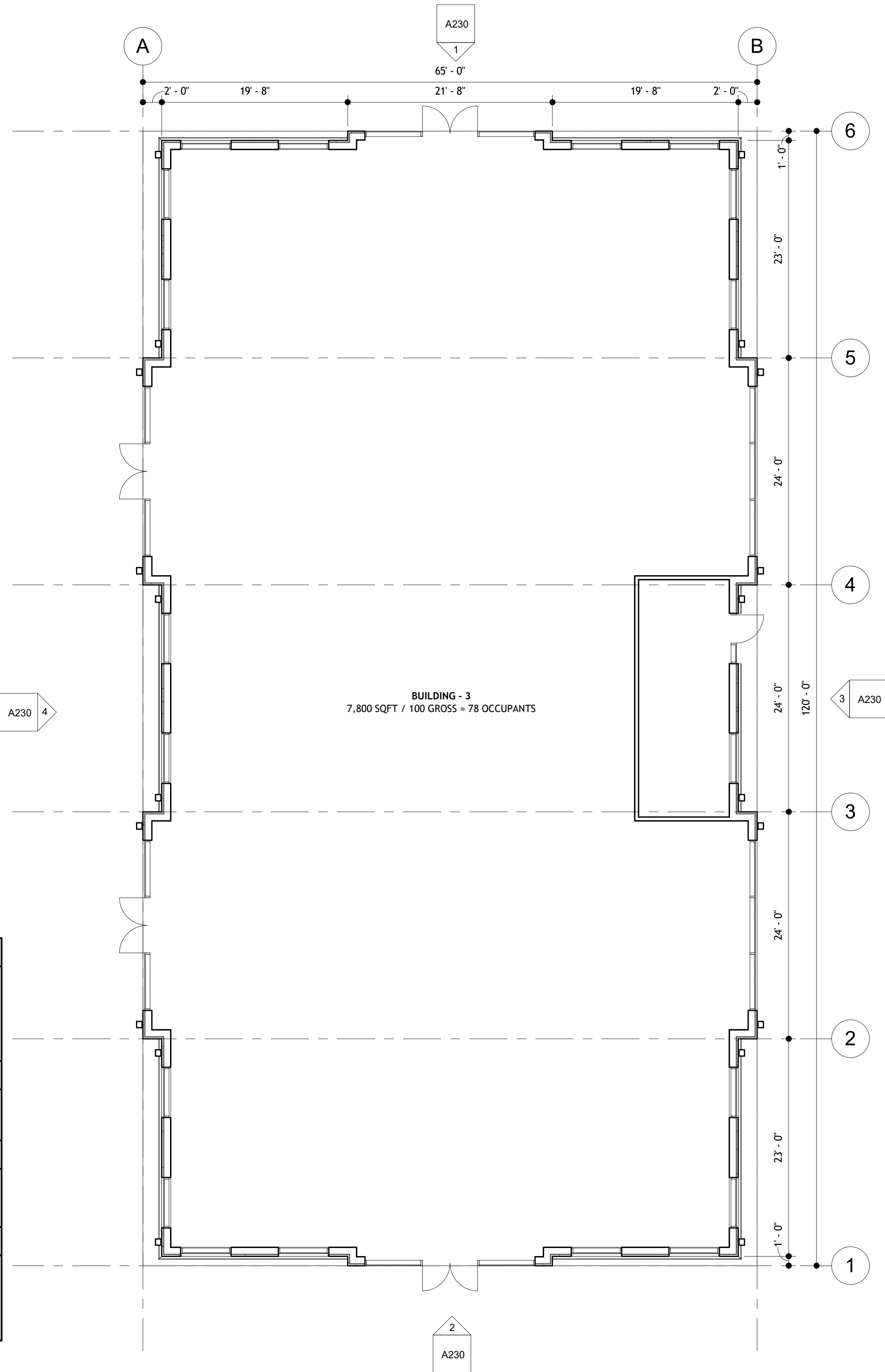
No.	DESCRIPTION	DATE

PROJECT NUMBER: 19018
ISSUE DATE: 20 SEPTEMBER 2019
CREATED BY: MJG
CHECKED BY: CCG

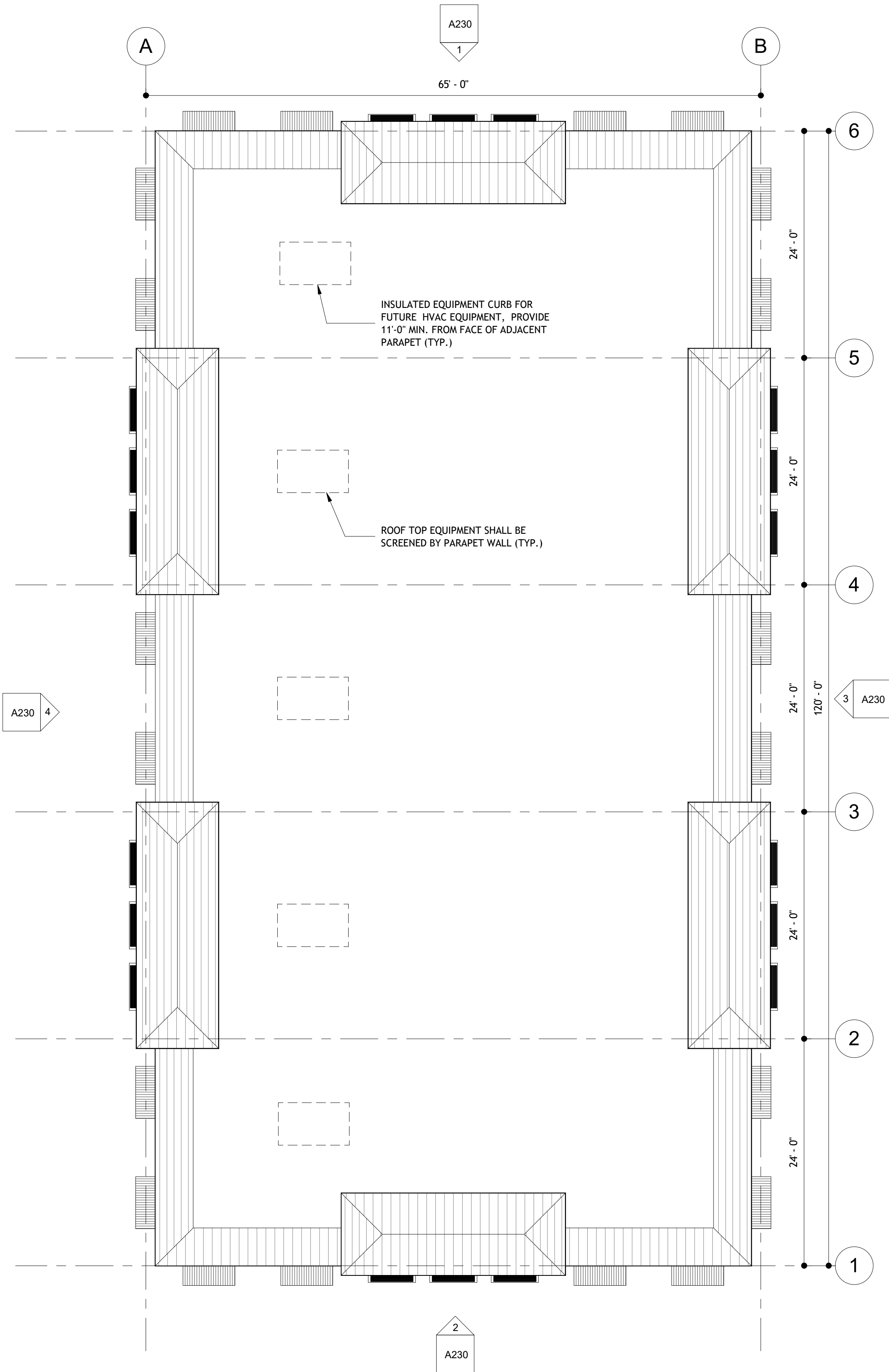
A120

ARCHITECTURAL
FLOOR AND ROOF
PLAN

BUILDING CODE SUMMARY:	
OCCUPANCY CLASSIFICATION	OCCUPANCY = B
EXISTING CONSTRUCTION TYPE	BUILDING TYPE = TYPE II B
FIRE SUPPRESSION SYSTEM	SPRINKLERED
PORTABLE FIRE EXTINGUISHERS	PROVIDE 75 FT. MAX.
PROJECT SQUARE FOOTAGE	
BUILDING - 3	7,800 SQFT
TOTAL PROJECT AREA = 7,800 SQFT	
OCCUPANT LOAD	
LOBBY RENOVATION	"B" BUSINESS 7,800/ 100 = 78
TOTAL OCCUPANT LOAD = 78	
FIRST FLOOR EGRESS REQUIREMENTS	
MINIMUM CORRIDOR WIDTH	78 OCC. X 0.2 INCH = 15.6(44" MIN.)
MAXIMUM TRAVEL DISTANCE	300' (SPRINKLERED)
COMMON PATH OF TRAVEL	100' (SPRINKLERED)
MAXIMUM DEAD END CORRIDOR	50' (SPRINKLERED)



1 ARCHITECTURAL FLOOR PLAN
1/8" = 1'-0"



2 ARCHITECTURAL ROOF PLAN
1/8" = 1'-0"



STUDIO MJG, LLC
5206 SW 91ST TERRACE, SUITE A
GAINESVILLE, FLORIDA 32608
WWW.STUDIOMJG.COM

Golf Plaza Commercial Development - Bldg-3

Enter address here

Design Development

Michael J. Gilfilen
AR94453

No.	DESCRIPTION	DATE

PROJECT NUMBER:	19018
ISSUE DATE:	20 SEPTEMBER 2019
CREATED BY:	MJG
CHECKED BY:	CCG

A130

ARCHITECTURAL
FLOOR AND ROOF
PLAN



STUDIO M&G, LLC
5206 SW 91ST TERRACE, SUITE A
GAINESVILLE, FLORIDA 32608
WWW.STUDIOM&G.COM

Golf Plaza Commercial Development - Bldgs - 1, 2 & 3

Enter address here

Design Development

Michael J. Gilfilen
AR94453

No.	DESCRIPTION	DATE

PROJECT NUMBER: 19018
ISSUE DATE: 20 SEPTEMBER 2019
CREATED BY: MJG
CHECKED BY: CCG

A210
ARCHITECTURAL
EXTERIOR
ELEVATIONS

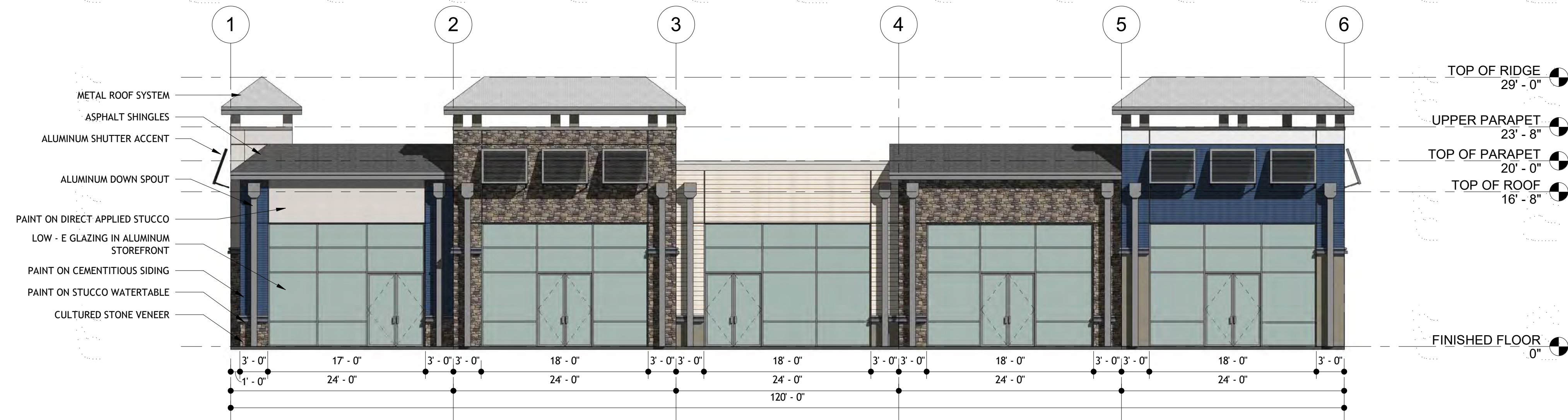
10/3/2019 10:35:44 AM



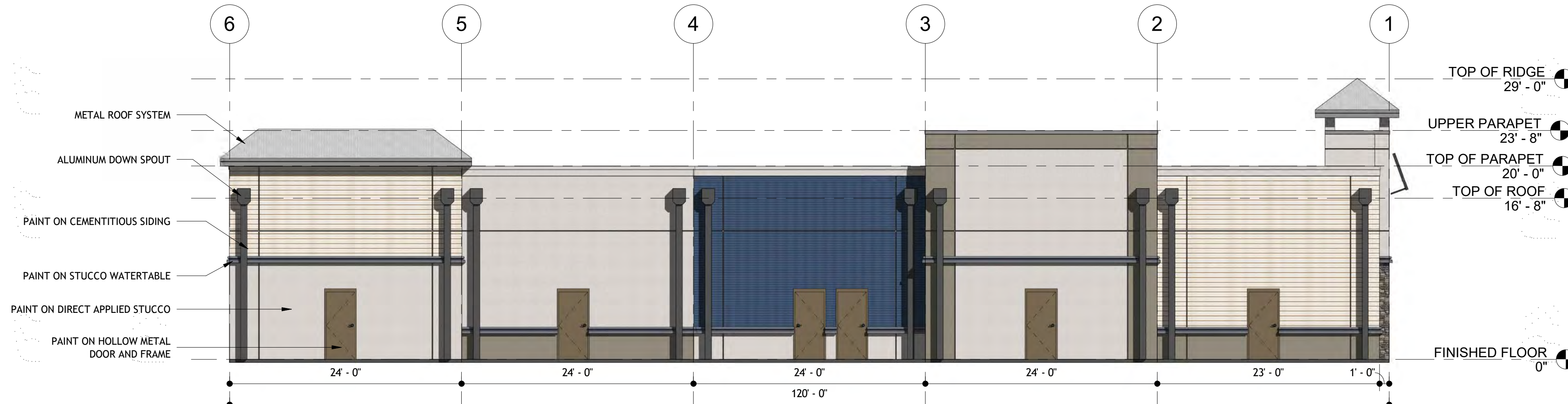
1 NORTH ELEVATION BUILDING - 1
1/8" = 1'-0"



2 SOUTH ELEVATION BUILDING - 1
1/8" = 1'-0"

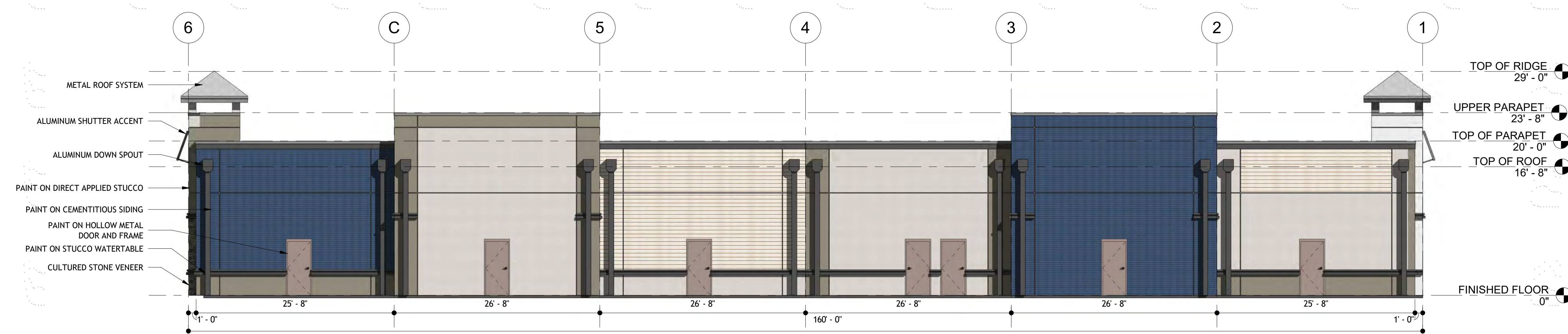
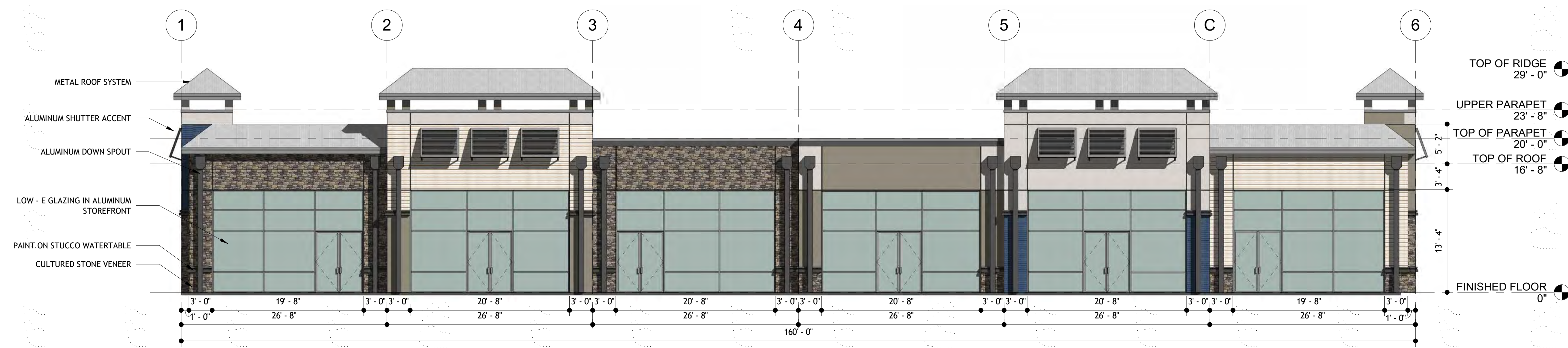


3 EAST ELEVATION BUILDING - 1
1/8" = 1'-0"

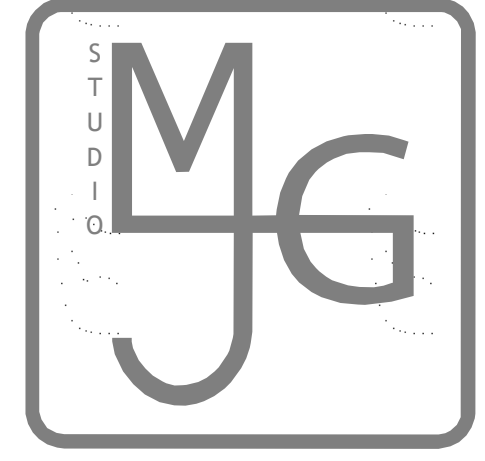


4 WEST ELEVATION BUILDING - 1
1/8" = 1'-0"

GLAZING LEGEND				
ELEVATION	WALL AREA	GLAZING AREA	REQUIRED %	PROVIDED %
NORTH ELEVATION	1,379	554	20 %	40 %
WEST ELEVATION	1,344	476	20 %	35 %
SOUTH ELEVATION	2,478	1,186	20 %	48 %
EAST ELEVATION	2,478	1,186	20 %	48 %



GLAZING LEGEND				
ELEVATION	WALL AREA	GLAZING AREA	REQUIRED %	PROVIDED %
NORTH ELEVATION	1,344	354	20 %	26 %
WEST ELEVATION			N/A	
SOUTH ELEVATION	1,344	452	20 %	34 %
EAST ELEVATION	3,289	1,628	20 %	49 %



STUDIO MJG, LLC
5206 SW 91ST TERRACE, SUITE A
GAINESVILLE, FLORIDA 32608
WWW.STUDIOMJG.COM

**Golf Plaza Commercial
Development - Bldg-2**

Enter address here

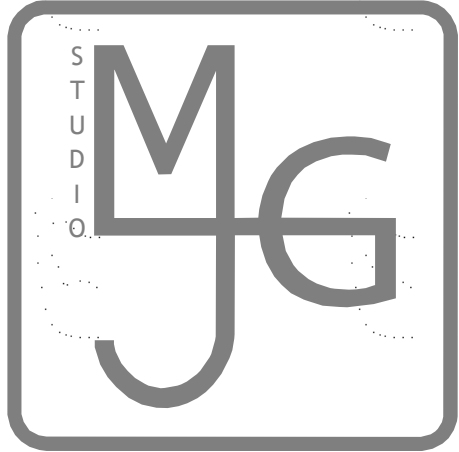
Design Development

Michael J. Gilfilen
AR94453

No.	DESCRIPTION	DATE

PROJECT NUMBER: 19018
ISSUE DATE: 20 SEPTEMBER 2019
CREATED BY: MJG
CHECKED BY: CCG

A220
ARCHITECTURAL
EXTERIOR
ELEVATIONS



STUDIO M&G, LLC
5206 SW 91ST TERRACE, SUITE A
GAINESVILLE, FLORIDA 32608
WWW.STUDIOM&G.COM

Golf Plaza Commercial Development - Bldg-3

Enter address here

Design Development

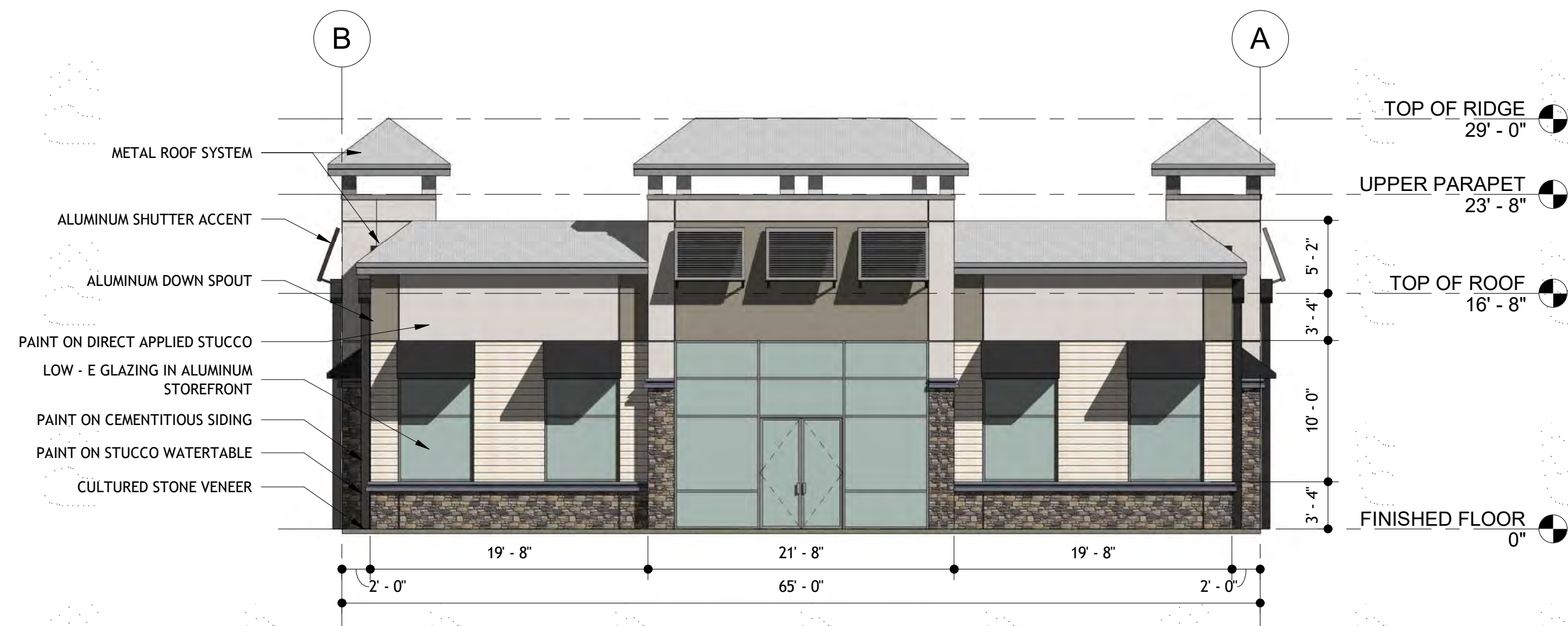
Michael J. Gilfilen
AR94453

No.	DESCRIPTION	DATE

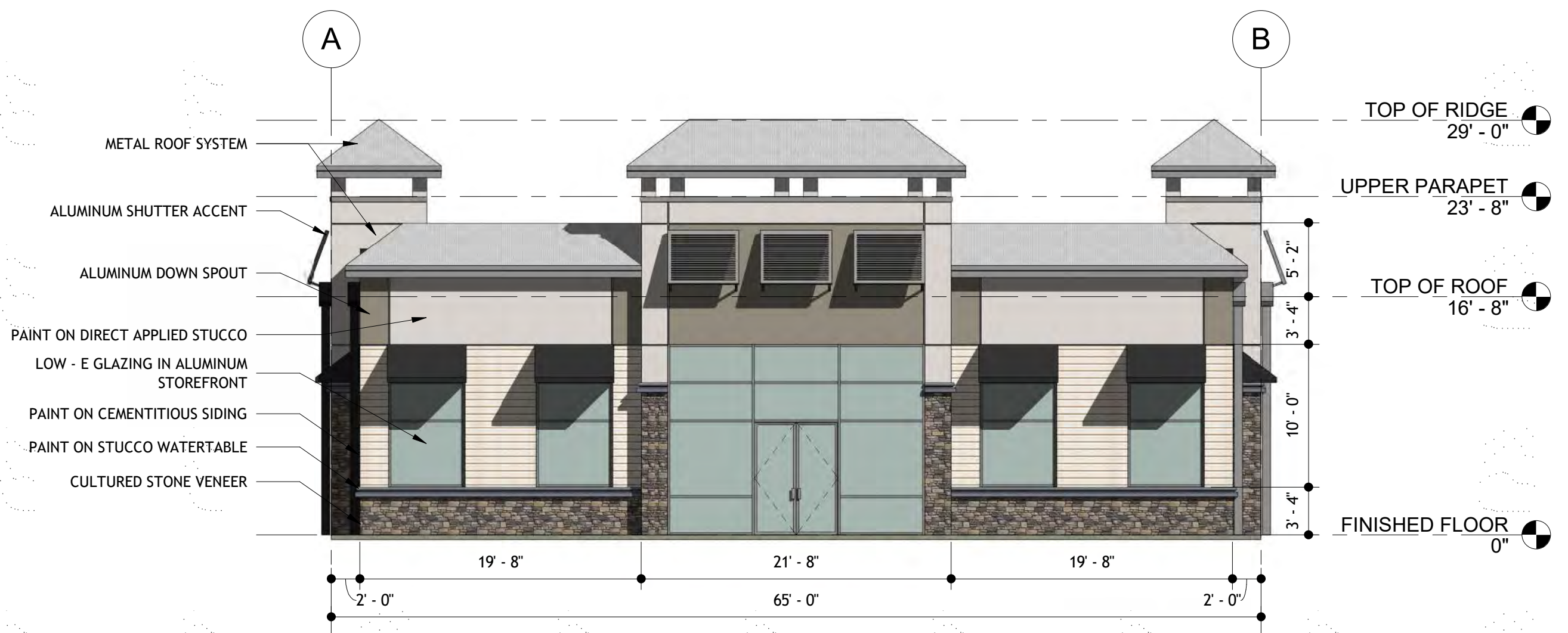
PROJECT NUMBER: 19018
ISSUE DATE: 20 SEPTEMBER 2019
CREATED BY: MJG
CHECKED BY: CCG

A230
ARCHITECTURAL
EXTERIOR
ELEVATIONS

10/3/2019 1:57:12 PM



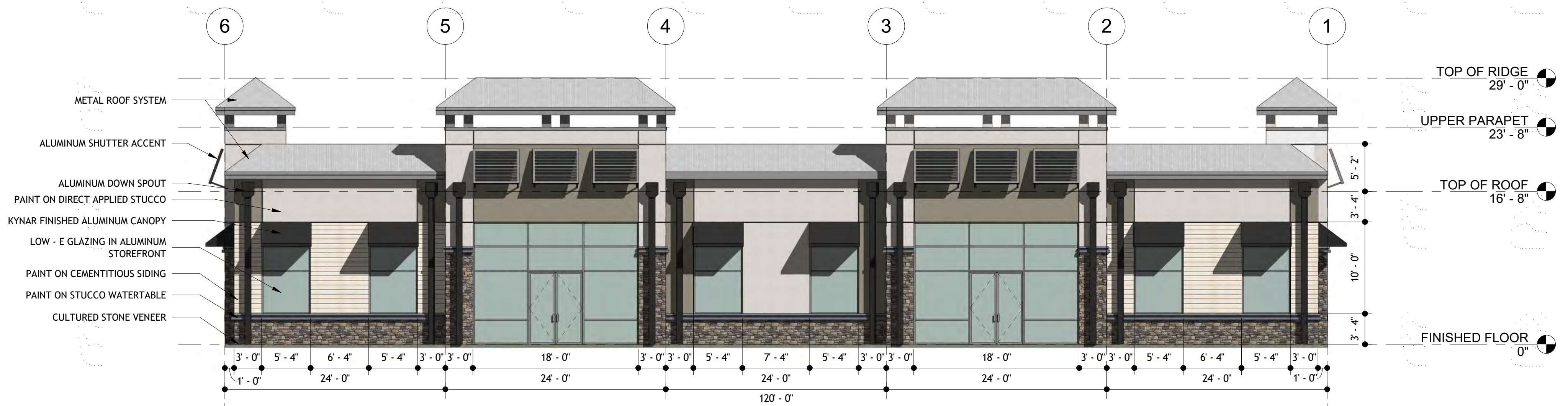
1 NORTH ELEVATION BUILDING - 3
1/8" = 1'-0"



2 SOUTH ELEVATION BUILDING - 3
1/8" = 1'-0"



3 EAST ELEVATION BUILDING - 3
1/8" = 1'-0"



4 WEST ELEVATION BUILDING - 3
1/8" = 1'-0"

GLAZING LEGEND				
ELEVATION	WALL AREA	GLAZING AREA	REQUIRED %	PROVIDED %
NORTH ELEVATION	1,293	456	20 %	35 %
WEST ELEVATION	2,432	804	20 %	33 %
SOUTH ELEVATION	1,293	456	20 %	35 %
EAST ELEVATION	2,432	804	20 %	33 %



City of
ALACHUA

THE GOOD LIFE COMMUNITY

FOR PLANNING USE ONLY

Case #: _____
Application Fee: \$ _____
Filing Date: _____
Acceptance Date: _____
Review Type: P&Z

Site Plan Application

Reference City of Alachua Land Development Regulations Article 2.4.9

A. PROJECT

1. Project Name: The Golf Plaza
2. Address of Subject Property: 11905 Turkey Creek Blvd.
3. Parcel ID Number(s): 05900-004-001, 05900-004-002, 05900-004-003, 05900-004-004, 05900-004-005, 05900-004-006, 05900-004-007, 05900-004-008, 05900-004-009, & 05900-004-10
4. Existing Use of Property: Vacant
5. Future Land Use Map Designation: Commercial
6. Zoning Designation: Planned Unit Development (PUD)
7. Acreage: ± 8.241

B. APPLICANT

1. Applicant's Status ☐ Owner (title holder) ☒ Agent
2. Name of Applicant(s) or Contact Person(s): Daniel Young, P.E. Title: Director of Engineering, Land Development
Company (if applicable): CHW
Mailing address: 11801 Research Drive
City: Alachua State: Florida ZIP: 32615
Telephone: (352) 331-1976 FAX: _____ e-mail: daniely@chw-inc.com
3. If the applicant is agent for the property owner*:
Name of Owner (title holder): Natural Valley Harvest, LTD c/o Usman Rana
Mailing Address: 632 Turkey Creek
City: Alachua State: Florida ZIP: 32615

* Must provide executed Property Owner Affidavit authorizing the agent to act on behalf of the property owner.

C. ADDITIONAL INFORMATION

1. Is there any additional contact for sale of, or options to purchase, the subject property? ☐ Yes ☒ No
If yes, list names of all parties involved: _____
If yes, is the contract/option contingent or absolute? ☐ Contingent ☐ Absolute

D. ATTACHMENTS

1. Site Plan including but not limited to:
 - a. Name, location, owner, and designer of the proposed development.
 - b. Zoning of the subject property.
 - c. Vicinity map - indicating general location of the site and all abutting streets and properties.
 - d. Complete legal description.
 - e. Statement of Proposed Uses.
 - f. Location of the site in relation to adjacent properties, including the means of ingress and egress to such properties and any screening or buffers along adjacent properties.
 - g. Date, north arrow, and graphic scale (not to exceed one (1) inch equal to fifty (50) feet.)
 - h. Area and dimensions of site.
 - i. Location of all property lines, existing right-of-way approaches, sidewalks, curbs, and gutters.
 - j. Access and points of connection to utilities (electric, potable water, sanitary sewer, gas, etc.)
 - k. Location and dimensions of all existing and proposed parking areas and loading areas.
 - l. Location, size, and design of proposed landscaped areas (including existing trees and required landscaped buffer areas) with detail illustrating compliance with Section 6.2.2 of the Land Development Regulations.

- m. Location and size of any lakes, ponds, canals, or other waters and waterways.
- n. Structures and major features – fully dimensioned – including setbacks, distances between structures, floor area, width of driveways, parking spaces, property or lot lines, and floor area ratio.
- o. Location of waste receptacles and detail of waste receptacle screening.
- p. For development consisting of a nonresidential use, except for single tenant retail sales and services uses greater than or equal to 20,000 square feet in area and except for use types within the industrial services, manufacturing and production, warehouse freight and movement, waste-related services, and wholesale sales use categories:
 - i. Architectural plans and dimension plans which demonstrate compliance with the design standards for business uses as provided in Section 6.8.2 of the LDRs, including:
 - (a) Calculation of glazing of the front façade.
 - (b) Calculation of the area of ground floor façades subject to glazing.
 - (c) Detail on the architectural plans and dimension plans depicting façade massing and/or alternatives to required façade massing.
 - (d) Sufficient plan detail and calculations of each material utilized in each façade.
- q. For development consisting of a nonresidential use where a single tenant is greater than or equal to 20,000 square feet in area:
 - i. Architectural plans and dimension plans which demonstrate compliance with the design standards for single tenant retail sales and service uses greater than or equal to 20,000 square feet in area as provided in Section 6.8.3 of the LDRs, including:
 - (a) Calculation of glazing of the façades facing streets, residential uses, and vacant residential/agricultural land.
 - (b) Calculation of the area of ground floor façades subject to glazing.
 - (c) If glazing alternatives are used, calculation of area of alternative materials used.
 - (d) Detail on the architectural plans and dimension plans depicting façade massing and/or alternatives to required façade massing.
 - (e) Color architectural plans depicting the color of all materials used in the façade.
- r. For development consisting of one or more of the following: Multi-family residential; Hotel; or Mobile Home Park:
 - i. Tabulation of gross acreage.
 - ii. Tabulation of density.
 - iii. Number of dwelling units proposed.
 - iv. Location and percent of total open space and recreation areas.
 - v. Floor area of dwelling units.
 - vi. Number of proposed parking spaces.
 - vii. Street layout.
 - viii. Layout of mobile home stands (for mobile home parks only).
 - ix. City of Alachua Public School Student Generation Form.

Sheet Size: 24" X 36" with 3" left margin and ½" top, bottom, and right margins

- 2. Stormwater management plan - including the following:
 - a. Existing contours at one (1) foot intervals based on U.S. Coastal and Geodetic Datum.
 - b. Proposed finished floor elevation of each building site.
 - c. Existing and proposed stormwater management facilities with size and grades.
 - d. Proposed orderly disposal of surface water runoff.
 - e. Centerline elevations along adjacent streets.
 - f. Water Management District surfacewater management Statement of proposed uses on the site plan
- 3. Fire Department Access and Water Supply: The design criteria shall be Chapter 18 of the Florida Fire Prevention Code. Plans must be on separate sealed sheets and must be prepared by a professional Fire engineer licensed in the State of Florida. Fire flow calculations must be provided for each newly constructed building. When required, fire flow calculations shall be in accordance with the Guide for Determination of Required Fire Flow, latest edition, as published by the Insurance Service Office (ISO) and /or Chapter 18, Section 18.4 of the Florida Fire Prevention Code, whichever is greater. All calculations must be demonstrated and provided. All calculations and specifications must be on the plans and not on separate sheets. All fire protection plans are reviewed and approved by the Alachua County Fire Marshal.
- 4. Concurrency Impact Analysis showing the impact on public facilities, including potable water, sanitary sewer, transportation, solid waste, recreation, stormwater, and public schools in accordance with Article 2.4.14 of the Land Development Regulations.
- 5. Analysis of Consistency with the City of Alachua Comprehensive Plan (analysis must identify specific Goals, Objectives, and Policies and describe in detail how the application complies with the noted Goal, Objective, or Policy.)

For commercial project Applications:

- a. In addition to submitting specific written information regarding your **commercial** development's compliance with the relevant Goals, Objectives, and Policies of the City of Alachua Comprehensive Plan, you must respond directly to the standards listed below. You should be specific in terms of how your commercial development will comply with these standards.

Policy 1.3.d Design and performance standards

The following criteria shall apply when evaluating commercial development proposals:

1. Integration of vehicular and non-vehicular access into the site and access management features of site in terms of driveway cuts and cross access between adjacent sites, including use of frontage roads and/or shared access;
2. Buffering from adjacent existing/potential uses;
3. Open space provisions and balance of proportion between gross floor area and site size;
4. Adequacy of pervious surface area in terms of drainage requirements;
5. Placement of signage;
6. Adequacy of site lighting and intrusiveness of lighting upon the surrounding area;
7. Safety of on-site circulation patterns (patron, employee and delivery vehicles), including parking layout and drive aisles, and points of conflict;
8. Landscaping, as it relates to the requirements of the Comprehensive Plan and Land Development Regulations;
9. Unique features and resources which may constrain site development, such as soils, existing vegetation and historic significance; and
10. Performance based zoning requirements, which may serve as a substitute for or accompany land development regulations in attaining acceptable site design.
11. Commercial uses shall be limited to an intensity of less than or equal to .50 floor area ratio for parcels 10 acres or greater, .50 floor area ratio for parcels less than 10 acres but 5 acres or greater, a .75 floor area ratio for parcels less than 5 acres but greater than 1 acre, and 1.0 floor area ratio to parcels 1 acre or less.

For industrial project Applications:

- b. In addition to submitting specific written information regarding your **industrial** development's compliance with the relevant Goals, Objectives, and Policies of the City of Alachua Comprehensive Plan, you must respond directly to the standards listed below. You should be specific in terms of how your industrial development will comply with these standards.

Policy 1.5.d

The City shall develop performance standards for industrial uses in order to address the following:

1. Integration of vehicular and non-vehicular access into the site and access management features of site in terms of driveway cuts and cross access between adjacent sites, including use of frontage roads and/or shared access;
2. Buffering from adjacent existing/potential uses;
3. Open space provisions and balance of proportion between gross floor area and site size;
4. Adequacy of pervious surface area in terms of drainage requirements;
5. Placement of signage;
6. Adequacy of site lighting and intrusiveness of lighting upon the surrounding area;
7. Safety of on-site circulation patterns (patron, employee and delivery vehicles, trucks), including parking layout and drive aisles, and points of conflict;
8. Landscaping, as it relates to the requirements of the Comprehensive Plan and Land Development Regulations;
9. Unique features and resources which may constrain site development, such as soils, existing vegetation and historic significance; and
10. Performance based zoning requirements that may serve as a substitute for or accompany land development regulations in attaining acceptable site design.
11. Industrial uses shall be limited to an intensity of less than or equal to .50 floor area ratio for parcels 10 acres or greater, .50 floor area ratio for parcels less than 10 acres by 5 acres or greater, .75 floor area ratio for parcels less than 5 acres but greater than 1 acre, and 1.0 floor area ratio for parcels 1 acre or less.

6. For Site Plans for Buildings Less than 80,000 Square Feet in Area: One (1) set of labels for all property owners within 400 feet of the subject property boundaries – even if property within 400 feet falls outside of City limits (obtain from the Alachua County Property Appraiser's web site) – and all persons/organizations registered to receive notice of development applications.
For Site Plans for Buildings Greater than or Equal to 80,000 Square Feet in Area: Two (2) sets of labels for all property owners within 400 feet of the subject property boundaries – even if property within 400 feet falls outside of City limits (obtain from the Alachua County Property Appraiser's web site) – and all persons/organizations registered to receive notice of development applications.
7. Neighborhood Meeting Materials, including:
 - i. Copy of the required published notice (advertisement) – must be published a newspaper of general circulation, as defined in Article 10 of the City's Land Development Regulations
 - ii. Copy of written notice (letter) sent to all property owners within 400 feet and to all persons/organizations registered with the City to receive notice, and mailing labels or list of those who received written notice
 - iii. Written summary of meeting – must include (1) those in attendance; (2) a summary of the issues related to the development proposal discussed; (3) comments by those in attendance about the development proposal; and, (4) any other information deemed appropriate.
8. Legal description with tax parcel number, separate from all other documentation on 8.5" x 11" paper.
9. Proof of ownership (i.e., copy of deed.)
10. Proof of payment of taxes.
11. Environmental Resource Permit (or Letter of Exemption) from the Suwannee River Water Management District or Self-Certification for a Stormwater Management System in Uplands Serving Less than 10 Acres of Total Project Area and Less than 2 Acres of Impervious Surfaces from the Florida Department of Environmental Protection pursuant to Section 403.814(12), Florida Statutes.
12. If access is from a County Road, access management permit from Alachua County Public Works (or documentation providing evidence that a permit application has been submitted).
13. If access is from a State Road, access management permit from Florida Department of Transportation (or documentation providing evidence that a permit application has been submitted).
14. **Fee.** Please see fee schedule for fee determination. No application shall be accepted for processing until the required application fee is paid in full by the applicant. Any necessary technical review or additional reviews of the application beyond the initial engineering review fee will be billed to the applicant at the rate of the reviewing entity. The invoice shall be paid in full prior to any legislative and/or quasi-judicial action of any kind on the petition, appeal, or development application.

All 14 attachments are required for a complete application. A completeness review of the application will be conducted within five (5) business days of receipt. If the application is determined to be incomplete, the application will be returned to the applicant.

I/We certify and acknowledge that the information contained herein is true and correct to the best of my/our knowledge.

Signature of Applicant

Daniel Young, P.E.

Typed or printed name and title of applicant

Signature of Co-applicant

Typed or printed name of co-applicant

State of Florida County of Alachua

The foregoing application is acknowledged before me this 27th day of June, 2019 by Daniel
Young, who is/are personally known to me, or who has/have produced _____
 as identification.

Sherry Stinson
 Signature of Notary Public, State of Florida



City of Alachua ♦ Planning and Community Development Department
 PO Box 9 ♦ Alachua, FL 32616 ♦ (386) 418-6121



City of
ALACHUA

THE GOOD LIFE COMMUNITY

Authorized Agent Affidavit

A. PROPERTY INFORMATION

Address of Subject Property: 11905 Turkey Creek Blvd.

Parcel ID Number(s): 05900-004-001, 05900-004-002, 05900-004-003, 05900-004-004, 05900-004-005, 05900-004-006, 05900-004-007, 05900-004-008, 05900-004-009, & 05900-004-10

Acreage: ±8.241

B. PERSON PROVIDING AGENT AUTHORIZATION

Name: Usman Rana Title: _____

Company (if applicable): Natural Valley Harvest, LTD

Mailing Address: 632 Turkey Creek

City: Alachua State: Florida ZIP: 32615

Telephone: (216) 566-4550 FAX: _____ e-mail: usmanmazharrana@gmail.com

C. AUTHORIZED AGENT

Name: Daniel Young, P.E. Title: Director of Engineering, Land Development

Company (if applicable): CHW

Mailing address: 11801 Research Drive

City: Alachua State: Florida ZIP: 32615

Telephone: (352) 331-1976 FAX: _____ e-mail: daniely@chw-inc.com

D. REQUESTED ACTION:

Authorization to apply for and obtain permits for the Golf Plaza project.

I hereby certify that I am the property owner of record, or I have received authorization from the property owner of record to file an application for a development permit related to the property identified above. I authorize the agent listed above to act on my behalf for purposes of this application.

Signature of Applicant

Signature of Co-applicant

Usman Rana

Typed or printed name and title of applicant

Typed or printed name of co-applicant

State of Florida County of Alachua

The foregoing application is acknowledged before me this 27 day of June, 2019, by Usman Rana

_____, who is/are personally known to me, or who has/have produced FL ID R500853932220 as identification.



Signature of Notary Public, State of Florida

City of Alachua ♦ Planning and Community Development Department
PO Box 9 ♦ Alachua, FL 32616 ♦ (386) 418-6121
Revised 9/30/2014



COUNTYWIDE WETLAND PROTECTION CODE SELF-CERTIFICATION FORM

Instructions: Submit this form to self-certify that the proposed activity complies with the surface water, wetland and buffer protection requirements outlined in Chapter 77, Article II of the Alachua County Code, or is exempt under Sec. 77.21. If you are unsure if your activity is in compliance or exempt, please fill out a Verification Request Form or contact staff at wetlands@alachuacounty.us for more information. Please note, you do not need to submit this form for bona-fide farm operations consistent with the provisions of F.S. 163.3162 or F.S. 823.14(6).

PART 1. APPLICANT INFORMATION	
Owner Name: Natural Valley Harvest	Applicant/Agent Name: Daniel Young, P.E.
Phone:	Company: CHW
Email: usmanmazharrana@gmail.com	Phone: (352) 331-1976
	Email: daniely@chw-inc.com
PART 2. PROPERTY INFORMATION	
Tax Parcel Numbers: 05900-004-001 through 05900-004-010	Address: TBD
City: Alachua	Zip:
PART 3. SELF-CERTIFICATION	
I, <u>Daniel Young, P.E.</u> owner of the property or authorized agent for the owner, self-certify that the proposed activity complies with the surface water, wetland and buffer protection requirements found in Chapter 77, Article II of the Alachua County Code based on the following (select all that apply):	
1. ☐	There are no wetlands, other surface waters, or buffers on or adjacent to the property (if you select this option, proceed to Acknowledgment and submit your self-certification)
2. ☐	There are wetlands, other surface waters, or buffers present on or adjacent to the property, but <u>the proposed activity is outside</u> of protected wetlands, surface waters and buffers (complete <u>Part 4, Project Information</u>)
3. ☒	There are wetlands, or other surface waters, or buffers present on or adjacent to the property, and there is work proposed in wetlands, other surface waters or buffers, but the proposed activity is exempt by Section 77.21(a) as follows (complete <u>Part 4, Project Information</u>)
4. ☐	There are wetlands, other surface waters, or buffers present on or adjacent to the property, but the proposed activity is exempt by Section 77.21(b) as an Urban Redevelopment Project (complete <u>Part 5, Urban Redevelopment Projects</u>).

PART 4. PROJECT INFORMATION

If you selected Self-certification [2] or [3] above, in addition to the information described in this form, your self-certification must also include:

- One set of plans, drawings, or sketches and other supporting documents that clearly and legibly depict and describe the proposed activities in sufficient detail to demonstrate that the work complies with protection requirements (buffer distances) or qualifies for the exemption.

Please answer the following:

Were wetlands and surface waters delineated by a qualified professional according to standards outlined in Florida Administrative Code Rule 62-340.300 for wetlands, and Rule 62-340.600 for surface waters?

☒ Yes ☒ No *Please note: wetland boundaries not delineated by a qualified professional are likely to be inaccurate. You may submit a Verification Request Form to verify compliance with protection requirements.*

Exemptions: Please list the exemption(s) you are requesting to use (refer to Sec. 77.21(a))

Sec. 77.21(a)(5). Three(3) stormwater facility connections are proposed, one is partially within the wetland and the other two are completely within the buffer. All other work maintains the min. 50' min. and 75' average buffer. Note the existing FDOT(manmade)drainage ditch is being realigned to within the easement.

Describe in detail how the proposed work will comply with the terms and conditions of the above exemption:

Work within the wetland for the discharge connection and rip rap are limited to less than 20' in length and will not interfere with navigation.

Date Activity is proposed to commence October 2019 to be completed October 2020

PART 5. URBAN REDEVELOPMENT PROJECTS

Please submit the following:

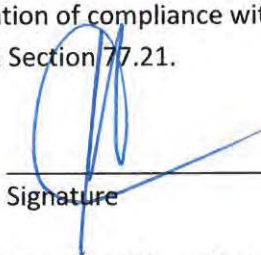
- One set of plans and drawings, recent survey, environmental information, and other supporting documents and calculations clearly and legibly depicting that the existing site is 40%, or more, impervious surfaces.

ACKNOWLEDGMENT

I understand this notice is provided as self-certification of compliance with Chapter 77, Article II, Alachua County Code, or qualification to use exemption(s) found in Section 77.21.

Daniel Young, P.E.

Typed/Printed Name


Signature

6/27/19
Date

IMPORTANT: Applications for activities that do not comply with protection requirements found in Chapter 77, Article II nor any of the listed exemptions in Section 77.21, and are requesting to impact wetland and/or surface waters or their buffers must submit an **Application Form**. Final Alachua County BOCC approval of the proposed impacts and Mitigation and Monitoring Plan must be secured prior to initiating the activity within wetlands or buffers.

Doc Stamp-Deed: \$1,925.00



THIS WARRANTY DEED, made and entered into
on this 14 day of February, 2019, by and between

CFJ PROPERTIES, LLC, a Florida limited liability company

whose address is **527 TURKEY CREEK, ALACHUA, FLORIDA 32615**
hereinafter called Grantor*, and

NATURAL VALLEY HARVEST LTD., an Ohio limited liability company

whose address is **632 TURKEY CREEK, ALACHUA, FLORIDA 32615**
hereinafter called Grantee(s)*

*(Wherever used herein the terms "Grantor" and "Grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

WITNESSETH, that said Grantor, for and in consideration of the sum of Ten and No/100 Dollars (\$10.00) and other valuable consideration to said Grantor in hand paid by said Grantee(s), the receipt whereof is hereby acknowledged, has granted, bargained and sold to the said Grantee(s), the following described land, situated, lying and being in Alachua County, Florida, to-wit:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF.

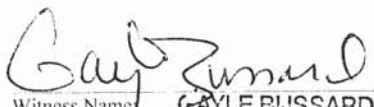
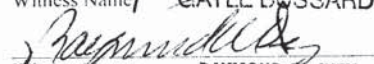
Tax Parcel Numbers: 05900-004-001, 05900-004-002, 05900-004-003, 05900-004-004, 05900-004-005, 05900-004-006, 05900-004-007, 05900-004-008, 05900-004-009 and 05900-004-010

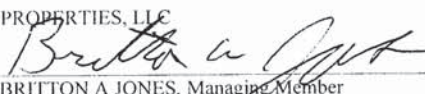
SUBJECT TO easements and restrictions of record, if any;
SUBJECT TO Taxes for 2019 and all subsequent years;

TOGETHER with all tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

AND said Grantor does hereby fully warrant the title to said land, and will defend the same against the lawful claims of all persons whomsoever.

IN WITNESS WHEREOF, the Grantor has executed this deed under seal on the day and year first above written.


Witness Name: **GAYLE BUSSARD**

Witness Name: **RAYMOND M. IVEY**

CFJ PROPERTIES, LLC
By: 
BRITTON A JONES, Managing Member

State of Florida
County of Alachua

The foregoing instrument was acknowledged before me this 14 day of February, 2019 by BRITTON A JONES, Manager Member on behalf of CFJ PROPERTIES, LLC. He ☒ is personally known to me or [X] has produced a driver's license as identification.

[Notary Seal]


Notary Public

Printed Name:

My Commission Expires

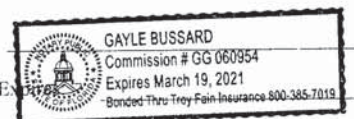


EXHIBIT A**PARCEL A-1:**

A PORTION OF SECTIONS 27 AND 28, TOWNSHIP 8 SOUTH, RANGE 19 EAST, ALACHUA COUNTY, FLORIDA; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF LOT 29 OF DRY CREEK ACCORDING TO PLAT BOOK "J", PAGE 23 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, AND RUN THENCE NORTH 87°03'46" EAST, ALONG THE NORTH BOUNDARY OF SAID DRY CREEK 810.65 FEET; THENCE SOUTH 77°35'00" EAST, ALONG SAID NORTH BOUNDARY 187.40 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE SOUTH 77°35'00" EAST, ALONG SAID NORTH BOUNDARY, 115.73 FEET TO THE WEST RIGHT-OF-WAY LINE OF A GRADED ROAD (100' R/W); THENCE NORTH 12°25'50" EAST, ALONG SAID WEST RIGHT-OF-WAY LINE, 796.73 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY NO. 441, SAID POINT LYING ON THE ARC OF A CURVE CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 5579.58 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE AND ALONG SAID SOUTH RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 01°15'37", AN ARC DISTANCE OF 122.73 FEET, SAID ARC BEING SUBTENDED BY A CHORD HAVING A BEARING AND DISTANCE OF NORTH 58°07'28" WEST, 122.73 FEET; THENCE SOUTH 12°25'50" WEST, 837.61 FEET TO THE POINT OF BEGINNING.

PARCEL B-2:

A PORTION OF SECTIONS 27 AND 28, TOWNSHIP 8 SOUTH, RANGE 19 EAST, ALACHUA COUNTY, FLORIDA; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF LOT 29 OF DRY CREEK ACCORDING TO PLAT BOOK "J", PAGE 23 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, AND RUN THENCE NORTH 87°03'46" EAST, ALONG THE NORTH BOUNDARY OF SAID DRY CREEK 810.65 FEET; THENCE SOUTH 77°35'00" EAST, ALONG SAID NORTH BOUNDARY 86.92 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE SOUTH 77°35'00" EAST, ALONG SAID NORTH BOUNDARY 100.48 FEET; THENCE NORTH 12°25'50" EAST, 837.61 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY NO. 441, SAID POINT LYING ON THE ARC OF A CURVE CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 5579.58 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE AND ALONG SAID RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 01°05'12", AN ARC DISTANCE OF 105.82 FEET, SAID ARC BEING SUBTENDED BY A CHORD HAVING A BEARING AND DISTANCE OF NORTH 59°17'53" WEST, 105.82 FEET; THENCE SOUTH 12°25'50" WEST, 870.81 FEET TO THE POINT OF BEGINNING.

PARCEL C-3:

A PORTION OF SECTIONS 27 AND 28, TOWNSHIP 8 SOUTH, RANGE 19 EAST, ALACHUA COUNTY, FLORIDA; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF LOT 29 OF DRY CREEK ACCORDING TO PLAT BOOK "J", PAGE 23 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, AND RUN THENCE NORTH 87°03'46" EAST, ALONG THE NORTH BOUNDARY OF SAID DRY CREEK 775.35 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 87°03'46" EAST, ALONG SAID NORTH BOUNDARY 35.30 FEET; THENCE SOUTH 77°35'00" EAST, ALONG SAID NORTH BOUNDARY 86.92 FEET; THENCE NORTH 12°25'50" EAST, 870.81 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY NO. 441, SAID POINT LYING ON THE ARC OF A CURVE CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 5579.58 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE AND ALONG SAID RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 01°17'58", AN ARC DISTANCE OF 126.54 FEET, SAID ARC BEING SUBTENDED BY A CHORD HAVING A BEARING AND DISTANCE OF NORTH 60°29'28" WEST, 126.54 FEET; THENCE SOUTH 12°25'50" WEST, 917.35 FEET TO THE POINT OF BEGINNING.

PARCEL D-4:

A PORTION OF SECTIONS 27 AND 28, TOWNSHIP 8 SOUTH, RANGE 19 EAST, ALACHUA COUNTY, FLORIDA; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF LOT 29 OF DRY CREEK ACCORDING TO PLAT BOOK "J", PAGE 23 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, AND RUN THENCE NORTH 87°03'46" EAST, ALONG THE NORTH BOUNDARY OF SAID DRY CREEK 650.30 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 87°03'46" EAST, ALONG SAID NORTH BOUNDARY 125.05 FEET; THENCE NORTH 12°25'50" EAST, 917.35 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY NO. 441, SAID POINT LYING ON THE ARC OF A CURVE CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 5579.58 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE AND ALONG SAID RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 01°17'12", AN ARC DISTANCE OF 125.31 FEET, SAID ARC BEING SUBTENDED BY A CHORD HAVING A BEARING AND DISTANCE OF NORTH 61°47'03" WEST, 125.31 FEET; THENCE SOUTH 12°25'50" WEST, 984.58 FEET TO THE POINT OF BEGINNING.

PARCEL E-5:

A PORTION OF SECTION 28, TOWNSHIP 8 SOUTH, RANGE 19 EAST, ALACHUA COUNTY, FLORIDA; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF LOT 29 OF DRY CREEK ACCORDING TO PLAT BOOK "J", PAGE 23 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, AND RUN THENCE NORTH 87°03'46" EAST, ALONG THE NORTH BOUNDARY OF SAID DRY CREEK 540.67 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 87°03'46" EAST, ALONG SAID NORTH BOUNDARY 109.63 FEET; THENCE NORTH 12°25'50" EAST, 984.58 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY NO. 441, SAID POINT LYING ON THE ARC OF A CURVE CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 5579.58 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE AND ALONG SAID SOUTH RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 01°07'18", AN ARC DISTANCE OF 109.23 FEET, SAID ARC BEING SUBTENDED BY A CHORD HAVING A BEARING AND DISTANCE OF NORTH 62°59'18" WEST, 109.23 FEET; THENCE SOUTH 12°25'50" WEST, 1041.13 FEET TO THE POINT OF BEGINNING.

PARCEL F-6:

A PORTION OF SECTION 28, TOWNSHIP 8 SOUTH, RANGE 19 EAST, ALACHUA COUNTY, FLORIDA; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF LOT 29 OF DRY CREEK ACCORDING TO PLAT BOOK "J", PAGE 23 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, AND RUN THENCE NORTH 87°03'46" EAST, ALONG THE NORTH BOUNDARY OF SAID DRY CREEK 407.58 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 87°03'46" EAST, ALONG SAID NORTH BOUNDARY 133.09 FEET; THENCE NORTH 12°25'50" EAST, 1041.13 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY NO. 441, SAID POINT LYING ON THE ARC OF A CURVE CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 5579.58 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE AND ALONG SAID SOUTH RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 01°21'16", AN ARC DISTANCE OF 131.90 FEET, SAID ARC BEING SUBTENDED BY A CHORD HAVING A BEARING AND DISTANCE OF NORTH 64°13'35" WEST, 131.90 FEET; THENCE SOUTH 12°25'50" WEST, 1106.84 FEET TO THE POINT OF BEGINNING.

PARCEL G-7:

A PORTION OF SECTION 28, TOWNSHIP 8 SOUTH, RANGE 19 EAST, ALACHUA COUNTY, FLORIDA; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF LOT 29 OF DRY CREEK ACCORDING TO PLAT BOOK "J", PAGE 23 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, AND RUN THENCE NORTH 87°03'46" EAST, ALONG THE NORTH BOUNDARY OF SAID DRY CREEK 327.66 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 87°03'46" EAST, ALONG SAID NORTH BOUNDARY 79.92 FEET; THENCE NORTH 12°25'50" EAST, 1106.84 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY NO. 441, SAID POINT LYING ON THE ARC OF A CURVE CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 5579.58 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE AND ALONG SAID SOUTH RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 00°48'35", AN ARC DISTANCE OF 78.86 FEET, SAID ARC BEING SUBTENDED BY A CHORD HAVING A BEARING AND DISTANCE OF NORTH 65°18'31" WEST, 78.86 FEET; THENCE SOUTH 12°25'50" WEST, 1144.77 FEET TO THE POINT OF BEGINNING.

PARCEL H-8:

A PORTION OF SECTION 28, TOWNSHIP 8 SOUTH, RANGE 19 EAST, ALACHUA COUNTY, FLORIDA; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF LOT 29 OF DRY CREEK ACCORDING TO PLAT BOOK "J", PAGE 23 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, AND RUN THENCE NORTH 87°03'46" EAST, ALONG THE NORTH BOUNDARY OF SAID DRY CREEK 156.94 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 87°03'46" EAST, ALONG SAID NORTH BOUNDARY 170.72 FEET; THENCE NORTH 12°25'50" EAST, 1144.77 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY NO. 441, SAID POINT LYING ON THE ARC OF A CURVE CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 5579.58 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE AND ALONG SAID SOUTH RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 01°43'19", AN ARC DISTANCE OF 167.70 FEET, SAID ARC BEING SUBTENDED BY A CHORD HAVING A BEARING AND DISTANCE OF NORTH 66°34'28" WEST, 167.69 FEET; THENCE SOUTH 12°25'50" WEST, 1221.99 FEET TO THE POINT OF BEGINNING.

PARCEL I-9:

A PORTION OF SECTION 28, TOWNSHIP 8 SOUTH, RANGE 19 EAST, ALACHUA COUNTY, FLORIDA; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF LOT 29 OF DRY CREEK ACCORDING TO PLAT BOOK "J", PAGE 23 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, AND RUN THENCE NORTH 87°03'46" EAST, ALONG THE NORTH BOUNDARY OF SAID DRY CREEK 56.28 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 87°03'46" EAST, ALONG SAID NORTH BOUNDARY 100.66 FEET; THENCE NORTH 12°25'50" EAST, 1221.99 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY NO. 441, SAID POINT LYING ON THE ARC OF A CURVE CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 5579.58 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE AND ALONG SAID SOUTH RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 01°00'39", AN ARC DISTANCE OF 98.45 FEET, SAID ARC BEING SUBTENDED BY A CHORD HAVING A BEARING AND DISTANCE OF NORTH 67°56'27" WEST, 98.45 FEET; THENCE SOUTH 12°25'50" WEST, 1265.13 FEET TO A POINT OF BEGINNING.

PARCEL J-10:

A PORTION OF SECTION 28, TOWNSHIP 8 SOUTH, RANGE 19 EAST, ALACHUA COUNTY, FLORIDA; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE NORTHWEST CORNER OF LOT 29 OF DRY CREEK ACCORDING TO A PLAT RECORDED IN PLAT BOOK "J", PAGE 23 OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, AND RUN THENCE SOUTH 87°03'46" WEST, ALONG A WESTERLY EXTENSION OF THE NORTH BOUNDARY OF SAID DRY CREEK, A DISTANCE OF 5.06 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF TURKEY CREEK BOULEVARD, SAID POINT LYING ON THE ARC OF A CURVE CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 2400.00 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE AND ALONG SAID RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 10°02'05", AN ARC DISTANCE OF 420.33 FEET TO THE END OF SAID CURVE, SAID ARC BEING SUBTENDED BY A CHORD HAVING A BEARING AND DISTANCE OF NORTH 10°53'58" EAST, 419.79 FEET; THENCE NORTH 15°55'00" EAST, ALONG SAID RIGHT-OF-WAY LINE 275.00 FEET TO THE BEGINNING OF A CURVE CONCAVE NORTHWESTERLY AND HAVING A RADIUS OF 1500.00 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE AND ALONG SAID RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 09°55'00", AN ARC DISTANCE OF 259.62 FEET TO THE END OF SAID CURVE, SAID ARC BEING SUBTENDED BY A CHORD HAVING A BEARING AND DISTANCE OF NORTH 10°57'30" EAST, 259.29 FEET; THENCE NORTH 06°00'00" EAST, ALONG SAID RIGHT-OF-WAY LINE, 182.00 FEET TO THE BEGINNING OF A CURVE CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 750.00 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE AND ALONG SAID RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 12°13'17", AN ARC DISTANCE OF 159.98 FEET TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF U.S. HIGHWAY NO. 441, SAID POINT LYING ON THE ARC OF A CURVE CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 5579.58 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE AND ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 00°50'51", AN ARC DISTANCE OF 82.53 FEET, SAID ARC BEING SUBTENDED BY A CHORD HAVING A BEARING AND DISTANCE OF SOUTH 68°52'13" EAST, 82.53 FEET; THENCE SOUTH 12°25'50" WEST, 1265.13 FEET TO THE NORTH BOUNDARY OF SAID DRY CREEK; THENCE SOUTH 87°03'46" WEST, ALONG SAID NORTH BOUNDARY 56.28 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT ANY PORTION THEREOF LYING WITHIN THE PLAT OF CREEKSIDE VILLAS AT TURKEY CREEK, AS RECORDED IN PLAT BOOK 27, PAGE 7, OF THE PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA.

Parcel: 05900-004-001**Search Date: 6/20/2019 at 4:11:27 PM**

Taxpayer:	NATURAL VALLEY HARVEST LTD	Legal:	IN SEC 27 & 28 COM NW COR LOT 29 DRY CREEK PB J-23 N 87 DEG E 810.55 FT S 77 DEG E 187.40 FT TO POB S 77 DEG E 115.73 FT TO W R/W GRADED RD N 12 DEG E 796.73 FT TO US 441 NW ALONG R/W 122.73 FT S 12 DEG W 837.61 FT TO POB (LESS THAT PART OF CREEKSIDE VILLAS AT TURKEY CREEK PB 27 PG 7) OR <u>4663/1237</u>
Mailing:	632 TURKEY CREEK ALACHUA, FL 32615		
Location:			
Sec-Twn-Rng:	28-08-19		
Property Use:	01000 - VACANT COMM		
Tax Jurisdiction:	ALACHUA - 1700		
Area:	COMMERCIAL		
Subdivision:	N/A		

	Property	Land	Classified	Improvement	Total	Deferred	County	School	County	School	County	School
Year	Use	Value	Land Value	Value	Just Value	Value	Assessed	Assessed	Exempt	Exempt	Taxable	Taxable
2018	VACANT COMM	37900	0	0	37900	0	37900	37900	0	0	37900	37900
2017	Vacant Comm	37900	0	0	37900	0	37900	37900	0	0	37900	37900
2016	Vacant Comm	37900	0	0	37900	0	37900	37900	0	0	37900	37900
2015	Vacant Comm	37900	0	0	37900	0	37900	37900	0	0	37900	37900
2014	Vacant Comm	37900	0	0	37900	0	37900	37900	0	0	37900	37900

Land

Land Use	Land Use Desc	Zoning Type	Zoning Desc	Lots	Acres	Sq Feet
1000	VACANT COMMERCIAL	PUD	PUD	1	0.88	38332

Sales

Date	Price	Vac/Imp	Qualified	OR Book	OR Page	Instrument
2019-02-14	275000	Vac	05-Qualified, Multi Trans	4663	1237	MS
2005-10-05	164900	Vac	U-OLD SALE - UNQUALIFIED	3233	1253	DD
2000-04-14	100	Vac	U-OLD SALE - UNQUALIFIED	2288	2230	MS
1986-06-01	100	Vac	U-OLD SALE - UNQUALIFIED	1628	2511	WD

Parcel: 05900-004-002**Search Date: 6/20/2019 at 4:12:37 PM**

Taxpayer:	NATURAL VALLEY HARVEST LTD	Legal:	IN SEC 27 & 28 COM NW COR LOT 29 DRY CREEK PB J-23 N 87 DEG E 810.65 S 77 DEG E 86.92 FT TO POB S 77 DEG E 100.48 FT N 12 DEG E 837.61 FT TO US 441 N 59 DEG W 105.82 FT S 12 DEG W 870.81 FT TO POB (LESS THAT PART OF CREEKSIDE VILLAS AT TURKEY CREEK PB 27 PG 7) OR <u>4663/1237</u>
Mailing:	632 TURKEY CREEK ALACHUA, FL 32615		
Location:			
Sec-Twn-Rng:	28-08-19		
Property Use:	01000 - VACANT COMM		
Tax Jurisdiction:	ALACHUA - 1700		
Area:	COMMERCIAL		
Subdivision:	N/A		

	Property	Land	Classified	Improvement	Total	Deferred	County	School	County	School	County	School
Year	Use	Value	Land Value	Value	Just Value	Value	Assessed	Assessed	Exempt	Exempt	Taxable	Taxable
2018	VACANT COMM	31900	0	0	31900	0	31900	31900	0	0	31900	31900
2017	Vacant Comm	31900	0	0	31900	0	31900	31900	0	0	31900	31900
2016	Vacant Comm	31900	0	0	31900	0	31900	31900	0	0	31900	31900
2015	Vacant Comm	31900	0	0	31900	0	31900	31900	0	0	31900	31900
2014	Vacant Comm	31900	0	0	31900	0	31900	31900	0	0	31900	31900

Land

Land Use	Land Use Desc	Zoning Type	Zoning Desc	Lots	Acres	Sq Feet
1000	VACANT COMMERCIAL	PUD	PUD	1	0.74	32234.4

Sales

Date	Price	Vac/Imp	Qualified	OR Book	OR Page	Instrument
2019-02-14	275000	Vac	05-Qualified, Multi Trans	4663	1237	MS
2005-10-05	149700	Vac	U-OLD SALE - UNQUALIFIED	3233	1255	DD
2000-04-14	100	Vac	U-OLD SALE - UNQUALIFIED	2288	2234	MS
1986-08-01	100	Vac	U-OLD SALE - UNQUALIFIED	1633	680	WD

Parcel: 05900-004-003**Search Date: 6/20/2019 at 4:13:08 PM**

Taxpayer:	NATURAL VALLEY HARVEST LTD	Legal:	IN SEC 27 & 28 COM NW COR LOT 29 DRY CREEK PB J-23 N 87 DEG E 775.35 FT POB N 87 DEG E 35.30 FT S 77 DEG E 86.92 FT N 12 DEG E 870.81 FT TO US-441 N 60 DEG W 126.54 FT S 12 DEG W 917.35 FT POB (LESS THAT PART OF CREEKSIDE VILLAS AT TURKEY CREEK PB 27 PG 7) OR <u>4663/1237</u>
Mailing:	632 TURKEY CREEK ALACHUA, FL 32615		
Location:			
Sec-Twn-Rng:	28-08-19		
Property Use:	01000 - VACANT COMM		
Tax Jurisdiction:	ALACHUA - 1700		
Area:	COMMERCIAL		
Subdivision:	N/A		

	Property	Land	Classified	Improvement	Total	Deferred	County	School	County	School	County	School
Year	Use	Value	Land Value	Value	Just Value	Value	Assessed	Assessed	Exempt	Exempt	Taxable	Taxable
2018	VACANT COMM	38400	0	0	38400	0	38400	38400	0	0	38400	38400
2017	Vacant Comm	38400	0	0	38400	0	38400	38400	0	0	38400	38400
2016	Vacant Comm	38400	0	0	38400	0	38400	38400	0	0	38400	38400
2015	Vacant Comm	38400	0	0	38400	0	38400	38400	0	0	38400	38400
2014	Vacant Comm	38400	0	0	38400	0	38400	38400	0	0	38400	38400

Land

Land Use	Land Use Desc	Zoning Type	Zoning Desc	Lots	Acres	Sq Feet
1000	VACANT COMMERCIAL	PUD	PUD	1	0.89	38768.4

Sales

Date	Price	Vac/Imp	Qualified	OR Book	OR Page	Instrument
2019-02-14	275000	Vac	05-Qualified, Multi Trans	4663	1237	MS
2005-10-05	187700	Vac	U-OLD SALE - UNQUALIFIED	3233	1257	DD
2000-04-14	100	Vac	U-OLD SALE - UNQUALIFIED	2288	2238	MS
1986-09-01	279000	Vac	U-OLD SALE - UNQUALIFIED	1638	148	WD
1986-06-01	100	Vac	U-OLD SALE - UNQUALIFIED	1626	2080	WD

Parcel: 05900-004-004**Search Date: 6/20/2019 at 4:13:32 PM**

Taxpayer:	NATURAL VALLEY HARVEST LTD	Legal:	SIN SEC 27 & 28 COM NW COR LOT 29 DRY CREEK PB J-23 N 87 DEG E 650.30 FT POB N 87 DEG E 125.05 FT N 12 DEG E 917.35 FT TO US 441 N 61 DEG W 125.31 FT S 12 DEG W 984.58 FT POB (LESS THAT PART OF CREEKSIDE VILLAS AT TURKEY CREEK PB 27 PG 7) OR <u>4663/1237</u>
Mailing:	632 TURKEY CREEK ALACHUA, FL 32615		
Location:			
Sec-Twn-Rng:	28-08-19		
Property Use:	01000 - VACANT COMM		
Tax Jurisdiction:	ALACHUA - 1700		
Area:	COMMERCIAL		
Subdivision:	N/A		

	Property	Land	Classified	Improvement	Total	Deferred	County	School	County	School	County	School
Year	Use	Value	Land Value	Value	Just Value	Value	Assessed	Assessed	Exempt	Exempt	Taxable	Taxable
2018	VACANT COMM	39200	0	0	39200	0	39200	39200	0	0	39200	39200
2017	Vacant Comm	39200	0	0	39200	0	39200	39200	0	0	39200	39200
2016	Vacant Comm	39200	0	0	39200	0	39200	39200	0	0	39200	39200
2015	Vacant Comm	39200	0	0	39200	0	39200	39200	0	0	39200	39200
2014	Vacant Comm	39200	0	0	39200	0	39200	39200	0	0	39200	39200

Land

Land Use	Land Use Desc	Zoning Type	Zoning Desc	Lots	Acres	Sq Feet
1000	VACANT COMMERCIAL	PUD	PUD	1	0.91	39639.6

Sales

Date	Price	Vac/Imp	Qualified	OR Book	OR Page	Instrument
2019-02-14	275000	Vac	05-Qualified, Multi Trans	4663	1237	MS
2005-10-05	199900	Vac	U-OLD SALE - UNQUALIFIED	3233	1259	DD
2000-04-14	100	Vac	U-OLD SALE - UNQUALIFIED	2288	2242	MS
1986-06-01	100	Vac	U-OLD SALE - UNQUALIFIED	1626	2080	WD

Parcel: 05900-004-005**Search Date: 6/20/2019 at 4:13:57 PM**

Taxpayer:	NATURAL VALLEY HARVEST LTD	Legal:	IN SEC 27 & 28 COM NW COR LOT 29 DRY CREEK PB J-23 RUN N 87 DEG E 540.67 FT TO POB N 87 DEG E 109.63 FT N 12 DEG E 984.58 FT TO U S HWY 441 N 62 DEG W 109.23 FT S 12 DEG W 1041.13 FT TO POB (LESS THAT PART OF CREEKSIDE VILLAS AT TURKEY CREEK PB 27 PG 7) OR <u>4663/1237</u>
Mailing:	632 TURKEY CREEK ALACHUA, FL 32615		
Location:			
Sec-Twn-Rng:	28-08-19		
Property Use:	01000 - VACANT COMM		
Tax Jurisdiction:	ALACHUA - 1700		
Area:	COMMERCIAL		
Subdivision:	N/A		

	Property	Land	Classified	Improvement	Total	Deferred	County	School	County	School	County	School
Year	Use	Value	Land Value	Value	Just Value	Value	Assessed	Assessed	Exempt	Exempt	Taxable	Taxable
2018	VACANT COMM	31500	0	0	31500	0	31500	31500	0	0	31500	31500
2017	Vacant Comm	31500	0	0	31500	0	31500	31500	0	0	31500	31500
2016	Vacant Comm	31500	0	0	31500	0	31500	31500	0	0	31500	31500
2015	Vacant Comm	31500	0	0	31500	0	31500	31500	0	0	31500	31500
2014	Vacant Comm	31500	0	0	31500	0	31500	31500	0	0	31500	31500

Land

Land Use	Land Use Desc	Zoning Type	Zoning Desc	Lots	Acres	Sq Feet
1000	VACANT COMMERCIAL	PUD	PUD	1	0.73	31798.8

Sales

Date	Price	Vac/Imp	Qualified	OR Book	OR Page	Instrument
2019-02-14	275000	Vac	05-Qualified, Multi Trans	4663	1237	MS
2005-10-05	187000	Vac	U-OLD SALE - UNQUALIFIED	3233	1261	DD
2000-04-14	100	Vac	U-OLD SALE - UNQUALIFIED	2288	2246	MS
1986-12-01	277300	Vac	U-OLD SALE - UNQUALIFIED	1644	2588	MS

Parcel: 05900-004-006**Search Date: 6/20/2019 at 4:14:44 PM**

Taxpayer:	NATURAL VALLEY HARVEST LTD	Legal:	UNREC'D S/D LYING S US-441 BY CHANCE ENG & DENMAN PARCEL F-6
Mailing:	632 TURKEY CREEK ALACHUA, FL 32615		COM NW COR LOT 29 DRY CREEK E 407.58 FT POB E 133.09 FT N 12 DEG E
Location:			1041.13 FT TO S R/W US-441 NWLY ALG R/W 131.90 FT S 12 DEG W 1106.84
Sec-Twn-Rng:	28-08-19		POB (LESS THAT PART OF CREEKSIDE VILLAS AT TURKEY CREEK PB 27 PG
Property Use:	01000 - VACANT COMM		7) OR <u>4663/1237</u>
Tax Jurisdiction:	ALACHUA - 1700		
Area:	COMMERCIAL		
Subdivision:	N/A		

	Property	Land	Classified	Improvement	Total	Deferred	County	School	County	School	County	School
Year	Use	Value	Land Value	Value	Just Value	Value	Assessed	Assessed	Exempt	Exempt	Taxable	Taxable
2018	VACANT COMM	35800	0	0	35800	0	35800	35800	0	0	35800	35800
2017	Vacant Comm	35800	0	0	35800	0	35800	35800	0	0	35800	35800
2016	Vacant Comm	35800	0	0	35800	0	35800	35800	0	0	35800	35800
2015	Vacant Comm	35800	0	0	35800	0	35800	35800	0	0	35800	35800
2014	Vacant Comm	35800	0	0	35800	0	35800	35800	0	0	35800	35800

Land

Land Use	Land Use Desc	Zoning Type	Zoning Desc	Lots	Acres	Sq Feet
1000	VACANT COMMERCIAL	PUD	PUD	1	0.83	36154.8

Sales

Date	Price	Vac/Imp	Qualified	OR Book	OR Page	Instrument
2019-02-14	275000	Vac	05-Qualified, Multi Trans	4663	1237	MS
2005-10-05	240100	Vac	U-OLD SALE - UNQUALIFIED	3233	1263	DD
2000-04-14	100	Vac	U-OLD SALE - UNQUALIFIED	2288	2251	MS
1988-08-01	89900	No	U-OLD SALE - UNQUALIFIED	1707	1464	WD
1987-02-01	357000	Vac	U-OLD SALE - UNQUALIFIED	1651	2322	MS

Parcel: 05900-004-007**Search Date: 6/20/2019 at 4:16:03 PM**

Taxpayer:	NATURAL VALLEY HARVEST LTD	Legal:	UNRECD S/D S OF US-441 BY CHANCE ENG DENMAN PARCEL G-7 COM NW COR LOT 29 DRY CREEK E 327.66 FT POB E 79.92 FT N 12 DEG E 1106.84 FT TO S R/W US-441 NWLY ALG R/W 78.86 FT S 12 DEG W 1144.77 FT POB (LESS THAT PART OF CREEKSIDE VILLAS AT TURKEY CREEK PB 27 PG 7) OR <u>4663/1237</u>
Mailing:	632 TURKEY CREEK ALACHUA, FL 32615		
Location:			
Sec-Twn-Rng:	28-08-19		
Property Use:	01000 - VACANT COMM		
Tax Jurisdiction:	ALACHUA - 1700		
Area:	COMMERCIAL		
Subdivision:	N/A		

	Property	Land	Classified	Improvement	Total	Deferred	County	School	County	School	County	School
Year	Use	Value	Land Value	Value	Just Value	Value	Assessed	Assessed	Exempt	Exempt	Taxable	Taxable
2018	VACANT COMM	23700	0	0	23700	0	23700	23700	0	0	23700	23700
2017	Vacant Comm	23700	0	0	23700	0	23700	23700	0	0	23700	23700
2016	Vacant Comm	23700	0	0	23700	0	23700	23700	0	0	23700	23700
2015	Vacant Comm	23700	0	0	23700	0	23700	23700	0	0	23700	23700
2014	Vacant Comm	23700	0	0	23700	0	23700	23700	0	0	23700	23700

Land

Land Use	Land Use Desc	Zoning Type	Zoning Desc	Lots	Acres	Sq Feet
1000	VACANT COMMERCIAL	PUD	PUD	1	0.55	23958

Sales

Date	Price	Vac/Imp	Qualified	OR Book	OR Page	Instrument
2019-02-14	275000	Vac	05-Qualified, Multi Trans	4663	1237	MS
2005-10-05	151200	Vac	Q-OLD SALE - QUALIFIED	3233	1265	DD
2000-04-14	100	Vac	U-OLD SALE - UNQUALIFIED	2288	2255	MS
1987-03-01	224700	Vac	U-OLD SALE - UNQUALIFIED	1656	578	MS

Parcel: 05900-004-008**Search Date: 6/20/2019 at 4:16:26 PM**

Taxpayer:	NATURAL VALLEY HARVEST LTD	Legal:	UNREC'D S/D S US-441 BY CHANCE ENG & DENMAN COM NW COR LOT 29 DRY CREEK E 156.94 FT TO POB E 170.72 FT N 12 DEG E 1144.77 FT W ALG HWY 167.70 FT S 12 DEG W 1221.99 FT TO POB (LESS THAT PART OF CREEKSIDE VILLAS AT TURKEY CREEK PB 27 PG 7) OR <u>4663/1237</u>
Mailing:	632 TURKEY CREEK ALACHUA, FL 32615		
Location:			
Sec-Twn-Rng:	28-08-19		
Property Use:	01000 - VACANT COMM		
Tax Jurisdiction:	ALACHUA - 1700		
Area:	COMMERCIAL		
Subdivision:	N/A		

	Property	Land	Classified	Improvement	Total	Deferred	County	School	County	School	County	School
Year	Use	Value	Land Value	Value	Just Value	Value	Assessed	Assessed	Exempt	Exempt	Taxable	Taxable
2018	VACANT COMM	54800	0	0	54800	0	54800	54800	0	0	54800	54800
2017	Vacant Comm	54800	0	0	54800	0	54800	54800	0	0	54800	54800
2016	Vacant Comm	54800	0	0	54800	0	54800	54800	0	0	54800	54800
2015	Vacant Comm	54800	0	0	54800	0	54800	54800	0	0	54800	54800
2014	Vacant Comm	54800	0	0	54800	0	54800	54800	0	0	54800	54800

Land

Land Use	Land Use Desc	Zoning Type	Zoning Desc	Lots	Acres	Sq Feet
1000	VACANT COMMERCIAL	PUD	PUD	1	1.27	55321.2

Sales

Date	Price	Vac/Imp	Qualified	OR Book	OR Page	Instrument
2019-02-14	275000	Vac	05-Qualified, Multi Trans	4663	1237	MS
2005-10-05	339700	Vac	Q-OLD SALE - QUALIFIED	3233	1267	DD
2000-04-14	100	Vac	U-OLD SALE - UNQUALIFIED	2288	2259	MS
1987-06-01	504600	Vac	U-OLD SALE - UNQUALIFIED	1664	1021	MS

Parcel: 05900-004-009**Search Date: 6/20/2019 at 4:16:52 PM**

Taxpayer:	NATURAL VALLEY HARVEST LTD	Legal:	UNREC'D S/D BY CHANCE ENG & DENMAN PARCEL I-9 DESC AS COM NW COR LOT 29 DRY CREEK PB J-23 N 87 DEG E 56.28 FT POB N 87 DEG E 100.66 FT N 12 DEG E 1221.99 FT TO S R/W 441 NWLY ALG R/W 98.45 FT S 12 DEG W 1265.13 FT TO POB (LESS THAT PART OF CREEKSIDE VILLAS AT TURKEY CREEK PB 27 PG 7) OR <u>4663/1237</u>
Mailing:	632 TURKEY CREEK ALACHUA, FL 32615		
Location:			
Sec-Twn-Rng:	28-08-19		
Property Use:	01000 - VACANT COMM		
Tax Jurisdiction:	ALACHUA - 1700		
Area:	COMMERCIAL		
Subdivision:	N/A		

	Property	Land	Classified	Improvement	Total	Deferred	County	School	County	School	County	School
Year	Use	Value	Land Value	Value	Just Value	Value	Assessed	Assessed	Exempt	Exempt	Taxable	Taxable
2018	VACANT COMM	35800	0	0	35800	0	35800	35800	0	0	35800	35800
2017	Vacant Comm	35800	0	0	35800	0	35800	35800	0	0	35800	35800
2016	Vacant Comm	35800	0	0	35800	0	35800	35800	0	0	35800	35800
2015	Vacant Comm	35800	0	0	35800	0	35800	35800	0	0	35800	35800
2014	Vacant Comm	35800	0	0	35800	0	35800	35800	0	0	35800	35800

Land

Land Use	Land Use Desc	Zoning Type	Zoning Desc	Lots	Acres	Sq Feet
1000	VACANT COMMERCIAL	PUD	PUD	1	0.83	36154.8

Sales

Date	Price	Vac/Imp	Qualified	OR Book	OR Page	Instrument
2019-02-14	275000	Vac	05-Qualified, Multi Trans	4663	1237	MS
2005-10-05	210500	Vac	Q-OLD SALE - QUALIFIED	3233	1269	DD
2000-04-14	100	Vac	U-OLD SALE - UNQUALIFIED	2288	2263	MS
1987-07-01	312600	Vac	U-OLD SALE - UNQUALIFIED	1670	1288	MS

Parcel: 05900-004-010**Search Date: 6/20/2019 at 4:17:20 PM**

Taxpayer:	NATURAL VALLEY HARVEST LTD	Legal:	UNREC'D S/D BY CHANCE ENG & DENMAN PARCEL J-10 DESC AS COM NW COR LOT 29 DRY CREEK PB J-23 POB S 87 DEG W 5.06 FT TO E R/W TURKEY CREEK BLVD NELY ALG R/W 420.33 FT N 15 DEG E ALG R/W 275 FT ALG R/W 259.62 FT N 6 DEG E ALG R/W 182 FT NELY ALG R/W 159.98 FT TO S R/W 441 SELY ALG R/W 441 82.53 FT S 12 DEG W 1265.13 FT S 87 DEG W 56.28 FT TO POB (LESS THAT PART OF CREEKSIDE VILLAS AT TURKEY CREEK PB 27 PG 7) OR <u>4663/1237</u>
Mailing:	632 TURKEY CREEK ALACHUA, FL 32615		
Location:			
Sec-Twn-Rng:	28-08-19		
Property Use:	01000 - VACANT COMM		
Tax Jurisdiction:	ALACHUA - 1700		
Area:	COMMERCIAL		
Subdivision:	N/A		

	Property	Land	Classified	Improvement	Total	Deferred	County	School	County	School	County	School
Year	Use	Value	Land Value	Value	Just Value	Value	Assessed	Assessed	Exempt	Exempt	Taxable	Taxable
2018	VACANT COMM	26700	0	0	26700	0	26700	26700	0	0	26700	26700
2017	Vacant Comm	26700	0	0	26700	0	26700	26700	0	0	26700	26700
2016	Vacant Comm	26700	0	0	26700	0	26700	26700	0	0	26700	26700
2015	Vacant Comm	26700	0	0	26700	0	26700	26700	0	0	26700	26700
2014	Vacant Comm	26700	0	0	26700	0	26700	26700	0	0	26700	26700

Land

Land Use	Land Use Desc	Zoning Type	Zoning Desc	Lots	Acres	Sq Feet
1000	VACANT COMMERCIAL	PUD	PUD	1	0.62	27007.2

Sales

Date	Price	Vac/Imp	Qualified	OR Book	OR Page	Instrument
2019-02-14	275000	Vac	05-Qualified, Multi Trans	4663	1237	MS
2005-10-05	149700	Vac	Q-OLD SALE - QUALIFIED	3233	1271	DD
2000-04-14	100	Vac	U-OLD SALE - UNQUALIFIED	2288	2268	MS
1987-09-01	221200	Vac	U-OLD SALE - UNQUALIFIED	1674	2881	MS

ACCOUNT NUMBER	ESCROW CD	MILLAGE CODE
05900 004 001		1700

Unassigned Location RE

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

IN SEC 27 & 28 COM NW COR LOT 29 DRY
CREEK PB J-23 N
See Additional Legal on Tax Roll

AD VALOREM TAXES					
TAXING AUTHORITY	MILLAGE RATE	ASSESSED VALUE	EXEMPTION(S)	TAXABLE VALUE	TAXES LEVIED
BOARD OF COUNTY COMMISSIONERS					
CNTY GENERAL	8.2829	37,900	0	37,900	313.92
ALACHUA CNTY LIBRARY DISTRICT					
LIBRARY GENERAL	1.2303	37,900	0	37,900	46.63
SCHOOL BOARD OF ALACHUA COUNTY					
SCHL CAP34 PROJECT (S01)	1.5000	37,900	0	37,900	56.85
SCHL DISCRNRY & CN (S01)	0.7480	37,900	0	37,900	28.35
SCHL GENERAL	4.0160	37,900	0	37,900	152.21
SCHOOL VOTED (S01)	1.0000	37,900	0	37,900	37.90
SUWANNEE RIVER WATER MGT DIST	0.3948	37,900	0	37,900	14.96
17 CITY OF ALACHUA	5.3900	37,900	0	37,900	204.28
TOTAL MILLAGE					22.5620
AD VALOREM TAXES					\$855.10

WANT TO RECEIVE YOUR BILL ELECTRONICALLY NEXT YEAR? VISIT www.AlachuaCollector.com AND SIGN UP FOR E-BILLS!

PAY ONLINE WITH E-CHECK



SCAN TO PAY

PAY ONLY ONE AMOUNT.

NON-AD VALOREM ASSESSMENTS			
LEVYING AUTHORITY	UNIT	RATE	AMOUNT
C550 550 COUNTY FIRE SERVICES	1.000	Varies	83.34
NON-AD VALOREM ASSESSMENTS			\$83.34

COMBINED TAXES AND ASSESSMENTS \$938.44

If Paid By
Please Pay **Feb 28, 2019**
\$0.00

JOHN POWER, CFC
ALACHUA COUNTY TAX COLLECTOR

2018 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

1027039

PLEASE PAY IN U.S. FUNDS (NO POSTDATED CHECKS) TO JOHN POWER, TAX COLLECTOR • 5830 NW 34TH BLVD • GAINESVILLE, FL 32653-2115

ACCOUNT NUMBER	SITUS	MESSAGE
05900 004 001	Unassigned Location RE	

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

IF PAID BY	PLEASE PAY
☒ Feb 28, 2019	\$0.00
☐	
☐	
☐	
☐	

ACCOUNT NUMBER	ESCROW CD	MILLAGE CODE
05900 004 002		1700

APPLICABLE VALUES AND EXEMPTIONS BELOW

Unassigned Location RE

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

IN SEC 27 & 28 COM NW COR LOT 29 DRY
CREEK PB J-23 N
See Additional Legal on Tax Roll

AD VALOREM TAXES

TAXING AUTHORITY	MILLAGE RATE	ASSESSED VALUE	EXEMPTION(S)	TAXABLE VALUE	TAXES LEVIED
BOARD OF COUNTY COMMISSIONERS					
CNTY GENERAL	8.2829	31,900	0	31,900	264.22
ALACHUA CNTY LIBRARY DISTRICT					
LIBRARY GENERAL	1.2303	31,900	0	31,900	39.25
SCHOOL BOARD OF ALACHUA COUNTY					
SCHL CAP34 PROJECT (S01)	1.5000	31,900	0	31,900	47.85
SCHL DISCRNRY & CN (S01)	0.7480	31,900	0	31,900	23.86
SCHL GENERAL	4.0160	31,900	0	31,900	128.11
SCHOOL VOTED (S01)	1.0000	31,900	0	31,900	31.90
SUWANNEE RIVER WATER MGT DIST	0.3948	31,900	0	31,900	12.59
17 CITY OF ALACHUA	5.3900	31,900	0	31,900	171.94

TOTAL MILLAGE 22.5620

AD VALOREM TAXES

\$719.72

WANT TO RECEIVE YOUR BILL ELECTRONICALLY NEXT YEAR? VISIT www.AlachuaCollector.com AND SIGN UP FOR E-BILLS!

PAY ONLINE WITH E-CHECK



SCAN TO PAY

PAY ONLY ONE AMOUNT.

NON-AD VALOREM ASSESSMENTS

LEVYING AUTHORITY	UNIT	RATE	AMOUNT
C550 550 COUNTY FIRE SERVICES	1.000	Varies	83.34
NON-AD VALOREM ASSESSMENTS			\$83.34

COMBINED TAXES AND ASSESSMENTS \$803.06

If Paid By
Please Pay **Feb 28, 2019**
\$0.00

JOHN POWER, CFC
ALACHUA COUNTY TAX COLLECTOR

2018 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

1027040

PLEASE PAY IN U.S. FUNDS (NO POSTDATED CHECKS) TO JOHN POWER, TAX COLLECTOR • 5830 NW 34TH BLVD • GAINESVILLE, FL 32653-2115

ACCOUNT NUMBER	SITUS	MESSAGE
05900 004 002	Unassigned Location RE	

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

IF PAID BY **PLEASE PAY**

☐ **Feb 28, 2019** \$0.00

☐

☐

☐

☐

ACCOUNT NUMBER	ESCROW CD	MILLAGE CODE
05900 004 003		1700

APPLICABLE VALUES AND EXEMPTIONS BELOW

Unassigned Location RE

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

IN SEC 27 & 28 COM NW COR LOT 29 DRY
CREEK PB J-23 N
See Additional Legal on Tax Roll

AD VALOREM TAXES

TAXING AUTHORITY	MILLAGE RATE	ASSESSED VALUE	EXEMPTION(S)	TAXABLE VALUE	TAXES LEVIED
BOARD OF COUNTY COMMISSIONERS					
CNTY GENERAL	8.2829	38,400	0	38,400	318.06
ALACHUA CNTY LIBRARY DISTRICT					
LIBRARY GENERAL	1.2303	38,400	0	38,400	47.24
SCHOOL BOARD OF ALACHUA COUNTY					
SCHL CAP34 PROJECT (S01)	1.5000	38,400	0	38,400	57.60
SCHL DISCRNRY & CN (S01)	0.7480	38,400	0	38,400	28.72
SCHL GENERAL	4.0160	38,400	0	38,400	154.21
SCHOOL VOTED (S01)	1.0000	38,400	0	38,400	38.40
SUWANNEE RIVER WATER MGT DIST	0.3948	38,400	0	38,400	15.16
17 CITY OF ALACHUA	5.3900	38,400	0	38,400	206.98

TOTAL MILLAGE 22.5620

AD VALOREM TAXES

\$866.37

WANT TO RECEIVE YOUR BILL ELECTRONICALLY NEXT YEAR? VISIT www.AlachuaCollector.com AND SIGN UP FOR E-BILLS!

PAY ONLINE WITH E-CHECK



SCAN TO PAY

PAY ONLY ONE AMOUNT.

NON-AD VALOREM ASSESSMENTS

LEVYING AUTHORITY	UNIT	RATE	AMOUNT
C550 550 COUNTY FIRE SERVICES	1.000	Varies	83.34
NON-AD VALOREM ASSESSMENTS			\$83.34

COMBINED TAXES AND ASSESSMENTS \$949.71

If Paid By
Please Pay **Feb 28, 2019**
\$0.00

JOHN POWER, CFC
ALACHUA COUNTY TAX COLLECTOR

2018 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

1027041

PLEASE PAY IN U.S. FUNDS (NO POSTDATED CHECKS) TO JOHN POWER, TAX COLLECTOR • 5830 NW 34TH BLVD • GAINESVILLE, FL 32653-2115

ACCOUNT NUMBER	SITUS	MESSAGE
05900 004 003	Unassigned Location RE	

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

IF PAID BY

PLEASE PAY

☐ Feb 28, 2019	\$0.00
☐	
☐	
☐	
☐	

ACCOUNT NUMBER	ESCROW CD	MILLAGE CODE
05900 004 004		1700

Unassigned Location RE

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

SIN SEC 27 & 28 COM NW COR LOT 29 DRY
CREEK PB J-23 N
See Additional Legal on Tax Roll

AD VALOREM TAXES					
TAXING AUTHORITY	MILLAGE RATE	ASSESSED VALUE	EXEMPTION(S)	TAXABLE VALUE	TAXES LEVIED
BOARD OF COUNTY COMMISSIONERS					
CNTY GENERAL	8.2829	39,200	0	39,200	324.69
ALACHUA CNTY LIBRARY DISTRICT					
LIBRARY GENERAL	1.2303	39,200	0	39,200	48.23
SCHOOL BOARD OF ALACHUA COUNTY					
SCHL CAP34 PROJECT (S01)	1.5000	39,200	0	39,200	58.80
SCHL DISCRNRY & CN (S01)	0.7480	39,200	0	39,200	29.32
SCHL GENERAL	4.0160	39,200	0	39,200	157.43
SCHOOL VOTED (S01)	1.0000	39,200	0	39,200	39.20
SUWANNEE RIVER WATER MGT DIST	0.3948	39,200	0	39,200	15.48
17 CITY OF ALACHUA	5.3900	39,200	0	39,200	211.29
TOTAL MILLAGE					22.5620
AD VALOREM TAXES					\$884.44

WANT TO RECEIVE YOUR BILL ELECTRONICALLY NEXT YEAR? VISIT www.AlachuaCollector.com AND SIGN UP FOR E-BILLS!

PAY ONLINE WITH E-CHECK



SCAN TO PAY

PAY ONLY ONE AMOUNT.

NON-AD VALOREM ASSESSMENTS			
LEVYING AUTHORITY	UNIT	RATE	AMOUNT
C550 550 COUNTY FIRE SERVICES	1.000	Varies	83.34
NON-AD VALOREM ASSESSMENTS			\$83.34

COMBINED TAXES AND ASSESSMENTS \$967.78

If Paid By
Please Pay **Feb 28, 2019**
\$0.00

JOHN POWER, CFC
ALACHUA COUNTY TAX COLLECTOR

2018 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

1027042

PLEASE PAY IN U.S. FUNDS (NO POSTDATED CHECKS) TO JOHN POWER, TAX COLLECTOR • 5830 NW 34TH BLVD • GAINESVILLE, FL 32653-2115

ACCOUNT NUMBER	SITUS	MESSAGE
05900 004 004	Unassigned Location RE	

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

IF PAID BY	PLEASE PAY
☒ Feb 28, 2019	\$0.00
☐	
☐	
☐	
☐	

ACCOUNT NUMBER	ESCROW CD	MILLAGE CODE
05900 004 005		1700

APPLICABLE VALUES AND EXEMPTIONS BELOW

Unassigned Location RE

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

IN SEC 27 & 28 COM NW COR LOT 29 DRY
CREEK PB J-23 RU
See Additional Legal on Tax Roll

AD VALOREM TAXES

TAXING AUTHORITY	MILLAGE RATE	ASSESSED VALUE	EXEMPTION(S)	TAXABLE VALUE	TAXES LEVIED
BOARD OF COUNTY COMMISSIONERS					
CNTY GENERAL	8.2829	31,500	0	31,500	260.91
ALACHUA CNTY LIBRARY DISTRICT					
LIBRARY GENERAL	1.2303	31,500	0	31,500	38.75
SCHOOL BOARD OF ALACHUA COUNTY					
SCHL CAP34 PROJECT (S01)	1.5000	31,500	0	31,500	47.25
SCHL DISCRNRY & CN (S01)	0.7480	31,500	0	31,500	23.56
SCHL GENERAL	4.0160	31,500	0	31,500	126.50
SCHOOL VOTED (S01)	1.0000	31,500	0	31,500	31.50
SUWANNEE RIVER WATER MGT DIST	0.3948	31,500	0	31,500	12.44
17 CITY OF ALACHUA	5.3900	31,500	0	31,500	169.79

TOTAL MILLAGE 22.5620

AD VALOREM TAXES

\$710.70

WANT TO RECEIVE YOUR BILL ELECTRONICALLY NEXT YEAR? VISIT www.AlachuaCollector.com AND SIGN UP FOR E-BILLS!

PAY ONLINE WITH E-CHECK



SCAN TO PAY

PAY ONLY ONE AMOUNT.

NON-AD VALOREM ASSESSMENTS

LEVYING AUTHORITY	UNIT	RATE	AMOUNT
C550 550 COUNTY FIRE SERVICES	1.000	Varies	83.34
NON-AD VALOREM ASSESSMENTS			\$83.34

COMBINED TAXES AND ASSESSMENTS \$794.04

If Paid By Please Pay Feb 28, 2019 \$0.00

JOHN POWER, CFC
ALACHUA COUNTY TAX COLLECTOR

2018 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

1027043

PLEASE PAY IN U.S. FUNDS (NO POSTDATED CHECKS) TO JOHN POWER, TAX COLLECTOR • 5830 NW 34TH BLVD • GAINESVILLE, FL 32653-2115

ACCOUNT NUMBER	SITUS	MESSAGE
05900 004 005	Unassigned Location RE	

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

IF PAID BY PLEASE PAY

☒	Feb 28, 2019	\$0.00
☐		
☐		
☐		
☐		

ACCOUNT NUMBER	ESCROW CD	MILLAGE CODE
05900 004 006		1700

Unassigned Location RE

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

UNREC'D S/D LYING S US-441 BY CHANCE
ENG & DENMAN PAR
See Additional Legal on Tax Roll

AD VALOREM TAXES					
TAXING AUTHORITY	MILLAGE RATE	ASSESSED VALUE	EXEMPTION(S)	TAXABLE VALUE	TAXES LEVIED
BOARD OF COUNTY COMMISSIONERS					
CNTY GENERAL	8.2829	35,800	0	35,800	296.53
ALACHUA CNTY LIBRARY DISTRICT					
LIBRARY GENERAL	1.2303	35,800	0	35,800	44.04
SCHOOL BOARD OF ALACHUA COUNTY					
SCHL CAP34 PROJECT (S01)	1.5000	35,800	0	35,800	53.70
SCHL DISCRNRY & CN (S01)	0.7480	35,800	0	35,800	26.78
SCHL GENERAL	4.0160	35,800	0	35,800	143.77
SCHOOL VOTED (S01)	1.0000	35,800	0	35,800	35.80
SUWANNEE RIVER WATER MGT DIST	0.3948	35,800	0	35,800	14.13
17 CITY OF ALACHUA	5.3900	35,800	0	35,800	192.96
TOTAL MILLAGE					22.5620
AD VALOREM TAXES					\$807.71

WANT TO RECEIVE YOUR BILL ELECTRONICALLY NEXT YEAR? VISIT www.AlachuaCollector.com AND SIGN UP FOR E-BILLS!

PAY ONLINE WITH E-CHECK



SCAN TO PAY

PAY ONLY ONE AMOUNT.

NON-AD VALOREM ASSESSMENTS			
LEVYING AUTHORITY	UNIT	RATE	AMOUNT
C550 550 COUNTY FIRE SERVICES	1.000	Varies	83.34
NON-AD VALOREM ASSESSMENTS			\$83.34

COMBINED TAXES AND ASSESSMENTS \$891.05

If Paid By
Please Pay **Feb 28, 2019**
\$0.00

JOHN POWER, CFC
ALACHUA COUNTY TAX COLLECTOR

2018 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

1027044

PLEASE PAY IN U.S. FUNDS (NO POSTDATED CHECKS) TO JOHN POWER, TAX COLLECTOR • 5830 NW 34TH BLVD • GAINESVILLE, FL 32653-2115

ACCOUNT NUMBER	SITUS	MESSAGE
05900 004 006	Unassigned Location RE	

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

IF PAID BY	PLEASE PAY
☒ Feb 28, 2019	\$0.00
☐	
☐	
☐	
☐	

ACCOUNT NUMBER	ESCROW CD	MILLAGE CODE
05900 004 007		1700

APPLICABLE VALUES AND EXEMPTIONS BELOW

Unassigned Location RE

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

UNRECD S/D S OF US-441 BY CHANCE ENG
DENMAN PARCEL G-
See Additional Legal on Tax Roll

AD VALOREM TAXES

TAXING AUTHORITY	MILLAGE RATE	ASSESSED VALUE	EXEMPTION(S)	TAXABLE VALUE	TAXES LEVIED
BOARD OF COUNTY COMMISSIONERS					
CNTY GENERAL	8.2829	23,700	0	23,700	196.30
ALACHUA CNTY LIBRARY DISTRICT					
LIBRARY GENERAL	1.2303	23,700	0	23,700	29.16
SCHOOL BOARD OF ALACHUA COUNTY					
SCHL CAP34 PROJECT (S01)	1.5000	23,700	0	23,700	35.55
SCHL DISCRNRY & CN (S01)	0.7480	23,700	0	23,700	17.73
SCHL GENERAL	4.0160	23,700	0	23,700	95.18
SCHOOL VOTED (S01)	1.0000	23,700	0	23,700	23.70
SUWANNEE RIVER WATER MGT DIST	0.3948	23,700	0	23,700	9.36
17 CITY OF ALACHUA	5.3900	23,700	0	23,700	127.74

TOTAL MILLAGE 22.5620

AD VALOREM TAXES

\$534.72

WANT TO RECEIVE YOUR BILL ELECTRONICALLY NEXT YEAR? VISIT www.AlachuaCollector.com AND SIGN UP FOR E-BILLS!

PAY ONLINE WITH E-CHECK



SCAN TO PAY

PAY ONLY ONE AMOUNT.

NON-AD VALOREM ASSESSMENTS

LEVYING AUTHORITY	UNIT	RATE	AMOUNT
C550 550 COUNTY FIRE SERVICES	1.000	Varies	83.34
NON-AD VALOREM ASSESSMENTS			\$83.34

COMBINED TAXES AND ASSESSMENTS \$618.06

If Paid By Please Pay **Feb 28, 2019**
\$0.00

JOHN POWER, CFC
ALACHUA COUNTY TAX COLLECTOR

2018 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

1027045

PLEASE PAY IN U.S. FUNDS (NO POSTDATED CHECKS) TO JOHN POWER, TAX COLLECTOR • 5830 NW 34TH BLVD • GAINESVILLE, FL 32653-2115

ACCOUNT NUMBER	SITUS	MESSAGE
05900 004 007	Unassigned Location RE	

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

IF PAID BY **PLEASE PAY**
☐ **Feb 28, 2019** **\$0.00**

☐
☐
☐
☐
☐

ACCOUNT NUMBER	ESCROW CD	MILLAGE CODE
05900 004 008		1700

APPLICABLE VALUES AND EXEMPTIONS BELOW

Unassigned Location RE

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

UNREC'D S/D S US-441 BY CHANCE ENG &
DENMAN COM NW CO
See Additional Legal on Tax Roll

AD VALOREM TAXES

TAXING AUTHORITY	MILLAGE RATE	ASSESSED VALUE	EXEMPTION(S)	TAXABLE VALUE	TAXES LEVIED
BOARD OF COUNTY COMMISSIONERS					
CNTY GENERAL	8.2829	54,800	0	54,800	453.90
ALACHUA CNTY LIBRARY DISTRICT					
LIBRARY GENERAL	1.2303	54,800	0	54,800	67.42
SCHOOL BOARD OF ALACHUA COUNTY					
SCHL CAP34 PROJECT (S01)	1.5000	54,800	0	54,800	82.20
SCHL DISCRNRY & CN (S01)	0.7480	54,800	0	54,800	40.99
SCHL GENERAL	4.0160	54,800	0	54,800	220.08
SCHOOL VOTED (S01)	1.0000	54,800	0	54,800	54.80
SUWANNEE RIVER WATER MGT DIST	0.3948	54,800	0	54,800	21.64
17 CITY OF ALACHUA	5.3900	54,800	0	54,800	295.37

TOTAL MILLAGE 22.5620

AD VALOREM TAXES

\$1,236.40

WANT TO RECEIVE YOUR BILL ELECTRONICALLY NEXT YEAR? VISIT www.AlachuaCollector.com AND SIGN UP FOR E-BILLS!

PAY ONLINE WITH E-CHECK



SCAN TO PAY

PAY ONLY ONE AMOUNT.

NON-AD VALOREM ASSESSMENTS

LEVYING AUTHORITY	UNIT	RATE	AMOUNT
C550 550 COUNTY FIRE SERVICES	1.000	Varies	83.34
NON-AD VALOREM ASSESSMENTS			\$83.34

COMBINED TAXES AND ASSESSMENTS \$1,319.74

If Paid By
Please Pay **Feb 28, 2019**
\$0.00

JOHN POWER, CFC
ALACHUA COUNTY TAX COLLECTOR

2018 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

1027046

PLEASE PAY IN U.S. FUNDS (NO POSTDATED CHECKS) TO JOHN POWER, TAX COLLECTOR • 5830 NW 34TH BLVD • GAINESVILLE, FL 32653-2115

ACCOUNT NUMBER	SITUS	MESSAGE
05900 004 008	Unassigned Location RE	

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

IF PAID BY **PLEASE PAY**

☐ Feb 28, 2019	\$0.00
☐	
☐	
☐	
☐	

ACCOUNT NUMBER	ESCROW CD	MILLAGE CODE
05900 004 009		1700

APPLICABLE VALUES AND EXEMPTIONS BELOW

Unassigned Location RE

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

UNREC'D S/D BY CHANCE ENG & DENMAN
PARCEL I-9 DESC AS
See Additional Legal on Tax Roll

AD VALOREM TAXES

TAXING AUTHORITY	MILLAGE RATE	ASSESSED VALUE	EXEMPTION(S)	TAXABLE VALUE	TAXES LEVIED
BOARD OF COUNTY COMMISSIONERS					
CNTY GENERAL	8.2829	35,800	0	35,800	296.53
ALACHUA CNTY LIBRARY DISTRICT					
LIBRARY GENERAL	1.2303	35,800	0	35,800	44.04
SCHOOL BOARD OF ALACHUA COUNTY					
SCHL CAP34 PROJECT (S01)	1.5000	35,800	0	35,800	53.70
SCHL DISCRNRY & CN (S01)	0.7480	35,800	0	35,800	26.78
SCHL GENERAL	4.0160	35,800	0	35,800	143.77
SCHOOL VOTED (S01)	1.0000	35,800	0	35,800	35.80
SUWANNEE RIVER WATER MGT DIST	0.3948	35,800	0	35,800	14.13
17 CITY OF ALACHUA	5.3900	35,800	0	35,800	192.96

TOTAL MILLAGE 22.5620

AD VALOREM TAXES

\$807.71

WANT TO RECEIVE YOUR BILL ELECTRONICALLY NEXT YEAR? VISIT www.AlachuaCollector.com AND SIGN UP FOR E-BILLS!

PAY ONLINE WITH E-CHECK



SCAN TO PAY

PAY ONLY ONE AMOUNT.

NON-AD VALOREM ASSESSMENTS

LEVYING AUTHORITY	UNIT	RATE	AMOUNT
C550 550 COUNTY FIRE SERVICES	1.000	Varies	83.34
NON-AD VALOREM ASSESSMENTS			\$83.34

COMBINED TAXES AND ASSESSMENTS \$891.05

If Paid By Please Pay Feb 28, 2019 \$0.00

JOHN POWER, CFC
ALACHUA COUNTY TAX COLLECTOR

2018 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

1027047

PLEASE PAY IN U.S. FUNDS (NO POSTDATED CHECKS) TO JOHN POWER, TAX COLLECTOR • 5830 NW 34TH BLVD • GAINESVILLE, FL 32653-2115

ACCOUNT NUMBER	SITUS	MESSAGE
05900 004 009	Unassigned Location RE	

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

IF PAID BY PLEASE PAY

☐ Feb 28, 2019	\$0.00
☐	
☐	
☐	
☐	

ACCOUNT NUMBER	ESCROW CD	MILLAGE CODE
05900 004 010		1700

APPLICABLE VALUES AND EXEMPTIONS BELOW

Unassigned Location RE

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

UNREC'D S/D BY CHANCE ENG & DENMAN
PARCEL J-10 DESC A
See Additional Legal on Tax Roll

AD VALOREM TAXES

TAXING AUTHORITY	MILLAGE RATE	ASSESSED VALUE	EXEMPTION(S)	TAXABLE VALUE	TAXES LEVIED
BOARD OF COUNTY COMMISSIONERS					
CNTY GENERAL	8.2829	26,700	0	26,700	221.15
ALACHUA CNTY LIBRARY DISTRICT					
LIBRARY GENERAL	1.2303	26,700	0	26,700	32.85
SCHOOL BOARD OF ALACHUA COUNTY					
SCHL CAP34 PROJECT (S01)	1.5000	26,700	0	26,700	40.05
SCHL DISCRNRY & CN (S01)	0.7480	26,700	0	26,700	19.97
SCHL GENERAL	4.0160	26,700	0	26,700	107.23
SCHOOL VOTED (S01)	1.0000	26,700	0	26,700	26.70
SUWANNEE RIVER WATER MGT DIST	0.3948	26,700	0	26,700	10.54
17 CITY OF ALACHUA	5.3900	26,700	0	26,700	143.91

TOTAL MILLAGE 22.5620

AD VALOREM TAXES

\$602.40

WANT TO RECEIVE YOUR BILL ELECTRONICALLY NEXT YEAR? VISIT www.AlachuaCollector.com AND SIGN UP FOR E-BILLS!

PAY ONLINE WITH E-CHECK



SCAN TO PAY

PAY ONLY ONE AMOUNT.

NON-AD VALOREM ASSESSMENTS

LEVYING AUTHORITY	UNIT	RATE	AMOUNT
C550 550 COUNTY FIRE SERVICES	1.000	Varies	83.34
NON-AD VALOREM ASSESSMENTS			\$83.34

COMBINED TAXES AND ASSESSMENTS \$685.74

If Paid By
Please Pay **Feb 28, 2019**
\$0.00

JOHN POWER, CFC
ALACHUA COUNTY TAX COLLECTOR

2018 PAID REAL ESTATE
NOTICE OF AD VALOREM TAXES AND NON-AD VALOREM ASSESSMENTS

1027048

PLEASE PAY IN U.S. FUNDS (NO POSTDATED CHECKS) TO JOHN POWER, TAX COLLECTOR • 5830 NW 34TH BLVD • GAINESVILLE, FL 32653-2115

ACCOUNT NUMBER	SITUS	MESSAGE
05900 004 010	Unassigned Location RE	

CFJ PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

IF PAID BY

PLEASE PAY

☐ Feb 28, 2019	\$0.00
☐	
☐	
☐	
☐	

DATE: June 27, 2019

PROJECT NO: 18-0431

DESCRIPTION FOR: TURKEY CREEK GOLF PLAZA

A PARCEL OF LAND LYING IN SECTIONS 27 & 28, TOWNSHIP 8 SOUTH, RANGE 19 EAST, CITY OF ALACHUA, ALACHUA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A 4"x4" CONCRETE MONUMENT (C&E INC. LB 5075) AT THE NORTHWEST CORNER OF DRY CREEK, AS RECORDED IN PLAT BOOK 'J', PAGE 23, PUBLIC RECORDS OF ALACHUA COUNTY, FLORIDA, SAID MONUMENT BEING ON EASTERLY LINE OF TURKEY CREEK BOULEVARD, AS RECORDED IN OFFICIAL RECORDS BOOK 1116, PAGE 479, OF SAID PUBLIC RECORDS, AND BEING ON A CURVE CONCAVE EASTERLY, HAVING A RADIUS OF 2395.00 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE AND ALONG THE SAID EASTERLY LINE, AN ARC DISTANCE OF 418.27 FEET, THROUGH AN ARC ANGLE OF 10°00'23", SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF NORTH 10°54'58" EAST, 417.74 FEET TO A 4"x4" CONCRETE MONUMENT (C&E INC. LB 5075) AT THE POINT OF TANGENCY; THENCE CONTINUE ALONG THE SAID EASTERLY LINE NORTH 15°55'10" EAST, A DISTANCE OF 275.00 FEET TO A 4"x4" CONCRETE MONUMENT (C&E INC. LB 5075) AND THE POINT OF CURVATURE OF A TANGENT CURVE, CONCAVE WESTERLY, HAVING A RADIUS OF 1505.00 FEET; THENCE NORTHERLY ALONG THE ARC OF SAID CURVE AND ALONG THE SAID EASTERLY LINE, AN ARC DISTANCE OF 204.56 FEET, THROUGH AN ARC ANGLE OF 07°47'16", SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF NORTH 12°01'32" EAST, 204.40 FEET TO A 4"x4" CONCRETE MONUMENT (C&E INC. LB 5075) AND THE POINT OF BEGINNING; THENCE DEPARTING SAID EASTERLY LINE SOUTH 70°29'10" EAST, A DISTANCE OF 53.18 FEET; THENCE SOUTH 80°58'19" EAST, A DISTANCE OF 38.89 FEET; THENCE NORTH 66°40'39" EAST, A DISTANCE OF 41.37 FEET; THENCE SOUTH 75°58'56" EAST, A DISTANCE OF 201.48 FEET; THENCE SOUTH 86°38'04" EAST, A DISTANCE OF 73.08 FEET; THENCE SOUTH 75°12'45" EAST, A DISTANCE OF 92.13 FEET; THENCE SOUTH 48°00'43" EAST, A DISTANCE OF 226.21 FEET; THENCE SOUTH 66°59'53" EAST, A DISTANCE OF 153.48 FEET; THENCE SOUTH 55°34'30" EAST, A DISTANCE OF 261.01 FEET TO THE EASTERLY LINE OF THE LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 2288, PAGE 2230 OF SAID PUBLIC RECORDS; THENCE NORTH 12°25'50" EAST, ALONG THE SAID EASTERLY LINE, A DISTANCE OF 332.40 FEET TO A 4"x4" CONCRETE MONUMENT (C&E INC. LB 5075) ON THE SOUTHERLY RIGHT OF WAY LINE OF U.S. HIGHWAY No. 441 (A 200' RIGHT OF WAY), SAID POINT AT THE NORTHEAST CORNER OF THE LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 2288, PAGE 2230 OF SAID PUBLIC RECORDS AND BEING ON A CURVE CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 5579.58 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE AND SOUTHERLY RIGHT OF WAY LINE, A DISTANCE OF 1143.57 FEET, THROUGH AN ARC ANGLE OF 11°44'35", SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF NORTH 63°22'57" WEST, 1141.57 FEET TO A 4"x4" CONCRETE MONUMENT (C&E INC. LB 5075) AT THE BEGINNING OF A CURVE CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 745.00 FEET; THENCE SOUTHERLY ALONG THE ARC OF SAID CURVE AND AFOREMENTIONED EASTERLY LINE OF TURKEY CREEK BOULEVARD, A DISTANCE OF 160.54 FEET, THROUGH AN ARC ANGLE OF 12°20'48", SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF SOUTH 12°10'34" WEST, 160.23 FEET TO A 4"x4" CONCRETE MONUMENT (C&E INC. LB 5075); THENCE SOUTH 06°00'10" WEST, ALONG SAID EASTERLY LINE, A DISTANCE OF 182.00 FEET TO A 4"x4" CONCRETE MONUMENT (C&E INC. LB 5075) AT THE BEGINNING OF A TANGENT CURVE CONCAVE WESTERLY, HAVING A RADIUS OF 1505.00 FEET; THENCE SOUTHERLY ALONG THE ARC OF SAID CURVE AND SAID EASTERLY LINE, A DISTANCE OF 55.92 FEET, THROUGH AN ARC ANGLE OF 2°07'45", SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF SOUTH 07°04'02" W, 55.92 FEET TO THE POINT OF BEGINNING.

CONTAINING 8.25 ACRES, MORE OR LESS.

October 17, 2019

Adam Hall, Planner
City of Alachua
PO Box 9
Alachua, Florida 32616

RE: The Golf Plaza

Dear Adam:

Please find attached four (4) copies of the following items for review and approval of the above-referenced project:

- Authorized Agent Affidavit;
- Site Plan Review Application;
- Alachua County Property Appraiser Information;
- Warranty Deed;
- Proof of Tax Payment;
- Legal Description;
- Traffic Impact Analysis;
- Neighborhood Workshop Materials;
- Alachua County Wetland Self Certification;
- Concurrency Impact Analysis;
- Analysis of Consistency with the CoA Comprehensive Plan;
- Signed and Sealed Fire Flow Calculations;
- Signed and Sealed Stormwater Report;
- Signed and Sealed Development Plan Sheets; and
- CD containing all PDFs.

We submit these items along with this letter as a means to address your comments from August 22, 2019.

City of Alachua Comments:

A. Comprehensive Plan Consistency

1. Future Land Use Element, Policy 1.3.d.1- See attached review comments from Brian Kanely, P.E., Sr. Traffic Engineer of Volkert, Inc.

New Comment: Please see revised comments from Brian Kanely in an email dated August 12, 2019.

- **Responses to Volkert comments below.**

B. Concurrency Impact Analysis

1. Traffic study appears to report a higher average daily trip count than provided in concurrency report. Please address.

New Comment: Traffic Study indicates daily trips of 1,948 and PM peak trips of 162. Concurrency report indicates daily trips of 748 and PM peak trips of 77. How is 1,948 being calculated in traffic study? Please clarify.

- **Concurrency report has been updated to match traffic study.**

2. If a drive-through restaurant is proposed, please include in trip calculations.

New Comment: Page 2 of response letter states no drive through restaurant is being proposed, yet plans show a drive through facility and floor plan identifies restaurant space. Please clarify. The proposed drive through facility must be removed or included in calculations for traffic generation as it generates significantly more trips than a shopping center use (ITE Lane Use Code 820 for shopping center is 37.75 daily trips per 1,000 square feet gfa. ITE Land Use Code 934 for drive through restaurant is 470.95 daily trips per 1,000 square feet gfa).

- **A 3,330 SF fast-food restaurant with drive-through window has been included in the traffic study. Refer to the attached revised traffic study for details.**

C. Development Standards

2. Section 6.2- Tree protection/landscape/xeriscape standards

- b. Trees provided for mitigation cannot also be used to meet the other landscape requirements. However, Section 6.2.1 (D)(4)(b) states that the up to 25% of the trees provided for landscaping may also be counted towards trees required for mitigation. Please denote on the landscape plans, which trees are being used to meet both landscaping and mitigation trees and those trees being provided solely to meet mitigation.

New Comment: Proposed landscaping plan shows 265 trees being provided to meet landscaping requirements (64 trees being provided for mitigation). The above referenced Section permits up to 25% of the trees required for landscaping to also count towards mitigation. In this instance the maximum amount of trees that could be counted towards both landscaping requirements and tree mitigation would be 66 trees (265 x 0.25). Proposed landscape plan shows 76 trees being used to meet both landscaping and mitigation. Ten additional trees for mitigation required to be provided on site or, If not feasible to provide onsite, a payment may be made under Section 6.2.1 (D) (7).

- **Additional trees for mitigation have been provided.**

- e. Per section 6.2.2 (H), the minimum amount of landscaping for any individual landscaping requirements is 20% of required amount.

New Comment: At least one canopy tree needs to be provided north of Building 3 to meet 20% minimum requirement (5 required, none provided)

- **The utilities located along the arterial frontage/northern perimeter prevent adequate horizontal and vertical clearance for canopy trees to be planted. See alternative compliance notes on sheet LS-1.**

- f. Perimeter buffers provided in accordance with section 6.2.2(D)(3) are not calculated or provided.

New Comment: Need further justification as to why required canopy trees for east perimeter buffer (NW 59th Terrace side) cannot be met (13 trees required, 11 provided = 2 additional canopy trees needed).

- **Additional canopy trees for perimeter buffer requirements have been provided.**

**New Comment: There appears to be some opportunities for providing additional canopy trees along arterial frontage. Additional landscape islands could be provided to accommodate additional canopy trees. Please provide or provide further explanation/justification as why canopy tree provision along arterial buffer cannot be provided.*

- **The utilities located along the arterial frontage/northern perimeter prevent adequate horizontal and vertical clearance for canopy trees to be planted. See alternative compliance note C on sheet LS-1.**

5. Section 6.6.3- Residential Protection Standards

- a. Address Residential Protection Standards found in Section 6.6.3.

New Comment: Response letter indicates this response was provided on photometric sheet. The response was not located. Please provide analysis of proposed site plan with regards to the following:

(1) Hours of operation and deliveries. Hours of operation and deliveries.

(2) Activities that generate potential adverse impacts. Location on a site of activities that generate potential adverse impacts on adjacent uses such as noise and glare.

(3) Placement of trash receptacles. Placement of trash receptacles.

(4) Loading and delivery area. Location of loading and delivery areas.

(5) Lighting. Lighting location, intensity, and hours of illuminations.

(6) Placement of outdoor machines and activities. Placement and illumination of outdoor vending machines, telephones, or similar outdoor services and activities.

(7) Additional landscaping and buffering to mitigate adverse impacts. Additional landscaping and buffering to mitigate adverse impacts.

(8) Height restrictions. Height restrictions to preserve light and privacy and views of significant features from public property and rights-of-way.

(9) Preservation of natural lighting and solar access. Preservation of natural lighting and solar access.

(10) Ventilation and control of odors and fumes. Ventilation and control of odors and fumes.

(11) Paving and parking areas. Paving to control dust.

(12) Placement or configuration of site design. Place or configuration of site design.

- **Residential protection standards have been addressed. Refer to cover sheet C0.00 for details.**

d. Please identify location and screening of any mechanical equipment such as HVAC equipment.

New Comment: Please verify through notation or architectural elevations that the HVAC equipment will be screened from view by parapet wall or other means.

- **All HVAC equipment will be roof top mounted and screened by the building's parapet wall.**

e. Delivery hours may be limited to mitigate aural impacts to residential areas.

New Comment: As a condition of site plan approval, deliveries by any vehicle with a Gross Vehicle Weight Rating greater than 22,000 pounds shall be limited to between 7:00am and 7:00pm on week days (Monday through Friday) and to be between 8:00am and 6:00pm on weekend days (Saturday and Sunday).

- **A note has been added to the plans regarding delivery hours. Refer to C0.00 for details.**

6. Section 6.8- Design Standards for Business Uses

b. Per Section 6.8.2 (A) (2) (b) (i), requires an offset at least ten feet in width and 2' in depth every thirty feet or that one of the offset alternatives have been provided. Please review span of Building 2 between control point 3 and 5 as it does not appear the minimum building massing requirement has been met. Unable to verify offset depths from elevations.

New Comment: Building massing requirements not met. There does not appear to be a projection or recess of at least two feet between points 3 and 5. This appears to be also possibly apply to Building 1. Consider utilizing offset alternative as provided in Section 6.8.2 (A) (2) (b) (ii), such as façade color change use of pilasters, or roofline change with material change.

- **The buildings with the 1'-0" step back shall use a design alternate for material/color sections at these locations.**

D. Fire Marshal/Public Services/Outside Engineering Review Comments

1. The applicant must address the comments by Brian Green, Alachua County Fire Rescue in an email dated July 17, 2019 (attached to this memo)

New Comment: Please see revised comments provided by Brian Green, Alachua County Fire Rescue in an email dated August 22, 2019 (attached).

- **Based on a phone call with Brian Green on September 5, 2019, Brian confirmed that the proposed fire hydrants were acceptable as shown on the plans.**

2. The applicant must address the comments provided by Jay Brown, P.E., in a letter dated July 19, 2019.
New Comment: Comment letter is forthcoming and is anticipated to be delivered by outside review no later than Friday, August 23, 2019. These comments will be forwarded when received by the City.
 - **Responses to Jay Brown comments below.**
3. The applicant must comply with all comments provided by the Public Services in a memo dated July 24, 2019 (attached to this memo).
New Comment: Please see revised comments from Public Services in a memo dated August 19, 2019 (attached).
 - **Responses to Public Services comments below.**
4. The applicant must address the comments provided by Brian Kanely, P.E., Sr. Traffic Engineer, of Volkert, Inc. in an email dated July 16, 2019 (attached to this memo).
New Comment: Please see revised comments from Brian Kanely in an email dated August 12, 2019 (attached).
 - **Responses to Brian Kanely comments below.**

City of Alachua Public Works Comments

Sheet 2.30

4. Cleanout: DWG C3.10 says that City of Alachua (CoA) maintenance ends at the existing SS lines, meaning CoA is not responsible for maintaining the laterals. Please confirm. If CoA is responsible for maintaining the laterals, the CoA would prefer that tracer wires be added to the laterals.
 - **CoA is not responsible for maintaining the laterals.**

As requested, a detail for a backflow preventer has been added to C2.30. Please confirm that the CoA is responsible to maintain the backflow preventers that are shown on several insets on C3.10. If so, the applicable CoA detail requires freeze protection. The backflow preventers as shown are 1-inch, which are susceptible to freezing. CoA's standard detail requires freeze protection for above ground pipe, but does not call out methods. Suggest that this issue be discussed at the next planning meeting, or call Tom Ridgik @ (352) 418-6162.

- **CoA is not responsible for maintaining backflow preventers. Note, freeze protection has been added.**
5. The revised detail now shown on C2.30 does not call out the trench width. Please add the dimensions called out on the above detail (2 feet 0 inches on either side of the pipe).
 - **Bedding and Trench Detail has been revised. Refer to sheet C2.30 for details.**

Volkert, Inc. Comments

1. In the August 8th response from CHW, page 4, it is stated that the Shopping Center land use provides the best trip generation given the unknown commercial land uses and CHW is not proposing a change to the trip generation. However, on the site plan, page C1.10, proposed building #2 has a menu board and pickup window and shows a line of cars queueing in line, typical for a fast food restaurant. The obvious conclusion is the site plan anticipates a fast food restaurant as a component of the project. I do not see how the responses to the traffic study can state some of the uses are unknown when a fast food restaurant is shown on the site plan. My recommendation is the City either require the traffic study to account for a typical fast food restaurant (6,000 SF) or the site plan be modified to omit the fast food facility. I do not see how the petitioner can have it both ways; show a fast food facility on the site plan but ignore it in the traffic study.
 - **As agreed to by Adam Hall, a 3,330 SF fast-food restaurant with drive-through window was included in the traffic study. This represent 1/3 of the size of the east retail building and is similar in size to other Alachua City restaurants that provide drive-thru windows.**

2. In the August 8th response, it is stated that FDOT has approved the right in/right out driveway just south of the end of the taper for the southbound acceleration lane on US 441 for traffic exiting Turkey Creek. I recommend that you request FDOT to send you a copy of their response/approval pertaining to the right in/right out driveway. This will provide the ability for you to respond to any citizen/commission inquiries concerning the justification/approval/safety of this driveway.

- **Acknowledged. FDOT access permit is currently in progress. A copy of the permit will be submitted once received.**

3. With respect to NW 59th Terrace, does a width of 22 feet meet city standards?

- **The City has made no mention of the width of NW 59th Terrace being substandard.**

4. On page 16 of the traffic study, the box for SBLTR is shaded red, indicating the deficiency occurs to added project trips. There are no SB added trips. The wrong box appears to be shaded red by mistake.

- **The SBLTR at the intersection of NW 59th Terrace and US HWY 441 shows to operate with a deficiency after project trips are added. This is due to the additional project trips staged in the median opening (eastbound u-turns, and westbound left turns), causing additional delay for southbound drivers.**

JBrown Professional Group Comments

Sheet C0.22

1. There are several trees located within the swale on the eastern right of way that are not called out to be removed. There is proposed earthwork located within this swale that goes directly under the trees. Revise the swales to avoid these trees or provide tree protection around these trees to separate it from the earthwork.

- **Trees in swale have been called out as to be removed, refer to C0.31 for details.**

Sheet C0.31

1. There are several trees located within the swale on the eastern right of way that are not called out to be removed. There is proposed earthwork located within this swale that goes directly under the trees. Revise the swales to avoid these trees or provide tree protection around these trees to separate it from the earthwork.

- **Trees in swale have been called out as to be removed.**

2. The 18" sweet gum located on the west end of this sheet is marked for deletion yet is surrounded by tree protection. Please revise.

- **Tree has been revised to be preserved.**

Sheet C1.10

1. The rip-rap for the basins is turned on, and the basins and pipes are turned off. Please revise to either show the basin outlines or turn off the rip-rap.

- **Rip rap has been turned off.**

2. Please provide a callout for the type of striping that has been shown to be included at the drive-thru.

- **Drive-thru striping has been called out as 6" white stripe.**

3. At the crosswalk, there is a label calling out a single 12" white cross walk stripe. Please revise this to state that there should be two (2) 12" white cross walk stripes and specify the separation between the two.

- **Crosswalk striping label (CW) has been updated in the legend to refer to two (2) 12" crosswalk stripes.**

Sheet C1.11

1. The rip-rap for the basins is turned on, and the basins and pipes are turned off. Please revise to either show the basin outlines or turn off the rip-rap.
 - **Rip rap has been turned off.**

Sheet C2.10

1. The flow arrows located around the drive-thru appear to be facing the wrong way based on the proposed grades. Please revise.
 - **Flow arrows have been revised.**
2. S-16 and S-17 appear on this sheet. Please add these structures into the Stormwater Structure Table.
 - **Structures have been added to the Stormwater Structure Table.**
3. There appears to be a low spot on the western corner of the dumpster pad. Please revise to avoid water pooling up in this location.
 - **Elevations have been revised for positive drainage.**
4. There appears to be two spot elevations directly on top of each other near the start of the sidewalk towards the wetland. Please revise for clarity.
 - **Spot grades have been revised for clarity.**
5. The swale on the northern right of way does not appear to allow for positive discharge. The invert of S-12 is 158.61. The swale rises to 160 just past the swale leading to pooling up of water in this mitered end.
 - **This pipe is located within the FDOT ROW. The project is currently permitting the driveway connection with FDOT, which includes the side drain. A copy of the permit will be submitted once received.**
6. Suggest showing trees on this sheet to show whether any of the grading will affect tree roots.
 - **Existing trees have been turned on for clarity.**

Sheet C2.11

1. Please provide a spot elevation on the south end of the dumpster pad to show how grading will work in this area.
 - **Spot elevation has been added to the dumpster pad to show positive drainage.**
2. Suggest showing trees on this sheet to show whether any of the grading will affect tree roots.
 - **Existing trees have been turned on for clarity.**

We trust you will find this submittal package is sufficient for review and approval. Please feel free to contact me at (352) 331-1976 or at daniely@chw-inc.com should you have any questions or require any additional information to complete your review.

Sincerely,
CHW



Daniel Young, P.E.
Director of Engineering, Land Development

N:\2018\18-0431\Engineering\City County\City\Submittals and Comments\1909XX Submittal\LTR 1909XX The Golf Plaza - Response to Comments - City of Alachua.docx

MEMORANDUM

The Golf Plaza

18-0431



To: Fire Review
From: Daniel Young, PE
Date: June 27, 2019
RE: The Golf Plaza – Required Fire Flow

The following is a calculation for required fire flow for the proposed project based on the Florida Fire Prevention code.

Building data is based on the information provided by the project architect. Any changes to the building data will void the provided fire flow calculation and requires a revised analysis to verify the building complies with the applicable fire protection criteria. The buildings will be protected by a fire sprinkler system.

NFPA Calculations:

Building: **Commercial**
Construction Type: Type II (000)
Largest Fire Flow Area: 10,400 SF

Required Fire Flow per NFPA Table 18.4.5.1.2: 2,250 gpm

Conclusions

Required NFPA Fire Flow: **2,250 gpm.**

Available Fire Flow per Fire Hydrant Flow Test: **10,351.8 gpm**

Hydrant Flow Test Report

Test Date 05/30/2019

Test Time 0904

Location

Turkey Creek between Turkey Creek Blvd.
& NW 59 Terrace along US HWY 441.

Tested by

GATOR FIRE EQUIPMENT
COMPANY
1032 SOUTH MAIN STREET
GAINESVILLE, FL 32601
TESTED BY: J. WISHARD, K.
HAYFORD

Notes

Flowing Turkey Creek Blvd. & US HWY 441 (hydrant 1).
NW 59 Terr. & US HWY 441 (hydrant 2).
Reading Turkey Creek Blvd. & NW 118th Place hydrant

Read Hydrant

65 psi **static pressure**
45 psi **residual pressure**
1 ft **hydrant elevation**

Flow Hydrant(s)

Outlet	Elev	Size	C	Pitot Pressure	Flow
#1	1	5.25	.9	15	gpm
#2	1	5.25	.9	18	3626 gpm
#3	1	5.25	.9	15	
#4	1	5.25	.9	17	3052 gpm
Total					6678 gpm

Flow Graph

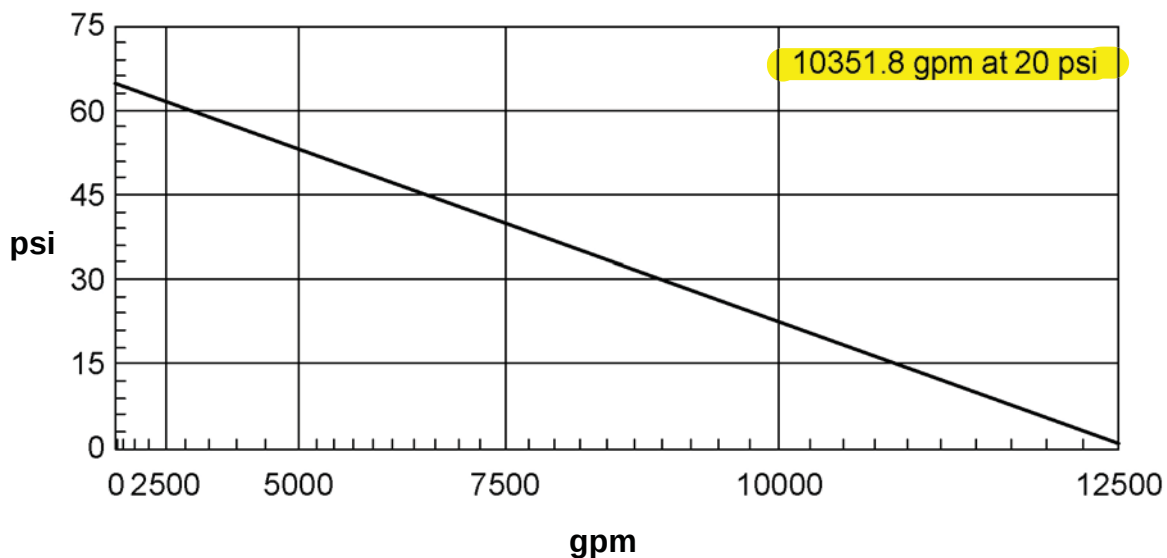


Table 18.4.5.1.2 Minimum Required Fire Flow and Flow Duration for Buildings

Fire Flow Area ft ² (× 0.0929 for m ²)					Fire Flow gpm [†] (× 3.785 for L/min)	Flow Duration (hours)
I(443), I(332), II(222)*	II(111), III(211)*	IV(2HH), V(111)*	II(000), III(200)*	V(000)*		
0-22,700	0-12,700	0-8200	0-5900	0-3600	1500	2
22,701-30,200	12,701-17,000	8201-10,900	5901-7900	3601-4800	1750	
30,201-38,700	17,001-21,800	10,901-12,900	7901-9800	4801-6200	2000	
38,701-48,300	21,801-24,200	12,901-17,400	9801-12,600	6201-7700	2250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7701-9400	2500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9401-11,300	2750	3
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3000	
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4000	4
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5250	4
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5750	
Greater than 295,900	Greater than 166,500	106,501-115,800	77,001-83,700	47,401-51,500	6000	
		115,801-125,500	83,701-90,600	51,501-55,700	6250	
		125,501-135,500	90,601-97,900	55,701-60,200	6500	
		135,501-145,800	97,901-106,800	60,201-64,800	6750	
		145,801-156,700	106,801-113,200	64,801-69,600	7000	
		156,701-167,900	113,201-121,300	69,601-74,600	7250	
		167,901-179,400	121,301-129,600	74,601-79,800	7500	
		179,401-191,400	129,601-138,300	79,801-85,100	7750	
		Greater than 191,400	Greater than 138,300	Greater than 85,100	8000	

*Types of construction are based on NFPA 220.

†Measured at 20 psi (139.9 kPa).

Mailed Memorandum

NEIGHBORHOOD MEETING NOTIFICATION



To: The Neighbors of Turkey Creek
From: Craig Brashier, AICP, Director of Planning
Date: Tuesday, April 9, 2019
RE: Neighborhood Meeting Public Notice

18-0431

A Neighborhood Meeting will be held to discuss a Site Plan application on ±8.25-acres (Alachua County Tax Parcels 05900-004-001 through 05900-004-010) located south of US 441, west of NW 59th Terrace, and east of Turkey Creek Boulevard. The intent of the application is to develop retail sales and service uses, one or more restaurants, and office space.

Date: Wednesday, April 24, 2019
Time: 6:00 p.m.
Place: CHW
11801 Research Dr.
Alachua, FL 32615
Contact: Craig Brashier, AICP, Director of Planning
(352) 331-1976

This is not a public hearing. The purpose of the meeting is to inform the public about the nature of the proposal and seek their comments.

Mailing Labels

05900-040-019
SARAZIN & TOMLINSON W/H
350 TURKEY CREEK
ALACHUA, FL 32615

05900-040-004
SIMMONS & SIMMONS ET UX
768 TURKEY CREEK
ALACHUA, FL 32615

05900-004-008
NATURAL VALLEY HARVEST LTD
632 TURKEY CREEK
ALACHUA, FL 32615

05900-040-001
LARSON CARL B & DORIS C
774 TURKEY CREEK
ALACHUA, FL 32615

05900-004-004
NATURAL VALLEY HARVEST LTD
632 TURKEY CREEK
ALACHUA, FL 32615

05900-040-017
SHALLIS PATRICK & THERESA
840 TURKEY CREEK
ALACHUA, FL 32615

05900-040-002
LARSON JANICE L
775 TURKEY CREEK
ALACHUA, FL 32615

05886-000-000
LAND O'SUN MANAGEMENT CORP
3715 NW 97TH BLVD # A
GAINESVILLE, FL 32606-5066

05900-040-010
COOK RUSSELL L & JANICE L
818 TURKEY CREEK
ALACHUA, FL 32615

05900-040-013
MULLEE GARRETT R JR & NANCY C
942 TURKEY CREEK
ALACHUA, FL 32615

05900-002-029
CAIN JEANETTE T TRUSTEE
14246 PINE VALLEY RD
ORLANDO, FL 32826

05900-040-007
DEVINE & WEBER
308 TURKEY CREEK
ALACHUA, FL 32615

05900-040-090
LARSON BARBRA C
776 TURKEY CREEK
ALACHUA, FL 32615

05900-004-006
NATURAL VALLEY HARVEST LTD
632 TURKEY CREEK
ALACHUA, FL 32615

05900-004-007
NATURAL VALLEY HARVEST LTD
632 TURKEY CREEK
ALACHUA, FL 32615

05900-040-005
BOSWELL WILLIAM F & JOYCE E
787 TURKEY CREEK
ALACHUA, FL 32615

05886-002-000
ALACHUA COUNTY
5620 NW 120TH LN
GAINESVILLE, FL 32653

05900-040-000
TURKEY CREEK MASTER OWNERS AS
4400 NW 36TH AVE
GAINESVILLE, FL 32606

05900-040-008
METZGER THOMAS F & LAURA J
6114 NW 118TH PL
ALACHUA, FL 32615

05885-010-007
TIDEWATER PROPERTIES LLC
527 TURKEY CREEK
ALACHUA, FL 32615

05900-040-021
ASSAD & GREGOIRE & GREGOIRE
396 TURKEY CREEK
GAINESVILLE, FL 32615

05886-001-000
LAND O'SUN MANAGEMENT CORP
3715 NW 97TH BLVD # A
GAINESVILLE, FL 32606-5066

05900-040-011
YOUNGBLOOD JANIS D
648 TURKEY CREEK
ALACHUA, FL 32615

05900-040-012
WELLS & WELLS TRUSTEE
PO BOX 1306
ALACHUA, FL 32616

05900-004-005
NATURAL VALLEY HARVEST LTD
632 TURKEY CREEK
ALACHUA, FL 32615

05900-004-001
NATURAL VALLEY HARVEST LTD
632 TURKEY CREEK
ALACHUA, FL 32615

05896-000-000
TANNER MAUDE
6101 NW 120TH LN LOT 65
GAINESVILLE, FL 32653

05900-040-015
GEDNEY EVA M TRUSTEE
510 TURKEY CREEK
ALACHUA, FL 32615

05900-002-005
RYALS PROPERTY HOLDINGS LLC
1111 SE 22ND AVE
GAINESVILLE, FL 32641

05900-004-003
NATURAL VALLEY HARVEST LTD
632 TURKEY CREEK
ALACHUA, FL 32615

05900-004-010
NATURAL VALLEY HARVEST LTD
632 TURKEY CREEK
ALACHUA, FL 32615

05896-001-000
MAGURA MARK & DIETRA
6101 NW 120TH LN LOT 63
GAINESVILLE, FL 32653-7894

05900-040-020
THOMAS ANGELA L
28 TURKEY CREEK
ALACHUA, FL 32615

05900-040-009
GIGANTE JEAN SHIRLEY
799 TURKEY CREEK
ALACHUA, FL 32615

05900-004-002
NATURAL VALLEY HARVEST LTD
632 TURKEY CREEK
ALACHUA, FL 32615

05900-040-016
SOWELL KUTONYA L
378 TURKEY CREEK
ALACHUA, FL 32615

05900-004-009
NATURAL VALLEY HARVEST LTD
632 TURKEY CREEK
ALACHUA, FL 32615

05900-040-014
THOMPSON CRYSTAL
328 TURKEY CREEK
ALACHUA, FL 32615

05900-040-003
BLUMBERG MARA E TRUSTEE
11421 NW 120TH TER
ALACHUA, FL 32615

05900-040-018
DAVE MILAN N & NIMISHA M
812 TURKEY CREEK
ALACHUA, FL 32615

05900-040-006
WILKENING ROSE E
785 TURKEY CREEK
ALACHUA, FL 32615

Antoinette Endelicato
5562 NW 93rd Avenue
Gainesville FL 32653

Lynn Coullias
7406 NW 126th Ave
Alachua FL 32615

Dan Rhine
288 Turkey Creek
Alachua FL 32615

Lynda Coon
7216 NW 126 Avenue
Alachua FL 32615

Tom Gorman
9210 NW 59th Street
Alachua FL 32653

Tamara Robbins
PO Box 2317
Alachua FL 32616

Richard Gorman
5716 NW 93rd Avenue
Alachua FL 32653

Michele L. Lieberman
County Manager
12 SE 1st Street
Gainesville FL 32601

Peggy Arnold
410 Turkey Creek
Alachua FL 32615

Bonnie Flynn
16801 NW 166th Drive
Alachua FL 32615

David Forest
23 Turkey Creek
Alachua FL 32615

President TCMOA
1000 Turkey Creek
Alachua FL 32615

Linda Dixon, AICP
Assistant Director
Planning
PO Box 115050
Gainesville FL 32611

Craig Parenteau
FL Department of
Environmental Protection
4801 Camp Ranch Road
Gainesville FL 32641

Jeannette Hinsdale
P.O. Box 1156
Alachua FL 32616

Newspaper Advertisement

NATION & WORLD

Those in US illegally push for license to drive

By Claudia Torrens
and Michael Hill
The Associated Press

ALBION, N.Y. — Dairy farm worker Luis Jiménez gambles every time he drives without a license. Even a minor traffic stop could alert immigration agents that he is in the country illegally and lead to deportation.

But in the wide open spaces of upstate New York's farm country, supermarkets and job sites are often too far away for walking, there's not always somebody around to give you a ride, and catching a city bus or subway just isn't an option.

"Necessity forces us to take a risk," Jiménez said in Spanish as he drove home recently. "We have to work, we have to buy food. Sometimes we get sick and workers like me can't drive to a hospital, can't buy medicine. But I feel I need to take the risk so that my kids and my family can have a better life."

In New York and elsewhere, the idea of extending new privileges to those without legal immigration status has been resisted. But a renewed push across the country to allow them to get driver's licenses resonates strongly among those who make their living in the rural crop fields, dairy farms and fruit orchards where the need for everyday transportation can be the greatest.

Apple orchard worker Eladio Beltran, who is facing deportation after a traffic stop, says licenses also could alleviate the constant fear workers like him live under.

"We don't feel safe," Beltran said. "If you are in a vehicle and you see a cop, you know any time he can turn his lights on. And you end up arrested; you end up in Mexico."

Immigrants and their advocates have already gotten access to such licenses in a dozen states including California,

Colorado and Illinois, some of them accepting state tax returns as identification. They are now targeting roughly a half-dozen states where they see a friendlier political landscape this year. They include Wisconsin and New Jersey, where Democratic governors succeeded Republicans, and New York, where Democrats now are in total control of the Legislature.

"Now there's a new urgency to really try to get this done, and there is new political opportunity," said Christine Neumann-Ortiz, executive director of Voces de la Frontera, an immigrant advocacy group based in Milwaukee.

The laws could give state-level protection to immigrants who fear more aggressive enforcement by federal immigration agents under the Trump administration. Bolstering those fears is the impending departure of the Trump administration's Secretary of Homeland Security Kirstjen Nielsen,

who had been viewed as resistant to some of the harshest immigration measures supported by Trump and his aides.

Advocates say police would still be able to view drivers' past infractions, but they say immigrants producing a valid license will be less likely to face further questions and contact with federal agents.

In New York, farmworkers make up only about 10,000 of the estimated 265,000 immigrants without legal documents expected to get driver's licenses, according to the Fiscal Policy Institute. But they might get the most use out of licenses.

Ismael Castellanos is driven a mile daily from the home he shares with four other immigrant workers to the dairy farm where he cares for calves. Trips for a carton of milk or a dozen eggs can be more problematic, and pricey. The nearest grocery store is 8 miles away, and he pays people with



Ismael Castellanos feeds calves on a dairy farm where he works, in Bethany, New York, on March 20. (MICHAEL HILL/THE ASSOCIATED PRESS)

cars between \$30 and \$40 per trip.

"You have to call the person and ask which afternoon he has off so he can drive you, so you do grocery shopping that day," Castellanos said in Spanish.

Castellanos, Beltran and Jiménez spoke to The Associated Press on the condition that names of the farms where they work are not disclosed. They are part of a group called

Alianza Agrícola, which is lobbying for the license law in New York.

It's unclear whether attitudes have changed much in New York since 2007, when then-Gov. Eliot Spitzer attempted to adopt such a license measure but was forced to back off amid withering political opposition. A poll from Siena College last month found New York residents still opposing the idea by almost 2 to 1.

US declares Iran's guard force a 'terrorist organization'

By Matthew Lee
The Associated Press

WASHINGTON — The United States on Monday designated Iran's Revolutionary Guard a "foreign terrorist organization" in a move to increase pressure on the country that could also have significant military, diplomatic and economic implications throughout the Middle East and beyond.

It is the first time that the U.S. has designated a part of another government as a terrorist organization. The designation could spark Iranian retaliation as well as open hundreds of foreign companies and business executives to U.S. travel bans and possible prosecution for sanctions violations. It may also affect the ability of American diplomats and military officers to engage with key Mideast actors, notably in Iraq and Lebanon.

"This unprecedented step, led by the Department of State, recognizes the reality that Iran is not only a state sponsor of terrorism, but that the IRGC actively participates in, finances and promotes terrorism as a tool of statecraft," President Donald Trump said.

Secretary of State Mike Pompeo said the move is part of an effort to put "maximum pressure" on Iran to end its support for terrorist plots and militant activity that destabilizes the Middle East. Speaking to reporters, he rattled off a list of attacks dating to the 1980s for which the U.S. holds Iran and the IRGC responsible, beginning with the attacks on the Marine Corps barracks in Beirut, Lebanon in 1983.

"With this designation, the Trump administration is simply recognizing a basic reality," Pompeo said.

The designation blocks any assets that IRGC entities may have in U.S. jurisdictions and bars Americans from any transactions with it. When it takes effect next week, it will allow the U.S. to deny entry to people found to have provided the Guard with "material support" or prosecute them for sanctions violations. That could include European and Asian companies and businesspeople who deal

with the Guard's many affiliates.

"It makes crystal clear the risks of conducting business with, or providing support to, the IRGC," Trump said. "If you are doing business with the IRGC, you will be bankrolling terrorism."

Pompeo said the action should serve as a warning to corporate lawyers to ensure any business their companies do in Iran is not with any entity affiliated with the Guard. "If you're the general counsel for a European financial institution today, there is more risk," he said.

The IRGC is a paramilitary organization formed in the wake of Iran's 1979 Islamic Revolution to defend the government. The force answers only to Iran's supreme leader, operates independently of the regular military and has vast economic interests across the country. The U.S. estimates it may control or have a significant influence over up to 50% of the Iranian economy, including non-military sectors like banking and shipping.

Iran immediately responded with its Supreme National Security Council designating the U.S. Central Command, also known as CENTCOM, and all its forces as terrorist, and labeling the U.S. a "supporter of terrorism."

The Council denounced the U.S. decision as "illegal and dangerous" and said the U.S. government would be responsible for all "dangerous repercussions" of its decision. It defended the IRGC, which has fought Islamic State fighters, as being a force against terrorism.

Reaction from those who favor tougher engagement with Iran was quick and welcoming.

"Thank you, my dear friend, US President Donald Trump," Israeli Prime Minister Benjamin Netanyahu said in a tweet, a day before what could be a close election. "Thank you for answering another of my important requests that serves the interests of our countries and of countries in the region." Sen. Ted Cruz, R-Texas, called the action an "overdue" but essential step that should be followed by additional sanctions.

Rep. Michael McCaul of Texas, top Republican on the House Foreign Affairs Committee, said the designation "ends the facade that the IRGC is part of a normal military."

However, critics of Trump's harsh Iran policy denounced the decision as a prelude to conflict.

"This move closes yet another potential door for peacefully resolving tensions with Iran," said Trita Parsi, the founder of the National Iranian American Council. "Once all doors are closed, and diplomacy is rendered impossible, war will essentially become inevitable."

American military commanders were planning to warn U.S. troops remaining in Iraq, Syria and elsewhere in the region of the possibility of retaliation. Aside from Iraq, where some 5,200 American troops are stationed, and Syria, where some U.S. 2,000 troops remain, the U.S. 5th Fleet, which operates in the Persian Gulf from its base in Bahrain, and the Al Udeid Air Base in Qatar, are potentially at risk.

Trump: Uganda must capture kidnappers of freed US tourist

By Rodney Muhumza
and Amanda Lee Myers
The Associated Press

KAMPALA, Uganda — U.S. President Donald Trump on Monday urged Uganda to find the kidnappers of an American tourist who has been freed amid conflicting reports over whether a ransom was paid for her release.

Kim Endicott of Costa Mesa, California, was released by her abductors over the weekend and was to be turned over to the U.S. ambassador Monday, Ugandan police said.

Endicott and her Ugandan driver were both safe after the five-day ordeal. They were taken from Queen Elizabeth National Park across the border to Congo, according to Ugandan authorities.

Trump pressed Uganda's government to capture the culprits Monday.

"Uganda must find the kidnappers of the American Tourist and guide before people will feel safe in going there. Bring them to justice openly and quickly!" he tweeted.

Over the weekend, Trump tweeted that he was pleased the tourist and guide had been released.

Ugandan police spokesman Fred Enanga said he did not believe a ransom had been paid.

"I have indicated to you that we don't do ransom,"

he said Monday at a news conference in the Ugandan capital of Kampala.

A Uganda-based tour official said, however, that a ransom was paid to secure Endicott's freedom. The tourist was released, "not rescued," after money was paid "otherwise she wouldn't be back," said the tourism professional with knowledge of Endicott's trip.

He spoke on condition of anonymity because he was not authorized to speak to the press.

Many officials, including from the U.S. Embassy, were involved in efforts to secure the release of the kidnapping victims, he said. He couldn't say how much was paid or who paid.

Ugandan officials have said the kidnapping victims were rescued from armed kidnappers who are still at large.

Ugandan President Yoweri Museveni said on

Twitter that the security forces "shall deal with these isolated pockets of criminals."

The kidnappers had demanded a \$500,000 ransom after grabbing Endicott and her driver from a group of tourists on an evening game drive on April 2, police said.

"It's completely shocking," Sandy Benton, a friend of Endicott's in Southern California, said Monday. "I never thought anything like this would happen to her."

Benton called Endicott an adventure seeker and world traveler, saying it wasn't surprising that she would travel to Uganda on her own.

"Just prayed for her and hoped for safe return," Benton said. "I'm glad to hear she'll be on her way home soon. I can't imagine how traumatic that was for her. She had to be terrified."

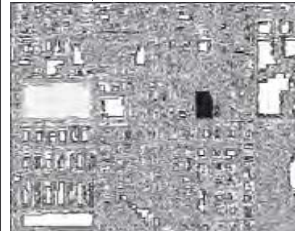
PUBLIC NOTICE



NOTICE OF NEIGHBORHOOD WORKSHOP 10404 SW 24th Avenue Fire Rescue Station

You are invited to attend a neighborhood workshop on Wednesday, April 24, 2019 to discuss a proposed special use permit for an Alachua County Fire Rescue Station to be located at 10404 SW 24th Avenue, on Tax Parcel Number 0666-000-000. The subject property has a Future Land Use designation of Low Density Residential (1-4du/acre), a zoning district of Agriculture (A), and is approximately 2.88 acres. At this neighborhood workshop, the public will have an opportunity to hear about this proposed fire rescue station, ask questions, and provide input.

Proposed Location of Fire Station



NEIGHBORHOOD WORKSHOP DETAILS

DATE: Wednesday, April 24, 2019
TIME: 6:00 p.m. to 7:00 p.m.
LOCATION: Queen of Peace, 10900 SW 24th Avenue, Gainesville, Florida 32607

More Information:
More information about the proposal is available at the address below during normal business hours.
Alachua County Public Works:
5620 NW 120th Lane, Gainesville, Florida 32653
Phone: (352) 548-1224
Staff Contacts: Charles Brecken, County Surveyor

PUBLIC NOTICE

A Neighborhood Meeting will be held to discuss a Site Plan application on ±9.25-acres (Alachua County Tax Parcels 05900-004-001 through 05900-004-010) located south of US 441, west of NW 59th Terrace, and east of Turkey Creek Boulevard. The intent of the application is to develop retail sales and service uses, one or more restaurants, and office space.

This is not a public hearing. The purpose of this meeting is to inform the public about the nature of the proposal and seek their comments.

Time: 6:00pm on Wednesday, April 24, 2019

Location: CHW, 11801 Research Dr., Alachua, FL 32615

Contact: Craig Brashler, AICP
Phone Number: (352) 331-1976



Workshop Presentation



**Turkey Creek
Retail/Office
Site Plan Application**

Neighborhood Meeting
April 24, 2019

1

Meeting Overview



The purpose of the neighborhood meeting:

- The **City of Alachua** requires all **Site Plan applicants** to host a neighborhood meeting prior to application submittal;
- The purpose is **to inform neighbors** of the proposed development's nature and to get feedback early in the development process; and
- This meeting provides the applicant with an opportunity **to mitigate concerns** prior to submitting the application.

planning.design.surveying.engineering.construction. professional consultants

2

Public Notification



NEIGHBORHOOD MEETING NOTIFICATION

CHW

To: The Neighbors of Turkey Creek 18-0431
 From: Craig Brashler, AICP, Director of Planning
 Date: Tuesday, April 9, 2019
 RE: Neighborhood Meeting Public Notice

A Neighborhood Meeting will be held to discuss a Site Plan application on ±8.25 acres (Alachua County Tax Parcel 05900-004-001 through 05900-004-010) located south of US 441, west of NW 32nd Terrace, and east of Turkey Creek Boulevard. The intent of the application is to develop retail sales and service uses, and to rezone restaurants, and office space.

Date: Wednesday, April 24, 2019
 Time: 6:00 p.m.
 Place: CHW
 11801 Research Dr.
 Alachua, FL 32016
 Contact: Craig Brashler, AICP, Director of Planning
 (352) 331-1978

This is not a public hearing. The purpose of the meeting is to inform the public about the nature of the proposed development and seek their comments.



PUBLIC NOTICE

A Neighborhood Meeting will be held to discuss a Site Plan application on ±8.25 acres (Alachua County Tax Parcel 05900-004-001 through 05900-004-010) located south of US 441, west of NW 32nd Terrace, and east of Turkey Creek Boulevard. The intent of the application is to develop retail sales and service uses, one or more restaurants, and office space.

This is not a public hearing. The purpose of this meeting is to inform the public about the nature of the proposal and seek their comments.

Time: 6:00pm on Wednesday, April 24, 2019
Location: CHW, 11801 Research Dr., Alachua, FL 32016
Contact: Craig Brashler, AICP
Phone Number: (352) 331-1978

CHW
 Professional Consultants

planning.design.surveying.engineering.construction.

professional consultants

3

Application Review Process



	Turkey Creek Homeowner's Association (HOA) Meeting	April 17 th
➔	Neighborhood Meeting	April 24 th
	HOA Meeting	May 15 th
	FDOT Traffic Analysis	May 29 th
	Submit Site Plan Application	May 30 th (Tentative)
	Staff Review	June - September
	Planning & Zoning Board Public Hearing	September 10 th (Tentative)

planning.design.surveying.engineering.construction.

professional consultants

4

Application and Intent



Application:

- **Site Plan** for an ± 8.25 -acres site in the City of Alachua (Alachua County Tax Parcels 05900-004-001 through 05900-004-010).

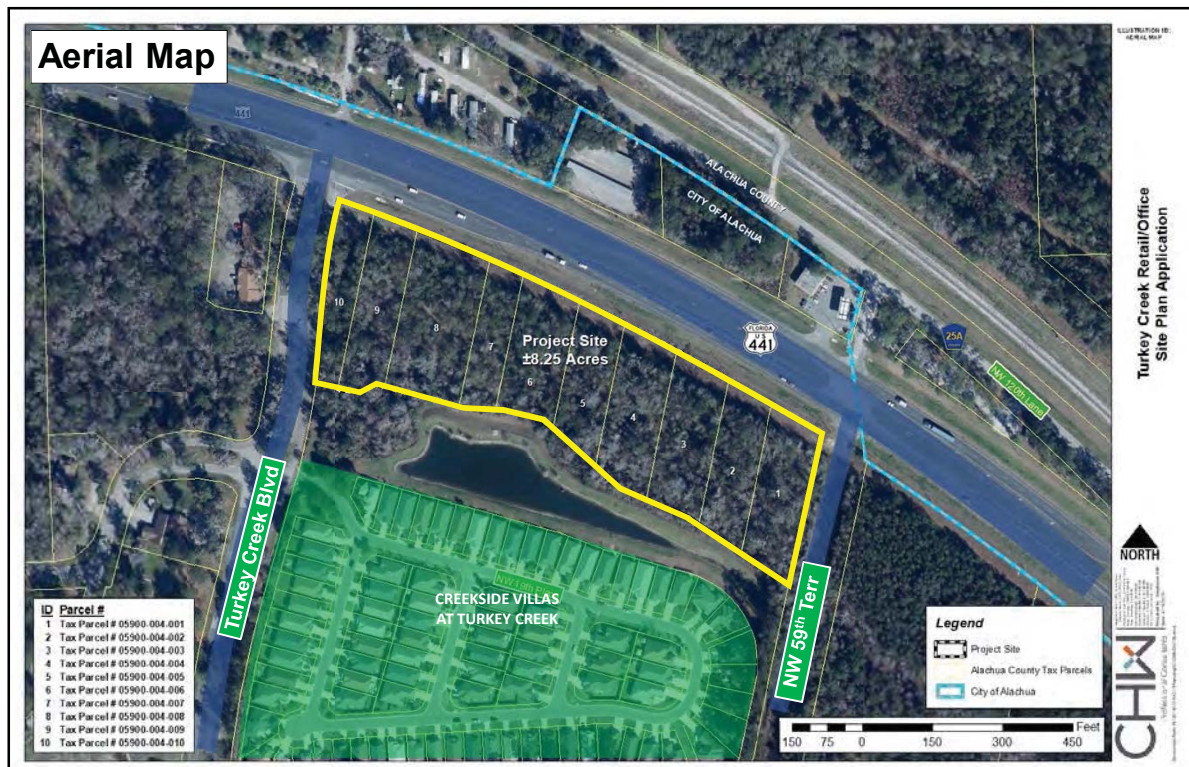
Intent:

- To develop $\pm 18,200$ sq. ft. **retail sales & service uses** and/or **restaurants**, and $\pm 7,800$ sq. ft. **office space**.

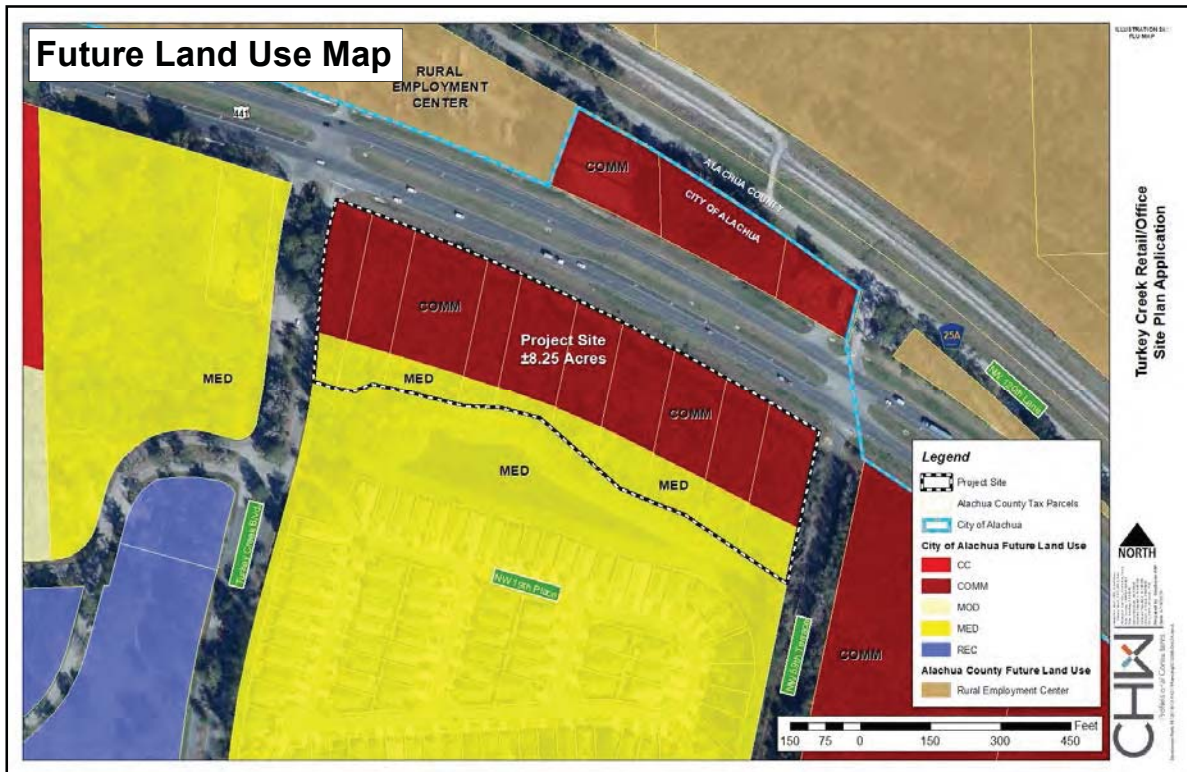
planning.design.surveying.engineering.construction.

professional consultants

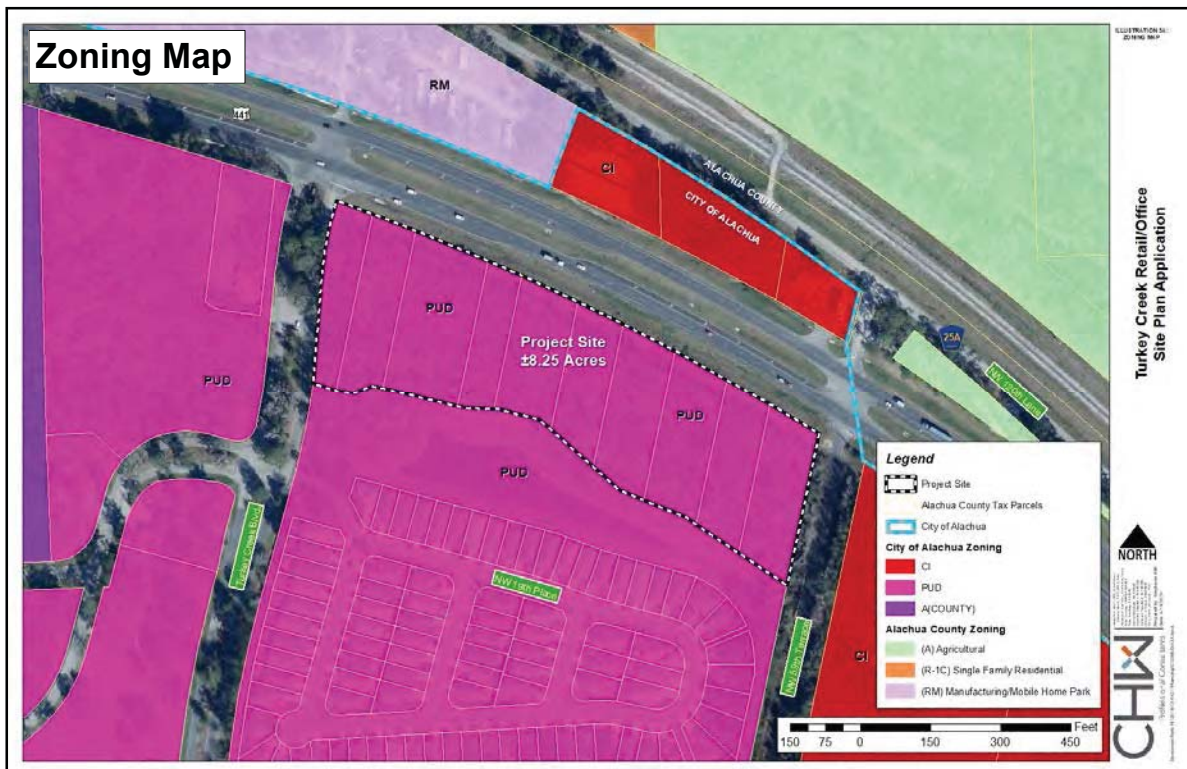
5



6



7



8

Turkey Creek DRI and PUD Ord. 05-07



- The Turkey Creek Development of Regional Impact (DRI) was originally approved in 1982
- The DRI allows $\pm 72,000$ sq. ft. of gross leasable area for non-residential uses
 - Permitted uses include a supermarket, restaurants, general retail and office uses
 - Proposed uses must be consistent with the approved DRI
- PUD Ordinance 05-07 was adopted by the City of Alachua in 2005.
- PUD Ordinance 05-07 covers the proposed non-residential area and the Creekside Villas at Turkey Creek (± 27.7 ac.)
 - 29 Conditions adopted as part of PUD Ordinance 05-07
 - Condition #4 allows up to 72,400 sq. ft. of non-residential uses
 - Condition #9 requires that non-residential uses be consistent with the DRI
 - Condition #14 states that an ingress/egress can be constructed on Turkey Creek Boulevard if approved or requested by the Turkey Creek HOA

planning.design.surveying.engineering.construction.

professional consultants

9



10

Possible Turkey Creek Blvd Connection



Four (4) Possible Access Options:

1. **Full Access*** - Accessible to north and south bound traffic on Turkey Creek Boulevard, Exit on to Turkey Creek Blvd, US 441, or NW 59th Terr.
2. **Right-In Access Only*** - Accessible only to north bound traffic on Turkey Creek Boulevard, Exit on to US 441 or NW 59th Terr.
3. **Pedestrian, Bike, and Golf Cart Access*** - Not accessible to automobile traffic from Turkey Creek Boulevard
4. No Access

**Requires Turkey Creek HOA approval*



planning.design.surveying.engineering.construction.

professional consultants

11

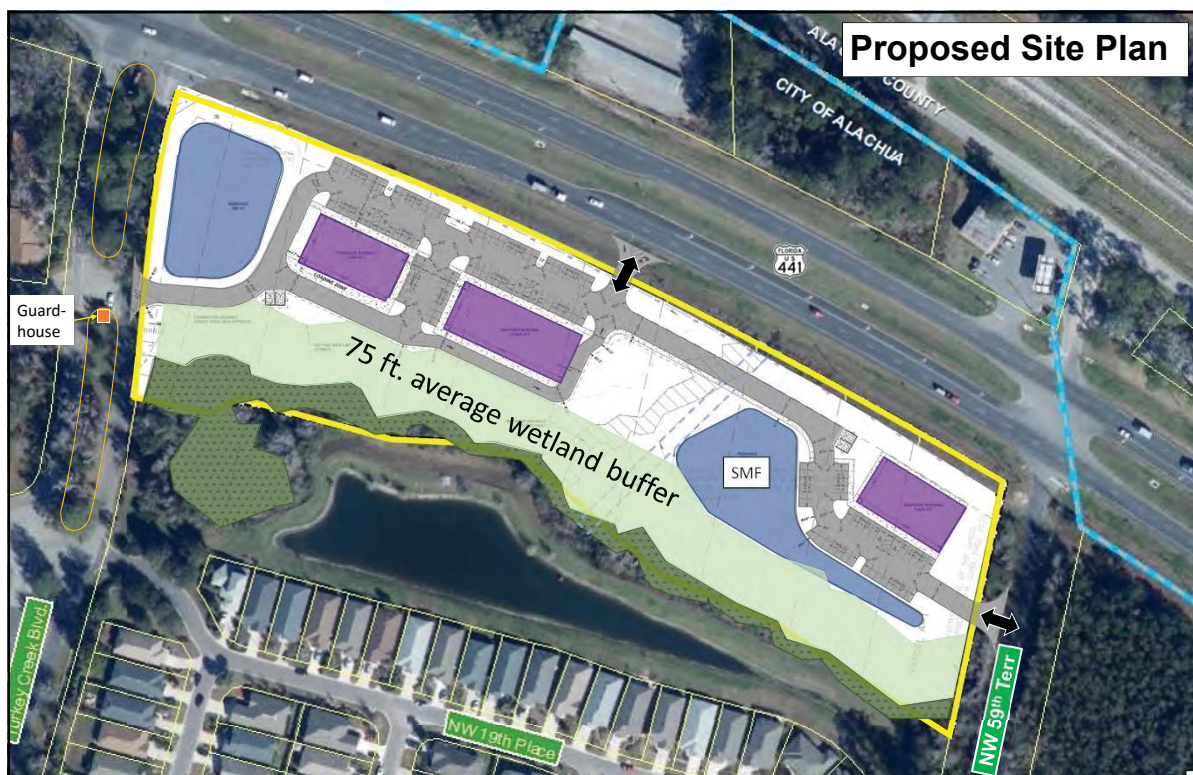
Similar Examples – Arbor Greens



12



13



14



15

Sign-In Sheet

SIGN-IN SHEET

Turkey Creek Retail/Office

18-0431



Event: Neighborhood Meeting
Date/Time: April 24, 2019 at 6 PM
Place: CHW, 11801 Research Drive, Alachua, FL 32615
Re: Turkey Creek Retail/Office – Site Plan Application

	<u>Print Name</u>	<u>Street Address</u>	<u>Signature</u>
1	Ross Han Cook	818 Turkey Creek	Ross Han Cook
2	Bill & Joyce Boavel	6144 NW 118th Place 787 Turkey Creek	Joyce Boavel
3	JIM/NANCY EMERY	6040 NW 115 PL	Jim Emery
4	JANIS YOUNGBLOOD	6086 NW 118 PLACE	Janis Youngblood
5	VIM WARNER	12 TURKEY	Vim Warner
6	Joey Kennedy	11405 PALMETTO BLVD	Joey Kennedy
7	Nancy Gary Muller	6066 NW 118 PL	Nancy G. Muller
8	Miles Patterson	6379 NW 106th PL	Miles Patterson
9	Russ PISANO		Russ PISANO
10	JERRY MERIWETHER	6547 NW 106TH PL	Jerry Meriwether
11	Theresa Shallis	6026 NW 118th PL	Theresa C Shallis
12	HUGH ABBOTT ROBBIN ABBOTT	7004 NW 121st AVE	Robbin Abbott
13	Tim Reagy Sara Walker	6831 NW 105th AVE	Sara Walker

14	Jean Gigante	1604 NW 118 PL	Jean Gigante
15	Gunter Hirsch	6109 NW 112 PL	Gunter Hirsch
16	Diane Buehn	6947 NW 121 ST AVE	Diane Buehn
17	Donna Hope	11127 Palmetto	Donna Hope
18	RICK BUEHN	6947 NW 121 ST AVE	Rick Buehn
19	DAN STEWART	11127 PALMETTO	Dan Stewart
20	PEGGY ARNOLD	11136 Palmetto Blvd.	Peggy A. Arnold
21	MARY RODGERS	11046 NW Palmetto Blvd	Mary Rodgers
22	JOHN RODGERS	rodgers15@windstream.net 11046 NW PALMETTO BLVD	John W. Rodgers
23	BOB BURLISON	11633 NW 72 ND TERR.	Bob Burlison
24	Janice Larson	60174 NW 118 TH Place	Janice Larson
25	Barbara Larson	6194 NW 118 TH PL.	Barbara Larson
26	Borie & Dottie Hudson	P.O. BOX 2131, Lake City	Borie & Dottie Hudson
27	Jeremy Thomas	11706 NW 61 ST Terrace	Jeremy Thomas
28	Marge & Pete Ryan	11910 NW 71 ST Lane	Marge & Pete Ryan
29	Helmut Hiller	7411 NW 117 TH Lane	Helmut Hiller
30	Diego Ramirez	4078441924	Diego Ramirez
31	Jacqui Stirling	6488 NW 109 TH PL.	Jacqui Stirling
32	Tony & Cora LANEZ	11511 NW 67 TH Terrace	Tony & Cora LANEZ

33	Patricia Reed	6367 NW 106 th PL	Patricia Reed.
34	Michelle Peppi	6020 NW 115 th PL	Michelle Ruffini
35	Rebecca Hoover	7551 White Oak Rd	REBECCA HOOPER
36	Carol McDermott	11503 PALMETTO BLVD	CAROL MCDERMOTT
37	SUETAYZOR	659 TURKEY CREEK	Ann G. Joffe
38	RALPH TAYLOR	659 Turkey Creek	Ralph Taylor
39	DAVID & KAREN KRESZAK	424 T. C.	Daniel/Karen
40	Diane Wilford	11788 61st Drive	Diane Wilford
41	Robert Wilford	"	Robert Wilford
42			
43			
44			
45			
46			
47			
48			
49			
50			

Workshop Minutes

NEIGHBORHOOD MEETING - MEETING MINUTES

Turkey Creek Retail/Office (18-0431)

Site Plan Application



Date: April 24, 2019
Location: CHW, 11801 Research Drive, Alachua, FL 32615
Notes by: Celeste Lau

Recorded and transcribed by CHW staff.

CHW Attendees – Craig Brashier, AICP; Celeste Lau

Public Attendees – 41

Question: When you say “by-right,” what does that mean?

Response: This project is being developed consistent with the Future Land Use and zoning. The site has a PUD Zoning that allows for the proposed development and uses. No FLU or zoning amendment is necessary for the proposed commercial and office uses.

Question: Is the creek within the project boundary?

Response: A portion of the creek/wetlands is located on the project site. A 75’ average buffer will be provided in accordance with City of Alachua and Alachua County requirements.

Question: On the proposed site plan, who owns the building/property in the northwest corner?

Response: The building/property in the northwest corner is part of the proposed development and is owned by the client.

Question: What does the “SMF” stand for?

Response: “SMF” stands for stormwater management facility.

Question: Why did you put the access point on US 441 in front of the acceleration lane?

Response: US 441 is managed by the Florida Department of Transportation (FDOT). They have strict requirements and guidelines as to the distances between access points and therefore, the access point was located near the center of the site’s frontage. The applicant is currently conducting a traffic study to determine if there is an issue with the access point and if any road improvements are required. The traffic study will provide more insight as to where the best location for the access point will be.

Question: Will there be a traffic light there?

Response: No, FDOT is not requiring a traffic light nor are they requiring a traffic signal analysis.

Question: How tall are the proposed buildings?

Response: The building heights will be one-story.

Question: Let’s assume Turkey Creek does not allow for the Turkey Creek Boulevard access, where would access to the site be?

Response: The proposed development is still viable without the access on Turkey Creek Boulevard. The site will have two other access points: one will be located on US 441 and the other will be on NW 59th Terrace as shown on the development plan.

Question: For the retention ponds, where does the water flow to?

Response: The site has two proposed ponds for the proposed development. Water will flow to the ponds to be treated and be retained. All water runoff from the proposed development must be retained onsite.

Question: Will the 75 ft. average buffer be left as is?

Response: Yes, the wetland buffer will remain in a natural state.

Question: If you're traveling westbound on US 441, you would have to make a U-turn or turn onto Turkey Creek Boulevard to access the site?

Response: If you are travelling westbound on US 441, the best access location would be off of NW 59th Terrace since there is a full median opening in US 441 at this location.

Question: Where is the proposed driveway on Turkey Creek Boulevard?

Response: The proposed access on Turkey Creek Boulevard will be located parallel to the median cut where the guard house is. The proposed access is not located past the guard house and gates.

Question: Could you discuss the dumpsters again?

Response: There are two proposed dumpster locations. One will be located on the southwest portion of the site and the other on the northeast portion of the site. Both dumpster locations will be screened by fencing.

Question: Will the dumpsters be visible from Turkey Creek Boulevard?

Response: The dumpsters will most likely not be seen from Turkey Creek Boulevard.

Question: Will there be a fence or wall to separate the proposed development from the neighborhood?

Response: A fence is not currently planned. Since a portion of the creek is located within the project boundary, a 75 ft. average wetland buffer is required from the development to the wetlands. The buffer and existing trees will remain untouched.

Question: How will the Turkey Creek Boulevard access benefit the residents?

Response: It will allow access to the commercial and office uses without having to get on US 441. There are four options for the Turkey Creek Boulevard access: full access, right-in access only, pedestrian, bike, and golf cart access, and no access. Full access allows for access from north and southbound traffic on Turkey Creek Boulevard. Right-in access allows access only for north bound traffic on Turkey Creek Boulevard. However, this option does not allow for the residents to return to Turkey Creek without having to use US 441. Pedestrian, bike, and golf cart access proposes a smaller driveway for these non-automobile options. "No access" does not allow any access to the proposed development from Turkey Creek Boulevard. A full access on Turkey Creek Boulevard will provide residents access to and from the site without having to drive onto US 441 to access it. However, this will be decided by the Turkey Creek HOA and the option they decide will not have an effect on the proposed development from moving forward.

Question: Are there only two dumpsters for the whole site?

Response: There are two dumpster locations for the proposed development with each location having two dumpster pads. One location on the west side of the site and one location on the east side.

Question: Will the traffic study take into account the speed of US 441 and the acceleration lane?

Response: Yes, the applicant will be including those in the traffic study.

Question: Are there height restrictions for the lights?

Response: The City has specific requirements for exterior lighting to ensure that there is no light trespass or light pollution from the proposed development to the surrounding and adjacent properties. These requirements include height restrictions.

Question: Is it possible for FDOT to break the median directly north of the site?

Response: No, FDOT has specific requirements for the distances between median cuts. Since there is already a median cut at Turkey Creek Boulevard and NW 59th Terrace, FDOT will not allow for a median cut between them.

Comment: There is so much traffic already on US 441 and they do not slow down for anybody.

Response: The traffic study will take into account the number of vehicles on the road. Once the traffic study is complete, the study will factor into the site's access design and any off-site improvements needed.

Question: Are there water/sewer lines on US 441?

Response: Yes, there are utilities located on US 441 directly in front of the site.

Question: If you are proposing a drive-thru, will the cars stack onto Turkey Creek Boulevard?

Response: No, cars will not stack onto Turkey Creek Boulevard. The City has specific requirements for vehicle stacking for drive-throughs including standards that do not allow for vehicle stacking to impeded onsite or offsite traffic movements.

Question: What other uses are permitted in the commercial area?

Response: Turkey Creek had a Development of Regional Impact (DRI) approved in 1982 and PUD Ordinance 05-07 was adopted by the City in 2005. The PUD Zoning District governs the project site and lists out specific conditions, including Condition #9 that requires non-residential uses to be consistent with the uses listed in the DRI. Copies of these documents can be provided upon request so that you may see what the permitted uses are.

Question: Will there be areas for "homeless camps?"

Response: With the site's current undeveloped conditions, there is more of a chance for "homeless camps" to occur now than when the proposed development is complete.

Question: FDOT requires the access to be in the middle of the site?

Response: FDOT has specific requirements for the distance between access points. The US 441 access was placed in the middle of the site to satisfy these requirements. The location of the US 441 access drive may be adjusted depending on the results of the traffic study.

Question: Will there be a noise study done?

Response: No, no noise study has been proposed.

Question: Do you have an estimate on the number of tenants?

Response: It could possibly be 2-3 tenants per building.

Question: For the Turkey Creek Boulevard access, are you getting permission from the board or 75% of the Turkey Creek residents?

Response: This will be determined by Turkey Creek and their process.

Question: What is the timeline for this?

Response: Development permits would be issued by the end of 2019 and construction would most likely be finished by the end of 2020.

Question: What happens if you don't get the approval for the Turkey Creek Boulevard access?

Response: This Site Plan application will continue to move forward with or without the access on Turkey Creek Boulevard. If an access is approved later, the site plan can be amended to include the access.

Question: If the access is permitted and accidents occur, will the development be liable for that?

Response: There was some discussion of this at the last HOA meeting. The HOA should consult with their attorney on this issue.

Question: What is the next move after tonight?

Response: The roadway connection to Turkey Creek Boulevard will be discussed at the May 15th HOA meeting.

Meeting Adjourned – 6:50 PM

COMPREHENSIVE PLAN CONSISTENCY

To: Kathy Winburn, AICP, City of Alachua Planning & Community Dev. Director 18-0431
From: Ryan Thompson, AICP, Planning Project Manager
Date: June 27, 2019
RE: The Golf Plaza

This application is for a ±8.25-acre portion of Alachua County Tax Parcels 059000-004-001 through 05900-004-010. The site is located north of the Turkey Creek development, east of Turkey Creek Boulevard, west of NW 59th Terrace, and along the south US 441 right-of-way (R.O.W.). The onsite Future Land Use (FLU) categories are Commercial and Medium Density Residential and the Zoning District classification is Planned Unit Development (PUD). **The PUD Zoning District was approved by Ordinance No. 05-07 and allows for the development of both residential and commercial uses.**

The following identifies specific City of Alachua Comprehensive Plan Goals, Objectives, and Policies and explains how this application is consistent with each. Comprehensive Plan text is provided in normal font while consistency statements are provided in **bold**.

Future Land Use Element

Objective 1.2: Residential

The City of Alachua shall establish three Residential land use categories to ensure an orderly urban growth pattern that makes the best use of available lands for residential development.

Policy 1.2.b: Medium density residential (4 to 8 dwelling units per acre): The medium density residential land use category allows residential development at a density of 4 dwelling units per acre to 8 dwelling units per acre, as well as small-scale neighborhood commercial and mixed use developments. The following uses are allowed in the medium density land use category:

1. Single family, conventional dwelling units and single family, attached dwelling units;
2. Accessory dwelling units;
3. Manufactured or modular homes meeting certain design criteria;
4. Mobile homes only within mobile home parks;
5. Duplexes and quadplexes;
6. Apartments and townhomes;
7. Live/work units;
8. Residential Planned Unit Developments;
9. Traditional Mixed-use Neighborhood Planned Developments;
10. Supporting community services, such as schools, houses of worship, parks, and community centers

The project site has two FLU designations onsite. The Medium Density Residential FLU is located on the southern portion, south of the creek, where the wetland and associated buffer are located. This portion of the site will not be developed.

Objective 1.3: Commercial

The City of Alachua shall establish three commercial districts: Community Commercial, Commercial and Central Business District. These districts shall provide a broad range of retail sales and services, as well as office uses, in order to provide for the availability of goods and services, both to the citizens of Alachua and to the citizens of the North Central Florida region.

Policy 1.3.b: Commercial: The Commercial land use category is established to provide for general commercial uses, as well as more intense commercial and highway commercial uses. This is the land use category in which large-scale, regional commercial uses may locate. The following uses are allowed within the Commercial land use category:

1. Retail sales and services;
2. Personal services;
3. Financial Institutions;
4. Outdoor recreation and entertainment;
5. Tourist-related uses;
6. Hotels, motels;
7. Commercial shopping centers;
8. Auto-oriented uses;
9. Traditional Mixed-use Neighborhood Planned Developments;
10. Employment Center Planned Developments;
11. Commercial recreation centers;
12. Office/business parks;
13. Limited industrial services;
14. Eating Establishments

The second FLU designation is Commercial and is located north of the creek. This application intends to develop the Commercial FLU portion with commercial uses including retail sales and services and office uses. Development shall be consistent with the standards set forth by PUD Ordinance No. 05-07 and the Commercial FLU.

Policy 1.3.d: Design and performance standards: The following criteria shall apply when evaluating commercial development proposals:

1. Integration of vehicular and non-vehicular access into the site and access management features of site in terms of driveway cuts and cross access between adjacent sites, including use of frontage roads and/or shared access;

The application proposes two access points: a right-in, right-out access on US 441; and a full-directional access on NW 59th Terrace. Internal vehicular circulation allows vehicles to visit all onsite uses without having to access US 441.

A vehicular access point on Turkey Creek Boulevard may be considered in the future. It is not required to provide safe and sufficient access to the site and would serve as a convenience to Turkey Creek residents.

2. Buffering from adjacent existing/potential uses;

The project site is bound by US 441 to the north, NW 59th Terrace to the east, an existing wetland/creek to the south, and Turkey Creek Boulevard to the west. A Stormwater Management Facility (SMF) is adjacent to Turkey Creek Boulevard, providing separation and a natural buffer to the Turkey Creek entrance. In accordance with Policy 1.10.g of the City of Alachua Conservation and Open Space Element, a 75' average buffer exists between the proposed development and wetland.

3. Open space provisions and balance of proportion between gross floor area and site size;

The proposed development will have $\pm 71\%$ of landscaping and open space, exceeding the required 10% of open space (Land Development Regulations (LDR) Table 6.7-1.) The ± 8.25 -acre site has a proposed building area of $\pm 26,000$ sq. ft.

4. Adequacy of pervious surface area in terms of drainage requirements;

The proposed development has two (2) SMF's located on the eastern and western portions of the site to address onsite surface water drainage. $\pm 71\%$ of the site's total area will be landscaping and open space.

5. Placement of signage;

All proposed internal signage will be designed and will adhere to the policies stated in Section 6.5 of Article 6 in the City of Alachua LDR.

6. Adequacy of site lighting and potential impacts of lighting upon the surrounding area. Lighting should be designed to minimize impacts and preserve the ambiance and quality of the nighttime sky by reducing light trespass and light pollution on adjacent properties by utilizing lighting at an appropriate intensity, direction and times to ensure light is not overused or impacting areas where it is not intended;

Any proposed lighting will be designed and will adhere to the policies stated in Section 6.4 of Article 6 in the City of Alachua LDR.

7. Safety of on-site circulation patterns (patron, employee and delivery vehicles), including parking layout and drive aisles, and points of conflict;

The site's internal vehicular circulation is accessed from the two (2) proposed access points. Drive aisles wrap around the western buildings, then parallel to US 441 to connect to the eastern building. There are 10' sidewalks wrapping each building to provide safe pedestrian access from the parking area to the buildings. Additionally, there is a 6' sidewalk along the drive aisle connecting the western and eastern portions of the site. To further reduce any points of conflict between vehicles and pedestrians, the loading zones have been placed toward the rear of the buildings.

8. Landscaping, as it relates to the requirements of the Comprehensive Plan and Land Development Regulations;

Per Future Land Use Element (FLUE), Policy 2.4.a states that the minimum landscaped area shall be 30% of the site. The proposed development will have $\pm 71\%$ of landscaping and open space, exceeding the required 30% of landscaping and 10% of open space (Land Development Regulations (LDR) Table 6.7-1.).

Due to site space constraints and existing conditions, the required amount of landscape cannot be planted on the project site. The proposed landscape plan meets the intent of the City of Alachua code requirements through alternative methods.

City of Alachua Code Sec. 6.2.2(d)(10) states that an alternative landscape plan may be used "where unreasonable or impractical situations would result from application of this section ... alternative plans, materials or methods may be justified from ... physical conditions related to the site. The lot configuration and existing conditions may justify an alternative landscape plan. Allowable deviations from the standards of this section include, but are not limited to the following:

- (i) A reduction in the total number of required trees and/or alteration of the spacing requirements between trees when underground connections to public facilities or public utilities, or public easements or rights-of-way, are located upon or in close proximity to the parcel or whenever a fewer number of trees would be more desirable in terms of good landscape planning practice.
 - (ii) A reduction in the count, spacing, or species diversity standards which would be more desirable in terms of good landscape planning practice considering the nature of the parcel and adjacent parcels.
 - (iii) Up to a 33 percent reduction in the total number of required trees provided that the cumulative caliper size of all trees to be planted meets or exceeds the total caliper inches that would have been provided otherwise.
- a) Parking area perimeter landscape (Section 6.2.2(d)(2)(b)): Existing gas, electric, water, and sanitary utility lines are located between the project site and 441. Due to existing utility lines and their required clearance from trees, trees are unable to be planted along the northern perimeter of the parking lot.
21 canopy trees and 11 understory trees are required per the calculations. The plan provides 13 canopy trees and 16 understory trees around the perimeter of the parking lot along the southern, eastern, and western sides. Therefore, a deficit of 8 canopy trees remains. The plan proposes an additional 5 understory trees beyond the requirement. Canopy and understory trees have been provided around the parking lot perimeter to satisfy the intent of the parking buffer requirement and have been planted with adequate space to grow to mature size, according to good landscape planning practice.
- b) Building facade planting requirements (Section 6.2.2(d)(1)(c)): Due to the configuration of the site, the required number of canopy trees along the building facade are unable to be provided. Along the building facades, sidewalks are proposed immediately adjacent to the buildings. Much of the site is preserved to provide a wetland buffer. The site has been designed in order to preserve the maximum amount of existing trees along the southern portion of the site. Therefore, additional landscape space is unable to be provided in front of the buildings.
16 canopy trees are required along the building facade per the calculations. Along the sides of the buildings where landscape area can be provided, 3 canopy trees and 7 understory trees are proposed. Therefore, a deficit of 13 canopy trees remains. The 7 understory trees have been provided to satisfy the intent of the requirement. A deficit of 6 trees along the building facade remains. Additional trees are unable to be planted due to the limited area. The trees are located with adequate space to grow to mature size, according to good landscape planning practice
- c) Arterial frontage requirement: section 6.2.3(e)(3): Due to the existing gas, electric, water, and sanitary utility lines located between the project site and 441, the required canopy and understory trees are unable to be provided. A continuous row of shrubs has been provided. The trees in the parking lot islands and along the connecting drive are live oaks, which will provide canopy trees along the arterial frontage. The northern edges of the basins are also planted with canopy and understory trees close to the arterial frontage.

9. Unique features and resources which may constrain site development, such as soils, existing vegetation and historic significance; and

The project site consists of two (2) soils: Millhopper Sand, 0 to 5% slopes (Hydro Group: A) and Pelham Sand (Hydro Group: B/D). There are no concerns with these soils for the type of proposed nonresidential development. The site does contain a previously identified wetland which will have a 75' average wetland buffer from the proposed development. There is no significant vegetation existing onsite and the site is not within a historic district or have identified historic structures.

10. Performance based zoning requirements, which may serve as a substitute for or accompany land development regulations in attaining acceptable site design.

The site currently retains Commercial and Medium Density Residential FLU and PUD Zoning Designations. The proposed development is consistent with the standards as stated in PUD Ordinance No. 05-07 as well as any Comprehensive Plan policies and LDR regulations.

11. Commercial uses shall be limited to an intensity of less than or equal to .50 floor area ratio for parcels 10 acres or greater, .50 floor area ratio for parcels less than 10 acres but 5 acres or greater, a .75 floor area ratio for parcels less than 5 acres but greater than 1 acre, and 1.0 floor area ratio to parcels 1 acre or less.

The ±8.25-acre project site has a proposed building area of 26,000 sq. ft., which has a Floor Area Ratio (FAR) of 0.07. Proposed development onsite will not exceed the permitted FAR.

Transportation Element

Objective 1.1: Level of Service

The City shall establish a safe, convenient and efficient level of service standard for all motorized and non-motorized transportation systems.

The project site is located along the southern R.O.W. line of US 441. The proposed development will not cause US 441 to fall below the Level of Service (LOS) standards. Further explanation is provided in the companion concurrency report submitted with this application. A traffic study was also conducted for the proposed development and was submitted with this application.

Policy 1.2.b: The City shall establish the following access point requirements for City streets:

1. permitting 1 access point for ingress and egress purposes to a single property or development;
2. permitting 2 access points for ingress and egress to a single property or development if the minimum distance between the two access points exceeds 20 feet for a single residential lot or 100 feet for nonresidential development and new residential subdivisions;
3. permitting 3 access points for ingress and egress to a single property or development if the minimum distance between each access point is at least 100 feet for residential and non-residential development; or
4. permitting more than 3 access points for ingress and egress to a single property or development where a minimum distance of 1000 feet is maintained between each access point.

Two access points are proposed: One (1) access point on US 441 and one (1) access point on NW 59th Terrace, which has a distance of ±532 ft between the two access points. A third possible access point on Turkey Creek Boulevard requires the approval of the Turkey Creek HOA and is not proposed at this time. All access points are located on different streets.

Conservation and Open Space Element

Objective 1.5: Soils. The City shall protect soil resources through erosion and sedimentation control, by requiring proper design criteria on specific soils.

The site has two underlying types of soils:

- **Millhopper Sand, 0 – 5 % Slopes (Hydro Group: A)**
- **Pelham Sand (Hydro Group: B/D)**

According to the NRCS soil database, the two soil types mentioned above are conducive to the proposed development with minimal limitations.

Objective 1.10: Wetlands. The City shall protect and preserve wetland values and functions from adverse, human caused, physical and hydrologic disturbances.

Policy 1.10.g: The City shall require natural vegetative buffers around wetlands to protect the fragile ecosystems they sustain. Buffers, measured from the outer edge of the wetland, shall be created as established in the following table.

Resource Addressed	Required Buffer (feet)
Wetlands less than or equal to 0.5 acre that do not support federally and/or state regulated vertebrate wetland/aquatic dependent animal species.	50' average 35' minimum
Wetlands greater than 0.5 acre that do not support the animal species described above.	75' average 50' minimum
Areas where the animal species described above have been documented within 300 feet of a wetland.	100' average 75' minimum

The ±8.25-acre site has a previously identified wetland located on the southern portion. A 75' average wetland buffer protects the wetland from onsite development. The site will adhere to any additional requirements in the LDR.

CONCURRENCY IMPACT ANALYSIS

To: Kathy Winburn, AICP, City of Alachua Planning & Community Dev. Director 18-0431
From: Ryan Thompson, AICP, Planning Project Manager
Date: ~~June 27, 2019~~ Updated September 13, 2019
RE: The Golf Plaza

This application is for a ±8.25-acre portion of Alachua County Tax Parcels 059000-004-001 through 05900-004-010. The site is located north of the Turkey Creek development, east of Turkey Creek Boulevard, west of NW 59th Terrace, and along the south US 441 right-of-way (R.O.W.). The onsite Future Land Use (FLU) categories are Commercial and Medium Density Residential and the Zoning District classification is Planned Unit Development (PUD).

The following analysis estimates potential impacts on City of Alachua public facilities that may result from the proposed development.

Roadways / Transportation

Table 1: Projected Net Trip Generation

Land Use	ITE LU Code	Variable	Quantity	Daily Total	AM Peak			PM Peak		
					Total	In	Out	Total	In	Out
General Office Building	710	SF (x1000)	7.500	86	34	29	5	10	2	8
Shopping Center*	820	SF (x1000)	14.198	1,594	13	8	5	128	61	67
Fast-Food Restaurant with Drive-Through Window	934	SF (x1000)	3.330	1,568	134	68	66	109	57	52
TOTAL				3,248	181	105	76	247	120	127

* The AM peak trip generation uses the average rate, as the average rate provides a more accurate trip generation compared to the fitted curve equation for this size of development. See graph provided in Traffic Impact Analysis, Appendix F.

Conclusion: Approval of this application may generate **3,248 daily vehicle trips**. The proposed development *will not* negatively impact the adopted LOS for adjacent and nearby roadways, as demonstrated in Tables 1-3 of this report.

Table 2: Projected Impacts on Roadways, US 441

	AADT	PM
Traffic System Category	US 441	
	(From CR 25A to NW 126 th Ave)	
Maximum Service Volume ¹	45,700	4,110
Existing Traffic ¹	18,579	1,765
Reserved Trips ¹	23	2
Available Capacity	27,098	2,343
Projected Trip Generation ²	3,248	247
Available Capacity w/ Application approval	23,850	2,096

1. Source: City of Alachua May 2019 Development Monitoring Report

2. NOTE: Projected trip distribution percentage is estimated to be 100%.

Table 3: Projected Impacts on Roadways, US 441

	AADT	PM
Traffic System Category	US 441	
	(From MPO Boundary to CR 25A)	
Maximum Service Volume ¹	43,000	3,870
Existing Traffic ¹	21,000	1,890
Reserved Trips ¹	5	19
Available Capacity	21,995	1,961
Projected Trip Generation ²	2,274	173
Available Capacity w/ Application approval	19,721	1,788

1. Source: City of Alachua May 2019 Development Monitoring Report

2. NOTE: Projected trip distribution percentage is estimated to be 70%.

Conclusion: Per City LDR §2.4.14(H)(2), affected roadways for developments generating more 1,000 external average daily trips (ADT) are those within one-half mile of the subject property, as well as those on which the development's impacts are five percent (5%) or greater of the maximum service volume of the roadway.

The proposed development is anticipated to generate an average of **3,248** daily trips. The only affected roadway segments are US 441 (from CR 25A to NW 126th Avenue and from MPO Boundary to CR 25A), which the project site is located along. This development *will not* cause the roadway segments to fall below the LOS standards.

Potable Water/Sanitary Sewer

Table 4: Projected Potable Water Impact

System Category	Gallons Per Day (GPD)
Current Permitted Capacity ¹	2,300,000
Less actual Potable Water Flows ¹	1,295,603
Reserved Capacity ¹	79,775
Residual Capacity ¹	924,622
Percentage of Permitted Design Capacity Utilized ¹	59.80%
Projected Potable Water Demand from Proposed Project ²	3,750
Residual Capacity after Proposed Project	920,872

1. Source: City of Alachua May 2019 Development Monitoring Report

2. Source: City of Alachua Comprehensive Plan & Chapter 64-E, F.A.C. Formula used: ((25,000 sq. ft./100 sq. ft.) x 15 gal.)

Conclusion: Approval of this application may generate **3,750 gallons per day**. Based on the City's reported available capacity, the proposed development *will not* cause the City's solid waste facilities to fall below LOS standards.

Table 5: Projected Sanitary Sewer Impact

System Category	Gallons Per Day (GPD)
Treatment Plant Current Permitted Capacity ¹	1,500,000
Less actual Treatment Plant Flows ¹	729,000
Reserved Capacity ¹	76,737
Residual Capacity ¹	694,263
Percentage of Permitted Design Capacity Utilized ¹	53.72%
Projected Potable Water Demand from Proposed Project ²	3,750
Residual Capacity after Proposed Project	690,363

1. Source: City of Alachua May 2019 Development Monitoring Report

2. Source: City of Alachua Comprehensive Plan & Chapter 64-E, F.A.C. Formula used: $((25,000 \text{ sq. ft.}/100 \text{ sq. ft.}) \times 15 \text{ gal.})$

Conclusion: Approval of this application may generate **3,750 gallons per day**. Based on the City's reported available capacity, the proposed development *will not* cause the City's solid waste facilities to fall below LOS standards.

Solid Waste

Table 6: Projected Solid Waste Impact

System Category	LBs Per Day	Tons Per Year
Existing Demand ¹	40,620.00	7,413.15
Reserved Capacity ¹	6,882.99	1,256.15
New River Solid Waste Facility Capacity ¹	50 years	
Solid Waste Generated By Proposed Project²		54.75

1. Source: City of Alachua May 2019 Development Monitoring Report.

2. Source: Sincero and Sincero; *Environmental Engineering: A Design Approach*. Prentice Hall, New Jersey, 1996. Formula used: $((12 \text{ lbs.} / 1,000 \text{ ft}^2/\text{day} \times 25,000 \text{ sq. ft.}) \times 365)/2,000$

Conclusion: Approval of this application may generate **54.75 tons of solid waste per year**. The reserved capacity for the City is 1,256.15 tons per year. Therefore, the proposed development *will not* cause the City's solid waste facilities to fall below LOS standards.

TRAFFIC IMPACT ANALYSIS FOR



Golf Plaza Site

Prepared for:
Florida Department of Transportation
City of Alachua

Prepared on behalf of:
Nature Valley Harvest, LTD

1st Submittal: June 2019
2nd Submittal: August 2019
3rd Submittal: September 2019
PN# 18-0431

Brian Richard Snyder
State of Florida
Professional Engineer, License
No. 74607

This item has been digitally
signed and sealed by Brian
Richard Snyder, PE, on the
date indicated here.

Printed copies of this document
are not considered signed and
sealed and the signature must
be verified on any electronic
copies.

Contents

Executive Summary	2
Study Area	2
Trip Generation	4
Data Collection	5
Trip Distribution	11
Analysis.....	14
Intersection Analysis	14
Access Management	17
Right-Turn Lane Warrant Review.....	19
Conclusion and Recommendations.....	20

List of Figures

- Figure 1: Study Area
- Figure 2: Existing (Peak Season) Turning Movements
- Figure 3: Background Turning Movements
- Figure 4: Project Trip Distribution
- Figure 5: Build-out Turning Movements

List of Tables

- Table 1: Trip Generation
- Table 2: US HWY 441 at Turkey Creek Boulevard Background Volumes
- Table 3: US HWY 441 at Proposed Right-In/Right-out Background Volumes
- Table 4: US HWY 441 at NW 59th Terrace Background Volumes
- Table 5: AM Intersection LOS Analysis Summary
- Table 6: PM Intersection LOS Analysis Summary
- Table 7: FDOT Spacing Standards – FDOT Design Manual

List of Appendices

- Appendix A: Methodology Letter and Approval
- Appendix B: Turning Movement Counts
- Appendix C: Seasonal Adjustment Factor and Historical Growth Rates
- Appendix D: HCS Reports
- Appendix E: Straight-Line Diagram
- Appendix F: ITE Trip Generation Documentation

Executive Summary

CHW has prepared this traffic study for the proposed Golf Plaza Site located on US HWY 441 between Turkey Creek Boulevard and NW 59th Terrace. The proposed site will provide approximately 17,500 SF of retail/restaurant space and 7,500 SF of general office.

The project proposes the following access locations:

- A full access on NW 59th Terrace, approximately 200 FT south of US HWY 441
- A right-in/right-out access on US HWY 441, centered between Turkey Creek Boulevard and NW 59th Terrace

This traffic study is based on the methodology letter submitted on April 29, 2019. The methodology letter along with FDOT approval are provided in Appendix A.

Due to plan revisions, the study has been revised to include a 3,330 SF fast-food restaurant with drive-through window with the remaining 14,198 SF kept as shopping center land use.

Based on the results of the analysis from this study, off-site transportation improvements are not required to support this site.

Study Area

The study area consists of the following intersections, as provided in Figure 1:

- US HWY 441 at Turkey Creek Boulevard
- Proposed Right-in/Right-out site access on US HWY 441
- US HWY 441 at NW 59th Terrace



Figure 1 - Study Area



Trip Generation

The trip generation for the Golf Plaza Site is based on the Institute of Transportation Engineer's (ITE) Trip Generation Manual, 10th Edition. The estimated trip generation is provided in Table 1 below. The ITE trip generation documentation is provided in Appendix F.

Golf Plaza Site Trip Generation										
Land Use	ITE LU Code	Variable	Quantity	Daily Total	AM Peak			PM Peak		
					Total	In	Out	Total	In	Out
General Office Building	710	SF (x1000)	7.500	86	34	29	5	10	2	8
Shopping Center*	820	SF (x1000)	14.198	1594	13	8	5	128	61	67
Fast-Food Restaurant with Drive-Through Window	934	SF (x1000)	3.330	1568	134	68	66	109	57	52
TOTAL				3248	181	105	76	247	120	127

* The AM peak trip generation uses the average rate, as the average rate provides a more accurate trip generation compared to the fitted curve equation for this size of development. See graph provided in appendix F.

Table 1 - Trip Generation

Data Collection

Data collection was performed on Thursday, May 9th, 2019. Data was collected for two hours during the AM peak period and two hours during the PM peak period at the following intersections:

- US HWY 441 at Turkey Creek Boulevard
- US HWY 441 at NW 59th Terrace

The results from this data collection are provided in Appendix B. The count data was adjusted based on the peak season factor published by FDOT and by the growth rate, to determine the background and build-out condition, see Appendix C. The peak season factor and the growth rate used in the analysis are provided in Appendix C. Since the historical growth rate was less than 1%, a minimum 1% growth rate was applied to turning movements based on the expected build-out year of 2020. The study area turning movement counts with the applied peak season volumes and background growth factors are provided in Tables 2 through 4. Figures 2 and 3 illustrate the existing and background turning movements at the study area intersections.

US HWY 441 - Growth Rate Data			
Peak Season Factor			1.02
Growth Rate			
Approach	Historical Growth Rate	Growth Rate Used	2020 Growth Factor
US HWY 441 Eastbound	0.57%	1.00%	1.010

AM Peak Hour Background Traffic Volumes													
Scenario	US HWY 441 Eastbound			US HWY 441 Westbound			Turkey Creek Blvd Northbound			Turkey Creek Blvd Southbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
	Observed Turning Movement Counts	40	1236	2	1	615	40	307	0	119	1	0	2
Peak Season Volume (Existing)	41	1261	2	1	627	41	313	0	121	1	0	2	
2020 Background Volumes	41	1274	2	1	633	41	313	0	121	1	0	2	
PHF (Total Intersection = .944)	0.89			0.75			0.88			0.38			
Truck %	3%			8%			1%			0%			
PM Peak Hour Background Traffic Volumes													
Scenario	US HWY 441 Eastbound			US HWY 441 Westbound			Turkey Creek Blvd Northbound			Turkey Creek Blvd Southbound			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
	Observed Turning Movement Counts	106	825	0	0	1254	267	109	0	53	1	0	0
Peak Season Volume (Existing)	108	842	0	0	1279	272	111	0	54	1	0	0	
2020 Background Volumes	109	850	0	0	1292	275	111	0	54	1	0	0	
PHF (Total Intersection = .925)	0.86			0.92			0.84			0.25			
Truck %	4%			3%			2%			0%			

Table 2 – US HWY 441 at Turkey Creek Boulevard Background Volumes

US HWY 441 - Growth Rate Data			
Peak Season Factor			1.02
Growth Rate			
Approach	Historical Growth Rate	Growth Rate Used	2020 Growth Factor
US HWY 441 Eastbound	0.57%	1.00%	1.010

AM Peak Hour Background Traffic Volumes	
Scenario	US 441 Eastbound Through
	Observed Turning Movement Counts
	Peak Season Volume (Existing)
	2020 Background Volumes
	PHF
Truck %	3%
PM Peak Hour Background Traffic Volumes	
Scenario	US 441 Eastbound Through
	Observed Turning Movement Counts
	Peak Season Volume (Existing)
	2020 Background Volumes
	PHF
Truck %	4%

Table 3 - US HWY 441 at Proposed Right-In/Right-out Background Volumes

Proposed Golf Plaza Site - Growth Rate Data		
Peak Season Factor		1.02
Growth Rate		
Approach	Historical Growth Rate	Growth Rate Used 2020 Growth Factor
US HWY 441 Eastbound	0.57%	1.00% 1.010

AM Peak Hour Background Traffic Volumes												
Scenario	US HWY 441 Eastbound			US HWY 441 Westbound			NW 59th Terrace Northbound			NW 59th Terrace Southbound		
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left
Observed Turning Movement Counts	7	1518	18	9	645	3	3	1	3	7	3	11
Peak Season Volume (Existing)	7	1548	18	9	658	3	3	1	3	7	3	11
2020 Background Volumes	7	1563	18	9	665	3	3	1	3	7	3	11
PHF (.944)	0.88			0.76			0.58			0.88		
TRUCK %	3%			7%			29%			10%		
PM Peak Hour Background Traffic Volumes												
Scenario	US 441 Eastbound			US 441 Westbound			NW 59th Terrace Northbound			NW 59th Terrace Southbound		
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left
Observed Turning Movement Counts	6	915	19	20	1471	5	6	3	7	13	0	15
Peak Season Volume (Existing)	6	933	19	20	1500	5	6	3	7	13	0	15
2020 Background Volumes	6	942	19	20	1515	5	6	3	7	13	0	15
PHF (.925)	0.87			0.93			0.80			0.70		
TRUCK %	4%			3%			0%			11%		

Table 4- US HWY 441 at NW 59th Terrace Background Volumes



Figure 3 - Background Turning Movements



Trip Distribution

The trip distribution for this site is expected to mimic existing traffic patterns. The trip distribution will be based on resulting turning movements at the proposed site access on US HWY 441.

The following Figures illustrate how the project trip distribution was determined and the resulting expected full build-out turning movements at the study area intersection:

- Figure 4: **2020 Project Trip Distribution** – This figure provides the estimated inbound and outbound project trip turning movements based on the origins and destinations of vehicles from the Turkey Creek subdivision and NW 59th Terrace.
- Figure 5: **2020 Build-out Turning Movements** – This figure provides the combined 2020 background turning movements with the project trip turning movements.



Figure 4 - Project Trip Distribution



Figure 5 - Build-Out Turning Movements



Analysis

The analysis was performed at the intersection provided in the study area under the following scenarios.

- Existing Conditions
- Background Conditions
- Buildout Conditions
- Build-out with Improvements (if applicable)

Intersection Analysis

All Study Area intersections were analyzed during the AM and PM peak hours for the existing, background, and build-out scenarios. HCS 7 was used to analyze the study area intersections. Table 5 and 6 provide the LOS, delay, v/c ratio, and 95th percentile queue length of the study area intersection movements.

The following intersection movement deficiencies are highlighted in Table 5 and 6:

- Movements operating with a LOS of F
- v/c ratios exceeding 1.0
- 95th percentile queue lengths exceeding the available storage

The HCS reports are provided in Appendix D.

AM Intersection LOS Analysis Summary														
Intersection	Movement	Available Storage (ft)	Existing (Peak Season)				Background				Build-Out			
			LOS	Delay(s)	v/c	95% Queue (FT)	LOS	Delay(s)	v/c	95% Queue (FT)	LOS	Delay(s)	v/c	95% Queue (FT)
Turkey Creek at US Highway 441	EBL	570	A	9	0	0	A	9	0	0	A	9.1	0.00	0
	WBL	570	B	13.6	0.09	25	B	13.8	0.1	25	B	14.1	0.10	25
	NBL	N/A	F	148.9	1.01	175	F	156.2	1.03	200	F	175.4	1.08	200
	NBT/R	N/A	E	45	0.83	200	E	46.5	0.84	200	F	50.4	0.86	225
	SBL/T/R	N/A	F	115.7	0.09	25	F	137.5	0.11	25	F	256.2	0.19	25
	Intersection total			13.7				14.2				15.5		
59th Terrace at US Highway 441	EBL	570	A	9.2	0.02	25	A	9.2	0.02	25	B	10.9	0.06	25
	WBL	570	B	15	0.01	0	C	15.1	0.01	0	C	18.7	0.24	25
	NBL/T/R	N/A	E	45.2	0.08	25	E	46.2	0.08	25	F	56.5	0.29	50
	SBL/T/R	N/A	D	25.1	0.11	25	D	25.4	0.11	25	F	56.4	0.24	25
	Intersection total			0.5				0.5				1.8		
	NBR	N/A									D	26.6	0.28	50
Proposed Site Access at US Highway 441	Intersection total											1.5		
Yellow highlight = deficiency occurring without project traffic														
Red highlight = deficiency occurs due to added project trips														

Table 5- AM Intersection LOS Analysis Summary

PM Intersection LOS Analysis Summary														
Intersection	Movement	Available Storage (ft)	Existing (Peak Season)				2020 Background				2020 Build-Out			
			LOS	Delay(s)	v/c	95% Queue (FT)	LOS	Delay(s)	v/c	95% Queue (FT)	LOS	Delay(s)	v/c	95% Queue (FT)
Turkey Creek at US Highway 441	EBL	570	B	12.1	0	0	B	12.2	0	0	B	12.5	0.00	0
	WBL	570	B	14.5	0.44	75	B	14.7	0.45	75	C	15.3	0.46	75
	NBL	N/A	F	146.3	0.79	100	F	155.7	0.81	100	F	175.9	0.87	125
	NBT/R	N/A	B	13.3	0.22	25	B	13.3	0.22	25	B	13.7	0.22	25
	SBL/T/R	N/A	B	14.2	0	0	B	14.3	0	0	B	14.6	0.00	0
	Intersection total			5.0				5.2				5.5		
59th Terrace at US Highway 441	EBL	570	B	14.9	0.05	25	C	15.1	0.05	25	E	35.8	0.31	50
	WBL	570	B	10.4	0.01	0	B	10.4	0.01	0	B	11.7	0.15	25
	NBL/T/R	N/A	D	28.6	0.1	25	D	29	0.1	25	E	45.6	0.37	50
	SBL/T/R	N/A	E	46.1	0.26	25	E	47.3	0.26	25	F	88.0	0.42	50
	Intersection total			0.8				0.8				2.7		
Proposed Site Access at US Highway 441	NBR	N/A									C	17.6	0.28	50
Intersection total												1.5		
Yellow highlight = deficiency occurring without project traffic														
Red highlight = deficiency occurs due to added project trips														

Table 6- PM Intersection LOS Analysis Summary

Summary of Analysis Results

This analysis demonstrated that the following movements, as highlighted, operate with a LOS of F, a v/c ratio greater than 1.0, or a 95th percentile queue length exceeding the available storage length due to the addition of project traffic:

- LOS of F – AM Condition - US HW 441 at Turkey Creek Blvd (NBT/R)
- LOS of F – AM Condition - US HW 441 at 59th Terrace (NBL/T/R)
- LOS of F - AM Condition - US HW 441 at 59th Terrace (SBL/T/R)
- LOS of F – PM Condition - US HW 441 at 59th Terrace (SBL/T/R)

These movements are expected to operate with a LOS of F during the 2020 build-out scenario. It is typical for the minor street to experience delay during peak hours as the higher volume major street traffic is provided priority. Additionally, the v/c ratio is less than 1.0 indicating that backups are not expected. Therefore, no improvements are recommended to mitigate these conditions.

Access Management

The project site will be served by US HWY 441. US HWY 441 is a four-lane Urban Principal Arterial roadway with a median. US HWY 441 has a Class 3 access classification and a posted speed limit of 60 MPH, per the Straight-Line Diagram provided in Appendix E. The connection spacing standard for this facility is 660 FT, see Table 6.

The project proposes a right-in/right-out connection centered between Turkey Creek Boulevard and NW 59th Terrace, providing a spacing distance of approximately 590 FT from the Turkey Creek Boulevard and approximately 570 FT from NW 59th Terrace.

The proposed site connection falls slightly short of meeting FDOT Connection Spacing Standards, however, the proposed right-in/right-out access is proposed at a suitable location, centered between the adjacent intersections. Access at this location is not expected to have a negative impact to the adjacent intersections.

Access Class	Median Type	Connection Spacing (feet)		Median Opening Spacing (feet)		Signal Spacing (feet)
		>45 mph	≤45 mph	Directional	Full	
2	Restrictive with Service Roads	1320	660	1320	2640	2640
3	Restrictive	660	440	1320	2640	2640
4	Non-Restrictive	660	440			2640
5	Restrictive	440	245	660	2640 >45 mph 1320 ≤ 45 mph	
6	Non-Restrictive	440	245			1320
7	Both Median Types	125		330	660	1320

Notes:

1. "Restrictive" physically prevent vehicle crossing.
2. "Non-Restrictive" allow turns across at any point.
3. Speeds shown in this table are posted speeds.

Connection Spacing Near Interchange Ramps:

Connections and median openings located within 1,320 feet of interchange ramps require the following spacing (measured from the ramp furthest from the interchange):

- 440 feet ≤ 45 mph
- 660 feet > 45 mph
- 1,320 feet on Access Class 2 Facilities > 45 mph

Table 7 - FDOT Spacing Standards – FDOT Design Manual

Right-Turn Lane Warrant Review

A right turn lane warrant review was performed to determine the need for a right turn lane at the proposed right-in/right-out site access between NW 59th Terrace and Turkey Creek boulevard on US HWY 441.

The build-out volume illustrated in Figure 5 indicates that a total of 12 AM peak hour trips and 23 PM peak hour trips are estimated to turn right into the site at the proposed access.

The FDOT Driveway Information Guide (2008) indicates that a right turn is recommended when the right turn volumes exceed 55 vehicles per hour. Therefore, a right turn lane is not warranted at this location.

Conclusion and Recommendations

This study provides an operational analysis which indicates that the added project traffic does not cause any concerning deficiencies. The proposed access was reviewed with FDOT's spacing standards indicating that though the proposed spacing falls slightly short of meeting the spacing standards the access is provided in the most suitable location and is not expected to have a negative impact on the adjacent intersections. Finally, the study reviewed the expected volume of right-turns into the proposed access and concluded that a US HWY 441 eastbound right-turn lane is not warranted at this access. Based on this analysis there are no off-site transportation improvements required to support this site.

Appendix A:

Methodology Letter and Approval

April 29, 2019

Tom Cavin, PE
Jacksonville Studies Engineer
Florida Department of Transportation
2198 Edison Avenue, MS2815

RE: Turkey Creek Retail/Office Site – Traffic Study

Dear Tom,

CHW is preparing a Traffic Study for the proposed Turkey Creek Retail/Office Site, located on US HWY 441 between Turkey Creek Boulevard and NW 59th Terrace. The proposed site will provide approximately 17,800 SF of retail/restaurant space and 7,800 SF of General Office Building. The study will consider the retail/restaurant as Shopping Center for the purpose of determining trip generation.

The site proposes the following access locations:

- A full access on NW 59th terrace, Approximately 200 FT south of US 441
- A right-in/right-out access on US HWY 441, centered between Turkey Creek Boulevard and NW 59th Terrace

Please review the methodology and either provide comment for the purpose of modification/clarification or provide acceptance.

Study Area

The study area will consist of:

- Intersection of US HWY 441 at Turkey Creek Boulevard
- Proposed Right-in/Right-out site access on US HWY 441
- Intersection of US HWY 441 at NW 59th Terrace

Land Use and Trip Generation

The trip generation for the Turkey Creek Retail/Office Site will be based on the Institute of Transportation Engineer's (ITE) Trip Generation Manual, 10th Edition. The estimated trip generation is provided in the table below.

Land Use	ITE LU Code	Variable	Quantity	Daily Total	AM Peak			PM Peak		
					Total	In	Out	Total	In	Out
General Office Building	710	SF (x1000)	7.8	89	34	29	5	10	2	8
Shopping Center	820	SF (x1000)	17.8	1859	17	11	6	152	73	79
TOTAL				1948	51	40	11	162	75	87

Trip Generation for the Proposed Turkey Creek Retail/Office Site – Alachua, FL

Data Collection

Turning movement counts will be performed during the peak two hours during the AM and the peak two hours during the PM, on a single day from Tuesday through Thursday, at the following intersections:

- US HWY 441 at Turkey Creek Boulevard
- US HWY 441 at NW 59th Terrace

The count data will be adjusted based on the seasonal adjustment factor and by the growth rate derived from FDOT Traffic Online.

Trip Distribution

The trip distribution for this site is expected to mimic existing traffic patterns of the area. The trip distribution will be based on the US HWY 441 directional distribution derived from turning movement count data.

Analysis

The analysis will be performed at the intersections provided in the study area under the following scenarios.

- Existing Conditions
- Background Conditions
- Buildout Conditions
- Build-out with Improvements

HCS7 will be used to analyze the LOS, delay, and 95th percentile queue lengths.

Access management of the proposed access locations will be reviewed based on FDOT spacing standards.

A right-turn lane warrant analyses will be performed on US HWY 441 at the proposed right-in/right-out access.

Any needed roadway modifications based on this analysis will be identified. If modifications are required, the improved scenario will be modeled to demonstrate that the deficiency can be corrected with the proposed improvement.

Report

A draft report, including, as a minimum, the following will be submitted for review and comment.

- Study Area Map
- Trip Generation
- Data Collection
- Trip Distribution
- Analysis
 - Intersection Analysis
 - Access Management
 - Right-turn Lane Warrant Analysis
- Conclusion and Recommendations
- Appendices with supporting documentation

Following any revisions, based upon staff comments, we will prepare a final signed and sealed report.

If your office concurs with this methodology, please find the appropriate signature block and sign as such. Please return a signed copy to our office for our records.

Thank you for your review and consideration.

Sincerely,

CHW



Brian Snyder, P.E.
Project Manager

N:\2018\18-0431\Engineering\Traffic\Methodology\190429_ TIA METHODOLOGY _ Turkey Creek Retail-Office.docx

I concur with the traffic study methodology presented for the proposed Turkey Creek Retail/Office Site - Traffic Study located in Alachua, Florida.

Date

Tom Cavin, PE
Jacksonville Studies Engineer
Florida Department of Transportation

From: Cavin, Tom <Tom.Cavin@dot.state.fl.us>
Sent: Tuesday, May 7, 2019 10:08 AM
To: Brian Snyder <brians@chw-inc.com>
Cc: Doyle, Adam <Adam.Doyle@dot.state.fl.us>
Subject: FW: Turkey Creek Retail/Office Site

Brian,

I concur with the study methodology.

One question: when we pre-app'd with Daniel on this, he was hoping to gain access to Turkey Creek Blvd. According to the study methodology, this does not being proposed. This innerconnection is preferred by us if possible.

Tom Cavin, P.E.
Jacksonville Studies Engineer
Florida Department of Transportation
2198 Edison Avenue, MS2815
Tom.cavin@dot.state.fl.us
904-360-5641



From: Brian Snyder [<mailto:brians@chw-inc.com>]
Sent: Monday, April 29, 2019 2:10 PM
To: Cavin, Tom <Tom.Cavin@dot.state.fl.us>
Subject: Turkey Creek Retail/Office Site

EXTERNAL SENDER: Use caution with links and attachments.

Tom,

Please see the attached methodology for your review. Daniel from our office met with FDOT onsite to discuss this project's access, not sure whether that was with you or not.

Thank you,

BRIAN SNYDER | Project Manager
t: (386) 518-5154 | **c:** (352) 339-2938
e: brians@chw-inc.com
w: www.chw-inc.com

Appendix B:

Turning Movement Counts

Peggy Malone & Associates, Inc.
(888) 247-8602

File Name : 1-Turkey Creek Blvd and US 441 AM
Site Code :
Start Date : 5/9/2019
Page No : 1

Groups Printed- Car

	Driveway Southbound					US 441 Westbound					Turkey Creek Blvd Northbound					US 441 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	0	0	0	0	0	0	76	4	0	80	60	0	7	0	67	0	262	0	0	262	409
06:45 AM	1	0	1	0	2	0	95	4	0	99	74	0	17	0	91	5	252	0	0	257	449
Total	1	0	1	0	2	0	171	8	0	179	134	0	24	0	158	5	514	0	0	519	858
07:00 AM	1	0	1	0	2	1	95	3	0	99	92	0	28	0	120	3	272	1	0	276	497
07:15 AM	0	0	1	0	1	0	137	10	0	147	80	0	32	0	112	8	345	0	0	353	613
07:30 AM	0	0	0	0	0	0	151	11	0	162	63	0	36	0	99	9	310	1	0	320	581
07:45 AM	0	0	0	0	0	0	192	13	0	205	68	0	21	0	89	18	274	0	0	292	586
Total	1	0	2	0	3	1	575	37	0	613	303	0	117	0	420	38	1201	2	0	1241	2277
08:00 AM	0	0	0	0	0	0	163	13	0	176	49	0	18	0	67	12	226	0	0	238	481
08:15 AM	0	0	0	0	0	0	166	13	0	179	53	0	18	0	71	9	219	1	0	229	479
Grand Total	2	0	3	0	5	1	1075	71	0	1147	539	0	177	0	716	64	2160	3	0	2227	4095
Apprch %	40	0	60	0		0.1	93.7	6.2	0		75.3	0	24.7	0		2.9	97	0.1	0		
Total %	0	0	0.1	0	0.1	0	26.3	1.7	0	28	13.2	0	4.3	0	17.5	1.6	52.7	0.1	0	54.4	

	Driveway Southbound				US 441 Westbound				Turkey Creek Blvd Northbound				US 441 Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	0	1	2	1	95	3	99	92	0	28	120	3	272	1	276	497
07:15 AM	0	0	1	1	0	137	10	147	80	0	32	112	8	345	0	353	613
07:30 AM	0	0	0	0	0	151	11	162	63	0	36	99	9	310	1	320	581
07:45 AM	0	0	0	0	0	192	13	205	68	0	21	89	18	274	0	292	586
Total Volume	1	0	2	3	1	575	37	613	303	0	117	420	38	1201	2	1241	2277
% App. Total	33.3	0	66.7		0.2	93.8	6		72.1	0	27.9		3.1	96.8	0.2		
PHF	.250	.000	.500	.375	.250	.749	.712	.748	.823	.000	.813	.875	.528	.870	.500	.879	.929

Peggy Malone & Associates, Inc.
(888) 247-8602

File Name : 1-Turkey Creek Blvd and US 441 AM
Site Code :
Start Date : 5/9/2019
Page No : 1

Groups Printed- Truck

	Driveway Southbound					US 441 Westbound					Turkey Creek Blvd Northbound					US 441 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	0	0	0	0	0	0	6	1	0	7	0	0	1	0	1	3	9	0	0	12	20
06:45 AM	0	0	0	0	0	0	10	0	0	10	3	0	0	0	3	0	12	0	0	12	25
Total	0	0	0	0	0	0	16	1	0	17	3	0	1	0	4	3	21	0	0	24	45
07:00 AM	0	0	0	0	0	0	6	0	0	6	0	0	1	0	1	0	8	0	0	8	15
07:15 AM	0	0	0	0	0	0	11	2	0	13	2	0	1	0	3	1	6	0	0	7	23
07:30 AM	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	12	0	0	12	22
07:45 AM	0	0	0	0	0	0	13	1	0	14	2	0	0	0	2	1	9	0	0	10	26
Total	0	0	0	0	0	0	40	3	0	43	4	0	2	0	6	2	35	0	0	37	86
08:00 AM	0	0	0	0	0	0	13	1	0	14	0	0	0	0	0	1	12	0	0	13	27
08:15 AM	0	0	0	0	0	0	9	1	0	10	0	0	0	0	0	1	7	0	0	8	18
Grand Total	0	0	0	0	0	0	78	6	0	84	7	0	3	0	10	7	75	0	0	82	176
Apprch %	0	0	0	0		0	92.9	7.1	0		70	0	30	0		8.5	91.5	0	0		
Total %	0	0	0	0		0	44.3	3.4	0	47.7	4	0	1.7	0	5.7	4	42.6	0	0	46.6	

	Driveway Southbound				US 441 Westbound				Turkey Creek Blvd Northbound				US 441 Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	11	2	13	2	0	1	3	1	6	0	7	23
07:30 AM	0	0	0	0	0	10	0	10	0	0	0	0	0	12	0	12	22
07:45 AM	0	0	0	0	0	13	1	14	2	0	0	2	1	9	0	10	26
08:00 AM	0	0	0	0	0	13	1	14	0	0	0	0	1	12	0	13	27
Total Volume	0	0	0	0	0	47	4	51	4	0	1	5	3	39	0	42	98
% App. Total	0	0	0		0	92.2	7.8		80	0	20		7.1	92.9	0		
PHF	.000	.000	.000	.000	.000	.904	.500	.911	.500	.000	.250	.417	.750	.813	.000	.808	.907

Peggy Malone & Associates, Inc.
(888) 247-8602

File Name : 1-Turkey Creek Blvd and US 441 AM
Site Code :
Start Date : 5/9/2019
Page No : 1

Groups Printed- Combined

	Driveway Southbound					US 441 Westbound					Turkey Creek Blvd Northbound					US 441 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	0	0	0	0	0	0	82	5	0	87	60	0	8	0	68	3	271	0	0	274	429
06:45 AM	1	0	1	0	2	0	105	4	0	109	77	0	17	0	94	5	264	0	0	269	474
Total	1	0	1	0	2	0	187	9	0	196	137	0	25	0	162	8	535	0	0	543	903
07:00 AM	1	0	1	0	2	1	101	3	0	105	92	0	29	0	121	3	280	1	0	284	512
07:15 AM	0	0	1	0	1	0	148	12	0	160	82	0	33	0	115	9	351	0	0	360	636
07:30 AM	0	0	0	0	0	0	161	11	0	172	63	0	36	0	99	9	322	1	0	332	603
07:45 AM	0	0	0	0	0	0	205	14	0	219	70	0	21	0	91	19	283	0	0	302	612
Total	1	0	2	0	3	1	615	40	0	656	307	0	119	0	426	40	1236	2	0	1278	2363
08:00 AM	0	0	0	0	0	0	176	14	0	190	49	0	18	0	67	13	238	0	0	251	508
08:15 AM	0	0	0	0	0	0	175	14	0	189	53	0	18	0	71	10	226	1	0	237	497
Grand Total	2	0	3	0	5	1	1153	77	0	1231	546	0	180	0	726	71	2235	3	0	2309	4271
Apprch %	40	0	60	0		0.1	93.7	6.3	0		75.2	0	24.8	0		3.1	96.8	0.1	0		
Total %	0	0	0.1	0	0.1	0	27	1.8	0	28.8	12.8	0	4.2	0	17	1.7	52.3	0.1	0	54.1	

	Driveway Southbound				US 441 Westbound				Turkey Creek Blvd Northbound				US 441 Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	0	1	2	1	101	3	105	92	0	29	121	3	280	1	284	512
07:15 AM	0	0	1	1	0	148	12	160	82	0	33	115	9	351	0	360	636
07:30 AM	0	0	0	0	0	161	11	172	63	0	36	99	9	322	1	332	603
07:45 AM	0	0	0	0	0	205	14	219	70	0	21	91	19	283	0	302	612
Total Volume	1	0	2	3	1	615	40	656	307	0	119	426	40	1236	2	1278	2363
% App. Total	33.3	0	66.7		0.2	93.8	6.1		72.1	0	27.9		3.1	96.7	0.2		
PHF	.250	.000	.500	.375	.250	.750	.714	.749	.834	.000	.826	.880	.526	.880	.500	.888	.929

Truck %

0%

8%

1%

3%

Peggy Malone & Associates, Inc.
(888) 247-8602

File Name : 1-Turkey Creek Blvd and US 441 PM
Site Code :
Start Date : 5/9/2019
Page No : 1

Groups Printed- Car

	Driveway Southbound					US 441 Westbound					Turkey Creek Blvd Northbound					US 441 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	1	0	0	0	1	1	204	53	0	258	20	0	11	0	31	21	136	0	0	157	447
04:15 PM	0	0	0	0	0	1	226	37	0	264	39	0	14	0	53	25	168	0	0	193	510
04:30 PM	0	0	0	0	0	1	229	55	0	285	31	0	13	0	44	17	147	0	0	164	493
04:45 PM	0	0	0	0	0	1	280	50	0	331	34	0	11	0	45	26	152	0	0	178	554
Total	1	0	0	0	1	4	939	195	0	1138	124	0	49	0	173	89	603	0	0	692	2004
05:00 PM	1	0	0	0	1	0	292	70	0	362	23	0	7	0	30	24	240	0	0	264	657
05:15 PM	0	0	0	0	0	0	309	64	0	373	29	0	18	0	47	40	211	0	0	251	671
05:30 PM	0	0	0	0	0	0	341	71	0	412	30	0	15	0	45	26	195	0	0	221	678
05:45 PM	0	0	0	0	0	0	300	62	0	362	26	0	12	0	38	15	157	0	0	172	572
Total	1	0	0	0	1	0	1242	267	0	1509	108	0	52	0	160	105	803	0	0	908	2578
Grand Total	2	0	0	0	2	4	2181	462	0	2647	232	0	101	0	333	194	1406	0	0	1600	4582
Apprch %	100	0	0	0		0.2	82.4	17.5	0		69.7	0	30.3	0		12.1	87.9	0	0		
Total %	0	0	0	0	0	0.1	47.6	10.1	0	57.8	5.1	0	2.2	0	7.3	4.2	30.7	0	0	34.9	

	Driveway Southbound				US 441 Westbound				Turkey Creek Blvd Northbound				US 441 Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	0	0	1	0	292	70	362	23	0	7	30	24	240	0	264	657
05:15 PM	0	0	0	0	0	309	64	373	29	0	18	47	40	211	0	251	671
05:30 PM	0	0	0	0	0	341	71	412	30	0	15	45	26	195	0	221	678
05:45 PM	0	0	0	0	0	300	62	362	26	0	12	38	15	157	0	172	572
Total Volume	1	0	0	1	0	1242	267	1509	108	0	52	160	105	803	0	908	2578
% App. Total	100	0	0		0	82.3	17.7		67.5	0	32.5		11.6	88.4	0		
PHF	.250	.000	.000	.250	.000	.911	.940	.916	.900	.000	.722	.851	.656	.836	.000	.860	.951

Peggy Malone & Associates, Inc.
(888) 247-8602

File Name : 1-Turkey Creek Blvd and US 441 PM
Site Code :
Start Date : 5/9/2019
Page No : 1

Groups Printed- Truck

	Driveway Southbound					US 441 Westbound					Turkey Creek Blvd Northbound					US 441 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	9	0	0	9	15
04:15 PM	0	0	0	0	0	0	13	3	0	16	0	0	1	0	1	1	10	0	0	11	28
04:30 PM	0	0	0	0	0	0	10	1	0	11	1	0	2	0	3	1	9	0	0	10	24
04:45 PM	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	5	0	0	5	14
Total	0	0	0	0	0	0	38	4	0	42	1	0	3	0	4	2	33	0	0	35	81
05:00 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	7	0	0	7	11
05:15 PM	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	8	0	0	8	12
05:30 PM	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	1	5	0	0	6	9
05:45 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5
Total	0	0	0	0	0	0	12	0	0	12	1	0	1	0	2	1	22	0	0	23	37
Grand Total	0	0	0	0	0	0	50	4	0	54	2	0	4	0	6	3	55	0	0	58	118
Apprch %	0	0	0	0		0	92.6	7.4	0		33.3	0	66.7	0		5.2	94.8	0	0		
Total %	0	0	0	0		0	42.4	3.4	0	45.8	1.7	0	3.4	0	5.1	2.5	46.6	0	0	49.2	

	Driveway Southbound				US 441 Westbound				Turkey Creek Blvd Northbound				US 441 Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	6	0	6	0	0	0	0	0	9	0	9	15
04:15 PM	0	0	0	0	0	13	3	16	0	0	1	1	1	10	0	11	28
04:30 PM	0	0	0	0	0	10	1	11	1	0	2	3	1	9	0	10	24
04:45 PM	0	0	0	0	0	9	0	9	0	0	0	0	0	5	0	5	14
Total Volume	0	0	0	0	0	38	4	42	1	0	3	4	2	33	0	35	81
% App. Total	0	0	0		0	90.5	9.5		25	0	75		5.7	94.3	0		
PHF	.000	.000	.000	.000	.000	.731	.333	.656	.250	.000	.375	.333	.500	.825	.000	.795	.723

Peggy Malone & Associates, Inc.
(888) 247-8602

File Name : 1-Turkey Creek Blvd and US 441 PM
Site Code :
Start Date : 5/9/2019
Page No : 1

Groups Printed- Combined

	Driveway Southbound					US 441 Westbound					Turkey Creek Blvd Northbound					US 441 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	1	0	0	0	1	1	210	53	0	264	20	0	11	0	31	21	145	0	0	166	462
04:15 PM	0	0	0	0	0	1	239	40	0	280	39	0	15	0	54	26	178	0	0	204	538
04:30 PM	0	0	0	0	0	1	239	56	0	296	32	0	15	0	47	18	156	0	0	174	517
04:45 PM	0	0	0	0	0	1	289	50	0	340	34	0	11	0	45	26	157	0	0	183	568
Total	1	0	0	0	1	4	977	199	0	1180	125	0	52	0	177	91	636	0	0	727	2085
05:00 PM	1	0	0	0	1	0	296	70	0	366	23	0	7	0	30	24	247	0	0	271	668
05:15 PM	0	0	0	0	0	0	312	64	0	376	29	0	19	0	48	40	219	0	0	259	683
05:30 PM	0	0	0	0	0	0	343	71	0	414	31	0	15	0	46	27	200	0	0	227	687
05:45 PM	0	0	0	0	0	0	303	62	0	365	26	0	12	0	38	15	159	0	0	174	577
Total	1	0	0	0	1	0	1254	267	0	1521	109	0	53	0	162	106	825	0	0	931	2615
Grand Total	2	0	0	0	2	4	2231	466	0	2701	234	0	105	0	339	197	1461	0	0	1658	4700
Apprch %	100	0	0	0		0.1	82.6	17.3	0		69	0	31	0		11.9	88.1	0	0		
Total %	0	0	0	0	0	0.1	47.5	9.9	0	57.5	5	0	2.2	0	7.2	4.2	31.1	0	0	35.3	

	Driveway Southbound				US 441 Westbound				Turkey Creek Blvd Northbound				US 441 Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	0	0	1	0	296	70	366	23	0	7	30	24	247	0	271	668
05:15 PM	0	0	0	0	0	312	64	376	29	0	19	48	40	219	0	259	683
05:30 PM	0	0	0	0	0	343	71	414	31	0	15	46	27	200	0	227	687
05:45 PM	0	0	0	0	0	303	62	365	26	0	12	38	15	159	0	174	577
Total Volume	1	0	0	1	0	1254	267	1521	109	0	53	162	106	825	0	931	2615
% App. Total	100	0	0		0	82.4	17.6		67.3	0	32.7		11.4	88.6	0		
PHF	.250	.000	.000	.250	.000	.914	.940	.918	.879	.000	.697	.844	.663	.835	.000	.859	.952

Truck %

0%

3%

2%

4%

Peggy Malone & Associates, Inc.
(888) 247-8602

File Name : 2-NW 59th Terrace and US 441 AM
Site Code :
Start Date : 5/9/2019
Page No : 1

Groups Printed- Car

	NW 59th Terrace Southbound					US 441 Westbound					NW 59th Terrace Northbound					US 441 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	0	0	2	0	2	3	77	7	0	87	2	0	1	0	3	2	323	1	0	326	418
06:45 AM	0	1	5	0	6	5	99	2	0	106	1	1	1	0	3	2	330	7	0	339	454
Total	0	1	7	0	8	8	176	9	0	193	3	1	2	0	6	4	653	8	0	665	872
07:00 AM	0	1	5	0	6	1	100	0	0	101	0	0	1	0	1	2	357	4	0	363	471
07:15 AM	2	0	2	0	4	2	144	1	0	147	0	0	0	0	0	1	425	3	0	429	580
07:30 AM	2	1	2	0	5	4	161	1	0	166	1	0	1	0	2	2	362	6	0	370	543
07:45 AM	2	1	2	0	5	2	198	1	0	201	0	1	1	0	2	2	335	4	0	341	549
Total	6	3	11	0	20	9	603	3	0	615	1	1	3	0	5	7	1479	17	0	1503	2143
08:00 AM	1	0	4	0	5	5	168	0	0	173	0	0	0	0	0	1	270	5	0	276	454
08:15 AM	1	0	0	0	1	2	174	0	0	176	0	0	0	0	0	3	262	5	0	270	447
Grand Total	8	4	22	0	34	24	1121	12	0	1157	4	2	5	0	11	15	2664	35	0	2714	3916
Apprch %	23.5	11.8	64.7	0		2.1	96.9	1	0		36.4	18.2	45.5	0		0.6	98.2	1.3	0		
Total %	0.2	0.1	0.6	0	0.9	0.6	28.6	0.3	0	29.5	0.1	0.1	0.1	0	0.3	0.4	68	0.9	0	69.3	

	NW 59th Terrace Southbound				US 441 Westbound				NW 59th Terrace Northbound				US 441 Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	1	5	6	1	100	0	101	0	0	1	1	2	357	4	363	471
07:15 AM	2	0	2	4	2	144	1	147	0	0	0	0	1	425	3	429	580
07:30 AM	2	1	2	5	4	161	1	166	1	0	1	2	2	362	6	370	543
07:45 AM	2	1	2	5	2	198	1	201	0	1	1	2	2	335	4	341	549
Total Volume	6	3	11	20	9	603	3	615	1	1	3	5	7	1479	17	1503	2143
% App. Total	30	15	55		1.5	98	0.5		20	20	60		0.5	98.4	1.1		
PHF	.750	.750	.550	.833	.563	.761	.750	.765	.250	.250	.750	.625	.875	.870	.708	.876	.924

Peggy Malone & Associates, Inc.
(888) 247-8602

File Name : 2-NW 59th Terrace and US 441 AM
Site Code :
Start Date : 5/9/2019
Page No : 1

Groups Printed- Truck

	NW 59th Terrace Southbound					US 441 Westbound					NW 59th Terrace Northbound					US 441 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	0	9	0	0	9	16
06:45 AM	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	13	0	0	13	23
Total	0	0	0	0	0	1	16	0	0	17	0	0	0	0	0	0	22	0	0	22	39
07:00 AM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	9	0	0	9	15
07:15 AM	1	0	0	0	1	0	12	0	0	12	1	0	0	0	1	0	8	0	0	8	22
07:30 AM	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	12	0	0	12	22
07:45 AM	0	0	0	0	0	0	14	0	0	14	1	0	0	0	1	0	10	1	0	11	26
Total	1	0	0	0	1	0	42	0	0	42	2	0	0	0	2	0	39	1	0	40	85
08:00 AM	1	0	0	0	1	0	13	0	0	13	0	0	0	0	0	0	12	0	0	12	26
08:15 AM	0	0	0	0	0	1	9	0	0	10	0	0	0	0	0	0	7	0	0	7	17
Grand Total	2	0	0	0	2	2	80	0	0	82	2	0	0	0	2	0	80	1	0	81	167
Apprch %	100	0	0	0		2.4	97.6	0	0		100	0	0	0		0	98.8	1.2	0		
Total %	1.2	0	0	0	1.2	1.2	47.9	0	0	49.1	1.2	0	0	0	1.2	0	47.9	0.6	0	48.5	

	NW 59th Terrace Southbound				US 441 Westbound				NW 59th Terrace Northbound				US 441 Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	0	0	1	0	12	0	12	1	0	0	1	0	8	0	8	22
07:30 AM	0	0	0	0	0	10	0	10	0	0	0	0	0	12	0	12	22
07:45 AM	0	0	0	0	0	14	0	14	1	0	0	1	0	10	1	11	26
08:00 AM	1	0	0	1	0	13	0	13	0	0	0	0	0	12	0	12	26
Total Volume	2	0	0	2	0	49	0	49	2	0	0	2	0	42	1	43	96
% App. Total	100	0	0		0	100	0		100	0	0		0	97.7	2.3		
PHF	.500	.000	.000	.500	.000	.875	.000	.875	.500	.000	.000	.500	.000	.875	.250	.896	.923

Peggy Malone & Associates, Inc.
(888) 247-8602

Site Code :

Page No : 1

NW 59th Terrace
Northbound

441	NW 5
bound	No

	NW 59th Terrace Southbound					US 441 Westbound					NW 59th Terrace Northbound					US 441 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30 AM	0	0	2	0	2	4	83	7	0	94	2	0	1	0	3	2	332	1	0	335	434
06:45 AM	0	1	5	0	6	5	109	2	0	116	1	1	1	0	3	2	343	7	0	352	477
Total	0	1	7	0	8	9	192	9	0	210	3	1	2	0	6	4	675	8	0	687	911
07:00 AM	0	1	5	0	6	1	106	0	0	107	0	0	1	0	1	2	366	4	0	372	486
07:15 AM	3	0	2	0	5	2	156	1	0	159	1	0	0	0	1	1	433	3	0	437	602
07:30 AM	2	1	2	0	5	4	171	1	0	176	1	0	1	0	2	2	374	6	0	382	565
07:45 AM	2	1	2	0	5	2	212	1	0	215	1	1	1	0	3	2	345	5	0	352	575
Total	7	3	11	0	21	9	645	3	0	657	3	1	3	0	7	7	1518	18	0	1543	2228
08:00 AM	2	0	4	0	6	5	181	0	0	186	0	0	0	0	0	1	282	5	0	288	480
08:15 AM	1	0	0	0	1	3	183	0	0	186	0	0	0	0	0	3	269	5	0	277	464
Grand Total	10	4	22	0	36	26	1201	12	0	1239	6	2	5	0	13	15	2744	36	0	2795	4083
Apprch %	27.8	11.1	61.1	0		2.1	96.9	1	0		46.2	15.4	38.5	0		0.5	98.2	1.3	0		
Total %	0.2	0.1	0.5	0	0.9	0.6	29.4	0.3	0	30.3	0.1	0	0.1	0	0.3	0.4	67.2	0.9	0	68.5	

	NW 59th Terrace Southbound				US 441 Westbound				NW 59th Terrace Northbound				US 441 Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	1	5	6	1	106	0	107	0	0	1	1	2	366	4	372	486
07:15 AM	3	0	2	5	2	156	1	159	1	0	0	1	1	433	3	437	602
07:30 AM	2	1	2	5	4	171	1	176	1	0	1	2	2	374	6	382	565
07:45 AM	2	1	2	5	2	212	1	215	1	1	1	3	2	345	5	352	575
Total Volume	7	3	11	21	9	645	3	657	3	1	3	7	7	1518	18	1543	2228
% App. Total	33.3	14.3	52.4		1.4	98.2	0.5		42.9	14.3	42.9		0.5	98.4	1.2		
PHF	.583	.750	.550	.875	.563	.761	.750	.764	.750	.250	.750	.583	.875	.876	.750	.883	.925

Truck %

10%

7%

29%

3%

Peggy Malone & Associates, Inc.
(888) 247-8602

File Name : 2-NW 59th Terrace and US 441 PM
Site Code :
Start Date : 5/9/2019
Page No : 1

Groups Printed- Car

	NW 59th Terrace Southbound					US 441 Westbound					NW 59th Terrace Northbound					US 441 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	0	0	4	0	4	2	261	0	0	263	0	0	0	0	0	2	148	5	0	155	422
04:15 PM	0	0	3	0	3	3	258	1	0	262	2	0	3	0	5	2	201	8	0	211	481
04:30 PM	3	1	6	0	10	6	277	1	0	284	1	0	1	0	2	0	167	9	0	176	472
04:45 PM	0	0	1	0	1	4	325	2	0	331	2	0	2	0	4	1	184	3	0	188	524
Total	3	1	14	0	18	15	1121	4	0	1140	5	0	6	0	11	5	700	25	0	730	1899
05:00 PM	1	0	3	0	4	2	356	0	0	358	1	1	2	0	4	1	257	6	0	264	630
05:15 PM	3	0	5	0	8	6	359	1	0	366	0	0	2	0	2	2	237	7	0	246	622
05:30 PM	5	0	5	0	10	5	391	3	0	399	3	2	0	0	5	2	217	4	0	223	637
05:45 PM	4	0	2	0	6	7	354	1	0	362	2	0	3	0	5	1	181	2	0	184	557
Total	13	0	15	0	28	20	1460	5	0	1485	6	3	7	0	16	6	892	19	0	917	2446
Grand Total	16	1	29	0	46	35	2581	9	0	2625	11	3	13	0	27	11	1592	44	0	1647	4345
Apprch %	34.8	2.2	63	0		1.3	98.3	0.3	0		40.7	11.1	48.1	0		0.7	96.7	2.7	0		
Total %	0.4	0	0.7	0	1.1	0.8	59.4	0.2	0	60.4	0.3	0.1	0.3	0	0.6	0.3	36.6	1	0	37.9	

	NW 59th Terrace Southbound				US 441 Westbound				NW 59th Terrace Northbound				US 441 Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	0	3	4	2	356	0	358	1	1	2	4	1	257	6	264	630
05:15 PM	3	0	5	8	6	359	1	366	0	0	2	2	2	237	7	246	622
05:30 PM	5	0	5	10	5	391	3	399	3	2	0	5	2	217	4	223	637
05:45 PM	4	0	2	6	7	354	1	362	2	0	3	5	1	181	2	184	557
Total Volume	13	0	15	28	20	1460	5	1485	6	3	7	16	6	892	19	917	2446
% App. Total	46.4	0	53.6		1.3	98.3	0.3		37.5	18.8	43.8		0.7	97.3	2.1		
PHF	.650	.000	.750	.700	.714	.934	.417	.930	.500	.375	.583	.800	.750	.868	.679	.868	.960

Peggy Malone & Associates, Inc.
(888) 247-8602

File Name : 2-NW 59th Terrace and US 441 PM
Site Code :
Start Date : 5/9/2019
Page No : 1

Groups Printed- Truck

	NW 59th Terrace Southbound					US 441 Westbound					NW 59th Terrace Northbound					US 441 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	9	0	0	9	15
04:15 PM	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	0	8	1	0	9	25
04:30 PM	1	0	1	0	2	0	10	0	0	10	0	0	0	0	0	0	10	0	0	10	22
04:45 PM	1	0	0	0	1	0	9	0	0	9	0	0	0	0	0	0	5	0	0	5	15
Total	2	0	1	0	3	0	41	0	0	41	0	0	0	0	0	0	32	1	0	33	77
05:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	7	0	0	7	9
05:15 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	8	0	0	8	11
05:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	6	0	0	6	8
05:45 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	6
Total	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	23	0	0	23	34
Grand Total	2	0	1	0	3	0	52	0	0	52	0	0	0	0	0	0	55	1	0	56	111
Apprch %	66.7	0	33.3	0		0	100	0	0		0	0	0	0		0	98.2	1.8	0		
Total %	1.8	0	0.9	0	2.7	0	46.8	0	0	46.8	0	0	0	0	0	0	49.5	0.9	0	50.5	

	NW 59th Terrace Southbound				US 441 Westbound				NW 59th Terrace Northbound				US 441 Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	6	0	6	0	0	0	0	0	9	0	9	15
04:15 PM	0	0	0	0	0	16	0	16	0	0	0	0	0	8	1	9	25
04:30 PM	1	0	1	2	0	10	0	10	0	0	0	0	0	10	0	10	22
04:45 PM	1	0	0	1	0	9	0	9	0	0	0	0	0	5	0	5	15
Total Volume	2	0	1	3	0	41	0	41	0	0	0	0	0	32	1	33	77
% App. Total	66.7	0	33.3		0	100	0		0	0	0		0	97	3		
PHF	.500	.000	.250	.375	.000	.641	.000	.641	.000	.000	.000	.000	.000	.800	.250	.825	.770

Peggy Malone & Associates, Inc.

(888) 247-8602

File Name : 2-NW 59th Terrace and US 441 PM
 Site Code :
 Start Date : 5/9/2019
 Page No : 1

Groups Printed- Combined

	NW 59th Terrace Southbound					US 441 Westbound					NW 59th Terrace Northbound					US 441 Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	0	0	4	0	4	2	267	0	0	269	0	0	0	0	0	2	157	5	0	164	437
04:15 PM	0	0	3	0	3	3	274	1	0	278	2	0	3	0	5	2	209	9	0	220	506
04:30 PM	4	1	7	0	12	6	287	1	0	294	1	0	1	0	2	0	177	9	0	186	494
04:45 PM	1	0	1	0	2	4	334	2	0	340	2	0	2	0	4	1	189	3	0	193	539
Total	5	1	15	0	21	15	1162	4	0	1181	5	0	6	0	11	5	732	26	0	763	1976
05:00 PM	1	0	3	0	4	2	358	0	0	360	1	1	2	0	4	1	264	6	0	271	639
05:15 PM	3	0	5	0	8	6	362	1	0	369	0	0	2	0	2	2	245	7	0	254	633
05:30 PM	5	0	5	0	10	5	393	3	0	401	3	2	0	0	5	2	223	4	0	229	645
05:45 PM	4	0	2	0	6	7	358	1	0	366	2	0	3	0	5	1	183	2	0	186	563
Total	13	0	15	0	28	20	1471	5	0	1496	6	3	7	0	16	6	915	19	0	940	2480
Grand Total	18	1	30	0	49	35	2633	9	0	2677	11	3	13	0	27	11	1647	45	0	1703	4456
Apprch %	36.7	2	61.2	0		1.3	98.4	0.3	0		40.7	11.1	48.1	0		0.6	96.7	2.6	0		
Total %	0.4	0	0.7	0	1.1	0.8	59.1	0.2	0	60.1	0.2	0.1	0.3	0	0.6	0.2	37	1	0	38.2	

	NW 59th Terrace Southbound				US 441 Westbound				NW 59th Terrace Northbound				US 441 Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	0	3	4	2	358	0	360	1	1	2	4	1	264	6	271	639
05:15 PM	3	0	5	8	6	362	1	369	0	0	2	2	2	245	7	254	633
05:30 PM	5	0	5	10	5	393	3	401	3	2	0	5	2	223	4	229	645
05:45 PM	4	0	2	6	7	358	1	366	2	0	3	5	1	183	2	186	563
Total Volume	13	0	15	28	20	1471	5	1496	6	3	7	16	6	915	19	940	2480
% App. Total	46.4	0	53.6		1.3	98.3	0.3		37.5	18.8	43.8		0.6	97.3	2		
PHF	.650	.000	.750	.700	.714	.936	.417	.933	.500	.375	.583	.800	.750	.866	.679	.867	.961

Truck % **11%** **3%** **0%** **4%**

Appendix C:

Seasonal Adjustment Factor and Historical Growth Rates

2018 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 2600 ALACHUA COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.97 PSCF
1	01/01/2018 - 01/06/2018	1.05	1.08
2	01/07/2018 - 01/13/2018	1.05	1.08
3	01/14/2018 - 01/20/2018	1.05	1.08
4	01/21/2018 - 01/27/2018	1.03	1.06
5	01/28/2018 - 02/03/2018	1.01	1.04
6	02/04/2018 - 02/10/2018	0.99	1.02
* 7	02/11/2018 - 02/17/2018	0.97	1.00
* 8	02/18/2018 - 02/24/2018	0.97	1.00
* 9	02/25/2018 - 03/03/2018	0.97	1.00
*10	03/04/2018 - 03/10/2018	0.97	1.00
*11	03/11/2018 - 03/17/2018	0.97	1.00
*12	03/18/2018 - 03/24/2018	0.97	1.00
*13	03/25/2018 - 03/31/2018	0.96	0.99
*14	04/01/2018 - 04/07/2018	0.96	0.99
*15	04/08/2018 - 04/14/2018	0.96	0.99
*16	04/15/2018 - 04/21/2018	0.96	0.99
*17	04/22/2018 - 04/28/2018	0.97	1.00
*18	04/29/2018 - 05/05/2018	0.98	1.01
*19	05/06/2018 - 05/12/2018	0.99	1.02
20	05/13/2018 - 05/19/2018	1.00	1.03
21	05/20/2018 - 05/26/2018	1.01	1.04
22	05/27/2018 - 06/02/2018	1.01	1.04
23	06/03/2018 - 06/09/2018	1.02	1.05
24	06/10/2018 - 06/16/2018	1.02	1.05
25	06/17/2018 - 06/23/2018	1.03	1.06
26	06/24/2018 - 06/30/2018	1.04	1.07
27	07/01/2018 - 07/07/2018	1.04	1.07
28	07/08/2018 - 07/14/2018	1.05	1.08
29	07/15/2018 - 07/21/2018	1.06	1.09
30	07/22/2018 - 07/28/2018	1.04	1.07
31	07/29/2018 - 08/04/2018	1.02	1.05
32	08/05/2018 - 08/11/2018	1.01	1.04
33	08/12/2018 - 08/18/2018	0.99	1.02
34	08/19/2018 - 08/25/2018	0.99	1.02
35	08/26/2018 - 09/01/2018	0.99	1.02
36	09/02/2018 - 09/08/2018	0.99	1.02
37	09/09/2018 - 09/15/2018	0.99	1.02
38	09/16/2018 - 09/22/2018	0.99	1.02
39	09/23/2018 - 09/29/2018	0.98	1.01
40	09/30/2018 - 10/06/2018	0.98	1.01
41	10/07/2018 - 10/13/2018	0.97	1.00
42	10/14/2018 - 10/20/2018	0.97	1.00
43	10/21/2018 - 10/27/2018	0.98	1.01
44	10/28/2018 - 11/03/2018	0.99	1.02
45	11/04/2018 - 11/10/2018	1.00	1.03
46	11/11/2018 - 11/17/2018	1.01	1.04
47	11/18/2018 - 11/24/2018	1.02	1.05
48	11/25/2018 - 12/01/2018	1.03	1.06
49	12/02/2018 - 12/08/2018	1.04	1.07
50	12/09/2018 - 12/15/2018	1.05	1.08
51	12/16/2018 - 12/22/2018	1.05	1.08
52	12/23/2018 - 12/29/2018	1.05	1.08
53	12/30/2018 - 12/31/2018	1.05	1.08

* PEAK SEASON

25-FEB-2019 16:26:21

830UPD

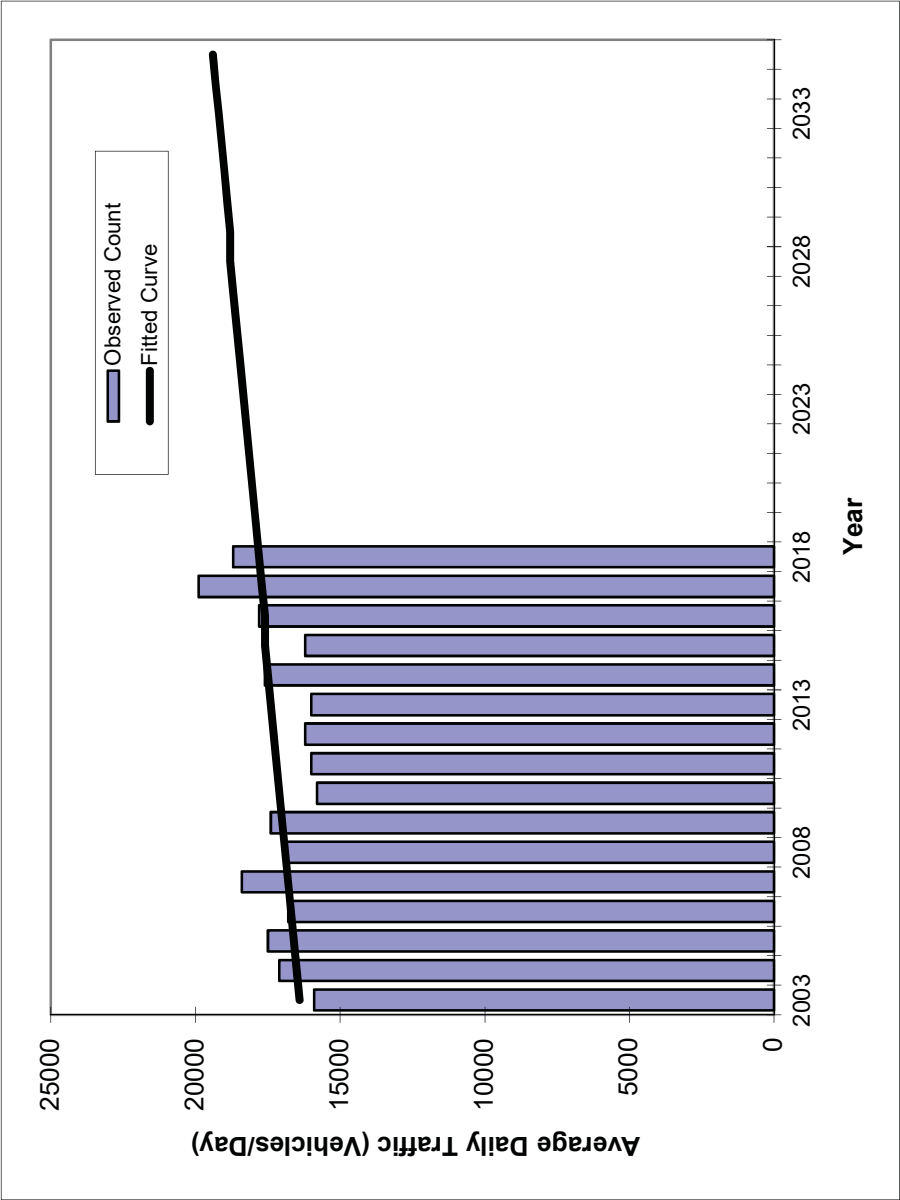
2_2600_PKSEASON.TXT

Traffic Trends - V03.a

US 441 --

FIN#	429193-1
Location	1

County:	Alachua (26)
Station #:	0229
Highway:	US 441



** Annual Trend Increase:	92
Trend R-squared:	14.24%
Trend Annual Historic Growth Rate:	0.57%
Trend Growth Rate (2018 to Design Year):	0.51%
Printed:	17-May-19

Straight Line Growth Option

Year	Traffic (ADT/AADT)	
	Count*	Trend**
2003	15900	16400
2004	17100	16500
2005	17500	16600
2006	16800	16700
2007	18400	16800
2008	16900	16900
2009	17400	17000
2010	15800	17100
2011	16000	17200
2012	16200	17300
2013	16000	17400
2014	17600	17500
2015	16200	17600
2016	17800	17600
2017	19900	17700
2018	18700	17800
2019 Opening Year Trend		
2019	N/A	17900
2025 Mid-Year Trend		
2025	N/A	18500
2030 Design Year Trend		
2030	N/A	18900
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

Appendix D: HCS Reports

Existing (Peak Season)

HCS7 Two-Way Stop-Control Report

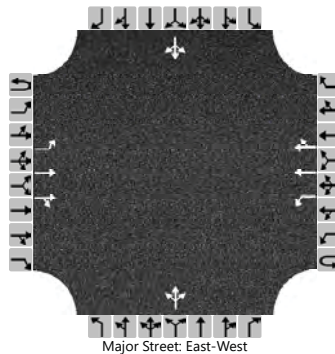
General Information

Analyst	Nicholas Pazanski
Agency/Co.	CHW
Date Performed	5/14/2019
Analysis Year	2019
Time Analyzed	AM
Intersection Orientation	East-West
Project Description	NW 59th Terrace AM Existing

Site Information

Intersection	US 441 & NW 59th Terrace
Jurisdiction	Alachua County
East/West Street	US 441
North/South Street	NW 59th Terrace
Peak Hour Factor	0.94
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	18	1548	7	0	3	658	9		3	1	3		11	3	7
Percent Heavy Vehicles (%)	0	3			0	7				29	29	29		10	10	10
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.24				8.08	7.08	7.48		7.70	6.70	7.10
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.27				3.79	4.29	3.59		3.60	4.10	3.40

Delay, Queue Length, and Level of Service

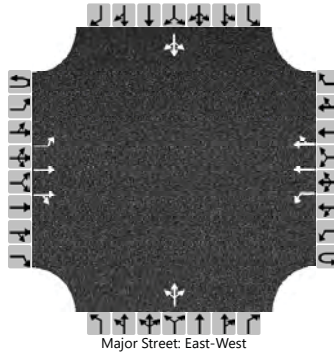
Flow Rate, v (veh/h)		19				3					7				22	
Capacity, c (veh/h)		879				364					97				202	
v/c Ratio		0.02				0.01					0.08				0.11	
95% Queue Length, Q ₉₅ (veh)		0.1				0.0					0.2				0.4	
Control Delay (s/veh)		9.2				15.0					45.2				25.1	
Level of Service (LOS)		A				B					E				D	
Approach Delay (s/veh)	0.1				0.1				45.2				25.1			
Approach LOS									E				D			

HCS7 Two-Way Stop-Control Report

General Information

Analyst	Brian Snyder	Intersection	US 441 & NW 59th Terrace
Agency/Co.	CHW	Jurisdiction	Alachua County
Date Performed	5/23/2019	East/West Street	US 441
Analysis Year	2019	North/South Street	NW 59th Terrace
Time Analyzed	PM	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	NW 59th Terrace PM Existing		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	19	933	6	0	5	1500	20		7	3	6		15	0	13
Percent Heavy Vehicles (%)	0	4			0	3				0	0	0		11	0	11
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.18				4.16				7.50	6.50	6.90		7.72	6.50	7.12
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.24				2.23				3.50	4.00	3.30		3.61	4.00	3.41

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		20				5					17				30	
Capacity, c (veh/h)		384				676					170				117	
v/c Ratio		0.05				0.01					0.10				0.26	
95% Queue Length, Q ₉₅ (veh)		0.2				0.0					0.3				1.0	
Control Delay (s/veh)		14.9				10.4					28.6				46.1	
Level of Service (LOS)		B				B					D				E	
Approach Delay (s/veh)	0.3				0.0				28.6				46.1			
Approach LOS									D				E			

HCS7 Two-Way Stop-Control Report

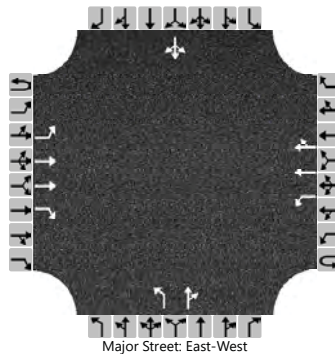
General Information

Analyst	Nicholas Pazanski
Agency/Co.	CHW
Date Performed	5/13/2019
Analysis Year	2019
Time Analyzed	AM
Intersection Orientation	East-West
Project Description	Turkey Creek Blvd AM Existing

Site Information

Intersection	US 441 & Turkey Creek Blv
Jurisdiction	Alachua County
East/West Street	US 441
North/South Street	Turkey Creek
Peak Hour Factor	0.94
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	1	0	1	2	0		1	1	0		0	1	0
Configuration		L	T	R		L	T	TR		L		TR			LTR	
Volume (veh/h)	0	2	1261	41	0	41	627	1		121	0	313		2	0	1
Percent Heavy Vehicles (%)	0	3			0	8				1	0	1		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No															
Median Type Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.26				7.52	6.50	6.92		7.50	6.50	6.90
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.28				3.51	4.00	3.31		3.50	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		2				44				129		333			3	
Capacity, c (veh/h)		911				460				127		401			36	
v/c Ratio		0.00				0.09				1.01		0.83			0.09	
95% Queue Length, Q ₉₅ (veh)		0.0				0.3				7.0		7.7			0.3	
Control Delay (s/veh)		9.0				13.6				148.9		45.0			115.7	
Level of Service (LOS)		A				B				F		E			F	
Approach Delay (s/veh)	0.0				0.8				74.0				115.7			
Approach LOS									F				F			

HCS7 Two-Way Stop-Control Report

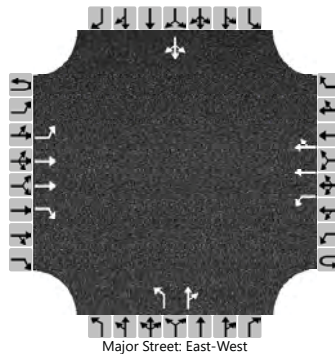
General Information

Analyst	Brian Snyder
Agency/Co.	CHW
Date Performed	5/23/2019
Analysis Year	2019
Time Analyzed	PM
Intersection Orientation	East-West
Project Description	Turkey Creek Blvd PM Existing

Site Information

Intersection	US 441 & Turkey Creek Blv
Jurisdiction	Alachua County
East/West Street	US 441
North/South Street	Turkey Crk Blvd
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	1	0	1	2	0		1	1	0		0	1	0
Configuration		L	T	R		L	T	TR		L		TR			LTR	
Volume (veh/h)	0	0	842	108	0	272	1279	0		54	0	111		0	0	1
Percent Heavy Vehicles (%)	0	0			0	3				2	0	2		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No															
Median Type Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.10				4.16				7.54	6.50	6.94		7.50	6.50	6.90
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.23				3.52	4.00	3.32		3.50	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				292				58		119			1	
Capacity, c (veh/h)		505				669				74		554			394	
v/c Ratio		0.00				0.44				0.79		0.22			0.00	
95% Queue Length, Q ₉₅ (veh)		0.0				2.2				3.8		0.8			0.0	
Control Delay (s/veh)		12.1				14.5				146.3		13.3			14.2	
Level of Service (LOS)		B				B				F		B			B	
Approach Delay (s/veh)	0.0				2.5				56.8				14.2			
Approach LOS									F				B			

2020 Background

HCS7 Two-Way Stop-Control Report

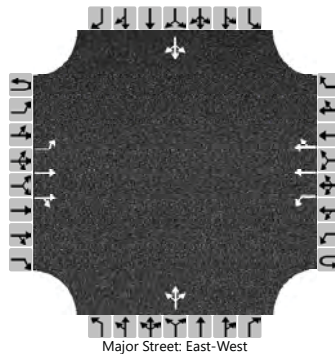
General Information

Analyst	Nicholas Pazanski
Agency/Co.	CHW
Date Performed	5/14/2019
Analysis Year	2020
Time Analyzed	AM
Intersection Orientation	East-West
Project Description	NW 59th Terrace AM Background

Site Information

Intersection	US 441 & NW 59th Terrace
Jurisdiction	Alachua County
East/West Street	US 441
North/South Street	NW 59th Terrace
Peak Hour Factor	0.94
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	18	1563	7	0	3	665	9		3	1	3		11	3	7
Percent Heavy Vehicles (%)	0	3			0	7				29	29	29		10	10	10
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.24				8.08	7.08	7.48		7.70	6.70	7.10
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.27				3.79	4.29	3.59		3.60	4.10	3.40

Delay, Queue Length, and Level of Service

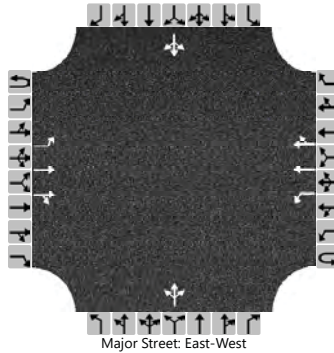
Flow Rate, v (veh/h)		19				3					7				22	
Capacity, c (veh/h)		873				359					95				199	
v/c Ratio		0.02				0.01					0.08				0.11	
95% Queue Length, Q ₉₅ (veh)		0.1				0.0					0.2				0.4	
Control Delay (s/veh)		9.2				15.1					46.2				25.4	
Level of Service (LOS)		A				C					E				D	
Approach Delay (s/veh)	0.1				0.1				46.2				25.4			
Approach LOS									E				D			

HCS7 Two-Way Stop-Control Report

General Information

Analyst	Brian Snyder	Intersection	US 441 & NW 59th Terrace
Agency/Co.	CHW	Jurisdiction	Alachua County
Date Performed	5/23/2019	East/West Street	US 441
Analysis Year	2020	North/South Street	NW 59th Terrace
Time Analyzed	PM	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	NW 59th Terrace PM Background		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	19	942	6	0	5	1515	20		7	3	6		15	0	13
Percent Heavy Vehicles (%)	0	4			0	3				0	0	0		11	0	11
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.18				4.16				7.50	6.50	6.90		7.72	6.50	7.12
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.24				2.23				3.50	4.00	3.30		3.61	4.00	3.41

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		20				5					17				30	
Capacity, c (veh/h)		378				670					167				115	
v/c Ratio		0.05				0.01					0.10				0.26	
95% Queue Length, Q ₉₅ (veh)		0.2				0.0					0.3				1.0	
Control Delay (s/veh)		15.1				10.4					29.0				47.3	
Level of Service (LOS)		C				B					D				E	
Approach Delay (s/veh)	0.3				0.0				29.0				47.3			
Approach LOS									D				E			

HCS7 Two-Way Stop-Control Report

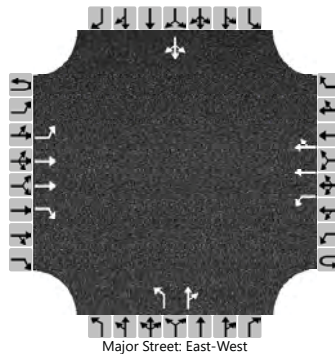
General Information

Analyst	Brian Snyder
Agency/Co.	CHW
Date Performed	5/23/2019
Analysis Year	2020
Time Analyzed	AM
Intersection Orientation	East-West
Project Description	Turkey Creek Blvd AM Background

Site Information

Intersection	US 441 & Turkey Creek Blv
Jurisdiction	Alachua County
East/West Street	US 441
North/South Street	Turkey Creek
Peak Hour Factor	0.94
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	1	0	1	2	0		1	1	0		0	1	0
Configuration		L	T	R		L	T	TR		L		TR			LTR	
Volume (veh/h)	0	2	1274	41	0	41	633	1		121	0	313		2	0	1
Percent Heavy Vehicles (%)	0	3			0	8				1	0	1		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No															
Median Type Storage					Left + Thru				1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.26				7.52	6.50	6.92		7.50	6.50	6.90
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.28				3.51	4.00	3.31		3.50	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		2				44				129		333			3	
Capacity, c (veh/h)		906				455				125		397			30	
v/c Ratio		0.00				0.10				1.03		0.84			0.11	
95% Queue Length, Q ₉₅ (veh)		0.0				0.3				7.2		7.9			0.3	
Control Delay (s/veh)		9.0				13.8				156.2		46.5			137.5	
Level of Service (LOS)		A				B				F		E			F	
Approach Delay (s/veh)	0.0				0.8				77.1				137.5			
Approach LOS									F				F			

HCS7 Two-Way Stop-Control Report

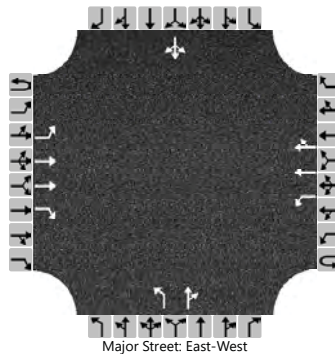
General Information

Analyst	Brian Snyder
Agency/Co.	CHW
Date Performed	5/23/2019
Analysis Year	2020
Time Analyzed	PM
Intersection Orientation	East-West
Project Description	Turkey Creek Blvd PM Background

Site Information

Intersection	US 441 & Turkey Creek Blv
Jurisdiction	Alachua County
East/West Street	US 441
North/South Street	Turkey Crk Blvd
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	1	0	1	2	0		1	1	0		0	1	0
Configuration		L	T	R		L	T	TR		L		TR			LTR	
Volume (veh/h)	0	0	850	109	0	275	1292	0		54	0	111		0	0	1
Percent Heavy Vehicles (%)	0	0			0	3				2	0	2		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No															
Median Type Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.10				4.16				7.54	6.50	6.94		7.50	6.50	6.90
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.23				3.52	4.00	3.32		3.50	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				296				58		119			1	
Capacity, c (veh/h)		499				664				71		551			390	
v/c Ratio		0.00				0.45				0.81		0.22			0.00	
95% Queue Length, Q ₉₅ (veh)		0.0				2.3				3.9		0.8			0.0	
Control Delay (s/veh)		12.2				14.7				155.7		13.3			14.3	
Level of Service (LOS)		B				B				F		B			B	
Approach Delay (s/veh)	0.0				2.6				59.9				14.3			
Approach LOS									F				B			

2020 Build-Out

HCS7 Two-Way Stop-Control Report

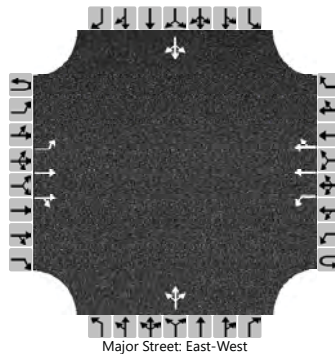
General Information

Analyst	Savanna Stockton
Agency/Co.	CHW
Date Performed	9/5/2019
Analysis Year	2020
Time Analyzed	AM
Intersection Orientation	East-West
Project Description	NW 59th Terrace AM Build-out

Site Information

Intersection	US 441 & NW 59th Terrace
Jurisdiction	Alachua County
East/West Street	US 441
North/South Street	NW 59th Terrace
Peak Hour Factor	0.94
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	17	18	1603	7	0	77	665	9		9	1	16		11	3	7
Percent Heavy Vehicles (%)	0	3			0	7				29	29	29		10	10	10
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)	6.4	4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)	6.40	4.16				4.24				8.08	7.08	7.48		7.70	6.70	7.10
Base Follow-Up Headway (sec)	2.5	2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)	2.50	2.23				2.27				3.79	4.29	3.59		3.60	4.10	3.40

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		37				82					28				22	
Capacity, c (veh/h)		645				345					97				92	
v/c Ratio		0.06				0.24					0.29				0.24	
95% Queue Length, Q ₉₅ (veh)		0.2				0.9					1.1				0.9	
Control Delay (s/veh)		10.9				18.7					56.5				56.4	
Level of Service (LOS)		B				C					F				F	
Approach Delay (s/veh)	0.2				1.9				56.5				56.4			
Approach LOS									F				F			

HCS7 Two-Way Stop-Control Report

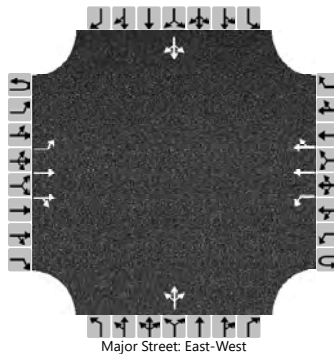
General Information

Analyst	Savanna Stockton
Agency/Co.	CHW
Date Performed	9/5/2019
Analysis Year	2020
Time Analyzed	PM
Intersection Orientation	East-West
Project Description	NW 59th Terrace PM Build-out

Site Information

Intersection	US 441 & NW 59th Terrace
Jurisdiction	Alachua County
East/West Street	US 441
North/South Street	NW 59th Terrace
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	29	19	1009	6	0	89	1515	20		16	3	28		15	0	13
Percent Heavy Vehicles (%)	0	4			0	3				0	0	0		11	0	11
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)	6.4	4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)	6.40	4.18				4.16				7.50	6.50	6.90		7.72	6.50	7.12
Base Follow-Up Headway (sec)	2.5	2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)	2.50	2.24				2.23				3.50	4.00	3.30		3.61	4.00	3.41

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		52				96					51				30	
Capacity, c (veh/h)		167				629					138				71	
v/c Ratio		0.31				0.15					0.37				0.42	
95% Queue Length, Q ₉₅ (veh)		1.2				0.5					1.5				1.7	
Control Delay (s/veh)		35.8				11.7					45.6				88.0	
Level of Service (LOS)		E				B					E				F	
Approach Delay (s/veh)	1.6				0.6				45.6				88.0			
Approach LOS									E				F			

HCS7 Two-Way Stop-Control Report

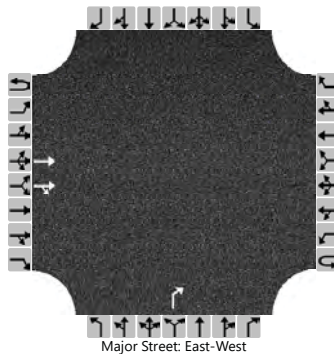
General Information

Analyst	Savanna Stockton
Agency/Co.	CHW
Date Performed	9/5/2019
Analysis Year	2020
Time Analyzed	AM
Intersection Orientation	East-West
Project Description	Right-in/Right-out Access AM Build-out

Site Information

Intersection	US 441 & Site Access
Jurisdiction	Alachua County
East/West Street	US 441
North/South Street	Site Access
Peak Hour Factor	0.89
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	0	0		0	0	1		0	0	0
Configuration			T	TR								R				
Volume (veh/h)			1589	31								57				
Percent Heavy Vehicles (%)												29				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized									No							
Median Type Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)												6.9				
Critical Headway (sec)												7.48				
Base Follow-Up Headway (sec)												3.3				
Follow-Up Headway (sec)												3.59				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												64				
Capacity, c (veh/h)												230				
v/c Ratio												0.28				
95% Queue Length, Q ₉₅ (veh)												1.1				
Control Delay (s/veh)												26.6				
Level of Service (LOS)												D				
Approach Delay (s/veh)									26.6							
Approach LOS									D							

HCS7 Two-Way Stop-Control Report

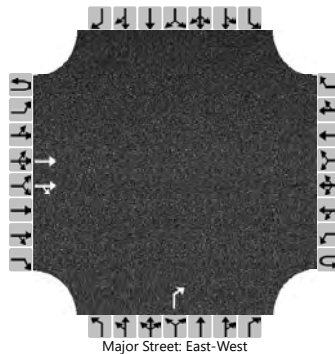
General Information

Analyst	Savanna Stockton
Agency/Co.	CHW
Date Performed	9/5/2019
Analysis Year	2020
Time Analyzed	PM
Intersection Orientation	East-West
Project Description	Right-in/Right-out Access PM Build-out

Site Information

Intersection	US 441 & Site Access
Jurisdiction	Alachua County
East/West Street	US 441
North/South Street	Site Access
Peak Hour Factor	0.86
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	0	0		0	0	1		0	0	0
Configuration			T	TR								R				
Volume (veh/h)			961	36								96				
Percent Heavy Vehicles (%)												29				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized									No							
Median Type Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)												6.9				
Critical Headway (sec)												7.48				
Base Follow-Up Headway (sec)												3.3				
Follow-Up Headway (sec)												3.59				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												112				
Capacity, c (veh/h)												396				
v/c Ratio												0.28				
95% Queue Length, Q ₉₅ (veh)												1.1				
Control Delay (s/veh)												17.6				
Level of Service (LOS)												C				
Approach Delay (s/veh)									17.6							
Approach LOS									C							

HCS7 Two-Way Stop-Control Report

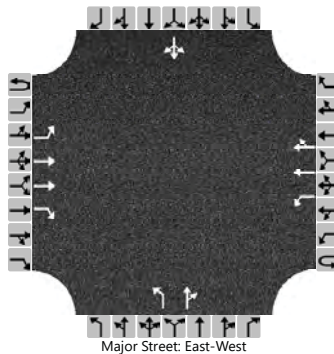
General Information

Analyst	Savanna Stockton
Agency/Co.	CHW
Date Performed	9/5/2019
Analysis Year	2020
Time Analyzed	AM
Intersection Orientation	East-West
Project Description	Turkey Creek Blvd AM Build-out

Site Information

Intersection	US 441 & Turkey Creek Blv
Jurisdiction	Alachua County
East/West Street	US 441
North/South Street	Turkey Creek
Peak Hour Factor	0.94
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	1	0	1	2	0		1	1	0		0	1	0
Configuration		L	T	R		L	T	TR		L		TR			LTR	
Volume (veh/h)	0	2	1305	41	0	41	656	1		121	0	313		2	0	1
Percent Heavy Vehicles (%)	0	3			0	8				1	0	1		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No															
Median Type Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.16				4.26				7.52	6.50	6.92		7.50	6.50	6.90
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.28				3.51	4.00	3.31		3.50	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		2				44				129		333			3	
Capacity, c (veh/h)		887				441				119		387			17	
v/c Ratio		0.00				0.10				1.08		0.86			0.19	
95% Queue Length, Q ₉₅ (veh)		0.0				0.3				7.6		8.3			0.5	
Control Delay (s/veh)		9.1				14.1				175.4		50.4			256.2	
Level of Service (LOS)		A				B				F		F			F	
Approach Delay (s/veh)	0.0				0.8				85.3				256.2			
Approach LOS									F				F			

HCS7 Two-Way Stop-Control Report

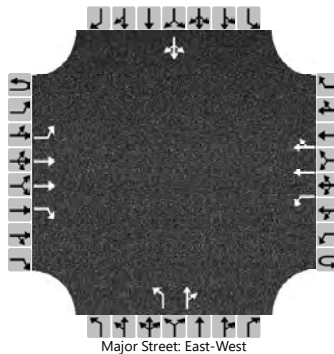
General Information

Analyst	Savanna Stockton
Agency/Co.	CHW
Date Performed	9/5/2019
Analysis Year	2020
Time Analyzed	PM
Intersection Orientation	East-West
Project Description	Turkey Creek Blvd PM Build-out

Site Information

Intersection	US 441 & Turkey Creek Blv
Jurisdiction	Alachua County
East/West Street	US 441
North/South Street	Turkey Crk Blvd
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	1	0	1	2	0		1	1	0		0	1	0
Configuration		L	T	R		L	T	TR		L		TR			LTR	
Volume (veh/h)	0	0	886	109	0	275	1330	0		54	0	111		0	0	1
Percent Heavy Vehicles (%)	0	0			0	3				2	0	2		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized	No															
Median Type Storage	Left + Thru								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.10				4.16				7.54	6.50	6.94		7.50	6.50	6.90
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.23				3.52	4.00	3.32		3.50	4.00	3.30

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				296				58		119			1	
Capacity, c (veh/h)		481				641				67		535			378	
v/c Ratio		0.00				0.46				0.87		0.22			0.00	
95% Queue Length, Q ₉₅ (veh)		0.0				2.4				4.1		0.8			0.0	
Control Delay (s/veh)		12.5				15.3				175.9		13.7			14.6	
Level of Service (LOS)		B				C				F		B			B	
Approach Delay (s/veh)	0.0				2.6				66.8				14.6			
Approach LOS									F				B			

Appendix E:

Straight-Line Diagram

[illegible]

Appendix F:

ITE Trip Generation Documentation

Shopping Center (820)

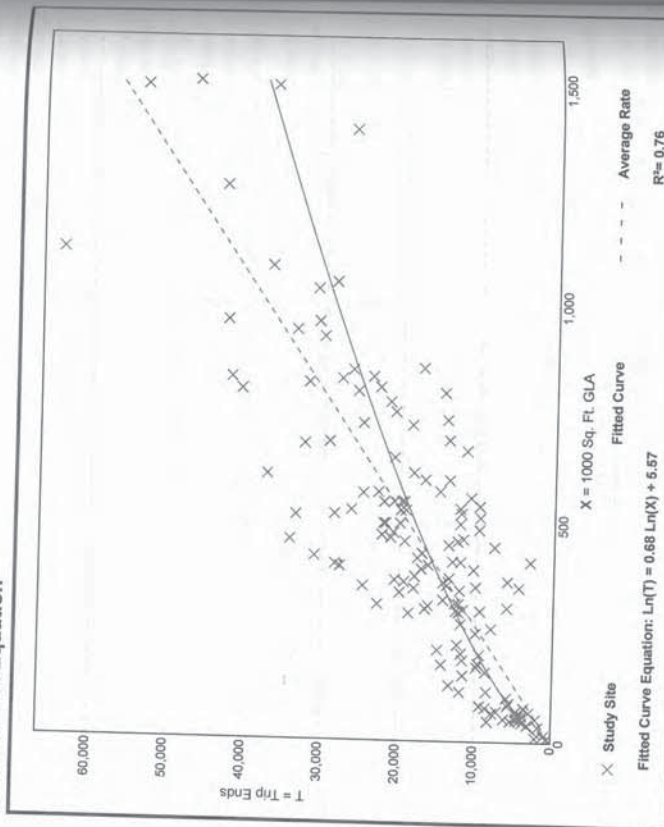
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 147
1000 Sq. Ft. GLA: 453
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	37.75	Standard Deviation
Range of Rates	7.42 - 207.98	16.41

Data Plot and Equation



Shopping Center (820)

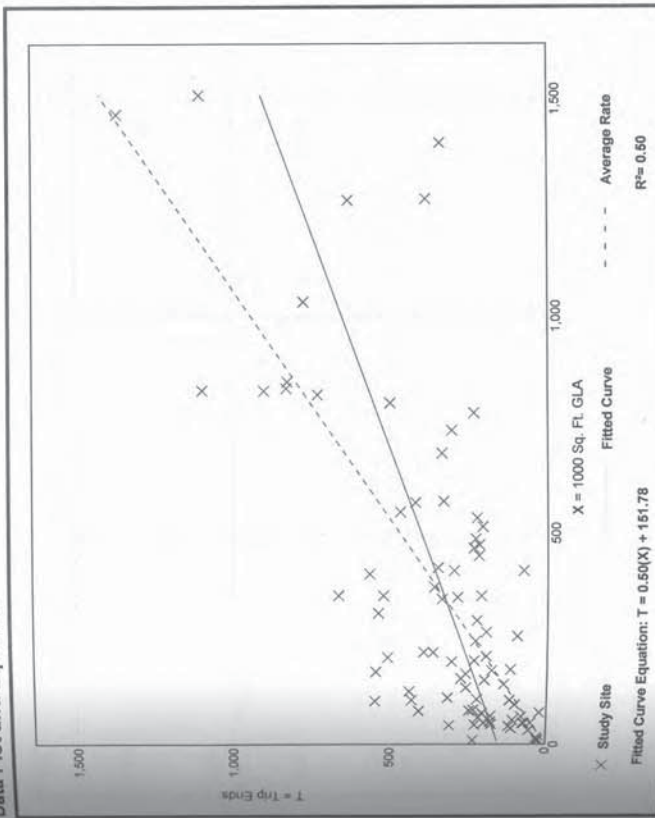
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban
Number of Studies: 84
1000 Sq. Ft. GLA: 351
Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	0.94	Standard Deviation
Range of Rates	0.18 - 23.74	0.87

Data Plot and Equation



Shopping Center (820)

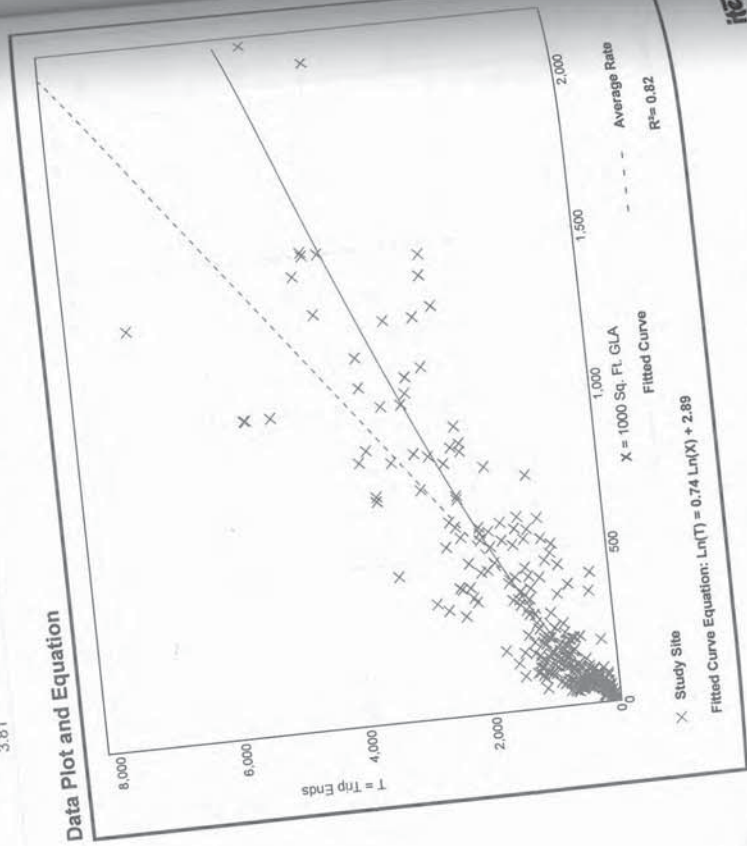
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
General Urban/Suburban

Setting/Location: 261
Number of Studies: 327
1000 Sq. Ft. GLA: 48% entering, 52% exiting
Directional Distribution:

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	3.81	Standard Deviation	2.04
Range of Rates	0.74 - 18.69		

Data Plot and Equation



Shopping Center (820)

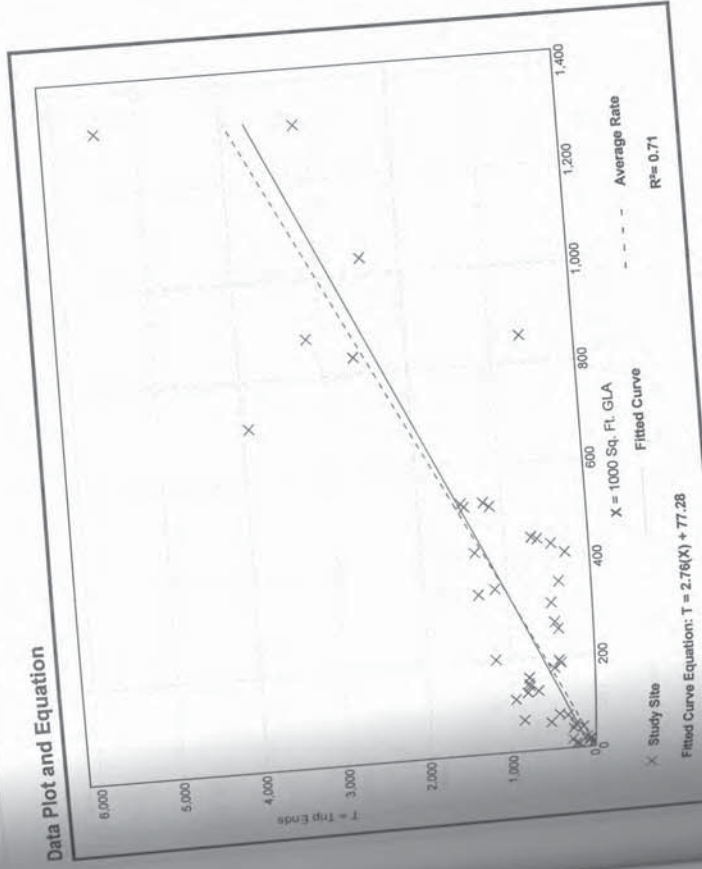
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 47
1000 Sq. Ft. GLA: 54% entering, 46% exiting
Directional Distribution:

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	3.00	Standard Deviation	1.85
Range of Rates	0.70 - 23.74		

Data Plot and Equation



Land Use: 934 Fast-Food Restaurant with Drive-Through Window

Description

This category includes fast-food restaurants with drive-through windows. This type of restaurant is characterized by a large drive-through clientele, long hours of service (some are open for breakfast, all are open for lunch and dinner, some are open late at night or 24 hours a day) and high turnover rates for eat-in customers. These limited-service eating establishments do not provide table service. Non-drive-through patrons generally order at a cash register and pay before they eat. Fast casual restaurant (Land Use 930), high-turnover (sit-down) restaurant (Land Use 932), fast-food restaurant without drive-through window (Land Use 933), and fast-food restaurant with drive-through window and no indoor seating (Land Use 935) are related uses.

Additional Data

Users should exercise caution when applying statistics during the AM peak periods, as the sites contained in the database for this land use may or may not be open for breakfast. In cases where it was confirmed that the sites were not open for breakfast, data for the AM peak hour of the adjacent street traffic were removed from the database.

The outdoor seating area is not included in the overall gross floor area. Therefore, the number of seats may be a more reliable independent variable on which to establish trip generation rates for facilities having significant outdoor seating.

Time-of-day distribution data for this land use for a weekday, Saturday, and Sunday are presented in Appendix A. For the 48 general urban/suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 11:45 a.m. and 12:45 p.m. and 12:00 and 1:00 p.m., respectively. For the one dense multi-use urban site with data, the same AM and PM peak hours were observed.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alaska, Alberta (CAN), California, Colorado, Florida, Indiana, Kentucky, Maryland, Massachusetts, Minnesota, Montana, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Dakota, Texas, Vermont, Virginia, Washington, and Wisconsin.

Source Numbers

163, 164, 168, 180, 181, 241, 245, 278, 294, 300, 301, 319, 338, 340, 342, 358, 389, 438, 502, 552, 577, 583, 584, 617, 640, 641, 704, 715, 728, 810, 866, 867, 869, 885, 886, 927, 935, 962, 977

Fast-Food Restaurant with Drive-Through Window (934)

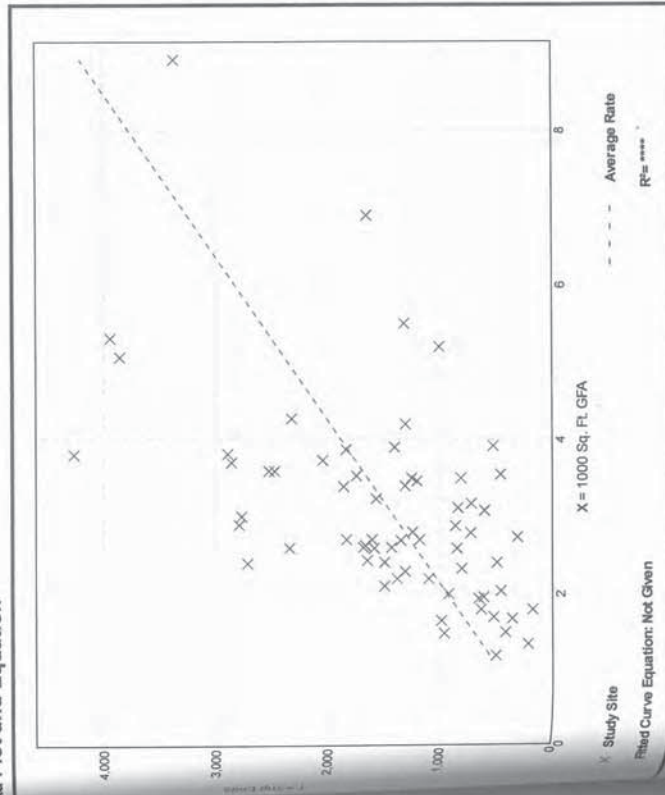
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 67
1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
470.95	98.89 - 1137.66	244.44

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 111

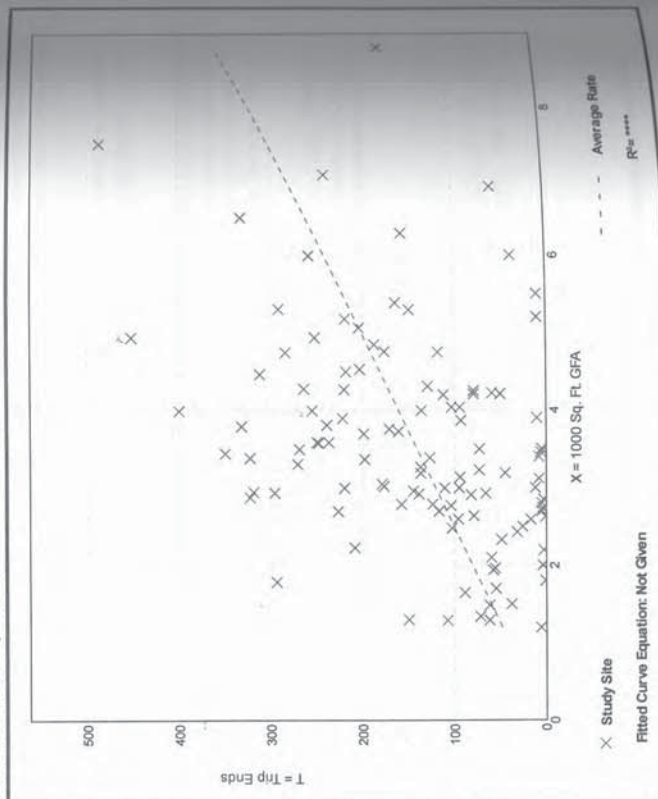
1000 Sq. Ft. GFA: 4

Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
40.19	0.38 - 164.25	28.78

Data Plot and Equation



Fast-Food Restaurant with Drive-Through Window (934)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 185

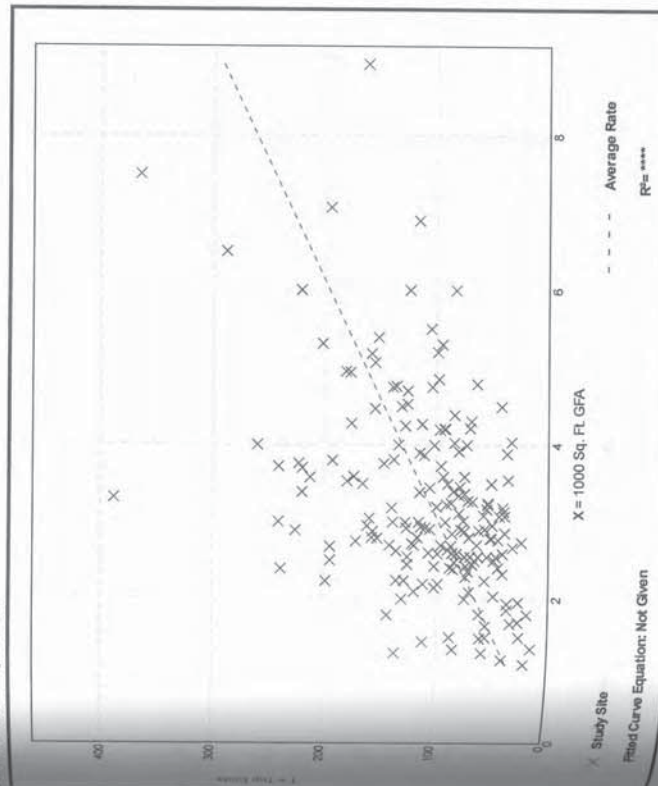
1000 Sq. Ft. GFA: 3

Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
32.67	8.17 - 117.22	17.87

Data Plot and Equation



The average numbers of person trips per vehicle trip at the eight center city core sites at which both person trip and vehicle trip data were collected were as follows:

- 2.76 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 2.90 during Weekday, AM Peak Hour of Generator
- 2.91 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 3.02 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the 18 dense multi-use urban sites at which both person trip and vehicle trip data were collected were as follows:

- 1.47 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.47 during Weekday, AM Peak Hour of Generator
- 1.46 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 1.53 during Weekday, PM Peak Hour of Generator

The average numbers of person trips per vehicle trip at the 23 general urban/suburban sites at which both person trip and vehicle trip data were collected were as follows:

- 1.30 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 7 and 9 a.m.
- 1.34 during Weekday, AM Peak Hour of Generator
- 1.32 during Weekday, Peak Hour of Adjacent Street Traffic, one hour between 4 and 6 p.m.
- 1.41 during Weekday, PM Peak Hour of Generator

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Colorado, Connecticut, Georgia, Illinois, Indiana, Kansas, Kentucky, Maine, Maryland, Michigan, Minnesota, Missouri, Montana, New Hampshire, New Jersey, New York, Pennsylvania, Texas, Utah, Virginia, and Washington.

Source Numbers

161, 175, 183, 184, 185, 207, 212, 217, 247, 253, 257, 260, 262, 273, 279, 297, 298, 300, 301, 302, 303, 304, 321, 322, 323, 324, 327, 404, 407, 408, 418, 419, 423, 562, 734, 850, 859, 862, 867, 869, 883, 884, 890, 891, 904, 940, 944, 946, 964, 965, 972

General Office Building (710)

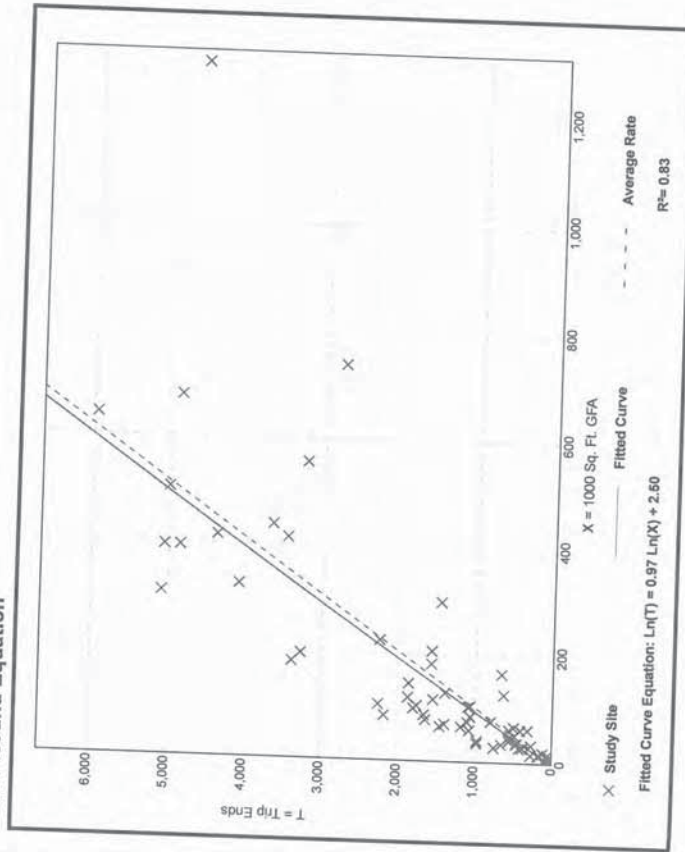
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 66
1000 Sq. Ft. GFA: 171
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.74	2.71 - 27.56	5.15

Data Plot and Equation



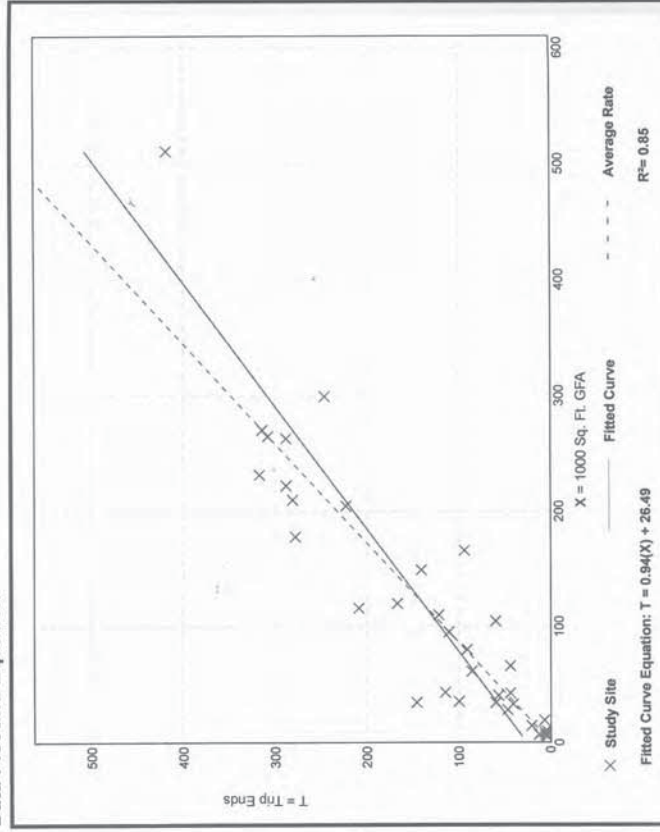
General Office Building (710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 35
1000 Sq. Ft. GFA: 117
Directional Distribution: 86% entering, 14% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.16	0.37 - 4.23	0.47

Data Plot and Equation



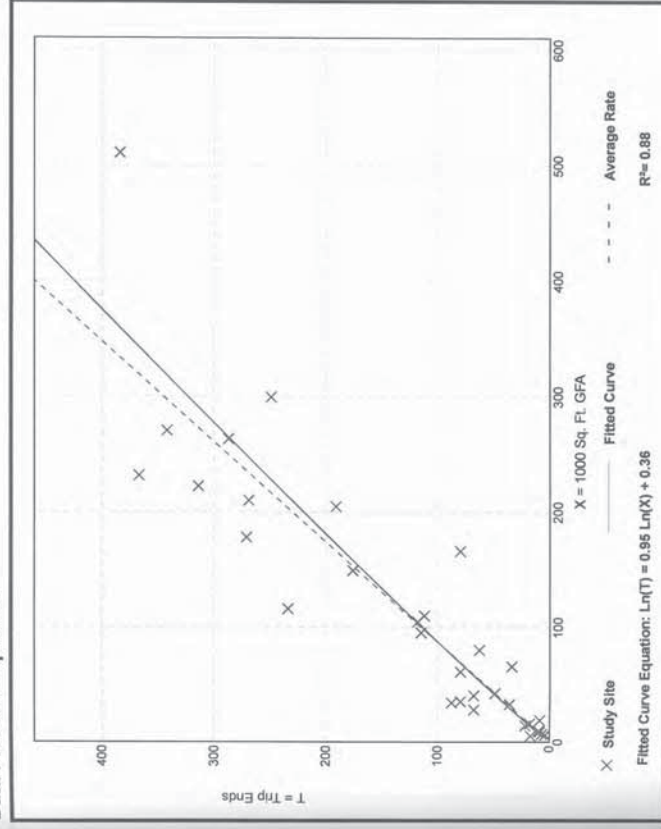
General Office Building (710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 32
1000 Sq. Ft. GFA: 114
Directional Distribution: 16% entering, 84% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.15	0.47 - 3.23	0.42

Data Plot and Equation



Stormwater Management System Report

The Golf Plaza



Prepared For: Nature Valley Harvest, LTD

Submitted To: City of Alachua and Suwannee River Water Management District

Date: 06/27/2019
PN# 18-0431
PM: Daniel Young

Address: 632 Turkey Creek Boulevard
Alachua, FL 32615

www.chw-inc.com

CHW
Professional Consultants

Engineer's Certification Statement

I hereby certify that the design of the stormwater management systems for the project known as The Golf Plaza has been designed substantially in accordance with the City of Alachua and Suwannee River Water Management District applicable rules and criteria.

Daniel H. Young, FL PE No. 70780

Date

Contents	Page
Introduction	1
Design Criteria.....	1
Site Characteristics	2
Drainage Analysis.....	3
Summary and Conclusions	8

Figures

- 1 Project Location Map
- 2 USGS Quadrangle Map
- 3 Aerial Map
- 4 NRCS Soils Map
- 5 FEMA Flood Map
- 6 Post-Development Drainage Map
- 7 Post-Development Drainage Map

Appendices

- A. Drainage Calculations and Computer Model Output
- B. Operation and Maintenance Requirements and Erosion and Sedimentation Control Requirements
- C. Geotechnical Report

Introduction

The Golf Plaza project proposes the construction of three commercial buildings with associated parking, sidewalk, drive aisles, utility infrastructure and two stormwater management facilities. The proposed development encompasses ±8.25 acres located at 11905 Turkey Creek Boulevard, Alachua, Florida.

According to the Alachua County Property Appraiser's website, the project is in Section 28, Township 8 South, Range 19 East on tax parcel numbers 05900-004-001 through 05900-004-010. Figure 1 provides a Location Map, Figure 2 depicts the site on a portion of the Alachua USGS quadrangle map, and Figure 3 shows an aerial map.

Refer to the accompanying engineering plans for details about the proposed construction.

Design Criteria

The design criteria for the proposed Stormwater Management Facilities are based upon the criteria set forth by the City of Alachua (CoA) and Suwannee River Water Management District (SRWMD) for dry retention system design in a "stream-to-sink" basin. The criteria met by this report are:

1. Provide Water Quality Treatment Volume (WQTV) – The minimum stormwater treatment volume shall be the runoff from the first 2.0 inches of rainfall from the design storm (SRWMD) or 0.5 inch of runoff from the drainage area (CoA), whichever is greater. WQTV must be recovered within 72 hours (SRWMD, CoA).
2. Provide Discharge Rate and Volume Attenuation – Attenuate the post-development peak discharge rates and volumes to be less than the pre-development peak discharge rates and volumes for the 100 year - 1 hour, 100 year - 2 hour, 100 year - 4 hour, 100 year - 8 hour, 100 year - 24 hour, 100 year - 72 hour, 100 year - 168 hour, and 100 year - 240 hour storm events (SRWMD, CoA).
3. Provide Volume Recovery – Retention systems must have one-half of the total volume available within 7 days following the end of the design storm event, and the total volume must be recovered within 30 days following the end of the storm event. Alternatively, if recovery requirements cannot be met, back-to-back storms can be routed through the system (SRWMD).
4. Freeboard - Retention ponds shall have a freeboard of 1 foot above the maximum stage in order to function properly during storms greater than the design storm (SRWMD).
- 5.

The CoA and the SRWMD require that best management practices (BMPs) be employed to control erosion and sedimentation and an operation and maintenance entity be established.

Site Characteristics

Physical characteristics of the site are described in the following sections. Additional details are provided in the accompanying Engineering plans.

Topography and Drainage

Pre-Development

In pre-development, the Golf Plaza site is delineated into two pre-development watersheds: Pre DA-1 and Pre DA-2.

Pre DA-1 consists of ± 2.37 acres of undeveloped land and is mostly wooded with moderate underbrush on the western portion of the site (west of the FDOT drainage ditch running north/south through the middle of the site). The drainage area slopes from the north to the south and west to east with stormwater runoff being directed to an existing creek on site, a tributary of Turkey Creek.

Pre DA-2 consists of ± 1.07 acres of undeveloped land on the eastern portion of the site (east of FDOT drainage ditch). Runoff from this drainage area slopes from north to south and east to west and runoff flows to the Turkey Creek tributary.

Runoff from the entire pre-development site is ultimately conveyed to Sanchez Prairie via Turkey Creek. Refer to Figure 6 for the pre-development drainage areas associated with this basin.

Post-Development

In post-development, the Golf Plaza site is delineated into two watersheds: Post DA-1 and Post DA-2.

Post DA-1 consists of ± 2.37 acres including the entire western portion of the site, corresponding with Pre DA-1. Runoff from this watershed flows via sheet flow and shallow concentrated flow into the proposed stormwater conveyance system and into SMF-1, a dry retention pond. This facility will have a discharge structure with a 6" orifice at EL. 160.10' and an emergency overflow weir at the top of the structure (EL. 161.00'). SMF-1 will ultimately discharge stormwater to the Turkey Creek tributary south of the project site.

Post DA-2 consists of ± 1.07 acres including the entire eastern portion of the site, corresponding to Pre DA-2. Runoff from this watershed flows via sheet flow and shallow concentrated flow into the proposed stormwater conveyance system and ultimately into SMF-2, a dry retention pond. This facility will have a discharge structure with a 3" orifice at EL. 163.80' and an emergency overflow weir at the top of the structure (EL. 164.00'). SMF-2 will ultimately discharge stormwater to the Turkey Creek tributary south of the project site.

Refer to Figure 7 for information on the post-development drainage patterns. Refer to Appendix A and the accompanying engineering plans for additional details about the proposed stormwater management system.

Soils Information

The Natural Resources Conservation Service (NRCS) Soil Survey for Alachua County describes the near surface soil profile as *Millhopper sand (0 to 5 percent slopes)* with a hydrologic soil group rating of 'A', and *Pelham Sand* with a hydrologic soil group rating of 'D'. Refer to Figure 4 for the NRCS Soils Map.

A site-specific soils investigation was conducted by GSE Engineering & Consulting, Inc. in December 2018. Based on the Summary Report of Geotechnical Site Exploration, the following design parameters were determined and applied for the stormwater management facility calculations. Refer to Appendix C for further details.

West Basin (SMF-1) Parameters

- Average elevation of ground at pond borings: 155'
- Base of mobilized aquifer: 7 ft bls ($155' - 7' = 148'$)
- Unsaturated vertical infiltration rate: 15 ft/day (7.5 ft/day used in calculations)
- Horizontal hydraulic conductivity: 20 ft/day (10 ft/day used in calculations)
- Fillable porosity: 20%
- Average seasonal high groundwater table: 3 ft bls ($155' - 3' = 152'$)

East Basin (SMF-2) Parameters

- Average elevation of ground at pond borings: 161'
- Base of mobilized aquifer: 2 ft bls ($161' - 2' = 159'$)
- Unsaturated vertical infiltration rate: 6 ft/day (3 ft/day used in calculations)
- Horizontal hydraulic conductivity: 8 ft/day (4 ft/day used in calculations)
- Fillable porosity: 20%
- Average seasonal high groundwater table: 1.5 ft bls ($161' - 1.5' = 159.5'$)

A safety factor of 2 was applied to the infiltration rate and hydraulic conductivity values for use in the analysis.

Drainage Analysis

The proposed systems, SMF-1 and SMF-2, were designed to provide retention of the required WQTV, and attenuate the pre-development volumes and discharge rates for the 100 year - 1 hour, 100 year - 2 hour, 100 year - 4 hour, 100 year - 8 hour, 100 year - 24 hour, 100 year - 72 hour, 100 year - 168 hour, and 100 year - 240 hour storm events. The proposed SMFs were designed to have one-half of the total volume available 7 days following the

end of the design storm events as well as the total volume available within 30 days of the design storm events. Due to SMF-2 not fully recovering within 30 days for the larger storm events, back-to-back storms were routed through the system to ensure the system had adequate storage.

Appendix A contains details and calculations as well as a section for routing results, recovery analysis, hydraulic calculations, and general drainage calculations.

Analysis Methodology

The drainage analysis was conducted using the computer program POND5 (v3.3) to generate runoff hydrographs and route the runoff hydrographs through the proposed stormwater systems with a groundwater mounding analysis. The required storm events were analyzed using SRWMD rainfall amounts for Alachua County and FDOT distributions for the post-development watershed.

Unit Hydrograph Parameters

Unit hydrograph parameters required for the drainage analysis include run-off curve number (CN), time of concentration (Tc), and drainage area. Values used in the analysis are summarized as follows:

Table 1: Pre-Development Curve Number

Pre-Development Watershed #1 (Pre DA-1)	Area (sf)	Area (ac)	Percent	CN	Area*CN
Total Area:	103,431	2.37	100%		
Impervious	0	0.00	0.0%	98	0.0
Open space, type 'A' soil	46,095	1.06	44.6%	39	41.3
Open space, type 'D' soil	57,336	1.32	55.4%	80	105.3

CN = 62 **Tc = 15 min**

Pre-Development Watershed #2 (Pre DA-2)	Area (sf)	Area (ac)	Percent	CN	Area*CN
Total Area:	46,393	1.07	100%		
Impervious	0	0.00	0.0%	98	0.0
Open space, type 'A' soil	0	0.00	0.0%	39	0.0
Open space, type 'D' soil	46,393	1.07	100.0%	80	85.2

CN = 80 **Tc = 18 min**

Table 2: Post-Development Curve Number

Post-Development Watershed #1 (Post DA-1)	Area (sf)	Area (ac)	Percent	CN	Area*CN
Total Area:	103,431	2.37	100%		
Impervious	75,622	1.74	73.1%	98	170.1
Open space, type 'A' soil	2,584	0.06	2.5%	39	2.3
Open space, type 'D' soil	2,918	0.07	2.8%	80	5.4
Stormwater Management Facility	22,307	0.51	21.6%	100	51.2

CN = 94**Tc = 10 min***

Post-Development Watershed #2 (Post DA-2)	Area (sf)	Area (ac)	Percent	CN	Area*CN
Total Area:	46,393	1.07	100%		
Impervious	28,838	0.66	62.2%	98	64.9
Open space, type 'A' soil	0	0.00	0.0%	39	0.0
Open space, type 'D' soil	2,563	0.06	5.5%	80	4.7
Stormwater Management Facility	14,992	0.34	32.3%	100	34.4

CN = 93**Tc = 10 min***

*To be conservative, time of concentration is assumed to be 10 minutes.

Pond Storage

Stage-storage values for the proposed SMFs are provided in Appendix A.

Water Quality Treatment Volume

Per SRWMD, the required WQTV for a dry retention system is the runoff from 2.0 inches of rainfall from the design storm calculated using the rational method. Per the CoA, the minimum required WQTV shall be the first 0.5 inches of runoff over the drainage area. For both SMFs, the SRWMD required WQTV was the greatest volume. Table 3 below summarizes the WQTV for each SMF.

To demonstrate compliance with the Alachua County stormwater quality treatment code, a BMPTRAINS analysis was performed to show a 70% reduction for nitrogen and 80% reduction for phosphorus nutrient loading in stormwater discharged from the project site. SMF-1 and SMF-2 were utilized as retention Best Management Practices (BMPs), and the total volume of treated water was calculated as a retention depth over the entire post-development drainage areas. The required depth was determined to be 1.25 inches over the drainage area for SMF-1 and 0.75 inches over the drainage area for SMF-2. The required treatment volume is outlined in Table 3 below.

Refer to Appendix A for WQTV and BMPTRAINS calculations.

Table 3: Post-Development Water Quality Treatment Volume

Basin ID	Required WQTV SRWMD (cf)	Required WQTV CoA (cf)	Required WQTV Nutrient Removal Alachua County (cf)	Provided WQTV (cf)	Recovery (hrs)
SMF-1	15,875	4,310	10,774	15,875	< 6
SMF-2	7,150	1,933	2,900	7,150	< 24

Routing the required volumes through the basin in the drainage model indicates that the stormwater management facility draws down the greater treatment volume well within 72 hours. Detailed calculations are provided in Appendix A.

Run-off and Facility Routing Results

The routing results for SMF-1 and SMF-2 are summarized below in Table 4 and Table 5. Table 4 shows the pre/post-development peak discharge rates, and pre/post-development peak discharge volumes. Table 5 summarizes the peak stage, freeboard, and recovery results.

Table 4: Pre-Development vs. Post-Development Routing Results

SMF-1				
Storm Event	Peak Discharge Rate (cfs)		Peak Discharge Volume (cf)	
	Pre-Development	Post-Development	Pre-Development	Post-Development
100yr-1 hr	4.71	1.13	9346	3203
100yr-2hr	4.30	1.15	14593	6449
100yr-4hr	3.92	1.35	22411	10046
100yr-8hr	4.63	1.23	30689	13773
100yr-24hr	1.74	0.89	52132	28396
100yr-72hr	1.40	1.12	72948	37709
100yr-168hr	1.02	0.96	90108	35313
100yr-240hr	1.33	1.13	106013	40574
SMF-2				
Storm Event	Peak Discharge Rate (cfs)		Peak Discharge Volume (cf)	
	Pre-Development	Post-Development	Pre-Development	Post-Development
100yr-1 hr	4.03	0.27	9259	825
100yr-2hr	3.61	0.31	12641	1789
100yr-4hr	2.63	0.36	17285	3028
100yr-8hr	2.98	0.37	21914	19014
100yr-24hr	1.05	0.38	33190	29534
100yr-72hr	0.71	0.35	43617	36478
100yr-168hr	0.50	0.33	51999	42573
100yr-240hr	0.65	0.40	59656	45435

Table 5: Post-Development Routing Results

SMF-1 (TOP = 162')					
Storm Event	Stage (ft)	Freeboard (ft)	Time to 1/2 Volume Available (EL = 160.65') (Days After Storm)	Time to Full Recovery (Days After Storm)	Stage After 30 Days (ft)
100yr-1 hr	160.63	1.37	-	< 1	-
100yr-2hr	160.65	1.35	< 1	< 1	-
100yr-4hr	160.85	1.15	< 1	< 1	-
100yr-8hr	160.73	1.27	< 1	< 2	-
100yr-24hr	160.43	1.57	-	< 3	-
100yr-72hr	160.62	1.38	-	< 4	-
100yr-168hr	160.48	1.52	-	< 4	-
100yr-240hr	160.63	1.37	-	< 5	-
SMF-2 (TOP = 165')					
Storm Event	Stage (ft)	Freeboard (ft)	Time to 1/2 Volume Available (EL = 163.67') (Days After Storm)	Time to Full Recovery (Days After Storm)	Stage After 30 Days (ft)
100yr-1 hr	163.30	1.70	-	< 2	-
100yr-2hr	163.43	1.57	-	< 6	-
100yr-4hr	163.67	1.33	<1	< 12	-
100yr-8hr	163.69	1.31	<1	< 22	-
100yr-24hr	163.75	1.25	< 1	< 25	-
100yr-72hr	163.62	1.38	-	< 28	-
100yr-168hr	163.52	1.48	-	> 30	162.03
100yr-240hr	163.84	1.16	< 1	> 30	162.06

Back-to-back Storms

Due to the large storm events not fully recovering within 30 days after the storm event for SMF-2, back-to-back storms were routed through SMF-2 to ensure the system could provide the necessary storage volume. To route the storm events back-to-back, the number of repetitions was set to “2” for the 100yr-168hr and 100yr-240hr storm events. Routing results are summarized in Table 6 and model results can be found in Appendix A.

Table 6: Back-to-Back Storm Results

Storm Event	Peak Stage (FT)	Freeboard (FT) (TOP = 165.0)
100YR-168HR	163.53	1.47
100YR-240HR	163.85	1.15

Summary and Conclusions

The proposed drainage system meets City of Alachua and SRWMD criteria for stormwater management facilities as follows:

1. Provide Water Quality Treatment Volume (WQTV): SMF-1 and SMF-2 have been designed to retain the runoff from the first 2.0 inches of rainfall from the design storm, which was the greatest required WQTV of the three methods. WQTV for both SMFs was recovered within 72 hours (SRWMD, CoA).
2. Provide Discharge Rate and Volume Attenuation: SMF-1 and SMF-2 have been designed so that post-development discharge rates and volumes do not exceed the pre-development discharge rates and volumes for the 100 year - 1 hour, 100 year - 2 hour, 100 year - 4 hour, 100 year - 8 hour, 100 year - 24 hour, 100 year - 72 hour, 100 year - 168 hour, and 100 year - 240 hour storm events (SRWMD, CoA).
3. Provide Volume Recovery: SMF-1 and SMF-2 have been designed so that one-half of the total volume is available within 7 days following the end of all design storm events and the total volume available is recovered within 30 days following the end of all design storm events. For events that do not meet the recovery requirements, back-to-back storms were routed to ensure the system could provide the necessary storage volume (SRWMD).
4. Freeboard: SMF-1 and SMF-2 have been designed to provide at least 1 foot of freeboard for all design storms (SRWMD).

Based on the information provided, the project is eligible for approval by the City of Alachua and SRWMD.

Figure 1

Project Location Map

Project Location Map THE GOLF PLAZA

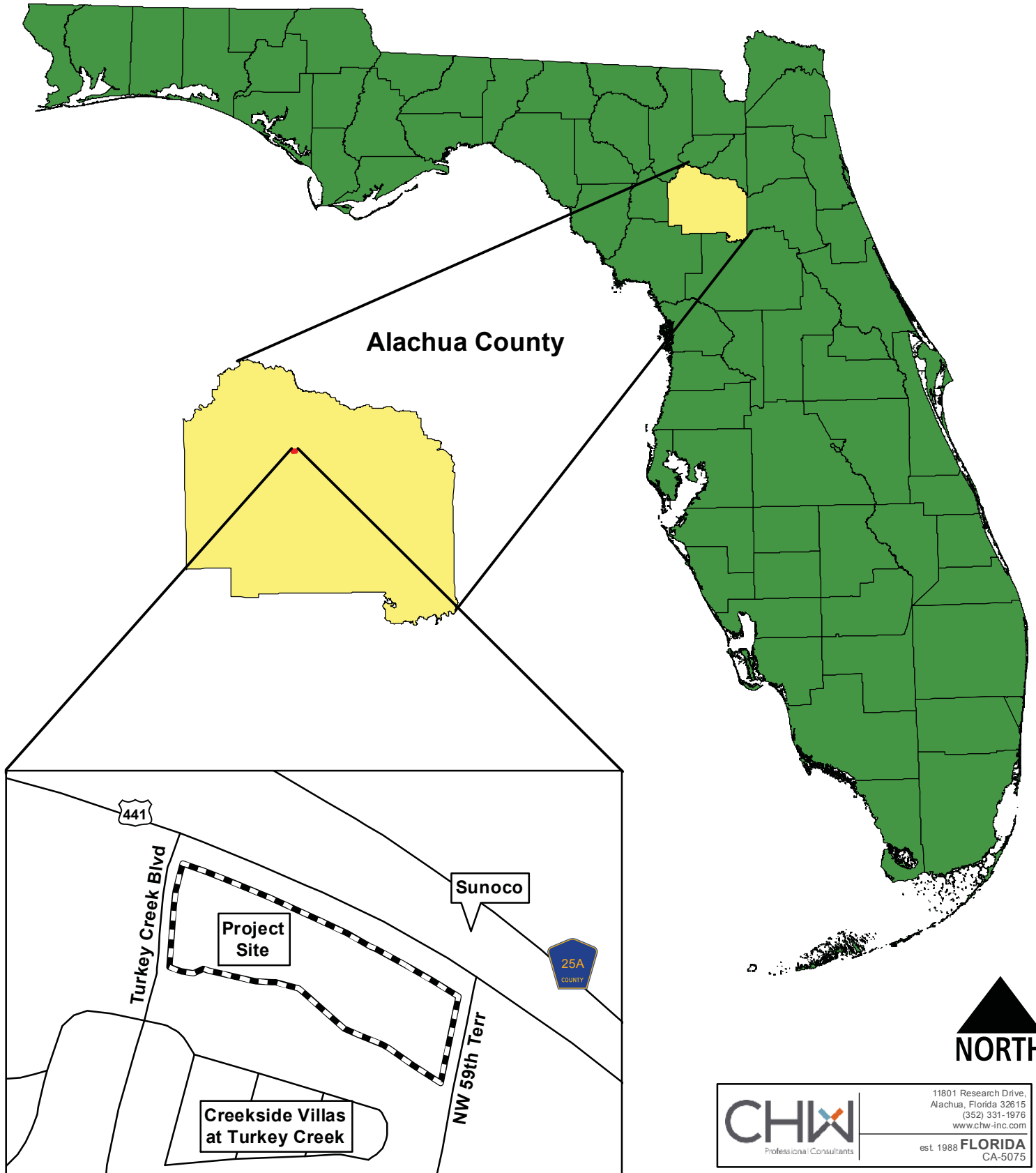
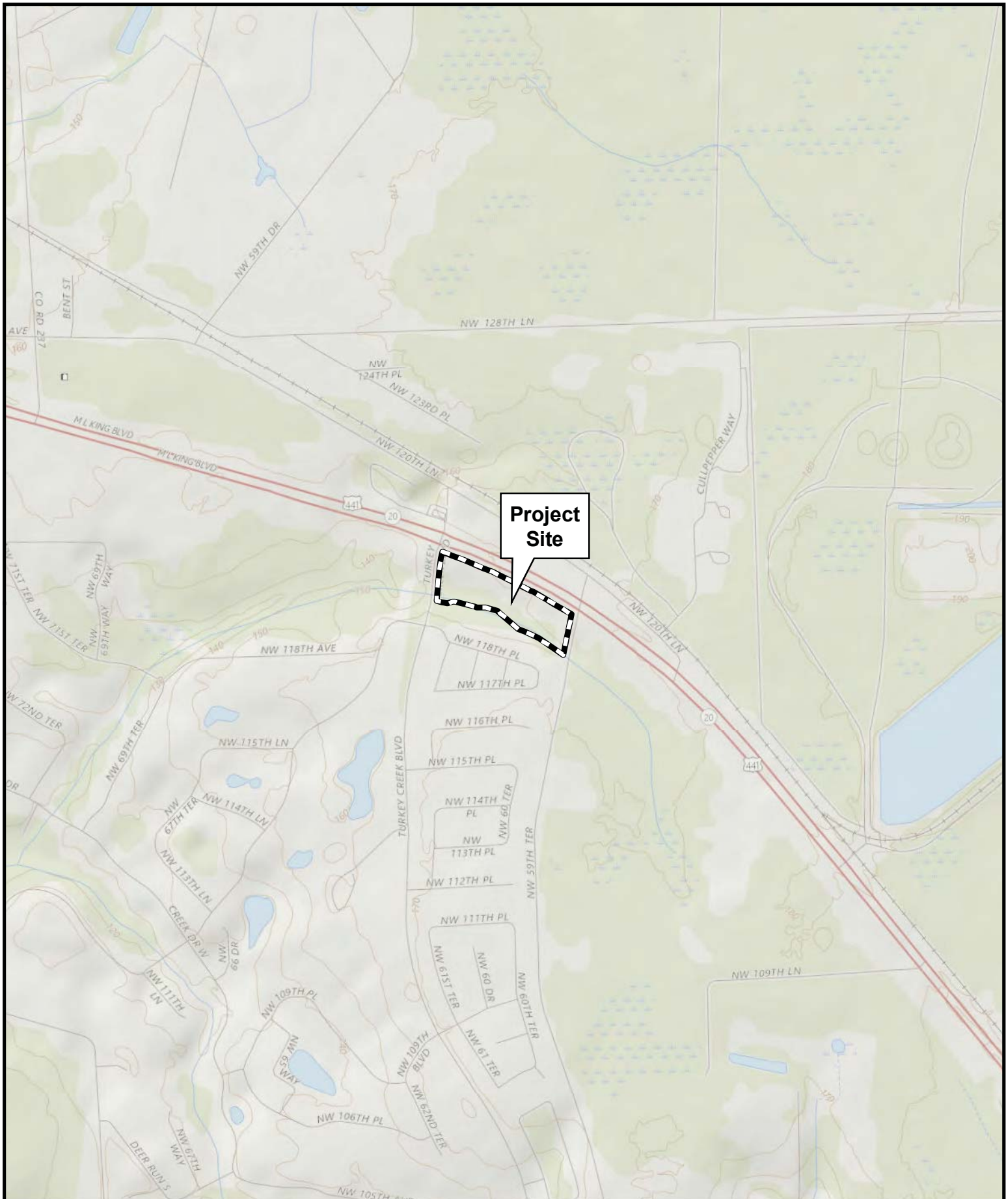


Figure 2

USGS Quadrangle Map



11801 Research Drive,
Alachua, Florida 32615
(352) 331-1976
www.chw-inc.com
est. 1988 **FLORIDA**
CA-5075

THE GOLF PLAZA Quad Map

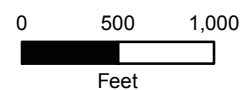
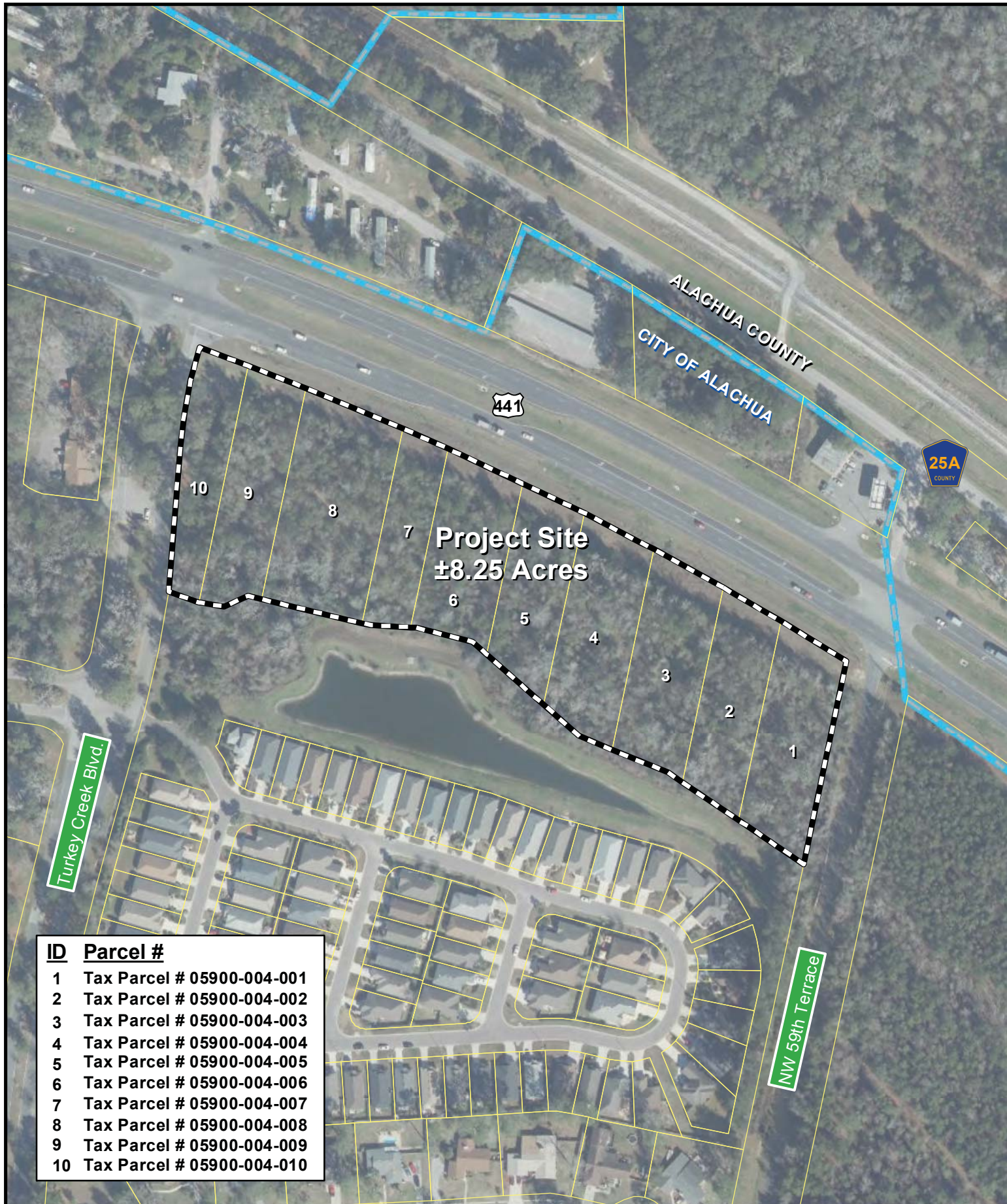


Figure 3

Aerial Map



ID	Parcel #
1	Tax Parcel # 05900-004-001
2	Tax Parcel # 05900-004-002
3	Tax Parcel # 05900-004-003
4	Tax Parcel # 05900-004-004
5	Tax Parcel # 05900-004-005
6	Tax Parcel # 05900-004-006
7	Tax Parcel # 05900-004-007
8	Tax Parcel # 05900-004-008
9	Tax Parcel # 05900-004-009
10	Tax Parcel # 05900-004-010



11801 Research Drive,
Alachua, Florida 32815
(352) 331-1976
www.chw-inc.com
est. 1988 **FLORIDA**
CA-5075

THE GOLF PLAZA Aerial Map

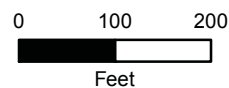
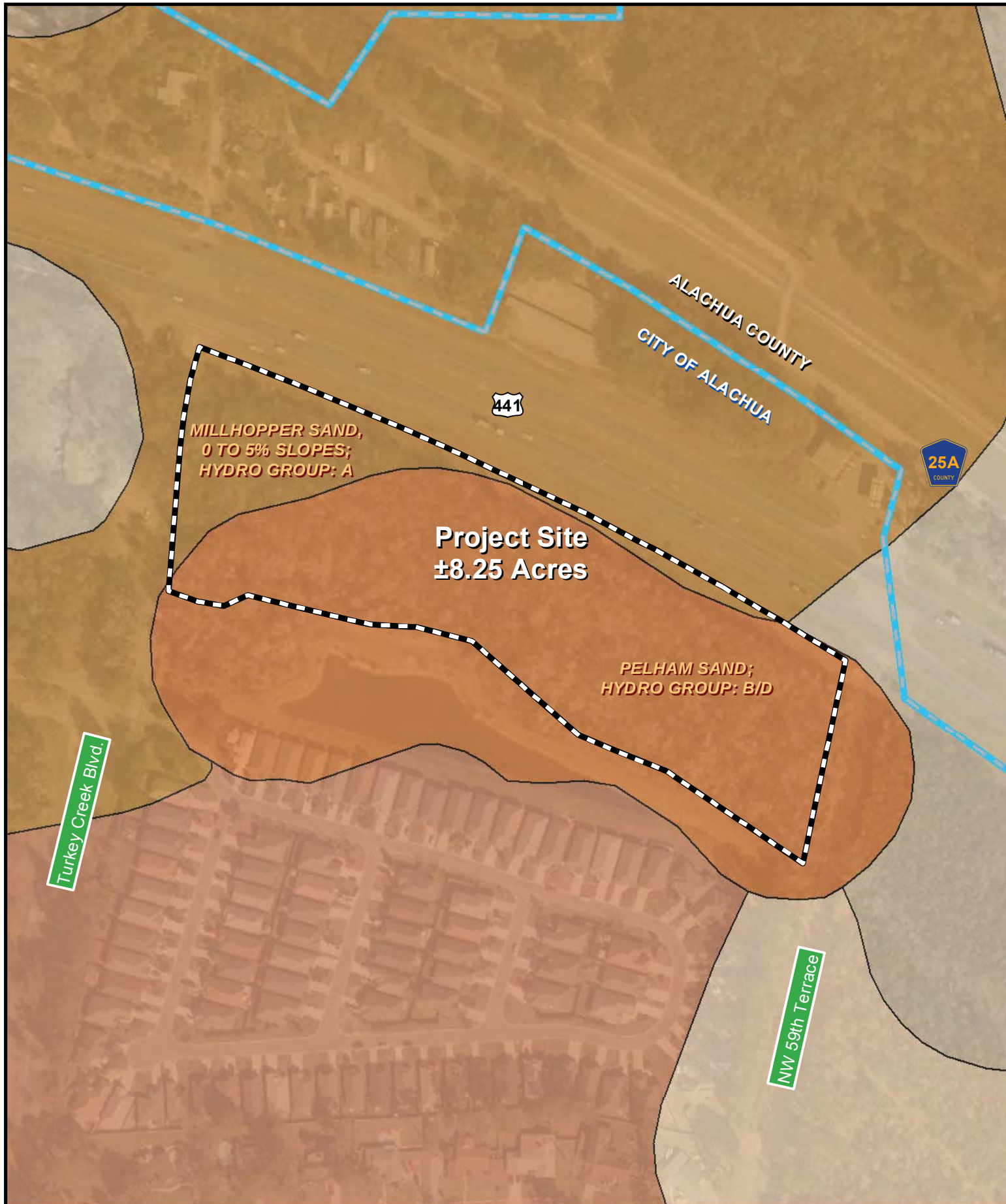


Figure 4

NRCS Soils Map



11801 Research Drive,
Alachua, Florida 32615
(352) 331-1976
www.chw-inc.com
est. 1988 **FLORIDA**
CA-5075

THE GOLF PLAZA Soils Map

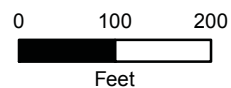


Figure 5

FEMA Flood Map



11801 Research Drive,
Alachua, Florida 32615
(352) 331-1976
www.chw-inc.com
est. 1988 **FLORIDA**
CA-5075

THE GOLF PLAZA FEMA Map

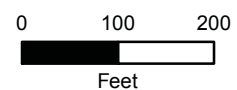


Figure 6

Pre-Development Drainage Map

LEGEND



PRE-DEVELOPMENT
ON-SITE WATERSHED:



PRE-DEVELOPMENT
DRAINAGE FLOW
PATTERNS:

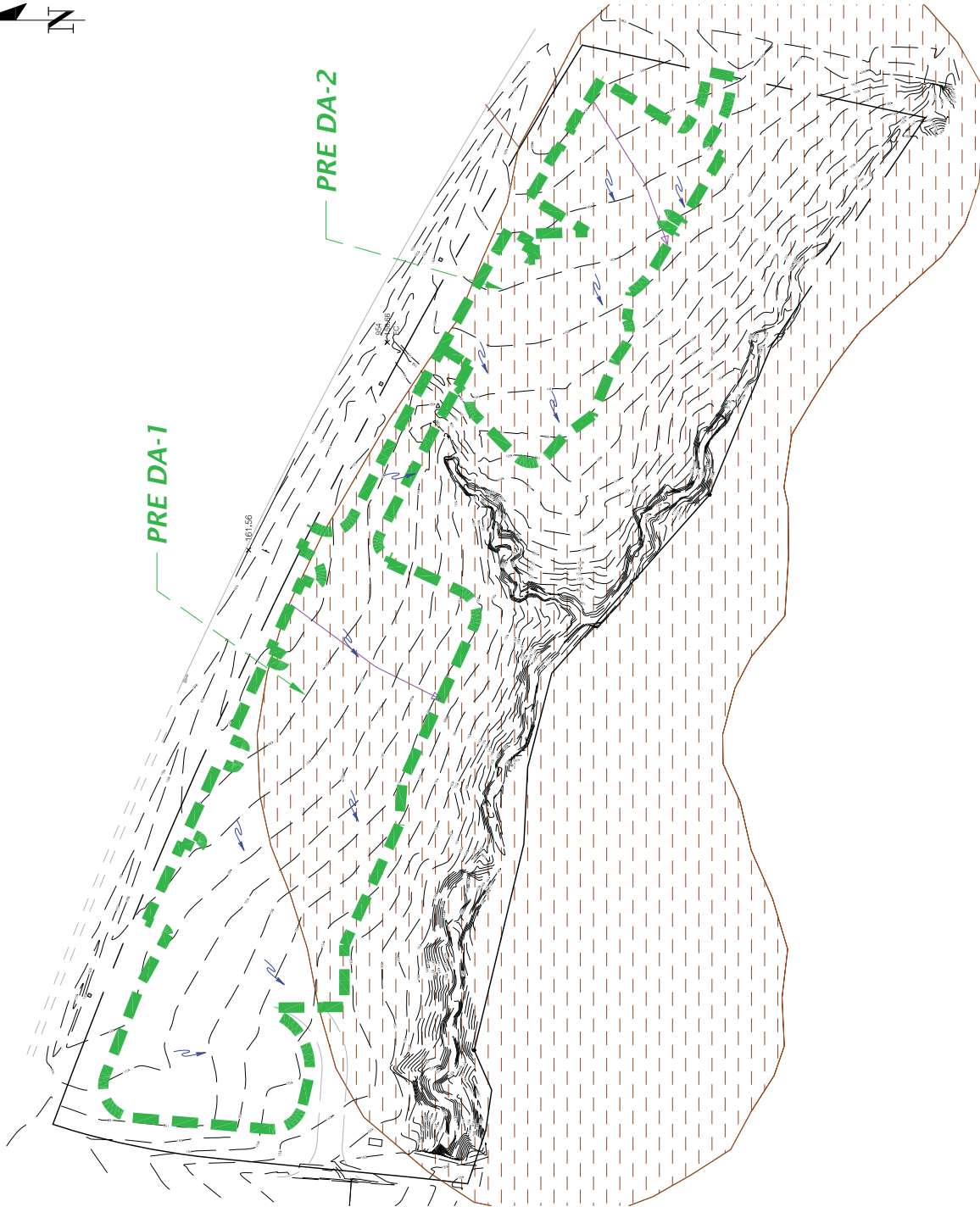


PRE-DEVELOPMENT
TIME OF
CONCENTRATION



TYPE 'D' SOILS

NOTE: ALL SOILS ARE TYPE 'A'
UNLESS OTHERWISE NOTED



SHEET NO. 1	PROJECT NAME: 18-0431 QUALITY CONTROL PROJECT: THE GOLF PLAZA DESIGN: CAUSSEAU, HENRY & WALTON, INC. PRELIMINARY - SURVEYING - PLANNING TECHNICAL	CLIENT: CAUSSEAU, HENRY & WALTON, INC. PROJECT: THE GOLF PLAZA PRELIMINARY - SURVEYING - PLANNING PRELIMINARY - SURVEYING - PLANNING PRELIMINARY - SURVEYING - PLANNING	SCALE: 1" = 100' DATE: 01/15/18 DRAWN BY: J. WALTON CHECKED BY: J. WALTON APPROVED BY: J. WALTON PROJECT NO.: 18-0431	PROFESSIONAL CONSULTANT CHM 11001 Tenthredin Drive Jacksonville, FL 32217-1001 904.780.0000 www.chm-fl.com	PROFESSIONAL CONSULTANT CHM 11001 Tenthredin Drive Jacksonville, FL 32217-1001 904.780.0000 www.chm-fl.com
-------------	--	---	--	---	---

Figure 7

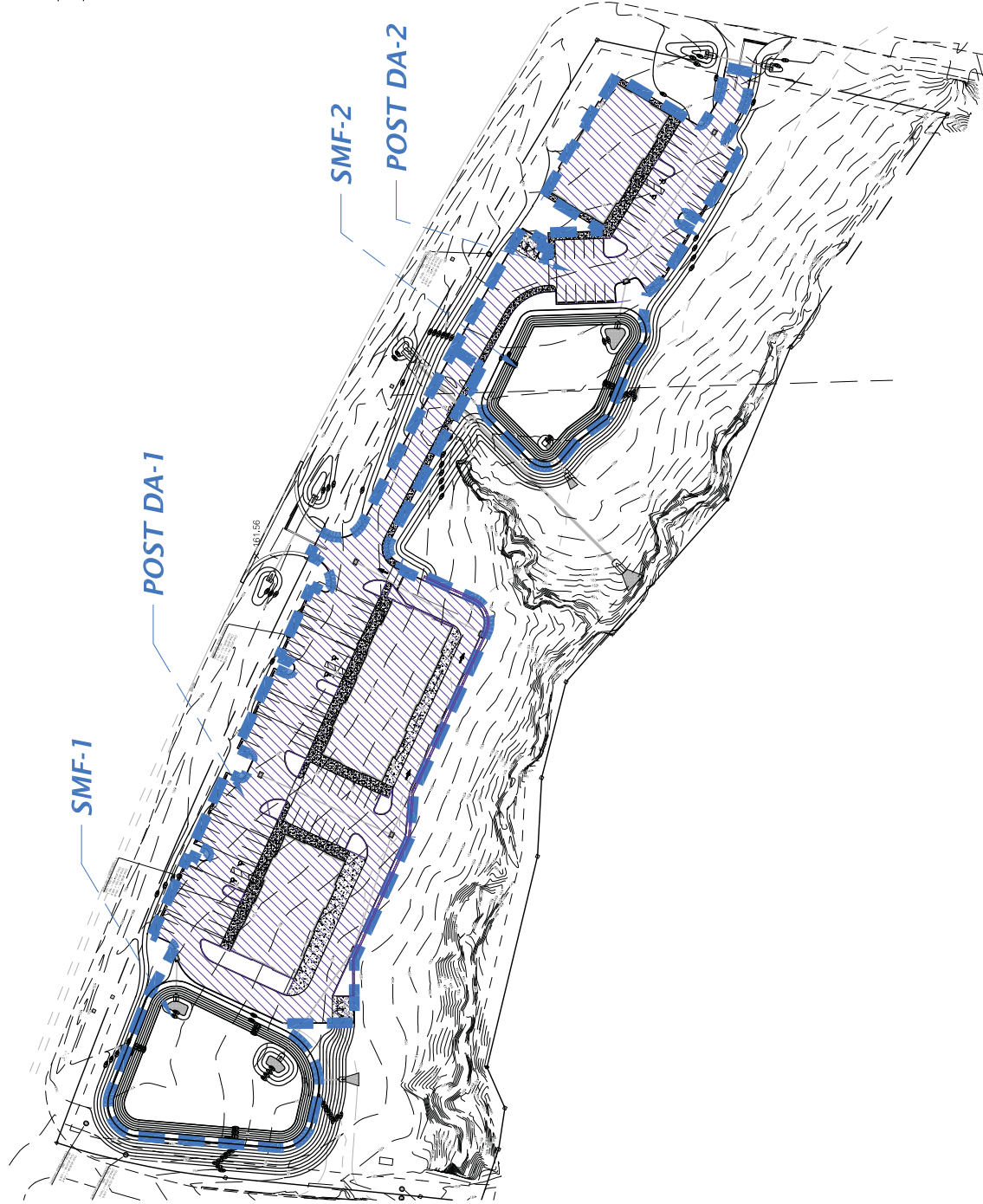
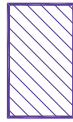
Post-Development Drainage Map

LEGEND

POST-DEVELOPMENT
WATERSHED:



PROPOSED ONSITE
IMPERVIOUS AREA:



PROJECT NAME CAUSSEAU, HENRY & WALTON, INC. ENGINEERING - SURVEYING - PLANNING	PROJECT NUMBER 00-0000	DATE 08/15/2018	PROJECT LOCATION 10000 FLORIDA CAUSSEAU, HENRY & WALTON, INC. ENGINEERING - SURVEYING - PLANNING
PROJECT NAME CAUSSEAU, HENRY & WALTON, INC. ENGINEERING - SURVEYING - PLANNING	PROJECT NUMBER 00-0000	DATE 08/15/2018	PROJECT LOCATION 10000 FLORIDA CAUSSEAU, HENRY & WALTON, INC. ENGINEERING - SURVEYING - PLANNING

Appendix A

Drainage Calculations and Computer Model Output

CURVE NUMBER CALCULATIONS

Pre-Development Drainage Calculations

Pre-Development Watershed #1 (Pre DA-1)	Area (sf)	Area (ac)	Percent	CN	Area*CN
Total Area:	103,431	2.37	100%		
Impervious	0	0.00	0.0%	98	0.0
Open space, type 'A' soil	46,095	1.06	44.6%	39	41.3
Open space, type 'D' soil	57,336	1.32	55.4%	80	105.3

CN = **62**

Tc = 15 min

Pre-Development Watershed #2 (Pre DA-2)	Area (sf)	Area (ac)	Percent	CN	Area*CN
Total Area:	46,393	1.07	100%		
Impervious	0	0.00	0.0%	98	0.0
Open space, type 'A' soil	0	0.00	0.0%	39	0.0
Open space, type 'D' soil	46,393	1.07	100.0%	80	85.2

CN = **80**

Tc = 18 min

Post-Development Drainage Calculations

Post-Development Watershed #1 (Post DA-1)	Area (sf)	Area (ac)	Percent	CN	Area*CN
Total Area:	103,431	2.37	100%		
Impervious	75,622	1.74	73.1%	98	170.1
Open space, type 'A' soil	2,584	0.06	2.5%	39	2.3
Open space, type 'D' soil	2,918	0.07	2.8%	80	5.4
Stormwater Management Facility	22,307	0.51	21.6%	100	51.2

CN = **94**

Tc = 10 min*

*Time of concentration is assumed to be 10 minutes.

2

Post-Development Watershed #2 (Post DA-2)	Area (sf)	Area (ac)	Percent	CN	Area*CN
Total Area:	46,393	1.07	100%		
Impervious	28,838	0.66	62.2%	98	64.9
Open space, type 'A' soil	0	0.00	0.0%	39	0.0
Open space, type 'D' soil	2,563	0.06	5.5%	80	4.7
Stormwater Management Facility	14,992	0.34	32.3%	100	34.4

CN = **93**

Tc = 10 min*

*Time of concentration is assumed to be 10 minutes.

Open Space (lawns, parks, golf courses, cemeteries, etc)

	A	B	C	D
Poor	68	79	86	89
Fair	49	69	79	84
Good	39	61	74	80

Impervious areas

Paved parking lots, roofs, driveways, etc. (excluding R/M)

	A	B	C	D
Paved	98	98	98	98
Dirt	72	82	87	89

WQTV Calculations - SMF-1

SRWMD

C = 0.92
i = 2.00 in
A = 2.37 ac
Q = **15,875 cf**

Runoff Coefficient Calculation			
	Area (ac.)	Coeff. C	C x A
Impervious	1.74	0.95	1.65
Open Space	0.13	0.20	0.03
SMF	0.51	1.00	0.51
TOTAL	2.37		2.19
			C = 0.92

City of Alachua

Drainage Area = 103,431 sf
Drainage Area x 0.5 inches = 4,310 cf

BMPTrains

Nitrogen and Phosphorus Removal: 1.25 in
Drainage Area = 103,431 sf
Required Retention Volume = 10,774 cf

WQTV Calculations - SMF-2

SRWMD

C = 0.92
i = 2.00 in
A = 1.07 ac
Q = **7,150 cf**

Runoff Coefficient Calculation			
	Area (ac.)	Coeff. C	C x A
Impervious	0.66	0.95	0.63
Open Space	0.06	0.20	0.01
SMF	0.34	1.00	0.34
TOTAL	1.07		0.98
			C = 0.92

City of Alachua

Drainage Area = 46,393 sf
Drainage Area x 0.5 inches = 1,933 cf

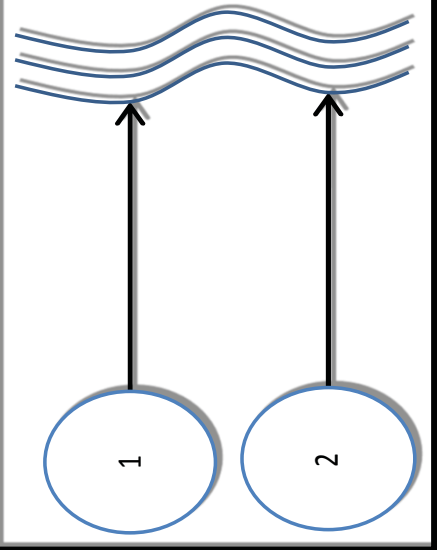
BMPTrains

Nitrogen and Phosphorus Removal: 0.75 in
Drainage Area = 46,393 sf
Required Retention Volume = 2,900 cf

GENERAL SITE INFORMATION: V 8.6		GO TO INTRODUCTION PAGE		6/25/2019	Blue Numbers = Red Numbers =	Input data Calculated or Carryover	
Select the appropriate Meteorological Zone, input the appropriate Mean Annual Rainfall amount and select the type of analysis			NAME OF PROJECT The Golf Plaza		HELP Rainfall		
					VIEW ZONE MAP		
Meteorological Zone (Please use zone map):			CLICK ON CELL BELOW TO SELECT Zone 2		VIEW MEAN ANNUAL RAINFALL MAP		
Mean Annual Rainfall (Please use rainfall map):			52.00 Inches				
Type of analysis:			CLICK ON CELL BELOW TO SELECT Specified removal efficiency		GO TO WATERSHED CHARACTERISTICS		
Treatment efficiency (N, P) (ex 80 70 (no decimal points) use only for specified removal efficiency):			70 80 %				
Select the STORMWATER TREATMENT ANALYSIS Button below to begin analyzing the effectiveness of Best Management Practices.			Model documentation and example problems.				
STORMWATER TREATMENT ANALYSIS Systems available for analysis: Retention Basin with option for calculating effluent concentration Wet Detention Exfiltration Trench Pervious Pavement Stormwater Harvesting Biofiltration Greenroof Rainwater Harvesting Managed Aquatic Plants Detention Vegetated Natural Buffer Vegetated Filter Strip Swale Rain Garden Tree Well Lined reuse pond User Defined BMP			There is a user's manual for the BMPTRAINS model. It can be downloaded from www.stormwater.ucf.edu. The results from the example problems shown in the manual however may not reflect current model results due to ongoing updates of the model.				
RESET INPUT FOR STORMWATER TREATMENT ANALYSIS			METHODODOLOGY FOR CALCULATING REQUIRED TREATMENT EFFICIENCY		METHODODOLOGY FOR WET DETENTION SYSTEMS		
			METHODODOLOGY FOR RETENTION SYSTEMS		METHODODOLOGY FOR WATER HARVESTING SYSTEMS		
			METHODODOLOGY FOR GREENROOF SYSTEMS				

WATERSHED CHARACTERISTICS		V 8.6		GO TO STORMWATER TREATMENT ANALYSIS		Blue Numbers = Input data Red Numbers = Calculated		LAND USES/EMC	
SELECT CATCHMENT CONFIGURATION				CLICK ON CELL BELOW TO SELECT CONFIGURATION				VIEW CATCHMENT CONFIGURATION PAGE	
For comingling, the off-site catchment must be upstream. The delay is only for retention BMP's and must be used in hours as measured by the time of concentration at a one inch/hour rain				C - 2 Catchment-Parallel					
Delay [hrs]				COMINGLING					
CATCHMENT NO.1 NAME:				MULTI-LAND USE					
CLICK ON CELL BELOW TO SELECT				VIEW AVERAGE ANNUAL RUNOFF					
Undeveloped - Upland Hardwood: TN=1.042 TP=0.346				"C" Factor					
CLICK ON CELL BELOW TO SELECT				VIEW EMC & FLUCCS					
Low-Intensity Commercial: TN=1.13 TP=0.188				GO TO GIS LANDUSE DATA					
CATCHMENT NO.2 NAME:									
CLICK ON CELL BELOW TO SELECT									
Undeveloped - Upland Hardwood: TN=1.042 TP=0.346									
CLICK ON CELL BELOW TO SELECT									
Low-Intensity Commercial: TN=1.13 TP=0.188									
CATCHMENT NO.3 NAME:									
CLICK ON CELL BELOW TO SELECT									
Undeveloped - Upland Hardwood: TN=1.042 TP=0.346									
CLICK ON CELL BELOW TO SELECT									
Low-Intensity Commercial: TN=1.13 TP=0.188									
CATCHMENT NO.4 NAME:									
CLICK ON CELL BELOW TO SELECT									
Undeveloped - Upland Hardwood: TN=1.042 TP=0.346									
CLICK ON CELL BELOW TO SELECT									
Low-Intensity Commercial: TN=1.13 TP=0.188									
Pre-development land use: with default EMCs				Average annual pre runoff volume:				USE DEFAULT CONCENTRATIONS	
Post-development land use: with default EMCs				Average annual post runoff volume (note no BMP area):				0.357 ac-ft/year	
Total pre-development catchment area:				Pre-development Annual Mass Loading - Nitrogen:				4.842 kg/year	
Total post-development catchment or for BMP analysis:				Pre-development Annual Mass Loading - Phosphorus:				0.153 kg/year	
Pre-development Non DCIA CN:				Post-development Annual Mass Loading - Nitrogen:				6.748 kg/year	
Pre-development DCIA percentage:				Post-development Annual Mass Loading - Phosphorus:				1.123 kg/year	
Post-development Non DCIA CN:									
Post-development DCIA percentage:									
Estimated BMP Area (No loading from this area)									
Pre-development land use: with default EMCs				Average annual pre runoff volume:				USE DEFAULT CONCENTRATIONS	
Post-development land use: with default EMCs				Average annual post runoff volume (note no BMP area):				0.515 ac-ft/year	
Total pre-development catchment area:				Pre-development Annual Mass Loading - Nitrogen:				1.725 kg/year	
Total post-development catchment or for BMP analysis area:				Pre-development Annual Mass Loading - Phosphorus:				0.661 kg/year	
Pre-development Non DCIA CN:				Post-development Annual Mass Loading - Nitrogen:				2.404 kg/year	
Pre-development DCIA percentage:				Post-development Annual Mass Loading - Phosphorus:				0.400 kg/year	
Post-development Non DCIA CN:									
Post-development DCIA percentage:									
Estimated BMP Area (No loading from this area)									
Pre-development land use: with default EMCs				Average annual pre runoff volume:				USE DEFAULT CONCENTRATIONS	
Post-development land use: with default EMCs				Average annual post runoff volume (note no BMP area):				0.515 ac-ft/year	
Total pre-development catchment area:				Pre-development Annual Mass Loading - Nitrogen:				1.725 kg/year	
Total post-development catchment or for BMP analysis area:				Pre-development Annual Mass Loading - Phosphorus:				0.661 kg/year	
Pre-development Non DCIA CN:				Post-development Annual Mass Loading - Nitrogen:				2.404 kg/year	
Pre-development DCIA percentage:				Post-development Annual Mass Loading - Phosphorus:				0.400 kg/year	
Post-development Non DCIA CN:									
Post-development DCIA percentage:									
Estimated BMP Area (no loading from this area)									
Pre-development land use: with default EMCs				Average annual pre runoff volume:				USE DEFAULT CONCENTRATIONS	
Post-development land use: with default EMCs				Average annual post runoff volume (note no BMP area):				0.515 ac-ft/year	
Total pre-development catchment area:				Pre-development Annual Mass Loading - Nitrogen:				1.725 kg/year	
Total post-development catchment or for BMP analysis area:				Pre-development Annual Mass Loading - Phosphorus:				0.661 kg/year	
Pre-development Non DCIA CN:				Post-development Annual Mass Loading - Nitrogen:				2.404 kg/year	
Pre-development DCIA percentage:				Post-development Annual Mass Loading - Phosphorus:				0.400 kg/year	
Post-development Non DCIA CN:									
Post-development DCIA percentage:									
Estimated BMP Area (no loading from this area)									
Pre-development land use: with default EMCs				Average annual pre runoff volume:				USE DEFAULT CONCENTRATIONS	
Post-development land use: with default EMCs				Average annual post runoff volume (note no BMP area):				0.515 ac-ft/year	
Total pre-development catchment area:				Pre-development Annual Mass Loading - Nitrogen:				1.725 kg/year	
Total post-development catchment or for BMP analysis area:				Pre-development Annual Mass Loading - Phosphorus:				0.661 kg/year	
Pre-development Non DCIA CN:				Post-development Annual Mass Loading - Nitrogen:				2.404 kg/year	
Pre-development DCIA percentage:				Post-development Annual Mass Loading - Phosphorus:				0.400 kg/year	
Post-development Non DCIA CN:									
Post-development DCIA percentage:									
Estimated BMP Area (no loading from this area)									

STORMWATER TREATMENT ANALYSIS:		V 8.6	GO TO GENERAL SITE INFORMATION PAGE	Blue Numbers = Red Numbers =	Input data Calculated
If not done, specify pre- and post-development watershed characteristics.					
GO TO WATERSHED CHARACTERISTICS <u>Total Required Treatment Efficiency:</u> Required Treatment Eff (Nitrogen): 70 % Required Treatment Eff (Phosphorus): 80 %					
Select one of the BMPs below to analyze efficiency or review the summary data.					
RETENTION BASIN	WET DETENTION / MAP	EXFILTRATION TRENCH	RAIN GARDEN / depression storage	SWALE	USER DEFINED BMP
PERVIOUS PAVEMENT	STORMWATER HARVESTING	FILTRATION	View Media Mixes	NOTE !!!: All individual system must be sized prior to being analyzed in conjunction with other systems. Please read instructions in the CATCHMENT AND TREATMENT SUMMARY RESULTS tab for more information.	
GREENROOF	RAINWATER HARVESTING	LINED REUSE POND & UNDERDRAIN INPUT	GO TO COST ANALYSIS WORKSHEET		
VEGETATED NATURAL BUFFER	VEGETATED FILTER STRIP	TREE WELL	CATCHMENT AND TREATMENT SURFACE		

CATCHMENTS AND TREATMENT SURFACE DISCHARGE SUMMARY					V 8.6
CALCULATION METHODS: 1. The effectiveness of each BMP in a single catchment is converted to an equivalent capture volume. 2. Certain BMP treatment train combinations have not been evaluated and in practice they are at this time not used, an example is a greenroof following a tree well. 3. Wet detention is last when used in a single catchment with other BMPs, except when followed by filtration					
PROJECT TITLE	The Golf Plaza		Optional Identification		
	SMF-1	SMF-2	Catchment 3	Catchment 4	
BMP Name	Retention Basin	Retention Basin			
BMP Name					
BMP Name					
Surface Water Discharge Summary Performance of Entire Watershed					
Catchment Configuration	C - 2 Catchment-Parallel				
Nitrogen Pre Load (kg/yr)	1.12				
Phosphorus Pre Load (kg/yr)	0.37				
Nitrogen Post Load (kg/yr)	9.15				
Phosphorus Post Load (kg/yr)	1.52				
Target Load Reduction (N) %	70				
Target Load Reduction (P) %	80				
Target Discharge Load, N (kg/yr)	2.75				
Target Discharge Load, P (kg/yr)	0.30				
Provided Overall Efficiency, N (%)	80				
Provided Overall Efficiency, P (%)	80				
Discharged Load, N (kg/yr & lb/yr):	1.79				
Discharged Load, P (kg/yr & lb/yr):	0.30				
Load Removed, N (kg/yr & lb/yr):	7.36				
Load Removed, P (kg/yr & lb/yr):	1.22				
			Treatment Objectives or Target for TN MET TP MET		
			3.95		
			0.66		
			16.21		
			2.70		
					
			6/25/2019		
			BMPTRAINS MODEL		

Project No. 18-0431: The Golf Plaza

SHEET FLOW						SHALLOW CONCENTRATED FLOW						CHANNEL / PIPE FLOW									
BASIN	Manning's n	Flow Length L (ft)	2-Year 24-Hour Rain, P2 (in)	Land Slope s (ft/ft)	Tt1 (hr)	Paved or Unpvd. (P or U)	Flow Length L (ft)	Water- course Slope, s (ft/ft)	Avg. Velocity V (ft/s)	Tt2 (hr)	Cross- Section Area, a (ft²)	Wetted Perim. Pw (ft)	Hydraulic Radius r (ft)	Pipe Slope s (ft/ft)	Manning n (-)	Avg. Velocity V (ft/s)	Flow Length L (ft)	Tt3 (hr)	Tc (hr)	Tc (min)	
	(-)																				
	PRE-1	0.4	100	5	0.03	0.24	U	68	0.044	3.39	0.01	-	-	-	-	-	-	0	-	0.25	15
	PRE-2	0.4	100	5	0.02	0.29	U	59	0.025	2.57	0.01	-	-	-	-	-	-	0	-	0.29	18

ID	Tc	Tc
#	(hr)	(min)
PRE-1	0.25	15
PRE-2	0.29	18

STAGE-STORAGE CALCULATIONS:

Post-Development: SMF-1 Stage-Storage Relationship				
ELEV.	AREA (SF)	AREA (Ac)	STORAGE VOLUME (CF)	STORAGE VOLUME (AC-FT)
159.00	14516	0.33	0	0.000
159.50	15473	0.36	7,497	0.172
160.50	17463	0.40	23,965	0.550
161.50	19553	0.45	42,473	0.975
162.00	22307	0.51	52,938	1.215

Ave. existing ground: 155.00 ft
Elev. of SHWT: 152.00 ft
Depth to Confining: 148.00 ft
Horiz. Infiltr.: 10.00 ft/day*
Vertical Infiltr.: 7.50 ft/day*
Fillable Porosity: 0.20
Volume = 52938 cf
Area = 22307 sf
Perimeter = 566 ft
Depth = 3.00 ft

*Factor of Safety of 2 applied

WQTV = 15875 cf
WQTV EL = 160.03 ft
6" Discharge Orifice EL : 160.10 ft
Half-Volume = 26469 cf
Half-Volume EL = 160.65 ft

Length = 190 ft

Width = 93 ft

Post-Development: SMF-2 Stage-Storage Relationship				
ELEV.	AREA (SF)	AREA (Ac)	STORAGE VOLUME (CF)	STORAGE VOLUME (AC-FT)
162.00	8669	0.20	0	0.000
162.50	9430	0.22	4,525	0.104
163.50	11028	0.25	14,754	0.339
164.50	12727	0.29	26,631	0.611
165.00	14992	0.34	33,561	0.770

Ave. existing ground: 161.00 ft
Elev. of SHWT: 159.50 ft
Depth to Confining: 159.00 ft
Horiz. Infiltr.: 4.00 ft/day*
Vertical Infiltr.: 3.00 ft/day*
Fillable Porosity: 0.20
Volume = 33561 cf
Area = 14992 sf
Perimeter = 468 ft
Depth = 3.00 ft

*Factor of Safety of 2 applied

WQTV = 7150 cf
WQTV EL = 162.77 ft
3" Discharge Orifice EL : 162.80
Half-Volume = 16781 cf
Half-Volume EL = 163.67 ft

Length = 167 ft

Width = 67 ft

Pipe Calcs - 18-0431 - The Golf Plaza																								
Structure No.		Invert Elev.		Length (ft)	Slope (ft/foot)	Dia. (in)	C	Tc (min)	i* (in/hr)	A (sf)	A (ac)	Q (cfs) Actual		Q Allowed (cfs)	Pipe A (sq-ft)	V - Full Flow (fps)	Pipe R (ft)	Minor Loss Coeff.	Minor Loss (ft)	Loss (ft)	HGL**		ToG/ EoP	F.B. (in)
		U.S.	D.S.									Inc	Cumul								U.S.	D.S.		
From	To	SMF-1																						
S-9	S-8	157.77	157.30	134	0.0035	24	0.95	6	6.2	20745	0.48	2.8	2.8	14.49	3.1	4.6	0.50	0.8	0.01	0.02	161.05	161.02	161.08	0
S-8	S-7	157.30	157.06	97	0.0025	24	0.95	6	6.2	3710	0.09	0.5	3.3	12.17	3.1	3.9	0.50	0.5	0.01	0.02	161.02	160.99	162.65	20
S-7	S-5	157.06	156.79	107	0.0025	24	0.95	6	6.2	5706	0.13	0.8	4.1	12.31	3.1	3.9	0.50	0.7	0.02	0.03	160.99	160.93	162.46	18
S-6	S-5	157.13	156.79	134	0.0025	15	0.95	6	6.2	18737	0.43	2.5	2.5	3.50	1.2	2.9	0.31	0.7	0.05	0.21	161.18	160.93	161.26	1
S-5	S-4	156.79	156.51	112	0.0025	24	0.95	6	6.2	8300	0.19	1.1	7.7	12.23	3.1	3.9	0.50	0.6	0.06	0.13	160.93	160.75	161.36	5
S-4	S-3	156.51	156.00	125	0.0041	30	0.95	6	6.2	10554	0.24	1.4	9.2	28.44	4.9	5.8	0.63	1.0	0.05	0.06	160.75	160.63	161.99	15
S-2	S-1	158.50	158.33	40	0.0042	15	0.95	6	6.2	11796	0.27	1.6	1.6	4.55	1.2	3.7	0.31	1.0	0.03	0.02	160.68	160.63	161.50	10
SMF-2																								
S-20	S-19	161.65	161.12	161	0.0033	15	0.95	6	6.2	6882	0.16	0.9	0.9	4.02	1.2	3.3	0.31	0.6	0.01	0.03	163.65	163.61	164.47	10
S-19	S-18	161.12	160.99	40	0.0032	15	0.95	6	6.2	22532	0.52	3.0	4.0	3.99	1.2	3.3	0.31	1.0	0.16	0.15	163.61	163.30	164.62	12

Notes

- ToG = Top of Grate/EoP = Edge of Pavement
- FB = Free Board
- Rainfall intensity is based on the FDOT Zone 5 (Alachua County) Rainfall Intensity-Duration-Frequency Curve for the 3 YR - 10 min storm event (6.2 inches/hr)
- The tailwater condition in the pond was set at the peak stage for the 100yr - 1hr storm event.

Section 1

Pre-Development Results

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Project Data

Project Name: Turkey Creek Retail
Simulation Description: Pre-Development Pre DA-1
Project Number: 18-0431
Engineer : Greg Wadzinski
Supervising Engineer: Travis Hastay, PE
Date: 06-26-2019

Aquifer Data

Base Of Aquifer Elevation, [B] (ft datum): 0.00
Water Table Elevation, [WT] (ft datum): 0.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day): 0.00
Fillable Porosity, [n] (%): 0.00
Vertical infiltration was not considered.

Geometry Data

Equivalent Pond Length, [L] (ft): 0.0
Equivalent Pond Width, [W] (ft): 0.0
Ground water mound is expected to intersect the pond bottom

Stage vs Area Data

<u>Stage</u> <u>(ft datum)</u>	<u>Area</u> <u>(ft²)</u>
-----------------------------------	--

Discharge Structures

Discharge Structure #1 is inactive
Discharge Structure #2 is inactive
Discharge Structure #3 is inactive

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data

Scenario 1 :: SRWMD 100yr-1hr

Hydrograph Type: Inline SCS
• **Modflow Routing:** **Not routed**
Repetitions: 1

Basin Area (acres) 2.370
Time Of Concentration (minutes) 15.0
DCIA (%) 0.0
Curve Number 62
Design Rainfall Depth (inches) 4.4
Design Rainfall Duration (hours) 1.0
Shape Factor UHG 323
Rainfall Distribution FDOT 1 Hour

Initial ground water level (ft datum) 0.00 (default)

No times after storm specified.

Scenario 2 :: SRWMD 100yr-2hr

Hydrograph Type: Inline SCS
• **Modflow Routing:** **Not routed**
Repetitions: 1

Basin Area (acres) 2.370
Time Of Concentration (minutes) 15.0
DCIA (%) 0.0
Curve Number 62
Design Rainfall Depth (inches) 5.4
Design Rainfall Duration (hours) 2.0
Shape Factor UHG 323
Rainfall Distribution FDOT 2 Hour

Initial ground water level (ft datum) 0.00 (default)

No times after storm specified.

Scenario 3 :: SRWMD 100yr-4hr

Hydrograph Type: Inline SCS
• **Modflow Routing:** **Not routed**
Repetitions: 1

Basin Area (acres) 2.370
Time Of Concentration (minutes) 15.0
DCIA (%) 0.0
Curve Number 62
Design Rainfall Depth (inches) 6.7
Design Rainfall Duration (hours) 4.0
Shape Factor UHG 323
Rainfall Distribution FDOT 4 Hour

Initial ground water level (ft datum) 0.00 (default)

No times after storm specified.

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data (cont'd.)

Scenario 4 :: SRWMD 100yr-8hr

Hydrograph Type: Inline SCS
• **Modflow Routing:** **Not routed**
Repetitions: 1

Basin Area (acres) 2.370
Time Of Concentration (minutes) 15.0
DCIA (%) 0.0
Curve Number 62
Design Rainfall Depth (inches) 8.0
Design Rainfall Duration (hours) 8.0
Shape Factor UHG 323
Rainfall Distribution FDOT 8 Hour

Initial ground water level (ft datum) 0.00 (default)

No times after storm specified.

Scenario 5 :: SRWMD 100yr-24hr

Hydrograph Type: Inline SCS
• **Modflow Routing:** **Not routed**
Repetitions: 1

Basin Area (acres) 2.370
Time Of Concentration (minutes) 15.0
DCIA (%) 0.0
Curve Number 62
Design Rainfall Depth (inches) 11.0
Design Rainfall Duration (hours) 24.0
Shape Factor UHG 323
Rainfall Distribution FDOT 24 Hour

Initial ground water level (ft datum) 0.00 (default)

No times after storm specified.

Scenario 6 :: SRWMD 100yr-72hr

Hydrograph Type: Inline SCS
• **Modflow Routing:** **Not routed**
Repetitions: 1

Basin Area (acres) 2.370
Time Of Concentration (minutes) 15.0
DCIA (%) 0.0
Curve Number 62
Design Rainfall Depth (inches) 13.8
Design Rainfall Duration (hours) 72.0
Shape Factor UHG 323
Rainfall Distribution FDOT 72 Hour

Initial ground water level (ft datum) 0.00 (default)

No times after storm specified.

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data (cont'd.)

Scenario 7 :: SRWMD 100yr-168hr

Hydrograph Type: Inline SCS
• **Modflow Routing:** **Not routed**
Repetitions: 1

Basin Area (acres) 2.370
Time Of Concentration (minutes) 15.0
DCIA (%) 0.0
Curve Number 62
Design Rainfall Depth (inches) 16.0
Design Rainfall Duration (hours) 168.0
Shape Factor UHG 323
Rainfall Distribution FDOT 168 Hour

Initial ground water level (ft datum) 0.00 (default)

No times after storm specified.

Scenario 8 :: SRWMD 100yr-240hr

Hydrograph Type: Inline SCS
• **Modflow Routing:** **Not routed**
Repetitions: 1

Basin Area (acres) 2.370
Time Of Concentration (minutes) 15.0
DCIA (%) 0.0
Curve Number 62
Design Rainfall Depth (inches) 18.0
Design Rainfall Duration (hours) 240.0
Shape Factor UHG 323
Rainfall Distribution FDOT 240 Hour

Initial ground water level (ft datum) 0.00 (default)

No times after storm specified.

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Sort-By-Category Report

Scenarios Considered: 1 to 8

Stage - Maximum

Rank	Scenario Number	Maximum Stage (ft datum)	Time (hours)	Description
1	1	Not Available	Not Available	SRWMD 100yr-1hr
2	2	Not Available	Not Available	SRWMD 100yr-2hr
3	3	Not Available	Not Available	SRWMD 100yr-4hr
4	4	Not Available	Not Available	SRWMD 100yr-8hr
5	5	Not Available	Not Available	SRWMD 100yr-24hr
6	6	Not Available	Not Available	SRWMD 100yr-72hr
7	7	Not Available	Not Available	SRWMD 100yr-168hr
8	8	Not Available	Not Available	SRWMD 100yr-240hr

Discharge - Rate - Maximum Positive

Rank	Scenario Number	Maximum Positive Discharge Rate (ft ³ /s)	Time (hours)	Description
1	1	4.7143	0.800	SRWMD 100yr-1hr
2	4	4.6250	4.033	SRWMD 100yr-8hr
3	2	4.3040	0.900	SRWMD 100yr-2hr
4	3	3.9235	2.567	SRWMD 100yr-4hr
5	5	1.7419	12.033	SRWMD 100yr-24hr
6	6	1.4018	60.000	SRWMD 100yr-72hr
7	8	1.3349	184.000	SRWMD 100yr-240hr
8	7	1.0217	160.000	SRWMD 100yr-168hr

Discharge - Cumulative Volume - Maximum Positive

Rank	Scenario Number	Maximum Positive Cumulative Discharge Volume (ft ³)	Time (hours)	Description
1	8	106012.7	241.233	SRWMD 100yr-240hr
2	7	90108.4	169.300	SRWMD 100yr-168hr
3	6	72948.3	73.267	SRWMD 100yr-72hr
4	5	52132.0	25.300	SRWMD 100yr-24hr
5	4	30689.4	9.300	SRWMD 100yr-8hr
6	3	22410.5	5.300	SRWMD 100yr-4hr
7	2	14593.0	3.300	SRWMD 100yr-2hr
8	1	9345.5	2.300	SRWMD 100yr-1hr

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Project Data

Project Name: Turkey Creek Retail
Simulation Description: Pre-Development Pre DA-2
Project Number: 18-0431
Engineer : Greg Wadzinski
Supervising Engineer: Travis Hastay, PE
Date: 06-26-2019

Aquifer Data

Base Of Aquifer Elevation, [B] (ft datum): 0.00
Water Table Elevation, [WT] (ft datum): 0.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day): 0.00
Fillable Porosity, [n] (%): 0.00
Vertical infiltration was not considered.

Geometry Data

Equivalent Pond Length, [L] (ft): 0.0
Equivalent Pond Width, [W] (ft): 0.0
Ground water mound is expected to intersect the pond bottom

Stage vs Area Data

<u>Stage</u> <u>(ft datum)</u>	<u>Area</u> <u>(ft²)</u>
-----------------------------------	--

Discharge Structures

Discharge Structure #1 is inactive
Discharge Structure #2 is inactive
Discharge Structure #3 is inactive

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data

Scenario 1 :: SRWMD 100yr-1hr

Hydrograph Type: Inline SCS
• **Modflow Routing:** **Not routed**
Repetitions: 1

Basin Area (acres) 1.070
Time Of Concentration (minutes) 18.0
DCIA (%) 0.0
Curve Number 80
Design Rainfall Depth (inches) 4.4
Design Rainfall Duration (hours) 1.0
Shape Factor UHG 323
Rainfall Distribution FDOT 1 Hour

Initial ground water level (ft datum) 0.00 (default)

No times after storm specified.

Scenario 2 :: SRWMD 100yr-2hr

Hydrograph Type: Inline SCS
• **Modflow Routing:** **Not routed**
Repetitions: 1

Basin Area (acres) 1.070
Time Of Concentration (minutes) 18.0
DCIA (%) 0.0
Curve Number 80
Design Rainfall Depth (inches) 5.4
Design Rainfall Duration (hours) 2.0
Shape Factor UHG 323
Rainfall Distribution FDOT 2 Hour

Initial ground water level (ft datum) 0.00 (default)

No times after storm specified.

Scenario 3 :: SRWMD 100yr-4hr

Hydrograph Type: Inline SCS
• **Modflow Routing:** **Not routed**
Repetitions: 1

Basin Area (acres) 1.070
Time Of Concentration (minutes) 18.0
DCIA (%) 0.0
Curve Number 80
Design Rainfall Depth (inches) 6.7
Design Rainfall Duration (hours) 4.0
Shape Factor UHG 323
Rainfall Distribution FDOT 4 Hour

Initial ground water level (ft datum) 0.00 (default)

No times after storm specified.

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data (cont'd.)

Scenario 4 :: SRWMD 100yr-8hr

Hydrograph Type: Inline SCS
• **Modflow Routing:** **Not routed**
Repetitions: 1

Basin Area (acres) 1.070
Time Of Concentration (minutes) 18.0
DCIA (%) 0.0
Curve Number 80
Design Rainfall Depth (inches) 8.0
Design Rainfall Duration (hours) 8.0
Shape Factor UHG 323
Rainfall Distribution FDOT 8 Hour

Initial ground water level (ft datum) 0.00 (default)

No times after storm specified.

Scenario 5 :: SRWMD 100yr-24hr

Hydrograph Type: Inline SCS
• **Modflow Routing:** **Not routed**
Repetitions: 1

Basin Area (acres) 1.070
Time Of Concentration (minutes) 18.0
DCIA (%) 0.0
Curve Number 80
Design Rainfall Depth (inches) 11.0
Design Rainfall Duration (hours) 24.0
Shape Factor UHG 323
Rainfall Distribution FDOT 24 Hour

Initial ground water level (ft datum) 0.00 (default)

No times after storm specified.

Scenario 6 :: SRWMD 100yr-72hr

Hydrograph Type: Inline SCS
• **Modflow Routing:** **Not routed**
Repetitions: 1

Basin Area (acres) 1.070
Time Of Concentration (minutes) 18.0
DCIA (%) 0.0
Curve Number 80
Design Rainfall Depth (inches) 13.8
Design Rainfall Duration (hours) 72.0
Shape Factor UHG 323
Rainfall Distribution FDOT 72 Hour

Initial ground water level (ft datum) 0.00 (default)

No times after storm specified.

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data (cont'd.)

Scenario 7 :: SRWMD 100yr-168hr

Hydrograph Type: Inline SCS
• **Modflow Routing:** **Not routed**
Repetitions: 1

Basin Area (acres) 1.070
Time Of Concentration (minutes) 18.0
DCIA (%) 0.0
Curve Number 80
Design Rainfall Depth (inches) 16.0
Design Rainfall Duration (hours) 168.0
Shape Factor UHG 323
Rainfall Distribution FDOT 168 Hour

Initial ground water level (ft datum) 0.00 (default)

No times after storm specified.

Scenario 8 :: SRWMD 100yr-240hr

Hydrograph Type: Inline SCS
• **Modflow Routing:** **Not routed**
Repetitions: 1

Basin Area (acres) 1.070
Time Of Concentration (minutes) 18.0
DCIA (%) 0.0
Curve Number 80
Design Rainfall Depth (inches) 18.0
Design Rainfall Duration (hours) 240.0
Shape Factor UHG 323
Rainfall Distribution FDOT 240 Hour

Initial ground water level (ft datum) 0.00 (default)

No times after storm specified.

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Sort-By-Category Report

Scenarios Considered: 1 to 8

Stage - Maximum

Rank	Scenario Number	Maximum Stage (ft datum)	Time (hours)	Description
1	1	Not Available	Not Available	SRWMD 100yr-1hr
2	2	Not Available	Not Available	SRWMD 100yr-2hr
3	3	Not Available	Not Available	SRWMD 100yr-4hr
4	4	Not Available	Not Available	SRWMD 100yr-8hr
5	5	Not Available	Not Available	SRWMD 100yr-24hr
6	6	Not Available	Not Available	SRWMD 100yr-72hr
7	7	Not Available	Not Available	SRWMD 100yr-168hr
8	8	Not Available	Not Available	SRWMD 100yr-240hr

Discharge - Rate - Maximum Positive

Rank	Scenario Number	Maximum Positive Discharge Rate (ft ³ /s)	Time (hours)	Description
1	1	4.0324	0.760	SRWMD 100yr-1hr
2	2	3.6102	0.920	SRWMD 100yr-2hr
3	4	2.9847	4.040	SRWMD 100yr-8hr
4	3	2.6269	2.520	SRWMD 100yr-4hr
5	5	1.0544	12.000	SRWMD 100yr-24hr
6	6	0.7133	59.960	SRWMD 100yr-72hr
7	8	0.6549	184.000	SRWMD 100yr-240hr
8	7	0.4980	160.000	SRWMD 100yr-168hr

Discharge - Cumulative Volume - Maximum Positive

Rank	Scenario Number	Maximum Positive Cumulative Discharge Volume (ft ³)	Time (hours)	Description
1	8	59655.8	241.520	SRWMD 100yr-240hr
2	7	51999.3	169.520	SRWMD 100yr-168hr
3	6	43616.7	73.560	SRWMD 100yr-72hr
4	5	33190.2	25.520	SRWMD 100yr-24hr
5	4	21914.4	9.560	SRWMD 100yr-8hr
6	3	17285.1	5.560	SRWMD 100yr-4hr
7	2	12640.6	3.560	SRWMD 100yr-2hr
8	1	9258.8	2.560	SRWMD 100yr-1hr

Section 2

Post-Development Results

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Project Data

Project Name: Turkey Creek Retail
Simulation Description: Post-Development Post DA-1 SMF-1
Project Number: 18-0431
Engineer : Greg Wadzinski
Supervising Engineer: Travis Hastay, PE
Date: 06-26-2019

Aquifer Data

Base Of Aquifer Elevation, [B] (ft datum): 148.00
Water Table Elevation, [WT] (ft datum): 152.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day): 10.00
Fillable Porosity, [n] (%): 20.00
Unsaturated Vertical Infiltration Rate, [Iv] (ft/day): 7.5
Maximum Area For Unsaturated Infiltration, [Av] (ft²): 17463.0

Geometry Data

Equivalent Pond Length, [L] (ft): 190.0
Equivalent Pond Width, [W] (ft): 93.0
Ground water mound is expected to intersect the pond bottom

Stage vs Area Data

Stage (ft datum)	Area (ft ²)
159.00	14516.0
159.50	15473.0
160.50	17463.0
161.50	19553.0
162.00	22307.0

Discharge Structures

Discharge Structure #1 is active as orifice

Structure Parameters

Description: 6" Orifice @ EL. 160.10

Orifice elevation, (ft datum):	160.10
Orifice coefficient:	7.9
Orifice area, (ft²):	.19625
Orifice exponent:	0.5

Tailwater - disabled, free discharge

Discharge Structure #2 is inactive

Discharge Structure #3 is inactive

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data

Scenario 1 :: SRWMD 100yr-1hr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 2.370
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 94
Design Rainfall Depth (inches) 4.4
Design Rainfall Duration (hours) 1.0
Shape Factor UHG 484
Rainfall Distribution FDOT 1 Hour

Initial ground water level (ft datum) 152.00 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	6.500	12.500	18.500	24.500
1.000	7.000	13.000	19.000	25.000
1.500	7.500	13.500	19.500	25.500
2.000	8.000	14.000	20.000	26.000
2.500	8.500	14.500	20.500	26.500
3.000	9.000	15.000	21.000	27.000
3.500	9.500	15.500	21.500	27.500
4.000	10.000	16.000	22.000	28.000
4.500	10.500	16.500	22.500	28.500
5.000	11.000	17.000	23.000	29.000
5.500	11.500	17.500	23.500	29.500
6.000	12.000	18.000	24.000	30.000

Scenario 2 :: SRWMD 100yr-2hr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 2.370
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 94
Design Rainfall Depth (inches) 5.4
Design Rainfall Duration (hours) 2.0
Shape Factor UHG 484
Rainfall Distribution FDOT 2 Hour

Initial ground water level (ft datum) 152.00 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	4.000	7.500	11.000	14.500
1.000	4.500	8.000	11.500	15.000
1.500	5.000	8.500	12.000	15.500
2.000	5.500	9.000	12.500	16.000
2.500	6.000	9.500	13.000	16.500
3.000	6.500	10.000	13.500	17.000
3.500	7.000	10.500	14.000	17.500

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data (cont'd.)

Scenario 2 (cont'd.) :: SCS :: SRWMD 100yr-2hr

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
18.000	20.500	23.000	25.500	28.000
18.500	21.000	23.500	26.000	28.500
19.000	21.500	24.000	26.500	29.000
19.500	22.000	24.500	27.000	29.500
20.000	22.500	25.000	27.500	30.000

Scenario 3 :: SRWMD 100yr-4hr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 2.370
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 94
Design Rainfall Depth (inches) 6.7
Design Rainfall Duration (hours) 4.0
Shape Factor UHG 484
Rainfall Distribution FDOT 4 Hour

Initial ground water level (ft datum) 152.00 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	6.500	12.500	18.500	24.500
1.000	7.000	13.000	19.000	25.000
1.500	7.500	13.500	19.500	25.500
2.000	8.000	14.000	20.000	26.000
2.500	8.500	14.500	20.500	26.500
3.000	9.000	15.000	21.000	27.000
3.500	9.500	15.500	21.500	27.500
4.000	10.000	16.000	22.000	28.000
4.500	10.500	16.500	22.500	28.500
5.000	11.000	17.000	23.000	29.000
5.500	11.500	17.500	23.500	29.500
6.000	12.000	18.000	24.000	30.000

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data (cont'd.)

Scenario 4 :: SRWMD 100yr-8hr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 2.370
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 94
Design Rainfall Depth (inches) 8.0
Design Rainfall Duration (hours) 8.0
Shape Factor UHG 484
Rainfall Distribution FDOT 8 Hour

Initial ground water level (ft datum) 152.00 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	6.500	12.500	18.500	24.500
1.000	7.000	13.000	19.000	25.000
1.500	7.500	13.500	19.500	25.500
2.000	8.000	14.000	20.000	26.000
2.500	8.500	14.500	20.500	26.500
3.000	9.000	15.000	21.000	27.000
3.500	9.500	15.500	21.500	27.500
4.000	10.000	16.000	22.000	28.000
4.500	10.500	16.500	22.500	28.500
5.000	11.000	17.000	23.000	29.000
5.500	11.500	17.500	23.500	29.500
6.000	12.000	18.000	24.000	30.000

Scenario 5 :: SRWMD 100yr-24hr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 2.370
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 94
Design Rainfall Depth (inches) 11.0
Design Rainfall Duration (hours) 24.0
Shape Factor UHG 484
Rainfall Distribution FDOT 24 Hour

Initial ground water level (ft datum) 152.00 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	4.000	7.500	11.000	14.500
1.000	4.500	8.000	11.500	15.000
1.500	5.000	8.500	12.000	15.500
2.000	5.500	9.000	12.500	16.000
2.500	6.000	9.500	13.000	16.500
3.000	6.500	10.000	13.500	17.000
3.500	7.000	10.500	14.000	17.500

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data (cont'd.)

Scenario 5 (cont'd.) :: SCS :: SRWMD 100yr-24hr

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
18.000	20.500	23.000	25.500	28.000
18.500	21.000	23.500	26.000	28.500
19.000	21.500	24.000	26.500	29.000
19.500	22.000	24.500	27.000	29.500
20.000	22.500	25.000	27.500	30.000

Scenario 6 :: SRWMD 100yr-72hr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 2.370
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 94
Design Rainfall Depth (inches) 13.8
Design Rainfall Duration (hours) 72.0
Shape Factor UHG 484
Rainfall Distribution FDOT 72 Hour

Initial ground water level (ft datum) 152.00 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	6.500	12.500	18.500	24.500
1.000	7.000	13.000	19.000	25.000
1.500	7.500	13.500	19.500	25.500
2.000	8.000	14.000	20.000	26.000
2.500	8.500	14.500	20.500	26.500
3.000	9.000	15.000	21.000	27.000
3.500	9.500	15.500	21.500	27.500
4.000	10.000	16.000	22.000	28.000
4.500	10.500	16.500	22.500	28.500
5.000	11.000	17.000	23.000	29.000
5.500	11.500	17.500	23.500	29.500
6.000	12.000	18.000	24.000	30.000

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data (cont'd.)

Scenario 7 :: SRWMD 100yr-168hr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 2.370
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 94
Design Rainfall Depth (inches) 16.0
Design Rainfall Duration (hours) 168.0
Shape Factor UHG 484
Rainfall Distribution FDOT 168 Hour

Initial ground water level (ft datum) 152.00 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	6.500	12.500	18.500	24.500
1.000	7.000	13.000	19.000	25.000
1.500	7.500	13.500	19.500	25.500
2.000	8.000	14.000	20.000	26.000
2.500	8.500	14.500	20.500	26.500
3.000	9.000	15.000	21.000	27.000
3.500	9.500	15.500	21.500	27.500
4.000	10.000	16.000	22.000	28.000
4.500	10.500	16.500	22.500	28.500
5.000	11.000	17.000	23.000	29.000
5.500	11.500	17.500	23.500	29.500
6.000	12.000	18.000	24.000	30.000

Scenario 8 :: SRWMD 100yr-240hr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 2.370
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 94
Design Rainfall Depth (inches) 18.0
Design Rainfall Duration (hours) 240.0
Shape Factor UHG 484
Rainfall Distribution FDOT 240 Hour

Initial ground water level (ft datum) 152.00 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	4.000	7.500	11.000	14.500
1.000	4.500	8.000	11.500	15.000
1.500	5.000	8.500	12.000	15.500
2.000	5.500	9.000	12.500	16.000
2.500	6.000	9.500	13.000	16.500
3.000	6.500	10.000	13.500	17.000
3.500	7.000	10.500	14.000	17.500

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data (cont'd.)

Scenario 8 (cont'd.) :: SCS :: SRWMD 100yr-240hr

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
18.000	20.500	23.000	25.500	28.000
18.500	21.000	23.500	26.000	28.500
19.000	21.500	24.000	26.500	29.000
19.500	22.000	24.500	27.000	29.500
20.000	22.500	25.000	27.500	30.000

Scenario 9 :: WQTV 15,875 CF Slug Load

Hydrograph Type: Slug Load
Modflow Routing: Routed with infiltration

Treatment Volume (ft³) 15875

Initial ground water level (ft datum) 152.00 (default)

Time After Storm Event (days)	Time After Storm Event (days)
0.100	2.000
0.250	2.500
0.500	3.000
1.000	3.500
1.500	4.000

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Sort-By-Category Report

Scenarios Considered: 1 to 9

Stage - Maximum

Rank	Scenario Number	Maximum Stage (ft datum)	Time (hours)	Description
1	3	160.853	3.133	SRWMD 100yr-4hr
2	4	160.728	5.067	SRWMD 100yr-8hr
3	2	160.653	1.578	SRWMD 100yr-2hr
4	1	160.633	0.978	SRWMD 100yr-1hr
5	8	160.628	184.067	SRWMD 100yr-240hr
6	6	160.618	60.111	SRWMD 100yr-72hr
7	7	160.481	160.044	SRWMD 100yr-168hr
8	5	160.427	16.111	SRWMD 100yr-24hr
9	9	160.023	0.002	WQTV 15,875 CF Slug Load

Discharge - Rate - Maximum Positive

Rank	Scenario Number	Maximum Positive Discharge Rate (ft ³ /s)	Time (hours)	Description
1	3	1.3453	3.133	SRWMD 100yr-4hr
2	4	1.2286	5.067	SRWMD 100yr-8hr
3	2	1.1531	1.578	SRWMD 100yr-2hr
4	1	1.1316	0.978	SRWMD 100yr-1hr
5	8	1.1264	184.067	SRWMD 100yr-240hr
6	6	1.1163	60.111	SRWMD 100yr-72hr
7	7	0.9568	160.044	SRWMD 100yr-168hr
8	5	0.8870	16.111	SRWMD 100yr-24hr
9	9	None	N.A.	WQTV 15,875 CF Slug Load

Discharge - Cumulative Volume - Maximum Positive

Rank	Scenario Number	Maximum Positive Cumulative Discharge Volume (ft ³)	Time (hours)	Description
1	8	40573.6	216.489	SRWMD 100yr-240hr
2	6	37708.6	72.156	SRWMD 100yr-72hr
3	7	35312.7	168.378	SRWMD 100yr-168hr
4	5	28396.2	24.422	SRWMD 100yr-24hr
5	4	13773.3	8.467	SRWMD 100yr-8hr
6	3	10045.7	4.578	SRWMD 100yr-4hr
7	2	6449.3	2.578	SRWMD 100yr-2hr
8	1	3203.2	1.578	SRWMD 100yr-1hr
9	9	None	N.A.	WQTV 15,875 CF Slug Load

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results :: Scenario 1 :: SRWMD 100yr-1hr

Elapsed Time (hours)	Inflow Rate (ft ³ /s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft ³ /s)	Overflow Discharge (ft ³ /s)	Cumulative Inflow Volume (ft ³)	Cumulative Infiltration Volume (ft ³)	Cumulative Discharge Volume (ft ³)	Flow Type
0.000	0.0000	0.0000	152.000	0.00000	0.00000	0.0	0.0	0.0	N.A.
0.022	0.0000	0.0000	152.000	0.00000	0.00000	0.0	0.0	0.0	U
0.044	0.0000	0.0000	152.000	0.00000	0.00000	0.0	0.0	0.0	U
0.067	0.0000	0.0000	152.000	0.00000	0.00000	0.0	0.0	0.0	U
0.089	0.0000	0.0000	152.000	0.00000	0.00000	0.0	0.0	0.0	U
0.111	0.0000	0.0000	152.000	0.00137	0.00000	0.0	0.0	0.0	U
0.133	0.0055	0.0000	152.000	0.01182	0.00000	0.2	0.2	0.0	U
0.156	0.0363	0.0000	152.001	0.05111	0.00000	1.9	1.9	0.0	U
0.178	0.1263	0.0000	152.002	0.15007	0.00000	8.4	8.4	0.0	U
0.200	0.3113	0.0000	152.007	0.35057	0.00000	25.9	25.9	0.0	U
0.222	0.6533	0.0000	152.019	0.70569	0.00000	64.5	64.5	0.0	U
0.244	1.2048	0.0000	152.040	1.09531	0.00000	138.8	138.8	0.0	U
0.267	2.0312	0.0000	159.002	1.26214	0.00000	268.3	239.7	0.0	U/P
0.289	3.0900	0.0000	159.009	1.26385	0.00000	473.1	340.8	0.0	U/P
0.311	4.3158	0.0000	159.023	1.26668	0.00000	769.3	442.0	0.0	U/P
0.333	5.7284	0.0000	159.043	1.27079	0.00000	1171.1	543.4	0.0	U/P
0.356	7.4084	0.0000	159.072	1.27641	0.00000	1696.6	645.3	0.0	U/P
0.378	9.3438	0.0000	159.111	1.28370	0.00000	2366.7	747.7	0.0	U/P
0.400	11.3807	0.0000	159.160	1.29273	0.00000	3195.6	850.7	0.0	U/P
0.422	13.3415	0.0000	159.219	1.30339	0.00000	4184.5	954.5	0.0	U/P
0.444	15.1084	0.0000	159.288	1.31549	0.00000	5322.5	1059.2	0.0	U/P
0.467	16.5980	0.0000	159.365	1.32876	0.00000	6590.8	1165.0	0.0	U/P
0.489	17.7901	0.0000	159.448	1.34305	0.00000	7966.3	1271.8	0.0	U/P
0.511	18.7093	0.0000	159.535	1.35827	0.00000	9426.3	1379.9	0.0	U/P
0.533	19.3544	0.0000	159.626	1.37400	0.00000	10948.8	1489.1	0.0	U/P
0.556	19.6934	0.0000	159.718	1.38984	0.00000	12510.7	1599.7	0.0	U/P
0.578	19.7337	0.0000	159.809	1.40554	0.00000	14087.8	1711.5	0.0	U/P
0.600	19.5797	0.0000	159.899	1.42093	0.00000	15660.4	1824.6	0.0	U/P
0.622	19.2371	0.0000	159.987	1.43585	0.00000	17213.0	1938.9	0.0	U/P
0.644	18.6647	0.0000	160.072	1.45010	0.00000	18729.1	2054.3	0.0	U/P
0.667	17.7653	0.0000	160.152	1.46342	0.35206	20186.3	2170.9	14.1	U/P
0.689	16.6406	0.0000	160.224	1.47555	0.54631	21562.6	2288.5	50.0	U/P
0.711	15.4536	0.0000	160.290	1.48644	0.67564	22846.3	2407.0	98.9	U/P
0.733	14.2710	0.0000	160.349	1.49619	0.77374	24035.3	2526.3	156.9	U/P
0.756	13.0938	0.0000	160.402	1.50486	0.85185	25129.9	2646.4	221.9	U/P
0.778	11.9751	0.0000	160.449	1.51241	0.91558	26132.6	2767.1	292.6	U/P
0.800	10.9422	0.0000	160.490	1.51589	0.96837	27049.3	2888.3	367.9	U/P
0.822	9.9399	0.0000	160.526	1.51589	1.01244	27884.6	3009.6	447.2	U/P
0.844	8.8916	0.0000	160.558	1.51589	1.04895	28637.9	3130.9	529.6	U/P
0.867	7.6987	0.0000	160.584	1.51589	1.07829	29301.5	3252.2	614.7	U/P
0.889	6.4204	0.0000	160.604	1.51589	1.10055	29866.3	3373.4	701.9	U/P
0.911	5.1934	0.0000	160.618	1.51589	1.11615	30330.8	3494.7	790.5	U/P
0.933	4.1006	0.0000	160.627	1.51589	1.12588	30702.6	3616.0	880.2	U/P
0.956	3.1830	0.0000	160.632	1.51589	1.13067	30993.9	3737.2	970.5	U/P
0.978	2.4891	0.0000	160.633	1.51589	1.13158	31220.8	3858.5	1061.0	U/P
1.000	1.9710	0.0000	160.631	1.51589	1.12958	31399.2	3979.8	1151.4	U/P
1.022	1.5705	0.0000	160.627	1.51589	1.12539	31540.9	4101.1	1241.6	U/P
1.044	1.2467	0.0000	160.621	1.51589	1.11944	31653.6	4222.3	1331.4	U/P
1.067	0.9768	0.0000	160.615	1.51589	1.11205	31742.5	4343.6	1420.7	U/P
1.089	0.7466	0.0000	160.607	1.51589	1.10341	31811.4	4464.9	1509.3	U/P
1.111	0.5563	0.0000	160.598	1.51589	1.09369	31863.6	4586.1	1597.2	U/P
1.133	0.4042	0.0000	160.588	1.51589	1.08306	31902.0	4707.4	1684.3	U/P
1.156	0.2868	0.0000	160.578	1.51589	1.07169	31929.6	4828.7	1770.4	U/P
1.178	0.2021	0.0000	160.567	1.51589	1.05972	31949.2	4949.9	1855.7	U/P
1.200	0.1421	0.0000	160.556	1.51589	1.04728	31962.9	5071.2	1940.0	U/P
1.222	0.0995	0.0000	160.545	1.51589	1.03447	31972.6	5192.5	2023.2	U/P
1.244	0.0689	0.0000	160.534	1.51589	1.02136	31979.3	5313.8	2105.5	U/P
1.267	0.0468	0.0000	160.523	1.51589	1.00799	31984.0	5435.0	2186.7	U/P
1.289	0.0309	0.0000	160.511	1.51589	0.99439	31987.1	5556.3	2266.8	U/P
1.311	0.0198	0.0000	160.500	1.51589	0.98058	31989.1	5677.6	2345.7	U/P
1.333	0.0126	0.0000	160.489	1.51491	0.96658	31990.4	5798.8	2423.6	U/P
1.356	0.0088	0.0000	160.477	1.51296	0.95243	31991.2	5920.0	2500.4	U/P
1.378	0.0060	0.0000	160.466	1.51101	0.93811	31991.8	6040.9	2576.0	U/P
1.400	0.0039	0.0000	160.455	1.50907	0.92364	31992.2	6161.7	2650.5	U/P
1.422	0.0025	0.0000	160.444	1.50714	0.90900	31992.5	6282.4	2723.8	U/P
1.444	0.0016	0.0000	160.433	1.50521	0.89421	31992.7	6402.9	2795.9	U/P
1.467	0.0009	0.0000	160.422	1.50330	0.87925	31992.8	6523.2	2866.9	U/P
1.489	0.0005	0.0000	160.411	1.50140	0.86411	31992.8	6643.4	2936.6	U/P
1.511	0.0002	0.0000	160.400	1.49951	0.84880	31992.8	6763.4	3005.1	U/P
1.533	0.0000	0.0000	160.389	1.49763	0.83330	31992.8	6883.3	3072.4	U/P
1.556	0.0000	0.0000	160.378	1.49576	0.81760	31992.8	7003.0	3138.4	U/P
1.578	0.0000	0.0000	160.367	1.49207	0.80170	31992.8	7122.6	3203.2	U/P
13.578	0.0000	0.0000	----	----	----	31992.8	28789.6	3203.2	dry
25.578	0.0000	0.0000	----	----	----	31992.8	28789.6	3203.2	dry

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 2 :: SRWMD 100yr-2hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
1.644	2.5606	0.0000	160.653	1.51589	1.15256	37363.1	7691.2	3016.5	U/P
1.667	2.4830	0.0000	160.652	1.51589	1.15187	37564.9	7812.5	3108.7	U/P
1.689	2.3836	0.0000	160.651	1.51589	1.15077	37759.5	7933.8	3200.8	U/P
1.711	2.2805	0.0000	160.649	1.51589	1.14920	37946.1	8055.0	3292.8	U/P
1.733	2.1865	0.0000	160.648	1.51589	1.14718	38124.8	8176.3	3384.7	U/P
1.756	2.1083	0.0000	160.645	1.51589	1.14475	38296.6	8297.6	3476.3	U/P
1.778	2.0523	0.0000	160.643	1.51589	1.14201	38463.0	8418.9	3567.8	U/P
1.800	2.0132	0.0000	160.640	1.51589	1.13904	38625.6	8540.1	3659.0	U/P
1.822	1.9756	0.0000	160.637	1.51589	1.13591	38785.2	8661.4	3750.0	U/P
1.844	1.9253	0.0000	160.634	1.51589	1.13256	38941.2	8782.7	3840.8	U/P
1.867	1.8475	0.0000	160.630	1.51589	1.12892	39092.1	8903.9	3931.2	U/P
1.889	1.7479	0.0000	160.626	1.51589	1.12485	39235.9	9025.2	4021.4	U/P
1.911	1.6446	0.0000	160.622	1.51589	1.12030	39371.6	9146.5	4111.2	U/P
1.933	1.5504	0.0000	160.618	1.51589	1.11527	39499.4	9267.7	4200.6	U/P
1.956	1.4721	0.0000	160.612	1.51589	1.10982	39620.3	9389.0	4289.6	U/P
1.978	1.4158	0.0000	160.607	1.51589	1.10403	39735.8	9510.3	4378.2	U/P
2.000	1.3766	0.0000	160.602	1.51589	1.09800	39847.5	9631.6	4466.3	U/P
2.022	1.3294	0.0000	160.596	1.51589	1.09175	39955.8	9752.8	4553.9	U/P
2.044	1.2493	0.0000	160.590	1.51589	1.08517	40058.9	9874.1	4640.9	U/P
2.067	1.1082	0.0000	160.584	1.51589	1.07802	40153.2	9995.4	4727.5	U/P
2.089	0.9195	0.0000	160.576	1.51589	1.07002	40234.3	10116.6	4813.4	U/P
2.111	0.7205	0.0000	160.568	1.51589	1.06100	40299.9	10237.9	4898.6	U/P
2.133	0.5372	0.0000	160.560	1.51589	1.05094	40350.2	10359.2	4983.1	U/P
2.156	0.3841	0.0000	160.550	1.51589	1.03995	40387.1	10480.5	5066.7	U/P
2.178	0.2742	0.0000	160.540	1.51589	1.02819	40413.4	10601.7	5149.5	U/P
2.200	0.1976	0.0000	160.529	1.51589	1.01584	40432.3	10723.0	5231.2	U/P
2.222	0.1426	0.0000	160.519	1.51589	1.00303	40445.9	10844.3	5312.0	U/P
2.244	0.1020	0.0000	160.508	1.51589	0.98984	40455.7	10965.5	5391.7	U/P
2.267	0.0731	0.0000	160.497	1.51562	0.97634	40462.7	11086.8	5470.3	U/P
2.289	0.0520	0.0000	160.486	1.51438	0.96257	40467.7	11208.0	5547.9	U/P
2.311	0.0369	0.0000	160.474	1.51244	0.94857	40471.3	11329.1	5624.3	U/P
2.333	0.0262	0.0000	160.463	1.51051	0.93436	40473.8	11450.0	5699.7	U/P
2.356	0.0185	0.0000	160.452	1.50859	0.91995	40475.6	11570.8	5773.8	U/P
2.378	0.0130	0.0000	160.441	1.50666	0.90536	40476.8	11691.4	5846.8	U/P
2.400	0.0090	0.0000	160.430	1.50475	0.89058	40477.7	11811.9	5918.7	U/P
2.422	0.0061	0.0000	160.419	1.50284	0.87562	40478.3	11932.2	5989.3	U/P
2.444	0.0040	0.0000	160.408	1.50095	0.86047	40478.7	12052.3	6058.8	U/P
2.467	0.0023	0.0000	160.397	1.49906	0.84513	40479.0	12172.3	6127.0	U/P
2.489	0.0011	0.0000	160.386	1.49718	0.82959	40479.1	12292.2	6194.0	U/P
2.511	0.0004	0.0000	160.376	1.49532	0.81385	40479.2	12411.9	6259.7	U/P
2.533	0.0000	0.0000	160.365	1.49347	0.79790	40479.2	12531.4	6324.2	U/P
2.556	0.0000	0.0000	160.354	1.49162	0.78173	40479.2	12650.8	6387.4	U/P
2.578	0.0000	0.0000	160.344	1.48795	0.76533	40479.2	12770.1	6449.3	U/P
14.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
26.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
38.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
50.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
62.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
74.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
86.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
98.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
110.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
122.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
134.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
146.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
158.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
170.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
182.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
194.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
206.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
218.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
230.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
242.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
254.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
266.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
278.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
290.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
302.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
314.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
326.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
338.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
350.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
362.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry
374.578	0.0000	0.0000	----	----	----	40479.2	34029.9	6449.3	dry

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 3 :: SRWMD 100yr-4hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
3.289	1.7082	0.0000	160.828	1.51589	1.32309	48589.1	13793.8	4984.4	U/P
3.311	1.6752	0.0000	160.823	1.51589	1.31850	48724.4	13915.1	5090.1	U/P
3.333	1.6517	0.0000	160.818	1.51589	1.31379	48857.5	14036.4	5195.4	U/P
3.356	1.6345	0.0000	160.813	1.51589	1.30900	48988.9	14157.6	5300.3	U/P
3.378	1.6221	0.0000	160.808	1.51589	1.30415	49119.2	14278.9	5404.8	U/P
3.400	1.6132	0.0000	160.802	1.51589	1.29925	49248.6	14400.2	5509.0	U/P
3.422	1.6068	0.0000	160.797	1.51589	1.29432	49377.4	14521.4	5612.7	U/P
3.444	1.6021	0.0000	160.792	1.51589	1.28937	49505.8	14642.7	5716.1	U/P
3.467	1.5985	0.0000	160.786	1.51589	1.28439	49633.8	14764.0	5819.0	U/P
3.489	1.5959	0.0000	160.781	1.51589	1.27941	49761.6	14885.3	5921.6	U/P
3.511	1.5871	0.0000	160.776	1.51589	1.27439	49888.9	15006.5	6023.7	U/P
3.533	1.5569	0.0000	160.770	1.51589	1.26930	50014.6	15127.8	6125.5	U/P
3.556	1.4874	0.0000	160.765	1.51589	1.26399	50136.4	15249.1	6226.8	U/P
3.578	1.3735	0.0000	160.759	1.51589	1.25829	50250.8	15370.3	6327.7	U/P
3.600	1.2352	0.0000	160.752	1.51589	1.25205	50355.2	15491.6	6428.1	U/P
3.622	1.0968	0.0000	160.745	1.51589	1.24520	50448.5	15612.9	6528.0	U/P
3.644	0.9743	0.0000	160.737	1.51589	1.23778	50531.3	15734.1	6627.3	U/P
3.667	0.8783	0.0000	160.729	1.51589	1.22986	50605.4	15855.4	6726.0	U/P
3.689	0.8102	0.0000	160.721	1.51589	1.22156	50673.0	15976.7	6824.1	U/P
3.711	0.7622	0.0000	160.712	1.51589	1.21298	50735.8	16098.0	6921.4	U/P
3.733	0.7273	0.0000	160.703	1.51589	1.20418	50795.4	16219.2	7018.1	U/P
3.756	0.7019	0.0000	160.694	1.51589	1.19521	50852.6	16340.5	7114.1	U/P
3.778	0.6837	0.0000	160.685	1.51589	1.18611	50908.0	16461.8	7209.4	U/P
3.800	0.6705	0.0000	160.676	1.51589	1.17689	50962.2	16583.0	7303.9	U/P
3.822	0.6611	0.0000	160.667	1.51589	1.16758	51015.5	16704.3	7397.7	U/P
3.844	0.6543	0.0000	160.658	1.51589	1.15820	51068.1	16825.6	7490.7	U/P
3.867	0.6494	0.0000	160.649	1.51589	1.14874	51120.2	16946.9	7583.0	U/P
3.889	0.6458	0.0000	160.640	1.51589	1.13922	51172.0	17068.1	7674.5	U/P
3.911	0.6432	0.0000	160.631	1.51589	1.12964	51223.6	17189.4	7765.2	U/P
3.933	0.6414	0.0000	160.622	1.51589	1.12001	51275.0	17310.7	7855.2	U/P
3.956	0.6400	0.0000	160.613	1.51589	1.11031	51326.2	17431.9	7944.4	U/P
3.978	0.6389	0.0000	160.604	1.51589	1.10057	51377.4	17553.2	8032.9	U/P
4.000	0.6382	0.0000	160.595	1.51589	1.09077	51428.5	17674.5	8120.5	U/P
4.022	0.6282	0.0000	160.586	1.51589	1.08090	51479.1	17795.8	8207.4	U/P
4.044	0.5984	0.0000	160.577	1.51589	1.07087	51528.2	17917.0	8293.5	U/P
4.067	0.5353	0.0000	160.568	1.51589	1.06055	51573.5	18038.3	8378.7	U/P
4.089	0.4464	0.0000	160.559	1.51589	1.04978	51612.8	18159.6	8463.1	U/P
4.111	0.3508	0.0000	160.549	1.51589	1.03846	51644.7	18280.8	8546.7	U/P
4.133	0.2619	0.0000	160.538	1.51589	1.02656	51669.2	18402.1	8629.3	U/P
4.156	0.1874	0.0000	160.528	1.51589	1.01414	51687.2	18523.4	8710.9	U/P
4.178	0.1338	0.0000	160.517	1.51589	1.00126	51700.0	18644.6	8791.5	U/P
4.200	0.0965	0.0000	160.506	1.51589	0.98802	51709.2	18765.9	8871.1	U/P
4.222	0.0698	0.0000	160.495	1.51548	0.97448	51715.9	18887.2	8949.6	U/P
4.244	0.0500	0.0000	160.484	1.51411	0.96067	51720.7	19008.4	9027.0	U/P
4.267	0.0359	0.0000	160.473	1.51218	0.94665	51724.1	19129.5	9103.3	U/P
4.289	0.0257	0.0000	160.462	1.51025	0.93241	51726.6	19250.3	9178.4	U/P
4.311	0.0183	0.0000	160.451	1.50832	0.91798	51728.3	19371.1	9252.5	U/P
4.333	0.0131	0.0000	160.440	1.50640	0.90337	51729.6	19491.7	9325.3	U/P
4.356	0.0093	0.0000	160.429	1.50449	0.88857	51730.5	19612.1	9397.0	U/P
4.378	0.0065	0.0000	160.418	1.50259	0.87359	51731.1	19732.4	9467.5	U/P
4.400	0.0045	0.0000	160.407	1.50069	0.85842	51731.6	19852.5	9536.8	U/P
4.422	0.0030	0.0000	160.396	1.49881	0.84306	51731.9	19972.5	9604.8	U/P
4.444	0.0020	0.0000	160.385	1.49694	0.82750	51732.1	20092.3	9671.6	U/P
4.467	0.0012	0.0000	160.374	1.49507	0.81174	51732.2	20212.0	9737.2	U/P
4.489	0.0006	0.0000	160.363	1.49322	0.79576	51732.3	20331.5	9801.5	U/P
4.511	0.0002	0.0000	160.353	1.49138	0.77957	51732.3	20450.9	9864.5	U/P
4.533	0.0000	0.0000	160.342	1.48955	0.76314	51732.3	20570.2	9926.2	U/P
4.556	0.0000	0.0000	160.332	1.48774	0.74647	51732.3	20689.3	9986.6	U/P
4.578	0.0000	0.0000	160.321	1.48498	0.72953	51732.3	20808.2	10045.7	U/P
16.578	0.0000	0.0000	157.018	0.24165	0.00000	51732.3	41686.6	10045.7	U/S
28.578	0.0000	0.0000	156.240	0.00000	0.00000	51732.3	41686.6	10045.7	S
40.578	0.0000	0.0000	155.775	0.00000	0.00000	51732.3	41686.6	10045.7	S
52.578	0.0000	0.0000	155.447	0.00000	0.00000	51732.3	41686.6	10045.7	S
64.578	0.0000	0.0000	155.195	0.00000	0.00000	51732.3	41686.6	10045.7	S
76.578	0.0000	0.0000	154.993	0.00000	0.00000	51732.3	41686.6	10045.7	S
88.578	0.0000	0.0000	154.824	0.00000	0.00000	51732.3	41686.6	10045.7	S
100.578	0.0000	0.0000	154.681	0.00000	0.00000	51732.3	41686.6	10045.7	S
112.578	0.0000	0.0000	154.556	0.00000	0.00000	51732.3	41686.6	10045.7	S
124.578	0.0000	0.0000	154.447	0.00000	0.00000	51732.3	41686.6	10045.7	S
136.578	0.0000	0.0000	154.349	0.00000	0.00000	51732.3	41686.6	10045.7	S
148.578	0.0000	0.0000	154.262	0.00000	0.00000	51732.3	41686.6	10045.7	S
160.578	0.0000	0.0000	154.182	0.00000	0.00000	51732.3	41686.6	10045.7	S
172.578	0.0000	0.0000	154.110	0.00000	0.00000	51732.3	41686.6	10045.7	S
184.578	0.0000	0.0000	154.044	0.00000	0.00000	51732.3	41686.6	10045.7	S

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 4 :: SRWMD 100yr-8hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
4.933	3.0358	0.0000	160.721	1.51589	1.22217	50923.4	18206.8	4833.3	U/P
4.956	3.0360	0.0000	160.723	1.51589	1.22348	51166.3	18328.1	4931.1	U/P
4.978	3.0362	0.0000	160.724	1.51589	1.22477	51409.1	18449.3	5029.1	U/P
5.000	3.0364	0.0000	160.725	1.51589	1.22606	51652.1	18570.6	5127.1	U/P
5.022	3.0081	0.0000	160.727	1.51589	1.22729	51893.8	18691.9	5225.2	U/P
5.044	2.9201	0.0000	160.728	1.51589	1.22825	52131.0	18813.1	5323.4	U/P
5.067	2.7324	0.0000	160.728	1.51589	1.22861	52357.1	18934.4	5421.7	U/P
5.089	2.4678	0.0000	160.727	1.51589	1.22798	52565.1	19055.7	5520.0	U/P
5.111	2.1833	0.0000	160.726	1.51589	1.22615	52751.1	19177.0	5618.1	U/P
5.133	1.9187	0.0000	160.722	1.51589	1.22313	52915.2	19298.2	5716.1	U/P
5.156	1.6968	0.0000	160.718	1.51589	1.21905	53059.8	19419.5	5813.8	U/P
5.178	1.5374	0.0000	160.713	1.51589	1.21413	53189.2	19540.8	5911.1	U/P
5.200	1.4265	0.0000	160.708	1.51589	1.20861	53307.7	19662.0	6008.0	U/P
5.222	1.3468	0.0000	160.702	1.51589	1.20266	53418.7	19783.3	6104.5	U/P
5.244	1.2880	0.0000	160.696	1.51589	1.19639	53524.1	19904.6	6200.5	U/P
5.267	1.2461	0.0000	160.689	1.51589	1.18989	53625.4	20025.9	6295.9	U/P
5.289	1.2157	0.0000	160.682	1.51589	1.18321	53723.9	20147.1	6390.8	U/P
5.311	1.1938	0.0000	160.676	1.51589	1.17640	53820.3	20268.4	6485.2	U/P
5.333	1.1782	0.0000	160.669	1.51589	1.16949	53915.2	20389.7	6579.0	U/P
5.356	1.1668	0.0000	160.662	1.51589	1.16250	54009.0	20510.9	6672.3	U/P
5.378	1.1586	0.0000	160.655	1.51589	1.15545	54102.0	20632.2	6765.0	U/P
5.400	1.1527	0.0000	160.649	1.51589	1.14835	54194.4	20753.5	6857.2	U/P
5.422	1.1484	0.0000	160.642	1.51589	1.14121	54286.5	20874.8	6948.8	U/P
5.444	1.1453	0.0000	160.635	1.51589	1.13404	54378.2	20996.0	7039.8	U/P
5.467	1.1429	0.0000	160.628	1.51589	1.12684	54469.8	21117.3	7130.2	U/P
5.489	1.1411	0.0000	160.622	1.51589	1.11961	54561.1	21238.6	7220.1	U/P
5.511	1.1400	0.0000	160.615	1.51589	1.11235	54652.4	21359.8	7309.4	U/P
5.533	1.1395	0.0000	160.608	1.51589	1.10507	54743.5	21481.1	7398.1	U/P
5.556	1.1395	0.0000	160.601	1.51589	1.09778	54834.7	21602.4	7486.2	U/P
5.578	1.1395	0.0000	160.595	1.51589	1.09046	54925.9	21723.6	7573.7	U/P
5.600	1.1396	0.0000	160.588	1.51589	1.08313	55017.0	21844.9	7660.6	U/P
5.622	1.1396	0.0000	160.582	1.51589	1.07578	55108.2	21966.2	7747.0	U/P
5.644	1.1396	0.0000	160.575	1.51589	1.06841	55199.4	22087.5	7832.8	U/P
5.667	1.1396	0.0000	160.568	1.51589	1.06102	55290.5	22208.7	7917.9	U/P
5.689	1.1396	0.0000	160.562	1.51589	1.05362	55381.7	22330.0	8002.5	U/P
5.711	1.1397	0.0000	160.555	1.51589	1.04619	55472.9	22451.3	8086.5	U/P
5.733	1.1397	0.0000	160.549	1.51589	1.03874	55564.0	22572.5	8169.9	U/P
5.756	1.1397	0.0000	160.543	1.51589	1.03128	55655.2	22693.8	8252.7	U/P
5.778	1.1397	0.0000	160.536	1.51589	1.02379	55746.4	22815.1	8334.9	U/P
5.800	1.1398	0.0000	160.530	1.51589	1.01629	55837.6	22936.4	8416.5	U/P
5.822	1.1398	0.0000	160.523	1.51589	1.00876	55928.8	23057.6	8497.5	U/P
5.844	1.1398	0.0000	160.517	1.51589	1.00121	56019.9	23178.9	8577.9	U/P
5.867	1.1398	0.0000	160.511	1.51589	0.99364	56111.1	23300.2	8657.7	U/P
5.889	1.1398	0.0000	160.505	1.51589	0.98605	56202.3	23421.4	8736.9	U/P
5.911	1.1399	0.0000	160.498	1.51589	0.97844	56293.5	23542.7	8815.5	U/P
5.933	1.1399	0.0000	160.492	1.51565	0.97080	56384.7	23664.0	8893.5	U/P
5.956	1.1399	0.0000	160.486	1.51489	0.96315	56475.9	23785.2	8970.8	U/P
5.978	1.1399	0.0000	160.480	1.51383	0.95548	56567.1	23906.4	9047.6	U/P
6.000	1.1399	0.0000	160.474	1.51278	0.94780	56658.3	24027.4	9123.7	U/P
6.022	1.1371	0.0000	160.468	1.51173	0.94008	56749.4	24148.4	9199.2	U/P
6.044	1.1283	0.0000	160.462	1.51067	0.93232	56840.0	24269.3	9274.1	U/P
6.067	1.1095	0.0000	160.456	1.50961	0.92446	56929.5	24390.1	9348.4	U/P
6.089	1.0831	0.0000	160.449	1.50854	0.91644	57017.2	24510.8	9422.0	U/P
6.111	1.0546	0.0000	160.443	1.50745	0.90823	57102.7	24631.5	9495.0	U/P
6.133	1.0281	0.0000	160.437	1.50634	0.89984	57186.0	24752.0	9567.3	U/P
6.156	1.0059	0.0000	160.431	2.30475	0.89126	57267.4	24872.5	9639.0	U/P
6.178	0.9900	0.0000	160.419	2.79683	0.87503	57347.2	25120.8	9674.0	U/S
6.200	0.9789	0.0000	160.408	2.49841	0.85980	57426.0	25320.0	9743.4	S
6.222	0.9709	0.0000	160.397	2.48072	0.84422	57503.9	25520.5	9811.5	S
6.244	0.9650	0.0000	160.386	2.40387	0.82875	57581.4	25716.9	9878.4	S
6.267	0.9608	0.0000	160.376	2.28796	0.81372	57658.4	25905.2	9944.1	S
6.289	0.9578	0.0000	160.366	2.15174	0.79940	57735.2	26083.0	10008.7	S
6.311	0.9556	0.0000	160.357	2.01004	0.78588	57811.7	26249.4	10072.1	S
6.333	0.9541	0.0000	160.349	1.87302	0.77323	57888.1	26404.6	10134.4	S
6.356	0.9530	0.0000	160.341	1.74660	0.76141	57964.4	26549.1	10195.8	S
6.378	0.9521	0.0000	160.334	1.63346	0.75036	58040.6	26684.0	10256.3	S
6.400	0.9516	0.0000	160.328	1.53407	0.74002	58116.7	26810.5	10315.9	S
6.422	0.9511	0.0000	160.322	1.44764	0.73032	58192.8	26929.5	10374.7	S
6.444	0.9508	0.0000	160.317	1.37274	0.72117	58268.9	27042.1	10432.8	S
6.467	0.9506	0.0000	160.311	1.30772	0.71251	58345.0	27149.1	10490.1	S
6.489	0.9505	0.0000	160.307	1.25102	0.70430	58421.0	27251.3	10546.8	S
6.511	0.9504	0.0000	160.302	1.20122	0.69647	58497.0	27349.3	10602.8	S
6.533	0.9503	0.0000	160.298	1.15712	0.68899	58573.1	27443.5	10658.3	S
6.556	0.9503	0.0000	160.294	1.11775	0.68182	58649.1	27534.4	10713.1	S

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 4 :: SRWMD 100yr-8hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
8.222	0.0624	0.0000	160.129	0.44395	0.26212	62661.8	31411.3	13633.4	S
8.244	0.0447	0.0000	160.126	0.44045	0.24761	62666.1	31446.7	13653.8	S
8.267	0.0321	0.0000	160.123	0.43704	0.23226	62669.2	31481.8	13673.0	S
8.289	0.0230	0.0000	160.120	0.43370	0.21604	62671.4	31516.6	13690.9	S
8.311	0.0164	0.0000	160.117	0.43039	0.19884	62673.0	31551.1	13707.5	S
8.333	0.0117	0.0000	160.114	0.42707	0.18050	62674.1	31585.4	13722.7	S
8.356	0.0083	0.0000	160.111	0.42365	0.16072	62674.9	31619.5	13736.3	S
8.378	0.0058	0.0000	160.108	0.41998	0.13901	62675.4	31653.2	13748.3	S
8.400	0.0040	0.0000	160.106	0.41566	0.11446	62675.8	31686.7	13758.5	S
8.422	0.0027	0.0000	160.103	0.40901	0.08500	62676.1	31719.7	13766.4	S
8.444	0.0018	0.0000	160.101	0.40354	0.04289	62676.3	31752.1	13771.6	S
8.467	0.0010	0.0000	160.099	0.41200	0.00000	62676.4	31784.3	13773.3	S
8.489	0.0005	0.0000	160.097	0.42064	0.00000	62676.5	31818.0	13773.3	S
8.511	0.0002	0.0000	160.095	0.41856	0.00000	62676.5	31851.6	13773.3	S
8.533	0.0000	0.0000	160.093	0.41648	0.00000	62676.5	31885.0	13773.3	S
8.556	0.0000	0.0000	160.091	0.41443	0.00000	62676.5	31918.2	13773.3	S
8.578	0.0000	0.0000	160.089	0.41301	0.00000	62676.5	31951.3	13773.3	S
20.578	0.0000	0.0000	159.557	0.16333	0.00000	62676.5	40527.8	13773.3	S
32.578	0.0000	0.0000	159.193	0.09694	0.00000	62676.5	46063.2	13773.3	S
44.578	0.0000	0.0000	158.733	0.03287	0.00000	62676.5	48903.2	13773.3	S
56.578	0.0000	0.0000	158.075	0.00000	0.00000	62676.5	48903.2	13773.3	S
68.578	0.0000	0.0000	157.593	0.00000	0.00000	62676.5	48903.2	13773.3	S
80.578	0.0000	0.0000	157.214	0.00000	0.00000	62676.5	48903.2	13773.3	S
92.578	0.0000	0.0000	156.904	0.00000	0.00000	62676.5	48903.2	13773.3	S
104.578	0.0000	0.0000	156.643	0.00000	0.00000	62676.5	48903.2	13773.3	S
116.578	0.0000	0.0000	156.418	0.00000	0.00000	62676.5	48903.2	13773.3	S
128.578	0.0000	0.0000	156.222	0.00000	0.00000	62676.5	48903.2	13773.3	S
140.578	0.0000	0.0000	156.049	0.00000	0.00000	62676.5	48903.2	13773.3	S
152.578	0.0000	0.0000	155.894	0.00000	0.00000	62676.5	48903.2	13773.3	S
164.578	0.0000	0.0000	155.755	0.00000	0.00000	62676.5	48903.2	13773.3	S
176.578	0.0000	0.0000	155.628	0.00000	0.00000	62676.5	48903.2	13773.3	S
188.578	0.0000	0.0000	155.512	0.00000	0.00000	62676.5	48903.2	13773.3	S
200.578	0.0000	0.0000	155.405	0.00000	0.00000	62676.5	48903.2	13773.3	S
212.578	0.0000	0.0000	155.307	0.00000	0.00000	62676.5	48903.2	13773.3	S
224.578	0.0000	0.0000	155.216	0.00000	0.00000	62676.5	48903.2	13773.3	S
236.578	0.0000	0.0000	155.131	0.00000	0.00000	62676.5	48903.2	13773.3	S
248.578	0.0000	0.0000	155.051	0.00000	0.00000	62676.5	48903.2	13773.3	S
260.578	0.0000	0.0000	154.977	0.00000	0.00000	62676.5	48903.2	13773.3	S
272.578	0.0000	0.0000	154.907	0.00000	0.00000	62676.5	48903.2	13773.3	S
284.578	0.0000	0.0000	154.841	0.00000	0.00000	62676.5	48903.2	13773.3	S
296.578	0.0000	0.0000	154.778	0.00000	0.00000	62676.5	48903.2	13773.3	S
308.578	0.0000	0.0000	154.720	0.00000	0.00000	62676.5	48903.2	13773.3	S
320.578	0.0000	0.0000	154.664	0.00000	0.00000	62676.5	48903.2	13773.3	S
332.578	0.0000	0.0000	154.610	0.00000	0.00000	62676.5	48903.2	13773.3	S
344.578	0.0000	0.0000	154.560	0.00000	0.00000	62676.5	48903.2	13773.3	S
356.578	0.0000	0.0000	154.512	0.00000	0.00000	62676.5	48903.2	13773.3	S
368.578	0.0000	0.0000	154.465	0.00000	0.00000	62676.5	48903.2	13773.3	S
380.578	0.0000	0.0000	154.421	0.00000	0.00000	62676.5	48903.2	13773.3	S
392.578	0.0000	0.0000	154.379	0.00000	0.00000	62676.5	48903.2	13773.3	S
404.578	0.0000	0.0000	154.339	0.00000	0.00000	62676.5	48903.2	13773.3	S
416.578	0.0000	0.0000	154.300	0.00000	0.00000	62676.5	48903.2	13773.3	S
428.578	0.0000	0.0000	154.263	0.00000	0.00000	62676.5	48903.2	13773.3	S
440.578	0.0000	0.0000	154.227	0.00000	0.00000	62676.5	48903.2	13773.3	S
452.578	0.0000	0.0000	154.192	0.00000	0.00000	62676.5	48903.2	13773.3	S
464.578	0.0000	0.0000	154.159	0.00000	0.00000	62676.5	48903.2	13773.3	S
476.578	0.0000	0.0000	154.127	0.00000	0.00000	62676.5	48903.2	13773.3	S
488.578	0.0000	0.0000	154.096	0.00000	0.00000	62676.5	48903.2	13773.3	S
500.578	0.0000	0.0000	154.066	0.00000	0.00000	62676.5	48903.2	13773.3	S
512.578	0.0000	0.0000	154.037	0.00000	0.00000	62676.5	48903.2	13773.3	S
524.578	0.0000	0.0000	154.009	0.00000	0.00000	62676.5	48903.2	13773.3	S
536.578	0.0000	0.0000	153.982	0.00000	0.00000	62676.5	48903.2	13773.3	S
548.578	0.0000	0.0000	153.956	0.00000	0.00000	62676.5	48903.2	13773.3	S
560.578	0.0000	0.0000	153.930	0.00000	0.00000	62676.5	48903.2	13773.3	S
572.578	0.0000	0.0000	153.905	0.00000	0.00000	62676.5	48903.2	13773.3	S
584.578	0.0000	0.0000	153.881	0.00000	0.00000	62676.5	48903.2	13773.3	S
596.578	0.0000	0.0000	153.858	0.00000	0.00000	62676.5	48903.2	13773.3	S
608.578	0.0000	0.0000	153.836	0.00000	0.00000	62676.5	48903.2	13773.3	S
620.578	0.0000	0.0000	153.814	0.00000	0.00000	62676.5	48903.2	13773.3	S
632.578	0.0000	0.0000	153.792	0.00000	0.00000	62676.5	48903.2	13773.3	S
644.578	0.0000	0.0000	153.771	0.00000	0.00000	62676.5	48903.2	13773.3	S
656.578	0.0000	0.0000	153.751	0.00000	0.00000	62676.5	48903.2	13773.3	S
668.578	0.0000	0.0000	153.731	0.00000	0.00000	62676.5	48903.2	13773.3	S
680.578	0.0000	0.0000	153.712	0.00000	0.00000	62676.5	48903.2	13773.3	S
692.578	0.0000	0.0000	153.693	0.00000	0.00000	62676.5	48903.2	13773.3	S

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 5 :: SRWMD 100yr-24hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
72.578	0.0000	0.0000	159.023	0.04022	0.00000	88733.8	59997.4	28396.2	S
84.578	0.0000	0.0000	158.506	0.00394	0.00000	88733.8	60337.5	28396.2	S
96.578	0.0000	0.0000	158.065	0.00000	0.00000	88733.8	60337.5	28396.2	S
108.578	0.0000	0.0000	157.707	0.00000	0.00000	88733.8	60337.5	28396.2	S
120.578	0.0000	0.0000	157.408	0.00000	0.00000	88733.8	60337.5	28396.2	S
132.578	0.0000	0.0000	157.151	0.00000	0.00000	88733.8	60337.5	28396.2	S
144.578	0.0000	0.0000	156.926	0.00000	0.00000	88733.8	60337.5	28396.2	S
156.578	0.0000	0.0000	156.727	0.00000	0.00000	88733.8	60337.5	28396.2	S
168.578	0.0000	0.0000	156.549	0.00000	0.00000	88733.8	60337.5	28396.2	S
180.578	0.0000	0.0000	156.389	0.00000	0.00000	88733.8	60337.5	28396.2	S
192.578	0.0000	0.0000	156.243	0.00000	0.00000	88733.8	60337.5	28396.2	S
204.578	0.0000	0.0000	156.109	0.00000	0.00000	88733.8	60337.5	28396.2	S
216.578	0.0000	0.0000	155.987	0.00000	0.00000	88733.8	60337.5	28396.2	S
228.578	0.0000	0.0000	155.873	0.00000	0.00000	88733.8	60337.5	28396.2	S
240.578	0.0000	0.0000	155.768	0.00000	0.00000	88733.8	60337.5	28396.2	S
252.578	0.0000	0.0000	155.670	0.00000	0.00000	88733.8	60337.5	28396.2	S
264.578	0.0000	0.0000	155.578	0.00000	0.00000	88733.8	60337.5	28396.2	S
276.578	0.0000	0.0000	155.492	0.00000	0.00000	88733.8	60337.5	28396.2	S
288.578	0.0000	0.0000	155.411	0.00000	0.00000	88733.8	60337.5	28396.2	S
300.578	0.0000	0.0000	155.335	0.00000	0.00000	88733.8	60337.5	28396.2	S
312.578	0.0000	0.0000	155.263	0.00000	0.00000	88733.8	60337.5	28396.2	S
324.578	0.0000	0.0000	155.195	0.00000	0.00000	88733.8	60337.5	28396.2	S
336.578	0.0000	0.0000	155.130	0.00000	0.00000	88733.8	60337.5	28396.2	S
348.578	0.0000	0.0000	155.068	0.00000	0.00000	88733.8	60337.5	28396.2	S
360.578	0.0000	0.0000	155.010	0.00000	0.00000	88733.8	60337.5	28396.2	S
372.578	0.0000	0.0000	154.954	0.00000	0.00000	88733.8	60337.5	28396.2	S
384.578	0.0000	0.0000	154.901	0.00000	0.00000	88733.8	60337.5	28396.2	S
396.578	0.0000	0.0000	154.850	0.00000	0.00000	88733.8	60337.5	28396.2	S
408.578	0.0000	0.0000	154.801	0.00000	0.00000	88733.8	60337.5	28396.2	S
420.578	0.0000	0.0000	154.754	0.00000	0.00000	88733.8	60337.5	28396.2	S
432.578	0.0000	0.0000	154.709	0.00000	0.00000	88733.8	60337.5	28396.2	S
444.578	0.0000	0.0000	154.665	0.00000	0.00000	88733.8	60337.5	28396.2	S
456.578	0.0000	0.0000	154.624	0.00000	0.00000	88733.8	60337.5	28396.2	S
468.578	0.0000	0.0000	154.584	0.00000	0.00000	88733.8	60337.5	28396.2	S
480.578	0.0000	0.0000	154.545	0.00000	0.00000	88733.8	60337.5	28396.2	S
492.578	0.0000	0.0000	154.508	0.00000	0.00000	88733.8	60337.5	28396.2	S
504.578	0.0000	0.0000	154.472	0.00000	0.00000	88733.8	60337.5	28396.2	S
516.578	0.0000	0.0000	154.437	0.00000	0.00000	88733.8	60337.5	28396.2	S
528.578	0.0000	0.0000	154.403	0.00000	0.00000	88733.8	60337.5	28396.2	S
540.578	0.0000	0.0000	154.371	0.00000	0.00000	88733.8	60337.5	28396.2	S
552.578	0.0000	0.0000	154.339	0.00000	0.00000	88733.8	60337.5	28396.2	S
564.578	0.0000	0.0000	154.309	0.00000	0.00000	88733.8	60337.5	28396.2	S
576.578	0.0000	0.0000	154.279	0.00000	0.00000	88733.8	60337.5	28396.2	S
588.578	0.0000	0.0000	154.251	0.00000	0.00000	88733.8	60337.5	28396.2	S
600.578	0.0000	0.0000	154.223	0.00000	0.00000	88733.8	60337.5	28396.2	S
612.578	0.0000	0.0000	154.196	0.00000	0.00000	88733.8	60337.5	28396.2	S
624.578	0.0000	0.0000	154.169	0.00000	0.00000	88733.8	60337.5	28396.2	S
636.578	0.0000	0.0000	154.144	0.00000	0.00000	88733.8	60337.5	28396.2	S
648.578	0.0000	0.0000	154.119	0.00000	0.00000	88733.8	60337.5	28396.2	S
660.578	0.0000	0.0000	154.095	0.00000	0.00000	88733.8	60337.5	28396.2	S
672.578	0.0000	0.0000	154.071	0.00000	0.00000	88733.8	60337.5	28396.2	S
684.578	0.0000	0.0000	154.048	0.00000	0.00000	88733.8	60337.5	28396.2	S
696.578	0.0000	0.0000	154.026	0.00000	0.00000	88733.8	60337.5	28396.2	S
708.578	0.0000	0.0000	154.004	0.00000	0.00000	88733.8	60337.5	28396.2	S
720.578	0.0000	0.0000	153.982	0.00000	0.00000	88733.8	60337.5	28396.2	S
732.578	0.0000	0.0000	153.962	0.00000	0.00000	88733.8	60337.5	28396.2	S
744.578	0.0000	0.0000	153.941	----	----	88733.8	60337.5	28396.2	N.A.

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 6 :: SRWMD 100yr-72hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
72.356	0.0021	0.0000	160.096	0.10788	0.00000	112430.5	57655.2	37708.6	S
72.378	0.0015	0.0000	160.095	0.10776	0.00000	112430.6	57663.8	37708.6	S
72.400	0.0010	0.0000	160.095	0.10765	0.00000	112430.8	57672.5	37708.6	S
72.422	0.0007	0.0000	160.094	0.10754	0.00000	112430.8	57681.1	37708.6	S
72.444	0.0005	0.0000	160.094	0.10744	0.00000	112430.9	57689.7	37708.6	S
72.467	0.0003	0.0000	160.093	0.10735	0.00000	112430.9	57698.3	37708.6	S
72.489	0.0001	0.0000	160.093	0.10725	0.00000	112430.9	57706.8	37708.6	S
72.511	0.0000	0.0000	160.092	0.10716	0.00000	112430.9	57715.4	37708.6	S
72.533	0.0000	0.0000	160.092	0.10708	0.00000	112430.9	57724.0	37708.6	S
72.556	0.0000	0.0000	160.091	0.10699	0.00000	112430.9	57732.5	37708.6	S
72.578	0.0000	0.0000	160.091	0.10692	0.00000	112430.9	57741.1	37708.6	S
84.578	0.0000	0.0000	159.854	0.08425	0.00000	112430.9	61631.7	37708.6	S
96.578	0.0000	0.0000	159.641	0.07401	0.00000	112430.9	65020.7	37708.6	S
108.578	0.0000	0.0000	159.448	0.06604	0.00000	112430.9	68026.3	37708.6	S
120.578	0.0000	0.0000	159.271	0.05961	0.00000	112430.9	70726.4	37708.6	S
132.578	0.0000	0.0000	159.106	0.04625	0.00000	112430.9	73176.5	37708.6	S
144.578	0.0000	0.0000	158.858	0.01789	0.00000	112430.9	74722.4	37708.6	S
156.578	0.0000	0.0000	158.452	0.00000	0.00000	112430.9	74722.4	37708.6	S
168.578	0.0000	0.0000	158.121	0.00000	0.00000	112430.9	74722.4	37708.6	S
180.578	0.0000	0.0000	157.841	0.00000	0.00000	112430.9	74722.4	37708.6	S
192.578	0.0000	0.0000	157.596	0.00000	0.00000	112430.9	74722.4	37708.6	S
204.578	0.0000	0.0000	157.380	0.00000	0.00000	112430.9	74722.4	37708.6	S
216.578	0.0000	0.0000	157.187	0.00000	0.00000	112430.9	74722.4	37708.6	S
228.578	0.0000	0.0000	157.012	0.00000	0.00000	112430.9	74722.4	37708.6	S
240.578	0.0000	0.0000	156.852	0.00000	0.00000	112430.9	74722.4	37708.6	S
252.578	0.0000	0.0000	156.706	0.00000	0.00000	112430.9	74722.4	37708.6	S
264.578	0.0000	0.0000	156.571	0.00000	0.00000	112430.9	74722.4	37708.6	S
276.578	0.0000	0.0000	156.447	0.00000	0.00000	112430.9	74722.4	37708.6	S
288.578	0.0000	0.0000	156.331	0.00000	0.00000	112430.9	74722.4	37708.6	S
300.578	0.0000	0.0000	156.222	0.00000	0.00000	112430.9	74722.4	37708.6	S
312.578	0.0000	0.0000	156.121	0.00000	0.00000	112430.9	74722.4	37708.6	S
324.578	0.0000	0.0000	156.025	0.00000	0.00000	112430.9	74722.4	37708.6	S
336.578	0.0000	0.0000	155.936	0.00000	0.00000	112430.9	74722.4	37708.6	S
348.578	0.0000	0.0000	155.851	0.00000	0.00000	112430.9	74722.4	37708.6	S
360.578	0.0000	0.0000	155.771	0.00000	0.00000	112430.9	74722.4	37708.6	S
372.578	0.0000	0.0000	155.695	0.00000	0.00000	112430.9	74722.4	37708.6	S
384.578	0.0000	0.0000	155.622	0.00000	0.00000	112430.9	74722.4	37708.6	S
396.578	0.0000	0.0000	155.553	0.00000	0.00000	112430.9	74722.4	37708.6	S
408.578	0.0000	0.0000	155.488	0.00000	0.00000	112430.9	74722.4	37708.6	S
420.578	0.0000	0.0000	155.425	0.00000	0.00000	112430.9	74722.4	37708.6	S
432.578	0.0000	0.0000	155.365	0.00000	0.00000	112430.9	74722.4	37708.6	S
444.578	0.0000	0.0000	155.308	0.00000	0.00000	112430.9	74722.4	37708.6	S
456.578	0.0000	0.0000	155.253	0.00000	0.00000	112430.9	74722.4	37708.6	S
468.578	0.0000	0.0000	155.200	0.00000	0.00000	112430.9	74722.4	37708.6	S
480.578	0.0000	0.0000	155.149	0.00000	0.00000	112430.9	74722.4	37708.6	S
492.578	0.0000	0.0000	155.101	0.00000	0.00000	112430.9	74722.4	37708.6	S
504.578	0.0000	0.0000	155.054	0.00000	0.00000	112430.9	74722.4	37708.6	S
516.578	0.0000	0.0000	155.009	0.00000	0.00000	112430.9	74722.4	37708.6	S
528.578	0.0000	0.0000	154.965	0.00000	0.00000	112430.9	74722.4	37708.6	S
540.578	0.0000	0.0000	154.923	0.00000	0.00000	112430.9	74722.4	37708.6	S
552.578	0.0000	0.0000	154.882	0.00000	0.00000	112430.9	74722.4	37708.6	S
564.578	0.0000	0.0000	154.843	0.00000	0.00000	112430.9	74722.4	37708.6	S
576.578	0.0000	0.0000	154.805	0.00000	0.00000	112430.9	74722.4	37708.6	S
588.578	0.0000	0.0000	154.768	0.00000	0.00000	112430.9	74722.4	37708.6	S
600.578	0.0000	0.0000	154.732	0.00000	0.00000	112430.9	74722.4	37708.6	S
612.578	0.0000	0.0000	154.697	0.00000	0.00000	112430.9	74722.4	37708.6	S
624.578	0.0000	0.0000	154.664	0.00000	0.00000	112430.9	74722.4	37708.6	S
636.578	0.0000	0.0000	154.631	0.00000	0.00000	112430.9	74722.4	37708.6	S
648.578	0.0000	0.0000	154.599	0.00000	0.00000	112430.9	74722.4	37708.6	S
660.578	0.0000	0.0000	154.569	0.00000	0.00000	112430.9	74722.4	37708.6	S
672.578	0.0000	0.0000	154.539	0.00000	0.00000	112430.9	74722.4	37708.6	S
684.578	0.0000	0.0000	154.509	0.00000	0.00000	112430.9	74722.4	37708.6	S
696.578	0.0000	0.0000	154.481	0.00000	0.00000	112430.9	74722.4	37708.6	S
708.578	0.0000	0.0000	154.453	0.00000	0.00000	112430.9	74722.4	37708.6	S
720.578	0.0000	0.0000	154.427	0.00000	0.00000	112430.9	74722.4	37708.6	S
732.578	0.0000	0.0000	154.400	0.00000	0.00000	112430.9	74722.4	37708.6	S
744.578	0.0000	0.0000	154.375	0.00000	0.00000	112430.9	74722.4	37708.6	S
756.578	0.0000	0.0000	154.350	0.00000	0.00000	112430.9	74722.4	37708.6	S
768.578	0.0000	0.0000	154.325	0.00000	0.00000	112430.9	74722.4	37708.6	S
780.578	0.0000	0.0000	154.302	0.00000	0.00000	112430.9	74722.4	37708.6	S
792.578	0.0000	0.0000	154.278	----	----	112430.9	74722.4	37708.6	N.A.

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 7 :: SRWMD 100yr-168hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
167.733	0.2102	0.0000	160.107	0.07915	0.13158	131032.1	78709.9	35062.8	S
167.756	0.2102	0.0000	160.107	0.07916	0.13156	131048.9	78716.3	35073.3	S
167.778	0.2102	0.0000	160.107	0.07917	0.13153	131065.7	78722.6	35083.8	S
167.800	0.2102	0.0000	160.107	0.07918	0.13151	131082.5	78728.9	35094.4	S
167.822	0.2102	0.0000	160.107	0.07919	0.13149	131099.3	78735.3	35104.9	S
167.845	0.2102	0.0000	160.107	0.07920	0.13147	131116.2	78741.6	35115.4	S
167.867	0.2102	0.0000	160.107	0.07920	0.13144	131133.0	78748.0	35125.9	S
167.889	0.2102	0.0000	160.107	0.07921	0.13142	131149.8	78754.3	35136.4	S
167.911	0.2102	0.0000	160.107	0.07922	0.13140	131166.6	78760.6	35146.9	S
167.933	0.2102	0.0000	160.107	0.07923	0.13138	131183.4	78767.0	35157.5	S
167.956	0.2102	0.0000	160.107	0.07924	0.13136	131200.2	78773.3	35168.0	S
167.978	0.2102	0.0000	160.107	0.07925	0.13134	131217.0	78779.6	35178.5	S
168.000	0.2102	0.0000	160.107	0.07922	0.13133	131233.8	78786.0	35189.0	S
168.022	0.2070	0.0000	160.107	0.07912	0.13124	131250.5	78792.3	35199.5	S
168.044	0.1972	0.0000	160.107	0.07886	0.13089	131266.7	78798.6	35210.0	S
168.067	0.1765	0.0000	160.107	0.07835	0.12991	131281.7	78804.9	35220.4	S
168.089	0.1471	0.0000	160.107	0.07764	0.12789	131294.6	78811.2	35230.7	S
168.111	0.1156	0.0000	160.107	0.07680	0.12460	131305.1	78817.4	35240.8	S
168.133	0.0863	0.0000	160.106	0.07593	0.12000	131313.2	78823.5	35250.6	S
168.156	0.0618	0.0000	160.105	0.07509	0.11416	131319.1	78829.5	35260.0	S
168.178	0.0441	0.0000	160.105	0.07436	0.10726	131323.3	78835.5	35268.8	S
168.200	0.0318	0.0000	160.104	0.07373	0.09948	131326.4	78841.4	35277.1	S
168.222	0.0230	0.0000	160.103	0.07314	0.09093	131328.6	78847.3	35284.7	S
168.244	0.0165	0.0000	160.103	0.07256	0.08161	131330.2	78853.1	35291.6	S
168.267	0.0118	0.0000	160.102	0.07196	0.07147	131331.3	78858.9	35297.7	S
168.289	0.0085	0.0000	160.102	0.07125	0.06032	131332.1	78864.6	35303.0	S
168.311	0.0060	0.0000	160.101	0.07022	0.04777	131332.7	78870.3	35307.3	S
168.333	0.0043	0.0000	160.100	0.06772	0.03277	131333.1	78875.8	35310.5	S
168.356	0.0031	0.0000	160.100	0.06891	0.01038	131333.4	78881.1	35312.3	S
168.378	0.0021	0.0000	160.100	0.07456	0.00000	131333.6	78886.9	35312.7	S
168.400	0.0015	0.0000	160.099	0.07716	0.00000	131333.7	78893.1	35312.7	S
168.422	0.0010	0.0000	160.099	0.07715	0.00000	131333.8	78899.2	35312.7	S
168.444	0.0007	0.0000	160.099	0.07713	0.00000	131333.9	78905.4	35312.7	S
168.467	0.0004	0.0000	160.098	0.07711	0.00000	131334.0	78911.6	35312.7	S
168.489	0.0002	0.0000	160.098	0.07708	0.00000	131334.0	78917.7	35312.7	S
168.511	0.0001	0.0000	160.098	0.07705	0.00000	131334.0	78923.9	35312.7	S
168.533	0.0000	0.0000	160.097	0.07702	0.00000	131334.0	78930.1	35312.7	S
168.556	0.0000	0.0000	160.097	0.07699	0.00000	131334.0	78936.2	35312.7	S
168.578	0.0000	0.0000	160.096	0.07696	0.00000	131334.0	78942.4	35312.7	S
180.578	0.0000	0.0000	159.918	0.06485	0.00000	131334.0	81884.6	35312.7	S
192.578	0.0000	0.0000	159.753	0.05898	0.00000	131334.0	84545.6	35312.7	S
204.578	0.0000	0.0000	159.599	0.05420	0.00000	131334.0	86980.8	35312.7	S
216.578	0.0000	0.0000	159.454	0.05017	0.00000	131334.0	89228.2	35312.7	S
228.578	0.0000	0.0000	159.318	0.04671	0.00000	131334.0	91315.5	35312.7	S
240.578	0.0000	0.0000	159.188	0.04370	0.00000	131334.0	93264.2	35312.7	S
252.578	0.0000	0.0000	159.064	0.03191	0.00000	131334.0	95091.0	35312.7	S
264.578	0.0000	0.0000	158.838	0.01077	0.00000	131334.0	96021.3	35312.7	S
276.578	0.0000	0.0000	158.526	0.00000	0.00000	131334.0	96021.3	35312.7	S
288.578	0.0000	0.0000	158.263	0.00000	0.00000	131334.0	96021.3	35312.7	S
300.578	0.0000	0.0000	158.035	0.00000	0.00000	131334.0	96021.3	35312.7	S
312.578	0.0000	0.0000	157.832	0.00000	0.00000	131334.0	96021.3	35312.7	S
324.578	0.0000	0.0000	157.649	0.00000	0.00000	131334.0	96021.3	35312.7	S
336.578	0.0000	0.0000	157.482	0.00000	0.00000	131334.0	96021.3	35312.7	S
348.578	0.0000	0.0000	157.329	0.00000	0.00000	131334.0	96021.3	35312.7	S
360.578	0.0000	0.0000	157.187	0.00000	0.00000	131334.0	96021.3	35312.7	S
372.578	0.0000	0.0000	157.056	0.00000	0.00000	131334.0	96021.3	35312.7	S
384.578	0.0000	0.0000	156.934	0.00000	0.00000	131334.0	96021.3	35312.7	S
396.578	0.0000	0.0000	156.819	0.00000	0.00000	131334.0	96021.3	35312.7	S
408.578	0.0000	0.0000	156.712	0.00000	0.00000	131334.0	96021.3	35312.7	S
420.578	0.0000	0.0000	156.610	0.00000	0.00000	131334.0	96021.3	35312.7	S
432.578	0.0000	0.0000	156.515	0.00000	0.00000	131334.0	96021.3	35312.7	S
444.578	0.0000	0.0000	156.424	0.00000	0.00000	131334.0	96021.3	35312.7	S
456.578	0.0000	0.0000	156.338	0.00000	0.00000	131334.0	96021.3	35312.7	S
468.578	0.0000	0.0000	156.257	0.00000	0.00000	131334.0	96021.3	35312.7	S
480.578	0.0000	0.0000	156.179	0.00000	0.00000	131334.0	96021.3	35312.7	S
492.578	0.0000	0.0000	156.105	0.00000	0.00000	131334.0	96021.3	35312.7	S
504.578	0.0000	0.0000	156.034	0.00000	0.00000	131334.0	96021.3	35312.7	S
516.578	0.0000	0.0000	155.966	0.00000	0.00000	131334.0	96021.3	35312.7	S
528.578	0.0000	0.0000	155.901	0.00000	0.00000	131334.0	96021.3	35312.7	S
540.578	0.0000	0.0000	155.838	0.00000	0.00000	131334.0	96021.3	35312.7	S
552.578	0.0000	0.0000	155.779	0.00000	0.00000	131334.0	96021.3	35312.7	S
564.578	0.0000	0.0000	155.721	0.00000	0.00000	131334.0	96021.3	35312.7	S
576.578	0.0000	0.0000	155.665	0.00000	0.00000	131334.0	96021.3	35312.7	S
588.578	0.0000	0.0000	155.612	0.00000	0.00000	131334.0	96021.3	35312.7	S

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 8 :: SRWMD 100yr-240hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
240.089	0.0527	0.0000	160.084	0.07192	0.00000	148511.2	91066.1	40573.6	S
240.111	0.0414	0.0000	160.084	0.07183	0.00000	148515.0	91071.8	40573.6	S
240.133	0.0309	0.0000	160.084	0.07173	0.00000	148517.9	91077.6	40573.6	S
240.156	0.0221	0.0000	160.083	0.07161	0.00000	148520.0	91083.3	40573.6	S
240.178	0.0158	0.0000	160.083	0.07149	0.00000	148521.5	91089.0	40573.6	S
240.200	0.0114	0.0000	160.083	0.07138	0.00000	148522.6	91094.8	40573.6	S
240.222	0.0082	0.0000	160.083	0.07126	0.00000	148523.4	91100.5	40573.6	S
240.244	0.0059	0.0000	160.082	0.07116	0.00000	148524.0	91106.2	40573.6	S
240.267	0.0042	0.0000	160.082	0.07106	0.00000	148524.4	91111.8	40573.6	S
240.289	0.0030	0.0000	160.082	0.07096	0.00000	148524.6	91117.5	40573.6	S
240.311	0.0022	0.0000	160.081	0.07087	0.00000	148524.9	91123.2	40573.6	S
240.333	0.0015	0.0000	160.081	0.07079	0.00000	148525.0	91128.9	40573.6	S
240.356	0.0011	0.0000	160.081	0.07070	0.00000	148525.1	91134.5	40573.6	S
240.378	0.0008	0.0000	160.080	0.07063	0.00000	148525.2	91140.2	40573.6	S
240.400	0.0005	0.0000	160.080	0.07056	0.00000	148525.2	91145.8	40573.6	S
240.422	0.0004	0.0000	160.080	0.07049	0.00000	148525.3	91151.5	40573.6	S
240.444	0.0002	0.0000	160.079	0.07042	0.00000	148525.3	91157.1	40573.6	S
240.467	0.0001	0.0000	160.079	0.07035	0.00000	148525.3	91162.7	40573.6	S
240.489	0.0001	0.0000	160.079	0.07029	0.00000	148525.3	91168.4	40573.6	S
240.511	0.0000	0.0000	160.078	0.07023	0.00000	148525.3	91174.0	40573.6	S
240.533	0.0000	0.0000	160.078	0.07018	0.00000	148525.3	91179.6	40573.6	S
240.556	0.0000	0.0000	160.078	0.07012	0.00000	148525.3	91185.2	40573.6	S
240.578	0.0000	0.0000	160.077	0.07007	0.00000	148525.3	91190.8	40573.6	S
252.578	0.0000	0.0000	159.917	0.05836	0.00000	148525.3	93833.5	40573.6	S
264.578	0.0000	0.0000	159.768	0.05336	0.00000	148525.3	96232.7	40573.6	S
276.578	0.0000	0.0000	159.629	0.04940	0.00000	148525.3	98444.2	40573.6	S
288.578	0.0000	0.0000	159.497	0.04607	0.00000	148525.3	100500.6	40573.6	S
300.578	0.0000	0.0000	159.372	0.04319	0.00000	148525.3	102424.4	40573.6	S
312.578	0.0000	0.0000	159.252	0.04066	0.00000	148525.3	104232.4	40573.6	S
324.578	0.0000	0.0000	159.138	0.03841	0.00000	148525.3	105937.6	40573.6	S
336.578	0.0000	0.0000	159.028	0.02331	0.00000	148525.3	107550.8	40573.6	S
348.578	0.0000	0.0000	158.768	0.00464	0.00000	148525.3	107951.8	40573.6	S
360.578	0.0000	0.0000	158.498	0.00000	0.00000	148525.3	107951.8	40573.6	S
372.578	0.0000	0.0000	158.268	0.00000	0.00000	148525.3	107951.8	40573.6	S
384.578	0.0000	0.0000	158.064	0.00000	0.00000	148525.3	107951.8	40573.6	S
396.578	0.0000	0.0000	157.881	0.00000	0.00000	148525.3	107951.8	40573.6	S
408.578	0.0000	0.0000	157.714	0.00000	0.00000	148525.3	107951.8	40573.6	S
420.578	0.0000	0.0000	157.562	0.00000	0.00000	148525.3	107951.8	40573.6	S
432.578	0.0000	0.0000	157.421	0.00000	0.00000	148525.3	107951.8	40573.6	S
444.578	0.0000	0.0000	157.290	0.00000	0.00000	148525.3	107951.8	40573.6	S
456.578	0.0000	0.0000	157.168	0.00000	0.00000	148525.3	107951.8	40573.6	S
468.578	0.0000	0.0000	157.053	0.00000	0.00000	148525.3	107951.8	40573.6	S
480.578	0.0000	0.0000	156.945	0.00000	0.00000	148525.3	107951.8	40573.6	S
492.578	0.0000	0.0000	156.844	0.00000	0.00000	148525.3	107951.8	40573.6	S
504.578	0.0000	0.0000	156.748	0.00000	0.00000	148525.3	107951.8	40573.6	S
516.578	0.0000	0.0000	156.656	0.00000	0.00000	148525.3	107951.8	40573.6	S
528.578	0.0000	0.0000	156.570	0.00000	0.00000	148525.3	107951.8	40573.6	S
540.578	0.0000	0.0000	156.488	0.00000	0.00000	148525.3	107951.8	40573.6	S
552.578	0.0000	0.0000	156.409	0.00000	0.00000	148525.3	107951.8	40573.6	S
564.578	0.0000	0.0000	156.334	0.00000	0.00000	148525.3	107951.8	40573.6	S
576.578	0.0000	0.0000	156.262	0.00000	0.00000	148525.3	107951.8	40573.6	S
588.578	0.0000	0.0000	156.193	0.00000	0.00000	148525.3	107951.8	40573.6	S
600.578	0.0000	0.0000	156.128	0.00000	0.00000	148525.3	107951.8	40573.6	S
612.578	0.0000	0.0000	156.064	0.00000	0.00000	148525.3	107951.8	40573.6	S
624.578	0.0000	0.0000	156.003	0.00000	0.00000	148525.3	107951.8	40573.6	S
636.578	0.0000	0.0000	155.945	0.00000	0.00000	148525.3	107951.8	40573.6	S
648.578	0.0000	0.0000	155.888	0.00000	0.00000	148525.3	107951.8	40573.6	S
660.578	0.0000	0.0000	155.834	0.00000	0.00000	148525.3	107951.8	40573.6	S
672.578	0.0000	0.0000	155.781	0.00000	0.00000	148525.3	107951.8	40573.6	S
684.578	0.0000	0.0000	155.730	0.00000	0.00000	148525.3	107951.8	40573.6	S
696.578	0.0000	0.0000	155.681	0.00000	0.00000	148525.3	107951.8	40573.6	S
708.578	0.0000	0.0000	155.633	0.00000	0.00000	148525.3	107951.8	40573.6	S
720.578	0.0000	0.0000	155.587	0.00000	0.00000	148525.3	107951.8	40573.6	S
732.578	0.0000	0.0000	155.543	0.00000	0.00000	148525.3	107951.8	40573.6	S
744.578	0.0000	0.0000	155.499	0.00000	0.00000	148525.3	107951.8	40573.6	S
756.578	0.0000	0.0000	155.457	0.00000	0.00000	148525.3	107951.8	40573.6	S
768.578	0.0000	0.0000	155.417	0.00000	0.00000	148525.3	107951.8	40573.6	S
780.578	0.0000	0.0000	155.377	0.00000	0.00000	148525.3	107951.8	40573.6	S
792.578	0.0000	0.0000	155.338	0.00000	0.00000	148525.3	107951.8	40573.6	S
804.578	0.0000	0.0000	155.301	0.00000	0.00000	148525.3	107951.8	40573.6	S
816.578	0.0000	0.0000	155.264	0.00000	0.00000	148525.3	107951.8	40573.6	S
828.578	0.0000	0.0000	155.229	0.00000	0.00000	148525.3	107951.8	40573.6	S
840.578	0.0000	0.0000	155.194	0.00000	0.00000	148525.3	107951.8	40573.6	S
852.578	0.0000	0.0000	155.161	0.00000	0.00000	148525.3	107951.8	40573.6	S

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results :: Scenario 9 :: WQTV 15,875 CF Slug Load

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
0.000	2645.8330	0.0000	152.000	0.00000	0.00000	0.0	0.0	0.0	N.A.
0.002	2645.8330	0.0000	160.023	1.43358	0.00000	15875.0	8.6	0.0	U/P
2.400	0.0000	0.0000	159.272	0.82317	0.00000	15875.0	11850.8	0.0	U/P
6.000	0.0000	0.0000	----	----	----	15875.0	15875.0	0.0	dry
12.000	0.0000	0.0000	----	----	----	15875.0	15875.0	0.0	dry
24.000	0.0000	0.0000	----	----	----	15875.0	15875.0	0.0	dry
36.000	0.0000	0.0000	----	----	----	15875.0	15875.0	0.0	dry
48.000	0.0000	0.0000	----	----	----	15875.0	15875.0	0.0	dry
60.000	0.0000	0.0000	----	----	----	15875.0	15875.0	0.0	dry
72.000	0.0000	0.0000	----	----	----	15875.0	15875.0	0.0	dry
84.000	0.0000	0.0000	----	----	----	15875.0	15875.0	0.0	dry
96.000	0.0000	0.0000	----	----	----	15875.0	15875.0	0.0	dry

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Project Data

Project Name: Turkey Creek Retail
Simulation Description: Post-Development Post DA-2 SMF-2
Project Number: 18-0431
Engineer : Greg Wadzinski
Supervising Engineer: Travis Hastay, PE
Date: 06-26-2019

Aquifer Data

Base Of Aquifer Elevation, [B] (ft datum): 159.00
Water Table Elevation, [WT] (ft datum): 159.50
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day): 4.00
Fillable Porosity, [n] (%): 20.00
Unsaturated Vertical Infiltration Rate, [Iv] (ft/day): 3.0
Maximum Area For Unsaturated Infiltration, [Av] (ft²): 11028.0

Geometry Data

Equivalent Pond Length, [L] (ft): 167.0
Equivalent Pond Width, [W] (ft): 67.0
Ground water mound is expected to intersect the pond bottom

Stage vs Area Data

Stage (ft datum)	Area (ft ²)
162.00	8669.0
162.50	9430.0
163.50	11028.0
164.50	12727.0
165.00	14992.0

Discharge Structures

Discharge Structure #1 is active as orifice

Structure Parameters

Description: 3" Orifice @ EL. 162.80

Orifice elevation, (ft datum):	162.80
Orifice coefficient:	7.9
Orifice area, (ft²):	.04906
Orifice exponent:	0.5

Tailwater - disabled, free discharge

Discharge Structure #2 is inactive

Discharge Structure #3 is inactive

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data

Scenario 1 :: SRWMD 100yr-1hr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.070
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 93
Design Rainfall Depth (inches) 4.4
Design Rainfall Duration (hours) 1.0
Shape Factor UHG 484
Rainfall Distribution FDOT 1 Hour

Initial ground water level (ft datum) 159.50 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	6.500	12.500	18.500	24.500
1.000	7.000	13.000	19.000	25.000
1.500	7.500	13.500	19.500	25.500
2.000	8.000	14.000	20.000	26.000
2.500	8.500	14.500	20.500	26.500
3.000	9.000	15.000	21.000	27.000
3.500	9.500	15.500	21.500	27.500
4.000	10.000	16.000	22.000	28.000
4.500	10.500	16.500	22.500	28.500
5.000	11.000	17.000	23.000	29.000
5.500	11.500	17.500	23.500	29.500
6.000	12.000	18.000	24.000	30.000

Scenario 2 :: SRWMD 100yr-2hr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.070
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 93
Design Rainfall Depth (inches) 5.4
Design Rainfall Duration (hours) 2.0
Shape Factor UHG 484
Rainfall Distribution FDOT 2 Hour

Initial ground water level (ft datum) 159.50 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	4.000	7.500	11.000	14.500
1.000	4.500	8.000	11.500	15.000
1.500	5.000	8.500	12.000	15.500
2.000	5.500	9.000	12.500	16.000
2.500	6.000	9.500	13.000	16.500
3.000	6.500	10.000	13.500	17.000
3.500	7.000	10.500	14.000	17.500

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data (cont'd.)

Scenario 2 (cont'd.) :: SCS :: SRWMD 100yr-2hr

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
18.000	20.500	23.000	25.500	28.000
18.500	21.000	23.500	26.000	28.500
19.000	21.500	24.000	26.500	29.000
19.500	22.000	24.500	27.000	29.500
20.000	22.500	25.000	27.500	30.000

Scenario 3 :: SRWMD 100yr-4hr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.070
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 93
Design Rainfall Depth (inches) 6.7
Design Rainfall Duration (hours) 4.0
Shape Factor UHG 484
Rainfall Distribution FDOT 4 Hour

Initial ground water level (ft datum) 159.50 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	6.500	12.500	18.500	24.500
1.000	7.000	13.000	19.000	25.000
1.500	7.500	13.500	19.500	25.500
2.000	8.000	14.000	20.000	26.000
2.500	8.500	14.500	20.500	26.500
3.000	9.000	15.000	21.000	27.000
3.500	9.500	15.500	21.500	27.500
4.000	10.000	16.000	22.000	28.000
4.500	10.500	16.500	22.500	28.500
5.000	11.000	17.000	23.000	29.000
5.500	11.500	17.500	23.500	29.500
6.000	12.000	18.000	24.000	30.000

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data (cont'd.)

Scenario 4 :: SRWMD 100yr-8hr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.070
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 93
Design Rainfall Depth (inches) 8.0
Design Rainfall Duration (hours) 8.0
Shape Factor UHG 484
Rainfall Distribution FDOT 8 Hour

Initial ground water level (ft datum) 159.50 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	6.500	12.500	18.500	24.500
1.000	7.000	13.000	19.000	25.000
1.500	7.500	13.500	19.500	25.500
2.000	8.000	14.000	20.000	26.000
2.500	8.500	14.500	20.500	26.500
3.000	9.000	15.000	21.000	27.000
3.500	9.500	15.500	21.500	27.500
4.000	10.000	16.000	22.000	28.000
4.500	10.500	16.500	22.500	28.500
5.000	11.000	17.000	23.000	29.000
5.500	11.500	17.500	23.500	29.500
6.000	12.000	18.000	24.000	30.000

Scenario 5 :: SRWMD 100yr-24hr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.070
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 93
Design Rainfall Depth (inches) 11.0
Design Rainfall Duration (hours) 24.0
Shape Factor UHG 484
Rainfall Distribution FDOT 24 Hour

Initial ground water level (ft datum) 159.50 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	4.000	7.500	11.000	14.500
1.000	4.500	8.000	11.500	15.000
1.500	5.000	8.500	12.000	15.500
2.000	5.500	9.000	12.500	16.000
2.500	6.000	9.500	13.000	16.500
3.000	6.500	10.000	13.500	17.000
3.500	7.000	10.500	14.000	17.500

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data (cont'd.)

Scenario 5 (cont'd.) :: SCS :: SRWMD 100yr-24hr

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
18.000	20.500	23.000	25.500	28.000
18.500	21.000	23.500	26.000	28.500
19.000	21.500	24.000	26.500	29.000
19.500	22.000	24.500	27.000	29.500
20.000	22.500	25.000	27.500	30.000

Scenario 6 :: SRWMD 100yr-72hr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.070
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 93
Design Rainfall Depth (inches) 13.8
Design Rainfall Duration (hours) 72.0
Shape Factor UHG 484
Rainfall Distribution FDOT 72 Hour

Initial ground water level (ft datum) 159.50 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	6.500	12.500	18.500	24.500
1.000	7.000	13.000	19.000	25.000
1.500	7.500	13.500	19.500	25.500
2.000	8.000	14.000	20.000	26.000
2.500	8.500	14.500	20.500	26.500
3.000	9.000	15.000	21.000	27.000
3.500	9.500	15.500	21.500	27.500
4.000	10.000	16.000	22.000	28.000
4.500	10.500	16.500	22.500	28.500
5.000	11.000	17.000	23.000	29.000
5.500	11.500	17.500	23.500	29.500
6.000	12.000	18.000	24.000	30.000

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data (cont'd.)

Scenario 7 :: SRWMD 100yr-168hr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.070
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 93
Design Rainfall Depth (inches) 16.0
Design Rainfall Duration (hours) 168.0
Shape Factor UHG 484
Rainfall Distribution FDOT 168 Hour

Initial ground water level (ft datum) 159.50 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	6.500	12.500	18.500	24.500
1.000	7.000	13.000	19.000	25.000
1.500	7.500	13.500	19.500	25.500
2.000	8.000	14.000	20.000	26.000
2.500	8.500	14.500	20.500	26.500
3.000	9.000	15.000	21.000	27.000
3.500	9.500	15.500	21.500	27.500
4.000	10.000	16.000	22.000	28.000
4.500	10.500	16.500	22.500	28.500
5.000	11.000	17.000	23.000	29.000
5.500	11.500	17.500	23.500	29.500
6.000	12.000	18.000	24.000	30.000

Scenario 8 :: SRWMD 100yr-240hr

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 1

Basin Area (acres) 1.070
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 93
Design Rainfall Depth (inches) 18.0
Design Rainfall Duration (hours) 240.0
Shape Factor UHG 484
Rainfall Distribution FDOT 240 Hour

Initial ground water level (ft datum) 159.50 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	4.000	7.500	11.000	14.500
1.000	4.500	8.000	11.500	15.000
1.500	5.000	8.500	12.000	15.500
2.000	5.500	9.000	12.500	16.000
2.500	6.000	9.500	13.000	16.500
3.000	6.500	10.000	13.500	17.000
3.500	7.000	10.500	14.000	17.500

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data (cont'd.)

Scenario 8 (cont'd.) :: SCS :: SRWMD 100yr-240hr

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
18.000	20.500	23.000	25.500	28.000
18.500	21.000	23.500	26.000	28.500
19.000	21.500	24.000	26.500	29.000
19.500	22.000	24.500	27.000	29.500
20.000	22.500	25.000	27.500	30.000

Scenario 9 :: WQTV 7,150 CF Slug Load

Hydrograph Type: Slug Load
Modflow Routing: Routed with infiltration

Treatment Volume (ft³) 7150

Initial ground water level (ft datum) 159.50 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.100	2.500	5.500	8.500	11.500
0.250	3.000	6.000	9.000	12.000
0.500	3.500	6.500	9.500	12.500
1.000	4.000	7.000	10.000	13.000
1.500	4.500	7.500	10.500	13.500
2.000	5.000	8.000	11.000	14.000

Scenario 10 :: SRWMD 100yr-168hr Back-to-Back

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 2

Basin Area (acres) 1.070
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 93
Design Rainfall Depth (inches) 16.0
Design Rainfall Duration (hours) 168.0
Shape Factor UHG 484
Rainfall Distribution FDOT 168 Hour

Initial ground water level (ft datum) 159.50 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	4.500	8.500	12.500	16.500
1.000	5.000	9.000	13.000	17.000
1.500	5.500	9.500	13.500	17.500
2.000	6.000	10.000	14.000	18.000
2.500	6.500	10.500	14.500	18.500
3.000	7.000	11.000	15.000	19.000
3.500	7.500	11.500	15.500	19.500
4.000	8.000	12.000	16.000	20.000

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Scenario Input Data (cont'd.)

Scenario 10 (cont'd.) :: SCS :: SRWMD 100yr-168hr Back-to-Back

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
20.500	23.000	25.500	28.000
21.000	23.500	26.000	28.500
21.500	24.000	26.500	29.000
22.000	24.500	27.000	29.500
22.500	25.000	27.500	30.000

Scenario 11 :: SRWMD 100yr-240hr Back-to-Back

Hydrograph Type: Inline SCS
Modflow Routing: Routed with infiltration
Repetitions: 2

Basin Area (acres) 1.070
Time Of Concentration (minutes) 10.0
DCIA (%) 0.0
Curve Number 93
Design Rainfall Depth (inches) 18.0
Design Rainfall Duration (hours) 240.0
Shape Factor UHG 484
Rainfall Distribution FDOT 240 Hour

Initial ground water level (ft datum) 159.50 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.500	6.500	12.500	18.500	24.500
1.000	7.000	13.000	19.000	25.000
1.500	7.500	13.500	19.500	25.500
2.000	8.000	14.000	20.000	26.000
2.500	8.500	14.500	20.500	26.500
3.000	9.000	15.000	21.000	27.000
3.500	9.500	15.500	21.500	27.500
4.000	10.000	16.000	22.000	28.000
4.500	10.500	16.500	22.500	28.500
5.000	11.000	17.000	23.000	29.000
5.500	11.500	17.500	23.500	29.500
6.000	12.000	18.000	24.000	30.000

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Sort-By-Category Report

Scenarios Considered: 1 to 11

Stage - Maximum

Rank	Scenario Number	Maximum Stage (ft datum)	Time (hours)	Description
1	11	163.847	1144.689	SRWMD 100yr-240hr Back-to-Back
2	8	163.839	184.111	SRWMD 100yr-240hr
3	5	163.753	19.111	SRWMD 100yr-24hr
4	4	163.687	5.156	SRWMD 100yr-8hr
5	3	163.672	3.333	SRWMD 100yr-4hr
6	6	163.614	64.067	SRWMD 100yr-72hr
7	10	163.533	1048.689	SRWMD 100yr-168hr Back-to-Back
8	7	163.524	160.111	SRWMD 100yr-168hr
9	2	163.434	1.933	SRWMD 100yr-2hr
10	1	163.295	1.022	SRWMD 100yr-1hr
11	9	162.772	0.002	WQTV 7,150 CF Slug Load

Discharge - Rate - Maximum Positive

Rank	Scenario Number	Maximum Positive Discharge Rate (ft ³ /s)	Time (hours)	Description
1	11	0.3965	1144.689	SRWMD 100yr-240hr Back-to-Back
2	8	0.3950	184.111	SRWMD 100yr-240hr
3	5	0.3783	19.111	SRWMD 100yr-24hr
4	4	0.3651	5.156	SRWMD 100yr-8hr
5	3	0.3619	3.333	SRWMD 100yr-4hr
6	6	0.3497	64.067	SRWMD 100yr-72hr
7	10	0.3317	1048.689	SRWMD 100yr-168hr Back-to-Back
8	7	0.3298	160.111	SRWMD 100yr-168hr
9	2	0.3087	1.933	SRWMD 100yr-2hr
10	1	0.2727	1.022	SRWMD 100yr-1hr
11	9	None	N.A.	WQTV 7,150 CF Slug Load

Discharge - Cumulative Volume - Maximum Positive

Rank	Scenario Number	Maximum Positive Cumulative Discharge Volume (ft ³)	Time (hours)	Description
1	11	101421.1	1213.156	SRWMD 100yr-240hr Back-to-Back
2	10	94815.4	1093.156	SRWMD 100yr-168hr Back-to-Back
3	8	45434.6	252.578	SRWMD 100yr-240hr
4	7	42573.1	192.578	SRWMD 100yr-168hr
5	6	36477.8	96.578	SRWMD 100yr-72hr
6	5	29533.7	60.578	SRWMD 100yr-24hr
7	4	19013.7	44.578	SRWMD 100yr-8hr
8	3	3028.2	4.578	SRWMD 100yr-4hr
9	2	1788.7	2.578	SRWMD 100yr-2hr
10	1	824.8	1.578	SRWMD 100yr-1hr
11	9	None	N.A.	WQTV 7,150 CF Slug Load

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 1 :: SRWMD 100yr-1hr

Elapsed Time (hours)	Inflow Rate (ft ³ /s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft ³ /s)	Overflow Discharge (ft ³ /s)	Cumulative Inflow Volume (ft ³)	Cumulative Infiltration Volume (ft ³)	Cumulative Discharge Volume (ft ³)	Flow Type
37.578	0.0000	0.0000	161.994	0.00446	0.00000	14028.3	13203.6	824.8	S
49.578	0.0000	0.0000	161.870	0.00000	0.00000	14028.3	13203.6	824.8	S
61.578	0.0000	0.0000	161.772	0.00000	0.00000	14028.3	13203.6	824.8	S
73.578	0.0000	0.0000	161.691	0.00000	0.00000	14028.3	13203.6	824.8	S
85.578	0.0000	0.0000	161.622	0.00000	0.00000	14028.3	13203.6	824.8	S
97.578	0.0000	0.0000	161.561	0.00000	0.00000	14028.3	13203.6	824.8	S
109.578	0.0000	0.0000	161.507	0.00000	0.00000	14028.3	13203.6	824.8	S
121.578	0.0000	0.0000	161.459	0.00000	0.00000	14028.3	13203.6	824.8	S
133.578	0.0000	0.0000	161.415	0.00000	0.00000	14028.3	13203.6	824.8	S
145.578	0.0000	0.0000	161.375	0.00000	0.00000	14028.3	13203.6	824.8	S
157.578	0.0000	0.0000	161.338	0.00000	0.00000	14028.3	13203.6	824.8	S
169.578	0.0000	0.0000	161.304	0.00000	0.00000	14028.3	13203.6	824.8	S
181.578	0.0000	0.0000	161.272	0.00000	0.00000	14028.3	13203.6	824.8	S
193.578	0.0000	0.0000	161.242	0.00000	0.00000	14028.3	13203.6	824.8	S
205.578	0.0000	0.0000	161.214	0.00000	0.00000	14028.3	13203.6	824.8	S
217.578	0.0000	0.0000	161.188	0.00000	0.00000	14028.3	13203.6	824.8	S
229.578	0.0000	0.0000	161.163	0.00000	0.00000	14028.3	13203.6	824.8	S
241.578	0.0000	0.0000	161.139	0.00000	0.00000	14028.3	13203.6	824.8	S
253.578	0.0000	0.0000	161.117	0.00000	0.00000	14028.3	13203.6	824.8	S
265.578	0.0000	0.0000	161.096	0.00000	0.00000	14028.3	13203.6	824.8	S
277.578	0.0000	0.0000	161.075	0.00000	0.00000	14028.3	13203.6	824.8	S
289.578	0.0000	0.0000	161.056	0.00000	0.00000	14028.3	13203.6	824.8	S
301.578	0.0000	0.0000	161.037	0.00000	0.00000	14028.3	13203.6	824.8	S
313.578	0.0000	0.0000	161.019	0.00000	0.00000	14028.3	13203.6	824.8	S
325.578	0.0000	0.0000	161.002	0.00000	0.00000	14028.3	13203.6	824.8	S
337.578	0.0000	0.0000	160.986	0.00000	0.00000	14028.3	13203.6	824.8	S
349.578	0.0000	0.0000	160.970	0.00000	0.00000	14028.3	13203.6	824.8	S
361.578	0.0000	0.0000	160.954	0.00000	0.00000	14028.3	13203.6	824.8	S
373.578	0.0000	0.0000	160.940	0.00000	0.00000	14028.3	13203.6	824.8	S
385.578	0.0000	0.0000	160.925	0.00000	0.00000	14028.3	13203.6	824.8	S
397.578	0.0000	0.0000	160.911	0.00000	0.00000	14028.3	13203.6	824.8	S
409.578	0.0000	0.0000	160.898	0.00000	0.00000	14028.3	13203.6	824.8	S
421.578	0.0000	0.0000	160.885	0.00000	0.00000	14028.3	13203.6	824.8	S
433.578	0.0000	0.0000	160.873	0.00000	0.00000	14028.3	13203.6	824.8	S
445.578	0.0000	0.0000	160.860	0.00000	0.00000	14028.3	13203.6	824.8	S
457.578	0.0000	0.0000	160.849	0.00000	0.00000	14028.3	13203.6	824.8	S
469.578	0.0000	0.0000	160.837	0.00000	0.00000	14028.3	13203.6	824.8	S
481.578	0.0000	0.0000	160.826	0.00000	0.00000	14028.3	13203.6	824.8	S
493.578	0.0000	0.0000	160.815	0.00000	0.00000	14028.3	13203.6	824.8	S
505.578	0.0000	0.0000	160.805	0.00000	0.00000	14028.3	13203.6	824.8	S
517.578	0.0000	0.0000	160.794	0.00000	0.00000	14028.3	13203.6	824.8	S
529.578	0.0000	0.0000	160.784	0.00000	0.00000	14028.3	13203.6	824.8	S
541.578	0.0000	0.0000	160.774	0.00000	0.00000	14028.3	13203.6	824.8	S
553.578	0.0000	0.0000	160.765	0.00000	0.00000	14028.3	13203.6	824.8	S
565.578	0.0000	0.0000	160.756	0.00000	0.00000	14028.3	13203.6	824.8	S
577.578	0.0000	0.0000	160.746	0.00000	0.00000	14028.3	13203.6	824.8	S
589.578	0.0000	0.0000	160.738	0.00000	0.00000	14028.3	13203.6	824.8	S
601.578	0.0000	0.0000	160.729	0.00000	0.00000	14028.3	13203.6	824.8	S
613.578	0.0000	0.0000	160.720	0.00000	0.00000	14028.3	13203.6	824.8	S
625.578	0.0000	0.0000	160.712	0.00000	0.00000	14028.3	13203.6	824.8	S
637.578	0.0000	0.0000	160.704	0.00000	0.00000	14028.3	13203.6	824.8	S
649.578	0.0000	0.0000	160.696	0.00000	0.00000	14028.3	13203.6	824.8	S
661.578	0.0000	0.0000	160.688	0.00000	0.00000	14028.3	13203.6	824.8	S
673.578	0.0000	0.0000	160.681	0.00000	0.00000	14028.3	13203.6	824.8	S
685.578	0.0000	0.0000	160.673	0.00000	0.00000	14028.3	13203.6	824.8	S
697.578	0.0000	0.0000	160.666	0.00000	0.00000	14028.3	13203.6	824.8	S
709.578	0.0000	0.0000	160.659	0.00000	0.00000	14028.3	13203.6	824.8	S
721.578	0.0000	0.0000	160.652	----	----	14028.3	13203.6	824.8	N.A.

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 2 :: SRWMD 100yr-2hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
1.644	1.1507	0.0000	163.412	0.37839	0.30316	16440.3	1876.6	776.2	U/P
1.667	1.1158	0.0000	163.415	0.37857	0.30398	16530.9	1906.9	800.5	U/P
1.689	1.0712	0.0000	163.418	0.37873	0.30472	16618.4	1937.1	824.8	U/P
1.711	1.0249	0.0000	163.421	0.37887	0.30538	16702.3	1967.4	849.2	U/P
1.733	0.9827	0.0000	163.423	0.37899	0.30595	16782.6	1997.8	873.7	U/P
1.756	0.9476	0.0000	163.425	0.37910	0.30646	16859.8	2028.1	898.2	U/P
1.778	0.9224	0.0000	163.427	0.37919	0.30690	16934.6	2058.4	922.7	U/P
1.800	0.9049	0.0000	163.429	0.37928	0.30731	17007.7	2088.8	947.3	U/P
1.822	0.8880	0.0000	163.430	0.37936	0.30769	17079.4	2119.1	971.9	U/P
1.844	0.8654	0.0000	163.432	0.37944	0.30803	17149.5	2149.5	996.5	U/P
1.867	0.8305	0.0000	163.433	0.37949	0.30831	17217.4	2179.8	1021.2	U/P
1.889	0.7857	0.0000	163.434	0.37953	0.30853	17282.0	2210.2	1045.8	U/P
1.911	0.7393	0.0000	163.434	0.37955	0.30866	17343.0	2240.5	1070.5	U/P
1.933	0.6970	0.0000	163.434	0.37956	0.30871	17400.5	2270.9	1095.2	U/P
1.956	0.6618	0.0000	163.434	0.37955	0.30870	17454.8	2301.3	1119.9	U/P
1.978	0.6365	0.0000	163.434	0.37953	0.30863	17506.7	2331.6	1144.6	U/P
2.000	0.6189	0.0000	163.434	0.37950	0.30852	17557.0	2362.0	1169.3	U/P
2.022	0.5977	0.0000	163.433	0.37946	0.30838	17605.6	2392.4	1194.0	U/P
2.044	0.5617	0.0000	163.432	0.37941	0.30818	17652.0	2422.7	1218.6	U/P
2.067	0.4982	0.0000	163.431	0.37933	0.30790	17694.4	2453.1	1243.3	U/P
2.089	0.4134	0.0000	163.429	0.37922	0.30749	17730.8	2483.4	1267.9	U/P
2.111	0.3239	0.0000	163.427	0.37907	0.30692	17760.3	2513.7	1292.5	U/P
2.133	0.2415	0.0000	163.424	0.37889	0.30620	17783.0	2544.1	1317.0	U/P
2.156	0.1727	0.0000	163.421	0.37868	0.30534	17799.5	2574.4	1341.5	U/P
2.178	0.1233	0.0000	163.417	0.37846	0.30437	17811.4	2604.6	1365.8	U/P
2.200	0.0889	0.0000	163.413	0.37822	0.30332	17819.9	2634.9	1390.2	U/P
2.222	0.0641	0.0000	163.408	0.37796	0.30222	17826.0	2665.2	1414.4	U/P
2.244	0.0459	0.0000	163.404	0.37771	0.30108	17830.4	2695.4	1438.5	U/P
2.267	0.0328	0.0000	163.399	0.37744	0.29990	17833.5	2725.6	1462.5	U/P
2.289	0.0234	0.0000	163.394	0.37718	0.29870	17835.8	2755.8	1486.5	U/P
2.311	0.0166	0.0000	163.389	0.37691	0.29749	17837.4	2785.9	1510.3	U/P
2.333	0.0118	0.0000	163.384	0.37664	0.29626	17838.5	2816.1	1534.1	U/P
2.356	0.0083	0.0000	163.379	0.37636	0.29501	17839.3	2846.2	1557.7	U/P
2.378	0.0058	0.0000	163.375	0.37609	0.29376	17839.9	2876.3	1581.3	U/P
2.400	0.0040	0.0000	163.370	0.37582	0.29251	17840.3	2906.4	1604.7	U/P
2.422	0.0027	0.0000	163.365	0.37555	0.29124	17840.5	2936.4	1628.1	U/P
2.444	0.0018	0.0000	163.360	0.37527	0.28997	17840.7	2966.5	1651.3	U/P
2.467	0.0010	0.0000	163.355	0.37500	0.28870	17840.8	2996.5	1674.5	U/P
2.489	0.0005	0.0000	163.350	0.37473	0.28742	17840.9	3026.5	1697.5	U/P
2.511	0.0002	0.0000	163.345	0.37445	0.28613	17840.9	3056.4	1720.5	U/P
2.533	0.0000	0.0000	163.340	0.37418	0.28484	17840.9	3086.4	1743.3	U/P
2.556	0.0000	0.0000	163.335	0.37391	0.28355	17840.9	3116.3	1766.0	U/P
2.578	0.0000	0.0000	163.330	0.37352	0.28226	17840.9	3146.2	1788.7	U/P
14.578	0.0000	0.0000	162.318	0.12383	0.00000	17840.9	13222.3	1788.7	U/S
26.578	0.0000	0.0000	162.249	0.01239	0.00000	17840.9	13845.0	1788.7	S
38.578	0.0000	0.0000	162.200	0.00938	0.00000	17840.9	14292.4	1788.7	S
50.578	0.0000	0.0000	162.159	0.00780	0.00000	17840.9	14655.5	1788.7	S
62.578	0.0000	0.0000	162.124	0.00678	0.00000	17840.9	14966.6	1788.7	S
74.578	0.0000	0.0000	162.093	0.00605	0.00000	17840.9	15241.4	1788.7	S
86.578	0.0000	0.0000	162.065	0.00549	0.00000	17840.9	15489.1	1788.7	S
98.578	0.0000	0.0000	162.039	0.00504	0.00000	17840.9	15715.7	1788.7	S
110.578	0.0000	0.0000	162.015	0.00390	0.00000	17840.9	15925.0	1788.7	S
122.578	0.0000	0.0000	161.974	0.00147	0.00000	17840.9	16052.2	1788.7	S
134.578	0.0000	0.0000	161.906	0.00000	0.00000	17840.9	16052.2	1788.7	S
146.578	0.0000	0.0000	161.846	0.00000	0.00000	17840.9	16052.2	1788.7	S
158.578	0.0000	0.0000	161.792	0.00000	0.00000	17840.9	16052.2	1788.7	S
170.578	0.0000	0.0000	161.743	0.00000	0.00000	17840.9	16052.2	1788.7	S
182.578	0.0000	0.0000	161.698	0.00000	0.00000	17840.9	16052.2	1788.7	S
194.578	0.0000	0.0000	161.656	0.00000	0.00000	17840.9	16052.2	1788.7	S
206.578	0.0000	0.0000	161.618	0.00000	0.00000	17840.9	16052.2	1788.7	S
218.578	0.0000	0.0000	161.582	0.00000	0.00000	17840.9	16052.2	1788.7	S
230.578	0.0000	0.0000	161.548	0.00000	0.00000	17840.9	16052.2	1788.7	S
242.578	0.0000	0.0000	161.516	0.00000	0.00000	17840.9	16052.2	1788.7	S
254.578	0.0000	0.0000	161.486	0.00000	0.00000	17840.9	16052.2	1788.7	S
266.578	0.0000	0.0000	161.457	0.00000	0.00000	17840.9	16052.2	1788.7	S
278.578	0.0000	0.0000	161.430	0.00000	0.00000	17840.9	16052.2	1788.7	S
290.578	0.0000	0.0000	161.404	0.00000	0.00000	17840.9	16052.2	1788.7	S
302.578	0.0000	0.0000	161.379	0.00000	0.00000	17840.9	16052.2	1788.7	S
314.578	0.0000	0.0000	161.356	0.00000	0.00000	17840.9	16052.2	1788.7	S
326.578	0.0000	0.0000	161.333	0.00000	0.00000	17840.9	16052.2	1788.7	S
338.578	0.0000	0.0000	161.312	0.00000	0.00000	17840.9	16052.2	1788.7	S
350.578	0.0000	0.0000	161.291	0.00000	0.00000	17840.9	16052.2	1788.7	S
362.578	0.0000	0.0000	161.271	0.00000	0.00000	17840.9	16052.2	1788.7	S
374.578	0.0000	0.0000	161.252	0.00000	0.00000	17840.9	16052.2	1788.7	S

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 3 :: SRWMD 100yr-4hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
3.289	0.7688	0.0000	163.672	0.38292	0.36188	21489.3	3407.9	1407.8	U/P
3.311	0.7540	0.0000	163.672	0.38292	0.36191	21550.2	3438.6	1436.7	U/P
3.333	0.7434	0.0000	163.672	0.38292	0.36191	21610.1	3469.2	1465.7	U/P
3.356	0.7357	0.0000	163.672	0.38292	0.36190	21669.3	3499.8	1494.6	U/P
3.378	0.7301	0.0000	163.672	0.38292	0.36189	21727.9	3530.5	1523.6	U/P
3.400	0.7261	0.0000	163.672	0.38292	0.36186	21786.2	3561.1	1552.5	U/P
3.422	0.7232	0.0000	163.672	0.38292	0.36183	21844.1	3591.7	1581.5	U/P
3.444	0.7212	0.0000	163.671	0.38292	0.36180	21901.9	3622.4	1610.4	U/P
3.467	0.7195	0.0000	163.671	0.38292	0.36176	21959.5	3653.0	1639.4	U/P
3.489	0.7184	0.0000	163.671	0.38292	0.36173	22017.1	3683.6	1668.3	U/P
3.511	0.7144	0.0000	163.671	0.38292	0.36168	22074.4	3714.3	1697.2	U/P
3.533	0.7008	0.0000	163.671	0.38292	0.36163	22131.0	3744.9	1726.2	U/P
3.556	0.6695	0.0000	163.670	0.38292	0.36154	22185.8	3775.5	1755.1	U/P
3.578	0.6183	0.0000	163.670	0.38292	0.36140	22237.3	3806.2	1784.0	U/P
3.600	0.5560	0.0000	163.668	0.38292	0.36116	22284.3	3836.8	1812.9	U/P
3.622	0.4938	0.0000	163.667	0.38292	0.36084	22326.3	3867.4	1841.8	U/P
3.644	0.4386	0.0000	163.665	0.38292	0.36043	22363.6	3898.1	1870.6	U/P
3.667	0.3954	0.0000	163.663	0.38292	0.35995	22396.9	3928.7	1899.5	U/P
3.689	0.3647	0.0000	163.660	0.38292	0.35942	22427.3	3959.3	1928.2	U/P
3.711	0.3431	0.0000	163.657	0.38292	0.35884	22455.6	3990.0	1957.0	U/P
3.733	0.3274	0.0000	163.654	0.38292	0.35824	22482.5	4020.6	1985.7	U/P
3.756	0.3160	0.0000	163.651	0.38292	0.35762	22508.2	4051.2	2014.3	U/P
3.778	0.3078	0.0000	163.648	0.38292	0.35698	22533.1	4081.9	2042.9	U/P
3.800	0.3019	0.0000	163.645	0.38292	0.35633	22557.5	4112.5	2071.4	U/P
3.822	0.2976	0.0000	163.642	0.38292	0.35567	22581.5	4143.1	2099.9	U/P
3.844	0.2946	0.0000	163.639	0.38292	0.35501	22605.2	4173.8	2128.3	U/P
3.867	0.2923	0.0000	163.636	0.38292	0.35434	22628.7	4204.4	2156.7	U/P
3.889	0.2907	0.0000	163.633	0.38292	0.35367	22652.0	4235.0	2185.0	U/P
3.911	0.2896	0.0000	163.630	0.38292	0.35299	22675.2	4265.7	2213.3	U/P
3.933	0.2887	0.0000	163.626	0.38292	0.35232	22698.3	4296.3	2241.5	U/P
3.956	0.2881	0.0000	163.623	0.38292	0.35164	22721.4	4326.9	2269.6	U/P
3.978	0.2876	0.0000	163.620	0.38292	0.35096	22744.4	4357.6	2297.7	U/P
4.000	0.2873	0.0000	163.617	0.38292	0.35028	22767.4	4388.2	2325.8	U/P
4.022	0.2828	0.0000	163.614	0.38292	0.34959	22790.2	4418.8	2353.8	U/P
4.044	0.2694	0.0000	163.610	0.38292	0.34889	22812.3	4449.5	2381.7	U/P
4.067	0.2410	0.0000	163.607	0.38292	0.34816	22832.7	4480.1	2409.6	U/P
4.089	0.2010	0.0000	163.603	0.38292	0.34738	22850.4	4510.7	2437.4	U/P
4.111	0.1579	0.0000	163.599	0.38292	0.34652	22864.8	4541.4	2465.2	U/P
4.133	0.1179	0.0000	163.595	0.38292	0.34561	22875.8	4572.0	2492.9	U/P
4.156	0.0843	0.0000	163.591	0.38292	0.34463	22883.9	4602.6	2520.5	U/P
4.178	0.0602	0.0000	163.586	0.38292	0.34361	22889.7	4633.3	2548.0	U/P
4.200	0.0435	0.0000	163.581	0.38292	0.34255	22893.8	4663.9	2575.5	U/P
4.222	0.0314	0.0000	163.576	0.38292	0.34147	22896.8	4694.5	2602.8	U/P
4.244	0.0225	0.0000	163.571	0.38292	0.34037	22899.0	4725.2	2630.1	U/P
4.267	0.0162	0.0000	163.566	0.38292	0.33925	22900.5	4755.8	2657.3	U/P
4.289	0.0116	0.0000	163.561	0.38292	0.33813	22901.7	4786.4	2684.4	U/P
4.311	0.0083	0.0000	163.556	0.38292	0.33699	22902.4	4817.1	2711.4	U/P
4.333	0.0059	0.0000	163.551	0.38292	0.33584	22903.0	4847.7	2738.3	U/P
4.356	0.0042	0.0000	163.546	0.38292	0.33469	22903.4	4878.3	2765.1	U/P
4.378	0.0029	0.0000	163.541	0.38292	0.33354	22903.7	4909.0	2791.8	U/P
4.400	0.0020	0.0000	163.536	0.38292	0.33238	22903.9	4939.6	2818.5	U/P
4.422	0.0014	0.0000	163.530	0.38292	0.33121	22904.0	4970.2	2845.0	U/P
4.444	0.0009	0.0000	163.525	0.38292	0.33004	22904.1	5000.9	2871.5	U/P
4.467	0.0005	0.0000	163.520	0.38292	0.32887	22904.2	5031.5	2897.8	U/P
4.489	0.0003	0.0000	163.515	0.38292	0.32769	22904.2	5062.1	2924.1	U/P
4.511	0.0001	0.0000	163.510	0.38292	0.32651	22904.2	5092.8	2950.3	U/P
4.533	0.0000	0.0000	163.505	0.38292	0.32533	22904.2	5123.4	2976.3	U/P
4.556	0.0000	0.0000	163.500	0.38290	0.32414	22904.2	5154.0	3002.3	U/P
4.578	0.0000	0.0000	163.494	0.38258	0.32295	22904.2	5184.7	3028.2	U/P
16.578	0.0000	0.0000	162.582	0.11681	0.00000	22904.2	14571.7	3028.2	U/S
28.578	0.0000	0.0000	162.508	0.01404	0.00000	22904.2	15277.2	3028.2	S
40.578	0.0000	0.0000	162.454	0.01064	0.00000	22904.2	15784.8	3028.2	S
52.578	0.0000	0.0000	162.410	0.00886	0.00000	22904.2	16196.9	3028.2	S
64.578	0.0000	0.0000	162.372	0.00770	0.00000	22904.2	16550.1	3028.2	S
76.578	0.0000	0.0000	162.338	0.00687	0.00000	22904.2	16862.3	3028.2	S
88.578	0.0000	0.0000	162.307	0.00624	0.00000	22904.2	17143.7	3028.2	S
100.578	0.0000	0.0000	162.279	0.00573	0.00000	22904.2	17401.1	3028.2	S
112.578	0.0000	0.0000	162.253	0.00532	0.00000	22904.2	17639.0	3028.2	S
124.578	0.0000	0.0000	162.228	0.00497	0.00000	22904.2	17860.7	3028.2	S
136.578	0.0000	0.0000	162.205	0.00467	0.00000	22904.2	18068.5	3028.2	S
148.578	0.0000	0.0000	162.183	0.00442	0.00000	22904.2	18264.5	3028.2	S
160.578	0.0000	0.0000	162.162	0.00419	0.00000	22904.2	18450.1	3028.2	S
172.578	0.0000	0.0000	162.142	0.00399	0.00000	22904.2	18626.6	3028.2	S
184.578	0.0000	0.0000	162.123	0.00381	0.00000	22904.2	18794.9	3028.2	S

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 3 :: SRWMD 100yr-4hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
196.578	0.0000	0.0000	162.105	0.00365	0.00000	22904.2	18955.8	3028.2	S
208.578	0.0000	0.0000	162.088	0.00350	0.00000	22904.2	19110.2	3028.2	S
220.578	0.0000	0.0000	162.071	0.00337	0.00000	22904.2	19258.5	3028.2	S
232.578	0.0000	0.0000	162.055	0.00325	0.00000	22904.2	19401.4	3028.2	S
244.578	0.0000	0.0000	162.039	0.00313	0.00000	22904.2	19539.1	3028.2	S
256.578	0.0000	0.0000	162.024	0.00303	0.00000	22904.2	19672.2	3028.2	S
268.578	0.0000	0.0000	162.009	0.00236	0.00000	22904.2	19800.9	3028.2	S
280.578	0.0000	0.0000	161.981	0.00087	0.00000	22904.2	19876.0	3028.2	S
292.578	0.0000	0.0000	161.936	0.00000	0.00000	22904.2	19876.0	3028.2	S
304.578	0.0000	0.0000	161.895	0.00000	0.00000	22904.2	19876.0	3028.2	S
316.578	0.0000	0.0000	161.857	0.00000	0.00000	22904.2	19876.0	3028.2	S
328.578	0.0000	0.0000	161.822	0.00000	0.00000	22904.2	19876.0	3028.2	S
340.578	0.0000	0.0000	161.788	0.00000	0.00000	22904.2	19876.0	3028.2	S
352.578	0.0000	0.0000	161.757	0.00000	0.00000	22904.2	19876.0	3028.2	S
364.578	0.0000	0.0000	161.727	0.00000	0.00000	22904.2	19876.0	3028.2	S
376.578	0.0000	0.0000	161.699	0.00000	0.00000	22904.2	19876.0	3028.2	S
388.578	0.0000	0.0000	161.672	0.00000	0.00000	22904.2	19876.0	3028.2	S
400.578	0.0000	0.0000	161.646	0.00000	0.00000	22904.2	19876.0	3028.2	S
412.578	0.0000	0.0000	161.621	0.00000	0.00000	22904.2	19876.0	3028.2	S
424.578	0.0000	0.0000	161.597	0.00000	0.00000	22904.2	19876.0	3028.2	S
436.578	0.0000	0.0000	161.574	0.00000	0.00000	22904.2	19876.0	3028.2	S
448.578	0.0000	0.0000	161.552	0.00000	0.00000	22904.2	19876.0	3028.2	S
460.578	0.0000	0.0000	161.531	0.00000	0.00000	22904.2	19876.0	3028.2	S
472.578	0.0000	0.0000	161.511	0.00000	0.00000	22904.2	19876.0	3028.2	S
484.578	0.0000	0.0000	161.491	0.00000	0.00000	22904.2	19876.0	3028.2	S
496.578	0.0000	0.0000	161.472	0.00000	0.00000	22904.2	19876.0	3028.2	S
508.578	0.0000	0.0000	161.453	0.00000	0.00000	22904.2	19876.0	3028.2	S
520.578	0.0000	0.0000	161.436	0.00000	0.00000	22904.2	19876.0	3028.2	S
532.578	0.0000	0.0000	161.418	0.00000	0.00000	22904.2	19876.0	3028.2	S
544.578	0.0000	0.0000	161.401	0.00000	0.00000	22904.2	19876.0	3028.2	S
556.578	0.0000	0.0000	161.385	0.00000	0.00000	22904.2	19876.0	3028.2	S
568.578	0.0000	0.0000	161.369	0.00000	0.00000	22904.2	19876.0	3028.2	S
580.578	0.0000	0.0000	161.354	0.00000	0.00000	22904.2	19876.0	3028.2	S
592.578	0.0000	0.0000	161.339	0.00000	0.00000	22904.2	19876.0	3028.2	S
604.578	0.0000	0.0000	161.324	0.00000	0.00000	22904.2	19876.0	3028.2	S
616.578	0.0000	0.0000	161.310	0.00000	0.00000	22904.2	19876.0	3028.2	S
628.578	0.0000	0.0000	161.296	0.00000	0.00000	22904.2	19876.0	3028.2	S
640.578	0.0000	0.0000	161.282	0.00000	0.00000	22904.2	19876.0	3028.2	S
652.578	0.0000	0.0000	161.269	0.00000	0.00000	22904.2	19876.0	3028.2	S
664.578	0.0000	0.0000	161.256	0.00000	0.00000	22904.2	19876.0	3028.2	S
676.578	0.0000	0.0000	161.243	0.00000	0.00000	22904.2	19876.0	3028.2	S
688.578	0.0000	0.0000	161.231	0.00000	0.00000	22904.2	19876.0	3028.2	S
700.578	0.0000	0.0000	161.219	0.00000	0.00000	22904.2	19876.0	3028.2	S
712.578	0.0000	0.0000	161.207	0.00000	0.00000	22904.2	19876.0	3028.2	S
724.578	0.0000	0.0000	161.196	----	----	22904.2	19876.0	3028.2	N.A.

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 4 :: SRWMD 100yr-8hr

Elapsed Time (hours)	Inflow Rate (ft ³ /s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft ³ /s)	Overflow Discharge (ft ³ /s)	Cumulative Inflow Volume (ft ³)	Cumulative Infiltration Volume (ft ³)	Cumulative Discharge Volume (ft ³)	Flow Type
4.933	1.3667	0.0000	163.655	0.38292	0.35839	22540.1	4542.7	1513.0	U/P
4.956	1.3668	0.0000	163.660	0.38292	0.35932	22649.4	4573.4	1541.7	U/P
4.978	1.3669	0.0000	163.664	0.38292	0.36024	22758.8	4604.0	1570.5	U/P
5.000	1.3670	0.0000	163.668	0.38292	0.36116	22868.1	4634.6	1599.4	U/P
5.022	1.3543	0.0000	163.673	0.38292	0.36206	22977.0	4665.3	1628.3	U/P
5.044	1.3147	0.0000	163.677	0.38292	0.36292	23083.7	4695.9	1657.3	U/P
5.067	1.2302	0.0000	163.681	0.38292	0.36369	23185.5	4726.5	1686.4	U/P
5.089	1.1111	0.0000	163.684	0.38292	0.36431	23279.2	4757.2	1715.5	U/P
5.111	0.9830	0.0000	163.686	0.38292	0.36474	23362.9	4787.8	1744.7	U/P
5.133	0.8639	0.0000	163.687	0.38292	0.36500	23436.8	4818.4	1773.8	U/P
5.156	0.7640	0.0000	163.687	0.38292	0.36509	23501.9	4849.1	1803.1	U/P
5.178	0.6922	0.0000	163.687	0.38292	0.36507	23560.2	4879.7	1832.3	U/P
5.200	0.6423	0.0000	163.687	0.38292	0.36495	23613.6	4910.3	1861.5	U/P
5.222	0.6064	0.0000	163.686	0.38292	0.36477	23663.5	4941.0	1890.6	U/P
5.244	0.5799	0.0000	163.685	0.38292	0.36455	23711.0	4971.6	1919.8	U/P
5.267	0.5611	0.0000	163.684	0.38292	0.36429	23756.6	5002.2	1949.0	U/P
5.289	0.5474	0.0000	163.682	0.38292	0.36401	23801.0	5032.9	1978.1	U/P
5.311	0.5376	0.0000	163.681	0.38292	0.36371	23844.4	5063.5	2007.2	U/P
5.333	0.5305	0.0000	163.679	0.38292	0.36340	23887.1	5094.1	2036.3	U/P
5.356	0.5254	0.0000	163.678	0.38292	0.36308	23929.3	5124.8	2065.4	U/P
5.378	0.5217	0.0000	163.676	0.38292	0.36276	23971.2	5155.4	2094.4	U/P
5.400	0.5191	0.0000	163.675	0.38292	0.36243	24012.8	5186.0	2123.4	U/P
5.422	0.5171	0.0000	163.673	0.38292	0.36210	24054.3	5216.7	2152.4	U/P
5.444	0.5157	0.0000	163.671	0.38292	0.36176	24095.6	5247.3	2181.3	U/P
5.467	0.5147	0.0000	163.670	0.38292	0.36142	24136.8	5277.9	2210.3	U/P
5.489	0.5139	0.0000	163.668	0.38292	0.36109	24178.0	5308.6	2239.2	U/P
5.511	0.5134	0.0000	163.666	0.38292	0.36075	24219.0	5339.2	2268.0	U/P
5.533	0.5131	0.0000	163.665	0.38292	0.36041	24260.1	5369.8	2296.9	U/P
5.556	0.5132	0.0000	163.663	0.38292	0.36007	24301.2	5400.5	2325.7	U/P
5.578	0.5132	0.0000	163.662	0.38292	0.35973	24342.2	5431.1	2354.5	U/P
5.600	0.5132	0.0000	163.660	0.38292	0.35939	24383.3	5461.7	2383.3	U/P
5.622	0.5132	0.0000	163.658	0.38292	0.35905	24424.3	5492.4	2412.0	U/P
5.644	0.5132	0.0000	163.657	0.38292	0.35871	24465.4	5523.0	2440.7	U/P
5.667	0.5132	0.0000	163.655	0.38292	0.35837	24506.4	5553.6	2469.4	U/P
5.689	0.5132	0.0000	163.653	0.38292	0.35804	24547.5	5584.3	2498.0	U/P
5.711	0.5132	0.0000	163.652	0.38292	0.35770	24588.5	5614.9	2526.7	U/P
5.733	0.5133	0.0000	163.650	0.38292	0.35736	24629.6	5645.5	2555.3	U/P
5.756	0.5133	0.0000	163.649	0.38292	0.35702	24670.7	5676.2	2583.9	U/P
5.778	0.5133	0.0000	163.647	0.38292	0.35668	24711.7	5706.8	2612.4	U/P
5.800	0.5133	0.0000	163.645	0.38292	0.35634	24752.8	5737.4	2640.9	U/P
5.822	0.5133	0.0000	163.644	0.38292	0.35601	24793.9	5768.1	2669.4	U/P
5.844	0.5133	0.0000	163.642	0.38292	0.35567	24834.9	5798.7	2697.9	U/P
5.867	0.5133	0.0000	163.641	0.38292	0.35533	24876.0	5829.3	2726.3	U/P
5.889	0.5134	0.0000	163.639	0.37648	0.35499	24917.1	5860.0	2754.7	U/P
5.911	0.5134	0.0000	163.639	0.20905	0.35494	24958.1	5889.6	2768.9	U/S
5.933	0.5134	0.0000	163.640	0.04887	0.35510	24999.2	5893.4	2797.3	S
5.956	0.5134	0.0000	163.640	0.05050	0.35526	25040.3	5897.4	2825.7	S
5.978	0.5134	0.0000	163.641	0.05217	0.35542	25081.3	5901.5	2854.2	S
6.000	0.5134	0.0000	163.642	0.05386	0.35558	25122.4	5905.7	2882.6	S
6.022	0.5121	0.0000	163.643	0.05558	0.35574	25163.4	5910.1	2911.1	S
6.044	0.5082	0.0000	163.643	0.05732	0.35588	25204.3	5914.6	2939.5	S
6.067	0.4997	0.0000	163.644	0.05909	0.35602	25244.6	5919.3	2968.0	S
6.089	0.4878	0.0000	163.644	0.06087	0.35613	25284.1	5924.1	2996.5	S
6.111	0.4750	0.0000	163.645	0.06267	0.35623	25322.6	5929.0	3025.0	S
6.133	0.4631	0.0000	163.645	0.06448	0.35630	25360.1	5934.1	3053.5	S
6.156	0.4531	0.0000	163.645	0.06631	0.35636	25396.7	5939.3	3082.0	S
6.178	0.4459	0.0000	163.646	0.06815	0.35639	25432.7	5944.7	3110.5	S
6.200	0.4409	0.0000	163.646	0.07001	0.35642	25468.2	5950.2	3139.0	S
6.222	0.4373	0.0000	163.646	0.07187	0.35644	25503.3	5955.9	3167.5	S
6.244	0.4347	0.0000	163.646	0.07374	0.35645	25538.2	5961.7	3196.0	S
6.267	0.4328	0.0000	163.646	0.07561	0.35645	25572.9	5967.7	3224.6	S
6.289	0.4314	0.0000	163.646	0.07747	0.35645	25607.5	5973.8	3253.1	S
6.311	0.4304	0.0000	163.646	0.07934	0.35644	25641.9	5980.1	3281.6	S
6.333	0.4297	0.0000	163.646	0.08119	0.35643	25676.3	5986.5	3310.1	S
6.356	0.4292	0.0000	163.646	0.08304	0.35642	25710.7	5993.1	3338.6	S
6.378	0.4289	0.0000	163.646	0.08486	0.35640	25745.0	5999.8	3367.1	S
6.400	0.4286	0.0000	163.646	0.08667	0.35638	25779.3	6006.7	3395.7	S
6.422	0.4284	0.0000	163.645	0.08846	0.35636	25813.6	6013.7	3424.2	S
6.444	0.4283	0.0000	163.645	0.09022	0.35633	25847.9	6020.8	3452.7	S
6.467	0.4282	0.0000	163.645	0.09195	0.35631	25882.1	6028.1	3481.2	S
6.489	0.4281	0.0000	163.645	0.09364	0.35627	25916.4	6035.5	3509.7	S
6.511	0.4281	0.0000	163.645	0.09530	0.35624	25950.6	6043.1	3538.2	S
6.533	0.4281	0.0000	163.645	0.09692	0.35620	25984.9	6050.8	3566.7	S
6.556	0.4281	0.0000	163.645	0.09850	0.35617	26019.1	6058.6	3595.2	S

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 4 :: SRWMD 100yr-8hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
8.222	0.0281	0.0000	163.565	0.07156	0.33894	27826.9	6659.2	5695.6	S
8.244	0.0202	0.0000	163.562	0.07082	0.33833	27828.8	6664.9	5722.7	S
8.267	0.0145	0.0000	163.559	0.07009	0.33770	27830.2	6670.5	5749.7	S
8.289	0.0104	0.0000	163.556	0.06939	0.33707	27831.2	6676.1	5776.7	S
8.311	0.0074	0.0000	163.554	0.06871	0.33643	27831.9	6681.6	5803.7	S
8.333	0.0053	0.0000	163.551	0.06805	0.33579	27832.4	6687.1	5830.6	S
8.356	0.0037	0.0000	163.548	0.06741	0.33515	27832.7	6692.5	5857.4	S
8.378	0.0026	0.0000	163.545	0.06678	0.33451	27833.0	6697.8	5884.2	S
8.400	0.0018	0.0000	163.542	0.06618	0.33386	27833.2	6703.2	5910.9	S
8.422	0.0012	0.0000	163.539	0.06559	0.33321	27833.3	6708.4	5937.6	S
8.444	0.0008	0.0000	163.536	0.06502	0.33257	27833.4	6713.7	5964.2	S
8.467	0.0005	0.0000	163.534	0.06447	0.33192	27833.4	6718.8	5990.8	S
8.489	0.0002	0.0000	163.531	0.06394	0.33127	27833.5	6724.0	6017.3	S
8.511	0.0001	0.0000	163.528	0.06342	0.33063	27833.5	6729.1	6043.8	S
8.533	0.0000	0.0000	163.525	0.06291	0.32998	27833.5	6734.1	6070.2	S
8.556	0.0000	0.0000	163.522	0.06242	0.32934	27833.5	6739.1	6096.6	S
8.578	0.0000	0.0000	163.519	0.06192	0.32869	27833.5	6744.1	6122.9	S
20.578	0.0000	0.0000	162.906	-0.05994	0.12594	27833.5	3409.5	15942.9	S
32.578	0.0000	0.0000	162.800	-0.01706	0.00811	27833.5	1565.0	18838.4	S
44.578	0.0000	0.0000	162.745	0.00953	0.00000	27833.5	1935.2	19013.7	S
56.578	0.0000	0.0000	162.699	0.00980	0.00000	27833.5	2388.8	19013.7	S
68.578	0.0000	0.0000	162.658	0.00860	0.00000	27833.5	2781.9	19013.7	S
80.578	0.0000	0.0000	162.622	0.00771	0.00000	27833.5	3131.6	19013.7	S
92.578	0.0000	0.0000	162.589	0.00703	0.00000	27833.5	3448.3	19013.7	S
104.578	0.0000	0.0000	162.559	0.00648	0.00000	27833.5	3738.9	19013.7	S
116.578	0.0000	0.0000	162.530	0.00602	0.00000	27833.5	4008.0	19013.7	S
128.578	0.0000	0.0000	162.504	0.00564	0.00000	27833.5	4259.2	19013.7	S
140.578	0.0000	0.0000	162.479	0.00531	0.00000	27833.5	4495.2	19013.7	S
152.578	0.0000	0.0000	162.455	0.00502	0.00000	27833.5	4718.0	19013.7	S
164.578	0.0000	0.0000	162.432	0.00477	0.00000	27833.5	4929.2	19013.7	S
176.578	0.0000	0.0000	162.411	0.00455	0.00000	27833.5	5130.2	19013.7	S
188.578	0.0000	0.0000	162.390	0.00435	0.00000	27833.5	5322.1	19013.7	S
200.578	0.0000	0.0000	162.370	0.00416	0.00000	27833.5	5505.7	19013.7	S
212.578	0.0000	0.0000	162.351	0.00400	0.00000	27833.5	5681.9	19013.7	S
224.578	0.0000	0.0000	162.333	0.00385	0.00000	27833.5	5851.3	19013.7	S
236.578	0.0000	0.0000	162.315	0.00371	0.00000	27833.5	6014.5	19013.7	S
248.578	0.0000	0.0000	162.298	0.00358	0.00000	27833.5	6172.0	19013.7	S
260.578	0.0000	0.0000	162.281	0.00347	0.00000	27833.5	6324.2	19013.7	S
272.578	0.0000	0.0000	162.265	0.00336	0.00000	27833.5	6471.5	19013.7	S
284.578	0.0000	0.0000	162.249	0.00326	0.00000	27833.5	6614.3	19013.7	S
296.578	0.0000	0.0000	162.234	0.00316	0.00000	27833.5	6752.8	19013.7	S
308.578	0.0000	0.0000	162.219	0.00307	0.00000	27833.5	6887.3	19013.7	S
320.578	0.0000	0.0000	162.204	0.00299	0.00000	27833.5	7018.0	19013.7	S
332.578	0.0000	0.0000	162.190	0.00291	0.00000	27833.5	7145.3	19013.7	S
344.578	0.0000	0.0000	162.176	0.00283	0.00000	27833.5	7269.2	19013.7	S
356.578	0.0000	0.0000	162.163	0.00276	0.00000	27833.5	7390.0	19013.7	S
368.578	0.0000	0.0000	162.149	0.00269	0.00000	27833.5	7507.8	19013.7	S
380.578	0.0000	0.0000	162.137	0.00263	0.00000	27833.5	7622.7	19013.7	S
392.578	0.0000	0.0000	162.124	0.00257	0.00000	27833.5	7735.1	19013.7	S
404.578	0.0000	0.0000	162.111	0.00251	0.00000	27833.5	7844.8	19013.7	S
416.578	0.0000	0.0000	162.099	0.00246	0.00000	27833.5	7952.1	19013.7	S
428.578	0.0000	0.0000	162.087	0.00241	0.00000	27833.5	8057.2	19013.7	S
440.578	0.0000	0.0000	162.076	0.00236	0.00000	27833.5	8160.0	19013.7	S
452.578	0.0000	0.0000	162.064	0.00231	0.00000	27833.5	8260.6	19013.7	S
464.578	0.0000	0.0000	162.053	0.00226	0.00000	27833.5	8359.3	19013.7	S
476.578	0.0000	0.0000	162.042	0.00222	0.00000	27833.5	8456.0	19013.7	S
488.578	0.0000	0.0000	162.031	0.00217	0.00000	27833.5	8550.8	19013.7	S
500.578	0.0000	0.0000	162.020	0.00213	0.00000	27833.5	8643.9	19013.7	S
512.578	0.0000	0.0000	162.010	0.00204	0.00000	27833.5	8735.2	19013.7	S
524.578	0.0000	0.0000	161.998	0.00098	0.00000	27833.5	8819.8	19013.7	S
536.578	0.0000	0.0000	161.964	0.00000	0.00000	27833.5	8819.8	19013.7	S
548.578	0.0000	0.0000	161.934	0.00000	0.00000	27833.5	8819.8	19013.7	S
560.578	0.0000	0.0000	161.905	0.00000	0.00000	27833.5	8819.8	19013.7	S
572.578	0.0000	0.0000	161.878	0.00000	0.00000	27833.5	8819.8	19013.7	S
584.578	0.0000	0.0000	161.852	0.00000	0.00000	27833.5	8819.8	19013.7	S
596.578	0.0000	0.0000	161.828	0.00000	0.00000	27833.5	8819.8	19013.7	S
608.578	0.0000	0.0000	161.804	0.00000	0.00000	27833.5	8819.8	19013.7	S
620.578	0.0000	0.0000	161.782	0.00000	0.00000	27833.5	8819.8	19013.7	S
632.578	0.0000	0.0000	161.760	0.00000	0.00000	27833.5	8819.8	19013.7	S
644.578	0.0000	0.0000	161.739	0.00000	0.00000	27833.5	8819.8	19013.7	S
656.578	0.0000	0.0000	161.719	0.00000	0.00000	27833.5	8819.8	19013.7	S
668.578	0.0000	0.0000	161.699	0.00000	0.00000	27833.5	8819.8	19013.7	S
680.578	0.0000	0.0000	161.680	0.00000	0.00000	27833.5	8819.8	19013.7	S
692.578	0.0000	0.0000	161.662	0.00000	0.00000	27833.5	8819.8	19013.7	S

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 5 :: SRWMD 100yr-24hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
21.378	0.2383	0.0000	163.708	0.03027	0.36922	38080.5	8227.9	12773.3	S
21.400	0.2379	0.0000	163.706	0.03018	0.36899	38099.6	8230.4	12802.9	S
21.422	0.2376	0.0000	163.705	0.03009	0.36876	38118.6	8232.8	12832.4	S
21.444	0.2375	0.0000	163.704	0.03000	0.36853	38137.6	8235.2	12861.9	S
21.467	0.2373	0.0000	163.703	0.02991	0.36830	38156.6	8237.6	12891.3	S
21.489	0.2372	0.0000	163.702	0.02983	0.36807	38175.6	8240.0	12920.8	S
21.511	0.2371	0.0000	163.701	0.02974	0.36783	38194.6	8242.3	12950.2	S
21.533	0.2371	0.0000	163.700	0.02966	0.36760	38213.5	8244.7	12979.6	S
21.556	0.2371	0.0000	163.699	0.02958	0.36737	38232.5	8247.1	13009.0	S
21.578	0.2371	0.0000	163.697	0.02950	0.36714	38251.5	8249.4	13038.4	S
21.600	0.2371	0.0000	163.696	0.02942	0.36691	38270.4	8251.8	13067.8	S
21.622	0.2371	0.0000	163.695	0.02934	0.36669	38289.4	8254.2	13097.1	S
21.644	0.2371	0.0000	163.694	0.02927	0.36646	38308.4	8256.5	13126.5	S
21.667	0.2371	0.0000	163.693	0.02919	0.36623	38327.3	8258.8	13155.8	S
21.689	0.2371	0.0000	163.692	0.02912	0.36600	38346.3	8261.2	13185.1	S
21.711	0.2371	0.0000	163.691	0.02904	0.36577	38365.3	8263.5	13214.3	S
21.733	0.2371	0.0000	163.690	0.02897	0.36554	38384.2	8265.8	13243.6	S
21.756	0.2371	0.0000	163.689	0.02890	0.36531	38403.2	8268.1	13272.8	S
21.778	0.2371	0.0000	163.687	0.02883	0.36509	38422.2	8270.4	13302.0	S
21.800	0.2371	0.0000	163.686	0.02876	0.36486	38441.1	8272.7	13331.2	S
21.822	0.2371	0.0000	163.685	0.02869	0.36463	38460.1	8275.0	13360.4	S
21.844	0.2371	0.0000	163.684	0.02862	0.36441	38479.1	8277.3	13389.6	S
21.867	0.2371	0.0000	163.683	0.02856	0.36418	38498.0	8279.6	13418.7	S
21.889	0.2371	0.0000	163.682	0.02849	0.36395	38517.0	8281.9	13447.8	S
21.911	0.2371	0.0000	163.681	0.02842	0.36373	38536.0	8284.2	13476.9	S
21.933	0.2371	0.0000	163.680	0.02836	0.36350	38554.9	8286.5	13506.0	S
21.956	0.2371	0.0000	163.679	0.02829	0.36328	38573.9	8288.7	13535.1	S
21.978	0.2371	0.0000	163.678	0.02823	0.36305	38592.9	8291.0	13564.2	S
22.000	0.2371	0.0000	163.676	0.02817	0.36282	38611.8	8293.2	13593.2	S
22.022	0.2354	0.0000	163.675	0.02810	0.36260	38630.7	8295.5	13622.2	S
22.044	0.2300	0.0000	163.674	0.02803	0.36237	38649.4	8297.7	13651.2	S
22.067	0.2186	0.0000	163.673	0.02794	0.36212	38667.3	8300.0	13680.2	S
22.089	0.2022	0.0000	163.672	0.02785	0.36186	38684.1	8302.2	13709.1	S
22.111	0.1846	0.0000	163.670	0.02774	0.36157	38699.6	8304.4	13738.1	S
22.133	0.1680	0.0000	163.669	0.02763	0.36126	38713.7	8306.6	13767.0	S
22.156	0.1541	0.0000	163.667	0.02751	0.36093	38726.6	8308.8	13795.9	S
22.178	0.1440	0.0000	163.666	0.02739	0.36057	38738.5	8311.0	13824.7	S
22.200	0.1370	0.0000	163.664	0.02726	0.36021	38749.8	8313.2	13853.6	S
22.222	0.1320	0.0000	163.662	0.02714	0.35984	38760.5	8315.4	13882.4	S
22.244	0.1282	0.0000	163.660	0.02703	0.35946	38770.9	8317.6	13911.1	S
22.267	0.1256	0.0000	163.658	0.02691	0.35907	38781.1	8319.7	13939.9	S
22.289	0.1237	0.0000	163.657	0.02679	0.35869	38791.1	8321.9	13968.6	S
22.311	0.1223	0.0000	163.655	0.02668	0.35830	38800.9	8324.0	13997.3	S
22.333	0.1213	0.0000	163.653	0.02657	0.35791	38810.6	8326.1	14025.9	S
22.356	0.1206	0.0000	163.651	0.02646	0.35751	38820.3	8328.3	14054.5	S
22.378	0.1201	0.0000	163.649	0.02635	0.35712	38829.9	8330.4	14083.1	S
22.400	0.1197	0.0000	163.647	0.02625	0.35673	38839.5	8332.5	14111.7	S
22.422	0.1194	0.0000	163.645	0.02614	0.35634	38849.1	8334.6	14140.2	S
22.444	0.1192	0.0000	163.644	0.02604	0.35594	38858.6	8336.7	14168.7	S
22.467	0.1191	0.0000	163.642	0.02594	0.35555	38868.2	8338.7	14197.2	S
22.489	0.1190	0.0000	163.640	0.02584	0.35515	38877.7	8340.8	14225.6	S
22.511	0.1189	0.0000	163.638	0.02574	0.35476	38887.2	8342.9	14254.0	S
22.533	0.1188	0.0000	163.636	0.02565	0.35437	38896.7	8344.9	14282.3	S
22.556	0.1188	0.0000	163.634	0.02556	0.35397	38906.2	8347.0	14310.7	S
22.578	0.1188	0.0000	163.632	0.02546	0.35358	38915.7	8349.0	14339.0	S
22.600	0.1188	0.0000	163.631	0.02537	0.35319	38925.2	8351.1	14367.3	S
22.622	0.1188	0.0000	163.629	0.02528	0.35280	38934.7	8353.1	14395.5	S
22.644	0.1188	0.0000	163.627	0.02519	0.35240	38944.3	8355.1	14423.7	S
22.667	0.1188	0.0000	163.625	0.02511	0.35201	38953.8	8357.1	14451.9	S
22.689	0.1188	0.0000	163.623	0.02502	0.35162	38963.3	8359.1	14480.0	S
22.711	0.1188	0.0000	163.621	0.02494	0.35123	38972.8	8361.1	14508.1	S
22.733	0.1188	0.0000	163.619	0.02485	0.35084	38982.3	8363.1	14536.2	S
22.756	0.1188	0.0000	163.618	0.02477	0.35044	38991.8	8365.1	14564.3	S
22.778	0.1188	0.0000	163.616	0.02469	0.35005	39001.3	8367.1	14592.3	S
22.800	0.1188	0.0000	163.614	0.02461	0.34966	39010.8	8369.0	14620.3	S
22.822	0.1188	0.0000	163.612	0.02453	0.34927	39020.3	8371.0	14648.2	S
22.844	0.1188	0.0000	163.610	0.02445	0.34888	39029.8	8373.0	14676.2	S
22.867	0.1188	0.0000	163.609	0.02437	0.34849	39039.3	8374.9	14704.1	S
22.889	0.1188	0.0000	163.607	0.02429	0.34810	39048.8	8376.9	14731.9	S
22.911	0.1188	0.0000	163.605	0.02422	0.34771	39058.3	8378.8	14759.8	S
22.933	0.1188	0.0000	163.603	0.02414	0.34732	39067.9	8380.7	14787.6	S
22.956	0.1188	0.0000	163.601	0.02407	0.34693	39077.4	8382.7	14815.3	S
22.978	0.1188	0.0000	163.600	0.02399	0.34654	39086.9	8384.6	14843.1	S
23.000	0.1188	0.0000	163.598	0.02392	0.34615	39096.4	8386.5	14870.8	S

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 5 :: SRWMD 100yr-24hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
72.578	0.0000	0.0000	162.721	0.00829	0.00000	39579.9	3400.0	29533.7	S
84.578	0.0000	0.0000	162.686	0.00756	0.00000	39579.9	3740.9	29533.7	S
96.578	0.0000	0.0000	162.654	0.00696	0.00000	39579.9	4053.6	29533.7	S
108.578	0.0000	0.0000	162.624	0.00646	0.00000	39579.9	4342.7	29533.7	S
120.578	0.0000	0.0000	162.596	0.00604	0.00000	39579.9	4612.1	29533.7	S
132.578	0.0000	0.0000	162.569	0.00568	0.00000	39579.9	4864.6	29533.7	S
144.578	0.0000	0.0000	162.544	0.00536	0.00000	39579.9	5102.5	29533.7	S
156.578	0.0000	0.0000	162.521	0.00508	0.00000	39579.9	5327.8	29533.7	S
168.578	0.0000	0.0000	162.498	0.00484	0.00000	39579.9	5541.8	29533.7	S
180.578	0.0000	0.0000	162.476	0.00462	0.00000	39579.9	5745.8	29533.7	S
192.578	0.0000	0.0000	162.455	0.00442	0.00000	39579.9	5940.9	29533.7	S
204.578	0.0000	0.0000	162.435	0.00424	0.00000	39579.9	6127.8	29533.7	S
216.578	0.0000	0.0000	162.416	0.00408	0.00000	39579.9	6307.4	29533.7	S
228.578	0.0000	0.0000	162.398	0.00393	0.00000	39579.9	6480.2	29533.7	S
240.578	0.0000	0.0000	162.380	0.00379	0.00000	39579.9	6646.8	29533.7	S
252.578	0.0000	0.0000	162.362	0.00366	0.00000	39579.9	6807.7	29533.7	S
264.578	0.0000	0.0000	162.345	0.00355	0.00000	39579.9	6963.3	29533.7	S
276.578	0.0000	0.0000	162.329	0.00344	0.00000	39579.9	7114.1	29533.7	S
288.578	0.0000	0.0000	162.313	0.00333	0.00000	39579.9	7260.2	29533.7	S
300.578	0.0000	0.0000	162.297	0.00324	0.00000	39579.9	7402.0	29533.7	S
312.578	0.0000	0.0000	162.282	0.00315	0.00000	39579.9	7539.9	29533.7	S
324.578	0.0000	0.0000	162.267	0.00306	0.00000	39579.9	7673.9	29533.7	S
336.578	0.0000	0.0000	162.253	0.00298	0.00000	39579.9	7804.4	29533.7	S
348.578	0.0000	0.0000	162.239	0.00291	0.00000	39579.9	7931.6	29533.7	S
360.578	0.0000	0.0000	162.225	0.00283	0.00000	39579.9	8055.6	29533.7	S
372.578	0.0000	0.0000	162.212	0.00277	0.00000	39579.9	8176.5	29533.7	S
384.578	0.0000	0.0000	162.199	0.00270	0.00000	39579.9	8294.6	29533.7	S
396.578	0.0000	0.0000	162.186	0.00264	0.00000	39579.9	8410.0	29533.7	S
408.578	0.0000	0.0000	162.173	0.00258	0.00000	39579.9	8522.8	29533.7	S
420.578	0.0000	0.0000	162.161	0.00253	0.00000	39579.9	8633.1	29533.7	S
432.578	0.0000	0.0000	162.149	0.00247	0.00000	39579.9	8741.1	29533.7	S
444.578	0.0000	0.0000	162.137	0.00242	0.00000	39579.9	8846.8	29533.7	S
456.578	0.0000	0.0000	162.125	0.00237	0.00000	39579.9	8950.3	29533.7	S
468.578	0.0000	0.0000	162.114	0.00233	0.00000	39579.9	9051.8	29533.7	S
480.578	0.0000	0.0000	162.102	0.00228	0.00000	39579.9	9151.3	29533.7	S
492.578	0.0000	0.0000	162.091	0.00224	0.00000	39579.9	9248.9	29533.7	S
504.578	0.0000	0.0000	162.080	0.00220	0.00000	39579.9	9344.7	29533.7	S
516.578	0.0000	0.0000	162.070	0.00216	0.00000	39579.9	9438.7	29533.7	S
528.578	0.0000	0.0000	162.059	0.00212	0.00000	39579.9	9531.0	29533.7	S
540.578	0.0000	0.0000	162.049	0.00208	0.00000	39579.9	9621.6	29533.7	S
552.578	0.0000	0.0000	162.039	0.00204	0.00000	39579.9	9710.7	29533.7	S
564.578	0.0000	0.0000	162.029	0.00201	0.00000	39579.9	9798.3	29533.7	S
576.578	0.0000	0.0000	162.019	0.00198	0.00000	39579.9	9884.3	29533.7	S
588.578	0.0000	0.0000	162.009	0.00187	0.00000	39579.9	9969.0	29533.7	S
600.578	0.0000	0.0000	161.998	0.00089	0.00000	39579.9	10046.2	29533.7	S
612.578	0.0000	0.0000	161.966	0.00000	0.00000	39579.9	10046.2	29533.7	S
624.578	0.0000	0.0000	161.938	0.00000	0.00000	39579.9	10046.2	29533.7	S
636.578	0.0000	0.0000	161.911	0.00000	0.00000	39579.9	10046.2	29533.7	S
648.578	0.0000	0.0000	161.886	0.00000	0.00000	39579.9	10046.2	29533.7	S
660.578	0.0000	0.0000	161.861	0.00000	0.00000	39579.9	10046.2	29533.7	S
672.578	0.0000	0.0000	161.838	0.00000	0.00000	39579.9	10046.2	29533.7	S
684.578	0.0000	0.0000	161.816	0.00000	0.00000	39579.9	10046.2	29533.7	S
696.578	0.0000	0.0000	161.795	0.00000	0.00000	39579.9	10046.2	29533.7	S
708.578	0.0000	0.0000	161.775	0.00000	0.00000	39579.9	10046.2	29533.7	S
720.578	0.0000	0.0000	161.755	0.00000	0.00000	39579.9	10046.2	29533.7	S
732.578	0.0000	0.0000	161.736	0.00000	0.00000	39579.9	10046.2	29533.7	S
744.578	0.0000	0.0000	161.717	----	----	39579.9	10046.2	29533.7	N.A.

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 6 :: SRWMD 100yr-72hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
72.356	0.0010	0.0000	163.089	0.00625	0.20850	50268.6	10285.9	29622.2	S
72.378	0.0007	0.0000	163.088	0.00621	0.20790	50268.6	10286.4	29638.9	S
72.400	0.0005	0.0000	163.086	0.00618	0.20731	50268.7	10286.9	29655.5	S
72.422	0.0003	0.0000	163.085	0.00614	0.20671	50268.7	10287.4	29672.0	S
72.444	0.0002	0.0000	163.083	0.00610	0.20612	50268.7	10287.9	29688.6	S
72.467	0.0001	0.0000	163.081	0.00606	0.20552	50268.8	10288.3	29705.0	S
72.489	0.0001	0.0000	163.080	0.00603	0.20492	50268.8	10288.8	29721.4	S
72.511	0.0000	0.0000	163.078	0.00599	0.20433	50268.8	10289.3	29737.8	S
72.533	0.0000	0.0000	163.076	0.00596	0.20373	50268.8	10289.8	29754.1	S
72.556	0.0000	0.0000	163.075	0.00593	0.20313	50268.8	10290.3	29770.4	S
72.578	0.0000	0.0000	163.073	0.00577	0.20253	50268.8	10290.7	29786.6	S
84.578	0.0000	0.0000	162.819	-0.04403	0.05362	50268.8	7333.5	35319.6	S
96.578	0.0000	0.0000	162.788	-0.00628	0.00000	50268.8	6486.6	36477.8	S
108.578	0.0000	0.0000	162.757	0.00687	0.00000	50268.8	6790.9	36477.8	S
120.578	0.0000	0.0000	162.727	0.00651	0.00000	50268.8	7080.2	36477.8	S
132.578	0.0000	0.0000	162.699	0.00616	0.00000	50268.8	7353.6	36477.8	S
144.578	0.0000	0.0000	162.673	0.00583	0.00000	50268.8	7612.3	36477.8	S
156.578	0.0000	0.0000	162.648	0.00554	0.00000	50268.8	7857.5	36477.8	S
168.578	0.0000	0.0000	162.623	0.00527	0.00000	50268.8	8090.5	36477.8	S
180.578	0.0000	0.0000	162.600	0.00503	0.00000	50268.8	8312.6	36477.8	S
192.578	0.0000	0.0000	162.578	0.00481	0.00000	50268.8	8524.8	36477.8	S
204.578	0.0000	0.0000	162.557	0.00461	0.00000	50268.8	8727.9	36477.8	S
216.578	0.0000	0.0000	162.536	0.00443	0.00000	50268.8	8922.9	36477.8	S
228.578	0.0000	0.0000	162.517	0.00426	0.00000	50268.8	9110.4	36477.8	S
240.578	0.0000	0.0000	162.497	0.00411	0.00000	50268.8	9290.9	36477.8	S
252.578	0.0000	0.0000	162.479	0.00397	0.00000	50268.8	9465.2	36477.8	S
264.578	0.0000	0.0000	162.461	0.00383	0.00000	50268.8	9633.6	36477.8	S
276.578	0.0000	0.0000	162.444	0.00371	0.00000	50268.8	9796.5	36477.8	S
288.578	0.0000	0.0000	162.427	0.00360	0.00000	50268.8	9954.3	36477.8	S
300.578	0.0000	0.0000	162.410	0.00349	0.00000	50268.8	10107.4	36477.8	S
312.578	0.0000	0.0000	162.394	0.00339	0.00000	50268.8	10256.1	36477.8	S
324.578	0.0000	0.0000	162.379	0.00330	0.00000	50268.8	10400.5	36477.8	S
336.578	0.0000	0.0000	162.363	0.00321	0.00000	50268.8	10541.1	36477.8	S
348.578	0.0000	0.0000	162.348	0.00313	0.00000	50268.8	10677.9	36477.8	S
360.578	0.0000	0.0000	162.334	0.00305	0.00000	50268.8	10811.3	36477.8	S
372.578	0.0000	0.0000	162.320	0.00297	0.00000	50268.8	10941.3	36477.8	S
384.578	0.0000	0.0000	162.306	0.00290	0.00000	50268.8	11068.2	36477.8	S
396.578	0.0000	0.0000	162.292	0.00284	0.00000	50268.8	11192.2	36477.8	S
408.578	0.0000	0.0000	162.279	0.00277	0.00000	50268.8	11313.2	36477.8	S
420.578	0.0000	0.0000	162.266	0.00271	0.00000	50268.8	11431.6	36477.8	S
432.578	0.0000	0.0000	162.253	0.00265	0.00000	50268.8	11547.4	36477.8	S
444.578	0.0000	0.0000	162.241	0.00260	0.00000	50268.8	11660.7	36477.8	S
456.578	0.0000	0.0000	162.228	0.00254	0.00000	50268.8	11771.7	36477.8	S
468.578	0.0000	0.0000	162.216	0.00249	0.00000	50268.8	11880.4	36477.8	S
480.578	0.0000	0.0000	162.204	0.00244	0.00000	50268.8	11987.0	36477.8	S
492.578	0.0000	0.0000	162.193	0.00240	0.00000	50268.8	12091.5	36477.8	S
504.578	0.0000	0.0000	162.181	0.00235	0.00000	50268.8	12193.9	36477.8	S
516.578	0.0000	0.0000	162.170	0.00231	0.00000	50268.8	12294.5	36477.8	S
528.578	0.0000	0.0000	162.159	0.00226	0.00000	50268.8	12393.2	36477.8	S
540.578	0.0000	0.0000	162.148	0.00222	0.00000	50268.8	12490.2	36477.8	S
552.578	0.0000	0.0000	162.137	0.00218	0.00000	50268.8	12585.4	36477.8	S
564.578	0.0000	0.0000	162.127	0.00215	0.00000	50268.8	12678.9	36477.8	S
576.578	0.0000	0.0000	162.117	0.00211	0.00000	50268.8	12770.9	36477.8	S
588.578	0.0000	0.0000	162.106	0.00208	0.00000	50268.8	12861.3	36477.8	S
600.578	0.0000	0.0000	162.096	0.00204	0.00000	50268.8	12950.2	36477.8	S
612.578	0.0000	0.0000	162.086	0.00201	0.00000	50268.8	13037.7	36477.8	S
624.578	0.0000	0.0000	162.076	0.00198	0.00000	50268.8	13123.8	36477.8	S
636.578	0.0000	0.0000	162.067	0.00195	0.00000	50268.8	13208.5	36477.8	S
648.578	0.0000	0.0000	162.057	0.00192	0.00000	50268.8	13292.0	36477.8	S
660.578	0.0000	0.0000	162.048	0.00189	0.00000	50268.8	13374.1	36477.8	S
672.578	0.0000	0.0000	162.039	0.00186	0.00000	50268.8	13455.0	36477.8	S
684.578	0.0000	0.0000	162.030	0.00183	0.00000	50268.8	13534.7	36477.8	S
696.578	0.0000	0.0000	162.021	0.00181	0.00000	50268.8	13613.3	36477.8	S
708.578	0.0000	0.0000	162.012	0.00178	0.00000	50268.8	13690.7	36477.8	S
720.578	0.0000	0.0000	162.003	0.00116	0.00000	50268.8	13767.0	36477.8	S
732.578	0.0000	0.0000	161.980	0.00028	0.00000	50268.8	13791.0	36477.8	S
744.578	0.0000	0.0000	161.953	0.00000	0.00000	50268.8	13791.0	36477.8	S
756.578	0.0000	0.0000	161.928	0.00000	0.00000	50268.8	13791.0	36477.8	S
768.578	0.0000	0.0000	161.904	0.00000	0.00000	50268.8	13791.0	36477.8	S
780.578	0.0000	0.0000	161.882	0.00000	0.00000	50268.8	13791.0	36477.8	S
792.578	0.0000	0.0000	161.860	----	----	50268.8	13791.0	36477.8	N.A.

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 7 :: SRWMD 100yr-168hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
600.578	0.0000	0.0000	162.257	0.00229	0.00000	58797.6	13942.9	42573.1	S
612.578	0.0000	0.0000	162.247	0.00225	0.00000	58797.6	14041.1	42573.1	S
624.578	0.0000	0.0000	162.236	0.00222	0.00000	58797.6	14137.6	42573.1	S
636.578	0.0000	0.0000	162.225	0.00218	0.00000	58797.6	14232.6	42573.1	S
648.578	0.0000	0.0000	162.215	0.00215	0.00000	58797.6	14326.0	42573.1	S
660.578	0.0000	0.0000	162.205	0.00211	0.00000	58797.6	14417.9	42573.1	S
672.578	0.0000	0.0000	162.195	0.00208	0.00000	58797.6	14508.4	42573.1	S
684.578	0.0000	0.0000	162.185	0.00205	0.00000	58797.6	14597.6	42573.1	S
696.578	0.0000	0.0000	162.175	0.00202	0.00000	58797.6	14685.4	42573.1	S
708.578	0.0000	0.0000	162.165	0.00199	0.00000	58797.6	14771.8	42573.1	S
720.578	0.0000	0.0000	162.156	0.00196	0.00000	58797.6	14857.0	42573.1	S
732.578	0.0000	0.0000	162.146	0.00193	0.00000	58797.6	14941.0	42573.1	S
744.578	0.0000	0.0000	162.137	0.00190	0.00000	58797.6	15023.7	42573.1	S
756.578	0.0000	0.0000	162.128	0.00188	0.00000	58797.6	15105.3	42573.1	S
768.578	0.0000	0.0000	162.119	0.00185	0.00000	58797.6	15185.8	42573.1	S
780.578	0.0000	0.0000	162.110	0.00182	0.00000	58797.6	15265.1	42573.1	S
792.578	0.0000	0.0000	162.101	0.00180	0.00000	58797.6	15343.4	42573.1	S
804.578	0.0000	0.0000	162.092	0.00178	0.00000	58797.6	15420.7	42573.1	S
816.578	0.0000	0.0000	162.083	0.00175	0.00000	58797.6	15496.9	42573.1	S
828.578	0.0000	0.0000	162.075	0.00173	0.00000	58797.6	15572.1	42573.1	S
840.578	0.0000	0.0000	162.066	0.00171	0.00000	58797.6	15646.3	42573.1	S
852.578	0.0000	0.0000	162.058	0.00169	0.00000	58797.6	15719.6	42573.1	S
864.578	0.0000	0.0000	162.050	0.00166	0.00000	58797.6	15792.0	42573.1	S
876.578	0.0000	0.0000	162.042	0.00164	0.00000	58797.6	15863.5	42573.1	S
888.578	0.0000	0.0000	162.033	----	----	58797.6	15934.1	42573.1	N.A.

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 8 :: SRWMD 100yr-240hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
185.822	0.1261	0.0000	163.699	0.01341	0.36753	53916.0	13057.2	23873.7	S
185.845	0.1261	0.0000	163.698	0.01334	0.36717	53926.0	13058.2	23903.1	S
185.867	0.1261	0.0000	163.696	0.01327	0.36680	53936.1	13059.3	23932.4	S
185.889	0.1261	0.0000	163.694	0.01320	0.36643	53946.2	13060.4	23961.8	S
185.911	0.1261	0.0000	163.692	0.01314	0.36607	53956.3	13061.4	23991.1	S
185.933	0.1261	0.0000	163.690	0.01307	0.36570	53966.4	13062.5	24020.3	S
185.956	0.1261	0.0000	163.689	0.01300	0.36534	53976.5	13063.5	24049.6	S
185.978	0.1261	0.0000	163.687	0.01294	0.36497	53986.6	13064.5	24078.8	S
186.000	0.1261	0.0000	163.685	0.01287	0.36461	53996.7	13065.6	24108.0	S
186.022	0.1261	0.0000	163.683	0.01281	0.36424	54006.8	13066.6	24137.1	S
186.044	0.1261	0.0000	163.682	0.01274	0.36388	54016.9	13067.6	24166.3	S
186.067	0.1261	0.0000	163.680	0.01268	0.36351	54026.9	13068.6	24195.4	S
186.089	0.1261	0.0000	163.678	0.01262	0.36315	54037.0	13069.6	24224.4	S
186.111	0.1261	0.0000	163.676	0.01255	0.36278	54047.1	13070.6	24253.5	S
186.133	0.1261	0.0000	163.674	0.01249	0.36242	54057.2	13071.7	24282.5	S
186.156	0.1261	0.0000	163.673	0.01243	0.36205	54067.3	13072.6	24311.4	S
186.178	0.1261	0.0000	163.671	0.01237	0.36169	54077.4	13073.6	24340.4	S
186.200	0.1261	0.0000	163.669	0.01231	0.36132	54087.5	13074.6	24369.3	S
186.222	0.1261	0.0000	163.667	0.01225	0.36096	54097.6	13075.6	24398.2	S
186.244	0.1261	0.0000	163.666	0.01219	0.36060	54107.7	13076.6	24427.1	S
186.267	0.1261	0.0000	163.664	0.01213	0.36023	54117.7	13077.6	24455.9	S
186.289	0.1261	0.0000	163.662	0.01208	0.35987	54127.8	13078.5	24484.7	S
186.311	0.1261	0.0000	163.660	0.01202	0.35951	54137.9	13079.5	24513.5	S
186.333	0.1261	0.0000	163.659	0.01196	0.35915	54148.0	13080.5	24542.2	S
186.356	0.1261	0.0000	163.657	0.01190	0.35878	54158.1	13081.4	24570.9	S
186.378	0.1261	0.0000	163.655	0.01185	0.35842	54168.2	13082.4	24599.6	S
186.400	0.1261	0.0000	163.654	0.01179	0.35806	54178.3	13083.3	24628.3	S
186.422	0.1261	0.0000	163.652	0.01174	0.35770	54188.4	13084.2	24656.9	S
186.444	0.1261	0.0000	163.650	0.01168	0.35733	54198.5	13085.2	24685.5	S
186.467	0.1261	0.0000	163.648	0.01163	0.35697	54208.5	13086.1	24714.1	S
186.489	0.1261	0.0000	163.647	0.01157	0.35661	54218.6	13087.0	24742.6	S
186.511	0.1261	0.0000	163.645	0.01152	0.35625	54228.7	13088.0	24771.2	S
186.533	0.1261	0.0000	163.643	0.01147	0.35589	54238.8	13088.9	24799.6	S
186.556	0.1261	0.0000	163.642	0.01142	0.35553	54248.9	13089.8	24828.1	S
186.578	0.1261	0.0000	163.640	0.01136	0.35516	54259.0	13090.7	24856.5	S
186.600	0.1261	0.0000	163.638	0.01131	0.35480	54269.1	13091.6	24884.9	S
186.622	0.1261	0.0000	163.636	0.01126	0.35444	54279.2	13092.5	24913.3	S
186.644	0.1261	0.0000	163.635	0.01121	0.35408	54289.3	13093.4	24941.6	S
186.667	0.1261	0.0000	163.633	0.01116	0.35372	54299.4	13094.3	24969.9	S
186.689	0.1261	0.0000	163.631	0.01111	0.35336	54309.4	13095.2	24998.2	S
186.711	0.1261	0.0000	163.630	0.01106	0.35300	54319.5	13096.1	25026.5	S
186.733	0.1261	0.0000	163.628	0.01101	0.35264	54329.6	13097.0	25054.7	S
186.756	0.1261	0.0000	163.626	0.01096	0.35228	54339.7	13097.9	25082.9	S
186.778	0.1261	0.0000	163.625	0.01091	0.35192	54349.8	13098.7	25111.1	S
186.800	0.1261	0.0000	163.623	0.01086	0.35156	54359.9	13099.6	25139.2	S
186.822	0.1261	0.0000	163.621	0.01082	0.35120	54370.0	13100.5	25167.3	S
186.845	0.1261	0.0000	163.620	0.01077	0.35084	54380.1	13101.3	25195.4	S
186.867	0.1261	0.0000	163.618	0.01072	0.35048	54390.2	13102.2	25223.5	S
186.889	0.1261	0.0000	163.616	0.01067	0.35013	54400.3	13103.0	25251.5	S
186.911	0.1261	0.0000	163.614	0.01063	0.34977	54410.3	13103.9	25279.5	S
186.933	0.1261	0.0000	163.613	0.01058	0.34941	54420.4	13104.7	25307.4	S
186.956	0.1261	0.0000	163.611	0.01054	0.34905	54430.5	13105.6	25335.4	S
186.978	0.1261	0.0000	163.610	0.01049	0.34869	54440.6	13106.4	25363.3	S
187.000	0.1261	0.0000	163.608	0.01044	0.34833	54450.7	13107.3	25391.2	S
187.022	0.1261	0.0000	163.606	0.01040	0.34798	54460.8	13108.1	25419.0	S
187.044	0.1261	0.0000	163.605	0.01036	0.34762	54470.9	13108.9	25446.9	S
187.067	0.1261	0.0000	163.603	0.01031	0.34726	54481.0	13109.8	25474.6	S
187.089	0.1261	0.0000	163.601	0.01027	0.34690	54491.1	13110.6	25502.4	S
187.111	0.1261	0.0000	163.600	0.01022	0.34655	54501.1	13111.4	25530.2	S
187.133	0.1261	0.0000	163.598	0.01018	0.34619	54511.2	13112.2	25557.9	S
187.156	0.1261	0.0000	163.596	0.01014	0.34583	54521.3	13113.0	25585.5	S
187.178	0.1261	0.0000	163.595	0.01009	0.34548	54531.4	13113.8	25613.2	S
187.200	0.1261	0.0000	163.593	0.01005	0.34512	54541.5	13114.6	25640.8	S
187.222	0.1261	0.0000	163.591	0.01001	0.34476	54551.6	13115.4	25668.4	S
187.244	0.1261	0.0000	163.590	0.00997	0.34441	54561.7	13116.2	25696.0	S
187.267	0.1261	0.0000	163.588	0.00993	0.34405	54571.8	13117.0	25723.5	S
187.289	0.1261	0.0000	163.586	0.00988	0.34369	54581.9	13117.8	25751.0	S
187.311	0.1261	0.0000	163.585	0.00984	0.34334	54592.0	13118.6	25778.5	S
187.333	0.1261	0.0000	163.583	0.00980	0.34298	54602.0	13119.4	25806.0	S
187.356	0.1261	0.0000	163.582	0.00976	0.34263	54612.1	13120.2	25833.4	S
187.378	0.1261	0.0000	163.580	0.00972	0.34227	54622.2	13121.0	25860.8	S
187.400	0.1261	0.0000	163.578	0.00968	0.34192	54632.3	13121.7	25888.2	S
187.422	0.1261	0.0000	163.577	0.00964	0.34156	54642.4	13122.5	25915.5	S
187.444	0.1261	0.0000	163.575	0.00960	0.34121	54652.5	13123.3	25942.8	S

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results (cont,d.) :: Scenario 8 :: SRWMD 100yr-240hr

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
864.578	0.0000	0.0000	162.126	0.00175	0.00000	66555.1	20016.3	45434.6	S
876.578	0.0000	0.0000	162.118	0.00172	0.00000	66555.1	20091.3	45434.6	S
888.578	0.0000	0.0000	162.109	0.00170	0.00000	66555.1	20165.3	45434.6	S
900.578	0.0000	0.0000	162.101	0.00168	0.00000	66555.1	20238.4	45434.6	S
912.578	0.0000	0.0000	162.093	0.00166	0.00000	66555.1	20310.6	45434.6	S
924.578	0.0000	0.0000	162.085	0.00164	0.00000	66555.1	20381.9	45434.6	S
936.578	0.0000	0.0000	162.077	0.00162	0.00000	66555.1	20452.4	45434.6	S
948.578	0.0000	0.0000	162.069	0.00160	0.00000	66555.1	20522.1	45434.6	S
960.578	0.0000	0.0000	162.061	----	----	66555.1	20591.0	45434.6	N.A.

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results :: Scenario 9 :: WQTV 7,150 CF Slug Load

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
0.000	1191.6670	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	N.A.
0.002	1191.6670	0.0000	162.772	0.34252	0.00000	7150.0	2.1	0.0	U/P
2.400	0.0000	0.0000	162.472	0.30942	0.00000	7150.0	2890.5	0.0	U/P
6.000	0.0000	0.0000	162.085	0.17777	0.00000	7150.0	6412.0	0.0	U/S
12.000	0.0000	0.0000	162.032	0.01629	0.00000	7150.0	6869.9	0.0	S
24.000	0.0000	0.0000	161.903	0.00324	0.00000	7150.0	7150.0	0.0	S
36.000	0.0000	0.0000	161.760	0.00000	0.00000	7150.0	7150.0	0.0	S
48.000	0.0000	0.0000	161.653	0.00000	0.00000	7150.0	7150.0	0.0	S
60.000	0.0000	0.0000	161.567	0.00000	0.00000	7150.0	7150.0	0.0	S
72.000	0.0000	0.0000	161.495	0.00000	0.00000	7150.0	7150.0	0.0	S
84.000	0.0000	0.0000	161.434	0.00000	0.00000	7150.0	7150.0	0.0	S
96.000	0.0000	0.0000	161.380	0.00000	0.00000	7150.0	7150.0	0.0	S
108.000	0.0000	0.0000	161.332	0.00000	0.00000	7150.0	7150.0	0.0	S
120.000	0.0000	0.0000	161.289	0.00000	0.00000	7150.0	7150.0	0.0	S
132.000	0.0000	0.0000	161.249	0.00000	0.00000	7150.0	7150.0	0.0	S
144.000	0.0000	0.0000	161.213	0.00000	0.00000	7150.0	7150.0	0.0	S
156.000	0.0000	0.0000	161.180	0.00000	0.00000	7150.0	7150.0	0.0	S
168.000	0.0000	0.0000	161.150	0.00000	0.00000	7150.0	7150.0	0.0	S
180.000	0.0000	0.0000	161.121	0.00000	0.00000	7150.0	7150.0	0.0	S
192.000	0.0000	0.0000	161.094	0.00000	0.00000	7150.0	7150.0	0.0	S
204.000	0.0000	0.0000	161.069	0.00000	0.00000	7150.0	7150.0	0.0	S
216.000	0.0000	0.0000	161.045	0.00000	0.00000	7150.0	7150.0	0.0	S
228.000	0.0000	0.0000	161.022	0.00000	0.00000	7150.0	7150.0	0.0	S
240.000	0.0000	0.0000	161.001	0.00000	0.00000	7150.0	7150.0	0.0	S
252.000	0.0000	0.0000	160.981	0.00000	0.00000	7150.0	7150.0	0.0	S
264.000	0.0000	0.0000	160.962	0.00000	0.00000	7150.0	7150.0	0.0	S
276.000	0.0000	0.0000	160.943	0.00000	0.00000	7150.0	7150.0	0.0	S
288.000	0.0000	0.0000	160.926	0.00000	0.00000	7150.0	7150.0	0.0	S
300.000	0.0000	0.0000	160.909	0.00000	0.00000	7150.0	7150.0	0.0	S
312.000	0.0000	0.0000	160.893	0.00000	0.00000	7150.0	7150.0	0.0	S
324.000	0.0000	0.0000	160.877	0.00000	0.00000	7150.0	7150.0	0.0	S
336.000	0.0000	0.0000	160.862	----	----	7150.0	7150.0	0.0	N.A.

PONDS Version 3.3.0241
Retention Pond Recovery - Refined Method
Copyright 2011
Devo Seereeram, Ph.D., P.E.

Detailed Results :: Scenario 10 :: SRWMD 100yr-168hr Back-to-Back

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
0.000	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	N.A.
0.022	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.044	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.067	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.089	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.111	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.133	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.156	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.178	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.200	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.222	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.244	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.267	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.289	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.311	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.333	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.356	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.378	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.400	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.422	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.444	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.467	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.489	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.511	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.533	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.556	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.578	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.600	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.622	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.644	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.667	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.689	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.711	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.733	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.756	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.778	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.800	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.822	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.844	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.867	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.889	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.911	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.933	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.956	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
0.978	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.000	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.022	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.044	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.067	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.089	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.111	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.133	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.156	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.178	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.200	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.222	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.244	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.267	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.289	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.311	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.333	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.356	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.378	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.400	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.422	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.444	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.467	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.489	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.511	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.533	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.556	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.578	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.600	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U
1.622	0.0000	0.0000	159.500	0.00000	0.00000	0.0	0.0	0.0	U

Appendix B

Operation and Maintenance Requirements and
Erosion and Sedimentation Control Requirements

Operation and Maintenance Requirements

Proposed operation and maintenance and soil erosion and sediment control practices are outlined in the following paragraphs.

Stormwater Management Facilities

The man-made stormwater management facilities shall be maintained free of sediments and debris. Areas shall be inspected on a routine basis and nuisance plants shall be removed a minimum of twice annually. Grassed areas shall be mowed a minimum of 6 times per year. The natural systems shall be least disturbed as possible. Minimal maintenance is required for the natural and undisturbed areas. All basins shall be inspected monthly. Monthly documentation shall be noted based upon the inspection findings.

Erosion Control

All erosion damage at spillways, outfall structures, and along basin side slopes shall be repaired (grading and grassing) as conditions occur. All side slopes and other areas disturbed by construction shall be stabilized by sodding, hydro-mulching or other appropriate vegetative or non-vegetative erosion control measures.

Swale/Ditch

All swales, if any, shall be maintained free of debris and sediment. Sediments shall be removed when the depth has been reduced by 20 percent. Sediments removed from swales/ditches should be evenly spread over grassed areas away from the stormwater management facilities.

Culverts, Pipes and Structures

All pipes, if any, shall be inspected bi-annually. Culverts and pipes shall be maintained free of debris and sediment. Sediments removed from culverts and pipes should be evenly spread over grassed areas away from the stormwater management facilities.

The structures and paved flow lines, if any, shall be maintained clear of debris. Remove any debris and silt collected in inlets and pipes as routine inspections dictates.

Underdrains

All underdrains shall be inspected annually. Filter beds shall be maintained free of debris and sediment. Grass clippings shall be removed from the area after cutting and sod shall not be placed over filter material. Place stone or gravel over the filter material for stabilization, if necessary.

Inspection Reporting

Annual inspection reports, prepared by a properly licensed professional engineer, should be submitted to the water management district. The engineer shall inspect the site and report on the status and function of the system. Noted deficiencies and/or maintenance requirements shall be reported to the owner with recommendations for repairs. Repairs shall be executed.

Limerock/Sinkhole

If continuous limerock is encountered during excavation of the swales/basin or if a sinkhole forms in the area of a drainage swale/basin the engineer of record shall be notified by either the contractor or the established operation and maintenance entity. The engineer of record shall inspect the repaired area upon completion of the repair.

Where continuous limerock is encountered during excavation of the swales/basins, the limerock shall be over excavated by 2 feet and replaced with clayey soils that extend 2 feet beyond the perimeter of the limerock outcropping. The clayey soil shall have at least 20% passing the no. 200 sieve, compacted to 95% of standard proctor, and compacted in a wet condition with moisture 2% - 4% above optimum.

All swales/basins shall be inspected monthly for sinkhole occurrence. Should a sinkhole occur, the area shall be repaired as soon as possible. Repair shall include filling (limerock such as road base material, clay/sand mixture, or concrete if necessary). A 2-foot deep cap that extends 2 feet beyond the perimeter of the sinkhole shall be constructed with clayey soils. The clayey soil shall have at least 20% passing the no. 200 sieve, compacted to 95% of standard proctor, and compacted in a wet condition with moisture 2% - 4% above optimum. The clay soil cap shall be re-graded to prevent concentration of waters (ponding) and re-vegetated.

Operation & Maintenance Entity:

Usman Mazharrana
Nature Valley Harvest, LTD
632 Turkey Creek Boulevard
Alachua, FL 32615

Appendix C

Geotechnical Report



Engineering & Consulting, Inc.

**SUMMARY REPORT OF A
GEOTECHNICAL SITE EXPLORATION
TAX PARCEL NOS. 05900-004-001 THRU -010
ALACHUA, ALACHUA COUNTY, FLORIDA
GSE PROJECT No. 13834**

Prepared For:
NATURE VALLEY HARVEST, LTD
DECEMBER 2018

Certificate of Authorization No. 27430



December 13, 2018

Mr. Usman Mazharrana
Nature Valley Harvest, LTD
632 Turkey Creek
Alachua, Florida 32615

Subject: Summary Report of a Geotechnical Site Exploration
Tax Parcel Nos. 05900-004-001 thru -010
Alachua, Alachua County, Florida
GSE Project No. 13834

Dear Mr. Mazharrana:

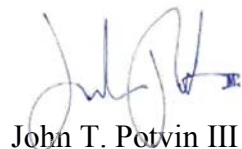
GSE Engineering & Consulting, Inc. (GSE) is pleased to submit this geotechnical site exploration report for the above referenced project.

Presented herein are the findings and conclusions of our exploration, including the geotechnical parameters and recommendations to assist with building foundation, pavement, and stormwater management designs.

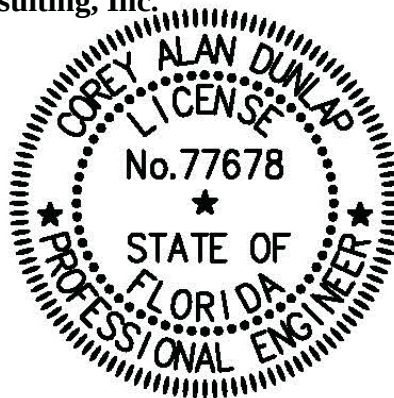
GSE appreciates this opportunity to have assisted you on this project. If you have any questions or comments concerning this report, please contact us.

Sincerely,

GSE Engineering & Consulting, Inc.



John T. Potvin III
Staff Scientist



This item has been digitally signed and sealed by

on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Corey A. Dunlap, P.E.
Senior Geotechnical Engineer
Florida Registration No. 77678

JTP/CAD:ldj

Z:\Projects\13834 Commercial Retail – Tax Parcel Nos. 05900-004-001 thru 010 – Geo\13834 Geo Report.doc

Distribution: Addressee (1 - Electronic)
File (1)

TABLE OF CONTENTS

LIST OF FIGURES	iii
1.0 INTRODUCTION	1-1
1.1 General.....	1-1
1.2 Project Description	1-1
1.3 Purpose	1-1
2.0 FIELD AND LABORATORY TESTS	2-1
2.1 General Description	2-1
2.2 Auger Borings.....	2-1
2.3 Standard Penetration Test Borings	2-1
2.4 Soil Laboratory Tests.....	2-1
3.0 FINDINGS	3-1
3.1 Surface Conditions.....	3-1
3.2 Subsurface Conditions	3-1
3.3 Review of Published Data	3-2
3.4 Laboratory Soil Analysis	3-3
4.0 EVALUATION AND RECOMMENDATIONS	4-1
4.1 General.....	4-1
4.2 Groundwater	4-1
4.3 Building Foundations.....	4-1
4.3.1 Post-Tensioned Slab/Foundation System.....	4-3
4.3.2 Stiffened Foundation System	4-3
4.4 Flexible Pavement	4-4
4.4.1 Stabilized Subgrade.....	4-5
4.4.2 Base Course.....	4-5
4.4.3 Wearing Surface.....	4-5
4.5 Site Preparation.....	4-5
4.5.1 Stripping.....	4-5
4.5.2 Dewatering	4-5
4.5.3 Proof-Rolling	4-6
4.5.4 Proof Compaction	4-6
4.5.5 Fill Placement	4-6
4.6 Quality Control and Construction Materials Testing.....	4-6
4.7 Stormwater Management.....	4-7
4.8 Fill Suitability.....	4-8
4.9 Surface Water Control and Landscaping.....	4-9
5.0 FIELD DATA	5-1
5.1 Auger Boring Logs	5-2
5.2 Standard Penetration Test Soil Boring Logs	5-3
5.3 Laboratory Results.....	5-4
5.4 Key to Soil Classification	5-5
6.0 LIMITATIONS	6-1
6.1 Warranty	6-1
6.2 Auger and SPT Borings	6-1
6.3 Site Figures	6-1
6.4 Unanticipated Soil Conditions.....	6-1
6.5 Misinterpretation of Soil Engineering Report	6-1

LIST OF FIGURES

Figure

1. Project Site Location Map
2. Site Plan Showing Approximate Locations of Field Tests

1.0 INTRODUCTION

1.1 General

GSE Engineering & Consulting, Inc. (GSE) has completed this geotechnical exploration for the proposed Tax Parcel Nos. 05900-004-001 thru -010 site located in Alachua, Alachua County, Florida. This exploration was performed in accordance with GSE Proposal No. 2018-564 dated November 8, 2018. Mr. Mazharrana of Nature Valley Harvest, LTD authorized our services on November 15, 2018.

1.2 Project Description

This project will consist of a commercial development located in Alachua, Alachua County, Florida (Figure 1). The site is located on the south side of U.S. Highway 441 just east of Turkey Creek Boulevard. According to the Alachua County Property Appraiser (ACPA), the approximately 8.19 acre subject site is listed as Tax Parcel Nos. 05900-004-001 through 05900-004-010. Mr. Craig Brashier, AICP with CHW Professional Consultants, Inc. provided information about the project including a concept site plan illustrating the proposed site layout.

Four single-story structures ranging in size between 3,200 and 5,000 square feet and one two-story 7,500 square feet structure are proposed for the site. The construction types have not been determined, but it is anticipated the buildings will either be wood frame or concrete masonry unit (CMU) construction. Structural loads have not been provided, but it is expected they will be on the order of 2 to 4 kips per foot for load bearing walls and less than 75 kips for columns. The finished floor elevations have not been provided, but it is anticipated they will be set within 1 or 2 feet of existing site grades.

Two stormwater management basins are proposed for the west and east sides of the property. An existing stormwater basin located just south of the site consistently holds water based on aerial photographs. A portion of the property is wetlands that likely cannot be developed. A parking lot will be located south of Buildings 4 and 5 and between/around Buildings 1, 2, and 3. Recently aerial photographs of the site were reviewed to evaluate the site accessibility. The site is heavily wooded with thick underbrush that required lane clearing to access the proposed boring locations.

Mr. John T. Potvin III with GSE conducted a site visit on November 29, 2018. Boring locations were staked on November 29, 2018. In addition to the Conceptual Plan, a recent aerial photograph was also obtained and reviewed. The Conceptual Plan and aerial photograph were used in the preparation of this exploration and report.

1.3 Purpose

The purpose of this geotechnical exploration was to determine the general subsurface conditions, evaluate these conditions with respect to the proposed construction, and prepare geotechnical parameters and recommendations to assist with building foundation, stormwater management, and pavement designs.

2.0 FIELD AND LABORATORY TESTS

2.1 General Description

The procedures used for field sampling and testing are in general accordance with industry standards of care and established geotechnical engineering practices for this geographic region. This exploration consisted of performing eight (8) Standard Penetration Test (SPT) borings to depths of 20 feet below land surface (bls) in the area of the proposed buildings, five (5) auger borings to depths of 5 feet bls in the area of the parking lots, and six (6) auger borings to depths of 15 feet bls in the area of the proposed stormwater management facilities.

The soil borings were performed at the approximate locations as shown on Figure 2. The borings were located at the site using the provided site plan, Global Positioning System (GPS) coordinates, and obvious site features as reference. The boring locations should be considered approximate. The soil borings were performed from November 28 to December 4, 2018.

2.2 Auger Borings

The auger borings were performed in accordance with ASTM D1452. The borings were performed with flight auger equipment that was rotated into the ground in a manner that reduces soil disturbance. After penetrating to the required depth, the auger was retracted and the soils collected on the auger flights were field classified and placed in sealed containers. Representative samples of each stratum were retained from the auger boring. Results from the auger borings are provided in Section 5.1.

2.3 Standard Penetration Test Borings

The soil borings were performed with a drill rig employing mud rotary auger drilling techniques and Standard Penetration Testing (SPT) in accordance with ASTM D1586. The SPTs were performed continuously to 10 feet and at 5-foot intervals thereafter. Soil samples were obtained at the depths where the SPTs were performed. The soil samples were classified in the field, placed in sealed containers, and returned to our laboratory for further evaluation.

After drilling to the sampling depth and flushing the borehole, the standard two-inch O.D. split-barrel sampler was seated by driving it 6 inches into the undisturbed soil. Then the sampler was driven an additional 12 inches by blows of a 140-pound hammer falling 30 inches. The number of blows required to produce the next 12 inches of penetration were recorded as the penetration resistance (N-value). These values and the complete SPT boring logs are provided in Section 5.2.

Upon completion of the sampling, the boreholes were abandoned in accordance with Water Management District guidelines.

2.4 Soil Laboratory Tests

The soil samples recovered from the soil borings were returned to our laboratory, and examined to confirm the field descriptions. Representative samples were then selected for laboratory testing. The laboratory tests consisted of fifteen (15) percent soil fines passing the No. 200 sieve determinations, fifteen (15) natural moisture content determinations, seven (7) Atterberg Limits tests, and four (4) constant head hydraulic conductivity tests. These tests were performed in order to aid in classifying the soils and to further evaluate their engineering properties. The laboratory tests are provided in Section 5.3.

3.0 FINDINGS

3.1 Surface Conditions

Mr. John Potvin with GSE visited the site on November 29, 2018 to observe the site conditions and mark the boring locations. Travel lanes were cleared providing access to the boring locations. The property boundaries were estimated in the field based on the provided site plan and physical features in the field, including dirt pathways, survey stakes, and other readily apparent features.

The site is heavily wooded with trees and thick underbrush. The site is bordered by NW US Highway 441 Avenue to the north, Turkey Creek Blvd to the west, and NW 59th Terrace to the east. A wetland area and Turkey Creek residential homes are present south of the site.

The topography at the site is gently to moderately sloping down toward the south from the north. Regional topography is gently sloping towards the southwest from the northeast. The Alachua USGS Topographic Map indicates the ground surface elevations at the site are near elevations 144 to 166 feet¹ NAVD88.

3.2 Subsurface Conditions

The locations of the auger and SPT borings are provided on Figure 2. Complete logs for the borings are provided in Sections 5.1 and 5.2. Descriptions for the soils encountered are accompanied by the Unified Soil Classification System symbol (SM, SP-SM, etc.) and are based on visual examination of the recovered soil samples and the laboratory tests performed. Stratification boundaries between the soil types should be considered approximate, as the actual transition between soil types may be gradual.

The auger borings located in the proposed stormwater management facilities indicate the soils across these areas are relatively consistent. The auger borings initially penetrated 2 to 10 feet of a near-surface sandy stratum consisting of sand with silt and sand with clay (SP-SM, SP-SC). This was underlain by clayey to very clayey sand (SC, SC/CH) with some interbedded strata of sandy clay (CH) to the explored depths of 15 feet bls. The auger boring P-5 encountered very clayey sand (SC/CH) at depths ranging from approximately 1 to 15 feet bls.

The auger borings located in the proposed roadways generally encountered a near-surface sandy stratum consisting of sand with silt and sand with clay (SP-SM, SP-SC) to a depth of 3 to 5 feet bls. This was underlain by very clayey sand (SC/CH) to the boring termination depths of 5 feet bls. The auger boring A-5 encountered sandy clay (CH) at depths ranging from approximately 4 to 5 feet bls.

The SPT borings within the area of the proposed building initially penetrated a 2.5 to 6 feet thick stratum of sand with silt and sand with clay (SP-SM, SP-SC). This was underlain by interbedded strata of clayey to very clayey sand (SC, SC/CH) to depths of 6 to 20 feet bls. SPT borings B-2, B-4, and B-6 encountered clay-rich soils consisting of sandy clay (CH) underlying the clayey sand and very clayey sand beginning at depths of approximately 5.5 to 13.5 feet bls.

¹ United States Geological Survey, Alachua Quadrangle, 2015.

The near-surface soil layers (within 2 to 4 feet of grade) are generally in very loose to medium dense conditions with N-values ranging from 3 to 16 blows per foot. The underlying soils (within 10 feet of grade) are generally in firm to medium dense conditions with N-values ranging from 7 to 29 blows per foot. The deeper soils (10+ feet beneath grade) are generally in medium dense to very dense conditions with N-values ranging from 13 to 54 blows per foot.

The groundwater table was recorded at depths ranging between 4.5 to 7 feet in SPT borings B-1, B-3, and B-4. The groundwater table was also encountered in auger borings A-1, A-2, A-3, A-4, P-1, P-2, P-3, and P-5 from 3.5 to 6.7 feet.

3.3 Review of Published Data

The majority of the site is mapped as two soil series by the Soil Conservation Service (SCS) Soil Survey for Alachua County². The soil series was listed as Millhopper sand and Pelham sand. The following soil descriptions are from the Soil Survey.

Millhopper sand, 0 to 5 percent slopes – This nearly level to gently sloping, moderately well drained soil is in small and large irregularly shaped areas on uplands and on slightly rolling knolls in the broad flatwoods. Slopes are mostly nearly smooth or convex. The areas are variable in size. They range from about 10 to 250 acres.

Typically, the surface layer is dark grayish brown sand about 9 inches thick. The subsurface layer is sand or fine sand about 49 inches thick. The upper 17 inches is yellowish brown, the next 22 inches is light yellowish brown, and the lower 10 inches is very pale brown. The subsoil extends to a depth of 89 inches. The upper 6 inches is yellowish brown loamy sand that has grayish and brownish mottles; the next 22 inches is light gray, mottled sandy clay loam; and the lower 3 inches is light gray, mottled sandy loam.

Included with this soil in mapping are small areas of Arredondo, Bonneau, Fort Meade, Gainesville, Kanapaha, Lochloosa, and Sparr soils. Siliceous limestone boulders and small sinks are within some delineations. Small areas of Millhopper soils that have 5 to 8 percent slopes are also included. About 25 acres mapped as this Millhopper soil along the Santa Fe River is occasionally flooded. Total included areas are about 20 percent or less.

This Millhopper soil has a water table that is at a depth of 40 to 60 inches for 1 to 4 months and at a depth of 60 to 72 inches for 2 to 4 months during most years. The available water capacity is low in the surface and subsurface layers and is low to medium in the subsoil. Permeability is rapid in the surface and subsurface layers, moderately rapid in the upper 6 inches of the subsoil, and slow to moderately slow below this depth. Natural fertility is low. Organic matter content is low to moderately low.

Pelham sand – This nearly level, poorly drained soil is in small and large areas in the flatwoods. Slopes are nearly smooth and range from 0 to 2 percent. The areas are irregular in shape and range from 10 to 50 acres.

² Soil Survey of Alachua County, Florida. Soil Conservation Service, U.S. Department of Agriculture.

Typically, the surface layer is sand about 7 inches thick. The upper 4 inches is very dark gray, and the lower 3 inches is dark gray. The subsurface layer is sand about 22 inches thick. The upper 7 inches is light brownish gray and has gray mottles, and the lower 15 inches is gray. The subsoil extends to a depth of 69 inches. The upper 3 inches is gray sandy loam, and the lower 37 inches is gray, mottled sandy clay loam. Between depths of 69 and 80 inches, the underlying material is gray, mottled sandy loam.

Included with this soil in mapping are small areas of Mulat, Pomona, Riviera, Surrency, and Wauchula soils. Some mapped areas of this soil along Hogtown Creek and its tributaries in the western part of Gainesville are occasionally flooded. Total included areas are less than 15 percent.

This Pelham soil has a water table that is less than 10 inches below the surface for 1 to 4 months during most years. The water table recedes below a depth of 40 inches during dry seasons. Surface runoff is slow. The available water capacity is low in the surface and subsurface layers and medium in the loamy subsoil. Permeability is rapid in the surface and subsurface layers and moderate in the loamy subsoil. Natural fertility is low in the upper 29 inches and medium below 29 inches. The organic matter content is moderately low.

3.4 Laboratory Soil Analysis

Selected soil samples recovered from the soil borings were analyzed for the percent soil fines passing the No. 200 sieve, natural moisture content, Atterberg Limits, and hydraulic conductivity. Samples selected for laboratory testing were collected at depths ranging from near ground surface to 13.5 feet bls. These tests were performed to confirm visual soil classification and evaluate their engineering properties. The complete laboratory report is provided in Section 5.3.

The laboratory tests indicate the tested soils consist of sand with silt, sand with clay, clayey sand, very clayey sand, and sandy clay. The tested sand with silt (SP-SM) contains approximately 8.2 percent soil fines passing the No. 200 sieve with a natural moisture content of about 11 percent. The tested sand with clay (SP-SC) contains approximately 5.7 to 6.9 percent soil fines passing the No. 200 sieve with natural moisture contents of about 5.6 to 6.5 percent. The tested clayey sand (SC) contains approximately 20 to 28 percent soil fines passing the No. 200 sieve with natural moisture contents of about 12 to 19 percent. The tested very clayey sand (SC) contains approximately 33 to 43 percent soil fines passing the No. 200 sieve with natural moisture contents of about 17 to 31 percent. The tested sandy clay (CH) contains approximately 51 percent soil fines passing the No. 200 sieve with a natural moisture content of about 35 percent.

Atterberg Limits tests indicate the tested clayey sand (SC) has a Liquid Limit (LL) value of 41, Plastic Limit (PL) value of 15, and Plasticity Index (PI) value of 26. This corresponds to a material with low to moderate potential ($LL < 50$ and $25 < PI < 35$) for expansive behavior³. The tested very clayey sand (SC/CL, SC/CH) has LL values ranging from 41 to 60, PL values ranging from 17 to 21, and PI values ranging from 24 to 42. This corresponds to a material with low ($LL < 50$, $PI < 25$) to high potential ($LL > 60$ and $PI > 35$) for expansive behavior. The tested sandy clay (CH) has a LL value of 64, PL value of 21, and PI value of 43. This corresponds to a material with high potential ($LL > 60$ and $PI > 35$) for expansive behavior.

³ U.S. Department of the Army USA, 1983, Foundations in Expansive Soils, TM 5-818-7, p. 4-1.

The constant head hydraulic conductivity test results indicate the near-surface sand with silt (SP-SM) has hydraulic conductivity values of 11 feet per day. The tested sand with clay (SP-SC) has hydraulic conductivity values of 22 to 27 feet per day. The tested clayey sand (SC) has a hydraulic conductivity value of 3.4 feet per day.

4.0 EVALUATION AND RECOMMENDATIONS

4.1 General

The following recommendations are made based upon our understanding of the proposed construction, a review of the attached soil borings and laboratory test data, and experience with similar projects and subsurface conditions. If plans or the location of proposed construction changes from those discussed previously, GSE requests the opportunity to review and possibly amend our recommendations with respect to those changes.

The final design of a foundation system is dependent upon adequate integration of geotechnical and structural engineering considerations. Consequently, GSE must review the final foundation design in order to evaluate the effectiveness and applicability of our initial analyses, and to determine if additional recommendations may be warranted. Without such a review, the recommendations presented herein could be misinterpreted or misapplied resulting in potentially unacceptable performance of the foundation system.

The performance of site improvements may be sensitive to their post-construction relationship to site groundwater levels, seepage zones, or soil/rock characteristics exposed at final site grades. GSE recommends that use of boring information for final design of all site improvements be predicated on proper horizontal and vertical control of borings.

In this section of the report, we present our geotechnical parameters and recommendations to assist with building foundation, stormwater management, and pavement designs as well as our general site preparation guidelines.

4.2 Groundwater

The groundwater table was recorded at depths ranging between 4.5 to 7 feet in SPT borings B-1, B-3, and B-4. The groundwater table was also encountered in auger borings A-1, A-2, A-3, A-4, P-1, P-2, P-3, and P-5 from 3.5 to 6.7 feet. The Alachua County Soil Survey indicates seasonal high groundwater levels are 10 to 72 inches across the site.

Based upon the soil borings performed, review of the provided topographic survey, and the County Soil Survey information, we estimate the seasonal high groundwater table will be approximately 1 to 3 feet beneath grade. The seasonal high water table is expected to become more shallow closer to the wetland area.

4.3 Building Foundations

The soil borings indicate the soils at the building locations are relatively consistent. The borings indicate 2.5 to 6 feet of sand with silt and clay overlies clayey to very clayey sand. SPT borings B-2, B-4, and B-6 encountered sandy clay underlying the clayey to very clayey sands beginning at depths of approximately 5.5 to 13 feet bls.

The laboratory tests indicate the clay-rich soils mostly have marginal to high potential for expansive behavior. These soils expand and contract with changes in moisture content which can result in differential foundation movement. Considering the finished floor elevations are expected to be set within 1 or 2 feet of existing site grades, GSE predicts less than 2 feet of separation will occur between the expansive soils and many of the shallow foundations. The risk of foundation movement as a result of expansive soils is high for this project. We do not recommend using conventionally reinforced shallow foundations to support these buildings.

Considering the presence of the expansive soils, GSE recommends two options be considered to support the structures. Options 1 and 2 consist of supporting the structure with either a post-tensioned slab or a stiffened foundation system that is designed to resist differential movements that can occur as a result of the expansive soils. Foundation bottom elevations have not yet been determined, but GSE believes that undercutting the expansive soils will be required in many areas to provide at least 3 feet of separation between foundation bottoms and expansive soils.

Where clay-rich soils (i.e. soils with greater than 30 percent soil fines) are present at the foundation bearing surface, GSE recommends the foundation limits and a minimum of 2 feet past the foundation edges be undercut to a minimum depth of 3 feet below the foundation bottoms. The foundation undercuts should initially be backfilled with 3 feet of crushed limerock fill materials. Above this depth, the undercuts can be backfilled with on-site sands as described in Section 4.5. The top of the crushed limerock fill should be sloped down away from the building such that water is “shed” away from the structure. Although not expected, a similar undercut should be performed for the slab should expansive soils be present within 2 feet of slab bottom in those areas as well.

Crushed limerock fill should meet FDOT gradation requirements and be placed in approximate 6-inch loose lifts. Limerock fill should be compacted to a minimum of 98 percent of the Modified Proctor maximum dry density (ASTM D1557). Sand fill should be placed in approximate 12-inch loose lifts and compacted to a minimum of 95 percent of the Modified Proctor maximum dry density (ASTM D1557).

We recommend the undercutting and backfilling be performed under the observation of the geotechnical engineer. The geotechnical engineer should inspect the bottom of the undercuts prior to the contractor placing the backfill. Field density tests should be performed on the backfill at a minimum of three tests or one test per 50 linear feet of undercut trench and every other individual footing for each 1-foot lift of fill material.

Due to the mostly sandy nature of the majority of the near-surface soils and the recommended undercutting, we expect settlement to be mostly elastic in nature. The majority of the settlement will occur on application of the loads, during and immediately following construction. Using the recommended maximum bearing pressure, the assumed maximum structural loads, and the field and laboratory test data which we have correlated into the strength and compressibility characteristics of the subsurface soils, we estimate the total settlements of the structure to be 1 inch or less, with approximately half of it occurring upon load application (during construction).

Differential settlement results from differences in applied bearing pressures and the variations in the compressibility characteristics of the subsurface soils. For the building pad prepared as recommended, we anticipate differential settlement of less than 1/2 inch.

Post-construction settlement of the structures will be influenced by several interrelated factors, such as (1) subsurface stratification and strength/compressibility characteristics of the bearing soils; (2) footing size, bearing level, applied loads, and resulting bearing pressures beneath the foundation; (3) site preparation and earthwork construction techniques used by the contractor, and (4) external factors, including but not limited to vibration from off-site sources and groundwater fluctuations beyond those normally anticipated for the naturally-occurring site and soil conditions which are present.

Our settlement estimates for the structure are based upon the use of successful adherence to the site preparation recommendations presented later in this report. Any deviation from these recommendations could result in an increase in the estimated post-construction settlement of the structure.

4.3.1 Post-Tensioned Slab/Foundation System

Considering the expansive soils present at the site, GSE recommends two options be considered to support the structures. Option 1 consists of using a post-tensioned slab/foundation system to support the structures that is designed to better resist differential movements that could occur as a result of the expansive soils. GSE believes that undercutting the expansive soils will also likely be required to provide adequate separation.

The post-tensioned slab/foundation should be designed to resist bending moments resulting from foundation movement. It is our experience that the post-tensioned slab/foundation will consist of thickened sections approximately 20 to 24 inches thick around the perimeter and in a grid throughout the interior of the structure spaced no more than about 15 feet apart each direction. A post-tensioned cable is typically placed near the top and bottom of the thickened sections, and post-tensioned cables are also typically placed in the center of the slab spaced 4 to 6 feet apart in each direction. However, the post-tensioned foundation should be designed by an engineer or architect familiar with post-tensioned foundation design specifically intended to resist differential movements resulting from expansive soils.

The post-tensioned foundation design should consider edge moisture variation distances of 4 and 5 feet for center and edge lift, respectively. Maximum anticipated center and edge lift is 1 and 1.5 inches, respectively. A slab/subgrade friction coefficient of 0.45 can be assumed.

We recommend the shallow foundations be designed for a maximum net soil bearing pressure of 3,000 psf. Net bearing pressure is defined as the soil bearing pressure at the base of the foundation in excess of the natural overburden pressure. The foundations should be designed based upon the maximum load that could be imposed by all loading conditions.

All appropriate requirements of the latest edition of the IBC and the Post-Tensioning Institute should be followed in the design and construction of the post-tensioned slab foundations.

We wish to point out that the post-tensioned slab/foundation system will not eliminate differential foundation movement resulting from volume changes of expansive soils. However, the stiffer post-tensioned slab/foundation should help to “bridge” over the subgrade soils and reduce the amount of bending and resulting angular distortion that causes cracking damage compared to conventionally reinforced foundations.

4.3.2 Stiffened Foundation System

Considering the expansive soils present at the site, GSE recommends three options be considered to support the structure. Option 2 consists of using a reinforced stiffened foundation to support the structure that is designed to better resist differential movements that could occur as a result of the expansive soils. GSE believes that undercutting the expansive soils will also likely be required to provide adequate separation.

Based upon the soil conditions encountered, it is our opinion the structure can be supported by continuous shallow foundations that are stiffened to behave as grade beams. The stiffened shallow foundations should be designed as grade beams with top and bottom reinforcement.

Column foundations should be “tied into” the grade beams such that the entire foundation system behaves as one unit. These foundations typically have a minimum thickness of 18 inches, with both top and bottom steel tied with stirrups; however this foundation should be designed by your architect or structural engineer that is familiar with grade beam-type foundation design.

We recommend the shallow foundations be designed for a maximum net soil bearing pressure of 3,000 psf. Net bearing pressure is defined as the soil bearing pressure at the base of the foundation in excess of the natural overburden pressure. The foundations should be designed based upon the maximum load that could be imposed by all loading conditions.

The foundations should be embedded a minimum of 18 inches below the lowest adjacent grade. Interior foundations or thickened sections should be embedded a minimum of 12 inches. The foundations should have minimum widths of 18 inches for strip footings, and 24 inches for columns, even though the maximum soil bearing pressure may not be fully developed.

We wish to point out that the stiffened foundations will not eliminate differential foundation movement resulting from volume changes of expansive soils. However, the stiffer foundations should help to “bridge” over the subgrade soils and reduce the amount of bending and resulting angular distortion that causes cracking damage compared to conventionally reinforced foundations. A reinforced stiffened foundation is considered to be appreciably more effective in resisting differential movements compared to a conventional, shallow foundation system, but less effective compared to the Option 1 post-tensioned foundation.

4.4 Flexible Pavement

Overall soil conditions encountered by our borings at this site are suitable for supporting conventional limerock base and asphalt wearing surface pavements. We have not been provided the anticipated traffic loading conditions; therefore, the following pavement component recommendations should be used only as guidelines.

Expansive clay-rich soils were encountered near ground surface at a few of the boring locations. During site grading and pavement construction efforts, we recommend any surficial clay-rich soils be over excavated and replaced with either on-site or imported sands containing less than 12 percent soil fines passing the No. 200 sieve. The depth of undercutting should be a minimum of 2 feet below the bottom of the limerock base course and it should continue laterally until native sandy soils have been penetrated. The sand backfill should be compacted to a minimum of 95 percent of the Modified Proctor maximum dry density (ASTM D1557).

The intent of the over excavation and replacement is to provide a minimum separation of 24 inches between the bottom of the base course and the top of the expansive soils. This will also provide the necessary minimum separation from the seasonal high groundwater table considering it is a perched condition. The over excavation should be performed on an as-need basis during construction. Based upon the soil profiles encountered, we anticipate over excavation will be limited to the areas near borings A-1, A-3, and A-5. Raising site grades in the pavement areas will help to reduce the amount of over excavation required.

4.4.1 Stabilized Subgrade

The stabilized subgrade should have a minimum Limerock Bearing Ratio (LBR) of 40, with minimum thicknesses of 6 inches for automobile parking areas and 12 inches for driveways. The stabilized subgrade can be imported material or a mixture of imported and on-site material. If a mix is proposed, a mix design should be performed to determine the optimum mix proportions. The stabilized subgrade should be compacted to a minimum of 98 percent of the Modified Proctor maximum dry density (ASTM D1557) for soils with less than 15 percent fines content. Soils with 15 percent or greater fines content should be compacted to 100 percent of the Standard Proctor maximum dry density (ASTM D698).

4.4.2 Base Course

The base course should consist of crushed limerock having a LBR of at least 100. Limerock should be obtained from a FDOT approved source, and should meet FDOT gradation requirements. The base course thickness should be a minimum of 6 inches in automobile parking areas and 8 inches in driveways. The base course should be compacted to at least 98 percent of the Modified Proctor maximum dry density (ASTM D1557).

The constructability of differing base course thicknesses may be difficult, and having a uniform 8-inch thick base course may be more practical.

4.4.3 Wearing Surface

The asphalt-wearing surface should consist of an FDOT Type SP Hot Mix Asphalt mixture. For automobile parking areas, the thickness should be a minimum of 1.5 inches. For driveway areas, the thickness should be a minimum of 2 inches. The asphalt-wearing surface should consist of an SP-12.5 mix. The asphalt should be compacted to at least 95 percent of the mix design density.

The constructability of differing asphalt thicknesses may be difficult, and having a uniform 2-inch thick asphalt wearing surface may be more practical.

4.5 Site Preparation

The soils at this site should be suitable for supporting the proposed construction using normal, good practice site preparation procedures. Selective undercutting and replacement of clay-rich soils may be necessary. The following recommendations are our general guidelines for site preparation.

4.5.1 Stripping

Strip the construction limits and 10 feet beyond the perimeter of all grass, roots, topsoil, pavement, and other deleterious materials. You should expect to strip to depths of 12 or more inches. Deeper stripping will likely be necessary due to major root systems present at the site.

4.5.2 Dewatering

Temporary dewatering is not expected to be necessary for this project. However, if needed, we anticipate dewatering can be accomplished with sumps placed near the construction area, or with underdrains connected to a vacuum pump.

In any case, the site should always be graded to promote runoff and limit the amount of ponding. Localized ponding of stormwater is expected without proper grading during construction, and could render previously acceptable surfaces unacceptable.

4.5.3 Proof-Rolling

Proof-roll the subgrade with heavy rubber-tired equipment, such as a loaded front-end loader or dump truck, to identify any loose or soft zones not found by the soil borings. The proof-rolling should be monitored by a geotechnical engineer or qualified technician. Undercut or otherwise treat these zones as recommended by the geotechnical engineer in this report.

4.5.4 Proof Compaction

Compact the subgrade to a density of at least 95 percent of the Modified Proctor maximum dry density (ASTM D1557). The specified compaction should be obtained to a depth of 1 foot below the foundation bottoms and the existing grade prior to placing fill. Vibratory roller equipment should not be used within approximately 100 feet of existing structures. Lighter “walk-behind” compaction equipment may be used to achieve the degree of compaction.

Should clayey sand be encountered at the bearing surface, this material should be probed and visually confirmed to be unyielding in the upper 12 inches in lieu of density testing. If the foundation excavations penetrate the clayey sand, the excavation should be performed in a manner that reduces soil disturbance. Clayey sand soils (with fines content in excess of 15 percent) that are removed and replaced or appreciably disturbed need to be re-compacted to 98 percent of the Standard Proctor maximum dry density (ASTM D698).

4.5.5 Fill Placement

Imported fill placed to raise the site grades should consist of clean sand having less than 10 percent passing the No. 200 sieve. On-site soils meeting the requirements of Section 4.8 may also be used as structural fill. The fill should be placed in maximum 12-inch loose lifts that are compacted to at least 95 percent of the Modified Proctor maximum dry density (ASTM D1557). If lighter “walk-behind” compaction equipment is used, this may require lifts of 4 inches or less to achieve the required degree of compaction.

4.6 Quality Control and Construction Materials Testing

It should be noted that the geotechnical engineering design does not end with the advertisement of the construction documents. As the geotechnical engineer of record, GSE is the most qualified to perform the construction materials testing that will be required for this project. The benefits of having the geotechnical engineer of record also perform the construction materials testing are numerous. If GSE continues to be involved with the project through construction, we will be able to constantly re-evaluate and possibly alter our geotechnical recommendations in a timely and cost effective manner once final design and construction techniques are developed. This often results in cost savings for the project.

We recommend performing compaction testing beneath the concrete floor slab and the building foundations. We recommend one test be performed every 50 linear feet of continuous footing and every other column footing, per foot depth of fill or native material. We recommend a compaction test be performed for each 2,500 square feet of floor area or 10,000 square feet of pavement area per foot of fill or native material, or a minimum of three tests each, whichever is greater. Test all footing excavations to a depth of 12 inches at the frequencies stated above.

4.7 Stormwater Management

The soil conditions at the stormwater management facility are relatively consistent; initially penetrating sand with silt and sand with clay overlying clayey to very clayey sand with some interbedded strata of sandy clay.

The groundwater table was encountered in auger borings P-1, P-2, P-3, and P-5 from 4 to 6.7 feet. We anticipate the seasonal high groundwater levels in the western basin will be 3 feet bls and in the eastern basin will be 1.5 feet bls.

The laboratory permeability tests indicate the surficial layer of sand with silt, sand with clay, and clayey sand has hydraulic conductivity values of 3.4 to 27 feet per day. The deeper clayey soils are expected to be confining.

Based upon our findings and test results, our recommended soil parameters for the stormwater management design in the explored areas are presented below. The recommended parameters consider the results of the permeability tests, wash 200 determinations, and our experience with these types of soils. The parameters below do not consider a factor of safety.

West Basin Parameters

1. Base elevation of effective or mobilized aquifer (average depth of confining layer) equal to 7 feet bls.
2. Unsaturated vertical infiltration rate of 15 feet per day.
3. Horizontal hydraulic conductivity equal to 20 feet per day.
4. Specific yield (fillable porosity) of 20 percent.
5. Average seasonal high groundwater table depth equal to 3 feet bls.
6. Average seasonal low groundwater table depth equal to 7 feet bls.

East Basin Parameters

1. Base elevation of effective or mobilized aquifer (average depth of confining layer) equal to 2 feet bls.
2. Unsaturated vertical infiltration rate of 6 feet per day.
3. Horizontal hydraulic conductivity equal to 8 feet per day.
4. Specific yield (fillable porosity) of 20 percent.
5. Average seasonal high groundwater table depth equal to 1.5 feet bls.
6. Average seasonal low groundwater table depth equal to 6 feet bls.

In areas where clay-rich soils are present at the basin bottom, we recommend these soils be undercut a minimum of 2 feet and backfilled with the on-site sands and sands with silt (SP, SP-SM) having a maximum of 12 percent soil fines passing the No. 200 sieve. The intent of this undercutting and replacement is to provide a more uniform sand “blanket” at the basin bottom that allows the migration of water to the deeper deposits of sand. This sand blanket will also reduce the potential for clay-fines leaching out of the soils when water is present in the basin that can result in a thin layer of confining type material on the basin bottom that can reduce the effectiveness of the basin.

4.8 Fill Suitability

The soils encountered at this site within the explored depths range from sands (SP) to clays (CL/CH). A discussion of the suitability for reuse as structural fill for each soil classification according to the Unified Soil Classification System (USCS) designation is provided below.

SP, SP/SM – Sands (SP) and sand with silt (SP/SM) have less than 5 percent and 12 percent soil fines passing the No. 200 sieve, respectively, and are typically well draining soils that are suitable for reuse as structural fill. The sands with silt may require moisture conditioning (drying) to make the material more workable. These soils will require stockpiling and drying before they are reused if they are excavated from below the water table.

SM – Silty sands (SM) can have between 12 percent and 50 percent soil fines passing the No. 200 sieve. Silty sands are typically non-plastic or have low plasticity, and can be reused as structural fill with precautions. Silty sands can be moisture sensitive and difficult to work and compact and can rut if the moisture content is near or above the optimum moisture content. We recommend these soils be moisture conditioned (dried) so that the moisture content during use is at or below the optimum moisture content. Aerating and exposure to the sun is typically the most effective methods of drying these soils. It may not be practical to reuse these materials during the wet season, as frequent rain showers may not allow these soils to dry to a workable moisture content. Suitable silty sands are limited to soil having less than 30 percent soil fines passing the No. 200 sieve. Silty sands with more than 30 percent soil fines are especially moisture sensitive, and are not recommended for reuse as structural fill. These soils will behave more as sandy silt, and for this reason, very silty sands having more than 30 percent soil fines passing the No. 200 sieve have been assigned a dual classification of SM/ML. Silty sand soils that are excavated from below the water table are not recommended for reuse as structural fill due to the amount of time that will be required to dry these soils to a workable condition.

SC – Clayey sand (SC) soils can have between 12 percent and 50 percent soil fines passing the No. 200 sieve. Clayey sands can have a high range of plasticity, varying from a PI of 7 or greater and plotting above the A-line to highly plastic. Friable clayey sands are typically suitable for use as structural fill with precautions. Clayey sands will be moisture sensitive and difficult to work and compact and can rut during placement if the moisture content is near or above the natural moisture content. We recommend these soils be moisture conditioned (dried) so that the moisture content during use is at or below the optimum moisture content. Aerating and exposure to the sun is typically the most effective methods of drying these soils. It may not be practical to reuse these materials during the wet season, as frequent rain showers may not allow these soils to dry to a workable moisture content. Suitable clayey sands are limited to soil having less than 30 percent soil fines passing the No. 200 sieve. Clayey sands with more than 30 percent soil fines passing the No. 200 sieve are especially moisture sensitive and are typically highly plastic, and are not recommended for reuse as structural fill. These soils will behave more as sandy clay, and for this reason, very clayey sands having more than 30 percent soil fines passing the No. 200 sieve have been assigned a dual classification of SC/CH or SC/CL. Clayey sand soils that are excavated from below the water table are not recommended for reuse as structural fill due to the amount of time that will be required to dry these soils to a workable condition.

ML, MH, CL, CH – Silts and clays are not suitable materials for reuse as structural fill.

When using on-site soils as fill materials, we recommend the silty and clayey sand soils (SM, SC) be used in the lower depths of the fill. Sand and sand with silt (SP, SP-SM) should be used in the upper portions of the fill. We recommend a minimum of 2 feet of sand (SP, SP-SM) cover the silty and clayey sand fill materials to reduce the potential for soggy surface conditions due to the low permeability characteristics of the silty and clayey sand materials.

4.9 Surface Water Control and Landscaping

Roof gutters should be considered to divert runoff away from the building. The gutter downspouts should discharge a minimum of 10 feet from the structure to reduce the amount of water collecting around the foundations. Where possible, the gutter downspouts should discharge directly into the storm sewer system or onto the asphalt paved areas in order to reduce the amount of water collecting around the foundations. Grading of the site should be such that water is diverted away from the building on all sides to reduce the potential for erosion and water infiltration along the foundation.

With respect to landscaping, it is recommended that existing and planted trees and large “tree-like” shrubbery with potential for developing large root systems be planted a minimum distance of half their mature height, and preferably their expected final height, away from the structure. The purpose of this is to reduce the potential for foundation or slab movements from the growth of root systems as the landscaping matures. Consideration should also be given to using landscaping that has a low water demand, so that excessive irrigation is not conducted around the structures.

If excavations for underground utilities encounter the clay-rich soils, the excavations should be made such that they do not trap water (i.e. “swimming pool” or “bowl” effect). Sloping the excavations, installing underdrains, or extending the excavation to a more pervious area can achieve this. Allowing surface water to become trapped within utility trenches or other excavations (including footings) serves as a potential water source for the clay, which can result in shrink swell of these soils. Furthermore, during construction, surface water within the building areas must be controlled such that the water does not become trapped and represent a source of water for the underlying clay-rich soils. Mismanagement of the surface water during construction within the building footprint could result in subsequent post-construction slab movement.

The above recommendations are intended to maintain relatively consistent moisture contents within the clay-rich expansive soils encountered by the borings. The importance of proper surface water control and landscaping placement cannot be overemphasized in accomplishing this objective.

5.0 FIELD DATA

5.1 Auger Boring Logs



GSE Engineering & Consulting, Inc.
 5590 SW 64th Street, Suite B
 Gainesville, Florida 32608
 Telephone: (352) 377-3233
 Fax: (352) 377-0335

CLIENT Nature Valley Harvest, LTD

PROJECT NAME Tax Parcel Nos. 05900-004-001 through 05900-004-010

PROJECT NUMBER 13834

PROJECT LOCATION Alachua, Alachua County

DATE PERFORMED 11/28/2018 **BORING NUMBER A-1**

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS: LOGGED BY WDI

▼ AT TIME OF DRILLING 4.0 ft CHECKED BY JTP

▽ ESTIMATED SEASONAL HIGH 1.0 ft

NOTES

DATE PERFORMED 11/28/2018 **BORING NUMBER A-2**

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS: LOGGED BY WDI

▼ AT TIME OF DRILLING 4.0 ft CHECKED BY JTP

▽ ESTIMATED SEASONAL HIGH 1.0 ft

NOTES

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION	DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0				0			
		AU 1	(SP-SM) Dark brown SAND with silt			AU 1	(SP-SM) Dark brown SAND with silt
1			▽ (SP-SC) Gray SAND with clay	1.0			▽
		AU 2					
2				2			
3				3			
4			▼ (SC/CH) Gray very clayey SAND and trace rock fragments	4.0			▼
		AU 3				AU 2	(SP-SC) Gray SAND with clay
5				5			
			Bottom of borehole at 5.0 feet.				2.5
							5.0
							Bottom of borehole at 5.0 feet.

AB 2 PORTRAIT - GINT STD US.GDT - 12/13/18 14:27 - Q:\PROJECTS\13834 TAX PARCELS 05900-004-001 THRU 01013834 BORINGS\13834 BORINGS.GPJ

(Continued Next Page)



GSE Engineering & Consulting, Inc.
5590 SW 64th Street, Suite B
Gainesville, Florida 32608
Telephone: (352) 377-3233
Fax: (352) 377-0335

CLIENT Nature Valley Harvest, LTD

PROJECT NAME Tax Parcel Nos. 05900-004-001 through 05900-004-010

PROJECT NUMBER 13834

PROJECT LOCATION Alachua, Alachua County

DATE PERFORMED 11/28/2018 **BORING NUMBER A-3**

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS: LOGGED BY WDI

▼ AT TIME OF DRILLING 4.0 ft CHECKED BY JTP

▽ ESTIMATED SEASONAL HIGH 1.0 ft

NOTES _____

DATE PERFORMED 11/28/2018 **BORING NUMBER A-4**

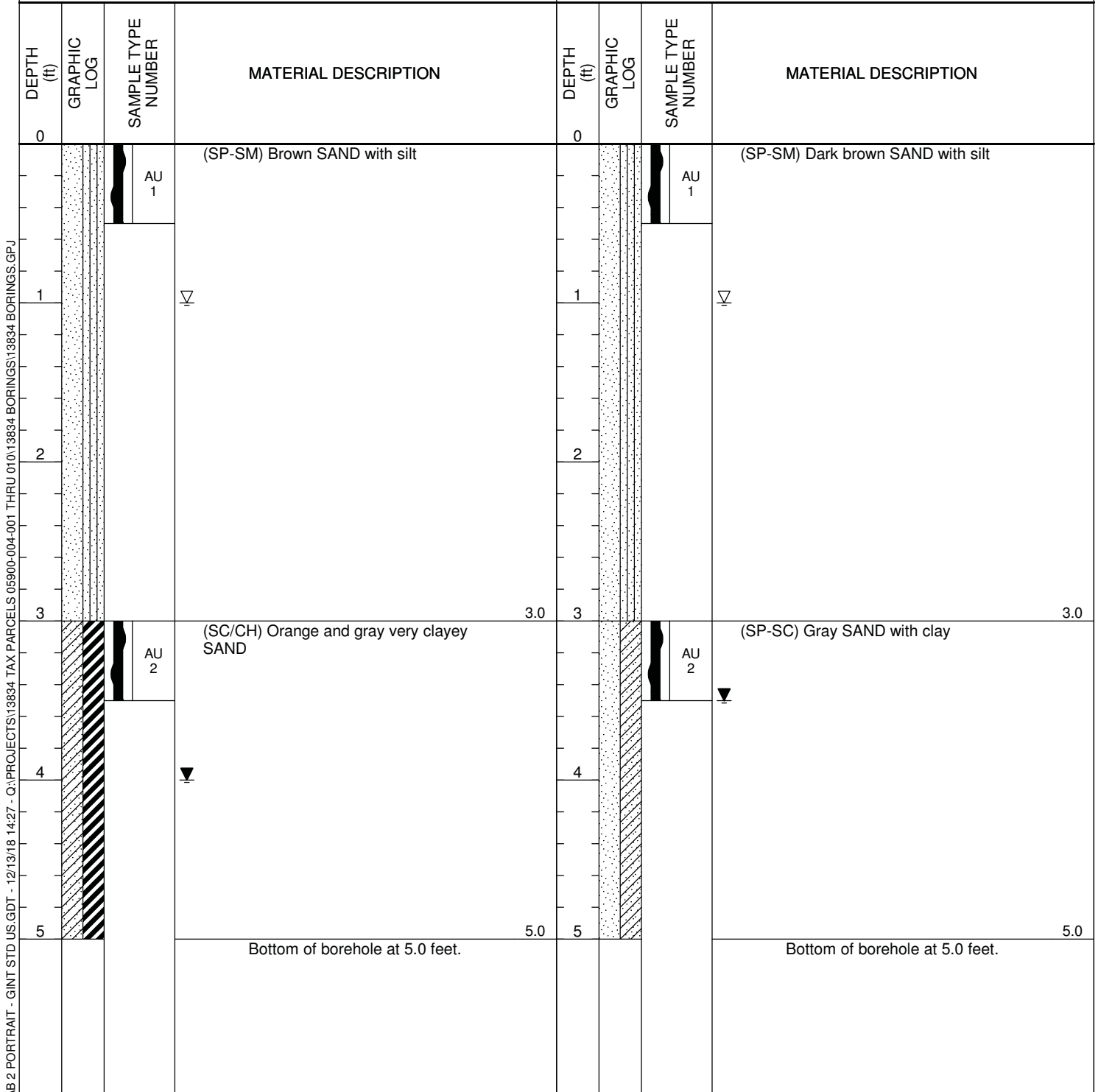
DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS: LOGGED BY WDI

▼ AT TIME OF DRILLING 3.5 ft CHECKED BY JTP

▽ ESTIMATED SEASONAL HIGH 1.0 ft

NOTES _____



(Continued Next Page)



GSE Engineering & Consulting, Inc.
 5590 SW 64th Street, Suite B
 Gainesville, Florida 32608
 Telephone: (352) 377-3233
 Fax: (352) 377-0335

CLIENT Nature Valley Harvest, LTD

PROJECT NAME Tax Parcel Nos. 05900-004-001 through 05900-004-010

PROJECT NUMBER 13834

PROJECT LOCATION Alachua, Alachua County

DATE PERFORMED 11/28/2018 **BORING NUMBER A-5**

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS: LOGGED BY WDI

▼ AT TIME OF DRILLING NE CHECKED BY JTP

▽ ESTIMATED SEASONAL HIGH 1.0 ft

NOTES

AB 2 PORTRAIT - GINT STD US.GDT - 12/13/18 14:27 - Q:\PROJECTS\13834 TAX PARCELS 05900-004-001 THRU 01013834 BORINGS\13834 BORINGS.GPJ

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0			
		AU 1	(SP-SM) Dark brown and gray SAND with silt
1			▽
2			2.0
		AU 2	(SP-SC) Gray and orange SAND with clay
3			
4			4.0
		AU 3	(CH) Gray and orange sandy CLAY with trace rock fragments
5			5.0
			Bottom of borehole at 5.0 feet.



GSE Engineering & Consulting, Inc.
 5590 SW 64th Street, Suite B
 Gainesville, Florida 32608
 Telephone: (352) 377-3233
 Fax: (352) 377-0335

CLIENT Nature Valley Harvest, LTD

PROJECT NAME Tax Parcel Nos. 05900-004-001 through 05900-004-010

PROJECT NUMBER 13834

PROJECT LOCATION Alachua, Alachua County

DATE PERFORMED 11/28/2018 **BORING NUMBER P-1**

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS: LOGGED BY WDI

▼ AT TIME OF DRILLING 5.0 ft CHECKED BY JTP

▽ ESTIMATED SEASONAL HIGH 3.0 ft

NOTES

DATE PERFORMED 11/28/2018 **BORING NUMBER P-2**

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS: LOGGED BY WDI

▼ AT TIME OF DRILLING 5.0 ft CHECKED BY JTP

▽ ESTIMATED SEASONAL HIGH 3.0 ft

NOTES

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION	DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0.0				0.0			
		AU 1	(SP-SM) Dark brown SAND with silt			AU 1	(SP-SM) Dark brown SAND with silt
2.5				2.5			
						AU 2 PS	(SP-SC) Brown and gray SAND with clay %PASS-200 = 5.7 MC = 6.5 k _h = 27 ft/day
3.5				3.5			
		AU 2	(SP-SC) Brown, orange, and gray SAND with clay			AU 3	(SP-SC) Brown and orange SAND with clay
5.0				5.0			
6.0				6.0			
		AU 3	(SP-SC) Gray SAND with clay			AU 4	(SC/CH) Dark gray very clayey SAND
7.5				7.5			
10.0				10.0			
		AU 4	(SC/CH) Gray very clayey SAND			AU 5	(SC/CH) Orange and brown very clayey SAND
12.5				12.5			
15.0				15.0			
			Bottom of borehole at 15.0 feet.				Bottom of borehole at 15.0 feet.

AB 2 PORTRAIT - GINT STD US.GDT - 12/13/18 14:28 - Q:\PROJECTS\13834 TAX PARCELS 05900-004-001 THRU 01013834 BORINGS.GPJ

(Continued Next Page)



GSE Engineering & Consulting, Inc.
5590 SW 64th Street, Suite B
Gainesville, Florida 32608
Telephone: (352) 377-3233
Fax: (352) 377-0335

CLIENT Nature Valley Harvest, LTD

PROJECT NAME Tax Parcel Nos. 05900-004-001 through 05900-004-010

PROJECT NUMBER 13834

PROJECT LOCATION Alachua, Alachua County

DATE PERFORMED 11/28/2018 **BORING NUMBER P-5**

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS: LOGGED BY WDI

▼ AT TIME OF DRILLING 4.0 ft CHECKED BY JTP

▽ ESTIMATED SEASONAL HIGH 1.5 ft

NOTES

DATE PERFORMED 11/28/2018 **BORING NUMBER P-6**

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS: LOGGED BY WDI

▼ AT TIME OF DRILLING NA CHECKED BY JTP

▽ ESTIMATED SEASONAL HIGH 1.5 ft

NOTES

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION	DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0.0				0.0			
		AU 1	(SC) Dark brown clayey SAND			AU 1 PS	(SP-SM) Dark brown SAND with silt %PASS-200 = 8.2 MC = 11 k _n = 11 ft/day
2.5			▽	2.5		AU 2	(SC/CH) Orange and gray very clayey SAND
		AU 2	▼				
5.0				5.0			
		AU 3 PS	(SC) Gray and orange clayey SAND with trace rock fragments	6.0		AU 3	(SC/CH) Gray very clayey SAND and trace rock fragments
7.5			%PASS-200 = 20 MC = 19 k _n = 3.4 ft/day	7.5			
10.0		AU 4		10.0		AU 4	(SC/CH) Orange and gray very clayey SAND
						AU 5	
12.5				12.5			
						AU 6	(CH) Orange and gray sandy CLAY
15.0			Bottom of borehole at 15.0 feet.	15.0			Bottom of borehole at 15.0 feet.

AB 2 PORTRAIT - GINT STD US.GDT - 12/13/18 14:28 - Q:\PROJECTS\13834 TAX PARCELS 05900-004-001 THRU 01013834 BORINGS\13834 BORINGS.GPJ

5.2 Standard Penetration Test Soil Boring Logs



GSE Engineering & Consulting, Inc.
5590 SW 64th Street, Suite B
Gainesville, Florida 32608
Telephone: (352) 377-3233
Fax: (352) 377-0335

BORING NUMBER B-1

CLIENT Nature Valley Harvest, LTD

PROJECT NAME Tax Parcel Nos. 05900-004-001 through 05900-004-010

PROJECT NUMBER 13834

PROJECT LOCATION Alachua, Alachua County

DATE STARTED 12/4/18 **COMPLETED** 12/4/18

GROUND ELEVATION _____ **HOLE SIZE** _____

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS:

DRILLING METHOD Mud Rotary

▼ **AT TIME OF DRILLING** 4.5 ft

LOGGED BY WDI **CHECKED BY** JTP

▼ **ESTIMATED SEASONAL HIGH** 2.5 ft

NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0											20 40 60 80
		(SP-SM) Loose dark brown SAND with silt									
		▽ (SP-SM) Loose to medium dense pale brown SAND with silt	2.5	SPT 1	2-3-5 (8)						
				SPT 2	4-5-5 (10)						
5				SPT 3	5-6-5 (11)						
			6	SPT 4	7-9-10 (19)						
		(SC) Medium dense gray and brown clayey SAND with trace rock fragments		SPT 5	7-8-8 (16)	41	15	26	28	19	
				SPT 6	9-12-11 (23)						
10											
		(SC/CH) Medium dense to very dense orange and gray very clayey SAND	12								
				SPT 7	6-8-9 (17)						
15											
				SPT 8	8-26-28 (54)						
20		Bottom of borehole at 20.0 feet.	20								

SPT BORINGS - GINT STD US.GDT - 12/13/18 14:25 - Q:\PROJECTS\13834 TAX PARCELS 05900-004-001 THRU 01013834 BORINGS\13834 BORINGS.GPJ



GSE Engineering & Consulting, Inc.
5590 SW 64th Street, Suite B
Gainesville, Florida 32608
Telephone: (352) 377-3233
Fax: (352) 377-0335

BORING NUMBER B-2

CLIENT Nature Valley Harvest, LTD

PROJECT NAME Tax Parcel Nos. 05900-004-001 through 05900-004-010

PROJECT NUMBER 13834

PROJECT LOCATION Alachua, Alachua County

DATE STARTED 12/4/18 **COMPLETED** 12/4/18

GROUND ELEVATION _____ **HOLE SIZE** _____

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS:

DRILLING METHOD Mud Rotary

▼ **AT TIME OF DRILLING** NA

LOGGED BY WDI **CHECKED BY** JTP

▼ **ESTIMATED SEASONAL HIGH** 3.0 ft

NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0											20 40 60 80
		(SP-SM) Loose dark brown SAND with silt									
			2.5	SPT 1	3-4-4 (8)						
		▽ (SP-SM) Medium dense gray SAND with silt	4	SPT 2	5-6-8 (14)						
5		(SC) Medium dense gray clayey SAND	5.5	SPT 3	7-7-5 (12)				21	16	
		(CH) Stiff gray sandy CLAY with trace rock fragments	7	SPT 4	5-5-7 (12)						
		(CH) Very stiff gray sandy CLAY with trace rock fragments		SPT 5	8-9-13 (22)						
10				SPT 6	8-10-8 (18)	64	21	43	51	35	
		(SC/CH) Medium dense orange and gray very clayey SAND	12								
				SPT 7	8-9-9 (18)						
15											
		(CH) Very stiff gray sandy CLAY	17								
				SPT 8	6-11-14 (25)						
20		Bottom of borehole at 20.0 feet.	20								

SPT BORINGS - GINT STD US GDT - 12/13/18 14:25 - Q:\PROJECTS\13834 TAX PARCELS 05900-004-001 THRU 01013834 BORINGS\13834 BORINGS.GPJ



GSE Engineering & Consulting, Inc.
5590 SW 64th Street, Suite B
Gainesville, Florida 32608
Telephone: (352) 377-3233
Fax: (352) 377-0335

BORING NUMBER B-3

CLIENT Nature Valley Harvest, LTD

PROJECT NAME Tax Parcel Nos. 05900-004-001 through 05900-004-010

PROJECT NUMBER 13834

PROJECT LOCATION Alachua, Alachua County

DATE STARTED 12/4/18 **COMPLETED** 12/4/18

GROUND ELEVATION _____ **HOLE SIZE** _____

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS:

DRILLING METHOD Mud Rotary

▼ **AT TIME OF DRILLING** 5.0 ft

LOGGED BY WDI **CHECKED BY** JTP

▽ **ESTIMATED SEASONAL HIGH** 3.0 ft

NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		(SP-SC) Loose gray SAND with clay									20 40 60 80
2.5		(SC/CH) Medium dense gray and brown very clayey SAND with trace rock fragments	2.5	SPT 1	2-4-5 (9)						
4		(SC/CH) Medium dense orange, brown, and gray very clayey SAND with trace rock fragments	4	SPT 2	4-6-6 (12)						
5		(SC/CH) Medium dense gray and brown very clayey SAND	5	SPT 3	7-8-11 (19)	54	21	33	41	31	
7		(SC/CH) Medium dense gray and brown very clayey SAND	7	SPT 4	9-10-10 (20)						
8.5		(SC/CH) Medium dense gray and brown very clayey SAND with trace rock fragments	8.5	SPT 5	8-6-7 (13)						
10		(SC/CH) Medium dense gray and orange very clayey SAND	10	SPT 6	7-8-7 (15)						
12			12								
15				SPT 7	5-6-8 (14)						
20				SPT 8	10-9-11 (20)						
20		Bottom of borehole at 20.0 feet.	20								

SPT BORINGS - GINT STD US.GDT - 12/13/18 14:25 - Q:\PROJECTS\13834 TAX PARCELS 05900-004-001 THRU 01013834 BORINGS\13834 BORINGS.GPJ



GSE Engineering & Consulting, Inc.
5590 SW 64th Street, Suite B
Gainesville, Florida 32608
Telephone: (352) 377-3233
Fax: (352) 377-0335

BORING NUMBER B-4

CLIENT Nature Valley Harvest, LTD

PROJECT NAME Tax Parcel Nos. 05900-004-001 through 05900-004-010

PROJECT NUMBER 13834

PROJECT LOCATION Alachua, Alachua County

DATE STARTED 12/4/18 **COMPLETED** 12/4/18

GROUND ELEVATION _____ **HOLE SIZE** _____

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS:

DRILLING METHOD Mud Rotary

▼ **AT TIME OF DRILLING** 7.0 ft

LOGGED BY WDI **CHECKED BY** JTP

▽ **ESTIMATED SEASONAL HIGH** 1.0 ft

NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		(SP-SM) Loose dark brown SAND with silt									20 40 60 80
		▽									
		(SC/CH) Medium dense gray, orange, and brown very clayey SAND	2.5	SPT 1	2-4-2 (6)				33	17	
			4	SPT 2	5-6-10 (16)						
5		(SC/CH) Medium dense gray very clayey SAND with trace rock fragments		SPT 3	7-9-10 (19)						
			7	SPT 4	7-9-6 (15)						
		(CH) Very stiff orange and gray sandy CLAY with trace rock fragments		SPT 5	6-9-9 (18)						
			8.5	SPT 6	8-10-12 (22)						
10		(SC/CH) Medium dense gray very clayey SAND with trace rock fragments									
			12								
		(SC/CH) Medium dense orange and gray very clayey SAND		SPT 7	7-8-9 (17)	56	17	39	43	25	
15											
				SPT 8	9-12-14 (26)						
20		Bottom of borehole at 20.0 feet.	20								

SPT BORINGS - GINT STD US.GDT - 12/13/18 14:25 - Q:\PROJECTS\13834 TAX PARCELS 05900-004-001 THRU 01013834 BORINGS\13834 BORINGS.GPJ



GSE Engineering & Consulting, Inc.
5590 SW 64th Street, Suite B
Gainesville, Florida 32608
Telephone: (352) 377-3233
Fax: (352) 377-0335

BORING NUMBER B-5

CLIENT Nature Valley Harvest, LTD

PROJECT NAME Tax Parcel Nos. 05900-004-001 through 05900-004-010

PROJECT NUMBER 13834

PROJECT LOCATION Alachua, Alachua County

DATE STARTED 12/4/18 **COMPLETED** 12/4/18

GROUND ELEVATION _____ **HOLE SIZE** _____

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS:

DRILLING METHOD Mud Rotary

▼ **AT TIME OF DRILLING** NA

LOGGED BY WDI **CHECKED BY** JTP

▽ **ESTIMATED SEASONAL HIGH** 1.0 ft

NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		(SP-SC) Very loose gray SAND with clay									20 40 60 80
			2.5	SPT 1	2-1-2 (3)						
		(SC/CH) Loose gray very clayey SAND	4	SPT 2	2-3-5 (8)	44	18	26	35	28	
5		(SC/CH) Loose gray and brown very clayey SAND with trace rock fragments	7	SPT 3	3-4-3 (7)						
			8.5	SPT 4	3-3-4 (7)						
		(SC/CH) Medium dense orange and gray very clayey SAND with trace rock fragments		SPT 5	4-6-7 (13)						
10		(SC/CH) Medium dense orange, brown, and gray very clayey SAND		SPT 6	7-7-8 (15)						
			12								
		(SC/CH) Medium dense orange and gray very clayey SAND		SPT 7	5-7-11 (18)						
15											
				SPT 8	6-8-19 (27)						
20		Bottom of borehole at 20.0 feet.	20								

SPT BORINGS - GINT STD US.GDT - 12/13/18 14:25 - Q:\PROJECTS\13834 TAX PARCELS 05900-004-001 THRU 01013834 BORINGS\13834 BORINGS.GPJ



GSE Engineering & Consulting, Inc.
5590 SW 64th Street, Suite B
Gainesville, Florida 32608
Telephone: (352) 377-3233
Fax: (352) 377-0335

BORING NUMBER B-6

CLIENT Nature Valley Harvest, LTD

PROJECT NAME Tax Parcel Nos. 05900-004-001 through 05900-004-010

PROJECT NUMBER 13834

PROJECT LOCATION Alachua, Alachua County

DATE STARTED 12/4/18 **COMPLETED** 12/4/18

GROUND ELEVATION _____ **HOLE SIZE** _____

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS:

DRILLING METHOD Mud Rotary

▼ **AT TIME OF DRILLING** NA

LOGGED BY WDI **CHECKED BY** JTP

▽ **ESTIMATED SEASONAL HIGH** 1.0 ft

NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		(SP-SM) Very loose dark brown SAND with silt									20 40 60 80
			2.5	SPT 1	2-3-1 (4)						
		(SC) Loose brown and gray clayey SAND	4	SPT 2	3-2-4 (6)				28	19	
5		(SC/CH) Loose brown and gray very clayey SAND	5.5	SPT 3	2-4-4 (8)						
		(SC/CH) Loose to medium dense brown and gray very clayey SAND with trace rock fragments	8.5	SPT 4	3-4-3 (7)	60	18	42	34	31	
		(SC/CH) Medium dense gray very clayey SAND with trace rock fragments		SPT 5	5-5-6 (11)						
10				SPT 6	5-8-12 (20)						
		(SC/CH) Medium dense orange and gray very clayey SAND	12								
15				SPT 7	4-5-8 (13)						
20				SPT 8	8-9-13 (22)						
		Bottom of borehole at 20.0 feet.	20								

SPT BORINGS - GINT STD US.GDT - 12/13/18 14:25 - Q:\PROJECTS\13834 TAX PARCELS 05900-004-001 THRU 01013834 BORINGS\13834 BORINGS.GPJ



GSE Engineering & Consulting, Inc.
5590 SW 64th Street, Suite B
Gainesville, Florida 32608
Telephone: (352) 377-3233
Fax: (352) 377-0335

BORING NUMBER B-7

CLIENT Nature Valley Harvest, LTD

PROJECT NAME Tax Parcel Nos. 05900-004-001 through 05900-004-010

PROJECT NUMBER 13834

PROJECT LOCATION Alachua, Alachua County

DATE STARTED 12/4/18 **COMPLETED** 12/4/18

GROUND ELEVATION _____ **HOLE SIZE** _____

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS:

DRILLING METHOD Mud Rotary

▼ **AT TIME OF DRILLING** NA

LOGGED BY WDI **CHECKED BY** JTP

▼ **ESTIMATED SEASONAL HIGH** 2.0 ft

NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0		(SP-SM) Very loose dark brown SAND with silt									20 40 60 80
			2.5	SPT 1	2-2-2 (4)						
		(SC) Loose gray clayey SAND	4	SPT 2	2-3-3 (6)						
5		(SC/CH) Loose gray very clayey SAND	5.5	SPT 3	3-4-5 (9)						
		(SP-SC) Medium dense gray and brown SAND with clay	7	SPT 4	5-5-9 (14)						
		(SC/CH) Medium dense gray and brown very clayey SAND	8.5	SPT 5	7-10-12 (22)						
10		(SC/CL) Medium dense gray and brown very clayey SAND		SPT 6	10-10-13 (23)	41	17	24	34	17	
		(SC/CH) Medium dense gray and orange very clayey SAND	12								
15				SPT 7	7-8-8 (16)						
20				SPT 8	5-9-18 (27)						
		Bottom of borehole at 20.0 feet.	20								

SPT BORINGS - GINT STD US.GDT - 12/13/18 14:25 - Q:\PROJECTS\13834 TAX PARCELS 05900-004-001 THRU 01013834 BORINGS\13834 BORINGS.GPJ



GSE Engineering & Consulting, Inc.
5590 SW 64th Street, Suite B
Gainesville, Florida 32608
Telephone: (352) 377-3233
Fax: (352) 377-0335

BORING NUMBER B-8

CLIENT Nature Valley Harvest, LTD

PROJECT NAME Tax Parcel Nos. 05900-004-001 through 05900-004-010

PROJECT NUMBER 13834

PROJECT LOCATION Alachua, Alachua County

DATE STARTED 12/4/18

COMPLETED 12/4/18

GROUND ELEVATION

HOLE SIZE

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS:

DRILLING METHOD Mud Rotary

▼ **AT TIME OF DRILLING** NA

LOGGED BY WDI

CHECKED BY JTP

▼ **ESTIMATED SEASONAL HIGH** 2.0 ft

NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲
0											20 40 60 80
		(SP-SM) Loose dark brown SAND with silt									
	▽		2.5	SPT 1	2-2-3 (5)						
		(SC/CH) Loose brown and orange very clayey SAND	4	SPT 2	3-4-4 (8)						
5		(SP-SC) Medium dense gray SAND with clay	5.5	SPT 3	3-4-7 (11)						
		(SC/CH) Medium dense gray and brown very clayey SAND		SPT 4	5-6-7 (13)						
				SPT 5	8-10-13 (23)						
10				SPT 6	11-13-16 (29)						
		(SC/CH) Medium dense gray and orange very clayey SAND with trace rock fragments	12								
				SPT 7	4-6-8 (14)						
15											
				SPT 8	7-8-22 (30)						
20		Bottom of borehole at 20.0 feet.	20								

SPT BORINGS - GINT STD US.GDT - 12/13/18 14:25 - Q:\PROJECTS\13834 TAX PARCELS 05900-004-001 THRU 01013834 BORINGS\13834 BORINGS.GPJ

5.3 Laboratory Results



SUMMARY REPORT OF LABORATORY TEST RESULTS

Project Number: 13834

Project Name: Tax Parcel 05900-004-001 thru 010

Boring Number	Sample Depth (ft)	Soil Description	Natural Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	Percent Passing No. 200 Sieve	Organic Content (%)	Hydraulic Conductivity (ft/day)	Unified Soil Classification
P-2	1 - 3	Brown and gray SAND with clay	6.5				5.7		27	SP-SC
P-3	1 - 3	Gray and brown SAND with clay	5.6				6.9		22	SP-SC
P-4	2 - 2.5	Gray clayey SAND	12				23			SC
P-5	5 - 7	Dark brown, orange, and gray clayey SAND	19				20		3.4	SC
P-6	0 - 2	Dark brown SAND with silt	11				8.2		11	SP-SM
B-1	7 - 8.5	Gray and brown clayey SAND with trace rock fragments	19	41	15	26	28			SC
B-2	4 - 5.5	Gray clayey SAND	16				21			SC
B-2	8.5 - 10	Gray sandy CLAY with trace rock fragments	35	64	21	43	51			CH
B-3	4 - 5.5	Orange, brown, and gray very clayey SAND with trace rock fragments	31	54	21	33	41			SC/CH
B-4	2.5 - 4	Gray, orange, and brown very clayey SAND	17				33			SC/CH
B-4	13.5 - 15	Orange and gray very clayey SAND	25	56	17	39	43			SC/CH
B-5	2.5 - 4	Gray very clayey SAND	28	44	18	26	35			SC/CH



Project Name: Tax Parcel 05900-004-001 thru 010

[illegible]

5.4 Key to Soil Classification

KEY TO SOIL CLASSIFICATION CHART

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests				SYMBOLS		GROUP NAME	
				GRAPHIC	LETTER		
COARSE-GRAINED SOILS	Gravels	Clean Gravels	$Cu \geq 4$ and $1 \leq Cc \leq 3$		GW	Well graded GRAVEL	
		More than 50% retained on No. 200 sieve	Less than 5% fines	$Cu < 4$ and/or $1 > Cc > 3$		GP	Poorly graded GRAVEL
			Gravels with fines	Fines classify as ML or MH		GM	Silty GRAVEL
			More than 12% fines	Fines classify as CL or CH		GC	Clayey GRAVEL
	Sands	Clean Sands	$Cu \geq 6$ and $1 \leq Cc \leq 3$		SW	Well graded SAND	
		50% or more of coarse fraction passes No. 4 sieve	Less than 5% fines	$Cu < 6$ and/or $1 > Cc > 3$		SP	Poorly graded SAND
			Sand with fines	Fines classify as ML or MH		SP-SM	SAND with silt
			5% ≤ fines < 12%	Fines classify as CL or CH		SP-SC	SAND with clay
		Sand with fines	Fines classify as ML or MH		SM	Silty SAND	
		12% ≤ fines < 30%	Fines classify as CL or CH		SC	Clayey SAND	
		Sand with fines	Fines classify as ML or MH		SM	Very silty SAND	
		30% fines or more	Fines classify as CL or CH		SC	Very clayey SAND	
	FINE-GRAINED SOILS	Clays	inorganic	$50\% \leq \text{fines} < 70\%$		CL/CH	Sandy CLAY
				$70\% \leq \text{fines} < 85\%$		CL/CH	CLAY with sand
$\text{fines} \geq 85\%$					CL/CH	CLAY	
Silts and Clays		inorganic	PI > 7 and plots on/above "A" line		CL	Lean CLAY	
			PI < 4 or plots below "A" line		ML	SILT	
Liquid Limit less than 50		organic	Liquid Limit - oven dried < 0.75		OL	Organic clay	
			Liquid Limit - not dried		OL	Organic silt	
Silts and Clays		inorganic	PI plots on or above "A" line		CH	Fat CLAY	
			PI plots below "A" line		MH	Elastic SILT	
		Liquid Limit 50 or more	organic	Liquid Limit - oven dried < 0.75		OH	Organic clay
Liquid Limit - not dried				OH	Organic silt		
HIGHLY ORGANIC SOILS				Primarily organic matter, dark in color, and organic odor		PT	PEAT

CORRELATION OF PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY

No. OF BLOWS, N	RELATIVE DENSITY		No. OF BLOWS, N	CONSISTENCY
0 - 4	Very Loose		0 - 2	Very Soft
5 - 10	Loose		3 - 4	Soft
SANDS: 11 - 30	Medium dense	SILTS &	5 - 8	Firm
31 - 50	Dense	CLAYS:	9 - 15	Stiff
OVER 50	Very Dense		16 - 30	Very Stiff
			31 - 50	Hard
			OVER 50	Very Hard

No. OF BLOWS, N	RELATIVE DENSITY
0 - 8	Very Soft
9 - 18	Soft
LIMESTONE: 19 - 32	Moderately Hard
33 - 50	Hard
OVER 50	Very Hard

SAMPLE GRAPHIC TYPE LEGEND



Location
of SPT
Sample



Location
of Auger
Sample

PARTICLE SIZE IDENTIFICATION

BOULDERS:	Greater than 300 mm
COBBLES:	75 mm to 300 mm
GRAVEL:	Coarse - 19.0 mm to 75 mm
	Fine - 4.75 mm to 19.0 mm
SANDS:	Coarse - 2.00 mm to 4.75 mm
	Medium - 0.425 mm to 2.00 mm
	Fine - 0.075 mm to 0.425 mm
SILTS & CLAYS:	Less than 0.075 mm

LABORATORY TEST LEGEND

LL	=	Liquid Limit, %
PL	=	Plastic Limit, %
PI	=	Plasticity Index, %
% PASS - 200	=	Percent Passing the No. 200 Sieve
MC	=	Moisture Content, %
ORG	=	Organic Content, %
k_h	=	Horizontal Hydraulic Conductivity, ft/day

6.0 LIMITATIONS

6.1 Warranty

This report has been prepared for our client for his exclusive use, in accordance with generally accepted soil and foundation engineering practices, and makes no other warranty either expressed or implied as to the professional advice provided in the report.

6.2 Auger and SPT Borings

The determination of soil type and conditions was performed from the ground surface to the maximum depth of the borings, only. Any changes in subsurface conditions that occur between or below the borings would not have been detected or reflected in this report.

Soil classifications that were made in the field are based upon identifiable textural changes, color changes, changes in composition or changes in resistance to penetration in the intervals from which the samples were collected. Abrupt changes in soil type, as reflected in boring logs and/or cross sections may not actually occur, but instead, be transitional.

Depth to the water table is based upon observations made during the performance of the auger and SPT borings. This depth is an estimate and does not reflect the annual variations that would be expected in this area due to fluctuations in rainfall and rates of evapotranspiration.

6.3 Site Figures

The measurements used for the preparation of the figures in this report were made using the provided site plan and by estimating distances from existing structures and site features. Figures in this report were not prepared by a licensed land surveyor and should not be interpreted as such.

6.4 Unanticipated Soil Conditions

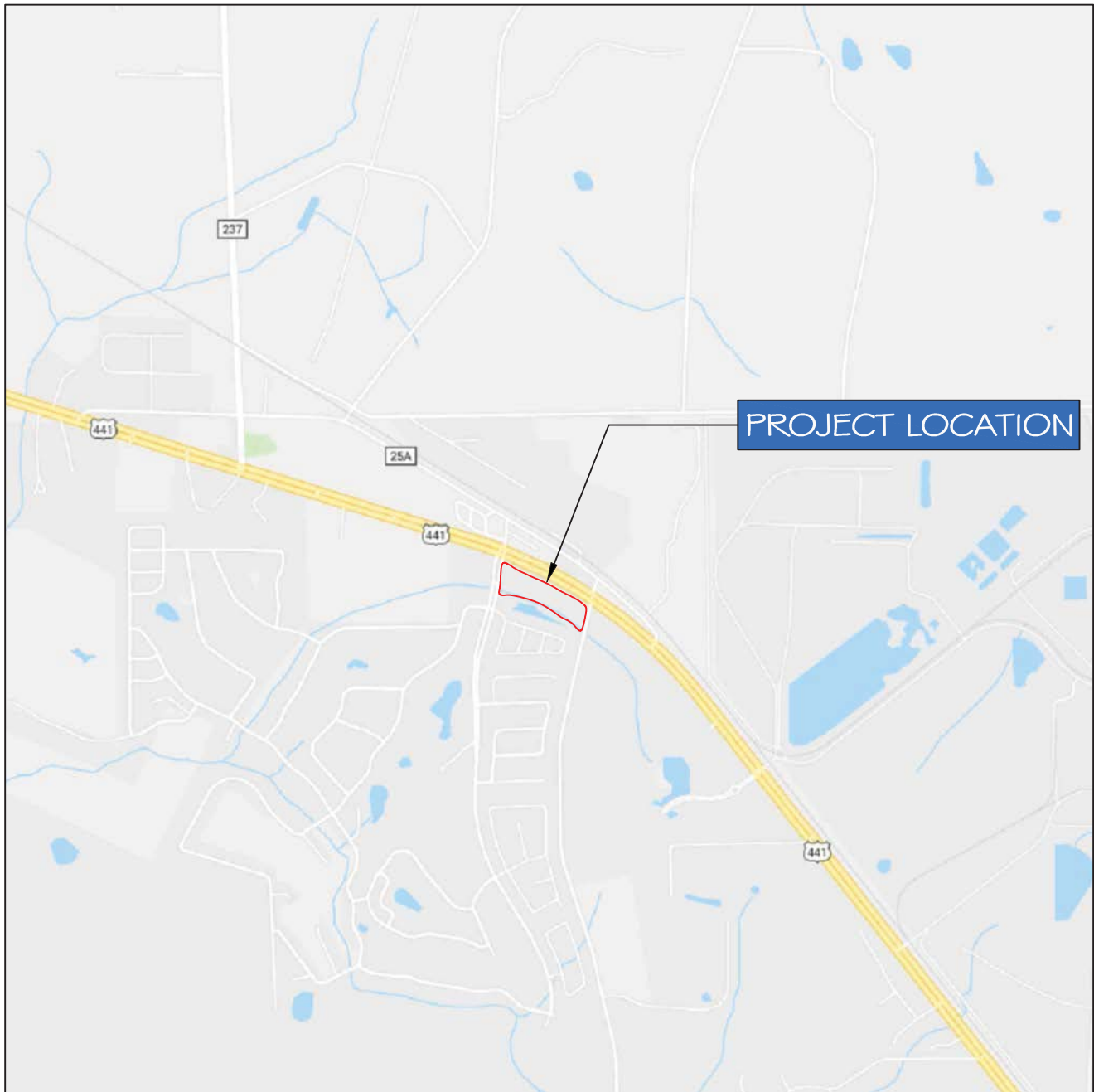
The analysis and recommendations submitted in this report are based upon the data obtained from soil borings performed at the locations indicated on Figure 2. This report does not reflect any variations that may occur between these borings.

The nature and extent of variations between borings may not become known until excavation begins. If variations appear, we may have to re-evaluate our recommendations after performing on-site observations and noting the characteristics of any variations.

6.5 Misinterpretation of Soil Engineering Report

GSE Engineering & Consulting, Inc. is responsible for the conclusions and opinions contained within this report based upon the data relating only to the specific project and location discussed herein. If others make the conclusions or recommendations based upon the data presented, those conclusions or recommendations are not the responsibility of GSE.

FIGURES



TAX PARCEL NOS.
05900-004-001 THROUGH 05900-004-010
ALACHUA, ALACHUA COUNTY, FLORIDA
GSE PROJECT NO. 13834

PROJECT SITE LOCATION MAP

DESIGNED BY: JTP
CHECKED BY: CAD
DRAWN BY: EEW

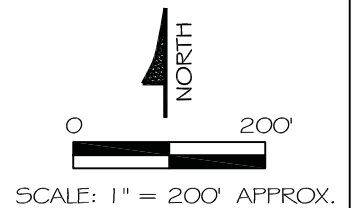


FIGURE
1



LEGEND:

-  SPT BORING
-  AUGER BORING



TAX PARCEL NOS.
05900-004-001 THROUGH 05900-004-010
ALACHUA, ALACHUA COUNTY, FLORIDA
GSE PROJECT NO. 13834

SITE PLAN SHOWING APPROXIMATE LOCATIONS OF BORING LOCATIONS

DESIGNED BY : JTP
CHECKED BY : CAD
DRAWN BY : HAS



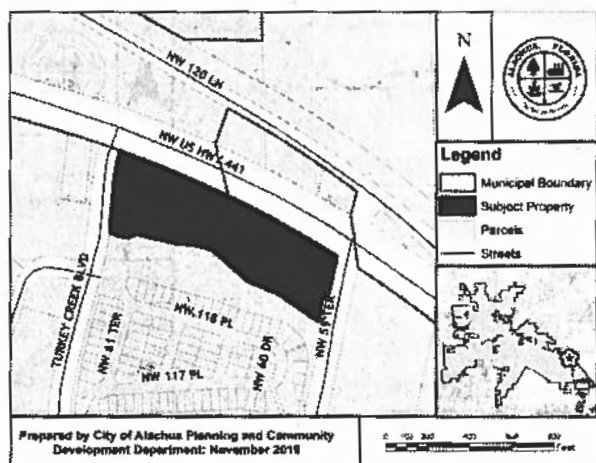
FIGURE
2



City of ALACHUA

NOTICE OF PUBLIC HEARING BEFORE THE PLANNING AND ZONING BOARD OF THE CITY OF ALACHUA, FLORIDA

Notice is hereby given that the Planning and Zoning Board of the City of Alachua will hold a public hearing on December 10, 2019, at 7:30 p.m. The hearing will be held in the James A. Lewis Commission Chambers in City Hall, located at 15100 NW 142nd Terrace, Alachua, Florida, to consider the following: A request by Daniel Young, P.E., of CHW, Inc., applicant and agent for Nature Valley Harvest, Ltd, property owner, for consideration of a Site Plan for the construction of three buildings totaling $\pm 25,028$ square feet, with associated paving, grading, infrastructure and landscaping improvements on a ± 8.25 acre subject property, located southeast of the intersection of NW US HWY 441 and Turkey Creek Boulevard, and west of NW 59th Terrace; Tax Parcel Nos. 05900-004-001 through 05900-004-10; FLUM: Commercial; Zoning: Planned United Development (PUD).



At the public hearing, all interested parties may appear and be heard with respect to the application. Copies of the application are available for public inspection at the Planning and Community Development Department, 15100 NW 142nd Terrace, Alachua, Florida, on any regular business day between the hours of 7:30 a.m. to 6:00 p.m. Written comments on the application may be sent to the following address: City of Alachua, Planning and Community Development, P.O. Box 9, Alachua, FL 32616. Notice is given pursuant to Section 286.0105, Florida Statutes, that, in order to appeal any decision made at the public hearing, you will need a record of the proceedings, and that, for such purpose, you may need to ensure that a verbatim record of the proceedings is made, which includes the testimony and evidence upon which the appeal is to be based. In accordance with the Americans with Disabilities Act, any persons with a disability requiring reasonable accommodation in order to participate in this meeting should call the City Clerk at (386) 418-6100 x 101 at least 48 hours prior to the public hearing.



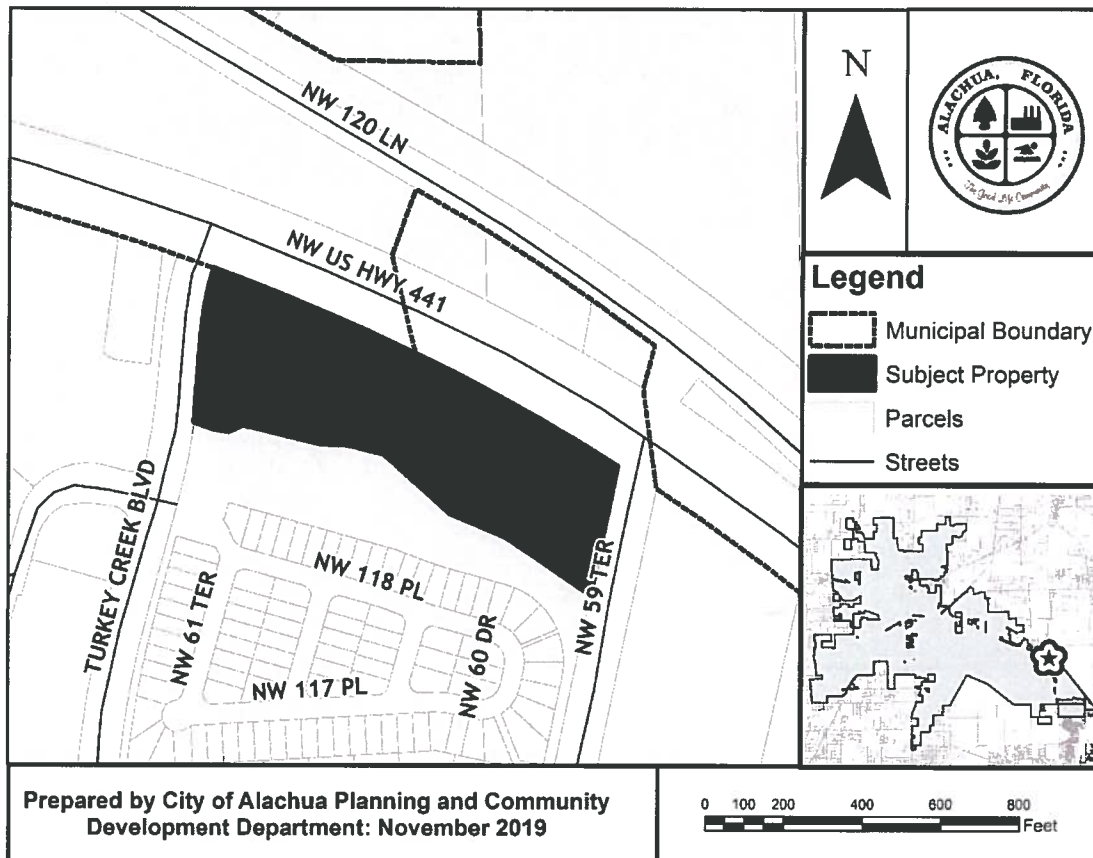
City of
ALACHUA

THE GOOD LIFE COMMUNITY

mailed 11/25/2019
KC

NOTICE OF PUBLIC HEARING BEFORE THE PLANNING AND ZONING BOARD OF THE CITY OF ALACHUA, FLORIDA

Notice is hereby given that the Planning and Zoning Board of the City of Alachua will hold a public hearing on December 10, 2019, at 7:30 p.m. The hearing will be held in the James A. Lewis Commission Chambers in City Hall, located at 15100 NW 142nd Terrace, Alachua, Florida, to consider the following: A request by Daniel Young, P.E., of CHW, Inc., applicant and agent for Nature Valley Harvest, Ltd, property owner, for consideration of a Site Plan for the construction of three buildings totaling $\pm 25,028$ square feet, with associated paving, grading, infrastructure and landscaping improvements on a ± 8.25 acre subject property, located southeast of the intersection of NW US HWY 441 and Turkey Creek Boulevard, and west of NW 59th Terrace; Tax Parcel Nos. 05900-004-001 through 05900-004-10; FLUM: Commercial; Zoning: Planned United Development (PUD).



At the public hearing, all interested parties may appear and be heard with respect to the application. Copies of the application are available for public inspection at the Planning and Community Development Department, 15100 NW 142nd Terrace, Alachua, Florida, on any regular business day between the hours of 7:30 a.m. to 6:00 p.m. Written comments on the application may be sent to the following address: City of Alachua, Planning and Community Development, P.O. Box 9, Alachua, FL 32616. Notice is given pursuant to Section 286.0105, Florida Statutes, that, in order to appeal any decision made at the public hearing, you will need a record of the proceedings, and that, for such purpose, you may need to ensure that a verbatim record of the proceedings is made, which includes the testimony and evidence upon which the appeal is to be based. In accordance with the Americans with Disabilities Act, any persons with a disability requiring reasonable accommodation in order to participate in this meeting should call the City Clerk at (386) 418-6100 x 101 at least 48 hours prior to the public hearing.

P.O. Box 9 ♦ Alachua, Florida 32616-0009
Phone: (386) 418-6121 ♦ Fax: (386) 418-6130

05900-040-019
 SARAZIN & TOMLINSON W/H
 350 TURKEY CREEK
 ALACHUA, FL 32615

05900-040-004
 SIMMONS & SIMMONS ET UX
 768 TURKEY CREEK
 ALACHUA, FL 32615

05900-004-008
 NATURAL VALLEY HARVEST LTD
 632 TURKEY CREEK
 ALACHUA, FL 32615

05900-040-001
 LARSON CARL B & DORIS C
 774 TURKEY CREEK
 ALACHUA, FL 32615

05900-004-004
 NATURAL VALLEY HARVEST LTD
 632 TURKEY CREEK
 ALACHUA, FL 32615

05900-040-017
 SHALLIS PATRICK & THERESA
 840 TURKEY CREEK
 ALACHUA, FL 32615

05900-040-002
 LARSON JANICE L
 775 TURKEY CREEK
 ALACHUA, FL 32615

05886-000-000
 LAND O'SUN MANAGEMENT CORP
 3715 NW 97TH BLVD # A
 GAINESVILLE, FL 32606-5066

05900-040-010
 COOK RUSSELL L & JANICE L
 818 TURKEY CREEK
 ALACHUA, FL 32615

05900-040-013
 MULLEE GARRETT R JR & NANCY C
 942 TURKEY CREEK
 ALACHUA, FL 32615

05900-002-029
 CAIN JEANETTE T TRUSTEE
 14246 PINE VALLEY RD
 ORLANDO, FL 32826

05900-040-007
 DEVINE & WEBER
 308 TURKEY CREEK
 ALACHUA, FL 32615

05900-040-090
 LARSON BARBRA C
 776 TURKEY CREEK
 ALACHUA, FL 32615

05900-004-006
 NATURAL VALLEY HARVEST LTD
 632 TURKEY CREEK
 ALACHUA, FL 32615

05900-004-007
 NATURAL VALLEY HARVEST LTD
 632 TURKEY CREEK
 ALACHUA, FL 32615

05900-040-005
 BOSWELL WILLIAM F & JOYCE E
 787 TURKEY CREEK
 ALACHUA, FL 32615

05886-002-000
 ALACHUA COUNTY
 5620 NW 120TH LN
 GAINESVILLE, FL 32653

05900-040-000
 TURKEY CREEK MASTER OWNERS AS
 4400 NW 36TH AVE
 GAINESVILLE, FL 32606

05900-040-008
 METZGER THOMAS F & LAURA J
 6114 NW 118TH PL
 ALACHUA, FL 32615

05885-010-007
 TIDEWATER PROPERTIES LLC
 527 TURKEY CREEK
 ALACHUA, FL 32615

05900-040-021
 ASSAD & GREGOIRE & GREGOIRE
 396 TURKEY CREEK
 GAINESVILLE, FL 32615

05886-001-000
 LAND O'SUN MANAGEMENT CORP
 3715 NW 97TH BLVD # A
 GAINESVILLE, FL 32606-5066

05900-040-011
 YOUNGBLOOD JANIS D
 648 TURKEY CREEK
 ALACHUA, FL 32615

05900-040-012
 WELLS & WELLS TRUSTEE
 PO BOX 1306
 ALACHUA, FL 32616

05900-004-005
 NATURAL VALLEY HARVEST LTD
 632 TURKEY CREEK
 ALACHUA, FL 32615

05900-004-001
 NATURAL VALLEY HARVEST LTD
 632 TURKEY CREEK
 ALACHUA, FL 32615

05896-000-000
 TANNER MAUDE
 6101 NW 120TH LN LOT 65
 GAINESVILLE, FL 32653

05900-040-015
 GEDNEY EVA M TRUSTEE
 510 TURKEY CREEK
 ALACHUA, FL 32615

05900-002-005
 RYALS PROPERTY HOLDINGS LLC
 1111 SE 22ND AVE
 GAINESVILLE, FL 32641

05900-004-003
 NATURAL VALLEY HARVEST LTD
 632 TURKEY CREEK
 ALACHUA, FL 32615

05900-040-023
BOYD JENNIFER L
861 TURKEY CREEK
ALACHUA, FL. 32615

05900-040-059
CASON WALTER H
506 TURKEY CREEK
ALACHUA, FL. 32615

92060-503-901
CSX TRANSPORTATION INC
500 WATER ST. TAX DEPT J-910
JACKSONVILLE, FL. 32202-4422

05900-040-024
ROMAN CHRISTOPHER & KYLE
851 TURKEY CREEK
ALACHUA, FL. 32615

05900-040-072
WILFORD ROBERT W
784 TURKEY CREEK
ALACHUA, FL. 32615

05900-002-010
TURKEY CREEK INC
158 TURKEY CREEK
ALACHUA, FL. 32615-9572

05900-040-025
ELSBERRY JASON & ANA
357 TURKEY CREEK
ALACHUA, FL. 32615

05900-040-074
HARMS RANDIE & ALEXANDER
880 TURKEY CREEK
ALACHUA, FL. 32615

05900-040-022
HENRY CHERYL S LIFE ESTATE
241 TURKEY CREEK
ALACHUA, FL. 32615

05900-040-026
HANUS MARK & MELISSA
592 TURKEY CREEK
ALACHUA, FL. 32615

05900-040-075
LEE CHRISTIE A
864 TURKEY CREEK
ALACHUA, FL. 32615

05900-040-073
HYDER WILLIAM & BARBARA
858 TURKEY CREEK
ALACHUA, FL. 32615

05900-040-027
BELMORE SARA
828 TUKEY CREEK
ALACHUA, FL. 32615

05900-040-081
GRAUBARD SCOTT M
863 TURKEY CREEK
ALACHUA, FL. 32615

05900-040-087
COKER & TOON
887 TURKEY CREEK
ALACHUA, FL. 32615

05900-040-028
BARNETT & GARRETT
837 TURKEY CREEK
ALACHUA, FL. 32615

05900-040-082
MULKEY & MULKEY & MULKEY
647 TURKEY CREEK
ALACHUA, FL. 32615

05900-040-055
EK REAL ESTATE SERVICES OF NY
LLC
79 MADISON AVE
BROADWAY, NY. 10016

05900-040-083
PARTNER ELEASHA
859 TURKEY CREEK
ALACHUA, FL. 32615

05900-040-056
ARNALDI LAUDELINO
13546 NW 8TH RD
NEWBERRY, FL. 32669

05900-040-085
FRIEDLANDER LAURIE
12204 NW 122ND TERR
ALACHUA, FL. 32615

05900-040-057
LOPEZ ALEXIS O
767 TURKEY CREEK
ALACHUA, FL. 32615

05900-040-088
SCAFIDI FRANK & LINDA
245 TURKEY CREEK
ALACHUA, FL. 32615

05900-040-058
GREEN ADRIA KIARA
46 TURKEY CREEK
ALACHUA, FL. 32615

05900-040-089
MALASPINA SUZANNE
867 TURKEY CREEK
ALACHUA, FL. 32615

05900-004-010
NATURAL VALLEY HARVEST LTD
632 TURKEY CREEK
ALACHUA, FL 32615

05896-001-000
MAGURA MARK & DIETRA
6101 NW 120TH LN LOT 63
GAINESVILLE, FL 32653-7894

05900-040-020
THOMAS ANGELA L
28 TURKEY CREEK
ALACHUA, FL 32615

05900-040-009
GIGANTE JEAN SHIRLEY
799 TURKEY CREEK
ALACHUA, FL 32615

05900-004-002
NATURAL VALLEY HARVEST LTD
632 TURKEY CREEK
ALACHUA, FL 32615

05900-040-016
SOWELL KUTONYA L
378 TURKEY CREEK
ALACHUA, FL 32615

05900-004-009
NATURAL VALLEY HARVEST LTD
632 TURKEY CREEK
ALACHUA, FL 32615

05900-040-014
THOMPSON CRYSTAL
328 TURKEY CREEK
ALACHUA, FL 32615

05900-040-003
BLUMBERG MARA E TRUSTEE
11421 NW 120TH TER
ALACHUA, FL 32615

05900-040-018
DAVE MILAN N & NIMISHA M
812 TURKEY CREEK
ALACHUA, FL 32615

05900-040-006
WILKENING ROSE E
785 TURKEY CREEK
ALACHUA, FL 32615

Antoinette Endelicato
5562 NW 93rd Avenue
Gainesville, FL 32653

Richard Gorman
5716 NW 93rd Avenue
Alachua, FL 32653

President of TCMOA
1000 Turkey Creek
Alachua, FL 32615

Jeannette Hinsdale
P.O. Box 1156
Alachua, FL 32616

Tamara Robbins
PO Box 2317
Alachua, FL 32616

Dan Rhine
288 Turkey Creek
Alachua, FL 32615

Peggy Arnold
410 Turkey Creek
Alachua, FL 32615

Linda Dixon, AICP
PO Box 115050
Gainesville, FL 32611

Lynn Coullias
7406 NW 126th Ave
Alachua, FL 32615

Michele L. Lieberman
12 SE 1st Street
Gainesville, FL 32601

Tom Gorman
9210 NW 59th Street
Alachua, FL 32653

David Forest
23 Turkey Creek
Alachua, FL 32615

Craig Parenteau
4801 Camp Ranch Road
Gainesville, FL 32641

Lynda Coon
7216 NW 126 Avenue
Alachua, FL 32615

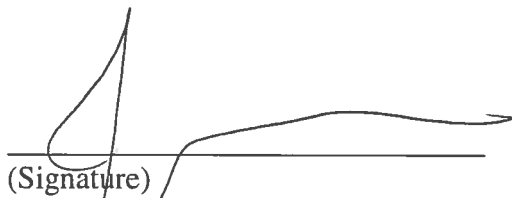
Bonnie Flynn
16801 NW 166th Drive
Alachua, FL 32615

AFFIDAVIT FOR POSTED LAND USE SIGN

I Jenna Beck, POSTED THE LAND USE
(Name)
SIGN ON 11/21/17 FOR THE Golf Plaza (Site Plan)
(Date) (State type of action and project name)
LAND USE ACTION.

AS PER ARTICLE 2.2.9 D OF THE LAND DEVELOPMENT REGULATIONS.

THIS WILL BE INCLUDED IN THE STAFF REPORT.


(Signature)

Five (5)
(Number of signs)