

# PRELIMINARY ENGINEERING REPORT ADDENDUM MEMORANDUM

CR 455  
from North of Lost Lake Road  
to Hartwood Marsh Road

Preliminary Engineering and Final Design  
Lake County, FL

County Contract Number: 20-0901

Prepared for:



MAY 2022

Prepared by:

Kimley-Horn and Associates, Inc.

# PROFESSIONAL ENGINEER CERTIFICATION

This Preliminary Engineering Report, Addendum Memorandum, contains engineering information that fulfills the requirements for the CR 455 Project Development & Environment Study from North of Lost Lake Road to Hartwood Marsh Road in Lake County, Florida. I acknowledge that the procedures and references used to develop the results contained in this report are standard to the professional practice of transportation engineering as applied through professional judgment and experience.

I hereby certify that I am a registered professional engineer in the State of Florida practicing with Kimley-Horn and Associates Inc., and that I have prepared or approved the evaluation, findings, opinions, conclusions, or technical advice for this project.

This item has been digitally signed and sealed by  
Fred Burkett, P.E. on the date adjacent to the seal.

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## 1.0 PURPOSE OF PER ADDENDUM MEMORANDUM

The purpose of this memo is to document the findings of the CR 455 Phase 2 PD&E Study. A prior PD&E study was completed in 2007 and evaluated alternatives for extending CR 455/Hartle Road from SR 50 to Hartwood Marsh Road. For the segment from north of Lost Lake Road to Hartwood Marsh Road, the 2007 PD&E study recommended two alternative alignments for consideration (Figure 1). The Phase 2 PD&E Study builds upon the work completed and documented in the 2007 Preliminary Engineering Report in order to evaluate and recommend a final alignment for the segment from north of Lost Lake Road to Hartwood Marsh Road. The results of the Phase 2 Study are documented in this memo to support the subsequent engineering decisions as the project advances into design.

## 2.0 PROJECT OVERVIEW

The proposed extension of CR 455, from north of Lost Lake Road to Hartwood Marsh Road, is located in the southeastern portion of Lake County and is approximately 4.7 miles in length. Lake County has identified the need to extend CR 455 as described in the 2030 Lake County Comprehensive Plan. The Lake-Sumter Metropolitan Planning Organization (MPO) has also included this project in the adopted 2035 Long Range Transportation Plan (LRTP). The purpose of this project is to create system continuity in the area, to provide a regional link between areas of the County, and to provide additional multimodal options that support economic development goals.

The proposed typical section (Figure 2) includes a 22-foot-wide median, two 12-foot-wide lanes (each direction), 4-foot-wide bike lanes, 2-foot-wide type "F" curb and gutter, grassed utility strips behind the curb and gutter, 14-foot-wide concrete shared-use path on the west side of the road, and a 5-foot-wide concrete sidewalk on the east side of the road.

## 3.0 PROJECT HISTORY

- 2007 - PD&E Study completed that evaluated the extension of CR 455/Hartle Road from SR 50 to Hartwood Marsh Road
- 2012 – 4-lane segment from SR 50 to Good Hearth Blvd constructed and open to traffic
- 2019 – 2-lane segment from Good Hearth Blvd to north of Lost Lake Road constructed and open to traffic
- 2020 – CR 455 Phase 2 PD&E Study began for segment from north of Lost Lake Road to Hartwood Marsh Road
- January 11, 2022 – Alternatives Concepts Public Workshop for CR 455 Phase 2 PD&E held at the Clermont City Center
- March 8, 2022 – Public Hearing held for CR 455 Phase 2 PD&E Study held during the Lake County Board of County Commission Meeting



Figure 1: 2007 Alternatives

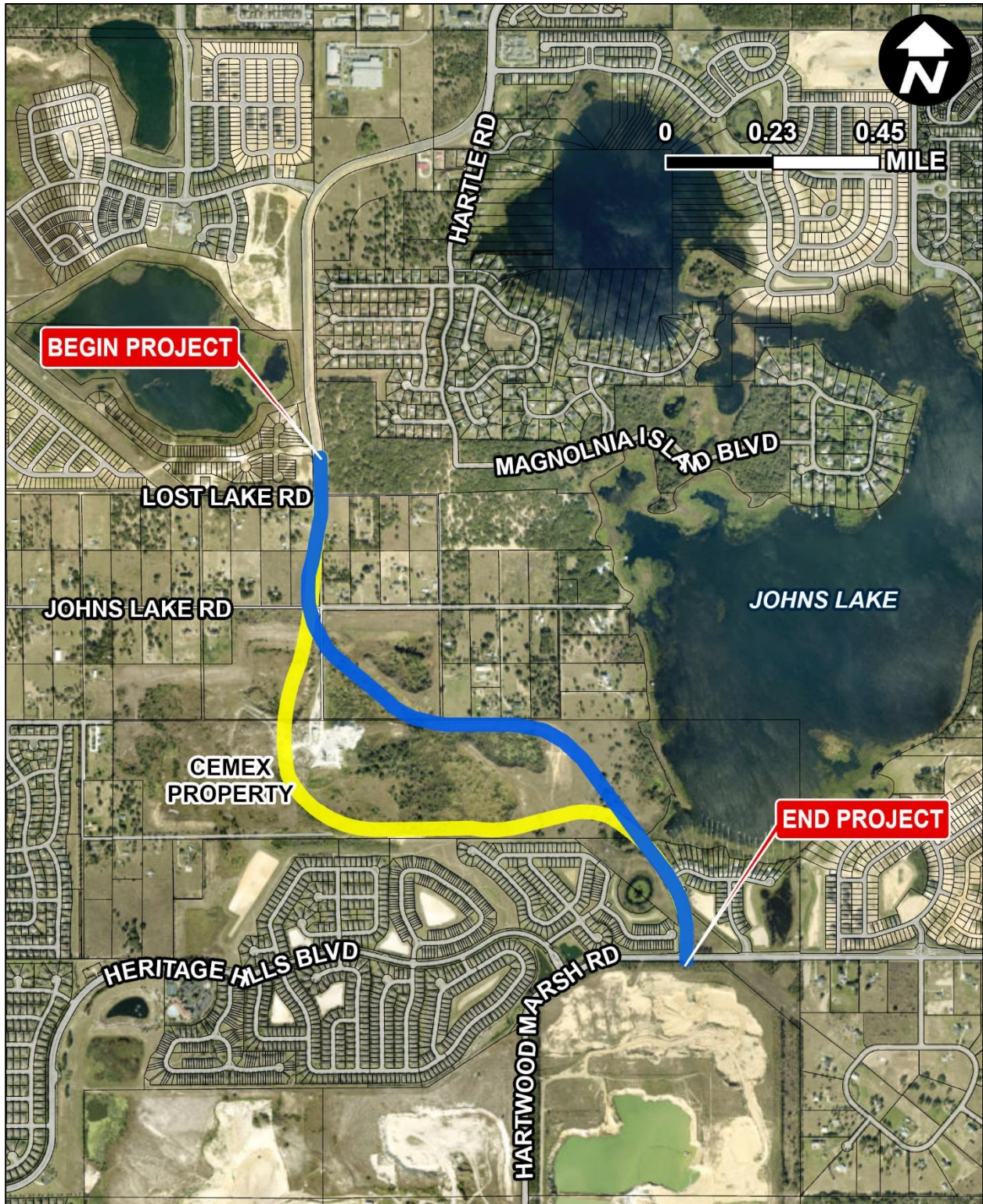
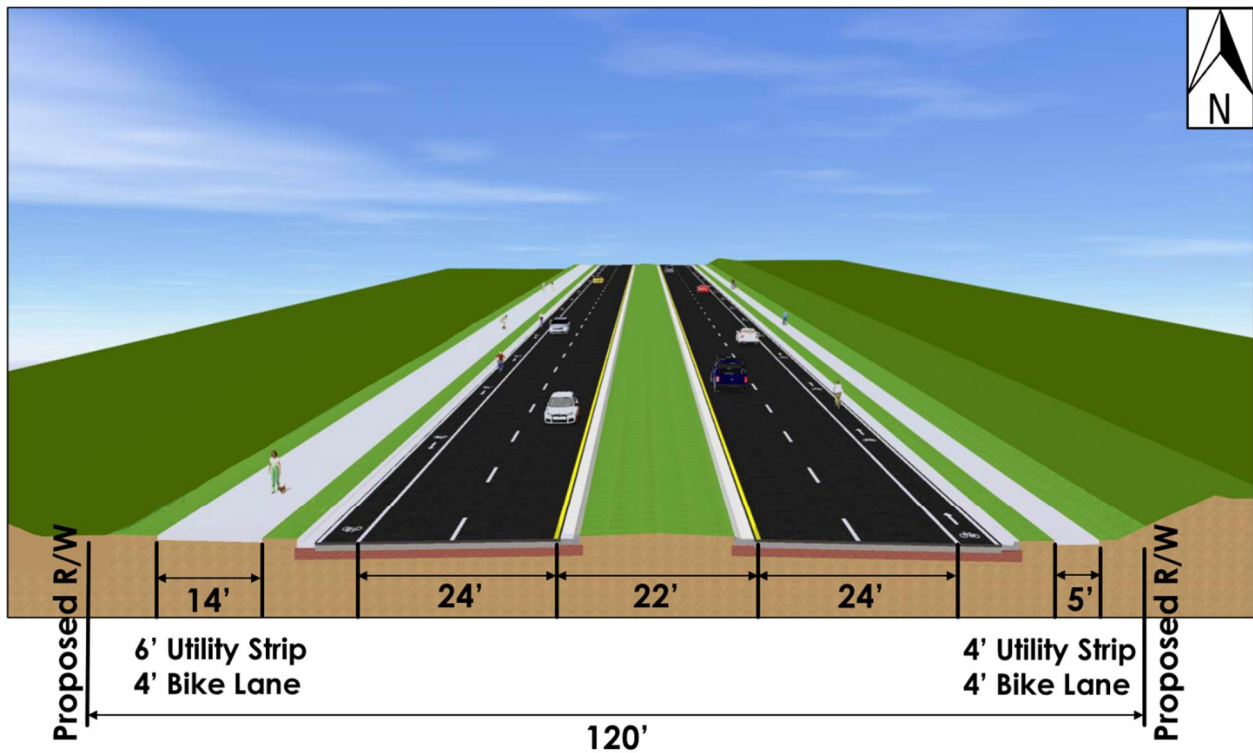




Figure 2: Proposed Typical Section



## 4.0 PHASE 2 ALTERNATIVES EVALUATION

The Phase 2 PD&E Study evaluated three alignments designated as Yellow, Blue, and Green (Figure 3). The Yellow and Blue alignments were recommended from the prior 2007 PD&E study (designated as 2AA and 2A, respectively). The Green Alignment was introduced as a third alignment for the Phase 2 study. All alignments share the same begin and end points and only vary within the CEMEX property.

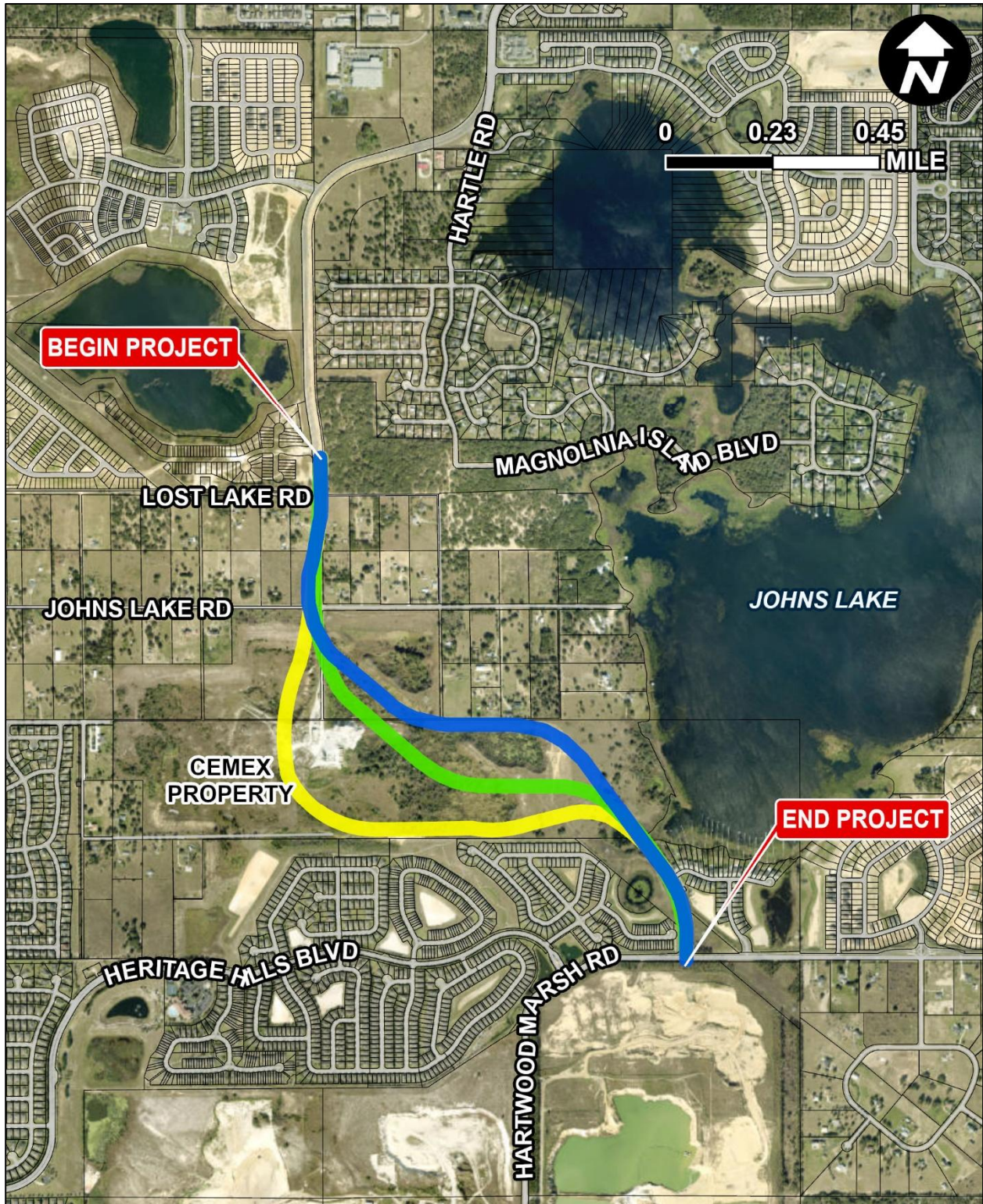
A Design Traffic Technical Memorandum was prepared for this project (Appendix A). The findings indicate that the proposed extension and intersections would provide an adequate level of service (LOS) through the year 2045 as a 4-lane divided facility.

An Environmental Assessment was conducted for each corridor (Appendix B). The environmental review identified one listed species, the gopher tortoise, and two wetland systems on the site. A gopher tortoise relocation permit would be needed through the Florida Fish and Wildlife Conservation Commission. None of the onsite wetlands are considered high quality. Final determination of wetland impacts will be made during the design phase and addressed through permitting with the St. Johns River Water Management District.

A preliminary geotechnical investigation was conducted for the project. The findings (provided in Appendix C) indicate that the green alignment provides the more suitable option for construction although the presence of some soft mine tailing (slime) material is possible. The Blue Alignment would involve additional investigations within steeply sloping areas and the Yellow Alignment would involve construction of approximately 40-ft high embankment over 10-ft thick deposits of highly compressible clay slime.



Figure 3: Phase 2 Study Alignments



The advantages of the Yellow Alignment include the following:

- Allows the existing concrete plant to remain
- Extends furthest to the west away from single family homes

The disadvantages of the Yellow Alignment include the following:

- Requires construction over multiple unsuitable/slime deposits
- Requires the most amount of right-of-way
- Directly adjacent to the Heritage Hills community
- Traverses through areas with extreme high and low elevations resulting in profile grading challenges
- Requires large horizontal curve to avoid CEMEX plant
- Requires two back-to-back horizontal curves to connect with Hartwood Marsh Road
- Differential settlement likely to occur
- Future development opportunity limited to one side of roadway
- Cost to construct is largest

The advantages of the Blue Alignment include the following:

- Allows the existing concrete plant to remain
- Less right-of-way needed than Yellow Alignment (0.15 acres more than Green)
- Avoids Duke Energy transmission towers

The disadvantages of the Blue Alignment include the following:

- Located directly adjacent to single family homes
- Requires construction over multiple unsuitable/slime deposits
- Traverses through areas with extreme high and low elevations resulting in profile grading challenges
- Additional grading needed outside of the right-of-way
- Differential settlement likely to occur
- Future development opportunity limited to one side of roadway
- Cost to construct is second largest

The advantages of the Green Alignment include the following:

- Provides buffer from adjoining properties
- Least amount of required right-of-way
- Least amount of construction over unsuitable/slime material
- Least amount of grading to provide a safe driving profile
- Provides future development opportunities on both sides of roadway
- Allows the existing concrete plant to remain
- Least amount of construction cost

The disadvantages of the Green Alignment include the following:

- Potential for deep unsuitable/slime deposits
- Requires a switch-back curve to avoid the CEMEX plant and existing Duke Energy transmission tower

Each alignment was evaluated to determine right-of-way and environmental impacts and costs. A summary matrix providing a side-by-side comparison is provided in Table 1.

Table 1: Evaluation Matrix

Evaluation Factor	Yellow	Blue	Green
<i>Right-of-Way Impacts</i>			
Residential Parcels Impacted	3	3	3
Business Parcels Impacted	1 (CEMEX)	1 (CEMEX)	1 (CEMEX)
Utility and Governmental Parcels Impacted	1 (Lake County)	1 (Lake County)	1 (Lake County)
Total Parcels Impacted (Total)	5	5	5
Right-of-Way Required for Roadway (acres)*	18.9	15.49	15.33
Right-of-Way Needed from CEMEX Property	17.10	13.69	13.54
Right-of-Way Required for Ponds (acres)	7.36	6.10	5.92
<i>Environmental Impacts</i>			
Wetland Impacts (acres)	3.36	5.15	1.08
Floodplain Impacts (acres)	3.83	2.76	2.76
Wildlife/Habitat Impacts	Low	Low	Low
Potential Contamination Sites Impacted	0	0	0
<i>Construction Cost</i>			
Total Construction Cost Only (in millions)	\$28.55	\$21.19	\$13.59

## 5.0 RECOMMENDED ALTERNATIVE

The Green Alignment was selected as the Recommended Alternative as it provides a larger buffer from adjacent residential properties, allows the existing CEMEX plant to remain, requires the least amount of right-of-way, results in the least amount of wetland impacts, and requires the least amount of cost to construct.

The total estimated project cost for the Green Alignment is \$15.86 million which includes \$0.91 million for engineering design, \$1.36 million for construction engineering and inspection, and \$13.59 million for construction.

Appendix D includes preliminary concept plans that shows the existing and proposed right-of-way lines, limits of grading, and location of potential stormwater ponds. Final details will be developed during the design phase.



## 6.0 STATUS OF PRIOR COMMITMENTS

As part of the 2007 PD&E Study, Lake County established several commitments with organizations, entities, or individuals regarding the project. Table 2 below provides a list of the prior commitments made and a statement of current status.

Table 2: Commitment Status

Commitment	Status
Lake County is committed to continuing to work with property owners in the area to complete an access management plan that meets the needs of the community while satisfying the requirements of design.	<i>Ongoing:</i> Lake County held an Alternatives Concepts Public Workshop on January 11, 2022 and Public Hearing on March 8, 2022 for the Phase 2 study. The County will continue to work with property owners, as needed.
Lake County is committed to developing drainage and typical section plans that promote the minimization of wetland impacts.	<i>Ongoing:</i> Lake County will continue to develop drainage and typical section plans to minimize wetland impacts. As the Recommended Alternative, the Green Alignment results in the least amount of wetland impacts.
The developer of Heritage Royale has agreed to contribute right-of-way for the proposed improvements to Hartle Road following discussions with Lake County. Lake County commits to continuing this discussion to reach a final agreement further in the design process.	<i>Completed:</i> Lake County and Heritage Royale, renamed to Heritage Hills, reached an agreement for the transfer of right-of-way.
Florida Crushed Stone Mine has agreed to contribute right-of-way for the proposed improvements to Hartle Road following discussions with Lake County. Lake County commits to continuing this discussion to reach a final agreement further in the design process.	<i>Ongoing:</i> Multiple meetings with CEMEX (formally Florida Crushed Stone Mine) has occurred. Additional coordination is anticipated throughout the design phase.
The developer of the Jahna Mine PUD has agreed to contribute right-of-way for the proposed improvements to Hartle Road following discussions with Lake County. Lake County commits to continuing this discussion to reach a final agreement further in the design process.	N/A: Not applicable to the segment from north of Lost Lake Road to Hartwood Marsh Road
Lake County commits to continuing discussions with Senninger Irrigation Inc. in regard to the location of the alignment and stormwater ponds within the respective property through the design phase.	N/A: Not applicable to the segment from north of Lost Lake Road to Hartwood Marsh Road



## 7.0 PUBLIC INVOLVEMENT SUMMARY

An Alternative Concepts Public Workshop was held on January 11, 2022 from 5:30 p.m. to 7:00 p.m. Interested parties were able to participate either in-person or virtually.

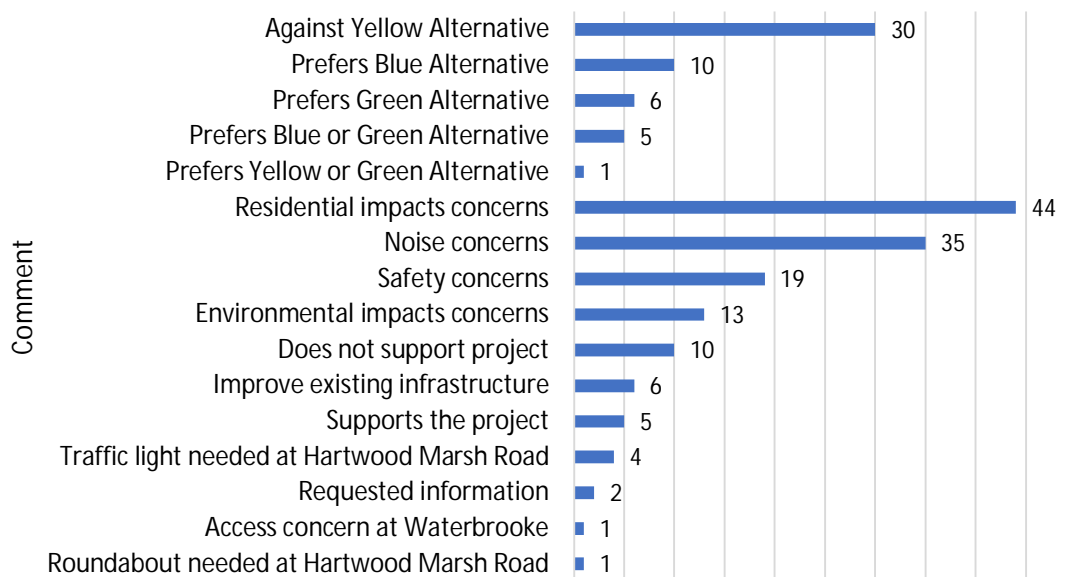
Public workshop invitation letters were sent on December 17, 2021, by mail and email to 24 elected official and agency contacts. An additional 187 workshop invitation letters were mailed to property owners and tenants within 300 feet on either side of the proposed project alternatives on December 17, 2021. A news release was distributed to major media outlets in December 2021. An ad was placed in the Florida Administrative Register (FAR) on January 5, 2022. Meeting information was also posted on the study webpage (<https://lakecountyfl.gov/engineering/CR-455-Phase-2>).

A pre-recorded presentation was provided for both in-person and virtual participants. The presentation provided an overview of the project history, proposed typical section, alignments under consideration, an overview of the project schedule, and information on how to provide comments. The in-person meeting was held at the Clermont City Center using an open house format where the public could stop by and review materials at their own pace. Team members were available to have one-on-one conversations and answer any questions. The virtual meeting was held online via GoToWebinar. Virtual participants could submit questions where a team member read and answered them aloud.

In total, 99 people attended the Alternative Concepts Public Workshop (37 in-person and 62 online). A total of 58 comments were received as of January 21, 2022, the end of the public workshop comment period.

Figure 4 summarizes the comments received. The sum of comments is more than 58 as many people commented on multiple items. 44 people commented on residential impact concerns, 35 people commented on noise concerns, 30 people stated that they did not want the Yellow Alternative, 19 people mentioned safety concerns, and 13 people mentioned environmental impact concerns.

Figure 4: Comments Received from the Alternative Concepts Public Workshop



A copy of the presentation is provided in Appendix E. The notification materials, sign-in sheets, virtual meeting transcript, and comments received are provided in Appendix F.

A Public Hearing was held on March 8, 2022 during the Lake County Board of County Commissioners meeting. Interested parties were able to participate either in-person or virtually.

Public hearing invitation letters were sent on February 11, 2022, by mail and email to 24 elected official and agency contacts. An additional 187 public hearing invitation letters were mailed to property owners and tenants within 300 feet on either side of the proposed project alternatives on February 16, 2022. A news release was distributed to major media outlets in February 2022. A legal newspaper advertisement was placed in the Orlando Sentinel – Lake County Zone on February 20, 2022 and on February 27, 2022. An ad was placed in the FAR on March 1, 2022. Meeting information was also posted on the study webpage (<https://lakecountyfl.gov/engineering/CR-455-Phase-2>).

As part of the Public Hearing, a presentation was given, then the public was given the opportunity to comment. The presentation provided an overview of the project history, proposed typical section, summary of stakeholder and agency coordination, alignments under consideration, the announcement of the recommended alternative, and information on how to provide comments. A copy of the Public Hearing presentation is provided in Appendix G and documentation of the notification materials is provided in Appendix H.

After the presentation, County Commissioners asked a few follow-up questions including the level of involvement with CEMEX. Lake County staff responded that there was a lot of communication with CEMEX and that they are onboard with the project. Other questions were related to the unsuitable/slime materials and landscaping opportunities.

Two members of the public provided their comments. Both were residents of Heritage Hills. One expressed his opposition to the roadway but would prefer an alignment that was not the Yellow Alignment. The other resident expressed his concern with traffic on Hartwood Marsh and stated his preference for a signal at the intersection of CR 455 and Hartwood Marsh Road.

At the end of the public comment period, a motion was made by the County Commissioners to approve the Green Alignment. The motion was passed. A copy of the minutes is available through the Lake County Board of County Commissioners website.

APPENDIX A

Design Traffic Technical Memorandum

**CR 455 EXTENSION  
FROM LOST LAKE ROAD TO HARTWOOD MARSH ROAD**  
Project № 20005 v1.1  
October 2020

**DESIGN TRAFFIC TECHNICAL MEMORANDUM  
LAKE COUNTY  
FLORIDA**

*Prepared by:*



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*Prepared for:*

Booth, Ern, Straughan, & Hiott, Inc.  
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Tavares, Florida 32778

## EXECUTIVE SUMMARY

### **Project Information**

Name: CR 455 Extension

Location: From Lost Lake Road to Hartwood Marsh Road in Lake County, Florida

Roadway Design: Extend CR 455 from Lost Lake Road to Hartwood Marsh Road as a 4-lane divided roadway with a 45 MPH posted speed limit.

### **Findings**

Roadway Segments: All study corridor roadway segments will operate at an adequate level of service (LOS) for the years 2025, 2035 and 2045 as a 4-lane divided roadway.

Intersections: All intersections are projected to operate with acceptable LOS with the proposed geometries presented in Figures 7 & 8.

CR 455 Extension & Johns Lake Road will function at an acceptable LOS with a TWSC only in the opening year 2025.

CR 455 Extension & Johns Lake Road will function at an acceptable LOS with a traffic signal control at the interim year 2035 and design year 2045.

CR 455 Extension & Johns Lake Road will function at an acceptable LOS with a roundabout at all analysis years.

### **Recommendations**

CR 455 Extension & Johns Lake Road Roundabout: Roundabout will require two circulating lanes without the need for any separate right turn bays on any approach for all analysis years.

CR 455 Extension & Johns Lake Road Traffic Signal: Intersection will require dedicated left turn lanes on all approaches except the westbound approach

CR 455 Extension & Hartwood Marsh Road Roundabout: For opening year 2025, roundabout will require one circulating lane, but should be designed with 2 lanes to accommodate future expansion.

For the interim year 2035 and beyond, roundabout will require 2 circulating lanes, a dedicated southbound right turn free-flow lane in the southbound approach, and a yield-controlled right turn bay in the westbound approach.

## PROFESSIONAL ENGINEERING CERTIFICATION

I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic & Mobility Consultants LLC, a corporation authorized to operate as an engineering business, CA-30024, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

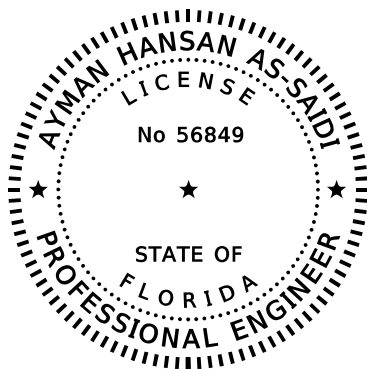
**PROJECT:** CR 455 Extension from Lost Lake Road to Hartwood Marsh Road

**LOCATION:** Lake County, Florida

**CLIENT:** Booth, Ern, Straughan, & Hiott, Inc.

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.

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.

TRAFFIC & MOBILITY CONSULTANTS LLC  
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CERTIFICATE OF AUTHORIZATION CA-30024  
AYMAN H. AS-SAIDI, P.E. NO 56849

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## 1.0 INTRODUCTION

This Design Traffic Technical Memorandum (DTTM) documents the traffic projections and operations at intersections along the CR 455 Extension, as part of the CR 455 Extension project. The CR 455 Extension is currently under construction as a 4-lane divided roadway from Good Hearth Boulevard to Lost Lake Road and is planned for construction from Lost Lake Road to Hartwood Marsh Road. Furthermore, this DTTM will provide the directional design-hour volumes (DDHV) required in the design phase for extending CR 455 from Lost Lake Road to Hartwood Marsh Road. **Figure 1** illustrates the project location and study area.

This DTTM presents the forecasted opening (2025), interim (2035) and design year (2045) AM and PM peak hour and daily traffic volumes prepared for the CR 455 Extension project. This DTTM documents the future operating conditions of the major intersections along the study corridor. The alignment of the road extension has already been defined and this study was performed for the final alignment only. This report includes the development of the design traffic characteristics including Peak Hour Factor (K), Directional Distribution Factor (D), and percentage of trucks for both the design hour and daily demand (DHT, T), to be used in the operational analysis of future conditions. This DTTM summarizes the traffic data collection, traffic forecast methodology, and presents the results of the future condition analyses.





SR 50 / Colonial Dr

Hancock Rd

Hartle Rd

Lost Lake Rd

Johns Lake Rd

CR 455 Extension

Hartwood Marsh Rd



## 2.0 DATA COLLECTION

Due to the current unusual traffic characteristics resulting from the COVID-19 pandemic, it was agreed with Lake County to use the 2019 roadway segment traffic counts obtained by Lake County or other previous studies completed in the area. As per the approved Methodology, the intersections included in the analysis are as follows:

- CR 455 Extension and Johns Lake Road (future)
- CR 455 Extension and Hartwood Marsh Road (future)

Both study intersections are future intersections; therefore, no turning movement counts were collected under this study.

The Annual Average Daily Traffic (AADT) counts were gathered for the year 2019 from the Lake County Annual Traffic Counts database for the locations listed below:

- CR 455/Hartle Road, south of SR 50 (Station # 301)
- Johns Lake Road, east of Hancock Road (Station # 300)
- Hartwood Marsh Road, east of Hancock Road (Station # 299)
- Hartwood Marsh Road, west of Orange County Line (Station # 150)

The 2019 Lake County Annual Traffic Counts, along with the 2019 *Florida Traffic Online* (FTO) traffic counts are included in **Appendix A**.

### 3.0 BASE YEAR CONDITIONS

#### 3.1 Existing Volumes

Under the 2019 base year conditions, CR 455/Hartle Road, from SR 50 to Good Hearth Boulevard, is a 4-lane divided roadway with a posted speed limit of 35 mph and a daily traffic volume of 5,691. Johns Lake Road is a 2-lane undivided roadway with a posted speed limit of 35 mph and a daily traffic volume of 656 east of Hancock Road. Hartwood Marsh Road is a 2-lane undivided roadway with a posted speed limit of 35 mph and a daily traffic volume of 14,494 from Hancock Road to Heritage Hills Boulevard. Since none of the study intersections exist today, the base year conditions were evaluated only for the existing roadway segments. **Figure 2** provides the base year 2019 AADTs for the CR 455 Extension study area.

#### 3.2 Roadway Capacity Analysis

The roadway capacity analysis was performed by comparing the existing PM peak hour directional volumes to the roadway’s adopted Level of Service (LOS) capacity, which is based on Lake County TMS Segment Report. **Table 1** presents the existing roadway LOS analysis.

**Table 1  
Existing Roadway Capacity Analysis**

Roadway	Segment	# of Lns	A T	LOS Std	AADT	LOS Cap	Pk Hr/Pk Dir Vol	LOS
Hartle Rd/CR 455	SR 50 to Lost Lake Rd	4	U	D	5,691	1,800	254	C
Hartwood Marsh Rd	East of Hancock Rd	2	U	D	14,494	790	810	<b>F</b>
Johns Lake Rd *	East of Hancock Rd	2	U	D	656	675	27	C

*AADTs were obtained from 2019 Lake County Annual Traffic Counts and peak hour peak direction roadway capacities from 2012 FDOT Q/LOS Generalized Table 7 for Non-State Roads*

*(\*) Roadway capacities from Lake County TMS Segment Report - 2014/15 Level of Service*

Based on the roadway segment analysis, Hartwood Marsh Road is currently operating at LOS F due to the high traffic volume.







## 4.0 FUTURE TRAFFIC ANALYSIS

The development of traffic projections for the study corridor required the examination of historical growth, proposed development levels as reflected in the socio-economic data developed for future travel forecasting purposes, and a basic understanding of local traffic circulation patterns and travel characteristics. In arriving at the volume forecasts for the CR 455 Extension study, various growth rates were examined. As such, the following sources were used to derive reasonable future traffic forecasts for the study corridor:

- a) **Travel Demand Models:** The model used for the traffic forecasting process was the *Central Florida Regional Planning Model (CFRPM V6.1)* updated by Central Florida Expressway Authority (CFX) and further updated for use in the CR 455 Extension corridor study from Hartwood Marsh Road to Schofield Road, which includes the US 27 to SR 429 Connector and land use updates within the southwestern Lake County area, known as the Wellness Way Area Plan.
- b) **Historical Traffic Trends Analysis:** Percent-Root-Mean-Square analysis was conducted for the study roadways using traffic data from *2019 Florida Transportation Online (FTO)*, and *2019 Lake County Annual Traffic Counts*.
- c) **Population Projections:** The population estimates obtained from the most current Bureau of Economic and Business Research (BEBR), *Florida Population Studies, Volume 52 Bulletin 183*, dated April 2019, was used.

### 4.1 Travel Demand Model

The Central Florida Expressway Authority (CFX) is currently conducting a Project Development and Environment (PD&E) study for the East-West Connector from SR 429 to US 27, south of Wellness Way. As part of that PD&E, CFX has modified CFRPM V6.1 to incorporate all roadway projects and several developments planned in that area. This model was validated by a CFX consultant for the year 2017. During the CR 455 Extension study from Hartwood Marsh Road to Schofield Road, the CFX modified CFRPM model was used to develop traffic projections. For the purpose of this study, the same model was used but with the CR 455 corridor limit from Lost Lake Road to Hartwood Marsh Road.

## 4.2 Programmed and Planned Improvements

As the next step, the 2025, 2035 and 2045 model networks were reviewed to ensure they included programmed and planned capacity improvements within the study corridor.

The following programmed and planned improvements, shown in **Table 2**, are based on the review of the latest Lake- Sumter Metropolitan Planning Organization (MPO) adopted *2040 Long Range Transportation Plan* (LRTP) and *Transportation Improvement Program* (TIP) and the 2019-2023 *Lake County Transportation Construction Program* (TCP) within the vicinity of the study area. An excerpt of the *Lake County TCP* is included in **Appendix B**.

**Table 2**  
**Programmed and Planned Improvements**

Road Name	From	To	Improvement	Completion Year
CR 455	Hartwood Marsh Rd	Lost Lake Rd	New 2 Lane Rd	2023
	Lost Lake Rd	Hartle Rd	Final 2 Lanes	2023

*Source: Lake County 2020-2024 Transportation Construction Program*

## 4.3 Historical Trends Analysis

Based on the historical count information obtained from the FDOT 2019 FTO and the 2019 Lake County Annual Traffic Counts, linear regression trends were performed for the roadway segments within the study area using historical AADT volumes. Simple annual growth rates were calculated using Percent-Root-Mean-Square regression for each location. **Table 3** summarizes the trends analysis results for these roadways segments. Note that only locations with R-Square values greater than 70% were utilized for this study. The trends analysis sheets are provided in **Appendix C**.



**Table 3  
Historical Traffic Trends Summary**

Roadway	Segment	Source	Trends Analysis	
			R <sup>2</sup> Value	Annual Growth
Hartle Rd/CR 455	SR 50 to Lost Lake Rd	Lake County	73.27%	11.29%
Hartwood Marsh Rd	East of Hancock Rd	Lake County	86.79%	7.89%
Johns Lake Rd *	East of Hancock Rd	Lake County	72.06%	8.65%
<b>Average</b>				<b>9.28%</b>

Source: 2019 Lake County Traffic Counts

#### 4.4 Population Estimates

Low, medium, and high population projections for Lake County were obtained from the most current population projections from BEBR *Volume 52, Bulletin 183*, dated April 2019. **Table 4** shows the growth rates derived from the population estimates for the year 2045. As illustrated in the table, the low, medium, and high population estimates for Lake County obtained from BEBR reported an annual growth rate of 0.74%, 1.53%, and 2.20% per year. The BEBR projections are provided in **Appendix D**.

**Table 4  
Population Growth Rates**

Projection Type	2018 Estimate	2045 Projection	Annual Growth
Lake County BEBR Low Projection	342,917	418,900	0.74%
Lake County BEBR Medium Projectio	342,917	517,200	1.53%
Lake County BEBR High Projection	342,917	617,700	2.20%
<b>Average</b>			<b>1.49%</b>

BEBR 2020-2045 Population Projections Volume 52 Bulletin 183, April 2019

#### 4.5 Model Growth Rates

Simple annual growth rates were calculated using the CF2025 and CF2045 model networks' AADT volumes on the roadway segments within the project corridor. **Table 5** summarizes the segment model growth rates. The model printouts are provided in **Appendix E**.

**Table 5  
Model Growth Rates**

Roadway	Segment	Model AADT		Model Growth Rate
		2025	2045	
Hartle Rd/CR 455 Extension	SR 50 to Lost Lake Rd	12,084	28,010	6.59%
	Lost Lake Rd to Hartwood Marsh Rd	12,902	28,551	6.06%
Hartwood Marsh Rd	Hancock Rd to CR 455 Extension	9,166	22,803	7.44%
Johns Lake Rd *	Hancock Rd to CR 455 Extension	2,507	5,848	6.66%
Average				<b>6.69%</b>

Source: CFRPM V6.1 - CFX Model

#### 4.6 Future Traffic Forecast

Since the trends analysis is based solely on historical traffic data and does not accurately predict traffic diversion to other roadways associated with road capacity improvements and new roadway corridors, the traffic forecasts used for this DTTM analysis will rely primarily on the traffic volume projections obtained from model runs. The CFRPM model better reflected the development trends and future capacity increases due to the major roadway improvements proposed along competing parallel corridors. The model is an evaluation tool that represents land use and transportation interaction to assess the capability of the region's highway and transit networks to support anticipated growth. The CFRPM model has a 2017 base validated model, a 2025 opening year, a 2035 interim year, and a 2045 design year model. The year 2019 model network is based on the CFRPM 2017 base year network.

#### 4.7 Sub-Area Model Validation

CFX provided the CFX-CFRPM model which was already validated with a base year 2017. Per Lake County, this validated model was used in the CR 455 Extension (from Hartwood Marsh Road to Schofield Road) DTTM analysis. Therefore, this DTTM does not include any validation procedures.

#### 4.8 Development of Design Characteristics

The design traffic characteristics established in this section will be used in developing design hour volumes (DHV's) for the intersections and directional design hour volumes (DDHV's) for the roadway segments for the future conditions. These characteristics are determined based on the procedures outlined in the FDOT's *Project Traffic Forecasting Handbook*, dated January 2014.

The K and D factors obtained from the traffic counts collected May 22 to 24, 2019 on Hancock Road, CR 455/Hartle Road, and N Hartwood Marsh Road are shown in **Table 6**.

**Table 6  
K, D, T and DHT Factors**

Roadway	Segment	Source	K	D	T	DHT
Hancock Rd	N of Hartwood Marsh Rd	TMC	8.03%	52.76%	3.49%	1.75%
CR 455/Hartle Rd	S of SR 50	TMC	8.20%	61.69%	4.88%	2.44%
Hartwood Marsh	E of Hancock Rd	TMC	8.42%	63.51%	3.41%	1.71%
	E of Heritage Hills Blvd	TMC	8.87%	73.10%	N/A	N/A
<b>Average</b>			8.38%	62.77%	3.93%	1.96%

Source: 2019 Traffic & Mobility Consultants Traffic Counts

#### 4.9 K Factor

The percentage of daily traffic occurring during the peak hour was determined based on a review and analysis of existing and historical traffic counts information as well as the minimum FDOT standards. The K factor is defined as the proportion of AADT occurring in the peak design hour. FDOT has developed a standard that replaces the K30 factors with Standard K factors. This has occurred primarily due to roadways located within urbanized areas that cannot be cost-effectively designed based on the 30<sup>th</sup> highest hour demand volumes. In addition, potential issues that impact the use of the K factors is the comparison and/or relationship between the overall demand traffic versus the actual measured traffic. **Table 7** shows the historical K factors for the last 5 years obtained from FDOT 2018 FTO.

**Table 7  
FDOT FTO Historical K Factors**

Year	Hancock Rd	Hartle Rd	Hartwood Marsh Rd
2015	9.00%	9.00%	9.00%
2016	9.00%	9.00%	9.00%
2017	9.00%	9.00%	9.00%
2018	9.00%	9.00%	9.00%
2019	9.00%	9.00%	9.00%
<b>Average</b>	<b>9.00%</b>	<b>9.00%</b>	<b>9.00%</b>
<b>Overall Average</b>			<b>9.00%</b>

*Source: 2019 FDOT FTO*

**Table 8** shows the historical K factors for the last 5 years from Lake County Traffic Counts.

**Table 8  
Lake County Historical K Factors**

Year	Hancock Rd	Hartle Rd	Hartwood Marsh Rd
2015	9.57%	8.11%	9.77%
2016	8.49%	8.58%	9.06%
2017	8.36%	9.70%	8.59%
2018	8.70%	8.23%	10.10%
2019	8.50%	7.80%	9.30%
<b>Average</b>	<b>8.72%</b>	<b>8.48%</b>	<b>9.36%</b>
<b>Overall Average</b>			<b>8.86%</b>

*Source: Lake County Annual Traffic Counts*

Table 9 shows the recommended range of K factors from the FDOT Traffic Forecasting Handbook.

**Table 9**  
**Recommended Range of K Values**

Area	Facility Type	Standard K Factors	Representative Time Period
Urban	Freeways	10.5	100th highest hour of the year
	Arterial & Highways	9.0	Typical weekday peak hour

Source: FDOT Traffic Forecasting Handbook 2014

The average measured K from the 2019 traffic counts is 8.83% and the average of the historical K factors is 8.86%. As the CR 455 Extension is not built and the surrounding parcels are not developed yet, the projected traffic should be calculated using the K factor close to the K factor recommended by FDOT for urban areas. Accordingly, a K factor of 9.0% was used for the CR 455 Extension corridor analysis. For the intersection analysis, a K factor of 8.0% was used for the AM peak hour and 9.0% was used for the PM peak hour.

#### 4.10 D Factor

The directional distribution factor, D, is based on the median value of the directional factors for the highest 200 hours of volumes for each continuous count station. In determining this factor for CR 455 Extension, statewide guidelines (*Figure 2.9* from the *2014 PTF Handbook*) for D factor were compared to D factors obtained from the field collected traffic counts and historical information contained in the FTO. The historical D factors obtained from FDOT 2019 FTO for the roadways on the surrounding area of the study corridor are shown in **Table 10**.

**Table 10**  
**FDOT FTO Historical D Factors**

Year	Hancock Rd	Hartle Rd	Hartwood Marsh Rd
2015	54.60%	54.60%	54.60%
2016	53.90%	53.90%	53.90%
2017	54.20%	54.20%	54.20%
2018	54.20%	54.20%	54.20%
2019	54.20%	54.20%	54.20%
<b>Average</b>	<b>54.22%</b>	<b>54.22%</b>	<b>54.22%</b>
<b>Overall Average</b>			<b>54.22%</b>

Source: 2019 FDOT FTO

The average of the FDOT FTO historical D factors for the surrounding roadways of the CR 455 Extension corridor is 54.22%.

The historical D factors obtained from *Lake County Traffic Counts* for the roadways on the surrounding area of the study corridor are shown in **Table 11**.

**Table 11  
Lake County Historical D Factors**

Year	Hancock Rd	Hartle Rd	Hartwood Marsh Rd
2015	51.04%	53.87%	65.86%
2016	59.40%	53.95%	61.63%
2017	50.11%	52.43%	66.77%
2018	52.16%	52.07%	56.28%
2019	53.00%	59.00%	60.00%
<b>Average</b>	<b>53.14%</b>	<b>54.26%</b>	<b>62.11%</b>
<b>Overall Average</b>			<b>56.50%</b>

*Source: Lake County Annual Traffic Counts*

**Table 12** provides the current recommended range of D values from the *FDOT Project Traffic Forecasting Handbook (2014)*.

**Table 12  
Recommended Range of D Values**

Road Type	Low	D	High	Standard Deviation
Rural Arterial	51.1	58.1	79.6	6.29
Urban Arterial	50.8	57.9	67.1	4.60

*FDOT Traffic Forecasting Handbook 2014*

The average measured D from the 2019 traffic counts is 62.77% and the average of the Lake County historical D factors is 56.50%. The average of the historical D factors from Lake County and FDOT FTO is 55.4% and is recommended for the CR 455 Extension corridor analysis.

#### 4.11 T & DHT Factors

The daily truck factor, T represents the composition percentage of medium sized and heavy trucks occurring in the traffic stream for a 24-hour period. The design hour truck, DHT is the percentage of truck traffic during the peak hour and is recommended as one-half of the T factor in the *2014 FDOT Project Traffic Forecasting Handbook*.

**Table 13** contains the historical T factors from the 2019 FDOT FTO for the five years between 2015 and 2019.

**Table 13**  
**Historical T Factors**

Year	Hancock Rd	Hartle Rd	Hartwood Marsh Rd
2015	12.60%	4.90%	12.60%
2016	12.60%	4.90%	12.60%
2017	10.70%	5.60%	10.70%
2018	13.00%	5.60%	13.00%
2019	9.00%	5.60%	9.90%
<b>Average</b>	<b>11.58%</b>	<b>5.32%</b>	<b>11.76%</b>
<b>Overall Average</b>			<b>9.55%</b>

*Source: 2019 FDOT FTO*

The average of the historical T factors for the surrounding roadways of the CR 455 Extension corridor is 9.55%. Therefore, the average of the historical DHT factor (one-half of average T Factor) is 4.78%.

The average measured T and DHT from the 2019 traffic counts are 3.93% and 1.96%, respectively. The average of the FDOT historical T and DHT factors are 9.55% and 4.78%, respectively. The truck factors from the 72-hour counts are more realistic to be used for the future years' analysis, therefore, a T factor of 4% and DHT factor of 2% is recommended for the CR 455 Extension intersection analysis.

#### 4.12 Future Roadway Design Characteristics

CR 455 Extension is planned as a 4-lane major roadway between Lost Lake Road and Hartwood Marsh Road. The speed limit used in the analysis is 45 MPH.

#### 4.13 Future Daily Traffic Projections

Based on the traffic forecast analysis performed, the AADTs obtained from the CFRPM Model CF2025, CF 2035 and CF2045 validated networks are the recommended volumes for the Design Traffic analysis on CR 455 Extension. These model volumes (Peak Season Weekly Average Daily Traffic - PSWADT) were converted to AADT using the Model Output Conversion Factor of 0.94 for Lake County obtained from 2019 FTO. The future years AADTs are shown in **Figure 3** for the opening year 2025, interim 2035 and design year 2045.

The following adjustments were made to the future years model networks:

- CR 455 Extension was realigned based on existing and projected configuration from Good Hearth Boulevard to Hartwood Marsh Road. It was also coded into the model network as a 4-lane road.
- Hartwood Marsh Road was coded as a 4-lane road from US 27 to CR 455.
- Hancock Road Extension was added as a 2-lane road, from Hartwood Marsh Road to Schofield Road based on discussions with the Lake County Public Works Department.
- Wellness Way was added as a 4-lane road from US 27 to the Orange County Line.
- US 27 was coded as a 6-lane facility from US 192 in Osceola County to SR 50 in Lake County.





**Legend:**  
 2025 Opening Year  
 2035 Interim Year  
 2045 Design Year



#### **4.14 Projected Developments Within the CR 455 Extension Study Area**

During the CR 455 Extension PD&E Study, Lake County requested an evaluation of future land uses within the study area that will impact CR 455 Extension design traffic. The results of this evaluation found that 31 planned developments within the study area should be included in the DTTM analysis. The 2025, 2035 and 2045 CFX-CFRPM model socioeconomic data (ZDATA) files were reviewed to check if these 31 projects were included by CFX and it was found that 15 of the 31 developments were included in the original ZDATA files. Therefore, the development programs from the 16 missing projects were added to each future year ZDATA file. The future model networks were developed using the CFX model future years cost-feasible networks including this socioeconomic data update. The 31 planned development programs (land uses, employment data and build-out years) included in the updated ZDATA files were reviewed by Lake County and they are summarized in the CR 455 Extension Study Area Development Programs Summary spreadsheet included in **Appendix F**.

#### **4.15 Future Intersection Directional Design Hour Volumes**

The future opening year 2025, interim 2035 and design year 2045 AADT along with the recommended design traffic characteristics were used to develop the proposed directional design hour volumes (DDHV's) for both the AM and PM peak design hours at the study intersections.

As both study intersections do not exist today, there was no existing intersection analysis performed. Thus, the FDOT TURNS5 worksheet was not used to develop future traffic turning volumes. The 2025, 2035 and 2045 model output LOADTURN.dbf file was used to obtain the first estimate of turning movements for the intersections of CR 455 Extension and Johns Lake Road and CR 455 Extension and Hartwood Marsh Road. AM and PM turning movement volumes were balanced for reasonableness and the D factor was applied for opposite directions in the AM and PM scenarios.

The future year DDHV's for the intersections were developed by balancing inflow and outflow AADTs and calculating DDHVs based on the recommended K and D factors of the intersecting roadways. Intersection DDHVs were balanced and adjusted to obtain reasonable inflows and outflows between upstream and downstream intersections. Engineering judgment was also applied to ensure reasonable growth was achieved for all turning movements between the opening year 2025, interim 2035 and design year 2045 projections.

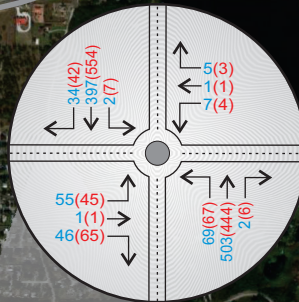
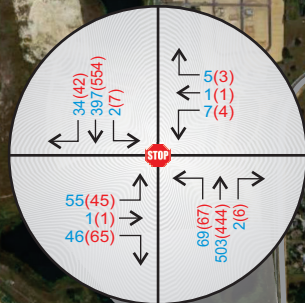
The future year AM and PM design hour volumes for the CR 455 Extension study intersections are shown in **Figure 4**, **Figure 5** and **Figure 6** for the opening year 2025, interim year 2035 and design year 2045, respectively.





SR 50 / Colonial Dr

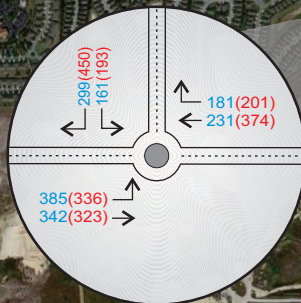
Hancock Rd



Lost Lake Rd

Johns Lake Rd

CR 455 Extension



Hartwood Marsh Rd

**Legend:**  
 AM Volumes  
 (PM Volumes)





SR 50 / Colonial Dr

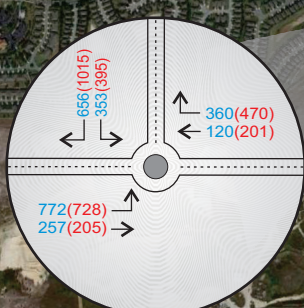
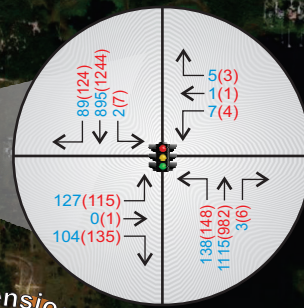
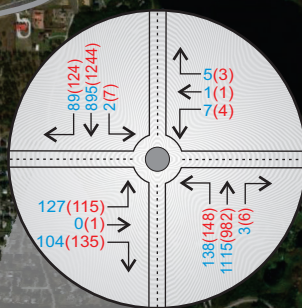
Hancock Rd

Lost Lake Rd

Johns Lake Rd

CR 455 Extension

Hartwood Marsh Rd



**Legend:**  
 AM Volumes  
 (PM Volumes)





SR 50 / Colonial Dr

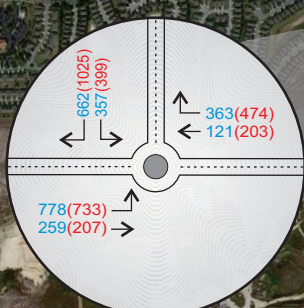
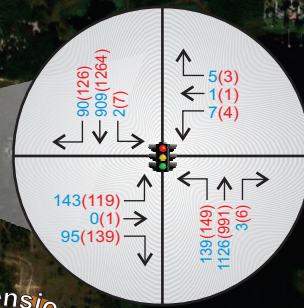
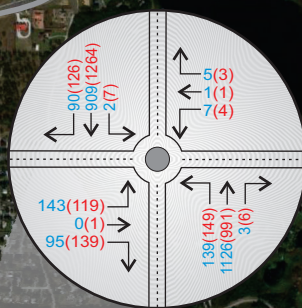
Hancock Rd

Lost Lake Rd

Johns Lake Rd

CR 455 Extension

Hartwood Marsh Rd



**Legend:**  
 AM Volumes  
 (PM Volumes)



## 5.0 FUTURE CONDITIONS

This section presents the results of the traffic operational analysis for the CR 455 Extension. The CR 455 Extension alignment was evaluated based on how this new roadway and projected geometric improvements at the study intersections would affect the traffic flow and provide regional mobility.

Operational analyses during the AM and PM peak design hours were performed for the opening year 2025, interim 2035, and design year 2045. *Highway Capacity Manual, 6<sup>th</sup> edition (HCM 6)* methodologies and *Synchro 10* criteria and procedures were used. *Synchro 10* software was used to analyze the study intersections along the CR 455 Extension. In addition, the FDOT Generalized Capacity Tables reported in the *FDOT Quality and Level of Service Handbook* were utilized for the mainline segments along CR 455 Extension study corridor.

For the intersection operational analyses, the delay and level of service (LOS) were obtained from *Synchro 10* software package, which incorporates the *HCM 6* methodologies.

All roadway capacity improvements within the study area of influence were included in the operational analysis for the opening year 2025, interim 2035, and design year 2045. The following intersections along CR 455 Extension were evaluated:

- CR 455 Extension & Johns Lake Road
- CR 455 Extension & Hartwood Marsh Road

## 5.1 Roadway Segment Analysis

The roadway segment LOS analysis was performed for the CR 455 Extension study corridor for PM peak design hours utilizing the *2014/15 Level of Service Lake County Transportation Management System (LCTMS) Segment Report*. The roadway peak design hour peak direction volumes obtained were compared against the LCTMS service volumes to determine the roadway operating conditions. The peak design hour directional volumes were compared with the service volumes based on the LCTMS classification of each roadway within the study corridor. The roadway segment levels of service analyses were performed for the opening year 2025, interim year 2035, and design year 2045 conditions. The results of the roadway segment level of service are summarized in **Table 14**, **Table 15**, and **Table 16** for the opening, interim, and design years, respectively.

**Table 14**  
**CR 455 Extension 2025 Roadway Segments**

Roadway	Segment	# of Lns	A T	LOS Std	AAADT	LOS Cap	K Factor	D Factor	DDHV	LOS
Hartle Rd/CR 455 Extension	SR 50 to Lost Lake Rd	4	U	D	12,084	1,800	9.0%	55.4%	600	C
	Lost Lake Rd to Hartwood Marsh Rd	4	U	D	12,902	1,800	9.0%	55.4%	640	C
Hartwood Marsh Rd	Hancock Rd to CR 455 Extension	2	U	D	16,411	790	9.0%	55.4%	820	F
Johns Lake Rd *	Hancock Rd to CR 455 Extension	2	U	D	2,507	675	9.0%	55.4%	120	C

*AAADTs were obtained from CR 455 Extension CF 2025 CFX CFRPM Model and peak hour peak direction roadway capacities from 2012 FDOT Q/LOS Generalized Table 7 for Non-State Roads*

*(\*) Roadway capacities from Lake County TMS Segment Report - 2014/15 Level of Service*

Based on the results shown in **Table 14**, all roadways for the opening year 2025 are projected to operate at acceptable LOS D or better, with the exception of Hartwood Marsh Road, which is projected to operate at LOS F with the existing 2-lanes.



For the interim year 2035, as shown in **Table 15**, all roadways are projected to operate at acceptable LOS D or better.

**Table 15  
CR 455 Extension 2035 Roadway Segments**

Roadway	Segment	# of		LOS Std	AADT	LOS Cap	K Factor	D Factor	DDHV	LOS
		Lns	T							
Hartle Rd/CR 455 Extension	SR 50 to Lost Lake Rd	4	U	D	27,569	1,800	9.0%	55.4%	1,370	C
	Lost Lake Rd to Hartwood Marsh Rd	4	U	D	28,275	1,800	9.0%	55.4%	1,410	C
Hartwood Marsh Rd	Hancock Rd to CR 455 Extension	4	U	D	22,517	1,800	9.0%	55.4%	1,120	C
Johns Lake Rd *	Hancock Rd to CR 455 Extension	2	U	D	5,680	675	9.0%	55.4%	280	C

*AADTs were obtained from CR 455 Extension CF 2025 CFX CFRPM Model and peak hour peak direction roadway capacities from 2012 FDOT Q/LOS Generalized Table 7 for Non-State Roads*

*(\*) Roadway capacities from Lake County TMS Segment Report - 2014/15 Level of Service*

For the design year 2045, as shown in **Table 16**, all roadways w are projected to operate at LOS D or better.

**Table 16  
CR 455 Extension 2045 Roadway Segments**

Roadway	Segment	# of		LOS Std	AADT	LOS Cap	K Factor	D Factor	DDHV	LOS
		Lns	T							
Hartle Rd/CR 455 Extension	SR 50 to Lost Lake Rd	4	U	D	28,010	1,800	9.0%	55.4%	1,400	C
	Lost Lake Rd to Hartwood Marsh Rd	4	U	D	28,551	1,800	9.0%	55.4%	1,420	C
Hartwood Marsh Rd	Hancock Rd to CR 455 Extension	4	U	D	22,803	1,800	9.0%	55.4%	1,140	C
Johns Lake Rd *	Hancock Rd to CR 455 Extension	2	U	D	5,848	675	9.0%	55.4%	290	C

*AADTs were obtained from CR 455 Extension CF 2025 CFX CFRPM Model and peak hour peak direction roadway capacities from 2012 FDOT Q/LOS Generalized Table 7 for Non-State Roads*

*(\*) Roadway capacities from Lake County TMS Segment Report - 2014/15 Level of Service*

The 2014/15 Level of Service LCTMS Segment Report, roadway capacity analysis worksheets and the FDOT QLOS Table 7 used to develop the roadway volume to capacities, number of lanes, and LOS, are included in **Appendix G**.

## 5.2 Intersection Analysis

Intersection operations analysis was performed to determine if there are any deficiencies and to develop the proposed intersection geometry for the study intersections using *Synchro 10* software. Forecasted turning movement volumes (as shown in Figure 5 and Figure 6) were used to analyze the study intersections along the CR 455 Extension. The analysis was first conducted for the design year 2045 traffic conditions to determine the required intersection geometry and intersection improvements for the study intersections. The maximum recommended geometry was also applied to the interim year 2035 traffic conditions to obtain the LOS and control delay information at the study intersections. For the opening year 2025, the analysis shows that minimal improvements are required to obtain an adequate LOS. The intersection of CR 455 Extension was analyzed as a two-way stop-controlled (TWSC) and as a roundabout for the year 2025. However, since the TWSC will fail in the year 2035 and beyond, this intersection was analyzed with a traffic signal and with a roundabout for both years 2035 and 2045. The intersection of CR 455 Extension and Hartwood Marsh Road was analyzed as a roundabout for all future conditions.

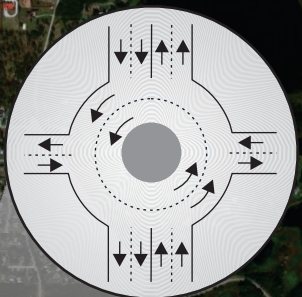
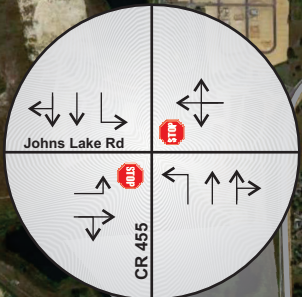
Based on the analyses conducted, the recommended intersection geometry for the opening year 2025 is displayed in **Figure 7** and the geometry for the interim year 2035 and the design year 2045 is illustrated in **Figure 8**. The results of the future year intersection analyses for the opening year 2025, interim year 2035, and design year 2045 are summarized in **Table 17**, **Table 18** and **Table 19**, respectively. The relevant *Synchro* printout are provided in **Appendix H**.





SR 50 / Colonial Dr

Hancock Rd

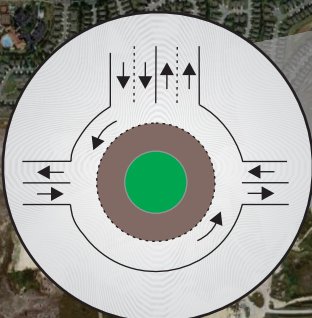


Lost Lake Rd

Johns Lake Rd

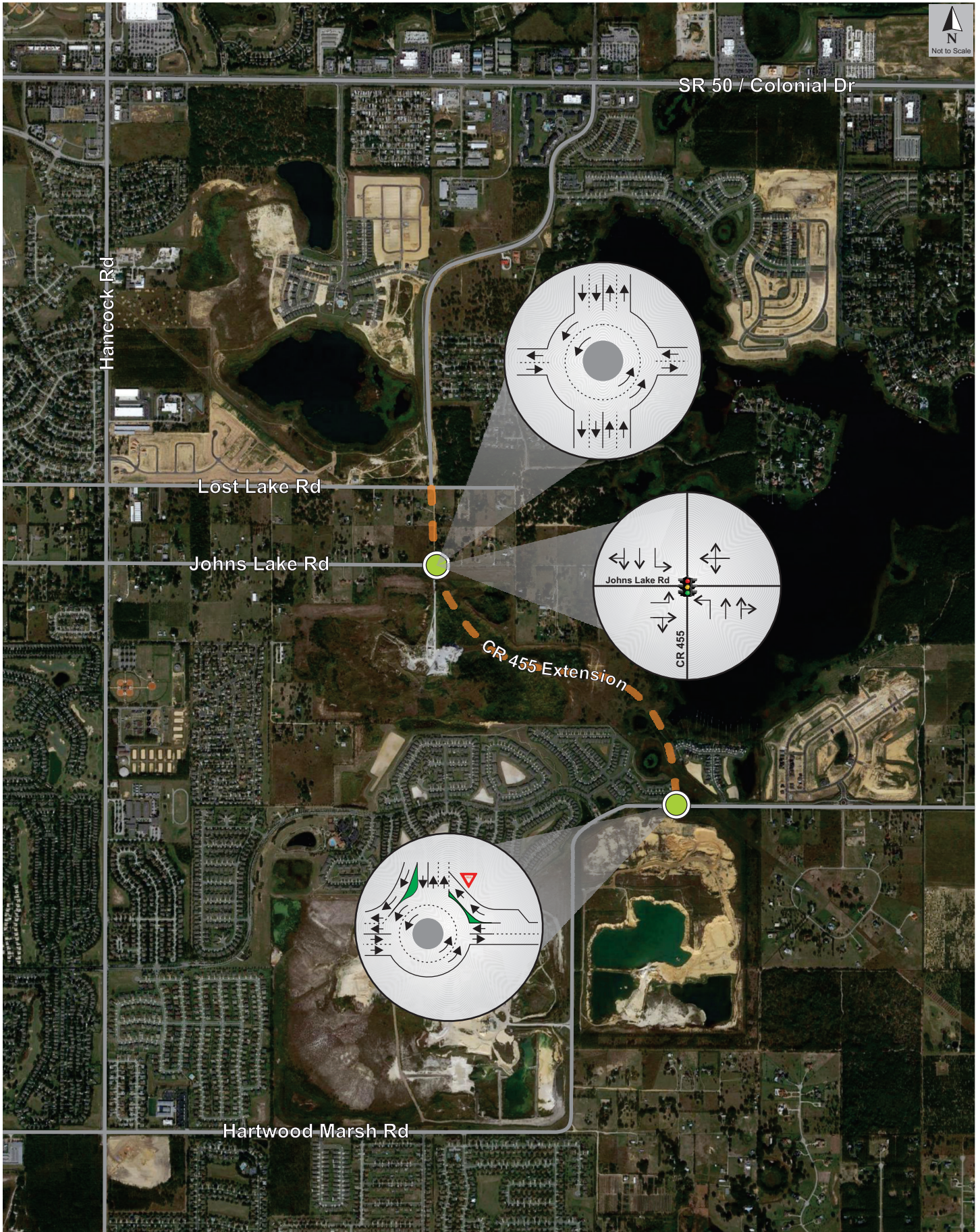


CR 455 Extension



Hartwood Marsh Rd







As shown in **Table 17**, during the opening year 2025 conditions, both study intersections were found to operate at acceptable LOS. The intersection of CR 455 Extension and Johns Lake Road will operate sufficiently as a TWSC and as a roundabout.

**Table 17**  
**2025 CR 455 Extension Intersection Future Operational LOS**

Intersection	Traffic Control	Scenario	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
CR 455 Ext. & Johns Lake Rd	TWSC	AM	13.9	B	18.2	C	8.5	A	8.5	A	-	-
		PM	14.4	B	19.7	C	9.1	A	8.3	A	-	-
	Roundabout	AM	4.8	A	4.7	A	4.8	A	4.4	A	4.6	A
		PM	5.7	A	4.3	A	4.6	A	5.0	A	4.9	A
CR 455 Ext. & Hartwood Marsh Rd	Roundabout	AM	19.6	C	10.3	B	-	-	5.9	A	13.1	B
		PM	12.0	B	13.8	B	-	-	9.7	A	11.4	B

*Delays expressed in sec/veh*

As shown in **Table 18**, during the interim year 2035 conditions, all intersections were found to operate at acceptable LOS. The intersection of CR 455 Extension and Johns Lake Road will operate at LOS F as a TWSC; however, it will operate sufficiently with a traffic signal or a roundabout.

**Table 18**  
**2035 CR 455 Extension Intersection Future Operational LOS**

Intersection	Traffic Control	Scenario	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
CR 455 Ext. & Johns Lake Rd	TWSC	AM	117.1	F	142.6	F	11.9	B	11.1	B	-	-
		PM	242.6	F	250.8	F	16.5	C	10.5	B	-	-
	Roundabout	AM	11.8	B	9.4	A	9.4	A	7.6	A	8.9	A
		PM	22.3	C	8.1	A	8.3	A	11.0	B	10.9	B
	Signal	AM	21.5	C	18.9	B	9.5	A	12.8	B	12.0	B
		PM	29.1	C	24.3	C	8.7	A	14.8	B	13.6	B
CR 455 Ext. & Hartwood Marsh Rd	Roundabout	AM	12.9	B	14.2	B	-	-	9.2	A	10.3	B
		PM	12.3	B	18.9	C	-	-	6.6	A	7.9	A

*Delays expressed in sec/veh*

As shown in **Table 19**, for the design year 2045 conditions, all intersections were found to operate at acceptable LOS. The intersection of CR 455 Extension and Johns Lake Road will operate sufficiently with a traffic signal or a roundabout.

**Table 19**  
**2045 CR 455 Extension Intersection Future Operational LOS**

Intersection	Traffic Control	Scenario	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
CR 455 Ext. & Johns Lake Rd	Signal	AM	21.4	C	18.9	B	9.9	A	13.2	B	12.4	B
		PM	29.7	C	24.8	C	8.8	A	15.1	B	13.9	B
	Roundabout	AM	12.3	B	9.7	A	9.7	A	7.7	A	9.2	A
		PM	24.4	C	8.2	A	8.5	A	11.2	B	11.3	B
CR 455 Ext. & Hartwood Marsh Rd	Roundabout	AM	13.1	B	14.5	B	-	-	5.6	A	8.0	A
		PM	12.5	B	19.4	C	-	-	6.7	A	8.0	A

*Delays expressed in sec/veh*

## 6.0 SUMMARY OF FINDINGS

This Design Traffic Technical Memorandum (DTTM) documents the traffic projections and operations for roadway segments and intersections along CR 455 Extension from Lost Lake Road to Hartwood Marsh Road. This DTTM summarizes the traffic forecast methodology and presents the results of base year and future condition analyses. The results of the analysis are summarized as follows:

- CR 455 Extension roadway segment analysis reveals that all segments between Lost Lake Road and Hartwood Marsh Road will operate at an adequate LOS for the years 2025, 2035 and 2045 as a 4-lane divided roadway.
- CR 455 Extension intersection analysis reveals that all study intersections along the study corridor will operate at adequate LOS with the proposed geometries presented in Figure 7 for the year 2025 and Figure 8 for the years 2035 and 2045.
- The intersection of CR 455 Extension and Johns Lake Road will function at an acceptable LOS with a TWSC only in the opening year 2025.
- For the opening year 2025 and beyond, the Johns Lake Road roundabout alternative along CR 455 Extension will require two circulating lanes without the need for any separate right turn bays on any approach.
- The intersection of CR 455 Extension and Johns Lake Road will function at an acceptable LOS with a traffic signal control at the interim year 2035 and design year 2045 and will require dedicated left turn lanes on all approaches, with the exception of the westbound approach.
- For the opening year 2025, the Hartwood Marsh Road roundabout along CR 455 Extension will require one circulating lanes, but it should be designed with 2 circulating lanes to accommodate future expansion.
- For the opening year 2035 and beyond, the Hartwood Marsh Road roundabout along CR 455 Extension will require two circulating lanes, a dedicated southbound right turn free-flow lane in the southbound approach, and the westbound approach will require a yield-controlled right turn bay.

## **APPENDICES**



**Appendix A**  
2019 Lake County Annual Traffic Counts / FTO Historical Traffic Data

## 2019 Lake County Annual Traffic Counts

MAP STA #	ROAD NAME	LOCATION	Map Sheet	TMS ID	S E C	T W P	R N G	ANNUAL ADJUSTED DAILY TRAFFIC (AADT)						5-YEAR ANNUAL AVERAGE GROWTH RATE PERCENT	ADJUSTED PEAK HR VOLUME 2019	BEGIN PEAK HOUR 2019	ADJUSTED 2019 PM PEAK HOUR VOLUME (3-7 PM reported as 15:00-18:45)				
								2014	2015	2016	2017	2018	2019				Total	NB/EB	SB/WB	Pk Dir	Time
								111	S.R. 19	AT MARION CO LINE	E	268	30				15	28	1,284	2,074	1,408
112	EAGLESNEST RD	0.045 Mi E OF U.S. 27/U.S. 441	C	313	28	18	24	2,447	3,106	3,113	3,755	3,477	3,736	8.83%	332	17:00	332	200	132	EB	17:00
113	C.R. 452	0.20 Mi S OF SOUTH EM-EN-EL GROVE RD	C	324	14	18	25	5,571	5,468	7,374	7,453	8,160	5,806	0.83%	523	16:15	523	297	225	NB	16:15
114	C.R. 19A	0.05 Mi W OF S.R. 19	C-1	352	35	18	26	2,561	2,725	3,109	3,356	2,973	2,872	2.32%	285	7:00	249	139	110	WB	15:30
115	C.R. 44A	0.08 Mi W OF S.R. 44	D	332	35	18	28	1,129	1,146	1,194	1,381	1,520	1,458	5.25%	151	16:45	151	73	78	WB	16:45
116	C.R. 25A (FRUIT PK.)	0.063 Mi S OF U.S. 27/U.S. 441	C	652	4	19	24	7,358	8,109	8,232	8,371	7,858	7,541	0.49%	707	16:30	707	361	346	SB	16:30
117	C.R. 466A (PICCIOLA RD)	0.20 Mi N OF PICCIOLA CUTOFF	C	312	10	19	24	7,173	8,993	7,063	8,100	7,298	6,347	-2.42%	531	16:45	531	346	186	NB	16:45
118	C.R. 25A (LEESBURG)	0.126 Mi W OF U.S. 27	C	379	34	19	24	239	323	603	321	319	384	9.93%	40	14:00	32	15	17	EB	16:15
119	C.R. 44	0.07 Mi E OF C.R. 473	C	737	2	19	25	14,771	13,062	12,492	14,287	18,397	17,453	3.39%	1,633	17:00	1,633	1,035	598	EB	17:00
120	C.R. 44 LEG A	0.10 Mi NW OF U.S. 441	C	328	16	19	25	1,320	1,323	1,304	1,337	1,248	1,290	-0.45%	134	9:30	119	45	74	EB	16:15
121	OLD MT DORA RD	0.11 Mi W OF EUDORA RD	C-1	517	23	19	26	4,161	5,150	4,485	5,298	4,964	5,030	3.86%	522	16:30	522	257	265	WB	16:30
122	MORNINGSIDE DR (MT DORA)	0.14 Mi N OF OLD 441	C-1	549	25	19	26	1,181	1,565	1,325	1,537	1,620	1,498	4.88%	145	13:15	132	74	58	NB	16:15
123	OLD 441	0.20 Mi E OF EUDORA RD	C-1	712	25	19	26	10,908	12,426	10,957	13,405	13,524	15,132	6.77%	1,297	16:15	1,297	598	699	WB	16:15
124	OLD 441	0.19 Mi W OF C.R. 19A/EUDORA RD	C-1	65	26	19	26	7,311	8,213	7,533	8,656	8,991	8,390	2.79%	736	16:15	736	394	341	EB	16:15
125	OLD 441/ALFRED ST	0.12 Mi E OF C.R. 19A/DORA AV	C-1	713	28	19	26	7,784	7,323	8,174	8,575	9,461	9,214	3.43%	838	16:30	838	449	389	EB	16:30
126	ESTES RD	0.035 Mi N OF S.R. 44	C-1	583	8	19	27	3,162	3,497	3,040	3,518	3,782	3,456	1.80%	392	15:45	392	234	158	NB	15:45
127	C.R. 439	0.08 Mi N OF S.R. 44	D	346	10	19	27	3,248	3,781	3,736	4,443	4,387	4,228	5.42%	381	16:45	381	136	245	NB	16:45
128	C.R. 445A	0.11 Mi W OF ASTOR PARK CUTOFF RD	E	272	37	15	27	1,599	1,847	2,116	2,363	2,902	2,657	10.68%	236	14:15	215	108	106	EB	16:15
129	WOLF BRANCH RD	0.12 Mi E OF U.S. 441	D	710	29	19	27	9,697	9,507	9,950	12,087	13,096	14,369	8.18%	1,281	16:30	1,281	603	679	WB	16:30
130	ROUND LAKE RD	0.17 Mi S OF S.R. 46	D	508	35	19	27	4,338	4,880	4,764	5,453	6,127	5,388	4.43%	543	16:15	543	268	275	SB	16:15
131	S.R. 46	0.17 Mi E OF C.R. 46A	D	245	25	19	28	17,308	20,770	20,470	22,898	25,751	#N/A	#N/A	#N/A	7:00	#N/A	#N/A	#N/A	WB	15:45
132	C.R. 33	0.34 Mi W OF U.S. 27	B	226	11	20	24	7,719	8,443	8,444	9,988	9,599	9,402	4.02%	728	16:15	728	427	301	SB	16:15
133	C.R. 33	0.28 Mi S OF C.R. 470/C.R. 48	B	229	15	20	24	7,130	5,056	7,552	10,062	9,251	8,936	4.62%	751	16:15	751	308	443	SB	16:15
134	C.R. 448	AT ORANGE CO LINE	B	71	13	20	26	5,524	8,141	6,292	7,383	7,479	7,075	5.07%	676	16:30	676	361	315	EB	16:30
135	C.R. 478	0.08 Mi E OF S.R. 19	B	597	7	22	25	936	1,085	1,351	1,295	1,342	1,641	11.89%	171	15:45	171	66	105	WB	15:45
136	C.R. 565A	0.2 Mi N OF S.R. 50	B	599	20	22	25	7,386	9,936	10,992	8,120	9,069	9,273	4.65%	944	6:30	718	381	337	NB	17:00
137	C.R. 565A	0.27 Mi S OF S.R. 50	A	594	20	22	25	1,965	3,541	2,186	2,213	2,149	2,324	3.41%	205	13:15	185	61	124	SB	16:15
138	C.R. 565B	0.10 Mi E OF C.R. 565A	A	593	3	23	25	2,055	2,194	2,173	2,511	2,433	1,754	-3.12%	193	7:30	170	89	81	EB	16:45
139	C.R. 561	0.11 Mi E OF S.R. 33	A	131	8	24	25	1,231	1,483	1,467	2,050	2,002	2,141	11.70%	201	15:30	201	112	88	EB	15:30
140	S.R. 33	AT POLK CO LINE	A	1	28	24	25	3,384	3,400	4,481	5,617	7,773	6,234	13.00%	441	9:15	440	241	199	NB	16:45
141	U.S. 27/S.R. 25	0.56 Mi N OF POLK CO LINE	A	25	35	24	26	35,361	55,443	32,261	42,561	52,260	51,646	7.87%	3,475	16:30	3,475	1,929	1,546	NB	16:30
142	U.S. 27/S.R. 25	0.53 Mi E OF C.R. 565	B	217	20	21	25	17,028	25,160	23,286	22,733	24,875	22,314	5.56%	1,718	15:45	1,718	836	882	EB	15:45
143	JALARMY RD	0.29 Mi N OF C.R. 561	B	486	12	22	25	3,098	3,784	3,714	4,208	3,665	5,060	10.31%	425	17:15	425	166	259	NB	17:15
144	LOG HOUSE RD	0.05 Mi E OF C.R. 561	A	133	11	23	25	3,195	4,798	2,944	3,482	3,299	3,285	0.55%	434	7:30	316	181	135	EB	15:00
145	LAKE LOUISA RD	0.20 Mi S OF LAKESHORE DR	A	171	6	23	26	3,124	6,428	3,456	3,775	3,641	3,719	3.55%	330	16:45	330	170	161	SB	16:45
146	HARTWOOD MARSH RD	0.15 Mi E OF U.S. 27/S.R. 25	A	362	9	23	26	11,908	10,704	14,102	14,932	16,077	16,511	6.75%	1,388	7:15	1,373	626	747	WB	15:30
147	ROYAL TRAILS RD	0.11 Mi N OF S.R. 44	D	510	18	18	29	1,533	1,518	1,519	1,766	1,700	1,674	1.77%	174	16:15	174	124	50	NB	16:15
148	WOLF BRANCH RD	0.075 Mi W OF C.R. 437	D	49	19	19	28	4,429	5,131	4,997	6,263	6,723	7,402	10.82%	713	7:15	701	359	341	EB	16:30
149	LANE PARK CUTOFF	0.045 Mi E OF S.R. 19	B	558	6	20	26	1,597	1,795	1,720	2,032	1,984	2,193	6.54%	361	8:00	329	128	202	WB	15:30
150	HARTWOOD MARSH RD	1.09 Mi W OF ORANGE CO LINE	A	918	2	23	26	9,589	10,759	10,247	10,862	12,123	11,200	3.16%	1,058	16:45	1,058	785	273	WB	16:45
151	LK LOUISA RD	0.17 Mi W OF U.S. 27	A	174	16	23	26	3,894	4,318	4,044	3,734	3,656	3,583	-1.65%	292	16:45	292	86	206	WB	16:45
152	MAIN ST	0.05 Mi E OF S.R. 44 (TO U.S. 441)	C	478	25	19	24	3,982	4,275	4,359	5,249	5,145	4,957	4.47%	523	16:30	523	416	107	EB	16:30
153	C.R. 48	0.12 Mi W OF U.S. 27	B	218	14	20	24	6,733	8,459	7,698	8,996	9,714	9,128	6.27%	773	16:00	773	397	376	EB	16:00
155	C.R. 474	0.04 Mi W OF U.S. 27/S.R. 25	A	703	27	24	26	1,939	1,849	3,741	4,660	5,315	6,183	26.10%	484	7:15	416	145	271	WB	17:00
156	DAVID WALKER DR	0.05 Mi N OF U.S. 441/S.R. 500	C-1	424	22	19	26	4,363	5,239	5,459	5,928	8,224	5,694	5.47%	475	16:15	475	212	263	NB	16:15
157	DAVID WALKER DR	0.05 Mi W OF KURT ST (EUSTIS)	C-1	721	15	19	26	4,562	4,724	5,651	5,099	5,205	5,553	4.01%	516	16:15	516	331	185	EB	16:15
158	C.R. 50	0.08 Mi W OF C.R. 455	B	156	23	22	26	4,308	6,698	5,592	7,593	6,693	6,509	8.60%	661	16:45	661	168	493	WB	16:45
159	C.R. 25 (TEAGUE TL)	0.21 Mi S OF GRIFFIN AV	C	367	8	18	24	7,633	8,884	6,039	9,575	10,023	9,630	4.76%	832	15:15	832	370	462	NB	15:15
160	ROLLING ACRES RD	0.10 Mi S OF U.S. 27/U.S. 441	C	843	8	18	24	19,180	19,406	19,787	17,211	17,679	17,349	-1.99%	1,664	13:45	1,449	710	739	SB	16:00
161	C.R. 44C (GRIFFIN RD)	0.061 Mi E OF C.R. 468	C	634	16	19	24	6,041	5,744	5,348	5,944	5,817	5,664	-1.28%	478	16:45	478	231	246	WB	16:45
162	C.R. 455	0.12 Mi E OF S.R. 19	B	718	11	21	25	2,291	2,434	2,740	2,611	3,157	3,350	7.89%	309	6:45	275	135	140	EB	15:15
163	HOOKS ST	0.06 Mi W OF U.S. 27	A	435	30	22	26	6,847	6,570	7,007	7,620	8,098	7,614	2.15%	653	16:45	653	372	280	WB	16:45
164	WAYCROSS AV	0.126 Mi W OF S.R. 4																			

## 2019 Lake County Annual Traffic Counts

MAP STA #	ROAD NAME	LOCATION	Map Sheet	TMS ID	S E C	T W P	R N G	ANNUAL ADJUSTED DAILY TRAFFIC (AADT)						5-YEAR ANNUAL AVERAGE GROWTH RATE PERCENT	ADJUSTED PEAK HR VOLUME 2019	BEGIN PEAK HOUR 2019	ADJUSTED 2019 PM PEAK HOUR VOLUME (3-7 PM reported as 15:00-18:45)				
								2014	2015	2016	2017	2018	2019				Total	NB/EB	SB/WB	Pk Dir	Time
								165	HANCOCK RD	0.228 Mi S OF S.R. 50	A	911	27				22	26	17,586	19,328	18,478
166	ROLLING ACRES RD	0.17 Mi N OF C.R. 466	C	845	17	18	24	17,210	16,113	15,627	15,585	16,347	16,851	-0.42%	1,529	12:30	1,435	779	656	SB	15:00
167	C.R. 466B	0.20 Mi S OF EMMAUS RD	C	308	2	19	24	4,375	4,852	4,415	4,843	4,615	4,585	0.94%	399	16:45	399	157	242	NB	16:45
168	DAVID WALKER DR	0.20 Mi S OF U.S. 441	C-1	423	22	19	26	6,860	7,505	7,612	7,672	8,369	8,220	3.68%	727	14:15	666	367	299	NB	16:15
169	CITRUS TOWER BV	0.14 Mi N OF S.R. 50	A	833	28	22	26	17,147	15,715	16,110	15,791	15,478	15,581	-1.90%	1,262	12:45	1,191	577	614	SB	15:00
170	JOHNS LAKE RD	0.34 Mi E OF U.S. 27	A	487	32	22	26	6,936	10,411	8,489	7,929	6,104	6,160	-2.34%	718	7:15	505	247	258	WB	16:00
171	C.R. 466A	0.10 Mi W OF U.S. 27/U.S. 441	C	315	4	19	24	6,464	6,400	6,399	6,453	6,512	6,474	0.03%	536	16:00	536	271	264	WB	16:00
172	C.R. 44A (GRIFFIN RD)	0.165 Mi W OF U.S. 27 (14th ST)	C	407	22	19	24	7,932	9,933	6,845	9,222	9,157	8,722	1.92%	784	15:45	784	316	468	EB	15:45
173	C.R. 473	0.083 Mi S OF C.R. 44	C	337	2	19	25	5,746	5,655	6,066	6,893	7,355	7,042	4.15%	590	15:30	590	303	287	NB	15:30
174	RADIO RD	0.084 Mi S OF C.R. 44	C	500	3	19	25	3,118	2,220	3,029	3,269	3,301	3,484	2.25%	517	16:45	517	252	265	SB	16:45
175	SLEEPY HOLLOW RD	0.064 Mi S OF U.S. 441	C	0	20	19	25	3,039	3,428	3,531	3,943	4,263	3,819	4.67%	322	17:00	322	144	179	SB	17:00
176	C.R. 561	0.08 Mi S OF S.R. 50	A	720	24	22	25	5,515	5,871	6,142	6,165	6,728	6,364	2.91%	575	16:45	575	274	301	SB	16:45
177	LAKESHORE DR (CLERMONT)	0.122 Mi N OF LOG HOUSE RD/ OSWALT RD	A	92	12	23	25	8,756	9,321	10,248	11,405	11,323	10,954	4.58%	976	16:45	976	610	366	SB	16:45
178	CITRUS TOWER BV	0.113 Mi E OF U.S. 27	B	135	19	22	26	11,752	12,303	12,177	12,067	12,548	12,888	1.86%	1,079	16:45	1,079	630	448	WB	16:45
179	N HANCOCK RD	0.102 Mi N OF S.R. 50	A	150	27	22	26	15,491	16,901	14,533	17,100	20,939	17,171	2.08%	1,395	16:15	1,395	673	722	SB	16:15
180	HANCOCK RD	0.113 Mi N OF HARTWOOD MARSH RD	A	153	10	23	26	8,359	8,513	8,483	10,600	11,175	11,056	5.75%	945	7:15	938	439	499	SB	15:45
181	C.R. 437	0.105 Mi S OF C.R. 44A	D	247	31	18	28	4,816	2,702	5,178	5,661	6,011	5,967	4.38%	591	16:30	591	201	391	NB	16:30
182	C.R. 435	0.091 Mi S OF S.R. 46	D	649	29	19	28	6,263	7,463	6,629	7,465	8,282	7,565	3.85%	717	16:30	717	367	350	NB	16:30
183	C.R. 448	0.155 Mi W OF C.R. 561	B	67	7	20	26	3,009	3,274	3,721	4,138	4,947	4,396	7.87%	371	7:45	366	188	179	EB	16:45
184	HUFFSTETLER DR	0.065 Mi E OF DAVID WALKER DR	C-1	483	22	19	26	490	885	883	1,075	1,030	1,169	18.99%	124	16:15	124	75	50	EB	16:15
185	HOOKS ST	0.7 Mi W OF HANCOCK RD	A	919	28	22	26	7,191	5,511	11,451	8,668	10,888	10,718	8.31%	879	12:30	830	506	324	WB	15:00
186	LAKE ELLA RD	0.169 Mi W OF U.S. 27/U.S. 441	C	497	28	18	24	1,650	1,998	2,054	2,198	1,857	1,949	3.39%	176	16:45	176	107	69	WB	16:45
187	LAKE ELLA RD	0.20 Mi W OF MICRO RACETRACK RD	C	496	31	18	24	1,161	1,132	1,262	1,768	1,821	1,912	10.50%	190	16:15	190	125	65	EB	16:15
188	MICRO RACETRACK RD	0.098 Mi N OF C.R. 466A	C	498	6	19	24	6,174	6,586	6,942	8,714	9,147	9,401	8.77%	904	14:15	821	362	460	SB	15:00
189	C.R. 25A	0.103 Mi N OF C.R. 25A/URICK ST	C	655	9	19	24	5,737	9,242	5,215	5,549	5,125	4,780	-3.58%	449	16:30	449	194	255	NB	16:30
190	THOMAS AV	0.081 Mi N OF C.R. 44A/C.R. 44C	C	808	15	19	24	7,353	9,241	7,639	8,087	8,500	8,091	1.93%	725	16:00	725	360	365	SB	16:00
191	C.R. 455	0.14 Mi E OF C.R. 561	B	83	17	21	26	1,391	5,744	1,528	1,832	1,746	1,610	2.96%	187	7:00	154	71	83	WB	17:15
192	VISTA DEL LAGO BV	0.13 Mi W OF U.S. 27	A	167	9	23	26	1,334	1,510	1,372	1,468	1,419	1,527	2.74%	145	17:15	145	79	66	WB	17:15
193	WILSON LAKE PARKWAY	0.02 Mi S OF U.S. 27	B	773	26	21	25	1,330	1,950	2,178	2,281	2,382	2,429	12.80%	202	15:45	202	71	130	SB	15:45
194	ORANGE AV	0.161 Mi E OF S.R. 19 (EUSTIS)	C-1	536	11	19	26	10,384	11,784	11,192	11,233	7,735	12,986	4.57%	1,139	16:45	1,139	518	621	WB	16:45
195	CITRUS GROVE ROAD	0.14 Mi E OF U.S. 27	B	546	6	22	26	904	1,009	1,385	1,612	1,847	1,584	11.88%	188	6:45	137	81	56	WB	15:45
196	BLACKSTILL LAKE RD	0.16 Mi N OF C.R. 50	B	672	16	22	26	3,106	3,362	3,135	3,451	4,711	5,031	10.13%	469	7:00	438	215	223	NB	15:15
197	CITRUS TOWER BV	0.10 Mi N OF JOHNS LAKE RD	A	884	32	22	26	14,849	17,884	18,431	18,370	19,580	19,518	5.62%	1,532	14:15	1,524	581	943	SB	16:30
198	ORANGE AV	720 Ft E OF C.R. 44 (BYPASS)	C-1	466	7	19	27	11,555	13,661	14,189	14,203	14,732	14,184	4.18%	1,257	16:15	1,257	581	676	WB	16:15
199	LAKE MACK DR	0.04 Mi S OF C.R. 42	E	564	17	17	29	1,399	1,571	1,369	1,477	1,349	1,515	1.61%	137	16:45	137	41	96	SB	16:45
200	GRIFFIN AV	0.085 Mi W OF C.R. 25	C	299	8	18	24	8,692	9,313	8,903	10,715	9,169	9,182	1.10%	800	16:30	800	275	525	WB	16:30
201	ROLLING ACRES RD	0.053 Mi N OF LAKE ELLA RD	C	503	30	18	24	5,085	5,525	6,343	7,363	7,833	7,929	9.29%	741	14:30	704	320	384	SB	15:00
203	ROUND LAKE RD	0.05 Mi S OF WOLF BRANCH RD	D	505	26	19	27	2,546	2,719	2,878	3,328	4,460	7,468	24.01%	924	7:15	709	280	429	NB	16:00
204	C.R. 470	0.536 Mi E OF TURNPIKE OVERPASS	B	223	17	20	24	4,262	6,525	7,257	7,182	9,077	7,451	11.82%	617	6:45	615	342	273	EB	15:00
205	SHIRLEY SHORES RD	0.15 Mi N OF C.R. 448	B	514	15	20	26	2,140	3,101	2,548	2,425	2,684	2,410	2.40%	214	16:30	214	128	87	NB	16:30
206	C.R. 565 (VILLA CITY RD)	0.134 Mi N OF S.R. 50	B	612	24	22	24	2,838	3,744	3,180	3,359	4,422	4,686	10.55%	413	16:45	413	200	213	NB	16:45
207	C.R. 561	0.10 Mi N OF C.R. 565A	B	605	14	22	25	4,173	5,073	4,391	5,294	5,863	6,627	9.69%	584	7:30	581	330	251	SB	17:15
208	TURKEY FARM RD	0.040 Mi N OF C.R. 50	B	169	17	22	26	6,116	5,258	344	214	399	209	-49.10%	31	12:45	21	10	12	NB	17:30
209	N HANCOCK RD	0.106 Mi S OF C.R. 50	B	148	16	22	26	14,302	14,775	11,023	13,332	17,186	15,634	1.80%	1,415	17:00	1,415	658	757	SB	17:00
210	OSWALT RD	0.126 Mi E OF LAKESHORE DR (CLERMONT)	A	170	12	23	25	3,596	4,592	3,756	4,168	4,277	4,049	2.40%	357	16:30	357	125	232	EB	16:30
211	SHAY BV	0.158 Mi N OF GRIFFIN AV	C	511	7	18	24	3,324	3,483	3,841	3,886	2,842	2,550	-5.16%	237	9:45	222	116	106	NB	15:45
212	W McCLENDON ST	0.024 Mi W OF U.S. 27/U.S. 441	C	550	20	18	24	395	675	511	491	432	1,324	27.39%	166	7:00	105	60	45	WB	16:45
213	W LADY LAKE BV	0.029 Mi W OF U.S. 27/U.S. 441	C	493	20	18	24	1,132	1,627	1,292	1,281	1,292	1,298	2.78%	112	14:45	96	61	36	WB	15:15
214	LADY LAKE BV	0.045 Mi E OF U.S. 27/U.S. 441	C	494	21	18	24	633	665	615	819	834	562	-2.32%	54	17:15	54	30	24	EB	17:15
215	GRAYS AIRPORT RD	0.10 Mi N OF EAGLESNEST RD	C	401	27	18	24	1,760	1,771	1,800	2,314	2,136	2,225	4.80%	206	16:45	206	79	127	NB	16:45
216	SOUTH GRAYS AIRPORT RD	0.048 Mi E OF U.S. 27/U.S. 441	C	403	34	18	24	2,520	3,217	706	799	770	786	-20.79%	77	15:45	77	51	26	EB	15:45
217	ARLINGTON AV	0.097 Mi S OF W LADY LAKE BV	C	681	20	18	24	1,432	1,540	1,486	1,762	1,848	1,593	2.15%	153	16:30	153	58	96	SB	16:30
218	SOUTH FISH CAMP RD	0.097 Mi N OF C.R. 44	C-1																		

## 2019 Lake County Annual Traffic Counts

MAP STA #	ROAD NAME	LOCATION	Map Sheet	TMS ID	S E C	T W P	R N G	ANNUAL ADJUSTED DAILY TRAFFIC (AADT)						5-YEAR ANNUAL AVERAGE GROWTH RATE PERCENT	ADJUSTED PEAK HR VOLUME 2019	BEGIN PEAK HOUR 2019	ADJUSTED 2019 PM PEAK HOUR VOLUME (3-7 PM reported as 15:00-18:45)				
								2014	2015	2016	2017	2018	2019				Total	NB/EB	SB/WB	Pk Dir	Time
272	C.R. 448A	0.2 Mi N OF C.R. 48	B	819	24	20	26	4,512	6,802	4,829	5,339	5,575	4,763	1.09%	505	16:15	505	240	265	SB	16:15
273	TUSCANOOGA RD	.09 Mi N OF S.R. 50	B	104	15	22	24	2,203	2,507	2,498	2,673	2,479	2,662	3.86%	263	17:00	263	104	158	NB	17:00
274	MASCOTTE EMPIRE RD (S. SU	.32 Mi S OF S.R. 50	B	181	14	22	24	793	795	726	843	711	800	0.18%	83	7:15	80	36	44	SB	17:00
275	C.R. 50/SUNSET AV	0.03 Mi N OF S.R. 50	B	161	14	22	24	1,144	1,224	1,810	1,342	1,456	1,443	4.76%	157	17:00	157	100	57	SB	17:00
276	PALMETTO DR	0.043 Mi W OF C.R. 33	B	106	14	22	24	447	554	251	610	783	840	13.44%	112	17:15	112	42	69	WB	17:15
277	UNDERPASS RD	0.036 Mi E OF C.R. 33	B	107	14	22	24	729	938	1,155	1,036	985	1,064	7.88%	123	17:15	123	62	62	WB	17:15
278	EAST AV	0.1 Mi N OF S.R. 50	A	834	19	22	26	5,703	5,699	5,103	5,648	5,272	5,841	0.48%	618	7:45	542	275	267	NB	15:00
279	MAIN ST	0.1 Mi N OF WASHINGTON ST	B	771	18	22	26	1,845	2,093	1,849	2,074	2,000	1,812	-0.36%	163	8:00	159	57	102	SB	16:00
280	CITRUS TOWER BV	0.1 Mi S OF S.R. 50	A	146	28	22	26	15,687	17,410	17,355	17,358	18,604	18,498	3.35%	1,414	12:45	1,395	800	595	SB	16:45
281	HOOKS ST	0.12 W. OF CITRUS TOWER BV	A	482	29	22	26	7,154	9,157	9,367	9,419	10,252	10,015	6.96%	928	12:30	805	375	430	EB	15:00
282	EXCALIBUR RD	0.08 Mi S OF HOOKS ST	A	892	28	22	26	4,312	3,414	3,879	4,939	5,109	4,651	1.52%	644	6:15	370	203	167	SB	16:15
283	CITRUS TOWER BV	0.18 E. OF US 27	A	910	5	23	26	12,393	14,550	14,579	14,720	15,036	15,267	4.26%	1,258	7:15	1,202	737	464	WB	16:45
284	HAMMOCK RIDGE RD	0.21 W. OF US 27	A	897	5	23	26	12,516	14,427	14,807	15,416	15,391	14,951	3.62%	1,302	16:45	1,302	811	491	WB	16:45
285	LAKESHORE DR (CLERMONT)	0.14 E. OF HAMMOCK RIDGE ROAD	A	900	6	23	26	6,664	5,854	7,500	8,097	8,500	7,955	3.61%	698	17:00	698	448	250	WB	17:00
286	FOSGATE RD	0.19 Mi W OF GRASSY LAKE RD	B	895	8	22	26	2,196	2,117	2,758	2,909	3,674	4,061	13.08%	443	6:30	411	182	229	WB	17:15
287	STEVES RD	0.44 Mi W. OF CITRUS TOWER BV	A	886	29	22	26	5,637	5,715	6,300	6,845	6,627	6,756	3.69%	667	14:15	626	354	271	WB	15:30
288	CR 44A	0.17 MI N. OF CR 44A	C-1	823	5	19	27	1,817	1,945	1,935	2,092	2,171	1,960	1.53%	187	16:15	187	124	64	NB	16:15
289	HOOKS ST	E. OF US 27	A	481	29	22	26	4,920	9,595	9,512	10,357	11,279	13,858	23.01%	1,104	16:30	1,104	670	434	WB	16:30
290	GRAND HIGHWAY	N. OF HOOKS ST	A	0	29	22	26	6,243	3,830	6,292	6,066	6,175	6,203	-0.13%	499	14:15	480	270	211	NB	16:45
291	CR 48	AT SUMTER COUNTY LINE	B	225	7	21	24	2,218	1,429	2,778	2,912	2,849	2,730	4.25%	251	15:45	251	92	158	SB	15:45
292	CR 561A	WEST OF CR 455	B	132	27	21	26	1,496	1,675	1,579	1,583	1,940	1,881	4.69%	228	7:00	174	112	62	EB	16:30
293	CR 50	EAST OF HANCOCK RD	B	157	16	22	26	9,591	6,847	9,026	11,238	10,448	10,744	2.30%	1,039	16:45	1,039	485	554	WB	16:45
294	SIMON BROWN	EAST OF SR 33	B	0	7	22	24	462	566	541	576	716	806	11.76%	84	16:15	84	65	19	WB	16:15
298	E ASHPAWA RD	WEST OF US27	B	0	36	21	25	*****	709	708	828	798	973	#N/A	87	16:30	87	61	26	WB	16:30
299	HARTWOOD MARSH RD	.1Mi E HANCOCK	A	364	10	23	26	*****	16,478	12,479	14,798	14,963	14,494	#N/A	1,454	7:15	1,351	541	810	WB	17:00
300	JOHNS LAKE RD	EAST OF HANCOCK RD	A	0	34	22	26	*****	413	610	679	730	656	#N/A	53	15:15	53	26	27	WB	15:15
301	HARTLE RD	SOUTH OF SR50	A	0	26	22	26	*****	3,660	3,544	4,496	6,459	5,691	#N/A	447	7:00	427	172	254	NB	16:15
302	SULLIVAN RD	EAST OF US27	B	0	6	22	26	*****	207	298	196	210	263	#N/A	29	15:15	29	15	14	WB	15:15
303	VILLA CITY RD	0.5 MI N. OF SIMON BROWN RD	B	609	36	21	24	*****	600	1,961	1,991	2,535	2,878	#N/A	269	16:00	269	98	171	SB	16:00
304	E. DEWEY ROBBINS RD	WEST OF SR19	B	0	2	21	25	*****	600	585	558	673	630	#N/A	61	17:15	61	26	35	WB	17:15
305	DEWEY ROBBINS RD	EAST OF US27	B	0	36	20	24	*****	380	448	500	609	571	#N/A	62	16:00	62	41	21	EB	16:00
306	SR46	EAST OF NORTH CR437	D	241	30	19	28	*****	16,087	16,861	16,939	16,834	16,019	#N/A	1,320	16:30	1,320	601	719	EB	16:30
307	CR46A	SOUTH OF SR44	B	157	8	19	28	*****	7,237	8,047	9,046	8,995	8,256	#N/A	697	6:15	697	258	439	NB	16:00
308	W LADY LAKE RD	EAST OF ARLINGTON	B	158	20	18	24	*****	1,705	1,742	2,352	2,054	1,861	#N/A	186	16:45	186	54	132	WB	16:45
309	CHULA VISTA AV	BETWEEN RIO & SAN REMO	B	159	18	18	24	*****	2,503	2,678	3,805	3,249	2,768	#N/A	310	14:30	266	143	123	NB	15:00
310	E. LADY LAKE RD	EAST OF US27/US441	B	160	21	18	24	*****	469	363	582	522	563	#N/A	54	17:15	54	29	24	EB	17:15
311	SCRUB JAY LN	SOUTH OF FLORIDA TURNPIKE BRIDGE	B	0	32	21	26	*****	482	629	575	652	474	#N/A	60	6:30	54	39	15	SB	16:45
312	HANCOCK RD	SOUTH OF CR 561A	D	614	32	21	26	*****	7,237	8,047	9,046	4,550	5,917	#N/A	617	6:30	575	203	372	NB	17:00
313	HANCOCK RD	NORTH OF CITRUS GROVE RD	C	492	4	22	26	*****	1,705	1,742	2,352	8,357	9,510	#N/A	1,012	6:45	957	228	729	SB	16:45
314	SR 46	EAST OF CR 435	C	0	29	19	28	*****	2,503	2,678	3,805	13,348	10,781	#N/A	880	16:00	880	410	470	WB	16:00
315	CR 565A	NORTH OF SR 50	C	494	24	22	24	*****	469	363	582	4,343	10,662	#N/A	955	6:45	831	421	410	NB	17:15

\*\*\*\*\* - Data not available for that year

N/A = not available due to lack of previous years data

U/C Denotes station under construction during data collection period.

5 -Year Annual Average Percentage Growth Rate is computed as follows:

$$\text{"5-Year Annual Average Percentage Growth Rate"} = (1 + ((2019 \text{ AADT} - 2014 \text{ AADT}) / (2014 \text{ AADT}))^{(1 / (2019 - 2014))} - 1)$$

Stations Deleted from the program for 2019:

# 23

# 25

# 83

FLORIDA DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION STATISTICS OFFICE  
 2019 HISTORICAL AADT REPORT

COUNTY: 11 - LAKE

SITE: 8106 - HARTLE RD, 350' N OF MYERS CT - HPMS '15

YEAR	AADT	DIRECTION 1		DIRECTION 2		*K FACTOR	D FACTOR	T FACTOR
2019	2300 S	N	1100	S	1200	9.00	54.30	5.60
2018	2300 F	N	1100	S	1200	9.00	54.20	5.60
2017	2300 C	N	1100	S	1200	9.00	54.20	5.60
2016	2200 F	N	1100	S	1100	9.00	53.90	4.90
2015	2200 C	N	1100	S	1100	9.00	54.60	4.90
2014	1900 C	N	1000	S	900	9.00	54.50	11.30

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE  
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE  
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

\*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION STATISTICS OFFICE  
 2019 HISTORICAL AADT REPORT

COUNTY: 11 - LAKE

SITE: 8024 - HARTWOOD MARSH RD, 500 FT E OF US-27 - OFF SYSTEM

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR	
2019	16200	C	E	8400	W	7800	9.00	54.30	9.90
2018	15000	F	E	6100	W	8900	9.00	54.20	13.00
2017	14700	C	E	6000	W	8700	9.00	54.20	10.70
2016	14200	C	E	6900	W	7300	9.00	53.90	12.60
2015	10700	T	E	4300	W	6400	9.00	54.60	12.60
2014	10400	S	E	4200	W	6200	9.00	54.50	11.30
2013	10300	F	E	4200	W	6100	9.00	54.70	10.90
2012	10300	C	E	4200	W	6100	9.00	55.10	11.00
2011	12300	C	E	6400	W	5900	9.00	54.20	10.20

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE  
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE  
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

\*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES



FLORIDA DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION STATISTICS OFFICE  
2019 HISTORICAL AADT REPORT

COUNTY: 11 - LAKE

SITE: 8027 - S HANCOCK RD, 500 FT N OF HARTWOOD MARSH RD - OFF SYSTEM

YEAR	AADT		DIRECTION 1		DIRECTION 2		*K FACTOR	D FACTOR	T FACTOR
2019	10800	C	N	5600	S	5200	9.00	54.30	9.90
2018	10700	F	N	5400	S	5300	9.00	54.20	13.00
2017	10500	C	N	5300	S	5200	9.00	54.20	10.70
2016	8300	C	N	4300	S	4000	9.00	53.90	12.60
2015	7700	T	N	3700	S	4000	9.00	54.60	12.60
2014	7500	S	N	3600	S	3900	9.00	54.50	11.30
2013	7500	F	N	3600	S	3900	9.00	54.70	10.90
2012	7500	C	N	3600	S	3900	9.00	55.10	11.00
2011	7600	C	N	0	S	0	9.00	54.20	10.20

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE  
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE  
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

\*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

**Appendix B**  
Lake County TCP



# **2020 - 2024 Transportation Construction Program**

**Prepared By The Department of Public Works**

**FUND 1300**

**Transportation Improvements (Grants)**

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS  
 5 - YEAR TRANSPORTATION IMPROVEMENT PLAN  
 FISCAL YEAR 2020 THRU 2024

FUNDING SOURCE: **FEDERAL/STATE GRANTS**

**Local Agency Program and County Incentive Grant Projects to be reimbursed by the Florida Department of Transportation**

\* in thousands

Project Name	Scope of Work	Cost Estimate	2020 *	2021 *	2022 *	2023 *	2024 *
<b>561</b> from Tennessee Av to CR-48 (Astatula Elem) <i>S/W19013-CD3</i>	Construct sidewalk, FM# 439685 ~ 1,985 LF	\$ 53,000	53 PE \$52,670				
<b>Citrus Tower Bv C-1350</b> Intersection with Mohawk Rd C-1548 <i>INT10008-CD2</i>	Install traffic signal, FM# 439415	\$ 281,000	281 CST \$280,876				
<b>East Orange Av/CR-44</b> from Fruitwood Av to Sunrise Ln <i>S/W19014-CD4</i>	Construct sidewalk, FM# 439048 ~ 3,057 LF	\$ 179,000	179 PE \$178,900				
<b>Hancock Rd C-1254</b> from Sunburst Ln to Greater Pines Bv C-1253 (Lost Lake Elem) <i>S/W17043-CD2</i>	Construct sidewalk, FM# 439663	\$ 159,000		159 PE \$158,610			
<b>Lake Ella Rd C-6604</b> from Sumter County (NE 90th St) to US-27/441 <i>SFY19015-CD5</i>	Safety project, FM# 443508 ~ 15,613 LF	\$ 591,000	181 PE \$180,130		410 CST \$409,180		
<b>Lake Louisa Rd C-0847</b> from Hammock Ridge Rd C-0945 to US-27 <i>SFY17018-CD2</i>	Safety project, FM# 439702	\$ 345,000	345 CST \$344,379				

**FUND 1300**

**Transportation Improvements (Grants)**

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS  
 5 - YEAR TRANSPORTATION IMPROVEMENT PLAN  
 FISCAL YEAR 2020 THRU 2024

FUNDING SOURCE: **FEDERAL/STATE GRANTS**

**Local Agency Program and County Incentive Grant Projects to be reimbursed by the Florida Department of Transportation**

\* in thousands

Project Name	Scope of Work	Cost Estimate	2020 *	2021 *	2022 *	2023 *	2024 *
<b>Lakeshore Dr C-1040</b> from Cherith Ln C-0836 to Oleander Dr (Pine Ridge Elem) <i>S/W17044-CD1&amp;2</i>	Construct sidewalk, FM# 439687	\$ 144,000	144 PE  \$143,930				
<b>Lakeshore Drive C-1040</b> from Hull Rd C-0942 to Harder Rd/Lake Susan Ct <i>SFY17017-CD1&amp;2</i>	Safety project, FM# 439701	\$ 503,000	503 CST  \$502,599				
<b>Lake-Wekiva Trail</b> from SR-46 to Hojin St <i>SPJ19016-CD4</i>	Construct bike path/trail, FM# 430975-3	\$ 590,000	590 ROW  \$589,136 ROW				
<b>Log House Road C-0835</b> from CR-561 to Lakeshore Dr C-1040 (Pine Ridge Elem) <i>S/W17042-CD1</i>	Construct sidewalk, FM# 439683	\$ 100,000		100 PE  \$99,210			
<b>Old Highway 441</b> Intersection with CR- 19A and Eudora Rd C- 4564 <i>INT16022-CD4</i>	Improve intersection, construct roundabout, FM# 437464	\$ 100,000	100 ROW  <i>50/50 grant matching funds in Sales Tax</i>				
<b>Radio Rd C-5433</b> from Silver Bluff Dr C-4933 to Treadway School Rd C- 5335 <i>S/W19017-CD3</i>	Construct sidewalk, FM# 439684  ~ 5,105 LF	\$ 191,000	191 PE  \$190,600				



**FUND 1157**  
**Road Impact Fees**

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS  
5 - YEAR TRANSPORTATION IMPROVEMENT PLAN  
FISCAL YEAR 2020 THRU 2024

FUNDING SOURCE: **ROAD IMPACT FEES SOUTH LAKE COUNTY**

\* in thousands

Project Name	Type of Work	Cost Estimate	2020 *	2021 *	2022 *	2023 *	2024 *
<b>50 (Old Hwy 50)</b> Intersection with Mohawk Rd C-1548 <i>INT97065-CD2</i>	Construct westbound left turn lane	\$ 85,000				85 DSN	
<b>455</b> from Hartwood Marsh Rd C-0854 to Lost Lake Rd <i>NRD16008-CD2</i>	Construct new 2-lane road with curb & gutter (future 4-lane) ~ 7,500 LF	\$ 10,675,000	625 DSN	1,400 ROW	2,250 CST	3,866 CST	2,534 CST
<b>455</b> from Lost Lake Rd to Hartle Rd C-1362 <i>NRD16009-CD2</i>	Construct final 2- lanes of road w/ curb & gutter (future 4- lane), dev. agmt, ~ 3,500 LF	\$ 600,000				600 CST <i>Funding for final 2-lanes from Waterbrooke to Lost Lake Rd</i>	
<b>455/Hartwood Marsh Rd C-0854</b> Realignment <i>SDY16010-CD2</i>	Construct new 4-lane road with curb & gutter/realignment of Hartwood Marsh Rd	\$ 750,000	750 DSN				
<b>455</b> Intersection with Fosgate Rd C-1860 <i>INT17011-CD2</i>	Construct northbound left turn lane	\$ 175,000		75 DSN		100 ROW	
<b>561</b> Intersection with <b>C- 561A</b> <i>SDY16019-CD2</i>	Preliminary engineering for intersection realignment and roundabout	\$ 800,000		800 PE			

**FUND 1157**  
**Road Impact Fees**

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS  
 5 - YEAR TRANSPORTATION IMPROVEMENT PLAN  
 FISCAL YEAR 2020 THRU 2024

FUNDING SOURCE: **ROAD IMPACT FEES SOUTH LAKE COUNTY**

\* in thousands

Project Name	Type of Work	Cost Estimate	2020 *	2021 *	2022 *	2023 *	2024 *
<b>Citrus Grove Rd C-1946 Phase III</b> from US-27 to Founder's Ridge <i>REB14001-CD2</i>	Add lanes and reconstruct, developer's agreement	\$ 3,000,000	3,000 ROW				
<b>Citrus Grove Rd C-1946 Ph IV</b> from N. Hancock Rd C-1154 to Turnpike <i>NRD17050-CD2</i>	Construct new 2-lane road with curb & gutter, developer's agreement	\$ 500,000	500 ROW				
<b>Citrus Grove Rd C-1946 Ph V</b> from Turnpike to Blackstill Lk Rd C-1757 <i>NRD17050-CD2</i>	Construct new 2-lane road with curb & gutter ~ 3,050 LF	\$ 2,750,000	1,000 DSN ROW	1,750 ROW CST			
<b>Hancock Rd C-1254</b> Intersection with Sunburst Ln <i>INT16011-CD2</i>	Construct southbound left turn lane	\$ 100,000			100 DSN		
<b>Hancock Rd, North C-1154</b> from Turnpike Interchange to CR-561A <i>W&amp;R17051-CD2</i>	Construct final 2-lanes of road w/ curb & gutter	\$ 1,500,000		1,500 CST			
<b>Hartwood Marsh Rd C-0854</b> Intersection with US-27 <i>INT15010-CD2</i>	Construct eastbound dual-left receiving lane	\$ 100,000				100 DSN	

**FUND 1157**  
**Road Impact Fees**

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS  
5 - YEAR TRANSPORTATION IMPROVEMENT PLAN  
FISCAL YEAR 2020 THRU 2024

FUNDING SOURCE: **ROAD IMPACT FEES SOUTH LAKE COUNTY**

\* in thousands

Project Name	Type of Work	Cost Estimate	2020 *	2021 *	2022 *	2023 *	2024 *
<b>Hooks St C-1346 Ext</b> from Hancock Rd C-1254 to CR-455 <i>NRD08043-CD2</i>	Construct new 4-lane road with curb & gutter	\$ 842,000	842 DSN				
<b>Lake Minneola Shores C-1733</b> Intersection with US-27 <i>INT19020-CD2</i>	Construct right turn lane	\$ 200,000					200 DSN
<b>Wellness Way</b> from Schofield Rd C-0558 to Orange County <i>NRD19019-CD2</i>	Construct new 4-lane road	\$ 1,000,000			1,000 ROW		

Total Cost Estimate \$ 23,077,000

Available Balance	9,070	4,453	1,448	1,122	0
Projected New Revenue	2,100	2,520	3,024	3,629	4,355
Projected Expenditures	6,717	5,525	3,350	4,751	2,734
Projected Available Revenue	4,453	1,448	1,122	0	1,620

**FUND 3040/3050**

**Road & Intersection Improvements**

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS  
5 - YEAR TRANSPORTATION IMPROVEMENT PLAN  
FISCAL YEAR 2020 THRU 2024

FUNDING SOURCE: **RENEWAL SALES TAX CAPITAL PROJECTS - ROADS**

\* in thousands

<b>Project Name</b>	<b>Type of Work</b>	<b>Cost Estimate</b>	<b>2020 *</b>	<b>2021 *</b>	<b>2022 *</b>	<b>2023 *</b>	<b>2024 *</b>
<b>44A</b> Intersection with C-437 <i>SDY18005-CD4</i>	Construct right turn lane	\$ 50,000	50 ROW				
<b>455</b> Intersection with Ridgewood Av C-1864 <i>INT04036-CD2</i>	Improve intersection, construct roundabout	\$ 1,000,000 <i>Construct with Ridgewood Av remove invert/resurface project</i>	1,000 ROW CST				
<b>468</b> Intersection with Lewis Rd C-5105 <i>INT15008-CD1&amp;5</i>	Construct northbound left turn lane	\$ 275,000		275 CST			
<b>473</b> from Treadway School Rd C-5335 to CR-44 <i>SPJ16017-CD3</i>	Construct paved shoulders, FM# 437485	\$ 610,000	610 CST <i>Additional funding in Federal/State Grants</i>				
<b>561</b> Intersection with Lakeshore Dr C-1040 <i>INT16004-CD1</i>	Realign intersection	\$ 100,000			100 DSN ROW		
<b>Hancock Rd C-1254</b> Intersection with Greater Pines Bv C-1253 <i>SDY19003</i>	Install new traffic signal	\$ 200,000	200 CST				

**FUND 3040/3050**

**Road & Intersection Improvements**

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS  
 5 - YEAR TRANSPORTATION IMPROVEMENT PLAN  
 FISCAL YEAR 2020 THRU 2024

FUNDING SOURCE: **RENEWAL SALES TAX CAPITAL PROJECTS - ROADS**

\* in thousands

Project Name	Type of Work	Cost Estimate	2020 *	2021 *	2022 *	2023 *	2024 *
<b>Traffic Signal &amp; Road Safety Improvements</b>	New traffic signal installation as warranted & road safety improvements	\$ 3,025,000	375 DSN CST	550 DSN CST	500 DSN CST	800 DSN CST	800 DSN CST
<b>Wolf Branch Rd C-4583</b> Intersection with Britt Rd C-4981/Niles Rd <i>SDY19005-CD4</i>	Install new traffic signal	\$ 350,000	350 ROW CST				

Total Cost Estimate \$ 8,021,000

Balance Carried Forward (from previous year, Fund 3040/3050)	3,592	26	1	1	1
Projected New Revenue (\$980K Int + \$250K Max Hooks Rd) *	1,230	800	800	800	800
Projected Expenditures	4,796	825	800	800	800
Projected Available Revenue	26	1	1	1	1

**\* Projected new revenue based on Department's share of the County's total.**



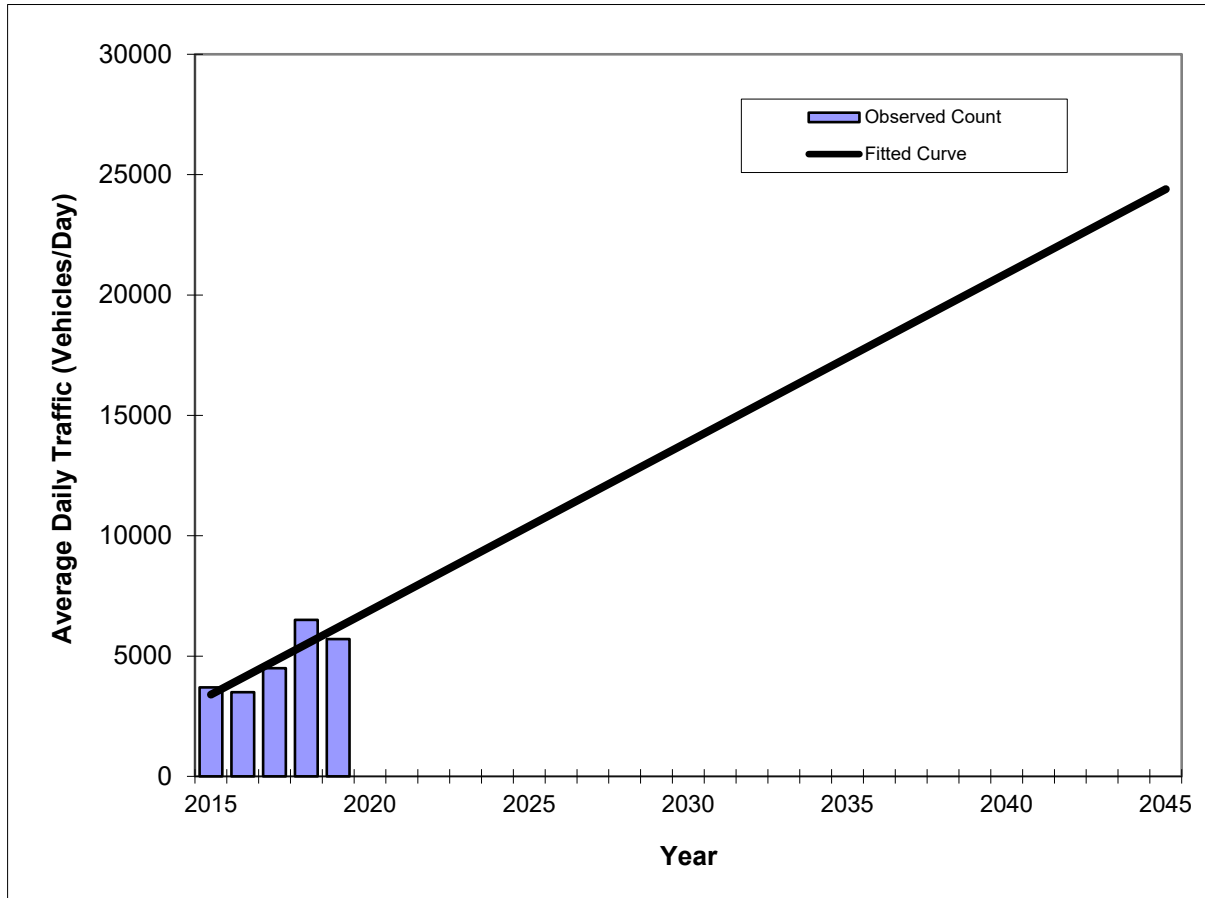
**Appendix C**  
Trends Analysis

## Traffic Trends - V03.a

### HARTLE ROAD -- SOUTH OF SR 50

FIN#	0
Location	1

County:	Lake (11)
Station #:	301
Highway:	HARTLE ROAD



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	3700	3400
2016	3500	4100
2017	4500	4800
2018	6500	5500
2019	5700	6200
<b>2025 Opening Year Trend</b>		
2025	N/A	10400
<b>2035 Mid-Year Trend</b>		
2035	N/A	17400
<b>2045 Design Year Trend</b>		
2045	N/A	24400
<b>TRANPLAN Forecasts/Trends</b>		

** Annual Trend Increase:	700
Trend R-squared:	73.27%
Trend Annual Historic Growth Rate:	20.59%
Trend Growth Rate (2019 to Design Year):	11.29%
Printed:	5-Aug-20
<b>Straight Line Growth Option</b>	

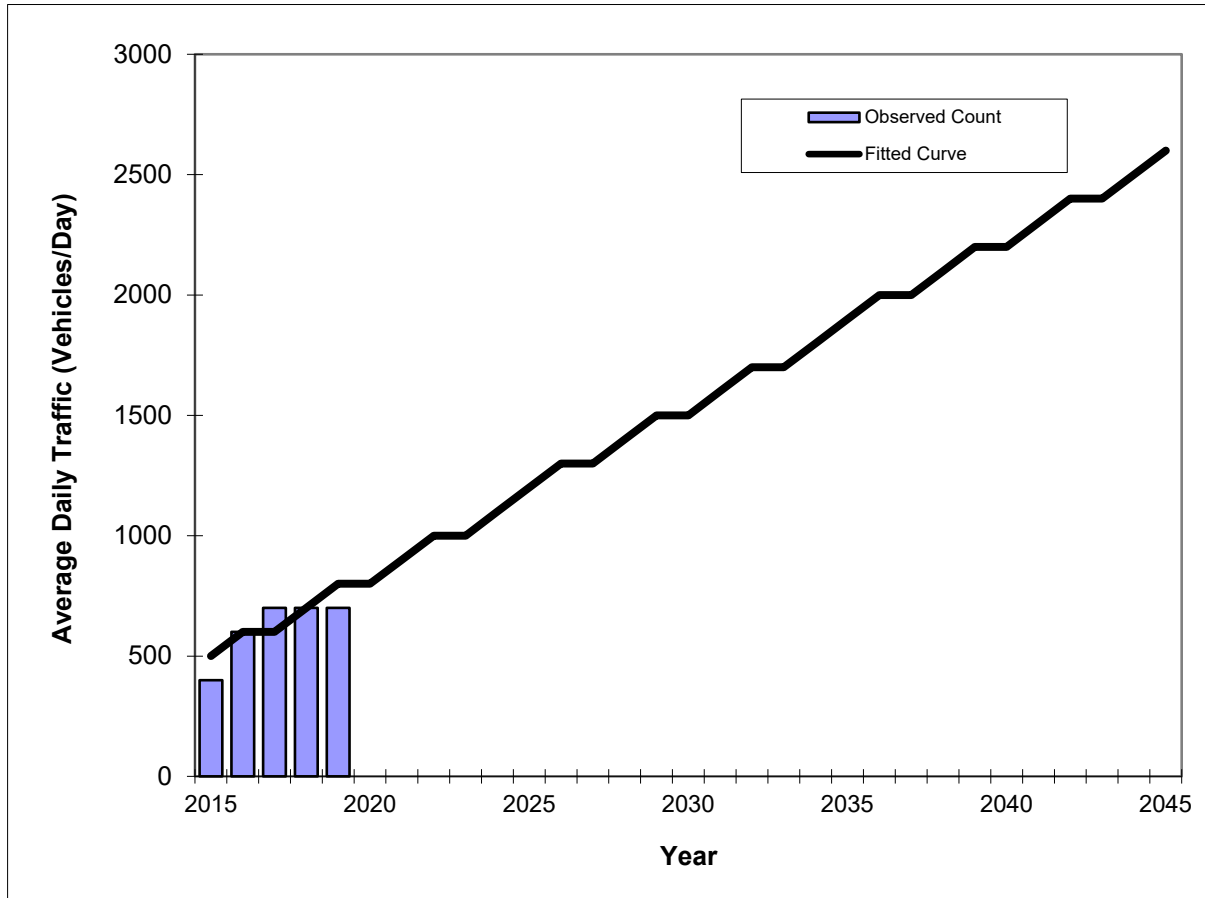
\*Axle-Adjusted

## Traffic Trends - V03.a

### JOHNS LAKE RD -- EAST OF HANCOCK RD

FIN#	0
Location	1

County:	Lake (11)
Station #:	300
Highway:	JOHNS LAKE RD



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	400	500
2016	600	600
2017	700	600
2018	700	700
2019	700	800
<b>2025 Opening Year Trend</b>		
2025	N/A	1200
<b>2035 Mid-Year Trend</b>		
2035	N/A	1900
<b>2045 Design Year Trend</b>		
2045	N/A	2600
<b>TRANPLAN Forecasts/Trends</b>		

** Annual Trend Increase:	70
Trend R-squared:	72.06%
Trend Annual Historic Growth Rate:	15.00%
Trend Growth Rate (2019 to Design Year):	8.65%
Printed:	5-Aug-20
<b>Straight Line Growth Option</b>	

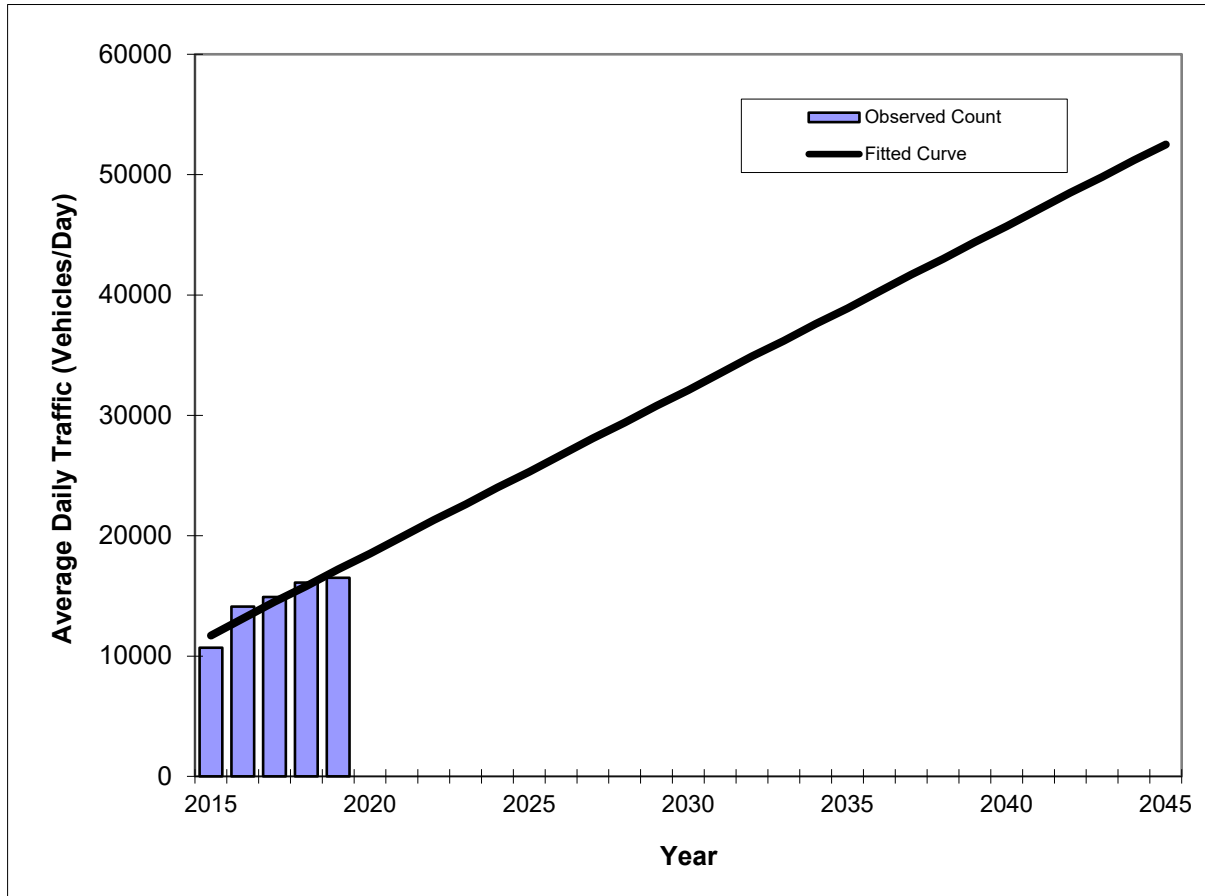
\*Axle-Adjusted

## Traffic Trends - V03.a

**HARTWOOD MARSH RD -- EAST OF US 27**

FIN#	0
Location	1

County:	Lake (11)
Station #:	146
Highway:	HARTWOOD MARSH RD



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2015	10700	11700
2016	14100	13100
2017	14900	14500
2018	16100	15800
2019	16500	17200
<b>2025 Opening Year Trend</b>		
2025	N/A	25300
<b>2035 Mid-Year Trend</b>		
2035	N/A	38900
<b>2045 Design Year Trend</b>		
2045	N/A	52500
<b>TRANPLAN Forecasts/Trends</b>		

** Annual Trend Increase:	1,360
Trend R-squared:	86.79%
Trend Annual Historic Growth Rate:	11.75%
Trend Growth Rate (2019 to Design Year):	7.89%
Printed:	5-Aug-20
<b>Straight Line Growth Option</b>	

\*Axle-Adjusted

**Appendix D**  
BEBR Projections

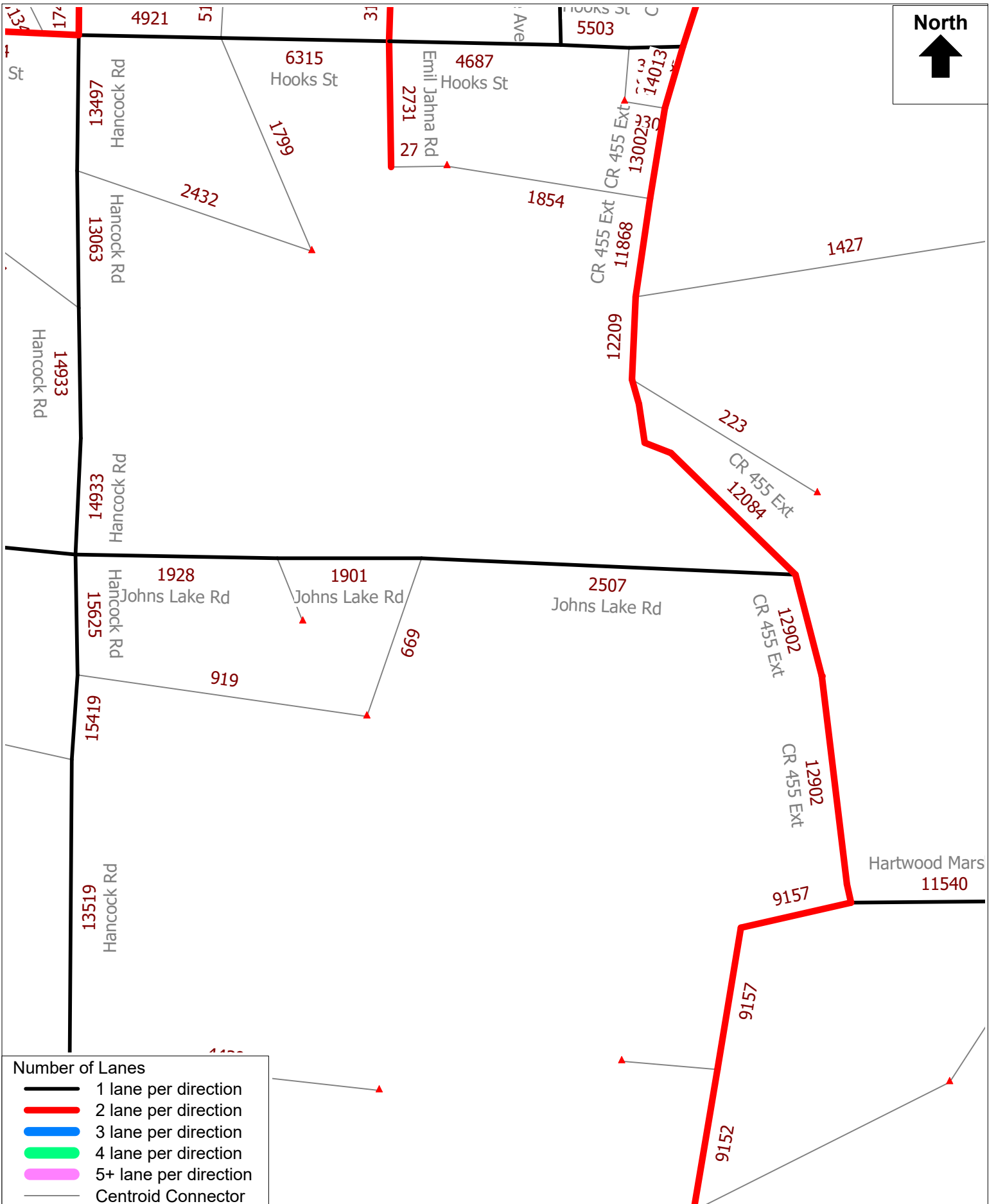


## Projections of Florida Population by County, 2020–2045, with Estimates for 2018 (continued)

County and State	Estimates April 1, 2018	Projections, April 1					
		2020	2025	2030	2035	2040	2045
HOLMES	20,133						
Low		19,300	19,000	18,500	18,100	17,600	17,100
Medium		20,300	20,600	20,900	21,000	21,200	21,400
High		21,300	22,400	23,400	24,300	25,300	26,300
INDIAN RIVER	151,825						
Low		149,100	155,000	159,000	161,100	162,000	161,800
Medium		157,200	169,300	179,400	187,700	194,700	200,900
High		164,800	182,600	199,600	215,800	230,700	245,200
JACKSON	50,435						
Low		48,200	47,400	46,500	45,500	44,500	43,500
Medium		50,200	50,700	51,200	51,500	51,800	52,100
High		52,200	54,300	56,300	58,300	60,100	61,800
JEFFERSON	14,733						
Low		14,100	13,900	13,700	13,300	13,000	12,600
Medium		14,900	15,200	15,400	15,500	15,600	15,800
High		15,600	16,400	17,200	18,000	18,600	19,400
LAFAYETTE	8,501						
Low		8,200	8,200	8,200	8,000	7,900	7,700
Medium		8,700	8,900	9,200	9,400	9,500	9,600
High		9,100	9,700	10,300	10,800	11,400	11,900
LAKE	342,917						
Low		341,800	367,500	387,000	401,400	411,800	418,900
Medium		360,700	402,100	437,200	467,400	493,600	517,200
High		377,800	430,500	480,800	528,500	573,900	617,700
LEE	713,903						
Low		708,300	753,700	789,400	815,000	833,100	845,000
Medium		747,400	824,400	892,100	949,800	999,900	1,045,200
High		782,900	882,900	981,000	1,073,000	1,161,100	1,245,800
LEON	292,332						
Low		286,100	290,400	292,200	291,900	290,700	288,500
Medium		298,300	311,900	322,800	331,500	339,200	346,000
High		309,900	331,500	351,700	369,800	386,900	402,800
LEVY	41,054						
Low		39,900	40,100	40,000	39,700	39,400	38,900
Medium		41,600	42,900	44,000	44,900	45,600	46,300
High		43,300	45,900	48,400	50,900	53,100	55,300
LIBERTY	8,915						
Low		8,800	8,900	8,900	8,900	8,800	8,700
Medium		9,300	9,700	10,000	10,300	10,500	10,800
High		9,700	10,500	11,200	12,000	12,700	13,300
MADISON	19,473						
Low		18,600	18,100	17,600	17,100	16,600	16,100
Medium		19,500	19,700	19,800	19,900	20,000	20,100
High		20,500	21,400	22,200	23,100	23,800	24,600
MANATEE	377,826						
Low		374,600	397,200	413,800	426,100	435,800	440,600
Medium		395,200	434,500	467,700	496,700	523,000	545,700
High		414,000	465,300	514,200	561,000	607,400	649,600
MARION	353,898						
Low		348,700	359,500	368,000	374,000	377,400	379,200
Medium		363,700	386,200	406,200	423,600	438,200	451,400
High		377,700	410,400	442,900	473,700	502,200	529,500
MARTIN	155,556						
Low		152,600	155,800	158,200	160,000	161,300	161,900
Medium		159,100	167,000	173,900	180,200	185,800	190,800
High		165,300	178,500	191,600	205,000	217,700	230,200

**Appendix E**  
Model Printouts

North



**Number of Lanes**

- 1 lane per direction
- 2 lane per direction
- 3 lane per direction
- 4 lane per direction
- 5+ lane per direction
- Centroid Connector

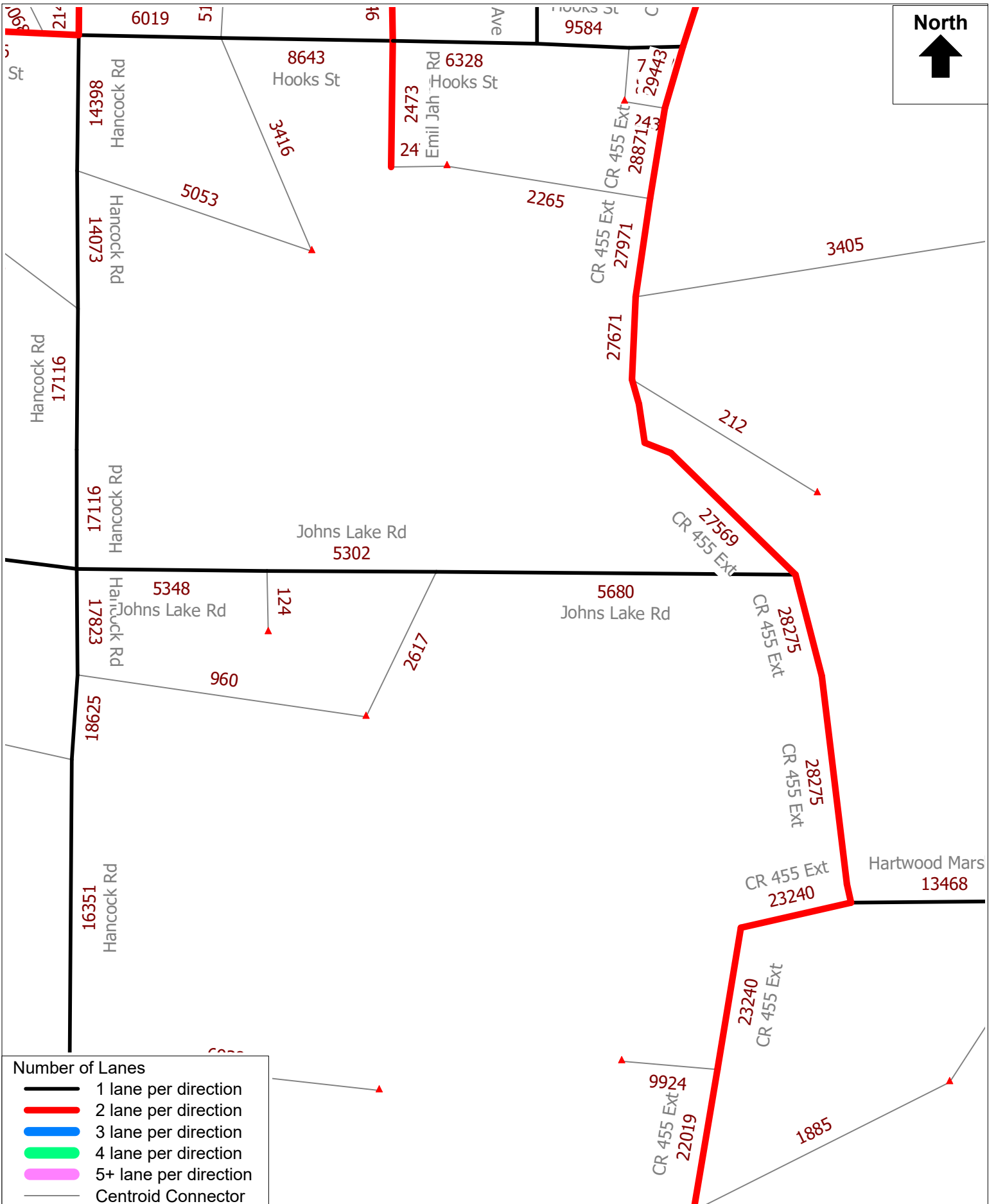
CR 455 Technical Memorandum (CF 2045)  
2025 AADT

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North



Number of Lanes

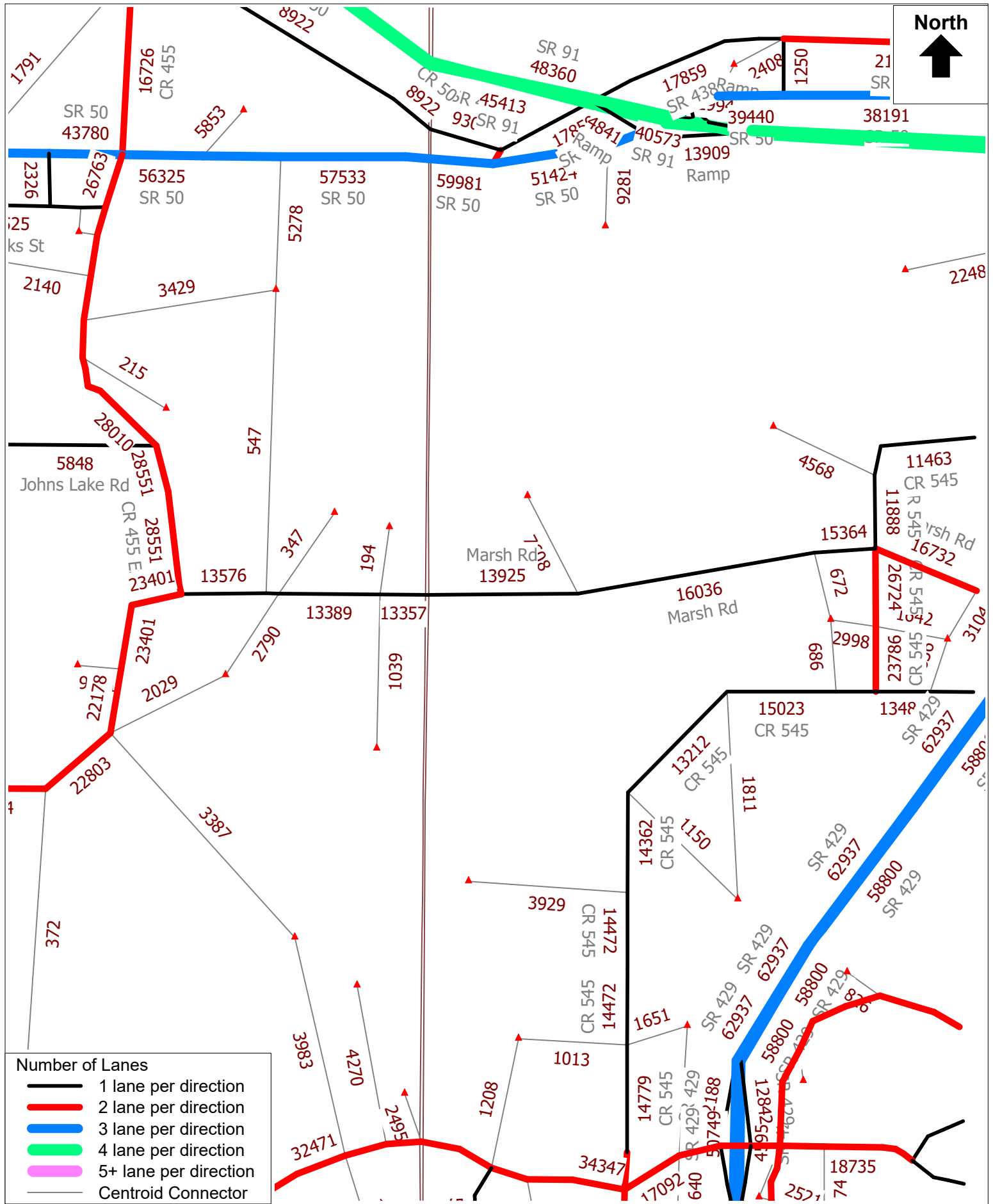
- 1 lane per direction
- 2 lane per direction
- 3 lane per direction
- 4 lane per direction
- 5+ lane per direction
- Centroid Connector

CR 455 Technical Memorandum (CF 2045)  
2035 AADT

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CR 455 Technical Memorandum (CF 2045)  
2045 AADT

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**Appendix F**  
CR 455 Extension Study Area Development Programs Summary

CR 455 Extension Study Area Development Programs Summary

TAZ No.	Property	Location	Build-out Year	WWAP Location	Size AC	F.A.R Density	SF DU's	Total SF DU's 2025/2045	SF Population	Total SF Population 2025/2045	MF DU's	Total MF DU's 2025/2045	MF Population	Total MF Population 2025/2045	Hotel Rooms	Total Hotel Population 2025/2045	Retail SF	Commercial Employees	Office SF	Office Employees	Indoor Recreation SF	Recreation Employees	Hotel Employees	Service Employees	Industrial SF	Industrial Employees	Total Empl 2025/2045	Total Employees	School Student		
1775	Waterbrooke	Lost Lake Rd WB - E of Hartle Rd	Phase 1 2022 Phase 2 2023 Phase 3 2024 Phase 4 2025 Phase 5 2021 Phase 6 2026	Out of Wellness Way Area	578	N/A	200 200 200 200 100 200	900 1100	800 800 800 800 400 800	3600 4400																					
1415	Florida Crushed Stone (Sand Mine)	South of Johns Lake Rd	2025	Out of WW Area	259	144 TRIPS																				76 EMPL	76 EMPL	76 EMPL			
1662	Eddy Property (Lakeview Preserve)	Hartwood Marsh Rd WB - E of Eddy Dr	2022	Wellness Way 2	115	N/A	340	340	1,360	1,360																					
1773	Evergreen	Hartwood Marsh Rd WB - W of Orange County Line	2022	Wellness Way 1	50.53	N/A	150	150	600	600																					
1493	Center Lake Properties (Sand Mine) assumed as a PUD	N of Hartwood Marsh Rd	2035	Wellness Way 3	696.76	0.15 1.35 DU/Ac	516	516	2,064	2,064				150	300	670,000	1,489 EMPL	500,000	1,111 EMPL				300 EMPL	1,411 EMPL			2,900 EMPL	2,900 EMPL			
1769	Fuqua (Hartwood Marsh-PUD)	Hartwood Marsh Rd EB - E of Hancock Rd	Phase 1 2025 Phase 2 2030	Wellness Way 1	39.2	N/A	174 147	174 321	696 588	696 1,284																		458 EMPL			
	Hartwood Marsh	US 27 NB - W of Fuqua	2020	Wellness Way 1	63.11	N/A					600	600	1,800	1,800			120,500	268 EMPL	50,460					174 EMPL	14,400	16 EMPL	458 EMPL				
1774	Karr - Conserv II/Swap (South Lake Crossings North)	N of Wellness Way & S of Hartwood Marsh Rd	2030	Wellness Way 4	250	N/A	700	700	2,800	2,800																					
1494	FloriBra	US 27 NB - NW of Olympus	2030	Wellness Way 1	3.2	0.25 1.85 DU/Ac											35,000	78 EMPL								78 EMPL	78 EMPL				
1776	Bradshaw North	US 27 NB - N of Schofield Rd	2020	Wellness Way 1	15.6	N/A								140	280	32,800	73 EMPL						280 EMPL	280 EMPL			353 EMPL	353 EMPL			
1777	South Lake Crossings (Karr Lennar+Karr Commercial)	N of Wellness Way & E of Hancock Rd	Phase 1 2025 Phase 2 2028	Wellness Way 1	445	N/A	1,550	1,550	6,200	6,200	300	300	900	900			100,000 200,000	222 EMPL 444 EMPL	500,000	1,111 EMPL				1,111 EMPL			222 EMPL 1,555 EMPL	1,555 EMPL	1,400		
1495	Chicone Groves	Mc Kinney Rd - W of Orange County Line	2030	Wellness Way 3	202.16	0.15 1.35 DU/Ac	150	150	600	600							450,000	1,000 EMPL								1,000 EMPL	1,000 EMPL				
1496	Ross Groves	N of Wellnes Way & SW of Chicone Groves	2030	Wellness Way 3	40	0.15 1.35 DU/Ac											260,000	578 EMPL								578 EMPL	578 EMPL				
1497	Clonts Groves (North)	US 27 NB - S of Wellness Way	2030	Towncenter & WW 1	30.5	0.3 4 DU/Ac											400,000	889 EMPL								889 EMPL	889 EMPL				
1433	Olympus*	US 27 NB - S of Schofield Rd	6 Phases 2019-2025	Towncenter & WW 1	247.17	N/A					1,088	1,088	3,264	3,264	1,312	2,624	269,654	599 EMPL	767,296	1,705 EMPL	379,771	844 EMPL	2,624 EMPL	5,173 EMPL		5,772 EMPL	5,772 EMPL				
1786	Ridgeview (Clonts Property)	US 27 NB - W of Schofield Rd	5 Phases 2020-2022	Towncenter	153.32	N/A	578	578	2,312	2,312																					
1514	Clonts Groves (South)	US 27 NB - S of Ridgeview	2030	Towncenter	54.5	N/A					600	600	1,800	1,800			105,000	233 EMPL	9,000	20 EMPL				20 EMPL		253 EMPL	253 EMPL				
1454	CEMEX Sand Mine (664 Trips per day)	Schofield Rd NB - E of Olympus	2020	Wellness Way 1	1196.44	640 TRIPS																			350 EMPL	350 EMPL	350 EMPL				
1680	Hickory Groves	N of Schofield Rd & W of Orange County Line	2035	Wellness Way 2 & 3	215.18	0.2 1.60 DU/Ac	134	134	536	536							300,000	667 EMPL	200,000	444 EMPL				444 EMPL		1,111 EMPL	1,111 EMPL				
1681	FloriBra Bradshaw	US 27 NB - NW of Olympus	2030	Towncenter & WW 1	230.62	0.3 4.00 DU/Ac	58	58	232	232							500,000	1,111 EMPL	330,000	733 EMPL				733 EMPL		1,844 EMPL	1,844 EMPL				
1693	South Lake Crossings (South)	S of Schofield Rd & E of FloriBra Bradshaw	2030	Wellness Way 1	366	0.25 1.85 DU/Ac	198	198	792	792							600,000	1,333 EMPL	600,000	1,333 EMPL				1,333 EMPL		2,666 EMPL	2,666 EMPL				
1694	Karl Corporation	S of Schofield Rd & E of Orange County Line	2035	Wellness Way 1	594	0.25 1.85 DU/Ac	321	321	1,284	1,284							650,000	1,444 EMPL	650,000	1,444 EMPL				1,444 EMPL		2,888 EMPL	2,888 EMPL	1500			
1695	James Roper	S of Schofield Rd & E of FloriBra Bradshaw	2035	Wellness Way 1	358.83	0.25 1.85 DU/Ac	194	194	776	776							400,000	889 EMPL	400,000	889 EMPL				889 EMPL		1,778 EMPL	1,778 EMPL				
1696	JJRR Properties	S of Schofield Rd & E of Orange County Line	2035	Wellness Way 1	143	0.25 1.85 DU/Ac	77	77	308	308							235,000	522 EMPL								522 EMPL	522 EMPL				
1438	Greater Lakes Phases 4 & 5	US 27 NB - N of Sawgrass Bay Blvd	2021	Out of WW Area	503.7	N/A	612	612	2,448	2,448							120,000	267 EMPL								267 EMPL	267 EMPL				
1453	Sawgrass Bay Phases 1A to 3B	US 27 NB - N Sawgrass Bay Blvd	2020	Out of WW Area	42.071	N/A	429	429	1,716	1,716																					
	Sawgrass Bay Phases 4A & 4B	US 27 NB - N Sawgrass Bay Blvd	2022	Out of WW Area	49	N/A	150	150	600	600																					
1451	Serenoa Villages 1 & 2 - Phase 1A	S Sawgrass Bay Blvd NB/SB W of Orange County Line	2019	Wellness Way 3	985.59	N/A	221	221	884	884																					
	Serenoa Villages 1 & 2 - Phase 1B		2020				258	258	1,032	1,032																					
1437	Palms at Serenoa Phases 1 & 2	S Sawgrass Bay Blvd NB - N of Villages 1 & 2	2021	Wellness Way 3			301	301	1,204	1,204																					
	Palms at Serenoa Phases 3 & 4		2025				276	276	1,104	1,104																					
3680	Horizon West Town Center West *	Avalon Rd - W of Lake County Line	Phase 1 2022 Phase 2 2025 Phase 3 2030	Orange County	7250.52	N/A	825 1,076 306	1,901 2,207	3,300 4,304 1,224	7,604 8,828	147 1,246 55	1,393 1,448	441 3,738 165	4,179 4,344			283,984 458,737 534,955	631 EMPL 1,019 EMPL 1,189 EMPL	528,021 851,939 994,658	1,173 EMPL 1,893 EMPL 2,210 EMPL				1,173 EMPL 1,893 EMPL 2,210 EMPL	38,180 85 EMPL	160 EMPL	4,801 EMPL 8,360 EMPL	8,360 EMPL			
<b>Totals</b>					<b>15,178</b>		<b>10,841</b>	<b>-</b>	<b>43,364 PERS</b>	<b>-</b>	<b>4,036</b>	<b>5,429</b>	<b>12,108 PERS</b>	<b>-</b>	<b>1,602</b>	<b>3,204 PERS</b>	<b>6,725,630</b>	<b>14,945 EMPL</b>	<b>6,381,373</b>	<b>14,066 EMPL</b>	<b>379,771</b>	<b>844 EMPL</b>	<b>3,204 EMPL</b>	<b>18,288 EMPL</b>	<b>124,501</b>	<b>687 EMPL</b>	<b>-</b>	<b>33,698 EMPL</b>	<b>2,900</b>		

\* Located in Orange County  
Sources: LCPA, WWAP & TMC Assumptions

**Appendix G**

2014/15 Level of Service LCTMS Segment Report & FDOT QLOS Table 7



**COUNTY TRANSPORTATION MANAGEMENT SYSTEM**  
LAKE COUNTY TMS SEGMENT REPORT - 2014/15 Level of Service

Posted on April 3, 2015

ROAD NAME	FROM	TO	NUMBER OF LANES	AREA TYPE	MAINTAINING AGENCY	JURISDICTION	FUNCTIONAL CLASSIFICATION	FDOT LOS STANDARD	LOS CAPACITY	SIS?	LOS CODE	PEAK HOUR DIRECTION CAPACITIES					2014/15 LEVEL OF SERVICE												
												A	B	C	D	E	AADT	PM PEAK HOUR TOTAL	PEAK HOUR / PEAK DIRECTION	EB/NB	RESERVED	TOTAL	V/C RATIO	LOS	WB/SB	RESERVED	TOTAL	V/C RATIO	LOS
ABRAMS ROAD	SR 44	WAYCROSS AVENUE	2	U	COUNTY	CITY OF EUSTIS	COLLECTOR	D	675	N	2UC	0	0	333	675	720	3,962	379	201	201	0	201	0.30	C	178	0	178	0.26	C
ANDERSON HILL ROAD	LAKE SHORE DRIVE	US 27	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,578	146	104	104	0	104	0.15	C	42	0	42	0.06	C
ARDICE AVENUE	SR 19	KURT STREET	2	U	CITY OF EUSTIS	CITY OF EUSTIS	COLLECTOR	D	675	N	2UC	0	0	333	675	720	4,689	430	218	218	0	218	0.32	C	212	0	212	0.31	C
ARLINGTON AVENUE	W LADY LAKE BOULEVARD	SOUTH TERMINI	2	U	COUNTY	TOWN OF LADY LAKE	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,432	132	70	70	0	70	0.10	C	62	0	62	0.09	C
AUSTIN MERRITT ROAD	YOUTH CAMP ROAD	CR 33	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	1,131	97	60	60	0	60	0.11	C	30	0	30	0.05	C
BATES AVENUE	N CENTER STREET	CR 44 / DELAND ROAD	2	U	CITY OF EUSTIS	CITY OF EUSTIS	COLLECTOR	D	675	N	2UC	0	0	333	675	720	2,452	201	115	86	0	86	0.13	C	115	0	115	0.17	C
BATES AVENUE	CR 44 / DELAND ROAD	ESTES ROAD	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,661	297	190	107	1	108	0.16	C	190	1	191	0.28	C
BAY ROAD	OLD US 441 / CR 500A	OLD US 441 / CR 500A	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	2,127	172	121	51	12	63	0.09	C	121	7	128	0.19	C
BAY ROAD	OLD US 441 / CR 500A	CR 452 / LAKESHORE DRIVE	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,538	138	73	73	0	73	0.11	C	65	0	65	0.10	C
BLACKSTILL LAKE ROAD	FOSGATE ROAD	CR 50	2	T	COUNTY	CITY OF CLERMONT	COLLECTOR	D	612	N	2TC	0	0	297	612	648	3,106	253	156	97	40	137	0.22	C	156	68	224	0.37	C
BRIDGES ROAD	CR 33	US 27	2	T	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	612	N	2TC	0	0	297	612	648	789	67	48	19	0	19	0.03	C	48	0	48	0.08	C
BRITT ROAD	SR 44	HORSE RANCH ROAD	2	T	COUNTY	CITY OF MOUNT DORA	COLLECTOR	D	612	N	2TC	0	0	297	612	648	1,878	200	127	73	14	87	0.14	C	127	17	144	0.24	C
BRITT ROAD	HORSE RANCH ROAD	WOLF BRANCH ROAD	2	U	COUNTY	CITY OF MOUNT DORA	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,878	200	127	73	14	87	0.13	C	127	17	144	0.21	C
C.R. 19A (DORA AVENUE)	LAKE DORA DRIVE	CR 500A / OLD 441	2	U	COUNTY	CITY OF TAVARES	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,268	139	74	65	0	65	0.10	C	74	0	74	0.11	C
C.R. 19A (DORA AVENUE)	CR 500A / OLD 441	DAVID WALKER ROAD	2	U	COUNTY	CITY OF TAVARES	COLLECTOR	D	675	N	2UC	0	0	333	675	720	4,870	445	242	203	0	203	0.30	C	242	0	242	0.36	C
C.R. 19A (DORA AVENUE)	DAVID WALKER ROAD	US 441	2	U	COUNTY	CITY OF TAVARES	COLLECTOR	D	675	N	2UC	0	0	333	675	720	2,527	190	101	89	6	95	0.14	C	101	10	111	0.16	C
C.R. 19A	CR 44	SR 19	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	2,561	215	126	89	14	103	0.15	C	126	15	141	0.21	C
C.R. 19A	US 441	BAY ROAD	2	U	COUNTY	EUSTIS/MOUNT DORA	ARTERIAL 1	D	880	N	2U1	0	0	830	880	880	13,833	1,111	576	576	37	613	0.70	C	535	58	593	0.67	C
C.R. 19A	BAY ROAD / CR 19A	CR 44 / CR 500A	2	U	COUNTY	CITY OF MOUNT DORA	ARTERIAL 1	D	880	N	2U1	0	0	830	880	880	7,824	649	335	335	37	372	0.42	C	314	58	372	0.42	C
C.R. 25	MARION COUNTY LINE	GRIFFIN AVENUE	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	ARTERIAL 2	D	750	N	2U2	0	0	370	750	800	8,608	770	532	532	14	546	0.73	D	238	12	250	0.33	C
C.R. 25	GRIFFIN AVENUE	US 27 / US 441	2	U	COUNTY	TOWN OF LADY LAKE	ARTERIAL 2	D	750	N	2U2	0	0	370	750	800	7,633	692	383	383	40	423	0.56	D	309	70	379	0.51	D
C.R. 25A	US 27/US 441	CR 466A	2	U	COUNTY	FRUITLAND PARK	COLLECTOR	D	675	N	2UC	0	0	333	675	720	7,358	659	336	323	0	323	0.48	C	336	0	336	0.50	D
C.R. 25A	CR 466A	US 27/US 441	2	U	COUNTY	FRUITLAND PARK	COLLECTOR	D	675	N	2UC	0	0	333	675	720	5,237	570	331	331	0	331	0.49	C	239	0	239	0.35	C
C.R. 25A	US 27 (SOUTH)	US 27 (NORTH)	2	U	COUNTY	CITY OF LEEBSBURG	COLLECTOR	D	675	N	2UC	0	0	333	675	720	239	29	15	15	0	15	0.02	C	14	0	14	0.02	C
C.R. 33	US 27	CR 48 / CR 470	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	D	880	N	2U1	0	0	830	880	880	7,719	622	355	267	0	267	0.30	C	355	0	355	0.40	C
C.R. 33 / CR 48	CR 48 / CR 470	CR 48	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	D	1,190	N	2U1	0	420	840	1,190	1,640	7,130	605	336	269	0	269	0.23	B	336	0	336	0.28	B
C.R. 33	BRIDGES ROAD	BRIDGES ROAD	2	T	COUNTY	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	D	1,200	N	2TU	0	450	850	1,200	1,640	3,259	265	168	168	0	168	0.14	B	97	0	97	0.08	B
C.R. 33	BRIDGES ROAD	SMITH ROAD	2	T	COUNTY	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	D	1,200	N	2TU	0	450	850	1,200	1,640	3,937	329	184	184	25	209	0.17	B	145	42	187	0.16	B
C.R. 33	SMITH ROAD	US 50	2	U	COUNTY	CITY OF MASCOTTE	ARTERIAL 1	D	1,190	N	2U1	0	420	840	1,190	1,640	3,937	329	184	184	37	221	0.19	B	145	63	208	0.17	B
C.R. 42	MARION COUNTY LINE	SR 19	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	C	430	N	2RU	0	240	430	740	1,490	5,334	293	173	120	0	120	0.28	B	173	0	173	0.40	B
C.R. 42	SR 19	CR 450	2	T	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	1,200	N	2TU	0	450	850	1,200	1,640	2,583	403	214	214	0	214	0.47	C	189	0	189	0.16	B
C.R. 42	CR 450	CR 439	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	C	430	N	2RU	0	240	430	740	1,490	3,549	331	171	160	0	160	0.37	B	171	0	171	0.40	B
C.R. 42	CR 439	CENTRAL AVENUE	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	C	430	N	2RU	0	240	430	740	1,490	2,452	222	114	108	0	108	0.25	B	114	0	114	0.27	B
C.R. 42	CENTRAL AVENUE	PALMETTO STREET	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	C	430	N	2RU	0	240	430	740	1,490	2,452	222	114	108	0	108	0.25	B	114	0	114	0.27	B
C.R. 42	PALMETTO STREET	LAKE MACK DRIVE	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	C	430	N	2RU	0	240	430	740	1,490	3,691	355	244	244	0	244	0.57	C	111	0	111	0.26	B
C.R. 42	LAKE MACK DRIVE	SR 44	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	C	430	N	2RU	0	240	430	740	1,490	3,691	355	244	244	0	244	0.57	C	111	0	111	0.26	B
C.R. 435	DUBSDREAD DRIVE	DUBSDREAD DRIVE	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	6,263	668	371	371	14	385	0.49	C	297	5	302	0.38	C
C.R. 435	DUBSDREAD DRIVE	ORANGE COUNTY LINE	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	4,761	524	313	211	14	225	0.28	C	313	5	318	0.40	C
C.R. 437	SR 44A	SR 44	2	T	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	720	N	2TMC	0	0	639	720	720	4,816	313	336	214	4	340	0.47	C	247	0	247	0.25	C
C.R. 437	SR 44	WOLF BRANCH ROAD	2	T	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	720	N	2TMC	0	0	639	720	720	6,508	653	438	438	101	539	0.75	C	215	62	277	0.38	C
C.R. 437	WOLF BRANCH ROAD	SR 46	2	T	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	720	N	2TMC	0	0	639	720	720	9,369	907	563	563	62	625	0.87	C	444	26	470	0.51	C
C.R. 437	ORANGE COUNTY LINE	SR 46	2	T	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	720	N	2TMC	0	0	639	720	720	7,261	744	440	304	18	322	0.45	C	340	7	347	0.62	C
C.R. 439	CR 42	CR 44A	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	C	850	N	2RMC	0	450	850	1,200	1,640	2,343	233	155	78	1	79	0.09	B	155	1	156	0.18	B
C.R. 439	CR 44A	SR 44	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	C	850	N	2RMC	0	450	850	1,200	1,640	3,248	330	218										





**COUNTY TRANSPORTATION MANAGEMENT SYSTEM**  
**LAKE COUNTY TMS SEGMENT REPORT - 2014/15 Level of Service**

Posted on April 3, 2015

ROAD NAME	FROM	TO	NUMBER OF LANES	AREA TYPE	MAINTAINING AGENCY	JURISDICTION	FUNCTIONAL CLASSIFICATION	FDOT LOS STANDARD	LOS CAPACITY	SIS?	LOS CODE	PEAK HOUR DIRECTION CAPACITIES					2014/15 LEVEL OF SERVICE												
												A	B	C	D	E	AADT	PM PEAK HOUR TOTAL	PEAK HOUR / PEAK DIRECTION	EB/NB	RESERVED	TOTAL	V/C RATIO	LOS	WB/SB	RESERVED	TOTAL	V/C RATIO	LOS
C.R. 470	BAY AVENUE	CR 33	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	4,262	350	184	166	0	166	0.21	C	184	0	184	0.23	C
C.R. 473	CR 44	FOUNTAIN LAKE BOULEVARD	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	5,746	513	287	287	38	325	0.48	C	226	22	248	0.37	C
C.R. 473	FOUNTAIN LAKE BOULEVARD	US 441	4	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	1,467	N	4UC	0	0	657	1,467	1,530	13,030	1,157	714	714	39	753	0.51	D	443	23	466	0.32	C
C.R. 474	GREEN SWAMP ROAD	GREEN SWAMP ROAD	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	C	850	N	2RMC	0	450	850	1,200	1,640	2,702	178	110	68	26	94	0.11	B	110	20	130	0.15	B
C.R. 474	GREEN SWAMP ROAD	US 27	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	C	850	N	2RMC	0	450	850	1,200	1,640	1,939	148	91	57	32	89	0.10	B	91	26	117	0.14	B
C.R. 478	SR 19	JAMARLY ROAD	2	T	COUNTY	CITY OF GROVELAND	MAJOR COLLECTOR	D	720	N	2TMC	0	0	639	720	720	936	102	66	66	0	66	0.09	C	66	0	66	0.05	C
C.R. 48	SUMNER COUNTY LINE	CLEARWATER LAKE RD	2	T	COUNTY	CITY OF LEESBURG	MAJOR COLLECTOR	D	720	N	2TMC	0	0	639	720	2,221	199	122	77	0	77	0.12	C	122	0	122	0.17	C	
C.R. 48	CLEARWATER LAKE RD	CR 33	2	T	COUNTY	CITY OF LEESBURG	MAJOR COLLECTOR	D	720	N	2TMC	0	0	639	720	2,218	194	115	79	0	79	0.11	C	115	0	115	0.16	C	
C.R. 48	CR 33	HAYWOOD WORM FARM RD	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	4,978	385	226	159	29	188	0.24	C	226	35	261	0.33	C
C.R. 48	HAYWOOD WORM FARM RD	US 27	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	6,733	996	299	299	29	328	0.41	C	297	35	332	0.42	C
C.R. 48	US 27	LIME AVENUE	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	8,765	739	379	379	87	466	0.59	C	360	105	465	0.59	C
C.R. 48	LIME AVENUE	SR 19	2	T	COUNTY	HOWEY-IN-THE-HILLS	MAJOR COLLECTOR	D	720	N	2TMC	0	0	639	720	720	7,252	577	323	323	116	439	0.61	C	254	144	398	0.55	C
C.R. 48	CR 561	RANCH ROAD	2	U	COUNTY	TOWN OF ASTATULA	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	5,448	563	298	298	15	313	0.40	C	265	25	290	0.37	C
C.R. 48	RANCH ROAD	CR 448A	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	C	670	N	2R1	0	0	670	740	740	5,448	563	298	298	0	298	0.44	C	265	0	265	0.40	C
C.R. 48 (SUNSET AVENUE)	SR 50	CR 33	2	U	COUNTY	CITY OF MASCOTTE	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	1,144	126	74	52	5	57	0.07	C	74	3	77	0.10	C	
C.R. 50	US 27	TURKEY FARM ROAD	2	U	COUNTY	CITY OF MINNEOLA	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	10,129	860	483	377	195	572	0.72	C	483	172	655	0.83	C
C.R. 50	TURKEY FARM ROAD	CR 455	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	4,308	546	417	417	305	722	0.91	C	129	441	570	0.72	C
C.R. 50	CR 455	ORANGE COUNTY LINE	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	6,100	689	541	148	94	242	0.31	C	541	100	641	0.81	C
C.R. 500A/OLD 441	SR 19	DORA AVENUE	2	U	COUNTY	CITY OF TAVARES	ARTERIAL 2	D	750	N	2U2	0	0	370	750	800	16,495	1,361	774	774	7	781	1.04	E	587	8	595	0.79	D
C.R. 500A/OLD 441	DORA AVENUE	BAY ROAD	2	U	COUNTY	CITY OF TAVARES	ARTERIAL 1	D	880	N	2U1	0	0	830	880	880	7,784	679	344	335	88	423	0.48	C	344	51	395	0.45	C
C.R. 500A/OLD 441	BAY ROAD	CR 44C / EUDORA AVENUE	2	U	COUNTY	CITY OF MOUNT DORA	ARTERIAL 2	D	750	N	2U2	0	0	370	750	800	7,311	625	317	308	0	308	0.41	C	317	0	317	0.42	C
C.R. 500A/OLD 441	CR 44C / EUDORA DRIVE	LAKESHORE DRIVE	2	U	COUNTY	CITY OF MOUNT DORA	ARTERIAL 2	D	750	N	2U2	0	0	370	750	800	10,908	907	466	466	14	480	0.64	D	441	24	465	0.62	D
C.R. 500A/OLD 441	5TH AVENUE	CR 455	2	U	COUNTY	CITY OF MOUNT DORA	ARTERIAL 2	D	750	N	2U2	0	0	370	750	800	8,602	827	460	367	0	367	0.49	C	460	0	460	0.61	D
C.R. 500A/OLD 441	SR 46	ORANGE COUNTY LINE	2	U	COUNTY	CITY OF MOUNT DORA	ARTERIAL 2	D	750	N	2U2	0	0	370	750	800	4,005	407	240	167	0	167	0.22	C	240	0	240	0.32	C
C.R. 561	SR 19	CR 448	2	U	COUNTY	CITY OF TAVARES	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	10,380	948	484	464	21	485	0.61	C	484	7	491	0.62	C
C.R. 561	CR 448	ASTATULA/TAVARES	2	U	COUNTY	ASTATULA/TAVARES	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	7,393	677	372	305	4	309	0.39	C	372	13	385	0.49	C
C.R. 561	CR 48	SOUTH ASTATULA CITY LIMIT	2	T	COUNTY	TOWN OF ASTATULA	MAJOR COLLECTOR	D	720	N	2TMC	0	0	639	720	720	8,772	829	471	358	0	358	0.50	C	471	0	471	0.65	C
C.R. 561	CR 455	SOUTH ASTATULA CITY LIMIT	2	T	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	720	N	2TMC	0	0	639	720	720	8,772	829	471	358	28	386	0.54	C	471	48	519	0.72	C
C.R. 561	CR 455	HOWEY CROSS ROAD	2	T	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	720	N	2TMC	0	0	639	720	720	6,147	636	320	320	42	362	0.50	C	316	25	341	0.47	C
C.R. 561	HOWEY CROSS ROAD	TURNPIKE ROAD / CR 561A	2	T	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	720	N	2TMC	0	0	639	720	720	6,289	595	324	271	68	339	0.47	C	324	40	364	0.51	C
C.R. 561	TURNPIKE ROAD / CR 561A	US 27	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	720	N	2TMC	0	0	639	720	720	7,664	708	359	359	69	428	0.59	C	349	41	390	0.54	C
C.R. 561 (MAIN AVENUE)	US 27	EAST AVENUE	2	U	COUNTY	CLERMONT/MINNEOLA	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,845	165	96	69	0	69	0.10	C	96	0	96	0.14	C
C.R. 561	EAST AVENUE	W MINNEOLA AVENUE	2	U	COUNTY	CITY OF CLERMONT	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,845	165	96	69	0	69	0.10	C	96	0	96	0.14	C
C.R. 561	CR 561A	SR 50	2	U	COUNTY	CITY OF CLERMONT	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	2,886	258	130	130	0	130	0.16	C	128	0	128	0.16	C
C.R. 561	SR 50	LOG HOUSE ROAD	2	U	COUNTY	CITY OF CLERMONT	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	5,515	538	290	248	9	257	0.32	C	290	18	308	0.39	C
C.R. 561	LOG HOUSE ROAD	FLORIDA BOYS RANCH ROAD	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	2,557	175	113	113	27	140	0.18	C	62	52	114	0.14	C
C.R. 561	FLORIDA BOYS RANCH ROAD	SR 33	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	C	850	N	2RMC	0	450	850	1,200	1,640	1,231	119	76	43	9	52	0.06	B	76	5	81	0.10	B
C.R. 561A	TURNPIKE ROAD / CR 561	SCRUB JAY LN	2	T	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	720	N	2TMC	0	0	639	720	720	1,397	126	69	160	219	0.32	C	57	97	154	0.21	C	
C.R. 561A	CR 455	SCRUB JAY LN	2	T	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	D	720	N	2TMC	0	0	639	720	720	1,378	126	72	68	160	218	0.30	C	97	169	266	0.23	C
C.R. 561A	CR 561	CR 565A	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	2,886	258	130	130	0	130	0.19	C	128	0	128	0.19	C
C.R. 561A	CR 565A	JALARMY ROAD	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	4,173	412	221	191	0	191	0.28	C	221	0	221	0.33	C
C.R. 561A	US 27	JALAMRY ROAD	2	U	COUNTY	CITY OF MINNEOLA	COLLECTOR	D	675	N	2UC	0	0	333	675	720	7,561	644	363	281	0	281	0.42	C	363	0	363	0.54	D
C.R. 565	US 27	KJELLSTROM LANE	2	T	COUNTY	GROVELAND/MASCOTTE	COLLECTOR	D	612	N	2TC	0	0	297	612	648	978	110	76	34	3	37	0.06	C	76	5	81	0.13	C
C.R. 565 (VILLA CITY ROAD)	SR 50	KJELLSTROM LANE	2	U	COUNTY	CITY OF GROVELAND	COLLECTOR	D	675	N	2UC	0	0	333	675	720	2,838												



**COUNTY TRANSPORTATION MANAGEMENT SYSTEM**  
LAKE COUNTY TMS SEGMENT REPORT - 2014/15 Level of Service

Posted on April 3, 2015

ROAD NAME	FROM	TO	NUMBER OF LANES	AREA TYPE	MAINTAINING AGENCY	JURISDICTION	FUNCTIONAL CLASSIFICATION	FDOT LOS STANDARD	LOS CAPACITY	SIS?	LOS CODE	PEAK HOUR DIRECTION CAPACITIES					2014/15 LEVEL OF SERVICE												
												A	B	C	D	E	AADT	PM PEAK HOUR TOTAL	PEAK HOUR / PEAK DIRECTION	EB/NB	RESERVED	TOTAL	V/C RATIO	LOS	WB/SB	RESERVED	TOTAL	V/C RATIO	LOS
KURT STREET	DAVID WALKER DRIVE	MT HOMER ROAD / W ARDICE AVENUE	2	U	CITY OF EUSTIS	CITY OF EUSTIS	COLLECTOR	D	675	N	2UC	0	0	333	675	720	4,386	384	204	180	0	180	0.27	C	204	0	204	0.30	C
KURT STREET	MT HOMER ROAD / W ARDICE AVENUE	US 441	2	U	CITY OF EUSTIS	CITY OF EUSTIS	COLLECTOR	D	675	N	2UC	0	0	333	675	720	3,395	340	197	143	0	143	0.21	C	197	0	197	0.29	C
W LADY LAKE BOULEVARD	WEST TERMINI	US 27/US441	2	U	TOWN OF LADY LAKE	TOWN OF LADY LAKE	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,132	97	52	45	0	45	0.07	C	52	0	52	0.08	C
E LADY LAKE BOULEVARD	BERCHFIELD ROAD	US 27/US441	2	U	COUNTY	TOWN OF LADY LAKE	COLLECTOR	D	675	N	2UC	0	0	333	675	720	633	58	41	41	0	41	0.06	C	17	0	17	0.03	C
LAKE AVENUE / FAIRVIEW AVENUE	OLD 441 / CR 500A	LAKESHORE DRIVE	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	553	45	27	27	0	27	0.04	C	18	0	18	0.03	C
LAKE DRIVE	SR 44	COUNTRY ROAD	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	818	85	49	49	0	49	0.08	C	36	0	36	0.06	C
LAKE ELLA ROAD	SUMTER COUNTY LINE	ROLLING ACRES ROAD	2	T	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	612	N	2TC	0	0	297	612	648	1,650	171	98	98	0	98	0.16	C	73	42	115	0.19	C
LAKE ELLA ROAD	ROLLING ACRES ROAD	US 27	2	T	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	612	N	2TC	0	0	297	612	648	1,161	137	72	65	28	93	0.15	C	72	3	75	0.12	C
LAKE ERIE ROAD	CR 565	SR 33	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	626	53	38	38	0	38	0.06	C	15	0	15	0.02	C
LAKE EUSTIS DRIVE	US 441	CLAY BOULEVARD	2	U	COUNTY	EUSTIS/TAVARES	COLLECTOR	D	675	N	2UC	0	0	333	675	720	5,445	501	282	282	0	282	0.42	C	219	0	219	0.32	C
LAKE LOUISA ROAD	LAKESHORE DRIVE	VISTA DEL LAGO BOULEVARD	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	3,124	263	161	161	0	161	0.24	C	102	0	102	0.15	C
LAKE LOUISA ROAD	VISTA DEL LAGO BOULEVARD	US 27	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	3,894	364	261	103	0	103	0.15	C	261	0	261	0.39	C
LAKE MACK DRIVE	CR 42	ANOTHER ANNA ROAD	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	1,399	125	82	82	0	82	0.14	C	43	0	43	0.07	C
LAKE STREET	US 441	MAIN STREET	2	U	CITY OF LEESBURG	CITY OF LEESBURG	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	2,621	190	97	93	0	93	0.12	C	97	0	97	0.12	C
LAKE STREET	SR 44	MAIN STREET	2	U	CITY OF LEESBURG	CITY OF LEESBURG	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	3,114	231	129	129	0	129	0.16	C	102	0	102	0.13	C
LAKESHORE DRIVE (CLER)	CR 561	OSWALT ROAD	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,942	166	92	92	0	92	0.14	C	74	0	74	0.11	C
LAKESHORE DRIVE (CLER)	OSWALT ROAD	HARDER ROAD	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	8,756	715	468	468	13	481	0.71	D	247	24	271	0.40	C
LAKESHORE DRIVE (CLER)	HARDER ROAD	HAMMOCK RIDGE ROAD	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	11,897	1,108	755	353	13	366	0.54	D	755	24	779	1.15	F
LAKESHORE DRIVE (CLER)	HAMMOCK RIDGE ROAD	ANDERSON HILL ROAD	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	6,664	593	376	376	13	389	0.58	D	217	24	241	0.36	C
LAKESHORE DRIVE (EUSTIS)	CLAY BOULEVARD	SOUTH BAY STREET / SR 19 SB	2	U	COUNTY	CITY OF EUSTIS	COLLECTOR	D	675	N	2UC	0	0	333	675	720	5,171	441	253	253	0	253	0.37	C	188	0	188	0.28	C
W LAKEVIEW AVENUE	KURT STREET	SR 19	2	U	CITY OF EUSTIS	CITY OF EUSTIS	COLLECTOR	D	675	N	2UC	0	0	333	675	720	6,443	599	372	227	0	227	0.34	C	372	0	372	0.55	D
E LAKEVIEW AVENUE	SR 19	JASMINE STREET / CROOKED LAKE COURT	2	U	CITY OF EUSTIS	CITY OF EUSTIS	COLLECTOR	D	675	N	2UC	0	0	333	675	720	2,941	292	173	173	0	173	0.26	C	119	0	119	0.18	C
E LAKEVIEW AVENUE	JASMINE STREET / CROOKED LAKE COURT	HASELTON STREET	2	U	CITY OF EUSTIS	CITY OF EUSTIS	COLLECTOR	D	675	N	2UC	0	0	333	675	720	5,101	451	227	224	0	224	0.33	C	227	0	227	0.34	C
LANE PARK CUTOFF	SR 19	CR 561	2	U	COUNTY	CITY OF TAVARES	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,597	266	150	116	15	131	0.19	C	150	24	174	0.26	C
LEE STREET	GRIFFIN ROAD	US 441	2	U	CITY OF LEESBURG	CITY OF LEESBURG	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	2,235	207	113	113	0	113	0.14	C	94	0	94	0.12	C
LEE STREET	US 441	MAIN STREET	2	U	CITY OF LEESBURG	CITY OF LEESBURG	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	2,743	272	172	172	0	172	0.13	C	172	0	172	0.22	C
WILSON LAKE PARKWAY	US 27	LIBBY ROAD	2	T	COUNTY	CITY OF GROVELAND	COLLECTOR	D	612	N	2TC	0	0	297	612	648	1,330	106	55	51	0	51	0.08	C	55	0	55	0.09	C
LIMIT AVENUE	DONNELLY STREET	US 441	2	U	COUNTY	CITY OF MOUNT DORA	COLLECTOR	E	720	N	2UC	0	0	333	675	720	2,405	199	110	89	36	125	0.17	C	110	20	130	0.18	C
LONE OAK DRIVE	MAIN STREET	SR 44	2	U	CITY OF LEESBURG	CITY OF LEESBURG	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	2,657	251	136	115	0	115	0.15	C	136	0	136	0.17	C
LOG HOUSE ROAD	CR 561	LAKESHORE DRIVE	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	3,195	249	125	124	13	137	0.20	C	125	24	149	0.22	C
E MAIN STREET	SR 19	CR 452 / ST CLAIR ABRAMS STREET	2	U	CITY OF TAVARES	CITY OF TAVARES	COLLECTOR	D	675	N	2UC	0	0	333	675	720	11,820	1,111	720	391	100	401	0.59	C	720	17	737	1.09	F
MAIN STREET (LEESBURG)	CR 468	THOMAS AVENUE	2	U	COUNTY	CITY OF LEESBURG	ARTERIAL 1	D	880	N	2U1	0	0	830	880	880	9,508	843	462	462	0	462	0.53	C	381	0	381	0.43	C
MAIN STREET (LEESBURG)	THOMAS AVENUE	US 27	2	U	COUNTY	CITY OF LEESBURG	ARTERIAL 1	D	880	N	2U1	0	0	830	880	880	9,508	843	462	462	0	462	0.53	C	381	0	381	0.43	C
MAIN STREET (LEESBURG)	US 27	LEE STREET	2	U	COUNTY	CITY OF LEESBURG	ARTERIAL 2	D	750	N	2U2	0	0	370	750	800	10,612	893	495	398	2	400	0.53	D	495	0	495	0.66	D
MAIN STREET (LEESBURG)	LEE STREET	CANAL STREET	2	U	COUNTY	CITY OF LEESBURG	ARTERIAL 2	D	750	N	2U2	0	0	370	750	800	10,612	893	495	398	2	400	0.53	D	495	0	495	0.66	D
MAIN STREET (LEESBURG)	CANAL STREET	LAKE STREET	2	U	COUNTY	CITY OF LEESBURG	ARTERIAL 2	D	750	N	2U2	0	0	370	750	800	4,815	424	212	212	1	213	0.28	C	212	2	214	0.29	C
MAIN STREET (LEESBURG)	LAKE STREET	DIXIE AVENUE / SR 44	2	U	COUNTY	CITY OF LEESBURG	ARTERIAL 2	D	750	N	2U2	0	0	370	750	800	4,569	435	279	156	1	157	0.21	C	279	2	281	0.27	C
MAIN STREET (LEESBURG)	DIXIE AVENUE / SR 44	NICHOLS DRIVE / SUNNYSIDE DRIVE	2	U	COUNTY	CITY OF LEESBURG	COLLECTOR	D	675	N	2UC	0	0	333	675	720	3,982	339	209	209	0	209	0.31	C	130	0	130	0.19	C
MARION COUNTY ROAD	CR 25	GRAYS AIRPORT ROAD	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,803	198	123	73	0	73	0.11	C	123	0	123	0.19	C
MARION COUNTY ROAD	GRAYS AIRPORT ROAD	LAKE GRIFFIN ROAD	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	603	N	2RC	0	0	603	666	666	1,803	198	123	73	0	73	0.12	C	123	0	123	0.21	C
MARION COUNTY ROAD	LAKE GRIFFIN ROAD	EMPIRE CHURCH ROAD	2	R	CITY OF MASCOTTE	CITY OF MASCOTTE	COLLECTOR	C	603	N	2RC	0	0	603	666	666	793	85	56	29	0	29	0.05	C	56	0	56	0.09	C
MASCOTTE EMPIRE ROAD	SR 50	EMPIRE CHURCH ROAD	2	R	CITY OF MASCOTTE	CITY OF MASCOTTE	COLLECTOR	C	603	N	2RC	0	0	603	666	666	793	85	56	29	0	29	0.05	C	56	0	56	0.09	C
McLENDON STREET	CLAY AVENUE	US 27/US441	2	U	TOWN OF LADY LAKE	TOWN OF LADY LAKE	COLLECTOR	D	675	N	2UC	0	0	333	675	720	395	29	22	7	0	7	0.01	C	22	0	22	0.03	C
MICRO RACETRACK ROAD	LAKE ELLA ROAD	CR 466A	2	T	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	612	N	2TC	0	0	297	612	648	6,174	532	292	240	0	240	0.39	C	292	0	292	0.48	C
MORNINGSIDE DRIVE (MOUNT DORA)	US 441	CR																											



**COUNTY TRANSPORTATION MANAGEMENT SYSTEM**  
LAKE COUNTY TMS SEGMENT REPORT - 2014/15 Level of Service

Posted on April 3, 2015

ROAD NAME	FROM	TO	NUMBER OF LANES	AREA TYPE	MAINTAINING AGENCY	JURISDICTION	FUNCTIONAL CLASSIFICATION	FDOT LOS STANDARD	LOS CAPACITY	SIS?	LOS CODE	PEAK HOUR DIRECTION CAPACITIES					2014/15 LEVEL OF SERVICE												
												A	B	C	D	E	AADT	PM PEAK HOUR TOTAL	PEAK HOUR / PEAK DIRECTION	EB/NB	RESERVED	TOTAL	V/C RATIO	LOS	WB/SB	RESERVED	TOTAL	V/C RATIO	LOS
SR 44	ORANGE AVENUE/SR 44	THRILL HILL ROAD	2	U	STATE	CITY OF EUSTIS	ARTERIAL 1	D	880	N	2U1	0	0	830	880	880	10,160	931	482	449	81	530	0.60	C	482	97	579	0.66	C
SR 44	THRILL HILL ROAD	CR 439	2	T	STATE	CITY OF MOUNT DORA	ARTERIAL 1	C	710	N	2T1	0	0	710	800	800	10,160	931	482	449	33	482	0.68	C	482	26	508	0.72	C
SR 44	CR 439	CR 437	2	T	STATE	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	C	710	N	2T1	0	0	710	800	800	10,160	931	482	449	54	503	0.71	C	482	21	503	0.71	C
SR 44	CR 437	CR 46A	2	T	STATE	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	C	850	N	2TU	0	450	850	1,200	1,640	10,160	931	482	449	11	460	0.54	C	482	23	505	0.59	C
SR 44	CR 46A	CR 44A	2	R	STATE	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	C	430	N	2RU	0	240	430	740	1,490	5,362	519	287	232	0	232	0.54	B	287	5	292	0.68	C
SR 44	CR 44A	OVERLOOK DRIVE	2	R	STATE	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	C	430	N	2RU	0	240	430	740	1,490	5,362	519	287	232	0	232	0.54	B	287	0	287	0.67	C
SR 44	OVERLOOK DRIVE	CR 42	2	R	STATE	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	C	430	N	2RU	0	240	430	740	1,490	5,362	519	287	232	0	232	0.54	B	287	19	966	2.25	E
SR 44	CR 42	VOLUISIA COUNTY LINE	2	R	STATE	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	C	430	N	2RU	0	240	430	740	1,490	5,362	519	287	232	0	232	0.54	B	287	0	287	0.67	C
SR 46	US 441	VISTA VIEW	2	U	STATE	CITY OF MOUNT DORA	ARTERIAL 1	D	880	N	2U1	0	0	830	880	880	9,793	826	455	455	229	684	0.78	C	371	342	713	0.81	C
SR 46	VISTA VIEW	ROUND LAKE ROAD	2	T	STATE	CITY OF MOUNT DORA	ARTERIAL 1	C	710	N	2T1	0	0	710	800	800	9,793	826	455	455	232	687	0.97	C	371	346	717	1.01	D
SR 46	ROUND LAKE ROAD	CR 437 SOUTH	2	T	STATE	CITY OF MOUNT DORA	ARTERIAL 1	C	710	N	2T1	0	0	710	800	800	12,831	1,151	648	648	52	700	0.99	C	503	60	563	0.79	C
SR 46	CR 437 SOUTH	CR 437 NORTH	2	T	STATE	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	C	710	N	2T1	0	0	710	800	800	12,831	1,151	648	648	38	686	0.97	C	503	17	520	0.73	C
SR 46	CR 437 NORTH	CR 435	2	T	STATE	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	C	710	N	2T1	0	0	710	800	800	13,575	1,332	671	671	11	682	0.96	C	661	25	686	0.97	C
SR 46	CR 435	CR 46A	2	R	STATE	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	C	430	N	2RU	0	240	430	740	1,490	13,575	1,332	671	671	3	674	1.57	D	661	8	669	1.56	D
SR 46	CR 46A	SEMINOLE COUNTY LINE	2	R	STATE	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	C	430	N	2RU	0	240	430	740	1,490	17,308	1,639	947	692	7	699	1.63	D	947	19	966	2.25	E
SR 50	SUMTER COUNTY LINE	CR 565 / BAY LAKE ROAD	2	T	STATE	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	C	850	N	2TU	0	450	850	1,200	1,640	9,349	768	443	325	21	346	0.41	B	443	12	455	0.54	C
SR 50	CR 565 / BAY LAKE ROAD	CR 33	2	U	STATE	CITY OF MASCOTTE	ARTERIAL 1	D	1,190	N	2U1	0	420	840	1,190	1,640	9,349	768	443	325	21	346	0.29	B	443	12	455	0.54	C
SR 50	CR 33	GROVELAND FARMS ROAD	4	U	STATE	CITY OF MASCOTTE	ARTERIAL 1	D	2,000	N	4U1	0	0	1,910	2,000	2,000	16,609	1,366	807	559	25	584	0.29	C	807	42	849	0.42	C
SR 50	GROVELAND FARMS ROAD	SR 50 ONE WAY PAIRS	4	U	STATE	CITY OF GROVELAND	ARTERIAL 1	D	2,000	N	4U1	0	0	1,910	2,000	2,000	16,609	1,366	807	559	23	582	0.29	C	807	42	849	0.42	C
SR 50 (E)	SR 50 ONE WAY PAIRS	SR 19	4	U	STATE	CITY OF GROVELAND	ARTERIAL 1 DIRECTIONAL	D	2,400	N	4U1D	0	0	2,292	2,400	2,400	12,115	759	759	759	23	782	0.33	C	807	0	807	0.42	C
SR 50 (W)	SR 19	SR 50 ONE WAY PAIRS	4	U	STATE	CITY OF GROVELAND	ARTERIAL 1 DIRECTIONAL	D	2,400	N	4U1D	0	0	2,292	2,400	2,400	10,852	1,009	1,009	1,009	0	707	0.29	C	1,009	42	1,051	0.44	C
SR 50 (E)	SR 19	SR 33 SOUTH	4	U	STATE	CITY OF GROVELAND	ARTERIAL 1 DIRECTIONAL	D	2,400	N	4U1D	0	0	2,292	2,400	2,400	10,674	686	686	686	0	707	0.29	C	807	0	807	0.42	C
SR 50 (W)	SR 33 SOUTH	SR 19	4	U	STATE	CITY OF GROVELAND	ARTERIAL 1 DIRECTIONAL	D	2,400	N	4U1D	0	0	2,292	2,400	2,400	10,173	897	897	897	0	707	0.29	C	807	0	807	0.42	C
SR 50	SR 33 SOUTH	CR 565A NORTH	4	U	STATE	CITY OF GROVELAND	ARTERIAL 1	D	2,000	N	4U1	0	0	1,910	2,000	2,000	21,338	1,686	971	715	143	858	0.43	C	971	232	1,203	0.60	C
SR 50	CR 565A NORTH	CR 561	4	U	STATE	CITY OF GROVELAND	ARTERIAL 1	D	2,000	N	4U1	0	0	1,910	2,000	2,000	21,826	1,698	1,012	686	123	809	0.40	C	1,012	189	1,201	0.60	C
SR 50	CR 561	EAST AVENUE	4	U	STATE	CITY OF CLERMONT	ARTERIAL 1	D	2,000	N	4U1	0	0	1,910	2,000	2,000	24,040	1,847	1,118	729	121	850	0.43	C	1,118	124	1,242	0.62	C
SR 50	EAST AVENUE	US 27	6	U	STATE	CITY OF CLERMONT	ARTERIAL 1	D	3,020	N	6U1	0	0	2,940	3,020	3,020	25,959	2,028	1,130	898	159	1,057	0.35	C	1,130	156	1,286	0.43	C
SR 50	US 27	HANCOCK ROAD	6	U	STATE	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	D	3,020	N	6U1	0	0	2,940	3,020	3,020	30,183	2,170	1,307	863	623	1,486	0.49	C	1,307	639	1,946	0.64	C
SR 50	HANCOCK ROAD	CR 455	6	U	STATE	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	D	3,020	N	6U1	0	0	2,940	3,020	3,020	30,183	2,170	1,307	863	797	1,660	0.55	C	1,307	854	2,161	0.72	C
SR 50	CR 455	ORANGE COUNTY LINE	6	U	STATE	UNINCORPORATED LAKE COUNTY	ARTERIAL 1	D	3,020	N	6U1	0	0	2,940	3,020	3,020	40,093	3,427	2,354	1,073	933	2,006	0.66	C	2,354	907	3,261	1.08	F
SR 91 (FLORIDA TURNPIKE)	SUMTER COUNTY LINE	CR 470	4	T	STATE	UNINCORPORATED LAKE COUNTY	FREEWAY	C	2,880	Y	4TF	0	2,200	2,880	3,440	3,580	35,278	2,542	1,356	1,186	0	1,186	0.41	B	1,356	0	1,356	0.47	B
SR 91 (FLORIDA TURNPIKE)	CR 470	US 27/SR 25	4	T	STATE	UNINCORPORATED LAKE COUNTY	FREEWAY	C	2,880	Y	4TF	0	2,200	2,880	3,440	3,580	38,079	408	242	166	0	166	0.06	B	242	0	242	0.08	B
SR 91 (FLORIDA TURNPIKE)	US 27/SR 25	US 27/SR 19 INTERCHANGE	4	T	STATE	UNINCORPORATED LAKE COUNTY	FREEWAY	C	2,880	Y	4TF	0	2,200	2,880	3,440	3,580	32,711	2,368	1,274	1,094	0	1,094	0.38	B	1,274	0	1,274	0.44	B
SR 91 (FLORIDA TURNPIKE)	US 27/SR 19 INTERCHANGE	ORANGE COUNTY LINE	4	T	STATE	UNINCORPORATED LAKE COUNTY	FREEWAY	C	2,880	Y	4TF	0	2,200	2,880	3,440	3,580	41,776	3,080	1,555	1,525	0	1,525	0.53	B	1,555	0	1,555	0.54	B
STEVES ROAD	US 27	CITRUS TOWER BOULEVARD	2	U	COUNTY	CITY OF CLERMONT	COLLECTOR	D	675	N	2UC	0	0	333	675	720	5,637	494	270	270	0	270	0.40	C	224	0	224	0.33	C
SUNNYSIDE DRIVE	MAIN STREET/DR NICHOLS DRIVE	SLEEPY HOLLOW ROAD	2	U	COUNTY	CITY OF LEESBURG	COLLECTOR	D	675	N	2UC	0	0	333	675	720	3,467	315	214	214	0	214	0.32	C	101	0	101	0.15	C
SUNNYSIDE DRIVE	SLEEPY HOLLOW ROAD	BRIDGEWATER COURT	2	U	COUNTY	CITY OF LEESBURG	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,955	185	113	72	0	72	0.11	C	113	0	113	0.17	C
SUNNYSIDE DRIVE	BRIDGEWATER COURT	SUNNYSIDE DRIVE	2	U	COUNTY	UNINCORPORATED LAKE COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,957	156	96	66	0	60	0.09	C	96	0	96	0.14	C
THOMAS AVENUE	CR 446	CR 44A	2	U	COUNTY	CITY OF LEESBURG	COLLECTOR	D	675	N	2UC	0	0	333	675	720	7,353	720	364	364	0	364	0.54	D	364	0	364	0.69	C
THOMAS AVENUE	GRIFFIN ROAD (CR 44A)	MAIN STREET	2	U	CITY OF LEESBURG	CITY OF LEESBURG	COLLECTOR	D	675	N	2UC	0	0	333	675	720	7,479	671	375	296	0	296	0.44	C	1,108	278	1,386	0.56	D
TURKEY FARM ROAD	E GRASSY LAKE ROAD	CR 50	2	U	COUNTY	CITY OF MINNEOLA	COLLECTOR	D	675	N	2UC	0	0	333	675	720	6,116	542	359	359	0	359	0.53	D	183	0	183	0.27	C
TUSCANOOGA ROAD	SUMTER COUNTY LINE	EGG ROAD	2	R	COUNTY	UNINCORPORATED LAKE COUNTY	MAJOR COLLECTOR	C	850	N	2RMC	0	450	850	1,200	1,640	503	61	32	32	0	32	0.04	B	29	0	29	0.03	B
TUSCANOOGA ROAD	EGG ROAD	SR 50	2	U	COUNTY	CITY OF MASCOTTE	MAJOR COLLECTOR	C	747	N	2UMC	0	747	792	792	2,203	209	123	123	0	123	0.16	C	86	0	86	0		



Generalized **Peak Hour Directional** Volumes for Florida's  
**Urbanized Areas**<sup>1</sup>

**TABLE 7**

12/18/12

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
<b>STATE SIGNALIZED ARTERIALS</b>						<b>FREEWAYS</b>					
<b>Class I</b> (40 mph or higher posted speed limit)						Lanes	B	C	D	E	
Lanes	Median	B	C	D	E	2	2,260	3,020	3,660	3,940	
1	Undivided	*	830	880	**	3	3,360	4,580	5,500	6,080	
2	Divided	*	1,910	2,000	**	4	4,500	6,080	7,320	8,220	
3	Divided	*	2,940	3,020	**	5	5,660	7,680	9,220	10,360	
4	Divided	*	3,970	4,040	**	6	7,900	10,320	12,060	12,500	
<b>Class II</b> (35 mph or slower posted speed limit)						<b>Freeway Adjustments</b>					
Lanes	Median	B	C	D	E	Auxiliary Lane	Ramp Metering				
1	Undivided	*	370	750	800	+ 1,000	+ 5%				
2	Divided	*	730	1,630	1,700						
3	Divided	*	1,170	2,520	2,560						
4	Divided	*	1,610	3,390	3,420						
<b>Non-State Signalized Roadway Adjustments</b> (Alter corresponding state volumes by the indicated percent.)											
Non-State Signalized Roadways - 10%											
<b>Median &amp; Turn Lane Adjustments</b>											
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors							
1	Divided	Yes	No	+5%							
1	Undivided	No	No	-20%							
Multi	Undivided	Yes	No	-5%							
Multi	Undivided	No	No	-25%							
-	-	-	Yes	+ 5%							
<b>One-Way Facility Adjustment</b> Multiply the corresponding directional volumes in this table by 1.2											
<b>BICYCLE MODE</b> <sup>2</sup> (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
<b>Paved Shoulder/Bicycle Lane Coverage</b>											
		B	C	D	E						
	0-49%	*	150	390	1,000						
	50-84%	110	340	1,000	>1,000						
	85-100%	470	1,000	>1,000	**						
<b>PEDESTRIAN MODE</b> <sup>2</sup> (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
<b>Sidewalk Coverage</b>											
		B	C	D	E						
	0-49%	*	*	140	480						
	50-84%	*	80	440	800						
	85-100%	200	540	880	>1,000						
<b>BUS MODE (Scheduled Fixed Route)</b> <sup>3</sup> (Buses in peak hour in peak direction)											
<b>Sidewalk Coverage</b>											
		B	C	D	E						
	0-84%	> 5	≥ 4	≥ 3	≥ 2						
	85-100%	> 4	≥ 3	≥ 2	≥ 1						
						<b>UNINTERRUPTED FLOW HIGHWAYS</b>					
Lanes	Median	B	C	D	E						
1	Undivided	420	840	1,190	1,640						
2	Divided	1,810	2,560	3,240	3,590						
3	Divided	2,720	3,840	4,860	5,380						
<b>Uninterrupted Flow Highway Adjustments</b>											
Lanes	Median	Exclusive left lanes		Adjustment factors							
1	Divided	Yes		+5%							
Multi	Undivided	Yes		-5%							
Multi	Undivided	No		-25%							
						<sup>1</sup> Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual and the Transit Capacity and Quality of Service Manual.					
						<sup>2</sup> Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility.					
						<sup>3</sup> Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.					
						* Cannot be achieved using table input value defaults.					
						** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.					
						Source: Florida Department of Transportation Systems Planning Office <a href="http://www.dot.state.fl.us/planning/systems/sm/los/default.shtm">www.dot.state.fl.us/planning/systems/sm/los/default.shtm</a>					



**Appendix H**  
HCM 6<sup>th</sup> / Synchro Projected Analysis Worksheets

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕		↖	↗		↖	↗	
Traffic Vol, veh/h	55	1	46	7	1	5	69	503	2	2	397	34
Future Vol, veh/h	55	1	46	7	1	5	69	503	2	2	397	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	-	-	-	250	-	-	200	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	92	95	92	92	92	95	95	92	92	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	1	48	8	1	5	73	529	2	2	418	36

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	851	1117	227	890	1134	266	454	0	0	531	0	0
Stage 1	440	440	-	676	676	-	-	-	-	-	-	-
Stage 2	411	677	-	214	458	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	253	206	776	237	201	732	1103	-	-	1033	-	-
Stage 1	566	576	-	409	451	-	-	-	-	-	-	-
Stage 2	589	450	-	768	565	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	237	192	776	210	187	732	1103	-	-	1033	-	-
Mov Cap-2 Maneuver	353	305	-	210	187	-	-	-	-	-	-	-
Stage 1	529	575	-	382	421	-	-	-	-	-	-	-
Stage 2	545	420	-	717	564	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.9		18.2		1		0	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1103	-	-	353	751	286	1033	-	-
HCM Lane V/C Ratio	0.066	-	-	0.164	0.066	0.049	0.002	-	-
HCM Control Delay (s)	8.5	-	-	17.2	10.1	18.2	8.5	-	-
HCM Lane LOS	A	-	-	C	B	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0.2	0.2	0	-	-

Intersection						
Intersection Delay, s/veh	4.6					
Intersection LOS	A					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2	2		
Conflicting Circle Lanes	2	2	2	2		
Adj Approach Flow, veh/h	107	14	604	456		
Demand Flow Rate, veh/h	109	14	616	465		
Vehicles Circulating, veh/h	436	673	62	83		
Vehicles Exiting, veh/h	112	5	483	604		
Ped Vol Crossing Leg, #/h	0	0	0	0		
Ped Cap Adj	1.000	1.000	1.000	1.000		
Approach Delay, s/veh	4.8	4.7	4.8	4.4		
Approach LOS	A	A	A	A		
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.471	0.529	0.471	0.529
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	109	14	290	326	219	246
Cap Entry Lane, veh/h	980	801	1275	1347	1251	1323
Entry HV Adj Factor	0.981	0.999	0.980	0.983	0.978	0.982
Flow Entry, veh/h	107	14	284	320	214	241
Cap Entry, veh/h	962	800	1249	1324	1223	1299
V/C Ratio	0.111	0.017	0.227	0.242	0.175	0.186
Control Delay, s/veh	4.8	4.7	4.9	4.8	4.4	4.3
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	1	1	1	1

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕		↖	↗		↖	↗	
Traffic Vol, veh/h	45	1	65	4	1	3	67	444	6	7	554	42
Future Vol, veh/h	45	1	65	4	1	3	67	444	6	7	554	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	-	-	-	250	-	-	200	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	92	95	92	92	92	95	95	92	92	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	47	1	68	4	1	3	71	467	7	8	583	44

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	997	1237	314	921	1256	237	627	0	0	474	0	0
Stage 1	621	621	-	613	613	-	-	-	-	-	-	-
Stage 2	376	616	-	308	643	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	198	175	682	225	170	764	951	-	-	1084	-	-
Stage 1	442	477	-	446	481	-	-	-	-	-	-	-
Stage 2	617	480	-	677	467	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	184	161	682	189	156	764	951	-	-	1084	-	-
Mov Cap-2 Maneuver	296	281	-	189	156	-	-	-	-	-	-	-
Stage 1	409	474	-	413	445	-	-	-	-	-	-	-
Stage 2	567	444	-	603	464	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.4	19.7	1.2	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	951	-	-	296	667	254	1084	-	-
HCM Lane V/C Ratio	0.074	-	-	0.16	0.104	0.034	0.007	-	-
HCM Control Delay (s)	9.1	-	-	19.5	11	19.7	8.3	-	-
HCM Lane LOS	A	-	-	C	B	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0.3	0.1	0	-	-



Intersection						
Intersection Delay, s/veh	4.9					
Intersection LOS	A					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	116	8	545		635	
Demand Flow Rate, veh/h	118	8	555		648	
Vehicles Circulating, veh/h	607	596	57		77	
Vehicles Exiting, veh/h	118	16	668		527	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	5.7	4.3	4.6		5.0	
Approach LOS	A	A	A		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.471	0.529
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	118	8	261	294	305	343
Cap Entry Lane, veh/h	848	856	1281	1353	1258	1330
Entry HV Adj Factor	0.983	0.998	0.981	0.982	0.979	0.982
Flow Entry, veh/h	116	8	256	289	299	337
Cap Entry, veh/h	833	854	1256	1328	1231	1306
V/C Ratio	0.139	0.009	0.204	0.217	0.243	0.258
Control Delay, s/veh	5.7	4.3	4.6	4.5	5.1	5.0
LOS	A	A	A	A	A	A
95th %tile Queue, veh	0	0	1	1	1	1

Intersection				
Intersection Delay, s/veh	13.1			
Intersection LOS	B			
Approach	EB	WB	SB	
Entry Lanes	1	1	2	
Conflicting Circle Lanes	1	1	1	
Adj Approach Flow, veh/h	765	434	484	
Demand Flow Rate, veh/h	780	443	493	
Vehicles Circulating, veh/h	321	413	248	
Vehicles Exiting, veh/h	420	688	608	
Ped Vol Crossing Leg, #/h	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	
Approach Delay, s/veh	19.6	10.3	5.5	
Approach LOS	C	B	A	
Lane	Left	Left	Left	Right
Designated Moves	LT	TR	L	TR
Assumed Moves	LT	TR	L	TR
RT Channelized				
Lane Util	1.000	1.000	0.651	0.349
Follow-Up Headway, s	2.609	2.609	2.535	2.535
Critical Headway, s	4.976	4.976	4.544	4.544
Entry Flow, veh/h	780	443	321	172
Cap Entry Lane, veh/h	995	906	1133	1133
Entry HV Adj Factor	0.981	0.980	0.981	0.983
Flow Entry, veh/h	765	434	315	169
Cap Entry, veh/h	975	887	1112	1113
V/C Ratio	0.784	0.489	0.283	0.152
Control Delay, s/veh	19.6	10.3	5.9	4.6
LOS	C	B	A	A
95th %tile Queue, veh	8	3	1	1

Intersection				
Intersection Delay, s/veh	11.4			
Intersection LOS	B			
Approach	EB	WB	SB	
Entry Lanes	1	1	2	
Conflicting Circle Lanes	1	1	1	
Adj Approach Flow, veh/h	694	606	677	
Demand Flow Rate, veh/h	708	618	690	
Vehicles Circulating, veh/h	207	361	402	
Vehicles Exiting, veh/h	885	554	577	
Ped Vol Crossing Leg, #/h	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	
Approach Delay, s/veh	12.0	13.8	8.5	
Approach LOS	B	B	A	
Lane	Left	Left	Left	Right
Designated Moves	LT	TR	L	TR
Assumed Moves	LT	TR	L	TR
RT Channelized				
Lane Util	1.000	1.000	0.300	0.700
Follow-Up Headway, s	2.609	2.609	2.535	2.535
Critical Headway, s	4.976	4.976	4.544	4.544
Entry Flow, veh/h	708	618	207	483
Cap Entry Lane, veh/h	1117	955	985	985
Entry HV Adj Factor	0.981	0.981	0.981	0.981
Flow Entry, veh/h	694	606	203	474
Cap Entry, veh/h	1095	936	966	967
V/C Ratio	0.634	0.647	0.210	0.490
Control Delay, s/veh	12.0	13.8	5.8	9.7
LOS	B	B	A	A
95th %tile Queue, veh	5	5	1	3

Intersection												
Int Delay, s/veh	12.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕		↖	↗		↖	↗	
Traffic Vol, veh/h	127	1	104	7	1	5	138	1115	3	2	895	89
Future Vol, veh/h	127	1	104	7	1	5	138	1115	3	2	895	89
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	-	-	-	250	-	-	200	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	92	95	92	92	92	95	95	92	92	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	134	1	109	8	1	5	145	1174	3	2	942	94

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1871	2460	518	1942	2506	589	1036	0	0	1177	0	0
Stage 1	993	993	-	1466	1466	-	-	-	-	-	-	-
Stage 2	878	1467	-	476	1040	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 44	30	502	39	28	452	667	-	-	589	-	-
Stage 1	263	322	-	134	191	-	-	-	-	-	-	-
Stage 2	309	190	-	539	306	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 35	23	502	25	22	452	667	-	-	589	-	-
Mov Cap-2 Maneuver	~ 116	101	-	25	22	-	-	-	-	-	-	-
Stage 1	206	321	-	105	150	-	-	-	-	-	-	-
Stage 2	237	149	-	419	305	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	117.1		142.6		1.3		0	
HCM LOS	F		F					

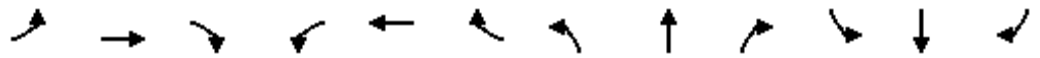
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	667	-	-	116	483	39	589	-	-
HCM Lane V/C Ratio	0.218	-	-	1.152	0.229	0.362	0.004	-	-
HCM Control Delay (s)	11.9	-	-	201.8	14.7	142.6	11.1	-	-
HCM Lane LOS	B	-	-	F	B	F	B	-	-
HCM 95th %tile Q(veh)	0.8	-	-	8.3	0.9	1.2	0	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Intersection Delay, s/veh	8.9					
Intersection LOS	A					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	244	14	1321		1038	
Demand Flow Rate, veh/h	249	14	1347		1059	
Vehicles Circulating, veh/h	971	1482	140		157	
Vehicles Exiting, veh/h	245	5	1080		1339	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	11.8	9.4	9.4		7.6	
Approach LOS	B	A	A		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	249	14	633	714	498	561
Cap Entry Lane, veh/h	622	403	1187	1261	1168	1243
Entry HV Adj Factor	0.980	0.999	0.980	0.980	0.980	0.981
Flow Entry, veh/h	244	14	621	700	488	550
Cap Entry, veh/h	610	402	1164	1236	1145	1219
V/C Ratio	0.400	0.035	0.533	0.566	0.426	0.451
Control Delay, s/veh	11.8	9.4	9.2	9.5	7.6	7.6
LOS	B	A	A	A	A	A
95th %tile Queue, veh	2	0	3	4	2	2



HCM 6th Signalized Intersection Summary 20005 CR 455 Ext. - Lost Lake to Hartwood Marsh  
 1: CR 455 Ext. & Johns Lake Rd 2035 AM BUILD



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	1	104	7	1	5	138	1115	3	2	895	89
Future Volume (veh/h)	127	1	104	7	1	5	138	1115	3	2	895	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	134	1	109	8	1	5	145	1174	3	2	942	94
Peak Hour Factor	0.95	0.92	0.95	0.92	0.92	0.92	0.95	0.95	0.92	0.92	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	350	2	199	165	38	49	403	1833	5	279	1361	136
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.09	0.50	0.50	0.00	0.42	0.42
Sat Flow, veh/h	1410	14	1573	391	303	386	1781	3636	9	1781	3263	326
Grp Volume(v), veh/h	134	0	110	14	0	0	145	574	603	2	513	523
Grp Sat Flow(s),veh/h/ln	1410	0	1587	1080	0	0	1781	1777	1869	1781	1777	1812
Q Serve(g_s), s	0.4	0.0	3.2	0.0	0.0	0.0	2.1	11.6	11.6	0.0	11.6	11.6
Cycle Q Clear(g_c), s	3.6	0.0	3.2	3.2	0.0	0.0	2.1	11.6	11.6	0.0	11.6	11.6
Prop In Lane	1.00		0.99	0.57		0.36	1.00		0.00	1.00		0.18
Lane Grp Cap(c), veh/h	350	0	201	252	0	0	403	896	942	279	741	756
V/C Ratio(X)	0.38	0.00	0.55	0.06	0.00	0.00	0.36	0.64	0.64	0.01	0.69	0.69
Avail Cap(c_a), veh/h	749	0	650	652	0	0	647	1819	1913	348	1491	1521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	0.0	20.0	18.8	0.0	0.0	8.3	8.9	8.9	8.8	11.7	11.7
Incr Delay (d2), s/veh	0.7	0.0	2.3	0.0	0.0	0.0	0.5	0.8	0.7	0.0	1.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	0.0	2.1	0.2	0.0	0.0	1.0	5.2	5.4	0.0	6.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	0.0	22.4	18.9	0.0	0.0	8.9	9.6	9.6	8.8	12.8	12.8
LnGrp LOS	C	A	C	B	A	A	A	A	A	A	B	B
Approach Vol, veh/h		244			14			1322			1038	
Approach Delay, s/veh		21.5			18.9			9.5			12.8	
Approach LOS		C			B			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	30.6		12.2	10.3	26.4		12.2				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	2.0	50.0		20.0	11.0	41.0		20.0				
Max Q Clear Time (g_c+I1), s	2.0	13.6		5.6	4.1	13.6		5.2				
Green Ext Time (p_c), s	0.0	8.6		0.8	0.2	6.8		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				12.0								
HCM 6th LOS				B								

Intersection						
Intersection Delay, s/veh	10.3					
Intersection LOS	B					
Approach	EB		WB		SB	
Entry Lanes	2		2		2	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	1084		505		1063	
Demand Flow Rate, veh/h	1105		516		1084	
Vehicles Circulating, veh/h	379		829		129	
Vehicles Exiting, veh/h	834		655		1216	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	11.4		12.8		8.1	
Approach LOS	B		B		A	
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	L	LTR	LT	R	L	TR
Assumed Moves	L	LTR	LT	R	L	TR
RT Channelized						
Lane Util	0.530	0.470	0.250	0.750	0.350	0.650
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	586	519	129	387	379	705
Cap Entry Lane, veh/h	953	1029	630	702	1199	1273
Entry HV Adj Factor	0.980	0.981	0.980	0.979	0.982	0.980
Flow Entry, veh/h	574	509	126	379	372	691
Cap Entry, veh/h	934	1010	617	687	1177	1247
V/C Ratio	0.615	0.504	0.205	0.551	0.316	0.554
Control Delay, s/veh	12.9	9.7	8.4	14.2	6.0	9.2
LOS	B	A	A	B	A	A
95th %tile Queue, veh	4	3	1	3	1	4

Intersection												
Int Delay, s/veh	23.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕		↖	↗		↖	↗	
Traffic Vol, veh/h	115	1	135	4	1	3	148	982	6	7	1244	124
Future Vol, veh/h	115	1	135	4	1	3	148	982	6	7	1244	124
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	-	-	-	250	-	-	200	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	92	95	92	92	92	95	95	92	92	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	121	1	142	4	1	3	156	1034	7	8	1309	131

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2221	2744	720	2021	2806	521	1440	0	0	1041	0	0
Stage 1	1391	1391	-	1350	1350	-	-	-	-	-	-	-
Stage 2	830	1353	-	671	1456	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 24	20	370	34	18	500	467	-	-	664	-	-
Stage 1	150	207	-	159	217	-	-	-	-	-	-	-
Stage 2	331	216	-	412	193	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 16	13	370	15	12	500	467	-	-	664	-	-
Mov Cap-2 Maneuver	~ 68	80	-	15	12	-	-	-	-	-	-	-
Stage 1	~ 100	205	-	106	145	-	-	-	-	-	-	-
Stage 2	217	144	-	249	191	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	242.6		250.8		2.2		0.1	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	467	-	-	68	360	22	664	-	-
HCM Lane V/C Ratio	0.334	-	-	1.78	0.398	0.395	0.011	-	-
HCM Control Delay (s)	16.5	-	-	\$ 504.1	21.5	250.8	10.5	-	-
HCM Lane LOS	C	-	-	F	C	F	B	-	-
HCM 95th %tile Q(veh)	1.4	-	-	10.8	1.9	1.2	0	-	-

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection						
Intersection Delay, s/veh	10.9					
Intersection LOS	B					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	264	8	1197		1448	
Demand Flow Rate, veh/h	269	8	1221		1477	
Vehicles Circulating, veh/h	1347	1337	132		164	
Vehicles Exiting, veh/h	294	16	1484		1181	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	22.3	8.1	8.3		11.0	
Approach LOS	C	A	A		B	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	269	8	574	647	694	783
Cap Entry Lane, veh/h	452	456	1195	1269	1161	1235
Entry HV Adj Factor	0.981	0.998	0.980	0.981	0.981	0.980
Flow Entry, veh/h	264	8	563	635	680	767
Cap Entry, veh/h	443	455	1172	1245	1138	1211
V/C Ratio	0.595	0.018	0.480	0.510	0.598	0.634
Control Delay, s/veh	22.3	8.1	8.3	8.4	10.7	11.1
LOS	C	A	A	A	B	B
95th %tile Queue, veh	4	0	3	3	4	5

HCM 6th Signalized Intersection Summary 20005 CR 455 Ext. - Lost Lake to Hartwood Marsh  
 1: CR 455 Ext. & Johns Lake Rd 2035 PM BUILD



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↔		↖	↕		↖	↗	
Traffic Volume (veh/h)	115	1	135	4	1	3	148	982	6	7	1244	124
Future Volume (veh/h)	115	1	135	4	1	3	148	982	6	7	1244	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	121	1	142	4	1	3	156	1034	7	8	1309	131
Peak Hour Factor	0.95	0.92	0.95	0.92	0.92	0.92	0.95	0.95	0.92	0.92	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	298	1	204	116	40	43	313	2108	14	347	1675	167
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.07	0.58	0.58	0.00	0.51	0.51
Sat Flow, veh/h	1412	11	1576	237	310	328	1781	3618	24	1781	3263	325
Grp Volume(v), veh/h	121	0	143	8	0	0	156	508	533	8	710	730
Grp Sat Flow(s),veh/h/ln	1412	0	1587	875	0	0	1781	1777	1866	1781	1777	1812
Q Serve(g_s), s	0.0	0.0	5.5	0.0	0.0	0.0	2.5	10.6	10.6	0.1	20.6	20.8
Cycle Q Clear(g_c), s	5.1	0.0	5.5	5.5	0.0	0.0	2.5	10.6	10.6	0.1	20.6	20.8
Prop In Lane	1.00		0.99	0.50		0.37	1.00		0.01	1.00		0.18
Lane Grp Cap(c), veh/h	298	0	205	198	0	0	313	1035	1087	347	912	930
V/C Ratio(X)	0.41	0.00	0.70	0.04	0.00	0.00	0.50	0.49	0.49	0.02	0.78	0.78
Avail Cap(c_a), veh/h	515	0	450	417	0	0	463	1455	1528	395	1231	1255
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.3	0.0	26.4	24.3	0.0	0.0	11.7	7.7	7.7	7.7	12.5	12.6
Incr Delay (d2), s/veh	0.9	0.0	4.2	0.0	0.0	0.0	1.2	0.4	0.3	0.0	2.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	0.0	3.9	0.2	0.0	0.0	1.3	5.1	5.3	0.1	10.7	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	0.0	30.7	24.3	0.0	0.0	13.0	8.1	8.1	7.8	14.8	14.9
LnGrp LOS	C	A	C	C	A	A	B	A	A	A	B	B
Approach Vol, veh/h		264			8			1197			1448	
Approach Delay, s/veh		29.1			24.3			8.7			14.8	
Approach LOS		C			C			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	43.0		14.2	10.7	38.6		14.2				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	2.0	52.0		18.0	10.0	44.0		18.0				
Max Q Clear Time (g_c+I1), s	2.1	12.6		7.5	4.5	22.8		7.5				
Green Ext Time (p_c), s	0.0	7.2		0.8	0.2	9.8		0.0				

Intersection Summary

HCM 6th Ctrl Delay	13.6
HCM 6th LOS	B





















Notes

User approved pedestrian interval to be less than phase max green.



Intersection						
Intersection Delay, s/veh	7.9					
Intersection LOS	A					
Approach	EB		WB		SB	
Entry Lanes	2		2		1	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	982		707		1484	
Demand Flow Rate, veh/h	1001		721		1513	
Vehicles Circulating, veh/h	424		781		216	
Vehicles Exiting, veh/h	216		644		1286	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	10.9		16.2		1.9	
Approach LOS	B		C		A	
Lane	Left	Right	Left	Right	Left	Bypass
Designated Moves	L	LTR	LT	R	L	R
Assumed Moves	L	LTR	LT	R	L	R
RT Channelized						Free
Lane Util	0.530	0.470	0.300	0.700	1.000	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	1089
Entry Flow, veh/h	531	470	216	505	424	1938
Cap Entry Lane, veh/h	914	990	658	731	1182	0.980
Entry HV Adj Factor	0.980	0.982	0.980	0.980	0.981	1068
Flow Entry, veh/h	520	461	212	495	416	1900
Cap Entry, veh/h	895	972	645	717	1160	0.562
V/C Ratio	0.581	0.475	0.328	0.691	0.359	0.0
Control Delay, s/veh	12.3	9.4	9.9	18.9	6.6	A
LOS	B	A	A	C	A	4
95th %tile Queue, veh	4	3	1	6	2	

HCM 6th Signalized Intersection Summary 20005 CR 455 Ext. - Lost Lake to Hartwood Marsh  
 1: CR 455 Ext. & Johns Lake Rd 2045 AM BUILD

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	1	95	7	1	5	139	1126	3	2	909	90
Future Volume (veh/h)	143	1	95	7	1	5	139	1126	3	2	909	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	151	1	100	8	1	5	146	1185	3	2	957	95
Peak Hour Factor	0.95	0.92	0.95	0.92	0.92	0.92	0.95	0.95	0.92	0.92	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	360	2	218	177	40	58	392	1833	5	271	1368	136
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.09	0.50	0.50	0.00	0.42	0.42
Sat Flow, veh/h	1410	16	1572	468	288	420	1781	3636	9	1781	3265	324
Grp Volume(v), veh/h	151	0	101	14	0	0	146	579	609	2	521	531
Grp Sat Flow(s),veh/h/ln	1410	0	1587	1176	0	0	1781	1777	1869	1781	1777	1812
Q Serve(g_s), s	1.4	0.0	3.0	0.0	0.0	0.0	2.2	12.1	12.1	0.0	12.2	12.2
Cycle Q Clear(g_c), s	4.3	0.0	3.0	3.0	0.0	0.0	2.2	12.1	12.1	0.0	12.2	12.2
Prop In Lane	1.00		0.99	0.57		0.36	1.00		0.00	1.00		0.18
Lane Grp Cap(c), veh/h	360	0	220	275	0	0	392	896	942	271	744	759
V/C Ratio(X)	0.42	0.00	0.46	0.05	0.00	0.00	0.37	0.65	0.65	0.01	0.70	0.70
Avail Cap(c_a), veh/h	751	0	660	668	0	0	555	1724	1813	338	1478	1507
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.5	0.0	20.0	18.9	0.0	0.0	8.7	9.2	9.2	9.1	12.1	12.1
Incr Delay (d2), s/veh	0.8	0.0	1.5	0.0	0.0	0.0	0.6	0.8	0.8	0.0	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	0.0	1.9	0.2	0.0	0.0	1.0	5.6	5.9	0.0	6.5	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.3	0.0	21.5	18.9	0.0	0.0	9.3	10.0	10.0	9.1	13.3	13.2
LnGrp LOS	C	A	C	B	A	A	A	B	A	A	B	B
Approach Vol, veh/h		252			14			1334			1054	
Approach Delay, s/veh		21.4			18.9			9.9			13.2	
Approach LOS		C			B			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	31.5		13.0	10.4	27.2		13.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	2.0	49.0		21.0	9.0	42.0		21.0				
Max Q Clear Time (g_c+I1), s	2.0	14.1		6.3	4.2	14.2		5.0				
Green Ext Time (p_c), s	0.0	8.7		0.8	0.1	7.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				12.4								
HCM 6th LOS				B								

Intersection						
Intersection Delay, s/veh	9.2					
Intersection LOS	A					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	252	14	1334		1054	
Demand Flow Rate, veh/h	257	14	1361		1075	
Vehicles Circulating, veh/h	986	1512	157		158	
Vehicles Exiting, veh/h	247	6	1086		1368	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	12.3	9.7	9.7		7.7	
Approach LOS	B	A	A		A	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	257	14	640	721	505	570
Cap Entry Lane, veh/h	614	393	1168	1243	1167	1242
Entry HV Adj Factor	0.980	0.999	0.980	0.981	0.981	0.980
Flow Entry, veh/h	252	14	627	707	495	559
Cap Entry, veh/h	602	392	1145	1219	1145	1217
V/C Ratio	0.418	0.036	0.548	0.580	0.433	0.459
Control Delay, s/veh	12.3	9.7	9.6	9.9	7.7	7.7
LOS	B	A	A	A	A	A
95th %tile Queue, veh	2	0	3	4	2	2

Intersection						
Intersection Delay, s/veh	8.0					
Intersection LOS	A					
Approach	EB		WB		SB	
Entry Lanes	2		2		1	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	1092		509		1073	
Demand Flow Rate, veh/h	1113		520		1095	
Vehicles Circulating, veh/h	384		835		130	
Vehicles Exiting, veh/h	130		662		1225	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	11.6		13.0		2.0	
Approach LOS	B		B		A	
Lane	Left	Right	Left	Right	Left	Bypass
Designated Moves	L	LTR	LT	R	L	R
Assumed Moves	L	LTR	LT	R	L	R
RT Channelized						Free
Lane Util	0.530	0.470	0.250	0.750	1.000	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	711
Entry Flow, veh/h	590	523	130	390	384	1938
Cap Entry Lane, veh/h	948	1025	626	698	1272	0.980
Entry HV Adj Factor	0.981	0.981	0.980	0.979	0.979	697
Flow Entry, veh/h	579	513	127	382	376	1900
Cap Entry, veh/h	930	1005	614	684	1245	0.367
V/C Ratio	0.622	0.510	0.208	0.559	0.302	0.0
Control Delay, s/veh	13.1	9.8	8.4	14.5	5.6	A
LOS	B	A	A	B	A	2
95th %tile Queue, veh	4	3	1	3	1	

HCM 6th Signalized Intersection Summary 20005 CR 455 Ext. - Lost Lake to Hartwood Marsh  
 1: CR 455 Ext. & Johns Lake Rd 2045 PM BUILD



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	1	139	4	1	3	149	991	6	7	1264	126
Future Volume (veh/h)	119	1	139	4	1	3	149	991	6	7	1264	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	125	1	146	4	1	3	157	1043	7	8	1331	133
Peak Hour Factor	0.95	0.92	0.95	0.92	0.92	0.92	0.95	0.95	0.92	0.92	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	1	207	113	40	42	307	2124	14	344	1694	169
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.07	0.59	0.59	0.00	0.52	0.52
Sat Flow, veh/h	1412	11	1576	230	301	319	1781	3619	24	1781	3264	325
Grp Volume(v), veh/h	125	0	147	8	0	0	157	512	538	8	722	742
Grp Sat Flow(s),veh/h/ln	1412	0	1587	850	0	0	1781	1777	1866	1781	1777	1812
Q Serve(g_s), s	0.0	0.0	5.8	0.0	0.0	0.0	2.5	10.9	10.9	0.1	21.4	21.7
Cycle Q Clear(g_c), s	5.6	0.0	5.8	5.8	0.0	0.0	2.5	10.9	10.9	0.1	21.4	21.7
Prop In Lane	1.00		0.99	0.50		0.37	1.00		0.01	1.00		0.18
Lane Grp Cap(c), veh/h	295	0	209	195	0	0	307	1043	1095	344	922	940
V/C Ratio(X)	0.42	0.00	0.70	0.04	0.00	0.00	0.51	0.49	0.49	0.02	0.78	0.79
Avail Cap(c_a), veh/h	501	0	440	401	0	0	425	1423	1494	391	1231	1255
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	0.0	27.0	24.7	0.0	0.0	12.2	7.8	7.8	7.7	12.7	12.7
Incr Delay (d2), s/veh	1.0	0.0	4.3	0.0	0.0	0.0	1.3	0.4	0.3	0.0	2.4	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.2	0.0	4.1	0.2	0.0	0.0	1.5	5.2	5.5	0.1	11.1	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.9	0.0	31.3	24.8	0.0	0.0	13.5	8.1	8.1	7.8	15.1	15.2
LnGrp LOS	C	A	C	C	A	A	B	A	A	A	B	B
Approach Vol, veh/h		272			8			1207			1472	
Approach Delay, s/veh		29.7			24.8			8.8			15.1	
Approach LOS		C			C			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	44.1		14.5	10.7	39.7		14.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	2.0	52.0		18.0	9.0	45.0		18.0				
Max Q Clear Time (g_c+I1), s	2.1	12.9		7.8	4.5	23.7		7.8				
Green Ext Time (p_c), s	0.0	7.3		0.8	0.1	10.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



Intersection						
Intersection Delay, s/veh	11.3					
Intersection LOS	B					
Approach	EB	WB	NB		SB	
Entry Lanes	1	1	2		2	
Conflicting Circle Lanes	2	2	2		2	
Adj Approach Flow, veh/h	272	8	1207		1472	
Demand Flow Rate, veh/h	278	8	1231		1502	
Vehicles Circulating, veh/h	1370	1351	136		165	
Vehicles Exiting, veh/h	297	16	1511		1194	
Ped Vol Crossing Leg, #/h	0	0	0		0	
Ped Cap Adj	1.000	1.000	1.000		1.000	
Approach Delay, s/veh	24.4	8.2	8.5		11.2	
Approach LOS	C	A	A		B	
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	278	8	579	652	706	796
Cap Entry Lane, veh/h	443	450	1191	1265	1160	1234
Entry HV Adj Factor	0.978	0.998	0.980	0.981	0.980	0.980
Flow Entry, veh/h	272	8	567	640	692	780
Cap Entry, veh/h	434	449	1167	1241	1137	1210
V/C Ratio	0.627	0.018	0.486	0.515	0.609	0.645
Control Delay, s/veh	24.4	8.2	8.4	8.5	11.0	11.4
LOS	C	A	A	A	B	B
95th %tile Queue, veh	4	0	3	3	4	5

Intersection						
Intersection Delay, s/veh	8.0					
Intersection LOS	A					
Approach	EB		WB		SB	
Entry Lanes	2		2		1	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	990		713		1499	
Demand Flow Rate, veh/h	1009		727		1529	
Vehicles Circulating, veh/h	428		787		218	
Vehicles Exiting, veh/h	218		650		1296	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	11.1		16.6		1.9	
Approach LOS	B		C		A	
Lane	Left	Right	Left	Right	Left	Bypass
Designated Moves	L	LTR	LT	R	L	R
Assumed Moves	L	LTR	LT	R	L	R
RT Channelized						Free
Lane Util	0.530	0.470	0.300	0.700	1.000	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	1101
Entry Flow, veh/h	535	474	218	509	428	1938
Cap Entry Lane, veh/h	911	987	654	727	1180	0.980
Entry HV Adj Factor	0.980	0.981	0.980	0.980	0.981	1079
Flow Entry, veh/h	525	465	214	499	420	1900
Cap Entry, veh/h	893	969	642	713	1158	0.568
V/C Ratio	0.588	0.480	0.333	0.700	0.363	0.0
Control Delay, s/veh	12.5	9.5	10.1	19.4	6.7	A
LOS	B	A	B	C	A	4
95th %tile Queue, veh	4	3	1	6	2	

**APPENDIX B**  
Final Environmental Assessment



August 28<sup>th</sup>, 2020

Brad D. Bublitz, E.I. - Project Engineer  
Booth Ern Straughan & Hiott, Inc.  
902 N Sinclair Ave  
Tavares, Florida 32778

**Re: Hartle Road (CR 455) – Final Environmental Assessment  
Environmental Services  
ECS Project No. 504.17.19**

Dear Mr.Bublitz:

On August 21<sup>st</sup> & 27<sup>th</sup>, 2020 a listed species survey was conducted on the Hartle Road (CR455) road expansion. The proposed project site begins down Friendship Road into the CEMEX plant crossing Lost Lake Road as well as Johns Lake Road ending at Hartwood Marsh Road. in Clermont, Florida. More specifically, the project site is located in Section 3, 2, 34, & 35 Township 22 & 23 South and Range 26 East of Lake County, Florida (Figure 1).

The subject property runs along an existing dirt road and through an active CEMEX plant. The majority of the property contains a large borrow area as well as undeveloped uplands and a wetland.

A survey of the project boundaries was conducted to assess the potential occurrence of flora and fauna listed as threatened or endangered by the United States Fish and Wildlife Service (USFWS), Florida Fish and Wildlife Conservation Commission (FWC), and the Florida Department of Agriculture (FDA). Tables 1 and 2 provide a listing of the species known to occur within Lake County and their expected occurrence of the project site. The findings and conclusions of the survey are reported in this letter.

The survey was conducted by Ecological Consulting Solutions Inc (ECS) for the purpose of evaluating the site for the presence or absence of wetland habitat and protected flora and fauna or their habitat. The survey was conducted by means of pedestrian transects in the early morning to assure the potential of observing listed fauna as recommended by the FWC and the USFWS.

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The following resources were used for supporting information during the site assessment and letter preparation:

- Color aerial photographs (1" = 300), 2019, Google Earth, Lake County, Florida.
- National Wetlands Inventory Mapping, U.S. Fish and Wildlife Service.
- United States Geological Survey (USGS) 7.5-minute quadrangle map, Lake County, Florida, (ArcGIS).
- Official Lists of Endangered and Potentially Endangered Fauna and Flora in Florida (USFWS and FWC).

Pedestrian surveys of the project site were conducted in order to qualitatively document the existing vegetation and to assess the present land use patterns according to the Florida Land Use, Cover and Forms Classification System, Department of Transportation (FLUCFCS; DOT 1999). Seven (07) land-use types were determined for the project site (Figure 1). A brief description of each FLUCFCS community is provided below.

### **160 – Extractive**

This area is located in the western portion of the property and is an active CEMEX mixing plant. There is an office building as well as storage. There were multiple large pieces of equipment located within this habitat type. No vegetation is present throughout the habitat.

### **212 – Unimproved Pastures**

This habitat type is in the northern portion of the project site. This community is dominated by herbaceous groundcover species with very few tree species throughout. Groundcover is overgrown and consists of dense bahia grass (*Paspalum notatum*) with weedy species such as blackberry (*Rubus beautifulius*), common beggarticks (*Bidens alba*), American beautyberry (*Callicarpa americana*), Caesar weed (*Urena lobata*), broomsedge (*Andropogon virginicus*), grapevine (*Vitis rotundifolia*), ragweed (*Ambrosia artemisiifolia*), natal grass (*Rhynchelytrum repens*), prickly-pear cactus (*Opuntia humifusa*), and cogongrass (*Imperata cylindrica*). Tree species consist of abandoned citrus trees and laurel oak (*Quercus imbricaria*).

### **310 – Herbaceous (Dry Prairie)**

Predominately located in the southeastern portion of the project site. This habitat has been previously cleared and has been left to regrow naturally. Groundcover is overgrown and consists of bahia grass with weedy species such as blackberry, common beggarticks, American beautyberry, Lantana (*Lantana camara*) Caesar weed, broomsedge, grapevine, ragweed, natal grass, prickly-pear cactus, and cogongrass. Tree species are widely scattered and consist of live oak (*Quercus virginiana*), slash pine (*Pinus elliottii*) and laurel oak.



## **420 – Upland Hardwood Forests**

This habitat type is only found within the southeastern portion of the property. The canopy consists of dense slash pine and laurel oak. Other tree species include sand live oak (*Quercus geminata*). The sub-canopy contains a variety of woody species including loblolly bay (*Gordonia lasianthus*), Brazilian pepper (*Schinus terebinthifolius*) and cabbage palms (*Sabal palmetto*). Groundcover includes stands of saw palmetto (*Serenoa repens*), goldenrod (*Solidago odora*), muscadine vine (*Vitis rotundifolia*), greenbriar (*Smilax rotundifolia*), blackberry (*Rubus spp.*) and bracken fern (*Pteridium aquilinum*).

## **641 – Freshwater Marsh**

The only naturally occurring wetland habitat within the property boundary. Edge tree species consist of wax myrtle (*Myrica cerifera*), cabbage palm, and laurel oak. The dominant aquatic vegetation includes sawgrass (*Cladium jamaicense*), maidencane (*Panicum hemitomon*), with St. John's wort (*Hypericum spp.*), little blue maidencane (*Amphicarpum muehlenbergianum*), marsh pennywort (*Hydrocotyle umbellata*), soft rush (*Junucs effuses*), and spikerush (*Eleocharis baldwinii*). Standing water was observed within these wetlands.

## **742 – Borrow Area**

The dominate habitat type located within the project boundaries. This area is defined by steep slopes where the ground has been excavated for the CEMEX plant and have been left to regrow. The eastern most portion of this habitat contains surface waters where wetland vegetation such as red maple (*Acer rubrum*), Carolina willow (*Salix caroliniana*), primrose willow (*Ludwigia peruviana*), and sweet bay (*Magnolia virginiana*). The steep slopes were dominated with bahia grass and areas that were dominated by cogon grass as well as muscadine vine. Other species observed include wax myrtle, laurel oak, Brazilian pepper, and cabbage palm.

## **814 - Roads and Highways**

Found in the northern portion of the project site. There is a dirt road that runs through the project site.

## **Listed Species Survey Results**

A survey was conducted using pedestrian transects throughout the site to assess the occurrence, or potential for occurrence, of flora and fauna listed as threatened, endangered, or as species of special concern (SSC) by the Florida Fish and Wildlife Conservation Commission (FWC), United States Fish and Wildlife Service (USFWS), and Florida Department of Agriculture (FDA).

On January 11, 2017, the FWC State listing status changes, originally proposed back in 2010, became official after the approval of Florida's Imperiled Species Management Plan by FWC Commissioners.

- 15 species were removed from Florida's Endangered and Threatened Species List: Eastern chipmunk, Florida mouse, brown pelican, limpkin, snowy egret, white ibis, peninsula ribbon snake (Lower Keys population), red rat snake (Lower Keys population), striped mud turtle (Lower Keys population), Suwannee cooter, gopher frog, Pine Barrens tree frog, Lake Eustis pupfish, mangrove rivulus, and Florida tree snail.
- 23 species changed from State-designated Species of Special Concern to State-designated Threatened species: Sherman's short-tailed shrew, Sanibel rice rat, little blue heron, tricolored heron, reddish egret, roseate spoonbill, American oystercatcher, black skimmer, Florida burrowing owl, Marian's marsh wren, Worthington's Marsh wren, Scott's seaside sparrow, Wakulla seaside sparrow, Barbour's map turtle, Florida Keys mole skink, Florida pine snake, Georgia blind salamander, Florida bog frog, bluenose shiner, saltmarsh top minnow, Southern tessellated darter, Santa Fe crayfish, and Black Creek crayfish.
- 14 species keep their State-designated Threatened status: Everglades mink, Big Cypress fox squirrel, Florida sandhill crane, snowy plover, least tern, white-crowned pigeon, Southeastern American kestrel, Florida brown snake (Lower Keys population), Key ringneck snake, short-tailed snake, rim rock crowned snake, Key silverside, blackmouth shiner, and crystal darter.
- Five species listed as State-designated Species of Special Concern: (list species): Homosassa shrew, Sherman's fox squirrel, osprey (Monroe County population), alligator snapping turtle, and harlequin darter.

On December 23, 2018, the State listing status changes that were proposed in 2011 as part of the newly implemented imperiled species management system became official after the approval of Florida's Imperiled Species Management Plan by FWC Commissioners.

- Four species were removed from Florida's Endangered and Threatened Species List as State Species of Special Concern: Harlequin darter, Osprey (Monroe County population), Homosassa shrew, and Sherman's fox squirrel.
- The Alligator snapping turtle was taxonomically reclassified into three subspecies. The Suwannee alligator snapping turtle was listed as a State-designated Threatened species. • Two species were listed as Federally designated Threatened species: Giant manta ray and Nassau grouper. • Four species had changes in their scientific names: Short tailed snake, Bluetail mole skink, Florida Keys mole skink, and sand skink.

## **Birds**

Approximately 35 species (and sub-species) of birds found in Florida are protected by the FWC and/or the USFWS. For Lake County, the USFWS federally lists four (4) bird species. Only a few are expected to occur in central Florida. No listed birds were observed at this site. (Table 1).

Florida scrub jays (*Aphelocoma c. coerulescens*) were not observed on the project site. This species is listed as threatened at the state and federal levels. The property does not contain scrub habitat. The survey guidelines outlined in the *Ecology & Development-Related Habitat Requirements of the Florida Scrub Jay (April 1991)* were reviewed prior to the site visit.

No scrub jays were observed, or vocalizations heard. The surrounding areas to the north, south, east and west do not contain scrub habitat.

Red-cockaded woodpeckers (*Picoides borealis*) are endangered (USFWS) and endangered (FWC). No red-cockaded woodpeckers were observed, and the upland habitat type is not suitable. There were no open pine flatwoods with old-growth pines that characterize RCW nesting and foraging habitat.

Listed wading birds such as limpkin (*Aramus guarauna*), little blue heron (*Egretta caerulea*), snowy egret (*Egretta thula*), tricolored heron (*Egretta tricolor*), white ibis (*Eudocimus albus*) and wood stork (*Mycteria americana*) were not observed. The onsite wetlands do provide wading bird habitat. No listed wading birds were observed within project boundaries.

Bald eagles (*Haliaeetus leucocephalus*) or their nests were not observed on the site. Bald eagles are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. The USFWS has established a 660-foot protection zone around a bald eagle nest.

ECS searched the FWC website to determine if any documented bald eagle nests are within 660 feet of the site. There are no bald eagle nests near the proposed project site. Therefore, the project site is well outside of the 660-foot eagle nest protection zone and the development will not affect any bald eagle nests.

No other listed raptors such as Southeastern American kestrels (*Falco sparverius paulus*) or Arctic peregrine falcons (*Falco peregrinus tundrius*) were observed on or around the sites. There is little foraging habitat for kestrels. No birds were observed on or offsite at the time of the survey.

### **Amphibians and Reptiles**

About thirty (30) species of Florida's amphibians and reptiles are protected. For Lake County, the USFWS federally lists three (3) reptile species. Only a few could occur on this site.

#### **Sand Skink**

The sand skink (*Neoseps reynoldsi*) is listed as threatened by both FWS and FWC. The sand skink is primarily found in rosemary scrub, sand pine and oak scrub. Sand skinks require loose sand with large area of no groundcover or canopy cover.

On April 4, 2011, the U.S. Fish and Wildlife Service published a revised sand and bluetail mole skink survey protocol, which impacts owners of properties in interior Central Florida. The known range of the sand skink now includes Highlands, **Lake**, Marion, Orange, Osceola, Polk, and Putnam Counties with principal populations along the Lake Wales Ridge, the Winter Haven Ridge, and the Mount Dora Ridge. The habitat of the sand skink and bluetail mole skinks is affected by the conversion of citrus groves to pasture lands as well as to residential land uses. Coverboard surveys will determine the actual area of occupation. Only the area where sand skinks are found will be considered occupied and only that area will require mitigation.

According to the revised protocol, if a property lies within the sand skink consultation area, has suitable habitat, has an elevation of 80 feet above sea level and contains sandy soils, then sand skink surveys are required. The burden is on the property owner to document the absence of sand skinks. Mitigation costs for sand skinks approach \$60,000.00 to \$70,000.00 per impacted acre.

The property is within the sand skink consultation area, has suitable sand skink soils, and is above the appropriate elevation for sand skinks.

ECS surveyed for the presence of sand skink tracts. No tracks were observed. According to USFWS guidelines, if no sand skink tracts are observed, then coverboard surveys must be performed. Coverboard surveys can only be performed during March 01<sup>st</sup> through May 15<sup>th</sup>. Should sand skink tracts be observed prior to conducting coverboard surveys, then the coverboard survey would not be required. Consultation with USFWS staff concerning proposed impacts to sand skink habitat can commence if sand skink tracts are observed.

Due to the disturbed nature of the project site as well as the overgrowth and historical land uses, it is our opinion that there is no suitable sand skink habitat onsite and therefore surveys will not be required. ECS recommends providing our findings to USFWS to determine if a coverboard survey will be necessary.

### **Gopher Tortoise**

An 100% survey was conducted throughout the property for gopher tortoises (*Gopherus polyphemus*), a species listed by the FWC as a Threatened. Sixty-nine (69) gopher tortoise burrows were observed throughout the property. Based on the current tortoise density, we estimate that there are approximately 80 gopher tortoise burrows onsite.

Currently, there are four suitable options to conduct activities that may adversely impact tortoises. The options are to:

1. Avoid developing the area occupied by the tortoises.
2. Avoid individual burrow entrances to ensure the protection of the entire burrow, usually a distance of 50 feet.
3. Capture and relocate the tortoises to a separate onsite location.
4. Capture and relocate the tortoises to an offsite FWC-approved recipient site.

Tortoises may be relocated to an on-site preserve at a density of up to four tortoises per acre of suitable upland habitat. Onsite recipient sites must be suitable set-aside areas that are not disturbed by construction activities, which provide a safe environment, and that exclude (through temporary fencing or other means) tortoises from development areas until such development activities have been completed.

Gopher tortoises need access to the following: 1) sufficient areas of forage (herbaceous and low-growing plants including native broadleaf grasses and a variety of other non-native grasses, except cogon grass; 2) open sandy, well-drained, open (uncanopied), sunny sites for burrows and basking; 3) protection from predators, human harassment, and busy roads. Such general conditions must remain after development, outside the built footprint on the site.

Small sites typically have gopher tortoises that normally "roam" between adjoining neighboring parcels to forage or burrow, so this should be considered as well. The herbaceous vegetation must be maintained (mowing, burning, etc.), and pesticides/herbicides should not be used in the recipient area.

A permanent FWC-approved easement must also be placed over the onsite recipient area to be maintained in perpetuity.

If the project site does not have a dedicated onsite preserve for tortoises, then offsite relocation will be necessary. In this event, tortoises can be relocated by biologists to an FWC approved recipient site. ECS biologists are authorized by the FWC to relocate gopher tortoises by various means including backhoe extraction. ECS also manages five (5) gopher tortoise recipient sites which are long-term protected sites.

The tasks associated with conducting an offsite relocation of tortoises would include reserving as yet to be determined number of acres at the recipient site, submitting an application to the FWC for the relocation, removing the tortoises from the donor site to the recipient site and reporting the results of the relocation to the FWC. It typically takes 14 to 30 days to obtain the permit to relocate the onsite gopher tortoise population to an approved recipient site. Once the relocation permit is received, ECS can complete the relocation using either the backhoe or bucket trapping extraction methods.

Several commensal species associated with gopher tortoise burrows, including the gopher frog (*Rana areolata aesopus*) and eastern indigo snake (*Drymarchon corais couperi*) also receive protection, but were not observed.

### **Eastern Indigo Snake**

Concerning the eastern indigo snake, ECS conducted survey transects to identify potential aboveground and underground refugia, which eastern indigo snakes may inhabit. Underground refugia includes active or inactive gopher tortoise burrows, mammal burrows, hollows at the base of trees and other similar formations. Above ground refugia includes thick shrub formations, stumps, the base of thick palmetto, ground litter, brush piles, trash piles, and abandoned structures, and crevices of rock-lined ditch walls and other similar refugia.

Surveys for eastern indigo snakes are recommended by the USFWS during the time of October 01<sup>st</sup> through April 30<sup>th</sup>. There were little suitable refugia for the eastern indigo snake onsite. No eastern indigo snakes were observed.

The USFWS has established new programmatic effect determination key (Key) as part of the eastern indigo snake management. The Key allows the USFWS to require mitigation for eastern indigo snake habitat if 25 or more acres of suitable habitat will be impacted for development.



The USFWS has established a fund that a developer can pay into for mitigation.

To determine if the site has eastern indigo snake habitat will be up to the USFWS reviewer assigned to the project.

The USFWS requires the developer to notify the local field office via email at least **30 days prior** to any clearing/land alteration activities.

The notification has to include an eastern indigo snake protection/education plan. This notification can occur via email with the protection/education plan attached.

As long as the signatory of the e-mail certifies compliance with the protection/education plan (including use of the USFWS informational poster and brochure), no further written confirmation or “approval” from the USFWS is needed and the applicant may move forward with the project.

### **Mammals**

Thirty-three (33) mammals are currently protected in Florida. For Lake County, the USFWS federally lists eight (8) mammal species. About four could occur in the region of this project site. None were observed on this site.

We focused our search on the Florida mouse (*Podomys floridanus*) and their possible den or nest sites. Gopher tortoise burrows are present which increases the likelihood for the presence of the Florida mouse. Listed mammals or their potential den sites were not observed.

### **Listed Plants**

There were no protected plant species found on the project sites (Table 2). Protected plants are not expected to occur on the project site since the area has been previously cleared and used as a landscape nursery. Currently, there are no technical reports available by the state or federal agencies mentioned in this letter report for the survey of the nearly 400 protected plant species. None of the agencies require relocation or mitigation for protected plant species.

The Department of Agriculture and Consumer Services (DACS) designates and regulates plants listed as “endangered”, “commercially exploited” and “threatened”. There is no statutory prohibition against a landowner from harvesting an endangered or threatened plant from his property. However, it is unlawful for an individual to harvest an endangered or threatened species from the private land of another or any public land without first obtaining written permission of that landowner and a permit from DACS. Additionally, harvesting three or more commercially exploited plants from the private land of another or any public land will also require a DACS permit.

### **Summary**

In summary, one listed species, the gopher tortoise, was observed on site. There are also two wetland systems present on site.

ECS can prepare and submit the permit to relocate the onsite gopher tortoise population to an offsite longterm protected gopher tortoise recipient site. The permit can be obtained within 30 days for the Florida Fish and Wildlife Conservation Commission. Fees associated with the gopher tortoise have risen substantially and available space at a recipient site is limited.

Wetlands within the three proposed alignments were mapped and included within this report. None of the onsite wetlands are considered high quality habitat. There are also wetlands, adjacent to the proposed roadway alignments that were created by the excavation of the borrow pit.

### **St. Johns River Water Management District**

The St. Johns River Water Management District (SJRWMD) will require the wetland limits to be delineated and reviewed by agency staff.

The SJRWMD regulates any development including alterations to wetlands and surface waters. Any proposed development of the site will require the onsite wetlands to be delineated and reviewed by District staff and a submittal of an Environmental Resource Permit (ERP) application to the SJRWMD.

The ERP review period for SJRWMD is typically between 90 and 180 days for permit approval depending on the size and nature of the project and whether or not wetland impacts are proposed.

In the event wetland impacts are proposed, the SJRWMD will require mitigation. Mitigation for wetland impacts may include creation, restoration, or enhancement of either on-site or off-site wetland habitat or the purchase of mitigation credits from a permitted mitigation bank. The amount of mitigation required varies depending on the quality of the wetlands that are impacted and the quality and type of mitigation that is provided.

For this property, the onsite wetlands are average in terms of quality and function. It is the opinion of ECS that all wetlands either onsite or adjacent to the roadway alignments are isolated. Any proposed impacts will require mitigation in the form of credits from a mitigation bank.

The amount of mitigation required by the SJRWMD will be determined based on a Uniform Mitigation Assessment Method functional analysis.

### **Florida Department of Environmental Protection**

The Florida Department of Environmental Protection (FDEP) will be the agency responsible to determine if any federal permitting will be necessary.

On August 30, 2021, U.S. District Judge Rosemary Márquez, presiding in the District of Arizona, granted a request by the United States for voluntary remand of the Navigable Waters Protection Rule (NWPR) to allow for reconsideration of the rule by the U.S. Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers (USACE).

Both the USACE and the EPA will work to develop a new definition of waters of the United States.

ECS believes all of the wetlands are isolated and are therefore not subject to FDEP jurisdiction. Therefore, there is the potential that there would be no FDEP involvement for this project. ECS recommends submitting for a No Permit Required Determination from FDEP.


The FDEP operates under the joint permit application with the water management districts. Therefore, a permit application is required to be submitted to SJRWMD staff, who then provide a copy to the FDEP. Once the application is received, the FDEP will issue a Request for Additional Information (RAI) and likely request a site visit to verify the onsite wetland areas are isolated.

There are multiple mitigation banks that serve the project area so mitigation bank credits would be available, if needed.

Ecological Consulting Solutions Inc. appreciates the opportunity to provide you with our services. Should you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

ECOLOGICAL CONSULTING SOLUTIONS INC

A handwritten signature in black ink, appearing to read "Chris Krack". The signature is fluid and cursive, with the first name "Chris" written in a larger, more prominent script than the last name "Krack".

Chris Krack

Attachments



**PHOTOGRAPHS OF THE SUBJECT PROPERTY**



**Typical Borrow Area Habitat**

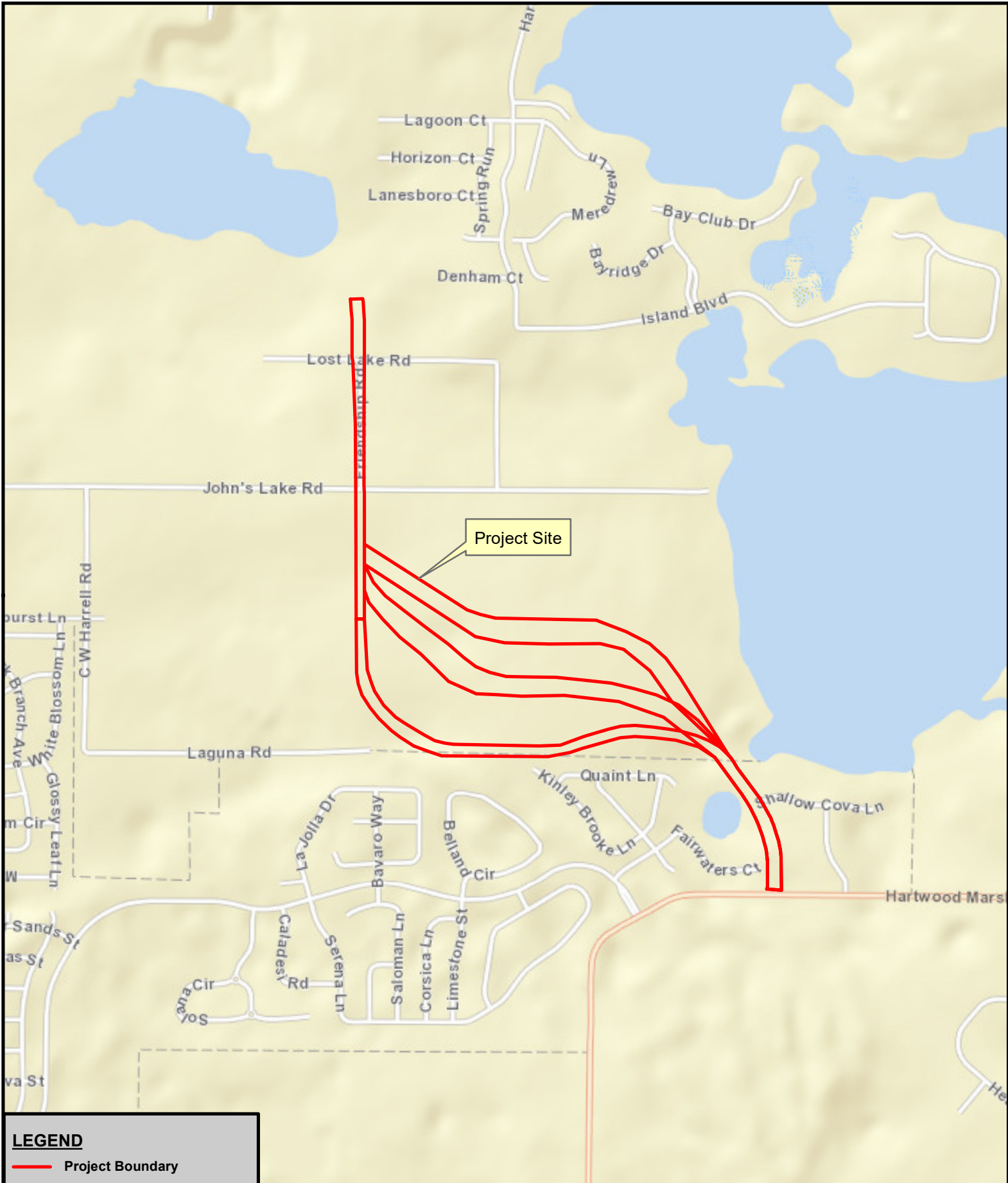


**Surface Water Borrow Area Habitat**



## FIGURES





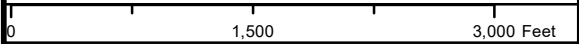
**LEGEND**

— Project Boundary



**LAKE COUNTY CR 455  
LAKE COUNTY, FLORIDA  
LOCATION MAP**

PROJECT #: 504.17.19 DATE: 08/19/20 FIGURE #: 1

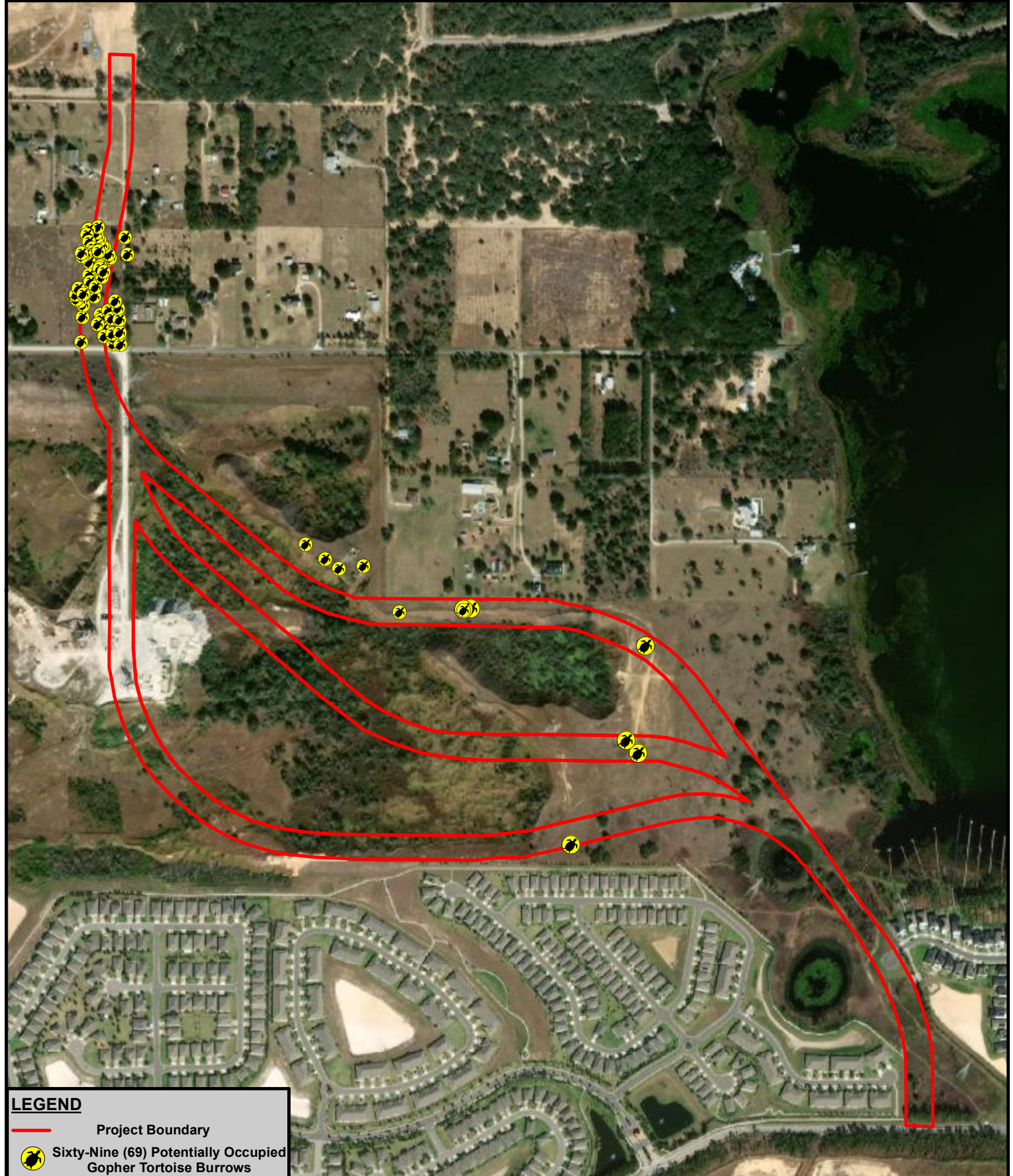


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CKrack@ecsfllcc











**LEGEND**

-  Project Boundary
-  Sixty-Nine (69) Potentially Occupied Gopher Tortoise Burrows

[www.ecologicalcs.com](http://www.ecologicalcs.com)




**Ecological Consulting Solutions, Inc.**

**LAKE COUNTY CR 455  
LAKE COUNTY, FLORIDA  
BURROW MAP**

PROJECT #: 504.17.19 DATE: 08/19/20 FIGURE #: 3

0 500 1,000 Feet



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**LEGEND**

— Project Boundary



**LAKE COUNTY CR 455  
LAKE COUNTY, FLORIDA  
WETLAND MAP**

PROJECT #: 504.17.19 DATE: 08/19/20 FIGURE #: 4

0 50 100 200 300 Feet



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**LEGEND**

— Project Boundary

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**LAKE COUNTY CR 455  
LAKE COUNTY, FLORIDA  
WETLAND MAP**

PROJECT #: 504.17.19 DATE: 08/19/20 FIGURE #: 4

0 50 100 200 300 Feet



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## TABLES

**TABLE 1: PROTECTED FAUNA FOUND IN LAKE COUNTY, FLORIDA AND THEIR EXPECTED OCCURRENCE ON THE HARTLE ROAD (CR 455) PROPERTY.**

SPECIES	FWC STATUS (1)	USFWS STATUS (2)	PREFERRED HABITAT (3)	PROBABILITY OF OCCURRENCE (4)
<b>REPTILES</b>				
<u>Alligator mississippiensis</u> American alligator	T(S/A)	T(S/A)	Vegetated lakes and deepwater swamps	Low: open water habitat limited, none sighted
<u>Drymarchon corais couperi</u> Eastern indigo snake	T	T	Dry habitats bordered by water; often occupy <i>G. polyphemus</i> burrows	Low: habitat available, gopher tortoise burrows observed
<u>Gopherus polyphemus</u> Gopher tortoise	T	–	Well drained soil; xeric pine-oak hammocks and scrub; pine flatwoods	High: habitat available, burrows located
<u>Eumeces egregious lividus</u> Bluetail mole skink	T	T	Dry, white sands of scrub, high pine and citrus grove in the Lake Wales Ridge system	Low: no habitat available, no tracks observed
<u>Neoseps reynoldsi</u> Sand skink	T	T	Dry, white sands of scrub, high pine and citrus grove in the Lake Wales Ridge system	Low: no habitat available, no tracks observed
<b>AMPHIBIANS</b>				
<u>Rana capito</u> Florida gopher frog	SSC	-	Dry, xeric habitats with wetlands such as isolated permanent ponds and cypress domes	Low: no habitat available, gopher tortoise burrows observed
<b>BIRDS</b>				
<u>Aphelocoma coerulescens</u> Florida scrub jay	T	T	Level, sterile, white sand with low, xeric oak scrub	Low: no habitat available, none sighted
<u>Aramus guarauna</u> Limpkin	SSC	–	Densely vegetated swamps, lakeshores and slow streams	Low: habitat available in borrow pit, none sighted
<u>Egretta caerulea</u> Little blue heron	T	–	Lake littorus; shallow ponds and marshes	Low: foraging habitat available, no birds sighted
<u>Polyborus plancus audubonii</u> Audubon’s crested caracara	T	T	Mesic temperate hammock and pine flatwoods, dry prairie and wet prairies	Low: habitat not available, no birds sighted

**TABLE 1: PROTECTED FAUNA FOUND IN LAKE COUNTY, FLORIDA AND THEIR EXPECTED OCCURRENCE ON HARTLE ROAD (CR 455) PROPERTY.**

SPECIES	FWC STATUS (1)	USFWS STATUS (2)	PREFERRED HABITAT (3)	PROBABILITY OF OCCURRENCE (4)
<b>BIRDS (cont.)</b>				
<u>Ammodramus savannarum floridanus</u> Florida grasshopper sparrow	E	E	Dry prairie and wet prairies	Low: no habitat available, none sighted
<u>Rostrhamus sociabilis plumbeus</u> Everglade snail kite	E	E	Hydric pine flatwoods, freshwater marshes, open water swamps	Low: habitat available, none sighted
<u>Athene cunicularia floridana</u> Florida burrowing owl	T	–	Open treeless areas such as pastures, fields, golf courses, airports, and vacant lots	Low: habitat not available, none sighted.
<u>Falco sparverius paulus</u> Southeastern American kestrel	T	–	Forest edges, and clearings; nests in mature pines	Low: habitat not available, none sighted
<u>Grus canadensis pratensis</u> Florida sandhill crane	T	–	Marshes, wet prairies, pastures, and open herbaceous rangeland	Low: habitat available, no birds sighted
<u>Haliaeetus leucocephalus</u> Bald eagle	State Eagle Rule	Federal Law	Open (<60% canopy cover), mature pine forests < 2 km from expansive open waters	Low: habitat not available, birds not sighted, nest search was negative
<u>Mycteria americana</u> Wood stork	T	T	Nests in cypress swamps; forage sites range from shallow marshes to roadway borrow pits	Low: foraging habitat available, no birds sighted
<u>Picoides borealis</u> Red-cockaded Woodpecker		E	Old-growth pine flatwoods with regular fire occurrence are required for nesting	Low: habitat not available, none sighted
<b>MAMMALS</b>				
<u>Podomys floridanus</u> Florida mouse	SSC	–	Sand pine scrub; xeric oak-pine flatwoods; often associated with <i>G. polyphemus</i> burrows	Low: habitat (tortoise burrows) present, none sighted
<u>Sciurus niger niger</u> Southern fox squirrel	–	–	Mature flatwoods of sandhills; occasional in tall cypress-bay forests	Low: habitat not available, none sighted
<u>Felis concolor coryi</u> Florida panther	E	E	High pine, tropical and mesic hammocks, scrub, pine flatwoods, wet prairie, marshes, mangrove	Low: habitat not available, none sighted

Footnotes to Table 1

1 FWC - Florida Fish and Wildlife Conservation Commission, formerly the Florida Game and Fresh Water Fish Commission; Official Lists of Florida's Endangered Species, Threatened Species and Species of Special Concern, published August 1997.

2 USFWS – United States Fish and Wildlife Service; List obtained from FWC's Florida's Endangered Species, Threatened Species and Species of Special Concern, published August 1997.

(E-endangered, T-threatened, SSC-species of special concern, CE-commercially exploited). C1 (candidate for federal listing, with enough substantial information on biological vulnerability and threats to support proposals for listing) and C2 (candidate for listing, with some evidence of vulnerability, but for which not enough data exists to support listing) are no longer official categories.

3 Habitats described by:

- Ashton, R.E. and P.S. Ashton. 1985 Handbook of Reptiles and Amphibians of Florida (3 vols.). Windward Publ. Inc. Miami.
- Conant, R. 1975 A Field Guide to Reptiles and Amphibians of Eastern/Central North America (2nd ed.). Houghton Mifflin Co. Boston 430 pp.
- Kale, H.W. 1978. Volume Two; Birds. In P.C.H. Pritchard (ed.), Rare and Endangered Biota of Florida. University Presses of Florida. Gainesville. 121 pp.
- Kale, H.W. and D.S. Maehr. 1990. Florida's Birds: A Handbook and Reference. Pineapple Press. Sarasota. 288 pp.
- Layne, L.N. 1978 Volume One: Mammals. In P.C.H. Pritchard (ed.), Rare and Endangered Biota of Florida. University Presses of Florida. Gainesville, 52 pp.
- McLane, W.M. 1985. The Fishes of the St. Johns River, Florida. Ph.D. diss. University of Florida, Gainesville. 361 pp.
- Peterson, R.T. 1980. A Field Guide to the Birds of East of the Rockies (4th ed.). Houghton Mifflin Co. Boston. 384 pp.

4 Likelihood of occurrence: Low, Moderate or High, based on the best available data and selective field observations.

**TABLE 2: PROTECTED FLORA FOUND IN LAKE COUNTY, FLORIDA AND THEIR EXPECTED OCCURRENCE ON THE HARTLE ROAD (CR 455)PROPERTY.**

<b>SPECIES</b>	<b>FDA STATUS (1)</b>	<b>USFWS STATUS (2)</b>	<b>PREFERRED HABITAT (3)</b>	<b>PROBABILITY OF OCCURRENCE (4)</b>
<u>Bonamia grandiflora</u> Florida bonamia	–	T	High pine, scrub, scrubby high pine	Low: habitat not available, none found
<u>Chionanthus pygmaeus</u> Pygmy fringe-tree	–	E	Scrub, scrubby high pine	Low: habitat not available, none found
<u>Cladonia perforate</u> Florida perforate cladonia	–	E	Scrub – Lake Wales Ridge system	Low: habitat not available, none found
<u>Clitoria fragrans</u> Pigeon wings	–	T	High pine, scrub, scrubby high pine, scrubby flatwoods	Low: habitat not available, none found
<u>Conradina brevifolia</u> Short-leaved rosemary	E	E	High pine, scrub	Low: habitat not available, none found
<u>Crotalaria avonensis</u> Avon Park harebells	–	E	Scrub – Lake Wales Ridge system	Low: habitat not available, none found
<u>Eriogonum long. var. gnaphalifolium</u> Scrub Buckwheat	–	T	High pine, scrub, scrubby high pine	Low: habitat not available, none found
<u>Hypericum cumulicola</u> Highlands scrub hypericum		E	Scrub – Lake Wales Ridge system	Low: habitat not available, none found
<u>Liatrix ohlingerae</u> Scrub blazing star	–	E	High pine, scrub, scrubby flatwoods	Low: habitat not available, none found
<u>Nolina brittoniana</u> Britton’s beargrass	–	E	High pine, scrub, scrubby high pine, scrubby flatwoods	Low: habitat not available, none found
<u>Paronychia chartacea</u> Papery whitlow-wort	–	T	High pine, scrub	Low: habitat not available, none found
<u>Platanthera cristata</u> Golden fringed orchid	T	–	Low moist meadows and damp pine woods	Low: no habitat available, none found
<u>Platanthera flava</u> Southern tubercled orchid	T	–	Very wet habitats such as swamps, bogs and wet forests with thick, black mud	Low: habitat not available, none found



**TABLE 2: PROTECTED FLORA FOUND IN LAKE COUNTY, FLORIDA AND THEIR EXPECTED OCCURRENCE ON THE HARTLE ROAD (CR 455) PROPERTY.**

SPECIES	FDA STATUS (1)	USFWS STATUS (2)	PREFERRED HABITAT (3)	PROBABILITY OF OCCURRENCE (4)
<u>Platanthera nivea</u> Snowy orchid	T	–	Open bogs and sunny, wet meadows	Low: no habitat available, none found
<u>Pogonia ophioglossoides</u> Rose pogonia	T	–	Open, wet meadows and sphagnum bogs, poorly drained roadside ditches	Low: no habitat available, none found
<u>Polygala lewtonii</u> Scrub (Lewton's) milkwort	E	E	Dry oak woodlands and scrub	Low: habitat not available, none found.
<u>Polygonella basiramia</u> Wireweed	–	E	Scrub- Lake Wales Ridge system	Low: habitat not available, none found
<u>Polygonella myriophylla</u> Sandlace	–	E	Scrub, scrubby high pine	Low: habitat not available, none found
<u>Prunus geniculata</u> Scrub plum	E	E	High pine, scrub, scrubby high pine	Low: habitat not available, none found
<u>Spiranthes laciniata</u> Lace-tip ladies' tresses	T	–	Marshes and cypress swamps; road banks and ditches	Low: habitat available, none found
<u>Spiranthes longilabris</u> Long-tip ladies' tresses	T	–	Marshes and wet prairies	Low: habitat available, none found
<u>Stenorrhynchos lanceolatus</u> var. <u>lanceolatus</u> Leafless beaked orchid	T	–	Vacant lots, open pastures, pine flatwoods and mowed roadsides	Low: habitat available, none found
<u>Warea amplexifolia</u> Wide-leaf warea	E	E	High pine	Low: no habitat available, none found
<u>Warea carteri</u> Carter's mustard	–	E	High pine, scrub, scrubby high pine, scrubby flatwoods, mesic pine flatwoods	Low: habitat not available, none found
<u>Ziziphus celata</u> Florida ziziphus	–	E	High pine, scrub	Low: habitat not available, none found

## Table 2 Footnotes

- 1 FDA – Florida Department of Agriculture and Consumer Services; List obtained from FWC’s Florida’s Endangered Species, Threatened Species and Species of Special Concern, published August 1997. Supporting information from FNAI - Florida Natural Inventory; Matrix of habitats and distribution by county of rare/endangered fauna and flora in Florida, published April 1990.
- 2 USFWS – United States Fish and Wildlife Service; List obtained from FWC’s Florida’s Endangered Species, Threatened Species and Species of Special Concern, published August 1997.  
  
[E-endangered, T-threatened, SSC- species of special concern, CE-commercially exploited.] C1 (candidate for federal listing, with enough substantial information on biological vulnerability and threats to support for listing) and C2 (candidate for listing with some evidence of vulnerability, but for which not enough data exist to support listing) are no longer official categories.
- 3 Habitats described by:  
  
Bell, C.R. and B.J. Taylor. 1982. Florida Wild Flowers and Roadside Plants. Laurel Hill Press, Chapel Hill, NC 308pp.  
FNAI - Florida Natural Inventory; Matrix of Habitats and Distribution by County of Rare/Endangered Species in Florida, published April 1990.  
Godfrey, R.K. 1988. Trees, Shrubs, and Woody Vines of Northern Florida, and Adjacent Georgia and Alabama. University Georgia Press. Athens, GA 734 pp.  
Ward, D.B. (publ. date not listed). Volume Five,. Plants, in P.C.H. Pritchard (ed.), Rare and Endangered Biota of Florida. University Presses of Florida, Gainesville. 175 pp.  
Wunderlin, R.P. 1982. Guide to Vascular Plants of Florida. University Presses of Florida, Gainesville, FL. 472 pp.
- 4 Likelihood of occurrence: Low, Moderate, or High, based on the best available data and selective field observations.

APPENDIX C  
Preliminary Geotechnical Investigation



February 24, 2021  
Project No.: GPGT-20-062

**To: BESH HALFF Inc.**  
**902 North Sinclair Avenue**  
**Tavares, Florida 32778**

**Attention: Mr. Duane Booth, P.E.**

**Subject: Preliminary Geotechnical Investigation, Three Alternative Alignments of CR 455 Expansion, Clermont, Lake County, Florida**

Dear Mr. Booth:

As requested, and as per Andreyev Engineering, Inc. (AEI) proposal dated December 20, 2019, AEI has completed the Task 1 preliminary geotechnical investigation for the above referenced project. This report presents the results of the Cone Penetration Test (CPT) soundings performed along the three possible alignments for the CR 455 expansion and the evaluation of the subsoil condition along the three alignments.

### **SITE LOCATION AND PROJECT DESCRIPTION**

The proposed CR 455 expansion/extension is located in Clermont, Lake County, Florida in Sections 2, 3, 34 and 35, Township 22 and 23 South and Range 26 East. The site vicinity is shown on USGS topographic map in **Figure 1**. An aerial view of the site is shown **Figure 2**. The current phase of the CR 455 expansion will be from approximately 300 feet north of Lost Lake Road and will run through the Cemex Mine area and terminate at Hartwood Marsh Road. The length of the road through the previously mined areas is approximately 1,500 feet. There are areas within the mine area that contain highly compressible mine reclamation deposits (slime) of variable thickness. To select the best possible alignment with the minimum amount of highly compressible mine reclamation (slime) deposits, this preliminary geotechnical investigation consisted of Cone Penetration Test (CPT) soundings along three (3) possible roadway alignments selected by you. The selected alignments are shown on **Figure 3**. The N.R.C.S. web soil survey map of the site is shown on **Figure 4**.

### **SCOPE OF PRELIMINARY FIELD EXPLORATION**

The Task 1 preliminary investigation along the three (3) possible alignments for the expansion/extension of CR 455 included a total of forty-one (41) CPT soundings. The CPT soundings were located at about 300 feet intervals to a depth of about 50 feet along the proposed three (3) roadway alignments. The CPT soundings along the three alternative alignments were performed by our sub-consultant Direct Push Services (DPS), LLC. The approximate locations of the CPT soundings along the three (3) possible alignments are shown on **Figure 5**. Due to the steeply sloping nature of the ground and the presence of dense vegetation, preparation of access ramps and clearing of vegetations were necessary for the access of the CPT rig to several of the sounding locations.

The standard CPT logs prepared by DPS are shown in **Attachment A**. The CPT data were further analyzed using CPT data interpretation software CPeT-IT developed by GeoLogismiki. The CPeT-IT summary plots of the CPT soundings are shown in **Attachment B**.

## **SOIL AND GROUNDWATER CONDITIONS**

The existing ground surface elevations at the CPT sounding locations along the three alternative alignments named 1 thru 3 indicated significant variations. The lowest ground surface elevation was near the southern part of the site at CPT-4 at about 91 feet (NAVD 88) and the highest ground surface elevation of about 168 feet was near the northern part of the site at CPT-5. The approximate ground surface elevations, proposed grade of the road and the estimated embankment fill heights at the CPT sounding locations are shown in **Table A**. Along the three alternative alignments, the maximum heights of embankment fill are 24 feet, 29 feet and 40 feet at alignments 1, 2, and 3 respectively. The maximum depths of cuts along the three alignments are 11 feet, 5 feet and 17 feet, at alignments 1, 2 and 3, respectively.

The soil behavior types encountered at the sounding locations are presented in the form of soil profiles on the attached CPeT-IT summary plots shown in **Appendix A**. The soil conditions along the three (3) alternative alignments are predominantly sandy. Very soft, highly compressible mining waste deposits (slimes) were encountered at several CPT sounding locations. The CPT correlated constrained modulus (M) values of the clay slime encountered at sounding locations CPT-15-3, CPT-16-3, CPT-17-3 and CPT-18-3 was below 10 ton/ft<sup>2</sup> and the compressibility of the clay slime is comparable to that of highly organic soil (muck). The maximum thickness of the highly compressible clay slime was about 10 feet at CPT sounding CPT-17-3-OS along alternative alignment 3.

### **NRCS Soil Survey**

The U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) Web Soil Map was reviewed. A portion of the map which depicts the location of the subject site is shown on the attached **Figure 4**. The soil map units for proposed site location are: #8 Candler Sand, 0 to 5% slopes, #9 Candler Sand, 0 to 12% slopes, #21 Lake Sand, 0 to 5% slopes, #34 Orlando Fine Sand, 0 to 5% slopes, #40 Placid and Myakka Sand, depressional and #50 Borrow Pits.

### **Groundwater Conditions**

Based on the encountered subsurface conditions, our local experience, and antecedent rainfall conditions and adjacent lake water level elevations, the normal seasonal high groundwater level is estimated to exist at an elevation of about 90.0 feet (NAVD 88).

## **EVALUATION AND RECOMMENDATIONS**

The following evaluation and recommendations are based on the project characteristics previously described and the data obtained in our Task 1 preliminary investigation with CPT soundings along the three (3) possible alignments of the CR 455 expansion/extension.

Based on the results of the CPT soundings along the three possible alignments, we are of the opinion that Alternative Alignment 1 is the more suitable option for construction of the proposed



CR 455 expansion/extension. Alternative Alignment 2 will involve additional investigations within steeply sloping areas and Alternative Alignment 3 will involve construction of approximately 40 feet high embankment over 10 foot thick deposits of highly compressible clay slime.

It should be noted that some soft mine tailing (slime) material is possible along the recommended Alternative Alignment 1 at CPT sounding locations CPT-12-1 and CPT-17-1. During the Task 2 phase of the geotechnical investigation for the project, the thickness and compressibility characteristics of the clay slime along the Alternative Alignment 1 of CR 455 expansion will be evaluated in detail. The magnitude of the possible settlement of the clay slime under the possible 27 feet embankment fill at CPT-17-1 location and the time-settlement behavior of the clay slime will need to be evaluated in detail, to plan the surcharge height and duration required for any pre-loading (pre-compression with surcharge) program.

### **CLOSURE**

AEI appreciates the opportunity to participate in this project, and we trust that the information herein is sufficient for your present needs. If you have any questions or comments concerning the contents of this report, please do not hesitate to contact our office.

Sincerely,

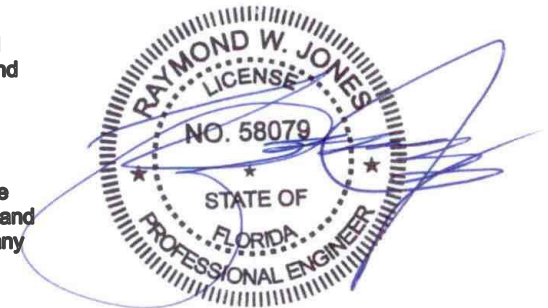
**ANDREYEV ENGINEERING, INC.**



Shawkat Ali, Ph. D., P.E.  
Senior Project Engineer  
Florida license No. 52568

This item has been digitally signed and sealed by Shawkat Ali, P.E. and Raymond Jones, P.E. on 2/25/21

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies



Raymond W. Jones, P.E.  
Vice President  
Florida License No.58079

Attachments: Table A, Figures 1-5, & Appendix A CPT Results

TABLE A

**TABLE A**

Approximate Elevations of Existing Ground Surface and Proposed Road Grade  
And Height of Embankment Fill At CPT Sounding Locations

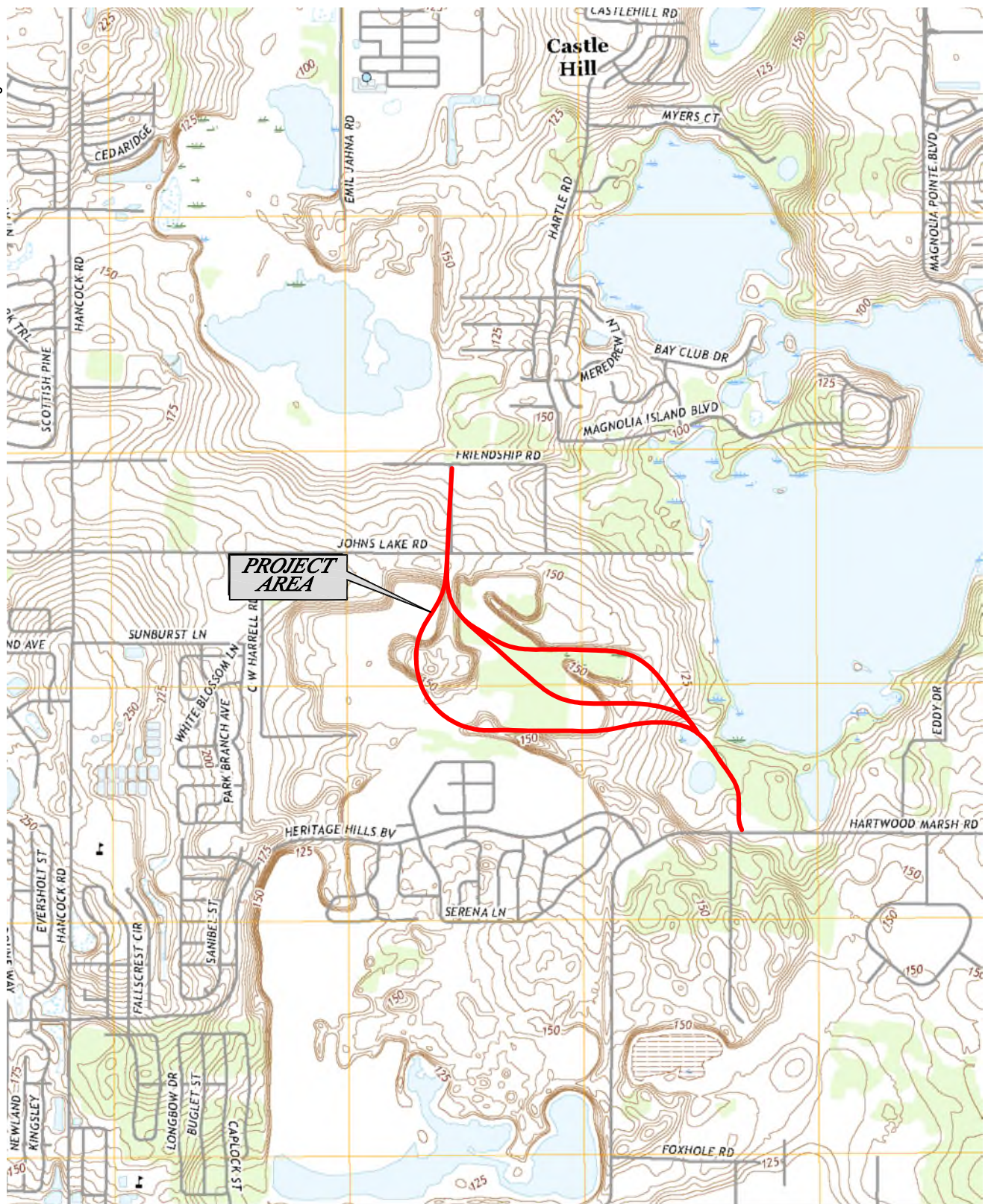
Alignment Alternative	CPT Sounding Number	Approx. Existing Ground Surface Elevation (ft – NAVD 88)	Approx. Proposed Road Grade Elevation (ft – NAVD 88)	Approx. Embankment Fill Height (ft)
Alignment 1	CPT-1	106	108	2
	CPT-2	102	107	5
	CPT-3	97	101	4
	CPT-4	91	109	18
	CPT-5	168	164	-4
	CPT-6	146	148	2
	CPT-7A	133	133	0
	CPT-8-1	147	153	16
	CPT-9-1	148	149	1
	CPT-10-1	116	138	22
	CPT-11-1	115	123	8
	CPT-12-1	117	116	-1
	CPT-13-1	114	115	1
	CPT-14-1	110	117	3
	CPT-15-1	131	120	-11
	CPT-16-1	110	128	18
	CPT-17-1	115	139	24
	CPT-18-1	156	152	-4
Alignment 2	CPT-1	106	108	2
	CPT-2	102	107	5
	CPT-3	97	101	4
	CPT-4	91	109	18
	CPT-5	168	164	-4
	CPT-6	146	148	2
	CPT-7A	133	133	0
	CPT-8-2	137	148	11
	CPT-9-2	140	154	14
	CPT-10-2	141	159	18
	CPT-11-2	155	163	8
	CPT-12-2	163	158	-5
	CPT-13-2	115	144	29
	CPT-14-2	120	131	11
	CPT-15-2	118	127	9
	CPT-1	106	108	2
	CPT-2	102	107	5
	CPT-3	97	101	4
	CPT-4	91	109	18
	CPT-5	168	164	-4

Alignment 3	CPT-6	146	148	2
	CPT-7A	133	133	0
	CPT-8-3	145	145	0
	CPT-9-3	143	148	5
	CPT-10-3	119	146	27
	CPT-11-3	118	143	25
	CPT-12-3	118	144	26
	CPT-13-3	120	147	27
	CPT-14-3	132	150	18
	CPT-15-3	150	149	-1
	CPT-16-3	127	140	13
	CPT-17-3-OS	124	130	6
	CPT-18-3	131	128	-3
	CPT-19-3	143	126	-17
	CPT-21-3	107	127	20
	CPT-22-3	105	136	31
CPT-23-3	109	149	40	

Note: Negative embankment fill heights indicate cut depths.

## FIGURES





REFERENCE:  
 U.S.G.S. CLERMONT EAST, FLA.  
 QUADRANGLE MAP  
 DATED 2018  
 SECTIONS 2, 3, 34 & 35  
 TOWNSHIPS 22 & 23 SOUTH  
 RANGE 26 EAST



**Andreyev  
 Engineering,  
 Inc.**

PRELIMINARY GEOTECHNICAL INVESTIGATION

**PROPOSED CR 455  
 EXPANSION**

CLERMONT, LAKE COUNTY, FL

APPROXIMATE SCALE:

1" = 2000'

DATE: 02/17/21

ENGINEER: SA

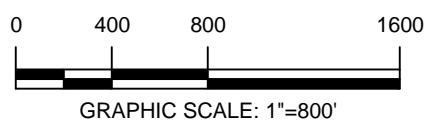
PN: GPGT-20-062

DRAWN BY: DLS

U.S.G.S. SITE VICINITY

FIGURE 1





**Andreyev  
Engineering,  
Inc.**

PRELIMINARY GEOTECHNICAL INVESTIGATION  
**PROPOSED CR 455  
EXPANSION**  
CLERMONT, LAKE COUNTY, FL

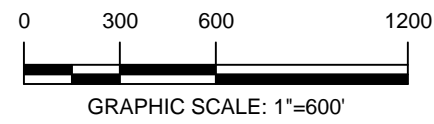
APPROXIMATE SCALE: 1"=800'	DATE: 02/17/21	ENGINEER: SA
	PN: GPGT-20-062	DRAWN BY: DLS

AERIAL VIEW OF SITE  
FIGURE 2





**LEGEND:**  
~ PROPOSED ALTERNATIVE ALIGNMENT

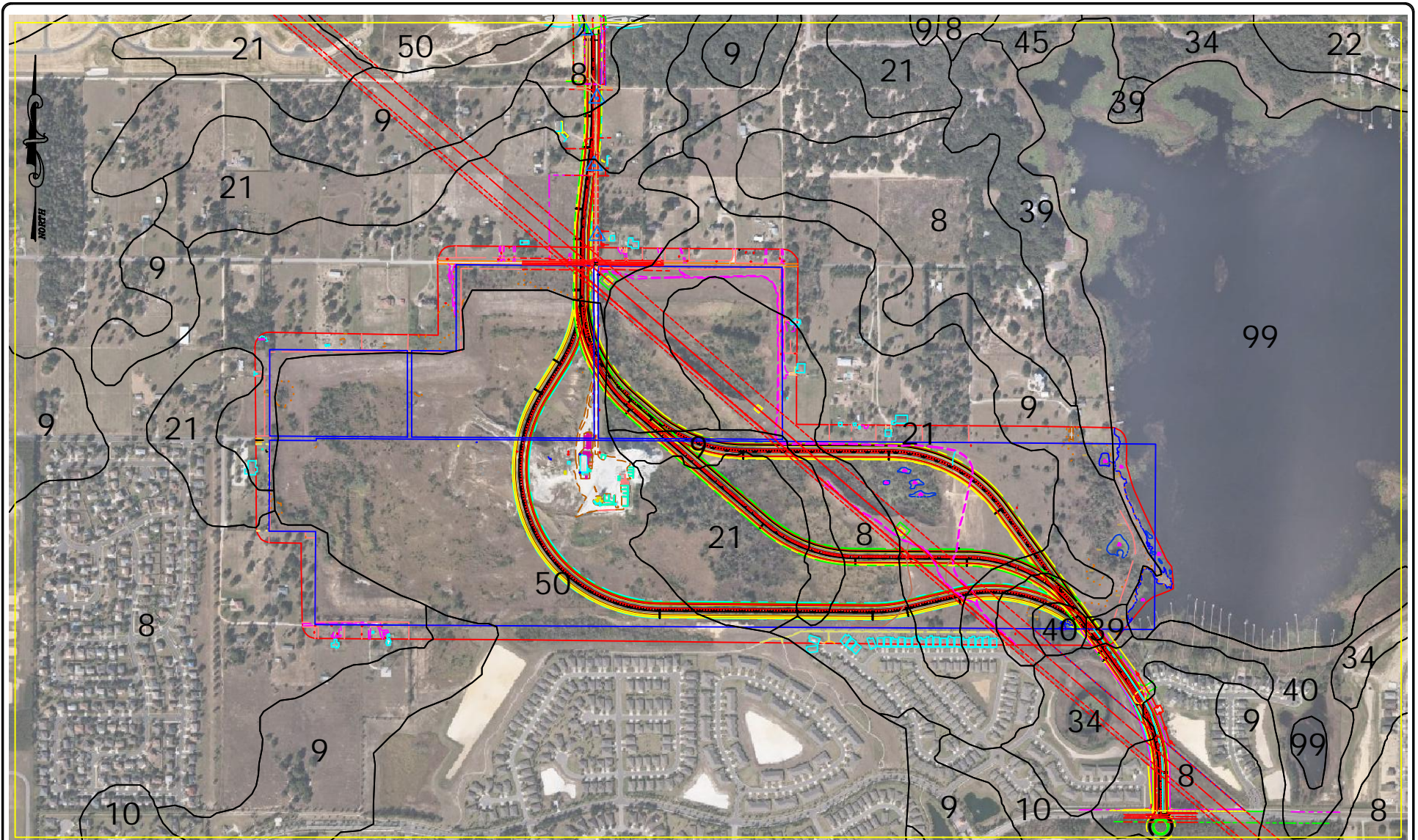


**Andreyev  
Engineering,  
Inc.**

APPROXIMATE SCALE:  
1"=600'  
DATE: 02/17/21 ENGINEER: SA  
PN: GPGT-20-062 DRAWN BY: DLS

PRELIMINARY GEOTECHNICAL INVESTIGATION  
**PROPOSED CR 455  
EXPANSION**  
CLERMONT, LAKE COUNTY, FL  
PROPOSED LOCATION OF 3  
ALTERNATIVE ALIGNMENTS  
FIGURE 3





**LEGEND:**

- 8 CANDLER SAND, 0 TO 5% SLOPES
- 9 CANDLER SAND, 5 TO 12% SLOPES
- 21 LAKE SAND, 0 TO 5% SLOPES
- 34 ORLANDO FINE SAND, 0 TO 5% SLOPES
- 40 PLACID & MYAKKA SAND, DEPRESSIONAL
- 50 BORROW PITS

**REFERENCE:**

U.S.D.A. N.R.C.S. WEB SOIL SURVEY



**Andreyev  
Engineering,  
Inc.**

PRELIMINARY GEOTECHNICAL INVESTIGATION

**PROPOSED CR 455  
EXPANSION**

CLERMONT, LAKE COUNTY, FL

APPROXIMATE SCALE:

1"=1000'

DATE: 02/17/21

ENGINEER: SA

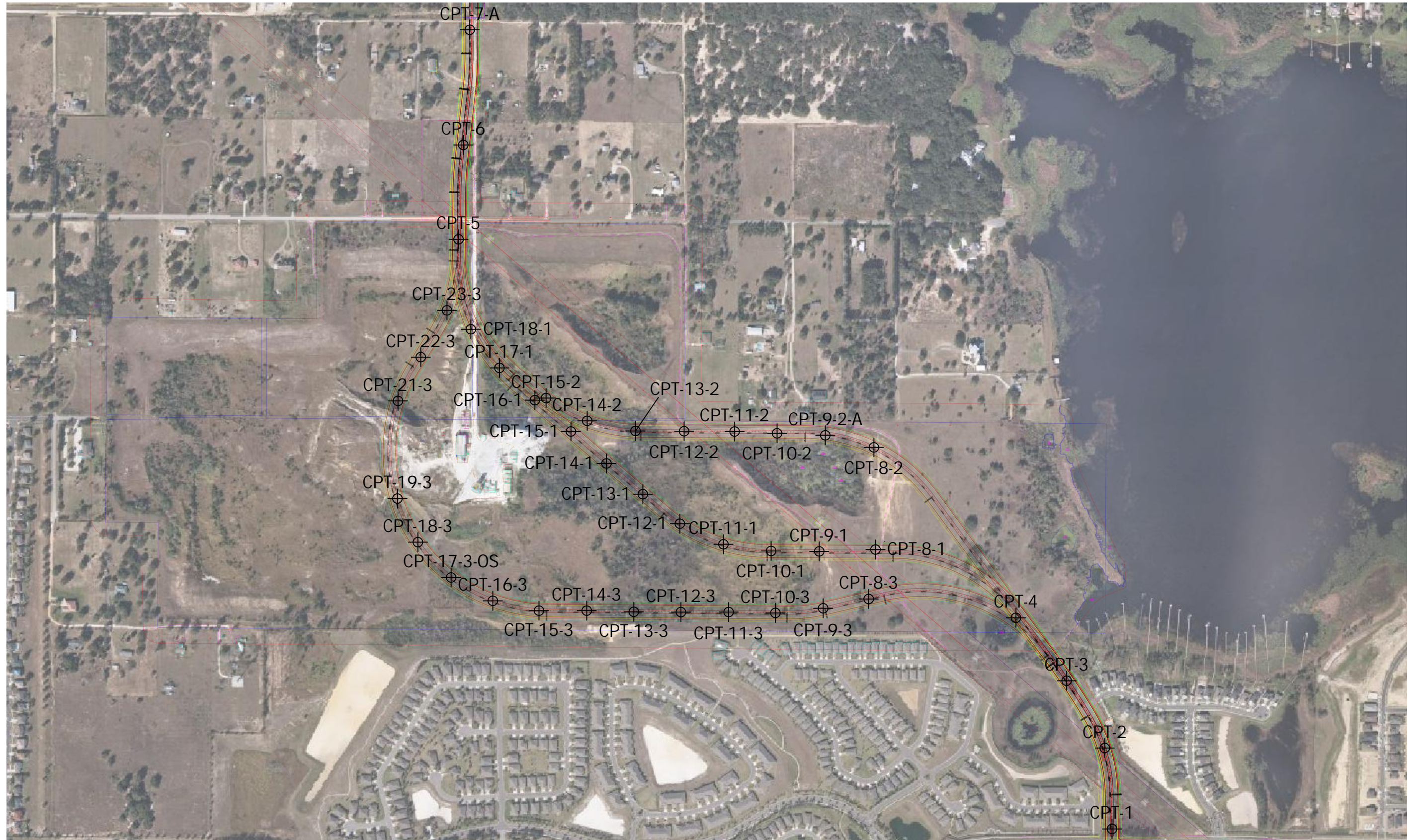
PN: GPGT-20-062

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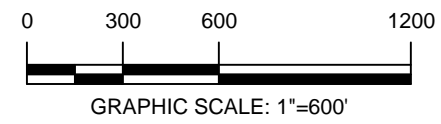
N.R.C.S. SOIL SURVEY MAP

FIGURE 4





**LEGEND:**  
⊕ APPROXIMATE CPT SOUNDING LOCATION



APPROXIMATE SCALE:  
1"=600'  
DATE: 02/17/21  
ENGINEER: SA  
PN: GPGT-20-062  
DRAWN BY: DLS

PRELIMINARY GEOTECHNICAL INVESTIGATION  
**PROPOSED CR 455  
EXPANSION**  
CLERMONT, LAKE COUNTY, FL

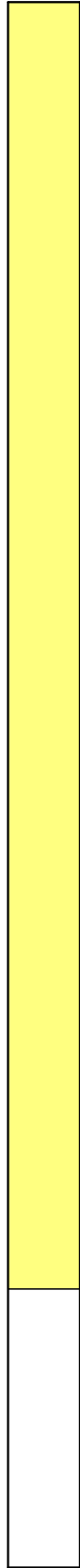
CPT SOUNDING LOCATION MAP

FIGURE 5

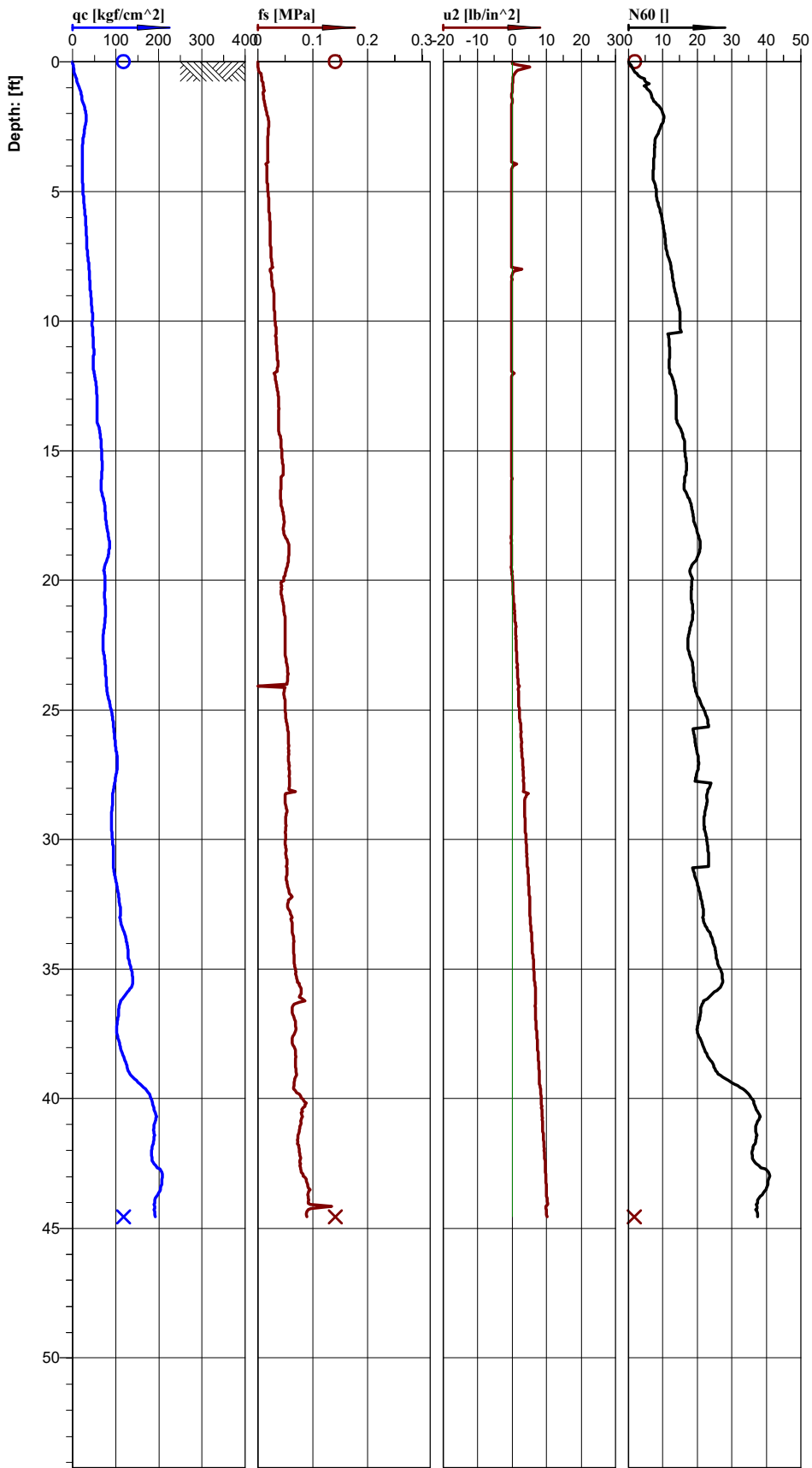


## APPENDIX A

Classification by  
Robertson 1990

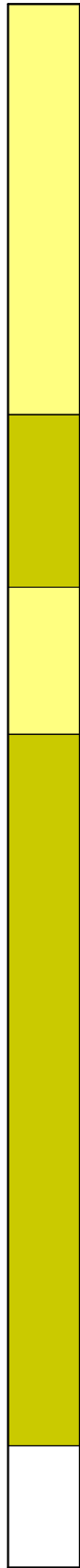


Sands; clean sand to silty sand (6)



Location:	CPT-1	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/18/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-1.cpd		

Classification by  
Robertson 1990

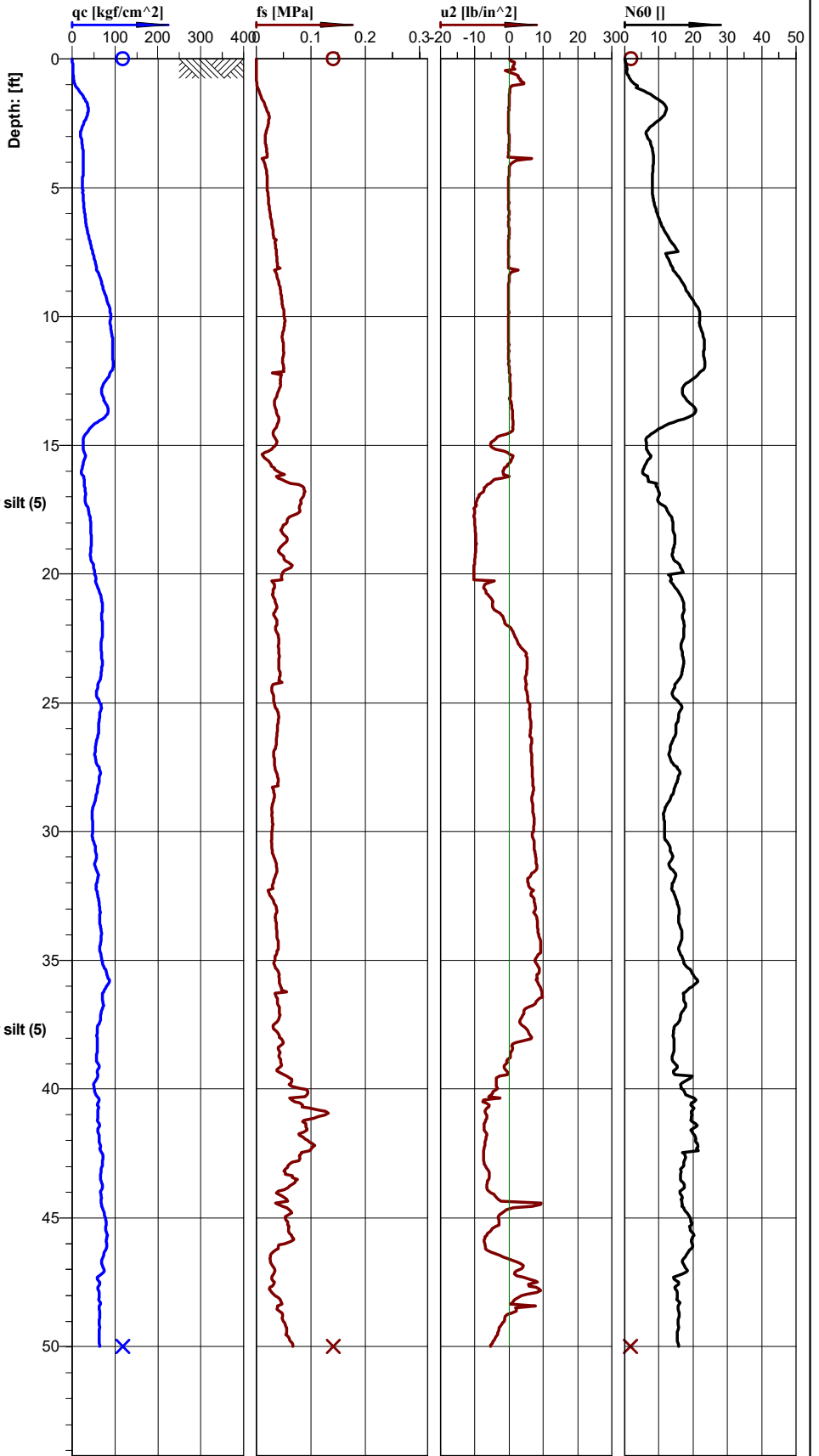


Sands; clean sand to silty sand (6)

Sand mixtures; silty sand to sandy silt (5)

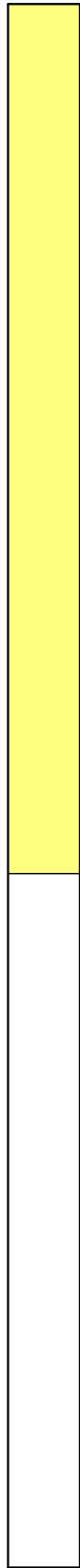
Sands; clean sand to silty sand (6)

Sand mixtures; silty sand to sandy silt (5)

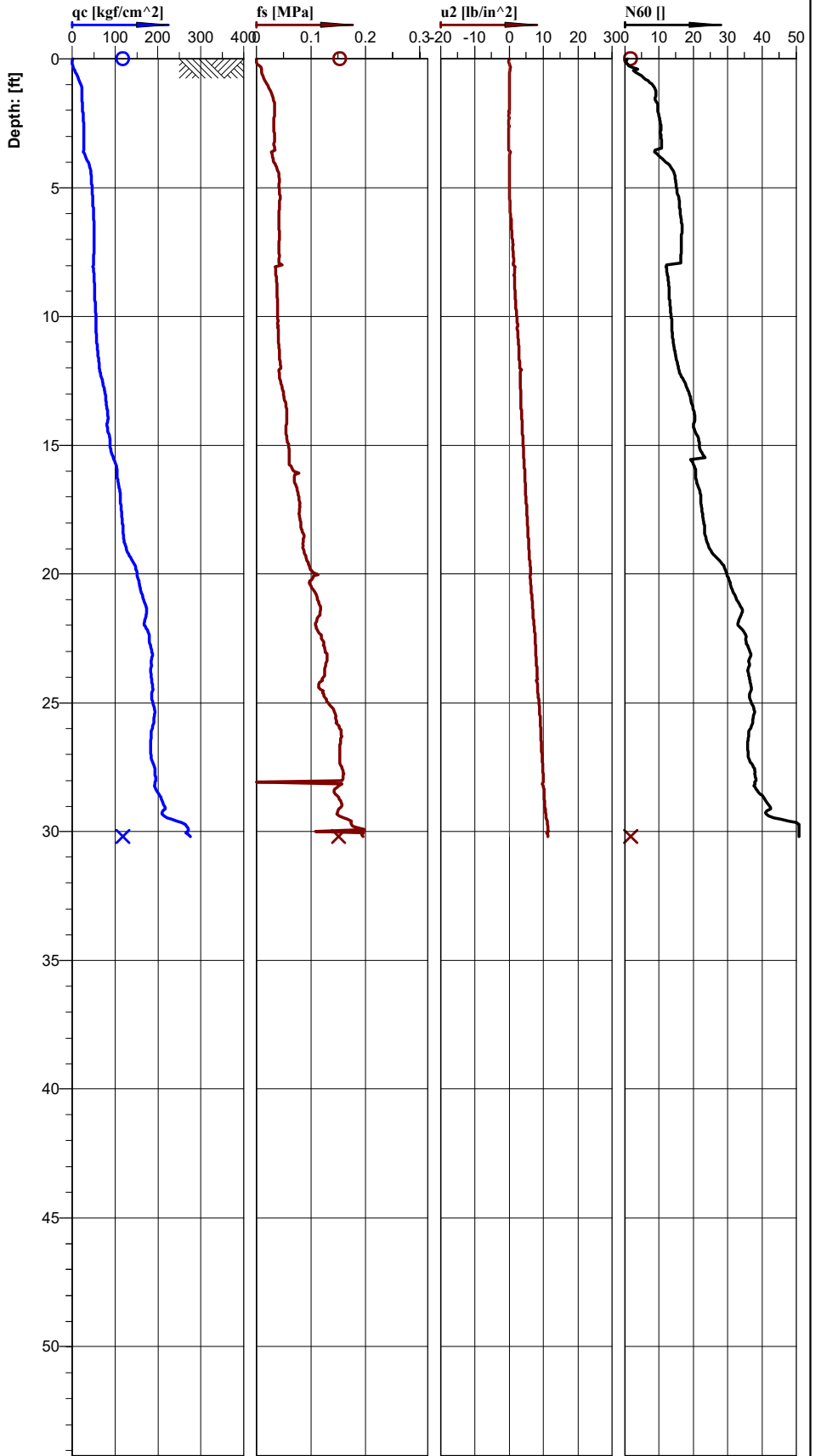


Location:	CPT-2	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/18/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
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Classification by  
Robertson 1990



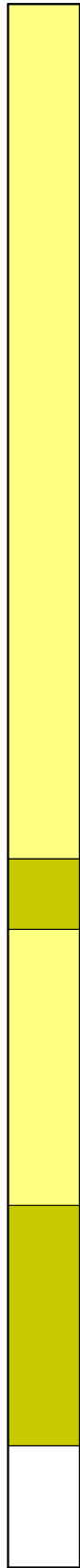
Sands; clean sand to silty sand (6)



Location:	CPT-3	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/25/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
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Classification by  
Robertson 1990

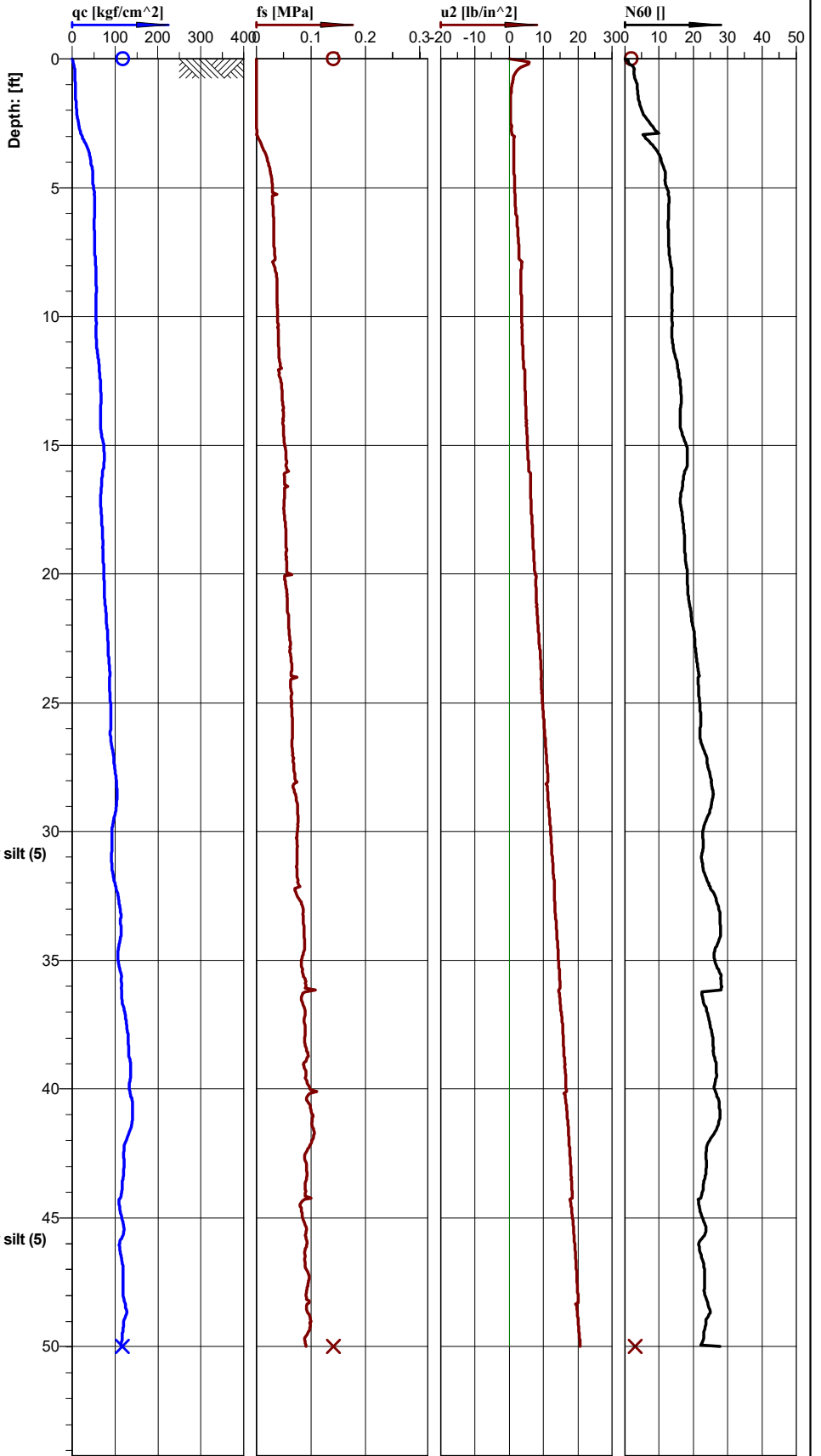


Sands; clean sand to silty sand (6)

Sand mixtures; silty sand to sandy silt (5)

Sands; clean sand to silty sand (6)

Sand mixtures; silty sand to sandy silt (5)



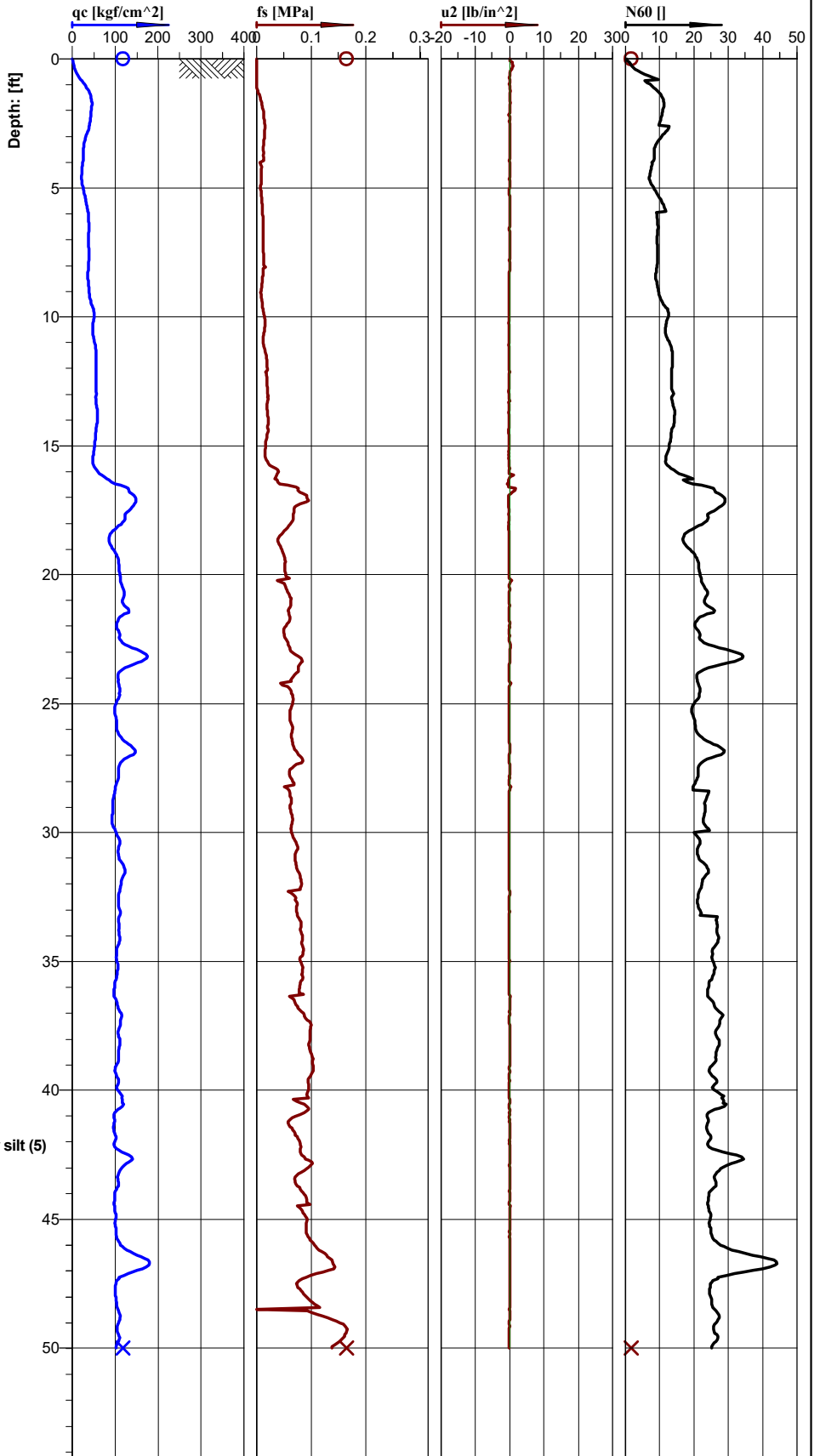
Location:	CPT-4	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/18/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-4.cpt		

Classification by  
Robertson 1990

Sands; clean sand to silty sand (6)  
Gravelly sand to sand (7)

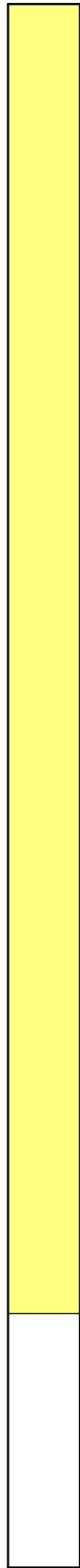
Sands; clean sand to silty sand (6)

Sand mixtures; silty sand to sandy silt (5)

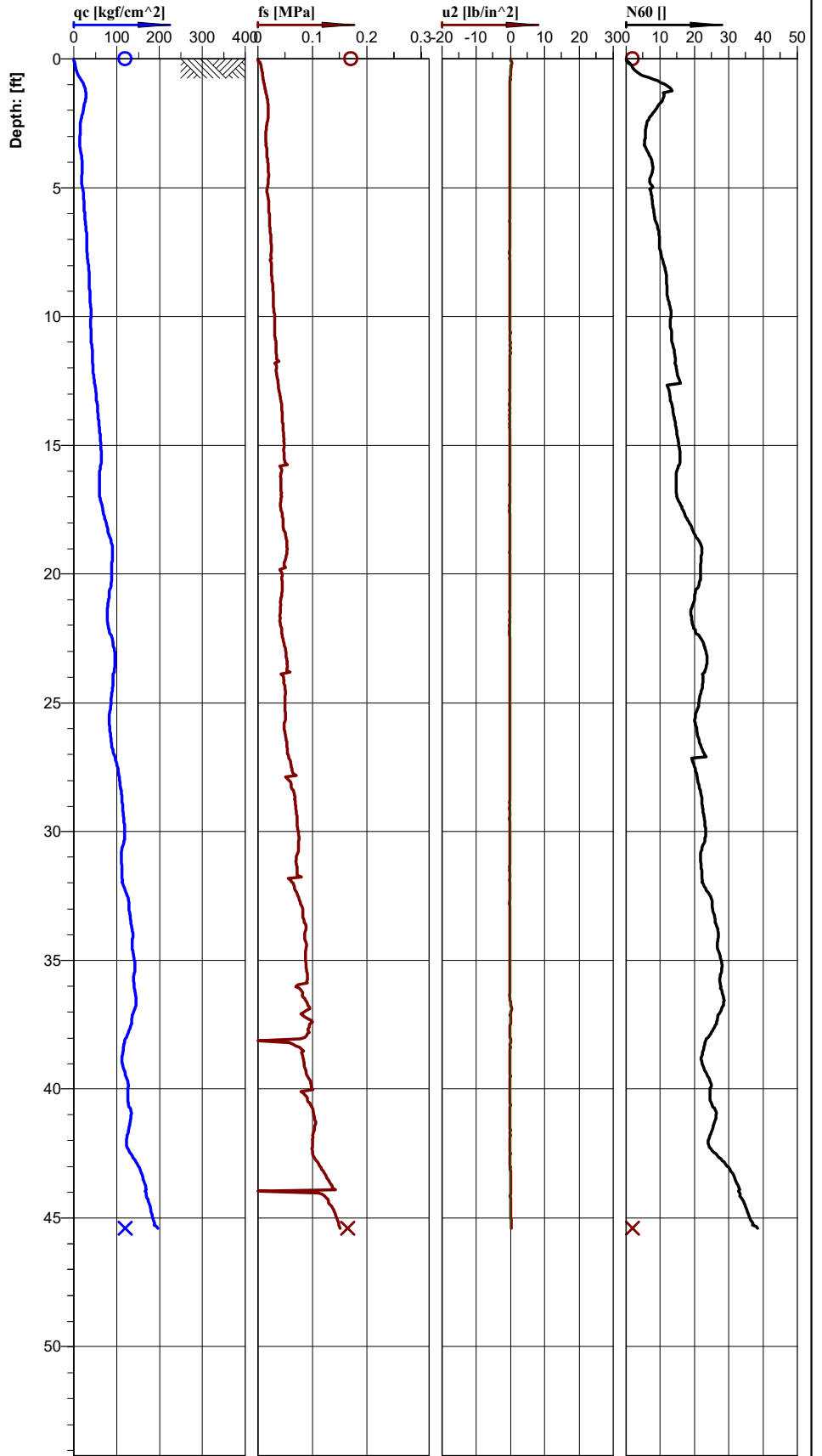


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Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-5.cpt		

Classification by  
Robertson 1990

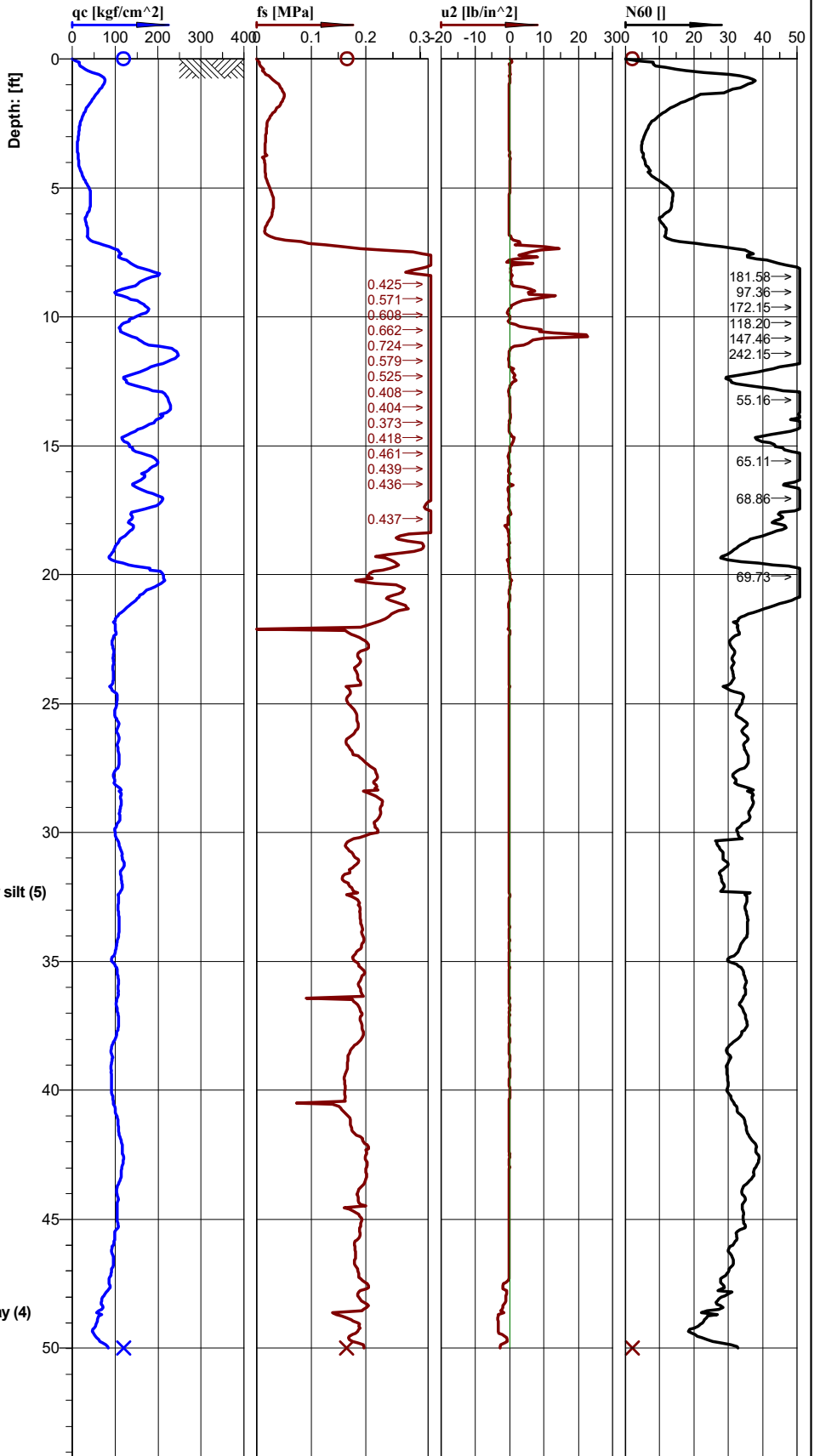


Sands; clean sand to silty sand (6)



Location:	CPT-6	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/27/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
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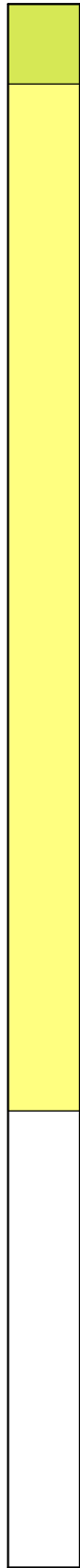
Classification by  
Robertson 1990



Location:	CPT-7	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/28/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
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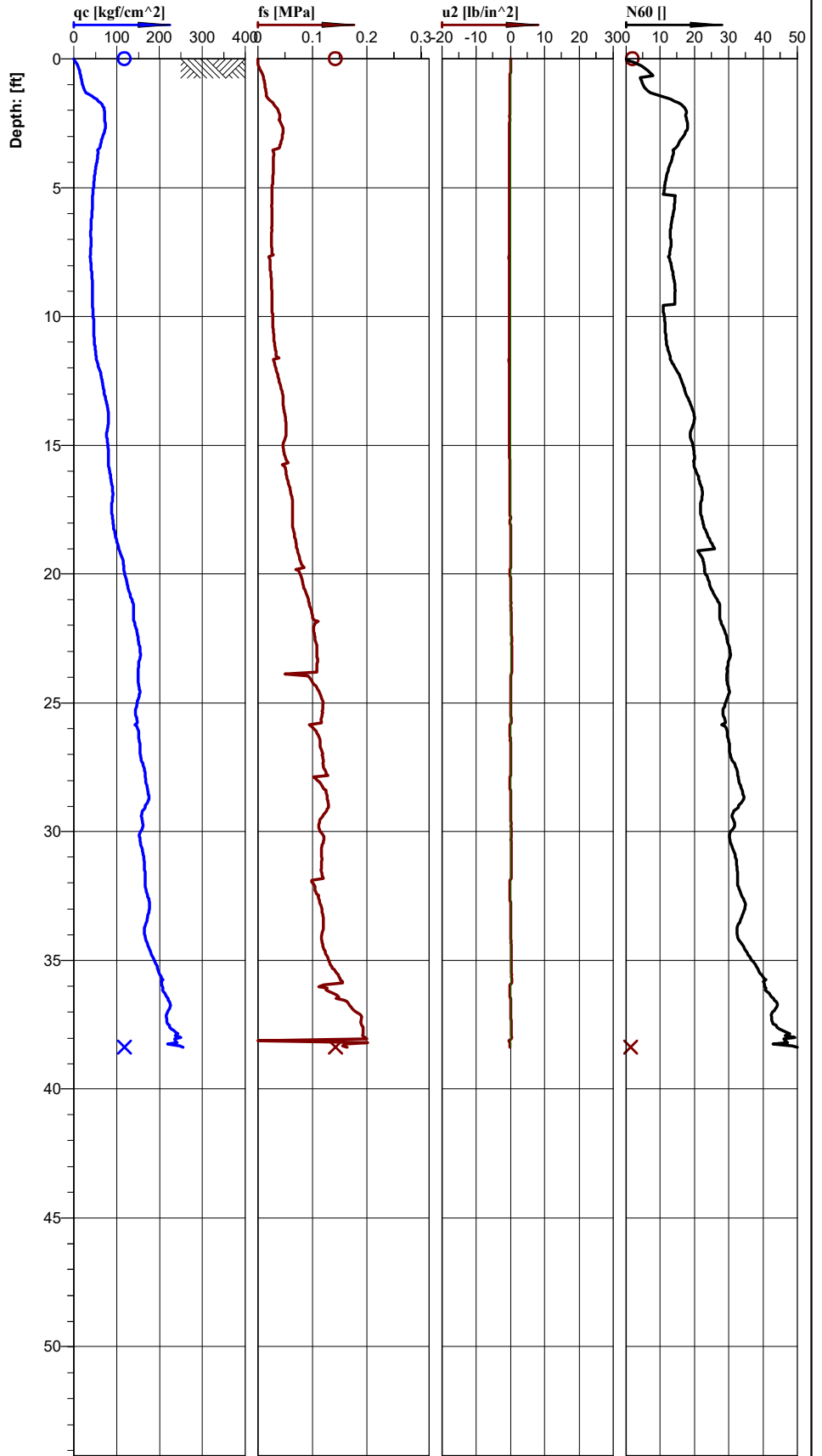


Classification by  
Robertson 1990



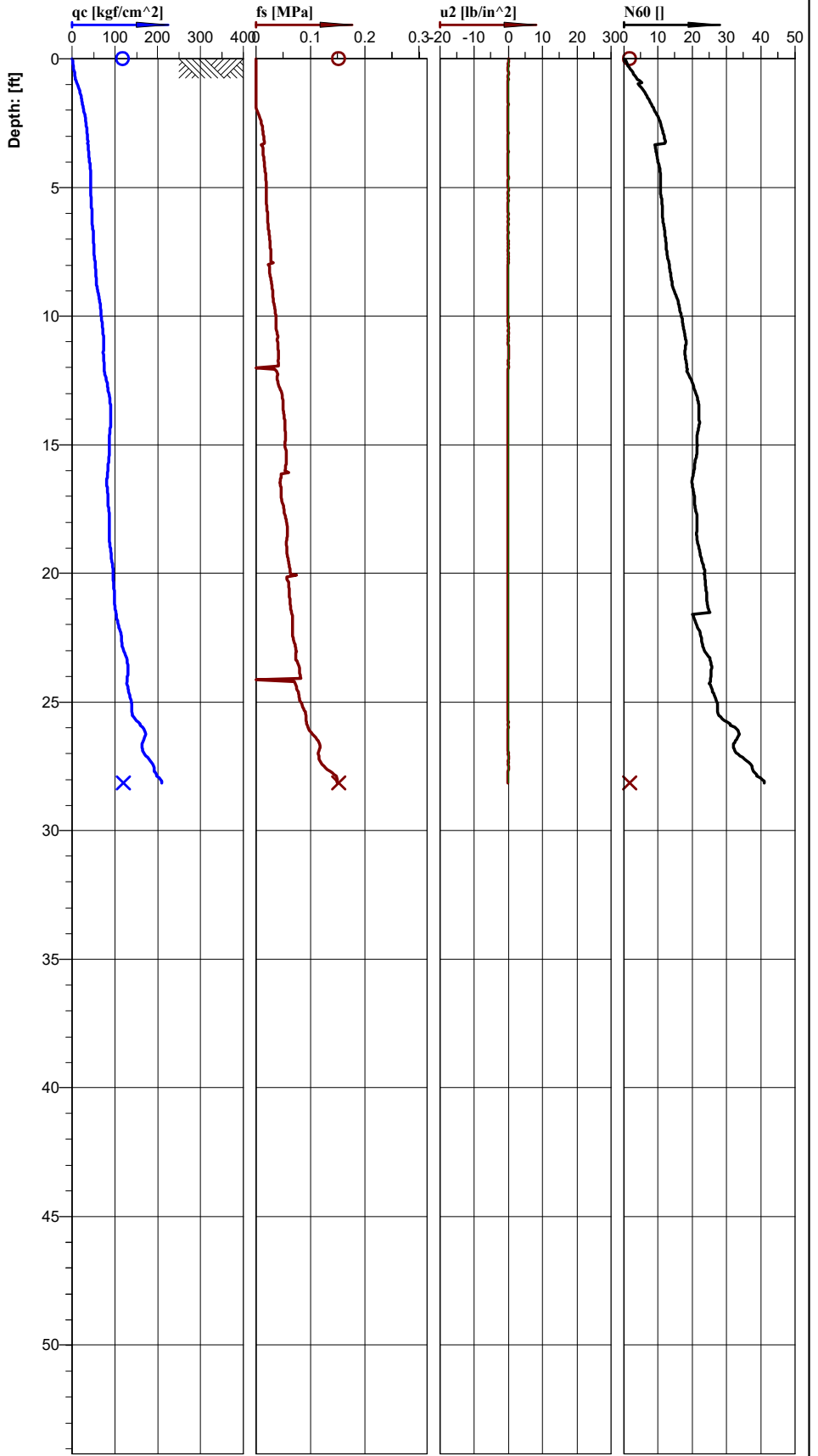
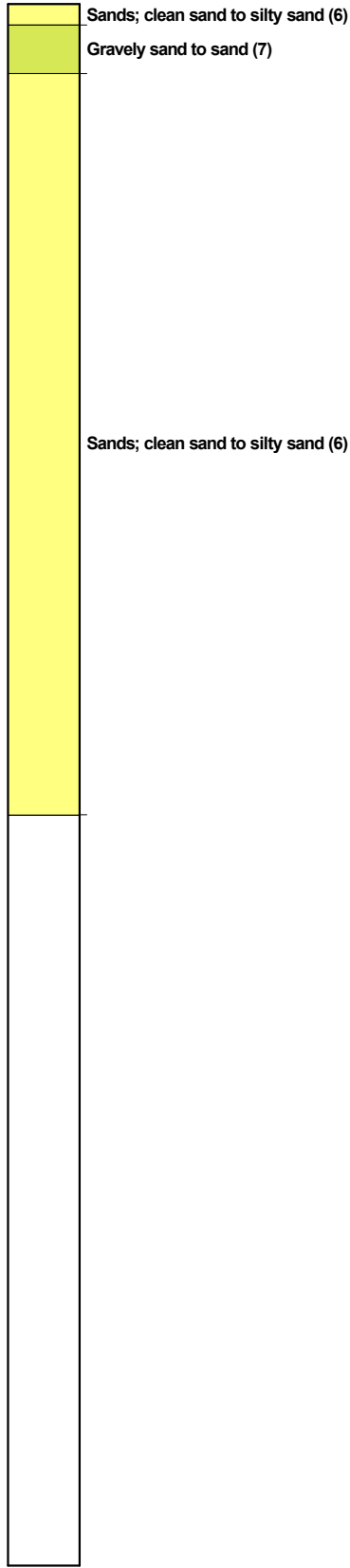
Gravelly sand to sand (7)

Sands; clean sand to silty sand (6)



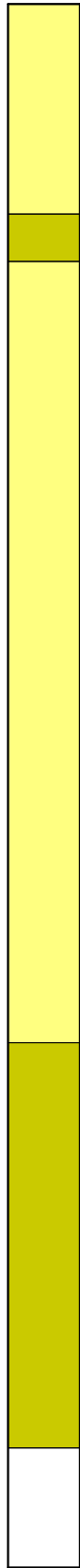
Location:	CPT-8-1	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/18/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-8-1.cpt		

Classification by  
Robertson 1990



Location:	CPT-8-2	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/22/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-8-2.cpt		

Classification by  
Robertson 1990

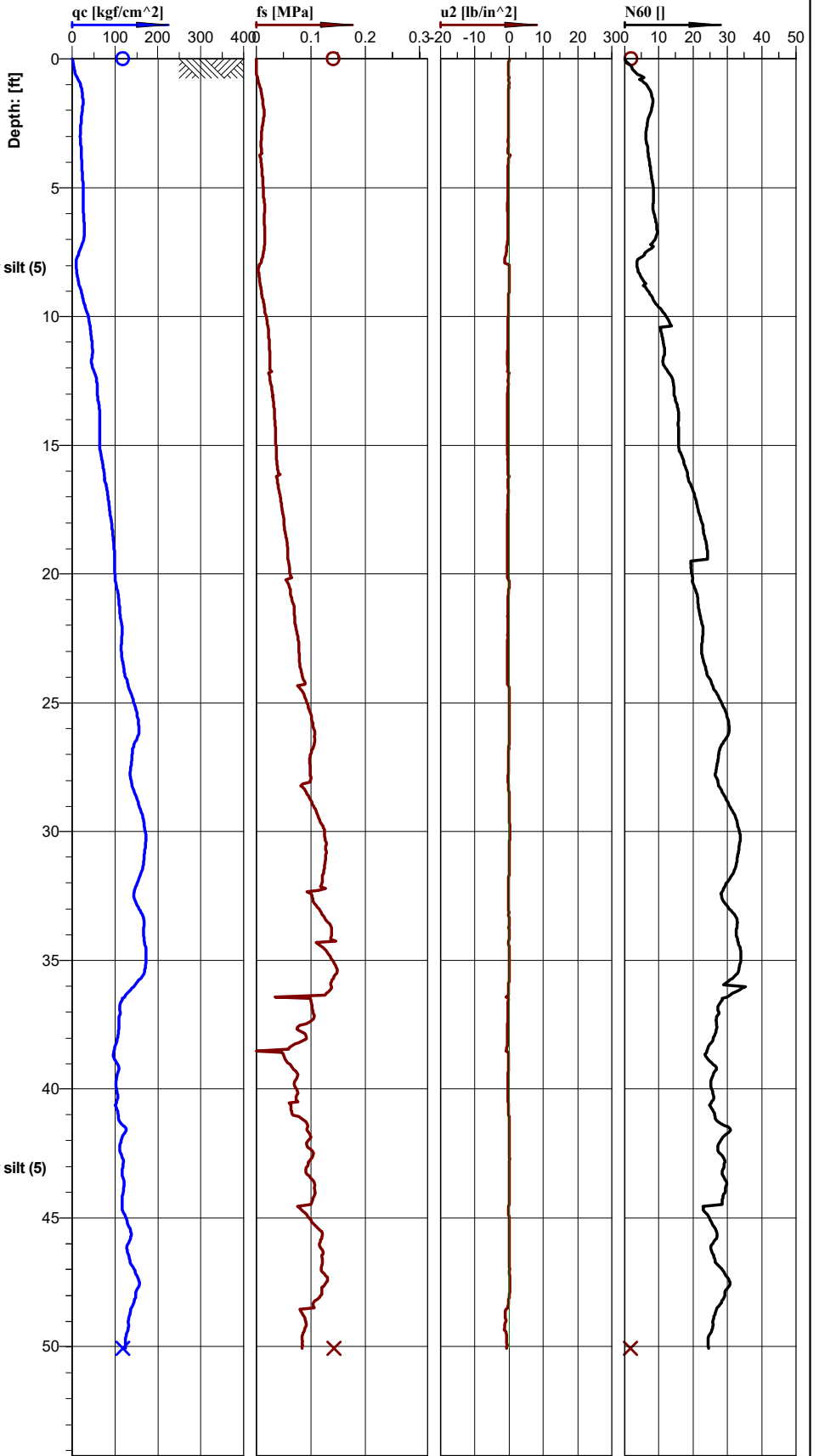


Sands; clean sand to silty sand (6)

Sand mixtures; silty sand to sandy silt (5)

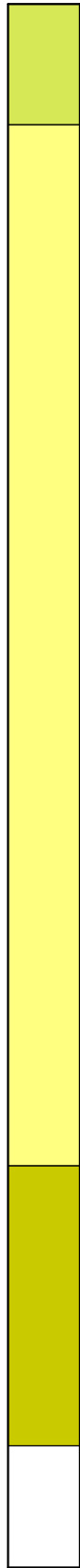
Sands; clean sand to silty sand (6)

Sand mixtures; silty sand to sandy silt (5)



Location:	CPT-8-3	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/18/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-8-3.cpt		

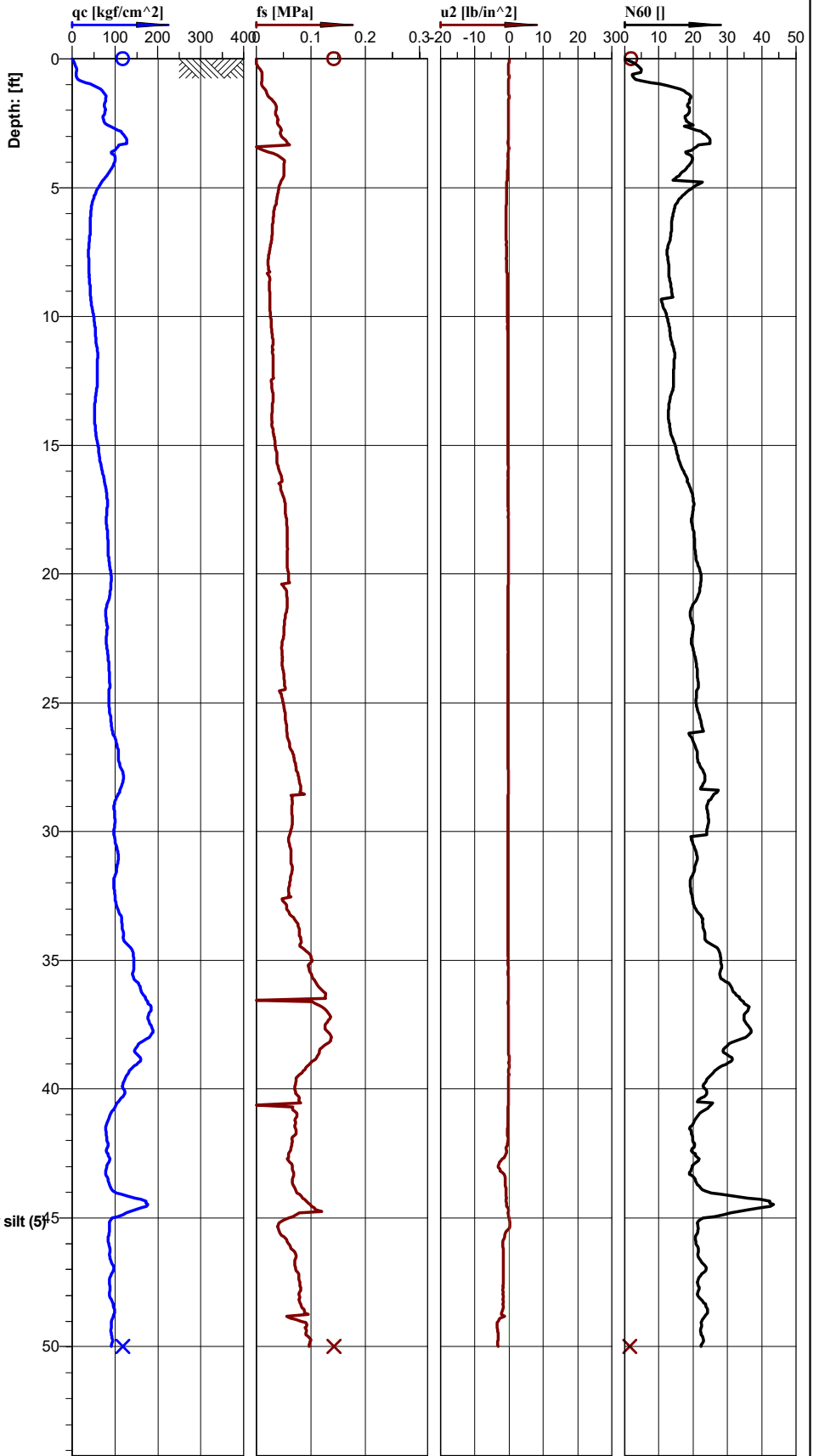
Classification by  
Robertson 1990



Gravelly sand to sand (7)

Sands; clean sand to silty sand (6)

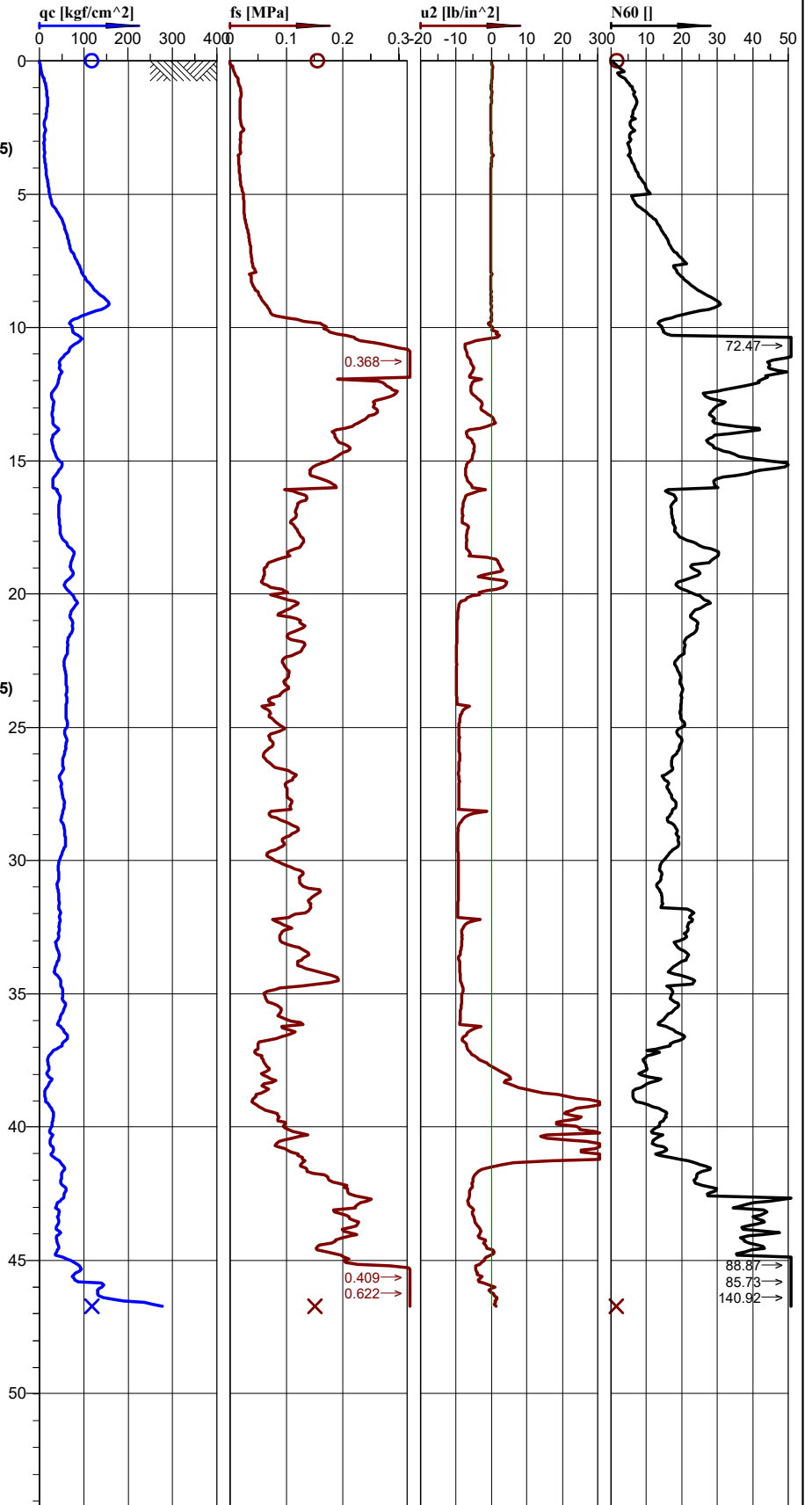
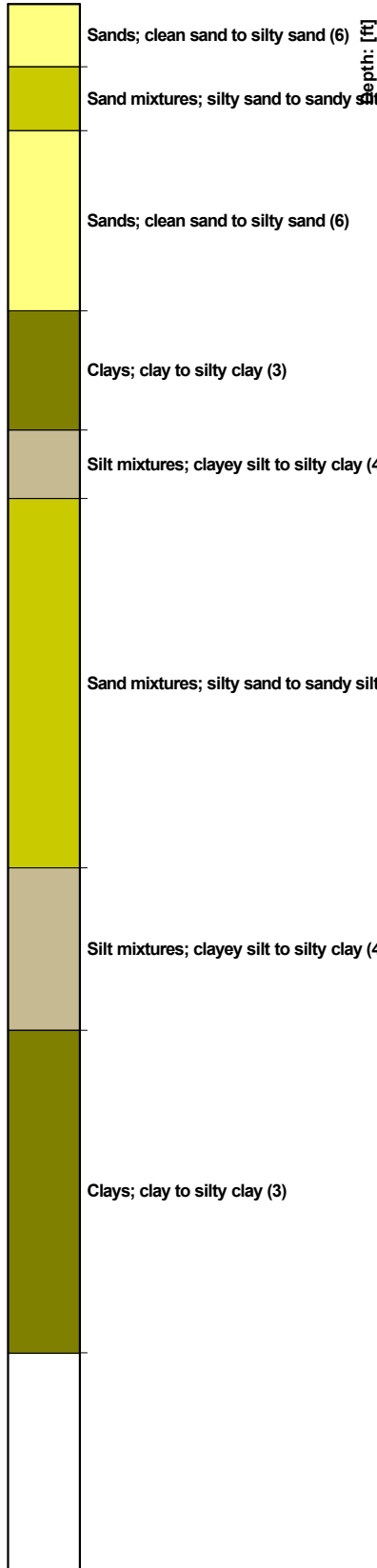
Sand mixtures; silty sand to sandy silt (5)



Location:	CPT-9-1	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/18/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-9-1.cpt		

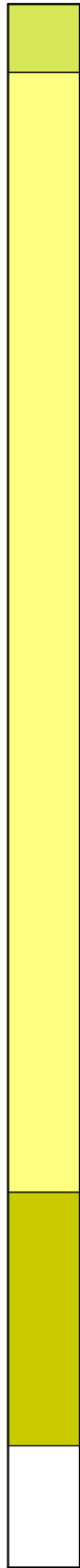


Classification by  
Robertson 1990



Location:	CPT-9-2	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/25/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
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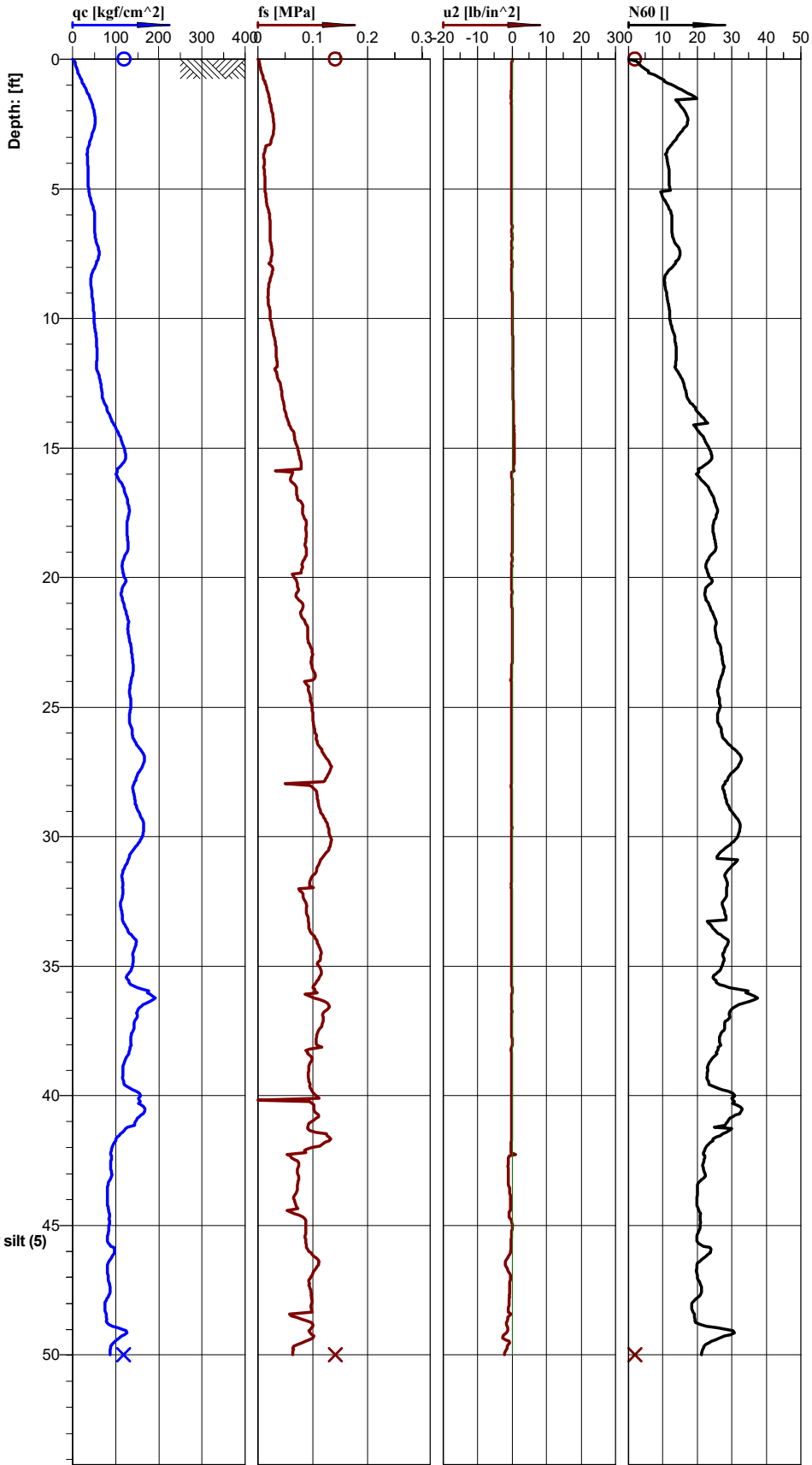
Classification by  
Robertson 1990



Gravelly sand to sand (7)

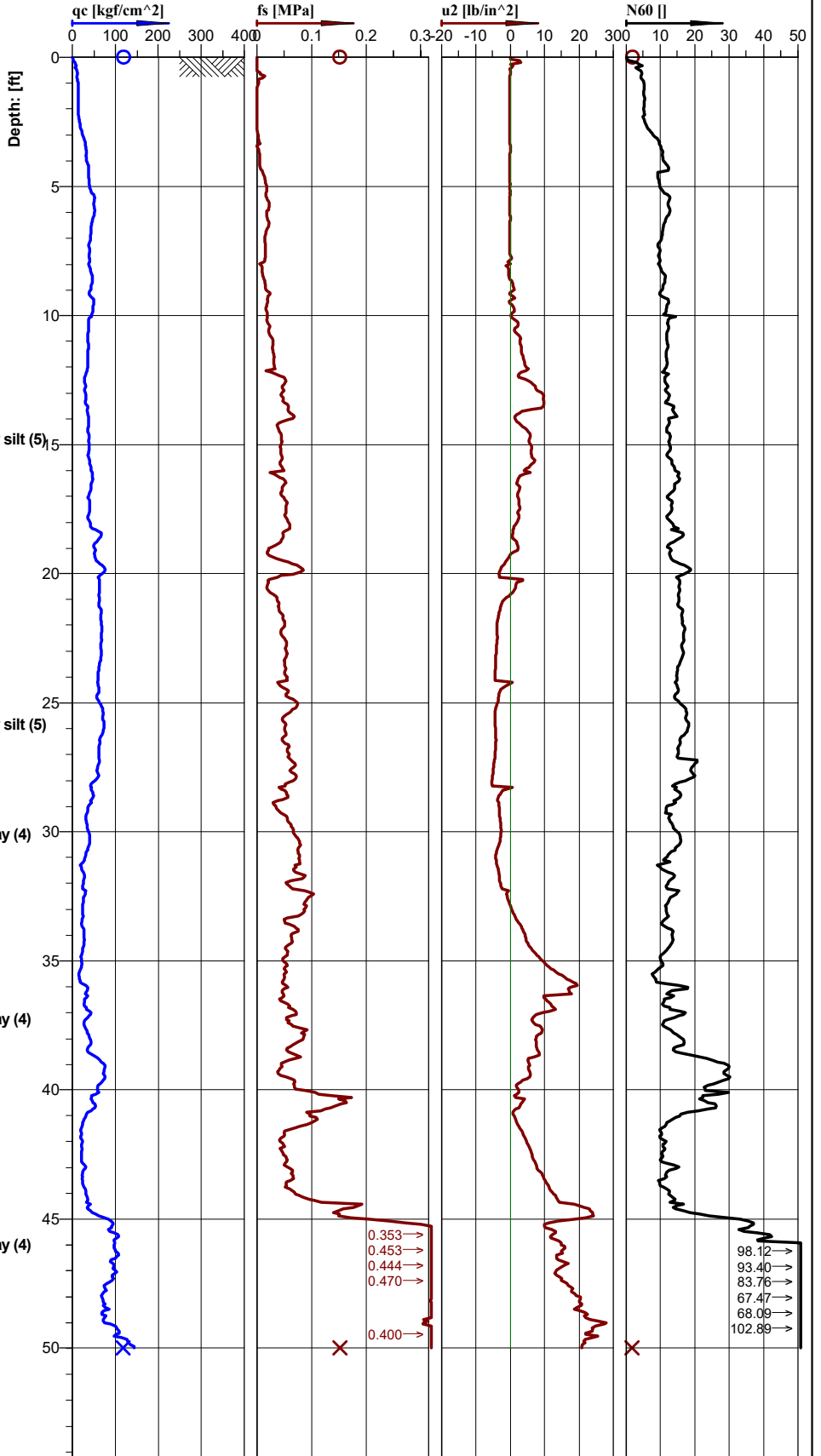
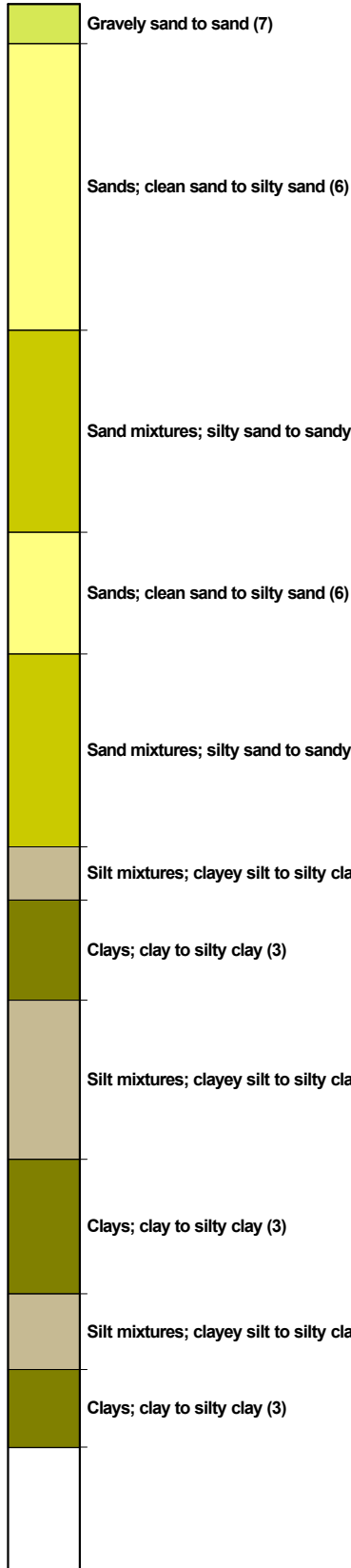
Sands; clean sand to silty sand (6)

Sand mixtures; silty sand to sandy silt (5)



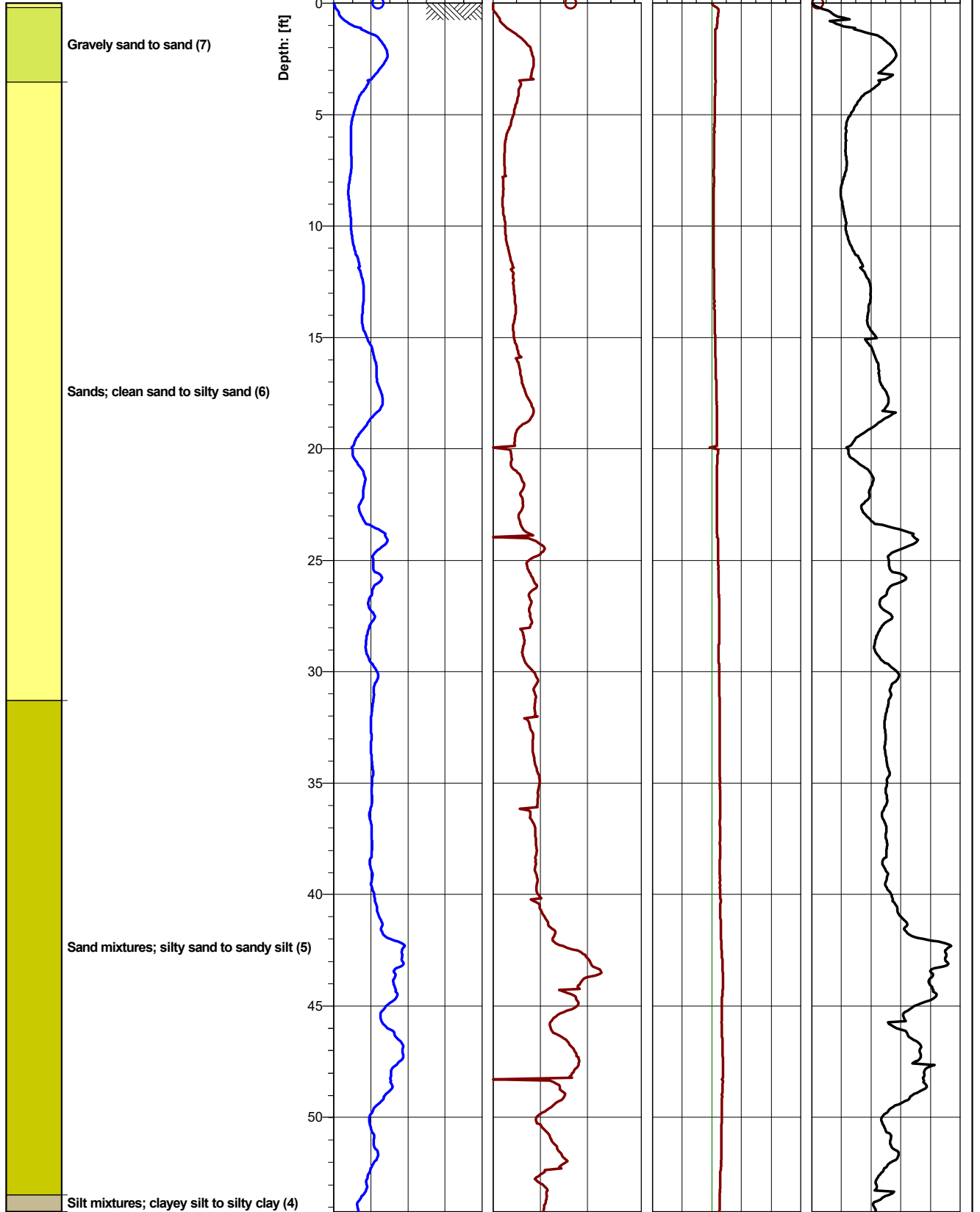
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Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/19/2021	Scale:	1 : 76
Project:	CPT-9-3			Page:	1/1	Fig.:	
				File:	CPT-9-3.cpt		

Classification by  
Robertson 1990



Location:	CPT-10-1	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/22/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-10-1.cpt		

Classification by  
Robertson 1990



Location:	CPT-10-2	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/28/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/2	Fig.:	
				File:	CPT-10-2.cpt		



Classification by  
Robertson 1990

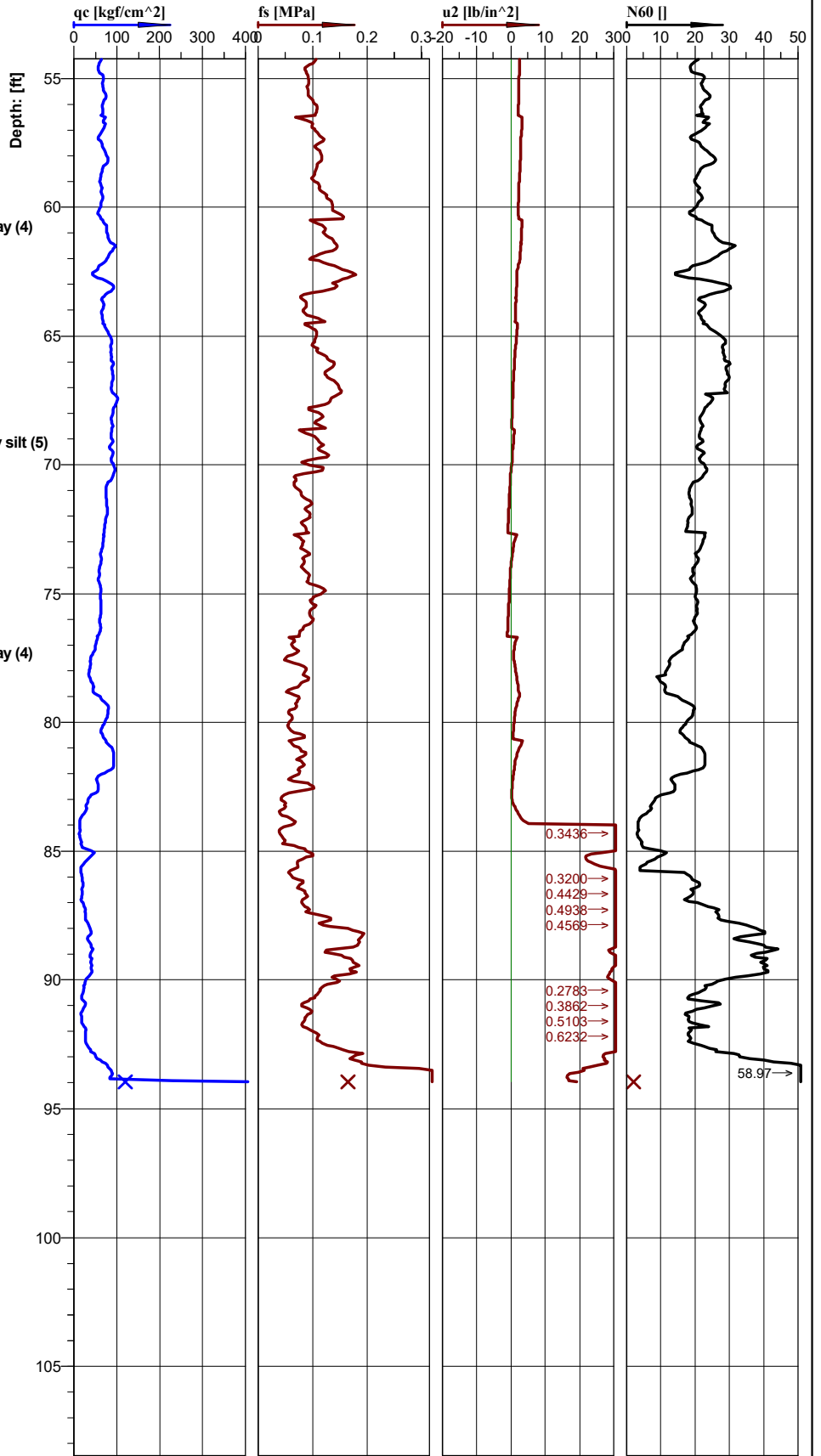


Silt mixtures; clayey silt to silty clay (4)

Sand mixtures; silty sand to sandy silt (5)

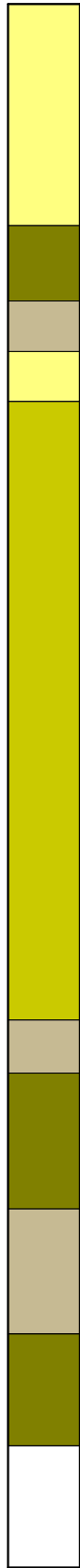
Silt mixtures; clayey silt to silty clay (4)

Clays; clay to silty clay (3)



Location:	CPT-10-2	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/28/2021	Scale:	1 : 76
Project:	CR 455			Page:	2/2	Fig.:	
				File:	CPT-10-2.cpt		

Classification by  
Robertson 1990



Sands; clean sand to silty sand (6)

Clays; clay to silty clay (3)

Silt mixtures; clayey silt to silty clay (4)

Sands; clean sand to silty sand (6)

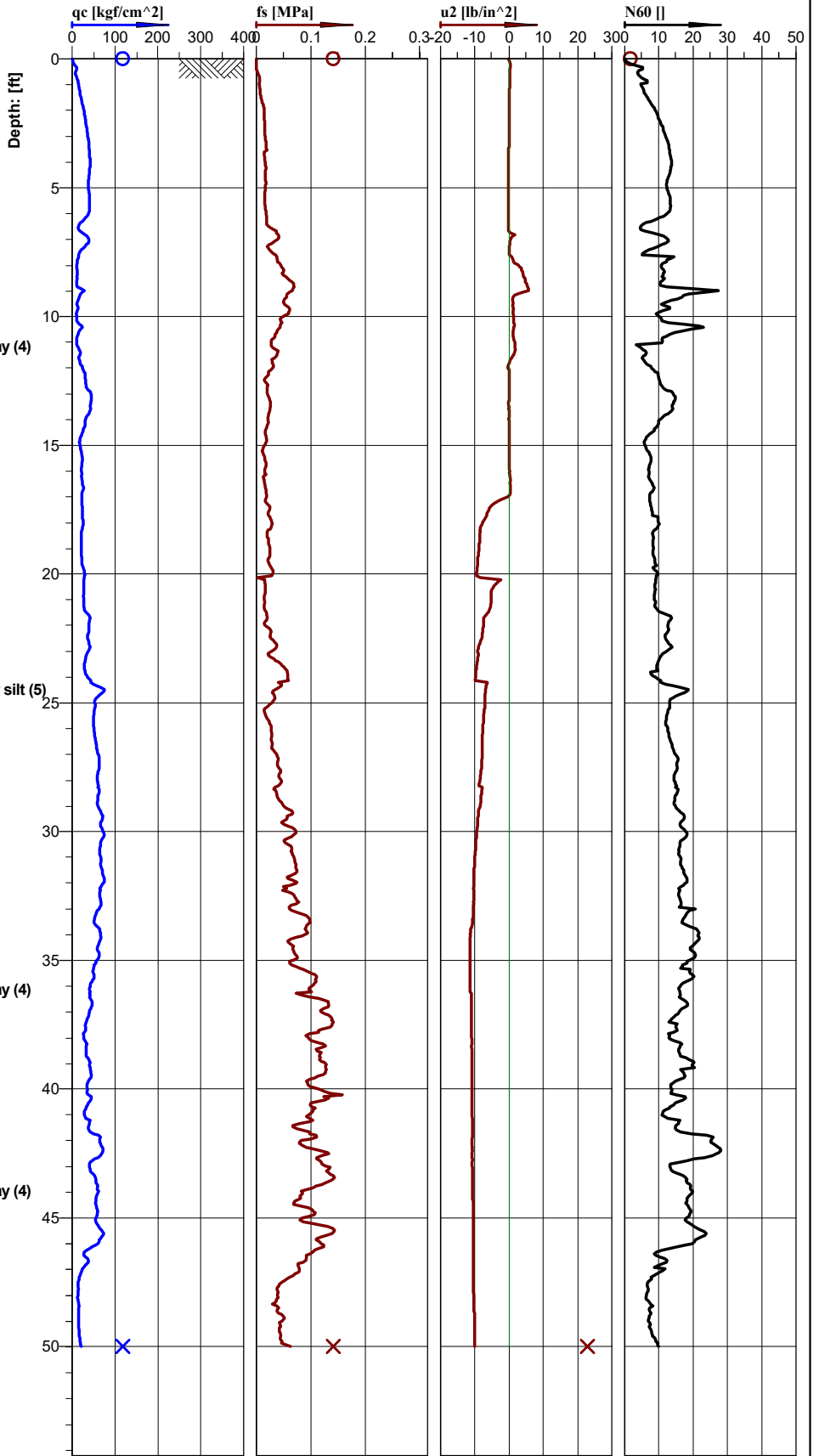
Sand mixtures; silty sand to sandy silt (5)

Silt mixtures; clayey silt to silty clay (4)

Clays; clay to silty clay (3)

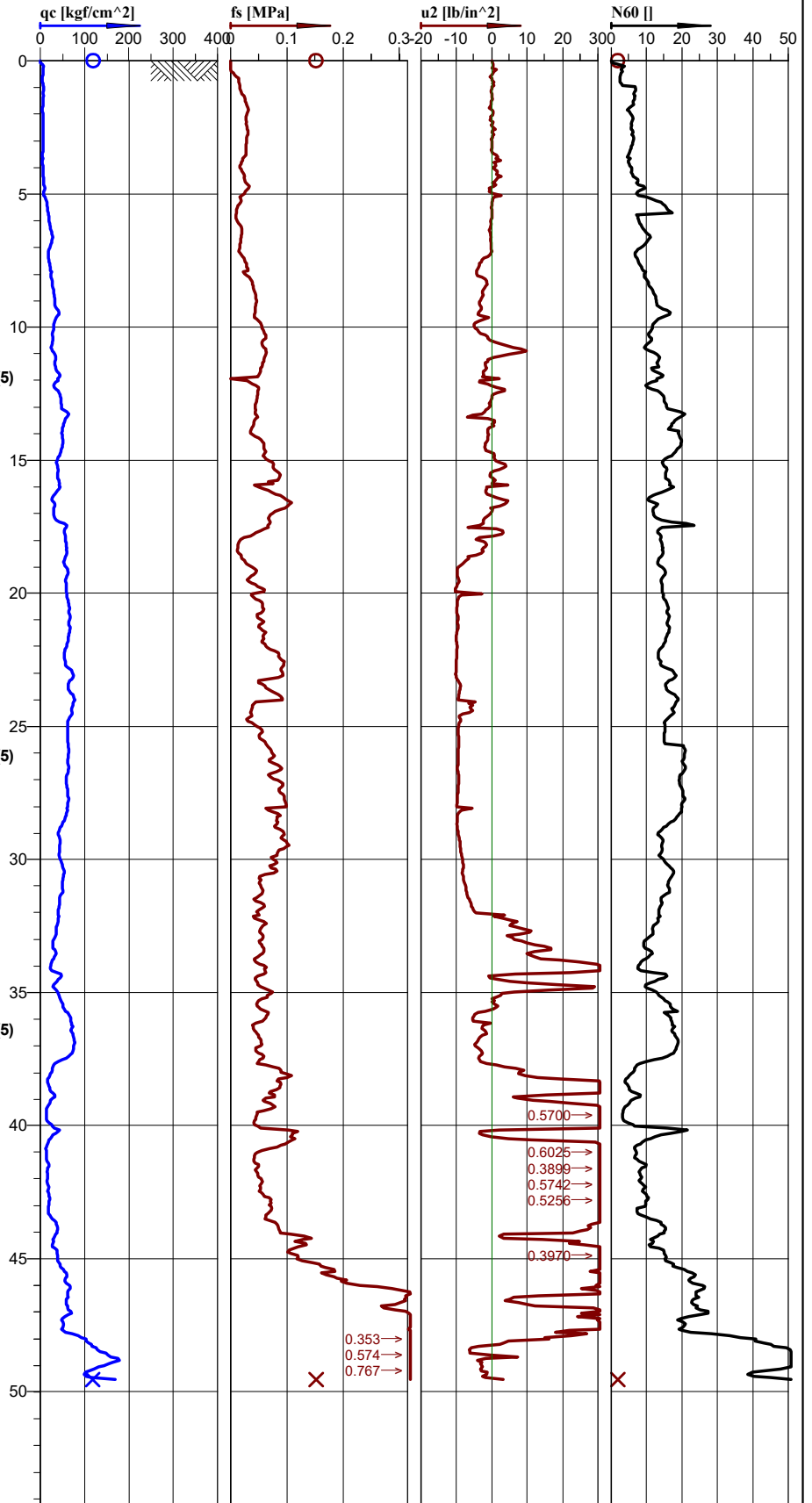
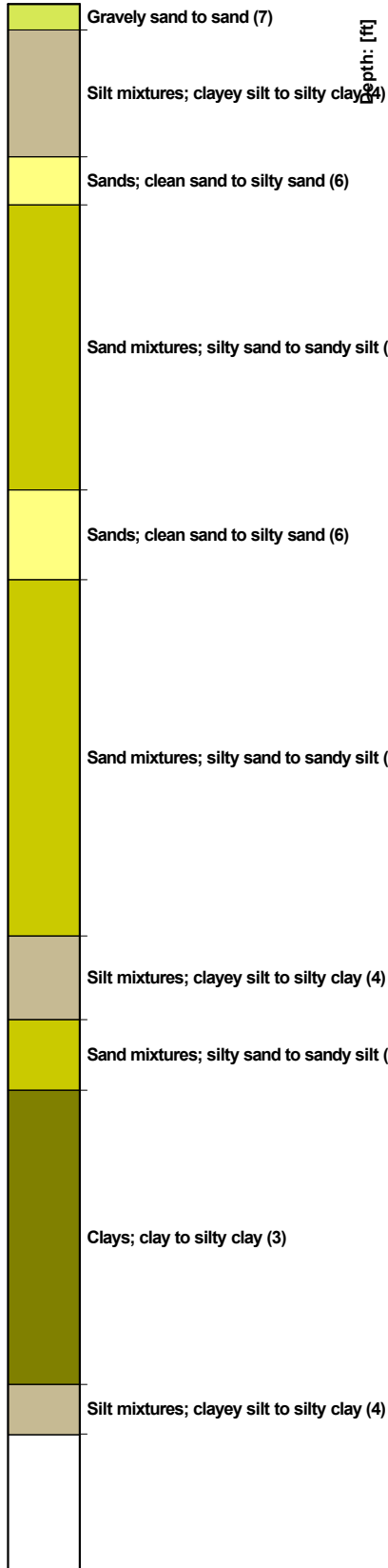
Silt mixtures; clayey silt to silty clay (4)

Clays; clay to silty clay (3)



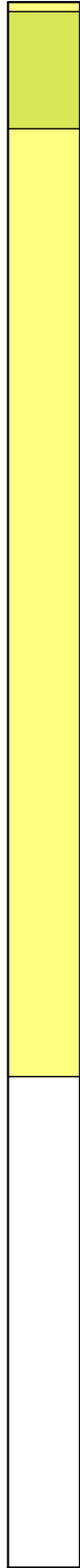
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Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/19/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-10-3.cpt		

Classification by  
Robertson 1990



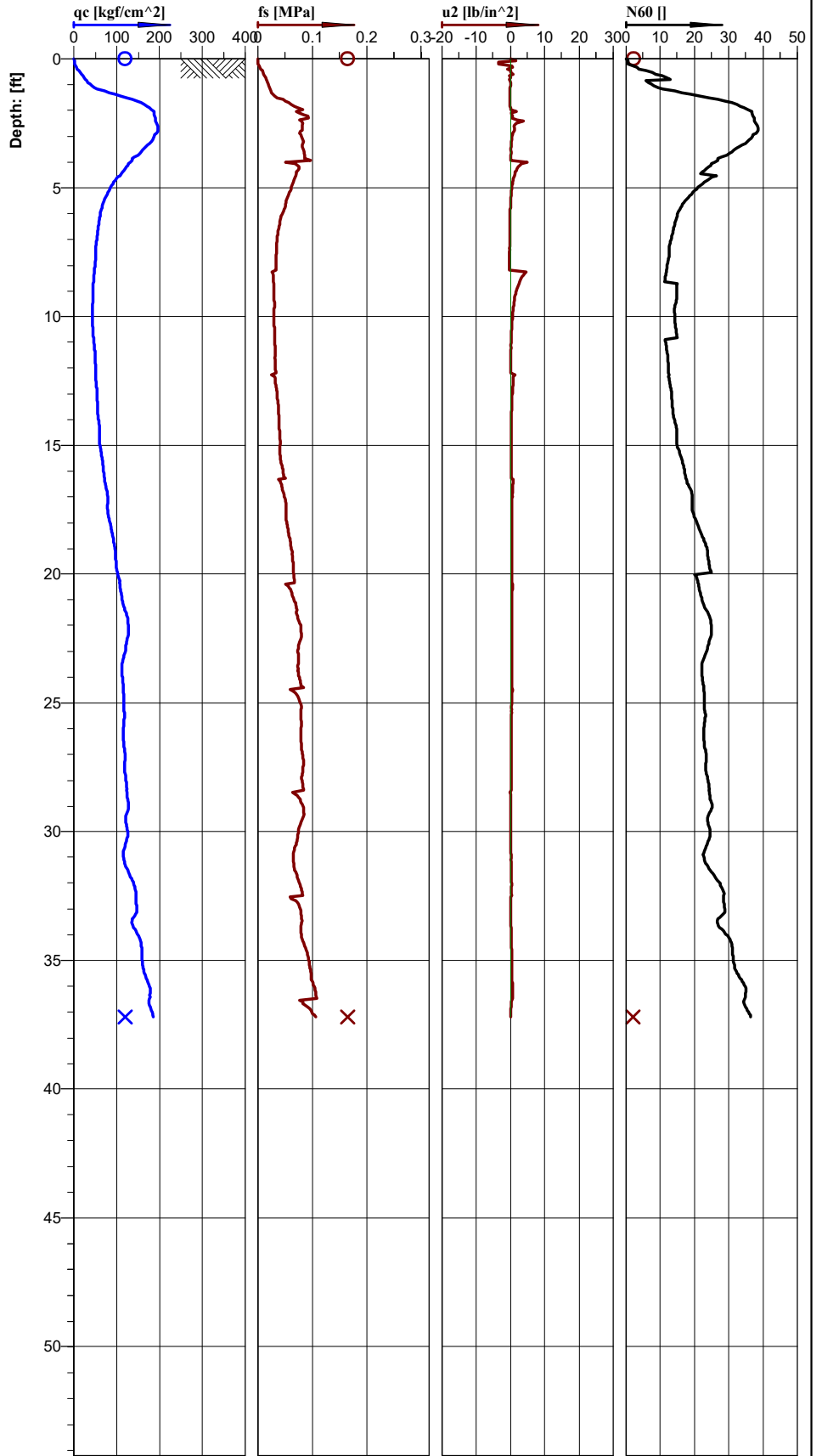
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Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/22/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-11-1.cpt		

Classification by  
Robertson 1990



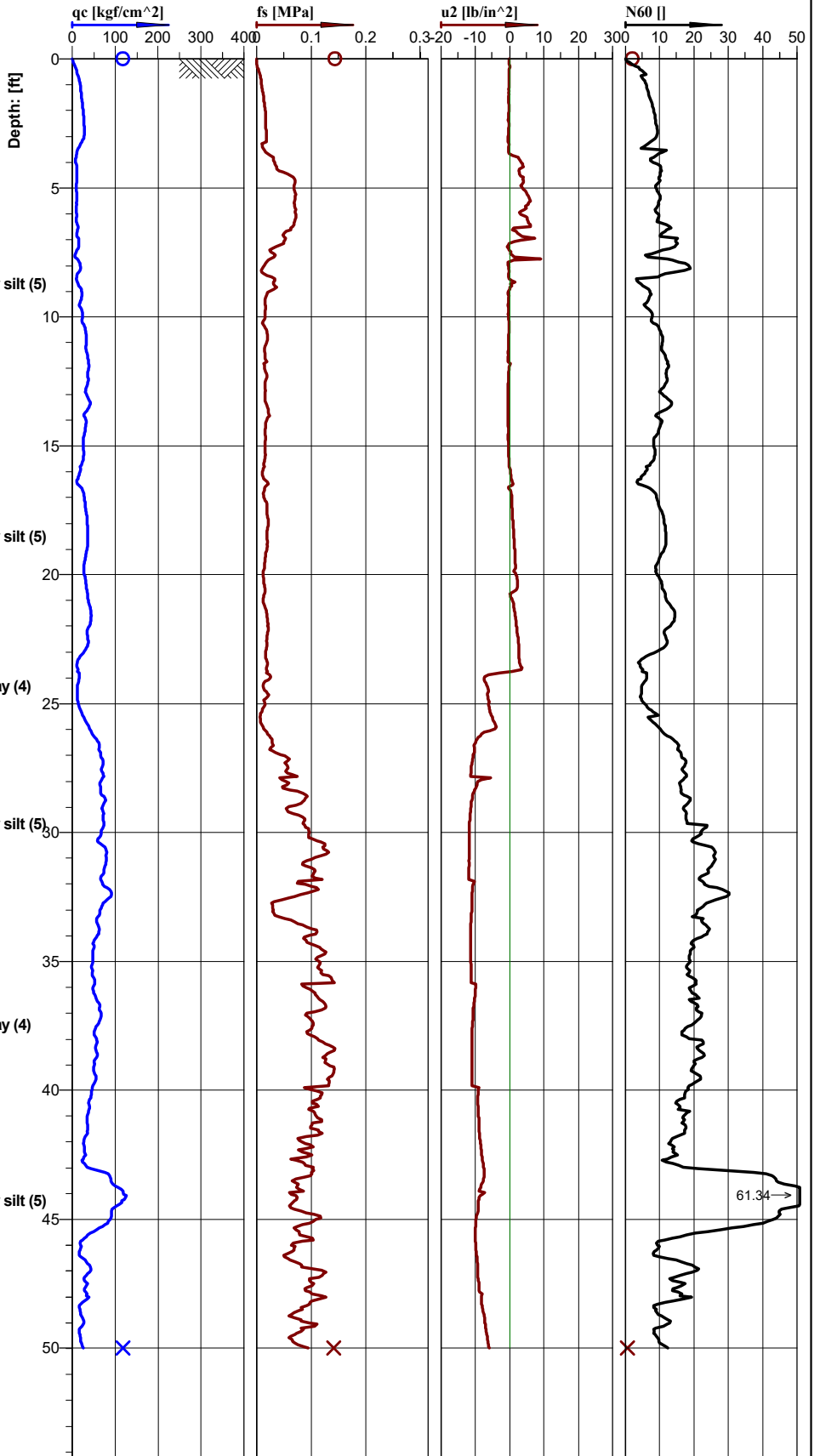
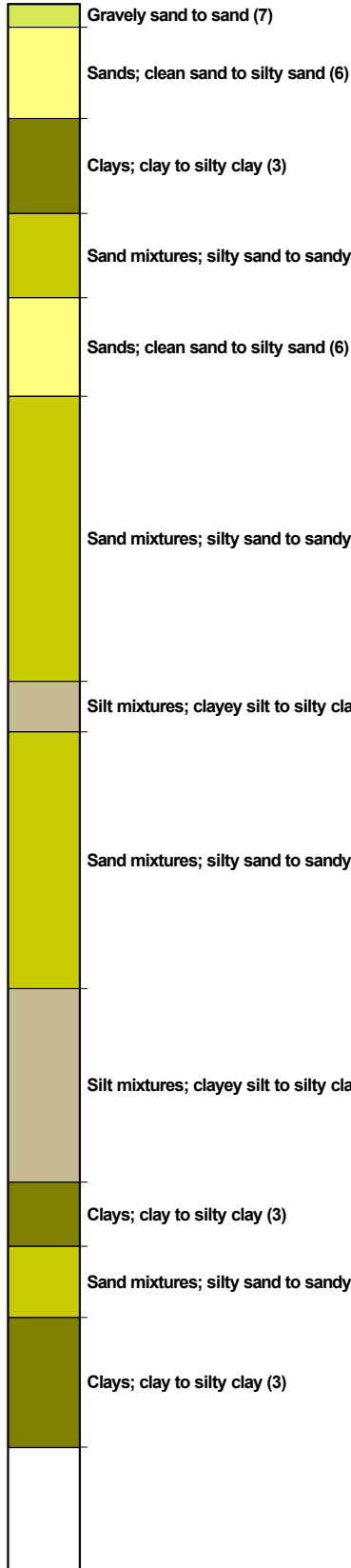
Gravelly sand to sand (7)

Sands; clean sand to silty sand (6)



Location:	CPT-11-2	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineerig Inc	Date:	1/28/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-11-2.cpt		

Classification by  
Robertson 1990



Location:	CPT-11-3	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/19/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-11-3.cpt		



Classification by  
Robertson 1990

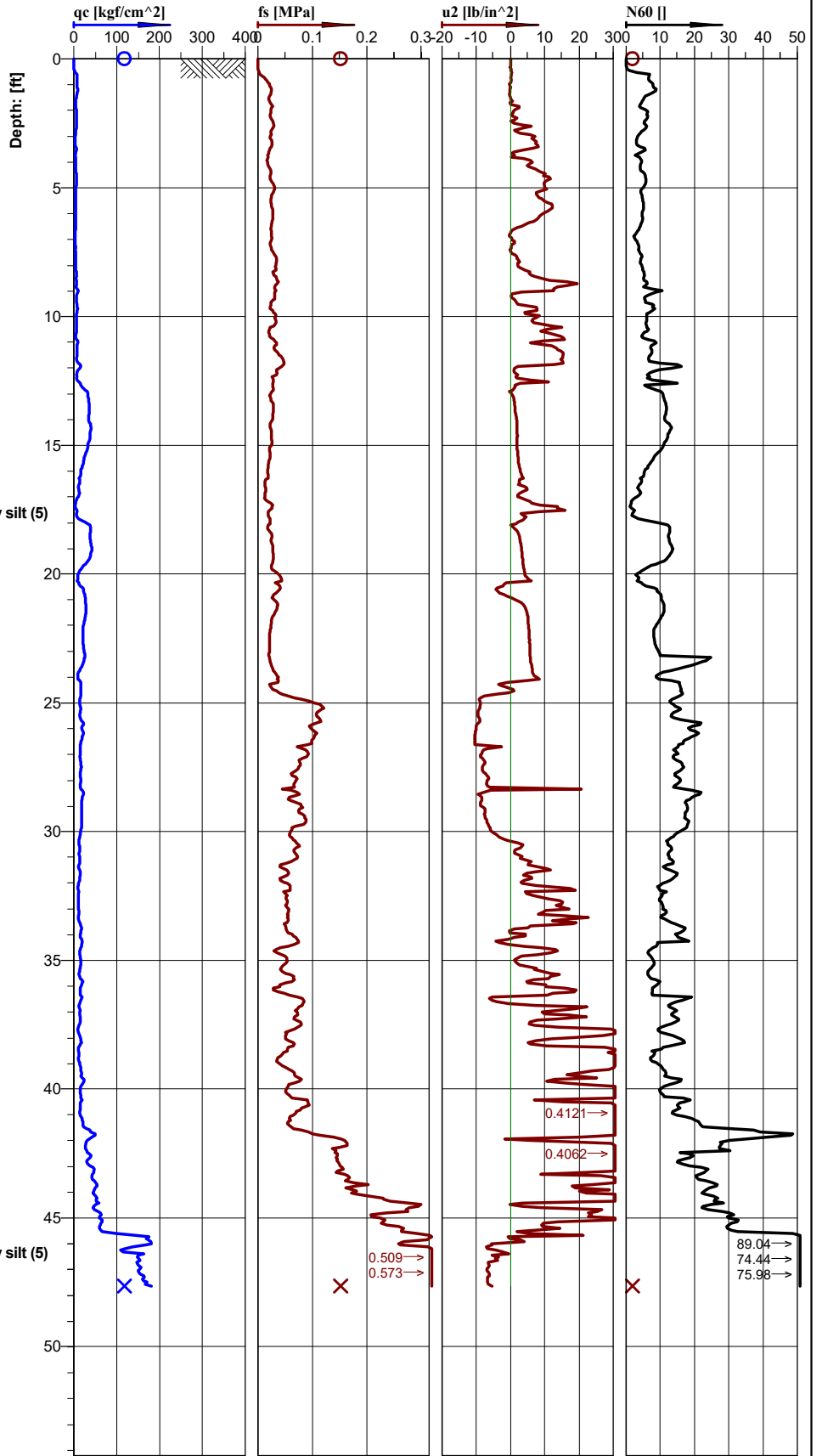


Clays; clay to silty clay (3)

Sand mixtures; silty sand to sandy silt (5)

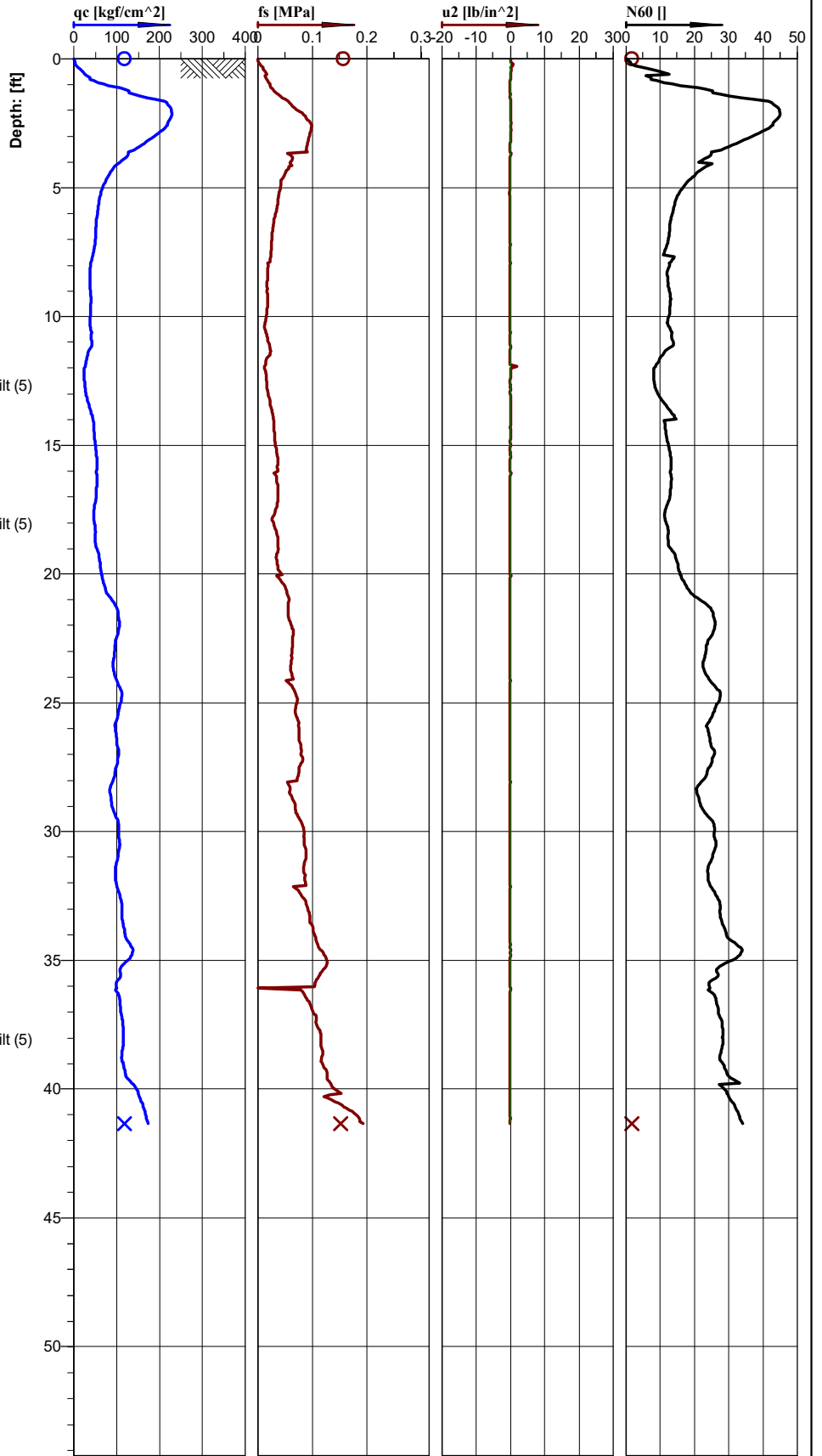
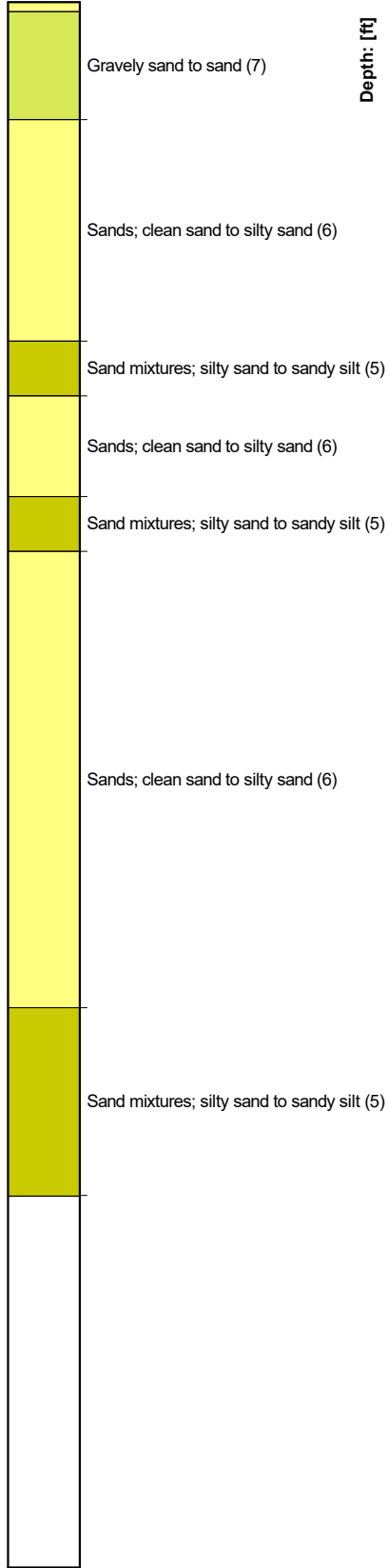
Clays; clay to silty clay (3)

Sand mixtures; silty sand to sandy silt (5)



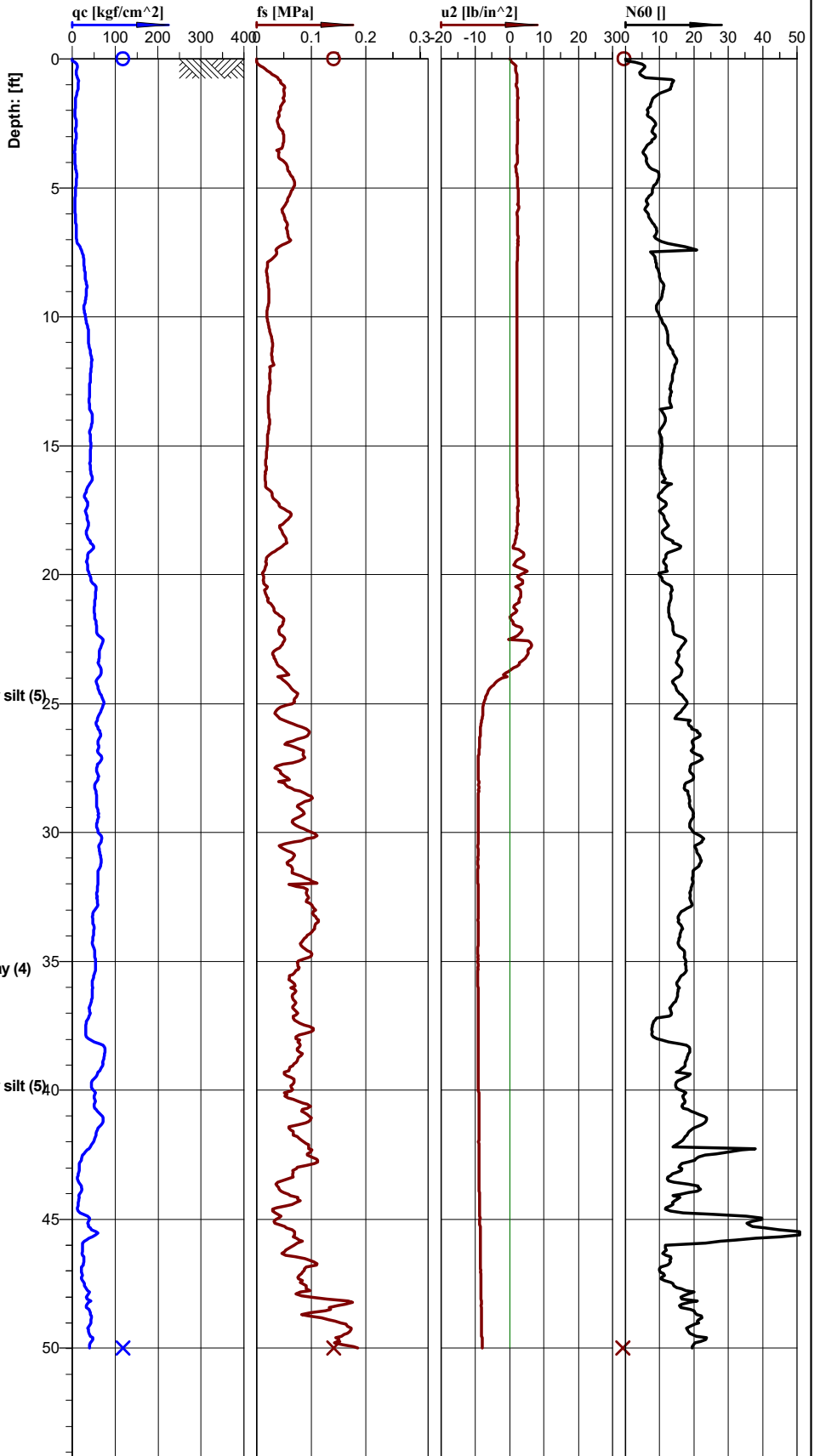
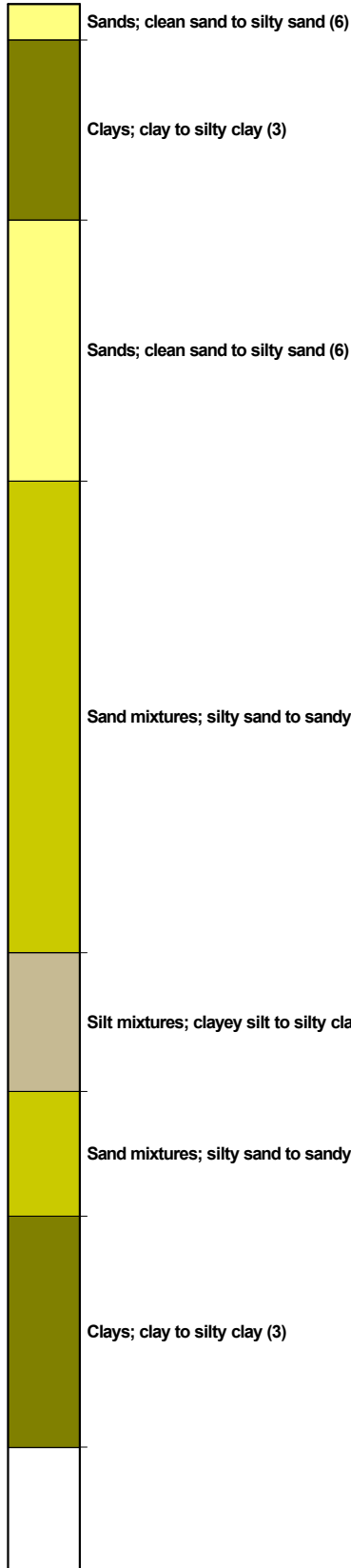
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Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/22/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-12-1.cpt		

Classification by Robertson 1990



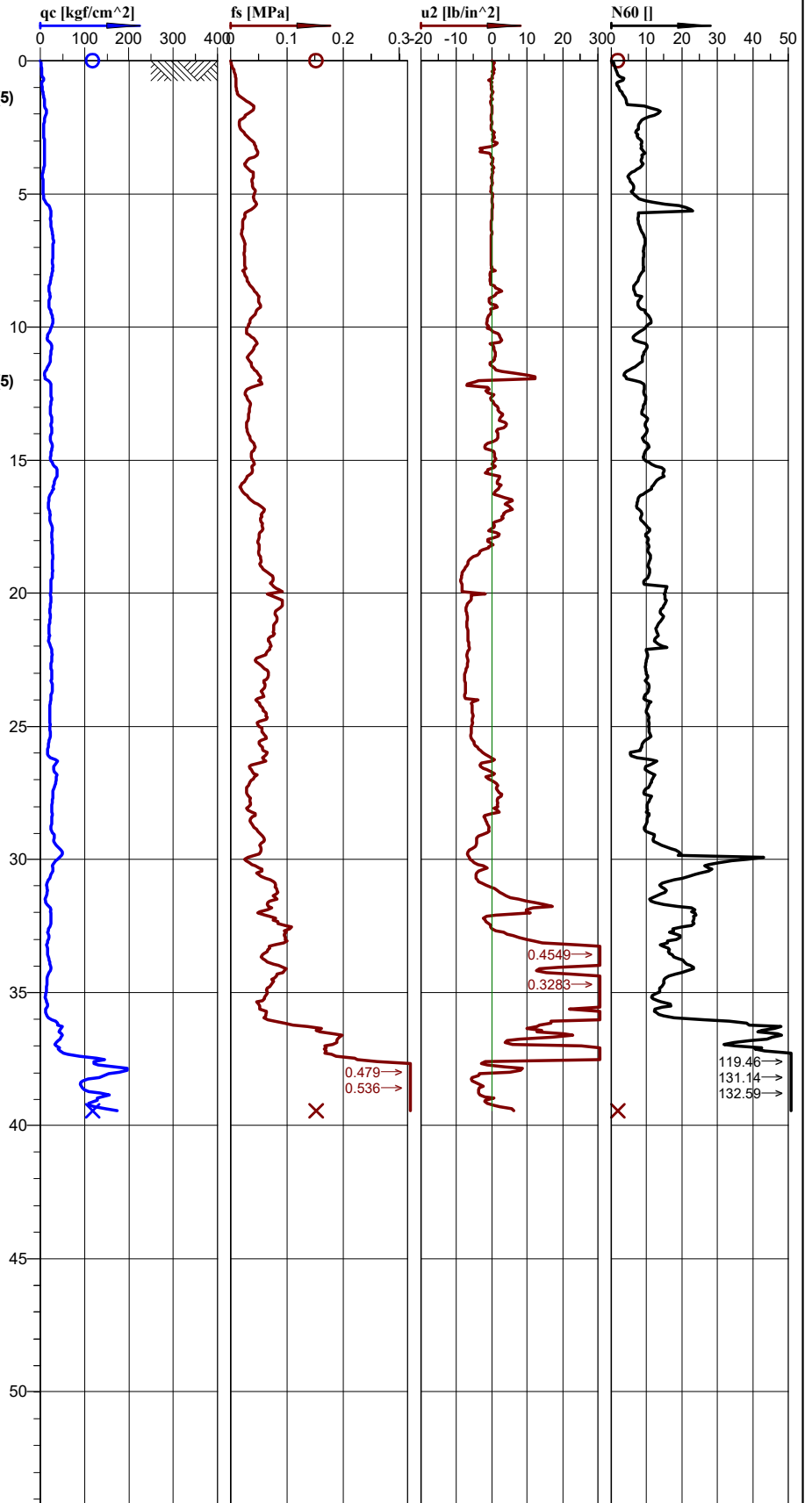
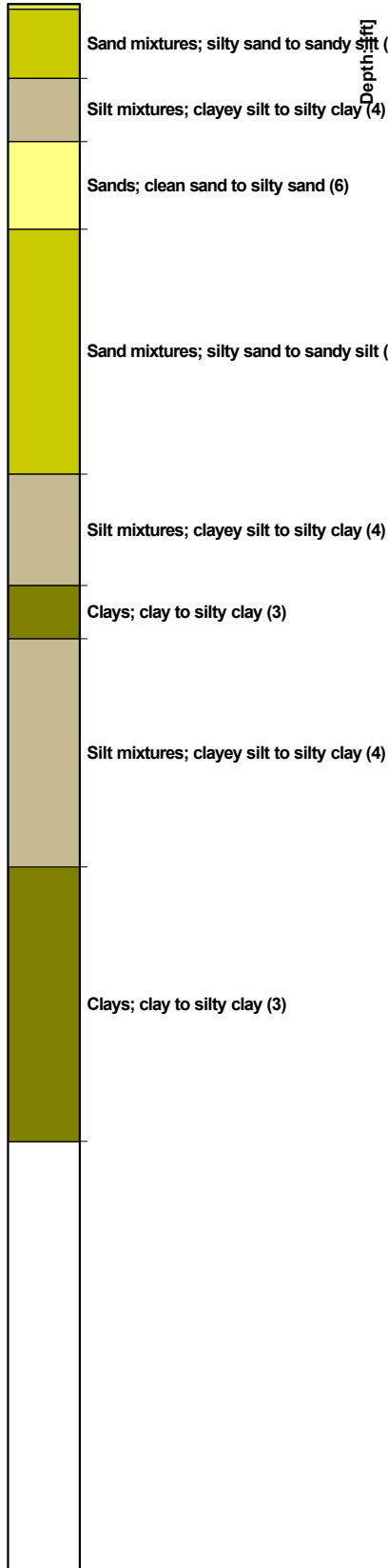
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Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/25/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
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Classification by  
Robertson 1990



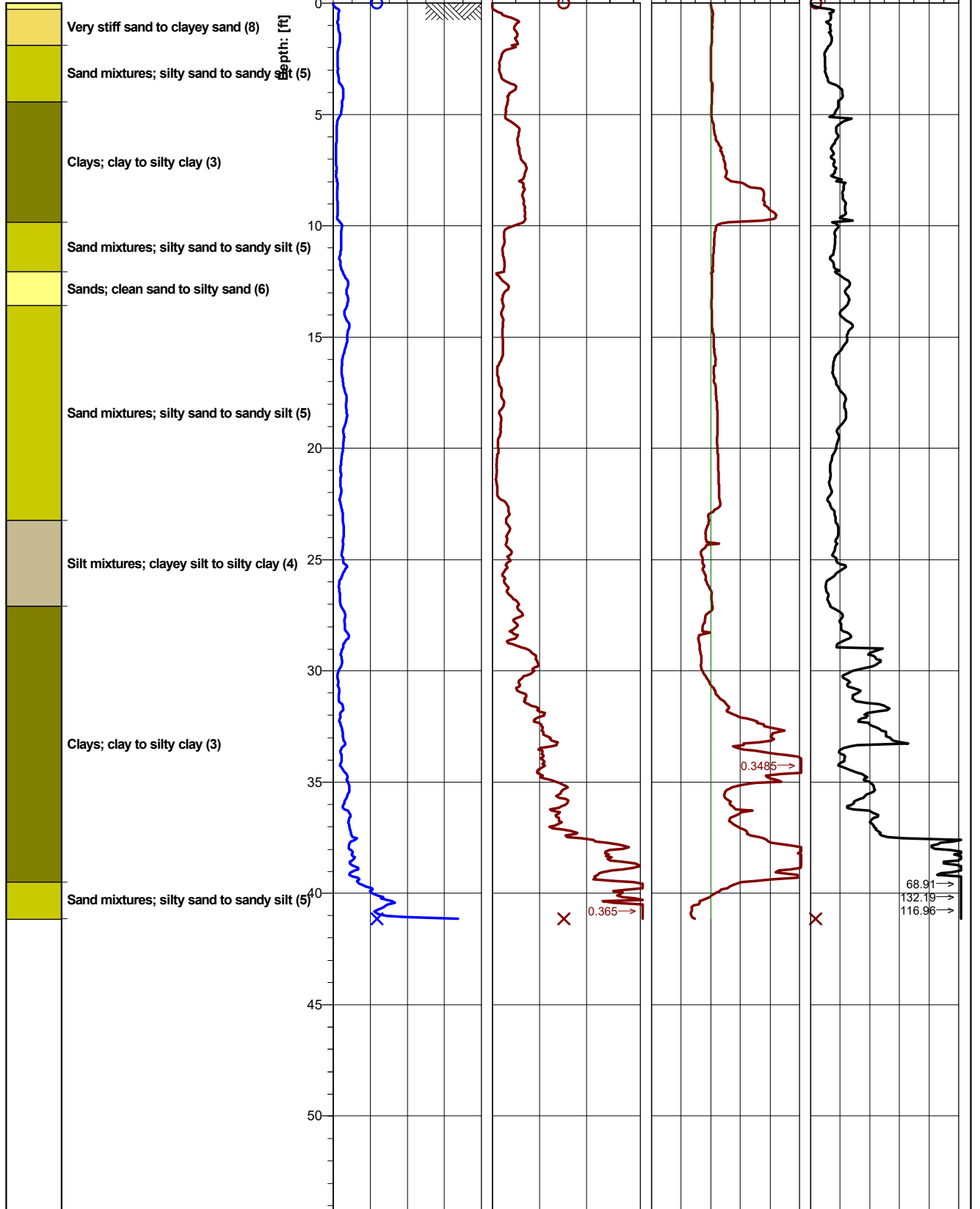
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Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/19/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-12-3.cpt		

Classification by  
Robertson 1990



Location:	CPT-13-1	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/22/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-13-1.cpt		

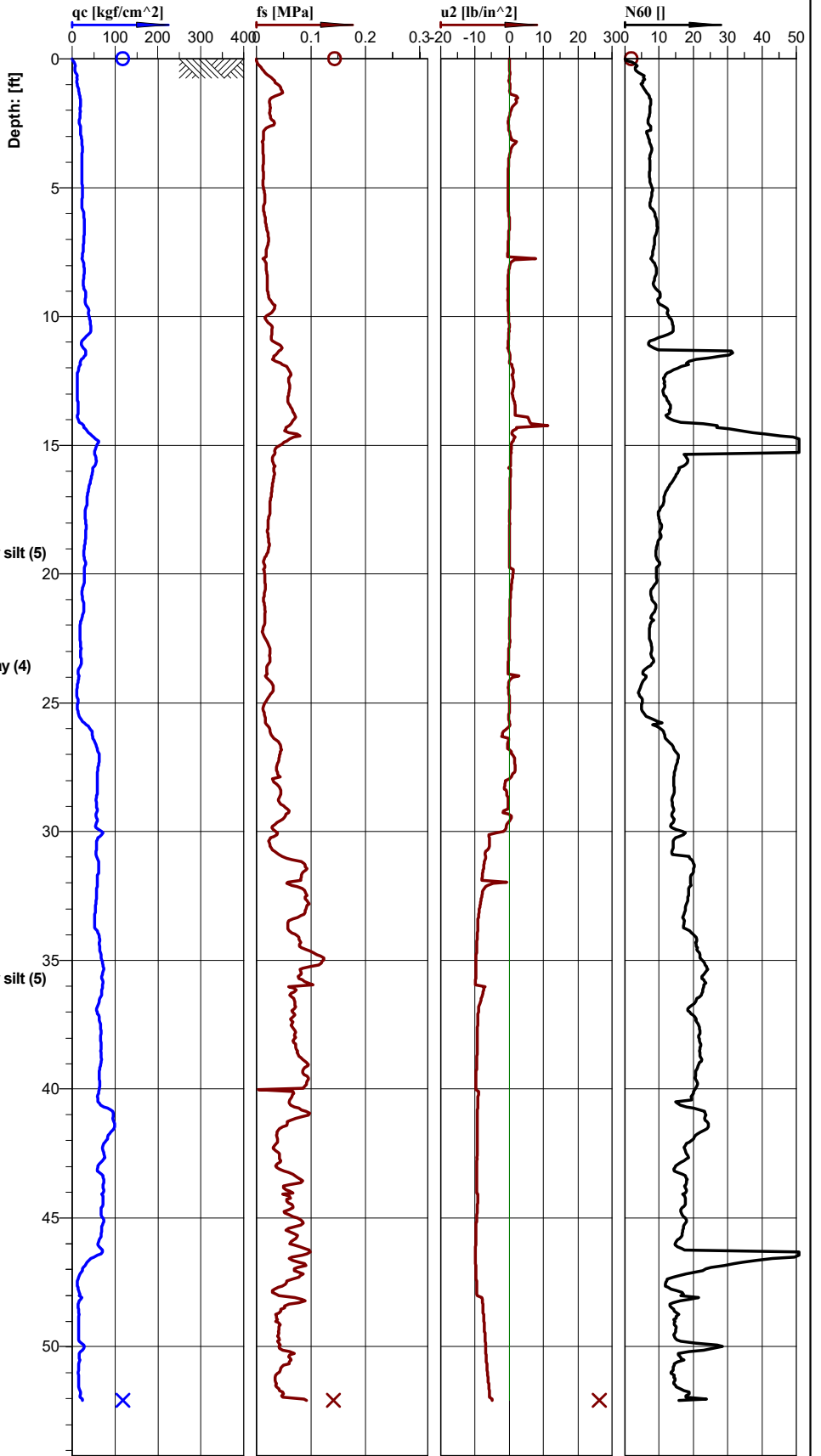
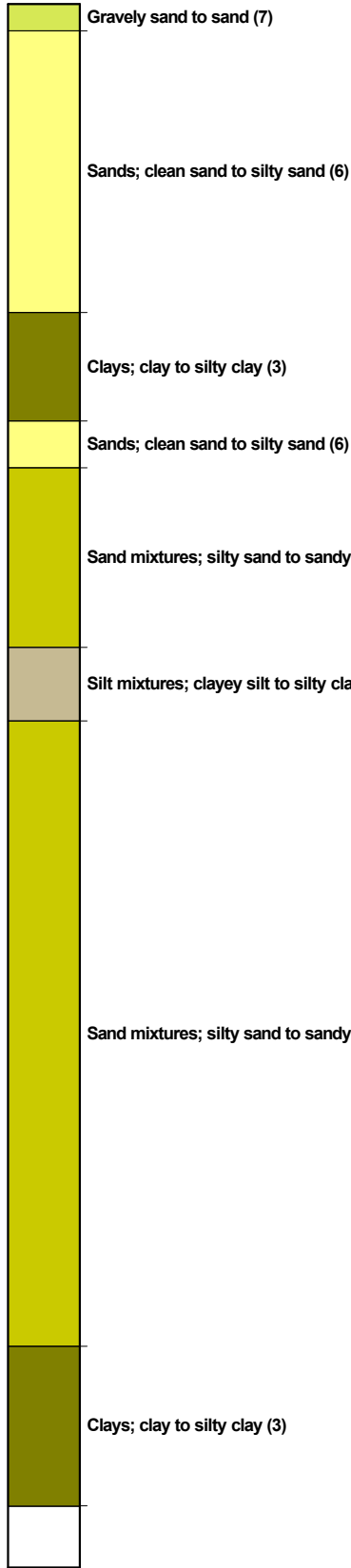
Classification by  
Robertson 1990



Location:	CPT-13-2	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/21/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-13-2.cpt		

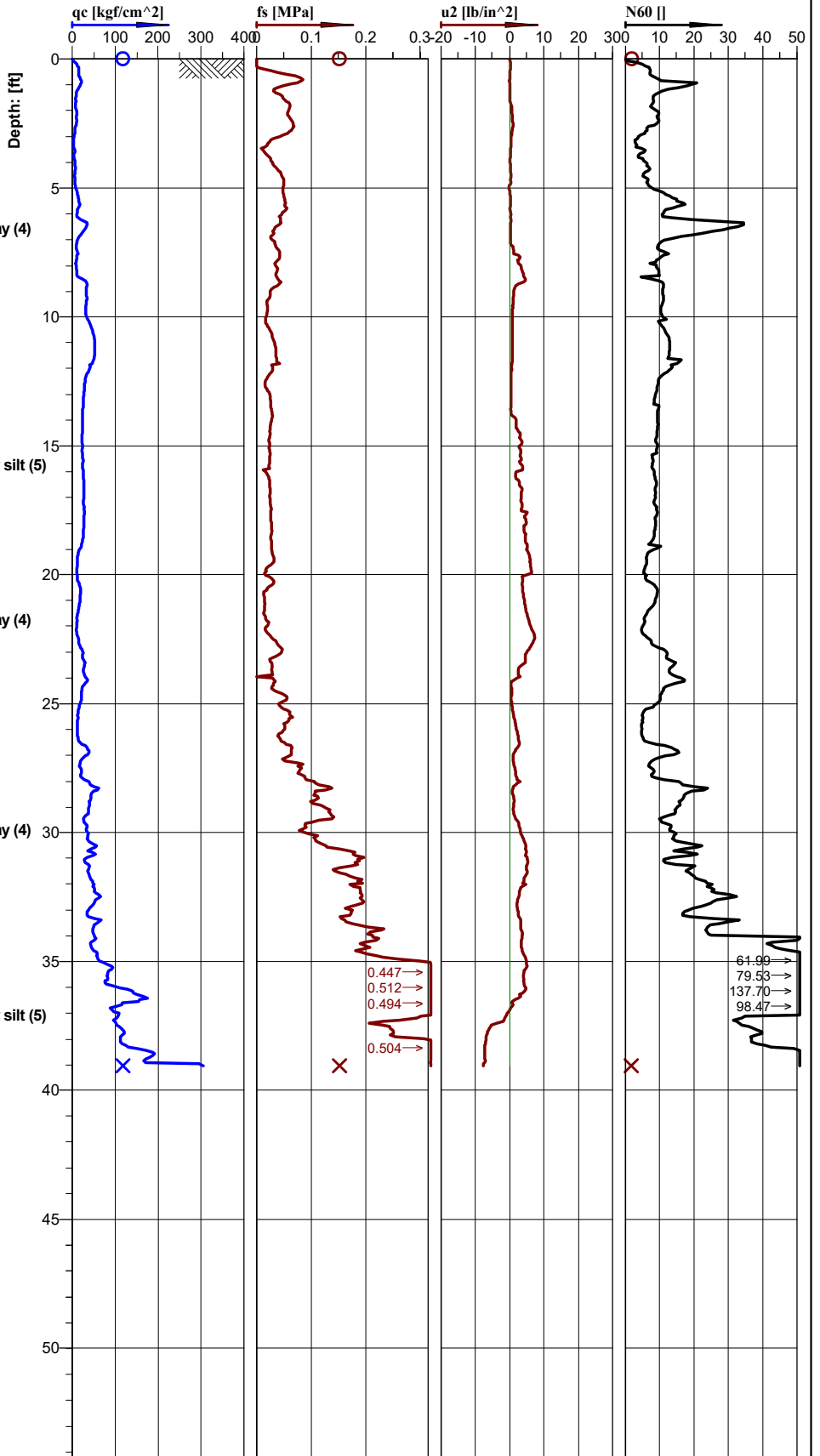
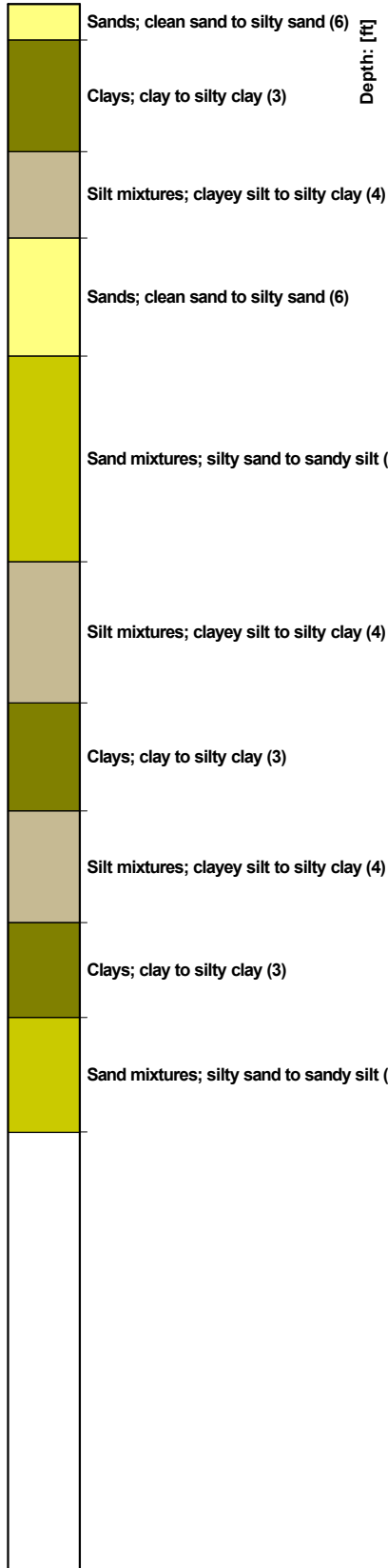


Classification by  
Robertson 1990



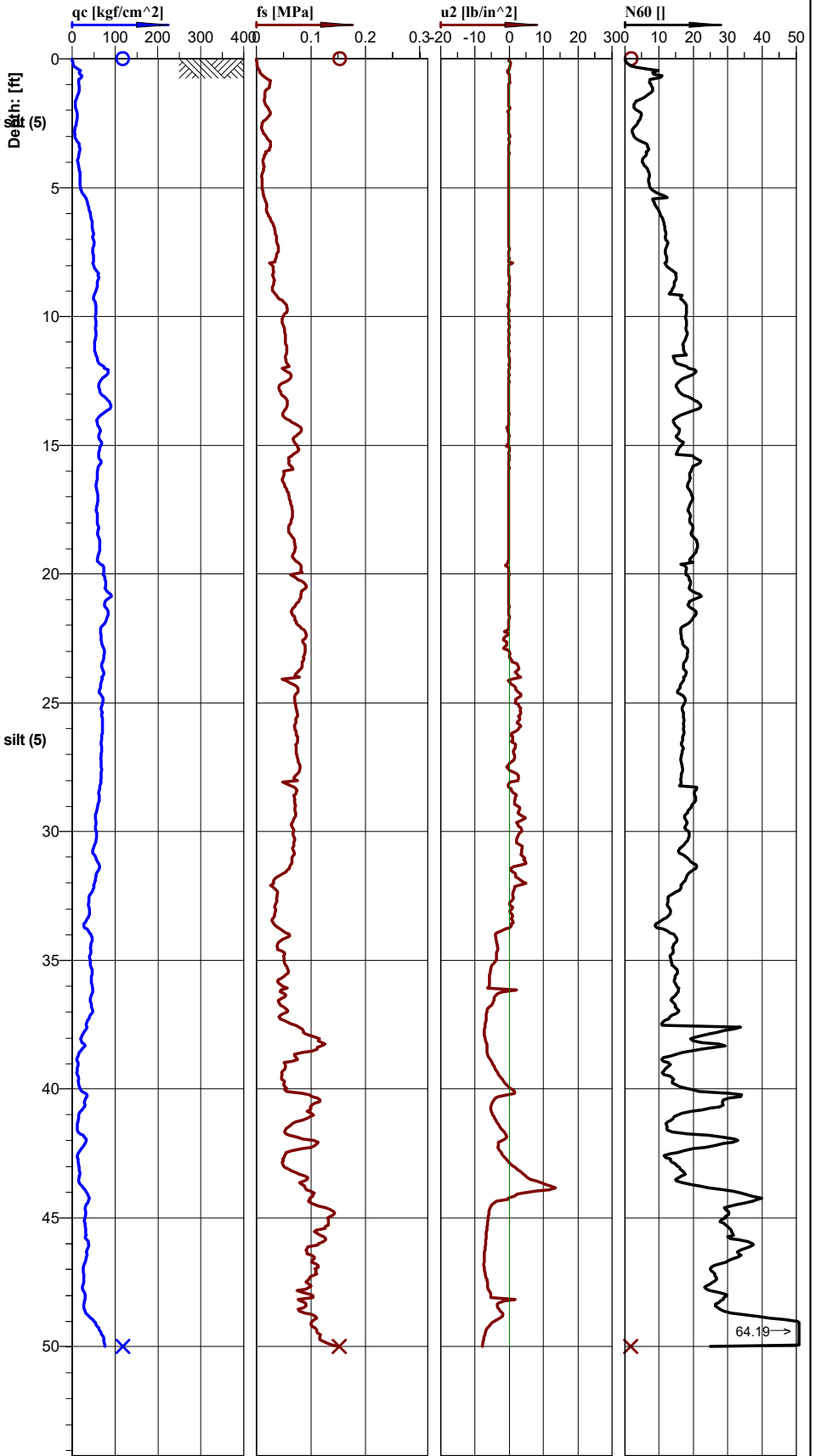
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Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/19/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-13-3.cpt		

Classification by  
Robertson 1990



Location:	CPT-14-1	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/21/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-14-1.cpt		

Classification by  
Robertson 1990



Location:	CPT-14-2	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/21/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-14-2.cpt		

Classification by  
Robertson 1990



Sands; clean sand to silty sand (6)

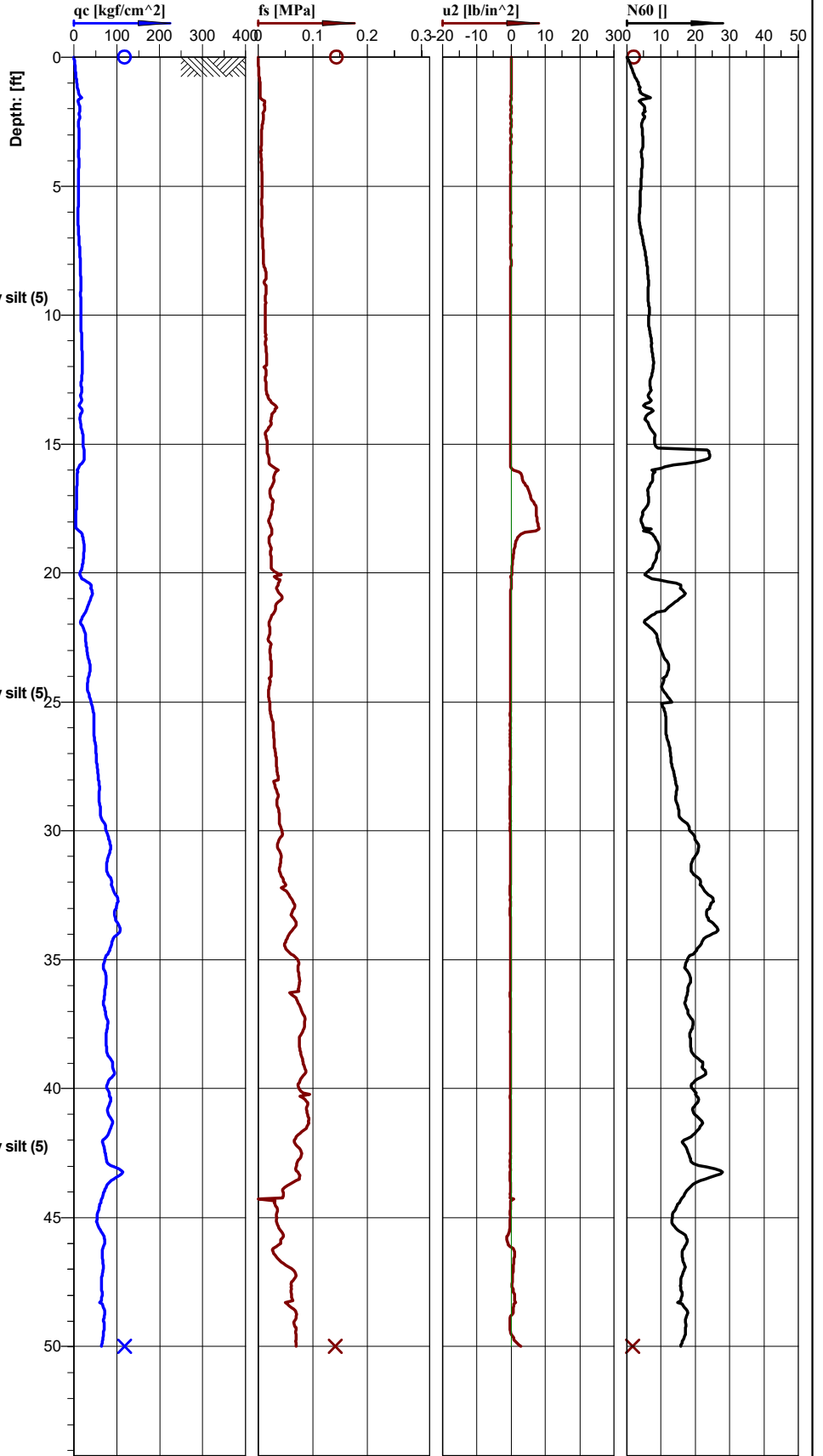
Sand mixtures; silty sand to sandy silt (5)

Clays; clay to silty clay (3)

Sand mixtures; silty sand to sandy silt (5)

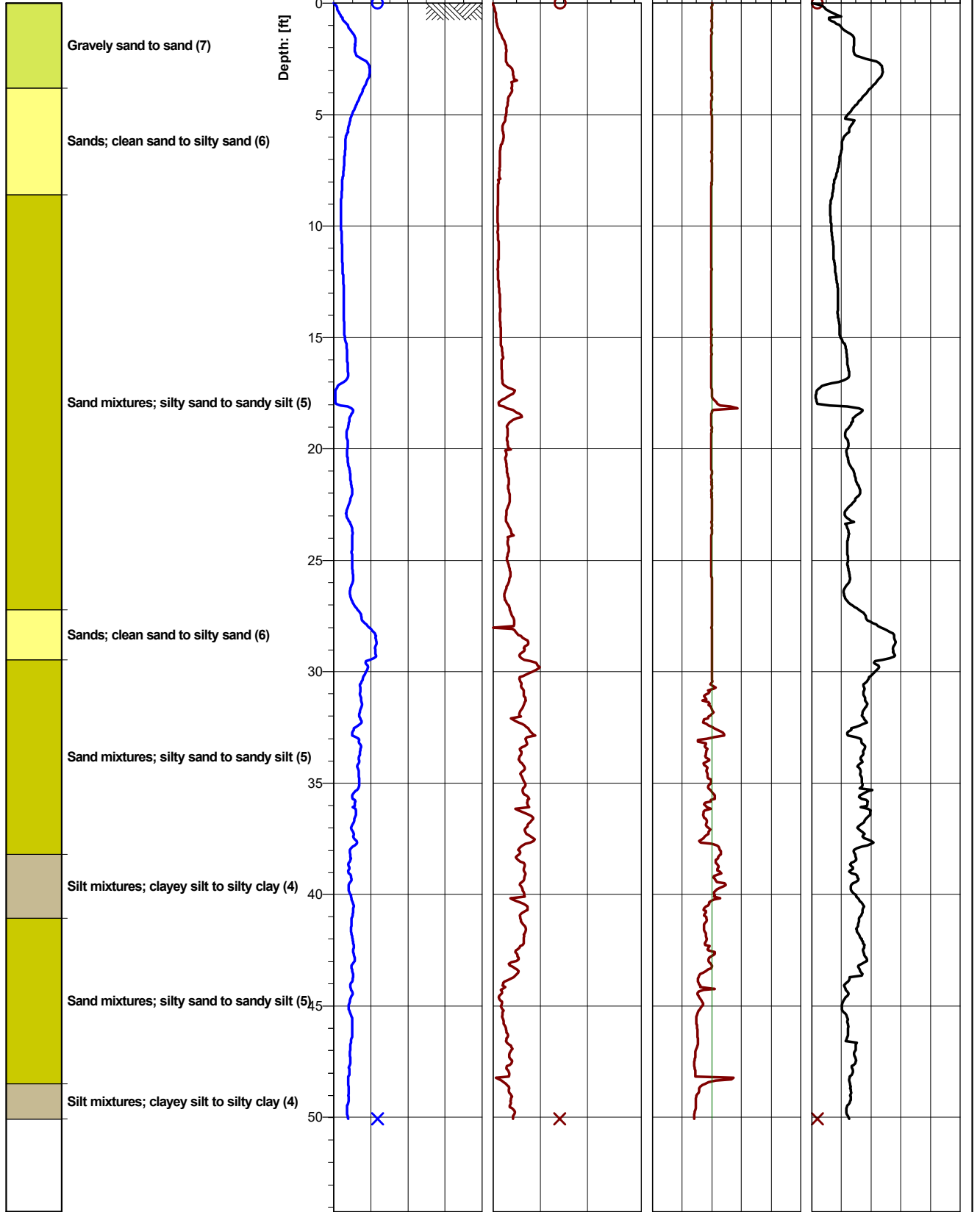
Sands; clean sand to silty sand (6)

Sand mixtures; silty sand to sandy silt (5)



Location:	CPT-14-3	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/19/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-14-3.cpt		

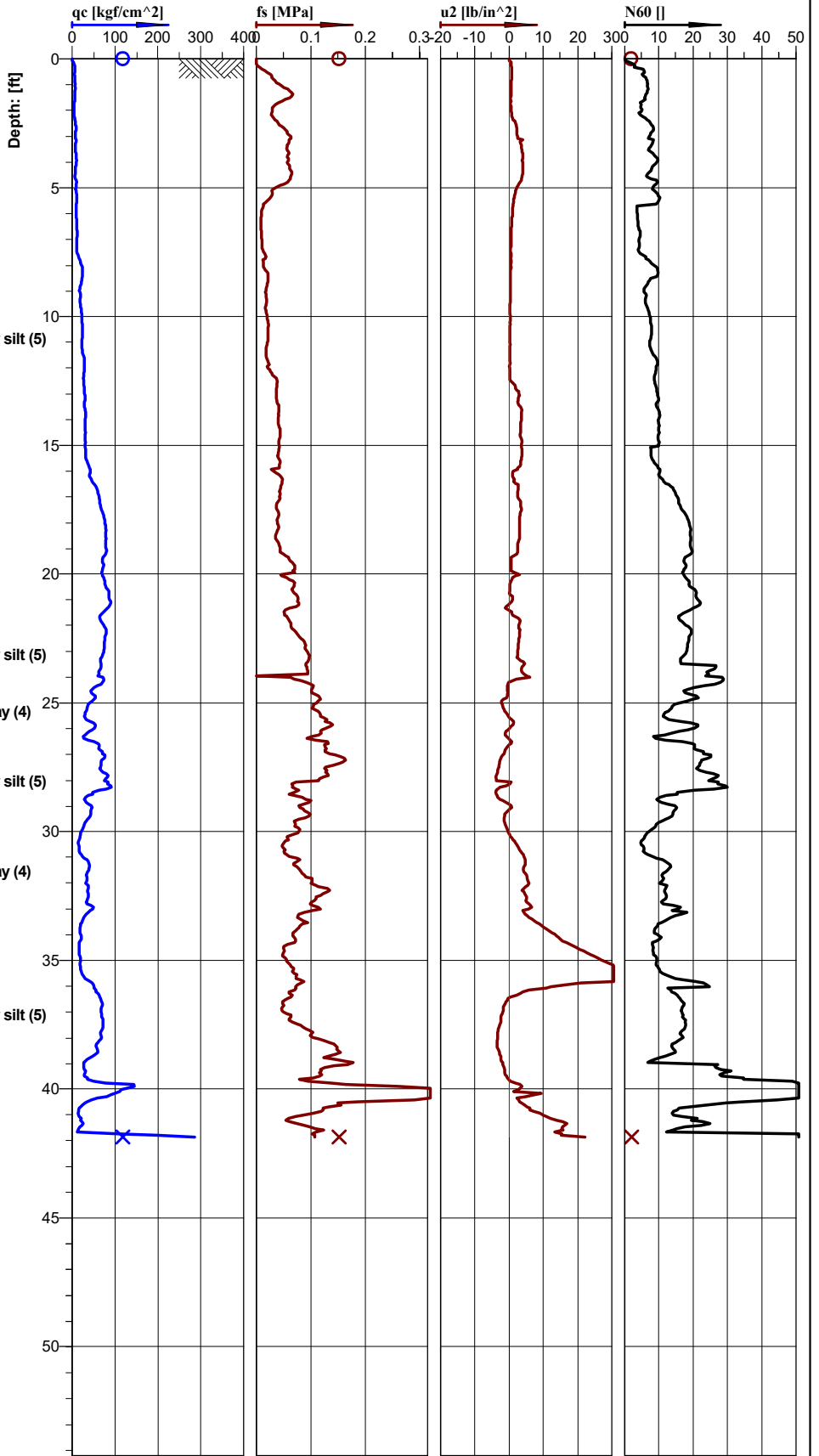
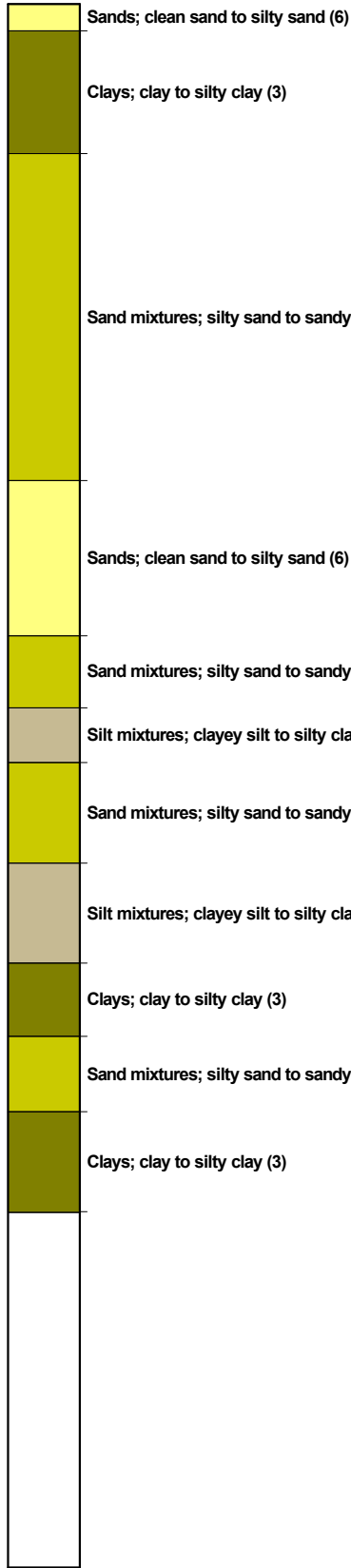
Classification by Robertson 1990



Location:	CPT-15-1	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/19/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
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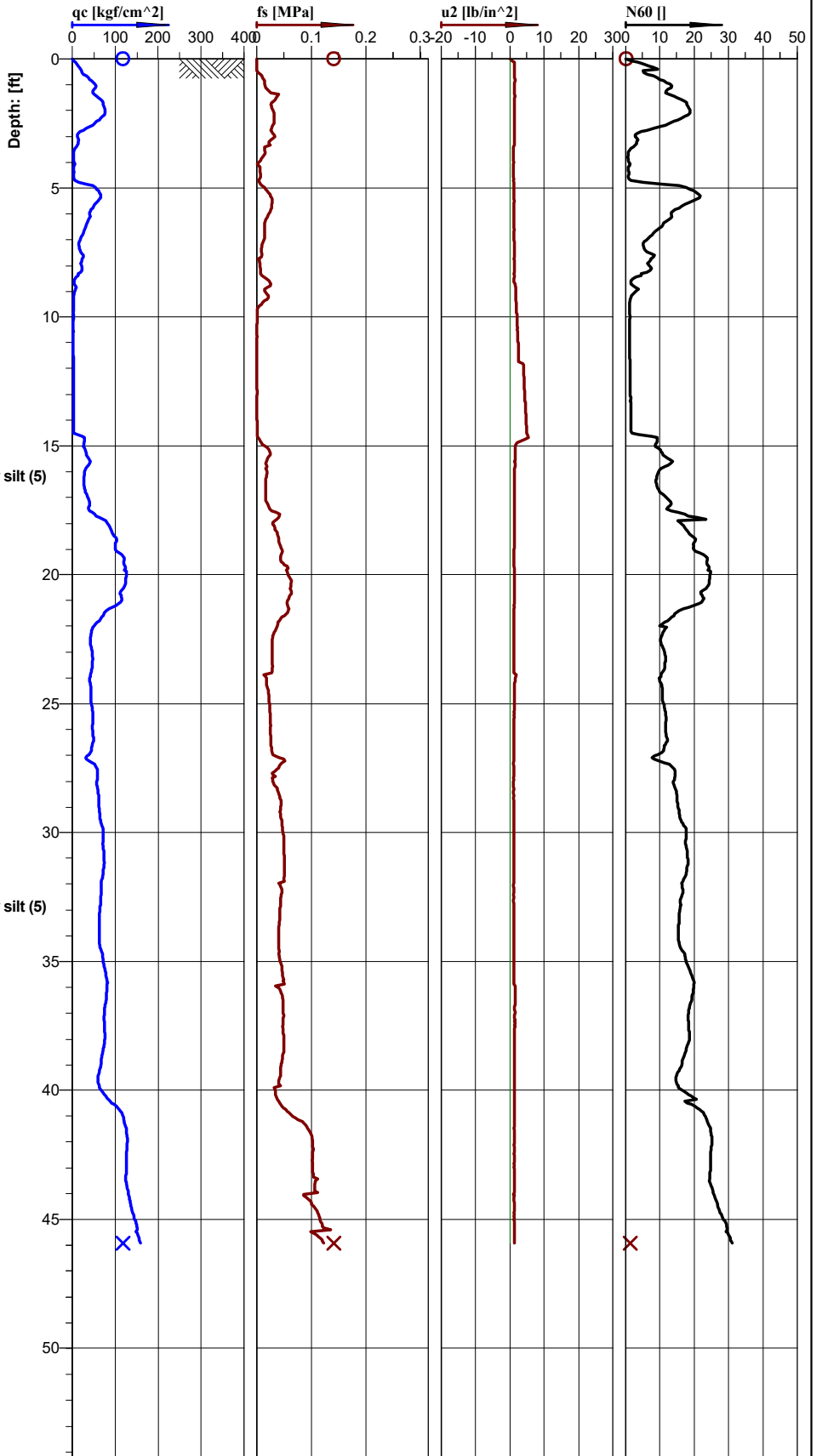
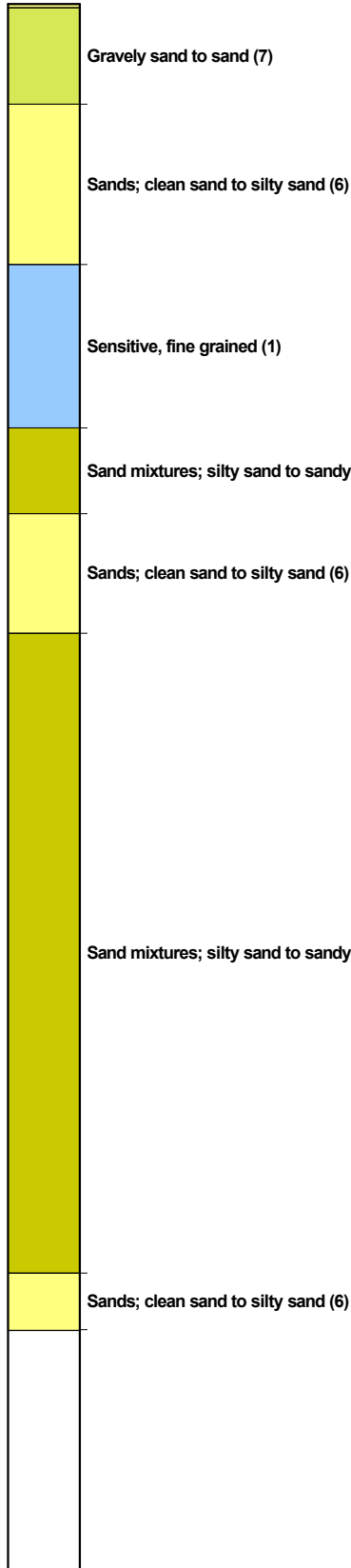


Classification by  
Robertson 1990



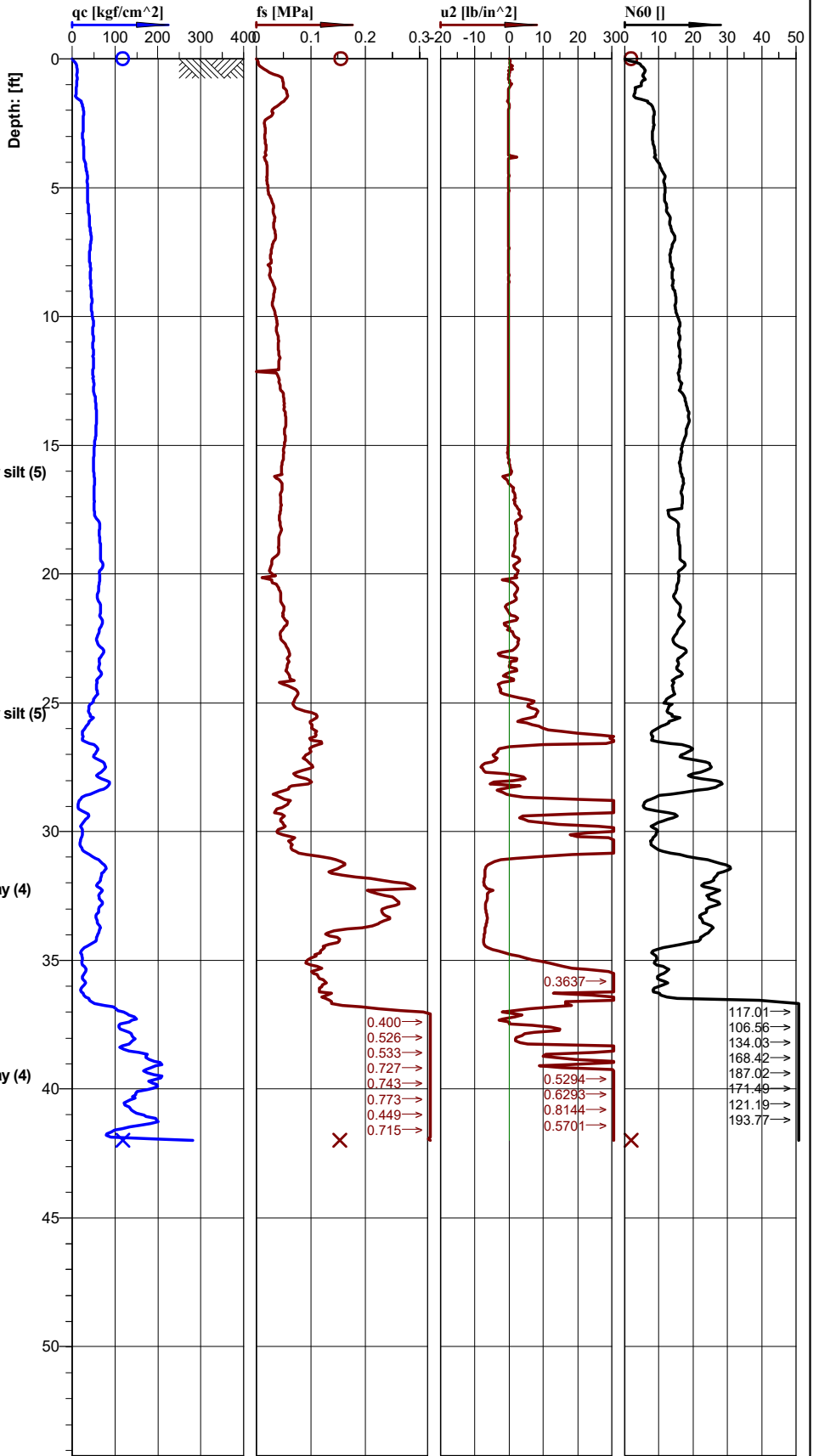
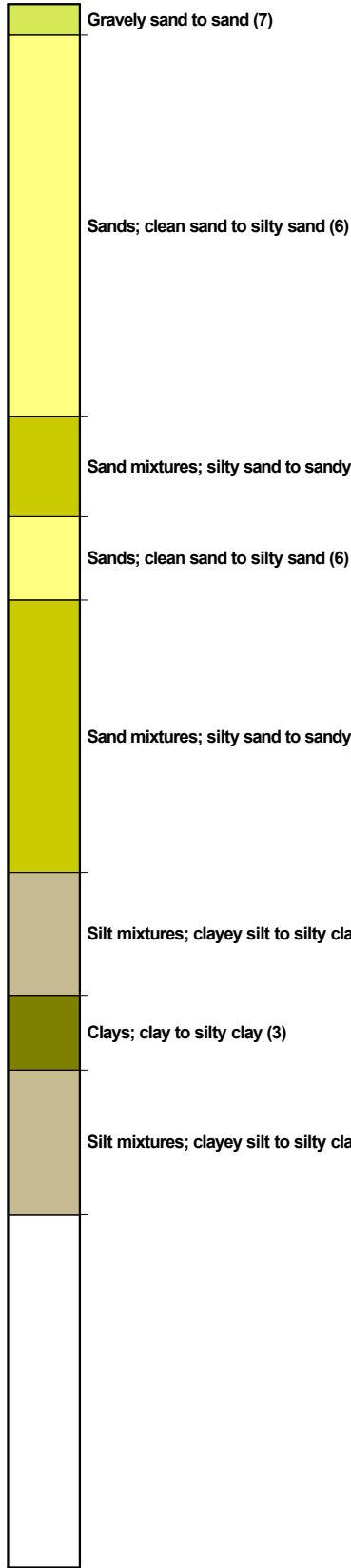
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Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/21/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
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Classification by  
Robertson 1990



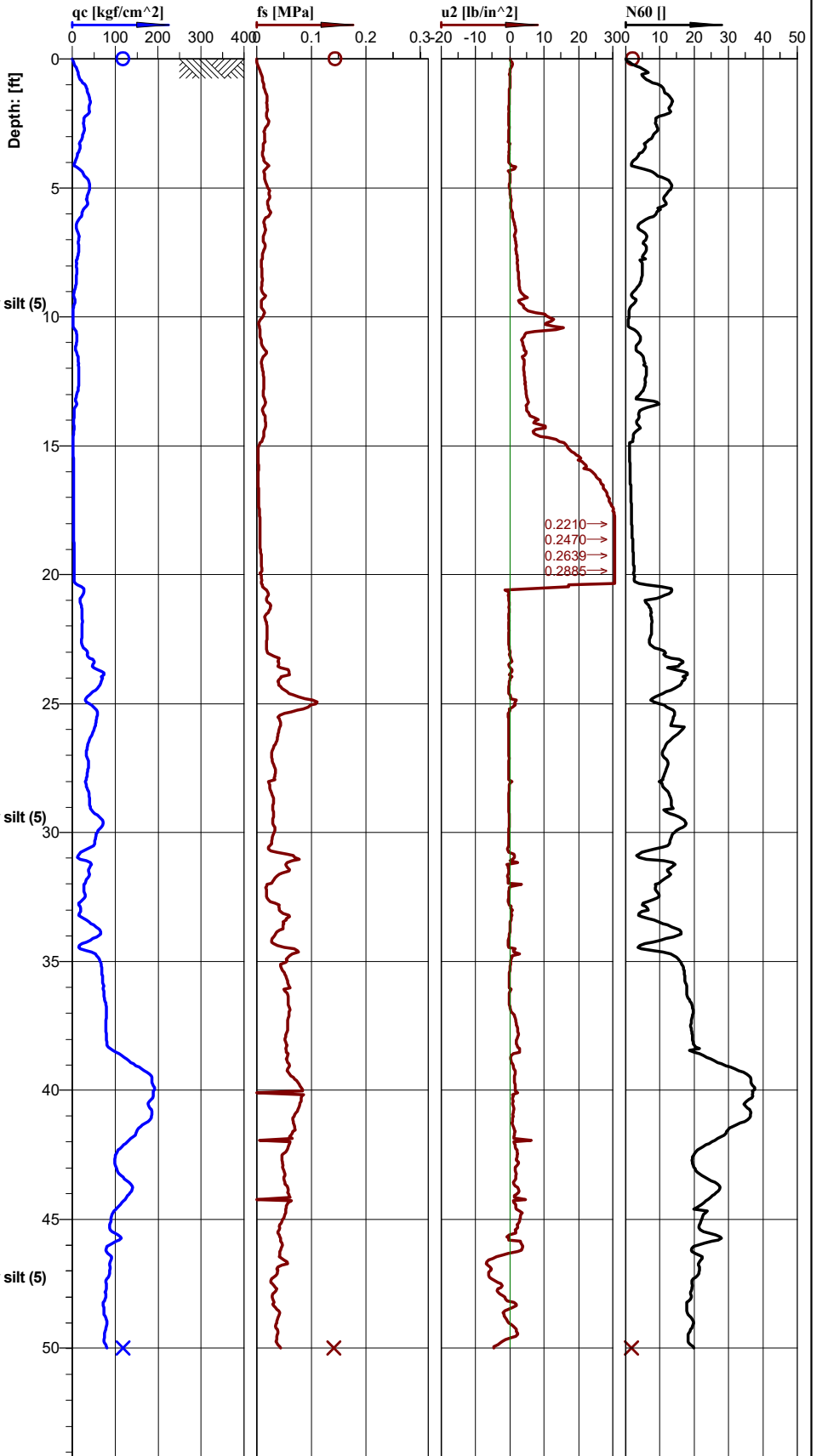
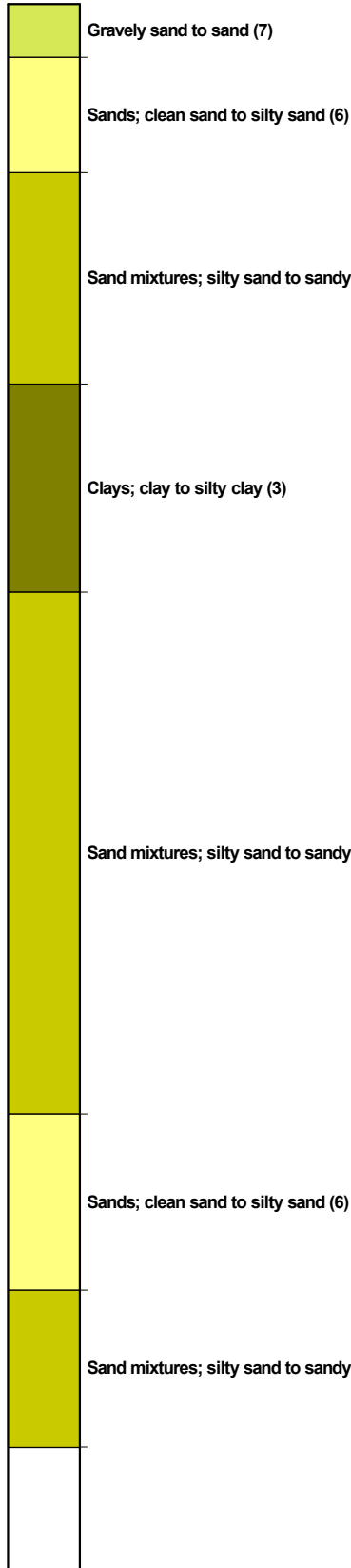
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Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/19/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
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Classification by  
Robertson 1990



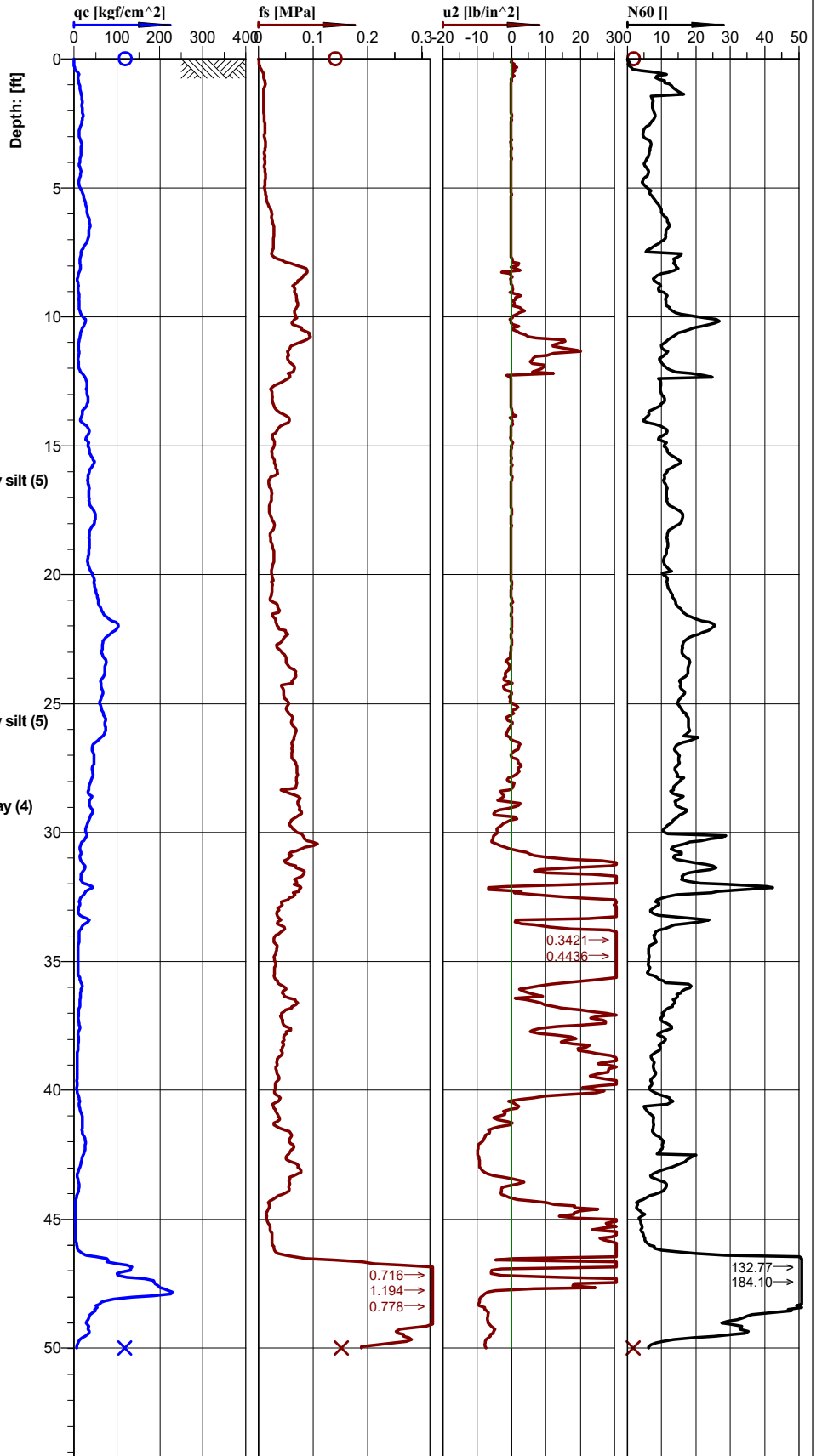
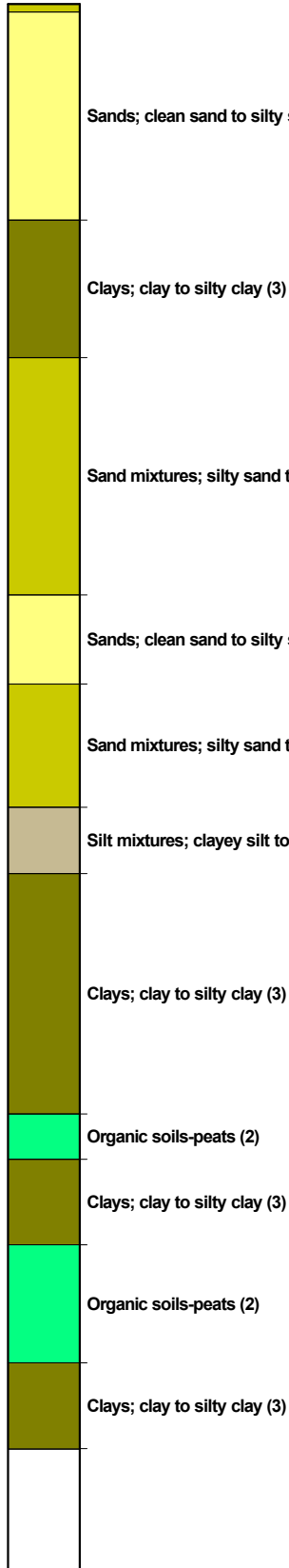
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Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/21/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-16-1.cpt		

Classification by  
Robertson 1990



Location:	CPT-16-3	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/19/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-16-3.cpt		

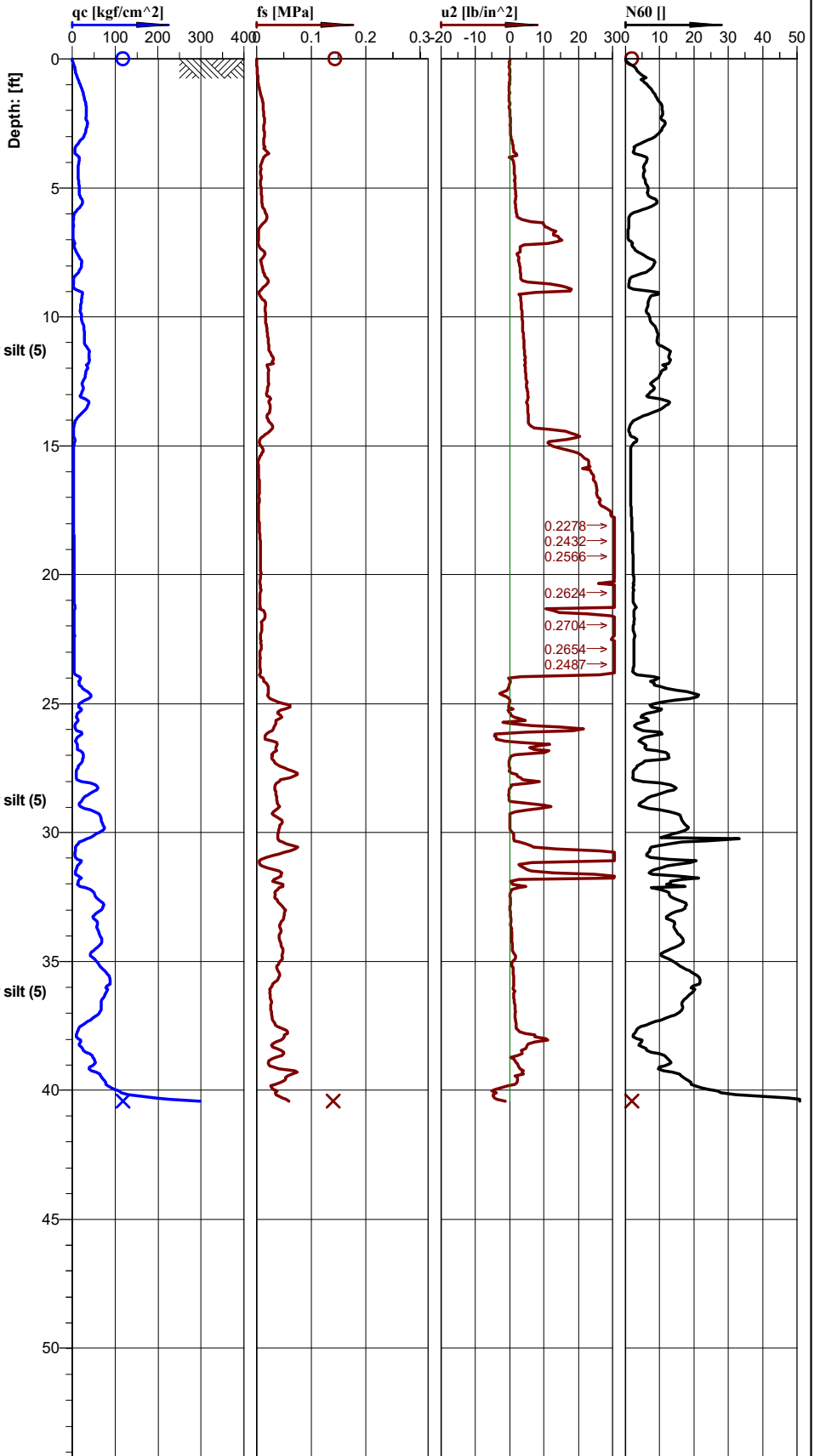
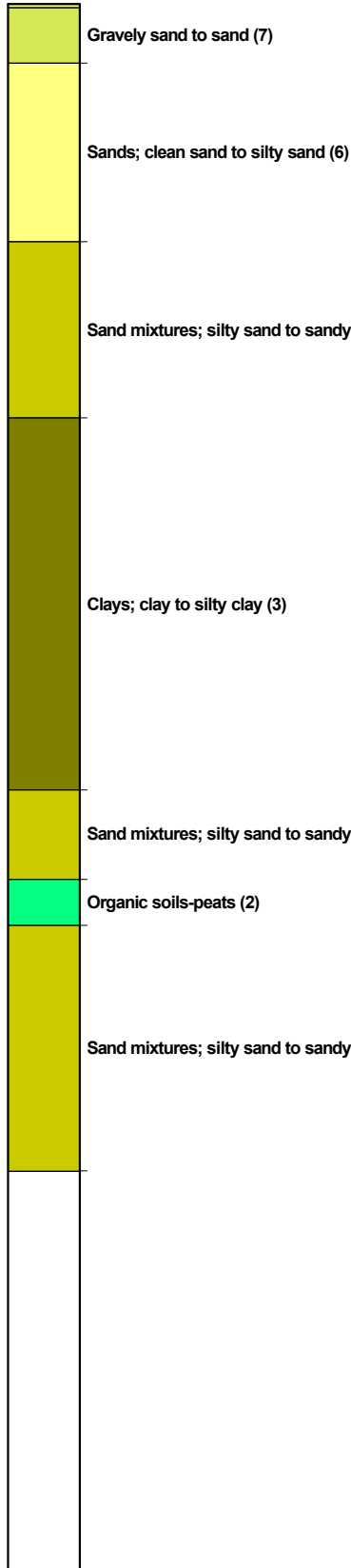
Classification by  
Robertson 1990



Location:	CPT-17-1	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/21/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-17-1.cpt		

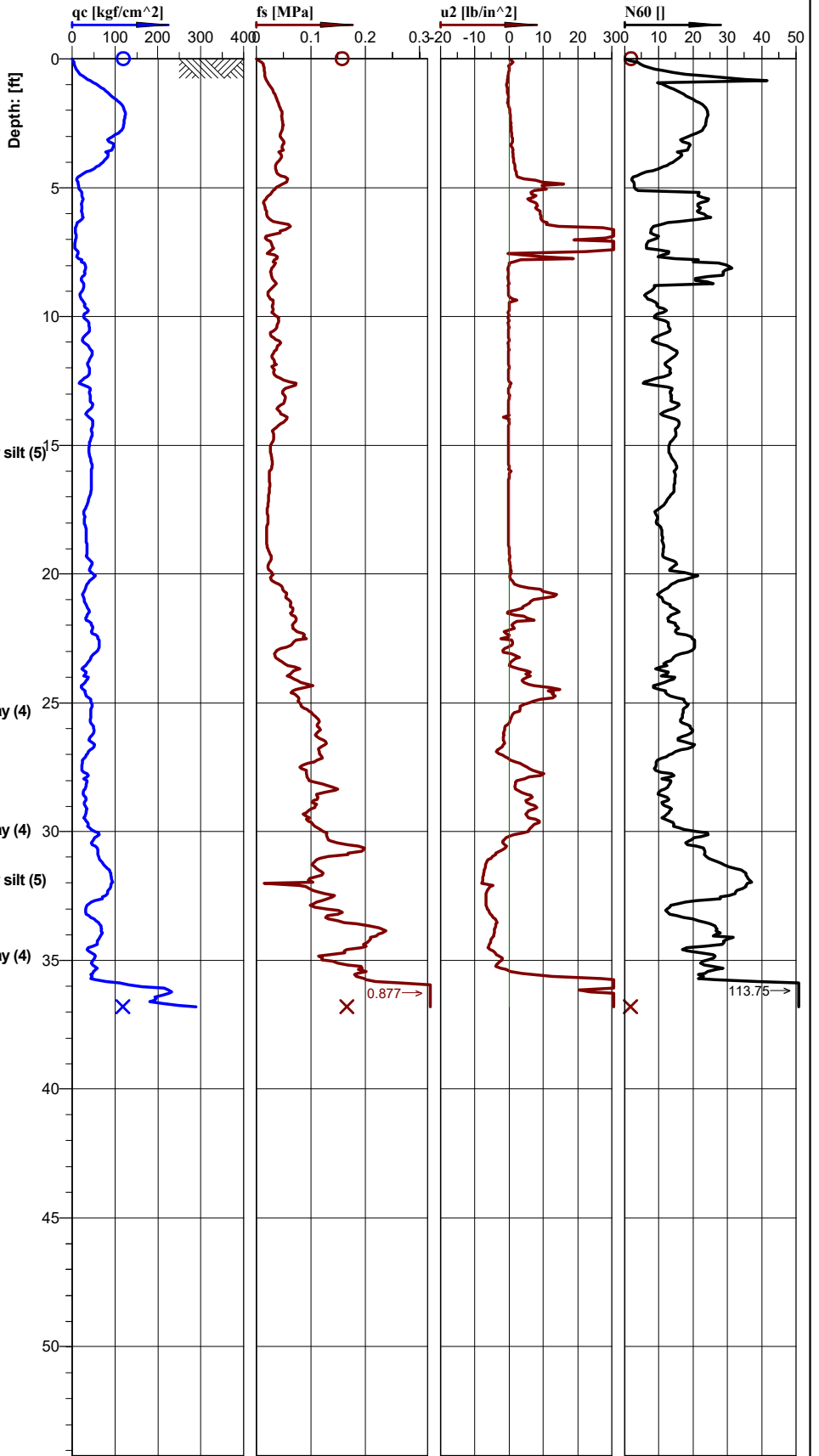
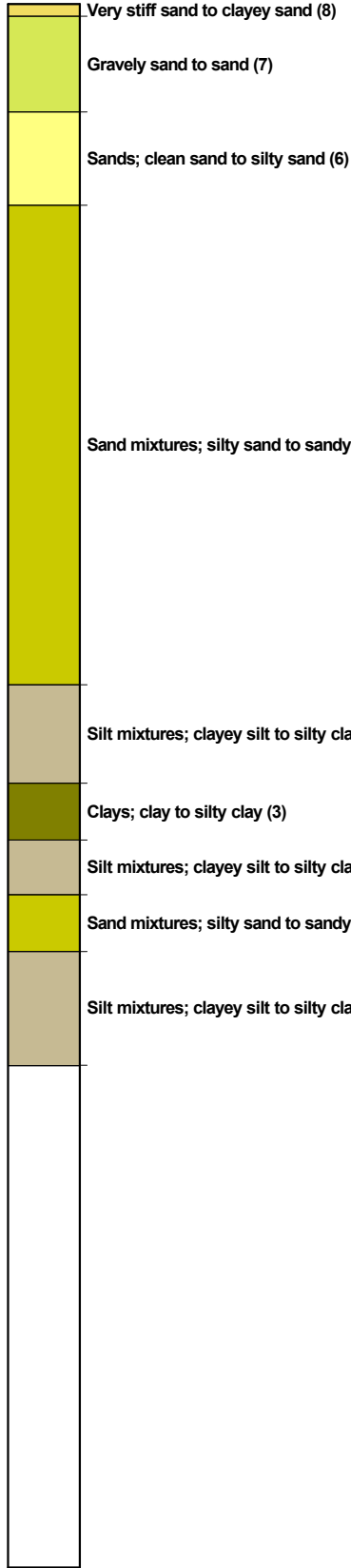


Classification by  
Robertson 1990



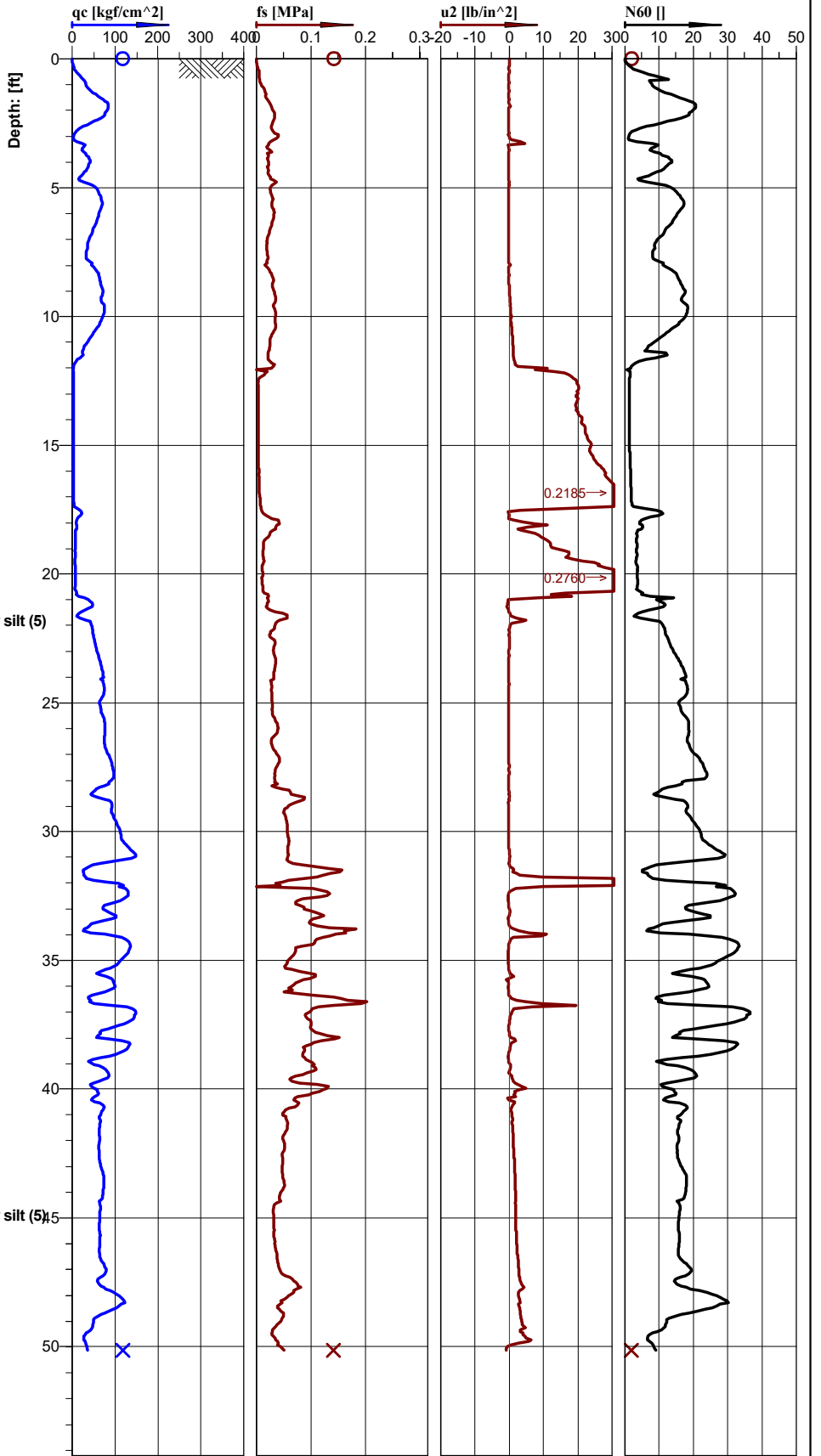
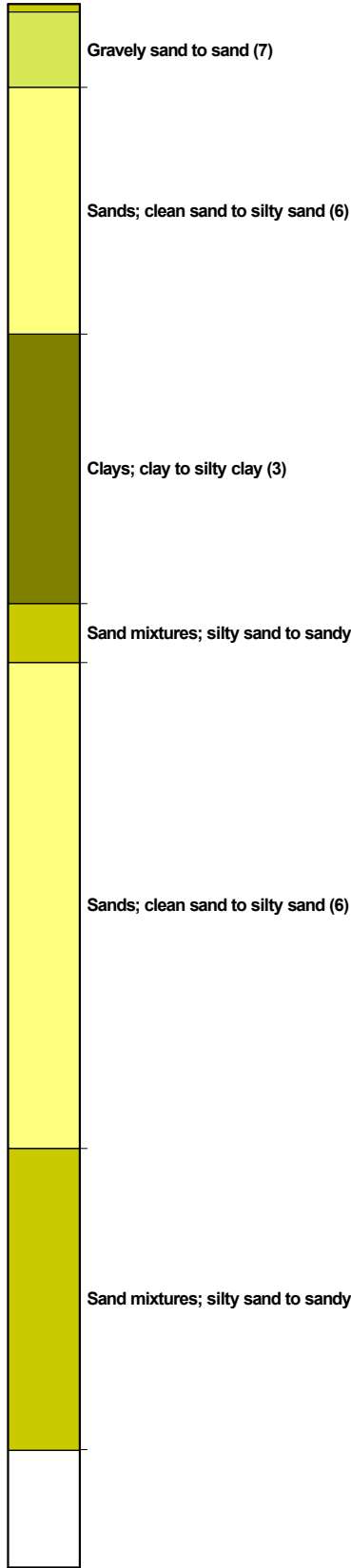
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Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/19/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-17-3-OS.cpt		

Classification by  
Robertson 1990



Location:	CPT-18-1	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/26/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-18-1.cpt		

Classification by  
Robertson 1990



Location:	CPT-18-3	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/19/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
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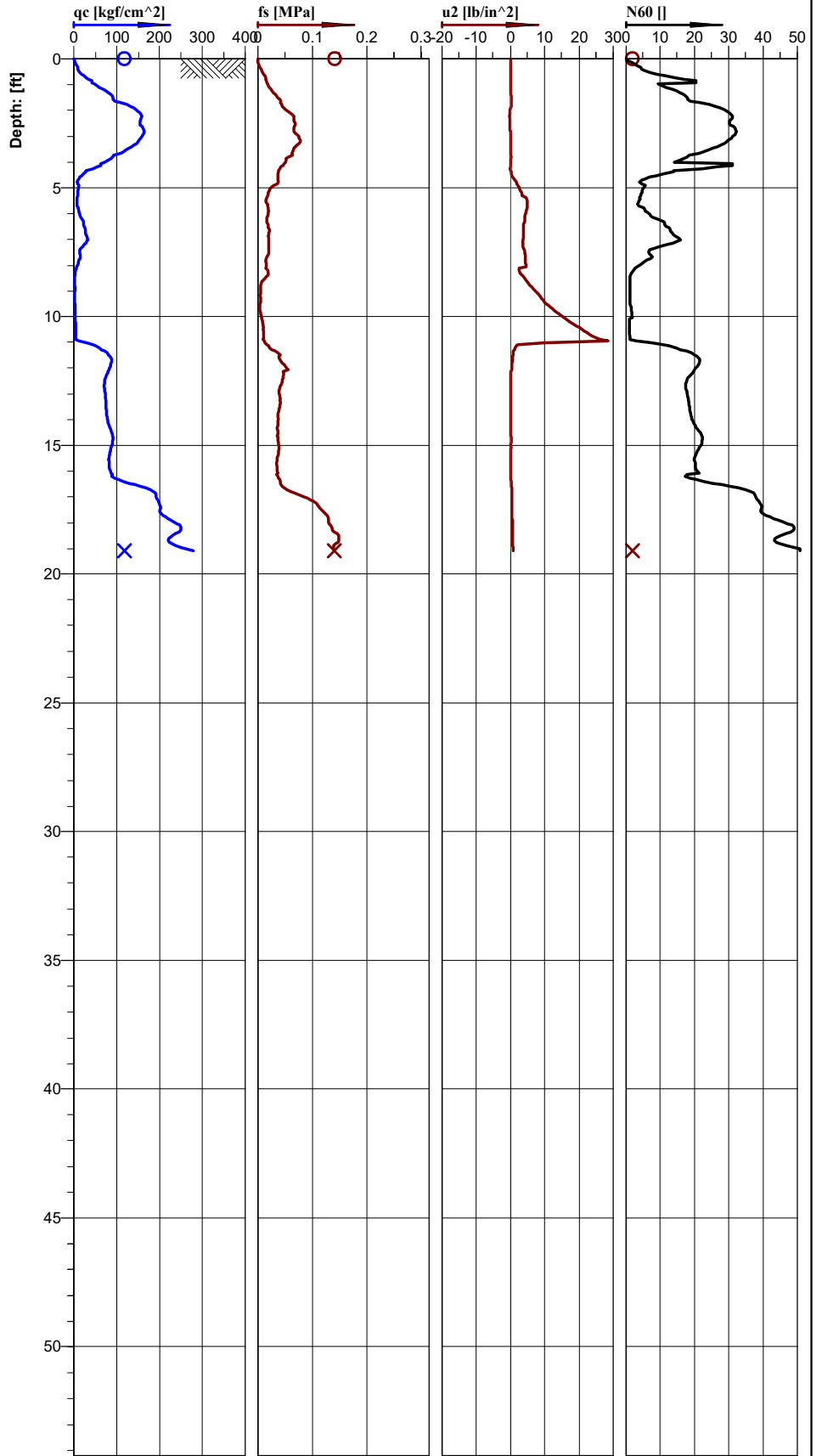
Classification by  
Robertson 1990



Gravelly sand to sand (7)

Clays; clay to silty clay (3)

Sands; clean sand to silty sand (6)



Location:	CPT-19-3	Position:	X: 0.00 ft, Y: 0.00 ft	Ground level:	0.00	Test No.:	A
Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/19/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-19-3.cpt		

Classification by  
Robertson 1990



Sands; clean sand to silty sand (6)

Silt mixtures; clayey silt to silty clay (4)

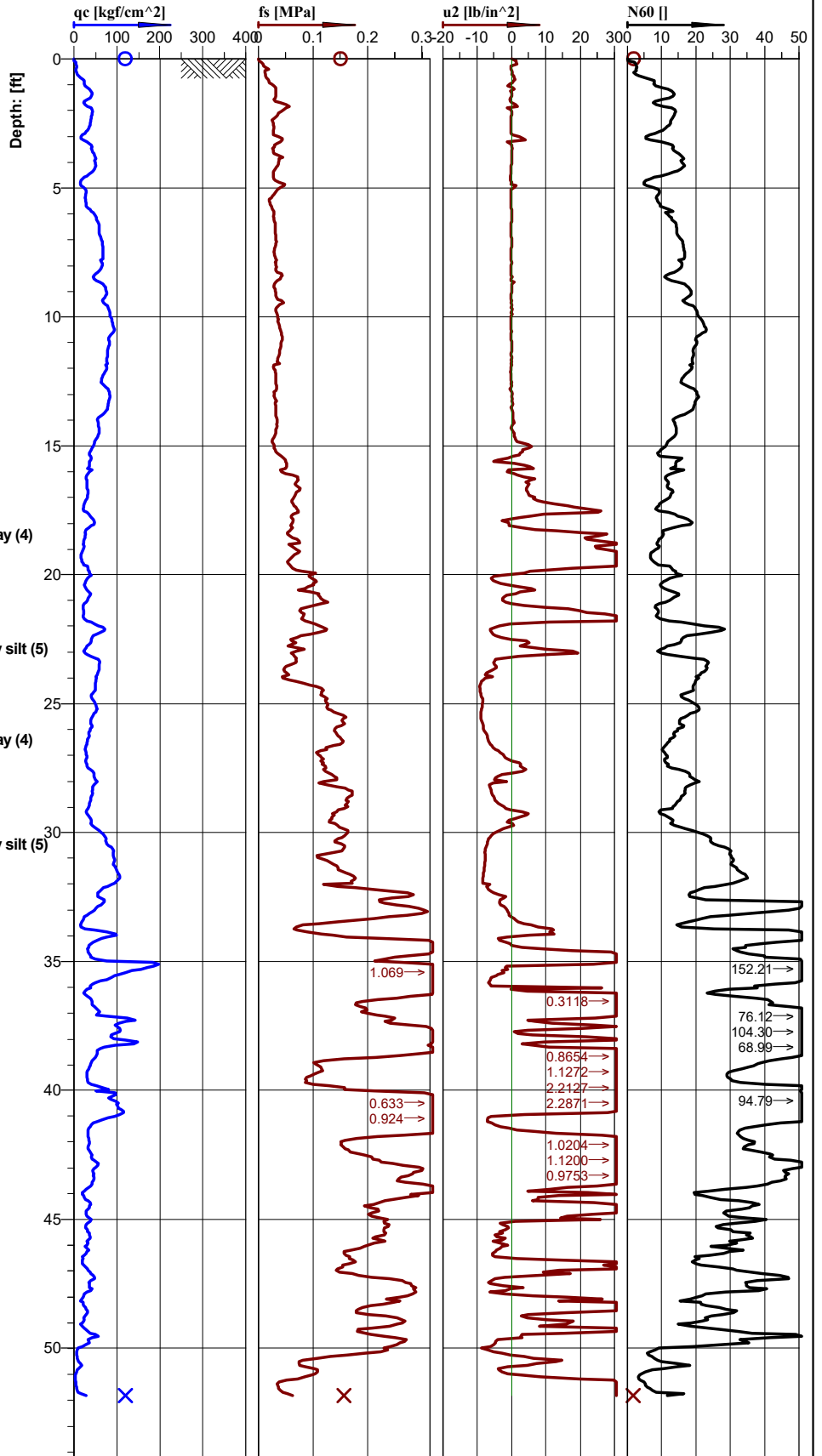
Sand mixtures; silty sand to sandy silt (5)

Silt mixtures; clayey silt to silty clay (4)

Sand mixtures; silty sand to sandy silt (5)

Clays; clay to silty clay (3)

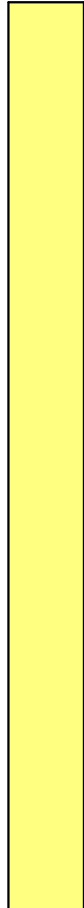
Organic soils-peats (2)



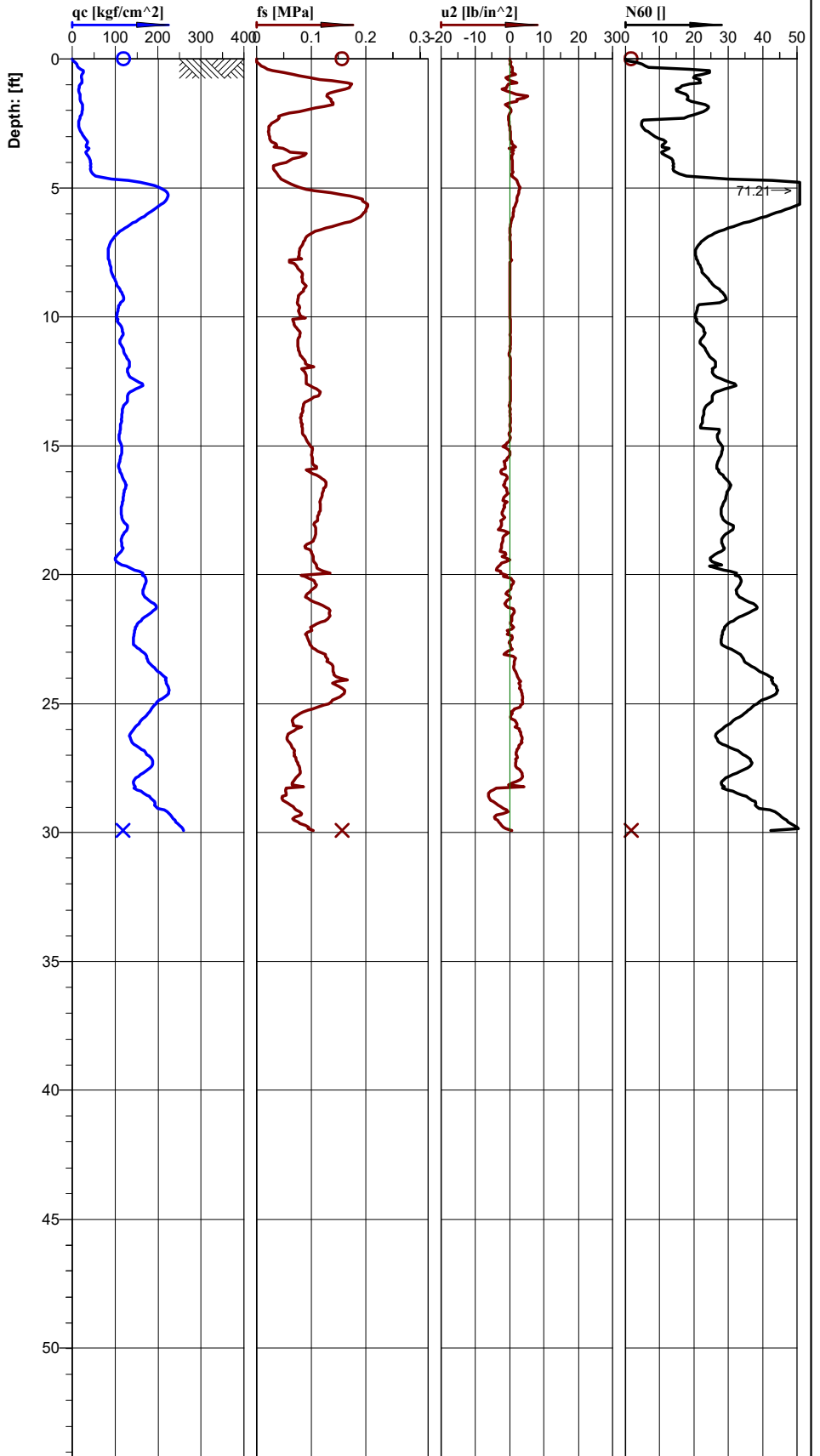
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Project ID:	221-602	Client:	Andreyev Engineering Inc	Date:	1/26/2021	Scale:	1 : 76
Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-21-3.cpt		



Classification by  
Robertson 1990

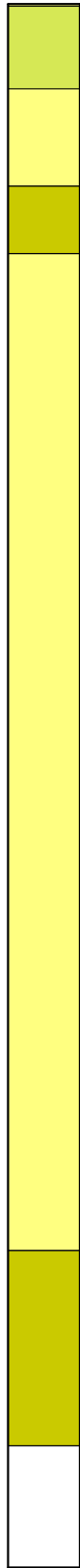


Sands; clean sand to silty sand (6)



Location:	Position: X: 0.00 ft, Y: 0.00 ft	Ground level: 0.00	Test No.: A
Project ID:	Client:	Date: 1/26/2021	Scale: 1 : 76
Project: 4		Page: 1/1	Fig.:
		File: CPT-22-3.cpt	

Classification by  
Robertson 1990



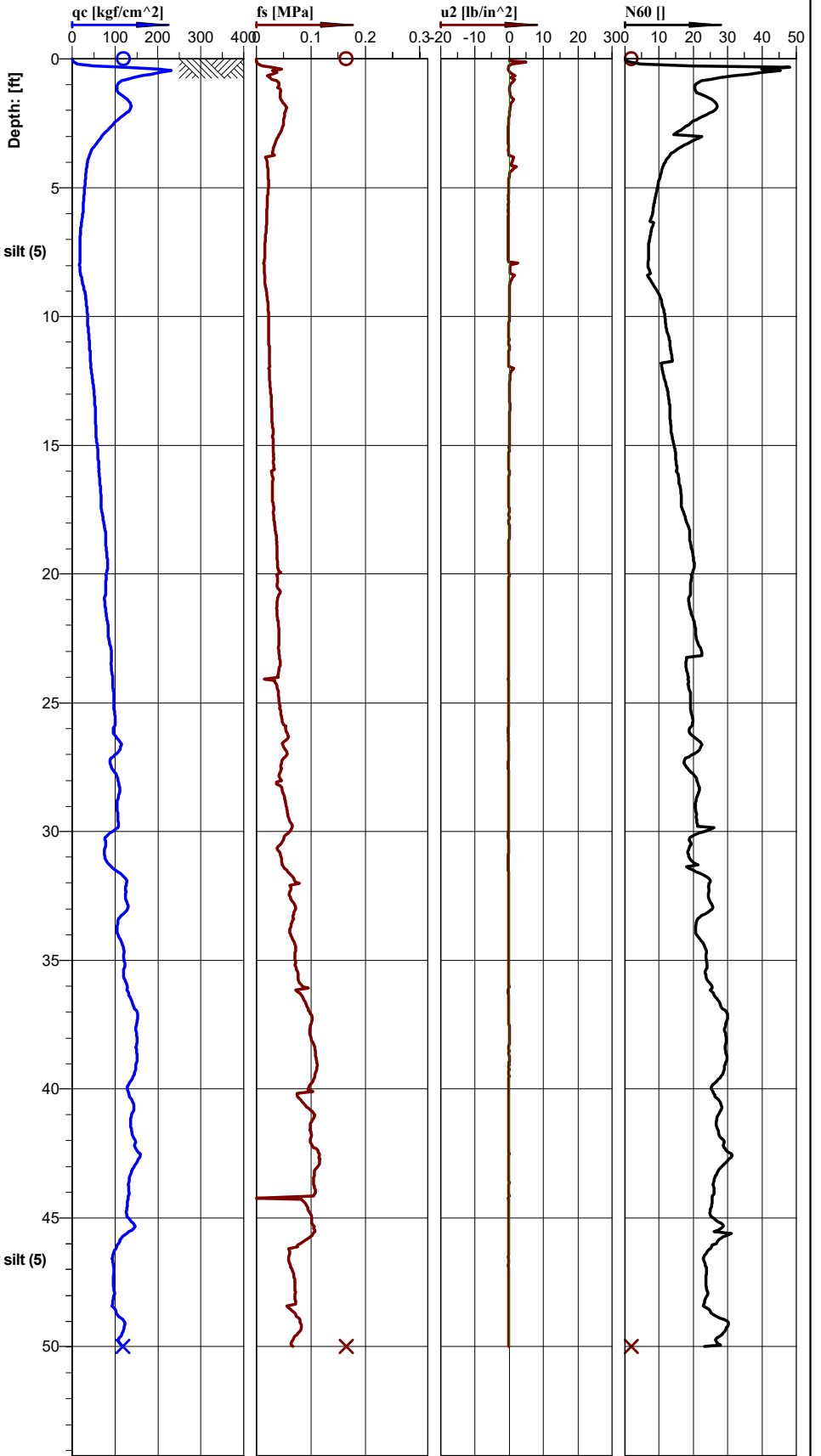
Gravely sand to sand (7)

Sands; clean sand to silty sand (6)

Sand mixtures; silty sand to sandy silt (5)

Sands; clean sand to silty sand (6)

Sand mixtures; silty sand to sandy silt (5)

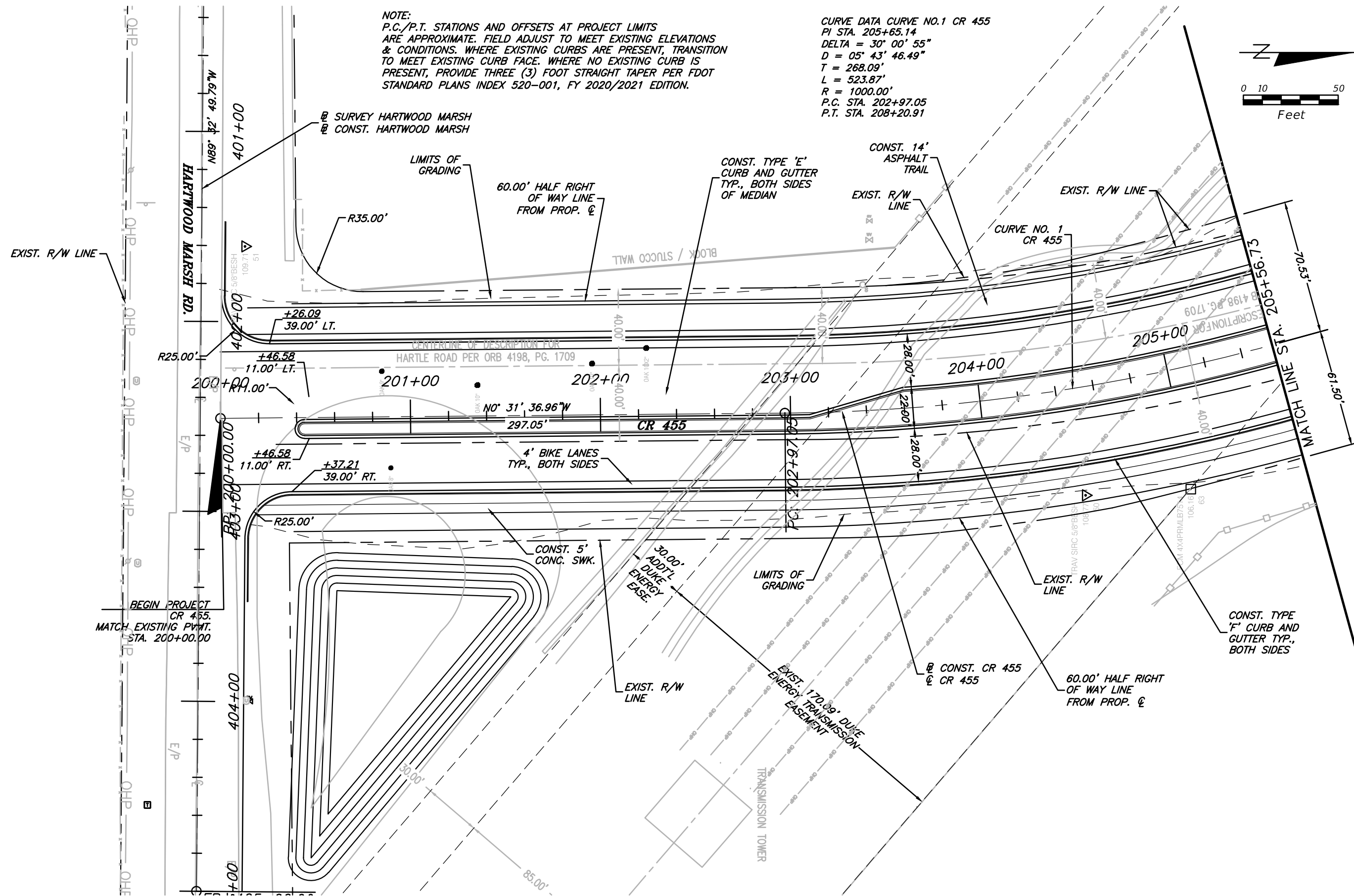
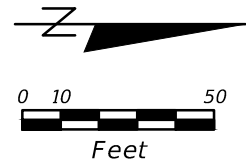


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Project:	CR 455			Page:	1/1	Fig.:	
				File:	CPT-23-3.cpt		

**APPENDIX D**  
Preliminary Concept Plans

NOTE:  
P.C./P.T. STATIONS AND OFFSETS AT PROJECT LIMITS  
ARE APPROXIMATE. FIELD ADJUST TO MEET EXISTING ELEVATIONS  
& CONDITIONS. WHERE EXISTING CURBS ARE PRESENT, TRANSITION  
TO MEET EXISTING CURB FACE. WHERE NO EXISTING CURB IS  
PRESENT, PROVIDE THREE (3) FOOT STRAIGHT TAPER PER FDOT  
STANDARD PLANS INDEX 520-001, FY 2020/2021 EDITION.

CURVE DATA CURVE NO.1 CR 455  
PI STA. 205+65.14  
DELTA = 30° 00' 55"  
D = 05° 43' 46.49"  
T = 268.09'  
L = 523.87'  
R = 1000.00'  
P.C. STA. 202+97.05  
P.T. STA. 208+20.91



DATE	REVISIONS

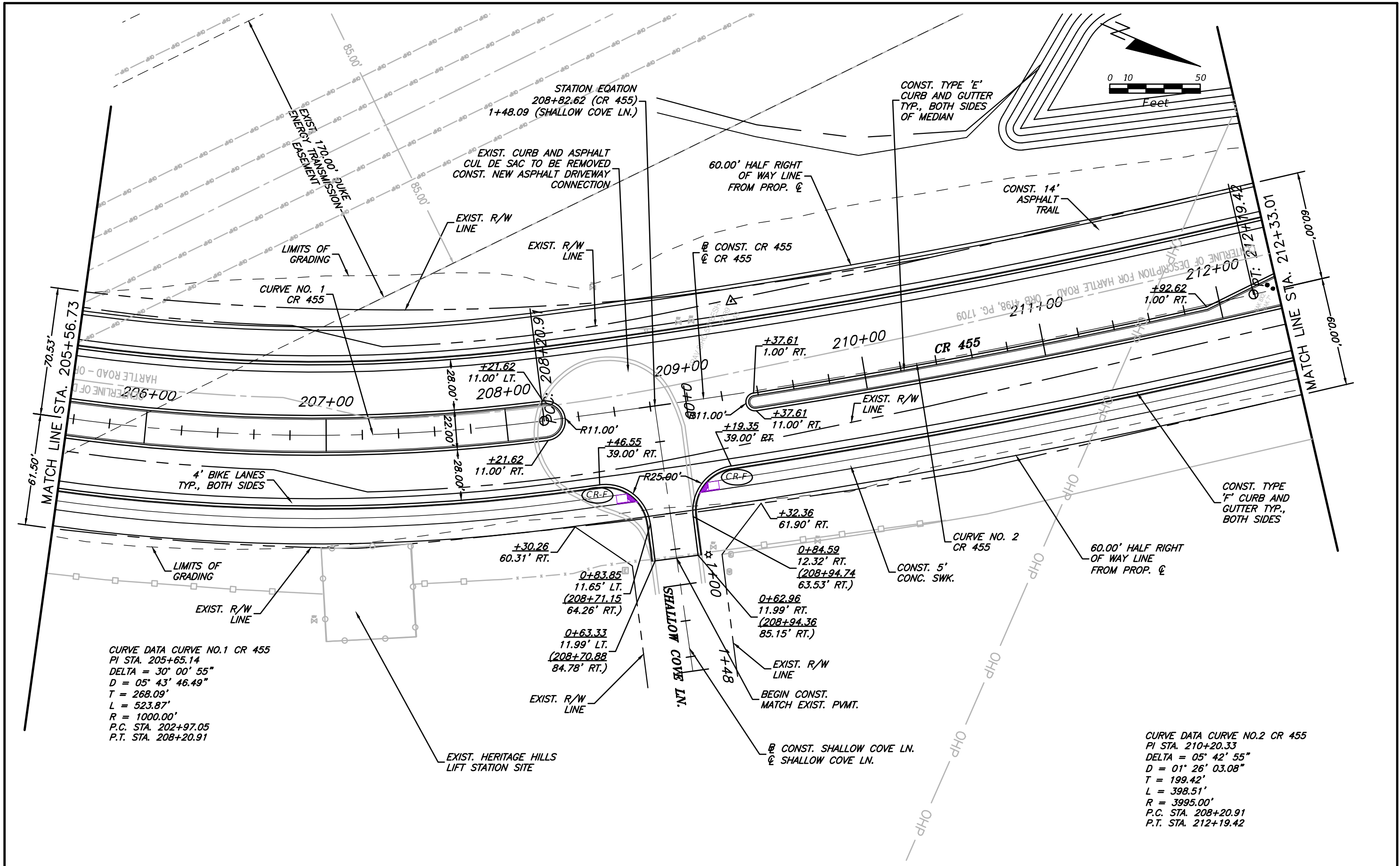
**LAKE COUNTY, FL**  
LAKE COUNTY  
315 WEST MAIN STREET  
TAVARES, FL 32778

**HALFF**  
DUANE K. BOOTH, P.E.  
P.E. LICENSE NUMBER 44631  
902 NORTH SINCLAIR AVE.  
TAVARES, FL 32778  
CERTIFICATE OF AUTHORIZATION 33380

LAKE COUNTY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
455	LAKE	201029.0000



**LAKE COUNTY**  
CR 455  
PLAN SHEET (01)

SHEET NO.
##

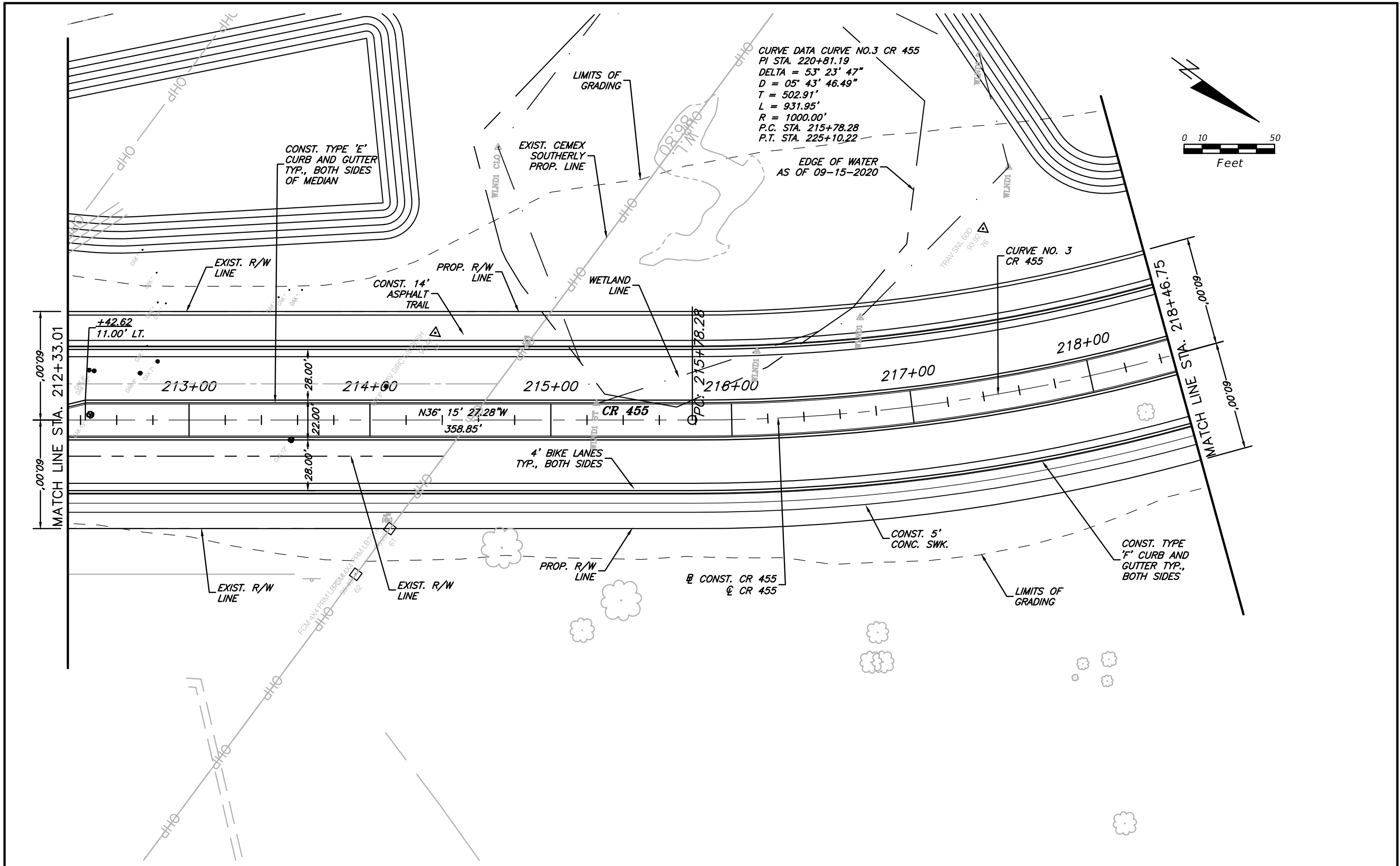


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 D = 05° 43' 46.49"  
 T = 268.09'  
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 R = 1000.00'  
 P.C. STA. 202+97.05  
 P.T. STA. 208+20.91

**CURVE DATA CURVE NO.2 CR 455**  
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 DELTA = 05° 42' 55"  
 D = 01° 26' 03.08"  
 T = 199.42'  
 L = 398.51'  
 R = 3995.00'  
 P.C. STA. 208+20.91  
 P.T. STA. 212+19.42

DATE	REVISIONS	 LAKE COUNTY, FL REAL FLORIDA - REAL CLOSE	LAKE COUNTY 315 WEST MAIN STREET TAVARES, FL 32778	 <b>HALFF</b> DUANE K. BOOTH, P.E. P.E. LICENSE NUMBER 44631 902 NORTH SINCLAIR AVE. TAVARES, FL 32778 CERTIFICATE OF AUTHORIZATION 33380	LAKE COUNTY			LAKE COUNTY CR 455 PLAN SHEET (02)	SHEET NO.  ##
					ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					455	LAKE	201029.0000		





DATE	REVISIONS



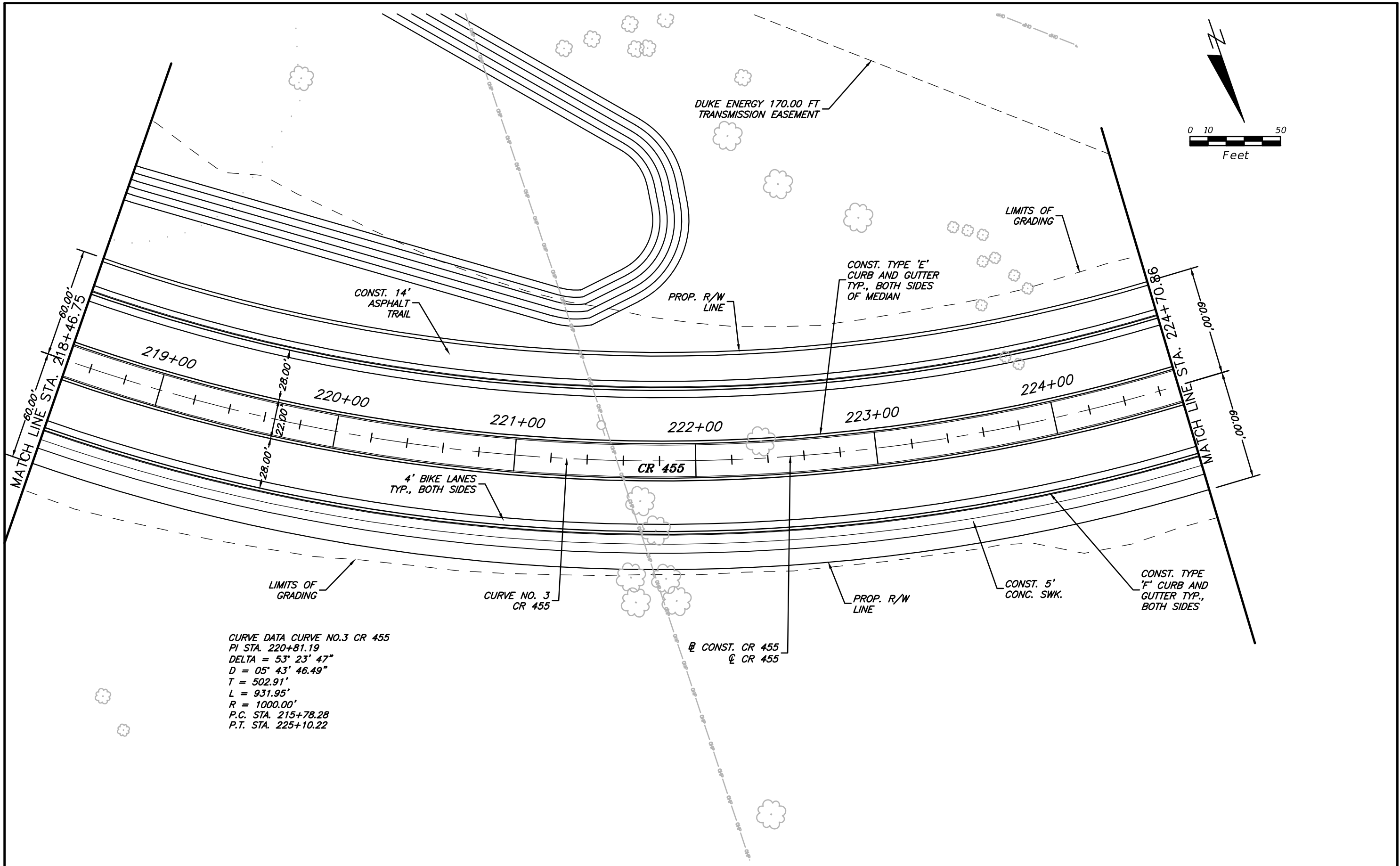
LAKE COUNTY  
315 WEST MAIN STREET  
TAVARES, FL 32778

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P.E. LICENSE NUMBER 44631  
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
455	LAKE	201029.0000

LAKE COUNTY  
CR 455  
PLAN SHEET (03)

SHEET NO.
##



DATE	REVISIONS



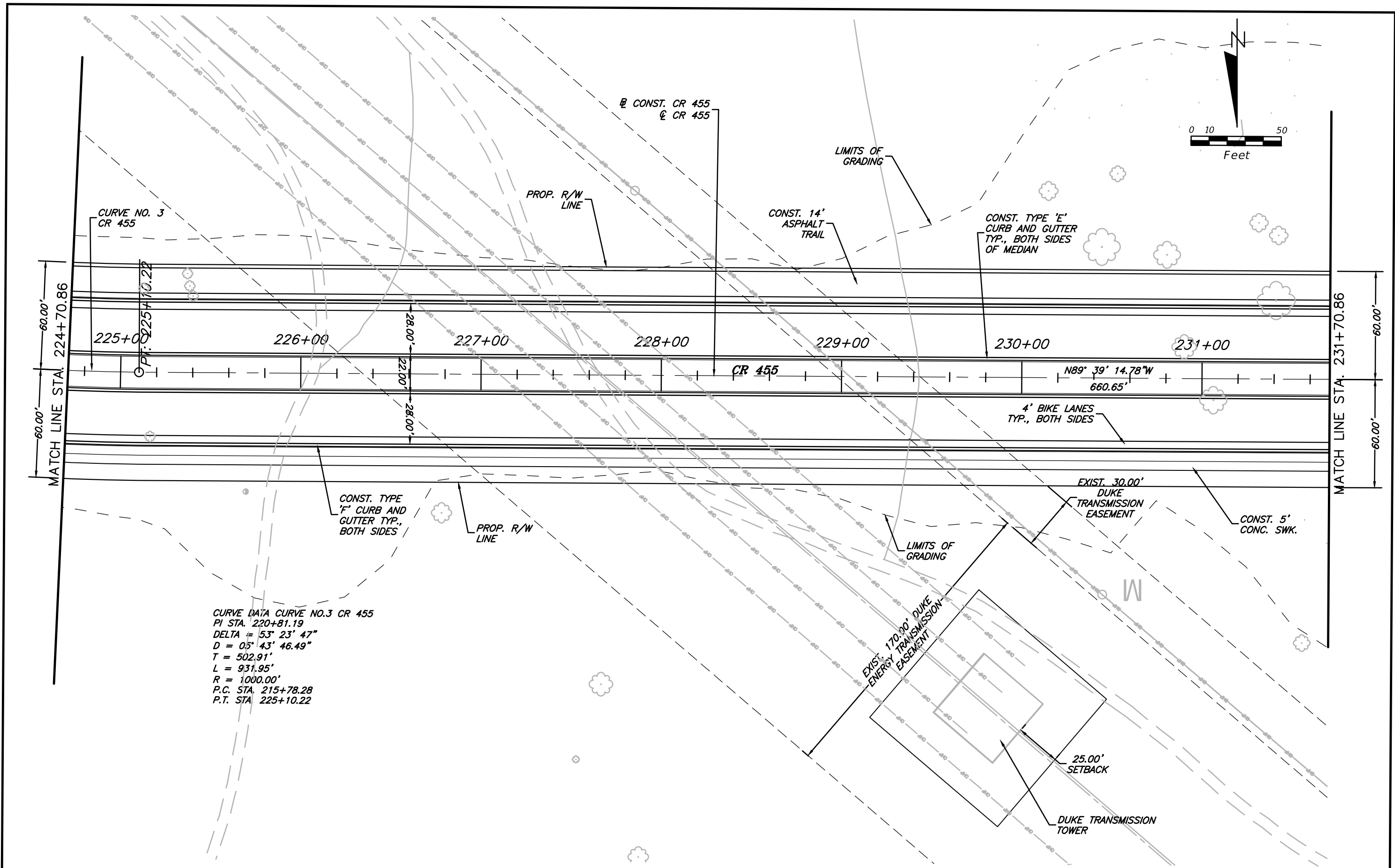
LAKE COUNTY  
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 TAVARES, FL 32778

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 P.E. LICENSE NUMBER 44631  
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 TAVARES, FL 32778  
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
455	LAKE	201029.0000

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 CR 455  
 PLAN SHEET (04)

SHEET NO.
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 TAVARES, FL 32778

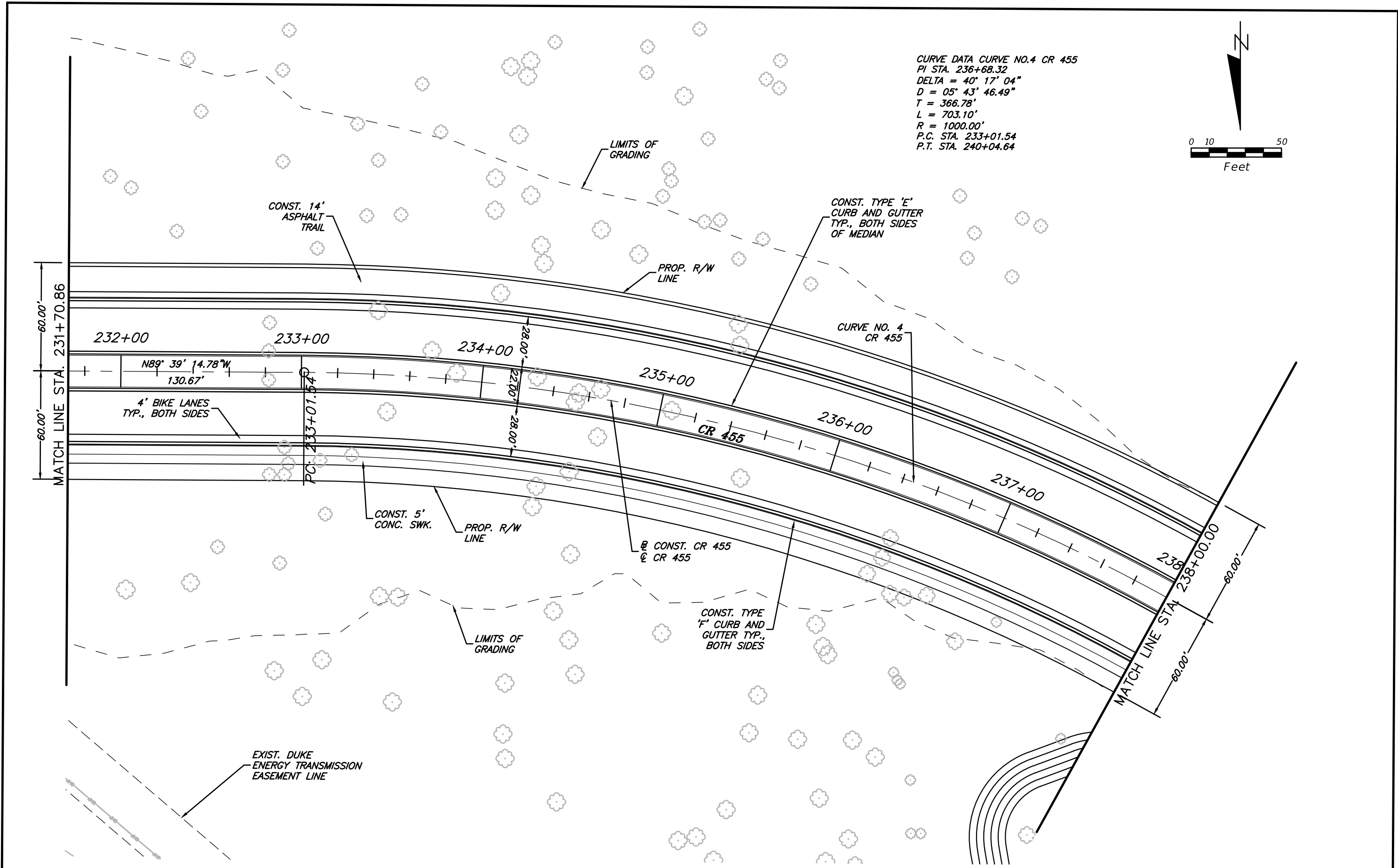
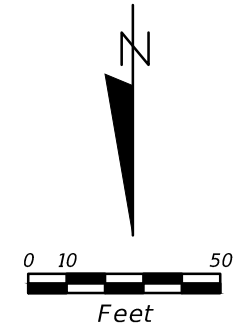
**HALFF**  
 DUANE K. BOOTH, P.E.  
 P.E. LICENSE NUMBER 44631  
 902 NORTH SINCLAIR AVE.  
 TAVARES, FL 32778  
 CERTIFICATE OF AUTHORIZATION 33380

LAKE COUNTY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
455	LAKE	201029.0000

**LAKE COUNTY**  
**CR 455**  
**PLAN SHEET (05)**

SHEET NO.
##

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 D = 05° 43' 46.49"  
 T = 366.78'  
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 R = 1000.00'  
 P.C. STA. 233+01.54  
 P.T. STA. 240+04.64



DATE	REVISIONS



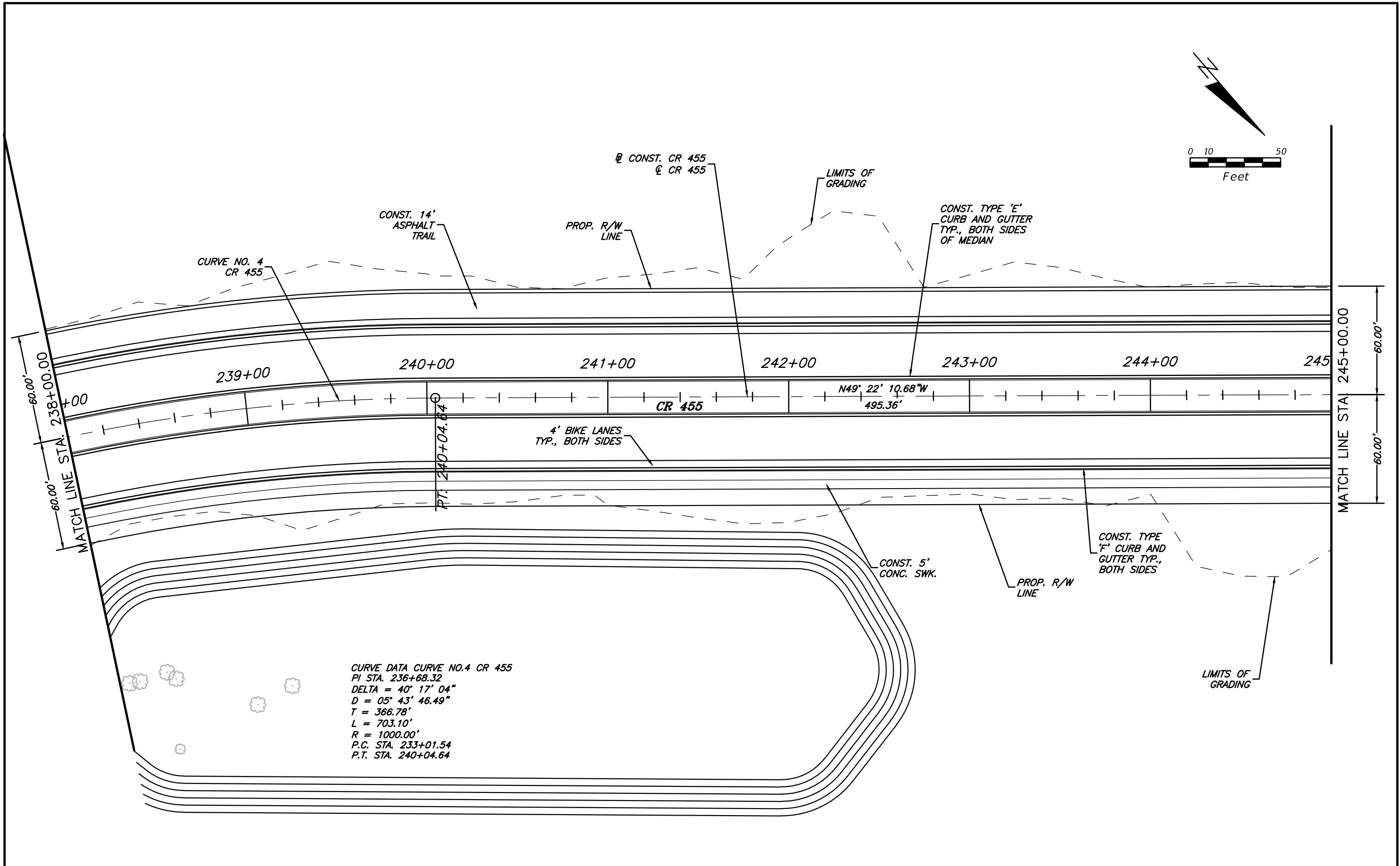
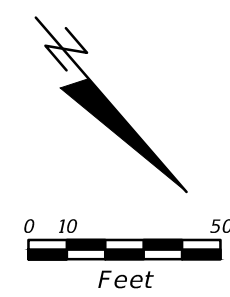
LAKE COUNTY  
 315 WEST MAIN STREET  
 TAVARES, FL 32778

**HALFF**  
 DUANE K. BOOTH, P.E.  
 P.E. LICENSE NUMBER 44631  
 902 NORTH SINCLAIR AVE.  
 TAVARES, FL 32778  
 CERTIFICATE OF AUTHORIZATION 33380



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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
455	LAKE	201029.0000

LAKE COUNTY  
 CR 455  
 PLAN SHEET (06)

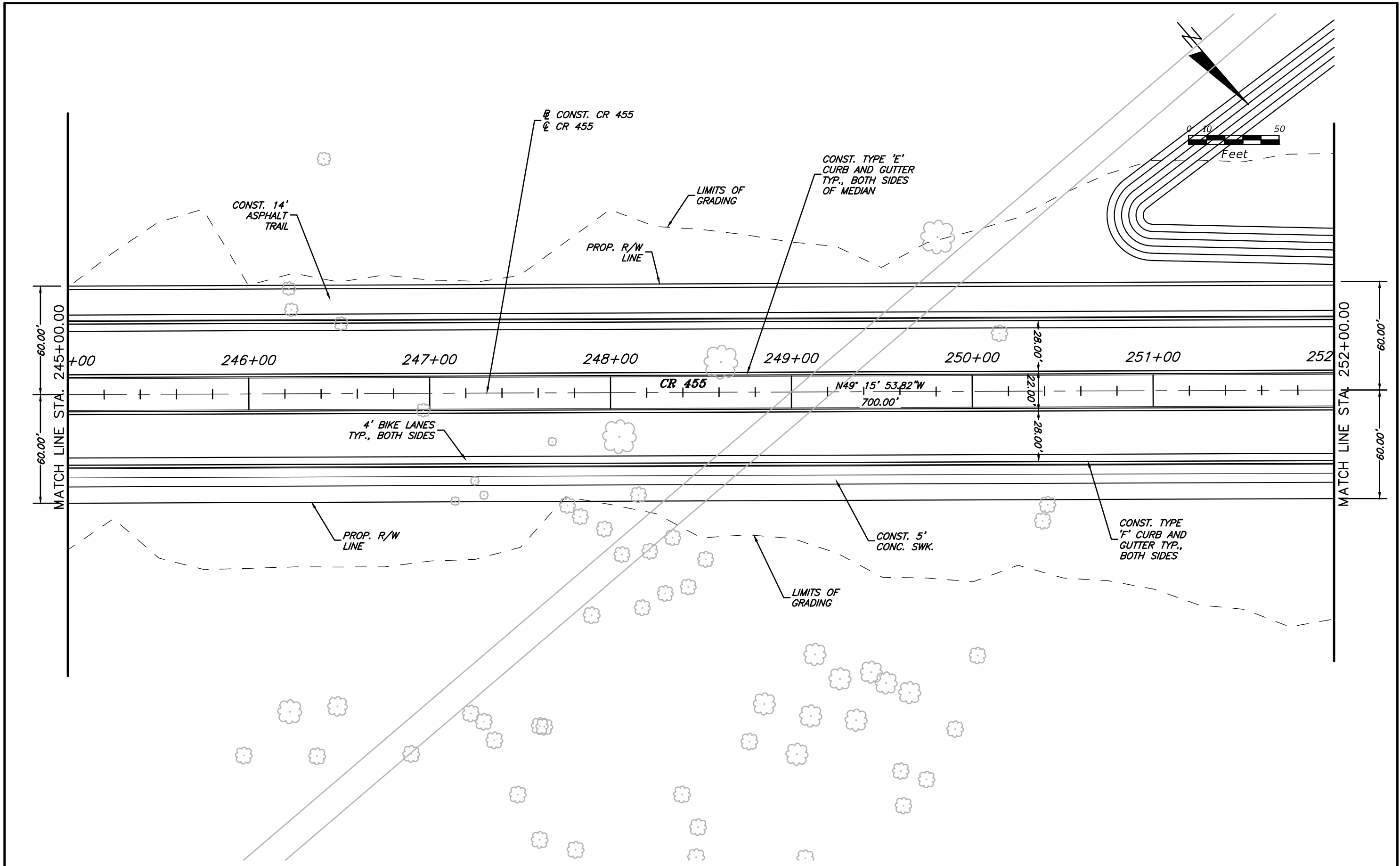
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 R = 1000.00'  
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 P.T. STA. 240+04.64

DATE		REVISIONS		 <b>LAKE COUNTY, FL</b> <small>REAL FLORIDA - REAL CLOSE</small>	<b>LAKE COUNTY</b> 315 WEST MAIN STREET TAVARES, FL 32778	 <b>HALFF</b> DUANE K. BOOTH, P.E. P.E. LICENSE NUMBER 44631 902 NORTH SINCLAIR AVE. TAVARES, FL 32778 CERTIFICATE OF AUTHORIZATION 33380	<b>LAKE COUNTY</b>			<b>LAKE COUNTY</b> <b>CR 455</b> <b>PLAN SHEET (07)</b>	SHEET NO.
							ROAD NO. 455	COUNTY LAKE	FINANCIAL PROJECT ID 201029.0000		##





DATE	REVISIONS



LAKE COUNTY  
 315 WEST MAIN STREET  
 TAVARES, FL 32778

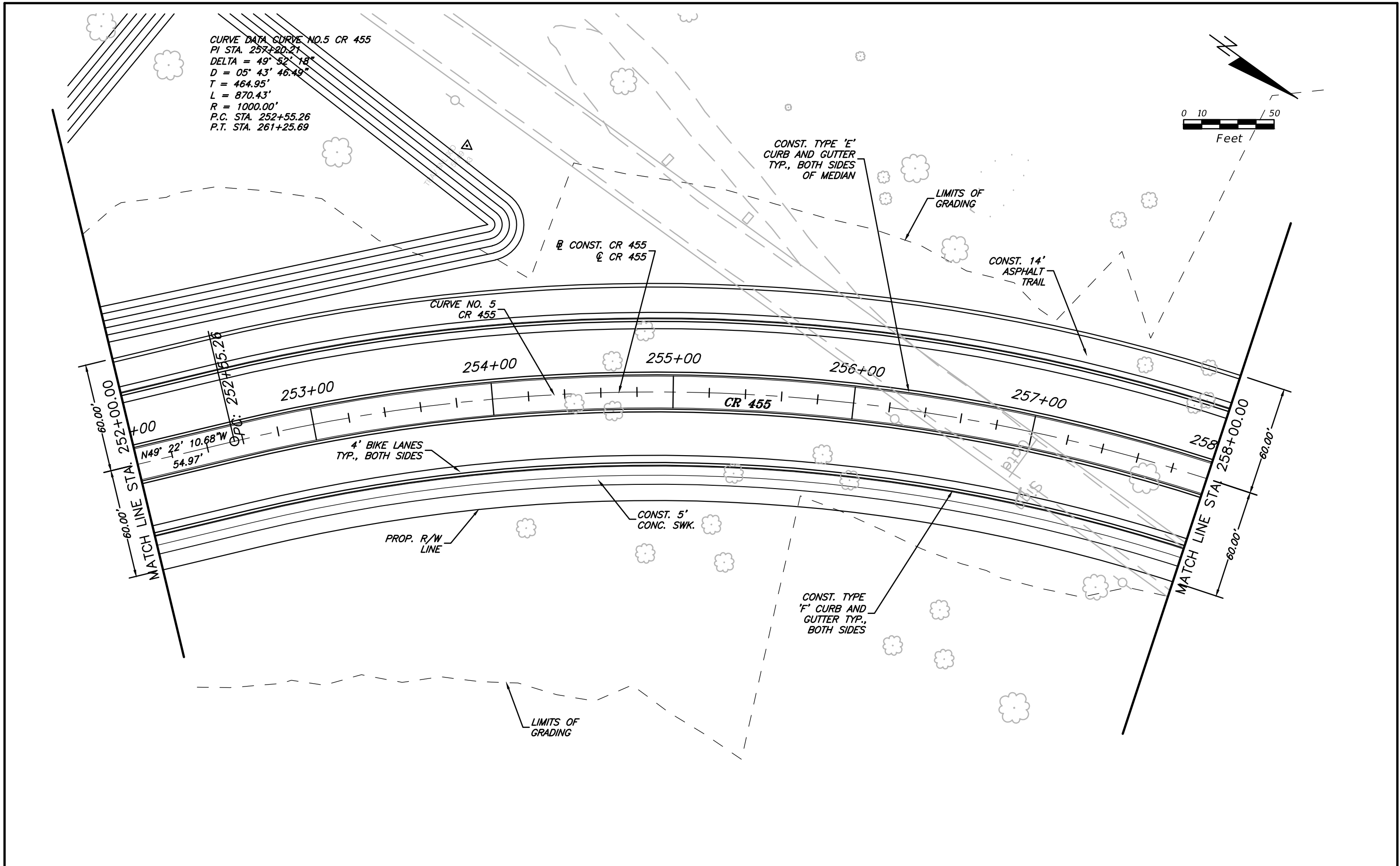
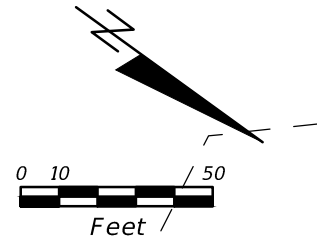
**HALFF**  
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 P.E. LICENSE NUMBER 44631  
 902 NORTH SINCLAIR AVE.  
 TAVARES, FL 32778  
 CERTIFICATE OF AUTHORIZATION 33380

LAKE COUNTY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
455	LAKE	201029.0000

LAKE COUNTY  
 CR 455  
 PLAN SHEET (08)

SHEET NO.
##

CURVE DATA CURVE NO.5 CR 455  
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 DELTA = 49° 52' 18"  
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 T = 464.95'  
 L = 870.43'  
 R = 1000.00'  
 P.C. STA. 252+55.26  
 P.T. STA. 261+25.69



DATE	REVISIONS



LAKE COUNTY  
 315 WEST MAIN STREET  
 TAVARES, FL 32778

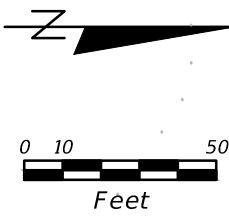
**HALFF**  
 DUANE K. BOOTH, P.E.  
 P.E. LICENSE NUMBER 44631  
 902 NORTH SINCLAIR AVE.  
 TAVARES, FL 32778  
 CERTIFICATE OF AUTHORIZATION 33380

LAKE COUNTY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
455	LAKE	201029.0000

LAKE COUNTY  
 CR 455  
 PLAN SHEET (09)

SHEET NO.
##

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 T = 464.95'  
 L = 870.43'  
 R = 1000.00'  
 P.C. STA. 252+55.26  
 P.T. STA. 261+25.69



CONST. TYPE 'E'  
 CURB AND GUTTER  
 TYP., BOTH SIDES  
 OF MEDIAN

CONST. 14'  
 ASPHALT  
 TRAIL

CURVE NO. 5  
 CR 455

PROP. R/W  
 LINE

NORTH PROPERTY  
 LINE CEMEX

CONST. CR 455  
 CR 455

SURVEY & CONST.  
 JOHNS LAKE RD.

MATCH LINE STA. 258+00.00  
 60.00'

259+00

260+00

261+00

262+00

263+00

264+00

MATCH LINE STA. 264+34.02

4' BIKE LANES  
 TYP., BOTH SIDES

CR 455

30.00'  
 ADD'L  
 DUKE  
 ENERGY  
 EASE.

STA. EQN.  
 STA. 263+84.28 CR 455  
 STA. 604+24.70 JOHNS LAKE RD.

PROP. R/W  
 LINE

LIMITS OF  
 GRADING

CONST. TYPE  
 'F' CURB AND  
 GUTTER TYP.,  
 BOTH SIDES

CONST. 5'  
 CONC. SWK.

EXIST. 170.00' DUKE  
 ENERGY TRANSMISSION  
 EASEMENT

PI: 605+21

606+00

DATE	REVISIONS



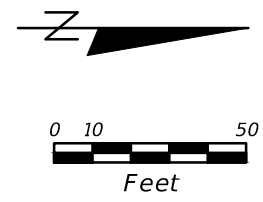
LAKE COUNTY  
 315 WEST MAIN STREET  
 TAVARES, FL 32778

**HALFF**  
 DUANE K. BOOTH, P.E.  
 P.E. LICENSE NUMBER 44631  
 902 NORTH SINCLAIR AVE.  
 TAVARES, FL 32778  
 CERTIFICATE OF AUTHORIZATION 33380

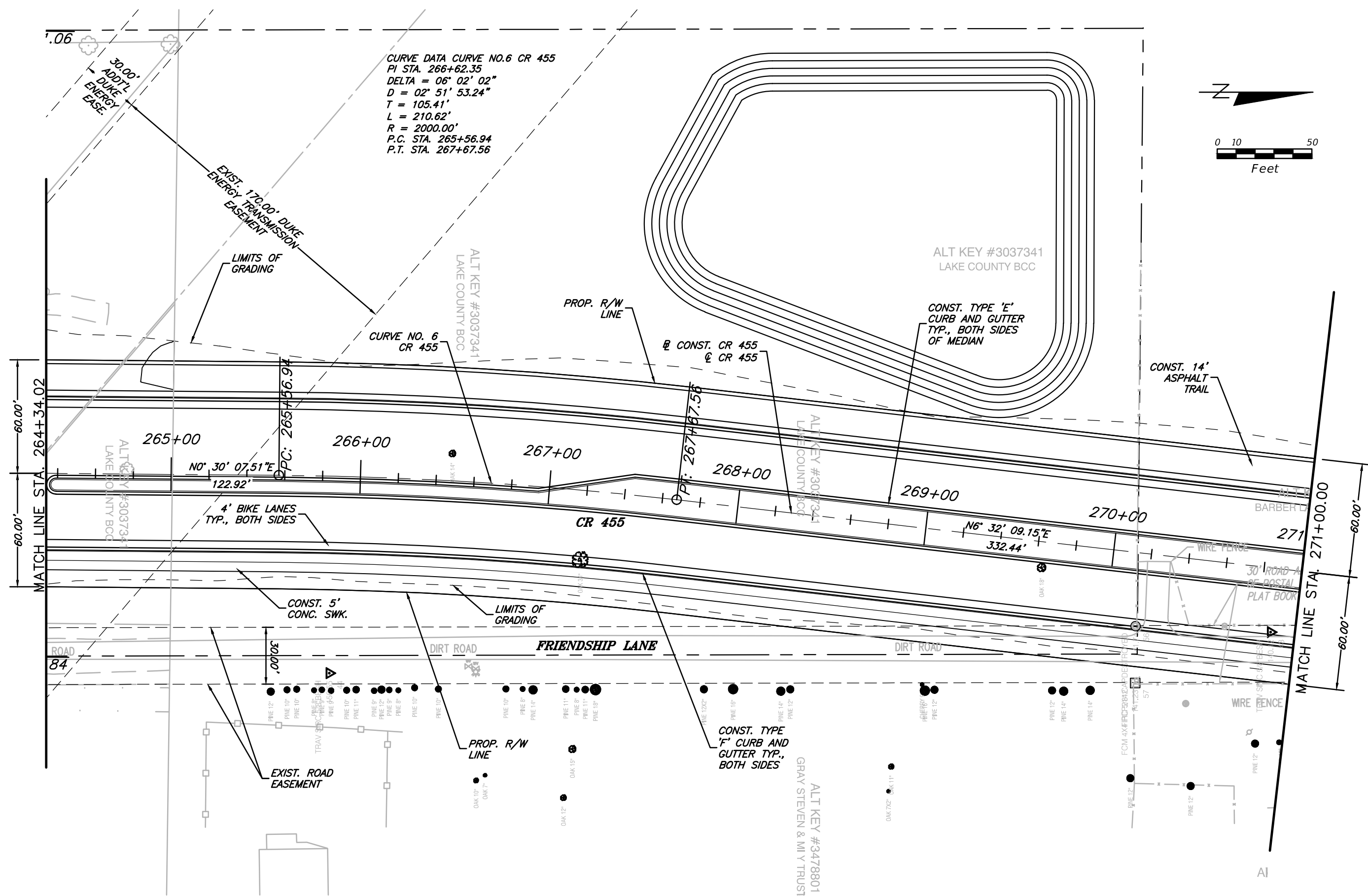
LAKE COUNTY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
455	LAKE	201029.0000

LAKE COUNTY  
 CR 455  
 PLAN SHEET (10)

SHEET NO.  
 ##



CURVE DATA CURVE NO.6 CR 455  
 PI STA. 266+62.35  
 DELTA = 06° 02' 02"  
 D = 02° 51' 53.24"  
 T = 105.41'  
 L = 210.62'  
 R = 2000.00'  
 P.C. STA. 265+56.94  
 P.T. STA. 267+67.56



DATE	REVISIONS



LAKE COUNTY  
 315 WEST MAIN STREET  
 TAVARES, FL 32778

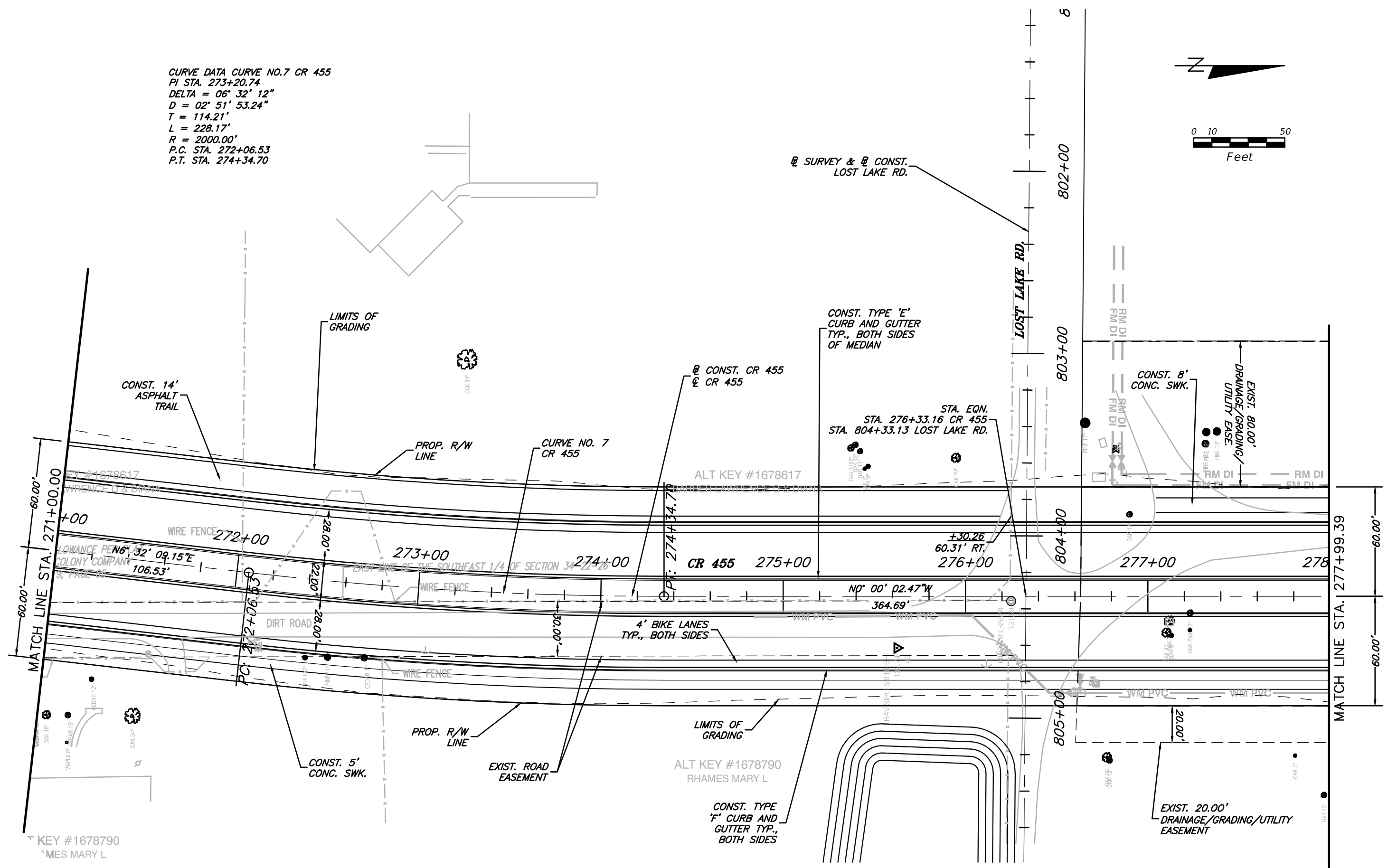
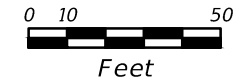
**HALFF**  
 DUANE K. BOOTH, P.E.  
 P.E. LICENSE NUMBER 44631  
 902 NORTH SINCLAIR AVE.  
 TAVARES, FL 32778  
 CERTIFICATE OF AUTHORIZATION 33380

LAKE COUNTY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
455	LAKE	201029.0000

LAKE COUNTY  
 CR 455  
 PLAN SHEET (11)

SHEET NO.  
 ##

CURVE DATA CURVE NO.7 CR 455  
 PI STA. 273+20.74  
 DELTA = 06° 32' 12"  
 D = 02° 51' 53.24"  
 T = 114.21'  
 L = 228.17'  
 R = 2000.00'  
 P.C. STA. 272+06.53  
 P.T. STA. 274+34.70



DATE	REVISIONS

**LAKE COUNTY, FL**  
 REAL FLORIDA - REAL CLOSE

LAKE COUNTY  
 315 WEST MAIN STREET  
 TAVARES, FL 32778

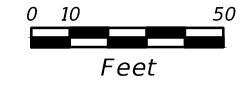
**HALFF**  
 DUANE K. BOOTH, P.E.  
 P.E. LICENSE NUMBER 44631  
 902 NORTH SINCLAIR AVE.  
 TAVARES, FL 32778  
 CERTIFICATE OF AUTHORIZATION 33380

LAKE COUNTY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
455	LAKE	201029.0000

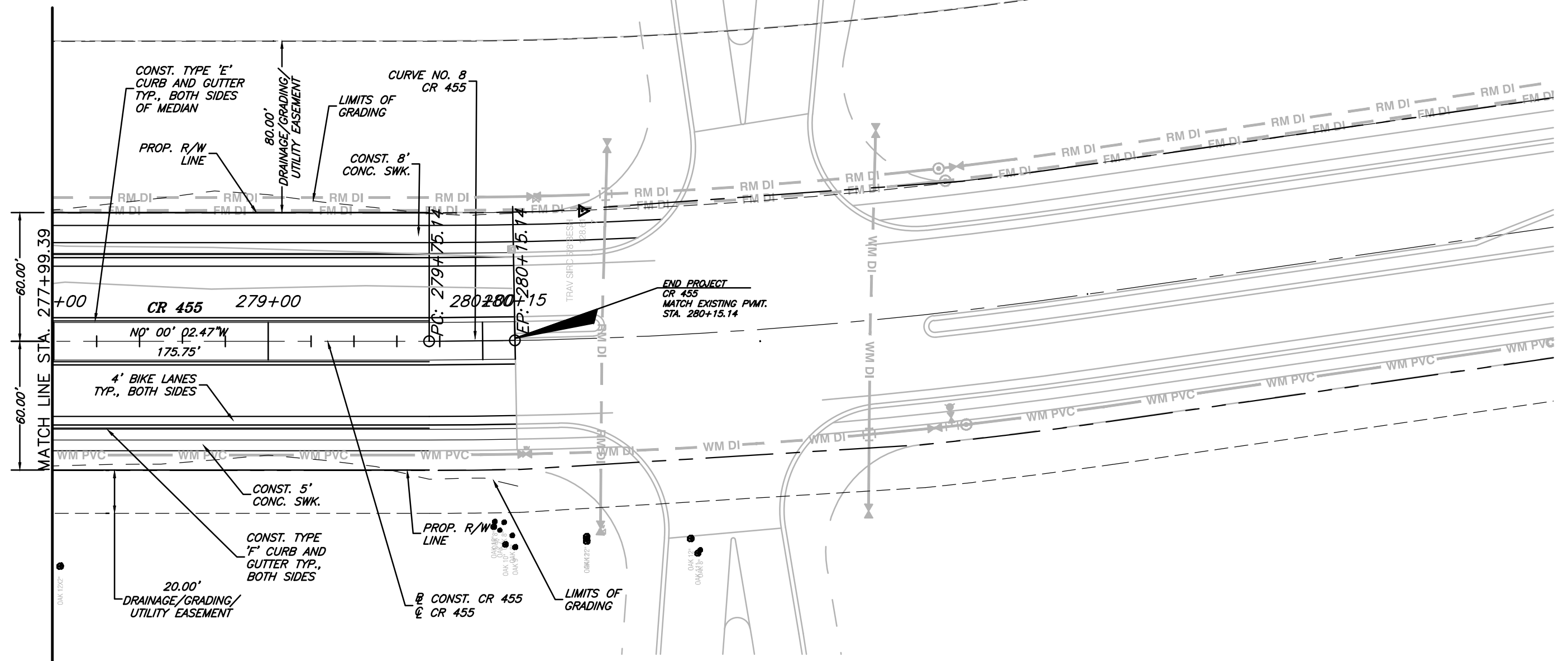
LAKE COUNTY  
 CR 455  
 PLAN SHEET (12)

SHEET NO.
##





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 D = 05° 43' 46.49"  
 T = 268.09'  
 L = 523.87'  
 R = 1000.00'  
 P.C. STA. 202+97.05  
 P.T. STA. 208+20.91



DATE	REVISIONS



LAKE COUNTY  
 315 WEST MAIN STREET  
 TAVARES, FL 32778

**HALFF**  
 DUANE K. BOOTH, P.E.  
 P.E. LICENSE NUMBER 44631  
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 TAVARES, FL 32778  
 CERTIFICATE OF AUTHORIZATION 33380

LAKE COUNTY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
455	LAKE	201029.0000

LAKE COUNTY  
 CR 455  
 PLAN SHEET (13)

SHEET NO.  
 ##

APPENDIX E  
Alternative Concepts Public Workshop  
Presentation



CR 455 PHASE 2 EXTENSION  
LOST LAKE ROAD TO HARTWOOD MARSH ROAD  
PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E)  
STUDY

---

ALTERNATIVES CONCEPTS PUBLIC WORKSHOP

JANUARY 11<sup>TH</sup>, 2022

CR 455 Lost Lake Road to Hartwood Marsh Road  
Project Development & Environment (PD&E)



# WELCOME

Alternative Concepts Public Workshop  
January 11<sup>th</sup>, 2022

Open House Format  
Presentation Runs Every 10 Minutes

Clermont City Center  
620 W. Montrose St., Clermont, FL 34711  
5:30 p.m. to 7:00 p.m.

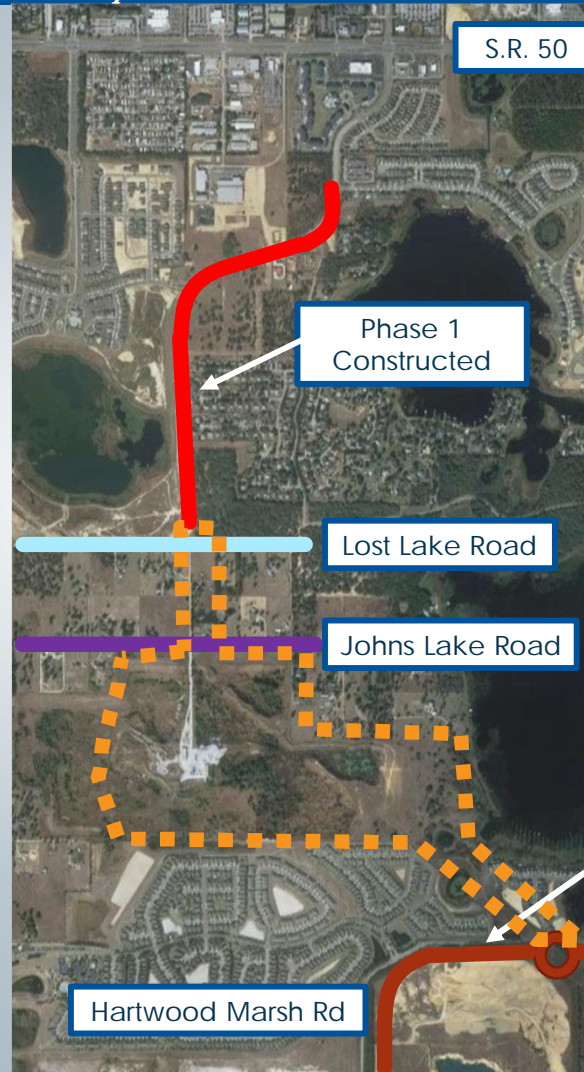
# CR 455 Lost Lake Road to Hartwood Marsh Road Project Development & Environment (PD&E)



## Study Area

### Legend

— Study Area



Phase 3A PD&E  
Approved

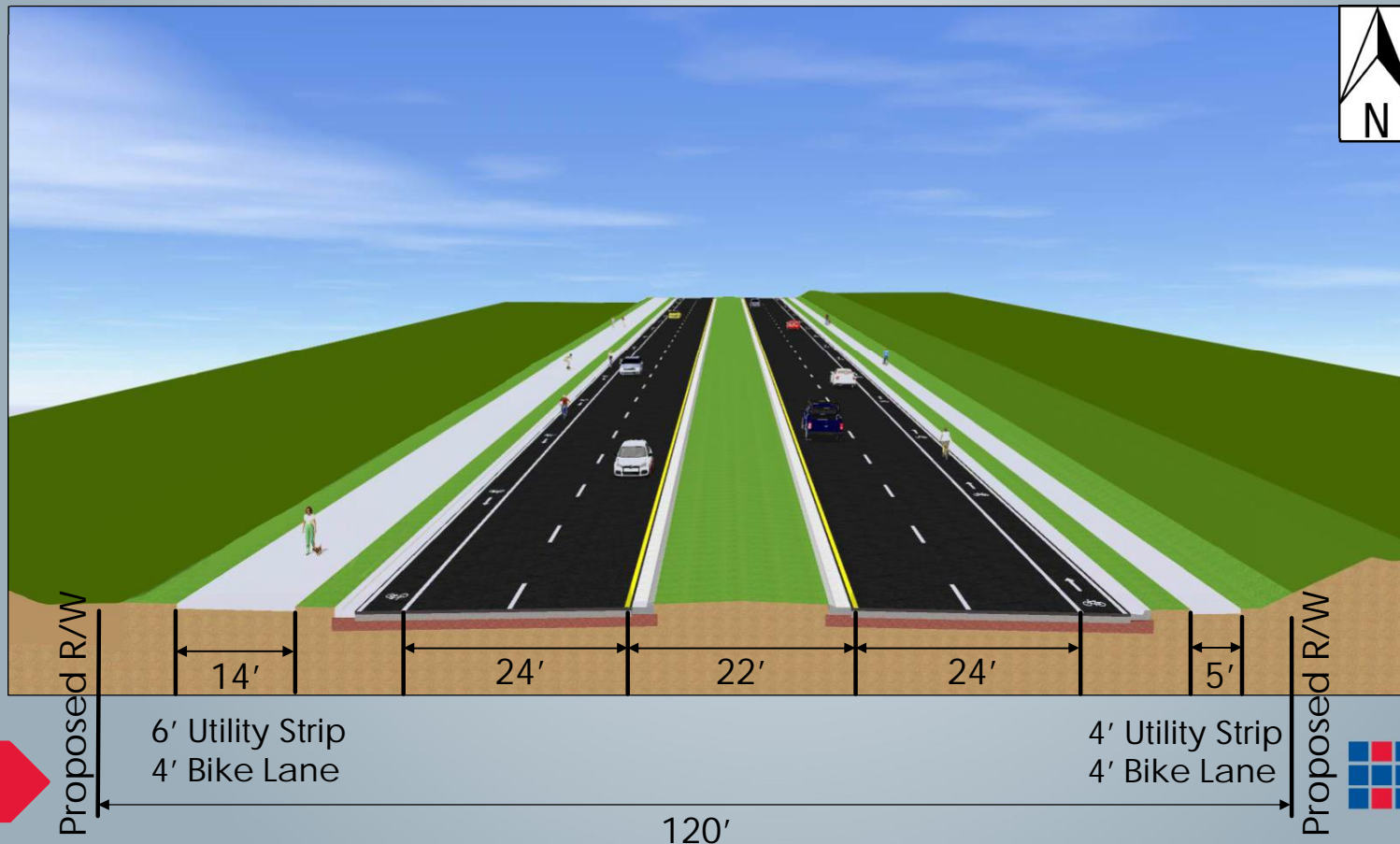




# CR 455 Lost Lake Road to Hartwood Marsh Road Project Development & Environment (PD&E)



## Typical Section – 4 Lanes (proposed)



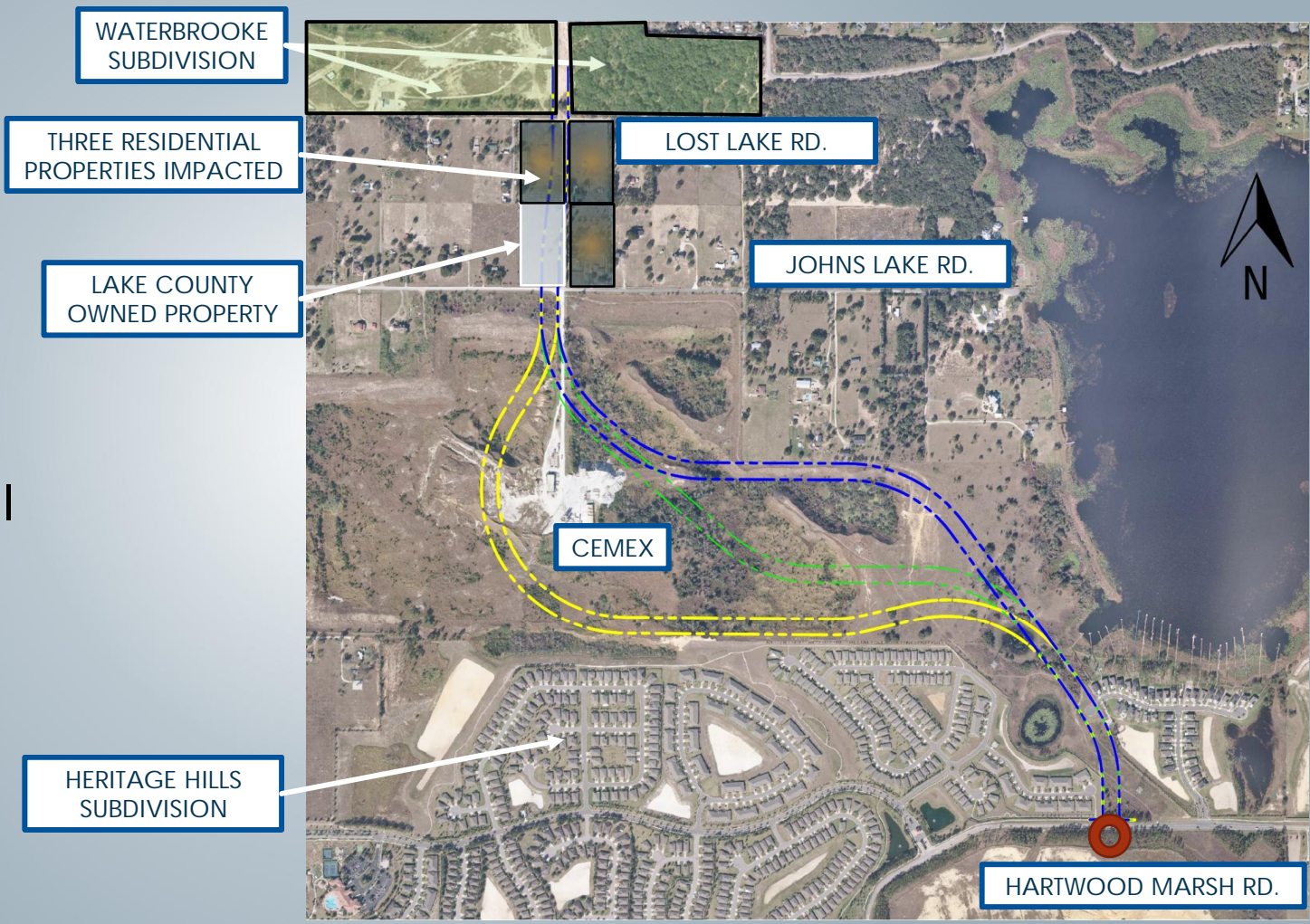
# CR 455 Lost Lake Road to Hartwood Marsh Road Project Development & Environment (PD&E)



## Alternative Alignments

### Legend

- Central
- North
- South

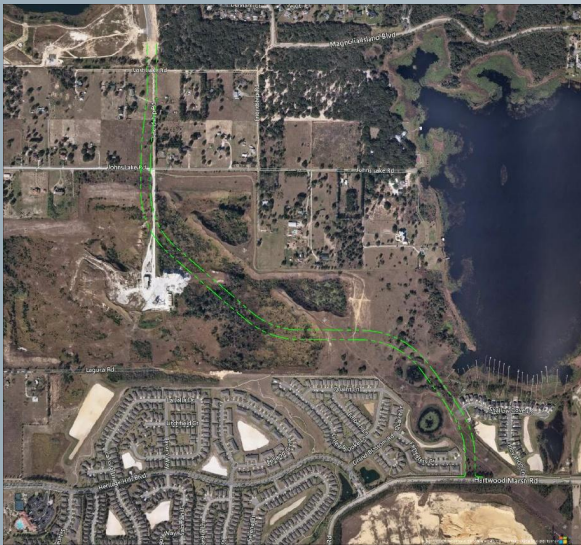




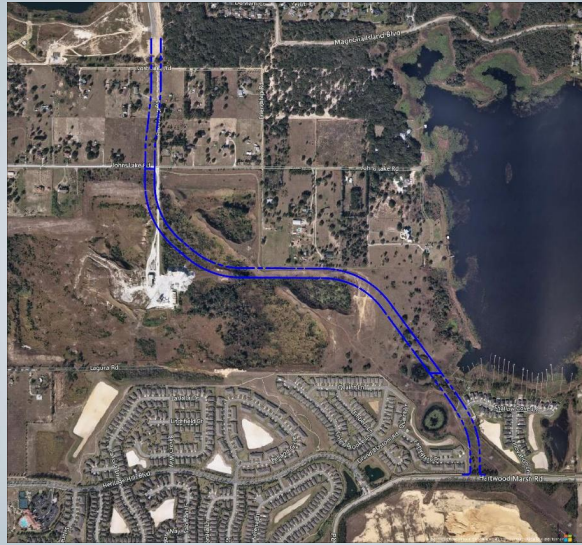
# CR 455 Lost Lake Road to Hartwood Marsh Road Project Development & Environment (PD&E)



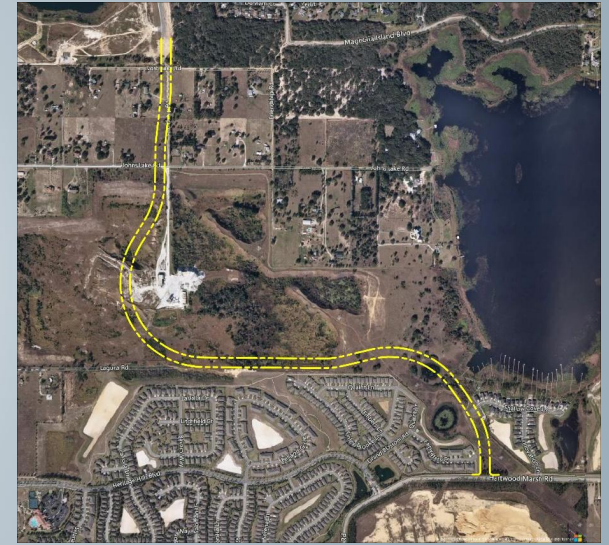
## Evaluated Build Alternatives



Green



Blue



Yellow



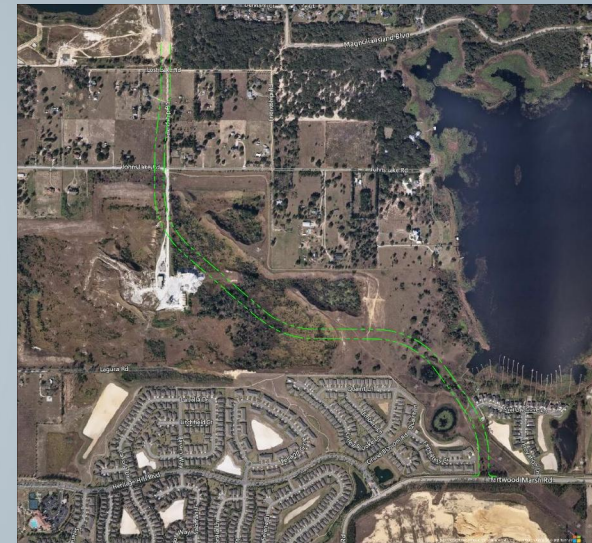
## Pros and Cons of Green Alignment

### Green Pros

- Provides buffer of roadway from adjoining properties.
- Least Right-of-Way needed.
- Least unsuitable/slime material.
- Least grading to provide a safe driving profile.
- Provide future development opportunities on both sides of roadway.
- Existing concrete plant remains.
- Least construction cost.

### Green Cons

- Potential for a deep unsuitable/slime deposit (40-feet).
- Switch back curve to allow existing plant to stay operational and miss existing Duke Energy Transmission Tower.





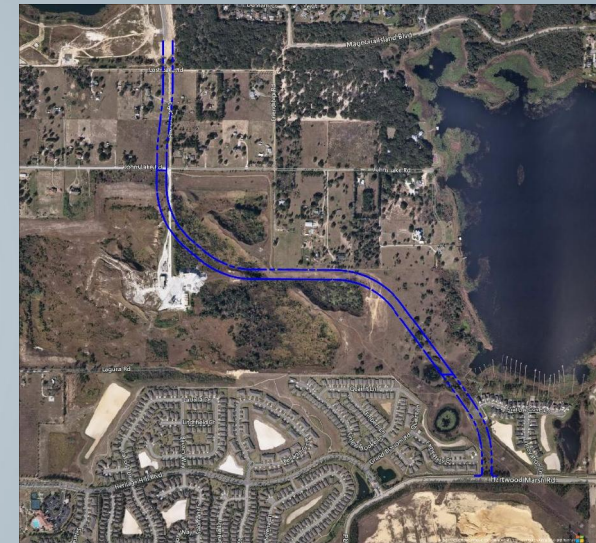
## Pros and Cons of Blue Alignment

### Blue Pros

- Existing concrete plant remains.
- Right-of-Way needed 0.15 acres more than Green Alignment.
- Avoids Duke Energy Transmission Towers.

### Blue Cons

- Aligns along the north property line adjacent to single family homes.
- Multiple unsuitable/slime deposits.
- Extreme challenge with profile grading (areas with high and low elevations).
- Additional grading needed outside of Right-of-Way.
- Differential settlement likely.
- Provide future development opportunity on only one side of roadway.
- Cost to construct is second largest







# Pros and Cons of Yellow Alignment

## Yellow Pros

- Existing concrete plant remains.
- Extends the furthest west of all three alignments.

## Yellow Cons

- Multiple unsuitable/slime deposits.
- Most Right-of-Way needed.
- Aligns along the south property line adjacent to single family homes at Heritage Hills.
- Extreme challenge with profile grading (areas with high and low elevations).
- Extremely large horizontal curve to avoid plant.
- Two back-to-back curves to align with south connection point.
- Differential settlement likely.
- Provide future development opportunity on mostly one side of roadway.
- Cost to construct is the largest.



# CR 455 Lost Lake Road to Hartwood Marsh Road Project Development & Environment (PD&E)

## CR 455 Ph. 2 Alternatives Evaluation Matrix

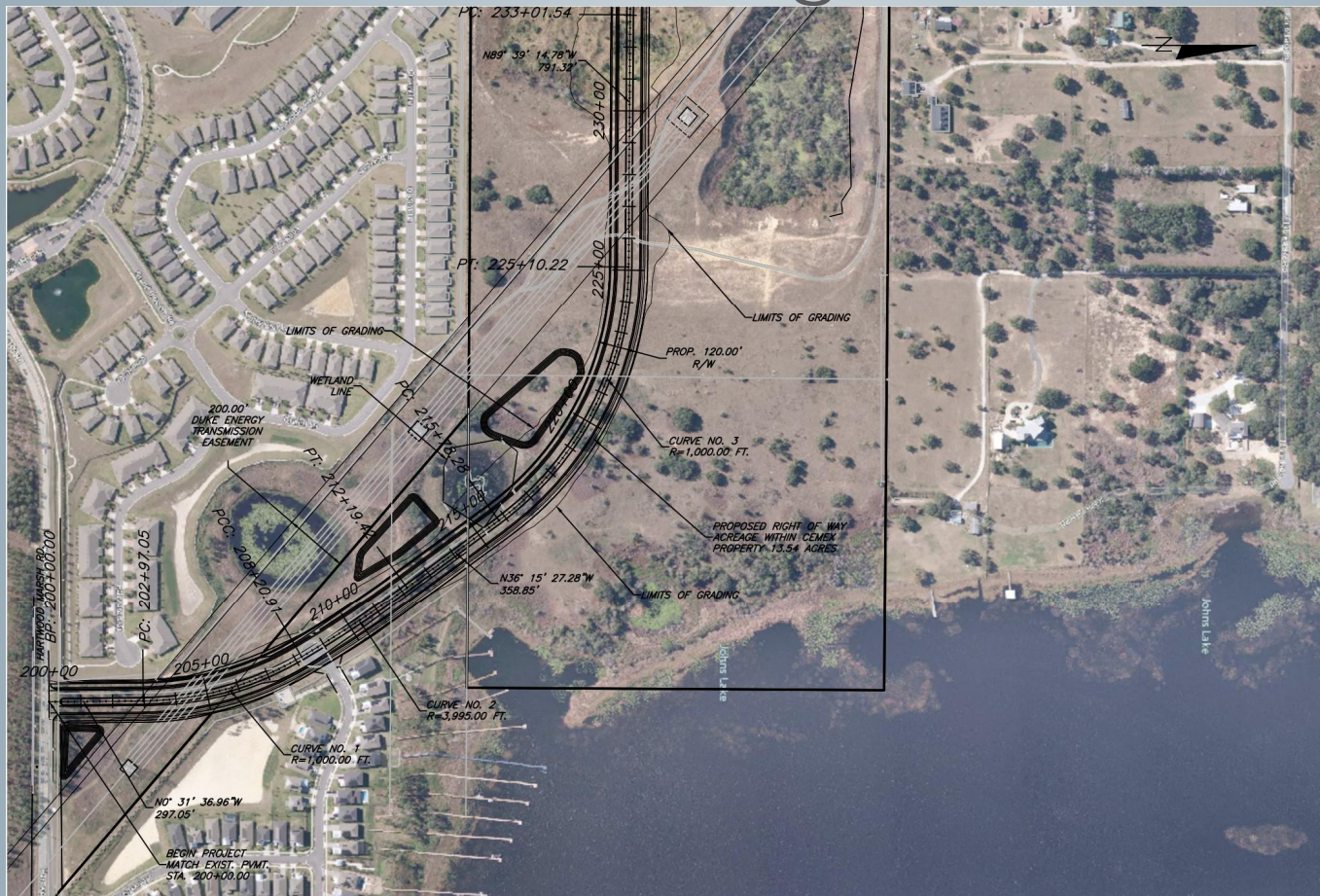
Evaluation Factor	Green	Blue	Yellow
<b>RIGHT-OF-WAY IMPACTS</b>			
Residential Parcels Impacted	3	3	3
Business Parcels Impacted	1 (CEMEX)	1 (CEMEX)	1 (CEMEX)
Utility and Governmental Parcels Impacted	1 (Lake County)	1 (Lake County)	1 (Lake County)
Total Parcels Impacted (Total)	5	5	5
Right-of-Way Required for Roadway (acres)*	15.33	15.49	18.9
* Note Lake County has Existing R-O-W (6.75 acres)			
Right-of-Way Needed from CEMEX Property	13.54	13.69	17.10
Right-of-Way Required for Ponds (acres)	5.92	6.10	7.36
<b>ENVIRONMENTAL IMPACTS</b>			
Wetland Impacts (acres)	1.08	5.15	3.36
Floodplain Impacts (acres)	2.76	2.76	3.83
Wildlife/Habitat Impacts	Low	Low	Low
Potential Contamination Sites Impacted	0	0	0
<b>TOTAL CONSTRUCTION COST ONLY (in millions)</b>	<b>\$13.59</b>	<b>\$21.19</b>	<b>\$28.55</b>



# CR 455 Lost Lake Road to Hartwood Marsh Road Project Development & Environment (PD&E)



## Green Alignment

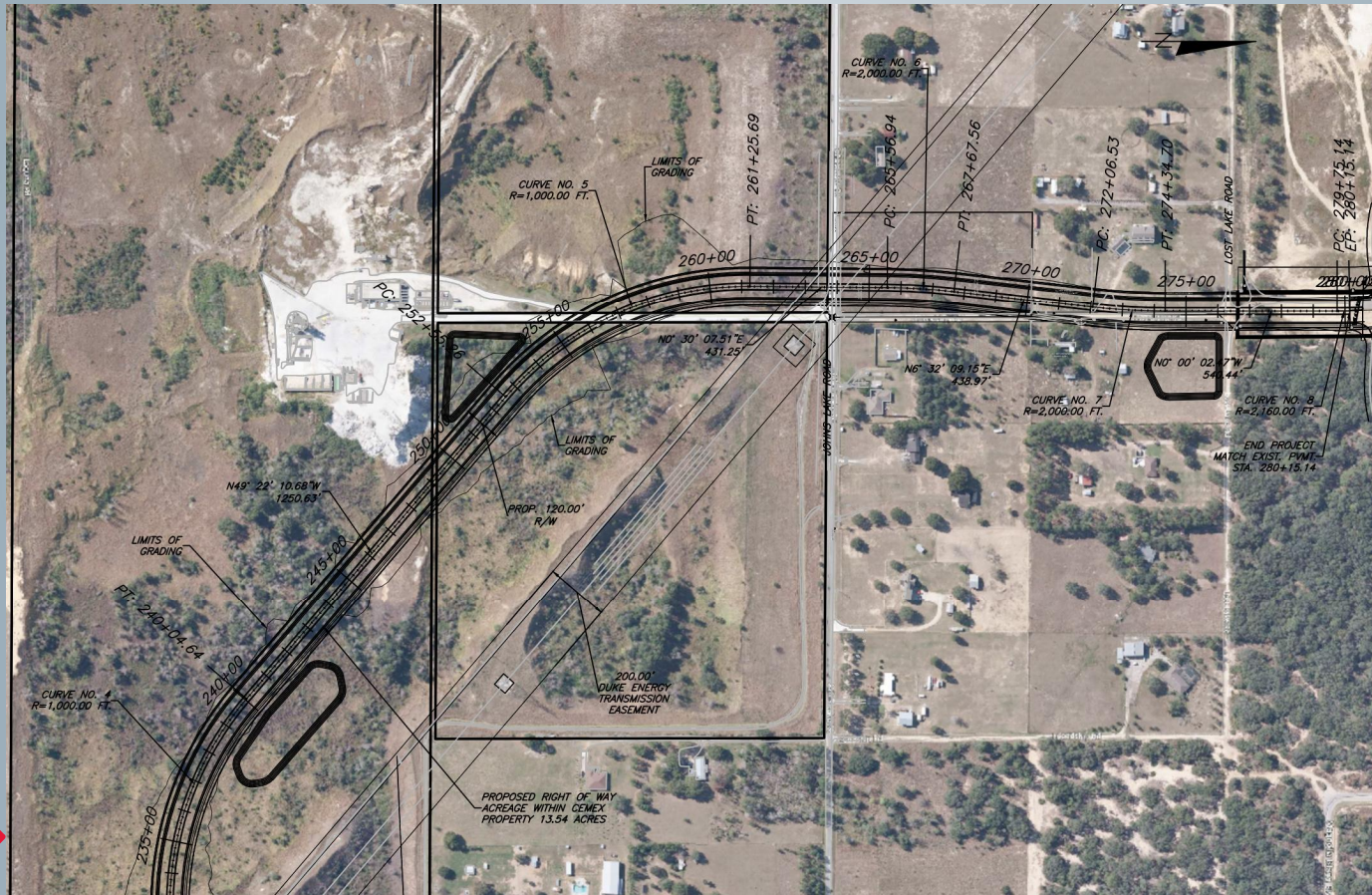




# CR 455 Lost Lake Road to Hartwood Marsh Road Project Development & Environment (PD&E)



## Green Alignment





# CR 455 Lost Lake Road to Hartwood Marsh Road Project Development & Environment (PD&E)



## Blue Alignment

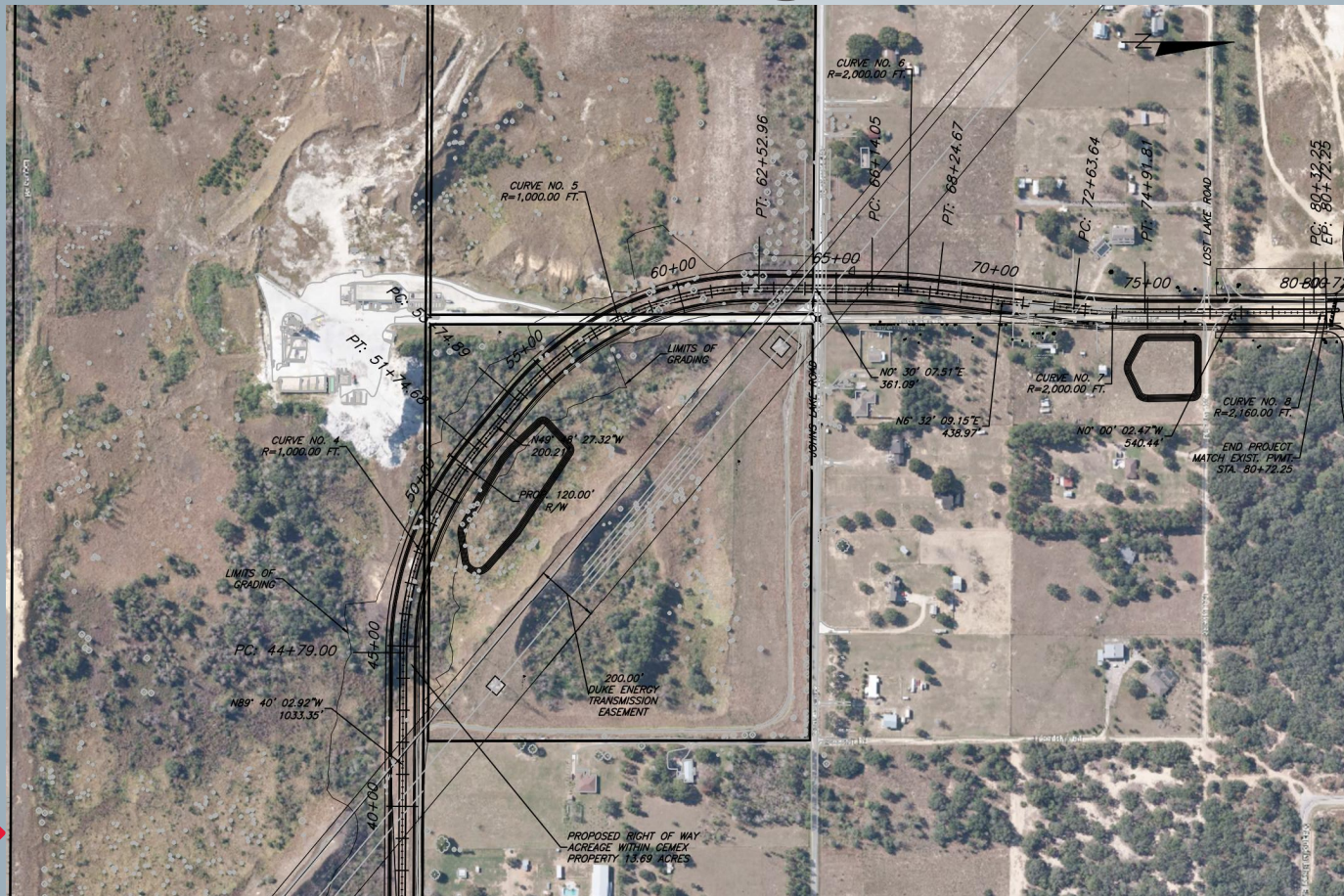




# CR 455 Lost Lake Road to Hartwood Marsh Road Project Development & Environment (PD&E)



## Blue Alignment

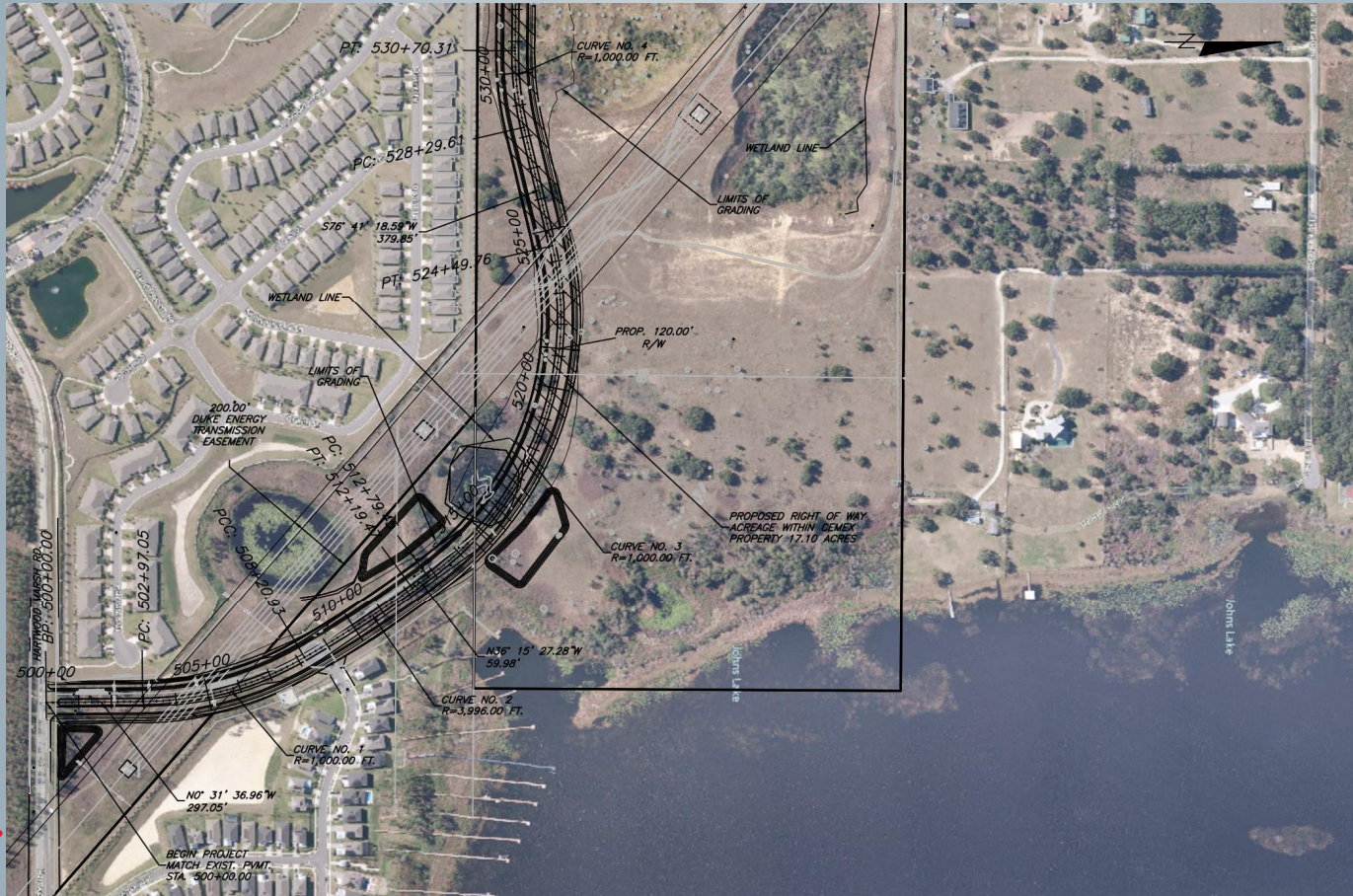




# CR 455 Lost Lake Road to Hartwood Marsh Road Project Development & Environment (PD&E)



## Yellow Alignment

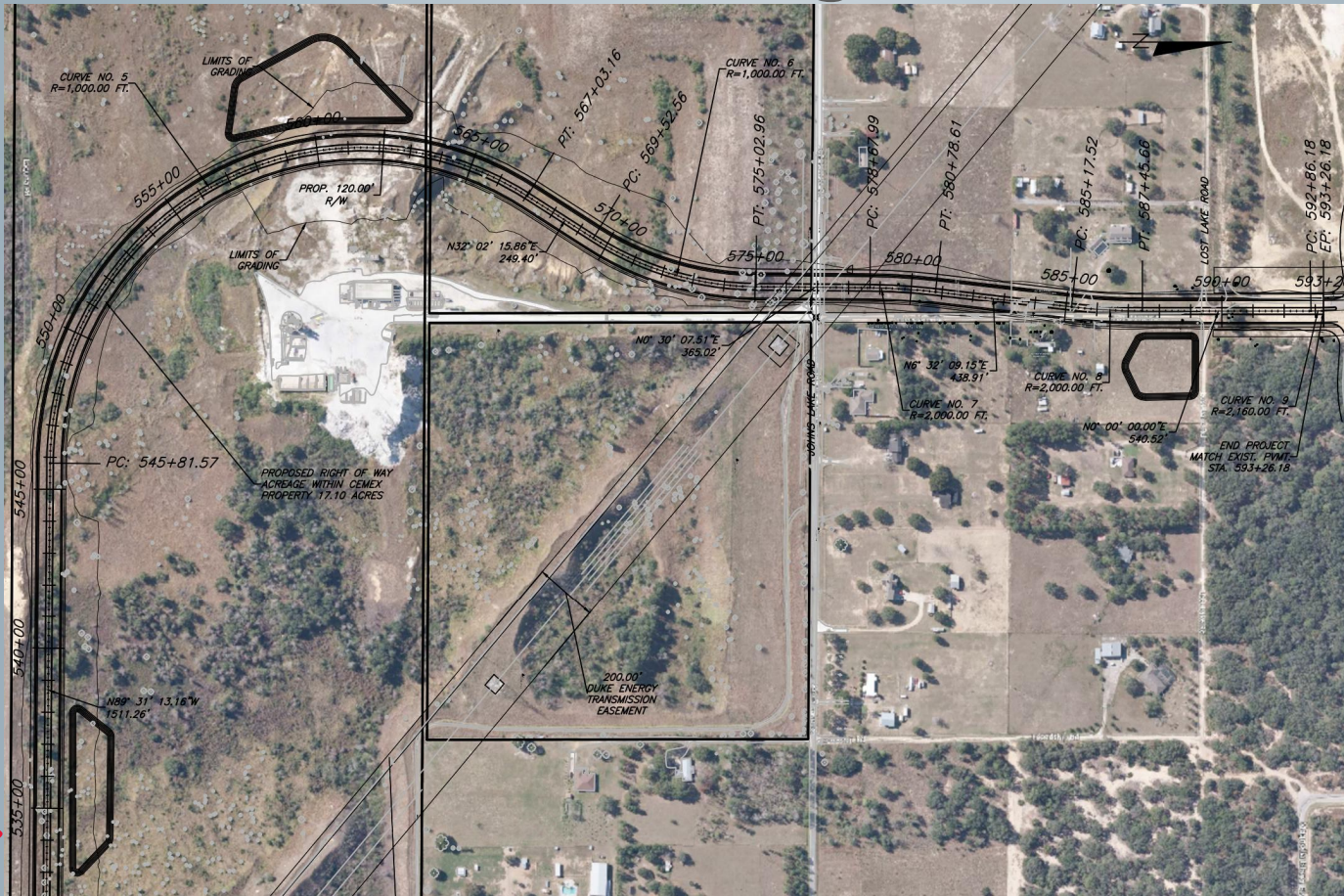




# CR 455 Lost Lake Road to Hartwood Marsh Road Project Development & Environment (PD&E)



## Yellow Alignment



## Schedule



## Keep up to Date!

For project updates and additional information, please contact:

George Gadiel, PE  
Lake County Project Manager  
Lake County Public Works  
350 N. Sinclair Ave.  
Tavares, FL 32778  
Phone: (352) 253-9092  
Email: [ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)

Duane K. Booth, PE  
Consultant Project Manager  
HALFF  
902 N. Sinclair Ave.  
Tavares, FL 32778  
Phone: (352) 343-8481  
Email: [dBooth@Halff.com](mailto:dBooth@Halff.com)

Additionally, email any comments regarding project to the above addresses.

Visit the website, <https://www.lakecountyfl.gov/engineering>, to stay informed on the project status.



Lake County  
CR 455 Lost Lake Road to Hartwood Marsh Road  
Alternative Concepts Public Workshop  
January 11<sup>th</sup>, 2022

**THANK YOU!!**

## APPENDIX F

Alternative Concepts Public Workshop  
Notification Materials, Sign-in Sheets, Virtual Meeting  
Transcript, and Comments Received



Public Works Department/Engineering Division  
P.O. Box 7800 • 350 N. Sinclair Ave., • Tavares, FL 32778

December 16, 2021

**SUBJECT:** CR 455 Phase 2 Extension Project Development and Environment (PD&E) Study Update  
From North of Lost Lake Road to Hartwood Marsh Road  
Alternative Concepts Public Workshop on January 11<sup>th</sup>, 2022

Dear Property Owner, Stakeholder, or Interested Party,

On behalf of Lake County, you are invited to the Alternative Concepts Public Workshop for the CR 455 Phase 2 Extension Project Development and Environment (PD&E) Study Update on **Tuesday, January 11<sup>th</sup>, 2022, from 5:30 p.m. to 7:00 p.m.**

The purpose of this study is to provide a preferred alignment that will continue the extension of CR 455/Hartle Road from Lost Lake Road to Johns Lake Road and then south to Hartwood Marsh Road. This workshop is being conducted to give interested persons an opportunity to review and comment on the alternatives that are being considered. A location map depicting the project alternatives is enclosed. This map and other documentation are available on the project website. A link to the project website can be accessed by visiting the following link: <https://web.lakecountyfl.gov/engineering>.

Lake County is offering two ways for the community to participate in the public workshop: in-person or virtually. All participants, regardless of the platform they choose, will participate in the same live public workshop.

**1. In-Person Option:**

Participants may attend in-person by going to the **Clermont City Center (Room A), 620 W. Montrose Street, Clermont, FL 34711**. Attendees will be asked to follow all safety and sanitation guidelines, as well as adhere to any local ordinances. Persons who are not feeling well should not attend the in-person workshop.

**2. Virtual Option:**

Interested persons may join the Virtual Public Meeting (VPM) from a computer, tablet, or mobile device. A VPM is a free live presentation or webinar over the internet. For this option, advance registration is required by visiting the following link: <https://attendee.gotowebinar.com/register/7553293458721233421>. Once registered, participants will receive a confirmation email containing information about joining the meeting online. Please note that Internet Explorer cannot be used to register for or attend this webinar. For participants who are unable to view the webinar, they may join the meeting via phone in listen-only mode by calling: **1-562-247-8422** and entering the passcode: **938-800-795**.

The in-person public workshop location and VPM will open at 5:30 p.m. on Tuesday, January 11<sup>th</sup>, 2022. If joining online, please provide adequate log-in time to view the presentation in its entirety. The presentation will begin promptly at 5:45 p.m. All workshop materials, including the presentation, will be available on the project website.

This notification letter is being sent to all property owners and tenants located within at least 300 feet on either side of the proposed project alternatives as well as to other elected leaders, government agencies, and individuals interested in the project to provide opportunity to give comments to the County regarding the project. Persons wishing to submit comments may do so at the public workshop or by sending them to George Gadiel, Project Manager, by either email ([ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)) or by mail (323 N. Sinclair Avenue, Tavares, FL 32778). While comments about the project

P 352.253.6000 • F 352.253.9025  
Board of County Commissioners • [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

Douglas B. Shields  
District 1

Sean M. Parks, AICP, QEP  
District 2

Kirby Smith  
District 3

Leslie Campione  
District 4

Josh Blake  
District 5



Public Works Department/Engineering Division  
P.O. Box 7800 • 350 N. Sinclair Ave., • Tavares, FL 32778

are accepted at any time, please submit your comments by January 21<sup>st</sup>, 2022 to be included in the records for this public workshop.

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability, or family status. Persons who require language translation or interpretive services, which are provided at no cost, or those requiring special accommodations under the Americans with Disabilities Act of 1990 (ADA) may request assistance by contacting Fred Martin, Lake County Title VI/Nondiscrimination and ADA Coordinator, at 352.343.9676 or [fmartin@lakecountyfl.gov](mailto:fmartin@lakecountyfl.gov) at least seven (7) days prior to the meeting.

We encourage you to participate in the Alternative Concepts Public Workshop. If you have any questions or comments, you may contact me by email ([ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)) or phone (352.253.9092). We look forward to seeing you on January 11<sup>th</sup>!

Sincerely,

George Gadiel, PE  
Lake County Project Manager

Enclosure: Project Location Map

P 352.253.6000 • F 352.253.9025  
Board of County Commissioners • [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

Douglas B. Shields  
District 1

Sean M. Parks, AICP, QEP  
District 2

Kirby Smith  
District 3

Leslie Campione  
District 4

Josh Blake  
District 5



## Lost Lake Rd. to Hartwood Marsh Rd.





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### Notice: 25420322

Notice of Meeting/Workshop Hearing

Division: [Kimley-Horn and Associates, Inc.](#)



[VIEW NOTICE](#)

#### Overview

The Lake County announces a workshop to which all persons are invited.

DATE AND TIME:	Tuesday, January 11th, 2022, from 5:30 p.m. to 7:00 p.m.
PLACE:	In-person at the Clermont City Center (Room A), 620 W. Montrose Street, Clermont, FL 34711, virtually by visiting the following link: <a href="https://attendee.gotowebinar.com/register/7553293458721233421">https://attendee.gotowebinar.com/register/7553293458721233421</a> , or via phone in listen-
Subject:	The purpose of this study is to provide a preferred alignment that will continue the extension of CR 455/Hartle Road from Lost Lake Road to Johns Lake Road and then south to Hartwood Marsh Road. This workshop is being conducted to give interested persons an opportunity to review and comment on the alternatives that are being considered. Exhibits and project

A copy of the agenda may be obtained by contacting: Lake County Project Manager George Gadiel, PE, Public Works Department, at 352-253-9092 or [ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov).

PRINT PUBLISH DATE: 1/5/2022 [Vol. 48/03](#)

REFERENCE MATERIALS: No reference(s).

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## Notice of Meeting/Workshop Hearing

### **OTHER AGENCIES AND ORGANIZATIONS**

#### **Kimley-Horn and Associates, Inc.**

The Lake County announces a workshop to which all persons are invited.

DATE AND TIME: Tuesday, January 11, 2022, 5:30 p.m. – 7:00 p.m.

PLACE: In-person at the Clermont City Center (Room A), 620 W. Montrose Street, Clermont, FL 34711, virtually by visiting the following link: <https://attendee.gotowebinar.com/register/7553293458721233421>, or via phone in listen-only mode by calling: (562)247-8422 and entering the passcode: 938-800-795.

GENERAL SUBJECT MATTER TO BE CONSIDERED: The purpose of this study is to provide a preferred alignment that will continue the extension of CR 455/Hartle Road from Lost Lake Road to Johns Lake Road and then south to Hartwood Marsh Road. This workshop is being conducted to give interested persons an opportunity to review and comment on the alternatives that are being considered. Exhibits and project documentation are available on the project website. A link to the project website can be accessed by visiting the following link: <https://web.lakecountyfl.gov/engineering>.

A copy of the agenda may be obtained by contacting: Lake County Project Manager George Gadiel, PE, Public Works Department, at (352)253-9092 or [ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov).

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 7 days before the workshop/meeting by contacting: Fred Martin, Lake County Title VI/Nondiscrimination and ADA Coordinator, at (352)343-9676 or [fmartin@lakecountyfl.gov](mailto:fmartin@lakecountyfl.gov). If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

For more information, you may contact: Lake County Project Manager George Gadiel, PE, Public Works Department, at (352)253-9092 or [ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov).



# SIGN-IN SHEET

Alternative Concepts Public Workshop  
 CR 455 Phase 2 Extension, from North of Lost Lake Road to Hartwood Marsh Road  
 Project Development & Environment (PD&E) Study Update  
 Clermont City Center (Room A) - 620 W. Montrose Street, Clermont, FL 34711  
 Tuesday, January 11, 2022

Name	Address	Email	Phone Number	Organization	Elected Official?
BRAD EVELAND	3544 LA JOLLA DR	EVELANDB@GMAIL.COM	—	—	
CATHERINE LITRENTA	3521 BELLAND CIRCLE UNIT D	KLITRENTA45@GMAIL.COM	407-448-6332		NO
Betty Sommer	3753 Quaint Ln	Brso511@gmail.com	410 459 9416	Heritage Hills	NO
Michael Somach	3868 SERENA LN	michaelsomach@live.com	407-328-9098	Heritage Hills Resident	NO
ROGER STEINBERG	3747 SAMBEL ST	ROGERTHEREBEL@AOL.COM	516383-8137	" " " "	NO
Wendy Healey	3649 B Solana Cir.	wendy105@ptd.net	570-460-3469	" " " "	NO
VINCENT NIEMIEC	4569 BARRISTER DRIVE	VINNIE@NUDIEKULTOUSTAINMENT.COM	646-251-7655	REGENCY HILLS	YES
Joseph Austin	3484 LA JOLLA DRIVE	FaithDAustin@gmail.com	610-940-1640	Heritage Hills	No
JOHN PESOLA	3493 KINLEY BROOKE LN	jjpesola@rcn.com	484-767-3428	HERITAGE HILLS	NO
Marion Ringwood	1808 Nature Cove Lane	maribelmouse@gmail.com	973-219-7056	Reserve@LostLake	No
David Estillette	Heritage Hills	destillette@lelandmanagement.com	407-443-3586	Heritage Hills	No





# SIGN-IN SHEET

Alternative Concepts Public Workshop  
 CR 455 Phase 2 Extension, from North of Lost Lake Road to Hartwood Marsh Road  
 Project Development & Environment (PD&E) Study Update  
 Clermont City Center (Room A) - 620 W. Montrose Street, Clermont, FL 34711  
 Tuesday, January 11, 2022

Name	Address	Email	Phone Number	Organization	Elected Official?
MICHAEL D. PASHKEVICH	3502 EMBERS LN CLERMONT	prichd@yahoo.com	985 373-0128	HERITAGE HILLS RESIDENT	NO
STANLEY OCKWIG	3492 Kinley Brooke Ln.	STANOCKWIGT@GMAIL.COM	321-29-1829	H.H. RESIDENT	-
Cindy Ockwig	3492 Kinley Brooke Ln	lockwig56@gmail.com	401-222-6418	Heritage Hills Resident	
Sherri Finnegan	3596 Kinley Brooke Ln	SHERRI.WRITES@YAHOO.COM	407 460 7926	Heritage Hills Resident	
Paul Zech	400 12 <sup>TH</sup> ST CLERMONT FL	perickson@clermontfl.org	352 399 7177		
HARVEY MEMBERG	3551 KINLEY BROOKE LN	HMEMBERG@aol.com	954-662-3237	HERITAGE HILLS RESIDENT	
Daniel Kem	3552 LaJolla Dr	daniel_kem@yahoo.com	515 822 4922	Heritage Hills Resident	
Diana Barber	15911 JOHNS LAKE RD.	diana@SOLDFLORIDAHOMES.COM diana@SOLDFLORIDAHOMES.COM	(407) 234-3540	JOHNS LAKE	
Mantha Cross	3489 Kinley Brooke Ln	cr1149@bellsouth.net	561-644-5733	Heritage Hills Resident	NO





## SIGN-IN SHEET

Alternative Concepts Public Workshop  
 CR 455 Phase 2 Extension, from North of Lost Lake Road to Hartwood Marsh Road  
 Project Development & Environment (PD&E) Study Update  
 Clermont City Center (Room A) - 620 W. Montrose Street, Clermont, FL 34711  
 Tuesday, January 11, 2022

Name	Address	Email	Phone Number	Organization	Elected Official?
VINCENT LABOMBARDI	3479 LAJOLLA DR. CLERMONT	vlabombardi@gmail.com	917 301 0681	Heritage Hills	-
JEFF NYE	3560 LAJOLLA DR.	FLORIDANYE@GMAIL.COM	908-303-6464	HERITAGE HILLS	
Alice NYE	" " "	" " "	" " "	" "	
Barb Evenden	2430 Woodward Hill CT	Barb.Evenden@gmail.com	248-231-2685	Waterbrooke	
Margaret Wilson	3569 Belland Cir. Unit D	pegwilson@me.com	239-287-3841	Heritage Hills	
Robert Schafer	3556 Belland Cir Unit A	schaferbob@yahoo.com	989-400-0876	Heritage Hills	
Gail Steinberg	3747 Sanibel St.	gail.steinberg#H@aol.com	631-219-3077	Heritage Hills	
Nancy Heath	1220 Shorecrest Cir, Clermont	heathna@yahoo.com			
Steve Ferrell	10905 Elwood Terrace, Howey	stew.ferrell@hdriee.com			





## SIGN-IN SHEET

Alternative Concepts Public Workshop  
 CR 455 Phase 2 Extension, from North of Lost Lake Road to Hartwood Marsh Road  
 Project Development & Environment (PD&E) Study Update  
 Clermont City Center (Room A) - 620 W. Montrose Street, Clermont, FL 34711  
 Tuesday, January 11, 2022

Name	Address	Email	Phone Number	Organization	Elected Official?
Wendy Lederhandler	3547B Fairwaters Ct.	blondeleder@yahoo.com	949/322-6629	Heritage Hills	
John Burdick	3772 Quiet Lake	John@PGPHOTOART.COM	321-662-0736		
ALISTAIR M. MEIKLE	16004 HORIZON CT. CLERMONT 34711	almeikle@live.com	407-929-3009		
Cheryl + Ron Heitz	3727 Semibel St.	heitzcheryl@yahoo.com	407 385-9951	Heritage Hills	
KEN. Mucha	3550 FAIRWATERS CT. DELTA	MuchaKathy@yahoo.com	607 947-8033	Heritage Hills	
Edward & Sarah DuBosq	3624 Matira Ct Clermont	davie_dad@yahoo.com	954-829-7415	Heritage Hills	

# CR 455 VPM Attendee Report

01/12/2022 07:42 AM EST

<b>Webinar ID</b>	<b>Actual Start Date/Time</b>	<b>Duration</b>	<b># Registered</b>	<b># Attended</b>	<b>Clicked Registration Link</b>	<b>Opened Invitation</b>
972-048-475	01/11/2022 05:00 PM EST	1 hour 52 minutes	79	62	160	0

## Attendee Details

Attended	Interest Rating	Last Name	First Name	Email Address	Registration Date/Time	Join Time - Leave Time (Time in Session)
Yes	90	Allen	Larry	momence2@yahoo.com	01/10/2022 05:22 PM EST	01/11/2022 05:32 PM EST - 01/11/2022 06:30 PM EST (59 minutes)
Yes	91	Alton	Ray	thealtons1@gmail.com	12/19/2021 09:22 PM EST	01/11/2022 05:26 PM EST - 01/11/2022 05:45 PM EST (20 minutes),01/11/2022 05:32 PM EST - 01/11/2022 06:51 PM EST (1 hour 20 minutes)
Yes	91	Auton	Dianne	dianneauton@gmail.com	01/11/2022 05:34 PM EST	01/11/2022 05:36 PM EST - 01/11/2022 05:49 PM EST (14 minutes)
Yes	93	Baumgartner	Frank	Frajo13@aol.com	01/08/2022 02:23 PM EST	01/11/2022 05:37 PM EST - 01/11/2022 06:29 PM EST (53 minutes),01/11/2022 05:44 PM EST - 01/11/2022 06:28 PM EST (44 minutes)
Yes	95	Berenberg	Franne	momof3girls@aol.com	01/11/2022 06:32 AM EST	01/11/2022 05:23 PM EST - 01/11/2022 05:36 PM EST (14 minutes),01/11/2022 05:42 PM EST - 01/11/2022 06:27 PM EST (46 minutes)
Yes	91	Bishop	Gary	bbishop31@cfl.rr.com	01/11/2022 01:08 PM EST	01/11/2022 05:22 PM EST - 01/11/2022 06:28 PM EST (1 hour 6 minutes)
Yes	90	Brown	Beverly H	bev@beverlybrown.com	01/11/2022 03:48 PM EST	01/11/2022 05:29 PM EST - 01/11/2022 05:29 PM EST (1 minute)
Yes	92	Buettner	Linda	lrbuettner@gmail.com	01/05/2022 05:26 PM EST	01/11/2022 06:26 PM EST - 01/11/2022 06:50 PM EST (24 minutes)
Yes	95	Buron	Parra	parra.l.byron@gmail.com	01/05/2022 12:32 PM EST	01/11/2022 05:37 PM EST - 01/11/2022 05:43 PM EST (6 minutes),01/11/2022 05:42 PM EST - 01/11/2022 06:32 PM EST (50 minutes)
Yes	98	Camhi	Pamela	pamelacamhi@gmail.com	01/09/2022 04:14 PM EST	01/11/2022 05:10 PM EST - 01/11/2022 06:49 PM EST (1 hour 40 minutes)
Yes	90	Christopher	Nathalie	nathchristopher@gmail.com	12/26/2021 01:19 PM EST	01/11/2022 05:40 PM EST - 01/11/2022 06:27 PM EST (48 minutes)
Yes	95	Cirillo	Grace and Sal	gracemarie827@aol.com	01/05/2022 01:39 PM EST	01/11/2022 05:29 PM EST - 01/11/2022 06:27 PM EST (58 minutes)
Yes	94	Coleman	Patrick	pootl6@gmail.com	01/05/2022 06:19 PM EST	01/11/2022 05:57 PM EST - 01/11/2022 06:39 PM EST (43 minutes)
Yes	97	Connolly	Arlne	arlineconnolly11@aol.com	01/11/2022 10:27 AM EST	01/11/2022 05:31 PM EST - 01/11/2022 06:51 PM EST (1 hour 20 minutes)
Yes	93	Cremsio	Len	poppysix1948@gmail.com	01/06/2022 01:13 PM EST	01/11/2022 05:31 PM EST - 01/11/2022 06:03 PM EST (32 minutes)
Yes	97	Czaja	Marjorie	vikingmarges56@gmail.com	01/03/2022 08:43 AM EST	01/11/2022 05:03 PM EST - 01/11/2022 05:06 PM EST (3 minutes),01/11/2022 05:18 PM EST - 01/11/2022 06:28 PM EST (1 hour 11 minutes)
Yes	99	Edelman	Michael	edelman@mlbainc.com	01/07/2022 09:08 AM EST	01/11/2022 05:16 PM EST - 01/11/2022 06:27 PM EST (1 hour 11 minutes),01/11/2022 06:27 PM EST - 01/11/2022 06:51 PM EST (25 minutes)
Yes	82	Edwards	Adair	adairedwards@gmail.com	01/10/2022 09:27 AM EST	01/11/2022 05:42 PM EST - 01/11/2022 06:52 PM EST (1 hour 10 minutes)
Yes	94	Fiduccia	James	jpgiduccia@gmail.com	01/11/2022 06:02 PM EST	01/11/2022 06:02 PM EST - 01/11/2022 06:52 PM EST (50 minutes)
Yes	93	Fogarty	Pat	Pfogstores@gmail.com	01/11/2022 02:59 PM EST	01/11/2022 05:39 PM EST - 01/11/2022 05:43 PM EST (4 minutes),01/11/2022 05:43 PM EST - 01/11/2022 06:28 PM EST (45 minutes)
Yes	96	Fogarty	John	jcfog@sbcglobal.net	01/11/2022 02:56 PM EST	01/11/2022 05:43 PM EST - 01/11/2022 06:52 PM EST (1 hour 9 minutes)
Yes	65	Gamble	Jeremy	jeremygamble@gmail.com	12/19/2021 12:54 PM EST	01/11/2022 05:34 PM EST - 01/11/2022 06:51 PM EST (1 hour 17 minutes)
Yes	90	Glover	Neal	ntglover@att.net	01/04/2022 03:16 PM EST	01/11/2022 05:23 PM EST - 01/11/2022 06:35 PM EST (1 hour 13 minutes)
Yes	99	Goclan	Jamed	jgoclan1@aol.com	01/09/2022 12:27 PM EST	01/11/2022 05:12 PM EST - 01/11/2022 06:52 PM EST (1 hour 40 minutes)
Yes	98	Gornowicz	Carolyn	jerolyn@aol.com	01/07/2022 11:49 AM EST	01/11/2022 05:25 PM EST - 01/11/2022 06:52 PM EST (1 hour 27 minutes)
Yes	56	Grube	Debora	digrube2326@att.net	01/11/2022 12:35 PM EST	01/11/2022 05:18 PM EST - 01/11/2022 06:31 PM EST (1 hour 14 minutes)
Yes	78	H	Joy	rapheh@yahoo.com	01/07/2022 01:20 AM EST	01/11/2022 05:24 PM EST - 01/11/2022 06:52 PM EST (1 hour 28 minutes)
Yes	94	Himbirt	Julie	carjh6@aol.com	01/05/2022 02:03 PM EST	01/11/2022 05:31 PM EST - 01/11/2022 05:34 PM EST (4 minutes),01/11/2022 05:35 PM EST - 01/11/2022 05:36 PM EST (1 minute),01/11/2022 05:36 PM EST - 01/11/2022 05:36 PM EST (1 minute)
Yes	93	Hoyte	Ellynda	edalynel@gmail.com	01/11/2022 05:29 PM EST	01/11/2022 05:29 PM EST - 01/11/2022 06:05 PM EST (37 minutes)
Yes	67	Kitson-Walters	Richard	richardkitsonwalters@gmail.com	01/11/2022 04:17 PM EST	01/11/2022 06:02 PM EST - 01/11/2022 06:04 PM EST (2 minutes)
Yes	98	LaBombardi	Susan	smass119@gmail.com	01/08/2022 02:30 PM EST	01/11/2022 05:25 PM EST - 01/11/2022 06:52 PM EST (1 hour 27 minutes)
Yes	97	Lambert	Kay	kay.lambert1@gmail.com	01/05/2022 06:44 PM EST	01/11/2022 05:27 PM EST - 01/11/2022 06:49 PM EST (1 hour 23 minutes)
Yes	80	Lojo	Arturo A	arturo.lojo@us.stores.mcd.com	01/05/2022 01:58 AM EST	01/11/2022 05:16 PM EST - 01/11/2022 06:28 PM EST (1 hour 12 minutes)
Yes	93	Lunsford	Teresa	tkdisney@yahoo.com	01/09/2022 09:47 AM EST	01/11/2022 05:30 PM EST - 01/11/2022 06:05 PM EST (36 minutes)
Yes	49	Lynch	Cynthia	cindi1225@gmail.com	01/06/2022 09:11 AM EST	01/11/2022 06:13 PM EST - 01/11/2022 06:41 PM EST (28 minutes)
Yes	58	Meikle	Linda	lindameikle@live.com	01/11/2022 01:52 PM EST	01/11/2022 05:30 PM EST - 01/11/2022 06:27 PM EST (57 minutes)
Yes	93	Murro	Angelo & Mary	angmare@msn.com	01/10/2022 07:19 PM EST	01/11/2022 05:23 PM EST - 01/11/2022 06:28 PM EST (1 hour 5 minutes)
Yes	85	NORMAN	DAVID	david.norman.maxi@gmail.com	01/10/2022 05:43 AM EST	01/11/2022 05:18 PM EST - 01/11/2022 06:28 PM EST (1 hour 11 minutes)
Yes	96	Patel	Surendra	sidleo2@yahoo.com	01/11/2022 05:26 PM EST	01/11/2022 05:26 PM EST - 01/11/2022 05:29 PM EST (3 minutes),01/11/2022 05:32 PM EST - 01/11/2022 05:47 PM EST (16 minutes),01/11/2022 05:46 PM EST - 01/11/2022 05:46 PM EST (1 minute)
Yes	95	Peterson	Victoria	vpmusic55@comcast.net	01/11/2022 04:20 PM EST	01/11/2022 05:32 PM EST - 01/11/2022 06:27 PM EST (56 minutes),01/11/2022 05:34 PM EST - 01/11/2022 06:28 PM EST (54 minutes)
Yes	70	Pomis	Laura	llp479@aol.com	01/04/2022 09:10 PM EST	01/11/2022 05:27 PM EST - 01/11/2022 06:27 PM EST (1 hour 1 minute)
Yes	95	Porte	Deborah	debbie.d.porte@gmail.com	01/04/2022 07:10 PM EST	01/11/2022 05:27 PM EST - 01/11/2022 05:56 PM EST (29 minutes),01/11/2022 06:00 PM EST - 01/11/2022 06:28 PM EST (29 minutes)
Yes	73	Prete	Joseph	jsprete53@gmail.com	12/21/2021 03:57 PM EST	01/11/2022 05:27 PM EST - 01/11/2022 06:28 PM EST (1 hour 2 minutes)
Yes	96	Quayle	Sylvia	extr129@aol.com	01/09/2022 02:09 PM EST	01/11/2022 05:43 PM EST - 01/11/2022 06:52 PM EST (1 hour 9 minutes)
Yes	51	Radish	Ilene	iradish25@gmail.com	01/07/2022 01:23 PM EST	01/11/2022 05:27 PM EST - 01/11/2022 06:51 PM EST (1 hour 25 minutes)

Yes	98	Rowland	Jenn	jennrowgator@gmail.com	01/11/2022 05:26 PM EST	01/11/2022 05:27 PM EST - 01/11/2022 06:52 PM EST (1 hour 25 minutes)
Yes	67	Sams	Kim	kimsams1400@gmail.com	01/11/2022 05:08 PM EST	01/11/2022 05:08 PM EST - 01/11/2022 06:25 PM EST (1 hour 17 minutes)
Yes	91	Simon	Melanie	melanievsimon2@gmail.com	01/05/2022 07:10 AM EST	01/11/2022 05:41 PM EST - 01/11/2022 05:57 PM EST (17 minutes)
Yes	99	Sine	Vicki	vickimsine@gmail.com	01/05/2022 02:04 PM EST	01/11/2022 05:06 PM EST - 01/11/2022 05:32 PM EST (27 minutes),01/11/2022 05:33 PM EST - 01/11/2022 06:51 PM EST (1 hour 19 minutes),01/11/2022 05:50 PM EST
Yes	98	Skomro	Tracey	tskomro@yahoo.com	01/05/2022 12:33 PM EST	01/11/2022 05:22 PM EST - 01/11/2022 06:51 PM EST (1 hour 30 minutes)
Yes	97	Stanislawski	Dennis	dstanislawski@hotmail.com	01/06/2022 05:00 PM EST	01/11/2022 05:33 PM EST - 01/11/2022 06:52 PM EST (1 hour 19 minutes)
Yes	99	Swiss	Kenya	kenyaswiss5@gmail.com	01/02/2022 10:53 AM EST	01/11/2022 05:15 PM EST - 01/11/2022 06:52 PM EST (1 hour 37 minutes)
Yes	96	Ted	Imes	times1@gmail.com	01/05/2022 02:12 PM EST	01/11/2022 05:24 PM EST - 01/11/2022 06:27 PM EST (1 hour 4 minutes)
Yes	82	Thorne	Mary Ann	thornema@bellsouth.net	01/11/2022 04:41 PM EST	01/11/2022 05:00 PM EST - 01/11/2022 06:40 PM EST (1 hour 40 minutes)
Yes	90	Ungaro	Vonceil	vonceilu@aol.com	01/11/2022 06:45 PM EST	01/11/2022 06:45 PM EST - 01/11/2022 06:49 PM EST (5 minutes)
Yes	90	Vail	Theresa	Craftytv711@aol.com	01/05/2022 01:40 PM EST	01/11/2022 06:02 PM EST - 01/11/2022 06:06 PM EST (4 minutes)
Yes	78	Ward	Timothy	tward4392@gmail.com	01/05/2022 12:34 PM EST	01/11/2022 05:23 PM EST - 01/11/2022 05:25 PM EST (3 minutes),01/11/2022 05:24 PM EST - 01/11/2022 06:51 PM EST (1 hour 28 minutes)
Yes	97	Wiley	Keith	kwiley43311@gmail.com	01/08/2022 08:56 PM EST	01/11/2022 05:30 PM EST - 01/11/2022 06:52 PM EST (1 hour 23 minutes),01/11/2022 05:48 PM EST - 01/11/2022 05:49 PM EST (2 minutes)
Yes	97	Williams	Richard	wilrsw@yahoo.com	01/11/2022 04:42 PM EST	01/11/2022 05:34 PM EST - 01/11/2022 06:48 PM EST (1 hour 15 minutes)
Yes	76	memberg	harvey	hmemberg@aol.com	01/03/2022 01:59 PM EST	01/11/2022 05:11 PM EST - 01/11/2022 06:29 PM EST (1 hour 19 minutes)
Yes	98	rodriguez	Angel	rodrigu3512@hotmail.com	01/03/2022 01:29 PM EST	01/11/2022 05:16 PM EST - 01/11/2022 06:43 PM EST (1 hour 27 minutes)
Yes	63	sciascia	gloria	gloriamsciascia@yahoo.com	01/11/2022 06:33 PM EST	01/11/2022 06:33 PM EST - 01/11/2022 06:52 PM EST (19 minutes)
No	0	Bennett	B	Bbnlrmba@yahoo.com	01/05/2022 08:55 AM EST	--
No	0	Camhi	Joel	joelcamhi@aol.com	01/09/2022 04:15 PM EST	--
No	0	Cox	Jerry	jerry08@cfl.rr.com	12/23/2021 09:47 AM EST	--
No	0	Fogarty	John	jcefog@gmail.com	01/11/2022 02:56 PM EST	--
No	0	Gustafson	Diane	gdgust@aol.com	01/05/2022 02:35 PM EST	--
No	0	Johnson	Barbara	m_z_trouble@hotmail.com	01/08/2022 06:52 AM EST	--
No	0	KALMAN	FRANK	fakalman@comcast.net	01/07/2022 09:05 AM EST	--
No	0	Lafferty	Nancy	laffertynj@gmail.com	01/06/2022 01:36 PM EST	--
No	0	Langley	David	dlanglej@lakecountyfl.gov	12/21/2021 04:08 PM EST	--
No	0	Lucas	Barbara	bjlucas2015@gmail.com	01/11/2022 08:41 AM EST	--
No	0	Mason	Kurt	kurtwmason@yahoo.com	01/07/2022 09:36 AM EST	--
No	0	Morettij	Jim	morettij@alfred.edu	01/11/2022 06:16 PM EST	--
No	0	Oaks	Mary	jello1990@aol.com	01/11/2022 03:57 PM EST	--
No	0	Oliver	Fannie Brand	febofiat@gmail.com	01/05/2022 12:37 PM EST	--
No	0	Tross	Sandra	sitross1174@outlook.com	01/07/2022 11:20 AM EST	--
No	0	hardcastle	scott	scott@scothardcastle.com	01/05/2022 12:38 PM EST	--
No	0	imes	ted	ted-gotowebinar@opayq.com	12/23/2021 08:18 PM EST	--

# CR 455 Virtual Public Meeting -- Questions

Report Generated:  
01/12/2022 07:43 AM EST

Webinar ID	Actual Start Date/Time	Duration	# Registered	# Attended	Questions Asked (#)
972-048-475	01/11/2022 05:00 PM EST	1 hour 52 minutes	79	62	90

## Q&A

Last Name	First Name	Email Address	Question # (Per Person)	Question Asked Date/Time	Question Asked
Allen	Larry	momence2@yahoo.com	1	05:47:57 PM EST	audio stopped
Allen	Larry	momence2@yahoo.com	2	06:10:33 PM EST	so a four lane road goes into a two lane road thru a 600 ft gap between heritage hills and Innovation
Allen	Larry	momence2@yahoo.com	3	06:11:26 PM EST	why is then extension needed at all.
Allen	Larry	momence2@yahoo.com	4	06:13:33 PM EST	are any buffers on any route included in the costing
Allen	Larry	momence2@yahoo.com	5	06:18:32 PM EST	4 lanes into hartwood marsh yes or no
Allen	Larry	momence2@yahoo.com	6	06:19:16 PM EST	that is the 600 ft ngap
Allen	Larry	momence2@yahoo.com	7	06:23:34 PM EST	i recommend the total costs be available, to much maybe and later and im not sure.
Allen	Larry	momence2@yahoo.com	8	06:24:56 PM EST	its only 1 mile from cemex to hartwood marsh
Allen	Larry	momence2@yahoo.com	9	06:26:11 PM EST	yellow is a total no.
Allen	Larry	momence2@yahoo.com	10	06:27:47 PM EST	who in lake county do i contact for the actual need for thr extension
Alton	Ray	thealtons1@gmail.com	1	06:48:25 PM EST	Green is the best option
Camhi	Pamela	pamelacamhi@gmail.com	1	06:08:12 PM EST	How will the intersection look at Hartwood Marsh Road and CR 455? Will there be a round about or traffic light?
Camhi	Pamela	pamelacamhi@gmail.com	2	06:31:37 PM EST	My preference is the Blue Route. The yellow route significantly negatively impacts a significant number of homes of the Heritage Hills community and I would not want this route selected.
Christopher	Nathalie	nathchristopher@gmail.com	1	06:05:56 PM EST	What sort of "development" is envisioned on each/either side of the highway when you talk about "development opportunities?"
Christopher	Nathalie	nathchristopher@gmail.com	2	06:07:22 PM EST	How would the "differential settlement" affect the homes located closest to the proposed routes (especially the yellow option)?
Christopher	Nathalie	nathchristopher@gmail.com	3	06:10:33 PM EST	How long do we think the construction phase would take?
Christopher	Nathalie	nathchristopher@gmail.com	4	06:19:28 PM EST	Not a question, I would like to register my vote for the green option.
Christopher	Nathalie	nathchristopher@gmail.com	5	06:23:13 PM EST	Will we get an email about the February/March public hearing?
Connolly	Arline	arlineconnolly11@aol.com	1	06:28:09 PM EST	Am I understanding that all proposals will have a 4 lane road (455) Into a 2 lane road ( HM)
Connolly	Arline	arlineconnolly11@aol.com	2	06:47:50 PM EST	Is the construction of a 4 lane road emptying into a 2 lane barrow road going to negatively impact HM.
Czaja	Marjorie	vikingmarge56@gmail.com	1	06:27:51 PM EST	Against yellow, prefer blue
Edelman	Michael	edelman@mlbainc.com	1	05:48:20 PM EST	Can't hear anything
Edelman	Michael	edelman@mlbainc.com	2	06:27:57 PM EST	Green option is best!
Edelman	Michael	edelman@mlbainc.com	3	06:45:39 PM EST	How does this project impact any projects to expand hardwood-marsh?
Edelman	Michael	edelman@mlbainc.com	4	06:48:23 PM EST	This project (completion) is so far out. What are we to do in the mean time? HWM road sucks!
Edwards	Adair	adairedwards@gmail.com	1	06:24:46 PM EST	Why would the yellow option be considered when the number of single family homes being impacted is significantly greater than with the other two options?
Edwards	Adair	adairedwards@gmail.com	2	06:26:38 PM EST	I prefer the blue option.
Edwards	Adair	adairedwards@gmail.com	3	06:41:28 PM EST	How can I receive copies of the pros and cons and comparison tables of the three options?
Edwards	Adair	adairedwards@gmail.com	4	06:48:09 PM EST	Just so I understand, the northern section in the Johns Lake area and southern approach to Hartwood Marsh are basically the same?
Edwards	Adair	adairedwards@gmail.com	5	06:49:47 PM EST	As I understand, the main difference between options seems to be the impact on Heritage Hills.
Fogarty	Pat	Pfogstores@gmail.com	1	06:11:12 PM EST	I am concerned that the Yellow alignment will negatively impact my property value. Can you speak about that?
Fogarty	Pat	Pfogstores@gmail.com	2	06:27:22 PM EST	I am definitely against the yellow option.
Fogarty	John	jcfof@sbcglobal.net	1	06:11:44 PM EST	Will there be any noise protective wall or any form of fencing included in the design phase, and how can the public voice their preferences regarding these possibilities.
Fogarty	John	jcfof@sbcglobal.net	2	06:34:41 PM EST	What are the "slime deposits " referred to in the presentation?
Fogarty	John	jcfof@sbcglobal.net	3	06:39:03 PM EST	Are you aware of any plans to extend 455 eastward from past Hartwood Marsh Rd?
Fogarty	John	jcfof@sbcglobal.net	4	06:47:32 PM EST	Green seems to de the best compromise of the three options !
Gamble	Jeremy	jeremygamble@gmail.com	1	06:04:07 PM EST	Can you share the plan for buffer between the road and existing homes? ie, will there be an berm or wall or significant landscaping to help with sound and light? especially the east side that doesn't currently have a wall?
Gamble	Jeremy	jeremygamble@gmail.com	2	06:24:09 PM EST	it seems buffer cost would be significantly higher in the blue alignment, as it parralles the Innovation community for a long way, compared to current walls on the west side. Also, buffer would be needed for blue so road /light noise doesn't travel across John's Lake - especially noise as it really carries over water
Gamble	Jeremy	jeremygamble@gmail.com	3	06:42:29 PM EST	yellow is first preference!
Glover	Neal	ntglover@att.net	1	06:27:13 PM EST	against yellow
Goclan	Jamed	jgoclan1@aol.com	1	06:24:59 PM EST	2007 is 15yrs ago
Goclan	Jamed	jgoclan1@aol.com	2	06:45:57 PM EST	Go green
Lambert	Kay	kay.lambert1@gmail.com	1	06:25:23 PM EST	If we were registered for this webinar, does that mean we will automatically be on the emll list for the next meeting announcement?
Lambert	Kay	kay.lambert1@gmail.com	2	06:45:43 PM EST	Green, green, green!
Lunsford	Teresa	tkldisney@yahoo.com	1	05:48:27 PM EST	Ok
Meikle	Linda	lindameikle@live.com	1	06:08:56 PM EST	What about the small section of the road to connect the current road to Lost Lake Road?
Murro	Angelo & Mary	angmare@msn.com	1	06:27:44 PM EST	We are against the yellow
Patel	Surendra	sidleo2@yahoo.com	1	06:32:55 PM EST	comment

Patel	Surendra	sidleo2@yahoo.com	2	06:35:19 PM EST	comment: Green option is preferred which is least invasive and least construction cost.
Prete	Joseph	jsprete53@gmail.com	1	06:06:38 PM EST	Since Cemex is located now in a primary residential area, why not use this opportunity to relocate them instead obuilding around them?
Prete	Joseph	jsprete53@gmail.com	2	06:07:25 PM EST	will the hills that exist on the Heritage Hills section remain?
Prete	Joseph	jsprete53@gmail.com	3	06:22:30 PM EST	I also like the green option, opposed to yellow
Prete	Joseph	jsprete53@gmail.com	4	06:23:38 PM EST	thank you
Prete	Joseph	jsprete53@gmail.com	5	06:27:14 PM EST	thank you for having this meeting
Rowland	Jenn	jennrowgator@gmail.com	1	06:03:33 PM EST	What is the timeline for the project? The increase in traffic on Marsh Road is not sustainable.
Rowland	Jenn	jennrowgator@gmail.com	2	06:03:49 PM EST	Without this extension.
Rowland	Jenn	jennrowgator@gmail.com	3	06:06:57 PM EST	That seems like a very long timeline. Are there any other plans to help alleviate traffic issues on Marsh road?
Rowland	Jenn	jennrowgator@gmail.com	4	06:10:19 PM EST	Lake County seems to be dragging their feet in this. This is incredibly disappointing when you consider the amount of traffic and increased development. Another route to 50 needs to be completed as fast as possible. There are limited routes to the hospitals in the area.
Rowland	Jenn	jennrowgator@gmail.com	5	06:11:22 PM EST	Lake County has said they have nothing in the works to alleviate traffic.
Rowland	Jenn	jennrowgator@gmail.com	6	06:11:27 PM EST	I've Sked
Sams	Kim	kimsams1400@gmail.com	1	06:23:32 PM EST	Any chance the first mile or so of the project can be completed earlier?
Sams	Kim	kimsams1400@gmail.com	2	06:23:54 PM EST	North end Lost Lake to John's Lake Rd from 455.
Sams	Kim	kimsams1400@gmail.com	3	06:25:04 PM EST	Thank you -- please record this as a suggestion to re-evaluate.
Sine	Vicki	vickimsine@gmail.com	1	06:46:49 PM EST	Go with the green option
Skomro	Tracey	tskomro@yahoo.com	1	06:05:27 PM EST	Which way are you leaning?
Skomro	Tracey	tskomro@yahoo.com	2	06:07:19 PM EST	What is the last alignment that was added to satisfy the 3 alignment requirement?
Skomro	Tracey	tskomro@yahoo.com	3	06:24:51 PM EST	Comment: The green route seems best
Ted	Imes	times1@gmail.com	1	06:04:28 PM EST	How has noise considerations been co
Ted	Imes	times1@gmail.com	2	06:05:04 PM EST	Traffic noise considerations?
Ted	Imes	times1@gmail.com	3	06:08:07 PM EST	Impact if NO road is implemented?
Ted	Imes	times1@gmail.com	4	06:26:25 PM EST	I am opposed to the yellow option.
Thorne	Mary Ann	thornema@bellsouth.net	1	05:34:58 PM EST	I have a question regarding the 3 road options. What option is the least invasive to the affected communities?
Thorne	Mary Ann	thornema@bellsouth.net	2	06:10:16 PM EST	How do you plan to provide possible crime protection? Is the walkway open to the 3 developments?
Thorne	Mary Ann	thornema@bellsouth.net	3	06:16:38 PM EST	I want to be sure that walkers have no access to our property
Thorne	Mary Ann	thornema@bellsouth.net	4	06:24:46 PM EST	What is the difference in the distance of the green option from the Heritage Hills development
Thorne	Mary Ann	thornema@bellsouth.net	5	06:32:47 PM EST	will the 3 options of roadways be located between the Cemex plant and Heritage Hills, or will it be behind Cemex Plant?
Ward	Timothy	tward4392@gmail.com	1	06:05:40 PM EST	The walking paths on the design, how will these paths be made available to those who wish to use the walkways?
Ward	Timothy	tward4392@gmail.com	2	06:06:37 PM EST	HOw will traffic noise issues be addressed.
Ward	Timothy	tward4392@gmail.com	3	06:10:42 PM EST	will you be taking Cemex property through eminent domain?
Ward	Timothy	tward4392@gmail.com	4	06:20:06 PM EST	will the road will be open to truck traffic
Ward	Timothy	tward4392@gmail.com	5	06:42:15 PM EST	Go green
Ward	Timothy	tward4392@gmail.com	6	06:50:12 PM EST	Thank you both for our time
Ward	Timothy	tward4392@gmail.com	7	06:51:21 PM EST	Your time
Wiley	Keith	kwiley43311@gmail.com	1	06:07:17 PM EST	What "development" could occur on the side(s) of the roadway?
Wiley	Keith	kwiley43311@gmail.com	2	06:10:43 PM EST	Were projections made as to how much traffic will increase on Hartwood Marsh in either direction? Will the interchange be another roundabout?
Wiley	Keith	kwiley43311@gmail.com	3	06:46:13 PM EST	The yellow option costs more than twice as much as the green and much more than the blue. It also showed the most cons. Yellow should be the first option to be discarded
Williams	Richard	wilrsw@yahoo.com	1	06:09:07 PM EST	Hartwood Marsh already has too much traffic. What will be done with Hartwood Marsh. This will add more traffic to an already overburdened road
Williams	Richard	wilrsw@yahoo.com	2	06:10:50 PM EST	Why is the project needed. The current infrastructure should be fixed first before making it worse
Williams	Richard	wilrsw@yahoo.com	3	06:29:59 PM EST	Given the projected cost of the yellow is double the green, I would surely hope that fiscal responsibility would eliminate the yellow from further consideration
sciascia	gloria	gloriamsciascia@yahoo.com	1	06:50:20 PM EST	is there any plan to build a wall around heritage hills?



CR 455 PD&E Alternatives Concept Workshop, January 11, 2022

Virtual Meeting Transcript

0:05

Good evening and welcome to the public meeting for the County Road 455 Phase to Extension From Loss Like Road to Heartwood Marche Road, Project Development and Environment or ... Study.

0:18

We'll be starting the presentation in about 15 minutes.

4:53

Thank you for joining us this evening. This is the public meeting for the county Road 455. Phase to extension from last like Red Heartwood Marsh Road, Project Development and Environment, or PD any study, will be starting the presentation in about 10 minutes.

9:53

Good evening, and welcome to the Public Meeting for the County Road 455, Phase two extension P D and E study. We will be starting the presentation in just a few minutes.

14:53

Good evening. And welcome to the Public meetings for the County Road 455 phase to Extension from Las Lake Red, Heartwood Marsh Road, Project Development and Environment, or ... study. We will be starting the presentation in just a minute. If you would like to ask a question about the alternative options, we will be answering your questions following the presentation. Let's get started.

15:45

Welcome to the Alternative Concepts Public Workshop for the County Road 455 Phase 2 Extension from Last Lake Road to Heartwood Marsh Road Project Development and Environment Study.

15:56

This meeting is being held in person at the Clermont City Center and online via goto Webinar to allow all interested persons the opportunity to participate safely.

16:08

Before we get started we will review a few features of goto Webinar to help you participate in this meeting.

16:14

On your computer screen you will find the goto Webinar control panel.

16:17

Click on the red arrow to expand the panel. If you're watching on your mobile device using goto app, you can tap your screen to show the tools across the bottom.

16:29

The audio controls allow you to choose whether to listen using your computer audio or use a telephone.

16:36

The red arrows point to where you will find the question box, please use the question box to submit a comment or question during the meeting.

16:44

The blue arrows point to where you can find a comment form and handout for this meeting.

16:48

Click on the handout name to download to your device.

16:54

The project study area is from approximately 300 feet north of Los Lake Road. South The long friendship road to John's Lake Road continues south into the ... property in terminating at Heartwood Marsh Road Phase three.

17:09

The typical roadway section for this phase of County Road 450.

18:05

Hey, we're having a little bit of difficulty here, as soon as we get this figured out. We will start planning this presentation, So please stand-by.

19:01

Welcome to the Alternative Concepts Public Workshop for the County Road 455 Phase 2 extension.

19:08

Before we get started we will review a few features of goto Webinar to help you participate in this meeting.

19:14

On your computer screen you will find the goto Webinar control panel.

19:17

Click on the red arrow to expand the panel. If you're watching on your mobile device using goto app, you can tap your screen to show the tools across the bottom.

20:01

The audio controls allow you to choose whether to listen using your computer audio or use a telephone.

20:08

The red arrows point to where you will find the question box, Please use the question box to submit a comment or question during the meeting.

20:16

The blue arrows point to where you can find a comment form and handout for this meeting.

20:20

Click on the handout name to download to your device.

20:27

The project study area is from approximately 300 feet north of Los Lake Road. South along friendship Road to John's Lake Road continues south into the ... property, in terminating at Heartwood Marsh Road, Phase three a approved ...

20:43

study area included the complete c-max property.

20:49

The typical roadway section for this phase of county road for 55, includes a 22 foot median to 12 foot wide lanes. Each direction forefoot bike lanes type of curb and gutter grass to utility strips.

21:04

14 foot wide concrete trail on the west side of the road, and a five foot wide concrete sidewalk on the east side.

21:15

three alternative alignments for county Road 4 55 were developed for engineering review.

21:21

All three alignments began at the same location north of Lost Lake Road and end at the same location.

21:28

Heartwood Marsh Road, the three alignments only very once they are within the c-max property.

21:34

The alignments have been named green, blue, and yellow for discussion purposes.

21:39

The green alignment is the most central alignment within C-max, the blue is most northerly, and the yellow is the most southerly alignment within c-max.

21:50

With all three alignments, there are three residential properties impacted along the stretch of roadway between Las Lake Road and John's Lake Road.

22:02

Here are the three alignments that have been evaluated as part of this study.

22:06

Isolated on an aerial for clarity.

22:13

The advantages of the green alignment are, it provides buffer, a roadway from adjoining properties, least amount of right of way is needed, least unsuitable slash lyme material: least grading to provide a safe driving profile.

22:29

It provides future development opportunities on both sides of the roadway.

22:33

The existing concrete plant remains least construction cost, the cons of the green alignment, or the potential for deep unsuitable, slime deposit, 40 feet, and the need for a switchback curve to allow the existing plant to stay operational and miss the existing Duke energy transmission tower.

22:54

Advantages of the blue concept are, the existing concrete plant remains.

23:01

The right of way needed is just zero point one five acres more than the green alignment and it avoids the Duke Energy Transmission Tower.

23:10

The disadvantages of the blue concept are, it aligns along the North property line adjacent to single family homes.

23:18

There are multiple unsuitable slash slimed deposits.

23:21

There is an extreme challenge with profile grading areas with high and low elevations.

23:27

Additional grading is needed outside of the right of way.

23:30

Differential settlement is likely it provides future development opportunity on only one side of the roadway.

23:37

The cost to construct is second largest.

23:43

The advantages of the yellow concept are the existing concrete plant remains.

23:48

It extends farther west than the other two concepts.

23:52

The cons for the Yellow Alignment are: it has multiple unsuitable slash slimed deposits. It requires the most right of way.

24:01

It aligns along the south property line adjacent to single family homes at Heritage Hills.

24:07

There is an extreme challenge with profile grading areas with high and low elevations.

24:12

An extremely large horizontal curve is needed to avoid the concrete plant.

24:17

two back to back curves are needed to align with the South Connection Point.

24:22

Differential settlement is likely it provides future development opportunity on mostly one side of the roadway.

24:29

It has the highest construction cost of the three concepts.

24:35

The three alternative alignments were evaluated and shown here is a matrix table of different components of that evaluation.

24:42

Right of way, impacts evaluated include residential parcels impacted, and all three concepts impact three parcels, business parcels impacted and all three impact, one parcel, utility and government parcels impacted, all impact one Lake County parcel.

25:00

The total parcels impacted for all three concepts is five.

25:04

The amount of right of way kneaded, showed 15.33 acres for the green concept, 15.49 acres for the blue concept, and 18.9 acres for the yellow concept.

25:17

Note that Lake county has 6.75 acres of existing right of way.

25:22

The right of way needed from the C-max property would be 13.54 acres in the green concept, 13.69 acres for the blue concept, and 17.1 acres under the yellow concept.

25:35

There is also right of way needed for Pawns.

25:38

The green concept would need 5.92 acres.

25:41

The blue concept calls for 6.1 acres, while yellow would require 7.3, 6 acres.

25:48

The environmental impacts were also evaluated.

25:51

Total wetland impacts were leased with the green option at 1.08 acres.

25:56

The blue concept would impact 5.15 acres, while yellow would impact 3.36 acres of wetland.

26:04

Floodplain impacts were the same for green and blue at 2.76 acres, and 3.83 acres for the yellow concept.

26:13

All three had low wildlife impacts and no potential contamination.

26:17

The last factor evaluated was construction cost.

26:21

Green is expected to cost \$13.59 million.

26:24

Blue is estimated at 21.19, and yellow had the highest construction cost at \$28.55 million.

26:36

This slide shows a zoomed in view of the green alignment from Hartwood Marche Road heading north into the ... property.



26:43

This shows the relationship of the green alignment as it relates to the Heritage Hills and Innovation a hidden lake subdivision.

26:49

The roadway will be within existing right of way from Hartwood Marsh Road to the Southerly Property Line of ... property.

26:56

Also depicted on this slide is the limits of grading that is anticipated with the alignment in order to tie back into existing elevations along the corridor.

27:05

Proposed possible retention on locations are shown and will be finalized during the course of design development.

27:11

Existing Duke Energy 200 foot transmission easement is shown along with the location of transmission towers, which must be avoided by the alignment.

27:23

This slide shows a zoomed in view of the Green alignment from Middle of ... property, heading North to the connection point with existing Hardell Road County Road 455, Phase one, north of Los Lake Road.

27:35

This shows the relationship of the green alignment as it relates to the ... property and existing plant. Also depicted as the impacts to the three residential lots located between John Slaked Road and Lost Lake Road as a result of this alignment.

27:48

Proposed possible retention, PON locations are shown and will be finalized during the course of design development.

27:54

Existing Duke Energy 200 foot transmission easement is shown along with the location of the transmission towers, which must be avoided by the alignment.

28:05

This slide shows a zoomed in view of the blue alignment from Hartwood Marsh Road, heading north into the ... property.

28:12

This shows the relationship of the blue alignment as it relates to the Heritage Hills and Innovation a hidden lake subdivision.

28:18

The roadway will be within existing right of way from Hartwick Marsh Road to the Southerly Property Line of ... property.

28:25

Also depicted on this slide is the limits of grading that is anticipated with the alignment in order to tie back into existing elevations along the corridor.

28:33

Proposed possible retention on locations are shown and will be finalized during the course of design development.

28:39

Existing Duke Energy 200 foot transmission easement is shown along with the location of the transmission towers, which must be avoided by the alignment.

28:51

This slide shows a zoomed in view of the blue alignment from Middle of ... property, heading north to the connection point with existing hardware road county, Road 455 phase 1 north of Los Lake Road.

29:03

This shows the relationship of the blue alignment as it relates to the c-max property and existing plan.

29:09

Also depicted is the impacts to the three residential lots located between John's Lake Road and Lost Lake Road as a result of this alignment. Proposed possible retention pond locations are shown and will be finalized during the course of design development.

29:23

Existing Duke Energy 200 foot transmission easement is shown along with the location of transmission towers, which must be avoided by the alignment.

29:34

This slide shows a zoomed in view of the yellow alignment from Hartwick Marsh Road, heading north into the ... property.

29:40

This shows the relationship of the yellow alignment as it relates to the Heritage Hills and Innovation a hidden lake subdivision The roadway will be with an existing right of way.

30:05

From Hartwood Marsh Road to the Southerly Property Line of ... property.

30:08

Also depicted on the slide is the limits of grading.

30:11

Proposals element: Existing Duke Energy 200 foot transmission easement is shown along with the location of the transmission towers, which must be avoided by the alignment.

30:22

This slide shows a zoomed in view of the yellow alignment, from middle of ... property, heading north to the connection point with existing Hardell Road, County Road for 55 Phase 1, north of Los Lake Road. This shows the relationship of the yellow alignment as it relates to the ... property and existing plants, also depicted as the impacts to the three residential lots located between Johns like Road and Loss Lake Road as a result of this alignment. Proposed possible retention pond locations are shown and will be finalized during the course of design development.

30:50

Existing Duke Energy 200 foot transmission easement is shown along with the location of the transmission towers, which must be avoided by the alignment.

31:00

This project started in April 2020, data collection was completed in February 2021, and the alternative alignments were developed in March 2021.

31:10

Following this public workshop, the alignments will be refined and a public hearing will be held in February or March of 2022 to present the preferred alignment.

31:19

Design on the preferred alignment is expected to begin in spring 2022 and finished by the end of 2022.

31:30

For more information, or if you have questions, please contact Lake County Project Manager, George Gaddy, L. By phone at (352) 253-9092.

31:42

Or by e-mail at ... at Lake County, FL dot gov. That's G G a D I E L at Lake County NFL dot G O V. You may contact mister Getty L by mail at Lake County Public works 350 north saint Clair Avenue to various Florida 32778.

32:03

Questions can also be directed to Project Consultant Dwaine booth by phone at (352) 343-8481 or by e-mail at D booth at half dot com.

32:17

That's D B O O T H, at H A, L, F F dot com, or by US mail to 902 north Sinclair Avenue to Veras Florida 32778 Information is also available on the project website at WWW dot lee county FL dot gov slash engineering.

32:43

Thank you for attending the Alternative Concept's Public Workshop for the county Road 455 extension Project.

32:57

All right. Once again, we apologize for the technical difficulties we had at the top of that presentation. Hopefully, you all got all the information that you're looking for.

33:07

If you have any questions, please type them into the question box on the question pane on the right. First, before we start answering those questions, I want to introduce Project Team Member, Brett Tobias with half Brett.

33:23

Thank you. Gotta say, just a few words here. I want to state the original PDAs study for this was actually completed in 2007. This does serve as an update to that ... study. The original study in 2007, only analyze two alignments. Do some updates. Project requirements, Lake County and FTA to do now require three alignments to be evaluated as part of the PD. Any study, which is a necessity to update this study. The study update does not change connection. Only adds an

additional alternative to what was originally shown. So the purpose of this meeting is to really hash how public opinion about three limits, blue, yellow, or green.

34:15

And with that, we can turn it over to questions, questions, and comments.

34:23

All right.

34:24

For our first question, they are asking what option is the least invasive to the affected communities. I know we went through and showed all the differences, but maybe you can help us break it down a little bit. Sure. You know, we had the matrix, that was in the slideshow, that kind of evaluated all the different things we used in the process, which is the least invasive, There's kind of a subjective question.

34:50

You know, the issue, live to the south of the project. Obviously, the yellow line is the most invasive, and the blue alignment is the least invasive here in a single family homes along the north side of this B and a study, that obviously the blue one is the most invasive, while the yellow one is the least invasive, and the great alignment split. The difference between those two are roughly split the difference between those two.

35:19

So, I don't know that it's possible, or practical to say that any of the three is definitively the most invasive just, because that's kind of open to some subjectivity, depending on where you may be located.

35:33

But that's, that's kinda why we're having this meeting, as well as for the public to give their input on what they feel the most, or the least desirable alternative S.

35:48

OK, next question, they're asking about the timeline of the project. I know that we showed the slide with the different timelines, if you want to just talk about that. Sure. So, the right of way acquisition is scheduled for 2023. That is funded, so it will be moving forward in that timeframe. The construction is tentatively scheduled for 2026, but there's some funding matching that hasn't happened there yet. So that is a tentative date. I don't believe that would happen any earlier than 20, 26, but it could potentially happen a little bit later.

36:28

OK, this question asks if you can share the plan for the buffer between the road and existing homes like is there going to be a berm or a wall, or landscaping?

36:39

At this stage of development that has not been determined. Those sorts of things will be determined. Prefer a line that has been picked, and then that alignment moves on to design. Those sorts of things are done in the design phase.

36:56

Was there. So you are going to consider C, F F, a F, a sound while there's something as warranted during the design phase. All of that stuff. Yes. Would be evaluated during the design phase, correct?

37:10

OK, Someone did ask, which way you're leaning. However, we are impartial, we want to hear what the public has to say we want your input on which one you like the best. So We'll go on to the next one. It says the walking paths on the design. How will these paths be made available to those who wish to use the walkways?

37:38

Well I mean those walkways are within the public right away And that section will connect to Harvard Marsh in the face or Phase three begins, and to the phase one, which is already partially constructed, so they would be made available by connection for those other phases.

38:00

What sort of development is envisioned on either on each or either side of the highway when you talk about development opportunities?

38:10

That would be dependent on their zoning classification and ownership of those parcels and how they proceeded to develop that land? I don't have any insight into what they are thinking or their future plans for that land. Development opportunities simply means the amount of land available on either side of the alignment, but that would be completely the purview of the landowner at what he was allowed to do with his given properties of it.

38:46

And for the purposes of this project, we're focusing solely on which would be the best roadway we're not looking, We don't do the development side.

38:58

Well, here's, this, kinda goes with what we said earlier, how will traffic noise issues be addressed? I'm guessing you guys will do the analysis and stuff during the design phase, correct. Those sorts of things are handled during the design phase, correct?

39:17

This person wanted to know, I guess there's a c-max, is located now in a primary residential area. They said, Why not use this opportunity to relocate them?

39:26

Instead of building around them, will CMS, we're not building around that CMS does own that entire parcel and that is an active my site.

39:39

So all three of the alignments do cross across CMS property, the entirety of which is considered a mining site.

39:54

OK, this one is saying the timeline seems to be long. I know these construction projects take a little while. Unfortunately, you have to go through all the processes, but in the meantime, are there any other plans to help alleviate traffic issues on Marche Road?

40:12



Not that I am aware of for the purposes of this meeting.

40:17

Though, have insight into all of the projects that Lake County has going on site. I don't know of any other projects that are proposed for Harvard Marsh, but I don't know that I would have the insight to that they would have to. This person would need to contact Lake County directly for all of the various roadway plans that the County has going on.

40:41

Aye.

40:42

What is the last alignment that was added to satisfy the three alignment requirements?

40:49

The last alignment added was the green alignment, the yellow and blue alignment are basically the same as two of the alignments. To a into a from the 2007 ... study, they were the two alignments they were suggested from that study.

41:09

So, to add the third alignment, the green alignment was added OK, how would the differential settlement affect the homes located closest to the proposed routes, especially the yellow option?

41:24

The differential settlement should not have any impact on the homes, because the homes are not constructed on that land.

41:33

So, the differential settlement references the roadway settlement because of the layout of the roadway is being constructed or not settlement adjacent to.

41:46

OK, well the hills that exist on the Heritage Hills section remain.

41:54

D, Though the alignment does not none of the alignments, I should say Um impact, well phase three does crossed through the air to chose project but that land was dedicated as a part of the Heritage Hills for right away. So it is actually owned by Lake County.

42:14

So there is no amount at any of the alignments touch or are constructed upon.

42:23

Heritage Hills land. So no hills on heritage shows. Land can be affected but any of the alignments will have some grading that has to occur on the sea legs property.

42:38

What hills may or may not be effected on that property.

42:43

Will be, uh, more design phase question.

42:47

Design phase issue when we get to full design.

42:51

OK, Ted Imes, I'm not sure exactly what you're asking impact.

42:56

If no road has implemented question mark, if you could just explain that question a little more. And I'll come back to it.

43:04

Moving on we have How will the intersection look at Heartwood Marsh Road and County Road 455? Will there be a roundabout or a traffic light? There will eventually be a roundabout at that location. That is a future design aspect. It's already approved feed any study that, that is what that would be.

43:23

When phase two is constructed, it will probably not connect to a roundabout immediately but a traffic light with the roundabout to be constructed with the future like kind of project, What about the small section of the road to connect the current road to loss lake roads, that's the road's there?

43:42

At any section, to connect to that, one of those three alignments are in fact, pretty much the same. Surely, yellow green and blue alignments. So, there really isn't a lot of difference there where it connects there, that is connecting to phase one, which is already partially built. So, at the North End, through those sections, it's, it's connected to an already partially built road, which which will actually be a completely go vote.

44:11

OK, we have another comment question, asking, saying, They believe that this is going to add more traffic to an already overburdened road. Heartwood Mars already has too much traffic. What will be done with Heartwood, Mars?

44:28

That's kind of beyond the scope of this meeting. Just identify the three line. That's, there's been lots of traffic studies that have been done beginning all the way back in 2007 with the original ... study that dictate that this rule will help with traffic.

44:47

So that's kinda how I would answer that. There's been lots of studies that have gone on to dictate this roads necessity of this public involvement is more about which alignment is the best alignment. Not whether the roadway is necessary or not.

45:04

This one I'm not sure how do you plan to provide possible crime protection?

45:09

And is the walkway open to the three developments?

45:14

I'll answer the walkway question, first, the walkways, and public right away. So it is open to any and everyone who can access the public right away.

45:23

If the question is more asking, will a separate connection be made from that walkway to the developments?

45:31

The walkway will be along the segment of roadway. So those developments would have to access it on that roadway in the same manner that any of the public does. But if they can walk there from the existing sidewalks, they're more than welcome to use it as a portion of the public right away. I'm not sure, I understand.

45:51

the Friday question, or how to answer that.

45:57

The construction of roads to my knowledge isn't generally consistent with the production of crime.

46:08

OK, next, how long do we think the construction phase is going to take?

46:14

Several years, I do not have a estimate here for how long that will take. I will say that all of these questions are recorded and will be responded to, so, that may be one. We have to send out a full response to that. As a part of that phase, I have not heard an actual estimate for how long we think the construction phase will take, and I imagine that some of that is subject to which alignment is chosen as well.

46:45

OK, and thank you for mentioning that, once again, all questions that we do receive will be answered in writing following the meeting. If we don't get to your question during this meeting, it will get answered. It will just be in writing.

47:01

Our next question, I'm hoping I'm understanding this right.

47:05

A four lane road goes into a two lane road through a 600 foot gap between Heritage Hills and Innovation.

47:13

I think they're questioning why that is.

47:18

I'm not more, I understand the question that either the four Lane road, the two lane Road, if they're talking about the north, there are two lanes built, but those are just the western two lanes, there are two more lanes to be built as a part of phase one.

47:37

So this will be four lanes the entire life. To turn understanding, there's four lanes transitioning to two lanes.

47:47

OK, And again, we could probably get more in detail on that once we do it in writing after the meeting.

47:55

Right.

47:57

Will you be taking ... property through Eminent Domain?

48:02

Yes.

48:04

We will be taking right away through the same next property as a part of the roadway possession process.

48:14

Ah Were projections made as to how much traffic will increase on Heartwood Marson either direction. And Will the interchange be another roundabout? I think you answered that earlier. I think we covered both of those questions earlier.

48:31

Hmm, Um, this person wants to know why the project is needed.

48:38

They believe the current infrastructure should be fixed first before they say making it worse.

48:43

I think we kind of covered that one earlier as well. This infrastructure has been determined to be necessary since the original Katie, any study in 2007 through multiple traffic analysis from traffic engineers over the last several years.

49:01

OK, Um, Tell us, I am not sure if we have the answer to this but the truth is the alignments. Any of the alignments?

49:10

will that have a negative impact on property values that are there?

49:17

I'm afraid beyond my understanding of property values. Yeah.

49:24

I'm not plugged in how something like this would affect the values of the adjoining properties.

49:30

Yeah, I don't think usually we we have that information.

49:34

Um.

49:37

All right.

49:43

Someone asked about how the public can voice their preferences regarding these possibilities. All you have to do is send us send us an e-mail. There's you can go to the website at

WWW dot lake County, FL dot gov slash engineering. And they have comment form there that you can fill out an e-mail.

50:02

You can also e-mail the Project manager, I see George ..., I hope I'm saying his name right. At G G a D I E L. At Lake County, FL dot gov. You can also e-mail Consulting Project Manager Dwayne things at di Boost the zero TH at Half H, a L FF dot com, and tell them which one you prefer. This is the whole reason for this. This meeting is we want to hear what you have to say. We want to hear what what options you, like if you like one option, but maybe want to have something little from another option, you know. Let us, Now, you don't, you never know. We can, we can tweak things out, but we want your input. That's that's the whole reason for this, for this meeting.

50:57

Let's see.

51:03

I suppose that once during the design phase, if we decide that buffers are warranted, no matter what type, those would be included in the cost for the projects.

51:17

Yeah.

51:18

I think the question is, as buffers been included in the cost estimates that were shown in the presentation, we may have to respond to that one.

51:30

And writing later, I believe the answer is no, because those buffers have not been determined yet, so those cost the, excuse me, Cost estimates are more pertaining to right away acquisition and the construction cost of the road and associated infrastructure, but with a need for extra clarity in our written responses to that question, OK.

51:57

Um, we have one comment. They liked the green option.

52:02

We also have somebody who wants to know, will the road be open to truck traffic?

52:10

The road will be a public roadway open to any traffic allowed on the roadway and a street legal details.

52:22

We have another green option. So as I said, all these comments will be taken on the the can the project team will take a look at everything that everyone has to say and that's how they will determine which alternative they'll move forward with.

52:40

Um, and if you have any more questions, you can write them in the question pane. As I said, if we don't get to your questions, they will be responded to in writing, following the public meeting.



52:57

And, of course, as mentioned in the presentation, there will be another public hearing, and I believe it was February or March, to present what alternative they have decided to go with, and then to also get more public input, once that's decided.

53:19

Ah, And that was our next question. Will we get an e-mail about the February March public hearing? You should, if, especially, if you got a mailing about this meeting, then you are. You are on the mail list. If, for some reason, you did not get a mailing for this meeting, then, and you saw it somewhere else, then e-mail, e-mail the project manager, or go on the website. Send us an e-mail, send us comment card. Say you wanted to be added. Make sure you send us your address so that, so that we can send out. Make sure that you're on the list when it's time to send out those public hearing invites.

54:01

OK, this one wants to know if there's any chance that the first mile or so of the project can be completed earlier?

54:09

Aye.

54:11

Hello, the address later, but I don't believe so. Generally, this has already been split into the phases. It's going to be split into.

54:20

And so the construction goes, according to the phase A phase will all be constructed at that one time, Not further broken into other smaller phases, OK.

54:40

Going through some of these others, we're taking all these comments and they will be recorded in the public record.

54:48

And they will be considered by the project team.

54:52

Here's why? And what is the difference in the distance of the green option from the Heritage Hills development?

54:59

I believe, from the yellow to the green was about 400 to 450 feet somewhere that, I know it.

55:11

Hang.

55:13

Um, this one wants to know: Why would the yellow option be consider when the number of single family homes being impacted is significantly greater than with the other two options?

55:26

Well, there has to be at least three options that are identified. There's only so many ways to get from point A to point B, given the various obstacles.

55:34

So, that's really the purpose of, of this meeting. To evaluate options, We have to provide three options.

55:43

It doesn't necessarily mean that, know, all the options are, are good options. That's why we have this meeting so that the public can voiced their opposition or their support of one or more of the alternatives. So, there's three alternatives selected kind of splitting the property, and here we are having an evaluation of which ones are more in favor of the public or less.

56:12

OK.

56:15

Um, says, If you're registered for this Webinar, Yes, they will have your e-mail on file, and you should be B then on the last will. Make sure that anyone who was not on the previous list and that you, if you have registered for this webinar, then you will be included on the future list.

56:41

We have two against the yellow and one for the blue.

56:50

Once again, if you have any questions, go ahead and type them into the right. And what we're gonna do is, we'll probably run the presentation one more time, hopefully, without any technical problems this time.

57:02

That way, if anybody just joined us or wants to look at it one more time, Or we'll give you the chance here in just a second.

57:13

But you can keep putting in your questions throughout the presentation, and any questions that we've missed, or if we have time afterwards, or we'll try to answer some more of your questions.

57:24

All right, Let's, let's start the presentation again.

57:39

Welcome to the Alternative Concepts Public Workshop for the County Road 455 Phase 2 Extension from Last Lake Road to Heartwood Marsh Road Project Development and Environment Study.

57:49

This meeting is being held in person at the Clermont City Center and Online.

57:54

Before we get started, we will review a few features of goto Webinar to help you participate in this meeting.

58:00

On your computer screen you will find the goto Webinar control panel.

58:04

Click on the red arrow to expand the panel. If you're watching on your mobile device using goto app, you can tap your screen to show the tools across the bottom.

58:15

The audio controls allow you to choose whether to listen using your computer audio or use a telephone.

58:21

The red arrows point to where you will find the question box, Please use the question box to submit a comment or question during the meeting.

58:29

The blue arrows point to where you can find a comment form and handout for this meeting.

58:34

Click on the handout name to download to your device.

58:39

The projects study area is from approximately 300 feet north of Los Lake Road.

58:45

South The long friendship Road to John's Lake Road continue south into the sea mixed property in terminating at Heartwood Marsh Road, Phase three a approved PD any study area included the complete C-max property.

59:02

The typical roadway section for this phase of County Road 455, includes a 22 foot median to 12 foot wide lanes in each direction forefoot bike lanes. Type F curb and gutter grass to utility strips, 14 foot wide concrete trail on the west side of the road, and a five foot wide concrete sidewalk on the east side.

59:28

three alternative alignments for county Road 455 were developed for engineering review.

59:34

All three alignments began at the same location north of Los Lake Road and end at the same location hartwood Marsh Road The three alignments only very once they are within the c-max property.

59:47

The alignments have been named green, blue and yellow for discussion purposes.

59:52

The green alignment is the most central alignment within c-max, the blue is most northerly, and the yellow is the most southerly alignment within C Mix.

1:00:03

With all three alignments, there are three residential properties impacted along the stretch of road way between Las Lake Road and John's Lake Road.

1:00:15

Here are the three alignments that have been evaluated as part of this study.

1:00:19

Isolated on an Aerial for clarity.

1:00:26

The advantages of the Green alignment are, it provides buffer a roadway from adjoining properties, least amount of right of way as needed.

1:00:35

Least unsuitable slash slimed material, least grading to provide a safe driving profile.

1:00:42

It provides future development opportunities on both sides of the roadway.

1:00:46

The existing concrete plant remains least construction cost, the cons of the Green alignment, or the potential for deep unsuitable, slime deposit, 40 feet, and the need for a switchback curve to allow the existing plant to stay operational and miss the existing Duke energy transmission tower.

1:01:09

Advantages of the blue concept are the existing concrete plant remains.

1:01:16

The right of way needed is just zero point one five acres more than the green alignment and it avoids the Duke Energy Transmission Tower.

1:01:25

The disadvantages of the blue concept are, it aligns along the North property line adjacent to single family homes.

1:01:33

There are multiple unsuitable slash slimed deposits.

1:01:37

There is an extreme challenge with profile grading areas with high and low elevations.

1:01:42

Additional grading is needed outside of the right of way.

1:01:46

Differential settlement is likely, it provides future development opportunity on only one side of the roadway.

1:01:52

The cost to construct is, the advantages of the yellow concept are, the existing concrete plant remains, it extends farther west than the other two concepts.

1:02:05

The cons for the yellow alignment are, it has multiple unsuitable, slos slimed, deposits.

1:02:11

It requires the most right of way.

1:02:14

It aligns along the south property line adjacent to single family homes at Heritage Hills.

1:02:20

There is an extreme challenge with profile grading areas with high and low elevations.

1:02:25

An extremely large horizontal curve is needed to avoid the concrete plant.

1:02:30

two back to back curves are needed, to align with the South Connection Point.

1:02:35

Differential settlement is likely it provides future development opportunity on mostly one side of the roadway.

1:02:41

It has the highest construction cost of the three concepts.

1:02:48

The three alternative alignments were evaluated and shown here is a matrix table of different components of that evaluation.

1:02:55

Right of way, impacts evaluated include residential parcels impacted, and all three concepts impact three parcels, business parcels impacted and all three impact, one parcel, utility and government parcels impacted, all impact one Lake County parcel.

1:03:13

The total parcels impacted for all three concepts is five.

1:03:17

The amount of right of way kneaded, showed 15.33 acres for the green concept, 15.49 acres for the blue concept, and 18.9 acres for the yellow concept.

1:03:30

Note that Leake county has 6.75 acres of existing right of way.

1:03:35

The right of way needed from the C-max property would be 13.54 acres in the green concept, 13.69 acres for the blue concept, and 17.1 acres under the yellow concept.

1:03:48

There is also right of way needed for Pawns.

1:03:51

The green concept would need 5.92 acres.

1:03:54

The blue concept calls for 6.1 acres.

1:03:57

Well yellow would require 7.3, 6 acres.

1:04:01

The environmental impacts were also evaluated.

1:04:04

Total wetland impacts were leased with the green option at 1.08 acres.

1:04:09

The blue concept would impact 5.15 acres, while yellow would impact 3.36 acres of wetland.



1:04:17

Floodplain impacts were the same for green and blue at 2.76 acres, and 3.83 acres for the yellow concept.

1:04:26

All three had low wildlife impacts and no potential contamination.

1:04:30

The last factor evaluated was construction cost.

1:04:34

Green is expected to cost \$13.59 million.

1:04:37

Blue is estimated at 21.19, and yellow had the highest construction cost at \$28.55 million.

1:04:49

This slide shows a zoomed in view of the green alignment from Hartwood Marche Road heading north into the ... property.

1:04:55

This shows the relationship of the green alignment as it relates to the Heritage Hills and Innovation, a hidden lake subdivision.

1:05:02

The roadway will be within existing right of way from Hartwood Marche Road to the Southerly Property Line of ... property.

1:05:09

Also depicted on this slide is the limits of grading that is anticipated with the alignment in order to tie back into existing elevations along the corridor.

1:05:18

Proposed possible retention \*\*\*\*\* locations are shown and will be finalized during the course of design development.

1:05:24

Existing Duke Energy 200 foot transmission easement is shown along with the location of transmission towers, which must be avoided by the alignment.

1:05:36

This slide shows a zoomed in view of the green alignment from Middle of ... property, heading north to the connection point, with existing Hartl Road County Road 455 phase 1 North of Los Lake Road.

1:05:47

This shows the relationship of the green alignment as it relates to the seed mix property and existing plant.

1:05:53

Also depicted as the impacts to the three residential lots located between Johns Lake Road and Lost Lake Road as a result of this alignment.

1:06:01

Proposed possible retention, PON locations are shown and will be finalized during the course of design development.

1:06:07

Existing Duke Energy 200 foot transmission easement is shown along with the location of the transmission towers, which must be avoided by the alignment.

1:06:18

This slide shows a zoomed in view of the blue alignment from Hartwood Marsh Road, heading north into the ... property.

1:06:25

This shows the relationship of the blue alignment as it relates to the Heritage Hills and Innovation a hidden lake subdivision.

1:06:31

The roadway will be within existing right of way from Hartwood Marche Road to the Southerly Property Line of ... property.

1:06:37

Also depicted on this slide is limits of grading that is anticipated with the alignment in order to tie back into existing elevations along the corridor.

1:06:46

Proposed possible retention \*\*\*\* locations are shown and will be finalized during the course of design development.

1:06:52

Existing Duke Energy 200 foot transmission easement is shown along with the location of the transmission towers, which must be avoided by the alignment.

1:07:03

This slide shows a zoomed in view of the blue alignment from Middle of ... property heading north to the connection point with existing Hartle Road County Road for 55, phase one north of Los Lake Road.

1:07:16

This shows the relationship of the blue alignment as it relates to the c-max property and existing plan.

1:07:22

Also depicted is the impacts to the three residential lots located between John Slake Road and Loss Lake Road as a result of this alignment.

1:07:29

Proposed possible retention PON locations are shown and will be finalized during the course of design development.

1:07:36

Existing Duke Energy 200 foot transmission easement, is shown along with the location of transmission towers, which must be avoided by the alignment.

1:07:47

This slide shows a zoomed in view of the yellow alignment from Hartwood Marche Road, heading north into the ... property.

1:07:53

This shows the relationship of the yellow alignment as it relates to the Heritage Hills and Innovation a hidden lake subdivision.

1:08:00

The roadway will be within existing right of way from Hartwood Marche Road to the Southerly Property Line of ... property.

1:08:07

Also depicted on the slide is the limits of grading that is anticipated with the alignment in order to tie back into existing elevations along the corridor.

1:08:15

Proposed possible retention on locations are shown and will be finalized during the course of design development.

1:08:20

Existing Duke Energy 200 foot transmission easement is shown along with the location of the transmission towers, which must be avoided by the alignment.

1:08:31

This slide shows a zoomed in view of the yellow alignment from middle of ... property, heading north to the connection point with existing Hartle Road County Road 455, Phase one north of Los Lake Road.

1:08:43

This shows the relationship of the yellow alignment as it relates to the C-max property and existing plant.

1:08:49

Also depicted as the impacts to the three residential lots located between Johns Lake Road and Loss Lake Road, as a result of this alignment, proposed possible retention pond locations are shown and will be finalized during the course of design development.

1:09:02

Existing Duke Energy 200 foot transmission easement is shown along with the location of transmission towers, which must be avoided by the alignment.

1:09:13

This project started in April 2020. Data collection was completed in February 2021, and the alternative alignments were developed in March 2021.

1:09:23

Following this public workshop, the alignments will be refined and a public hearing will be held in February or March of 2022 to present the preferred alignment.

1:09:32

Design on the preferred alignment is expected to begin in spring 2022 and finished by the end of 2022.

1:09:42

For more information or if you have questions, please contact Lake County Project Manager, George Gaddy, L by phone at (352) 253-9092 or by e-mail at G Getty yell at Lake County NFL dot gov, that's G G a D I E L at Lake County NFL dot G O V. You may contact mister Getty L by mail at Lake County Public Works 3 50 north. saint Clair Avenue to various Florida 3, 2 7, 7 8.

1:10:16

Questions can also be directed to Project Consultant Dwaine booth by phone at 3 5 2, 343-8481. or by e-mail at D booth at half dot com.

1:10:29

That's D B O O T H, at H A, L, F F dot com, or by US Mail to 902 North Sinclair Avenue to verus Florida.

1:10:42

32778.

1:10:44

Information is also available on the Project Website at WWW dot lee County FL dot gov slash engineering.

1:10:56

Thank you for attending the Alternative Concepts Public Workshop for the County Road 455 Extension Project.

1:11:07

All right. That was much better. Thank you, for those of you who are sticking around. We're going to get to some more of these questions, and this one is similar to what we had earlier, but I think I'm understanding it a little more.

1:11:23

So for this person wants to know, they are they to believe that all the proposals will have four lane road, which is counter at 455. That will end at a two lane road, which is the heart whitmarsh.

1:11:41

My understanding is that it is a four lane road from Sega to Segment, OK.

1:11:49

We do have some more comments about their preferences and as I stated earlier, those will be documented for the design team to look over.

1:12:02

Let us see one. With the three options of roadways will the three options of roadways be located between the c-max Plan and Heritage Hills? Or will it be behind the c-max plants?

1:12:19

Said, sure, how to answer that question about trainers out there asking them, they, all three alignments are shown. In the presentation we just show on an aerial photograph. The CMS site is the entirety of that property. If they mean the active plant site, the yellow alignment was between Heritage Hill, so the plant site.

1:12:43

While the other two alignments are just north of the plant site and then come down south to the connection a Step Heritage Hill space-x, but all are on the CMS site, OK, here's a good question. What are slimed deposits, like that was referred to in the presentation?

1:13:08

Time deposits are, there's been a lot of soil or understanding where they drill down into the earth to see what the soil profiles are, all over the property. Slide is an area, where there's a lot of organic material, as opposed to cleaned, or organic material can sell a lead to cracking, et cetera.

1:13:33

So, so slime is just those areas of higher organic material, OK, Learn something new today. OK, are you aware of any plans to extend for 55 eastward from past Hartwood Marsh Road?

1:13:52

Not a sword. But there are plans. For Phase three to the south of Heartwood, more Schroeder, That's part of a separate ... study.

1:14:04

OK, and you could probably go on the Lake County website to see any future projects that are in the works, and getting any information on, on any other projects that, that are being planned.

1:14:19

Um, someone wants to know, how they can receive a copy of the pros and cons and comparison tables of the three options. The, I believe, the presentation will be loaded on the website.

1:14:32

Yeah, so you should be able to download from the website, and it has all that information on the slide that was in the presentation today, as the entire presentation will be available, on the website.

1:14:47

And that website, again, is WWW dot lake County F L dot gov slash engineering.

1:14:58

We have a go green. We have some other comments. We do have one. That's, that's a yellow preference.

1:15:06

And we have a green option that they like, so keep those comments coming in. Any more questions?

1:15:14

We can answer them for you, or try to answer them now. And as I said before, any comments and questions that, that you leave, will be answered in writing following the public meeting. And it will all be public record.

1:15:32

Once the, uh, once the, this part of the project is complete.

1:15:42

Wow.

1:15:45



I'm not sure. Michael, we may have to check on this one. How does this project impact any projects to expand Hartwood, Mars?

1:15:54

I think that's one of those future projects we, that we would have to check on.

1:15:59

Yeah.

1:16:10

Lots of greens, without a lot of greens that people are liking.

1:16:26

Once again, if you have any other comments, maybe you think of something at a later time, once this meeting is over. You can always e-mail the Project Manager for Lake County, George Gatti, L G G, a D I E L at Lake County, ... dot gov. You can also e-mail the Consulting Project Manager Duane Day Di Bears, that's D, B, O T H at, half, H, A, L, F, F dot com.

1:16:57

And you can give them their comments or questions, and we will add it to the next and make sure that all comments and questions are answered in writing once the once the meeting is complete.

1:17:19

I'll give you just a few more minutes if you have any more questions.

1:17:26

Have more greens, looks like Grains as Green as A.

1:17:31

It's one that most people like here.

1:17:40

Once again, if you want to go to the website and get more information on this project, or any future projects, you can always go to the website at WWW dot lake County, FL dot gov, forward slash engineering.

1:17:56

For more information, you can also leave comments there, as well.

1:18:15

This one, they're trying to understand the Northern section and the Johns Lake area and the Southern approach to Heartwood March are basically the same.

1:18:26

They're wondering, that is correct. They're the same on all three of the alternates. Phase one is already partially constructed. So that collection point is the same for all three alignments, et cetera.

1:18:41

And so on the connection point at the South and connects to a separate, approved peonies, peonies study for Phase three. So that point is also said that right away as already been dedicated by Heritage Hills as part of their overall development. So, the North and South sections where

they connect are the same for all three. The difference in the alignments are how they traverse the sea that's property.

1:19:12

Tom?

1:19:25

Yes. I think that's about it.

1:19:29

For the comments and questions.

1:19:34

As I said, you can e-mail your comments and questions. You can mail them.

1:19:42

However, you aren't get those comments in.

1:19:57

And I think if there are no more comments, then we can probably wrap this up.

1:20:03

Brett, do you have anything more?

1:20:05

I don't think so.

1:20:06

I'll just re-iterate that the, um, the presentation is available on the website, if anybody wants to see it again and encourage you to go and do that. And, you know, the contact information shown on, on that presentation is still available for any, at every the public to make comments about their preferred alignment and give their input, so, I encourage folks to do that.

1:20:31

OK, one more question just came in and we did answer this earlier about building out wall. Is there any plans to build a wall on Heritage Hills?

1:20:38

And that's going to be decided in the design phase, right? Correct, yes. Those things will be evaluated, wants to prefer a line that has got selected, and we proceed to the design phase of the project.

1:20:53

All right, Well, I appreciate everybody joining us tonight, As we said, if you want to learn more about this project, go to the website. You can e-mail, or US. Mail the project managers and get your questions and your comments in, and you will be hearing from us in the next month or so for the invites for the Public Hearing, which will be, in either February or March.

1:21:18

You should be expecting to get those invites in the next month or so, for, for that meeting, where you can see what what design was, was chosen. I guess that's it. Thank you, Brett, and thank you all for joining us, and have a great night, everybody.



# COMMENT FORM

CR 455 Phase 2 Extension

From North of Lost Lake Road to Hartwood Marsh Road  
Project Development & Environment (PD&E) Study Update  
Alternative Concepts Public Workshop

Tuesday, January 11, 2022

There are 1117 homes in Heritage Hills with almost double that in residents. HH is a senior community. Clearly the disruption to the community along the yellow route. We strongly urge the ~~City~~ City to choose the <sup>blue</sup> ~~green~~ route or if not possible, the ~~blue~~ <sup>green</sup> route.

Please notify me when the public hearing is scheduled.

Thank You  
Wendy Healey

If more space is needed, please continue on the back of this page

NAME: Wendy Healey  
ADDRESS: 3649 Solana Cir. Unit B  
Clermont, FL 34711  
EMAIL: wendy105@ptd.net  
PHONE: 570-460-3469

**NOTE:** Please complete form and place in the "Comments" box.  
Comments can also be submitted via mail or email by sending to:  
George Gadiel, P.E.  
Lake County Engineering Division  
P.O. Box 7800  
Tavares, FL 32778  
[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)  
Comments should be postmarked or emailed by January 21, 2022.



# COMMENT FORM

CR 455 Phase 2 Extension  
From North of Lost Lake Road to Hartwood Marsh Road  
Project Development & Environment (PD&E) Study Update  
Alternative Concepts Public Workshop  
Tuesday, January 11, 2022

Green  
Blue  
Yellow

Yellow Route - Too Close to Heritage Hills

Blue Route - Route which LEAST impacts ALL  
Residential Homes

LEAST IMPACT ON Residential Homes MOST Important  
Concept

If more space is needed, please continue on the back of this page

NAME: Joseph R. Austin  
ADDRESS: 3484 La Jolla Drive  
Clermont, FL 34711  
EMAIL: EarthdAustin@gmail.com  
PHONE: 631-902-1640

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# COMMENT FORM

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From North of Lost Lake Road to Hartwood Marsh Road  
Project Development & Environment (PD&E) Study Update  
Alternative Concepts Public Workshop  
Tuesday, January 11, 2022

CAN YOU PLEASE SHOW ELEVATIONS OF  
ROADWAYS? PICTURES FROM ROADWAY OPTIONS TOWARD  
HERITAGE HILLS WOULD BE BENEFICIAL TOO.

If more space is needed, please continue on the back of this page

NAME: BRAD EVELAND  
ADDRESS: 3544 LA JOLLA DR  
EMAIL: EVELANDB@GMAIL.COM  
PHONE: 863-604-2005

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# COMMENT FORM

CR 455 Phase 2 Extension  
From North of Lost Lake Road to Hartwood Marsh Road  
Project Development & Environment (PD&E) Study Update  
Alternative Concepts Public Workshop  
Tuesday, January 11, 2022

IS there going to be a traffic light at  
Waterbrooke Back gate?  
we will never be able to get out of our  
Sub.

If more space is needed, please continue on the back of this page

NAME: Barb Evenden  
ADDRESS: 2430 Woodward Hill CT  
Clermont FL 34711  
EMAIL: Barb.evenden@gmail.com  
PHONE: \_\_\_\_\_

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[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)

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Alternative Concepts Public Workshop

Tuesday, January 11, 2022

A 4 Lane highway from multiple directions warrants a traffic light. In addition the roundabouts on Hartwood Marsh are too narrow with multiple crashes and due to speed limitations cars pass in the roundabout.

You also indicated no wildlife issues. What about the turtles and where have coyotes gone?

There is a need for forest area to remain.

If more space is needed, please continue on the back of this page

NAME:

Gail Steinberg

ADDRESS:

3747 Sanibel ST

EMAIL:

gail.steinberg@ad.com

PHONE:

631-219-3077

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# COMMENT FORM

CR 455 Phase 2 Extension  
From North of Lost Lake Road to Hartwood Marsh Road  
Project Development & Environment (PD&E) Study Update  
Alternative Concepts Public Workshop  
Tuesday, January 11, 2022

Very Opposed to Yellow Route  
which runs close to Heritage Hills

1. NOISE FROM TRAFFIC - due to  
closeness & curve is AN ISSUE - we already  
have noise from the turn in Hartwood Marsh.

2. Will Negative effect our enjoyment  
& VALUE of our property, AND LIKELY  
Future taxes

3. This Route is the Longest, AND  
cost will be greater!

GO BLUE!

If more space is needed, please continue on the back of this page

NAME: Robert Schrafer  
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Unit A  
EMAIL: schraferbob@yahoo.com  
PHONE: 989-400-0876

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[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)

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emailed by January 21, 2022.



# COMMENT FORM

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From North of Lost Lake Road to Hartwood Marsh Road  
Project Development & Environment (PD&E) Study Update  
Alternative Concepts Public Workshop  
Tuesday, January 11, 2022

Besides letter sent 12/21/2021:

Traffic light and not traffic circle at

CR 455 - Hartwood Marsh Intersection

INSTALL traffic light at back gate exit from

Heritage Hills to Hartwood Marsh Rd

INSTALL noise dampening walls at County

expense at the ATTACHED edge of Heritage Hills

This Road will affect the quality of  
life of ALL RESIDENTS of Heritage

Remember we ALL vote !!

If more space is needed, please continue on the back of this page

NAME: DR. VINCENT LABONBARDI

ADDRESS: 3429 LA JOLLA DR

CLEARWATER FL 34711

EMAIL: vlabonbardi@gmail.com

PHONE: 917 301 0681

PRESIDENT, BOARD OF DIRECTORS  
HERITAGE HILLS BOARD OF  
DIRECTORS

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Tavares, FL 32778  
[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)

Comments should be postmarked or emailed by January 21, 2022.





# COMMENT FORM

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Tuesday, January 11, 2022

If this extension of CR 455/Hartle Rd. can't be scraped, at the very least, the route furthest away from Heritage Hills should be utilized to minimize air pollution, noise pollution, safety & security issues, on a 1,117 home 55+ community, and to have less of a financial impact on the property values at H. H.

If more space is needed, please continue on the back of this page

NAME: Wendy Lederhandter  
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Comments should be postmarked or emailed by January 21, 2022.



This year will mark 15 years since this project to extend CR 455 was planned. There have been major environmental changes in these intervening years.

The Heritage Hills and Innovations developments did not then exist. The plan for the road would go between these developments. Very near the edges of the developments.

Also, the traffic on Hartwood Marsh and Marsh Road has increased to the point that at time during the day it is so clogged that it becomes dangerous. Adding to this traffic load and the insertion of another traffic circle can only exacerbate this situation. As it stands currently, often getting out of Heritage Hills onto Hartwood Marsh becomes nearly impossible to accomplish in a safe manner.

With more development happening near the intersection with Hancock Road, the situation can only deteriorate further even without this project being built.

I have had email exchanges with Mr. George Gadiel and I shall now read their contents. Mr. Gadiel has been admirable in his responses to what he probably considers my rants.

JOHN BURDICK  
37





**PUBLIC WORKS**  
*Engineering Division*

**A** 350 N. Sinclair Ave. Tavares, FL  
32778  
**P** 352-253-9092 | **F** 352-253-9065  
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[www.lakecountyfl.gov](http://www.lakecountyfl.gov)

*NOTE: Florida has a very broad public records law.  
Your email communications may be subject to public disclosure.*

**From:** John Burdick <[cgraphics@cfl.rr.com](mailto:cgraphics@cfl.rr.com)>  
**Sent:** Thursday, January 6, 2022 10:51 AM  
**To:** Gadiel, George <[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)>  
**Subject:** 455 Extension Project

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

**Mr. Gadiel:**

I am a resident of Heritage Hills at 3772 Quaint Lane, which is on the north side of the street. The rear (northern) edge of my home is a few inches less than 70 feet from the barbed-wire fence marking the edge of the Heritage Hills property.

From the drawing attached to the letter we received, it would appear that you have indicated the edge of Heritage Hills, in other words the barbed-wire fence with a straight line which is nearly east/west. On the drawing the scale is stated as 1" = 600'. Measuring from the southern edge of the proposed road to this line yields a distance of about 75'. This would mean that the more southern proposed route road would be within less than 150' from my home. This is totally unacceptable for multiple reasons. We and all the other homeowners on the north side of Quaint Lane paid a significant



premium for our lots to have a rear exposure with nothing man-made behind us.

Whichever route chosen, I would expect that the County would erect a security and noise fence at least 10' tall between the road and the Heritage Hills property. We are, after all, a gated community. Is this in your budget?

In the event that you choose not to erect such a barrier, then Heritage Hills would need to do so, with a subsequent increase in our homeowner's dues. Since this is essentially a retired population, with many of us on limited fixed incomes, for obvious reasons this is unacceptable.

I would expect at least some of the north side of Quaint Lane owners to sue the County for a fair market buyout of their homes. Did you budget for this possibility?

I would also expect that there would be a traffic light at the intersection of CR455 and Hartwood Marsh Road. This would further exacerbate the traffic flow which is already impeded by the artificially low speed limits on the eastern part of the Marsh Road. Does this indicate that the County would plan to widen the Marsh Road to four Lanes? Perhaps it would be better fiscally and temperamentally (thus coining a new term for the ill tempers prompted by the speed limit changes) to just widen Hancock Road and the Marsh Road, while urging Orange County to widen their part of the Marsh Road.

I realize that these are matters which should be aired at the public meeting, and I expect that they will be brought up.

I do not envy your position.

Yours truly,

John Burdick

[john@cgphotoart.com](mailto:john@cgphotoart.com)

321-662-0236

As I said in my earlier email, there is a reasonable expectation that, if the southern route is selected, the County would be faced with a project that will also turn out to be extremely expensive, once all the lawsuits are settled. A more ideal solution would be to discard the concept altogether. In the 14 years since that study was done, there has been explosive growth along Hartwood Marsh Road. For instance, has there been push back from the Innovation at Hidden Lake community? Those homes sold for much more than the homes in Heritage Hills. Buying out those homeowners would also cost a pretty penny. Speaking of buying us out, the road running near the back of the property would naturally have a weakening of our home values. When I used the term “fair market value”, I was referring to values before the plan to build the road plan is finalized. Your statement that meeting “sound barrier requirements” is not planned is absolutely unacceptable. One of the things we all treasure is the quiet enjoyment of our lanais. Except for the 60-acre farm I grew up on, this is the quietest home I have ever occupied as regards environmental noise. We are not alone in this regard. That alone would devalue this property, security notwithstanding. And speaking of security – this is the one fear I have heard most regarding your project.

The best of all worlds? No 455 Extension. The worst would be the southern one

I have not yet mentioned the “villas” that are at the eastern-most side of the HH property. Their ox will be very badly gored if the project takes place regardless of which route is chosen. I have heard from some of them also and they have many of the same concerns as I have expressed. They would be the closest residences to your proposal.

John Burdick  
[john@cgphotoart.com](mailto:john@cgphotoart.com)  
321-662-0236



**From:** Gadiel, George <[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)>  
**Sent:** Thursday, January 6, 2022 1:17 PM  
**To:** [john@cgphotoart.com](mailto:john@cgphotoart.com)  
**Subject:** RE: 455 Extension Project

Good Morning Mr. Burdick,

We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design. We anticipate that the middle route will be the most well received route, however as part of the process three routes had to be evaluated.

With respect to a sound wall, we would not expect it to meet sound wall barrier requirements, but we have installed 8 foot walls in the past on roadway projects. This would be worked out during design as we would continue to include the residents to minimize impacts as much as possible. The plan is for a roundabout at the intersection of Hartwood Marsh Rd. and CR 455. It may start as a traffic signal though until CR 455 is extended. We have looked at widening Hancock Rd. but the cost would be extremely high due to some residents being right next to the road and the existing utilities under the road. I do not believe that Orange County has any plans to ever widen Marsh Rd.

Thank You,

**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*



1/12/2022

Joseph Restivo  
4036 Serena Ln  
Clermont, Fl. 34711-5069

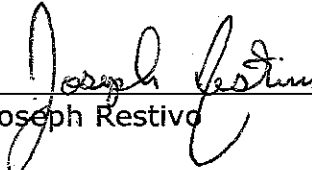
George Gadiel, PE  
Lake County Project Manager  
323 N. Sinclair Ave  
Tavares, Fl. 32778

Dear Mr. Gadiel:

As a homeowner within the community of Heritage Hills I would like to comment on the proposed CR 455 Phase 2 Extension Project. The proposed extension project indicated in yellow will have a negative impact on the quality of life for us residents of Heritage Hills. The proposed roadway indicated in yellow will pass directly behind our community. This will bring increased noise and expose us to additional security issues. Resolutions to these added issues will undoubtedly present a financial burden to this 55 and over community, most of whom are on a fixed income. In addition, I expect the added traffic will increase the already burdening traffic funneling into Hartwood Marsh Road. The proposed CR455 extension indicated in yellow will bring added traffic hazards on our doorstep. This will not only add an increase financial burden to our community, but will add to walking hazards on our perimeter.

For these reasons I ask that the extension indicated in yellow on the CR 455 Lost Lake Rd. to Hartwood Marsh Rd. project map **not** be approved.

Sincerely

  
\_\_\_\_\_  
Joseph Restivo

1/12/2022

Lydia Restivo  
4036 Serena Ln  
Clermont, Fl. 34711-5069

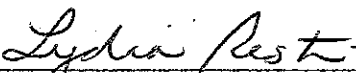
George Gadiel, PE  
Lake County Project Manager  
323 N. Sinclair Ave  
Tavares, Fl. 32778

Dear Mr. Gadiel:

As a homeowner within the community of Heritage Hills I would like to comment on the proposed CR 455 Phase 2 Extension Project. The proposed extension project indicated in yellow will have a negative impact on the quality of life for us residents of Heritage Hills. The proposed roadway indicated in yellow will pass directly behind our community. This will bring increased noise and expose us to additional security issues. Resolutions to these added issues will undoubtedly present a financial burden to this 55 and over community, most of whom are on a fixed income. In addition, I expect the added traffic will increase the already burdening traffic funneling into Hartwood Marsh Road. The proposed CR455 extension indicated in yellow will bring added traffic hazards on our doorstep. This will not only add an increase financial burden to our community, but will add to walking hazards on our perimeter.

For these reasons I ask that the extension indicated in yellow on the CR 455 Lost Lake Rd. to Hartwood Marsh Rd. project map **not** be approved.

Sincerely

  
\_\_\_\_\_  
Lydia Restivo

To George Gadiel  
323 N. Sinclair Ave  
Tavares, Fl 32778

Req: CR 455 Extension to  
Hartwood Marsh Rd

Mr. Gadiel,

I live in Heritage Hills,  
Please do not extend  
this project.

Thank you  
Carol Hline

3513 Belland Circle #A  
Clermont, Fl 34711

January 14, 2022

## **Black, Amanda**

---

**From:** vlabombardi <vlabombardi@gmail.com>  
**Sent:** Wednesday, January 5, 2022 10:55 AM  
**To:** Bublitz, Brad; ggadiel@lakecountyfl.gov  
**Subject:** RE: CR455 Phase 2 Extension Project

Thank you for your response. Not totally what my community wanted to hear  
Regards,

Vincent LaBombardi

President. Board of Directors. Heritage Hills.

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

**From:** "Bublitz, Brad" <bBublitz@Halff.com>  
**Date:** 1/5/22 9:41 AM (GMT-05:00)  
**To:** Vincent LaBombardi <vlabombardi@gmail.com>, "Gadiel, George" <ggadiel@lakecountyfl.gov>  
**Subject:** RE: CR455 Phase 2 Extension Project

Good Morning,

Mr. Gadiel forwarded to us your email regarding the CR 455 PD&E Study. We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design. We anticipate that the middle route will be the most well received route, however as part of the process three routes had to be evaluated.

Thank you,

**Brad Bublitz, EI**  
Project Manager  
Halff Associates, Inc.

**O:** (352) 557-9208  
**C:** (352) 636-3588



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---

**From:** Vincent LaBombardi <vlabombardi@gmail.com>  
**Sent:** Friday, December 24, 2021 11:03 AM  
**To:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Subject:** CR455 Phase 2 Extension Project

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Please see attached letter from the Board of Directors of Heritage Hills in Clermont. The community most affected by this project.

Regards,

Vincent LaBombardi, Ph.D.



George Gadiel, PE  
Lake County Project Manager  
323 N. Sinclair Ave  
Taveras, FL 32778

December 23, 2021

Dear Mr. Gadiel:

We would like to comment on the proposed CR 455 Phase 2 Extension Project. As members of the Board of Directors of the Heritage Hills Homeowners Association we represent the interests of our community. The proposed extension project will have a negative impact on the quality of life for the residents of Heritage Hills. The proposed roadway indicated in yellow will pass directly behind a number of our homes. This will bring increased noise, a decrease in our property values, along with security issues, undoubtedly requiring our community to build a wall to reduce the noise and to increase security. This will be an extremely expensive endeavor especially for residents of an over 55 community, most of whom are on a fixed income. In addition, this extension will intersect with Hartwood Marsh Road between the entrances to two communities, Heritage Hills and Hidden Lake. Hartwood Marsh has become quite a bit busier due to the construction of new communities along this roadway. This surely will add to the danger of cars exiting from these communities. In the case of Heritage Hills, older drivers will be forced to make a left turn into a roadway that will now be carrying more traffic increasing the likelihood of accidents at this site.

For these reasons we ask that this extension not be approved.

It would serve the residents of Lake County much better if improvements to the existing infrastructure be made. Widening both Hancock and Hartwood Marsh Roads with the addition of several traffic lights might do more to improve the traffic flow in our area.

Thank you.

Sincerely,

Vincent LaBombardi, Ph.D., President  
Wendy Healey, Treasurer  
Wendy Lederhandler, Secretary

Black, Amanda

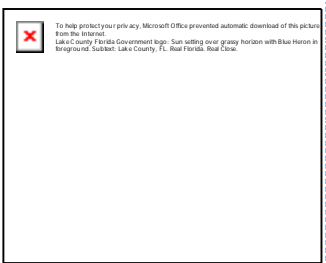
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From: Gadiel, George <ggadiel@lakecountyfl.gov>  
Sent: Wednesday, January 19, 2022 3:50 PM  
To: nathchristopher@gmail.com; Bublitz, Brad  
Subject: RE: CR 455 Phase 2 extension - affected homeowner comments

Nathalie,

Our intention was to get back to any attendees of the virtual meeting whose questions could not be answered during the virtual meeting. Do you have any specific questions I can answer now?

Thank You,



GEORGE GADIEL, P.E.  
*Senior Traffic Engineer*

PUBLIC WORKS  
*Engineering Division*

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
E [ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov) | W [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

*NOTE: Florida has a very broad public records law.  
Your email communications may be subject to public disclosure.*

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From: Nathalie Christopher <nathchristopher@gmail.com>  
Sent: Saturday, January 15, 2022 2:01 PM  
To: Bublitz, Brad <bBublitz@half.com>  
Cc: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: Re: CR 455 Phase 2 extension - affected homeowner comments

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thank you for your reply from earlier in the month. I attended the virtual presentation this past Tuesday and would like to register my official "vote" for the green route OR the blue route.

We were told in the presentation that all the questions that were asked would be compiled and answered in writing. When can we expect these answers? Thank you.

Nathalie Christopher

3748 Quaint Ln

Clermont, FL 34711

On Wed, Jan 5, 2022 at 9:40 AM Bublitz, Brad <[bBublitz@half.com](mailto:bBublitz@half.com)> wrote:

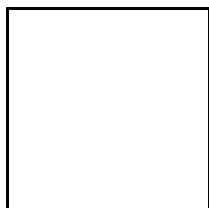
Good Morning,

Mr. Gadiel forwarded to us your email regarding the CR 455 PD&E Study. We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design. We anticipate that the middle route will be the most well received route, however as part of the process three routes had to be evaluated.

Thank you,

**Brad Bublitz, EI**  
Project Manager  
Halff Associates, Inc.

**O:** (352) 557-9208  
**C:** (352) 636-3588



[Halff.com](#) | [LinkedIn](#) | [Facebook](#) | [Twitter](#) | [Instagram](#) | [YouTube](#)

---

From: Nathalie Christopher <[nathchristopher@gmail.com](mailto:nathchristopher@gmail.com)>  
Sent: Sunday, December 26, 2021 1:14 PM  
To: Gadiel, George <[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)>  
Subject: CR 455 Phase 2 extension - affected homeowner comments

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon,

I reside in Heritage Hills, which is a 55+ community, and my house will be one of the most affected by the proposed extension, as the yellow-coded extension would make the new road pass within an estimated 60ft from my property.

I bought my house in January 2021. I suffer from general anxiety disorder and depression, and I am very sensitive to noise. Due to those issues, I work from home and my home is my sanctuary. I spend 99% of my time at home. One of my ways of coping with this is to avoid all noise and enjoy the nature I can see from my lanai. When I looked for a house to buy, to escape the high cost of renting in South Lake County, my property was ideal because not only it was one of the very few houses I could afford, but, as you know, the far end (abandoned) of the Cemex sand plant borders it. I did check the zoning of that property before I purchased the house and saw that it was zoned R1 and that the Clermont 2030 comprehensive plan designated it for "Regional Office Future Land Use Category." After thinking about it, I felt that, even if an office park was built in 2030, it would most likely be on the north end of that property, given the old, deep sand pit just feet away from mine, and reasoned that the noise coming from an office park in that area would probably be tolerable. Other commercial uses, seemed unlikely.

So I was very dismayed when I received your letter and the map with the proposed paths for the extension of CR 455. My home, which was carefully selected for its location and the lack of traffic noise and pollution, as well as its view of nature, will now be bordering a very busy extension road. Just the noise and other disruptions from the construction will affect me and my neighbors daily, for months on end. Then, once the project is finished, if the yellow path is the one chosen, I will have to contend with 24-hour a day traffic *mere feet from my house*, hence noise and light pollution and disruptions and increased exposure to crime as my house will now be readily accessible from the new road and proposed pathway bordering it. If a wall is built, I will be staring at a wall when I'm on my lanai, instead of being able to observe nature, the birds flying overhead, hearing the wind in the branches of the trees... and I will still hear mufflers, truck brakes, people honking and probably speed racing, just mere feet away from my bedroom window, all night long, further aggravating the already mentally detrimental lack of sleep that age is bringing. During the day, I will be exposed to emission pollution from thousands of expected vehicles, if I try to enjoy my lanai, on top of the afore-mentioned traffic noises. Did you know that [exposure to traffic noise is linked to a higher dementia risk](#)? Again, your proposed path would make this road pass within *mere feet* of several homes located in a 55+ community (Heritage Hills). Would you want your parents or grandparents living in such conditions? The current economic climate makes moving to escape this situation impossible, as Lake County is fast becoming unaffordable for a single resident.

This 4-lane road will bring even more traffic to Hartwood Marsh road, which is already overcrowded and a dangerous, narrow road, as more and more subdivisions are added alongside it. Construction trucks, which were banned along that same road in Orange County, will now use the new extension, adding even more noise and pollution, affecting the unfortunate and trapped residents on each side of it.

Upon reviewing the documents on the county website that your letter pointed us to, it seems that the original engineering report, written in 2007 (14 years ago!), recommended the yellow path (aka Alternative 2AA). However, back then, our property hadn't been developed and that recommendation is now outdated. Instead of "1" residential impact, there are now many. Instead of a "low wildlife/habitat impact", I believe that the impact on the environment will be much more severe, as the sand mine property has been left to nature and had, uncontestedly attracted much more wildlife in the past 14 years (since the engineering report came out). We routinely see gopher tortoises, raccoons, rabbits, eagles, owls, and many other birds. We hear coyotes, on that property. This isn't a denuded sand pit anymore.

Our HOA president and board members recently addressed a letter to you outlining other concerns for our community, but I wanted to highlight how the yellow path will make my life hell. I cannot move again. I can't afford another house

in Florida anymore, much less the Clermont area, where I have lived for over 30 years! I understand that South Lake County is growing and that, unfortunately, what the government wants, the government gets. But I'm asking for understanding and realizing that the yellow path for this road, is the very worst option for vulnerable senior citizens.

Thank you for reading. Due to my anxiety issues and the ongoing pandemic, I will not be able to attend the meeting in person. I hope to be able to attend online.

Nathalie Christopher

3748 Quaint Ln

Clermont, FL 34711



Black, Amanda

---

From: Bublitz, Brad  
Sent: Wednesday, January 5, 2022 9:38 AM  
To: Erik Czaja; Gadiel, George  
Subject: RE: Inquiry- CR 455 PHASE 2 EXTENSION: From North of Lost Lake Rd to Hartwood Marsh Road

Good Morning,

Mr. Gadiel forwarded to us your email regarding the CR 455 PD&E Study. We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design. We anticipate that the middle route will be the most well received route, however as part of the process three routes had to be evaluated.

In regards to the "Red" route that you are questioning, that area is the existing Duke Energy Transmission Easement. We are not allowed to run a roadway within that easement, only allowed to cross it. Challenges with getting up along that ridge is meeting the requirements of the standards for roadway design curves based on the design speed of the roadway. Additionally, there are extremely large towers that are situated within that easement that we have to maintain a setback from.

Thank you,

**Brad Bublitz, EI**  
Project Manager  
Half Associates, Inc.

**O:** (352) 557-9208  
**C:** (352) 636-3588



[Half.com](#) | [LinkedIn](#) | [Facebook](#) | [Twitter](#) | [Instagram](#) | [YouTube](#)

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From: Erik Czaja <erikhunterczaja@gmail.com>  
Sent: Sunday, December 26, 2021 11:08 AM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: Inquiry- CR 455 PHASE 2 EXTENSION: From North of Lost Lake Rd to Hartwood Marsh Road

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Gadiel,

Hello and Happy Holidays. I am visiting my parents currently and was informed of a new roadway that is part of the town's master plan and future development. I was looking over the roadway plans and the project documents and

wondered what route option is being pursued. It's been a minute but I studied Urban Planning and Environmental Planning and I found the project of interest.

I understand the environmental impact will be limited by a new roadway, it seems the cement factory, excess car emissions/oil, will not add additional cause for concern. The only concerns I see are that of noise, additional traffic in the general area. My concerns stem from the two roadways (yellow and blue) both seem to be unfairly close to residential homes, especially the yellow route which is inhabited by seniors and seems to affect an excessive amount of residences.

The Green route seems like a fair compromise, but it feels wrong to tear down existing "greenway". I drew a "Red" route, on my phone so please pardon, that goes along a topographical "ridge" (please do not mind me I have not done a remote sensing course in 10+ years), I was wondering what that geographical feature is. Is that an existing waterway? The red line path I drew goes along that path and I wonder if that would cause less impact to the existing environment and build off the Green path. Will there be noise reduction measures taken on the path that is created ie berms? If the Green path is followed is the hope to use the environment left to be used as a natural sound barrier?

I understand the need for the road, I want to ensure that my email is coming from a place of thoughtful implementation. I would feel bad for Blue or Yellow routes to be chosen and even Green (though it is the best of the 3 options), as I think the others will be more concerning to the residents on either side of the road.

Thank you for reading and I am looking forward to your response, I know there is a town hall for the new roads next month and I am sure you will see residents from the senior community present.

Be well and happy new year!



--  
Erik Hunter Czaja

Master's in Urban Planning and Policy  
University of Illinois at Chicago

[LinkedIn](#)

Black, Amanda

---

From: Bublitz, Brad  
Sent: Wednesday, January 5, 2022 9:35 AM  
To: Stuart Kinniburgh; Gadiel, George  
Subject: RE: Comments about Hartle Road

Good Morning,

Mr. Gadiel forwarded to us your email regarding the CR 455 PD&E Study. We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design. We anticipate that the middle route will be the most well received route, however as part of the process three routes had to be evaluated.

Thank you,

**Brad Bublitz, EI**  
Project Manager  
Half Associates, Inc.

O: (352) 557-9208  
C: (352) 636-3588



[Half.com](#) | [LinkedIn](#) | [Facebook](#) | [Twitter](#) | [Instagram](#) | [YouTube](#)

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From: Stuart Kinniburgh <skinniburgh@me.com>  
Sent: Monday, December 27, 2021 12:11 AM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: Comments about Hartle Road

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Gadiel:

I understand you have received a letter from three of the five members of the Board of Directors from the Heritage Hills Homeowners Association. I am writing on behalf of the other two members of the board and those homeowners who have a point of view that supports the extension of Hartle road.

We understand the need for additional roads in this area to relieve some of the congestion and traffic on Hartwood Marsh Road and Hancock Road. Proposed ideas to expand Hartwood Marsh and Hancock will only increase the volume and speed of traffic on those two roads which will serve to increase the complications, noise and danger of accessing our community. Additional roads, such as the expansion of Hartle as described, have the potential to change the flow of traffic and provide access to different destinations without forcing more cars and trucks onto the two existing arteries.

Also, original plans for road construction in our area incorporated a cul-de-sac on the existing Hartwood Marsh road after exiting our Hartwood Marsh gate to the right. If this is still being considered, then the construction of the Hartle Road extension is a critical part of a road system that will permit us access to all area locations and roads.

Should the extension be approved, we request that the route farthest from the boundary of Heritage Hills be used to minimize impact on our community. Further, we request that some kind of berm or sound barrier be installed along our community to reduce the sound resulting from the traffic on Hartle Road.

In the end, we understand that additional communities developed in our area will increase the traffic on our existing roads and we believe that the best long-term solution to this will be to expand the number of roads we can use to access Heritage Hills and the shopping and services located in our community. Thus, we support the proposed expansion.

Sincerely,

Stu Kinniburgh, Vice-President, Heritage Hills Board of Directors ([skinniburgh@me.com](mailto:skinniburgh@me.com))

Gary Bishop, Director, Heritage Hills Board of Directors ([BBishop31@cfl.rr.com](mailto:BBishop31@cfl.rr.com))



Black, Amanda

---

From: Bublitz, Brad  
Sent: Wednesday, January 5, 2022 9:40 AM  
To: Ilene R; Gadiel, George  
Subject: RE: CR 455 Phase 2 Extension Project

Good Morning,

Mr. Gadiel forwarded to us your email regarding the CR 455 PD&E Study. We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design. We anticipate that the middle route will be the most well received route, however as part of the process three routes had to be evaluated.

Thank you,

**Brad Bublitz, EI**  
Project Manager  
Half Associates, Inc.

O: (352) 557-9208  
C: (352) 636-3588



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From: Ilene R <iradish25@gmail.com>  
Sent: Tuesday, December 28, 2021 1:37 PM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: CR 455 Phase 2 Extension Project

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr Gadiel,

I am writing to you regarding the proposed CR 455 Phase 2 Extension Project.

I live in Heritage Hills, a 55+ community. The back of my property faces in the direction of the Cemex plant. I am writing this while sitting on my porch, watching the trees across the way sway slightly in the breeze, and listening to the sound of birds. When we bought our home 5 years ago, we were told there could not be anything built on the other side of the tree line. I am very concerned about the proposed road, especially the "yellow" option, being constructed so close to my home and those of my neighbors.

These are my concerns:

1. Increased noise pollution, both during construction and after it is completed. I fear the sound of constant traffic would replace the peaceful sound of birds.
2. Increased air pollution. As someone who has asthma, I am concerned about the dirt and dust that would enter my home, and would prevent me from sitting outside on my porch.
3. Safety concerns. We are a gated community of seniors. Building the road in close proximity to this community opens up access to it and endangers the people who live here.
4. Increased traffic on Hartwood Marsh Road. This road is not able to keep up with the increased traffic due to recent new construction in the area. Turning left out of Heritage Hills onto Hartwood Marsh Road is difficult and dangerous. Having more traffic entering the road would only lead to increased unsafe conditions.

For these reasons, I urge you not to approve this project.

Thank you,

Sincerely,  
Ilene Radish

Black, Amanda

---

From: Bublitz, Brad  
Sent: Wednesday, January 5, 2022 9:32 AM  
To: Meryl and Jeff Sherman; Gadiel, George  
Subject: RE: CR455 Phase 2 extension project Hartle Rd

Good Morning,

Mr. Gadiel forwarded to us your email regarding the CR 455 PD&E Study. We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design. We anticipate that the middle route will be the most well received route, however as part of the process three routes had to be evaluated.

Thank you,

**Brad Bublitz, EI**  
Project Manager  
Half Associates, Inc.

O: (352) 557-9208  
C: (352) 636-3588



[Half.com](#) | [LinkedIn](#) | [Facebook](#) | [Twitter](#) | [Instagram](#) | [YouTube](#)

---

From: Meryl and Jeff Sherman <goodgollymissmolls@hotmail.com>  
Sent: Wednesday, December 29, 2021 10:27 AM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: CR455 Phase 2 extension project Hartle Rd

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Gadiel,

I am a resident of Heritage Hills, and am very concerned about the placement of the CR455 Phase 2 extension of Hartle Rd.

I completely agree that we need the road. There is a tremendous amount of traffic on Hartwood Marsh already, not to mention the additional traffic once new developments have been built. There is really no way to exit Hartwood Marsh without driving the entirety of it, so roads leading off of it are necessary to decrease some of the traffic.

My home backs up directly to Hartwood Marsh, and the noise from it has increased a tremendous amount, and at times is unbearable. I understand there are 3 different placements for Hartle being considered. I request that the placement that runs completely against the side of our neighborhood be discarded. It would

impact our neighborhood tremendously by increasing traffic noise, which we would then be surrounded by. It would negatively impact our property values, since we were not surrounded by main roads when we purchased here.

We are an over 55 community, where we're all just trying to relax and enjoy life. Please don't subject us to such an increase in traffic noise, when it can be done another way.

Thank you for your consideration,

Meryl Sherman

3570 Cinder Ct.

Black, Amanda

---

From: Bublitz, Brad  
Sent: Wednesday, January 5, 2022 9:38 AM  
To: MIKE MAGINNESS; Gadiel, George  
Subject: RE: County Road 455 phase 2 extension

Good Morning,

Mr. Gadiel forwarded to us your email regarding the CR 455 PD&E Study. We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design. We anticipate that the middle route will be the most well received route, however as part of the process three routes had to be evaluated.

Thank you,

Brad Bublitz, EI  
Project Manager  
Halff Associates, Inc.

O: (352) 557-9208  
C: (352) 636-3588

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-----Original Message-----

From: MIKE MAGINNESS <[maginnessm@bellsouth.net](mailto:maginnessm@bellsouth.net)>  
Sent: Sunday, January 2, 2022 12:55 PM  
To: Gadiel, George <[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)>  
Subject: County Road 455 phase 2 extension

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George I realize CR 455 is pretty much inevitable but I do not understand why you would even consider putting a road (marked in yellow) in peoples back yards. Please Consider using the other alternative (marked in blue) that is further away from most residents homes.

Thank-You  
Mike Maginness  
3509 Embers Lane  
Clermont 34711  
Ph# 407-404-2717



Sent from my iPad

Black, Amanda

---

From: Bublitz, Brad  
Sent: Wednesday, January 5, 2022 9:28 AM  
To: Stephen Taylor; Gadiel, George  
Subject: RE: Hartwood Marsh Road Extension

Good Morning Mr. Taylor,

Mr. Gadiel forwarded to us your email regarding the CR 455 PD&E Study. We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design.

Thank you,

Brad Bublitz, EI  
Project Manager  
Halff Associates, Inc.

O: (352) 557-9208  
C: (352) 636-3588

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-----Original Message-----

From: Stephen Taylor <[sjtaylor1954@gmail.com](mailto:sjtaylor1954@gmail.com)>  
Sent: Sunday, January 2, 2022 3:05 PM  
To: Gadiel, George <[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)>  
Subject: Hartwood Marsh Road Extension

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>  
> Dear George:  
>  
> As residents and homeowners in the Heritage Hills community of Clermont, Florida, we are opposed to the proposed construction of a connecting road from Hartwood Marsh Road east of Heritage Hills and basically going westward along the northern boundary of Heritage Hills before turning northward to connect with an existing County Road. Hartwood Marsh Road is already overburdened with existing traffic as a barely one lane each way road and installing another connection to it will only increase traffic, noise, speeding, and the potential for additional accidents. As recently as two weeks ago, a serious crash happened on Hartwood Marsh Road just west of the proposed connection causing the crash victim to be medically evacuated by helicopter. We oppose any and all proposals that are destined to bring additional traffic onto this existing overburdened road. Thank you!

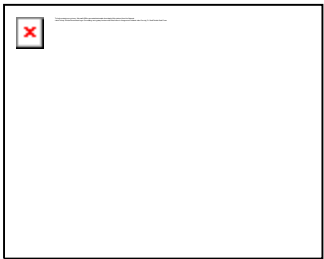
>  
> Best regards,  
>  
> Stephen J. Taylor - CFRE  
> Cynthia K. Taylor - EdD  
>  
> 3490 Embers Lane  
> Clermont, FL 34711  
> 847-977-2473  
>  
> Sent from my iPhone

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Monday, January 3, 2022 8:24 AM  
**To:** Bubnitz, Brad  
**Subject:** FW: CR 455 Phase 2 from Lost Lake to Hartwood Marsh

Comment for the record



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

PUBLIC WORKS  
*Engineering Division*

**A** 350 N. Sinclair Ave. Tavares, FL 32778  
**P** 352-253-9092 | **F** 352-253-9065  
**E** ggadiel@lakecountyfl.gov | **W** [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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**From:** Susan Tchon <geffric@gmail.com>  
**Sent:** Thursday, December 23, 2021 10:54 AM  
**To:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Subject:** CR 455 Phase 2 from Lost Lake to Hartwood Marsh

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Sir,

Thanks for the information about this project that was sent to us last week.  
As a resident of Heritage Hills - La Jolla in Clermont, I am concerned about the yellow or south of Cemex plant option.

I wonder about the environmental impact of this option - This is the most forested option impacting local wildlife, noise pollution and air pollution. In my opinion, the proposed highway will impact the Heritage Hills subdivision and increase the air pollution due to truck and car pollution causing an air quality issue and plus an increase of the noise from the additional car and truck noise. This option is also the longest and goes up and down significant terrain.

I am concerned about the animals that live in the forest and habitat destruction as we see animals on a regular basis in our back yard from this forest including turtles, foxes, rabbits, hawks, crains, coyotes, and sometimes eagles.

The proposed southern plan also exposes Heritage Hills (a 55 and older subdivision) to potentially more crime as the bike lanes and multi use trail would provide easy access into the area which is currently not fenced but secured by the thick underbrush and forest.

I view the southern option as being detrimental to the largest population living in the area. The northern or blue line option maintains the contiguous pieces of forest and animal habitat.

Sincerely,

Susan and Scott Tchon  
3584 La Jolla  
Clermont, Florida



Black, Amanda

---

From: Bublitz, Brad  
Sent: Wednesday, January 5, 2022 9:43 AM  
To: Gadiel, George; kathybardsley@gmail.com  
Subject: RE: Road extension impact to Heritage Hills

Good Morning,

Mr. Gadiel forwarded to us your email regarding the CR 455 PD&E Study. We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design. We anticipate that the middle route will be the most well received route, however as part of the process three routes had to be evaluated.

Thank you,

**Brad Bublitz, EI**  
Project Manager  
Halff Associates, Inc.

O: (352) 557-9208  
C: (352) 636-3588



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From: [kathybardsley@gmail.com](mailto:kathybardsley@gmail.com) <[kathybardsley@gmail.com](mailto:kathybardsley@gmail.com)>  
Sent: Tuesday, January 4, 2022 2:29 PM  
To: Gadiel, George <[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)>  
Subject: Road extension impact to Heritage Hills

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Gadiel,

I am emailing you regarding the proposed extension of CR 455. I have reviewed the proposed options on the maps provided. I am very concerned about the impact of this extension as noted in the yellow option. As a resident of Heritage Hills who walks the walking path daily that is adjacent to this proposal, I am very concerned about the impact on the environment and the community. There are many birds, reptiles, animals for whom this is their habitat. With all the recent growth they are getting crowded out and endangered. The noise and pollution caused by this road would seriously impact not only the aesthetics of my community, but the value of our homes as well. The impact on this traffic dumping on to Hartwood Marsh is very concerning and dangerous as this road is already quite congested. If this road

must be built, I ask that you favor the purple road which is less onerous than the yellow and that the county also build a noise wall to mitigate noise and air pollution. Thank you for your consideration and the good work you do.

Respectfully,  
Kathleen Bardsley  
Owner: Heritage Hills  
3624 Solana Circle, Unit A  
Clermont, FLA 34711  
407-347-5664

**Black, Amanda**

---

**From:** JOHN CZAJA <jvikingczaja@gmail.com>  
**Sent:** Wednesday, January 5, 2022 8:33 PM  
**To:** Bublitz, Brad; ggadiel@lakecountyfl  
**Cc:** sparks@lakecountyfl.gov  
**Subject:** To: Sean M. Parks,AICP, QEP

January 5, 2022

**To: Sean M. Parks,AICP, QEP January 5, 2022**

**County Commissioner**

District 2, Lake County

Re: CR 455 PHASE 2 EXTENSION PD&E STUDY UPDATE  
FROM NORTH OF LOST LAKE ROAD TO HARTWOOD MARSH ROAD  
ALTERNATIVE CONCEPTS PUBLIC WORKSHOP ON JAN. 11, 2022

This is in response to a letter that I received dated December 16, 2021 from the Lake County Public Works Department, Engineering Division concerning the above-mentioned referenced subject, which provides an opportunity to provide comments to the County.

Attached to the letter is a map of three alternative locations for the path of a new 4-lane roadway (CR 455 - with a Right of Way (ROW) of 120 feet), and reference is made to view the Final Preliminary Engineering Report dated January 2007 on the project website.

I am a resident of the Heritage Hills Community, which is a gated seniors community of approximately 2,000 occupants (1,100 homes) and located directly adjacent to the proposed Yellow Alternative. When the Engineering Report was issued in 2007, the Heritage Hills Community was years from construction completion and occupancy. I am strongly opposed to the Yellow Alternative because of the impact it would have on devaluing the property values, the environment and quality of life within the Community.

The following comments review project findings, concept and design criteria concerning the the Yellow Alternative (designated Alternative 2AA in the Engineer's Report) and the impact on the Community:

**IMPACT ON THE COMMUNITY**

The Alternate Evaluation Matrix, Table 8.3-1 on page 86 indicates that there is no "Cultural Impact". Although there are no architectural or historical impacts, Heritage Hills has one mile of walking trails that are central to the daily activities and social interaction of Community residents. Residents use the trail every day to walk pets, exercise and interact with one another. The Community trail is located between the homes that are closest to the 2AA Alternative and the Community's property line.

Table 8.3-1 also indicates that Alternative 2AA is by far the most expensive - approximately \$2M higher and \$8.5 M higher than two other alternatives.

As a tax payer this concerns me and should concern everyone.

Table 9.11.10 on page 95 says that No Noise Study has been performed. Noise from the proposed 4-lane expressway will have a detrimental impact on the ability of Community residents to make full use of our walking trails, directly impacting our quality of life ability to enjoy outdoor activities, social interaction, conversation and loss of a restful sleep. The Engineer's Report says that a detailed Noise Study will be conducted at the Final Design Phase, which ignores a major deficiency of the 2AA Alternative until construction approval is granted. Will Lake County be adding the project cost of building a sound barrier along the Heritage Hills property line?

Figure 4.3-4 Wetlands Locations on page 28 appears to show that the 2AA Alternative has the biggest impact on wetlands of all the alternatives proposed. There is also a ravine with full grown vegetation, supporting local bio-diversity, that is directly in the path of the 2AA Alternative.

#### 2AA DESIGN CRITERIA

The Recommended Design of the 120 foot ROW includes 4-lanes of roadway, a 22-foot median, bike lanes, sidewalk on the east and a "14 foot trail on the west". What is the purpose of the 14 foot trail? Does the trail link with other trails at SR 50 or at Hartwood Marsh Road?

Can the Recommended Design of the roadway ROW be reduced if the trail was deleted or built as a distinctly separate trail? Page 90 mentions that Right of Way does not exist for this alignment and the alignment ROW is expected to be donated by the private owner. Is it possible that over the course of time that the owner or this agreement has changed, and can it add to the estimated project cost?

Can the Recommended Design of the roadway be diverted into a western and an eastern path to satisfy ROW alignment without interfering with Private parties?

Page 41 mentions that the Recommended Design Characteristic for Truck Percentages by Roadway is 9.09% for SR 50 and 20.9% for CR 455.

Over time the development and traffic along Hartland Marsh Road have changed significantly. This single lane residential road has a 25 mile an hour speed limit enforced at the Orange County border. Is this anticipated to change truck usage on CR455?

Again, I am strongly opposed to the Yellow Alternative because of the impact it would have on devaluing the property values, the environment and quality of life within our senior community and I look forward to the best possible solution for the Heritage Hills Community and the future development of Lake County.

Thank you for your time.

John Czaja

Sent from my iPhone



Black, Amanda

---

From: Bublitz, Brad  
Sent: Thursday, January 6, 2022 8:19 AM  
To: Gadiel, George; david.norman.maxi@gmail.com  
Subject: RE: Lake County CR 455 and Hartwood Marsh Rd Extension Project

Good Morning,

Mr. Gadiel forwarded to us your email regarding the CR 455 PD&E Study. We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design. We anticipate that the middle route will be the most well received route, however as part of the process three routes had to be evaluated.

Thank you,

**Brad Bublitz, EI**  
Project Manager  
Halff Associates, Inc.

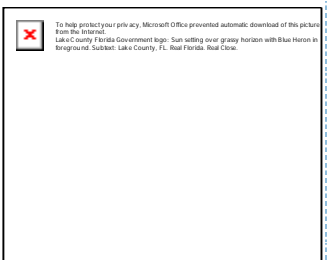
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C: (352) 636-3588



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From: Gadiel, George <ggadiel@lakecountyfl.gov>  
Sent: Thursday, January 6, 2022 8:05 AM  
To: Bublitz, Brad <bBublitz@Halff.com>  
Subject: FW: Lake County CR 455 and Hartwood Marsh Rd Extension Project



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

PUBLIC WORKS  
*Engineering Division*

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
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From: David <[david.norman.maxi@gmail.com](mailto:david.norman.maxi@gmail.com)>  
Sent: Thursday, January 6, 2022 7:22 AM  
To: Gadiel, George <[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)>  
Subject: Lake County CR 455 and Hartwood Marsh Rd Extension Project

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Dear Mr. Gadiel:

My wife and I live at 3438 Grayton Ct, Clermont, FL 34711, in the Heritage Hills Subdivision. Our community is home to about 2000 senior citizens. The adverse effects of the proposed yellow route, including such things as traffic noise and reduced property values, will extend well beyond those homes within the 300 foot distance from the proposed yellow route roadway.

I would imagine that among the many issues considered in your planning process would be the choice of a route that affects the least number of peoples' homes in a negative manner.

We and our friends and neighbors love our lives at Heritage Hills and hope that you and your colleagues will consider the significant and adverse consequences the choice of the yellow roadway will have on Heritage Hills.

Thank you for your consideration.

Regards.

--

*David Norman*

Black, Amanda

---

From: Bublitz, Brad  
Sent: Monday, January 10, 2022 7:41 AM  
To: Gadiel, George; daniel\_kem@yahoo.com  
Subject: RE: CR 455 Proposed Extension

Good Morning,

Mr. Gadiel forwarded to us your email regarding the CR 455 PD&E Study. We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design. We anticipate that the middle route will be the most well received route, however as part of the process three routes had to be evaluated.

Thank you,

**Brad Bublitz, EI**  
Project Manager  
Halff Associates, Inc.

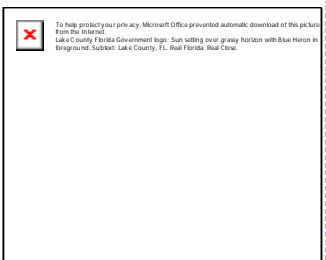
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From: Gadiel, George <ggadiel@lakecountyfl.gov>  
Sent: Friday, January 7, 2022 4:19 PM  
To: Bublitz, Brad <bBublitz@Halff.com>  
Subject: FW: CR 455 Proposed Extension



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

PUBLIC WORKS  
*Engineering Division*

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
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From: Daniel Kem <[daniel\\_kem@yahoo.com](mailto:daniel_kem@yahoo.com)>

Sent: Friday, January 7, 2022 4:19 PM

To: Gadiel, George <[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)>; Heritage Hills of Clermont HOA <[destilette@lelandmanagement.com](mailto:destilette@lelandmanagement.com)>;

Jeff/Alice Nye <[floridanye@gmail.com](mailto:floridanye@gmail.com)>; Ann Kem <[annkem@yahoo.com](mailto:annkem@yahoo.com)>

Subject: CR 455 Proposed Extension

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Gadiel,

I am writing in regard to the proposed extension of CR 455 planned near the Heritage Hills Community.

As I am sure you are aware, many of the 1100

homeowners in Heritage Hills, are concerned about the negative impact on our quality of life

as a result of this major traffic artery constructed in close proximity to Heritage Hills.

I have reviewed letters and maps that have been made available to me.

Of the possible routes, I strongly favor

the PURPLE route as it would have a lesser

impact due to its location.

I hope the project managers will consider

the input we are providing!

Thank you,

Daniel Kem

Heritage Hills resident

[Sent from Yahoo Mail for iPhone](#)

## Black, Amanda

---

**From:** pamelacamhi <pamelacamhi@gmail.com>  
**Sent:** Tuesday, January 11, 2022 5:09 PM  
**To:** Bublitz, Brad; ggadiel@lakecountyfl.gov  
**Subject:** RE: CR 455 Extension Alternative Routes

Hi Mr. Bullitt,

Thank you for getting back to me. I have a question. I frequently make a left turn out of the Heritage Hills Hartwood Marsh Road gate and travel east to towards Avalon Road to go shopping. Could you explain how Hartwood Marsh Road will continue to the Orange County line after the intersection of CR455 joins at Hartwood Marsh Road. Will there be a round-about or traffic light?

Also, how can we go about getting a traffic light installed at our community entrance since crossing over two lanes of traffic with a curve just ahead is going to be very dangerous and is a real safety concern for many of our senior residents at Heritage Hills. I'm sure you are aware there was just a serious accident there.

Thank you.

Pamela Camhi

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: "Bublitz, Brad" <bBublitz@Halff.com>  
Date: 1/10/22 10:07 AM (GMT-05:00)  
To: "Gadiel, George" <ggadiel@lakecountyfl.gov>, pamelacamhi@gmail.com  
Subject: RE: CR 455 Extension Alternative Routes

Good Morning,

Mr. Gadiel forwarded to us your email regarding the CR 455 PD&E Study. We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design. We anticipate that the middle route will be the most well received route, however as part of the process three routes had to be evaluated.

Thank you,



**Brad Bublitz, EI**  
Project Manager  
Halff Associates, Inc.

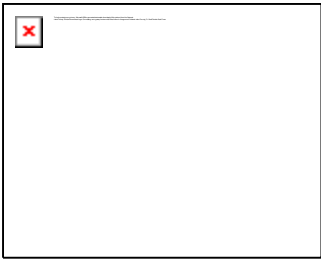
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**C:** (352) 636-3588



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---

**From:** Gadiel, George [ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)  
**Sent:** Monday, January 10, 2022 8:55 AM  
**To:** Bublitz, Brad [bBublitz@Halff.com](mailto:bBublitz@Halff.com)  
**Subject:** FW: CR 455 Extension Alternative Routes



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

**PUBLIC WORKS**  
*Engineering Division*

**A** 350 N. Sinclair Ave. Tavares, FL 32778  
**P** 352-253-9092 | **F** 352-253-9065  
**E** [ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov) | **W** [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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**From:** Pamela Camhi <[pamelacamhi@gmail.com](mailto:pamelacamhi@gmail.com)>  
**Sent:** Sunday, January 9, 2022 4:39 PM  
**To:** Gadiel, George <[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)>  
**Subject:** CR 455 Extension Alternative Routes

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Dear Mr. Gadiel,

I am unable to attend this meeting in person, however, I plan on joining the webinar.

As a resident of Heritage Hills, I would like to comment on the alternative routes for the extension. I thank you for asking for input from the community.

The preferred route would be the blue route. The blue route has the least negative impact on our community. The yellow route would significantly negatively impact a large amount of homes in the Heritage Hills community. It would adversely affect property values, creating noise from heavy traffic in close proximity to many homes. The yellow route also would negatively impact the Heritage Hills community. I hope you take this into consideration when making your decision.

Thank you for your consideration in this matter.

Sincerely,

Pamela Camhi

3704 Serena Lane

Black, Amanda

---

From: Bublitz, Brad  
Sent: Monday, January 10, 2022 10:09 AM  
To: Gadiel, George; cr1149@bellsouth.net  
Subject: RE: CR 455 Extension

Good Morning,

Mr. Gadiel forwarded to us your email regarding the CR 455 PD&E Study. We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design. We anticipate that the middle route will be the most well received route, however as part of the process three routes had to be evaluated.

Thank you,

**Brad Bublitz, EI**  
Project Manager  
Halff Associates, Inc.

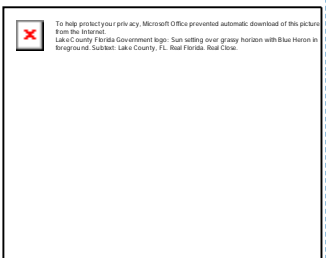
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C: (352) 636-3588



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From: Gadiel, George <ggadiel@lakecountyfl.gov>  
Sent: Monday, January 10, 2022 8:55 AM  
To: Bublitz, Brad <bBublitz@Halff.com>  
Subject: FW: CR 455 Extension



GEORGE GADIEL, P.E.  
*Senior Traffic Engineer*

PUBLIC WORKS  
*Engineering Division*

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
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---

From: GEORGE & MARTHA CROSS <cr1149@bellsouth.net>  
Sent: Sunday, January 9, 2022 8:50 PM

To: Gadiel, George <[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)>

Subject: CR 455 Extension

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr Gadiel,

I am a fairly new resident of Heritage Hills, 3489 Kinley Brooke Lane, having moved here just a little more than a year ago. I purchased my home primarily due to its location being next to an empty lot, on quiet cul de sac, and most importantly having no homes behind me with only vacant land, privacy and quiet. I and other homeowners along this area paid to have these features also.

The route plans for the above extension are very disconcerting especially the one that would run along the barbed wire fence behind my home which is no more than 40 feet from my back yard. I sincerely hope that the route chosen is the furthest from our Heritage Hills development.

Any of the choices will affect our development adversely but it is my utmost hope that if this project becomes a reality, the route chosen will impact our residents the least. The majority of us are retired and on fixed incomes. We cannot afford to have our homes lose their values, have HOA fees increase due to increased expenses, etc.

It is unfortunate that the City of Clermont has not been proactive in building an appropriate infrastructure to accommodate growth and development before approving all the new subdivisions we are seeing going in.

I would think that the widening of Hancock and Hartwood Marsh Roads would have the least impact overall for everyone involved.

I plan to attend the January 11th meeting.

All the best to you.

Martha Cross

Black, Amanda

---

From: Bublitz, Brad  
Sent: Monday, January 10, 2022 11:43 AM  
To: Gadiel, George; tiamurphy777@gmail.com  
Subject: RE: Proposed yellow Route

Good Morning,

Mr. Gadiel forwarded to us your email regarding the CR 455 PD&E Study. We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design. We anticipate that the middle route will be the most well received route, however as part of the process three routes had to be evaluated.

Thank you,

**Brad Bublitz, EI**  
Project Manager  
Halff Associates, Inc.

O: (352) 557-9208  
C: (352) 636-3588

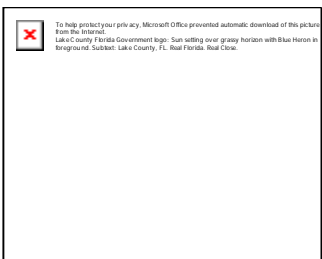


[Halff.com](#) | [LinkedIn](#) | [Facebook](#) | [Twitter](#) | [Instagram](#) | [YouTube](#)

---

From: Gadiel, George <ggadiel@lakecountyfl.gov>  
Sent: Monday, January 10, 2022 8:57 AM  
To: Bublitz, Brad <bBublitz@Halff.com>  
Subject: FW: Proposed yellow Route

Thank You,



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

PUBLIC WORKS  
*Engineering Division*

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
E [ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov) | W [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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---

From: Tia Murphy <[tiamurphy777@gmail.com](mailto:tiamurphy777@gmail.com)>  
Sent: Monday, January 10, 2022 2:26 AM  
To: Gadiel, George <[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)>  
Subject: Proposed yellow Route

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Gadiel,

The "yellow route" that is being considered based on a study that was performed 15 years ago is inconceivable! Instead of proper planning, the City and County Government allowed all the construction along Hartwood Marsh to take place. Ruining the "country feel" and the beautiful scenery. It seems that when your pockets are being filled with money from impact fees from developers, the planning is an after thought! Not to mention the income from all those new homes in the form of property taxes!

The notice you mailed out states that, "THREE residences will be affected". That is a blatant jLIE! HUNDREDS of residences will be affected because they already have been, from the excessive traffic on Hartwood Marsh.

The time has come for the entities that created this problem, to rectify it, Without affecting HUNDREDS of residences. And let's face it, the term "residence" should be replaced with PEOPLE. People that moved here for the peace and quiet, and the beauty. Place a moratorium on ALL new home construction until your "planners" get caught up!

And design a different route; away from the Heritage Hills Community!

Theresa Murphy  
Heritage Hills resident

Black, Amanda

---

From: Bublitz, Brad  
Sent: Tuesday, January 11, 2022 9:32 AM  
To: Gadiel, George; k81cwiley@yahoo.com  
Subject: RE: CR 455 Phase 2 Extension Project

Good Morning,

Mr. Gadiel forwarded to us your email regarding the CR 455 PD&E Study. We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design. We anticipate that the middle route will be the most well received route, however as part of the process three routes had to be evaluated.

Thank you,

**Brad Bublitz, EI**  
Project Manager  
Halff Associates, Inc.

O: (352) 557-9208  
C: (352) 636-3588



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---

From: Gadiel, George <ggadiel@lakecountyfl.gov>  
Sent: Tuesday, January 11, 2022 9:28 AM  
To: Bublitz, Brad <bBublitz@Halff.com>  
Subject: FW: CR 455 Phase 2 Extension Project

GEORGE GADIEL, P.E.  
Senior Traffic Engineer

PUBLIC WORKS  
Engineering Division

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
E [ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov) | W [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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-----Original Message-----

From: Cathy or Keith Wiley <[k81cwiley@yahoo.com](mailto:k81cwiley@yahoo.com)>

Sent: Monday, January 10, 2022 8:09 PM

To: Gadiel, George <[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)>

Subject: CR 455 Phase 2 Extension Project

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January 10, 2022

Dear Mr. Gadiel,

I am writing as a concerned homeowner in the Heritage Hills development. When we bought here 5 years ago we found a house with no neighbors behind us, just a walking trail and an open field beyond with a view of the horizon. The builder Lennar's representative assured me that they didn't own the land behind us and there would be no development there. Fast forward to the present and they are talking about putting a 4 lane highway practically in my back yard! The yellow option would be by far the worst option for Heritage Hills. The road would curve left and go right across the back yard of many homes including mine. At the left curve there will be the additional car noise as vehicles accelerate on the straight portion of the highway. My quiet neighborhood will be a noisy thoroughfare with added pollution from vehicle exhaust. I have asthma and I'm sure other Heritage Hills homeowners have other lung and breathing issues in this 55+ retirement community. Another issue is the effect on the environment and the wildlife in the area. I already have issues with armadillos digging in my yard. As you no doubt are aware there is also a coyote population in the area as well as squirrels, snakes and rodents and other critters that will be more likely to invade our property as their habitats are destroyed.

In the future I can picture sitting in my lanai listening to the noise of the road construction and eventually the traffic flow of thousands of vehicles daily 24/7. I can ponder how much my property value has declined as a result of this new road. Are there plans to put up walls to help with the road noise? Even with this noise mitigation it will never be the same quiet neighborhood I bought into and the view will be changed forever, along with our quality of life. The walking trail will be extremely close to the yellow road option as well.

I saw there were plans to widen part of Hartwood-Marsh and Hancock. Shouldn't this be tried first since these roads already exist to see how it helps traffic congestion? If it is shown that the CR 455 extension is still necessary, could you please consider running the purple route? It would be a shorter distance and affect far fewer homes. Even the green route would also be very close to my home. In conclusion, I consider using the yellow route so close across a 55+ retirement community to be inconsiderate and not in the best interests of the welfare of the elderly residents of Heritage Hills. I hope you can understand the concern and anxiety that this road will cause. Thanks for listening and please, please do not implement the yellow option so close to so many homes.

Sincerely,

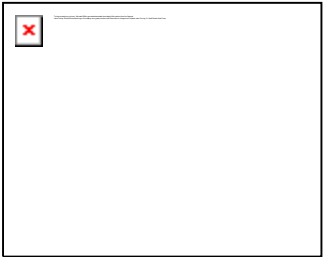
Keith Wiley

3497 Kinley Brooke Lane  
Heritage Hills  
Clermont, FL

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Wednesday, January 12, 2022 10:28 AM  
**To:** Bublitz, Brad  
**Subject:** FW: Hartle Hartwood Marsh connector project



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

PUBLIC WORKS  
*Engineering Division*

**A** 350 N. Sinclair Ave. Tavares, FL 32778  
**P** 352-253-9092 | **F** 352-253-9065  
**E** ggadiel@lakecountyfl.gov | **W** [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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---

**From:** Richard Williams <wilrsw@yahoo.com>  
**Sent:** Tuesday, January 11, 2022 6:25 PM  
**To:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Subject:** Fwd: Hartle Hartwood Marsh connector project

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Mr Gadiel

Having listened to the presentation today I prefer the Blue option and to be clear I am completely against the yellow.

Thank you

Richard Williams  
3504 Windansea Court  
Clermont

Sent from my iPad

Begin forwarded message:

**From:** Rick Williams <[wilrsw@yahoo.com](mailto:wilrsw@yahoo.com)>  
**Date:** January 11, 2022 at 3:58:49 PM EST  
**To:** [ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)  
**Subject:** Hartle Hartwood Marsh connector project

Mr Gadiel,

I am writing to express my opposition to the proposed project to connect Hartle Road to Hartwood

Marsh. As a resident of Heritage Hills I am concerned about the negativity the project will bring to our community including traffic noise, converting green space to road / traffic views, security of our property and increased traffic on Hartwood Marsh. Our exit on to Hartwood Marsh is already dangerous with curves to the east and west and added traffic would make it more dangerous.

From a proximity perspective the yellow option is most concerning.

There are presently many traffic issues on Hartwood Marsh and Hancock that are safety concerns that should be addressed as opposed to this proposed project.

I respectfully suggest this project be shelved and focus made towards improving the existing infrastructure that is already stressed.

Richard Williams  
3504 Windansea Ct  
Clermont

Sent from my iPhone



## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Wednesday, January 12, 2022 10:28 AM  
**To:** Bublitz, Brad  
**Subject:** FW: Road extension near Heritage Hill to Hartwood Marsh

GEORGE GADIEL, P.E.  
Senior Traffic Engineer

PUBLIC WORKS  
Engineering Division

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
E ggadiel@lakecountyfl.gov | W [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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-----Original Message-----

From: Diane Lederer <flamingo1116@att.net>  
Sent: Tuesday, January 11, 2022 6:09 PM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: Road extension near Heritage Hill to Hartwood Marsh

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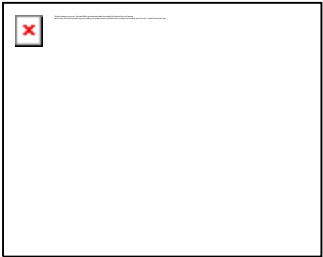
Dear Mr. Gadiel and Lake county,  
We are residents of Heritage Hills on 3534 A Fairwaters ct. we do not need more noisy traffic on Hartwood Marsh Road. Right now we have noisy trucks and motorcycles all day and night. When the charter school is opening in the morning and letting out in the afternoon, you cannot get out of the Publix shopping center at Kings Ridge. This is a largely senior neighborhood. There is another new development in progress. It will be an impossible traffic nightmare. We have lived here since 8/17. We feel this road will also decrease our property values.  
Please reconsider this road extension.  
Thank you  
Diane and Joseph Lederer

Sent from my iPad

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Wednesday, January 12, 2022 10:26 AM  
**To:** Bublitz, Brad  
**Subject:** FW: 455 projec



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

PUBLIC WORKS  
*Engineering Division*

**A** 350 N. Sinclair Ave. Tavares, FL 32778  
**P** 352-253-9092 | **F** 352-253-9065  
**E** ggadiel@lakecountyfl.gov | **W** [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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---

**From:** JPrete <jsprete53@gmail.com>  
**Sent:** Wednesday, January 12, 2022 8:54 AM  
**To:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Subject:** 455 projec

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Gadiel,

Thank you for the webinar last night to go over the proposals for the 455 extension in Clermont. We are very opposed to the yellow plan bordering so close to our property at Heritage Hills. We are in favor of either of the other proposals. From the look of it, the "Yellow" plan would almost be double the cost so why would it be picked!

On another note, we have been trying to get Cemex to 'Move on' from the location on this project site. We know they were here first, however the whole area is now residential and they are busier and noisier than ever. Since the county is purchasing land from them for this project, why not use this opportunity to relocate them to a commercial area. When we moved here, Lennar, Cemex themselves (I called the company and spoke to a VP), everyone told us Cemex would be out of here, all a big lie. We and many others have considered moving ONLY due to the 5-6 am wake up from them, and continuing into the evening. Lets finally make these promises come true!

Thank You,

Joseph Prete  
3528 Litchfield Ct  
Clermont

Sent from [Mail](#) for Windows

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Wednesday, January 12, 2022 4:35 PM  
**To:** Bublitz, Brad  
**Subject:** FW: 455 project

GEORGE GADIEL, P.E.  
Senior Traffic Engineer

PUBLIC WORKS  
Engineering Division

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
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-----Original Message-----

From: JAMED GOCLAN <jgoclan1@aol.com>  
Sent: Wednesday, January 12, 2022 4:34 PM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: 455 project

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I listen in on the webinar phase 2 of the 455 extension project. The presentation did not relate to the history of the project or the future phases of the road after Marsh Road. When the question was asked the support presenter did not know. So I am assuming 455 will continue straight across Marsh Road in another phase, is that so ?

Not Knowing the reason/history of the project other than a 15 year old engineering input study that was referenced leave's me to assume more resent studies have given the go head to extend the 455 for whatever the reasoning is. Is that so ?

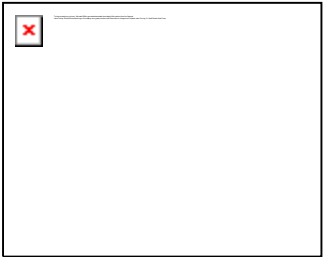
Thank You  
James Goclan  
Sent from my iPhone

Sent from my iPhone

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Wednesday, January 12, 2022 3:59 PM  
**To:** Bublitz, Brad  
**Subject:** FW: CR 455 extension



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

**PUBLIC WORKS**  
*Engineering Division*

**A** 350 N. Sinclair Ave. Tavares, FL 32778  
**P** 352-253-9092 | **F** 352-253-9065  
**E** ggadiel@lakecountyfl.gov | **W** [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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---

**From:** Peggy G <knox10827@aim.com>  
**Sent:** Wednesday, January 12, 2022 3:33 PM  
**To:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Subject:** CR 455 extension

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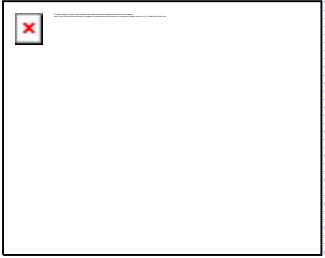
I believe we definitely need this extension done but not right up against heritage hill property, more to the center or far side would be more appropriate. Thank you for the chance to give an opinion.

[Sent](#) Regards, Joseph and Peggy Gosselin, Heritage Hills residents  
[from the all new AOL app for iOS](#)

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Wednesday, January 12, 2022 10:26 AM  
**To:** Bubnitz, Brad  
**Subject:** FW: Lake County Route 455 Extension Project  
**Attachments:** Lake County Route 455 Extension Project.pdf



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

**PUBLIC WORKS**  
*Engineering Division*

**A** 350 N. Sinclair Ave. Tavares, FL 32778  
**P** 352-253-9092 | **F** 352-253-9065  
**E** ggadiel@lakecountyfl.gov | **W** [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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---

**From:** Peter Thorne <thorneph@bellsouth.net>  
**Sent:** Wednesday, January 12, 2022 8:45 AM  
**To:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Subject:** Lake County Route 455 Extension Project

CAUTION: This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Sir,  
Find attached an open letter of response to the Lake CR 455 Extension Project around Heritage Hills Community. Please include it in your project records. Please notify me at my given email address if an need arises, since the format has changed. Thank you.  
P. Thorne



To: George Gadiel, Project Manager, Lake County Public Works  
Department

Sean Parks, Lake County Board of Commissioners, District 2

Sirs:

It is with dismay and apprehension that I write this letter of protest about the proposed routes and project planned for the Lake CR 455 extension. I have lived here in Heritage Hills since 2015 and never thought our development boundaries would be compromised by an ill advised vehicular traffic route. Having seen all three routes, the one starting furthest west, in yellow, would be the least desirable one. They all would negatively impact the residents of Heritage Hills, but the yellow route is the most invasive to the most residents like me along its intended route.

Our La Jolla Drive neighborhood has always been outstanding in natural beauty and scenery as incorporated and enhanced by developer Lennar. Our home backs up to the ravine which separates us from the Cemex plant across on the other side. We were told that there would never be any development for many years on the land occupied by Cemex. It would appear that the Lake County desire to convert it to a traffic thoroughfare violates that promise and causes further hardship in several unacceptable ways. We would be subject to declining real estate values, have a reduced expectation of privacy, face resident safety concerns daily with traffic control onto and off the connector to Hartwood Marsh Road, and be exposed to highway noise and congestion as well as ecological pollution as several examples.

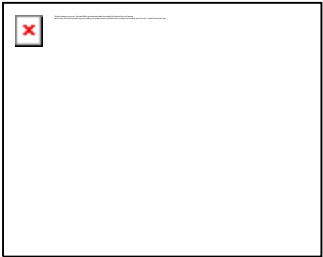
Therefore, we are not in favor of approving any of the three options put forth, especially the yellow route as being the closest to our homes. We sincerely hope that the Lake County Highway Engineers will re-evaluate their proposals with this traffic project as being less than acceptable to the residents of Heritage Hills. Thank you for the opportunity to voice our opinions as concerned residents.

Peter and Mary Ann Thorne  
3588 La Jolla Drive  
Heritage Hills, Clermont  
thorneph@bellsouth.net

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Wednesday, January 12, 2022 4:13 PM  
**To:** Bublitz, Brad  
**Subject:** FW: The 455 Project Extension



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

**PUBLIC WORKS**  
*Engineering Division*

**A** 350 N. Sinclair Ave. Tavares, FL 32778  
**P** 352-253-9092 | **F** 352-253-9065  
**E** ggadiel@lakecountyfl.gov | **W** [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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---

**From:** Chris Rutledge <rutstoy@gmail.com>  
**Sent:** Wednesday, January 12, 2022 4:09 PM  
**To:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Subject:** The 455 Project Extension

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Evening,

My name is Christopher Rutledge. My wife and I are homeowners at 3464 Embers Ln. Clermont, FL. 34711. (Heritage Hills)

I was hospitalized Dec. 31, 2020 with Covid-19/Pneumonia in critical care. My wife was admitted days later in another hospital with Covid-19.

Both of us are currently under Doctors/Specialist's care. My wife continues to suffers with long terms symptoms for over a year now.

With this new project, and the amount of work that has to be done, we are subject to re-live our breathing issues once again, affecting our quality of life. This project will bring on a lot of respiratory challenges for Seniors in our 55+ community. I'm sure you are well aware of medical issues Seniors encounters.

Heavy traffic, excessive noise, dust and lots of debris circulating will cause excessive respiratory challenges.

In addition, will taxes rise and property values decrease?

Please reconsider the "455 Project Extension!"

Warm regards,

Christopher Rutledge

Sent from [Mail](#) for Window

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Wednesday, January 12, 2022 4:00 PM  
**To:** Bublitz, Brad  
**Subject:** FW: Residents since 1999 & 455 extension

GEORGE GADIEL, P.E.  
Senior Traffic Engineer

PUBLIC WORKS  
Engineering Division

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
E ggadiel@lakecountyfl.gov | W [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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-----Original Message-----

From: Mark Dodds <fl5buckeye@gmail.com>  
Sent: Wednesday, January 12, 2022 3:52 PM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: Residents since 1999 & 455 extension

CAUTION: This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon,

My husband and I have lived in Clermont since 1999. We decided to downsize and move to Heritage Hills in 2016. We have seen Clermont grow, so much so, that we lived here before Citrus Tower Blvd extended past South Avenue and the Hospital was yet to be built...

We have always welcomed the growth we have witnessed for the last 23 years but in regards to the 455 extension project we ask that the road be placed the furthest distance possible from Heritage Hills. We have specific noise from the Sand Mine and the Cement Plant, each separate in and of itself-please do not add additional and separate noise to our area by placing the road closer to us as well. We knew what we were buying into regarding the previously mentioned noise, however a road alongside our immediate boundary seems a bit too intrusive. Heritage Hills is a well known and sought after community from people from all over the country, just check and see who has moved here and where they are from over the last 5 years, people love moving here including the previous Clermont Mayor. (I hope you liked her 😊)

As proud Clermont residents, for so long, we ask that you please take our thoughts to heart. Please also note, my

parents live here in Heritage Hills and my Brother recently moved to Clermont & lives off 455, so we welcome the extension but ask for some distance between our community and the road.

We appreciate your taking the time to read our story.

Regards,

Mark & Lisa Dodds

Barbara & Bill Keller

Christopher Keller

Sent from my iPad



George Gadiel, PE  
Lake County Project Manager  
323 N. Sinclair Ave.  
Tavaras, FL 32778

January 13, 2022

Dear Mr. Gadiel,

Comments on the proposed CR 455 Phase 2 Extension Project:

1. As a resident of Heritage Hills, I believe this extension will increase noise, decrease our property values, and create possible security issues. Therefore, I am not in favor of the project.
2. If the project must proceed, the GREEN route would be the most cost effective and have the least negative impact on our community.
3. Traffic on Hartwood Marsh has already increased way beyond what was intended, as Lake County officials are well aware. I know this county is in favor of widening and making improvements, but without the cooperation of Orange County, this will not happen. The increased traffic coming from the Hartle Extension will compound the problem.

Ten years ago I chose Clermont for my retirement city, and I have never once regretted the decision. Great community, great location, great people!

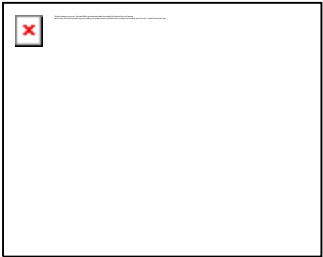
Thank you,

Sincerely,  
Karen S. Brown  
3602 Balmy Breeze Ct.  
Clermont, FL 34711  
419-733-1464  
[karensbrown16@gmail.com](mailto:karensbrown16@gmail.com)

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Thursday, January 13, 2022 8:27 AM  
**To:** Bublitz, Brad  
**Subject:** FW: CR 455 Project



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

**PUBLIC WORKS**  
*Engineering Division*

**A** 350 N. Sinclair Ave. Tavares, FL 32778  
**P** 352-253-9092 | **F** 352-253-9065  
**E** ggadiel@lakecountyfl.gov | **W** [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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---

**From:** Ted <times1@gmail.com>  
**Sent:** Wednesday, January 12, 2022 8:04 PM  
**To:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Subject:** CR 455 Project

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I am strongly opposed to the "yellow" option for the CR455 extension project.

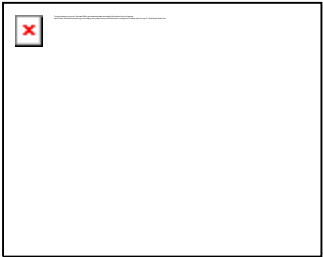
--

**Ted Imes**  
4031 Serena Lane  
Heritage Hills

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Thursday, January 13, 2022 8:19 AM  
**To:** Bublitz, Brad  
**Subject:** FW: CR455 Extension



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

**PUBLIC WORKS**  
*Engineering Division*

**A** 350 N. Sinclair Ave. Tavares, FL 32778  
**P** 352-253-9092 | **F** 352-253-9065  
**E** ggadiel@lakecountyfl.gov | **W** [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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---

**From:** Rebecca Hartman <becky122248@yahoo.com>  
**Sent:** Wednesday, January 12, 2022 7:04 PM  
**To:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Subject:** CR455 Extension

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I am a resident in Heritage Hills and am extremely disappointed and definitely disapprove of the CR 455 Extension as the added traffic flow will create a more dangerous situation at our back gate on Hartwood-Marsh. The noise will be disruptive to our homeowners near the road. Please reconsider any attempt to pass this Extension.

*Rebecca Hartman*

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Thursday, January 13, 2022 8:18 AM  
**To:** Bublitz, Brad  
**Subject:** FW: CR455 Extension

GEORGE GADIEL, P.E.  
Senior Traffic Engineer

PUBLIC WORKS  
Engineering Division

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
E ggadiel@lakecountyfl.gov | W [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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-----Original Message-----

From: miral323 (null) <miral323@aol.com>  
Sent: Wednesday, January 12, 2022 5:22 PM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: CR455 Extension

CAUTION: This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Sir

Myself and my wife moved to Clermont from NY in 2012 after seeing the quality of life Clermont had to offer in our retirement years.

Sadly the quality of life has deteriorated over the years especially in the Heritage Hills Community bordered by Hancock Rd and Hartwood Marsh Rd.

Congestion, noise and traffic have become a nightmare, especially for senior citizens.

We ask that you please take the above factors into consideration Thank You Al Aguirre

Sent from my iPhone

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Thursday, January 13, 2022 8:27 AM  
**To:** Bublitz, Brad  
**Subject:** FW: Hartwood Marsh/Hancock Extension

GEORGE GADIEL, P.E.  
Senior Traffic Engineer

PUBLIC WORKS  
Engineering Division

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
E ggadiel@lakecountyfl.gov | W [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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-----Original Message-----

From: Brenda Greer <twobrendagreer@yahoo.com>  
Sent: Wednesday, January 12, 2022 10:45 PM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: Hartwood Marsh/Hancock Extension

CAUTION: This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Sir:

I've never written a government official in 72 years. This extension Hartwood Marsh issue has me really riled and fed up. I doubt you'll read my comments but they will be on file.

First Winter Garden and Lake County put in four round-abouts. Every one of them has been hit. They are too narrow a circle for cars to go around them safely and easily.

Then Winter Garden drops the road speed from 45mph to 25mph. Now people just gawk around instead of paying attention to their driving.

Then Orange and Lake County allow a huge new development on their mutual border. It hasn't, to my knowledge been finalized as yet but it's almost a done deal.



This cowpath, excuse me, road, should have been been four laned many years ago BEFORE all this construction was allowed. Now, we the citizens, especially Lake County, are literally paying the price for the Counties lack of thought and vehicle projection for future county growth. BOTH counties are equally to blame. Anyone could see the growth coming, but not Lake County elected officials. I personally refuse to drive Hartwood Marsh Rd for ANY reason, not even to get to the turnpike or 429. I take Hwy 50 and am increasing the traffic on it. You're going to have to fix that highway more often with the increased traffic that I've been seeing and more major building construction has been accepted. I'd rather deal with lights and a 45-50mph road. Consequently, I no longer use the vet in Windermere, the chiropractor in Winter Garden, nor do I shop at the Fowlers Corner mall, which I very much doubt Winter Garden cares about one way or the other.

Me either. They don't get any of my business anymore. I drive to Haines City and Orlando for appointments as Clermont doesn't have the various options I require. You can't get a vet or hand surgeon here.

Now the final straw. Lake County officials are ACTUALLY trying to decide which of three routes to move traffic from Hwy 50 to Hartwood Marsh! This is a "no brainer". The GREEN route. Actually it should be moved more east from Hwy 50 all the way.

The fact the new hydro plant was allowed on Hancock Rd was a poor move as well. What where you thinking?

There are more pros for the GREEN route and less cons the either the blue or yellow routes. Your own slides show that. Less home and environmental impacts. The curve from the blue and yellow plans will certainly bring more traffic accidents. Good thing AdventHealth and South Lake Hospital and the ambulance service is close.

Why on earth would you even think of putting it along Heritage Hills? This is a planned, senior community. People in that community purchased for the quietness.

Property values will certainly drop for them. Once again seniors are the ones impacted more than the younger people. They have given enough to this county, state and country and our elected officials just keep trying to impoverish them one way or another. A fence will hardly help them.

Just look at the projected costs for the three proposals.

The yellow one is twice the cost and impacts the most people. As a tax payer I resent your spending my money again foolishly. Use the extra money to get the new entrance to Hwy 429 south of Clermont up and running.

If you've learned anything from the sandhill, sand truck fiasco please rethink this whole proposal. This is a no brainer as I said.

Sincerely,

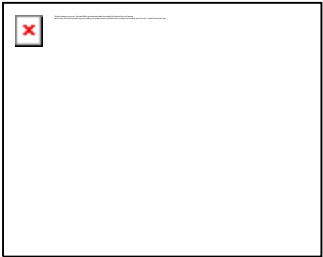
Brenda Greer  
twobrendagreer@yahoo.com  
Be safe. Stay safe.

PS : One of Clermont's own councillors no longer travels Hartwood Marsh any further he told me. That in itself shows he's at least thinking ahead.

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Thursday, January 13, 2022 4:34 PM  
**To:** Bublitz, Brad  
**Subject:** FW: Proposed Route for 455



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

**PUBLIC WORKS**  
*Engineering Division*

**A** 350 N. Sinclair Ave. Tavares, FL 32778  
**P** 352-253-9092 | **F** 352-253-9065  
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---

**From:** Rosemarie Costanza <rojoco115@verizon.net>  
**Sent:** Thursday, January 13, 2022 4:33 PM  
**To:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Subject:** Proposed Route for 455

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

As a resident of the Heritage Hills Community I want to voice my opinion about the proposed route of Highway 455 from Highway 50 to Marsh Road. Main traffic as of present time is on Hancock and Marsh Road. These two roads are one going and one coming which cannot safely handle the volume of traffic generated because of increased population and construction truck usage. Your proposed route will negatively impact Heritage Hills Community significantly. It is our wish that you seek an alternate plan. It would be best to widen Marsh Road and Hancock.  
Thank you for your attention to this matter.  
R&J Costanza

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Thursday, January 13, 2022 10:54 AM  
**To:** Bublitz, Brad  
**Subject:** Fwd: CR 455 Extension

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---

**From:** Dennis Stanislawski <dstanislawski@hotmail.com>  
**Sent:** Thursday, January 13, 2022 10:42:28 AM  
**To:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Subject:** CR 455 Extension

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Morning,

Enjoyed the presentation. I prefer the green route as the best option.

Thank you ,

Dennis Stanislawski  
3648 Corsica Ln  
Heritage Hills  
Clermont FL 34711

Black, Amanda

---

From: Gadiel, George <ggadiel@lakecountyfl.gov>  
Sent: Thursday, January 13, 2022 11:10 AM  
To: Bublitz, Brad  
Subject: Fwd: Rt 455 Ph 2 extension

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---

From: Tom Freed <freedbeach@gmail.com>  
Sent: Thursday, January 13, 2022 11:04:20 AM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: Rt 455 Ph 2 extension

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

George,

While I understand our Board of Directors at Heritage Hills has indicated that they don't believe the 455 Ph 2 extension is necessary, I personally disagree and realize there is a need for an alternative route from US 27 and the Hartwood Marsh road to US 50 to alleviate congestion on Hancock Road. Assuming Hancock will not be expanded then I am writing to express my preference for the route labeled either as purple (the middle route) or the blue/black (not clear on the drawing I've seen) alternative. Both are preferred as opposed to the yellow route which runs along the northernmost border of our community. I believe the more northeasterly route will have less impact on the Heritage Hills neighborhood. Please take into consideration the impact on residents when a decision is made on this enhancement. Again, I believe the purple or yellow routes would be preferred to have the least minimal impact.

Thank you for your consideration.

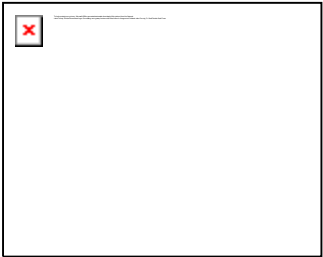
--

Tom Freed  
3485 Embers Ln  
Clermont, FL 34711

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Friday, January 14, 2022 3:27 PM  
**To:** Bublitz, Brad  
**Subject:** FW: 355 extension



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

**PUBLIC WORKS**  
*Engineering Division*

**A** 350 N. Sinclair Ave. Tavares, FL 32778  
**P** 352-253-9092 | **F** 352-253-9065  
**E** ggadiel@lakecountyfl.gov | **W** [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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**From:** MARGARET SERAFIN <veronica9726@yahoo.com>  
**Sent:** Friday, January 14, 2022 3:24 PM  
**To:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Subject:** 355 extension

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Before you make such extreme decisions, please ask the people around the area, who will have to live with the results, what they want to live with.



## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Friday, January 14, 2022 9:47 AM  
**To:** Bublitz, Brad  
**Subject:** FW: CR 455 Extension

GEORGE GADIEL, P.E.  
Senior Traffic Engineer

PUBLIC WORKS  
Engineering Division

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
E ggadiel@lakecountyfl.gov | W [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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-----Original Message-----

From: Cindy <lockwig56@gmail.com>  
Sent: Friday, January 14, 2022 9:46 AM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: CR 455 Extension

CAUTION: This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

We attended the meeting the other night. It was very informative.

We live in Heritage Hills and oppose the yellow route which clearly is closest to our development. While we prefer the route farthest away, we understand many things are considered.

We have several concerns. . .the road being close to parts of our neighborhood, the effect on our property values, and the increased traffic at our back gate area. That is dangerous now, and with added traffic, it would be even more dangerous. We are all aging and this is an over 55 neighborhood. It would be best to add a light there.

Thank you for taking the residents of Heritage Hills into consideration when making a decision on which route is best.

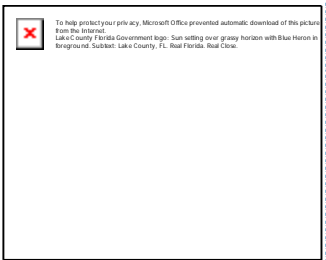
Stan and Cindy Ockwig  
3492 Kinley Brooke Lane

Clermont, FL 34711  
407-222-6418

Black, Amanda

---

From: Gadiel, George <ggadiel@lakecountyfl.gov>  
Sent: Friday, January 14, 2022 1:03 PM  
To: Bublitz, Brad  
Subject: FW: CR 455 Phase 2 Extension



GEORGE GADIEL, P.E.  
*Senior Traffic Engineer*

PUBLIC WORKS  
*Engineering Division*

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
E [ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov) | W [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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---

From: Vince Ruggiano <vrugg7@yahoo.com>  
Sent: Friday, January 14, 2022 12:28 PM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: CR 455 Phase 2 Extension

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

After reading the proposed CR 455 Phase 2 Extension Project put forth by you, I need to share my concerns and comment on the negative affects your proposal creates for me and other residents of the Heritage Hills development. Your proposal seems to totally disregard my and the interests of 1300 others. I would like you to consider the negative impacts that your proposal would create, and, in the process, get you to consider alternate proposals with less punitive consequences.. Your proposed extension project will negatively impact the quality of life for the residents of Heritage Hills. The proposed roadway will pass directly behind a number of our homes. This will increase an already existential noise nuisance, a decrease in our property values, and exacerbate safety and security issues. Your proposal will also undoubtedly require our community to build a wall to reduce the noise and to increase security. This will impose extremely expensive measures that are especially egregious for residents of an over 55 community on a fixed income. In addition, this extension will intersect with Hartwood Marsh Road between the entrances to two communities, Heritage Hills and Hidden Lake. Hartwood Marsh has become quite a bit busier due to the construction of new communities along this roadway. This surely will add to the danger of cars exiting from these communities. In the case of Heritage Hills, older drivers will be forced to make a left turn into a roadway that will now be carrying more traffic increasing the likelihood of accidents at this site.

In light of these obvious issues, I, and my neighbors, are asking that this extension not be approved. It would serve the residents of Lake County much better if improvements to the existing infrastructure be made. Widening both Hancock and Hartwood Marsh Roads with the addition of several Traffic lights makes more sense for a solution to traffic flow in the area.

I appreciate the opportunity to register my comments and also relay the feelings of many of my neighbors. Thank you.

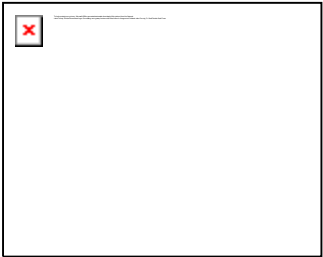
Sincerely,  
Vincent Ruggiano  
Lake County & Heritage Hills resident

[Sent from Yahoo Mail for iPad](#)

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Friday, January 14, 2022 9:49 AM  
**To:** Bublitz, Brad  
**Subject:** FW: county road 455 extension



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

**PUBLIC WORKS**  
*Engineering Division*

**A** 350 N. Sinclair Ave. Tavares, FL 32778  
**P** 352-253-9092 | **F** 352-253-9065  
**E** ggadiel@lakecountyfl.gov | **W** [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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---

**From:** Frajo13 <frajo13@aol.com>  
**Sent:** Friday, January 14, 2022 9:47 AM  
**To:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Subject:** county road 455 extension

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr Gadiel, As Heritage Hills residents I strongly recommend that the yellow route not be the route selected for this road. It would create security issues for this retirement community as well as increased noise, pollution and decreased property values for any homes located near this route. I also question why this road is needed at all. Hartwood-Marsh Road already has too much traffic and this will create a problem for elderly residents to turn left out our back gate. Thank you for your consideration. Frank and Joy Baumgartner



## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Friday, January 14, 2022 8:13 AM  
**To:** Bublitz, Brad  
**Subject:** FW: CR 455 Phase 2 Extension - feedback

GEORGE GADIEL, P.E.  
Senior Traffic Engineer

PUBLIC WORKS  
Engineering Division

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
E ggadiel@lakecountyfl.gov | W [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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-----Original Message-----

From: Jeremy Gamble <jeremygamble@gmail.com>  
Sent: Thursday, January 13, 2022 5:49 PM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: CR 455 Phase 2 Extension - feedback

CAUTION: This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi George:

Thanks for allowing us to share feedback on the CR 455 Phase 2 Extension Project.

We prefer the Yellow option, followed by green option. The blue option is the least desirable, given the long straightaway it takes leading up to and along Innovation Lakes community.

Homeowners in Innovation Lake are the most impacted by every option. We have the most exposure to the project as the road run for hundred of feet along the entire LENGTH of our properties, instead of just 50' the rear property line. With the blue alignment (and to a lesser degree with the green option), we'll see hundreds of extra feet of roadway and lights looking in our backyards, before the road comes alongside and parallels our community.

We also have no buffer, compared to the existing wall along the Heritage Hills community.

We would certainly want to ensure that whichever option is selected, a substantial buffer is included, be it a wall or built-up berm, landscaping, etc — to help absorb and suppress road noise, lights and visibility. It would seem the cost of barrier wall/berms, etc will be significantly higher for the blue option —and for a fair comparison of total cost, it seems barrier cost should be included in the estimates.

The blue option has a long run close to John's Lake, which, given how sound carries across water, this option will result in significantly more road noise carried over John's Lake, even with a significant buffer included in the project. This, in turn, will affect more homeowners all around and across the lake, as well as boaters on the water (and wildlife in/around it). You can already hear road noise all the way across the lake, coming from the north side when the wind blows in a more southerly direction.

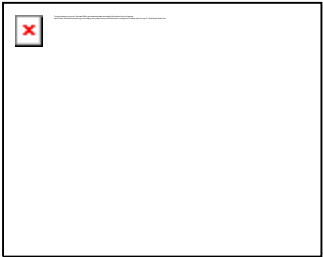
And finally, the blue option has a far greater impact on wetlands.

Jeremy Gamble

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Friday, January 14, 2022 10:31 AM  
**To:** Bublitz, Brad  
**Subject:** FW: CR455 Extension-PLEASE keep it away from Heritage Hills Subdivision



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

PUBLIC WORKS  
*Engineering Division*

**A** 350 N. Sinclair Ave. Tavares, FL 32778  
**P** 352-253-9092 | **F** 352-253-9065  
**E** ggadiel@lakecountyfl.gov | **W** [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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---

**From:** neenarn@aol.com <neenarn@aol.com>  
**Sent:** Friday, January 14, 2022 10:31 AM  
**To:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Subject:** CR455 Extension-PLEASE keep it away from Heritage Hills Subdivision

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

TO: Project Manager, George Gadiel, PE

We have been following the CR455 Extension and would like to express our concern regarding the potential for this extension to come to close to Heritage Hills. Upon purchasing our retirement home here 9 years ago-we have seen the population growth and understand the need for roads to be extended, HOWEVER we strongly urge that this not butt up to Heritage Hills. As seniors we have chosen this subdivision for our peace, safety, and well being. At our age the option to move and find another living arrangement becomes increasingly difficult with aging. Many residents in our subdivision are veterans and some have suffered from PTSD. Additional noise, trucks back firing, changing gears, etc adds to this stress.

PLEASE consider not extending CR455 close to Heritage Hills. I hope you will make the right decision and protect our beloved subdivision, Heritage Hills off Hartwood Marsh.

Thank you for this consideration,

William and Neena Griffin  
3629 Corsica Lane  
Clermont, FL 34711  
Phone 407 614 5859

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Tuesday, January 18, 2022 8:21 AM  
**To:** Bublitz, Brad  
**Subject:** FW: County Road 455 Extension

GEORGE GADIEL, P.E.  
Senior Traffic Engineer

PUBLIC WORKS  
Engineering Division

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
E ggadiel@lakecountyfl.gov | W [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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-----Original Message-----

From: Melanie Ohrberg <c.mohrberg@yahoo.com>  
Sent: Monday, January 17, 2022 8:48 PM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: County Road 455 Extension

CAUTION: This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

George Gadiel, PE  
Lake County Project Manager

Dear Sir,

I am a resident of Heritage Hills which is located on the north side of Hartwood Marsh Road and just to the west side of the path the 455 extension.

Please move the path of this extension as far from the wall to the east of our development as possible in order to lessen the amount of vehicle noise we hear in our community. On the cement plant side of the development, keep it as far from the natural area as possible (preferably the other side of the cement plant) which would benefit the wildlife that we as residents love to see and hear. There are hawks, coyotes, raccoons, many species of birds and much else. It would be criminal to route a busy road through this prime habitat.

The connection to CR 455 and Hartwood Marsh is also of concern. Traffic is already heavy with commercial and private vehicles, especially the trucks carrying sand. Once the roads are connected, the amount of traffic will be increased as a shortcut to Highway 50 from this south end. A traffic circle would be a must for merging one with the other.

Another issue of major importance is the entrance to Heritage Hills from Hartwood Marsh. Exiting our property is difficult now and will be even worse with the ever increasing traffic due to Lake County land development and when the CR 455 is connected. A second traffic circle would definitely mean much safer access for our 1,000 plus residents. The proof of how effective the traffic circles are to safely maintaining traffic flow is seen on Hartwood Marsh just inside Orange County.

Please consider these requests as they are important to me, to other residents and to the many thousands of others who use our roads daily. Your decisions can make a difference to our safety in years to come.

Sincerely,

Melanie Ohrberg

3899 Serena Lane

Clermont, Florida 32711

Sent from the Ohrbergs



## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Tuesday, January 18, 2022 10:56 AM  
**To:** Bublitz, Brad  
**Subject:** FW: CR 455 Extension

GEORGE GADIEL, P.E.  
Senior Traffic Engineer

PUBLIC WORKS  
Engineering Division

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
E ggadiel@lakecountyfl.gov | W [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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-----Original Message-----

From: Arline Connolly <arlineconnolly11@aol.com>  
Sent: Wednesday, January 12, 2022 3:08 PM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: CR 455 Extension

CAUTION: This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thank you for your virtual presentation regarding the 3 options for the CR 455 extension. Given that the yellow option impacts the highest number of homes and is the most expensive I'm in favor of one of the other options.

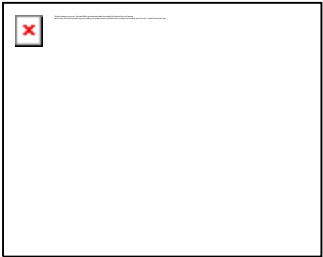
If the yellow option is chosen it will negatively effect Lake County financially. Thank you for your consideration.

Arline Connolly  
3700 Serena Lane  
Clermont 34711

## Black, Amanda

---

**From:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Sent:** Tuesday, January 18, 2022 8:19 AM  
**To:** Bubnitz, Brad  
**Subject:** FW: CR 455 HARTWOOD MARSH



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

**PUBLIC WORKS**  
*Engineering Division*

**A** 350 N. Sinclair Ave. Tavares, FL 32778  
**P** 352-253-9092 | **F** 352-253-9065  
**E** ggadiel@lakecountyfl.gov | **W** [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

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---

**From:** Vishal Maraj <vishal37@live.com>  
**Sent:** Monday, January 17, 2022 12:05 PM  
**To:** Gadiel, George <ggadiel@lakecountyfl.gov>  
**Subject:** CR 455 HARTWOOD MARSH

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

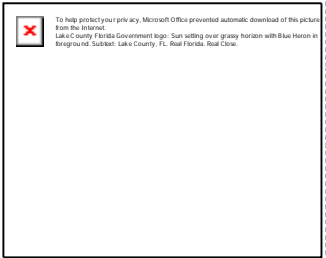
Hello, I would like to express my opinions on the potential of extending CR 455 to hartwood marsh road. It would greatly help myself and my family to get around town faster. Thank you!

Get [Outlook for iOS](#)

Black, Amanda

---

From: Gadiel, George <ggadiel@lakecountyfl.gov>  
Sent: Wednesday, January 19, 2022 3:01 PM  
To: Bublitz, Brad  
Subject: FW: comments concerning CR455 Phase 2 extension PD&E Study Update workshop held January 11, 2022



GEORGE GADIEL, P.E.  
*Senior Traffic Engineer*

PUBLIC WORKS  
*Engineering Division*

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
E [ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov) | W [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

*NOTE: Florida has a very broad public records law.  
Your email communications may be subject to public disclosure.*

---

From: Neal Glover <ntglover@att.net>  
Sent: Wednesday, January 19, 2022 2:34 PM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: comments concerning CR455 Phase 2 extension PD&E Study Update workshop held January 11, 2022

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Gadiel - project manager,

Thank you for holding the public workshop on January 11, 2022. My husband and I attended remotely and would like to provide input for the planning committee and County Commissioners. We believe Lake County should consider both costs and quality of life for residents when embarking on this project.

Based on the information provided, we **favor** the green route for the following reasons:

- lower cost
- less additional right-of-way required from Cemex or for ponds
- fewer wetland impacts which should also mean fewer problems with preparing road infrastructure

This route also has potential benefits of:

- avoiding close proximity to neighborhoods which are already occupied or being built so that there would be less sound mitigation construction needed for the project
- allowing commercial development of both sides of the road which could increase the tax base

We are particularly **against** the yellow route because of its significantly higher cost (over twice the cost of the green route) and larger footprint. The proximity to Heritage Hills, where we reside, is also a negative feature of this plan because it creates the potential for noise and traffic pollution which will affect an older, at-risk population.

Please add our comments to the record of the public workshop. Thank you.

Respectfully submitted,  
Neal and Talar Glover  
3733 Marigot Way  
Clermont, FL 34711  
e-mail: [ntglover@att.net](mailto:ntglover@att.net)

January 21, 2022

George Gadiel, PE  
Lake County Project Manager  
323 N. Sinclair Avenue  
Taveras, FL 32778

Re: CR 455 Phase 2 Extension Project

Dear Mr. Gadiel,

We are writing to express our concern with the CR 455 Phase 2 Extension Project. We have been residents of Heritage Hills since March 2016 and have enjoyed the peaceful quiet nature of living in this 55 Plus Community. This is what drove us to purchase a home in Heritage Hills. We have not found any other 55 Plus Community in the Clermont area that offers the beauty, charm and peacefulness that we've found living here. Your proposal of adding a road directly behind our home and that of our neighbors goes against the grain of what this community currently offers us.

If this project/study was on the books since 2007, we as potential buyers of homes in Heritage Hills should have been informed by having this information available from Lake County and from our builder, Lennar at signing. Having a better understanding of future growth surrounding this community would have allowed us to make an informed decision in the purchasing process of our home. We feel let down both by Lake County and our builder Lennar.

As written in the letter you received from the Heritage Hills Board of Directors, we are opposed to this CR 455 Phase 2 Extension for many reasons. This area could be better served by extending/expanding Hardwood Marsh Road and not running a road through two communities and dumping more traffic onto an already busy road, Hardwood Marsh. This project adds increased traffic flow that is certain to be hazardous for the many senior citizens that reside in Heritage Hills and the families of the Hidden Lake Community. Please reconsider your decision as it has a tremendous impact upon the livelihoods of so many that have worked their entire lives to enjoy a peaceful retirement in a place, we all call home, Heritage Hills.

Best Regards,

*Michael and Parra Byron*

Michael and Parra Byron  
3548 LaJolla Drive  
Clermont, FL 34711

(208) 890-0281

[Parra.L.Byron@gmail.com](mailto:Parra.L.Byron@gmail.com)  
[Michael.A.Byron@gmail.com](mailto:Michael.A.Byron@gmail.com)



## Black, Amanda

---

**From:** Bublitz, Brad <bBublitz@Halff.com>  
**Sent:** Friday, January 21, 2022 10:33 AM  
**To:** Black, Amanda  
**Subject:** Fwd: CR 455 affecting Heritage Hills

**Categories:** External

FYI

**Brad Bublitz, EI**  
Project Manager  
Halff Associates, Inc.

**O:** (352) 557-9208  
**C:** (352) 636-3588



[Halff.com](#) | [LinkedIn](#) | [Facebook](#) | [Twitter](#) | [Instagram](#) | [YouTube](#)

Begin forwarded message:

**From:** "Gadiel, George" <ggadiel@lakecountyfl.gov>  
**Date:** January 21, 2022 at 10:15:14 AM EST  
**To:** "Bublitz, Brad" <bBublitz@halff.com>  
**Subject:** **FW: CR 455 affecting Heritage Hills**

GEORGE GADIEL, P.E.  
Senior Traffic Engineer

PUBLIC WORKS  
Engineering Division

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
E [ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov) | W [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

NOTE: Florida has a very broad public records law.  
Your email communications may be subject to public disclosure.

-----Original Message-----

From: Moretti, Jim <morettij@alfred.edu>

Sent: Friday, January 21, 2022 10:12 AM  
To: Gadiel, George <ggadiel@lakecountyfl.gov>  
Subject: CR 455 affecting Heritage Hills

CAUTION: This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Gadiel:

We live at 3435 Grayton Ct., Clermont, Fl. In the Heritage Hills subdivision. Thank you for giving the residents In HH the opportunity to express our opinions. You offered both in person comments in January and now through email re: the CR 455/Hartle Road Phase 2 Extension Project and alternatives.

The main reason my wife and I moved to HH was the quietness of the community. Even though we live more than 300 feet from the project I'm sure we will hear road/traffic noise if the alternative yellow route is chosen.

With the green and black ( maybe it is blue) alternatives you have been able to identify a route ( green) that affects the least number of people. Conversely, the proposed yellow route would affect the most number of people. In addition if the yellow route is chosen it will no doubt lower home values.

We settled here for peace and quiet, thus we favor the proposed the green route alternative.

Thank you for the chance to state our opinions and we appreciate the transparency.

Jim and Sue Moretti

Sent from my iPhone

Black, Amanda

---

From: Bublitz, Brad  
Sent: Tuesday, January 11, 2022 9:37 AM  
To: Gadiel, George; roy8143@gmail.com  
Subject: RE: CR 455 Phase 2 Extension Project Development and Environment (PD&E) Study Update from North of Lost Lake Road to Hartwood Marsh Road

Good Morning,

Mr. Gadiel forwarded to us your email regarding the CR 455 PD&E Study. We appreciate your feedback and will be taking into consideration all public input that we receive, including that which is obtained during our Public Alternatives Meeting on January 11th. There was an original study back in 2007 that planned for the connection of CR 455 to Hartwood Marsh Rd., currently we are fine tuning the plan since the 2007 study left two options for the route. This study will provide for one preferred route that will then proceed into design. We anticipate that the middle route will be the most well received route, however as part of the process three routes had to be evaluated.

Thank you,

**Brad Bublitz, EI**  
Project Manager  
Halff Associates, Inc.

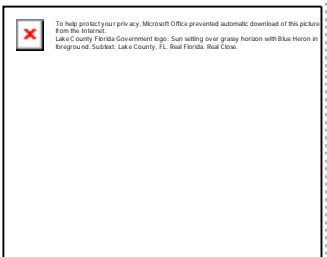
O: (352) 557-9208  
C: (352) 636-3588



[Halff.com](#) | [LinkedIn](#) | [Facebook](#) | [Twitter](#) | [Instagram](#) | [YouTube](#)

---

From: Gadiel, George <ggadiel@lakecountyfl.gov>  
Sent: Tuesday, January 11, 2022 9:28 AM  
To: Bublitz, Brad <bBublitz@Halff.com>  
Subject: FW: CR 455 Phase 2 Extension Project Development and Environment (PD&E) Study Update from North of Lost Lake Road to Hartwood Marsh Road



**GEORGE GADIEL, P.E.**  
*Senior Traffic Engineer*

PUBLIC WORKS  
*Engineering Division*

A 350 N. Sinclair Ave. Tavares, FL 32778  
P 352-253-9092 | F 352-253-9065  
E [ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov) | W [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

*NOTE: Florida has a very broad public records law.  
Your email communications may be subject to public disclosure.*

---

From: Roy Fulcher <[roy8143@gmail.com](mailto:roy8143@gmail.com)>

Sent: Tuesday, January 11, 2022 8:40 AM

To: Gadiel, George <[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)>

Subject: CR 455 Phase 2 Extension Project Development and Environment (PD&E) Study Update from North of Lost Lake Road to Hartwood Marsh Road

**CAUTION:** This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Gadiel,

I am a resident of Heritage Hills, at 3800 Quaint Lane.

I am writing to let you know that our preferred route for the road extension would be the Blue route as it appears to have the least impact on any homes. The Green route would be our second choice as it appears to require more site preparations due to the trees that would need to be removed. The yellow route is the least desirable as it runs too close to houses, including ours.

Thank you for your consideration.

Roy Fulcher

[Roy8143@gmail.com](mailto:Roy8143@gmail.com)

Cell: 352-223-2719

**APPENDIX G**  
Public Hearing Presentation



CR 455 PHASE 2  
PROJECT DEVELOPMENT AND ENVIRONMENT  
(PD&E) STUDY

---

PUBLIC HEARING

March 8, 2022





# PURPOSE OF PUBLIC HEARING

---

- To present the findings of the Project Development and Environment (PD&E) Study
- Request approval of the study recommendation



# PUBLIC HEARING FORMAT

---

- Project Presentation
- Public Hearing
- Requested Action

# Public Hearing Administrative Items

# Federal and State Laws and Regulations

This hearing is being held in accordance with:

- Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21)
- Chapter 23 of the United States Code 128
- Title 40 of the Code of Federal Regulations, parts 1500 through 1508
- Title 23 of the Code of Federal Regulations part 771
- Florida Statute 120.525
- Florida Statute 286.011
- Florida Statute 335.199
- Florida Statute 339.155
- Americans with Disabilities Act of 1990 (ADA)
- Title VI of the Civil Rights Act of 1964, as amended
- 49 CFR Part 24, Uniform Relocation Assistance and Real Property acquisition for Federal and Federally Assisted Programs
- Executive Order 11988, Floodplain Management
- Executive Order 11990, Protection of Wetlands

## Title VI Compliance

*This hearing is being conducted without regard to race, color, national origin, age, sex, religion, disability or family status. Persons wishing to express their concerns relative to Lake County compliance with Title VI may do so by contacting:*

Sharon Lewis  
Title VI/Nondiscrimination and ADA Coordinator  
Lake County  
[selewis@lakecountyfl.gov](mailto:selewis@lakecountyfl.gov)  
(352) 253-9050

*All inquiries or complaints will be handled according to Lake County procedure and in a prompt and courteous manner.*

# History/Overview



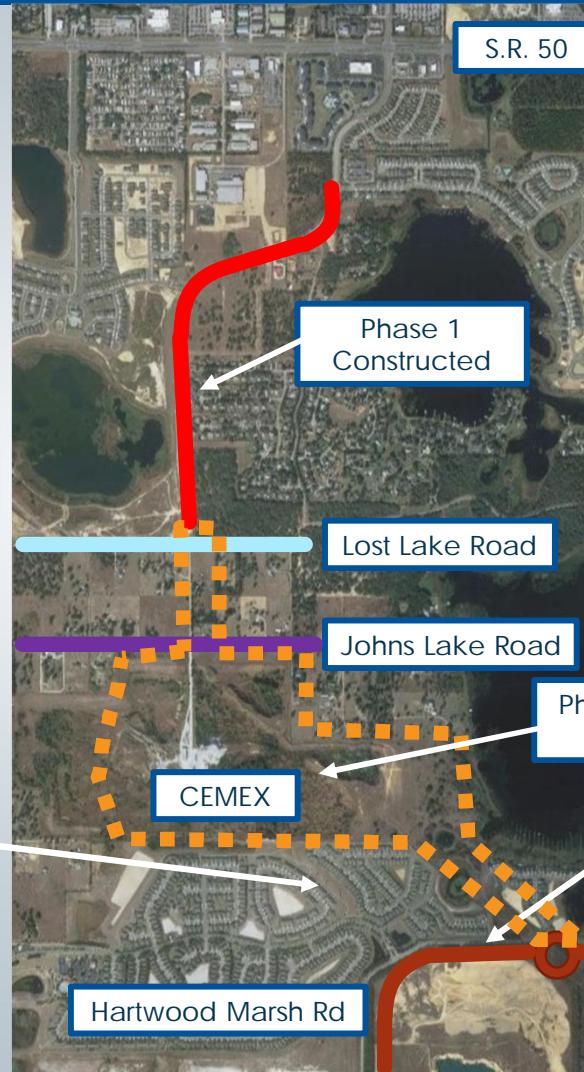
# CR 455 Phase 2 Project Development & Environment (PD&E)



## Study Area

### Legend

— Study Area



Phase 3A PD&E Approved



## 2007 PD&E Study CR 455 (Hartle Rd) Extension

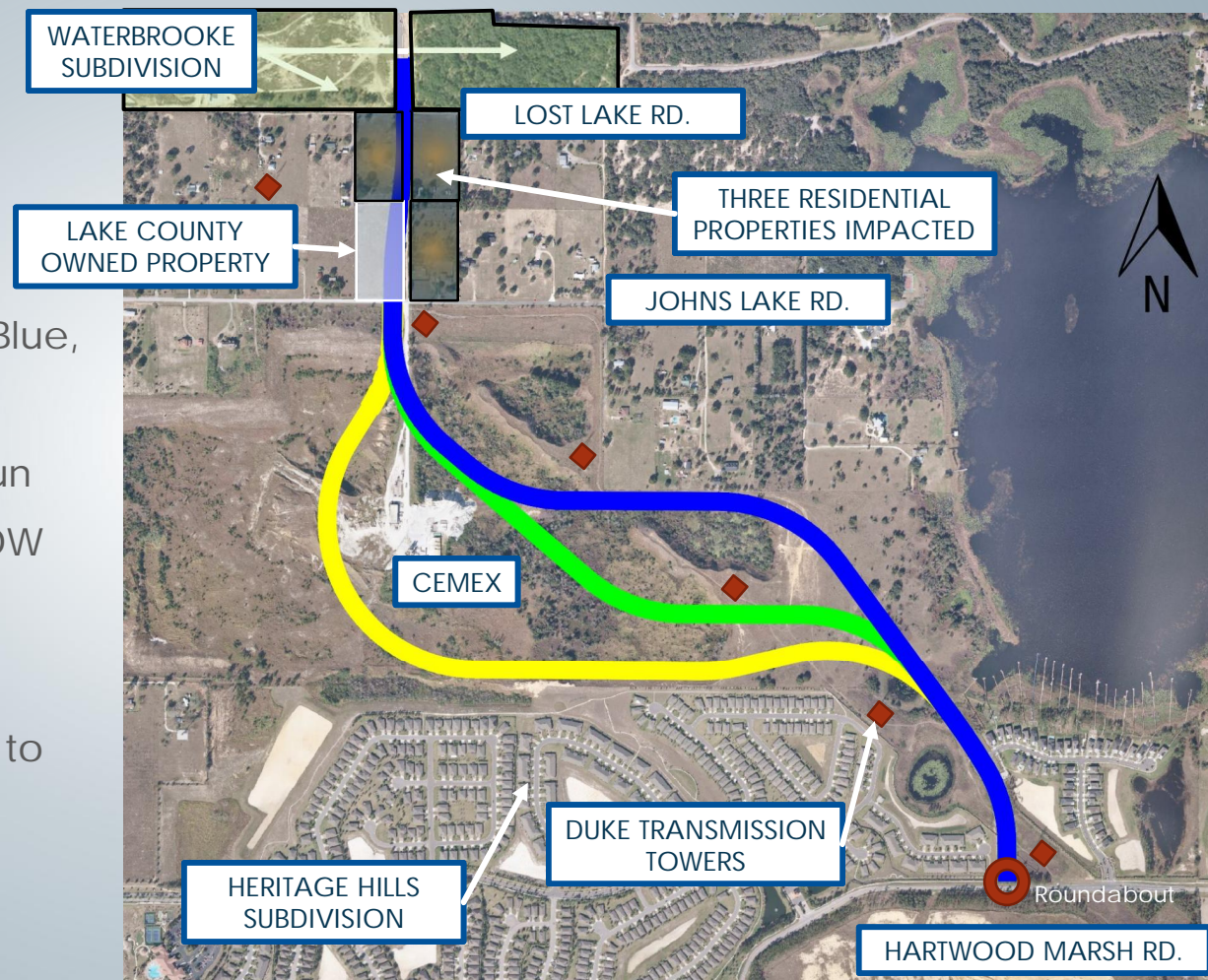
- Study completed in January 2007 by HNTB
- Provided corridor alternatives from S.R. 50 to Hartwood Marsh Road
- Recommended and approved one alignment from Good Hearth Blvd. to Lost Lake Road. Two lanes of segment constructed in 2020.
- Recommended two alignments from Lost Lake Road to Hartwood Marsh Road

# CR 455 Phase 2 Project Development & Environment (PD&E)



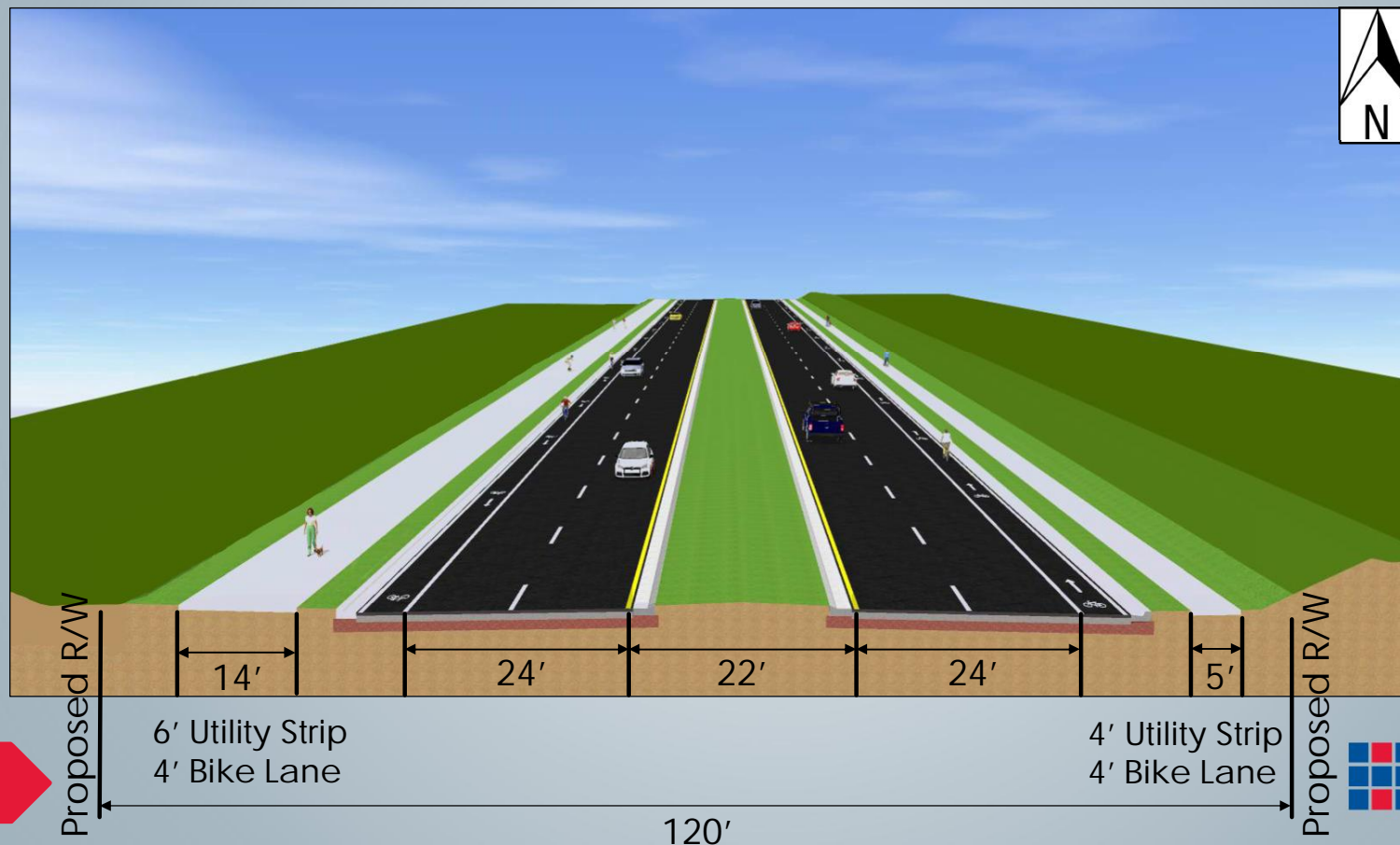
## PD&E Update to Study

- Update preferred alignment through CEMEX property
- Three alignments developed: Yellow, Blue, and Green (Green Recommended)
- Begin at Hartwood Marsh Road and run north through existing Lake County ROW
- Blue and Yellow alignments were approved in the 2007 study
- Continue north from Johns Lake Road to match exist roadway





# Typical Section – 4 Lanes (proposed)



# Stakeholder and Agency Coordination

- Public Meeting - January 11, 2022
- Public Hearing – March 8, 2022



# Evaluated Build Alternatives



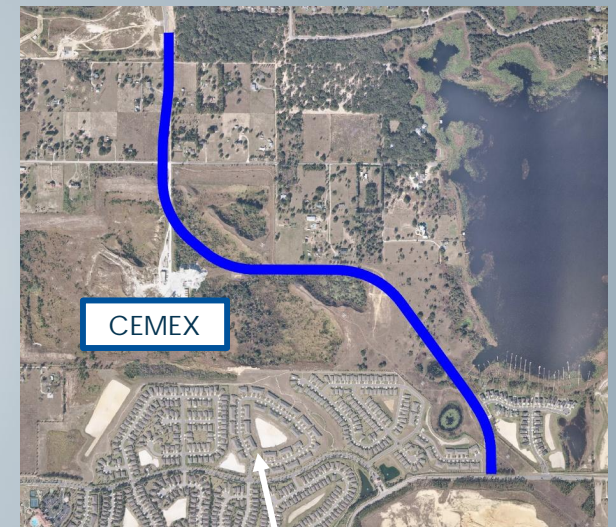
Green

HERITAGE HILLS  
SUBDIVISION



Yellow

HERITAGE HILLS  
SUBDIVISION



Blue

HERITAGE HILLS  
SUBDIVISION



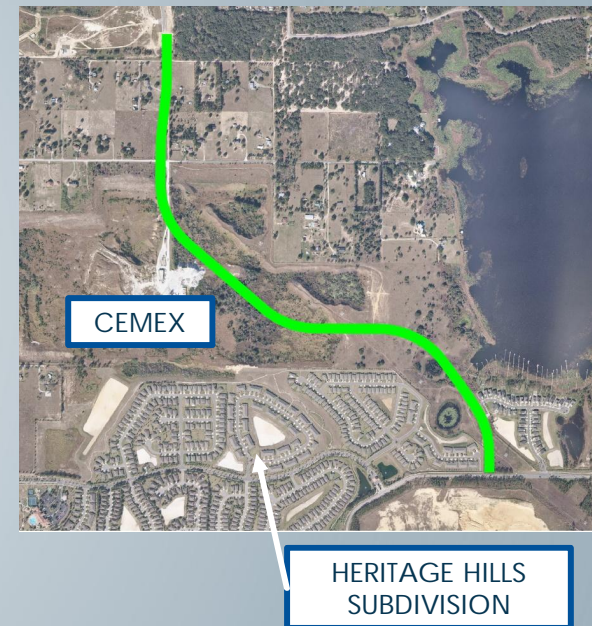
# Pros and Cons of Green Alignment

## Green Pros

- Provides buffer of roadway from adjoining properties.
- Least Right-of-Way needed.
- Least unsuitable/slime material.
- Least grading to provide a safe driving profile.
- Provide future development opportunities on both sides of roadway.
- Existing concrete plant remains.
- Least construction cost.

## Green Cons

- Potential for a deep unsuitable/slime deposit (40-feet).



## Pros and Cons of Blue Alignment

### Blue Pros

- Existing concrete plant remains.
- Right-of-Way needed 0.15 acres more than Green Alignment.
- Avoids Duke Energy Transmission Towers.

### Blue Cons

- Aligns along the north property line adjacent to single family homes.
- Multiple unsuitable/slime deposits.
- Extreme challenge with profile grading (areas with high and low elevations).
- Additional grading needed outside of Right-of-Way.
- Provide future development opportunity on only one side of roadway.
- Cost to construct is second largest



# Pros and Cons of Yellow Alignment

## Yellow Pros

- Existing concrete plant remains.
- Extends the farthest west of all three alignments.

## Yellow Cons

- Multiple unsuitable/slime deposits.
- Most Right-of-Way needed.
- Aligns along the south property line adjacent to single family homes at Heritage Hills.
- Extreme challenge with profile grading (areas with high and low elevations).
- Extremely large horizontal curve to avoid plant.
- Two back-to-back curves to align with south connection point.
- Provide future development opportunity on mostly one side of roadway.
- Cost to construct is the largest.



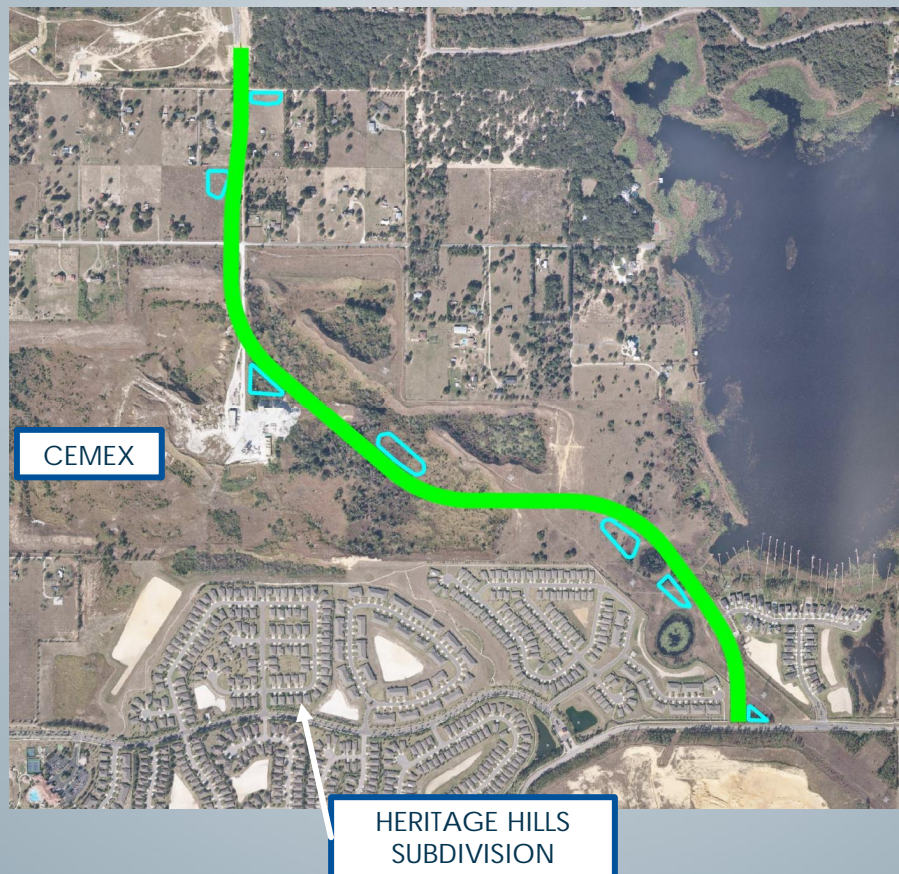
HERITAGE HILLS  
SUBDIVISION

## CR 455 Ph. 2 Alternatives Evaluation Matrix

Evaluation Factor	Green	Blue	Yellow
<b>RIGHT-OF-WAY IMPACTS</b>			
Residential Parcels Impacted	3	3	3
Business Parcels Impacted	1 (CEMEX)	1 (CEMEX)	1 (CEMEX)
Utility and Governmental Parcels Impacted	1 (Lake County)	1 (Lake County)	1 (Lake County)
Total Parcels Impacted (Total)	5	5	5
Right-of-Way Required for Roadway (acres)*	15.33	15.49	18.9
* Note Lake County has Existing R-O-W (6.75 acres)			
Right-of-Way Needed from CEMEX Property	13.54	13.69	17.10
Right-of-Way Required for Ponds (acres)	5.92	6.10	7.36
<b>ENVIRONMENTAL IMPACTS</b>			
Wetland Impacts (acres)	1.08	5.15	3.36
Floodplain Impacts (acres)	2.76	2.76	3.83
Wildlife/Habitat Impacts	Low	Low	Low
Potential Contamination Sites Impacted	0	0	0
<b>TOTAL CONSTRUCTION COST ONLY (in millions)</b>	<b>\$13.59</b>	<b>\$21.19</b>	<b>\$28.55</b>



# Recommended Alternative (Green)



## Recommended Alternative Project Cost Estimate

Roadway Construction	\$ 13,589,719.00
Engineering Design	\$ 907,339.23
Construction Engineering & Inspection (10%)	\$ 1,358,971.90
Total Cost (Not including right of way)	\$ 15,856,030.13



## Public Comments

- Make an oral statement
- Submit written comments by mail or email to:

George Gadiel  
Project Manager  
Lake County Public Works  
350 N. Sinclair Avenue, Tavares, FL 32778  
[ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)

- Submit through the study website

<https://web.lakecountyfl.gov/engineering/CR-455-Phase-2#>



# PUBLIC HEARING



# REQUESTED ACTION

---

Request approval of the Recommended Build Alternative of the updated Project Development & Environmental Study.

**APPENDIX H**  
Public Hearing Notification Materials



Public Works Department/Engineering Division  
P.O. Box 7800 • 350 N. Sinclair Ave., • Tavares, FL 32778

February 11, 2022

SUBJECT: CR 455 Phase 2 Extension Project Development and Environment (PD&E) Study Update  
From North of Lost Lake Road to Hartwood Marsh Road  
Public Hearing on March 8<sup>th</sup>, 2022

Dear Property Owner, Stakeholder, or Interested Party,

On behalf of Lake County, you are invited to the Public Hearing for the CR 455 Phase 2 Extension Project Development and Environment (PD&E) Study Update on **Tuesday, March 8<sup>th</sup>, 2022**.

The purpose of this study is to provide a preferred alignment that will continue the extension of CR 455/Hartle Road from Lost Lake Road to Johns Lake Road and then south to Hartwood Marsh Road. Additional information about this study is available on the project website at: <https://lakecountyfl.gov/engineering/CR-455-Phase-2>

The Public Hearing will be held as an agenda item as part of the Lake County Board of County Commissioners meeting scheduled on **Tuesday, March 8<sup>th</sup>, 2022** at the **Lake County Administration Building in the Board Chambers (2<sup>nd</sup> floor), located at 315 W. Main Street, Tavares, Florida 32778**. **The County Commission meeting will begin at 9:00 a.m. with the Public Hearing to be held after that time as determined by the Board meeting agenda**. The hearing will focus on the Recommended (Build) Alternative. The other Evaluated Build Alternatives will also be presented. This notification letter is being sent to all property owners and tenants located within at least 300 feet on either side of the proposed project alternatives as well as to other elected leaders, government agencies, and individuals interested in the project.

**Due to limited occupancy for social distancing, we recommend interested persons to attend the Public Hearing virtually via Zoom with a computer or smart device. All information regarding the Board meeting and how to participate in virtual meetings is available on the Lake County Board of County Commissioners Board Meetings website at: <https://lakecountyfl.gov/board-of-county-commissioners/board-meetings>. The Zoom link and the call-in number to the Board meeting will also be available at the website link listed above on the day of the presentation.**

**The presentation will be available on the project website (<https://lakecountyfl.gov/engineering/CR-455-Phase-2>) after the Board meeting.**

Oral statements can be made during the designated time during the Public Hearing. In addition, persons wishing to submit written comments, in place of or in addition to oral statements, may do so at the hearing or by sending them to George Gadiel, Project Manager, by either email ([ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)) or by mail (350 N. Sinclair Avenue, Tavares, FL 32778). All written statements emailed or postmarked by March 18<sup>th</sup>, 2022 will be included in the records for this Public Hearing.

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability, or family status. Persons who require language translation or interpretive services, which are provided at no cost, or those requiring special accommodations under the Americans with Disabilities Act of 1990 (ADA) may request assistance by contacting Sharon Lewis, Lake County Title VI/Nondiscrimination and ADA Coordinator, at 352.253.9050 or [selewis@lakecountyfl.gov](mailto:selewis@lakecountyfl.gov) at least seven (7) days prior to the meeting.

P 352.253.6000 • F 352.253.9025  
Board of County Commissioners • [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

Douglas B. Shields  
District 1

Sean M. Parks, AICP, QEP  
District 2

Kirby Smith  
District 3

Leslie Campione  
District 4

Josh Blake  
District 5



**Public Works Department/Engineering Division**  
P.O. Box 7800 • 350 N. Sinclair Ave., • Tavares, FL 32778

We encourage you to participate in the Public Hearing. If you have any questions or comments, you may contact me by email ([ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)) or phone (352.253.9092). We look forward to seeing you on March 8<sup>th</sup>!

Sincerely,

George Gadiel, PE  
Lake County Project Manager

P 352.253.6000 • F 352.253.9025  
Board of County Commissioners • [www.lakecountyfl.gov](http://www.lakecountyfl.gov)

---

**Douglas B. Shields**  
District 1

**Sean M. Parks, AICP, QEP**  
District 2

**Kirby Smith**  
District 3

**Leslie Campione**  
District 4

**Josh Blake**  
District 5



Published Daily  
ORANGE County, Florida

**Sold To:**

Kimley-Horn Associates Inc - CU00158850  
189 S Orange Ave. Ste. 1000  
Orlando, FL 32801

**Bill To:**

Kimley-Horn Associates Inc - CU00158850  
189 S Orange Ave. Ste. 1000  
Orlando, FL 32801

**State Of Florida  
County Of Orange**

Before the undersigned authority personally appeared  
Rose Williams, who on oath says that he or she is a duly authorized  
representative of the ORLANDO SENTINEL, a DAILY newspaper  
published in ORANGE County, Florida; that the attached copy of  
advertisement, being a Legal Notice in:

The matter of 11200-Misc. Legal  
Was published in said newspaper by print in the issues of, or by publication  
on the newspaper's website, if authorized on Feb 20, 2022; Feb 27, 2022.

Affiant further says that the newspaper complies with all legal requirements  
for publication in Chapter 50, Florida Statutes.



**Rose Williams**

Signature of Affiant

Name of Affiant

Sworn to and subscribed before me on this 28 day of February, 2022,  
by above Affiant, who is personally known to me (X) or who has produced identification ( ).



Signature of Notary Public



Name of Notary, Typed, Printed, or Stamped

## **PUBLIC HEARING**

CR 455 Phase 2 Extension  
Project Development and Environment  
(PD&E) Study Update  
From North of Lost Lake Road to  
Hartwood Marsh Road

On behalf of Lake County, you are invited to the Public Hearing for the CR 455 Phase 2 Extension Project Development and Environment (PD&E) Study Update on Tuesday, March 8th, 2022. The purpose of this study is to provide a preferred alignment that will continue the extension of CR 455/Hartle Road from Lost Lake Road to Johns Lake Road and then south to Hartwood Marsh Road. Additional information about this study is available on the project website at: <https://lakecountyfl.gov/engineering/CR-455-Phase-2>

The Public Hearing will be held as an agenda item as part of the Lake County Board of County Commissioners meeting scheduled on Tuesday, March 8th, 2022 at the Lake County Administration Building in the Board Chambers (2nd floor), located at 315 W. Main Street, Tavares, Florida 32778. The County Commission meeting will begin at 9:00 a.m. with the Public Hearing to be held after that time as determined by the Board meeting agenda. The hearing will focus on the Recommended (Build) Alternative. The other Evaluated Build Alternatives will also be presented.

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Oral statements can be made during the designated time during the Public Hearing. In addition, persons wishing to submit written comments, in place of or in addition to oral statements, may do so at the hearing or by sending them to George Gadiel, Project Manager, by either email ([ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)) or by mail (350 N. Sinclair Avenue, Tavares, FL 32778). All written statements emailed or postmarked by March 18th, 2022 will be included in the records for this Public Hearing.

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We encourage you to participate in this Public Hearing. If you have any questions or comments, contact Lake County Project Manager George Gadiel, PE by email (ggadiel@lakecountyfl.gov) or phone (352.253.9092). We look forward to seeing you on March 8th!

7153378

2/20/2022 2/27/2022

7153378

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### Notice: 25617523

Notice of Meeting/Workshop Hearing

Division: [Kimley-Horn and Associates, Inc.](#)



[VIEW NOTICE](#)

#### Overview

The Lake County announces a hearing to which all persons are invited.

DATE AND TIME:	Tuesday, March 8th, 2022. The County Commission meeting will begin at 9:00 a.m. with the Public Hearing to be held after that time as determined by the Board meeting agenda.
PLACE:	To be held as an agenda item as part of the Lake County Board of County Commissioners meeting at the Lake County Administration Building in the Board Chambers (2nd floor), located at 315 W. Main Street, Tavares, Florida 32778. Due to limited occupancy for social
Subject:	The purpose of this study is to provide a preferred alignment that will continue the extension of CR 455/Hartle Road from Lost Lake Road to Johns Lake Road and then south to Hartwood Marsh Road. Additional information about this study is available on the project website at: <a href="https://lakecountyfl.gov/engineering/CR-455-Phase-2">https://lakecountyfl.gov/engineering/CR-455-Phase-2</a> . The hearing will focus on the

A copy of the agenda may be obtained by contacting: George Gadiel, Project Manager (ggadiel@lakecountyfl.gov) or by visiting <https://lakecountyfl.gov/board-of-county-commissioners/board-meetings>.

PRINT PUBLISH DATE: 3/1/2022 [Vol. 48/41](#)

REFERENCE MATERIALS: No reference(s).

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## Notice of Meeting/Workshop Hearing

### **OTHER AGENCIES AND ORGANIZATIONS**

#### **Kimley-Horn and Associates, Inc.**

The Lake County announces a hearing to which all persons are invited.

**DATE AND TIME:** Tuesday, March 8, 2022. The County Commission meeting will begin at 9:00 a.m. with the Public Hearing to be held after that time as determined by the Board meeting agenda.

**PLACE:** To be held as an agenda item as part of the Lake County Board of County Commissioners meeting at the Lake County Administration Building in the Board Chambers (2nd floor), located at 315 W. Main Street, Tavares, Florida 32778. Due to limited occupancy for social distancing, we recommend interested persons to attend the Public Hearing virtually via Zoom with a computer or smart device. All information regarding the Board meeting and how to participate in virtual meetings is available on the Lake County Board of County Commissioners Board Meetings website at: <https://lakecountyfl.gov/board-of-county-commissioners/board-meetings>. The Zoom link and the call-in number to the Board meeting will also be available at the website link listed above on the day of the presentation.

**GENERAL SUBJECT MATTER TO BE CONSIDERED:** The purpose of this study is to provide a preferred alignment that will continue the extension of CR 455/Hartle Road from Lost Lake Road to Johns Lake Road and then south to Hartwood Marsh Road. Additional information about this study is available on the project website at: <https://lakecountyfl.gov/engineering/CR-455-Phase-2>. The hearing will focus on the Recommended (Build) Alternative. The other Evaluated Build Alternatives will also be presented. Oral statements can be made during the designated time during the Public Hearing. In addition, persons wishing to submit written comments, in place of or in addition to oral statements, may do so at the hearing or by sending them to George Gadiel, Project Manager, by either email ([ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)) or by mail (350 N. Sinclair Avenue, Tavares, FL 32778). All written statements emailed or postmarked by March 18th, 2022 will be included in the records for this Public Hearing.

A copy of the agenda may be obtained by contacting: George Gadiel, Project Manager ([ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov)) or by visiting <https://lakecountyfl.gov/board-of-county-commissioners/board-meetings>.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 7 days before the workshop/meeting by contacting: Sharon Lewis, Lake County Title VI/Nondiscrimination and ADA Coordinator, at (352)253-9050 or [selewis@lakecountyfl.gov](mailto:selewis@lakecountyfl.gov). If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

For more information, you may contact: Lake County Project Manager George Gadiel, PE, Public Works Department, at (352)253-9092 or [ggadiel@lakecountyfl.gov](mailto:ggadiel@lakecountyfl.gov).