PRELIMINARY ENGINEERING REPORT

South Sumter Connector Trail From Good Neighbor Trail to James A Van Fleet Trail

Hernando & Sumter Counties, Florida

Financial Project ID Number: 435471-1-22-01 ETDM Number: N/A

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated December 14, 2016, and executed by Federal Highway Administration and FDOT.

PROFESSIONAL ENGINEER CERTIFICATION

PRELIMINARY ENGINEERING REPORT

Project: South Sumter Connector Trail

ETDM Number: N/A

Financial Project ID: 435471-1-22-01

Federal Aid Project Number: N/A

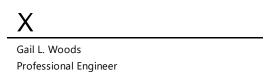
This preliminary engineering report contains engineering information that fulfills the purpose and need for the South Sumter Connector Trail Project Development & Environment Study from the Good Neighbor Trail to the James A Van Fleet Trail in Hernando and Sumter Counties, Florida. I acknowledge that 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 TranSystems Corporation, and that I have prepared or approved the evaluation, findings, opinions, conclusions or technical advice for this project.



May 19, 2020

This item has been digitally signed and sealed by Gail Woods on the date adjacent to the seal.



The official record of this package has been electronically signed and sealed by Gail L. Woods, PE on 5/19/2020 using a digital signature as required by rule 61G 15.23.004, F.A.C. Printed copies of this document are not considered signed and sealed. The signature must be verified on the electronic documents.

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Appendix A Recommended Alternative Concept Plans

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Appendix D State Historic Preservation Office Concurrence

1.0 PROJECT SUMMARY

1.1 Project Description

The Florida Department of Transportation (FDOT) conducted a Project Development and Environment (PD&E) Study to evaluate the South Sumter Connector Trail (Trail), a shared-use trail for non-motorized transportation modes (pedestrian, bicycle, and equestrian). The Trail begins at the eastern terminus of the Good Neighbor Trail in Hernando County extending approximately 20 miles east to the Van Fleet Trail in Sumter County (**Figure 1-1**). The purpose of this PD&E Study is to evaluate potential impacts to the cultural, natural, social, and physical resources associated with the proposed Trail improvements. This process provides the necessary environmental studies and preliminary engineering to analyze and develop the best project alternative and minimize potential impacts.

As part of the Shared-Use Non-motorized (SUN) Trail Network, the Trail is part of the 250-mile Florida Coast to Coast (C2C) Trail, which will provide recreational connectivity across the Florida peninsula from St. Petersburg on the west coast to Titusville on the east coast (**Figure 1-2**).

The Trail is divided into five segments (**Figure 1-3**).

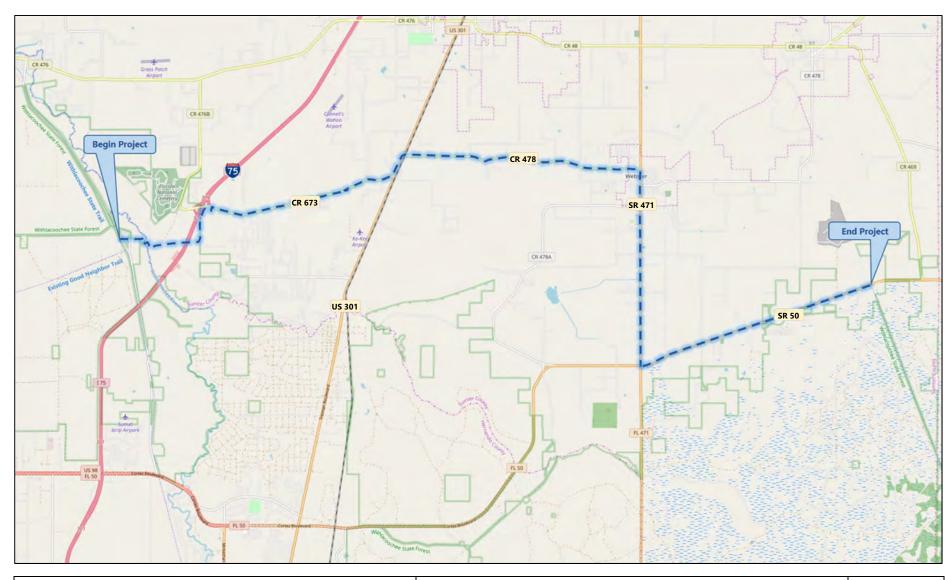
Segment A: Beginning at the eastern terminus of the Good Neighbor Trail and its intersection with the Withlacoochee State Trail, the Trail travels 0.25 miles (approximate) north along the Withlacoochee State Trail to the Duke Power easement. The Trail follows the power easement 0.5 miles east where it turn south toward the Withlacoochee River Crossing. The Trail crosses the Withlacoochee River to the Iron Bridge Day Use Area, then south 0.2 mile turning east 0.9 mile along an existing hiking trail (parallel to and south of Forest Road 13) crossing under Interstate 75 (I-75). Once under I-75, the trail continues east 0.2 mile along an abandoned railroad bed turning north along the Withlacoochee State Forest (WSF) eastern boundary for 0.7 miles to County Road (C.R.) 673.

Segment B: At C.R. 673 the trail continues east 4 miles intersecting U.S. 301. Turning north along U.S. 301 for 0.5 mile intersecting C.R. 478.

Segment C: At the intersection of U.S. 301 and C.R. 478, the trail continues east crossing U.S. 301 and the CSX Railroad along a pedestrian bridge. The trail continues east along C.R. 478 for 5 miles to the intersection of State Road (S.R.) 471 in the City of Webster.

Segment D: At the intersection of C.R. 478 and State Road (S.R.) 471, the trail turns south and continues for 4 miles terminating at S.R. 50.

Segment E: At the intersection of S.R. 471 and S.R. 50, the trail turns east and continues for 5 miles terminating at the Van Fleet Trail (*technical analysis and environmental evaluation completed as part of the S.R. 50 Widening Project (FM Number 435859-1-22-1).*



South Sumter Connector Trail From Good Neighbor Trail to James A Van Fleet Trail PD&E Study

Hernando & Sumter Counties FPID: 435471-1-22-01

PROJECT LOCATION MAP



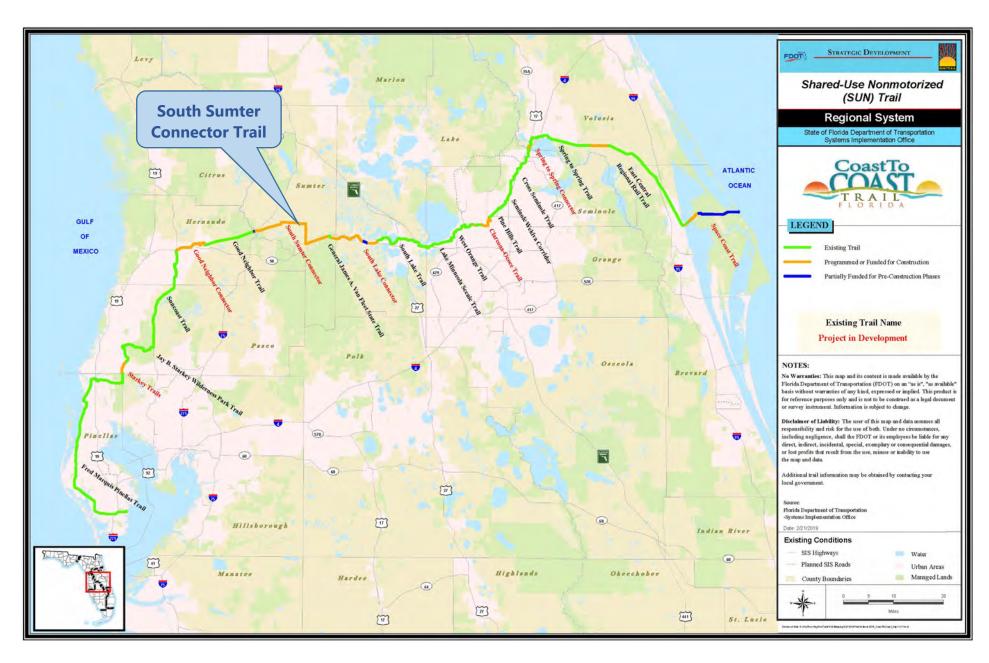
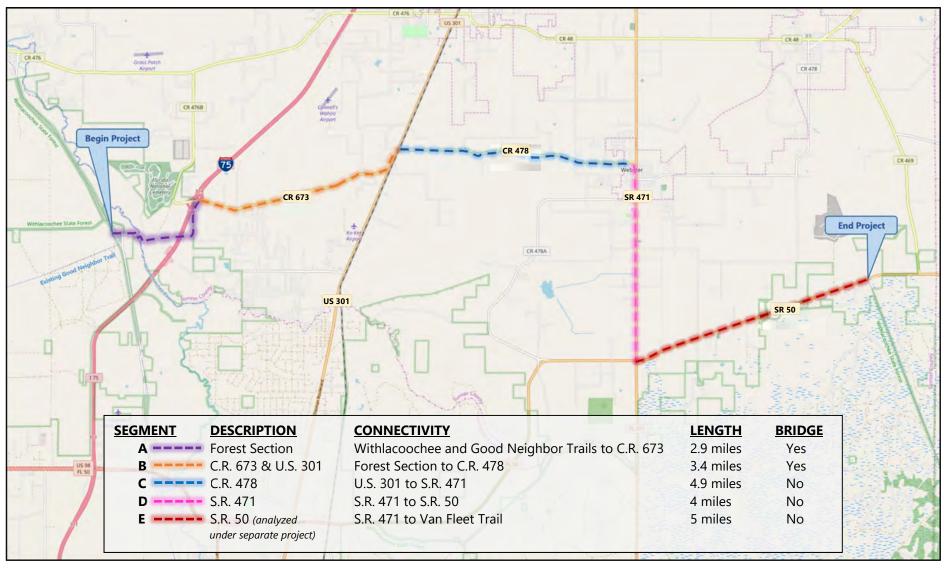


Figure 1-2. SUN Trail Coast to Coast Regional System Map





Hernando & Sumter Counties FPID: 435471-1-22-01

PROJECT SEGMENTATION MAP



FIGURE 1-3

1.2 Purpose & Need

There are limited existing bicycle and pedestrian facilities within the study area, requiring non-motorized traffic to rely on the local roadway network which consists of two-lane undivided rural roads. These roads are generally narrow in width and lack paved shoulders, often resulting in a mix of motorized and non-motorized traffic within the travel lanes. Constructing a paved shared-use trail in accordance with SUN Trail standards will provide the opportunity to divert non-motorized users from roadways that currently do not have sidewalks or bicycle



lanes to the trail system. The project will improve roadway safety by removing non-motorized traffic from roadways lanes and close approximately 16 miles of this 20-mile gap in the C2C Trail. The remaining five miles of the gap from S.R. 471 east along the south side of SR 50 to the Van Fleet Trailhead was designed and evaluated in the S.R. 50 Widening Project for which the Final PER was approved in March 2019.

The project needs include providing system linkage to improve trail network connectivity and increase safety resulting from a lack of pedestrian and bicycle facilities. This improvement is necessary to provide connectivity between two existing sections of the C2C Trail, a system of paved recreational trails that, when completed, will connect St. Petersburg on the west coast with Titusville on the east coast.

1.3 Commitments

The following commitments are included for the Trail.

- Prior to construction, all potential gopher tortoise habitat that could be affected by the
 project will be systematically surveyed according to the current guidelines published by
 the Florida Fish and Wildlife Conservation Commission (FWC). For burrows which cannot
 be avoided, a permit will be obtained from the FWC for the relocation of gopher
 tortoises and commensals, and relocation will be performed at a time as close as
 practicable to the start of the construction activities at the site of the burrows.
- During the construction phase of the project, Standard Protection Measures for the Eastern Indigo Snake, which is a document by the US Fish and Wildlife Service (USFWS) that specifies education of the construction contractor concerning avoidance of the indigo snakes, will be implemented.

1.4 Alternatives Analysis Summary

In 2016, the FDOT completed the *South Sumter Connector Trail, Sumter County Gap Study Alternatives Analysis Report*. This planning study developed a range of potential alignments that would close the 20-mile gap between the Good Neighbor Trail and the Van Fleet Trail in the C2C Trail network (**Figure 1-4**).

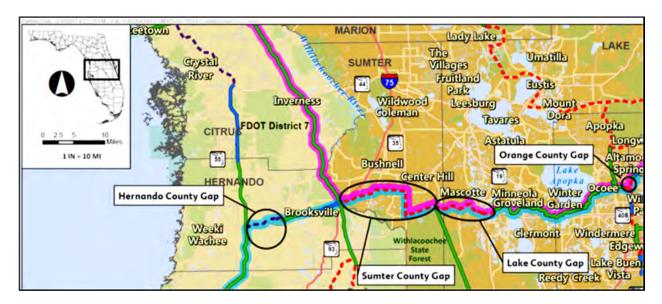


Figure 1-4. Florida Coast to Coast Trail Gaps – Hernando, Sumter Counties

As a result, the FDOT study team identified Corridor C (**Figure 1-5**) as the recommended corridor to be advanced for further evaluation in this PD&E Study.

Trail alternatives developed within the limits of Corridor C and evaluated as part of this PD&E Study include alignments on each side of the roadway along C.R. 673, C.R. 478, and S.R. 471. For U.S. 301, the alternative was located on the west side due to the CSX Railroad located parallel on the east side of U.S. 301 and is proposed to cross over U.S. 301 and the CSX Railroad on a bicycle/pedestrian only structure. The proposed bridge typical section is the same whether it crosses to the left or right of C.R. 478. For the WSF section, three Withlacoochee River pedestrian/equestrian bridge crossing locations were considered and two primary trail alignments.

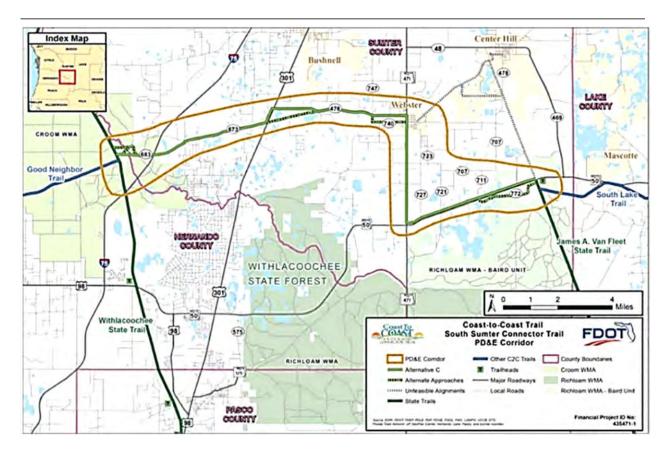


Figure 1-5. Alternative C from the Corridor Planning Study

This resulted in the evaluation of ten typical section alternatives. Due to SUN Trail funding requirements, which excludes right-of-way (ROW) acquisition, parcel impacts were a key criteria during alternatives evaluation. The trail alternatives included an effort to find a solution that could fit within the existing ROW. Unfortunately, no concepts completely eliminated ROW needs and introduced other concerns in term of safety.

Three potential Withlacoochee River bridge crossing locations were evaluated and include the:

- Duke Power Easement
- Iron Bridge Day Use Area
- Seaboard Coast Line Railroad (SCLRR) corridor

Following discussions with the Florida Forest Service (FFS), the following bridge crossing locations were dismissed from further evaluation:

Duke Power Easement
 Due to high voltage transmission line restrictions for structures located within the utility easement.

SCLRR

This crossing location is partially located within private property and therefore dismissed due to SUN Trail funding requirements, which excludes ROW acquisition.

The WSF section trail alignments begin at the intersection of the Good Neighbor and Withlacoochee State Trails continuing north to the Duke Power easement and then east connecting to the Withlacoochee River Bridge crossing locations. Once on the east of the river, the trail follows along FR 13 (SW 113th Place) under I-75 and then north to C.R. 673.

Following continued discussion with the FFS, a second trail alignment was evaluated that continues south, on the east side of the river, and then east along an existing hiking trail (south of FR 13), continuing under I-75 along the abandoned Atlantic Coast Line Railroad (ACLR) to the WSF eastern property boundary. At this point the trail turns north continuing to C.R. 673.

In coordination with the FFS, it was determined that the trail alignment following the existing hiking trail, east of the Withlacoochee River, was the safer alternative as it removed pedestrians, bicyclists, and equestrians from FR 13, which is traveled by motorized vehicles.

The No Build Alternative would maintain existing conditions and does not improve Trail network connectivity within the project limits. This alternative would not meet the proposed project's purpose and need, which is to complete the 16-mile gap in the SUN Trail network's C2C Trail.

1.5 Description of Recommended Alternative

A Preferred Alternative has not been identified at this time since the project currently is not moving forward to the design phase. The Preferred Alternative will be identified when the project moves forward to the design phase. However, a recommended alternative has been identified. The recommended alternative or 'Build' alternative selected represents the alternative that will best meet the purpose and need for the project by providing system linkage to improve C2C Trail network connectivity, minimize impacts, and address safety concerns resulting from a lack of pedestrian and bicycle facilities along the project study area.

Recommended Alternative: The Recommended Alternative proposes a 12-foot wide shared-use path beginning at the intersection of the Good Neighbor and Withlacoochee State Trails and continuing easterly to a pedestrian/ equestrian bridge crossing the Withlacoochee River. Following east along C.R. 673 and then north along U.S. 301 to a pedestrian bridge crossing U.S. 301 and the CSX Railroad. The Trail follows C.R. 478 east to S.R. 471 and then south to S.R. 50. The Recommended Alternative closes the gap and connects the existing Good Neighbor Trail to the west and the Van Fleet Trail to the east.

The Recommended Alternative is shown on the concept plans included in Appendix A. Proposed typical sections are included in Appendix B.

1.6 List of Technical Documents

The following Technical Reports and Memorandum were prepared as part of this PD&E Study. The data, technical analyses results, and information were used to develop, evaluate and select the Recommended Alternative. In preparing this Preliminary Engineering Report, these documents are incorporated by reference.

- Preliminary Geotechnical Report (January 2020)
- Contamination Screening Report (August 2019)
- Natural Resource Evaluation (January 2020)
- Section 4(f) Exemption and Exception Form (May 2019)
- Cultural Resource Assessment Report (November 2019)
- Value Engineering Resolution Memorandum (December 2018)
- Utilities Assessment Package (September 2019)
- Abbreviated Location Hydraulics Report Memorandum (September 2019)
- Permit Determination Memorandum (November 2019)
- Type I Categorical Exclusion (January 2020)
- Long Range Estimate (LRE) (September 2019)
- Alternatives Public Meeting Summary (October 2018)
- Comments and Coordination Report (November 2019)

2.0 EXISTING CONDITIONS

2.1 Roadway

Existing roadways within the project study area that are proposed to include the Trail parallel to or crossing the roadway are summarized in **Table 2-1**.

Table 2-1. Characteristics of Trail Involved Roadways

Characteristic	C.R. 673	S.R. 35/ U.S. 301	C.R. 478	S.R. 471 (Urban)	S.R. 471 (Rural)
Jurisdictional Responsibility	County	FDOT	County	FDOT	FDOT or Webster
Number of Lanes	2	2	2	2	2
Border Type	Ditches/ Swales	Ditches/ Swales	Ditches/ Swales	Curb & Gutter	Ditches/ Swales
Posted Speed Limit (mph)	45	60	35 - 55	35	45 - 55
Estimated AADT	1,750	4,800	1,500 5,800		5,600
Paved Shoulders?	Yes, 2'	Yes, 4'	No	Yes ¹	Yes, 4' ²
Bicycle/Pedestrian Facilities?	No	No	No	Sidewalks	No
Comments		CSX RR parallels U.S. 301 on east. At-grade crossing from U.S. 301 to C.R. 478			

2.2 Right-of-Way

The existing ROW for roadways within the project study area are summarized in **Table 2-2**.

Table 2-2. Project Study Area Roadway Right of Way

		S.R. 35/		S.R. 471	S.R. 471
Characteristic	C.R. 673	U.S. 301	C.R. 478	(Urban)	(Rural)
Right of Way (feet)	34 - 105	60 - 125	73 - 125	+/-80	60 -125

¹ Width varies

² Width varies

2.3 Roadway Classification & Context Classification

The functional and context classifications for roadways within the project study area are summarized in **Table 2-3**.

Table 2-3. Project Study Area Roadway Functional and Context Classifications

		S.R. 35/		S.R. 471	S.R. 471
Characteristic	C.R. 673	U.S. 301	C.R. 478	(Urban)	(Rural)
	Major	Principal	Major	Minor	Minor
Functional Classification	Collector	Arterial –	Collector	Arterial	Arterial
	RURAL	Other RURAL	RURAL	RURAL	RURAL
Context Classification	C2-Rural	C2-Rural	C2-Rural	C2T-Rural	C2-Rural
Context Classification	CZ-Rufai	CZ-Ruiai	CZ-Rufai	Town	CZ-Rufai

2.4 Adjacent Land Use

Land use adjacent to the Project study area was analyzed within a 500-foot buffer from the centerline of existing roadways. In addition to transportation, existing land use includes recreational, agricultural, and undeveloped lands with commercial land uses in the City of Webster. A more formal breakdown based on a 500-foot buffer using FDOT's Florida Land Use, Cover, and Forms Classification System (FLUCCS, FDOT 1999) is included in **Table 2-4** and shown in **Figure 2-1**.

Table 2-4. Existing Land Use

FLUCCS	Land Use Description	Acres	Percentage
1100	Low Density, <2 dwelling units/acre	199.37	10.30%
1180	Residential, rural - one unit on 2 or more acres	152.99	7.91%
1200	Medium Density, 2>5 dwelling units/acre	30.12	1.56%
1300	High Density, 6 or more dwelling units/acre	15.55	0.80%
1500	Industrial	3.55	0.18%
1600	Extractive	111.47	5.76%
1400	Commercial and Services	114.64	5.92%
1700	Institutional	16.16	0.84%
2110	Improved Pastures	602.64	31.15%
2130	Woodland Pastures	49.31	2.55%
2150	Field Crops	5.49	0.28%
4100	Upland Coniferous Forests	2.46	0.13%
4120	Longleaf Pine - Xeric Oak	0.95	0.05%
4340	Upland Mixed - Coniferous / Hardwood	473.22	24.46%
4400	Tree Plantations	6.62	0.34%

FLUCCS	Land Use Description	Acres	Percentage
5100	Streams and Waterways	5.75	0.30%
4400	Tree Plantations	4.07	0.21%
5300	Reservoirs	1.53	0.08%
6150	Stream and Lake Swamps (bottomland)	29.69	1.53%
6210	Cypress	2.33	0.12%
6410	Freshwater Marshes	25.59	1.32%
6430	Wet Prairies	8.07	0.42%
6440	Emergent Aquatic Vegetation	0.98	0.05%
6460	Mixed Scrub-shrub Wetland	1.35	0.07%
8100	Transportation	61.34	3.17%
7400	Disturbed Lands	5.33	0.28%
8300	Utilities	4.23	0.22%
	TOTAL	1934.79	100.00%

2.5 Access Management Classification

Project study area access management classifications of state roadways that include the trail parallel to or crossing the roadway are summarized in **Table 2-5**.

Table 2-5. Project Study Area Roadway Access Classifications

			Median Openings (feet) Signal					on (feet)
State Roadway	Access Classification	Medians	Full	Directional		<45 mph Posted Speed	≥45 mph Posted Speed	
S.R. 301	04	Non- restrictive			2,640	660	440	
S.R. 471	04	Non- restrictive			2,640	660	440	

2.6 Design and Posted Speeds

Project study area roadway design and posted speeds that include the trail parallel to or crossing the roadway are summarized in **Table 2-6**.

Table 2-6. Project Study Area Roadway Design and Posted Speeds

		S.R. 35/		S.R. 471	S.R. 471 (Rural)
Characteristic	C.R. 673	U.S. 301	C.R. 478	(Urban)	
Design Speed	County	FDOT	County	FDOT	FDOT or Webster
Posted Speed Limit (mph)	45	60	35 - 55	35	45 - 55



South Sumter Connector Trail
From Good Neighbor Trail to James A Van Fleet Trail
PD&E Study

Hernando & Sumter Counties, Florida

FUTURE LAND USE LAND COVER MAP

FIGURE **2-1**

2.7 Vertical and Horizontal Alignment

Since there is no existing trail, there is no existing horizontal alignment. The project traverses gently sloping terrain with minor elevation changes.

2.8 Pedestrian Accommodations

Existing sidewalks within the Project study area are located within the City of Webster on the east and west sides of S.R. 471 from C.R. 478 to Central Avenue. Sidewalk continues on the east side of S.R. 471 from Central Avenue south past Webster Elementary School.

2.9 Bicycle Facilities

There are no existing bicycle facilities located along Project study area roadways.

2.10 Transit Facilities

Sumter County Transit offers door-to-door public transportation and deviated fixed shuttle routes. Door-to-door service is available from 8:00 a.m. to 3:00 p.m., Monday through Friday by reservation.

2.11 Pavement Condition

Existing pavement conditions for project study area roadways were not evaluated. The Trail is located adjacent to existing roadways.

2.12 Traffic Volumes and Operational Conditions

Existing Annual Average Daily Traffic (AADT) for project study area roadways was obtained from FDOT's Florida Traffic Online (2018) and is presented in **Table 2-7**.

Table 2-7. Project Study Area Roadway Annual Average Daily Traffic (AADT)

		S.R. 35/		S.R. 471	S.R. 471
Characteristic	C.R. 673	U.S. 301	C.R. 478	(Urban)	(Rural)
AADT	1750	4800	1500	8000	5600

Source: Florida Department of Transportation, Florida Traffic Online, 2019

2.13 Intersection Layout and Traffic Control

Traffic operational analysis was not a component of this PD&E Study.

2.14 Railroad Crossings

One existing at-grade railroad crossing, CSX #625301Y, crosses C.R. 478 on the east side of U.S. 301. One main track carries five day and eight night freight trains at speeds between 60 and 79 miles per hour. Existing highway traffic control devices include railroad crossing pavement markings, two gate arms, two cantilevered flashing light mast arms over the traffic lanes, and mast mounted flashing lights.

2.15 Crash Data and Safety Analysis

Vehicular crash data along project study area roadways was obtained from the FDOT State Safety Office Map-Based Query Tool (SSOGis). The database provides information on various characteristics associated with each crash including: collision type, severity, weather conditions, road surface conditions and date/time information.

Crash data was analyzed for the five year period 2014 – 2018 for project study area roadways. Data indicates 20 crashes occurred with 25% being angle type crashes, 15% sideswipe, and 60% other. Predominant crash locations were along C.R. 478 at various intersecting side streets and at or near the intersection of S.R. 471 and S.R. 50. One pedestrian was involved in a 2014 crash and no bicycles were involved in crashes for the period (**Table 2-8**).

Table 2-8. Summary of Project Study Area Crash Data 2014 - 2018

	Number of Crashes (Year)					5-Year	Percent
Crash Type	2014	2015	2016	2017	2018	Total	of Total
			C.R. 478				
Angle	1	1	0	0	0	2	10
Sideswipe	0	0	0	0	0	0	0
Other	2	2	0	1	0	5	25
			C.R. 673				
Angle	0	0	0	0	0	0	0
Sideswipe	0	0	0	0	0	0	0
Other	0	2	0	1	0	3	15
		S.R	2. 35/U.S. 3	01			
Angle	0	0	0	0	0	0	0
Sideswipe	0	0	0	0	0	0	0
Other	0	1	0	0	0	1	5
			S.R. 471				
Angle	1	1	1	0	0	3	15
Sideswipe	2	0	0	1	0	3	15
Other	1	1	0	0	1	3	15
TOTAL CRASHES	7	8	1	3	1	20	100

2.16 Drainage

Existing Project study area roadways are accommodated by an open drainage system consisting of roadside ditches. Within the City of Webster, S.R. 471 has curb and gutter from C.R. 478 south approximately 0.67 mile past Webster Elementary School. From the school south to S.R. 50, the drainage system changes to roadside ditches.

The project study area is located within the Withlacoochee River watershed which covers parts of Citrus, Hernando, Lake, Levy, Marion, Pasco, Polk and Sumter counties (**Figure 2-2**) and lies within five major drainage basins: Withlacoochee River, Wild Cow Prairie Drain, Gum Slough, Akins Pond Outlet, and Big Gant Canal, all of which ultimately discharge to the Withlacoochee River (**Figure 2-3**). The project limits are dominated by somewhat poorly to poorly drained soils with groundwater table levels ranging from 12 to 33 inches below the ground surface. There are no known drainage concerns along the recommended alignment. Two permitted stormwater management systems are within or directly adjacent to the recommended alignment and are presented in **Table 2-9**.

Table 2-9. Existing SWFWMD Permits

	Permit	
	Application	
Permit Name	Number	Location
Couthorn Motor Coach Docort	175067598	North side of CR 673 approximately 1,100 feet west
Southern Motor Coach Resort	175067596	of the intersection of CR 673 and US 301
Horwitz Property Drainage	26270	South side of CR 478 approximately 1,500 feet west
Improvements	36278	of the intersection of CR 478 and SR 471

Through the WSF section, runoff generally sheet flows towards the Withlacoochee River west of I-75 and toward the Wild Cow Prairie wetland system east of I-75. Existing drainage patterns along project roadways vary but involve areas where offsite runoff drains into the ROW.

C.R. 673 and U.S. 301 have no defined conveyance systems. Runoff either sheet flows out of the ROW or flows along the toe of slope in very shallow swales. The swales discharge to isolated depressions adjacent to the roadway or to cross drains which generally flow south to north.

C.R. 478 has more defined conveyance with ditches and side drains existing along most of the roadway. These areas are characterized by very flat lands with isolated depressions within the ROW and adjacent depressional areas. Runoff flows to the south and west via cross drains through these depressional storage areas to Akins Pond, near the intersection with US 301.

While S.R. 471 has a closed storm sewer system within the City of Webster, most of the roadway has well a defined conveyance system in the form of ditches and side drains. Just south of Webster Elementary School, there is a major ditch system on the east side of the road which conveys both roadway and offsite runoff to the south for about 1.1 miles before flowing, via a cross drain, to the west side of the roadway. South of this point the remainder of the S.R. 471 ROW has defined ditches and side drains that convey runoff to one of two major cross drains, both of which flow east to west.

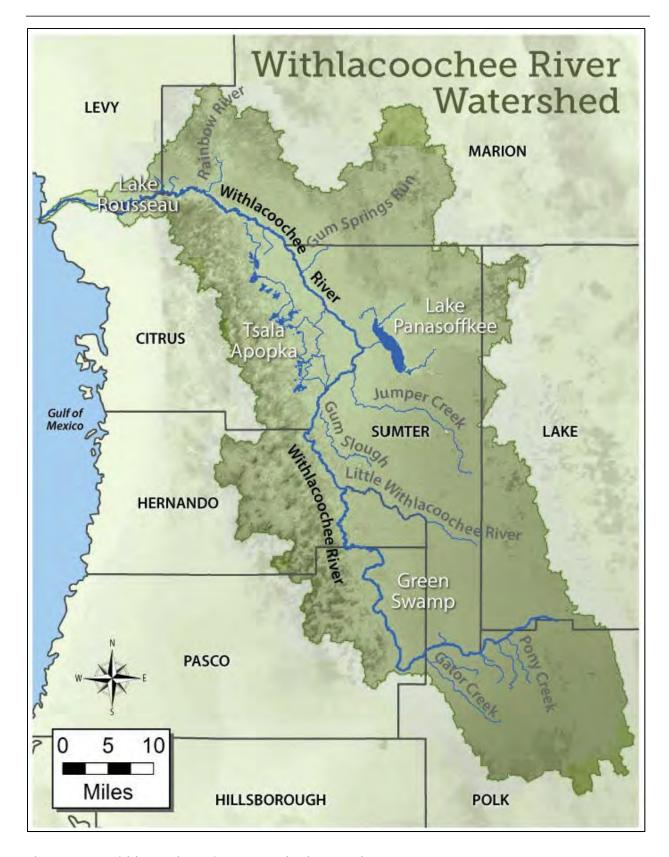
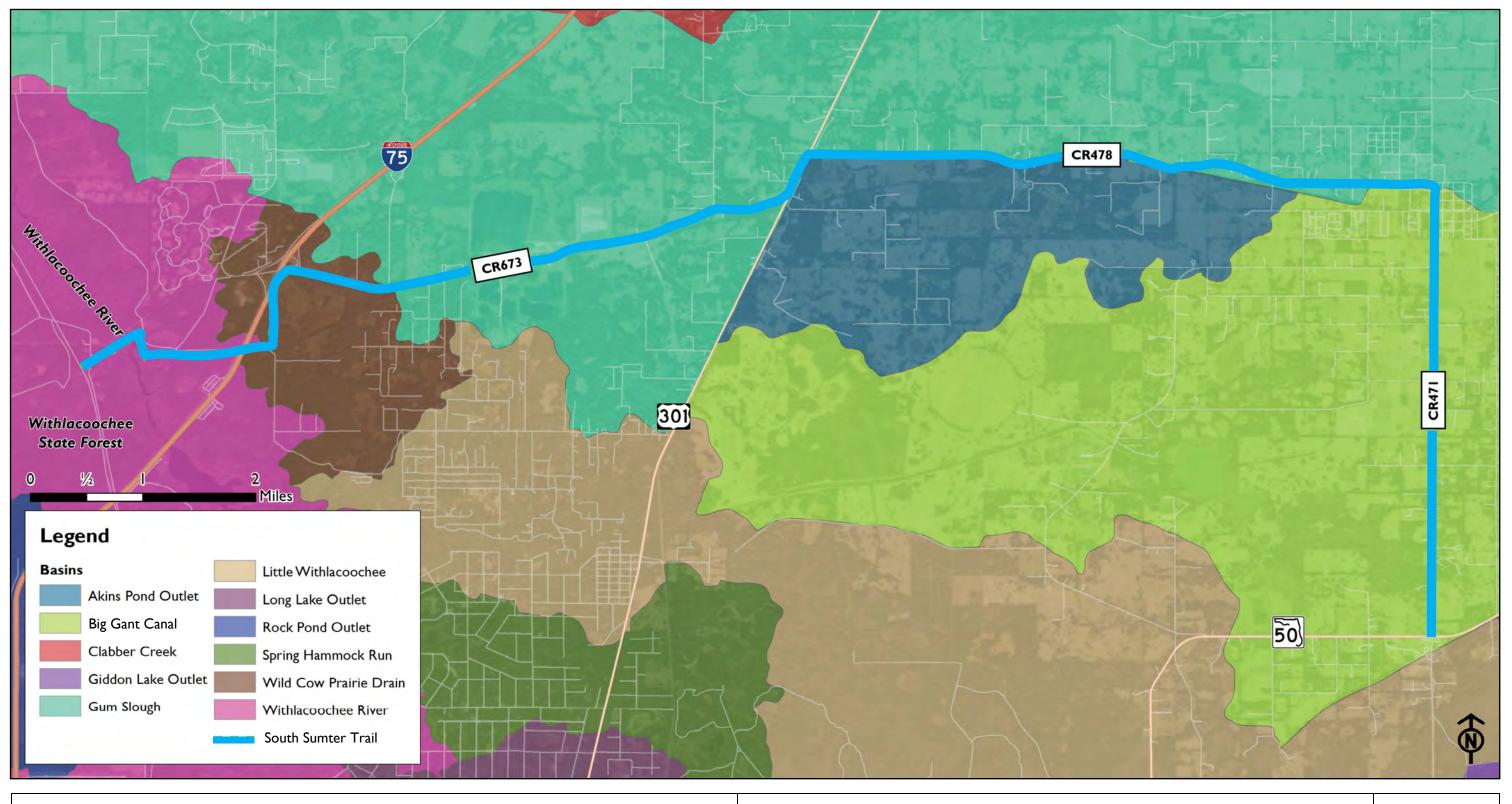


Figure 2-2. Withlacoochee River Watershed General Map (Source: SWFWMD)

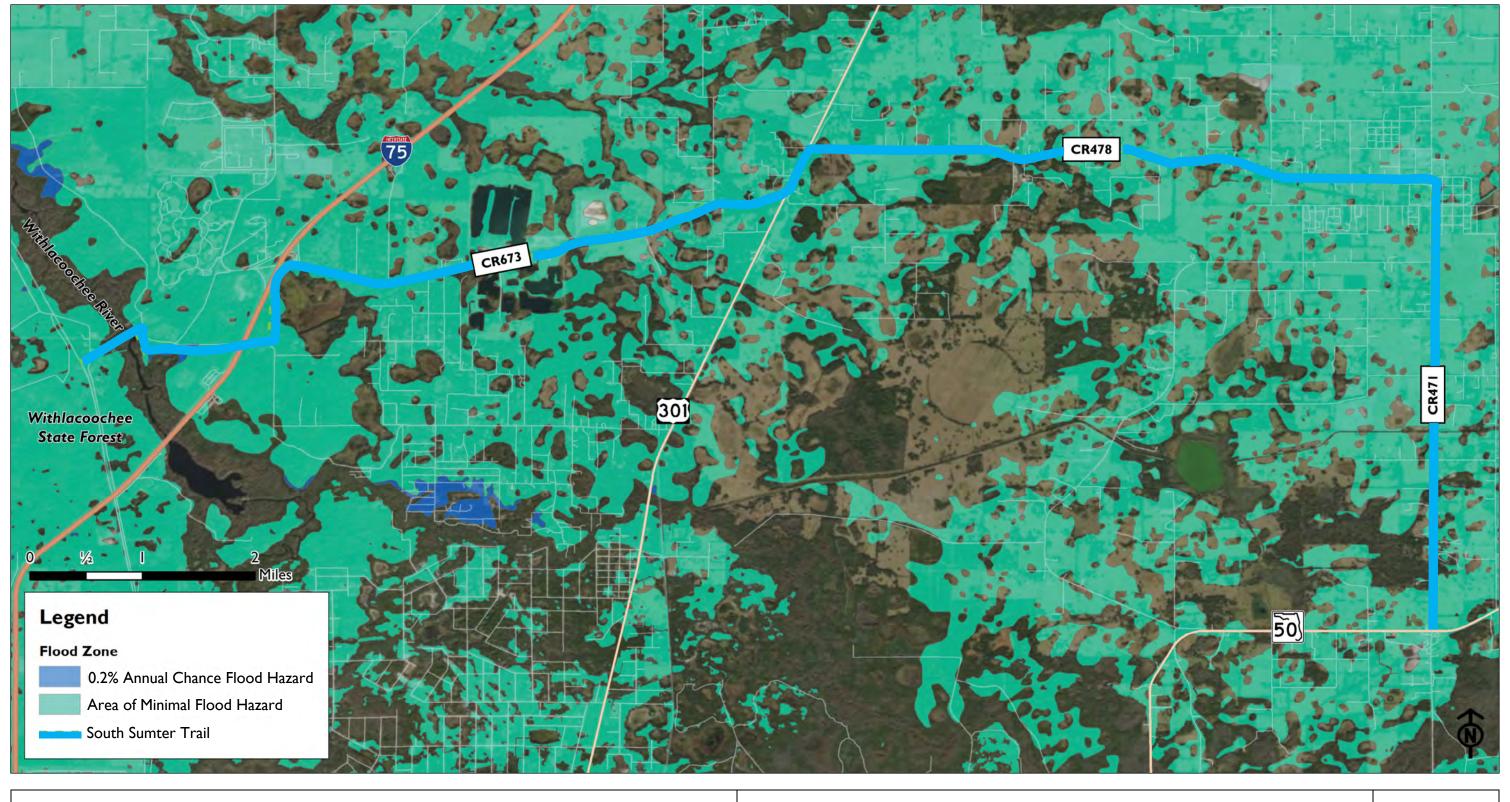


South Sumter Connector Trail
From Good Neighbor Trail to James A Van Fleet Trail
PD&E Study

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DRAINAGE BASIN MAP

2-3



South Sumter Connector Trail
From Good Neighbor Trail to James A Van Fleet Trail
PD&E Study

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FLOODPLAIN MAP

FIGURE

2-4

Floodplains exist along the recommended alignment mostly associated with depressional storage areas (**Figure 2-4**). Located within Zone A, no base flood elevations (BFE) have been determined for these areas. The Withlacoochee River floodplain is within Zone AE with an average BFE of 51.90 feet NAVD. According to the Southwest Florida Water Management District (SWFWMD), three watershed studies completed within the project area, the Eastern Hernando, Bushnell, and Gant Lake Watershed Studies will need to be reviewed when assessing floodplains during final design.

2.17 Soils and Geotechnical Data

The U.S. Department of Agriculture National Resource Conservation Service (NRCS) Soil Surveys for Hernando and Sumter Counties were reviewed to obtain near-surface soils information for the Project study area. Soils within a 500-foot buffer from the centerline of Project study area roadways were identified and are summarized in **Table 2-10** and shown in **Figure 2-5**.

Table 2-10. NRCS Soil Classifications

Map Unit	Soil			
Symbol	Series	Description	Acreage	Percentage
42	3045880	ADAMSVILLE FINE SAND, 0 TO 2 PERCENT SLOPES	29.97	1.52
15	323622	ADAMSVILLE FINE SAND, BOULDERY SUBSURFACE	204.55	10.35
6	322124	ARREDONDO FINE SAND, 0 TO 5 PERCENT SLOPES	0.92	0.05
24	323631	BASINGER FINE SAND	1.90	0.10
4	323647	CANDLER SAND, 0 TO 5 PERCENT SLOPES	63.42	3.21
60	323670	DELRAY FINE SAND, DEPRESSIONAL	2.73	0.14
21	323628	EAUGALLIE FINE SAND, BOULDERY SUBSURFACE	192.25	9.73
45	323653	ELECTRA FINE SAND, BOULDERY SUBSURFACE	0.29	0.01
24	322087	FLORIDANA-BASINGER ASSOCIATION, OCCASIONALLY FLOODED	4.23	0.21
46	323654	FT. GREEN FINE SAND, BOULDERY SUBSURFACE	42.88	2.17
64	323674	GATOR MUCK, FREQUENTLY PONDED, 0 TO 1 PERCENT SLOPES	5.65	0.29
25	323632	KANAPAHA SAND, BOULDERY SUBSURFACE	85.85	4.34
31	322095	LAKE FINE SAND, 0 TO 5 PERCENT SLOPES	117.30	5.94
11	323619	MILLHOPPER SAND, 0 TO 5 PERCENT SLOPES	35.14	1.78

SECTION 2 - EXISTING CONDITIONS

Мар						
Unit	Soil Series	Description	Λανοραο	Doveoutore		
Symbol	Series	Description	Acreage	Percentage		
54	323663	MONTEOCHA FINE SAND, DEPRESSIONAL	5.01	0.25		
31	323639	MYAKKA-MYAKKA, WET, SANDS, 0 TO 2 PERCENT SLOPES	15.24	0.77		
29	323636	NITTAW MUCK, FREQUENTLY FLOODED	10.37	0.52		
18	323625	OKEELANTA MUCK	3.02	0.15		
23	323630	ONA-ONA, WET, FINE SAND, 0 TO 2 PERCENT SLOPES	153.81	7.78		
9	323680	PAISLEY FINE SAND, BOULDERY SUBSURFACE	30.86	1.56%		
51	323660	PITS-DUMPS COMPLEX	45.19	2.29		
30	323638	PLACID FINE SAND, FREQUENTLY PONDED, 0 TO 1 PERCENT SLOPES	40.62	2.06		
32	323640	POMPANO FINE SAND	28.88	1.46		
35	323643	POMPANO FINE SAND, FREQUENTLY PONDED, 0 TO 1 PERCENT SLOPES	1.07	0.05		
28	323635	SEFFNER FINE SAND, 0 TO 2 PERCENT SLOPES	240.65	12.18		
47	322112	SPARR FINE SAND, 0 TO 5 PERCENT SLOPES	108.36	5.48		
33	323641	SPARR FINE SAND, BOULDERY SUBSURFACE, 0 TO 5 PERCENT SLOPES	464.61	23.51		
27	323634	SUMTERVILLE FINE SAND, BOULDERY SUBSURFACE, 0 TO 5 PERCENT SLOPES	16.26	0.82		
13	323620	TAVARES FINE SAND, 0 TO 5 PERCENT SLOPES	11.31	0.57		
26	323633	WABASSO FINE SAND, BOULDERY SUBSURFACE	5.81	0.29		
99	322123	WATER	7.80	0.39		
	TOTAL 1975.97 100.00					

A geotechnical investigation was performed to explore the subsurface conditions at three alternative bridge locations crossing the Withlacoochee River. Subsurface conditions were evaluated by performing one Standard Penetration Test (SPT) boring at each of the bridge locations. Three SPT borings were advanced to depths ranging from 130.5 feet to 150.5 feet below existing ground surface.

Tables 2-11 and **2-12** summarize the subsurface conditions encountered in SPT borings. A more detailed discussion of geotechnical data is included in the *Preliminary Geotechnical Report for Bridge Development, South Sumter Connector Trail PD&E Study from the Withlacoochee State Trail to the Van Fleet Trail (2019).*

Table 2-11. Generalized Subsurface Profiles at SPT-1 and SPT-3

Layer No.	Description	Acreage (500' from Centerline)	Percentage
1	0 - 10	Loose fine sand to fine sand with silt, occasional trace limerock	5 - 6
2	10 - 20	Loose to medium dense clayey fine sand and firm fat clay, occasional trace limerock	6 - 12
3	20 - 150	Very loose to very dense weathered limestone	2 – 50/0"

Table 2-12. Generalized Subsurface Profile – SPT-2

Layer			
No.	Description	Acreage (500' from Centerline)	Percentage
1	0 - 37	Loose fine sand to fine sand with silt	4 - 48
2	37 - 44	Loose to medium dense clayey fine sand	7 - 10
3	44 - 150	Very loose to very dense weathered limestone	1 – 50/0"

2.18 Utilities

Existing utilities identified within the project study area are listed in **Table 2-13**.

Table 2-13. Existing Utilities

Utility Agent or Owner	Type of Facilities
AT&T Distribution	Buried telephone, overhead or buried fiber optic
Bright House Networks	Overhead cable TV / fiber
CenturyLink	Buried telephone, overhead or buried fiber optic
City of Webster	Water main and sanitary force mains
Duke Energy	69 KV Overhead electric
OpticalTel (formerly Florida Fiber Networks)	Buried telephone, overhead or buried fiber optic
Sumter Electric Cooperative Inc. (SECO)	29.4 KV overhead electric

2.19 Lighting

Existing roadway lighting exists along C.R. 673 in the vicinity of the I-75 interchange. Street lighting is co-located on utility poles along S.R. 471 from C.R. 478 south past Webster Elementary School.

2.20 **Signs**

No overhead traffic signs are located within the project study area.



South Sumter Connector Trail
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Hernando & Sumter Counties, Florida

SOILS MAP

2-5

2.21 Aesthetics Features

Funded through the SUN Trail Program, operation and maintenance of the trail is by entities other than FDOT. SUN Trail funding specifically prohibits the use of funds for amenities such as trailheads, parking areas, benches, pavilions, water fountains, irrigation, restrooms, and similar type features. These elements are to be locally or privately funded.

No new or unique aesthetic features are proposed along the Recommended Alternative. Given the rural nature of the Trail setting and the natural conditions of the WSF, a typical Florida landscape currently exists. The Trail offers users enhanced views of the Withlacoochee River as they cross using the proposed pedestrian/equestrian bridge near the Iron Bridge Day Use area. In addition to safety and trail amenities, the scenic nature of the Trail route has the potential to attract more recreational trail users.

2.22 Bridges and Structures

The Recommended Alternative does not utilize any existing bridges.

3.0 PROJECT DESIGN CONTROLS & CRITERIA

3.1 Roadway Context Classification

The Trail is proposed to be located separate from and parallel to or crossing project study area roadways. Shared use paths (trails, multiuse trails, or similar) are appropriate in FDOT Context Classifications C1-Natural, C2-Rural, and C3-Suburban. Existing project study area roadways are 2-lane, undivided roadways with no or limited shoulders located within an area that includes natural lands (Withlacoochee State Forest) and sparsely settled lands including agricultural, grasslands, and woodlands. The City of Webster comprises a small concentration of developed area immediately surrounded by rural and natural areas.

3.2 Design Control and Criteria

Proposed design criteria for the Trail is based on the FDOT Design Manual (FDM), Chapter 224 (2019) and are presented in **Table 3-1**.

Table 3-1. Florida Design Manual Shared Use Path Design Criteria

Design Component	Design Criteria
Functional Classification	Shared Use Path
Minimum Width (FDM Chapter 224, Section 224.4)	
SUN Trail Network Facilities	12'
Less than 12-feet require approval by Chief Planner	-
Maximum Cross Slope (FDM Chapter 224, Section 224.5)	2%
Maximum Longitudinal Grade (FDM Chapter 224, Section 224.6)	5%
Maximum Ramp Slope (FDM Chapter 224, Section 224.6)	
Maximum Rise of 30" with Landing at least 60"	8.33%
Minimum Lateral Offset (FDM Chapter 224, Section 224.7)	
From Obstruction on Both Sides	4'
Maximum Graded Shoulder Area (FDM Chapter 224, Section 224.7)	2'
Maximum Cross Slope of Shoulder (FDM Chapter 22 , Section 224.7)	1:6
Minimum Vertical Clearance (FDM Chapter 224, Section 224.8)	
SUN Trail Facilities	12′
Overhead Signs and Obstruction (Constrained Conditions)	8'
Overhead Obstruction	10'
Equestrians, Maintenance and Emergency Vehicles	12'
Clearance over Railroad (to top of highest rail)	23'-6"

SECTION 3 – PROJECT DESIGN CONTROLS & CRITERIA

Design Component	Design Criteria
Clearance over Roadways	17'-6"
Design Speed (FDM Chapter 224, Section 224.9)	
Grades ≤4%	18 MPH
Downgrade > 4%	30 MPH
Minimum Radii for Horizontal Curves (FDM Chapter 224, Table 224.1	0.1)
18 MPH, NC	74'
18 MPH, RC	86'
30 MPH, NC	261'
30 MPH, RC	316'
Minimum Stopping Sight Distance (FDM Chapter 224, Table 224.10.2)
18 MPH, 4% Uphill	120'
18 MPH, 3% Uphill	123'
18 MPH, Flat	134'
18 MPH, 3% Downhill	149'
18 MPH, 4% Downhill	156'
Minimum Separation from Roadway (FDM Chapter 224, Section 224.	12)
Rural, Full Shoulder (Measured from Shoulder break)	5'
Urban, Back of Curb	4'
Minimum Railing Height (FDM Chapter 222, Section 222.4)	42"

The Recommended Alternative includes one pedestrian/equestrian bridge crossing the Withlacoochee River and one pedestrian bridge crossing U.S. 301 and the CSX Railroad at the intersection of U.S. 301 and C.R. 478.

Proposed design criteria for the Trail is based on the FDOT Design Manual (FDM), Chapter 260 and 266 (2019) and are presented in **Table 3-2**.

Table 3-2. Florida Design Manual Bicycle and Pedestrian Bridge Design Criteria

Design Component	Design Criteria			
Clear width for bridges				
Pedestrian structure	8'; 12' desirable			
Shared use path structure; 16-foot desirable	12' min; 16' desirable			
Minimum clear width is the width of the approach facility when the facility is wider than the minimums above; desirable clear width is the width of the approach facility plus four feet	2' each side			
Minimum vertical clearance over roadway or railroad (FDM 260.6, 260.8)				

SECTION 3 – PROJECT DESIGN CONTROLS & CRITERIA

Design Component	Design Criteria		
Over roadway (minimum)	least distance measured between the lowest bridge superstructure element and the traveled way		
Clearance over Railroad (to top of highest rail)	23'-6"		
Minimum vertical clearance for pedestrian bridges (FDM 260.6, 26	50.8)		
Above Mean High Water	12'		
Drainage			
Minimum vertical clearance between the design flood stage and low member of the bridge	2'		
Horizontal clearance			
For crossings subject to boat traffic	10′		
Ramp grades	5% 8.33% with max 30" rise		
Provide level landings at the top and bottom portions of the ramp.	5' long		
Provide full-length pedestrian ADA handrails on both sides of pedestrian ramps.			

The pedestrian/equestrian bridge crossing the Withlacoochee River will be designed to meet U.S. Department of Agriculture, U.S. Forest Service equestrian design criteria as specified in Chapter 5 of the U.S. Forest Service Equestrian Design Guidebook. The equestrian path will be an approved rubber equestrian tread mat. The Forest Service design criteria specify between a 5 and 12-foot wide path and an equestrian path rail height of 54 inches.

The structure crossing U.S. 301 and the CSX Railroad will be designed to meet the CSX Railroad improvement projects criteria and FDOT FDM criteria for pedestrian bridges. Bicycle/pedestrian pathways and trails cannot cross tracks at grade outside of existing highway easements. Grade separated pathway and trail crossings are preferred in all cases and required when outside of an existing highway easement.

CSX Public Projects Information for Construction and Improvement Projects That May Involve the Railroad (July 2017) provides overhead bridge clearance criteria presented in **Table 3-3**.

Table 3-3. Florida Design Manual Shared Use Path Design Criteria

Design Component	Design Criteria
Horizontal Clearance (from centerline of tract to face of pier or abutment	25' - 0"
Toe of footing from centerline of track	11' - 0"
Vertical Clearance from top of high rail to lowest point of the structure	23' – 0"
Crashwalls from centerline of nearest track located between	18' – 0" and 25' – 0"

Duke Energy Corridor Requirements

The Recommended Alternative crosses or is located within Duke Energy overhead utility easements. Duke Energy has developed guidelines (**Table 3-4**) for the co-location of shared-use paths/trails as defined by the American Association of State Highway and Transportation Officials (AASHTO). Coordination with a Duke Energy Asset Protection ROW Specialist will be required during final design.

Table 3-4. Duke Energy Electric Transmission ROW Requirements for Shared-Use Paths/Trails

Design Component

The trails must not exceed a total of 12 feet in width, regardless of the surface construction material.

A minimum separation of 25 feet is required between the trail and its associated easement, to any Duke Energy electrical facility. This includes, but is not limited to, poles, towers, guy anchor(s), equipment, etc.

The owner of the trail shall be responsible for safety and liability associated with its construction or use thereof.

Bollards shall be installed per Duke Energy specifications, with Duke Energy locks, where the trailheads connect with roads/ streets as to prevent vehicular traffic. Duke Energy may require reinforcement of the trail at specified access points along the corridor for Duke Energy heavy equipment crossings. These trail reinforcement areas shall consist of a 20-foot-long, 10-foot- wide paved area capable of supporting 80,000 pounds with pavement markings indicating "heavy equipment crossing."

Culverts shall be installed where the trails cross creeks, ditches, etc. These culverts shall be capable of supporting 80,000 pounds, and shall be a minimum of 20 feet wide. Signage must indicate the maximum load of the crossing at culvert approach.

No structures including, but not limited to, lights, signs, benches, exercise equipment, and irrigation systems shall be located within the Duke Energy easement.

Planting of vegetation shall adhere to the ROW Restrictions Guidelines for the specific Duke Energy territory.

Duke Energy reserves the right to close, without notice, all or a portion of the trail located within the transmission line easement, for any length of time, for construction, maintenance or emergency line operations.

Duke Energy reserves the right to close, without notice, all or a portion of the trail located within the transmission line easement, for any length of time, for construction, maintenance or emergency line operations.

4.0 ALTERNATIVES ANALYSIS

4.1 Previous Planning Studies

The Florida Greenways and Trails Foundation (FGTF) and the Florida Department of Environmental Protection (FDEP) Office of Greenways and Trails screened several alignments to close the Sumter Gap. In July 2016, the FDOT completed a corridor planning study for the project. The *South Sumter Connector Trail, Sumter County Gap Study Alternatives Analysis Report* (planning study) was a planning-level evaluation of safety, environmental, and engineering criteria in order to identify a recommended corridor for further evaluation in the PD&E Study. In addition to the planning study, the following documents were developed and are incorporated by reference into this PD&E Study:

- Existing Conditions Report
- Purpose and Need Statement
- Public Involvement Plan
- Alternatives Analysis Report

The planning study applied a three-tier review process to assess potential trail alignments. Tier One evaluated the two initial trail alignments from the FGTF and FDEP analyses which followed abandoned railroad corridors. These corridors were referred to as the northern and southern alignments (**Figure 4-1**).

Tier Two incorporated quantitative and qualitative factors to evaluate ten potential alignments developed within the northern and southern corridors. The screening evaluation was consistent with the project purpose and need, including cost-effectiveness, safety, potential environmental impacts, and economic development. This evaluation captured the project stakeholders' desire to avoid community impacts and maintain consistency with local planning efforts.

Tier Three included five trail alternatives that were advanced for detailed evaluation. Alternatives A, B, and C, were within the northern corridor and Alternatives D and E within the southern. Additional key factors, such as maintaining agency support and relocation potential were also considered and represented fatal flaws.

Throughout the planning study, a number of agency and stakeholder meetings, in addition to two public meetings, were held to gather consensus on a recommended corridor. The analyses and outreach resulted in the identification of Alternative C (**Figure 1-5**) as the recommended corridor.

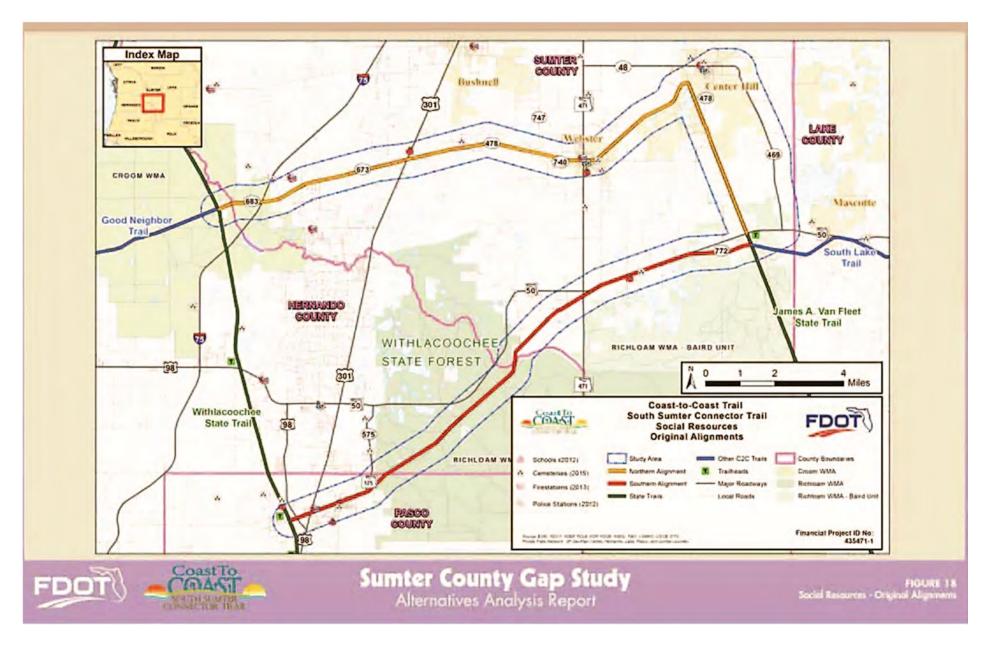


Figure 4-1. Sumter County Gap Study Corridors Map

The City of Webster completed the City of Webster, South Sumter Trail, Economic Impact Analysis Report (June 2015) through a Florida Department of Economic Opportunity (FDEO) technical assistance grant. This study evaluated the opportunities and constraints of the northern and southern corridors to support the City's economy as well as the enhancement of a safe and healthy community from the Trail. The study concluded in the City's support of the norther corridor.

4.2 No Build Alternative

The No Build Alternative would maintain existing conditions and would not improve the C2C trail connectivity within the Trail project limits. This alternative would not meet the proposed project's purpose and need, which is to complete a gap in the SUN Trail network's C2C Trail.

4.3 Transportation Systems Management and Operations Alternative (TSM&O) Transportation Systems Management and Operations Alternative (TSM&O) were not considered for this trail project.

4.4 Future Conditions

The adopted Future Land Use Maps (FLUMs) for Sumter County and the City of Webster are shown in **Figure 4-2 and 4-3**. The Sumter County future land use designations are predominantly agriculture, conservation, recreation, and rural residential. These land uses are similar to existing conditions. The City of Webster future land use designations are predominantly urban residential and commercial.

A traffic analysis was not completed as part of this PD&E Study.

4.5 Build Alternative(s)

4.5.1 Trail Alternatives

Trail alternatives developed within the limits of Corridor C and evaluated as part of this PD&E Study include alignments on each side of the roadway along C.R. 673, C.R. 478, and S.R. 471. For U.S. 301, the alternative was located on the west side due to the CSX Railroad located parallel on the east side of U.S. 301 and is proposed to cross over U.S. 301 and the CSX Railroad on a bicycle/pedestrian only structure. The proposed bridge typical section is the same whether it crosses to the left or right of C.R. 478. For the WSF section, three Withlacoochee River pedestrian/equestrian bridge crossing locations were considered and two primary trail alignments.

This resulted in the evaluation of ten typical section alternatives. Due to SUN Trail funding requirements, which excludes right-of-way (ROW) acquisition, parcel impacts were a key criteria during alternatives evaluation. The proposed trail typical section was minimized to reduce the amount of property impacts and potential ROW needed. In addition, FDOT conducted an evaluation of reducing various elements of the trail's typical section in an effort to find a

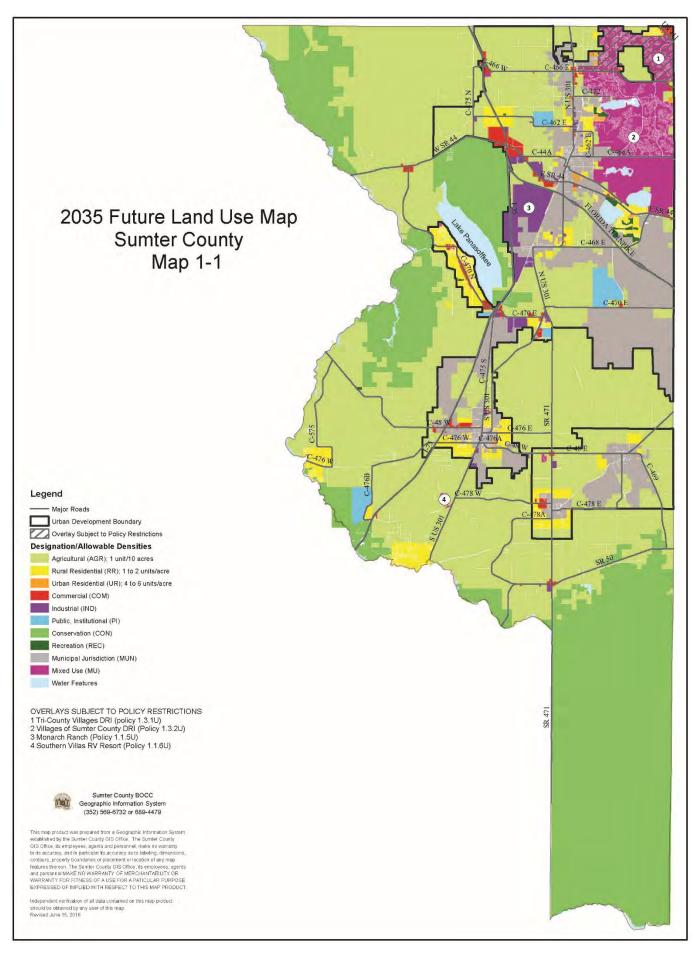


Figure 4-2. Sumter County Future Land Use Map (2016)

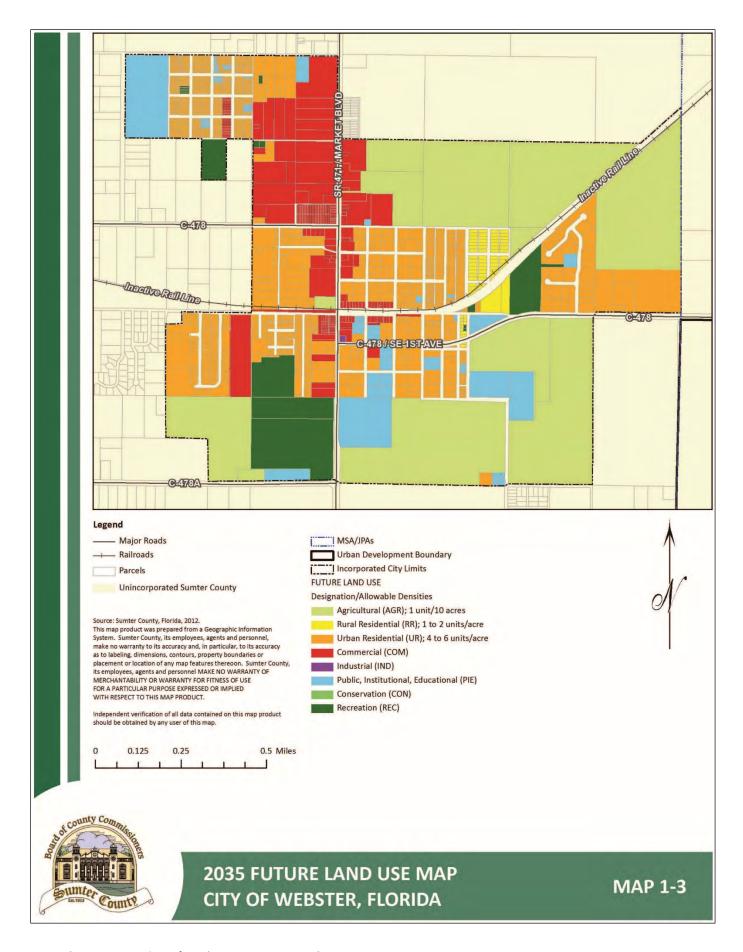


Figure 4-3. City of Webster Future Land Use Map (2018)

solution that could fit within the existing ROW. Unfortunately, no approaches completely eliminated ROW needs and introduced other safety concerns, therefore it was not feasible to reduce the typical section further.

4.5.2 Trail Segmentation

The Trail was divided into four segments, Segment A – D, as shown in **Figure 1-2** and presented in **Table 4-1**.

Table 1 11 Trail / itelliatives Evaluated by Segment				
Segment	Description			
A	WSF Section			
В	C.R. 673 – Left	C.R. 673 – Right		
В	U.S. 301 – Left			
С	C.R. 478 - Left	C.R. 478 - Right		
D	S.R. 471 – Urban Left	S.R. 471 – Urban Right		
D	S.R. 471 – Rural Left	S.R. 471 – Rural Right		

Table 4-1. Trail Alternatives Evaluated by Segment

Each typical section reflects the same trail design on either side of a roadway and includes a 12-foot paved trail with 2-foot shoulders and drainage swale except for the urban segment within the City of Webster which has curb and gutter. Graphical representations of the typical sections are shown in the **Figures 4-4 through 4-12**.

The typical section for the WSF segment includes the 12-foot paved trail with 2-foot level shoulders and side slopes that meeting existing grade (**Figure 4-4**).

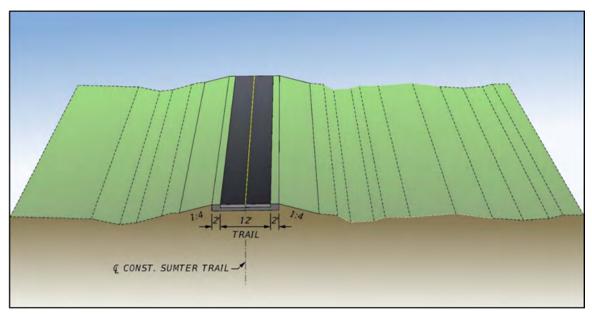


Figure 4-4. Withlacoochee Forest Section

As the trail moves eastward on C.R. 673, the typical section remains the same regardless of which side of the road. Approximately 16 parcels would be impacted requiring 11.66 acres due to the Trail location on the left side of C.R. 673 (**Figure 4-5**). Approximately 38 parcels would be impacted requiring 11.51 acres due to the Trail location on the right side of C.R. 673 (**Figure 4-6**).

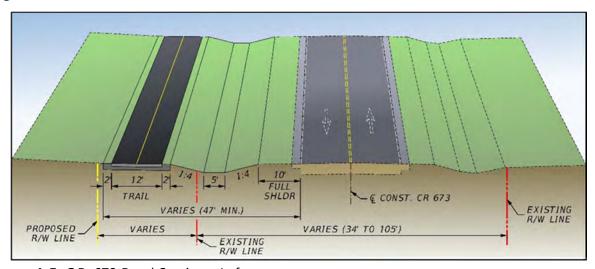


Figure 4-5. C.R. 673 Rural Section - Left

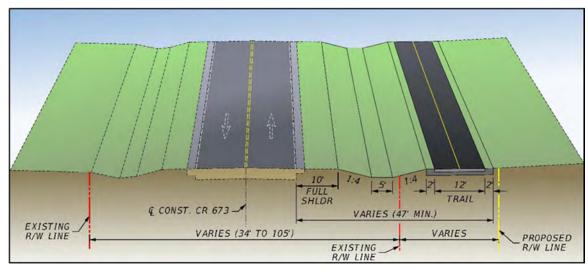


Figure 4-6. C.R. 673 Rural Section - Right

When the trail intersects with U.S. 301, it travels north on the left side due to the existing CSX Railroad located along the right side to its intersection with C.R. 478. Approximately 10 parcels would be impacted requiring 1.49 acres due to the Trail location on the left side of U.S. 301 (**Figure 4-7**).

As the trail continues east on C.R. 478, approximately 65 parcels would be impacted requiring 9.96 acres due to the Trail location on the left side of C.R. 478 (**Figure 4-8**).

Approximately 61 parcels would be impacted requiring 10.73 acres due to the Trail location on the right side of C.R. 478 (**Figure 4-9**).

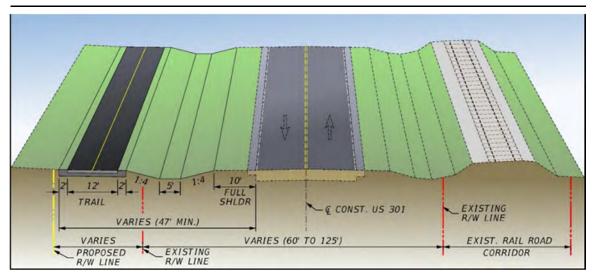


Figure 4-7. U.S. 301 - Left

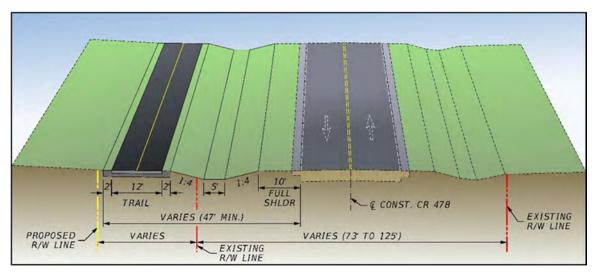


Figure 4-8. C.R. 478 Rural Section – Left

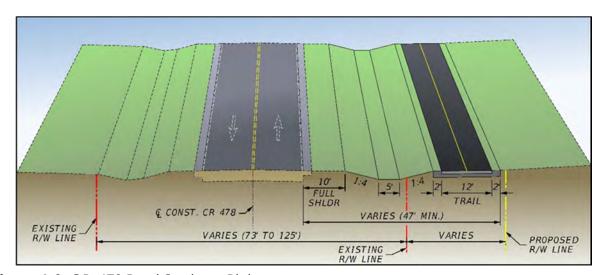


Figure 4-9. C.R. 478 Rural Section – Right

As the trail turns southbound from C.R. 478 along S.R. 471, the Trail can be located adjacent to either side of the urban roadway section within the existing available ROW (**Figures 4-10 and 4-11**). No parcel impacts are anticipated along this section of S.R. 471.

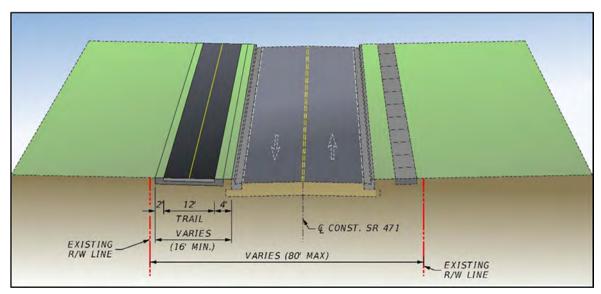


Figure 4-10. S.R. 471 Urban Section - Left

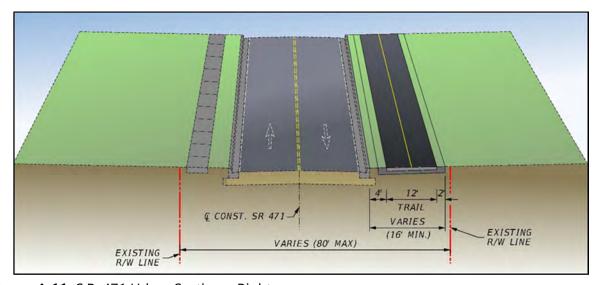


Figure 4-11. S.R. 471 Urban Section – Right

As the trail continues along S.R. 471 south of Webster Elementary School, the roadway characteristics become rural again. Approximately 40 parcels would be impacted requiring 8.48 acres due to the Trail location on the left side of S.R. 471 (**Figure 4-12**).

Approximately 36 parcels would be impacted requiring 4.73 acres due to the Trail location on the left right of S.R. 471 (**Figure 4-13**).

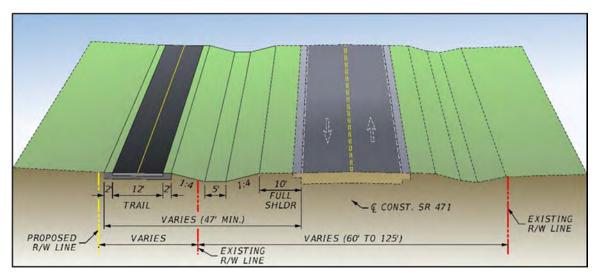


Figure 4-12. S.R. 471 Rural Section - Left

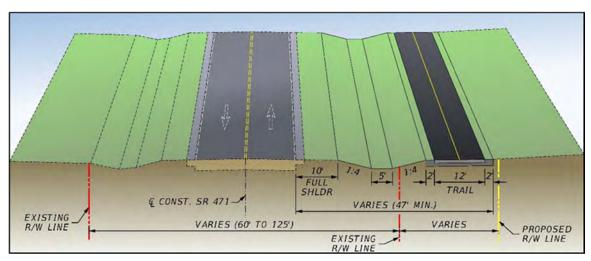


Figure 4-13. S.R. 471 Rural Section - Right

4.5.3 Bridge Alternatives

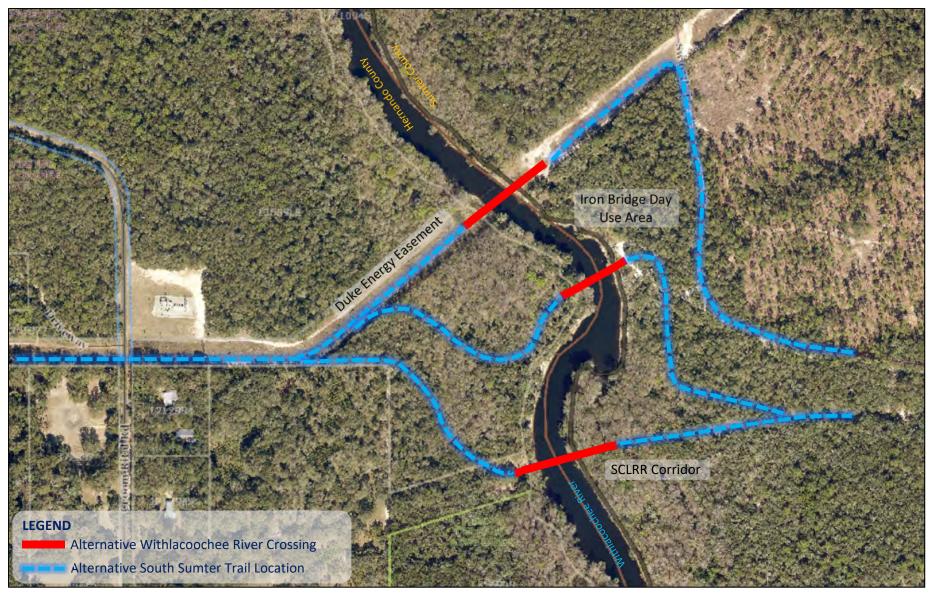
U.S. 301/CSX Railroad Grade Separated Crossing

The Trail is proposed to cross over U.S. 301 and the CSX Railroad on a bicycle/pedestrian only structure. The proposed bridge typical section is the same whether it crosses to the left or right of C.R. 478.

Withlacoochee River Bridge Crossing Alternatives

The three potential Withlacoochee River bridge crossing locations (**Figure 4-14**) evaluated include the:

- Duke Power Easement
- Iron Bridge Day Use Area
- Seaboard Coast Line Railroad (SCLRR) corridor



South Sumter Connector Trail From Good Neighbor Trail to James A Van Fleet Trail PD&E Study

Hernando & Sumter Counties FPID: 435471-1-22-01

ALTERNATIVE WITHLACOOCHEE RIVER CROSSING LOCATIONS



FIGURE

4-14

Following discussions with the Florida Forest Service (FFS), the following bridge crossing locations were dismissed from further evaluation:

- Duke Power Easement
 Due to high voltage transmission line restrictions for structures located within the utility easement.
- SCLRR

This crossing location is partially located within private property and therefore dismissed due to SUN Trail funding requirements, which excludes ROW acquisition.

The WSF section trail alignments begin at the intersection of the Good Neighbor and Withlacoochee State Trails continuing north to the Duke Power easement and then east connecting to the Withlacoochee River Bridge crossing locations. Once on the east of the river, the trail follows along FR 13 (SW 113th Place) under I-75 and then north to C.R. 673.

Following continued discussion with the FFS, a second trail alignment was evaluated that continues south, on the east side of the river, and then east along an existing hiking trail (south of FR 13), continuing under I-75 along the abandoned Atlantic Coast Line Railroad (ACLR) to the WSF eastern property boundary. At this point the trail turns north continuing to C.R. 673.

In coordination with the FFS, it was determined that the trail alignment following the existing hiking trail, east of the Withlacoochee River, was the safer alternative as it removed pedestrians, bicyclists, and equestrians from FR 13, which is traveled by motorized vehicles.

The No Build Alternative would maintain existing conditions and does not improve Trail network connectivity within the project limits. This alternative would not meet the proposed project's purpose and need, which is to complete the 16-mile gap in the SUN Trail network's C2C Trail.

4.6 Comparative Alternatives Evaluation

This section provides the results of the analysis of the potential beneficial or adverse impacts of the Build and No Build Alternatives. The project is evaluated with respect to transportation, social, economic, cultural, physical, natural, and biological resources as part of the PD&E Study.

The following Technical Reports and Memorandum were prepared as part of this PD&E Study. The data, technical analyses results, and information were used to develop, evaluate and select the Recommended Alternative. The following documents are incorporated by reference.

- Preliminary Geotechnical Report (January 2020)
- Contamination Screening Report (August 2019)

SECTION 4 – ALTERNATIVES ANALYSIS

- Natural Resource Evaluation (January 2020)
- Section 4(f) Exemption and Exception Form (May 2019)
- Cultural Resource Assessment Report (November 2019)
- Value Engineering Resolution Memorandum (December 2018)
- Utilities Assessment Package (September 2019
- Abbreviated Location Hydraulics Report Memorandum (September 2019)
- Permit Determination Memorandum (November 2019)
- Type I Categorical Exclusion (January 2020)
- Long Range Estimate (LRE) (September 2019)
- Alternatives Public Meeting Summary (October 2018)
- Comments and Coordination Report (November 2019)

The results of the comparative analysis of the potential beneficial or adverse impacts of the Build and No Build Alternatives are presented in **Table 4-2**. The results show the alternatives evaluated have similar impacts whether the Trail alignment is left or right. Impacts further considered for identification of a Recommended Alternative include parcel impacts and the number of driveway crossings.

Table 4-2. Alternatives Evaluation Matrix

			CR I-75 to		US 301 CR 673 to CR 478	CR / US 301 t			471 o CR 478
Evaluation Criteria	No Build	Withlacoochee State Forest	Left Align	Right Align	Left Align	Left Align	Right Align	Left Align	Right Align
Social Impacts									
Parcels Impacted	0	10	16	38	10	65	61	40	36
R/W Acquisition (acres)	0	1.49	11.66	11.51	1.49	9.96	10.73	8.48	4.73
Connections to Parks, Schools, Other (L/M/H)	0	L	L	L	L	М	М	Н	Н
Potential Natural/Cultural Envi	ronmen	tal Effects							
Archaeological Sites	0	2	0	0	0	0	0	0	0
Historical Sites	0	1	0	2	1	1	1	1	1
Section 4(f) Sites	0	1	0	0	0	0	0	0	0
Wetlands	0	1.04	0	0	0	0.21	0.21	0.93	0.23
Floodplains (L/M/H)	0	1.1	3.75	5.31	0	4.47	9.64	2.9	3.21
Wildlife	0	L	L	L	L	L	L	L	L
Local and Regional Support									
Supported by Local Governments (L/M/H)	0	Н	М	М	Н	М	М	Н	Н
Comprehensive Plan Consistency (L/M/H)	0	Н	н	н	Н	н	н	н	Н
Potential Physical Effects									
Number of Utility Relocations	0	L	L	М	L	М	L	L	М
Contamination Sites	0	1	4	3	1	2	4	11	10
Sidedrains and Crossdrains	0	0	5	5	1	44	54	42	38
Safety									
Driveway Crossings	0	0	7	24	4	45	43	30	23
Street Crossings	0	0	1	0	1	10	6	10	10

SECTION 4 – ALTERNATIVES ANALYSIS

					US 301				
			CR (673	CR 673 to	CR -	478	SR	471
			I-75 to	US 301	CR 478	US 301 t	o SR 471	SR 50 to	CR 478
	No	Withlacoochee	Left Align	Right Align	Left Align	Left Align	Right Align	Left Align	Right Align
Evaluation Criteria	Build	State Forest	Left Aligh	Right Aligh	Left Aligh	Left Aligh	Night Aligh	Left Aligh	Right Aligh
Estimated Project Costs (2019 U	Estimated Project Costs (2019 USD)								
ROW	\$0	\$1,477,500	\$1,055,000	\$2,280,000	\$600,000	\$3,900,000	\$,3867,500	\$2,980,000	\$2,160,000
Construction ^{3,4}	\$0	\$4,932,358	\$2,942,994	\$2,942,994	\$406,786	\$10,492,847	\$10,492,847	\$4,069,861	\$4,069,861
Design	\$0	\$ 887,824	\$ 529,739	\$ 529,739	\$ 73,221	\$ 1,888,712	\$ 1,888,712	\$ 732,575	\$ 732,575
CEI	\$0	\$ 591,883	\$ 353,159	\$ 353,159	\$ 48,814	\$ 1,259,142	\$ 1,259,142	\$ 488,383	\$ 488,383
Estimated Total Costs	<i>\$0</i>	\$7,889,565	\$4,880,892	\$6,105,892	\$1,128,822	\$17,540,701	\$13,640,701	\$8,720,819	\$7,450,819

-

 $^{^{\}scriptsize 3}$ Does not include utility relocation costs

⁴ Construction costs were prepared for the Recommended Alternative. Based on similarity of field conditions and trail construction scope, the construction costs are the same for both the left and right alignments along the same roadway.

4.7 Selection of the Recommended Alternative

A Preferred Alternative has not been identified at this time since the project currently is not moving forward to the design phase. The Preferred Alternative will be identified when the project moves forward to the design phase. However, following the October 23, 2018 alternatives public meeting, and as a result of comprehensive resources evaluation, environmental and engineering studies, cost, and involvement of the public, local officials, and federal and state resource agencies, sufficient information and public opinion exist to identify a **Recommended Alternative**. Impacts from the Recommended Alternative were avoided where possible and minimized to the greatest extent practicable

The Recommended Alternative includes 16 miles of paved multi-use path for non-motorized transportation modes (pedestrian, bicycle, and equestrian) that will close a gap in the C2C Trail. The Recommended Alternative satisfies the stated purpose and need to provide system linkage, improve trail network connectivity, and address safety concerns resulting from a lack of pedestrian and bicycle facilities. This improvement is necessary to provide connectivity between two existing sections of the C2C Trail.

Recommended Alternative: The Recommended Alternative proposes a 12-foot wide shared-use path beginning at the intersection of the Good Neighbor and Withlacoochee State Trails and continuing easterly to a pedestrian/ equestrian bridge crossing the Withlacoochee River. Following east along C.R. 673 and then north along U.S. 301 to a pedestrian bridge crossing U.S. 301 and the CSX Railroad. The Trail follows C.R. 478 east to S.R. 471 and then south to S.R. 50. The Recommended Alternative closes the gap and connects the existing Good Neighbor Trail to the west and the Van Fleet Trail to the east.

The Recommended Alternative is shown on the concept plans included in **Appendix A**. Proposed typical sections are included in **Appendix B**.

5.0 PROJECT COORDINATION & PUBLIC INVOLVEMENT

5.1 Agency Coordination

Based on FDOT criteria, a multi-use trail, the South Sumter Connector Trail did not require screening through the Efficient Transportation Decision Making (ETDM) process per PD&E Manual Part 1, Chapter 2, Class of Action Determination for Highway Projects (Jan. 2019).

Early in the PD&E Study, letters were emailed and/or mailed to elected and appointed officials and agencies to notify them the PD&E Study began and to provide contact information so they may request or provide additional information.

In addition to the scheduled public meetings, meetings were held with Sumter County, the City of Webster, and the FFS at Withlacoochee State Forest. Presentations were made at the Lake-Sumter and Hernando Citrus Metropolitan Planning Organization (MPO) meetings.

5.2 Public Involvement

A project specific Public Involvement Plan (PIP) was developed at the beginning of the PD&E Study. The PIP describes methods and techniques regarding the public involvement approach and sharing of information between FDOT, Sumter and Hernando Counties, agencies, property owners, business owners, and other interested parties. Activities implemented as part of the PIP are intended to encourage stakeholders to contribute to the decision-making process. Through the public involvement process, local officials, agencies, and the public are introduced to the project with opportunities to meets and discuss the social, environmental, and economic effects of potential improvements.

Newsletters

A series of informational newsletters were utilized to inform the public during the PD&E Study. Newsletters were published and distributed in September 2017 and October 2018. The newsletters contained project specifics such as the purpose of the project, project location map, schedule, and an updated project status.

Early coordination with agencies, elected officials, and stakeholders was initiated through Newsletter #1 (September 2017) which provided an overview of the project, schedule of activities, and a project location map. Newsletter #2 was distributed in September 2018 and provided a project update, schedule, and invitation to attend an Alternatives Public Meeting on October 23, 2018. A final Newletter, issued prior to the project's conclusion in June 2020, provided a project update and the Recommended Alternative.

Project Advisory Group (PAG)

The Project Advisory Group (PAG) established during the planning study continued into the PD&E Study. Comprised of key community leaders, business owners, and other interested persons met to discuss local issues, preferences, and needs. The PAG served as an advisory board to FDOT, helped the study team gather local input, disseminated information back to stakeholders and communities, and worked cooperatively to develop Trail solutions that meet the purpose and need for the project while being responsible stewards of the natural and human environments.

Project Advisory Group Meeting #1 was held on March 27, 2018 at the Webster Community Hall in Webster, Florida.

Alternatives Public Workshop

An Alternatives Public Meeting was held on Tuesday, October 23, 2018 from 5:30 p.m. to 7:30 p.m. at the Webster Community Hall, SE First Street, in Webster, Florida. The meeting was an open house and attendees had an opportunity to view a presentation, project displays and other documentation throughout the evening. Members of the project team were available to discuss the project and answer questions.

Approximately 98 individuals attended the meeting representing local agencies, elected officials, the public, and media. Twelve FDOT staff and FDOT consultant project team members were available at the meeting to discuss the project and answer questions.

Twelve written/emailed comments were received. Commenters expressed support for and opposition to the trail. Several commenters suggested varied locations for the trail and the need for safety.

A summary of the public alternatives meeting was prepared for the May 22, 2014, meeting and is incorporated by reference. The summary includes a discussion of the meeting events, attendance, comments, and outreach following the public meeting. A description of the meeting format, copy of handouts, meeting sign-in sheets, and written comments received by are appended to the summary.

A Comments and Coordination Report will fully document the public and stakeholder involvement conducted.

6.0 DESIGN FEATURES OF THE RECOMMENDED ALTERNATIVE

6.1 Engineering Details of the Recommended Alternative

The Trail is divided into four segments presented in **Table 6-1**.

Table 6-1. South Sumter Connector Trail Segments

Segment	Description	Connectivity	Length	Bridge
Α	Forest Section	Withlacoochee and Good Neighbor Trails to C.R. 673	2.9	Yes
В	C.R. 673 & U.S. 301	Forest Section to C.R. 478	3.4	Yes
С	C.R. 478	U.S. 301 to S.R. 471	4.9	No
D	S.R. 471	S.R. 471 to S.R. 50	4	No

6.1.1 Typical Sections

The typical section for **Segment A** includes a 12-foot wide paved trail with 2-foot level natural shoulders and side slopes to meet existing grade.

The typical section for **Segment B** includes a 12-foot wide paved trail with 2-foot level shoulders and side slopes of 1:4 (max). A roadside ditch is located between the trail and C.R. 673. The clear zone from the inside edge of the trail to the outside edge of the travel lanevaries between 14 and 18-feet. The trail requires a minimum ROW of 28-feet which is proposed to be located within existing or future ROW.

The typical section for the U.S. 301 section of Segment B includes a 12-foot wide paved trail with 2-foot level shoulders and side slopes of 1:4 (max). A roadside ditch is located between the trail and U.S. 301. The clear zone from the inside edge of the trail to the outside edge of the travel lane is 18-feet. The trail requires a minimum ROW of 23-feet which is proposed to be located within future ROW.

The typical section for **Segment C** includes a 12-foot wide paved trail with 2-foot level shoulders and side slopes of 1:4 (max). A roadside ditch is located between the trail and C.R. 478. The clear zone from the inside edge of the trail to the outside edge of the travel lane is 18-feet. The trail requires a minimum ROW of 28-feet which is proposed to be located within existing or future ROW.

The typical section for **Segment D** from C.R. 478 to south of Webster Elementary School includes a 12-foot wide paved trail with 2-foot level shoulders that meet existing grade. This

SECTION 6 – DESIGN FEATURES OF THE RECOMMENDED ALTERNATIVE

section of Segment D includes existing curb and gutter along S.R. 471. The typical border width is 20-feet and is proposed to be located within existing ROW.

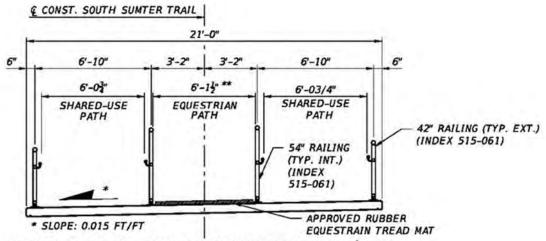
The typical section for **Segment D** from Webster Elementary School south to S.R. 50 includes a 12-foot wide paved trail with 2-foot level shoulders that meet existing grade. A roadside ditch is located between the trail and S.R. 471. The clear zone from the inside edge of the trail to the outside edge of the travel lane is 18-feet. The trail requires a minimum ROW of 28-feet which is proposed to be located within existing or future ROW.

The typical section package is included in **Appendix B**.

6.1.2 Bridges and Structures

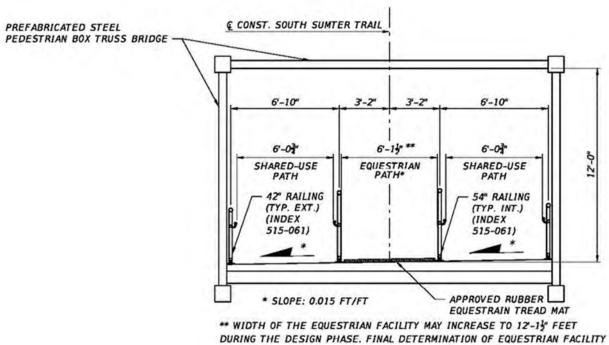
As a result of the VE study conducted for this PD&E Study, VE Recommendation S1-07 which suggested replacement of the proposed concrete bridge crossing the Withlacoochee River with a steel truss bridge to mimic the appearance of the iron bridge that once crossed the Withlacoochee River near the proposed bridge location. This VE recommendation provides opportunities to reduce substructure elements placed within the river by utilizing longer spans and increase safety by providing a redundant structure.

FDOT accepted this VE recommendation resulting in a prefabricated steel pedestrian box truss bridge crossing the Withlacoochee River. The proposed bridge structure consists of a 12-12'4" paved trail on concrete bridge piers. The approach and structure would include railings and fencing for user safety and generally be 12'11" in width (**Figure 6-1 and 6-2**).



** WIDTH OF THE EQUESTRIAN FACILITY MAY INCREASE TO 12-13" FEET DURING THE DESIGN PHASE. FINAL DETERMINATION OF EQUESTRIAN FACILITY WIDTH WILL BE BASED ON DESIGN, SURVEY AND COORDINATION WITH THE WITHLACOOCHEE STATE FOREST.

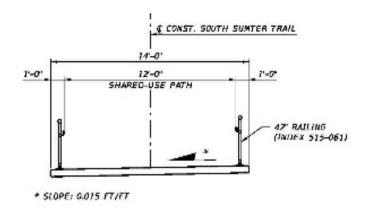
Figure 6-1. Typical Section – Approach Ramps to Withlacoochee River Crossing



WIDTH WILL BE BASED ON DESIGN, SURVEY AND COORDINATION WITH THE WITHLACOOCHEE STATE FOREST.

Figure 6-2. Typical Section – Span Over Withlacoochee River

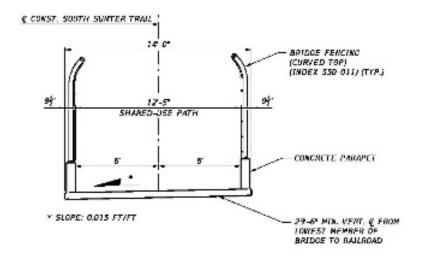
The Trail is proposed to cross over U.S. 301 and CSX Railroad on a bicycle/pedestrian only structure (**Figures 6-3 and 6-4**).



TYPICAL SECTION

APPROACH RAMPS TO US 301/CSX RR CROSSING

Figure 6-3. Typical Section – Approach Ramps to U.S. 301/CSX Railroad Crossing



TYPICAL SECTION
SPANS OVER US 301/CSX RR

Figure 6-4. Typical Section – Span Over U.S. 301/CSX Railroad Crossing

6.1.3 Right-of-Way and Relocations

Table 6-2 presents estimated parcel impacts and additional ROW required by segment.

Number of Segment **Description Acreage Impacted Parcels** 0 0 Α **Forest Section** В C.R. 673 & U.S. 301 26 13.15 C 10.73 C.R. 478 61 D S.R. 471 4.73 36

Table 6-2. Recommended Alternative ROW Requirements by Segment

6.1.4 Horizontal and Vertical Geometry

The design criteria for the Trail is based on the FDM Chapter 224 Shared Use Path Design Criteria (**Table 3-1**) and FDM Chapter 260 and 266 Bicycle and Pedestrian Bridge Design Criteria (**Table 3-2**). The proposed horizontal and vertical geometry for the Trail is based on a best fit profile located outside the existing parallel roadway beyond the drainage ditch for the rural roadway sections of C.R. 673, U.S. 301, C.R. 478 and S.R. 471. Within the Withlacoochee State Forest, the Trail is a 12-foot wide paved trail with a 2-foot wide horizontal clear zone on both sides which then slopes to meet existing grade.

6.1.5 Bicycle and Pedestrian Accommodations

The Recommended Alternative represents the alternative that will best meet the purpose and need for the project by providing system linkage, improving trail network connectivity, and addressing safety concerns resulting from a lack of pedestrian and bicycle facilities along project study area roadways.

6.1.6 Multi-Modal Accommodations

No impacts to existing transit routes, railroads, and truck routes along the project will occur as a result of the Recommended Alternative.

6.1.7 Access Management

No changes to existing access management classifications are proposed as a result of the Recommended Alternative.

6.1.8 Intersection and Interchange Concepts

Intersections involving trails and roadways represent pedestrian/bicyclist and vehicle conflict points requiring proper signage and pavement markings to inform trail users of upcoming intersections and motor vehicles of potential pedestrian movements. Signage and pavement

SECTION 6 – DESIGN FEATURES OF THE RECOMMENDED ALTERNATIVE

markings that may be applied to trail crossings will be refined during final design. There are no existing or proposed signalized intersections located along the Recommended Alternative.

6.1.9 Intelligent Transportation System and TSMO Strategies

No Intelligent Transportation System or TSMO Strategies are proposed to be added for the Recommended Alternative.

6.1.10 Utilities

Requests for utility data were made to Utility Agency/Owners (UAO) within the PD&E Study project area. Existing utilities within the project area and anticipated impacts are summarized in **Table 6-3**. A Utilities Assessment Technical Memorandum was prepared for this PD&E Study and is incorporated by reference.

Coordination with the UAOs during final design will be required to identify potential conflicts, avoid where possible, and mitigate as necessary.

Roadway	Utility Impacts
C.R. 673	Primary utility impacts include SECO power pole relocations along the south side of C.R. 673 the span guy/guide pole along the south side of C.R. 673.
U.S. 301	Primary utility impacts include power service poles and telephone pedestals.
C.R. 478	Primary utility impacts include SECO power pole and CenturyLink pedestals/canister relocations.
S.R. 471	Primary utility impacts include CenturyLink pedestal/canister impacts and fiber box adjustments, City of Webster fire hydrant and valve covers/meter adjustments, Bright House pull box adjustments and potential SECO power pole impacts Within downtown Webster, sidewalk widening impact SECO power poles and CenturyLink pedestal/canisters.

Table 6-3. Summary of Recommended Alternative Utility Impacts

6.1.11 Drainage and Stormwater Management Facilities

The SWFWMD will not require treatment or attenuation for the trail, therefore, no stormwater management facilities are anticipated. However, two existing permitted stormwater management systems along C.R. 673 and C.R. 478 may be impacted by construction of the trail. Compensation will need to be provided for any storage impacts to these existing systems.

It is anticipated that existing drainage patterns will be maintained along the Recommended Alternative. Other than the Withlacoochee River crossing, the trail is proposed to be at grade with a drainage ditch located between the roadway and the trail. During the final design, care will need to be taken when setting the profile grade to ensure existing drainage patterns are maintained with no obstructions to offsite runoff that flows into the ROW. Some areas may require small cross drains to maintain existing drainage patterns which will be identified during

SECTION 6 – DESIGN FEATURES OF THE RECOMMENDED ALTERNATIVE

final design. No defined conveyance system is proposed for the Recommended Alternative through the WSF section.

In some locations, back of sidewalk drainage may be necessary to ensure positive drainage is maintained. In the City of Webster, the Trail will create additional runoff to the closed drainage system and require the spread be evaluated to determine the existing inlet spacing is still appropriate. Evaluation of the existing storm sewer system may be required to confirm there is adequate capacity to convey additional runoff.

Extension or replacement of cross drains is anticipated to maintain existing drainage patterns along the Recommended Alternative. In some locations, it may be feasible to make small modifications to the Trail horizontal alignment to avoid or minimize extending some cross drains. This analysis will be completed during final design.

6.1.12 Floodplain Analysis

The Recommended Alternative has multiple areas located within floodplain Zone A, areas with no base flood elevations determined. The Withlacoochee River floodplain is within Zone AE with an average base flood elevation of 51.90 feet (NAVD). There are no regulatory floodways within the project limits.

The Recommended Alternative will impact floodplains and depressional storage areas requiring replacement of storage lost as a result of Trail encroachments. The SWFWMD prefers a "cup for cup" mitigation approach if the floodplain encroachment only involves storage impacts and the encroachment and compensation both occur within the same basin. If floodplain encroachment involves conveyance impacts or if the compensation is provided in another basin, then modeling will be required to demonstrate no adverse increase to flood stages. Detailed encroachment impacts and associated modeling will be completed during final design.

It is anticipated that floodplain compensation volume will be accommodated within the ditch adjacent to the Recommended Alternative. A Bridge Hydraulics Report (BHR) will be required for the Withlacoochee River crossing to document the hydraulic impacts of the bridge. The bridge length proposed as a part of this PD&E Study may need to be increased as a result of the BHR findings.

6.1.13 Transportation Management Plan

A Transportation Management Plan has not been developed for the Trail Recommended Alternative.

6.1.14 Special Features

No special features are anticipated for the Recommended Alternative.

6.1.15 Design Variations and Design Exceptions

No design variation or design exceptions are being requested for the Recommended Alternative.

6.1.16 Cost Estimates

Preliminary construction cost estimates were established using the FDOT Long Range Estimate (LRE) program. **Table 6-4** presents a summary of the estimated costs for the Recommended Alternative. Total project costs are estimated to be \$21.8 million.

Description	Cost	
ROW ⁵		\$10,626,000
Construction		\$22,844,846
Design		\$4,112,072
CEI		\$2,741,382
	Total Cost	\$40,324,300

Table 6-4. Preliminary Cost Estimate – Recommended Alternative

6.2 Summary of Environmental Impacts of the Recommended Alternative

This section provides the results of the analysis of the potential beneficial or adverse impacts of the project's Recommended Alternative and No Build Alternative.

6.2.1 Future Land Use

The proposed improvements associated with the Recommended Alternative will require additional ROW and are not anticipated to significantly affect the land use in the area. The Recommended Alternative will not change the character of the project and surrounding area, which remains rural in nature. The Recommended Alternative will continue to support the goals of Sumter County and the City of Webster Future Land Use Maps and maintain existing and future land uses within the project and surrounding area (**Figures 4-2 and 4-3**).

6.2.2 Section 4(f)

Segment A of the Trail begins at the eastern terminus of the Good Neighbor Trail within the Croom Tract of the WSF. The Croom Tract is approximately 20,000 acres owned by the State of Florida and maintained by the FFS. The primary function of the Croom Tract includes picnic areas, fishing, canoe launch, nature, hiking, equestrian and off-road bicycle trails. After crossing the Withlacoochee River, the Trail continues east under I-75 to C.R. 673.

 $^{^{\}rm 5}$ ROW costs were updated for the Recommended Alternative in September 2019.

Trail construction within the WSF Croom Tract does not create a change in land ownership; the nature and magnitude of the changes to the property do not create permanent adverse physical impacts, nor interfere with protected activities, features or attributes of the property. The land will be enhanced to a condition which is at least as good as what exists prior to the project. As the Official with Jurisdiction (OWJ), the FFS states, in correspondence to FDOT dated March 27, 2019, it is in agreement regarding proposed improvements and resulting conditions (**Appendix C**).

When complete, the proposed pedestrian/equestrian bridge crossing the Withlacoochee River, along with the Trail, provides enhanced access to recreation facilities on the east and west of the river for use by non-motorized transportation modes including pedestrian, bicycle, and equestrian users. The improvement will provide recreational connectivity enhancement to the existing hiking trails expanding use of and access to recreational resources throughout the WSF. There is no acquisition of State-owned land, no proposed easements. Construction within the WSF will be a small component of the overall project construction and will not impede public access to, or use of, the WSF.

The Recommended Alternative qualifies as an Exception by specifically meeting the Section 4(f) criteria in Title 23 CFR Section 774.13. Specifically: per 774.13 (g)(1) and (g)(2)Transportation enhancement activities, transportation alternatives projects, and mitigation activities, where: (1) The use of the Section 4(f) property is solely for the purpose of preserving or enhancing an activity, feature, or attribute that qualifies the property for Section 4(f) protection; and (2) The OWJ over the Section 4(f) resource agrees in writing to paragraph (g)(1) of this section The Section 4(f) Exception/Exemption form, approved on December 2, 2019 is included in **Appendix C**.

6.2.3 Cultural Resources

In accordance with the procedures contained in 36 CFR Part 800 and in coordination with the State Historic Preservation Officer (SHPO), a Cultural Resource Assessment Survey (CRAS), including background research and field survey, was completed in May 2019 for the project's Area of Potential Effect (APE). An addendum to the CRAS for the Withlacooche State Forest recommended alignment was prepared in October 2019. The APE for the original May 2019 CRAS and the October 2019 CRAS Addendum are shown on **Figures 6-5 through 6-7**. The CRAS Report and addendum are incorporated by reference.

The archaeological field survey included visual reconnaissance and subsurface examination of the project ROW. In total, 264 shovel tests were excavated with 30 positive shovel tests resulting in the documentation of one previously recorded archaeological site (8SM00422, Wild Cow Prairie), six newly identified archaeological sites (8HE00863, 8HE00864, 8SM01137, 8SM01138, 8SM01139, and 8SM01216), and two isolated prehistoric lithic artifacts (Archaeological

SECTION 6 – DESIGN FEATURES OF THE RECOMMENDED ALTERNATIVE

Occurrences [AOs] 1 and 2. Four of the newly recorded resources (8HE00863, 8HE00864, 8SM01138, 8SM01139) and both AOs were recorded within the alternative alignments west of I-75 in the vicinity of the Withlacoochee River. Newly recorded site 8SM01137 and previously recorded site 8SM00422 were identified within the Recommended Alternative east of I-75. None of the sites documented during the CRAS meet the criteria for inclusion in the National Register of Historic Places (NRHP). No further archaeological investigation is necessary for these sites.

The architectural survey resulted in the identification of 71 historic resources within the APE, including five previously recorded and 66 newly recorded resources. The previously recorded resources include two historic structures, two historic linear resources, and one historic cemetery. The newly recorded resources include two historic cemeteries, four historic canals, and 60 historic structures. The segment of the Seaboard Air Line Railway (SALR, 8SM00463) is a newly recorded segment of a previously recorded linear resource. The overall SALR linear resource has previously been determined NRHP-eligible by the SHPO in 2017.

Based on the results of the current survey, the segment of the SALR located within the project APE is recommended as a contributing segment to the overall NRHP-eligible linear resource. The proposed improvements will require no ROW from the SALR and will not impede or require the rerouting of rail traffic. No historic fabric associated with the SALR will be removed or altered by the Recommended Alternative and therefore, will have no adverse effect on the SALR.

The remaining 70 resources within the Recommended Alternative APE lack integrity or the architectural distinction and significant historical associations necessary to be considered for listing in the NRHP and are recommended ineligible. Bridge Nos. 180027, 180028, and 180029 are concrete stringer/girder bridges constructed in 1965. The bridges are post-1945 concrete bridges excluded from Section 106 consideration the bridges were not recorded or evaluated by this PD&E Study.

Although ground disturbance is not anticipated to be deeper than 2.0 feet (0.6 meters) in the areas of Resources 8SM0034 (Wild Cow Prairie Cemetery) and 8SM01206 (Stewart Chapel Cemetery), GPR survey should be undertaken to safeguard potential unmarked graves.

The SHPO reviewed the CRAS and provided concurrence with the findings on February 20, 2020. (**Appendix D**).

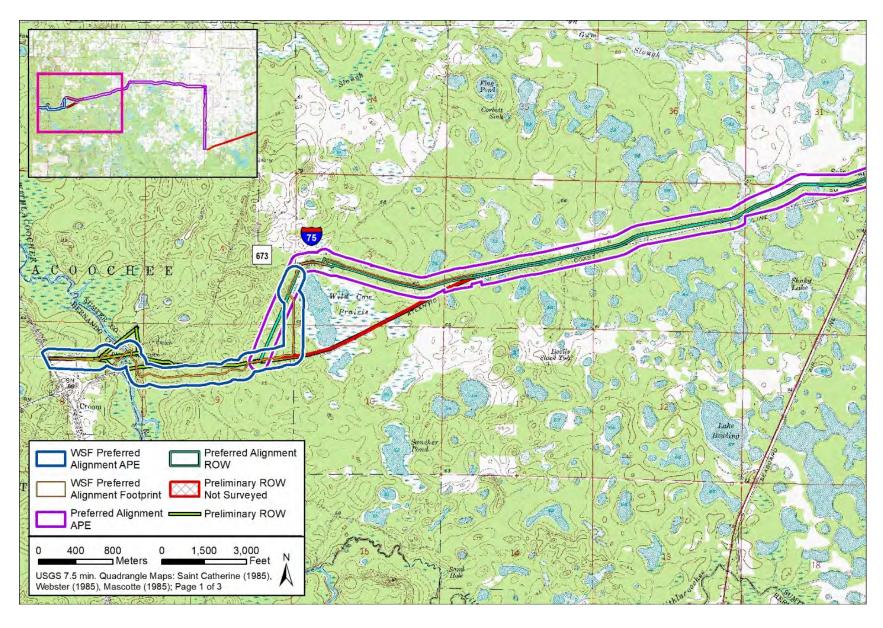


Figure 6-5. Recommended Alignment APE

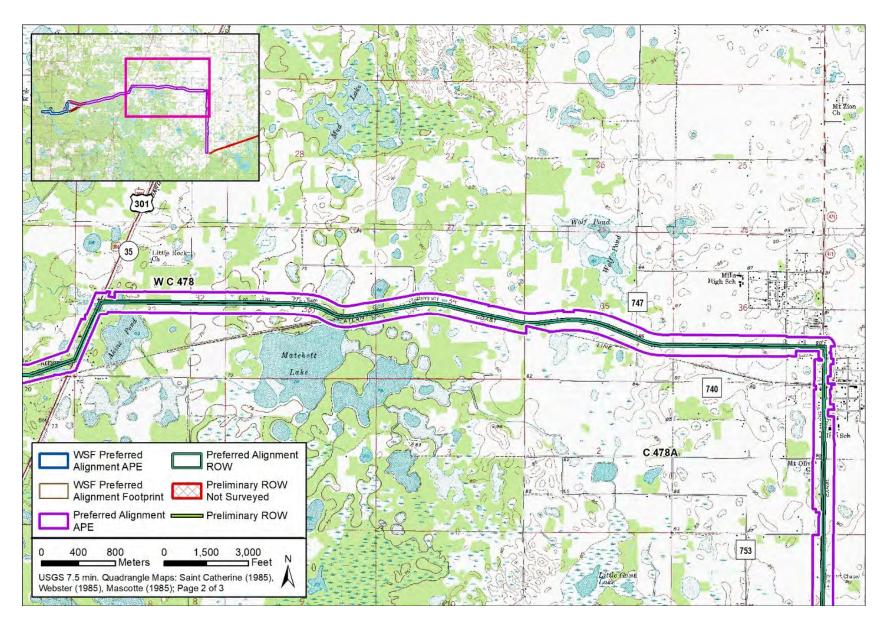


Figure 6-6. Recommended Alignment APE

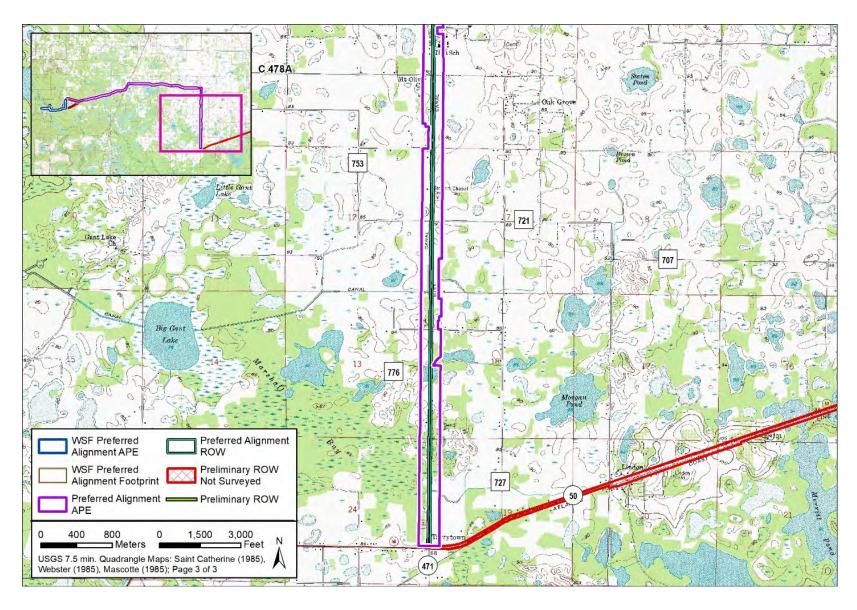


Figure 6-7. Recommended Alignment APE

6.2.4 Wetlands

In accordance with Executive Order 11990, Protection of Wetlands, and Part 2, Chapter 9 of the PD&E Manual, the extent and types of wetlands in the study area were documented in a Natural Resource Evaluation (NRE) Report and is incorporated by reference.

All wetlands and surface waters within the Recommended Alternative footprint are considered to be completely impacted though grading may not take all habitat within those areas and the majority of these areas will not be covered with impervious surfaces. **Table 6.5** lists the potential impacts associated with each alignment segment.

Segment	Description	Impact Acres
A	Forest Section	1.04
В	C.R. 673 & U.S. 301	0.00
С	C.R. 478	0.21
D	S.R. 471	0.93

Table 6-5. Estimated Wetland and Surface Water Impacts – Recommended Alternative

The Recommended Alternative will not have an adverse effect on flood control, erosion control, water pollution abatement, or wildlife habitat value. The Recommended Alternative will not affect the stability or quality of affected wetland systems or streams (i.e., the Withlacoochee River). The Recommended Alternative is not anticipated to have new, short- or long-term, adverse effects on wetlands or surface waters (i.e., the Withlacoochee River).

Estimated Permanent and Temporary Impacts to Wetlands and Surface Waters

Estimated, total, permanent impacts to wetlands per corridor/alignments are listed above. **Table 6.6** below lists the approximate acreage of specific wetlands and surface water types/habitats within the alignment footprints. Several types of wetlands and surface waters may be impacted by the proposed alignments, including streams and waterways, bottomlands, freshwater marshes, and wet prairies. Impacts to roadside ditches and swales and their relocation are not accounted for below. Also, there may be some additional temporary impacts due to construction, but these are anticipated to be very limited. There are sufficient uplands for use as staging areas along all alternative corridors. Temporary impacts to water quality during project construction will be minimized by implementing the 2017 FDOT Standard Specifications for Road and Bridge Construction.

Table 6-6. Wetland and Surface Water Approximate Direct Permanent Impacts - Recommended Alternative

Segment	Description	FLUCFCS Code	FLUCFCS Description	Acres
Α	Forest Section	510	Streams and waterways	0.2717
		615	Stream and Lake Swamps	0.3126
			(Bottomlands)	
		641	Freshwater Marshes	0.4603
В	C.R. 673 & U.S. 301	n/a	n/a	n/a
С	C.R. 478	641	Freshwater Marshes	0.1217
		643	Wet Prairies	0.0946
D	S.R. 471	615	Stream and Lake Swamps	0.9298
			(Bottomlands)	

Secondary Impacts

Secondary impacts resulting from installation of the proposed trail are anticipated to be minimal; most areas where wetland impacts are anticipated have already incurred impacts to at least one side of each new impact footprint per alignment. Potential secondary impacts are quantified in **Table 6-7**. These were calculated by dividing the area (square feet) of impacts by the typical width of the project's clearing limits (50 feet) to determine the linear distance of the impact's boundary. Secondary impacts were assumed to extend 25 feet from the direct impact footprint. This radius is typically used for wetland impacts associated with residential projects; the radius of impact for a recreational trail is likely to be much less. Hence, the values listed below are much more conservative (large) than the size of the actual effect. These values will be refined through the permitting process during the design phase.

Table 6-7. Estimated Secondary Wetland Impacts – Recommended Alternative

Segment	Description	Acres
Α	Forest Section	1.04
В	C.R. 673 and U.S. 301	n/a
С	C.R. 478	0.11
D	S.R. 471	0.47

Avoidance and Minimization of Wetland Impacts

The Recommended Alternative was evaluated for impacts to wetlands and surface waters in accordance with Executive Order (EO) 11990 and Part 2, Chapter 9 of the PD&E Manual. In accordance with the EO and PD&E Manual, the District has undertaken all actions to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities. As an integral part of the design effort for this project, practicable alternatives to avoid or minimize impacts to wetlands and protected species and their habitats were assessed. It is generally understood that

there are inherent limitations with any project including, but not limited to, design and safety criteria, available ROW, fund availability, and limiting adjacent development.

The primary way in which a project's environmental impacts can be reduced or eliminated further is by lessening the "footprint" of the overall impact footprint and, within the constraints of design, locating the project to lessen the impacts to sensitive environmental resources. Other methods for avoiding and minimizing impacts to natural resources include consideration of nobuild alternative and consideration of design alternatives, such as elevated trails, boardwalks, and physical variations of the alignment (or parts of alignments), such as those being considered for this trail. Specifically, the below were considered for the proposed project:

- Avoidance and Minimization Apart from use of WSF trails and a few areas required to link those areas to existing ROWs, the existing ROWs are adequate to accommodate the trail to current standards and safety criteria. By routing the proposed corridors along existing transportation corridors (state and county road ROWs and forest trails), the District minimized what could have been a larger footprint. Furthermore, the District considered several alignments through WSF and avoided impacting forested (upland and wetland) areas to the maximum extent practicable.
- Design and Alignment Alternatives Wetland and surface water impacts will be avoided
 to the maximum extent practicable during the design phase. Where feasible, further
 minimization efforts will be evaluated during the project design phase and may include
 such measures as steeper side slopes, retaining walls, handrails, and limiting land
 clearing activities only to those areas necessary for construction. Finally, impacts to water
 quality during project construction will be minimized by implementing the 2010 FDOT
 Standard Specifications for Road and Bridge Construction.

Wetland Functional Assessment

To determine the loss of function of jurisdictional wetlands and surface waters, a Uniform Mitigation Assessment Methodology (UMAM) evaluation will be carried out during the permitting process. The UMAM, per Chapter 62-345, F.A.C., is a state and federal approved method to assess wetlands in the State of Florida. UMAM was developed by FDEP and the water management districts to determine the amount of mitigation required to offset adverse impacts to wetlands. The methodology was designed to assess functions provided by wetlands, the amount those functions are reduced by a proposed impact, and the amount of mitigation necessary to offset the proposed functional losses. This method is also used to determine the degree of improvement in ecological value that will be created by proposed mitigation. The UMAM assessment includes a Qualitative Characterization (Part 1) as well as a Quantitative Assessment and Scoring (Part 2).

6.2.5 Protected Species and Habitat

The Recommended Alternative was evaluated for potential impacts to wildlife and habitat resources and the results are summarized in the NRE. Information on the potential occurrence of federal and state listed species within the Recommended Alternative corridor was assessed based on a review of available literature, database review, and based on field reconnaissance that was conducted along the corridor. Based on the habitat types present within and adjacent to the project, a list of protected wildlife species that could potentially occur within the study area was created (**Table 6-8**).

Table 6-8. Protected Species with Potential to Occur within the Study Area

		Listing Status		Likelihood of	
Scientific Name	Common Name	Federal	State	Occurrence	Habitat Preference
Plants and Lichens					
Agrimonia incisa	Incised Groove- bur	N	Т	Low	Sandy, dry-mesic, usually upland in the lower Coastal Plain; longleaf pine-deciduous scrub oak, sandy or sandy loam. Open pine woods or mixed pine-oak woods, bluffs, small clearings and old roads, sometimes at the edge of more mesic habitats.
Calopogon multiflorus	Many-flowered Grass-pink	N	Т	Low	Dry to moist flatwoods with longleaf pine, wiregrass, saw palmetto.
Carex chapmanii	Chapman's sedge	N	Т	Low	Hydric hammock and bottomland forest; usually on wooded stream banks and in river floodplains.
Centrosema arenicola	Sand Butterfly Pea	N	E	Low	Sandhill, scrubby flatwoods, dry upland woods
Coelorachis tuberculosa	Piedmont jointgrass	N	Т	Low	Shallow water, herbaceous wetland, and temporary pools. turkey oak barrens.
Eriogonum longifolium var. gnaphalifolium	Scrub Buckwheat	Т	E	Low	Sandhill, oak-hickory scrub on yellow sands, high pineland between scrub and sandhill, turkey oak barrens.
Forestiera godfreyi	Godfrey's swampprivet	N	E	Low	Upland hardwood forests with limestone at or near the surface, often on slopes above lakes and rivers.

		Listing	Status	Likelihood of	
Scientific Name	Common Name	Federal	State	Occurrence	Habitat Preference
Justicia cooley	Cooley's Water- willow	E	E	Low	Mesic hardwood hammocks over limestone
Lechea cernua	Nodding Pinweed	N	Т	Low	Deep sands on which the most common forest is a mixture of evergreen scrub oaks. May be found under mature scattered pine or oak.
Matelea floridana	Florida Spinypod	N	E	Low	Upland sites; open woodlands, sandhills and open fields
Monotropsis reynoldsiae	Pygmy Pipes	N	E	Low	Upland mixed hardwood forest, mesic and xeric hammock, sand pine and oak scrub.
Nemastylis floridana	Celestial Lily	N	E	Low	Wet flatwoods (often in cabbage palm flatwoods variant), prairies, marshes, cabbage palm hammocks edges.
Pteroglossaspis ecristata	Giant Orchid	N	Т	Low	Sandhill, scrub, pine flatwoods, pine rocklands
Spigelia loganioides	Pinkroot	N	E	Low	Floodplain forests, upland and hydric hardwood hammocks over limestone
Trichomanes punctatum ssp. floridanum	Florida Filmy Fern	E	Е	Low	Tree trunks in hammocks, edges of lime sinks, and limestone boulders, often with mosses and liverworts
Triphora craigheadii	Craighead's Nodding-caps	N	E	Low	Forests, shrublands or thickets, woodlands

		Listing	Status	Likelihood of	
Scientific Name	Common Name	Federal	State	Occurrence	Habitat Preference
Amphibians					
Notophthalmus perstriatus	Striped Newt	С	N	Low	Xeric upland communities, principally sandhill but also scrub; occasionally in pine flatwoods
Reptiles					
Alligator mississippiensis	American Alligator	T(S/A)	FT(S/A)	High	Typically found in most open water bodies in Florida
Drymarchon couperi	Eastern Indigo Snake	Т	FT	Medium	Utilizes a variety of habitats including, wet flatwoods, mesic hammocks, tidal swamps, sandhills, scrub and upland forests
Gopherus polyphemus	Gopher Tortoise	С	ST	High	Xeric, flatwoods, disturbed/spoil areas and coastal habitats with loose, well drained, sandy soil and abundant herbaceous vegetation
Lampropeltis extenuata	Short-tailed Snake	N	ST	Low	Burrows in sandy soils, particularly pine and xeric oak sandhills. May also be found in scrub and xeric hammock habitats
Pituophis melanoleucus	Pine Snake	N	ST	Medium	Utilizes areas with well-drained sandy soils with a moderate to open canopy
Birds					
Antigone Canadensis pratensis	Florida Sandhill Crane	N	ST	Medium	Various open grassy areas and marshes

		Listing	Status	Likelihood of	
Scientific Name	Common Name	Federal	State	Occurrence	Habitat Preference
Aphelocoma coerulescens	Florida Scrub-Jay	Т	FT	Low	Ancient dune ecosystems or scrubs, which occur on well drained to excessively well-drained sandy soils
Athene cunicularia floridana	Florida Burrowing Owl	N	ST	Low	Open native prairies and cleared areas including pastures, agricultural fields, golf courses, airports, and vacant lots in residential areas
Egretta tricolor	Tricolored Heron	N	ST	Medium	Freshwater and estuarine wetlands
Falco sparverius paulus	Southesastern American Kestrel	N	ST	Medium	Sandhill, open pine savannah, pastures, low-intensity agriculture, open woodlots and fields within residential areas
Haliaeetus leucocephalus	Bald Eagle*	N	N	Medium	Forested uplands and wetlands in close proximity to open water
Mycteria americana	Wood Stork	Т	FT	High	Shallow freshwater and brackish wetlands, roadside ditches
Pandion haliaetus	Osprey	N	SSC	Medium	Found on or near large lakes, rivers, and coastal areas where suitable nesting sites can be found
Picoides borealis	Red-cockaded Woodpecker	E	FE	Low	Inhabits open, mature pine woodlands that have a diversity of grass, forb, and shrub species. Generally, occupies longleaf pine flatwoods in north and central Florida.

		Listing	Status	Likelihood of	
Scientific Name	Common Name	Federal	State	Occurrence	Habitat Preference
Rostrhamus sociabilis	Snail Kite	E	FE	Low	Large open freshwater marshes and lakes with shallow water, < 4 ft. deep, and a low density of emergent vegetation are preferred foraging habitat. Nests usually over water in a low tree or shrub.
Mammals					
Trichechus manatus	West Indian Manatee	T	FT	Low	Coastal waters, bays, rivers, and occasionally) lakes. Requires warm-water refugia such as springs or cooling effluent during cold weather.
Ursus americanus floridanus	Florida Black Bear**	N	N	Medium	A wide variety of forested, sparsely forested upland/wetland communities

Table Notes: Abbreviations: E = Endangered, T = Threatened, T(S/A) = Similarity of appearance, NL = Not Listed, C = Candidate for Listing, * = Protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act, ** = Protected by Florida Black Bear Conservation Rule 68A-4.009, F.A.C. Species noted solely as Candidates for federal listing, were not included.

The Recommended Alternative corridor contains several different types of natural and manmade wildlife habitats. These include forested and herbaceous uplands, forested and
herbaceous wetlands, stormwater ponds and ditches. Cursory surveys were conducted within the
study corridor from 2017 to 2019 to evaluate the potential for occurrence of floral and faunal
species protected by the FWC, FWS, USDA, and/or the FDACS. No species-specific surveys
following required state and/or federal guidelines were conducted within the project corridor.
Prior to the initiation of construction activities, species-specific surveys for protected species
should be performed. A base map of the study area was developed from aerial photographs
prior to the field reviews within the proposed study corridor. Areas that exhibited the highest
probability of supporting protected species were assessed with the most scrutiny during the site
assessment. If any species were observed, they were noted, and positions/locations were
estimated and mapped.

To date, no agency coordination with the FWC or FWS has been carried out for protected species.

Federal Listed Species and Designated Critical Habitat

No critical habitat rules have been published for the **eastern indigo snake** which is listed as threatened. However, habitats adjacent to the corridors may be used as foraging habitat by the eastern indigo snake. No indigo snakes were observed during the field reviews, but there were numerous gopher tortoise burrows observed in many parts of the project area. During construction, the FWS's "Standard Protection Measures for the Eastern Indigo Snake" will be implemented during site preparation and project construction. Any snakes inhabiting located gopher tortoise burrows will be removed prior to construction. Finally, no motor vehicles will be allowed on the trail. As a result, and per the Consultation Key for the Eastern Indigo Snake (FWS, 2013), it is anticipated that the proposed project may affect, but is not likely to adversely affect, the eastern indigo snake.

The endangered **Red-Cockaded Woodpecker**, or "RCW" inhabits open, mature pine woodlands that have a diversity of grass, forb, and shrub species. The proposed project is within the USFWS consultation area for RCW. Also, the Withlacoochee State Forest is actively managed for this species. This population, and the associated cluster areas, are tracked and documented by the FFS regularly. All of the clusters are located west of the Withlacoochee River. The proposed trail will come through the forest from the east and cross the river, where it will then use existing cleared paths to tie into the Good Neighbor Trail. Consultation with the Florida Forest Service (FFS) revealed that the habitat near, and to the east of the river, is of poor quality and currently not suitable for RCWs and that the FFS currently does not have plans to manage this area of the forest for new clusters. Due to the information regarding RCWs in the forest, lack of suitable habitat outside the forest, low impact nature of the project, and the continued coordination with the FFS, FDOT proposed that surveys for this species are not necessary. FWC concurred with that determination. Due to continued close coordination with FFS, the nature of the project, and the

habitat characteristics above, it is anticipated that the proposed project will have no effect on RCW.

The **Florida Scrub-Jay** is listed as threatened under the ESA, and is known from Sumter, but not Hernando County. The species inhabits fire-dominated, low-growing, oak scrub habitat found on well-drained sandy soils. It may persist in areas with sparser oaks or scrub areas that are overgrown, but at much lower densities and with reduced survivorship (Hipes et al 2001). Prime habitats are generally not found along the study corridors, but patches of scrub areas are adjacent to some proposed ROWs where work could occur. The Withlacoochee-Panasoffkee-Big Scrub "Important Bird Area," or "IBA" is approximately eight miles north of the study area and provides important habitat for Scrub-Jay; it is possible that individuals may forage in the project area, but none were observed during field efforts to date and prime habitat is not located within the project footprint. Therefore, it is anticipated that the proposed project may affect, but is not likely to adversely affect the Florida Scrub-Jay.

The **Snail Kite** is listed as endangered under the ESA. It prefers large open freshwater marshes and lakes with shallow water, less than four feet deep, and a low density of emergent vegetation are preferred foraging habitat. It is dependent on apple snails (Pomacea paludosa) caught at the water surface. Individuals usually nest over water in a low tree or shrub (commonly willow, wax myrtle, pond apple, or buttonbush, but also in non-woody vegetation like cattail or sawgrass). Although Sumter County is within the consultation area, because there are no suitable habitats within the project footprint, it is anticipated that the proposed project will have no effect on the species.

The **Wood Stork** is listed as endangered under the ESA. No Wood Storks or signs were observed during the field reviews. GIS database information also indicates there are no wood stork colonies within one (1) mile of the project corridor. FWS wood stork data indicates that the core foraging area (CFA) radius in Central Florida is 15 miles. Thus, any project within this area may require mitigation for impacts to wood stork habitat. However, it is a regularly accepted practice to provide in-kind habitat replacement within the project area to offset impacts. Most suitable Wood Stork foraging habitat (ditches and ponds) within the project corridor will also be present in the post-development scenario if they existed pre-construction. If any habitat is adversely affected and not restored, compensation will be provided within the appropriate CFA or within the service area of a FWS-approved mitigation bank. Thus, based on the consultation key in FWS (2010), it is anticipated that this project may affect, but is not likely to adversely affect the wood stork.

The **West Indian manatee** is listed as threatened under the ESA. Individuals are highly mobile and may be encountered in a variety of environments including estuarine habitats, canals, rivers, saltwater bays, and occasionally coastal oceanic habitat. Although the Withlacoochee River is within the native range of the manatee, individuals are generally prevented from accessing reaches above Lake Rousseau due to the lock on the Cross-Florida Barge Canal and the Lake Rousseau dam at Inglis, Florida. The species has not been observed recently in the reach of the

river over which the proposed trail will pass. Therefore, it is anticipated that the proposed project will have no effect on the West Indian manatee.

While other protected plant species could be present within the study area, only two species, the endangered Florida filmy fern and the threatened scrub buckwheat are federally listed. There appears to be little if any suitable habitat for these species in the study corridor, and neither species was observed during the field reviews. It is anticipated therefore that the proposed project will have no effect on these species.

State Listed Species

Gopher tortoises are designated as a threatened species by FWC, and as a candidate for threatened status by FWS. The gopher tortoise prefers habitat with loose, well-drained, sandy soils for burrowing and an abundance of lowgrowing herbaceous vegetation for food. Numerous gopher tortoise burrows were documented during field reviews, mainly along western end of the project. If gopher tortoise burrows are found during the species-specific surveys conducted prior to construction (up to 25 feet away from any area to be impacted by construction), a relocation permit from the FWC will be obtained. Tortoises must be located to an FWC-approved onsite or offsite location, and relocation fees must be paid to the recipient site. Because of the detailed permitting and relocation process, the District anticipates no adverse effect on gopher tortoise due to the proposed project.

The **Burrowing Owl** is listed as a threatened species by FWC but is not listed by FWS. This species prefers habitat that has loose, sandy, well drained soils with low growing herbaceous vegetation. No Burrowing Owl individuals or signs were observed during the field reviews. The District anticipates no effect on Burrowing Owl due to the proposed project.

Tricolored Heron is listed as threatened by FWC but are not listed by FWS. As a wading bird, the species may be found in natural and man-made water bodies throughout Florida. It would be expected for wading-bird species to regularly use inundated wetlands and surface waters within the study area for foraging purposes. GIS database sources reveal that there are no wading bird rookeries located within the study corridor that would be affected by the project. Any ditches adjacent to roads in the project corridor that are impacted will be replaced by ditches in a slightly different position, and few if any inundated wetlands will be impacted by the project. If wetlands are impacted, their functional value will be replaced in the same basin in which impacts occur. Therefore, the District anticipates no adverse effect on Tricolor Heron due to the proposed project.

The **Southeastern American Kestre**l is listed as a threatened sub-species by FWC but is not listed by FWS. This protected population is non-migratory. However, the migratory American Kestrel that is present in Florida between August and April is not protected. It is extremely

difficult to distinguish the protected non-migratory kestrel from the migratory species and thus surveys should be performed in the April through August timeframe when the migratory species is no longer present. The kestrel prefers to nest in snags or on utility poles and requires open, low herbaceous habitat for hunting. During the field reviews, no kestrels or signs were observed, and there is no known documentation of this species' occurrence within the study area. The described preferred habitat is present to a limited degree within the proposed project limits. The species was not observed during field activities there is a limited amount of available habitat within the study area. Therefore, the District anticipates no adverse effect on Southeastern American Kestrel due to the proposed project.

The **Florida Sandhill Crane** is listed as threatened by FWC but is not listed by FWS. Sandhill Cranes prefer wet prairie and open marsh habitat, low-lying pastureland, and shallow flooded open areas for foraging and nesting. They typically nest in open marshes that contain pickerelweed, maidencane, and/or duck potato. During field reviews, no sandhill cranes or signs were observed. Habitat for this species occurs in the south end of the project corridor, but there is substantially more outside the project footprint. If any of the wetland types identified above are impacted due to the project, their functional value will be replaced in the same basin in which impacts occur. Therefore, the District anticipates no adverse effect on Florida Sandhill Crane due to the proposed project.

The **Sherman's fox squirrel** is listed as a Species of Special Concern by FWC but is not listed by FWS. This fox squirrel utilizes open, fire-maintained, longleaf pine, turkey oak, sandhills, and flatwooods habitats. During field reviews, no Sherman's fox squirrels or nests were observed, and there is a limited amount of available habitat within the project study area. Therefore, the District anticipates no adverse effect on Sherman's fox squirrel due to the proposed project.

The *Regulated Plant Index* for the State of Florida is found in Chapter 5B-40.0055, F.A.C. Florida-protected plant species listed in **Table 6-8** could occur in the project area based on geography and habitats present, but the likelihood of occurrence is low. This project should not require permitting with FDACS for impacts to protected plant species because there are no restrictions on FDOT-owned land for impacts to state-listed plants. However, removal of protected plants may be coordinated with FDACS if any protected plants are found in the proposed project footprint.

Other Protected Species or Habitats

While the **Bald Eagle** is no longer federally or state- listed as threatened or endangered, it is still afforded protection by the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and state and federal management plans. The FWC regulates activities near known Bald Eagle nest sites and requires a minimum 660' buffer of project activities from the nest. No Bald Eagles

or nests were observed during the field reviews. No eagle nests occur within 0.5 mile of the project corridor. The District anticipates no effect of this project on the Bald Eagle.

The **Florida black bear** receives protection under the Florida Black Bear Conservation Rule, 68A-4.009, F.A.C. Black bears are very opportunistic and can inhabit a wide variety of habitats including forested uplands and wetlands, open prairies and developed areas adjacent to vegetative habitat. No intentional "take" will occur as a result of the project. The District anticipates no effect of this project on the Florida black bear.

6.2.6 Essential Fish Habitat

There are no National Marine Fisheries Essential Fish Habitat within the Recommended Alternative corridor.

6.2.7 Highway Traffic Noise

The project is classified as a Type III noise project and does not require a noise analysis.

6.2.8 Contamination

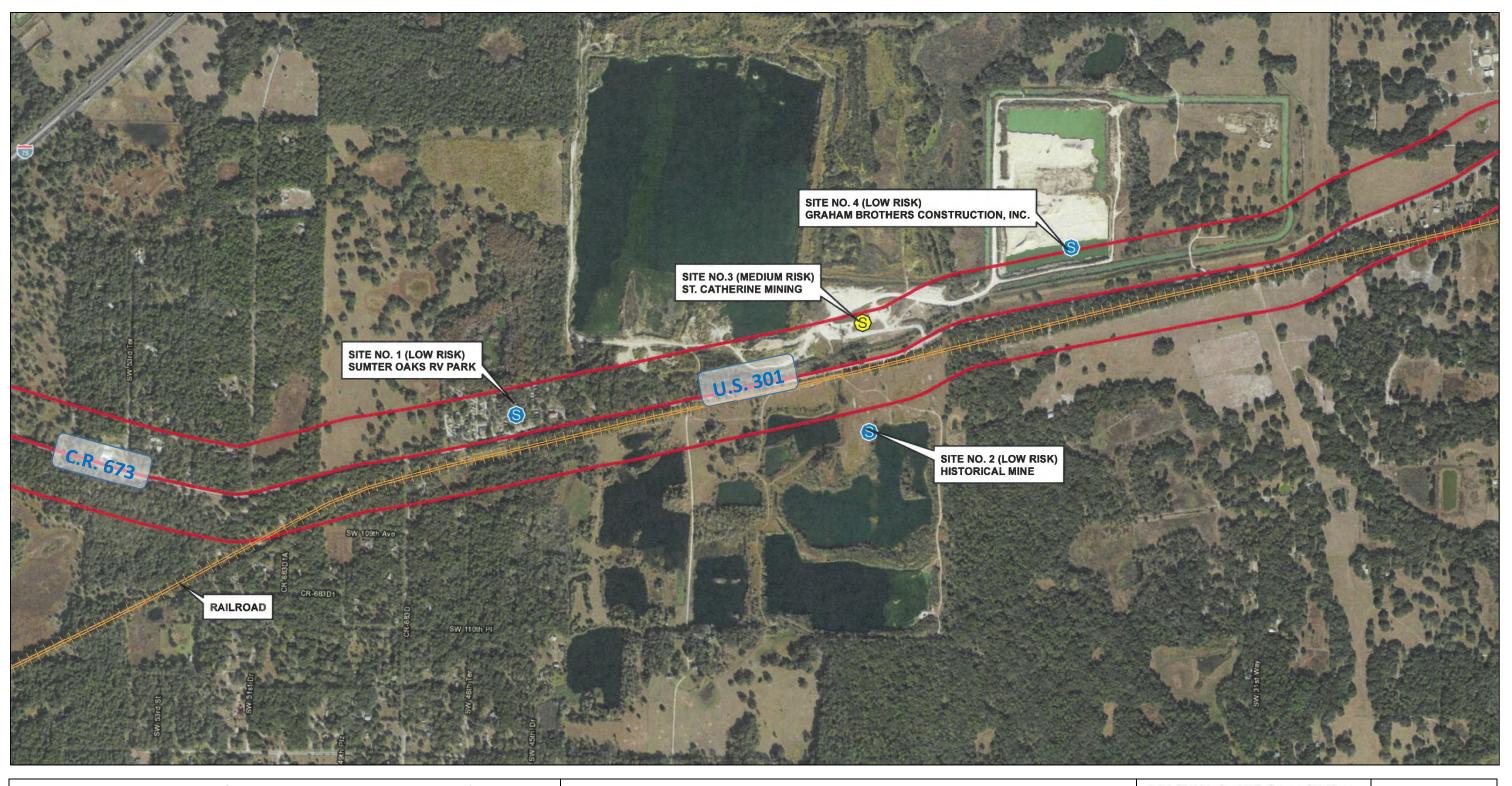
A Contamination Screening Evaluation Report (CSER) was completed for this PD&E Study and is incorporated by reference. The purpose of this evaluation was to assess the risk of encountering petroleum or hazardous substance contamination of soil, groundwater, surface water, or sediment that could adversely affect this project. The CSER activities included a review of public regulatory files and historical data sources, and a site reconnaissance of the project study area.

Based on the results of the contamination screening activities, Contamination Risk Potential Ratings (CRPR) were assigned to 27 sites. The contamination potential risk rating system was developed by FDOT and incorporates three levels of risk: Low, Medium, and High. Table 6-9 presents the findings for each sites respectively and **Figures 6-8 through 6-12** show the site locations.

Table 6-9. Potential Contamination Sites

Site No.	Site Name	Site Address	Risk Potential
1	Sumter Oaks RV Park	4602 CR 673	Low
2	Historical Mine	3949 CR 673	Low
3	St. Catherine Mining	3919 CR 673	Medium
4	Graham Bros. Construction Inc.	3621 CR 673	Low
5	Quality Welding Service	9417 Southwest 17 th Way	Low
6	FL Tools, Inc.	2437 CR 478	Low
7	Walter Williams Site	9th Avenue and 3rd Street	Low
8	Joy Foods #663	381 North Market Boulevard (SR 471)	Medium
9	Shop & Go Superette #4	374 North Market Boulevard (SR 471)	Medium
10	Webster Auto Care	347 North Market Boulevard (SR 471)	Medium
11	Jackie's Market Sunoco	329 North Market Boulevard (SR 471)	Medium
12	Former Circle K #7068	281 North Market Boulevard (SR 471)	Medium
13	Studebaker Headquarters	248 North Market Boulevard (SR 471)	Medium
14	Shell-Sams	125 North Market Boulevard (SR 471)	Medium
15	Webster Farm Supply	120 North Market Boulevard (SR 471)	Medium
16	Shales Property	18 South Market Boulevard (SR 471)	Medium
17	Webster Elementary School	349 South Market Boulevard (SR 471)	Medium
18	Lively's Custom Woodworking	3014 CR 774	Low
19	Don's Tarrytown Auto Parts	13452 SR 471	High
20	South Sumter Grocery	13721 SR 471	High
21	Circle K #2707547	2986 SR 50	Medium
22	Sunoco-Webster	13801 SR 471	High
23	Cumberland Farms #1087	2985 SR 50	High
24	The Dumont Company/Hawkins Inc.	13825 SR 471	Low
25	Robbins Manufacturing Co.	13904 SR 471	High
26	Seaboard Coast Line Railroad	Adjacent/Perpendicular	Medium
27	Agricultural Land Use	Adjacent	Medium

Based on their proximity to the Recommended Alternative, Level 2 Contamination Impact Analyses (CIA) may be required at the Medium Risk and 5 High Risk sites. However, depending on adjustments made during final design, some Level 2 CIAs may not be necessary. The District Contamination Coordinator will provide construction support for any areas found to have potential to interact with contamination.



Hernando & Sumter Counties, Florida

POTENTIAL CONTAMINATION SITES





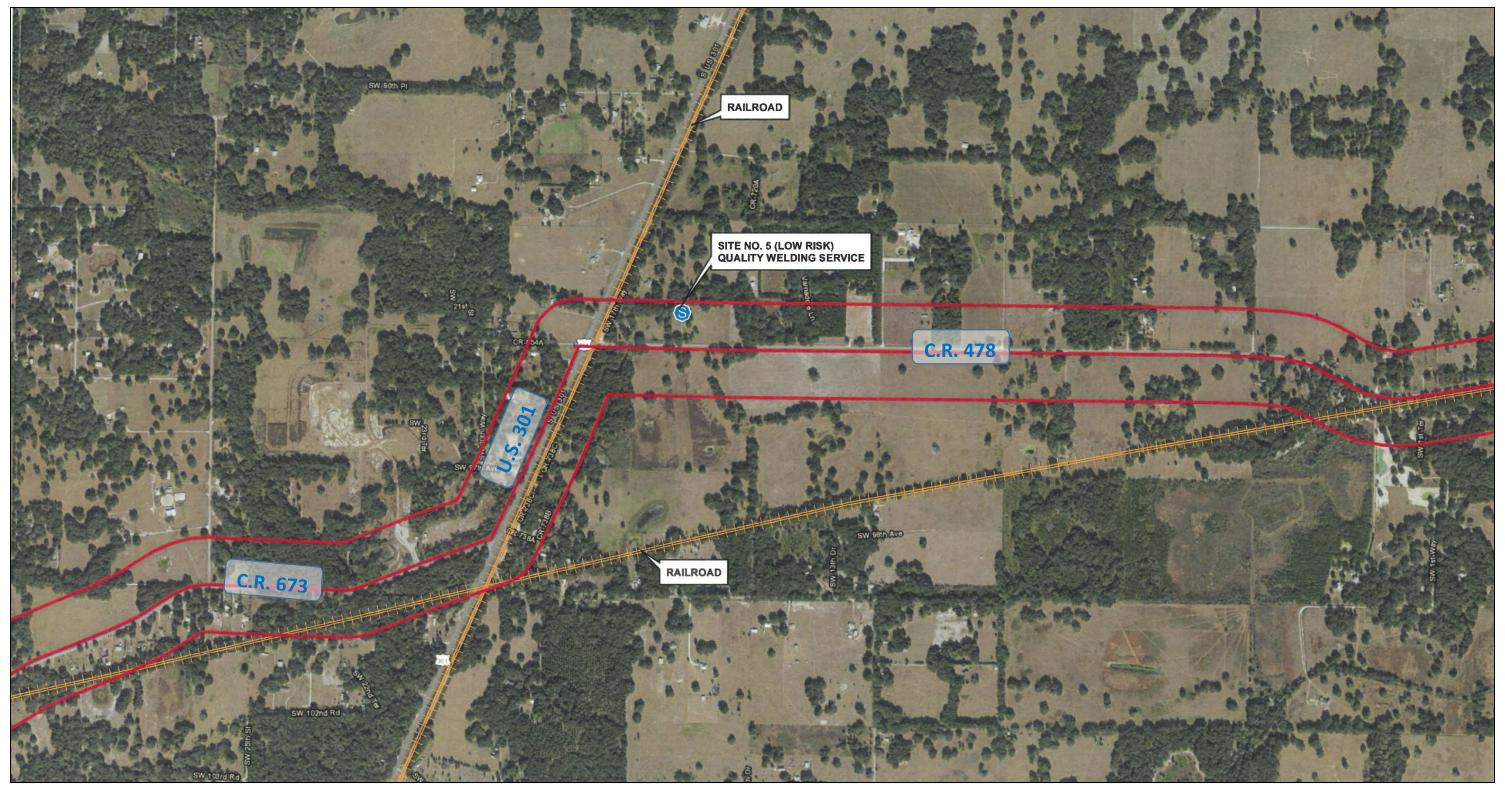








6-8



Hernando & Sumter Counties, Florida

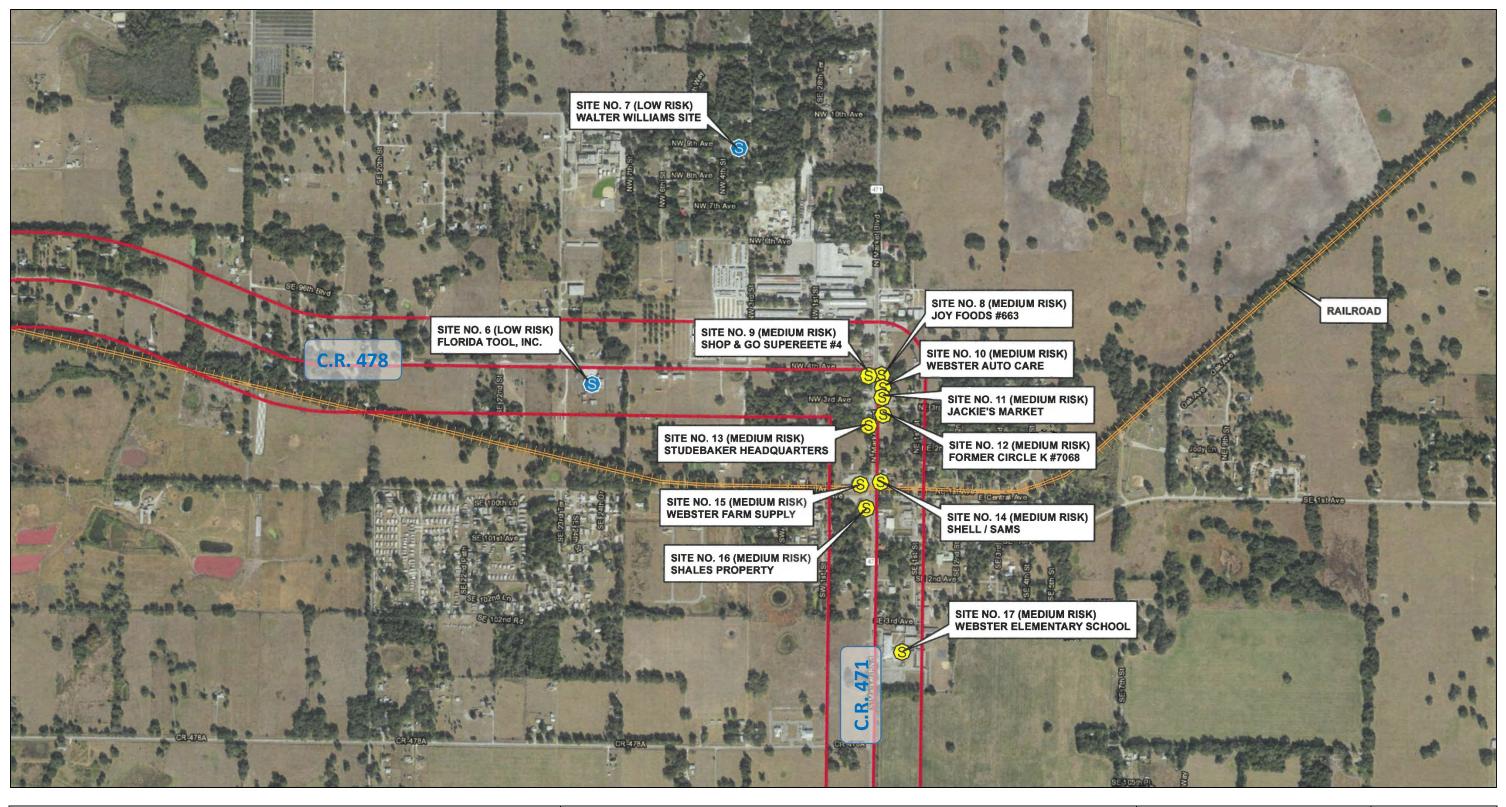
POTENTIAL CONTAMINATION SITES











Hernando & Sumter Counties, Florida

POTENTIAL CONTAMINATION SITES



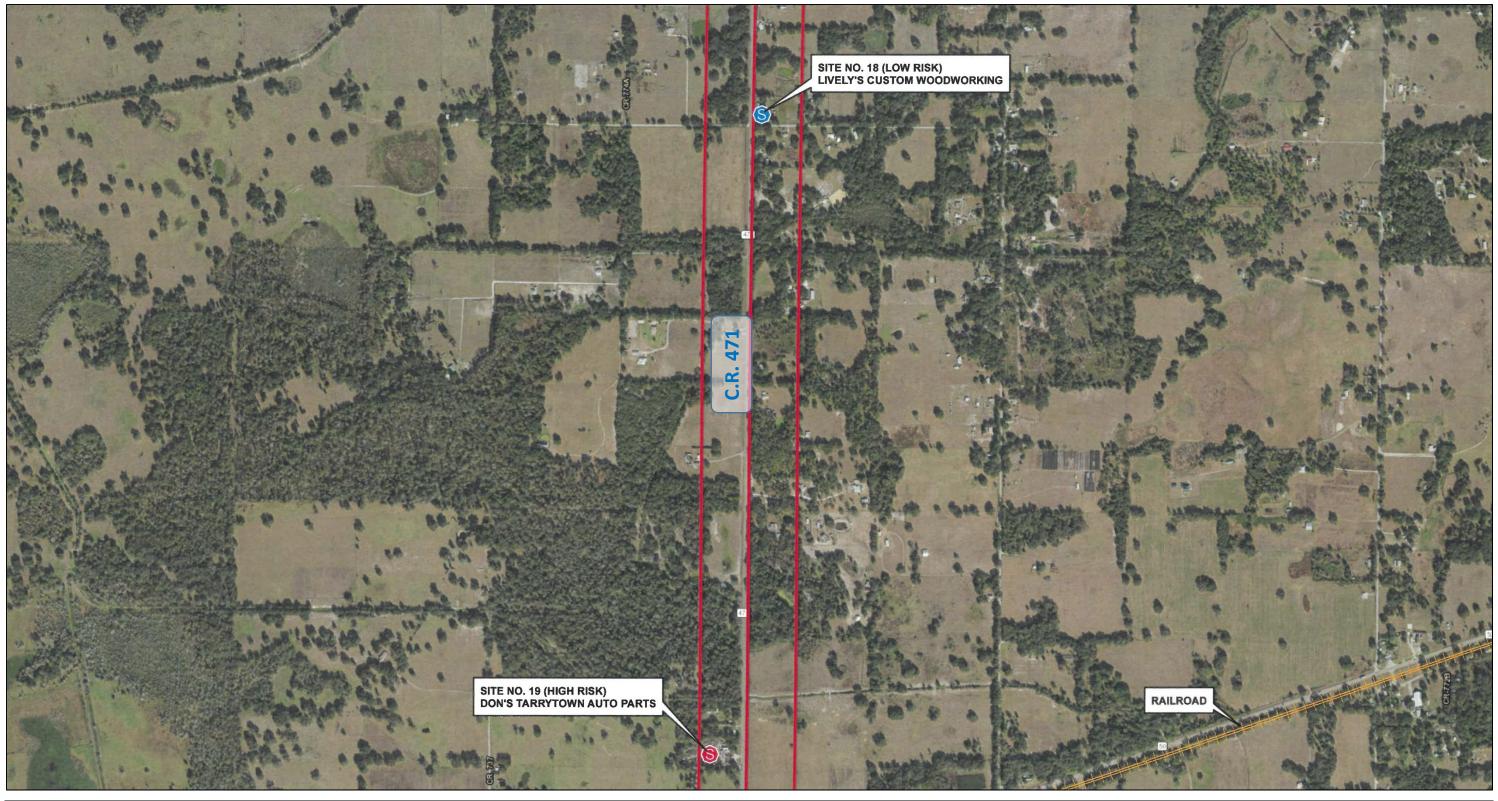








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Hernando & Sumter Counties, Florida

POTENTIAL CONTAMINATION SITES





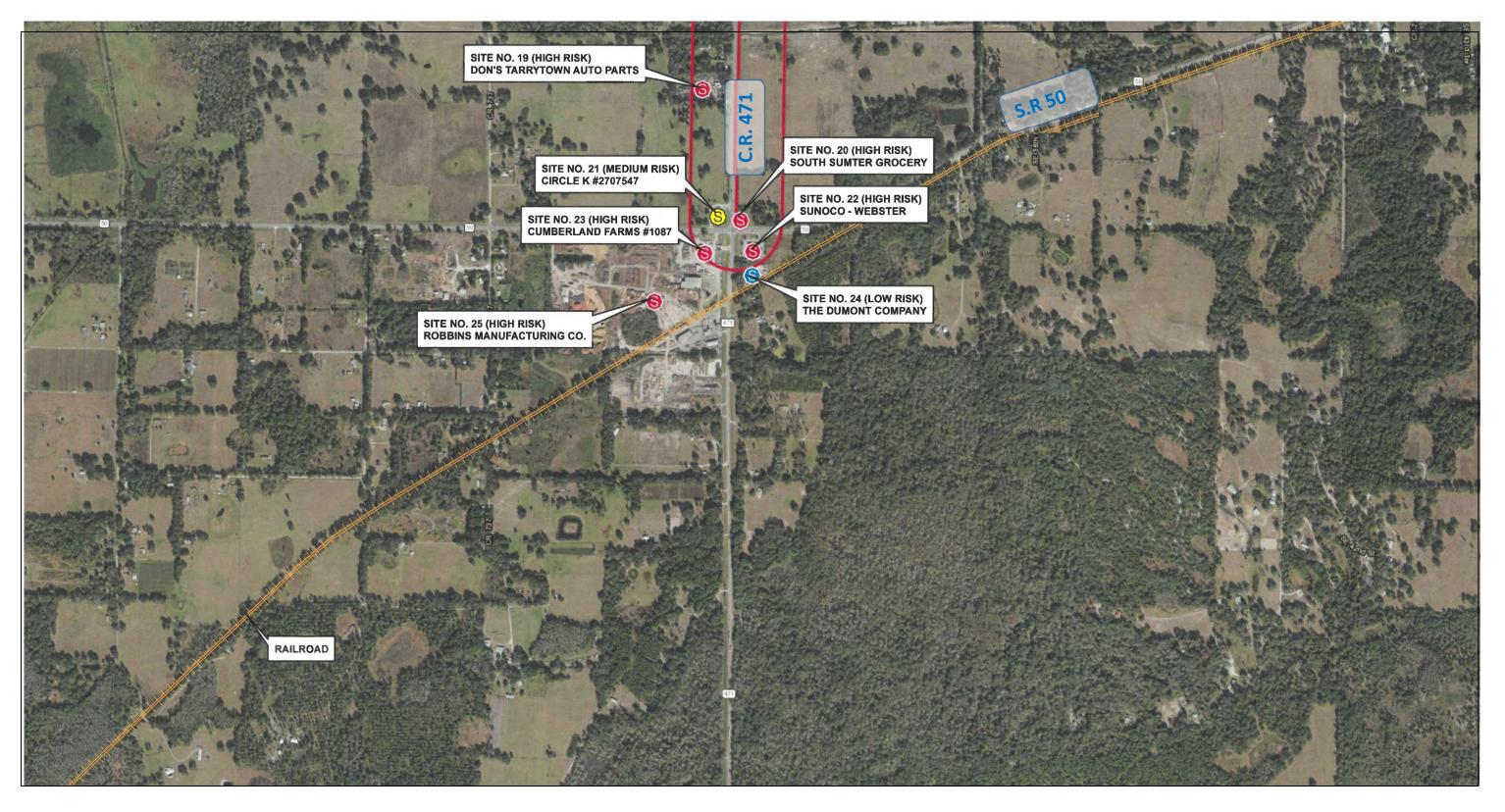




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6-11



Hernando & Sumter Counties, Florida

POTENTIAL CONTAMINATION SITES









APPENDICES

APPENDIX A

Recommended Alternative Preliminary Concept Plans

CONTRACT PLANS COMPONENTS

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

INDEX OF ROADWAY PLANS

SHEET NO.

SHEET DESCRIPTION

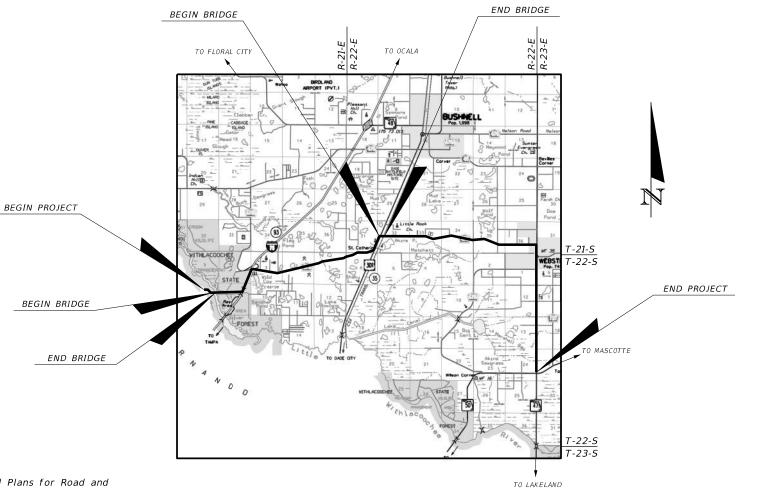
2 - 8 9 - 128 KEY SHEET SHEET

TYPICAL SECTION PLAN SHEET

FINANCIAL PROJECT ID 435471-1-22-01

SUMTER COUNTY HERNANDO COUNTY

SOUTH SUMTER TRAIL (FROM GOOD NEIGHBOR TRAIL TO SR 50)



ROADWAY PLANS ENGINEER OF RECORD:

PROJECT LOCATION

FDOT PROJECT MANAGER:

CONSTRUCTION	FISCAL	SHEET
CONTRACT NO.	YEAR	NO.
	2019	1

GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY_____ Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

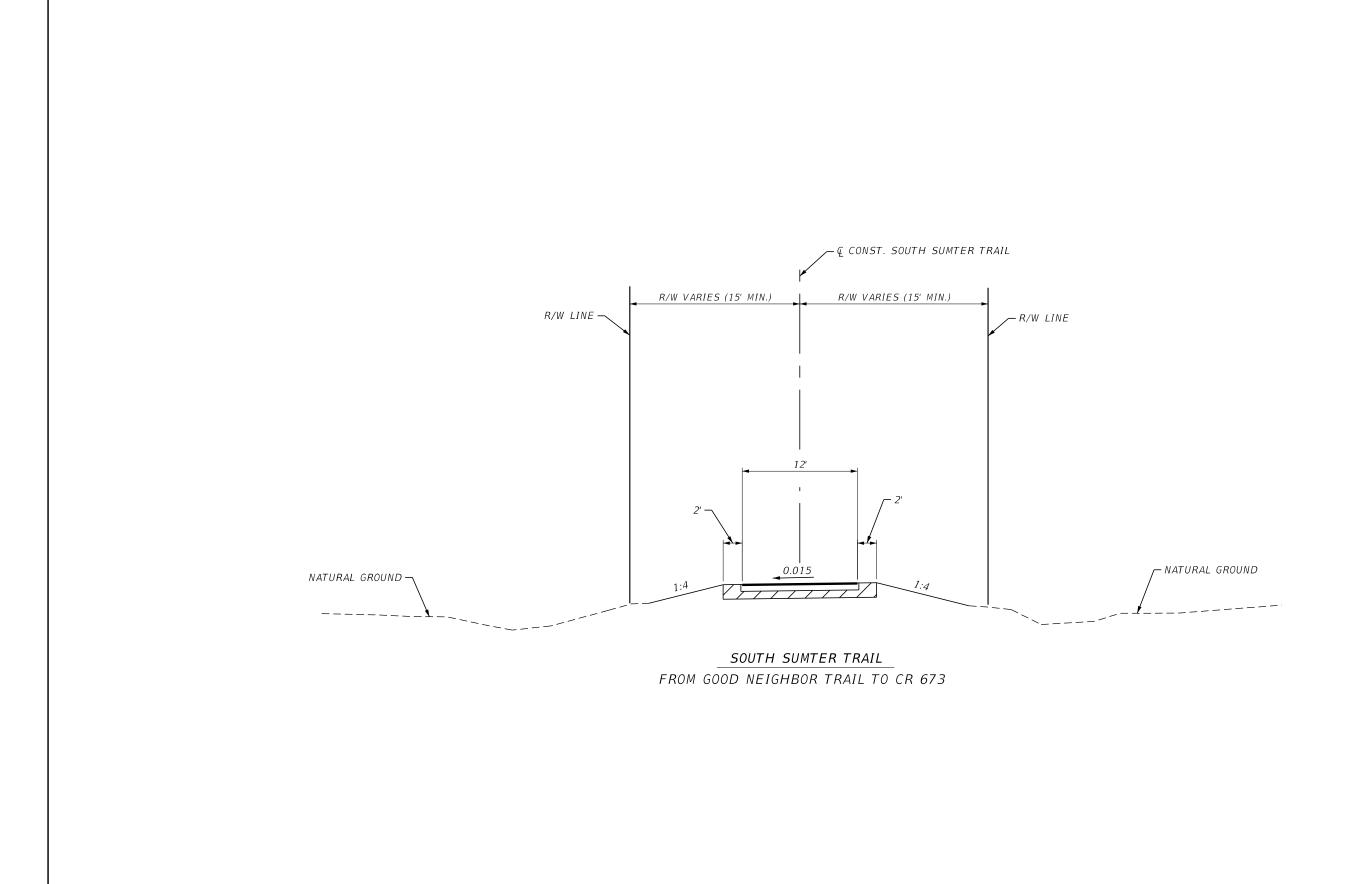
Standard Plans for Road Construction and associated IRs are available at the following website: http://www.fdot.gov/design/standardplans

APPLICABLE IRs: IR___-_-

Standard Plans for Bridge Construction are included in the Structures Plans

GOVERNING STANDARD SPECIFICATIONS:

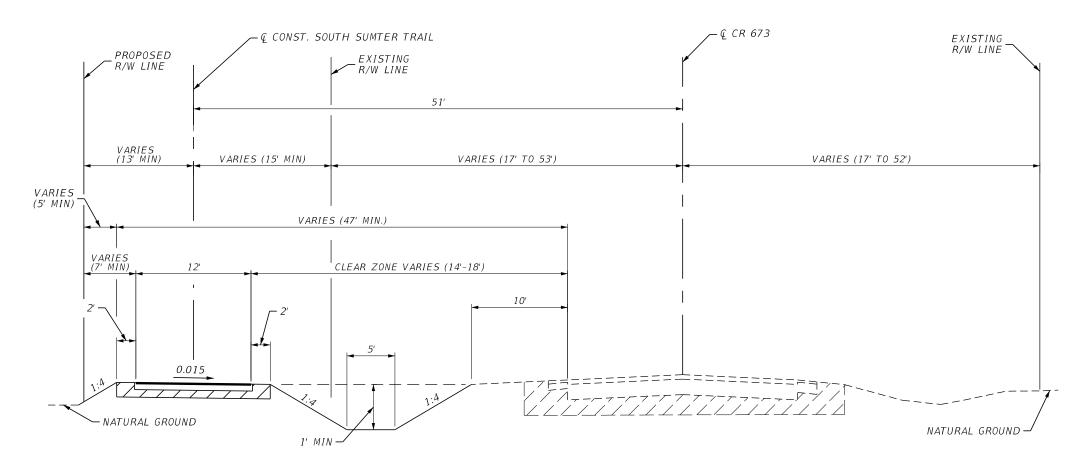
Florida Department of Transportation, Standard Specifications for Road and Bridge Construction at the following website: http://www.fdot.gov/programmanagement/Implemented/SpecBooks



	REVI:	SIONS		GAIL L. WOODS, P.E.		STATE OF FL	LORIDA
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524	DEPARTMENT OF TRANSPORTATION		
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				200 EAST ROBINSON STREET, SUITE 600	ROAD NO.	COUNTY	FINANCIAL PROJECT ID
				ORLANDO, FL 32801		SUMTER	435471-1-22-01
1				CERTIFICATE OF AUTHORIZATION: 7503		JUNIER	455471-1-22-01

TYPICAL SECTION

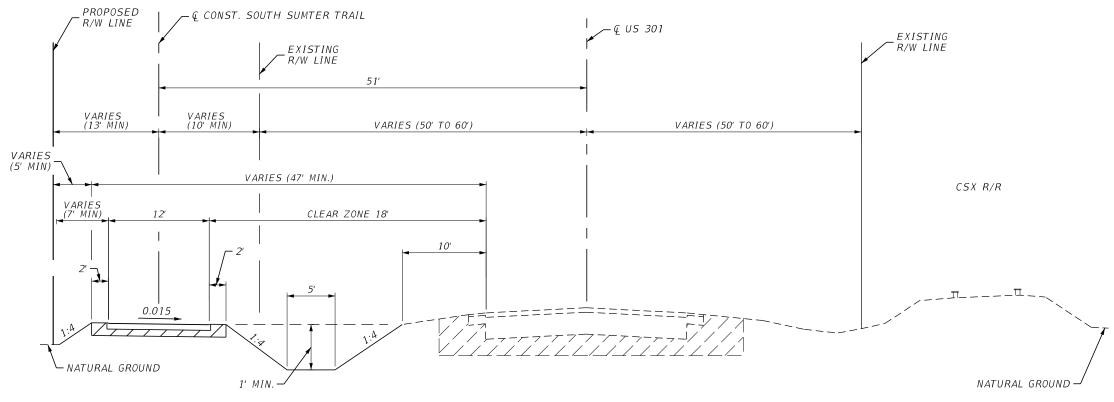
SHEET NO.



SOUTH SUMTER TRAIL ALONG CR 673
FROM EAST OF I-75 TO US 301

	REVISIONS			GAIL L. WOODS, P.E.	STATE OF FLORIDA				SHEET
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524 DEPARTMENT OF TRANSPORTATION DEPARTMENT OF TRANSPORTATION					NO.
				200 EAST ROBINSON STREET, SUITE 600	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	TYPICAL SECTION	
				ORLANDO, FL 32801 CERTIFICATE OF AUTHORIZATION: 7503		SUMTER	435471-1-22-01		3

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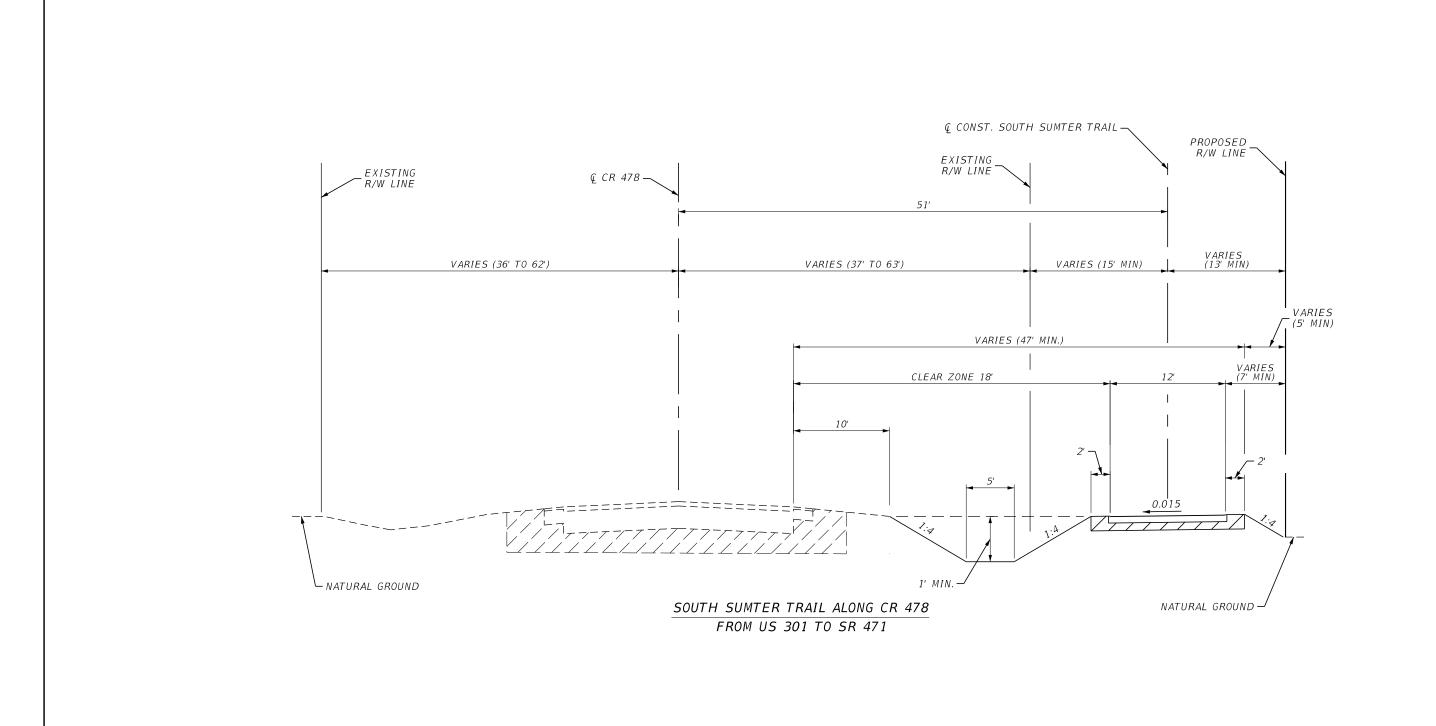
SOUTH SUMTER TRAIL ALONG CR 301 FROM CR 673 TO CR 478

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				TRANSYSTEMS CORPORATION CONSULTANTS	102311		70.1 0.1 1.1 1.1 1.0 1 1	
				200 EAST ROBINSON STREET, SUITE 600	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				ORLANDO, FL 32801		SUMTER	435471-1-22-01	1
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TYPICAL SECTION

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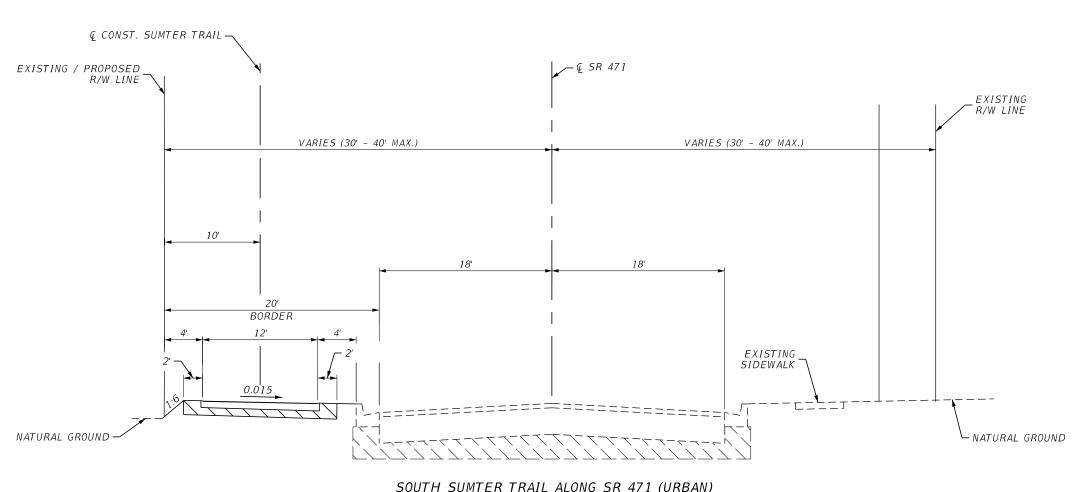


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STATE OF FLORIDA

TYPICAL SECTION

SHEET NO.



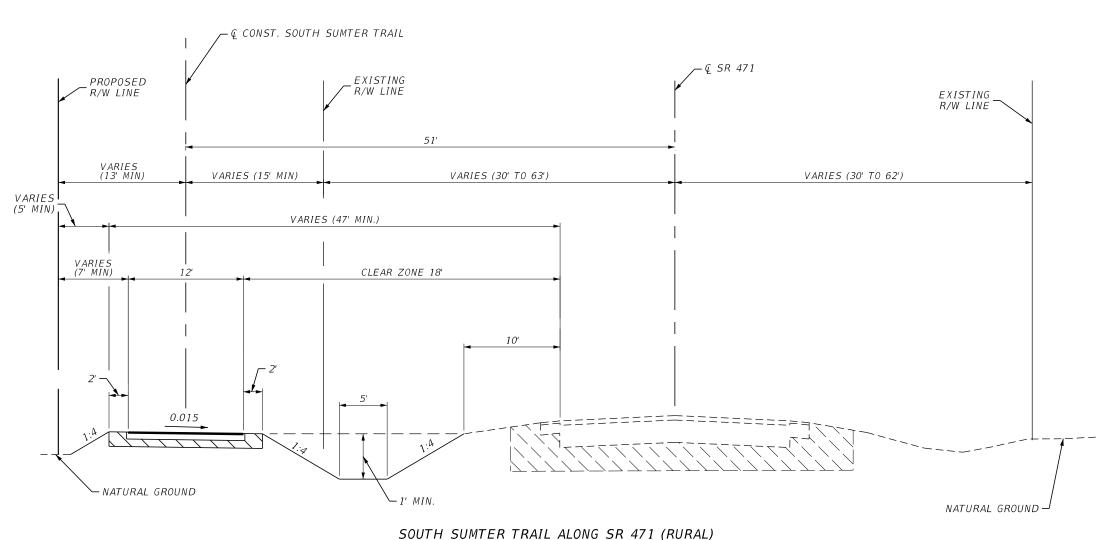
SOUTH SUMTER TRAIL ALONG SR 471 (URBAN)
FROM CR 478 TO WEBSTER ELEMENTARY SCHOOL

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DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524	DEP	DEPARTMENT OF TRANSPORTATION		
				TRANSYSTEMS CORPORATION CONSULTANTS				
				200 EAST ROBINSON STREET, SUITE 600	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
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				CERTIFICATE OF AUTHORIZATION: 7503		SUMTER	435471-1-22-01	

TYPICAL SECTION

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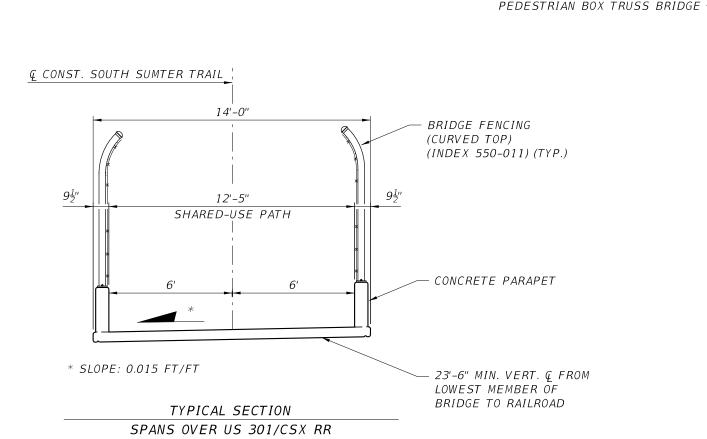


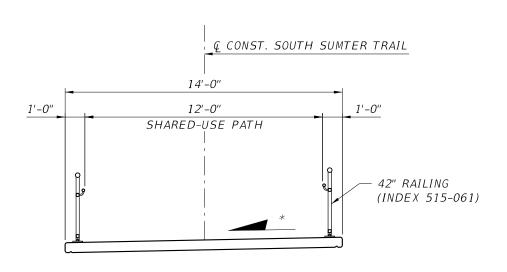
SOUTH SUMTER TRAIL ALONG SR 471 (RURAL) FROM WEBSTER ELEMENTARY SCHOOL TO SR 50

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				ORLANDO, FL 32801 CERTIFICATE OF AUTHORIZATION: 7503		SUMTER	435471-1-22-01		7

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TYPICAL SECTION APPROACH RAMPS TO US 301/CSX RR

* SLOPE: 0.015 FT/FT

REVISIONS GAIL L. WOODS, P.E. DESCRIPTION DATE DESCRIPTION DATE P.E. LICENSE NUMBER 4524 TRANSYSTEMS CORPORATION CONSULTANTS 200 EAST ROBINSON STREET, SUITE 600 ORLANDO, FL 32801

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. COUNTY FINANCIAL PROJECT ID SUMTER 435471-1-22-01

& CONST. SOUTH SUMTER TRAIL

3'-2"

3'-2"

6'-17" **

** WIDTH OF THE EQUESTRIAN FACILITY MAY INCREASE TO $12'-1\frac{1}{2}$ " FEET

TYPICAL SECTION SPANS OVER WITHLACOOCHEE RIVER

21'-0"

6'-1½" **

EQUESTRIAN PATH

** WIDTH OF THE EQUESTRIAN FACILITY MAY INCREASE TO 12'-11'" FEET

TYPICAL SECTION

APPROACH RAMPS TO WITHLACOOCHEE RIVER CROSSING

DURING THE DESIGN PHASE. FINAL DETERMINATION OF EQUESTRIAN FACILITY WIDTH WILL BE BASED ON DESIGN, SURVEY AND COORDINATION WITH THE

3'-2"

3'-2"

DURING THE DESIGN PHASE. FINAL DETERMINATION OF EQUESTRIAN FACILITY

WIDTH WILL BE BASED ON DESIGN, SURVEY AND COORDINATION WITH THE

EQUESTRIAN PATH*

6'-10"

 $6'-0\frac{3}{4}''$

SHARED-USE

PATH

54" RAILING

(TYP. INT.)

(INDEX

515-061)

APPROVED RUBBER EQUESTRAIN TREAD MAT

6'-10"

6'-03/4" SHARED-USE

PATH

54" RAILING (TYP. INT.)

(INDEX

515-061)

6'-10"

 $6'-0\frac{3}{4}''$

SHARED-USE

PATH

(INDEX

515-061)

42" RAILING

(TYP. EXT.)

* SLOPE: 0.015 FT/FT

WITHLACOOCHEE STATE FOREST.

© CONST. SOUTH SUMTER TRAIL

6'-10"

 $6'-0\frac{3}{4}''$

SHARED-USE

PATH

* SLOPE: 0.015 FT/FT

WITHLACOOCHEE STATE FOREST.

TYPICAL SECTION

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- APPROVED RUBBER

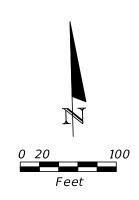
EQUESTRAIN TREAD MAT

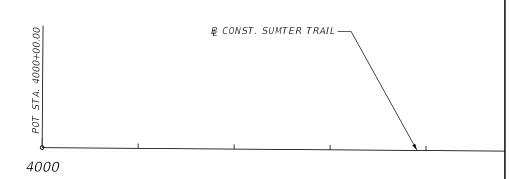
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42" RAILING (TYP. EXT.) (INDEX 515-061)

PREFABRICATED STEEL

CERTIFICATE OF AUTHORIZATION: 7503





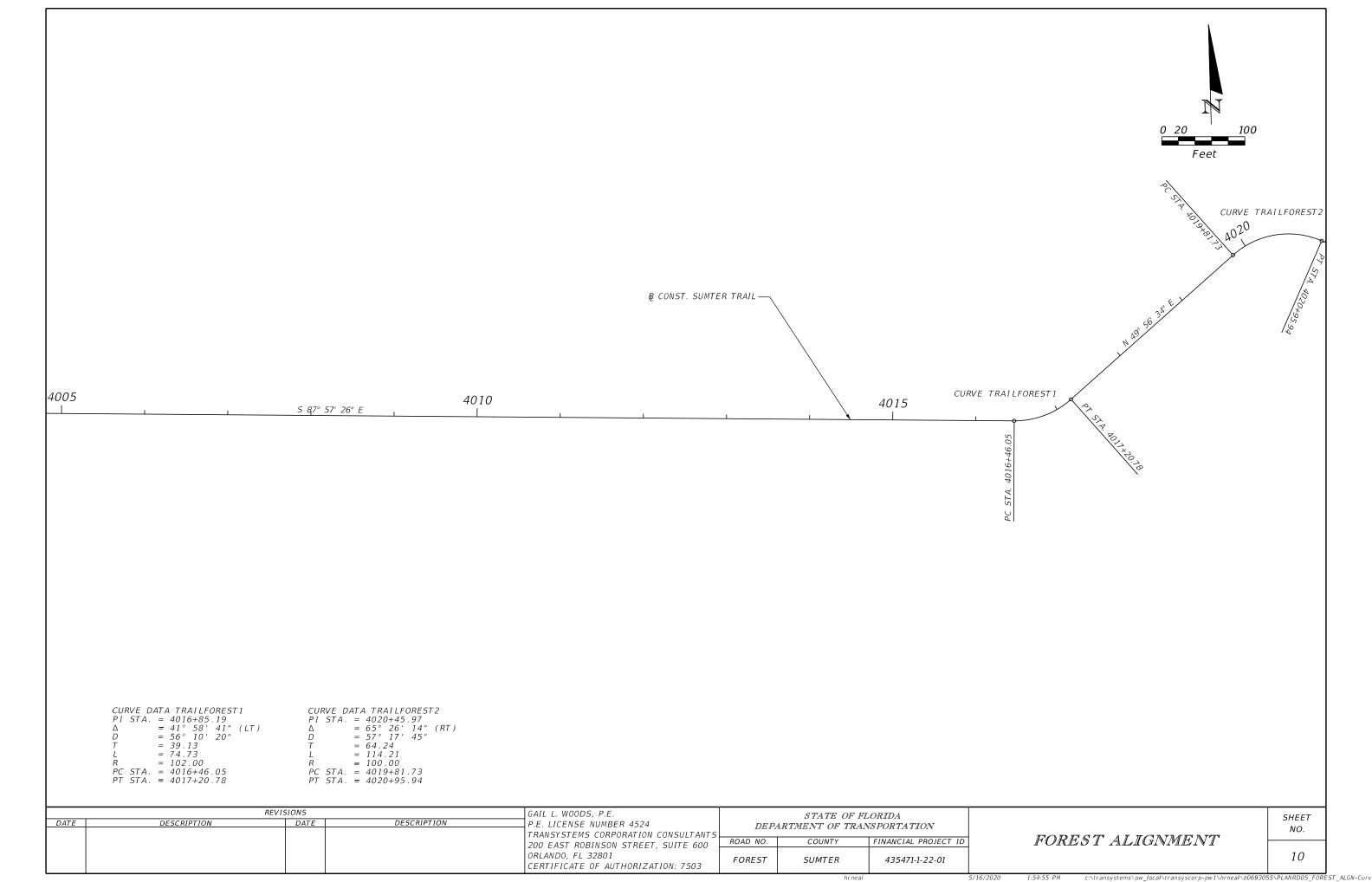
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DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524	
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				200 EAST ROBINSON STREET, SUITE 600	
				ORLANDO, FL 32801	
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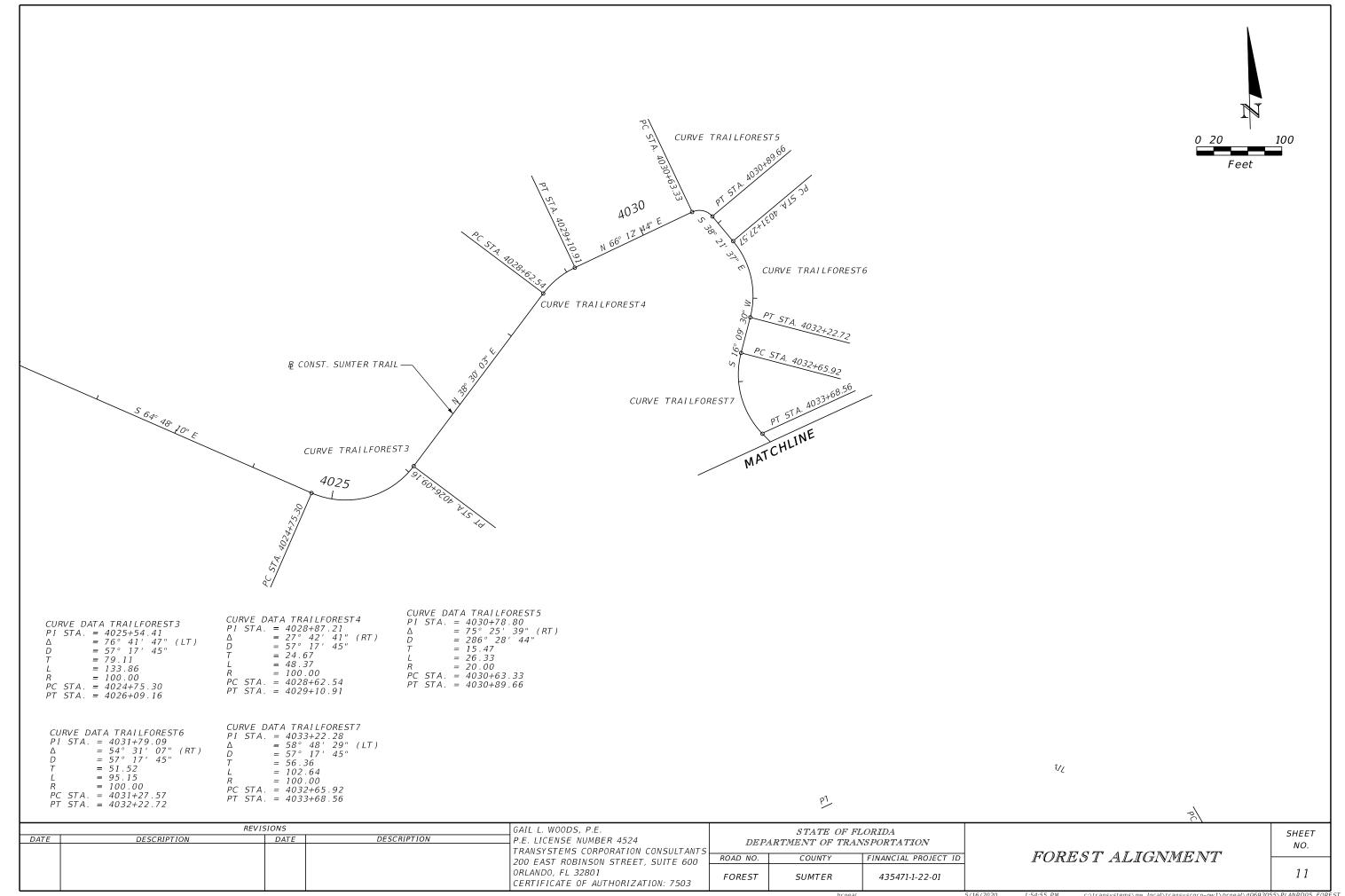
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID					
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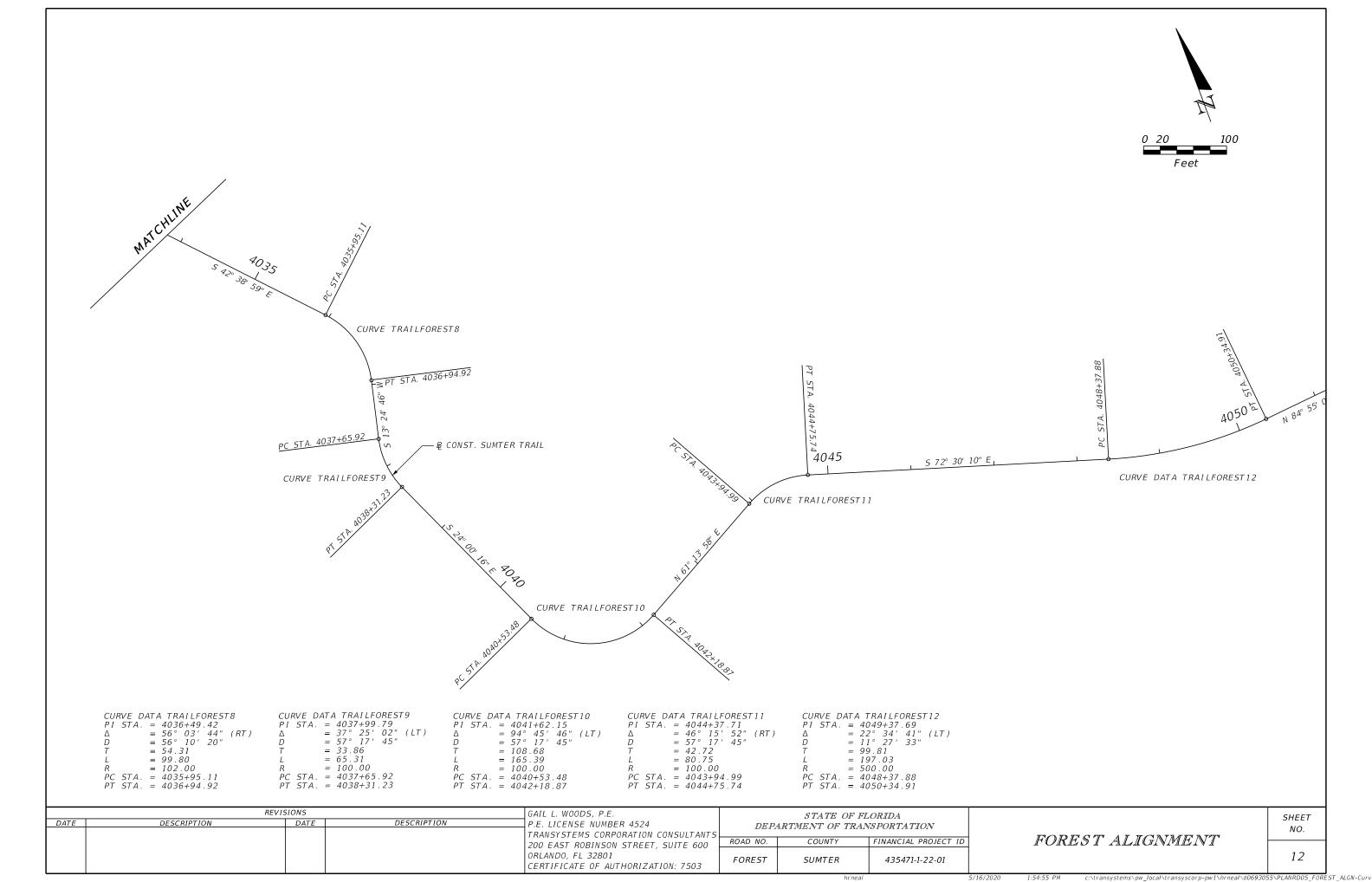
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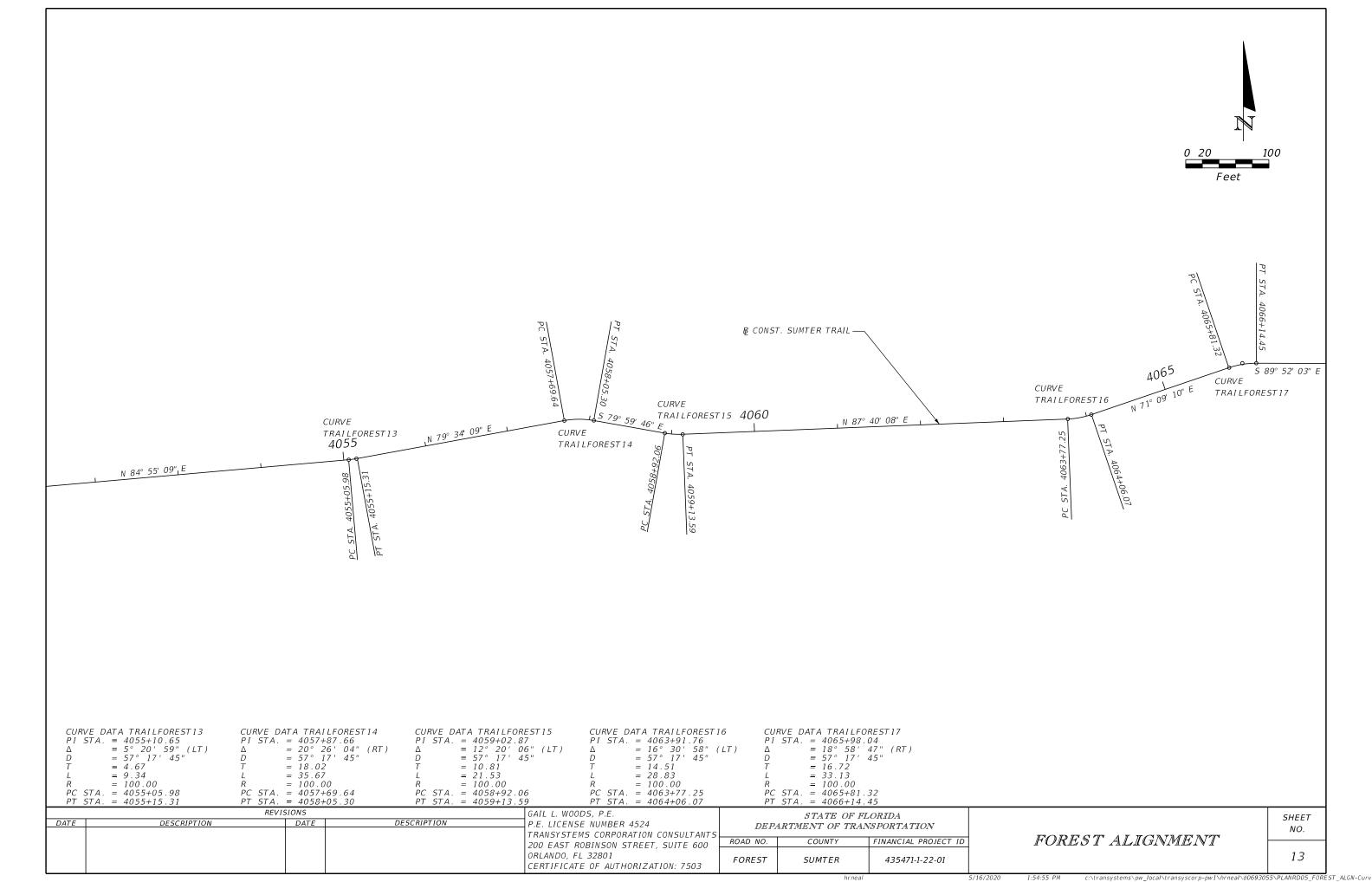
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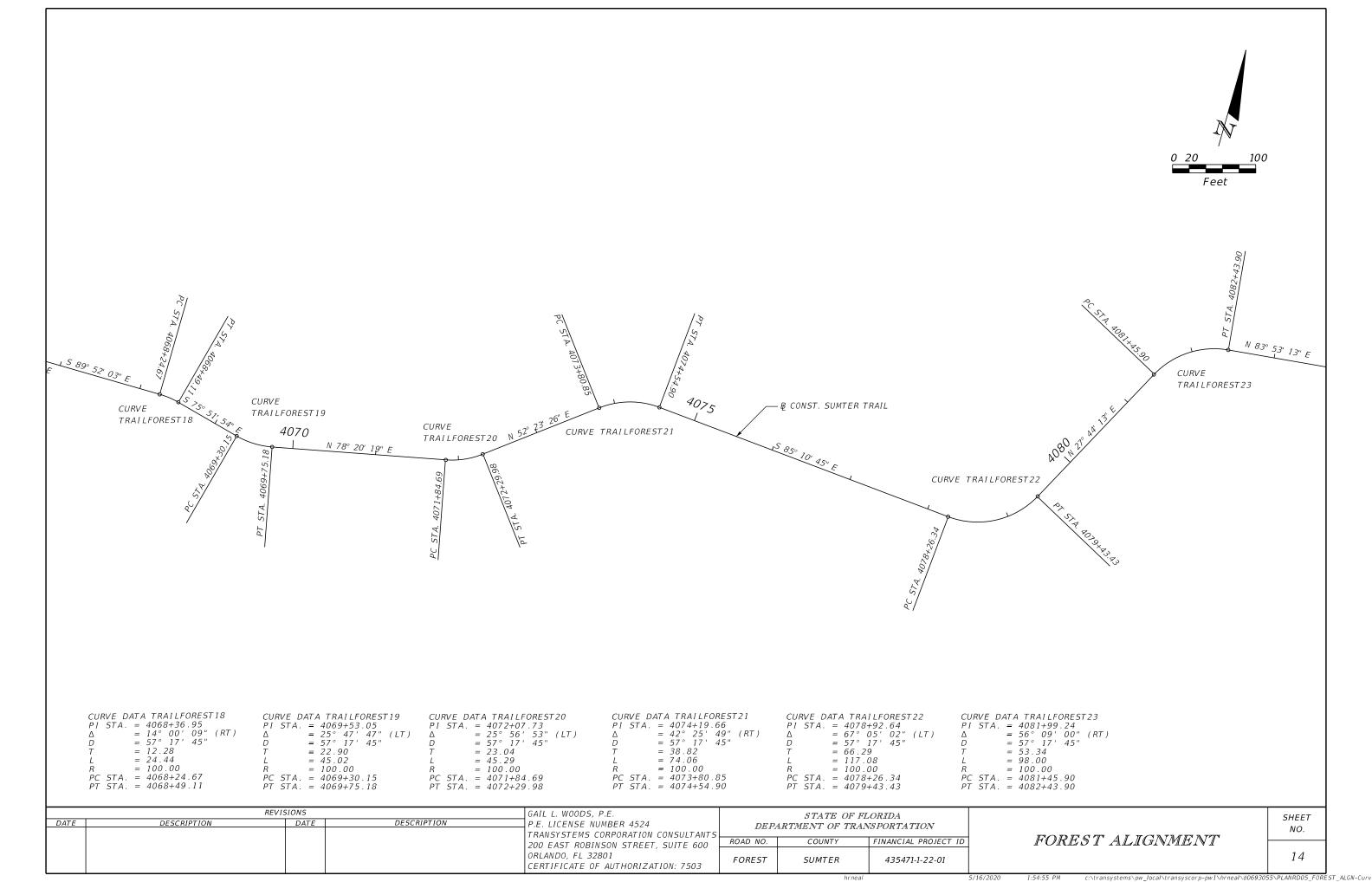
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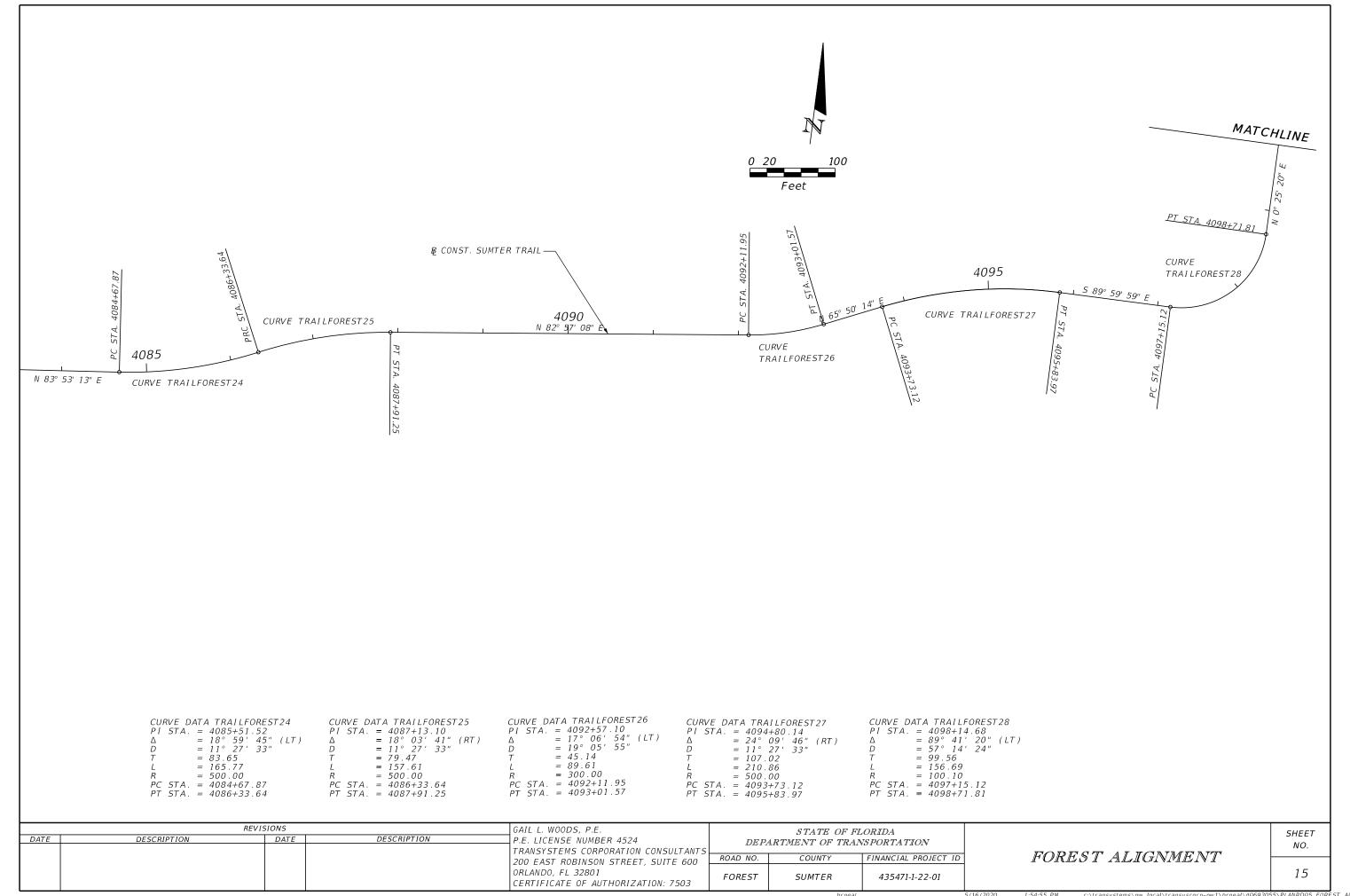


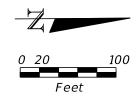


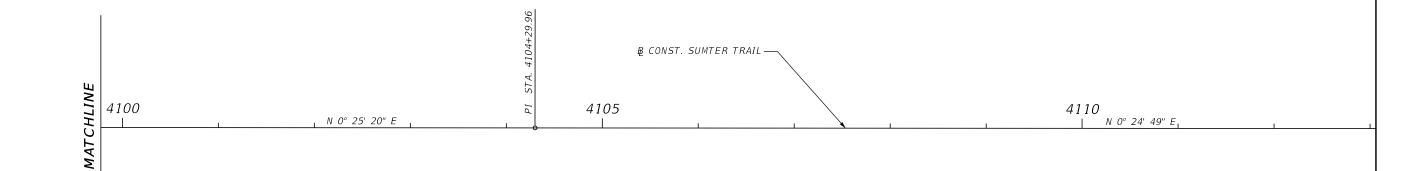












REVISIONS

DATE DESCRIPTION DATE DESCRIPTION P.E. LICENSE NUMBER 4524

TRANSYSTEMS CORPORATION CONSULTANTS
200 EAST ROBINSON STREET, SUITE 600

ORLANDO, FL 32801
CERTIFICATE OF AUTHORIZATION: 7503

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO. COUNTY FINANCIAL PROJECT ID

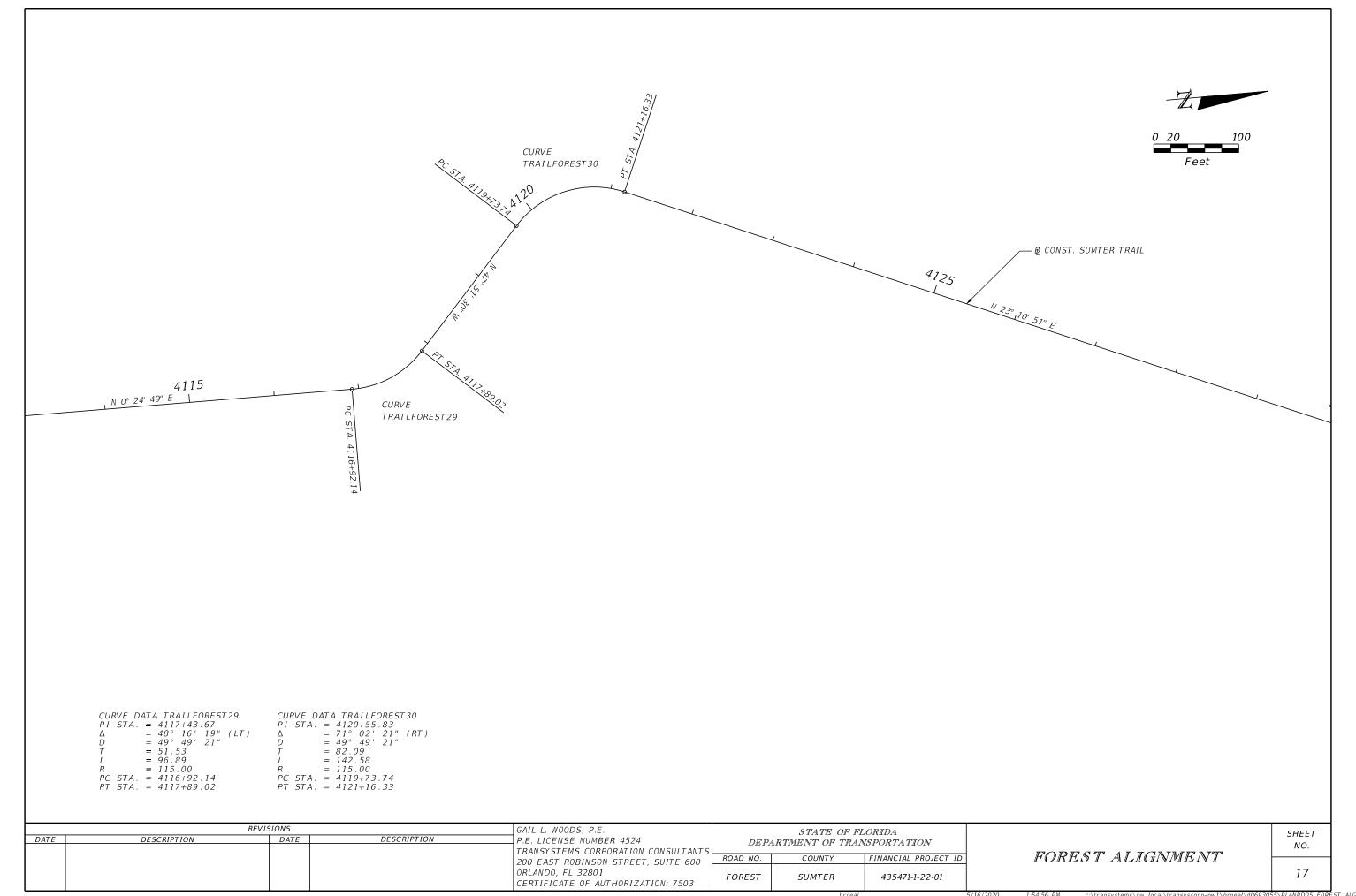
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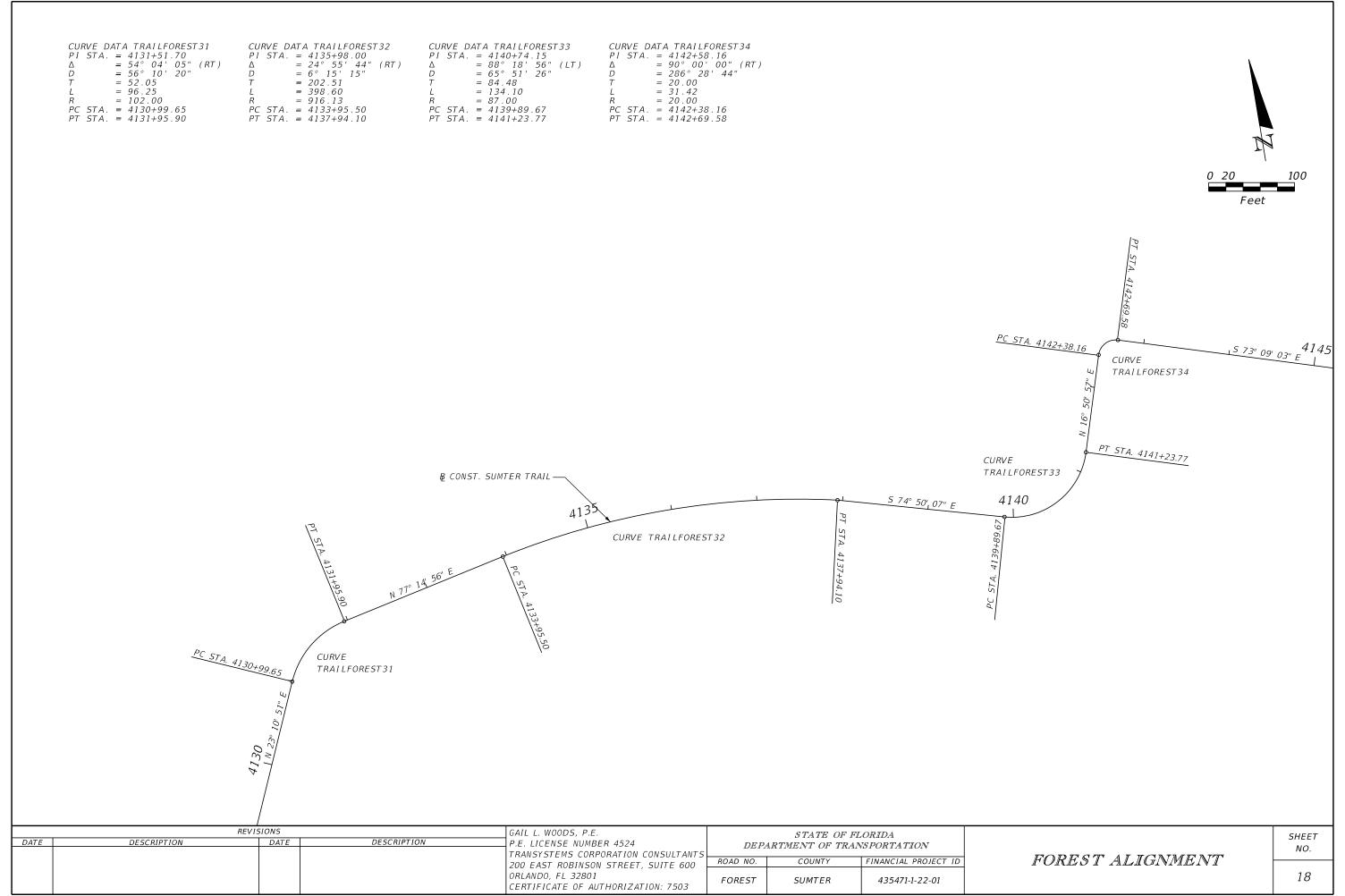
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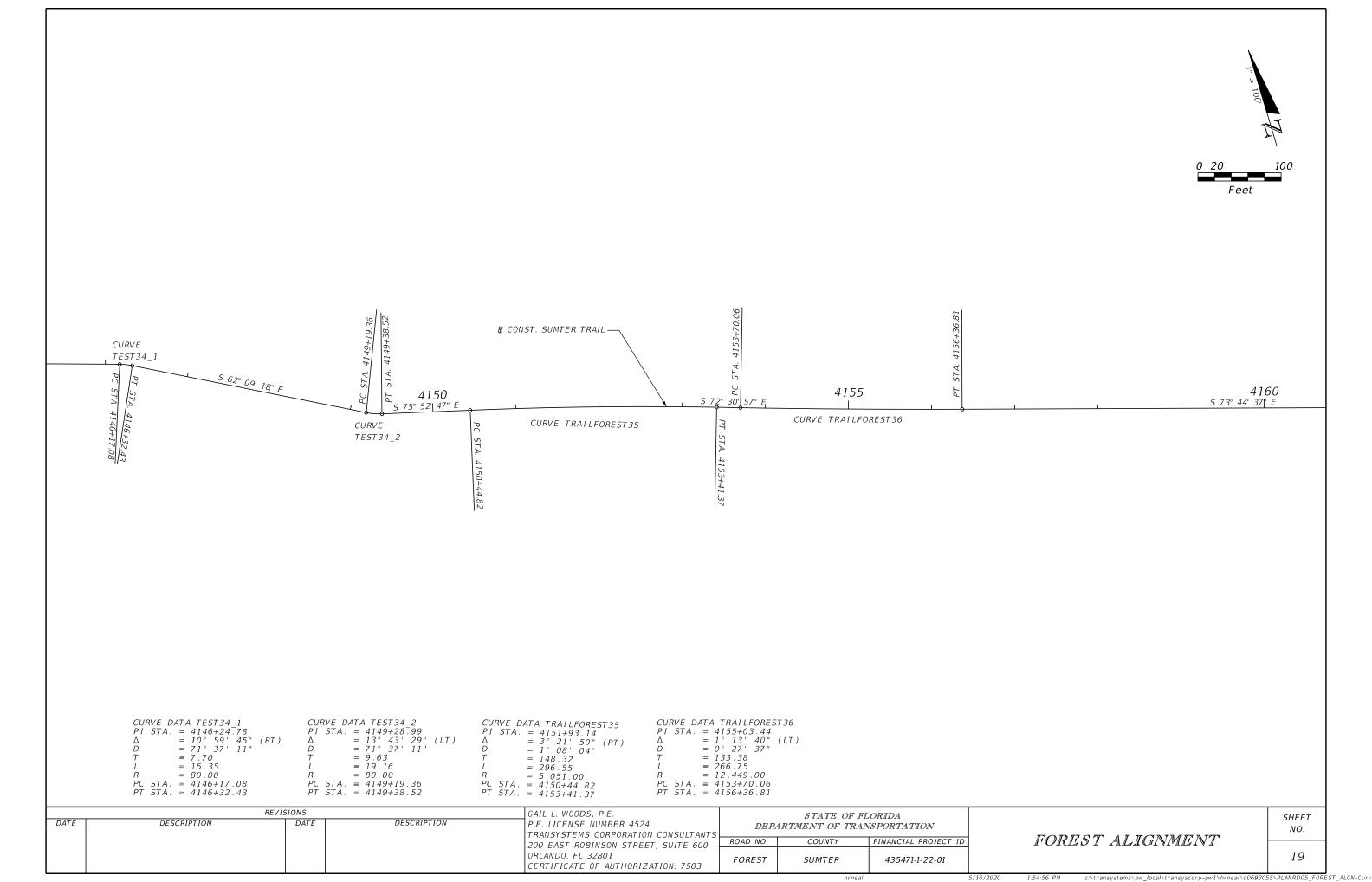
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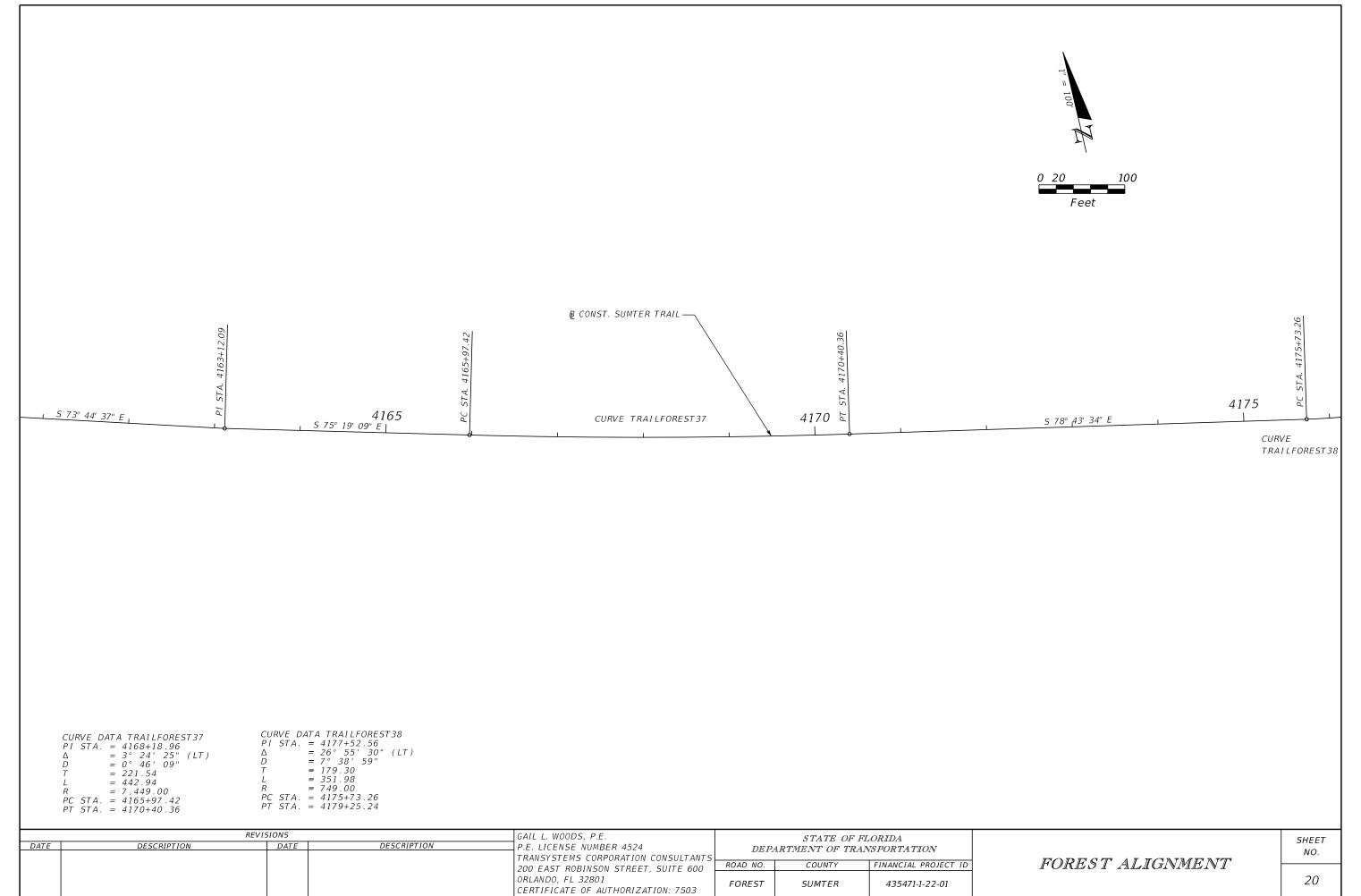
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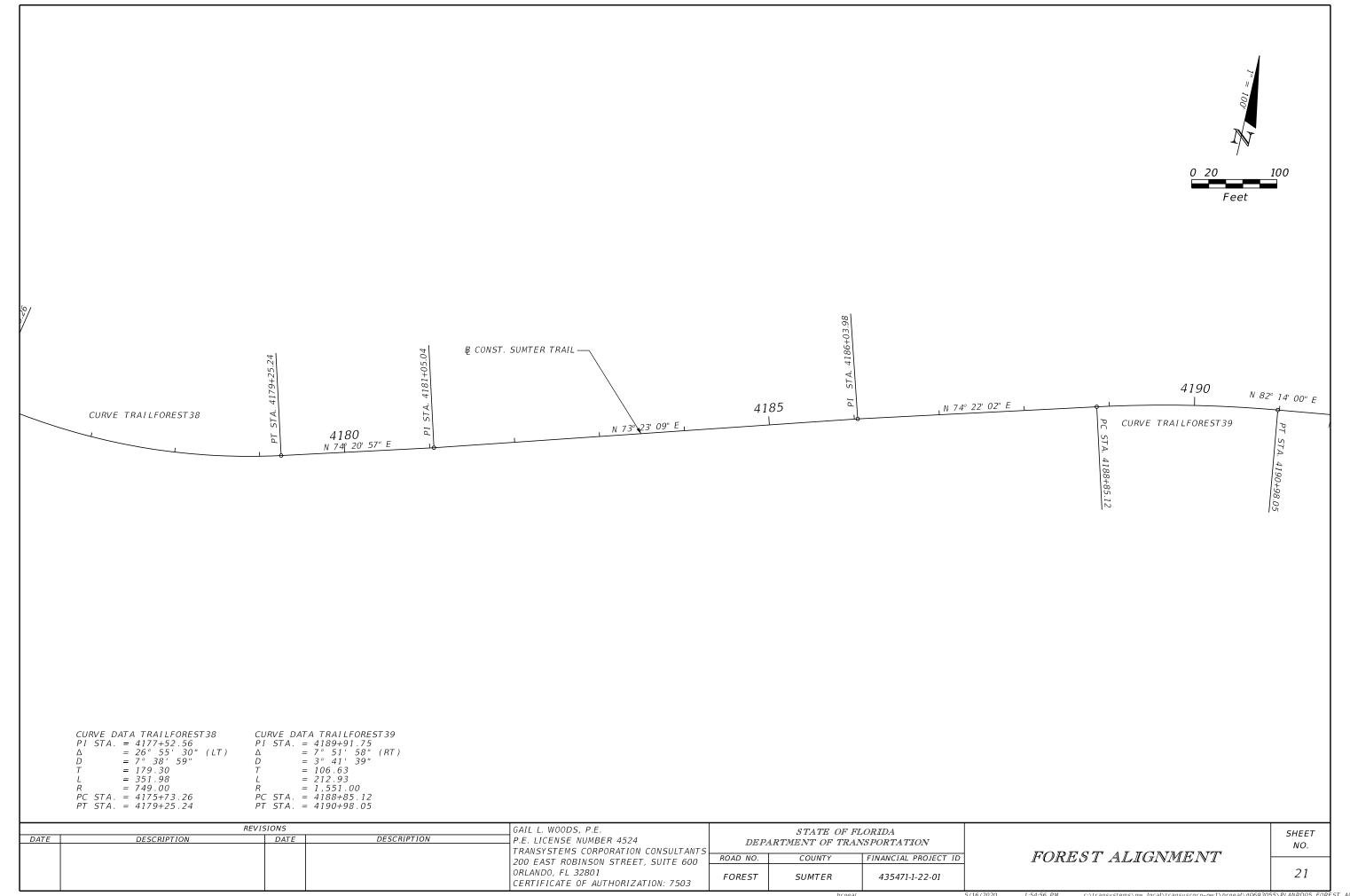


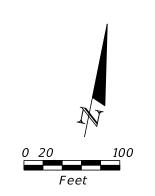


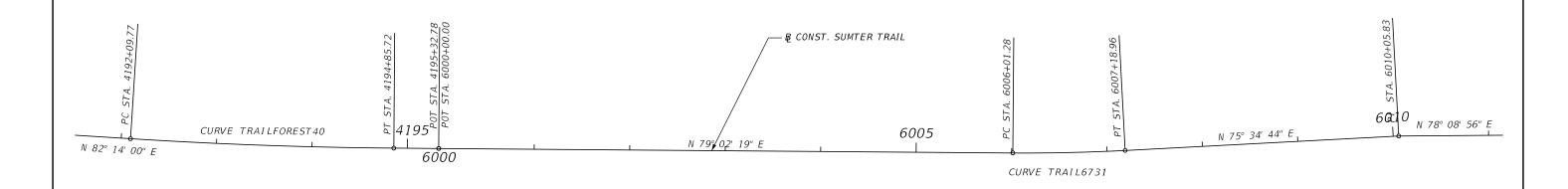




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DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524
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				200 EAST ROBINSON STREET, SUITE 600
				ORLANDO, FL 32801
				CERTIFICATE OF AUTHORIZATION: 7503

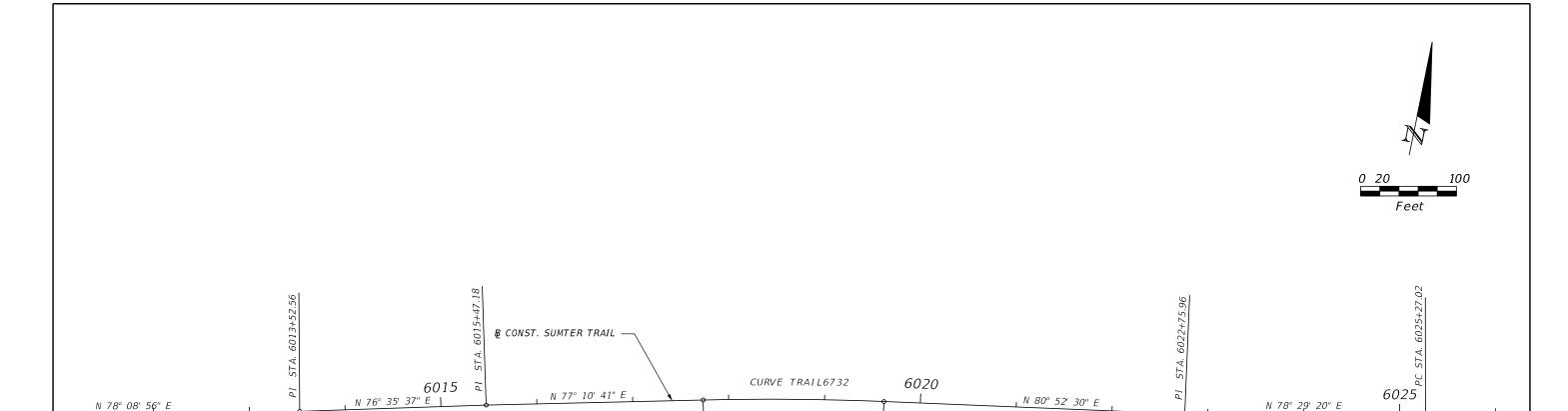
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION						
ROAD NO.	COUNTY	FINANCIAL PROJECT ID				
CR 673	SUMTER	435471-1-22-01				

COUNTY ROAD 673

SHEET NO.

5/16/2020

15450 81



N 77° 10′ 41″ E

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\[L = 188.47 \]
\[R = 2,921.11 \]
\[PC STA. = 6017+73.47 \]
\[PT STA. = 6019+61.94 \] CURVE DATA TRAIL6733

PI STA. = 6026+52.17 Δ = 2° 24° 37° (LT)

D = 0° 57° 47° T = 125.15L = 250.27R = 5.949.00PC STA. = 6025+27.02PT STA. = 6027+77.29

N 78° 08′ 56″ E

	REVI	GAIL L. WOODS, P.E.		
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524
				TRANSYSTEMS CORPORATION CONSULTANT
				200 EAST ROBINSON STREET, SUITE 600
				ORLANDO, FL 32801
				CERTIFICATE OF AUTHORIZATION: 7503

NTS .	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION							
	ROAD NO.	COUNTY	FINANCIAL PROJECT ID					
	CR 673	SUMTER	435471-1-22-01					

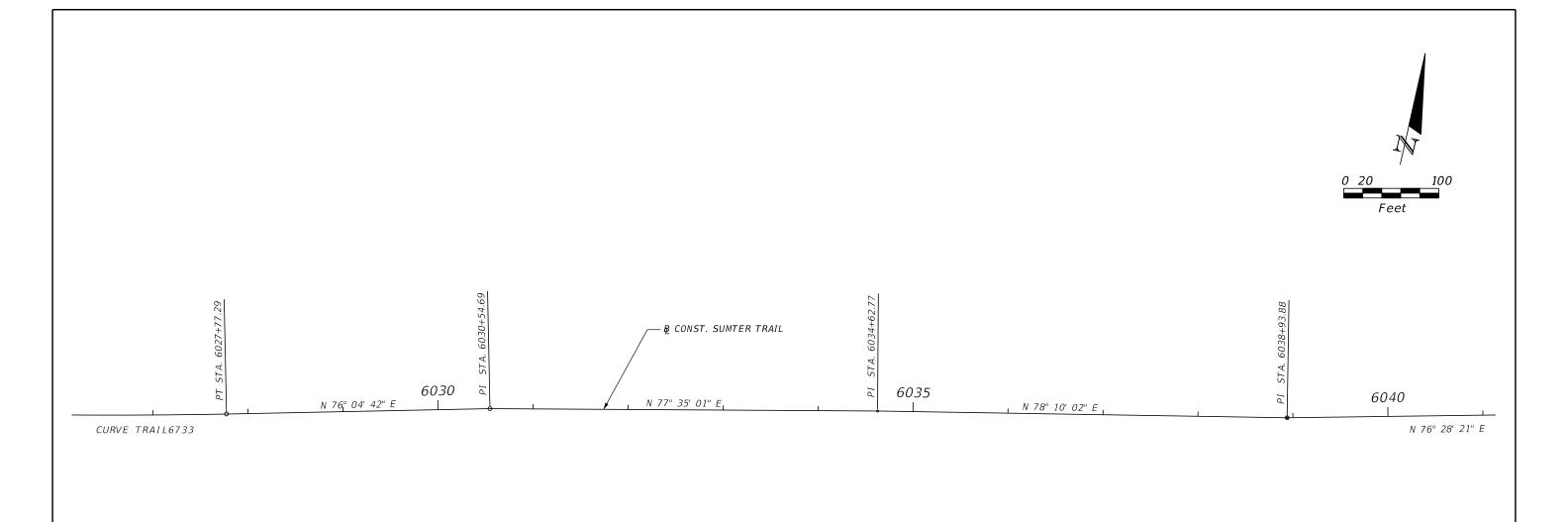
COUNTY ROAD 673

N 78° 29' 20" E

SHEET NO. 23

CURVE TRAIL6733

N 80° 52' 30" E



CURVE DATA TRAIL6733

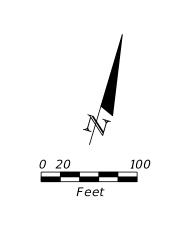
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PC STA. = 6025+27.02

PT STA. = 6027+77.29

	REVI	SIONS		GAIL L. WOODS, P.E.		STATE OF F	LORIDA	
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524 TRANSYSTEMS CORPORATION CONSULTANTS	DEPARTMENT OF TRANSPORTATION			
				200 EAST ROBINSON STREET, SUITE 600	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				ORLANDO, FL 32801 CERTIFICATE OF AUTHORIZATION: 7503	CR 673	SUMTER	435471-1-22-01	

COUNTY ROAD 673



₽ CONST. SUMTER TRAIL — 6055 N 60° 39' 19" E CURVE TRAIL6734 N 76° 28' 21" E 6050

CURVE DATA TRAIL6734

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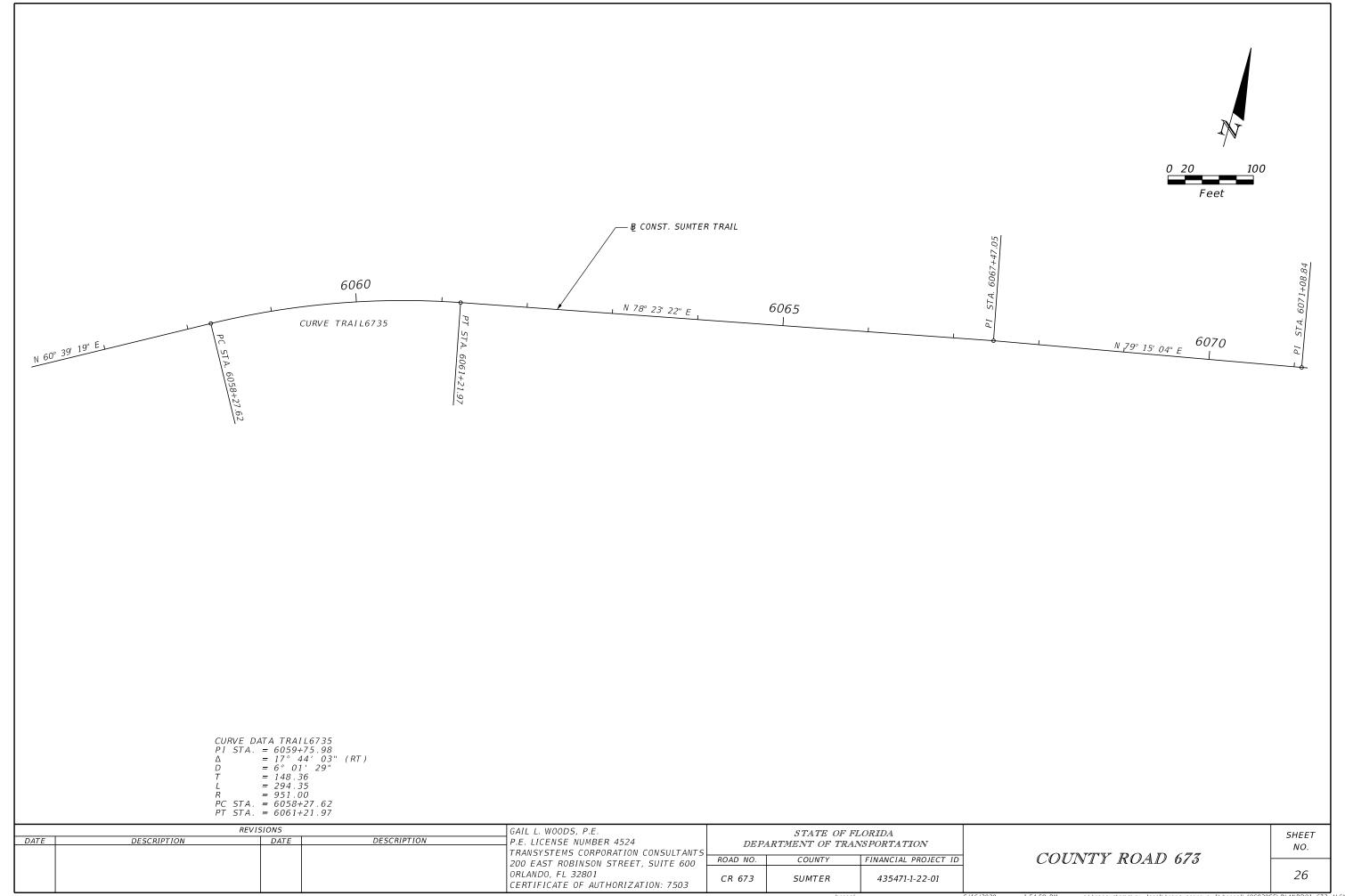
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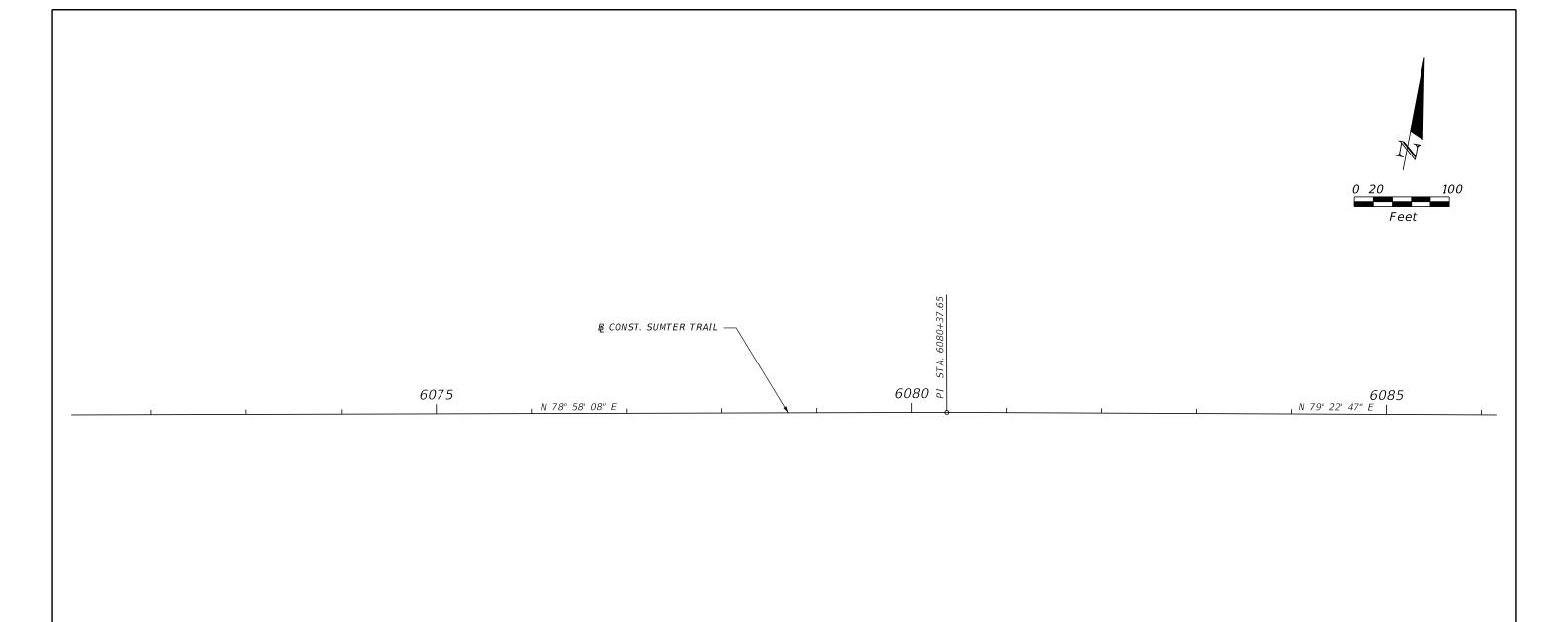
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DATE	DESCRIPTION	DESCRIPTION	P.E. LICENSE NUMBER 4524	
				TRANSYSTEMS CORPORATION CONSULTANT
				200 EAST ROBINSON STREET, SUITE 600
				ORLANDO, FL 32801
				CERTIFICATE OF AUTHORIZATION: 7503

6045

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00	ROAD NO.	COUNTY	FINANCIAL PROJECT ID						
70	CR 673	SUMTER	435471-1-22-01						

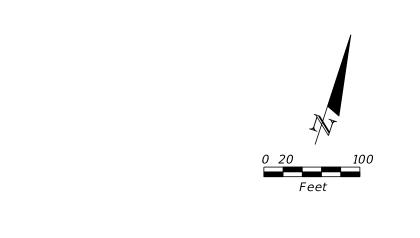
COUNTY ROAD 673

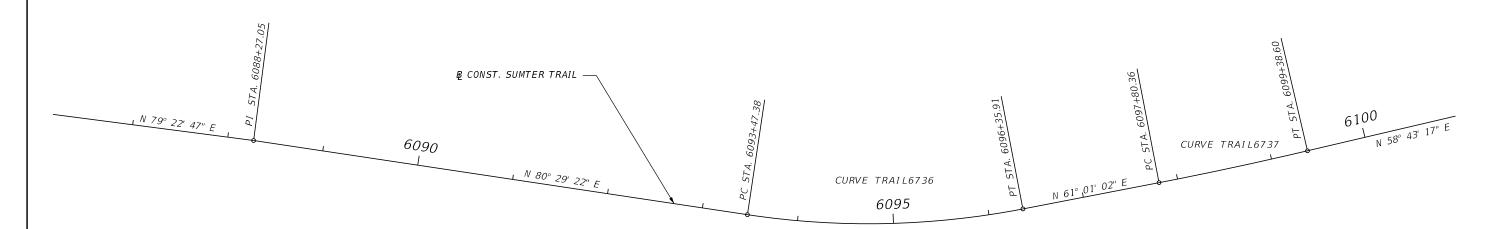




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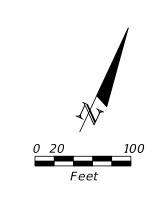
COUNTY ROAD 673

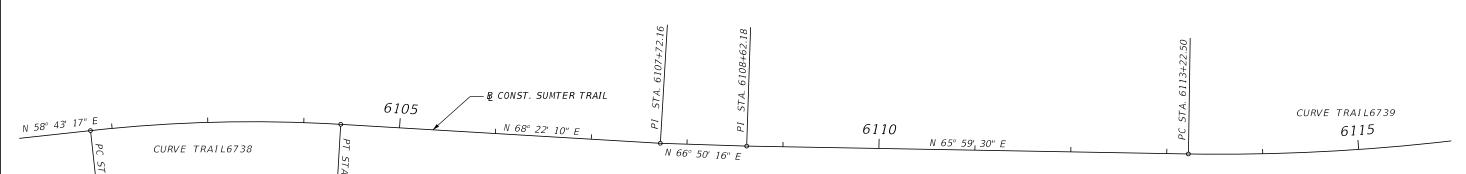




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				ORLANDO, FL 32801	CR 673	SUMTER	435471-1-22-01

COUNTY ROAD 673





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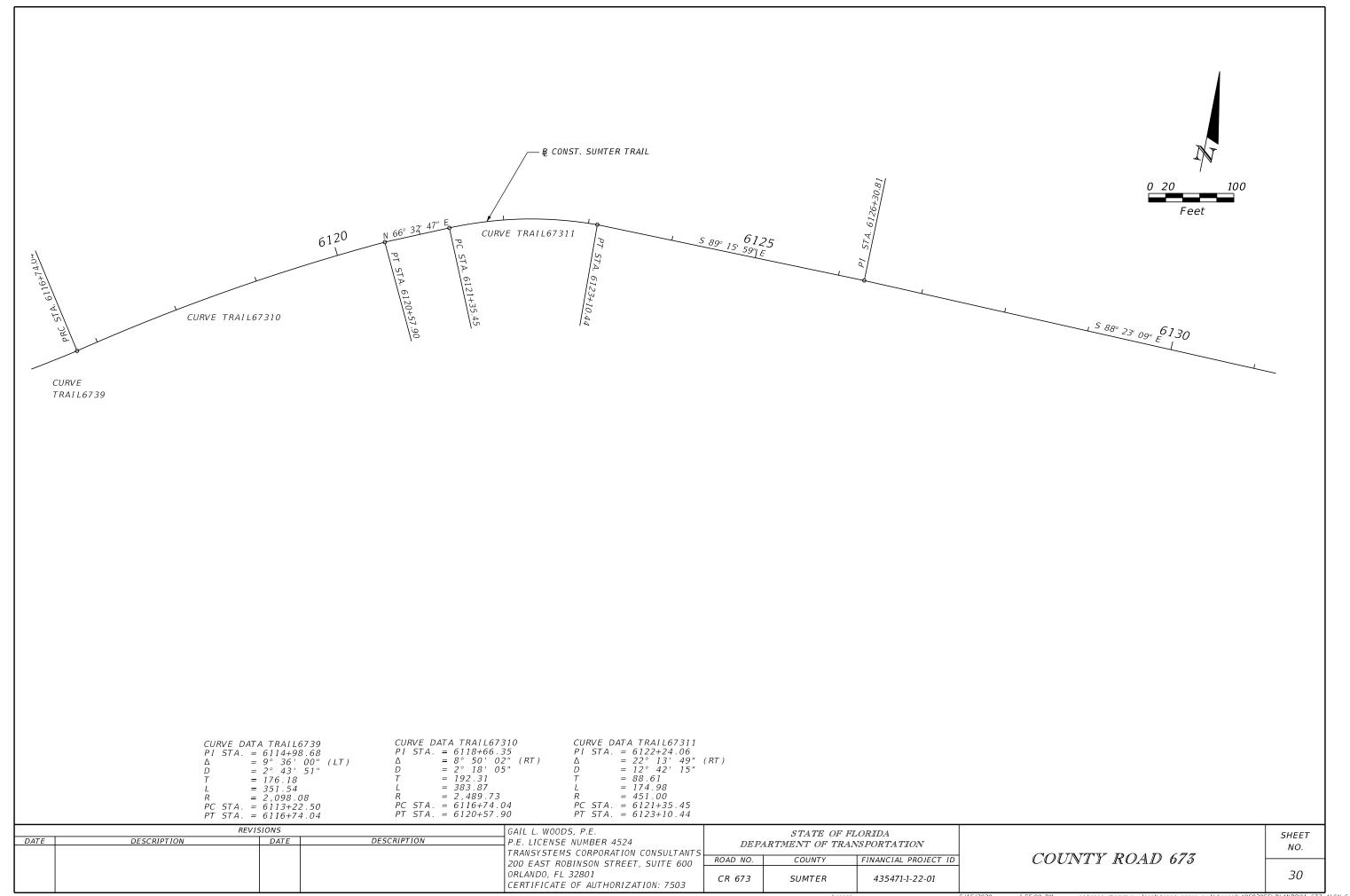
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D = 3\circ 41\cdot 39\cdot \]
T = 130.90
L = 261.17
R = 1,551.00
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PT STA. = 6104+38.58 CURVE DATA TRAIL6739
PI STA. = 6114+98.68

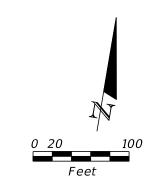
\[\D = 9\circ 36\cdot 00\circ (LT) \]
\[D = 2\circ 43\cdot 51\circ
\]
\[T = 176.18 \]
\[L = 351.54 \]
\[R = 2.098.08 \]
\[PC STA. = 6113+22.50 \]
\[PT STA. = 6116+74.04 \]

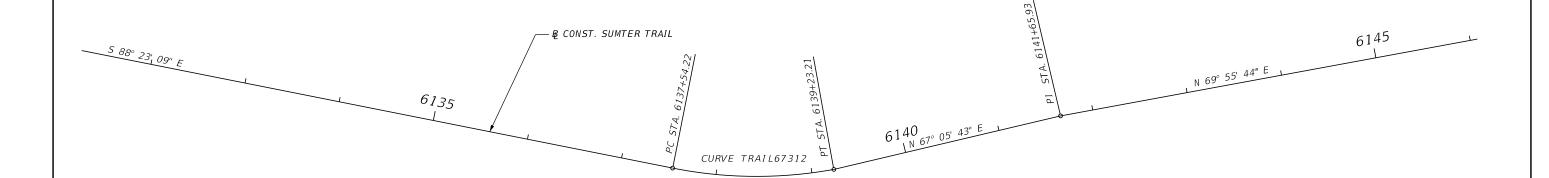
	REVIS	GAIL L. WOODS, P.E.		
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524
				TRANSYSTEMS CORPORATION CONSULTANTS
				200 EAST ROBINSON STREET, SUITE 600
				ORLANDO, FL 32801
				CERTIFICATE OF AUTHORIZATION: 7503

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION						
	ROAD NO.	COUNTY	FINANCIAL PROJECT ID			
	CR 673	SUMTER	435471-1-22-01			

COUNTY ROAD 673







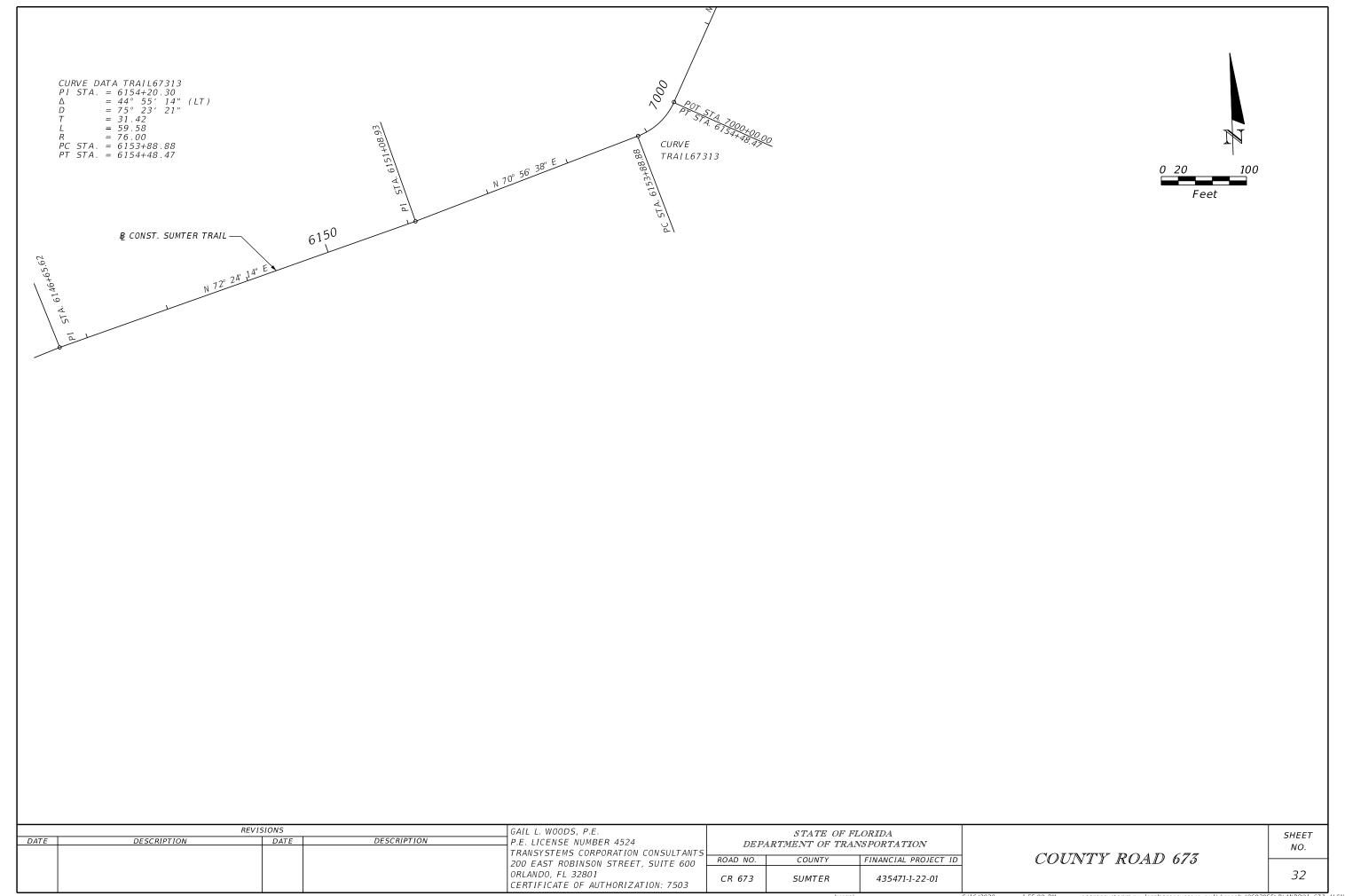
CURVE DATA TRAIL67312
PI STA. = 6138+39.73

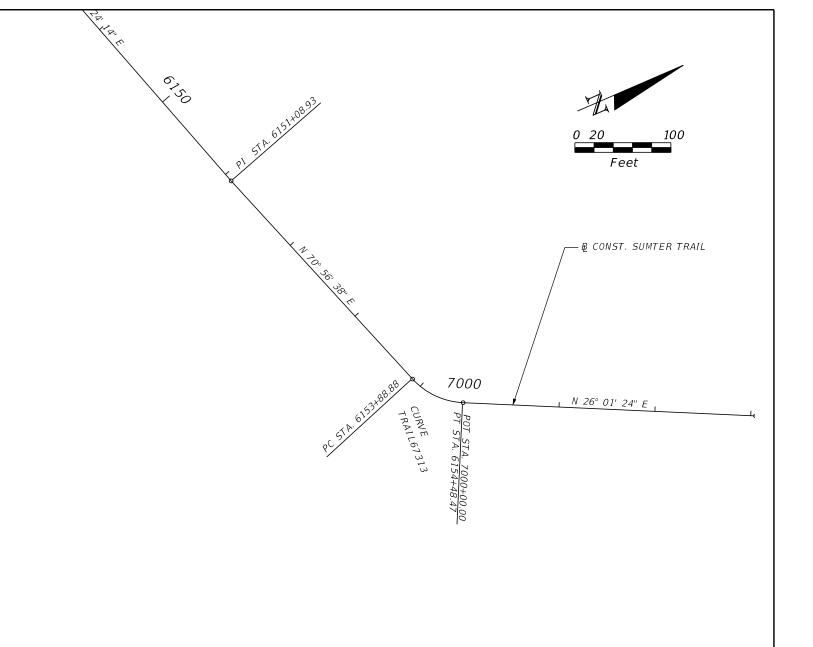
\[\Delta = 21^\circ 33' 54'' (LT) \]
\[D = 12^\circ 45' 39'' \]
\[T = 85.51 \]
\[L = 168.99 \]
\[R = 449.00 \]
\[PC STA. = 6137+54.22 \]
\[PT STA. = 6139+23.21 \]

	REVIS	SIONS		GAIL L. WOODS, P.E.	STATE OF FLORIDA			
DATE	DESCRIPTION	DESCRIPTION DATE DESCRIPTION			DEP	ARTMENT OF TRAN	NSPORTATION	
				TRANSYSTEMS CORPORATION CONSULTANT				
				200 EAST ROBINSON STREET, SUITE 600	ROAD NO.	COUNTY	FINANCIAL PROJECT .	
				ORLANDO, FL 32801	CR 673	SUMTER	435471-1-22-01	
				CERTIFICATE OF AUTHORIZATION: 7503	C/(0/3	JOHN EN	133471122 01	

NANCIAL PROJECT ID

COUNTY ROAD 673





CURVE DATA TRAIL67313

PI STA. = 6154+20.30

Δ = 44° 55' 14" (LT)

D = 75° 23' 21"

T = 31.42

L = 59.58

R = 76.00

PC STA. = 6153+88.88

PT STA. = 6154+48.47

	REVI	GAIL L. WOODS, P.E.		
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524
				TRANSYSTEMS CORPORATION CONSULTANT
				200 EAST ROBINSON STREET, SUITE 600
				ORLANDO, FL 32801
l				CERTIFICATE OF AUTHORIZATION: 7503

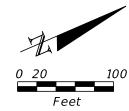
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0	ROAD NO.	COUNTY	FINANCIAL PROJECT ID						
	US 301	SUMTER	435471-1-22-01						

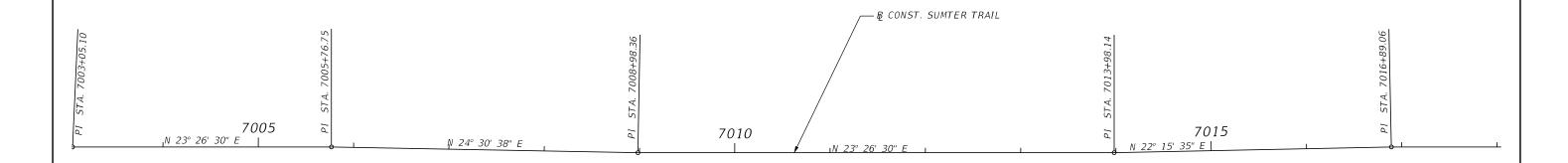
US 301

SHEET NO.

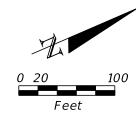
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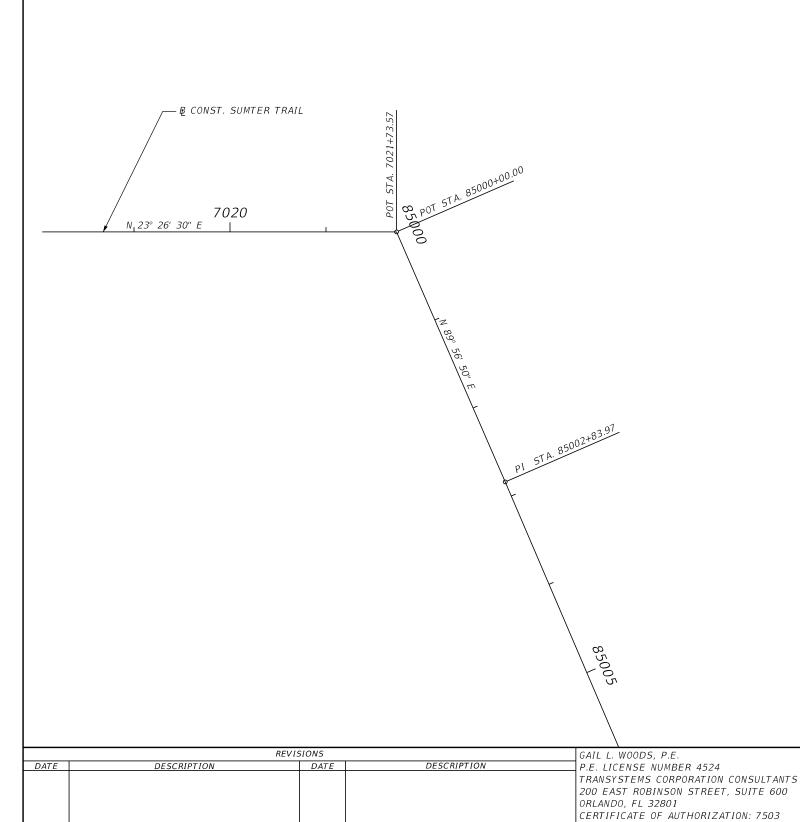
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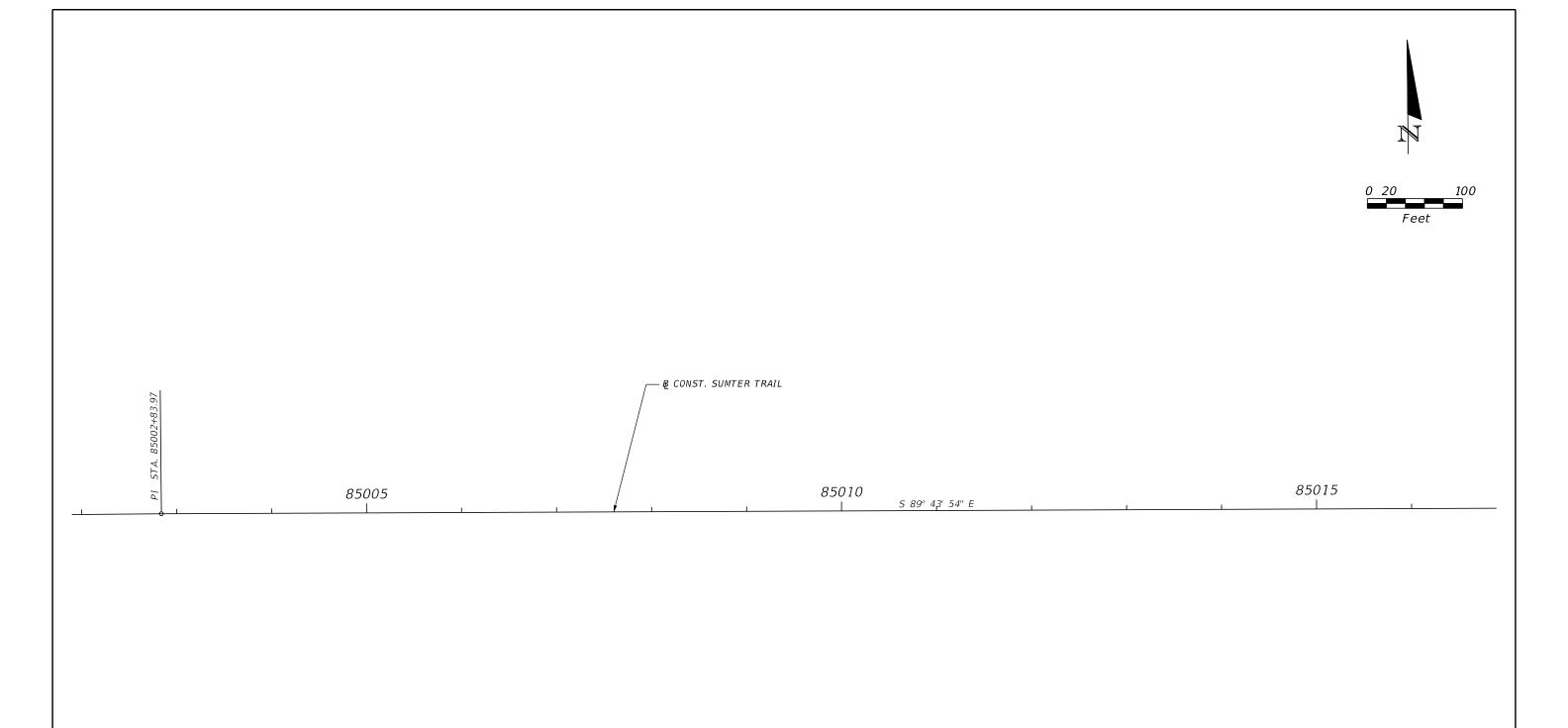
REVISIONS			GAIL L. WOODS, P.E.		STATE OF F	LORIDA		SHEET	
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524 TRANSYSTEMS CORPORATION CONSULTANTS		ARTMENT OF TRA			NO.
				200 EAST ROBINSON STREET, SUITE 600		COUNTY	FINANCIAL PROJECT ID	US 301	
				ORLANDO, FL 32801 CERTIFICATE OF AUTHORIZATION: 7503	US 301	SUMTER	435471-1-22-01		34





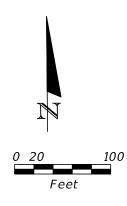
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. COUNTY FINANCIAL PROJECT ID US 301 SUMTER 435471-1-22-01

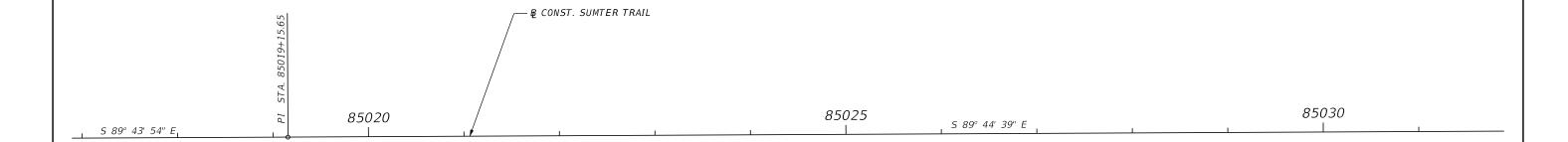
US 301



	RE	ISIONS/		GAIL L. WOODS, P.E.		STATE OF FI	ORIDA	l .
DATE	DESCRIPTION	DATE	DESCRIPTION P.E. LICENSE NUMBER 4524 TRANSYSTEMS CORPORATION CONSUL		DEPARTMENT OF TRANSPORTATION			
				200 EAST ROBINSON STREET, SUITE 600	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	i
				ORLANDO, FL 32801 CERTIFICATE OF AUTHORIZATION: 7503	CR 478	SUMTER	435471-1-22-01	
						hrneal	5	5/16/20

COUNTY ROAD 478





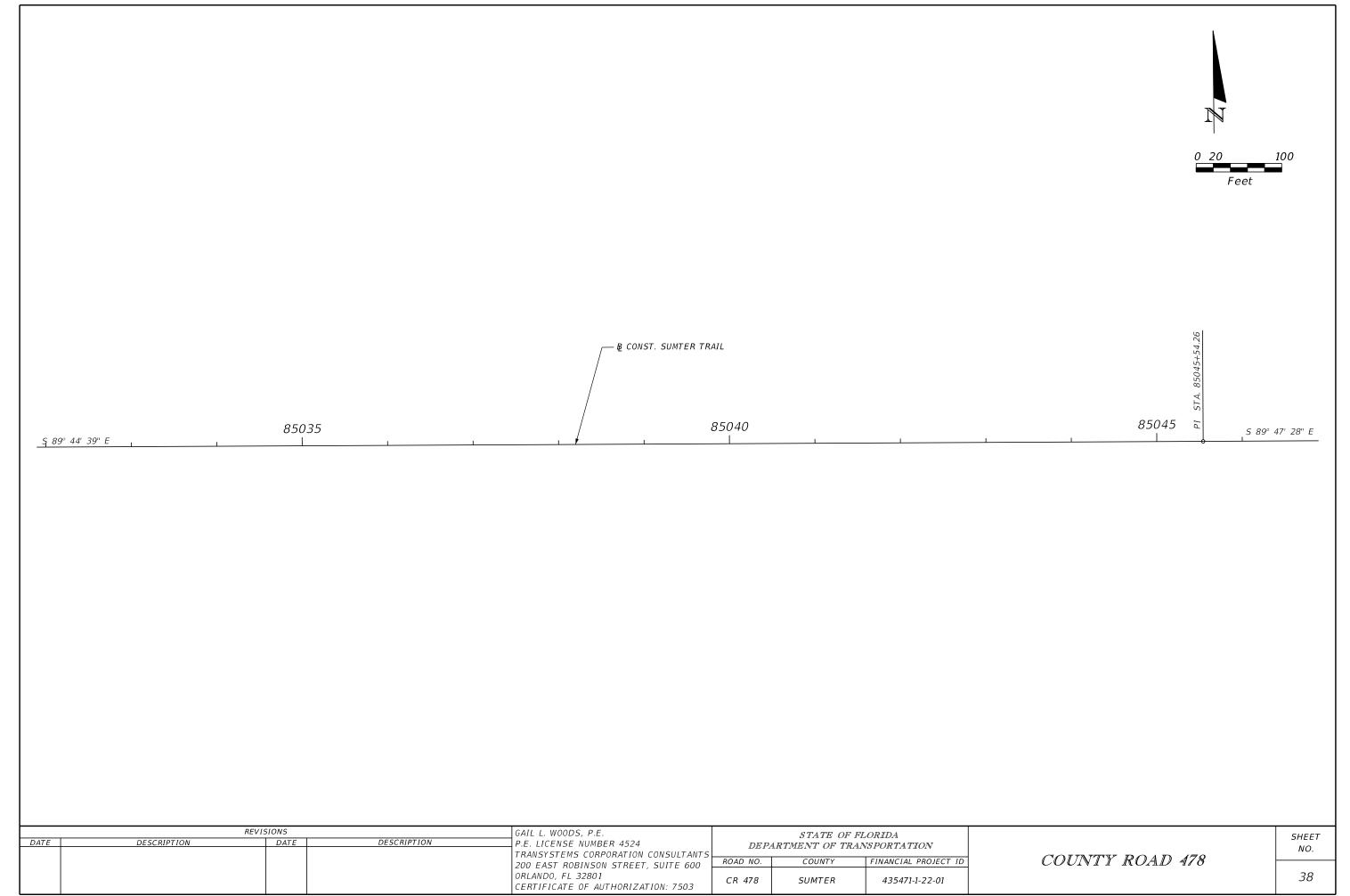
REVISIONS GAIL L. WOODS, P.E. STATE OF FLORIDA DESCRIPTION DATE DESCRIPTION DATE P.E. LICENSE NUMBER 4524 DEPARTMENT OF TRANSPORTATION TRANSYSTEMS CORPORATION CONSULTANTS ROAD NO. COUNTY FINANCIAL PROJECT ID 200 EAST ROBINSON STREET, SUITE 600 ORLANDO, FL 32801 CR 478 SUMTER 435471-1-22-01 CERTIFICATE OF AUTHORIZATION: 7503

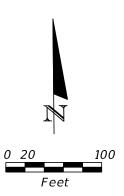
COUNTY ROAD 478

SHEET NO.

5/16/2020

1 55 07 04





- BE CONST. SUMTER TRAIL

85050

85055

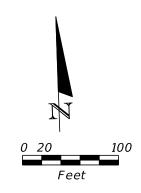
5 89° 47′ 28″ E

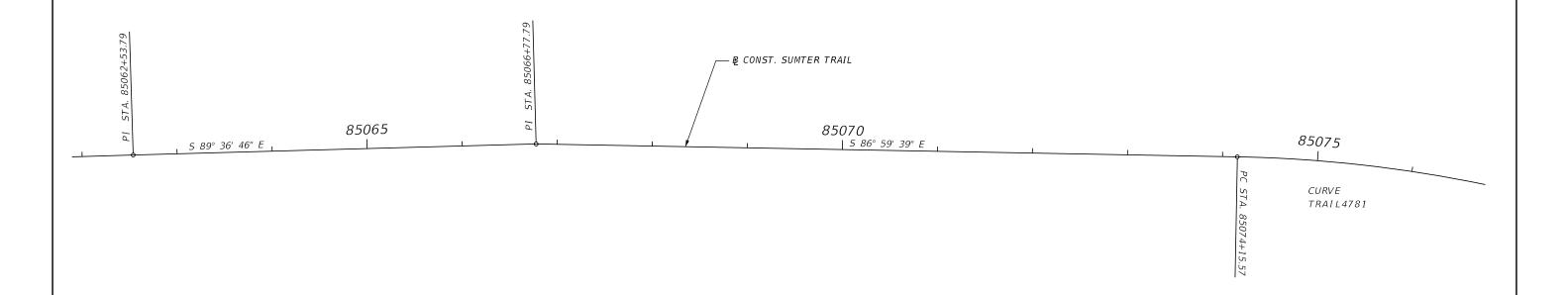
85060

	REVI:	SIONS		GAIL L. WOODS, P.E.
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524
				TRANSYSTEMS CORPORATION CONSULTANTS
				200 EAST ROBINSON STREET, SUITE 600
				ORLANDO, FL 32801
		1		CERTIFICATE OF AUTHORIZATION: 7503

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. COUNTY FINANCIAL PROJECT ID CR 478 SUMTER 435471-1-22-01

COUNTY ROAD 478



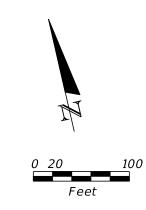


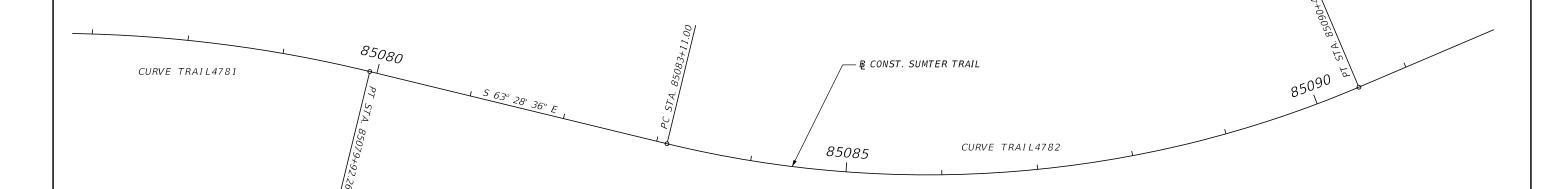
CURVE DATA TRAIL4781
PI STA. = 85077+08.03 Δ = 23° 31' 03'' (RT)
D = 4° 04' 41''T = 292.47L = 576.70R = 1,405.00PC STA. = 85074+15.57PT STA. = 85079+92.26

	REVIS	GAIL L. WOODS, P.E.		
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524
				TRANSYSTEMS CORPORATION CONSULTANTS
				200 EAST ROBINSON STREET, SUITE 600
				ORLANDO, FL 32801
				CERTIFICATE OF AUTHORIZATION: 7503

5	DEP_{A}	STATE OF FL ARTMENT OF TRAN				
1	ROAD NO.	COUNTY	FINANCIAL PROJECT ID			
	CR 478	SUMTER	435471-1-22-01			

COUNTY ROAD 478





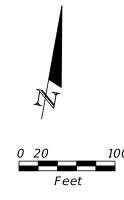
	REVIS	SIONS		GAIL L. WOODS, P.E.		
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524	DEI	DAI
				TRANSYSTEMS CORPORATION CONSULTANTS		
				200 EAST ROBINSON STREET, SUITE 600	ROAD NO.	
				ORLANDO, FL 32801	CR 478	
ı				CERTIFICATE OF AUTHORIZATION: 7503	CK 4/8	

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION							
ROAD NO.	COUNTY	FINANCIAL PROJECT ID					
CR 478	SUMTER	435471-1-22-01					

COUNTY ROAD 478

SHEET NO.

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— ₽ CONST. SUMTER TRAIL

85095

85100

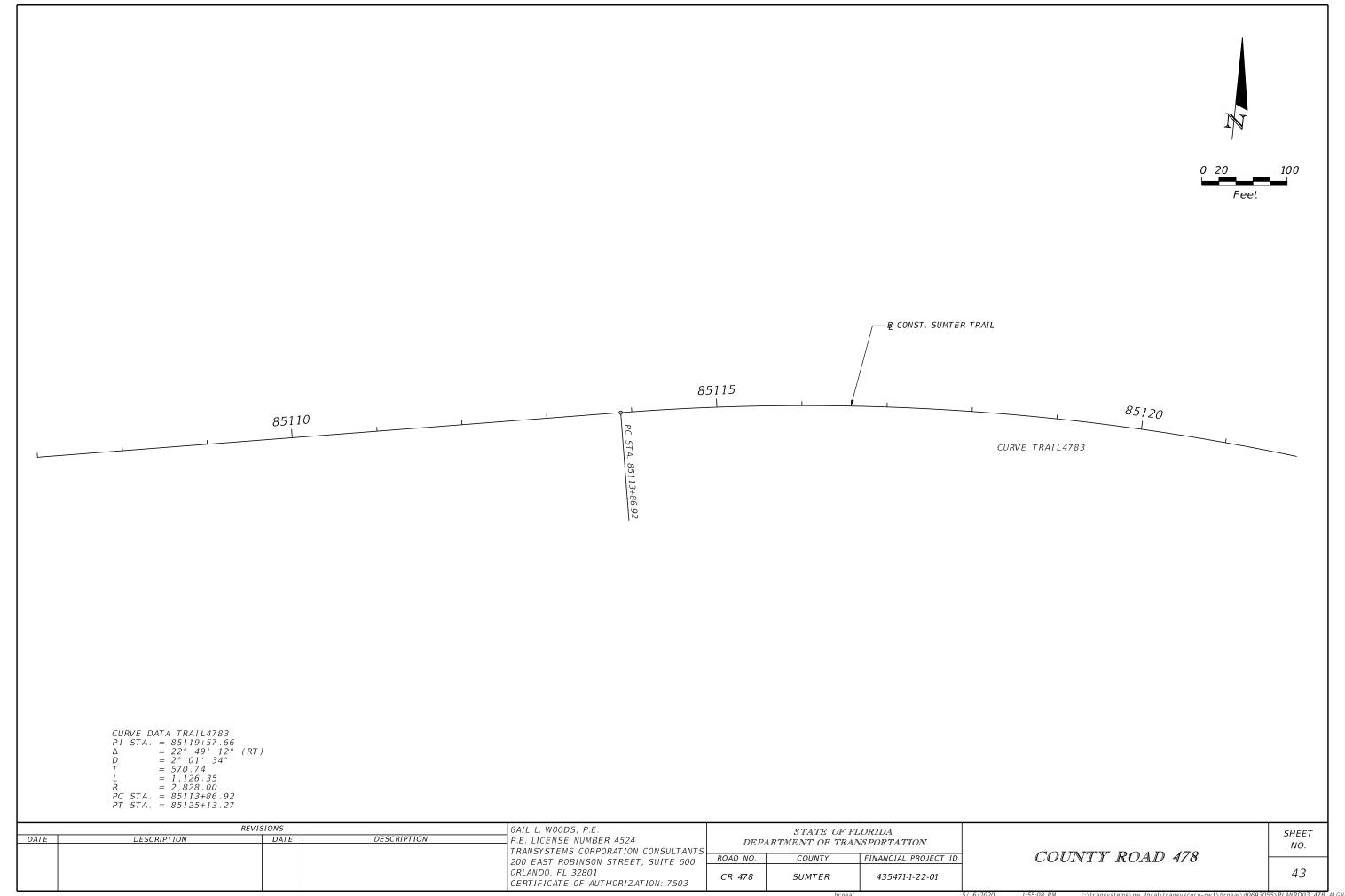
N 79° 46′ 30″ E

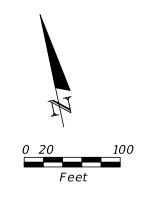
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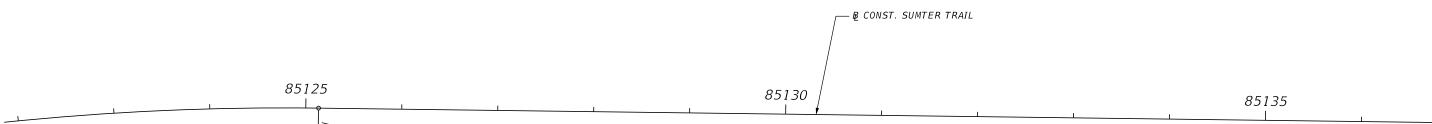
	REV	ISIONS		GAIL L. WOODS, P.E.
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524
				TRANSYSTEMS CORPORATION CONSULTANTS
				200 EAST ROBINSON STREET, SUITE 600
				ORLANDO, FL 32801
				CERTIFICATE OF AUTHORIZATION: 7503

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. COUNTY FINANCIAL PROJECT ID CR 478 SUMTER 435471-1-22-01

COUNTY ROAD 478







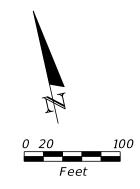
CURVE TRAIL4783

CURVE DATA TRAIL4783
PI STA. = 85119+57.66
Δ = 22° 49' 12" (RT)
D = 2° 01' 34"
T = 570.74
L = 1,126.35
R = 2,828.00
PC STA. = 85113+86.92
PT STA. = 85125+13.27

	REVI:	GAIL L. WOODS, P.E.		
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524
				TRANSYSTEMS CORPORATION CONSULTANTS
				200 EAST ROBINSON STREET, SUITE 600
				ORLANDO, FL 32801
				CERTIFICATE OF AUTHORIZATION: 7503

GAIL L. WOODS, P.E. P.E. LICENSE NUMBER 4524 TRANSYSTEMS CORPORATION CONSULTANT		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				
200 EAST ROBINSON STREET, SUITE 600	ROAD NO.	COUNTY	FINANCIAL PROJECT ID			
ORLANDO, FL 32801	CR 478	SUMTER	435471-1-22-01			

COUNTY ROAD 478



> *CURVE* TRAIL4784

CURVE DATA TRAIL4784
PI STA. = 85154+49.72
Δ = 19° 55' 41" (LT)
D = 2° 55' 02"
T = 345.04
L = 683.10
R = 1,964.00
PC STA. = 85151+04.69
PT STA. = 85157+87.79

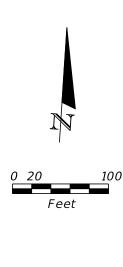
REVISIONS
DATE DESCRIPTION DATE DESCRIPTION
P.E. LICENSE NUMBER 4524
TRANSYSTEMS CORPORATION CONSULTANTS
200 EAST ROBINSON STREET, SUITE 600
ORLANDO, FL 32801
CERTIFICATE OF AUTHORIZATION: 7503

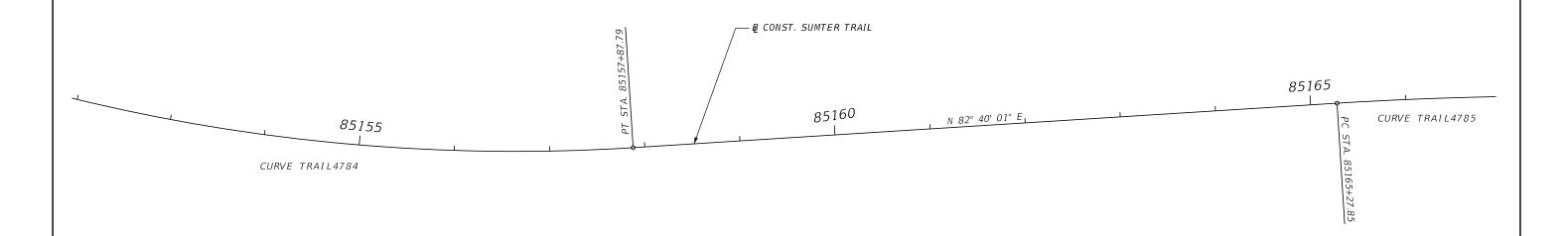
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

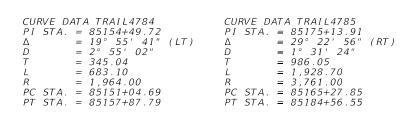
ROAD NO. COUNTY FINANCIAL PROJECT ID

CR 478 SUMTER 435471-1-22-01

COUNTY ROAD 478





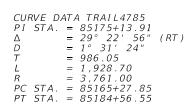


				GAIL L. WOODS, P.E.		STATE OF FL	LORIDA
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524	DEPARTMENT OF TRANSPORTATION		NSPORTATION
				TRANSYSTEMS CORPORATION CONSULTANTS 200 EAST ROBINSON STREET. SUITE 600	ROAD NO.	COUNTY	FINANCIAL PROJECT ID
1				ORLANDO, FL 32801	CR 478	SUMTER	435471-1-22-01

COUNTY ROAD 478



CURVE TRAIL4785



85170

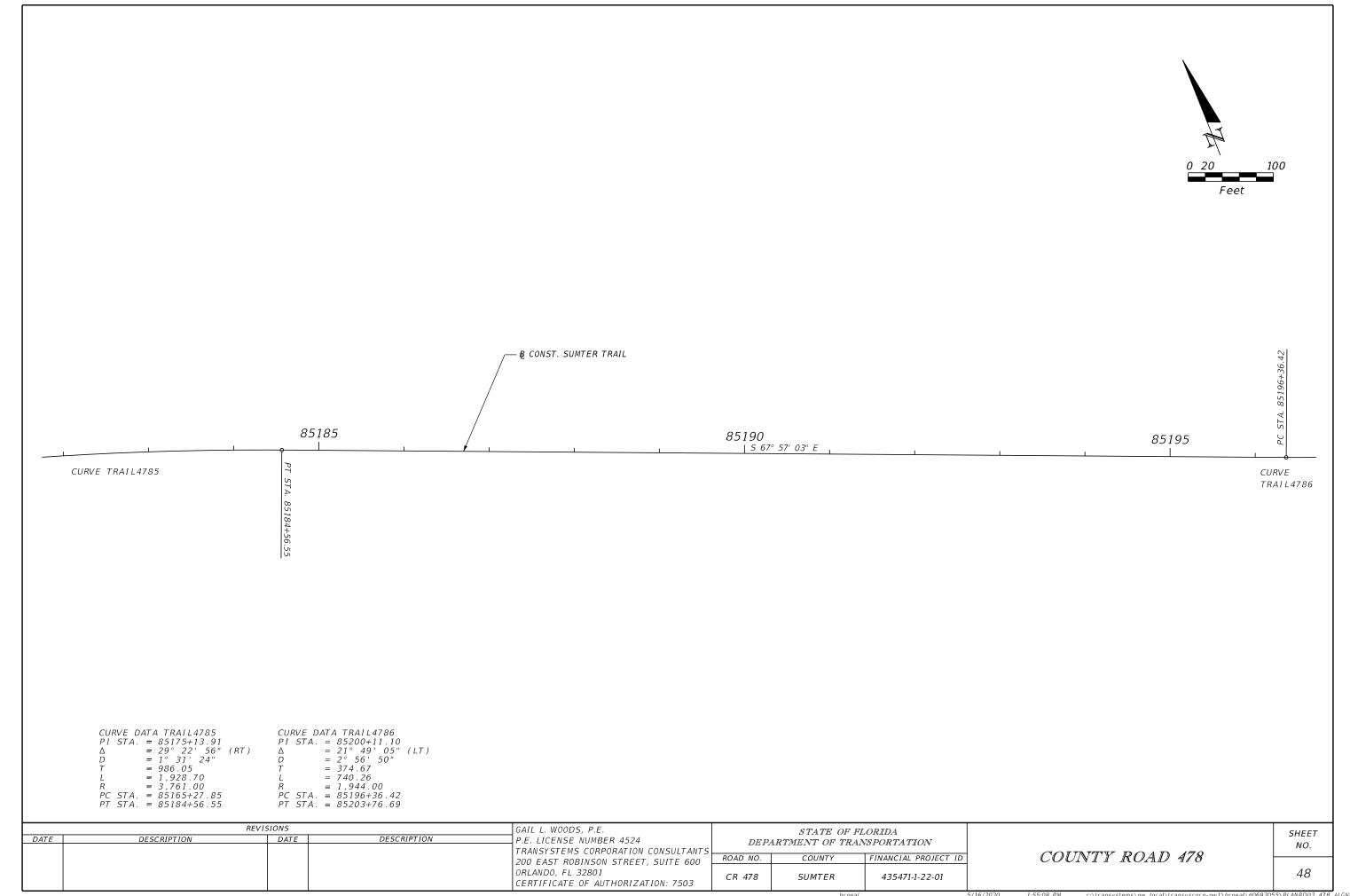
REVISIONS				GAIL L. WOODS, P.E.	STATE OF FLORIDA		
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 4524	DEPARTMENT OF TRANSPORTATION		
				TRANSYSTEMS CORPORATION CONSULTANTS 200 EAST ROBINSON STREET, SUITE 600	ROAD NO.	COUNTY	FINANCIAL PROJECT ID
				ORLANDO, FL 32801	CR 478	SUMTER	435471-1-22-01

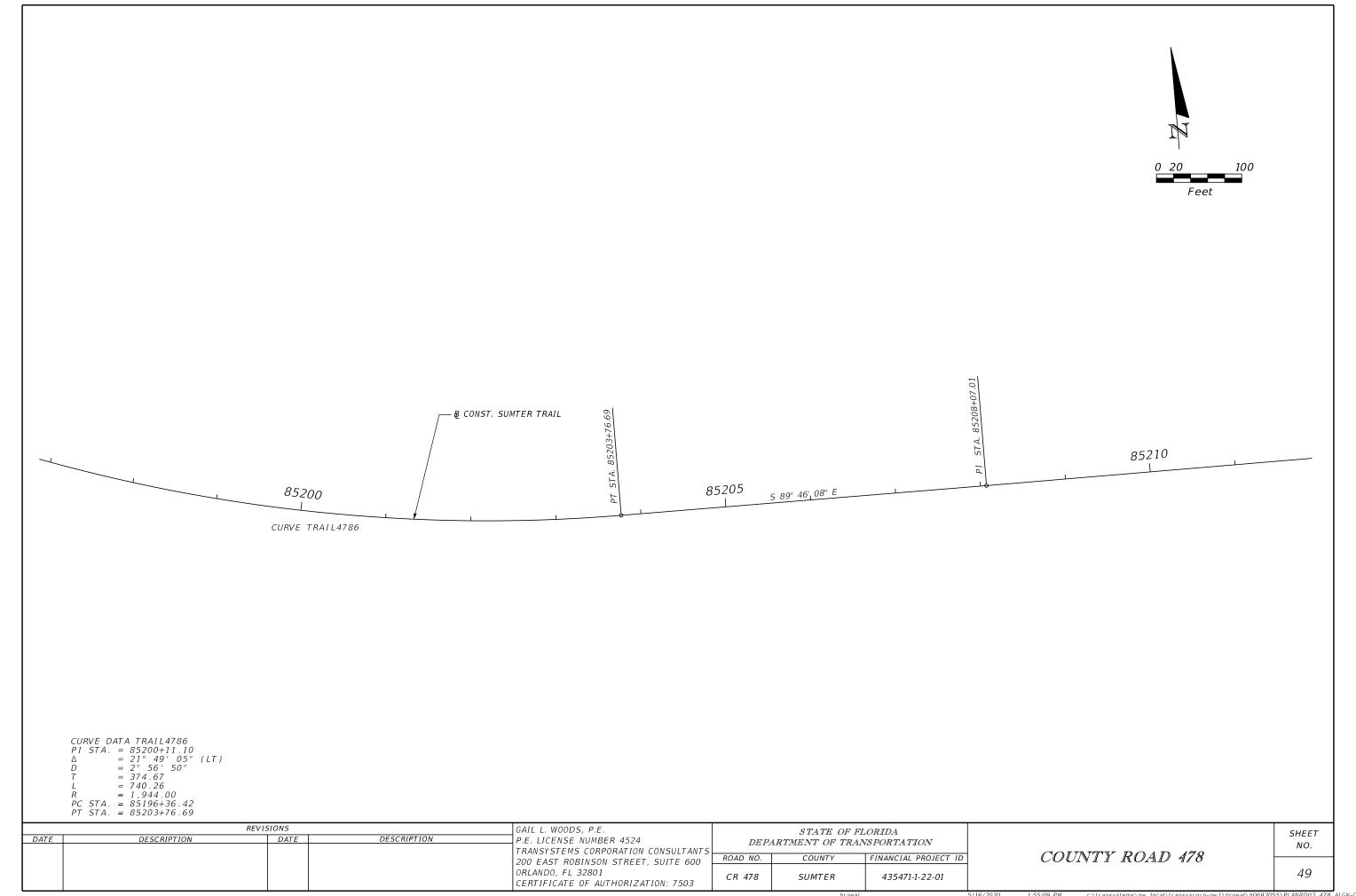
COUNTY ROAD 478

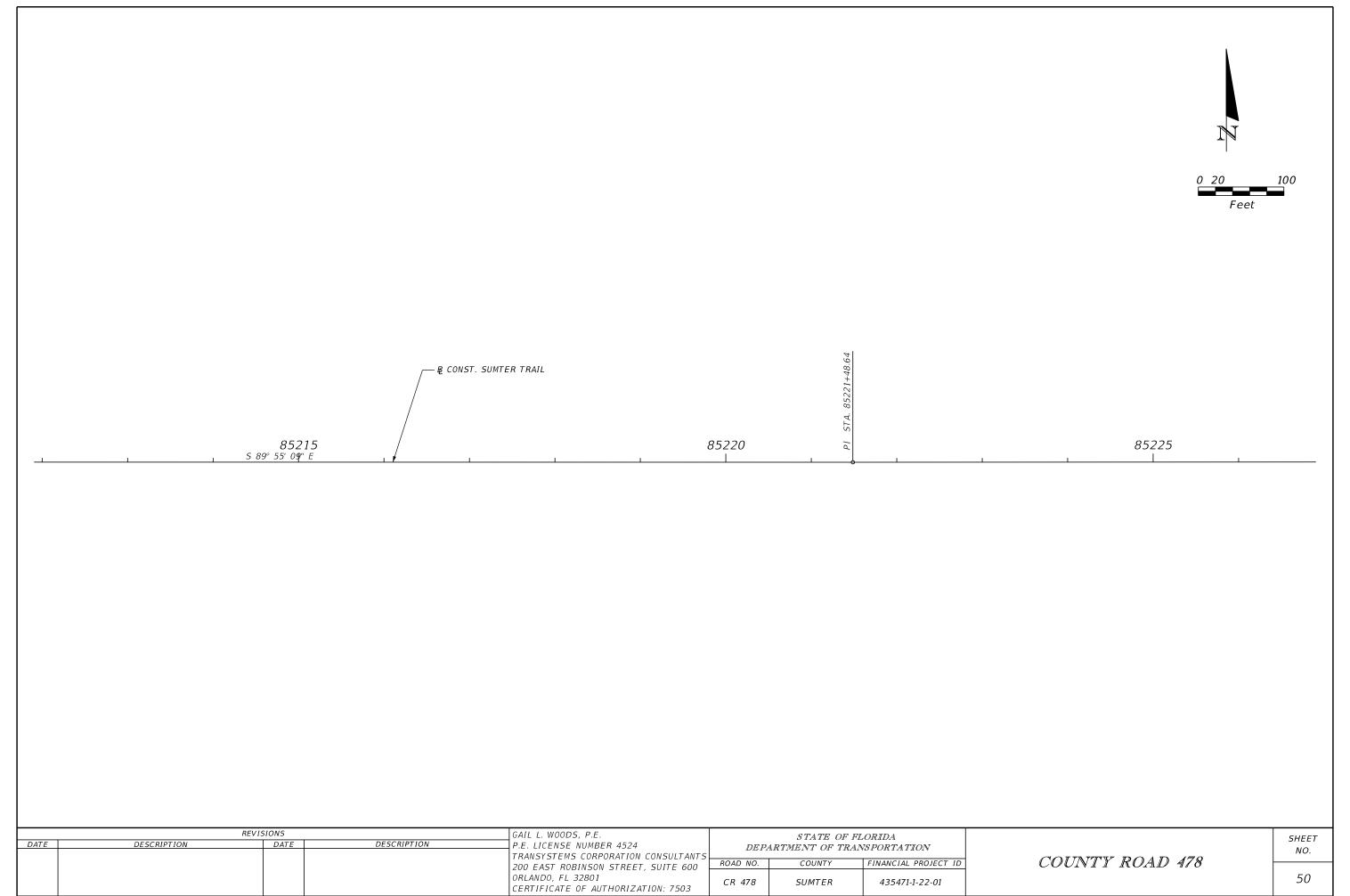
85180

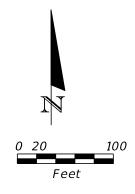
SHEET NO.

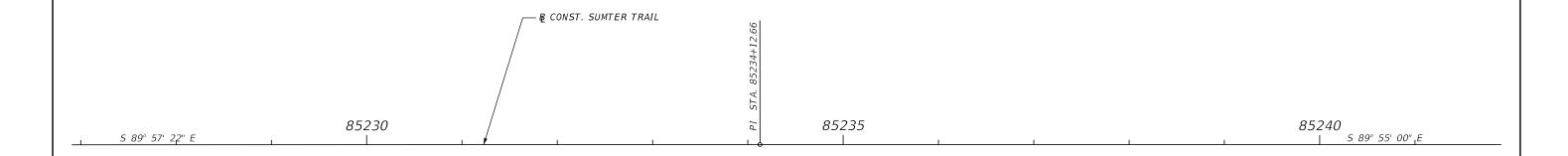
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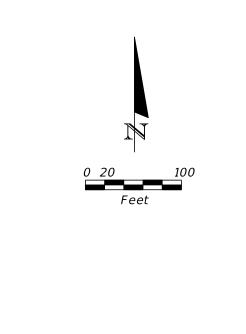


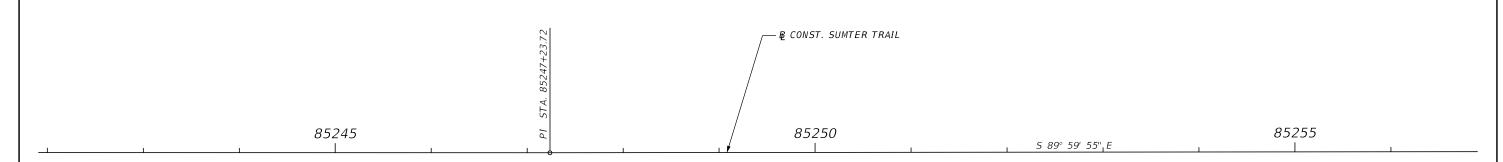


REVISIONS GAIL L. WOODS, P.E. DESCRIPTION DATE DESCRIPTION DATE P.E. LICENSE NUMBER 4524 TRANSYSTEMS CORPORATION CONSULTANTS 200 EAST ROBINSON STREET, SUITE 600 ORLANDO, FL 32801 CERTIFICATE OF AUTHORIZATION: 7503

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. COUNTY FINANCIAL PROJECT ID CR 478 SUMTER 435471-1-22-01

COUNTY ROAD 478

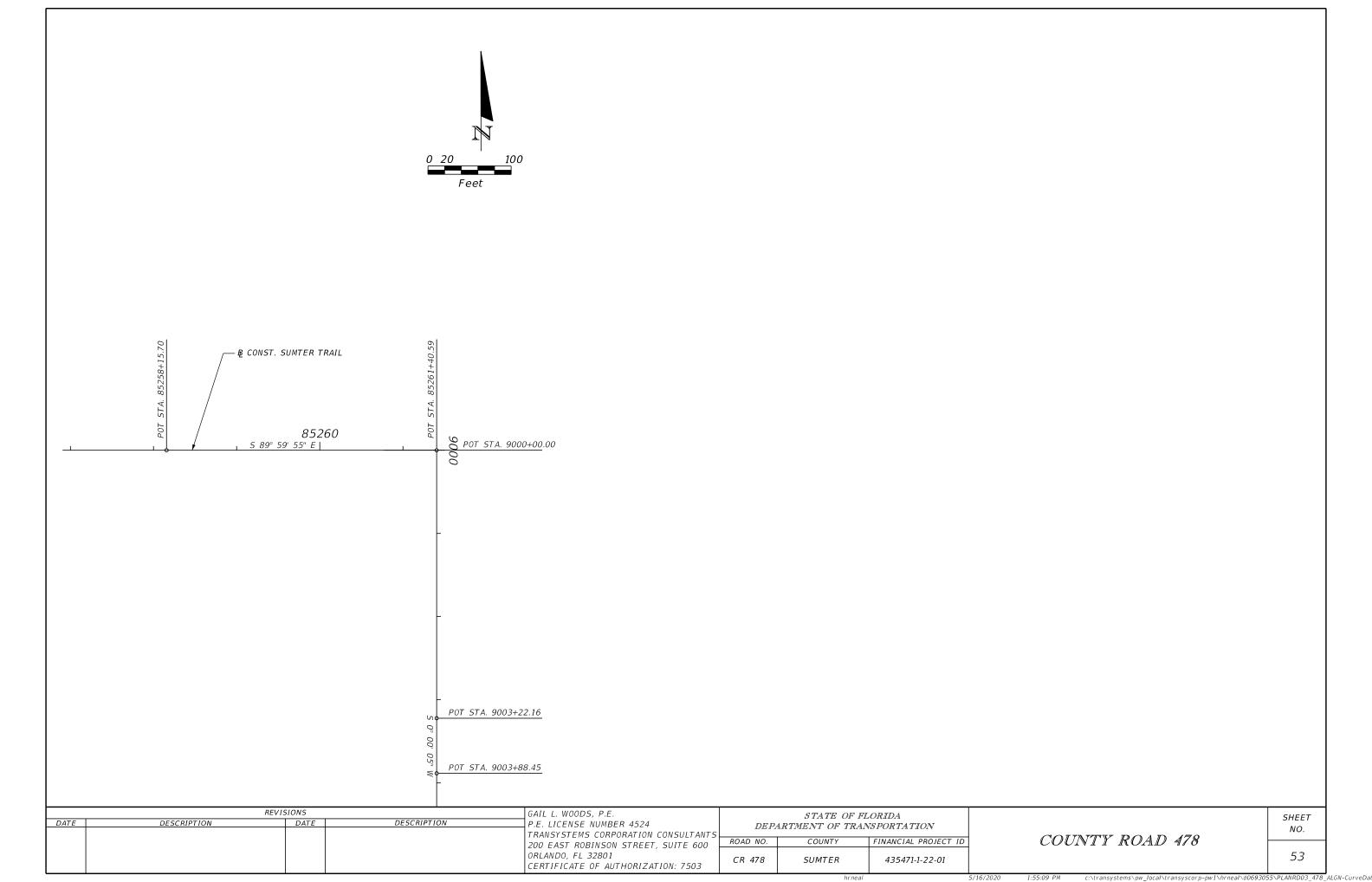


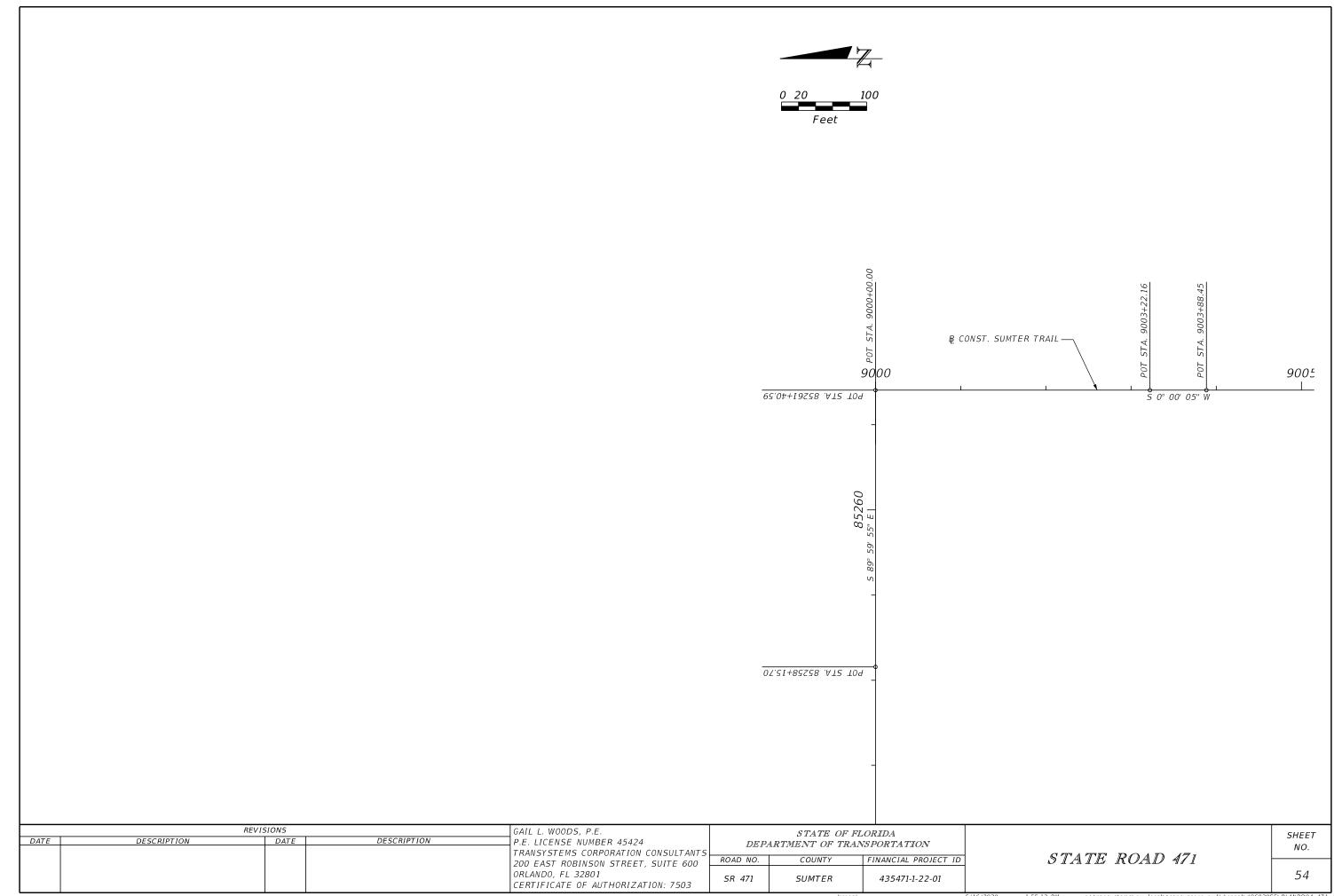


REVISIONS GAIL L. WOODS, P.E. DESCRIPTION DESCRIPTION DATE P.E. LICENSE NUMBER 4524 TRANSYSTEMS CORPORATION CONSULTANTS 200 EAST ROBINSON STREET, SUITE 600 ORLANDO, FL 32801 CERTIFICATE OF AUTHORIZATION: 7503

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. COUNTY FINANCIAL PROJECT ID CR 478 SUMTER 435471-1-22-01

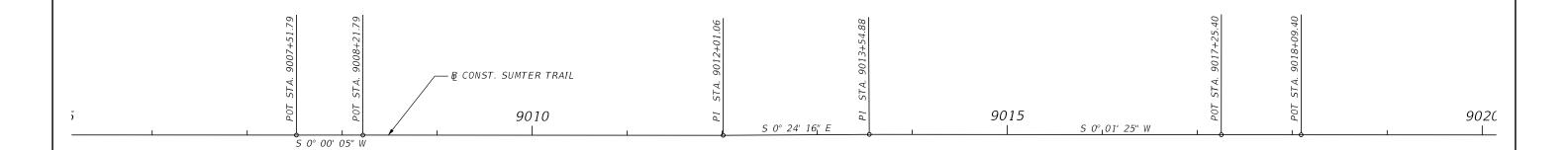
COUNTY ROAD 478











	REVIS	GAIL L. WOODS, P.E.			
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 45424	
				TRANSYSTEMS CORPORATION CONSULTANTS	
				200 EAST ROBINSON STREET, SUITE 600	ROAD
				ORLANDO, FL 32801	CD 4
				CERTIFICATE OF AUTHORIZATION, 7502	SR 4

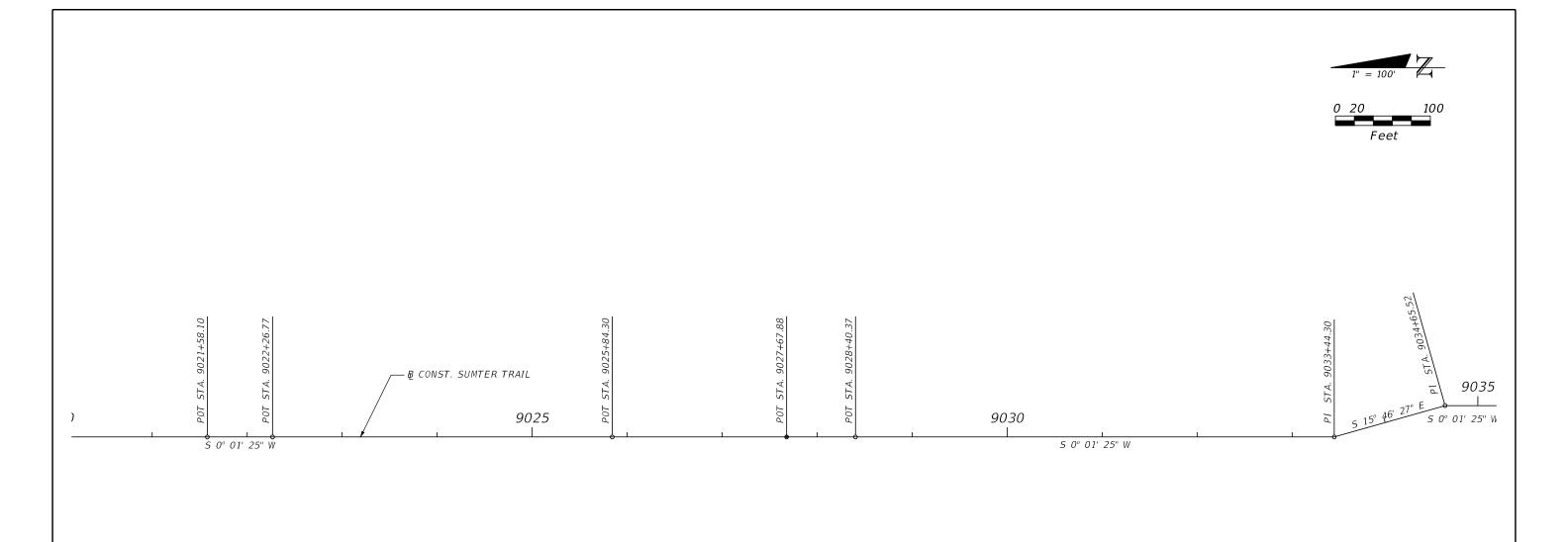
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION								
ROAD NO. COUNTY FINANCIAL PROJECT								
SR 471	SUMTER	435471-1-22-01						

STATE ROAD 471

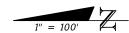
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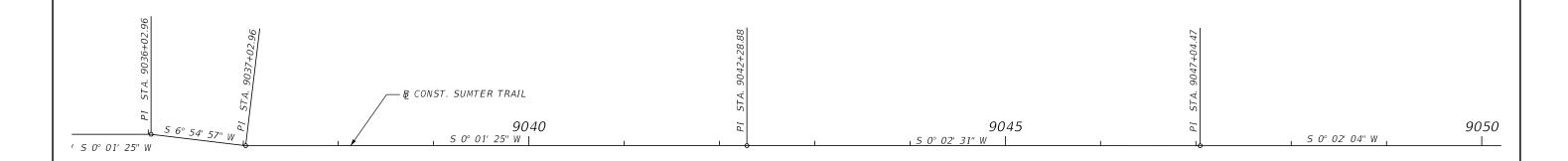
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1.55.13.04



REVISIONS GAIL L. WOODS, P.E. STATE OF FLORIDA SHEET DESCRIPTION DESCRIPTION P.E. LICENSE NUMBER 45424 TRANSYSTEMS CORPORATION CONSULTANTS DEPARTMENT OF TRANSPORTATION NO. STATE ROAD 471 ROAD NO. COUNTY FINANCIAL PROJECT ID 200 EAST ROBINSON STREET, SUITE 600 ORLANDO, FL 32801 56 SR 471 SUMTER 435471-1-22-01 CERTIFICATE OF AUTHORIZATION: 7503



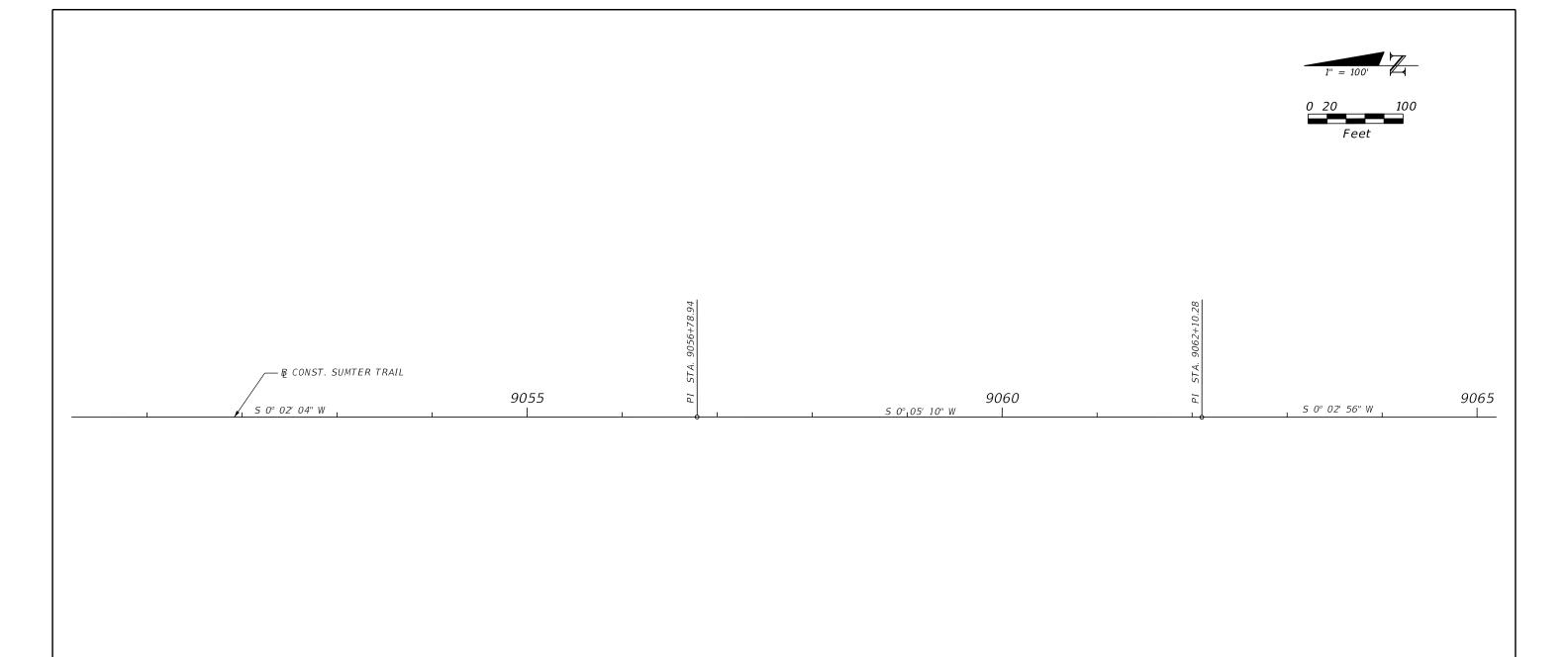


REVISIONS				GAIL L. WOODS, P.E.		STATE OF F	LORIDA
DATE DESCRIPTION DATE DESCRIPTION				P.E. LICENSE NUMBER 45424	DEP.	ARTMENT OF TRAI	
				TRANSYSTEMS CORPORATION CONSULTANTS			
				200 EAST ROBINSON STREET, SUITE 600	ROAD NO.	COUNTY	FINANCIAL PROJECT ID
				ORLANDO, FL 32801	SR 471	SUMTER	435471-1-22-01
1				CERTIFICATE OF AUTHORIZATION: 7503	311 471	JOHNER	13347112201

STATE ROAD 471

SHEET NO. 57

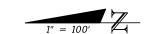
5/16/2020 1

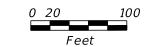


REVISIONS GAIL L. WOODS, P.E. STATE OF FLORIDA DESCRIPTION DESCRIPTION DATE P.E. LICENSE NUMBER 45424 TRANSYSTEMS CORPORATION CONSULTANTS DEPARTMENT OF TRANSPORTATION STATE ROAD 471 ROAD NO. COUNTY FINANCIAL PROJECT ID 200 EAST ROBINSON STREET, SUITE 600 ORLANDO, FL 32801 SR 471 SUMTER 435471-1-22-01 CERTIFICATE OF AUTHORIZATION: 7503

SHEET NO. 58

58





CONST. SUMTER TRAIL

250° 00' 05" W

| 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 50° 00' 05" W | 5

REVISIONS
GAIL L. WOODS, P.E.
PATE DESCRIPTION DATE DESCRIPTION
P.E. LICENSE NUMBER 45424
TRANSYSTEMS CORPORATION CONSULTANTS
200 EAST ROBINSON STREET, SUITE 600
ORLANDO, FL 32801
CERTIFICATE OF AUTHORIZATION: 7503

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO. COUNTY FINANCIAL PROJECT ID

SR 471 SUMTER 435471-1-22-01

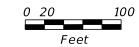
STATE ROAD 471

SHEET NO.

5/16/2020

2.044





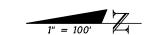
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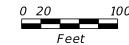
	REVI.	GAIL L. WOODS, P.E.	Ī		
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 45424	
				TRANSYSTEMS CORPORATION CONSULTANTS	_
				200 EAST ROBINSON STREET, SUITE 600	_
				ORLANDO, FL 32801	
				CERTIFICATE OF AUTHORIZATION: 7503	

S 0° 00' 05" W

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION								
ROAD NO.	COUNTY	FINANCIAL PROJECT ID						
SR 471	SUMTER	435471-1-22-01						

STATE ROAD 471





- BE CONST. SUMTER TRAIL

9100

9100

9100

9100

REVISIONS
GAIL L. WOODS, P.E.

DATE DESCRIPTION DATE DESCRIPTION
P.E. LICENSE NUMBER 45424
TRANSYSTEMS CORPORATION CONSULTANTS
200 EAST ROBINSON STREET, SUITE 600
ORLANDO, FL 32801
CERTIFICATE OF AUTHORIZATION: 7503

S 0° 01' 23" W

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO. COUNTY FINANCIAL PROJECT ID

SR 471 SUMTER 435471-1-22-01

STATE ROAD 471

SHEET NO. 61

5/16/2020

1.55.13.04

61



- BE CONST. SUMTER TRAIL

9115

9120

S 0° 00′ 51″ W

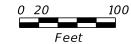
9125

		GAIL L. WOODS, P.E.		
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 45424
				TRANSYSTEMS CORPORATION CONSULTANTS
				200 EAST ROBINSON STREET, SUITE 600
				ORLANDO, FL 32801
				CERTIFICATE OF AUTHORIZATION: 7503

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. COUNTY FINANCIAL PROJECT ID SR 471 SUMTER 435471-1-22-01

STATE ROAD 471





REVISIONS
GAIL L. WOODS, P.E.

DATE DESCRIPTION DATE DESCRIPTION
P.E. LICENSE NUMBER 45424
TRANSYSTEMS CORPORATION CONSULTANTS
200 EAST ROBINSON STREET, SUITE 600
ORLANDO, FL 32801
CERTIFICATE OF AUTHORIZATION: 7503

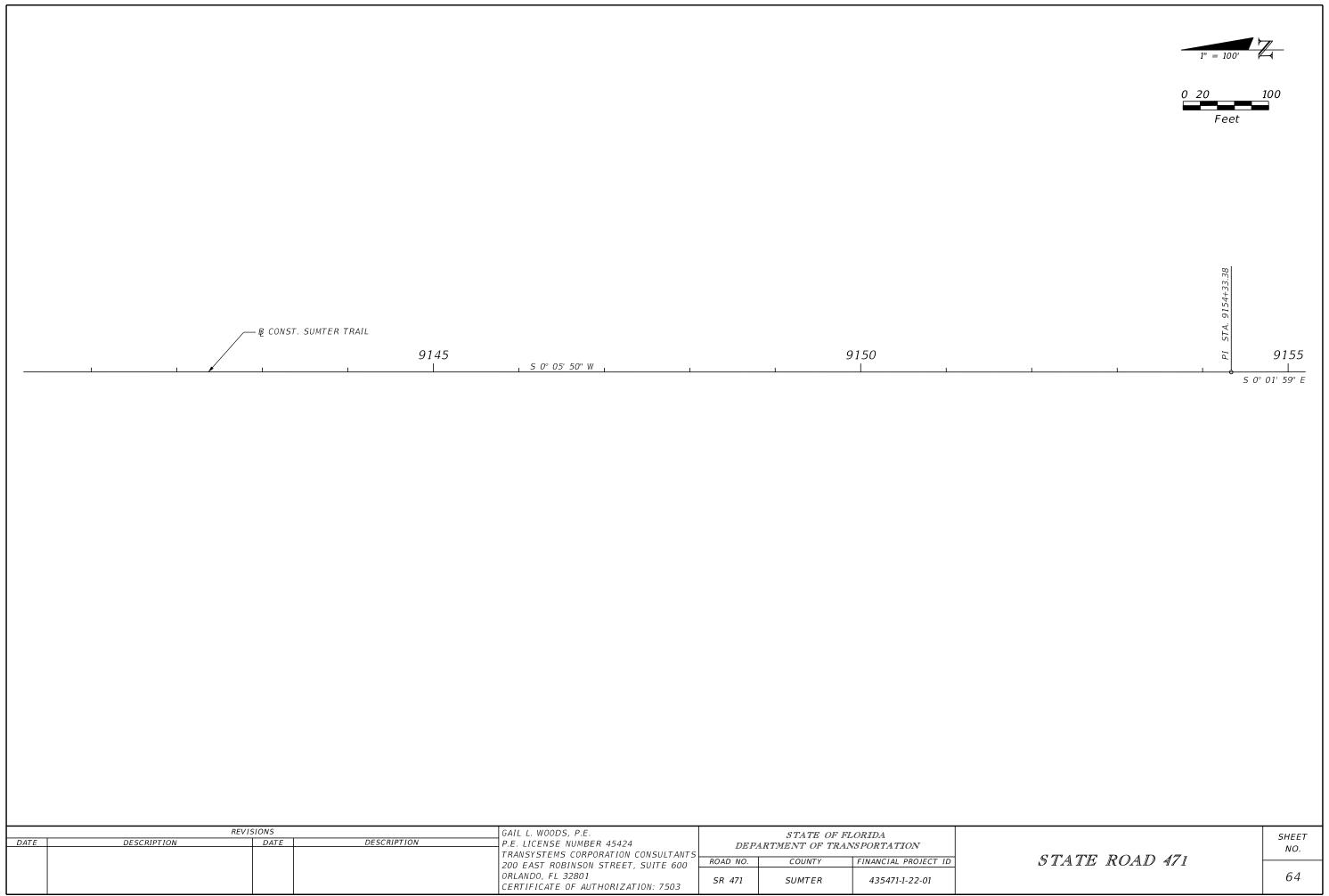
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO. COUNTY FINANCIAL PROJECT ID

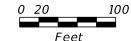
SR 471 SUMTER 435471-1-22-01

9135

STATE ROAD 471







- ₽ CONST. SUMTER TRAIL

9160

S 0° 01' 59" E

9165

9170

REVISIONS
GAIL L. WOODS, P.E.

DATE DESCRIPTION DATE DESCRIPTION P.E. LICENSE NUMBER 45424
TRANSYSTEMS CORPORATION CONSULTANTS
200 EAST ROBINSON STREET, SUITE 600
ORLANDO, FL 32801
CERTIFICATE OF AUTHORIZATION: 7503

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO. COUNTY FINANCIAL PROJECT ID

SR 471 SUMTER 435471-1-22-01

STATE ROAD 471

SHEET NO.

1.55.14.04





- & CONST. SUMTER TRAIL

9175

S 0° 01' 59" E

9180

9185

	REVI.	GAIL L. WOODS, P.E.		
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 45424
				TRANSYSTEMS CORPORATION CONSULTANTS
				200 EAST ROBINSON STREET, SUITE 600
				ORLANDO, FL 32801
				CERTIFICATE OF AUTHORIZATION: 7503

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO. COUNTY FINANCIAL PROJECT ID

SR 471 SUMTER 435471-1-22-01

STATE ROAD 471

SHEET NO.

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0 20 100 Feet

- BE CONST. SUMTER TRAIL

9190

S 0° 01′ 59″ E

9195

9200

	REV	GAIL L. WOODS, P.E.		
DATE	DESCRIPTION	DATE	DESCRIPTION	P.E. LICENSE NUMBER 45424
				TRANSYSTEMS CORPORATION CONSULTANT
				200 EAST ROBINSON STREET, SUITE 600
				ORLANDO, FL 32801
				CERTIFICATE OF AUTHORIZATION: 7503

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO. COUNTY FINANCIAL PROJECT ID

SR 471 SUMTER 435471-1-22-01

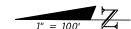
STATE ROAD 471

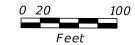
SHEET NO.

67

5/16/2

1.55.11.01







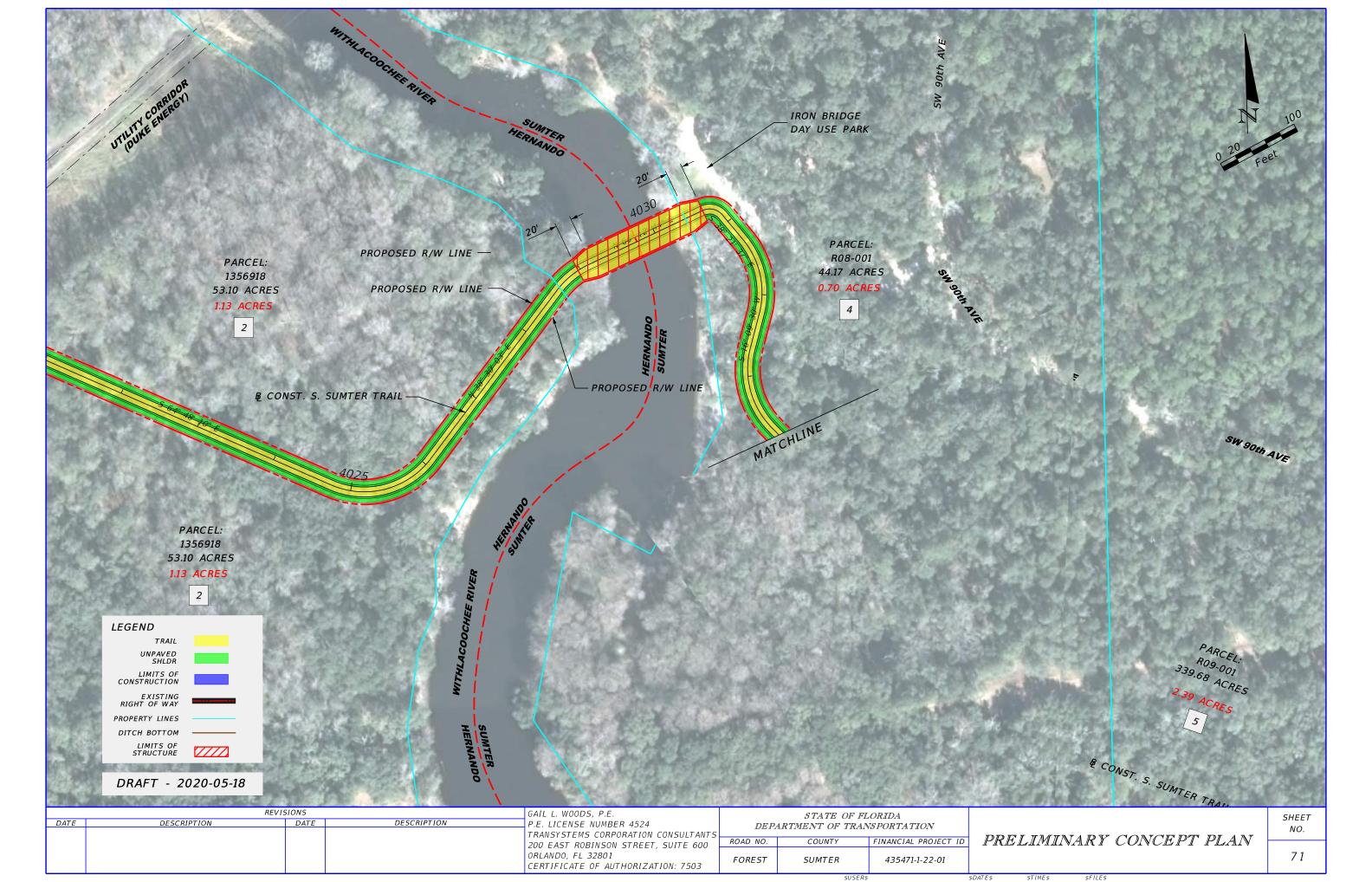
REVISIONS GAIL L. WOODS, P.E. DESCRIPTION DESCRIPTION P.E. LICENSE NUMBER 45424 TRANSYSTEMS CORPORATION CONSULTANTS 200 EAST ROBINSON STREET, SUITE 600 ORLANDO, FL 32801 CERTIFICATE OF AUTHORIZATION: 7503

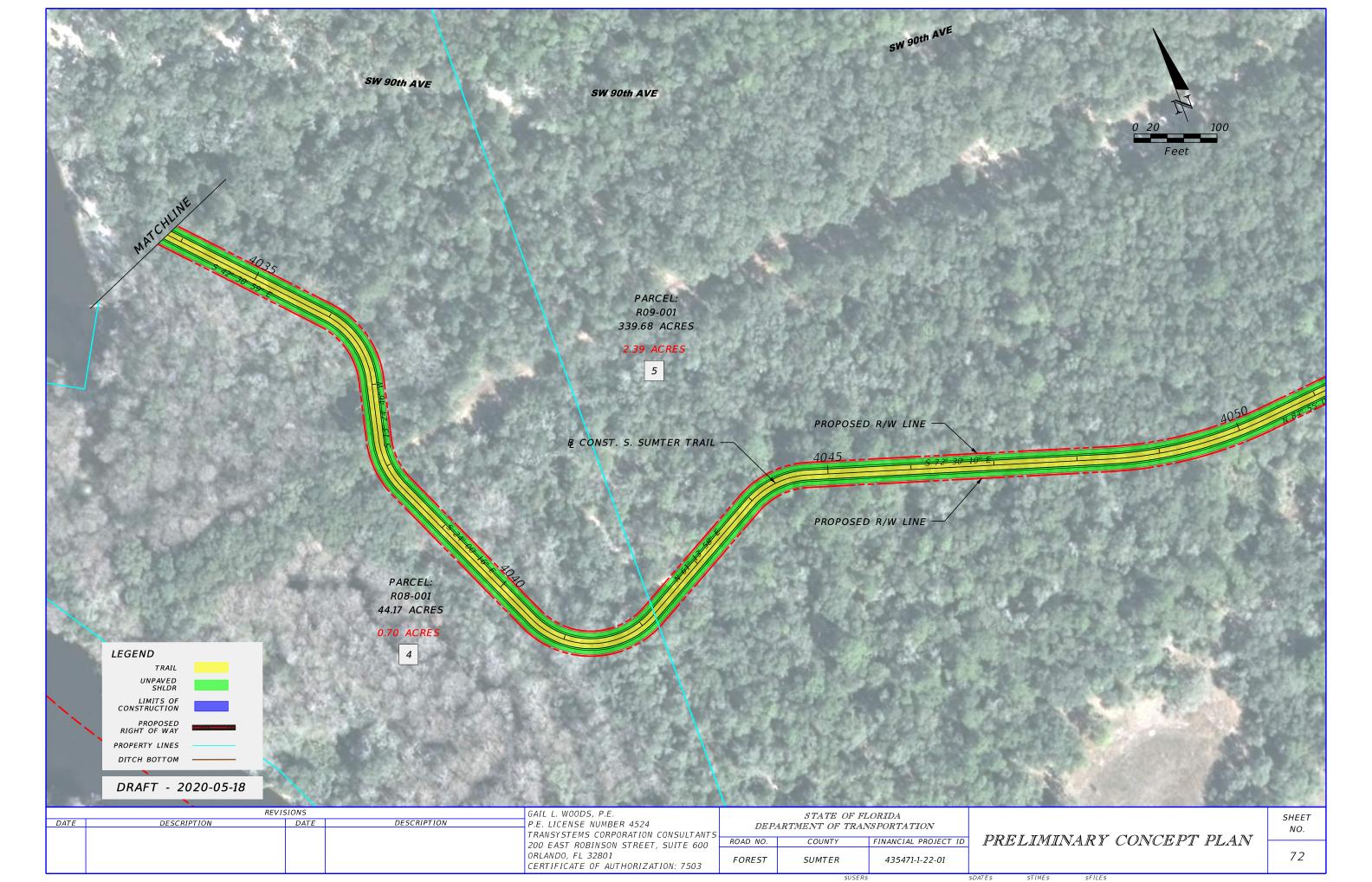
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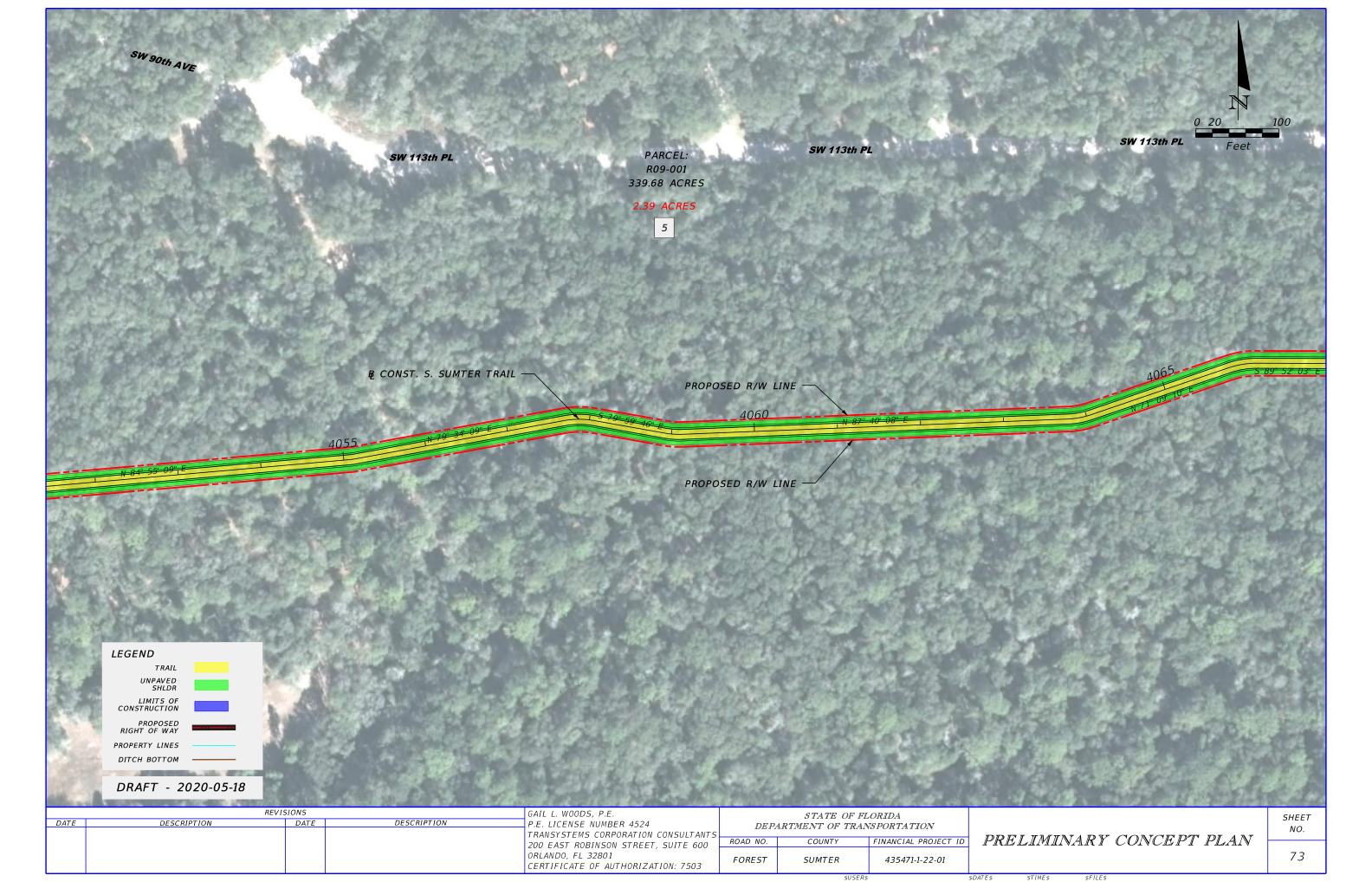
STATE ROAD 471

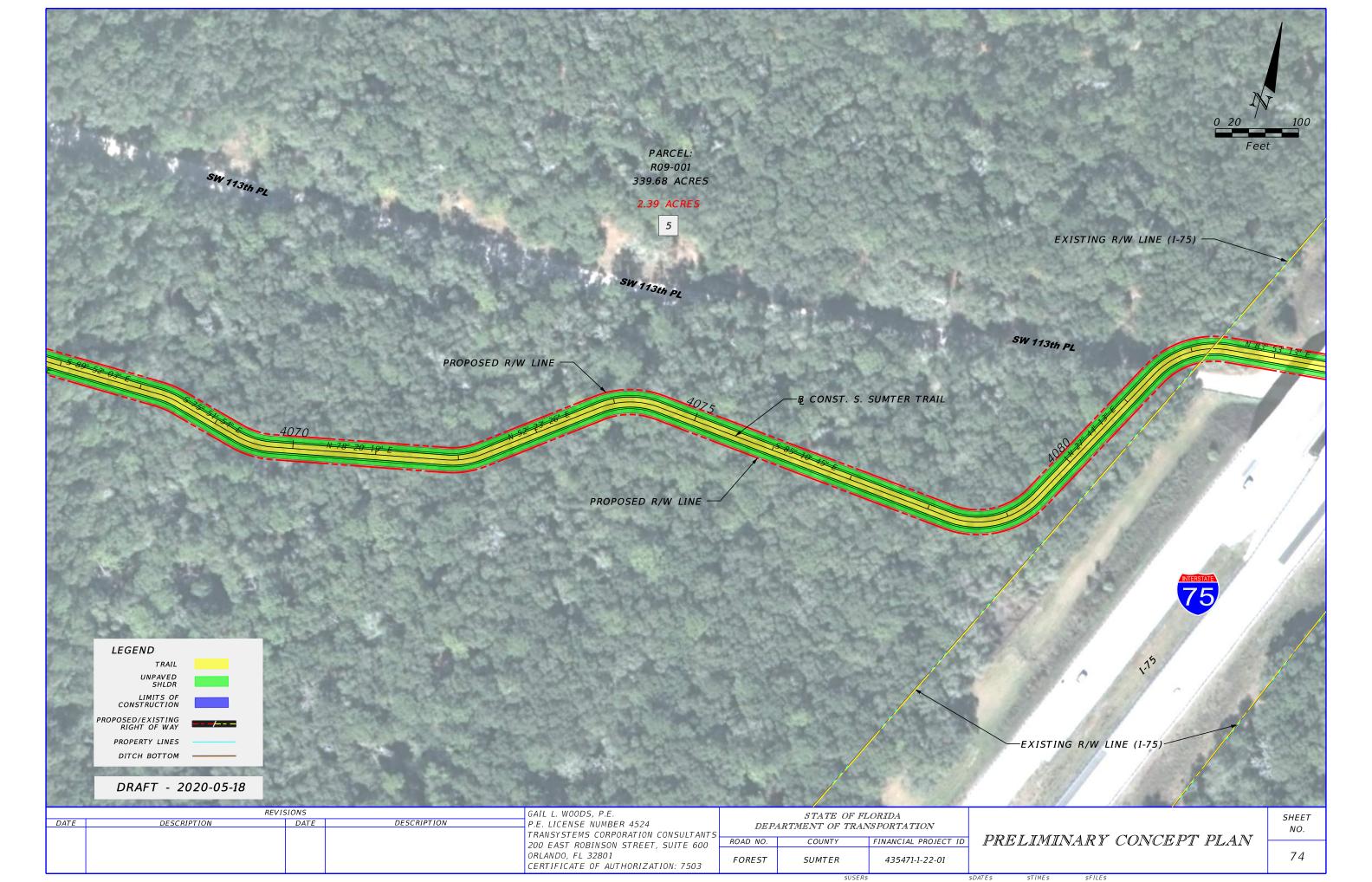


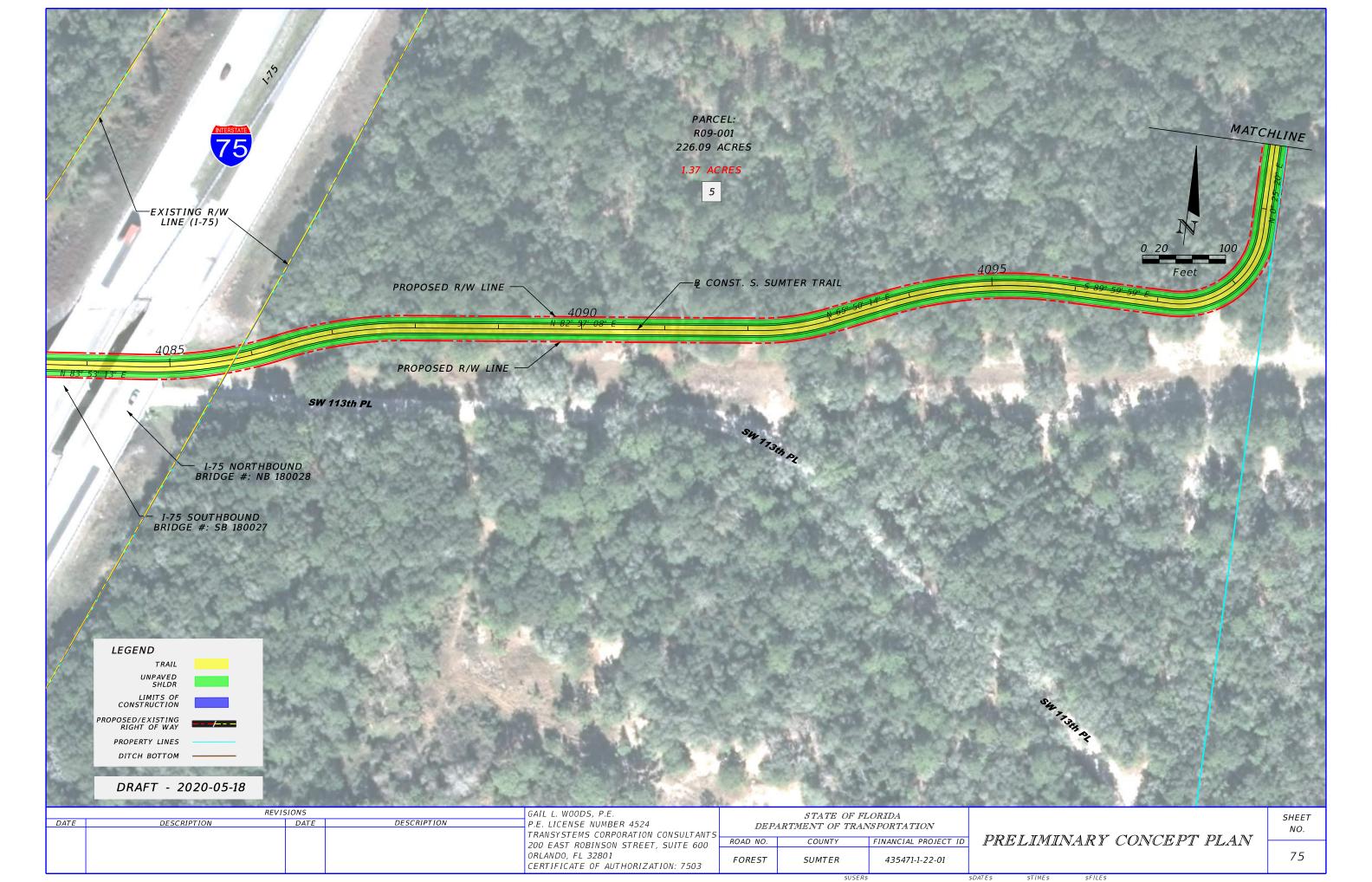




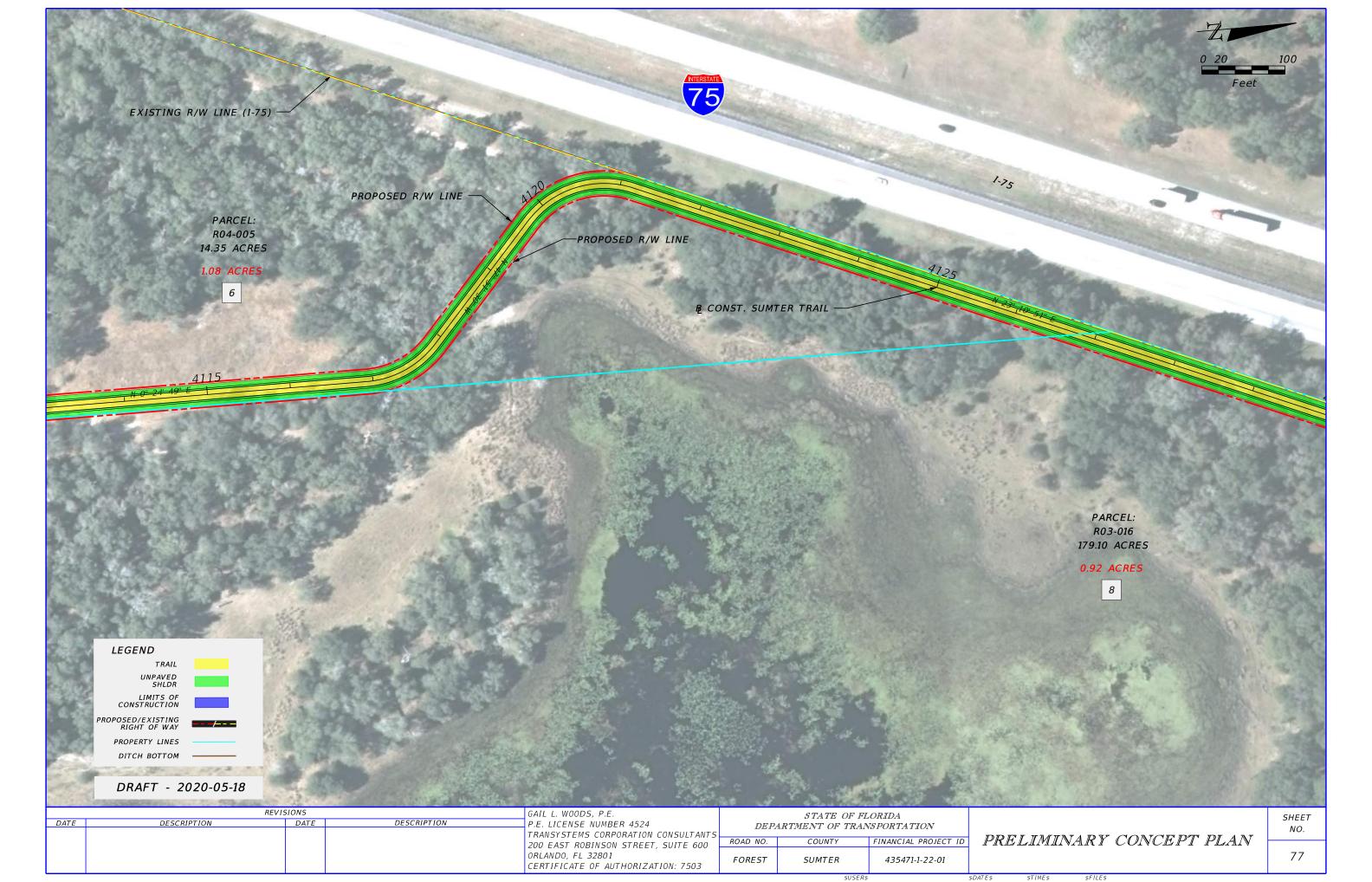




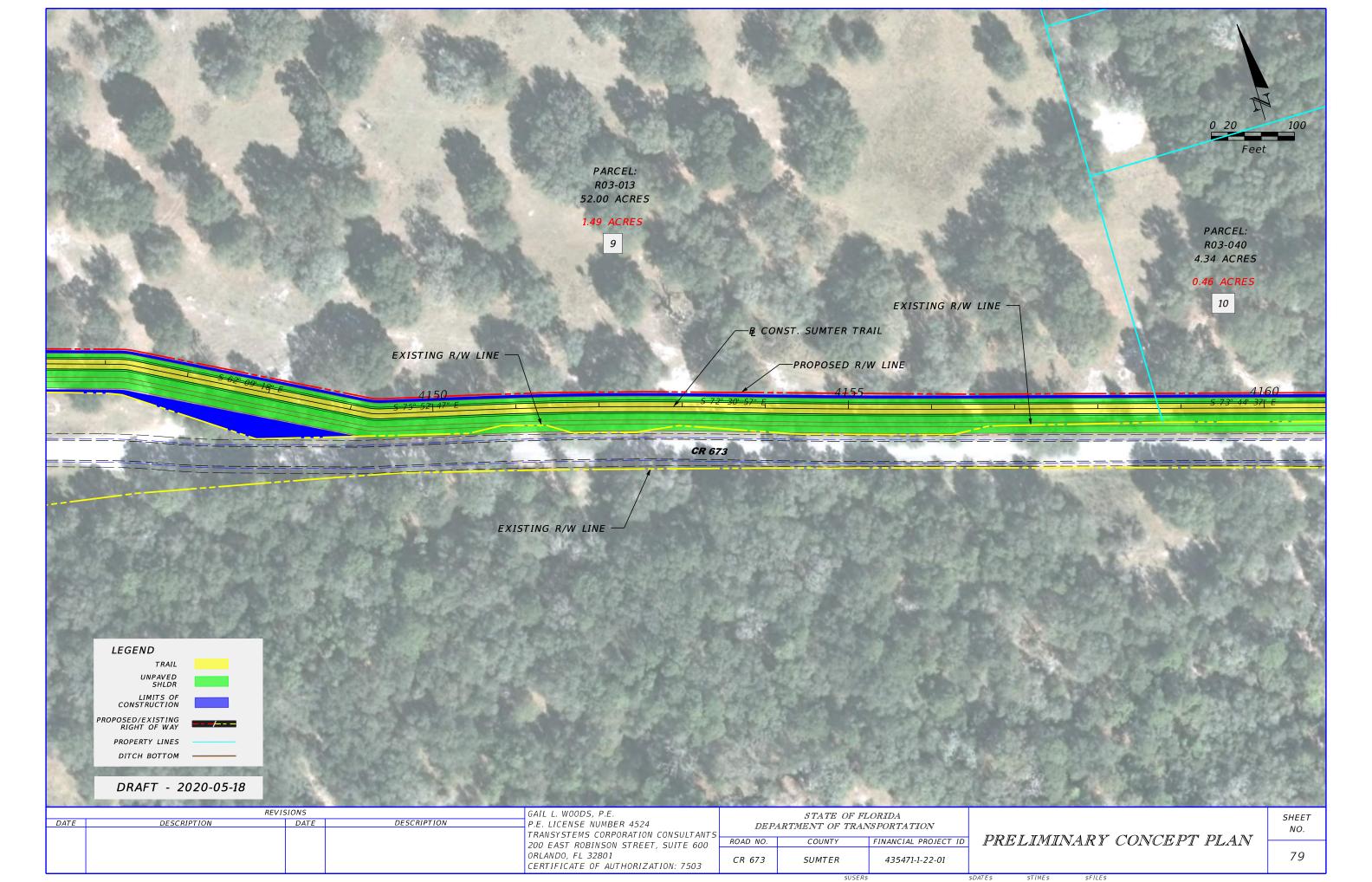


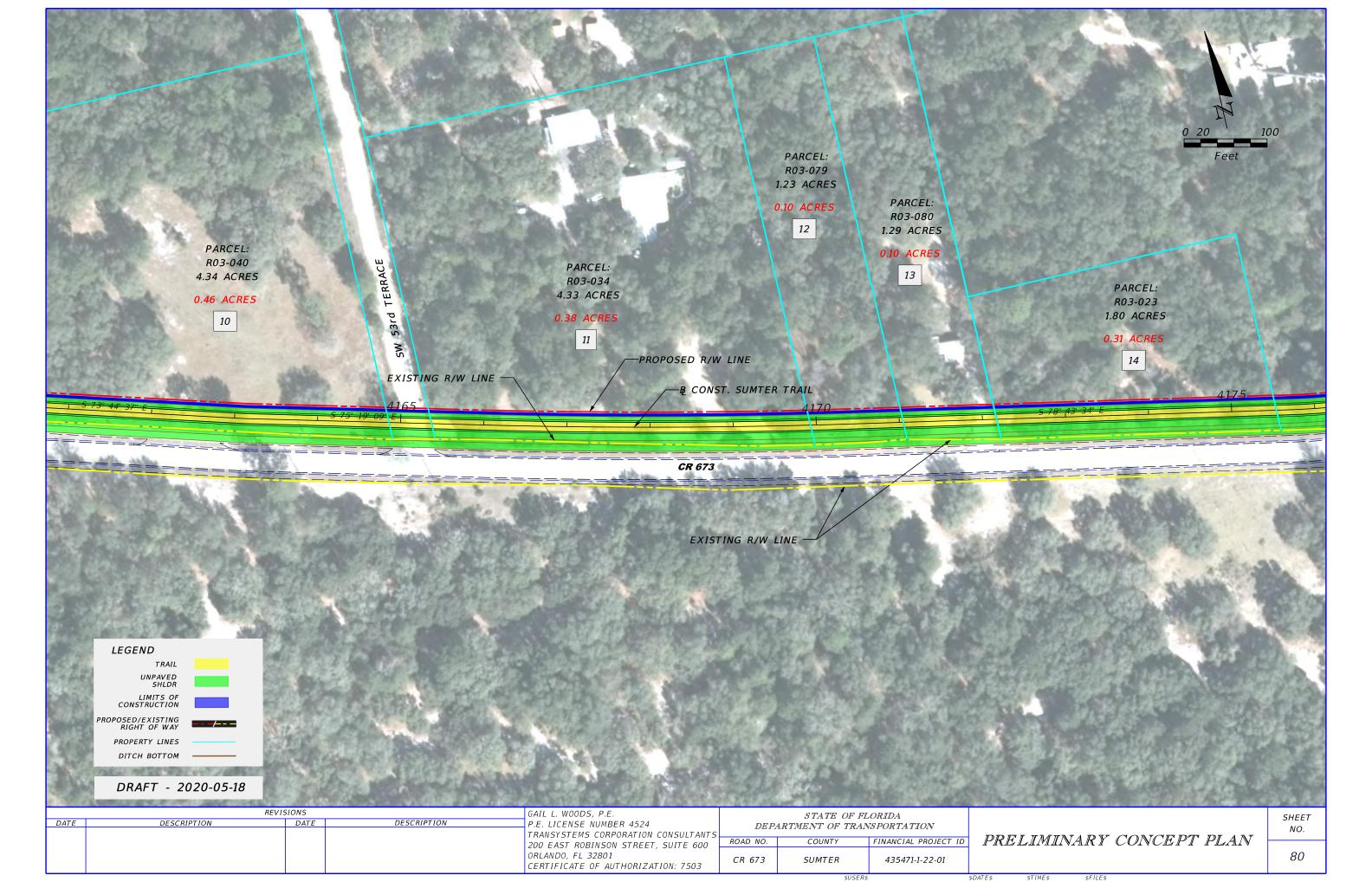


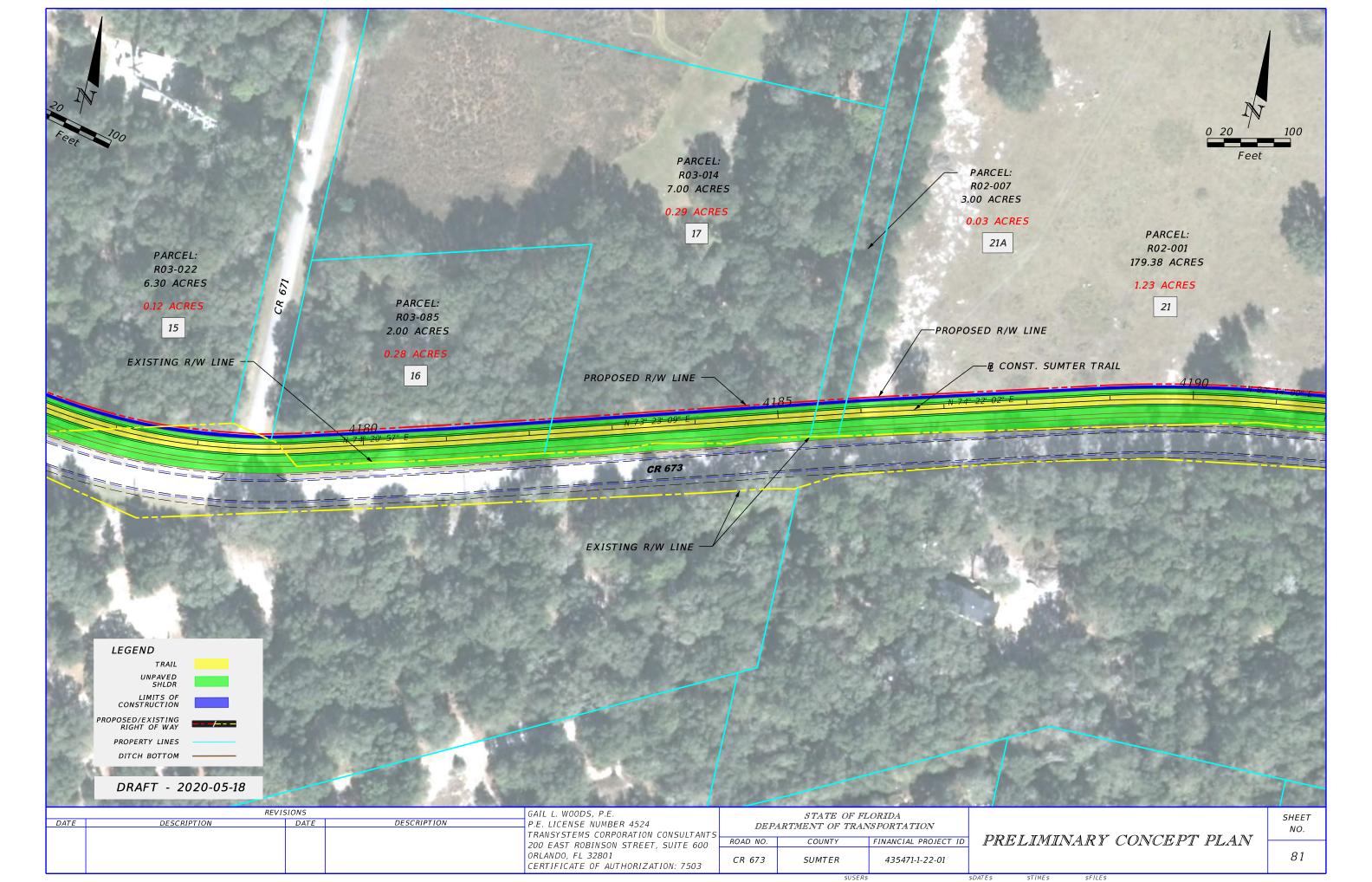


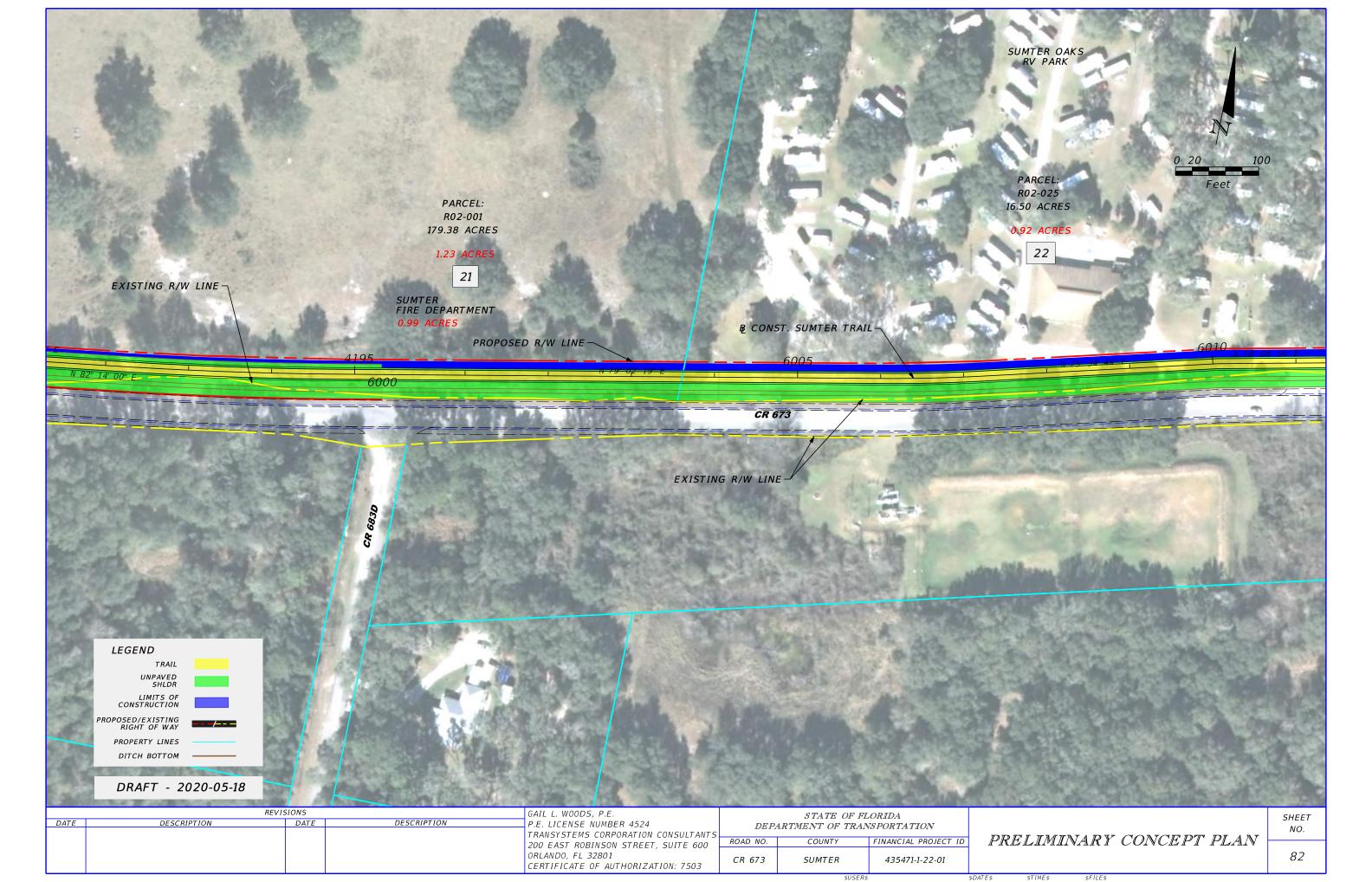


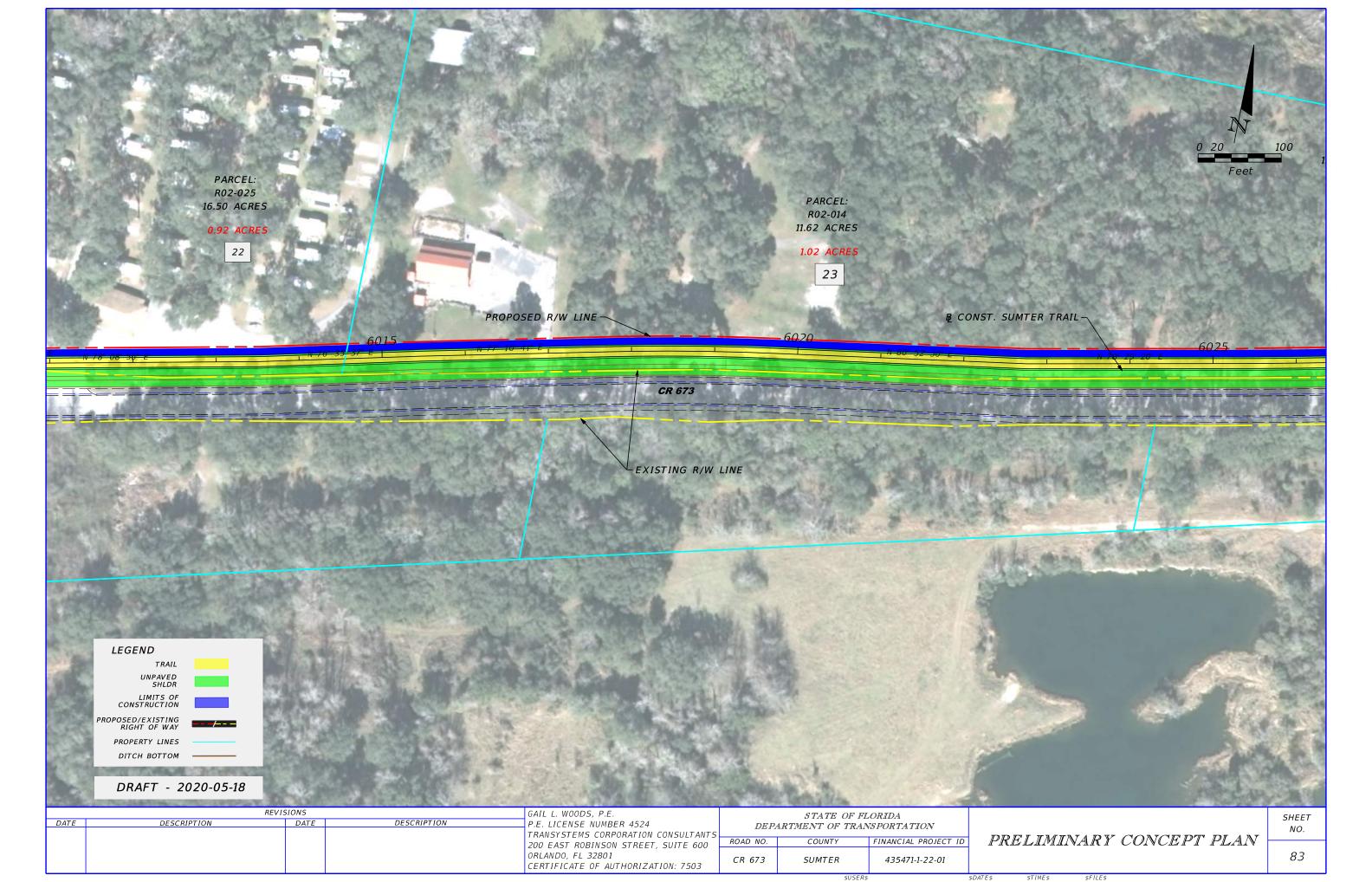


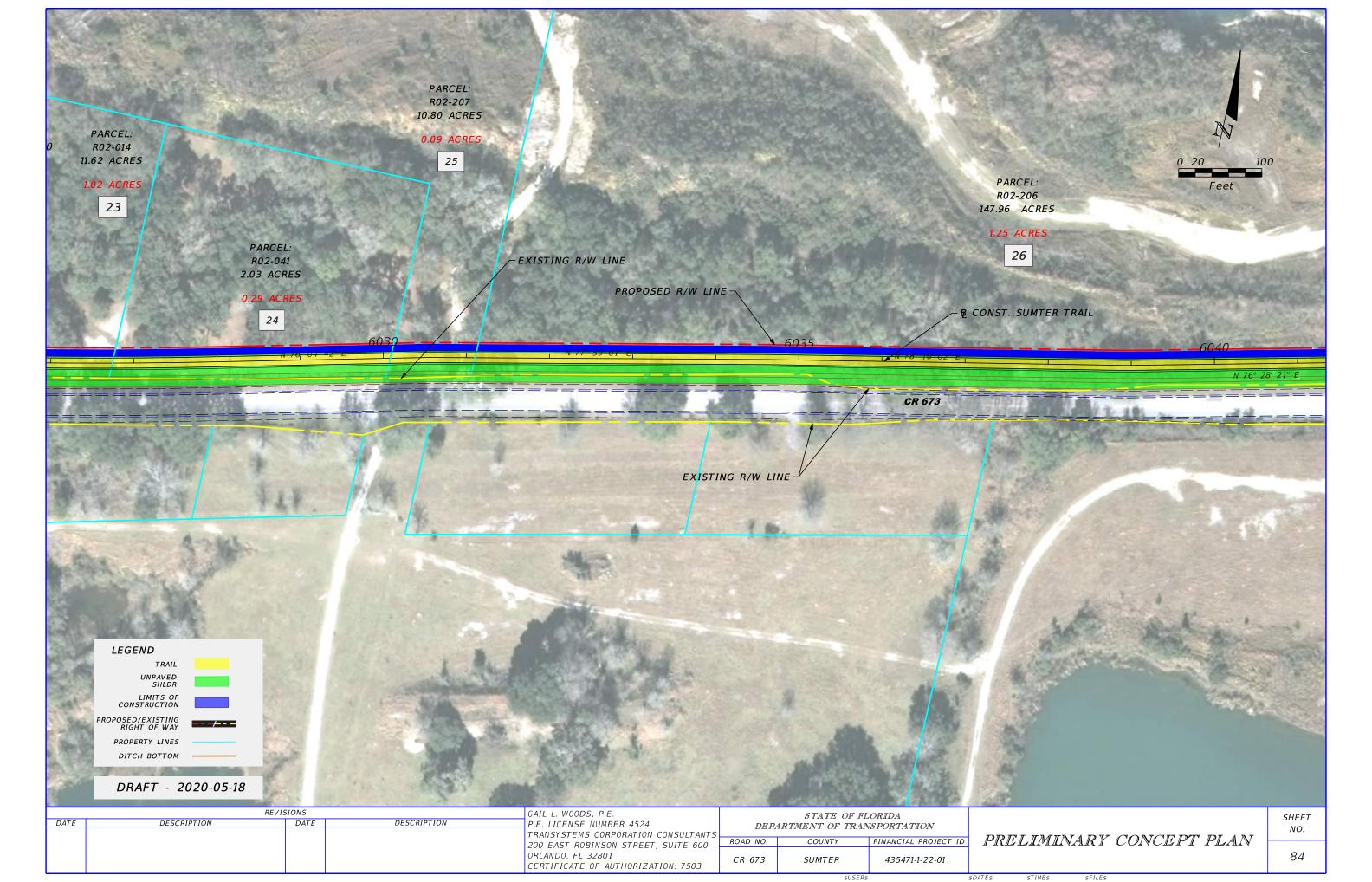


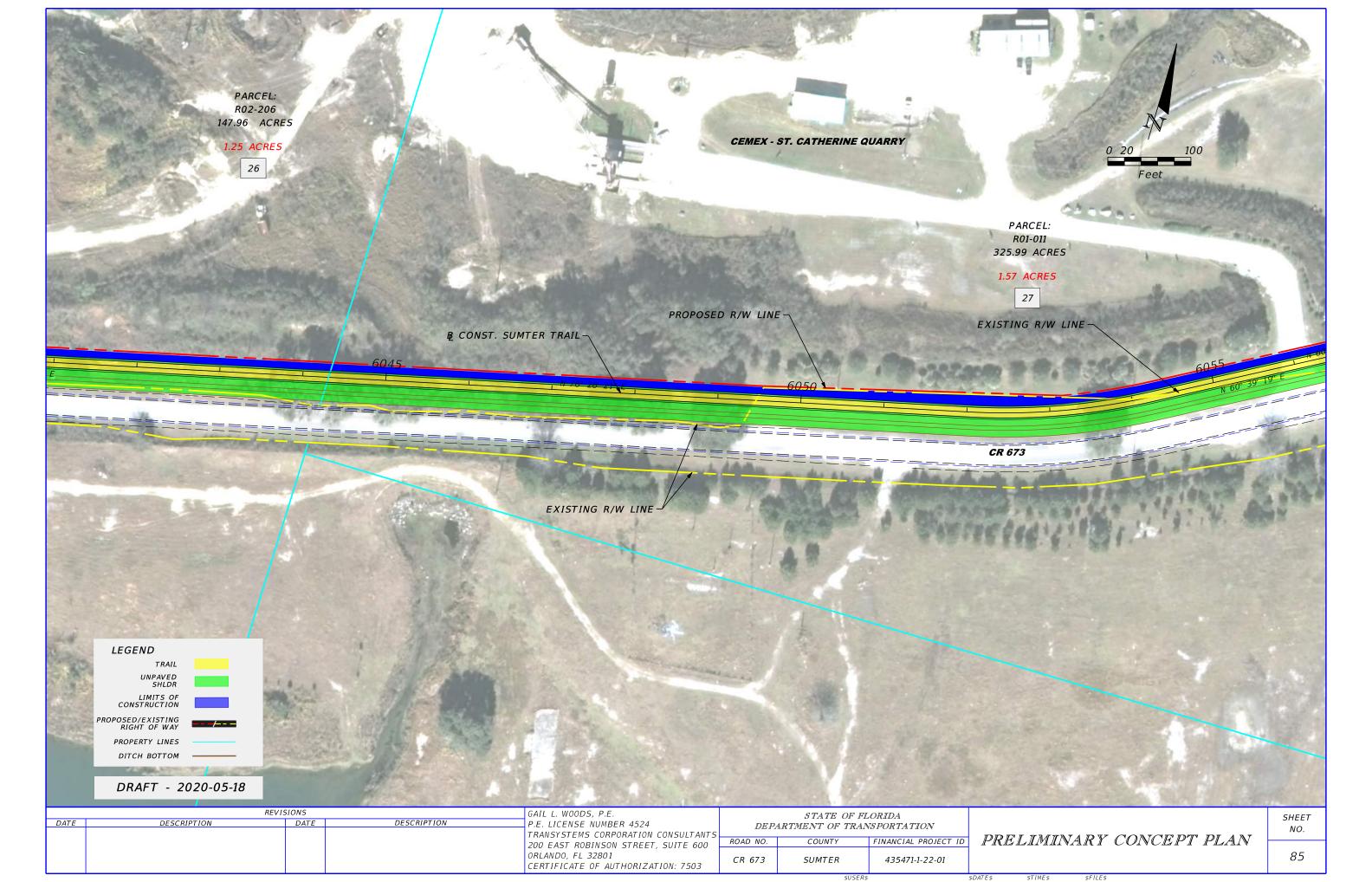


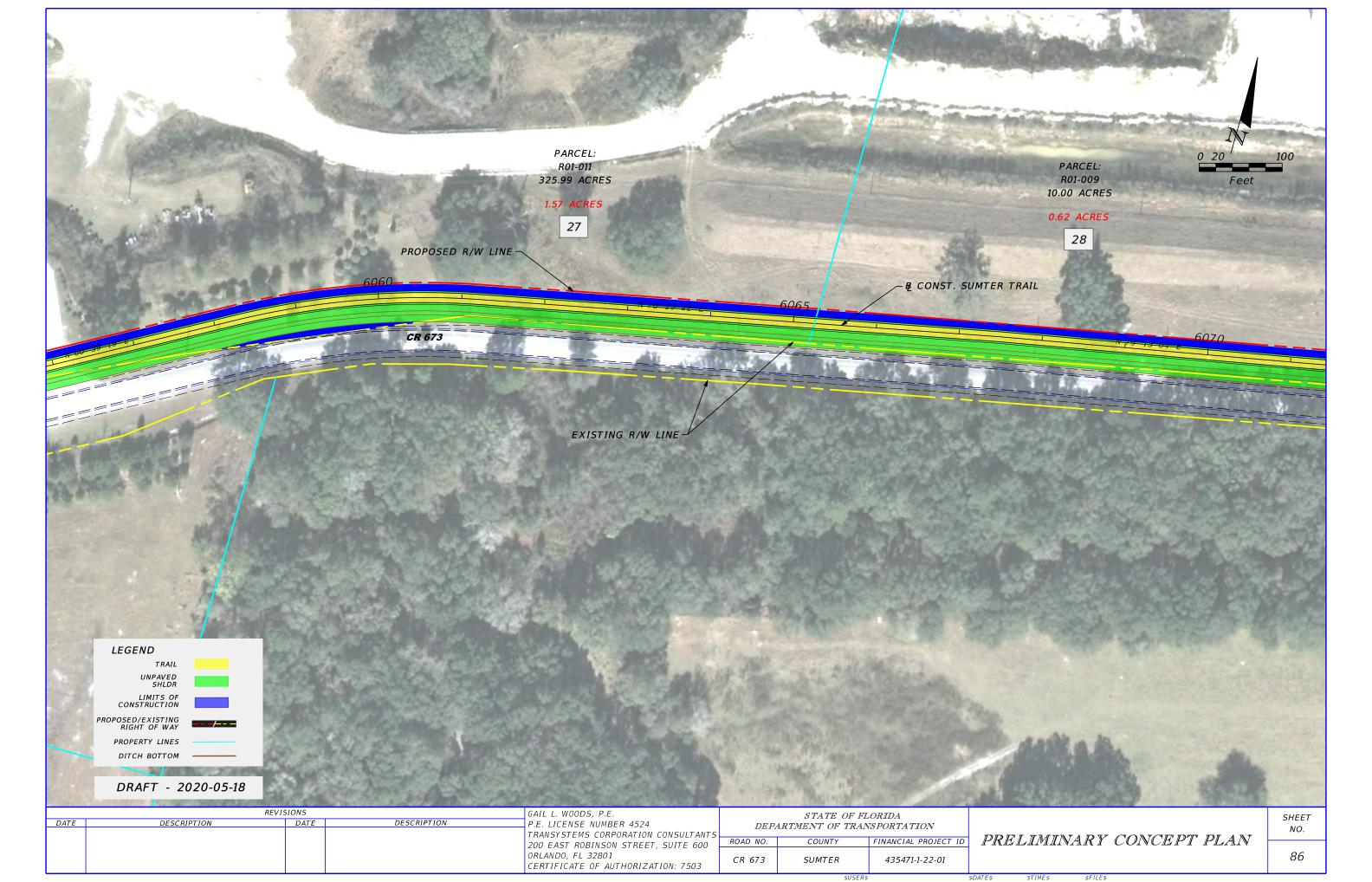


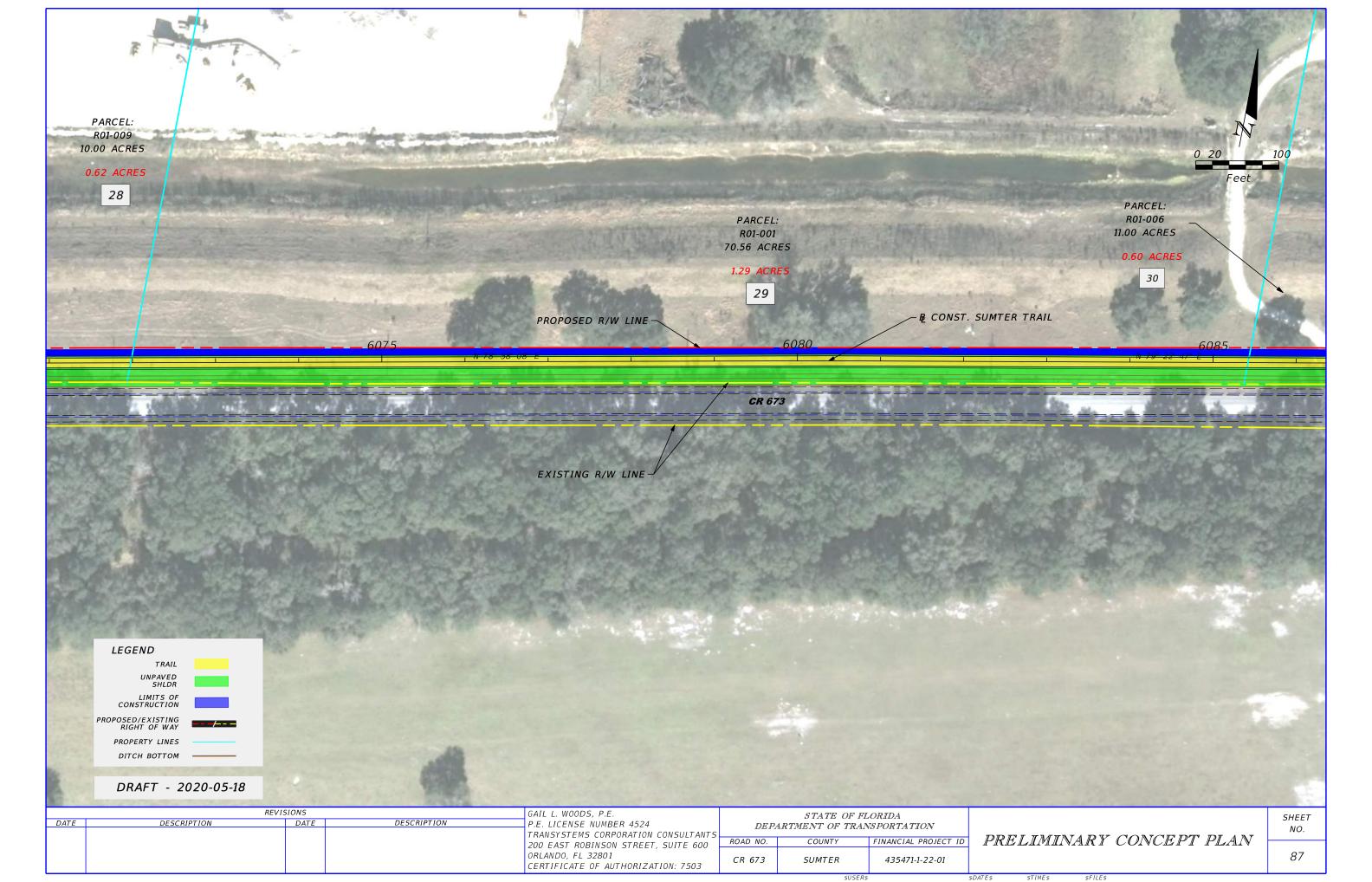


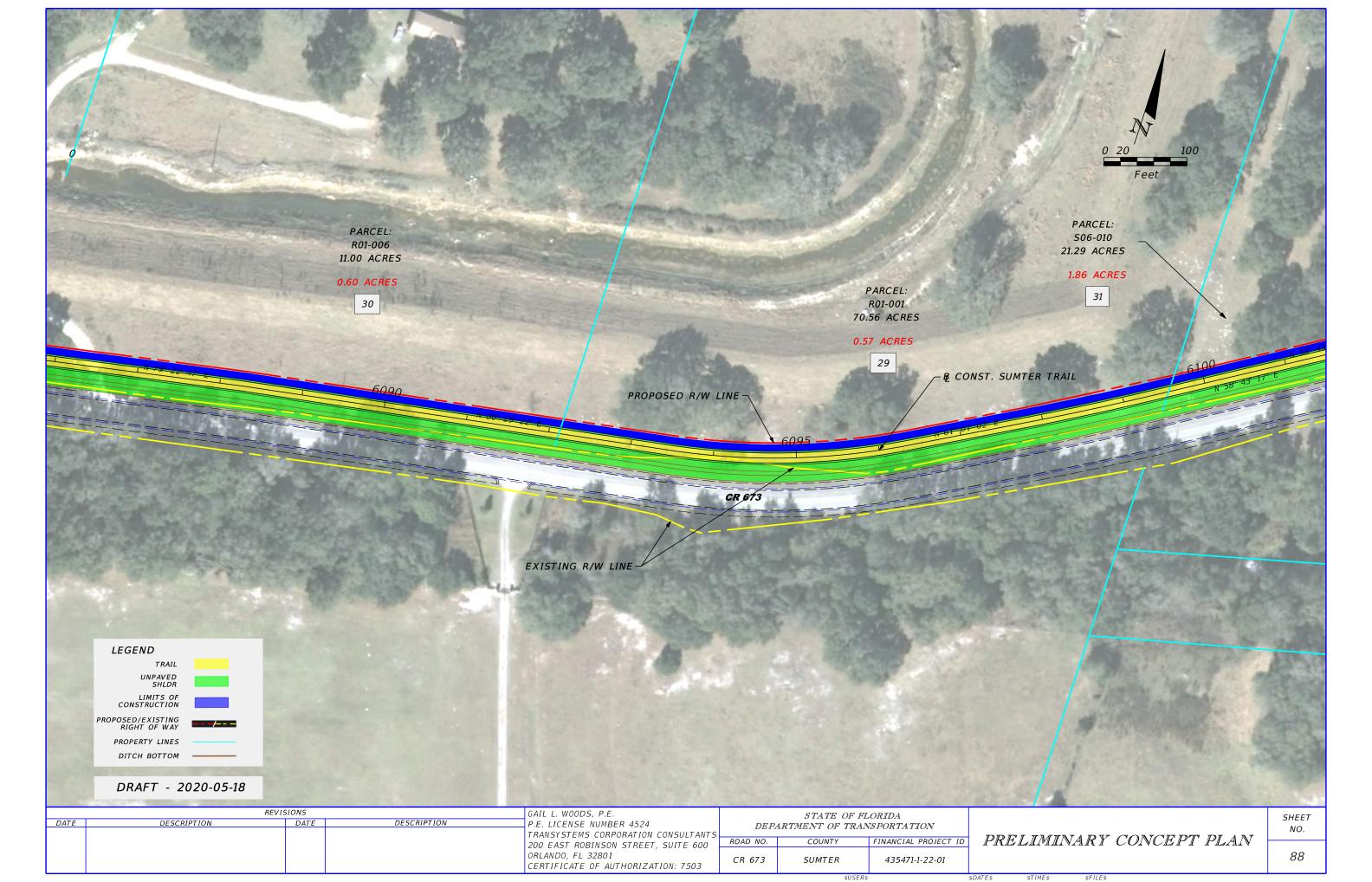


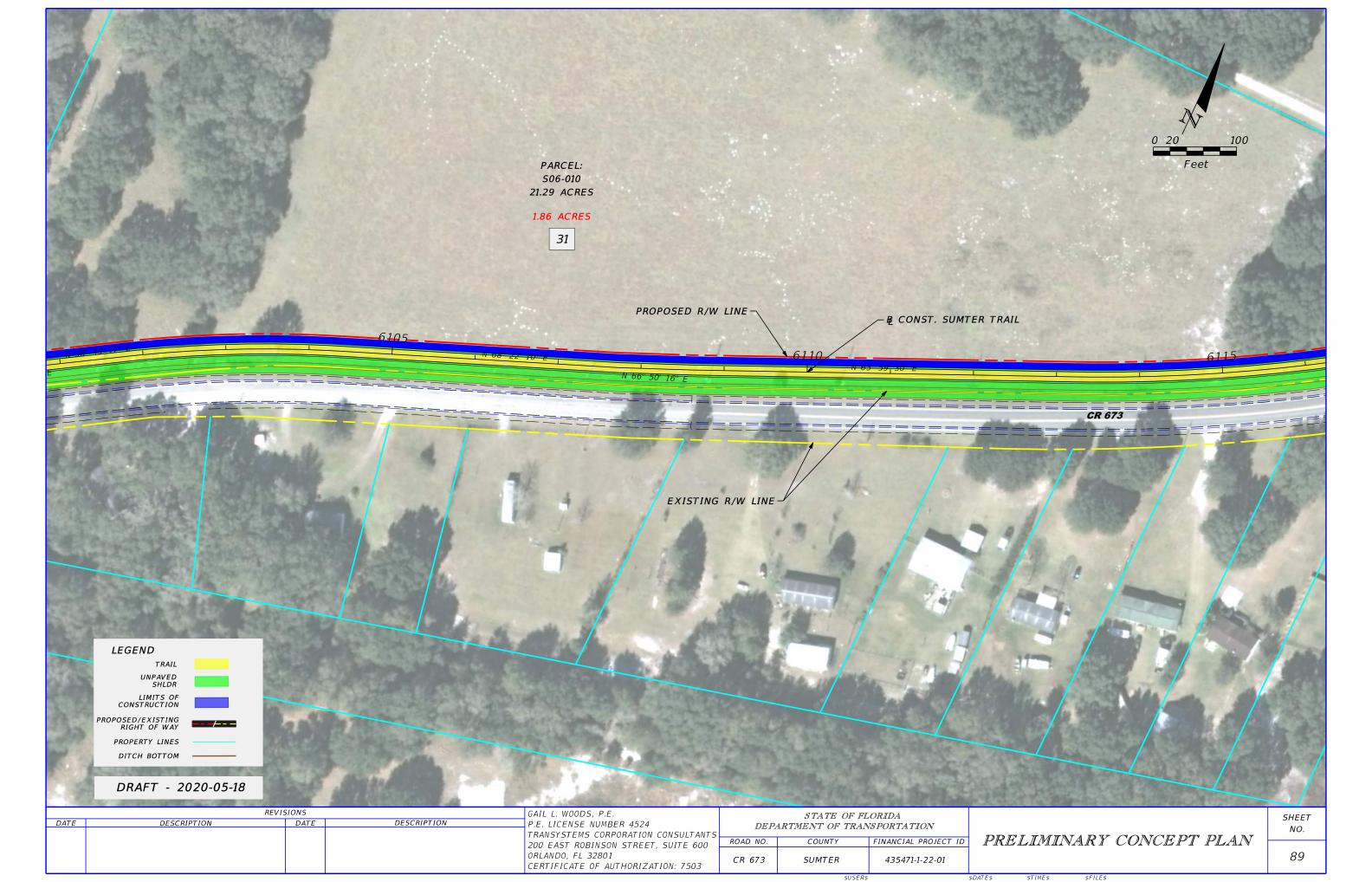


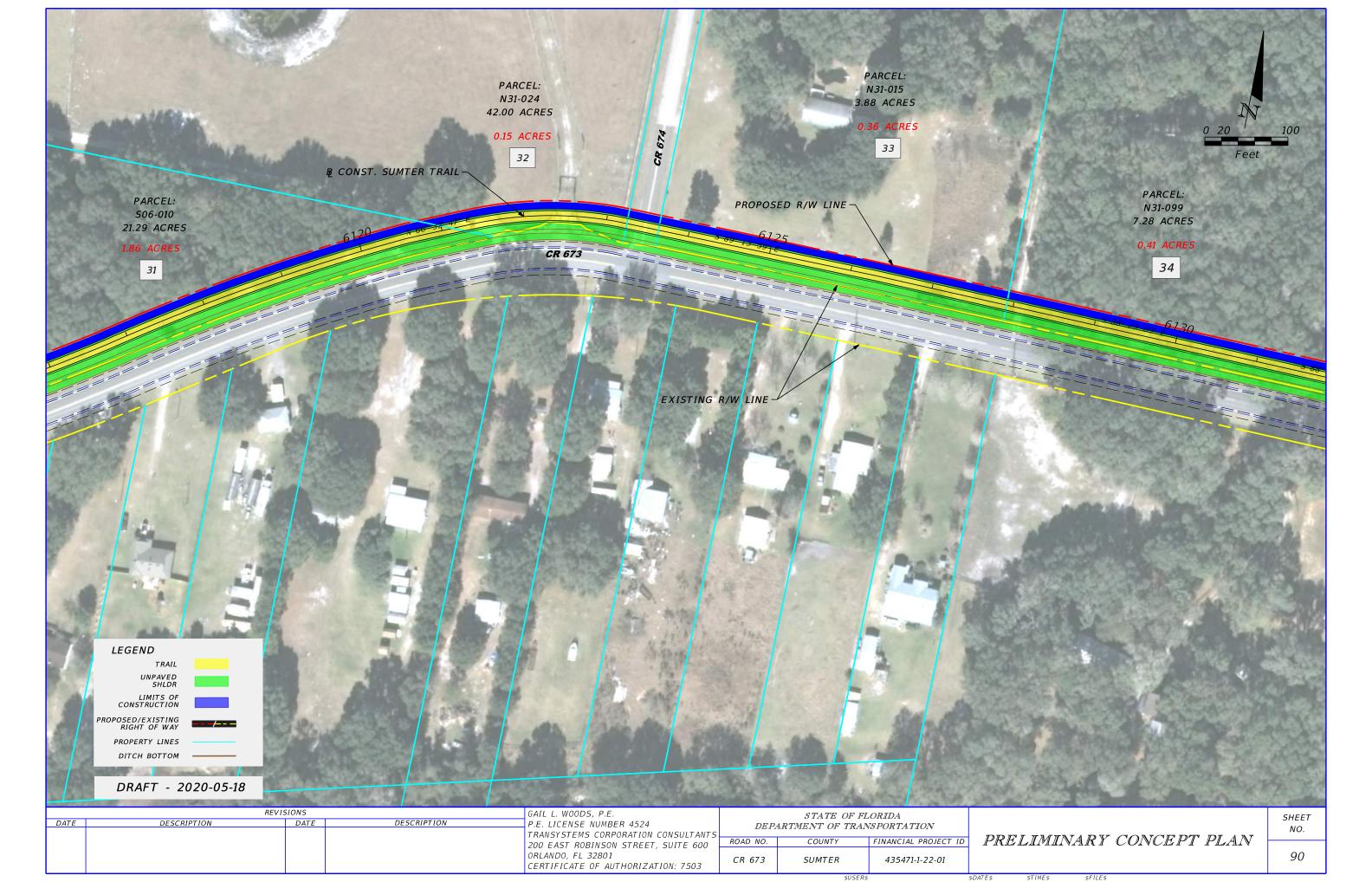


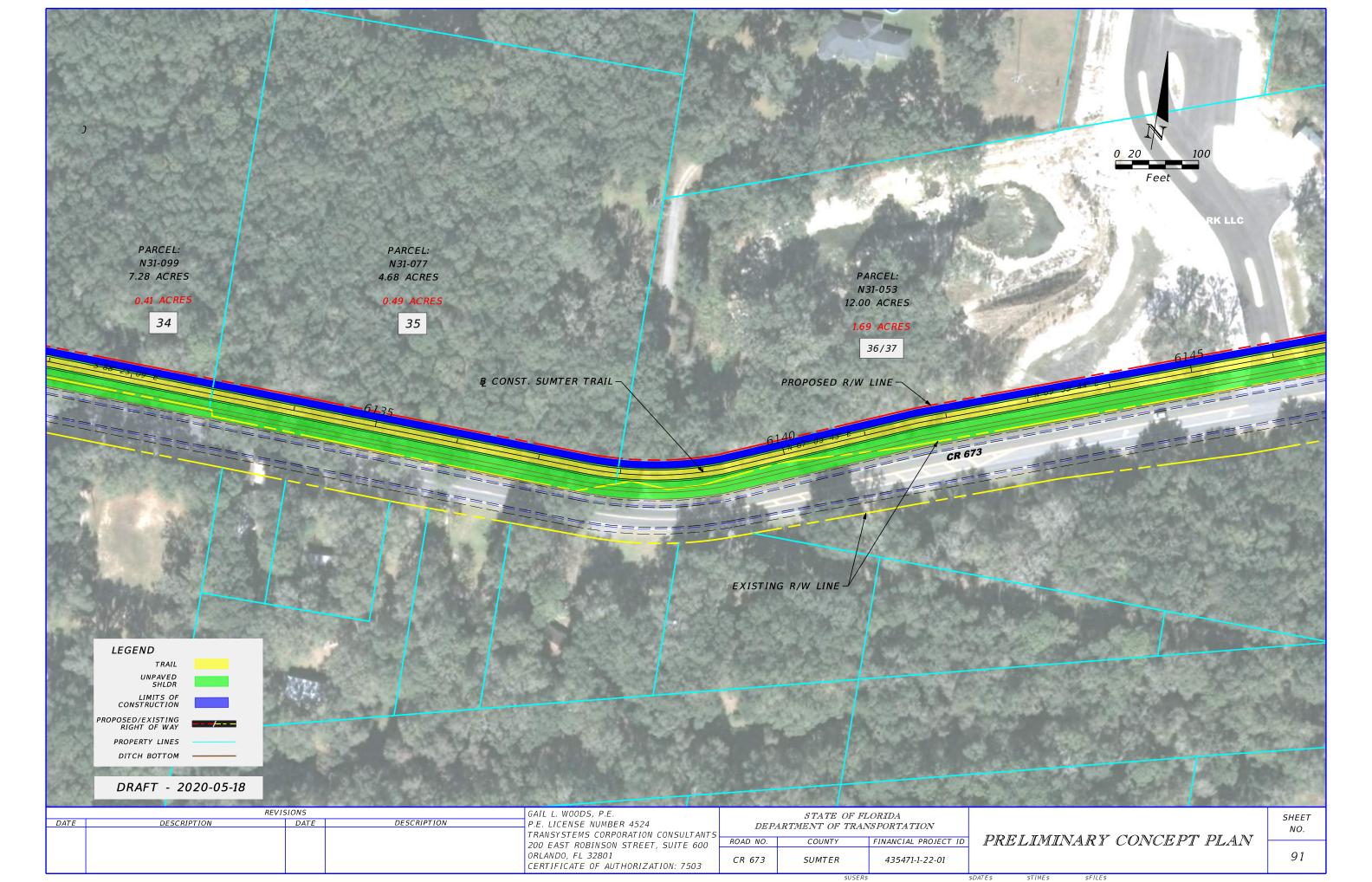


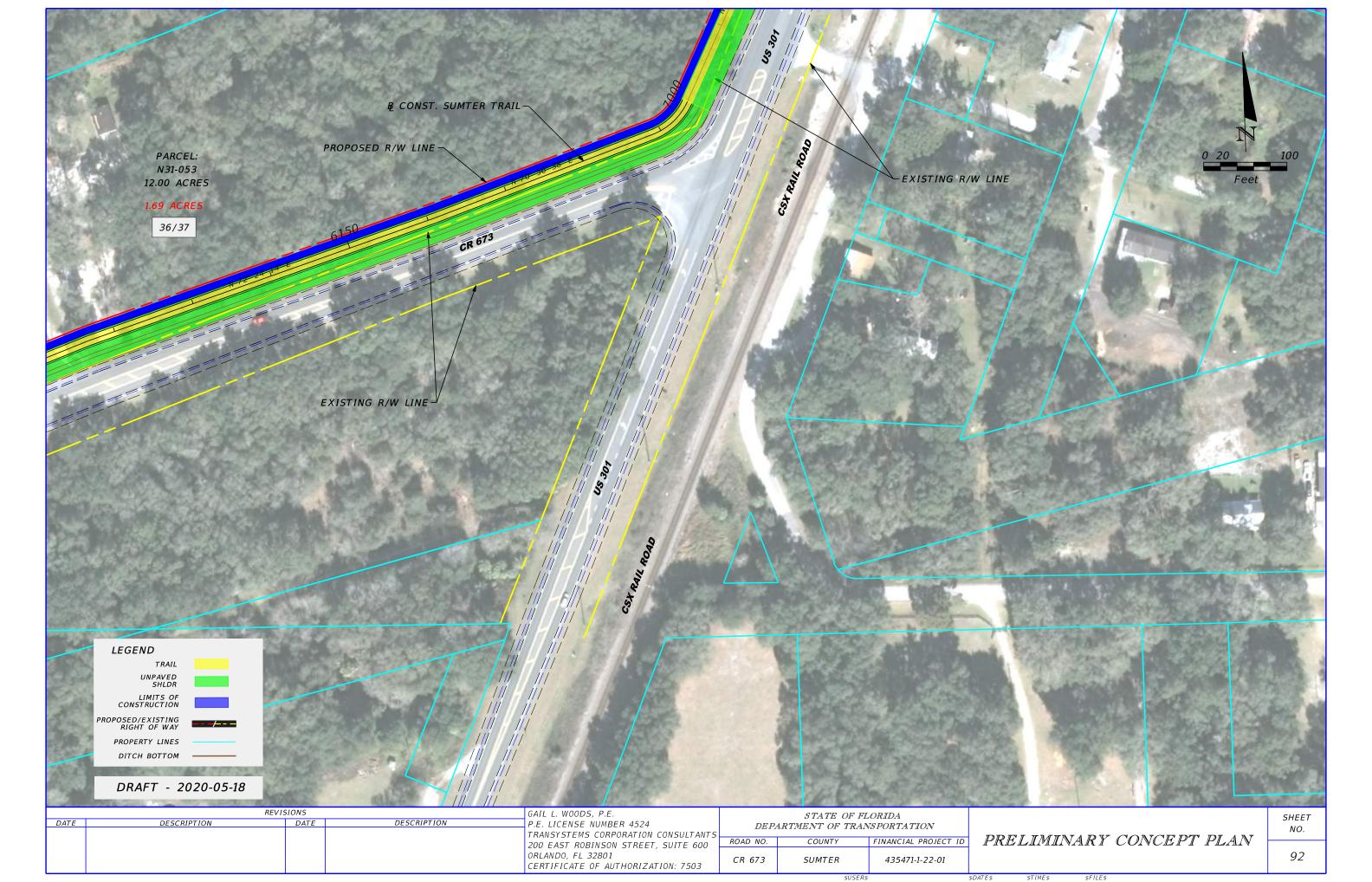


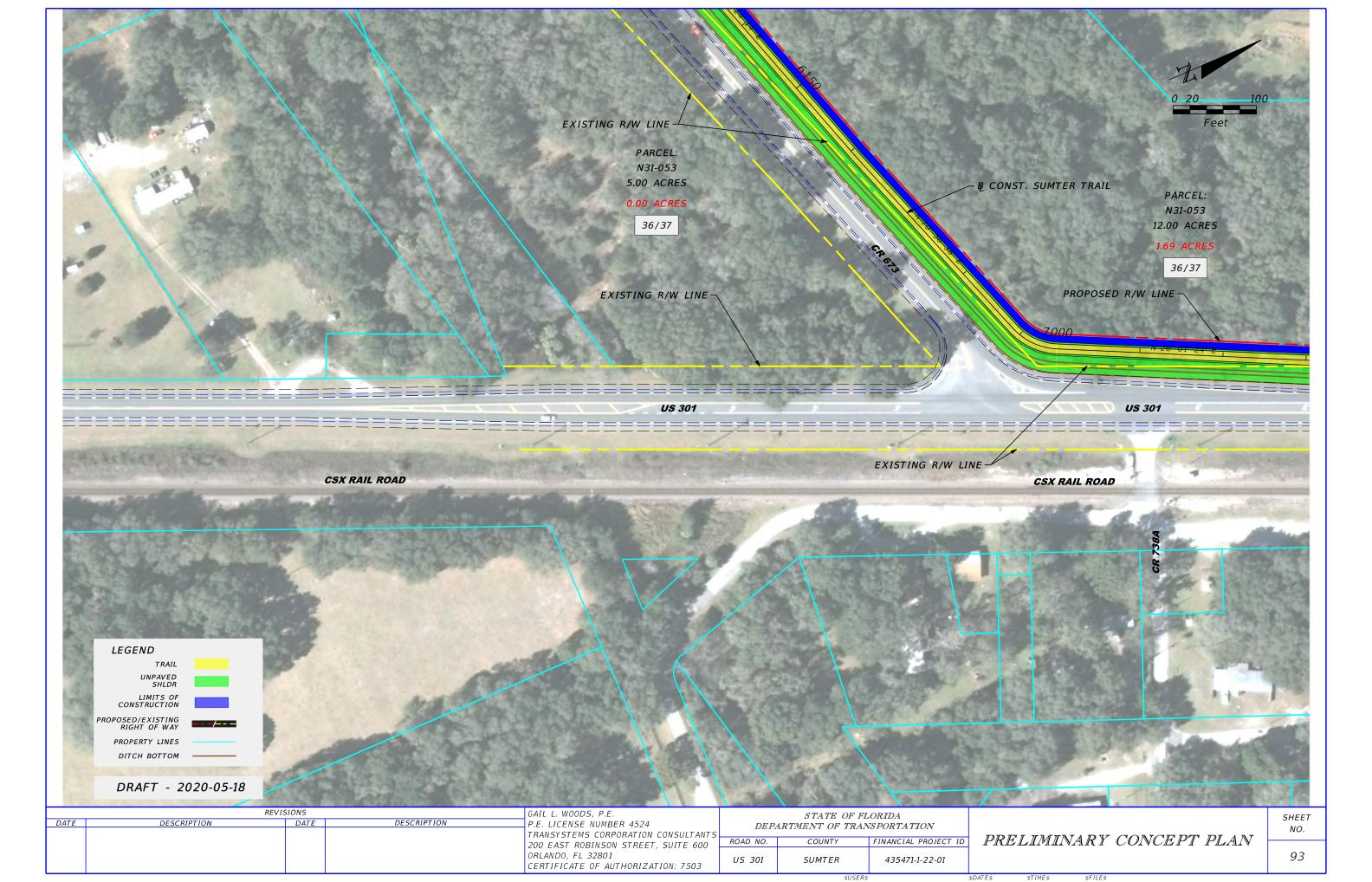


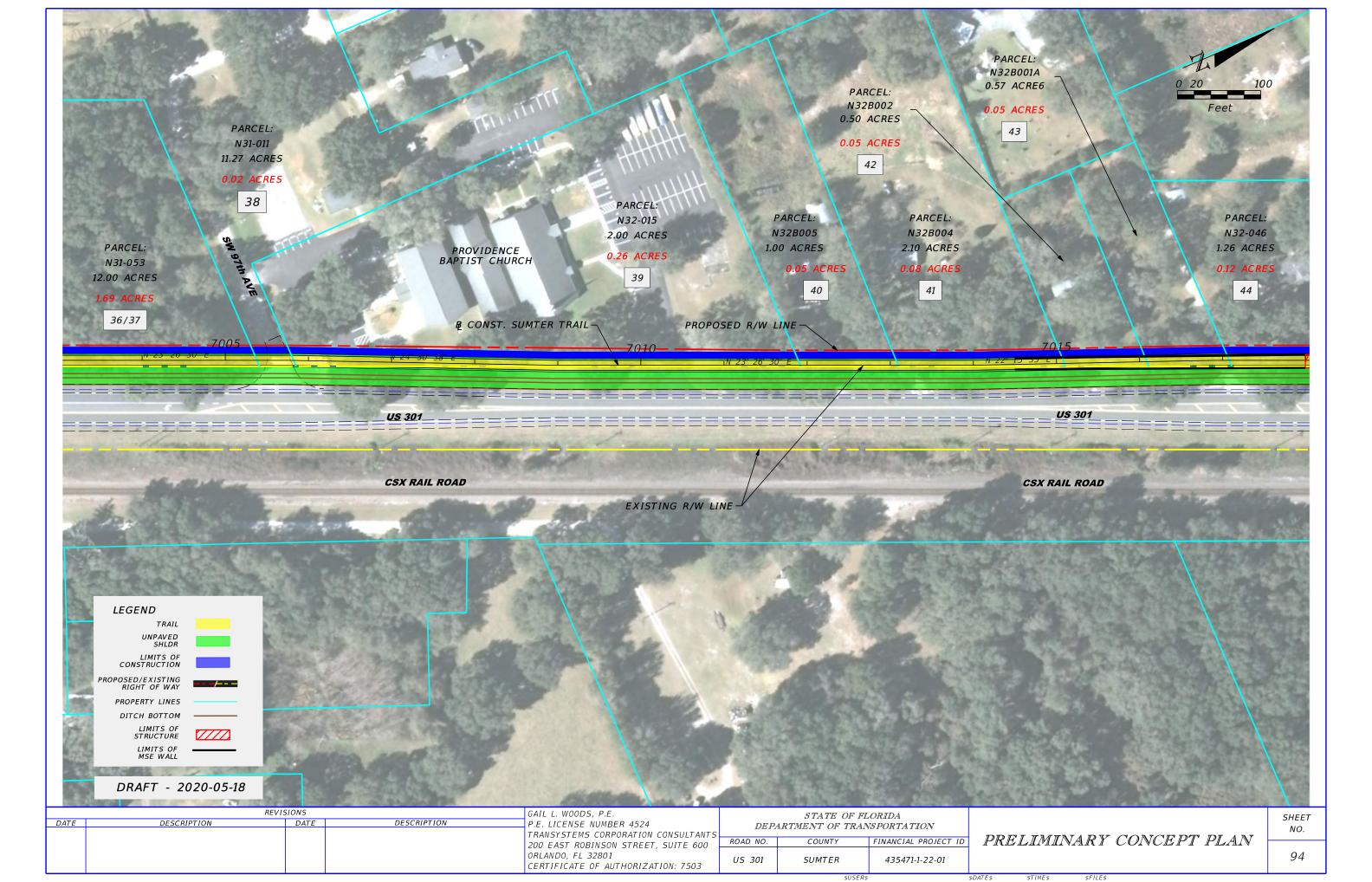


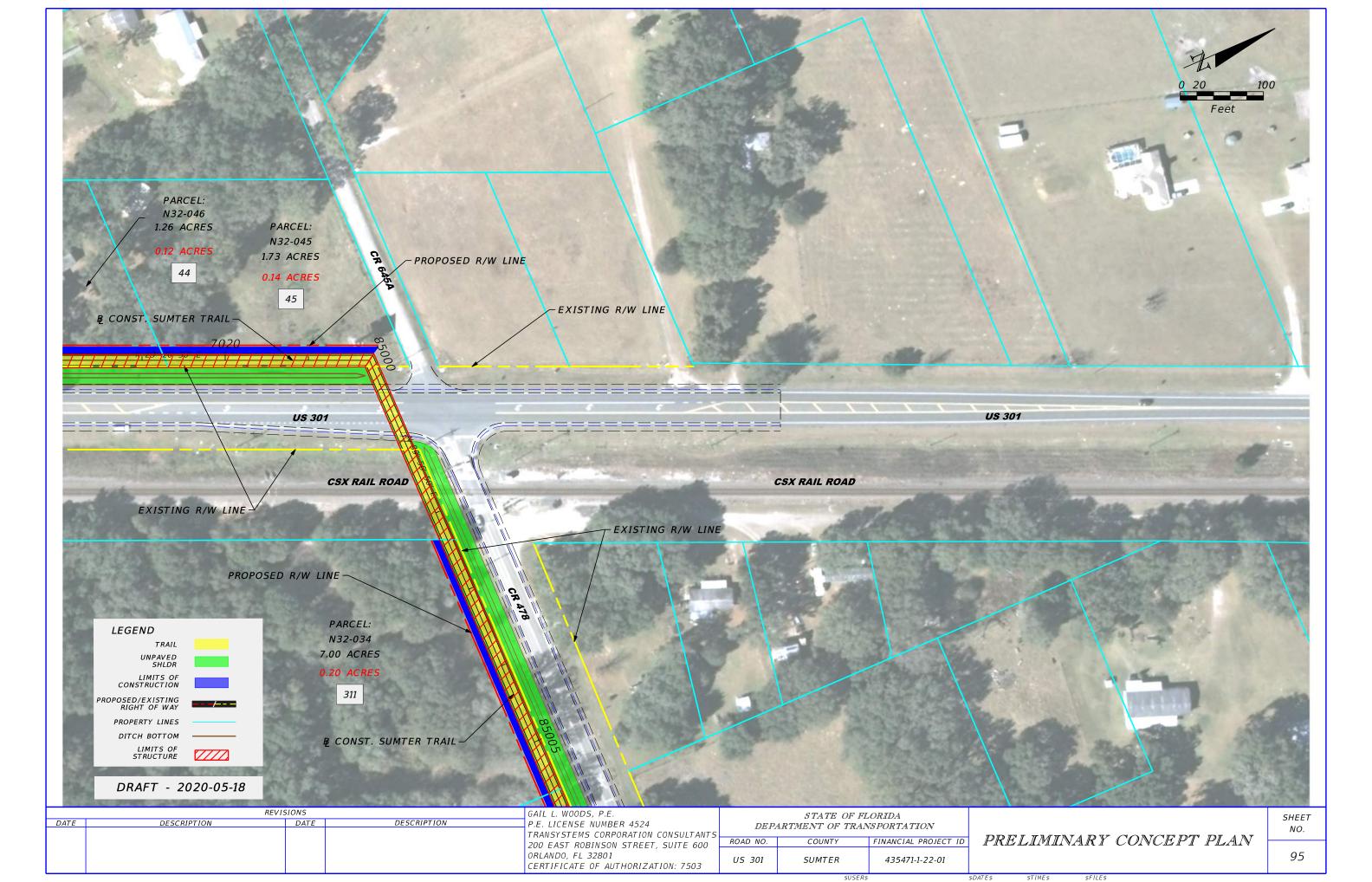


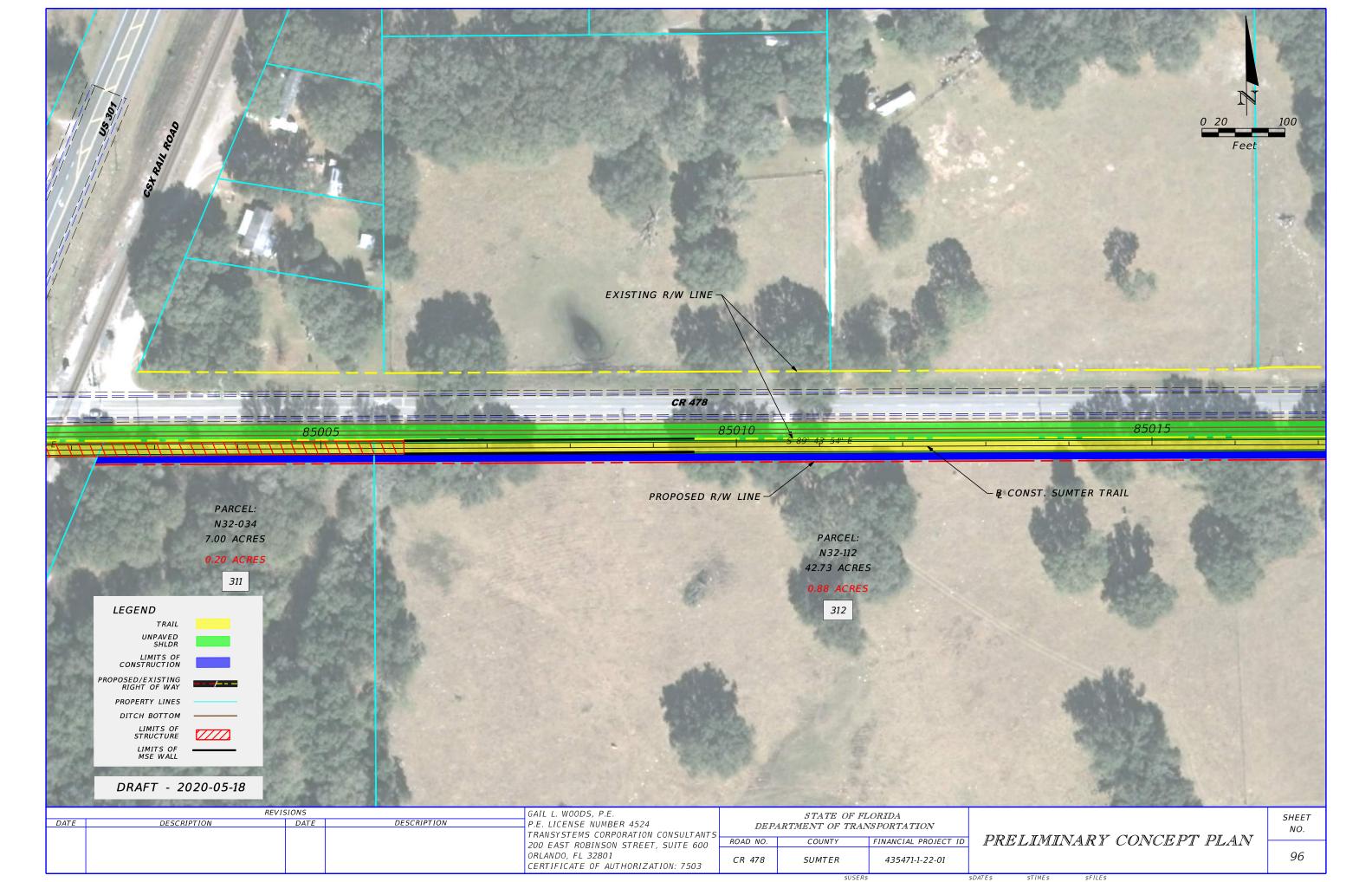


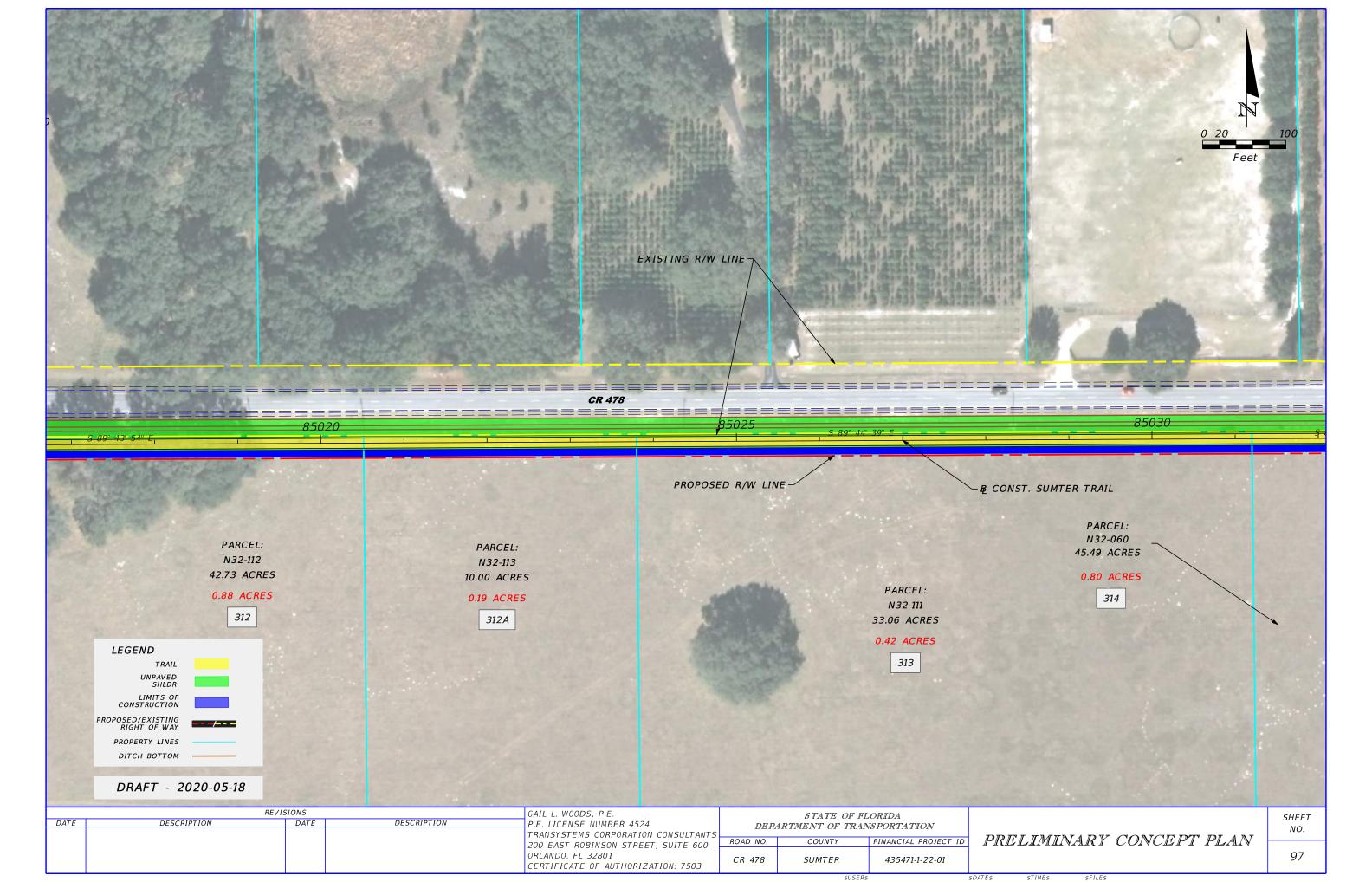


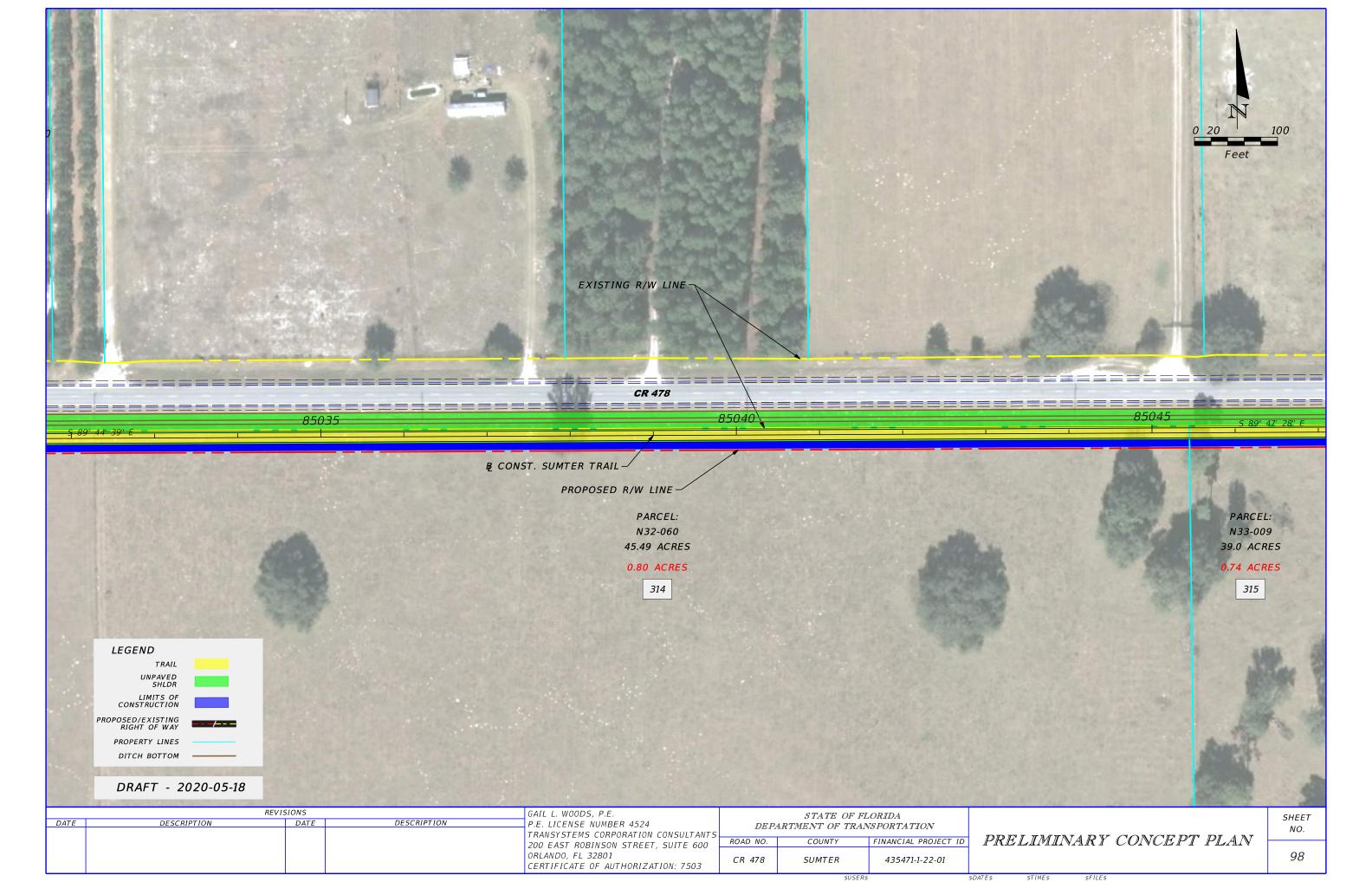


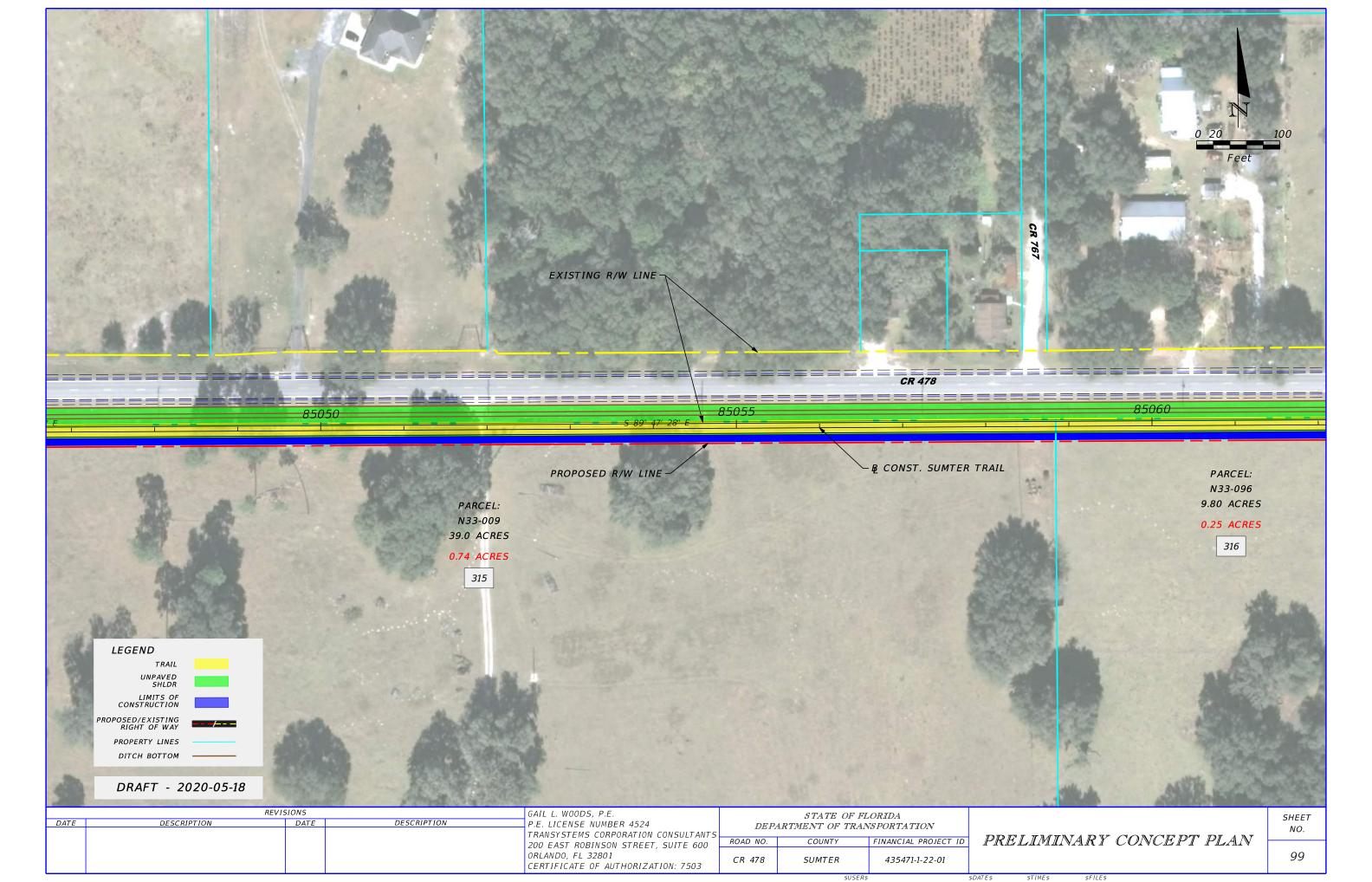


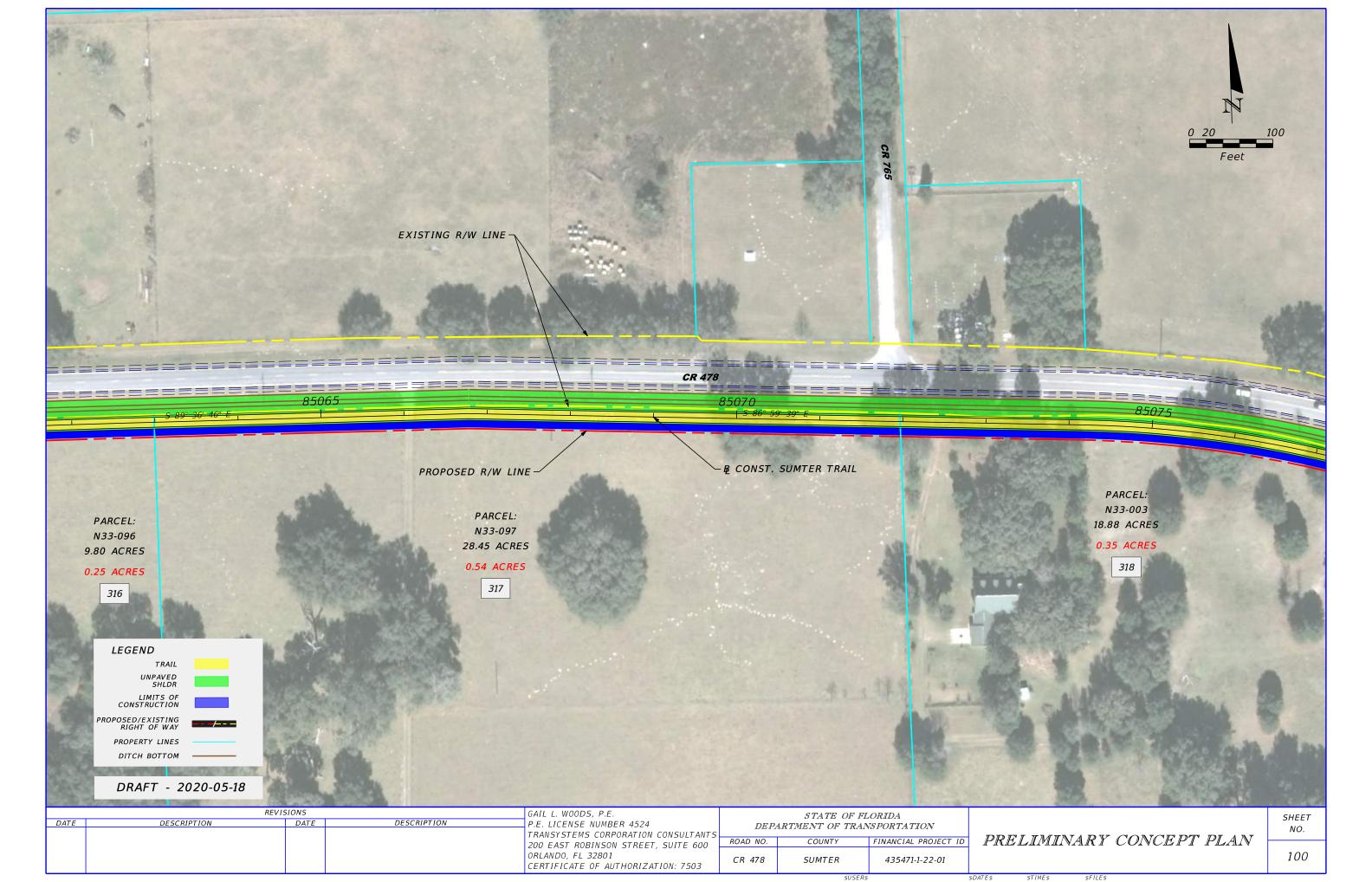


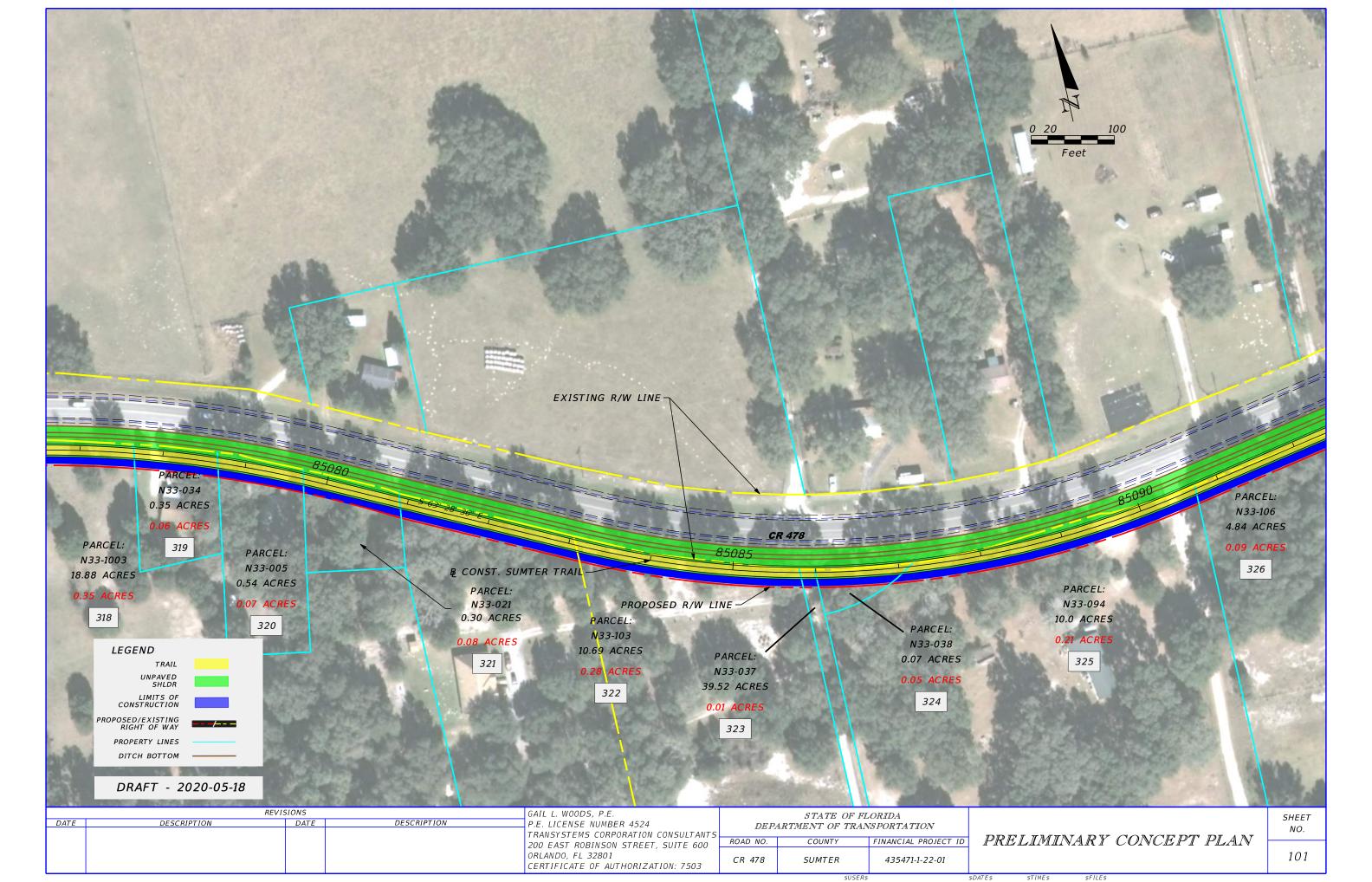


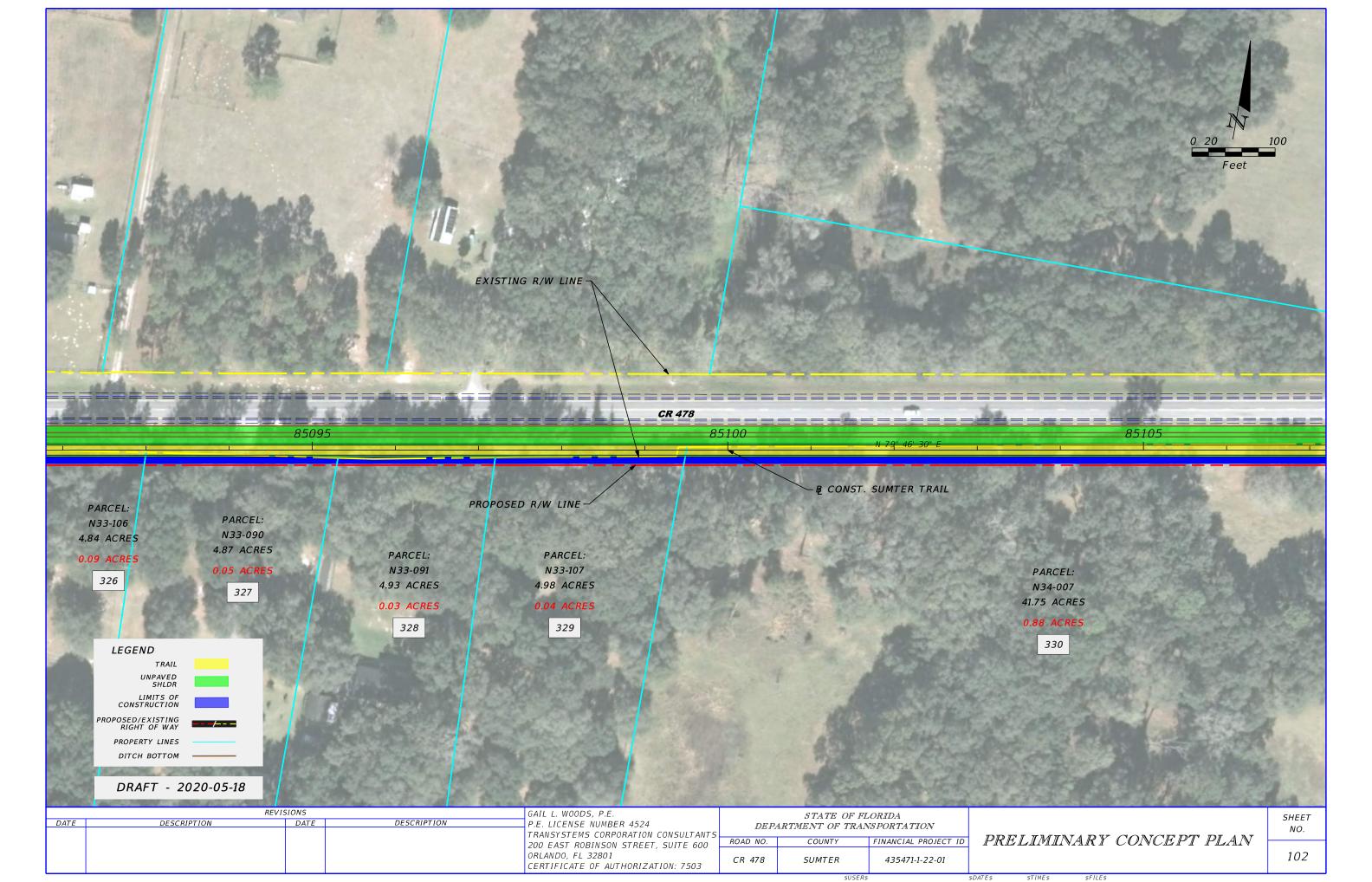


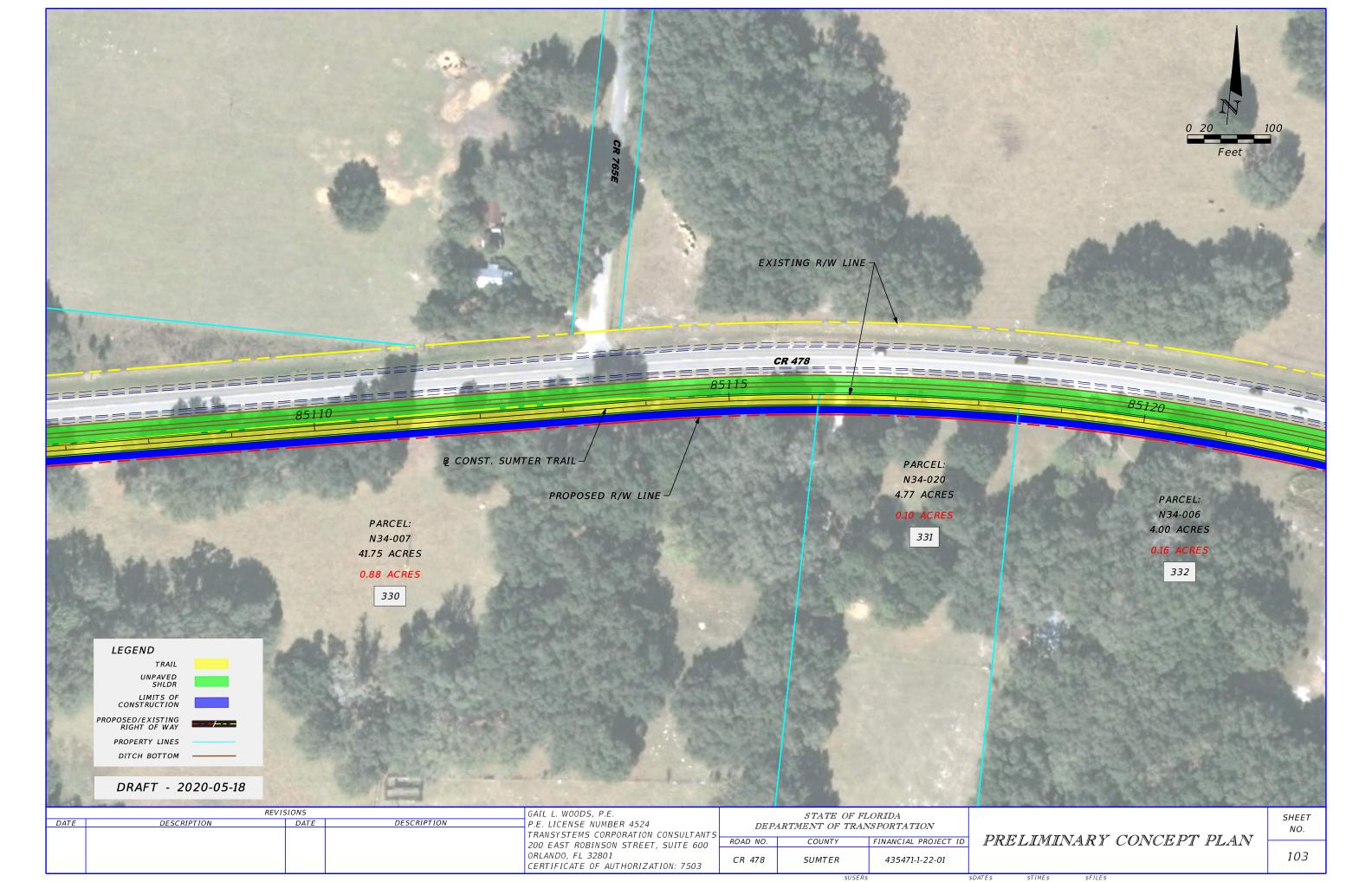


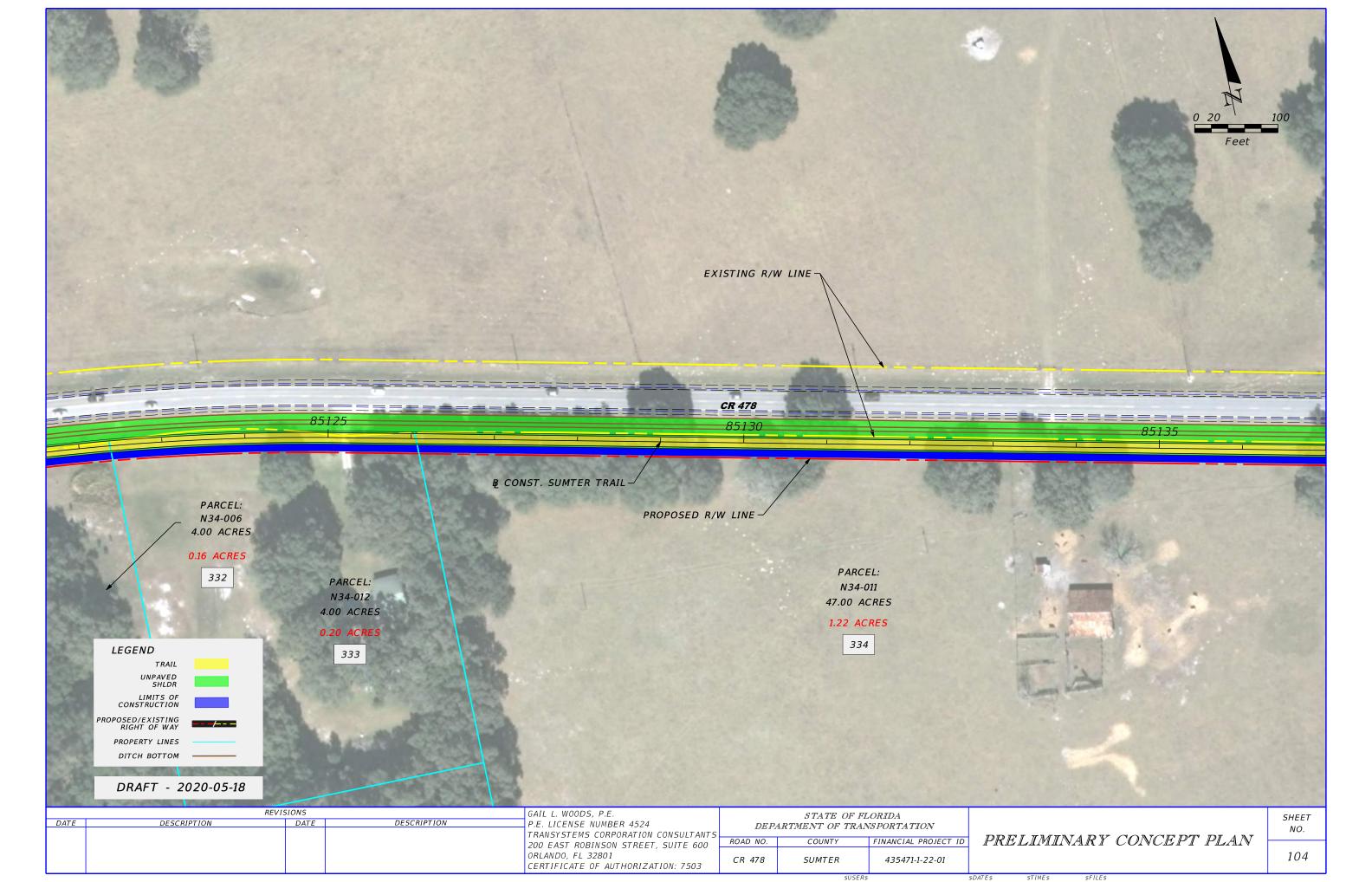


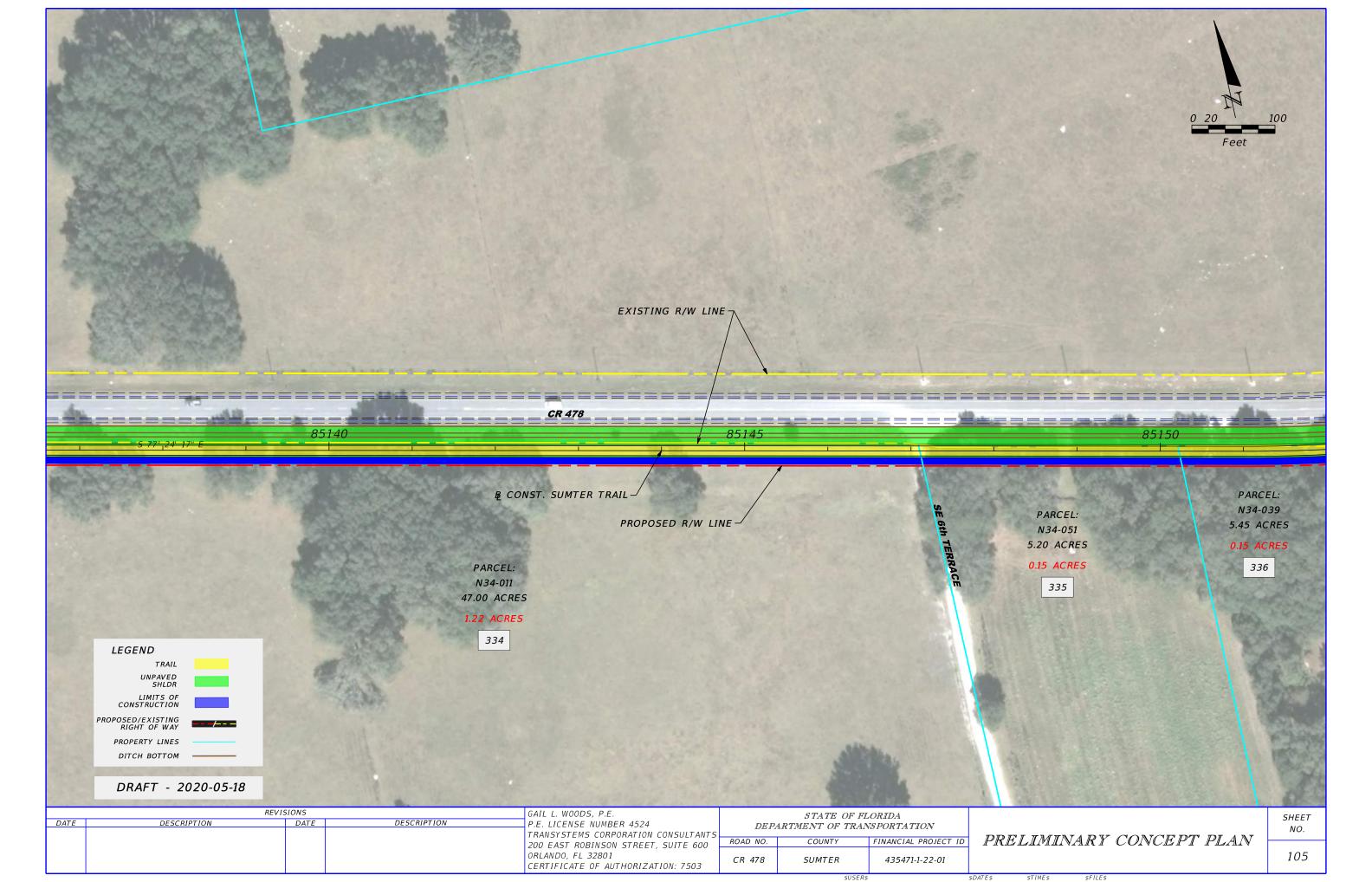


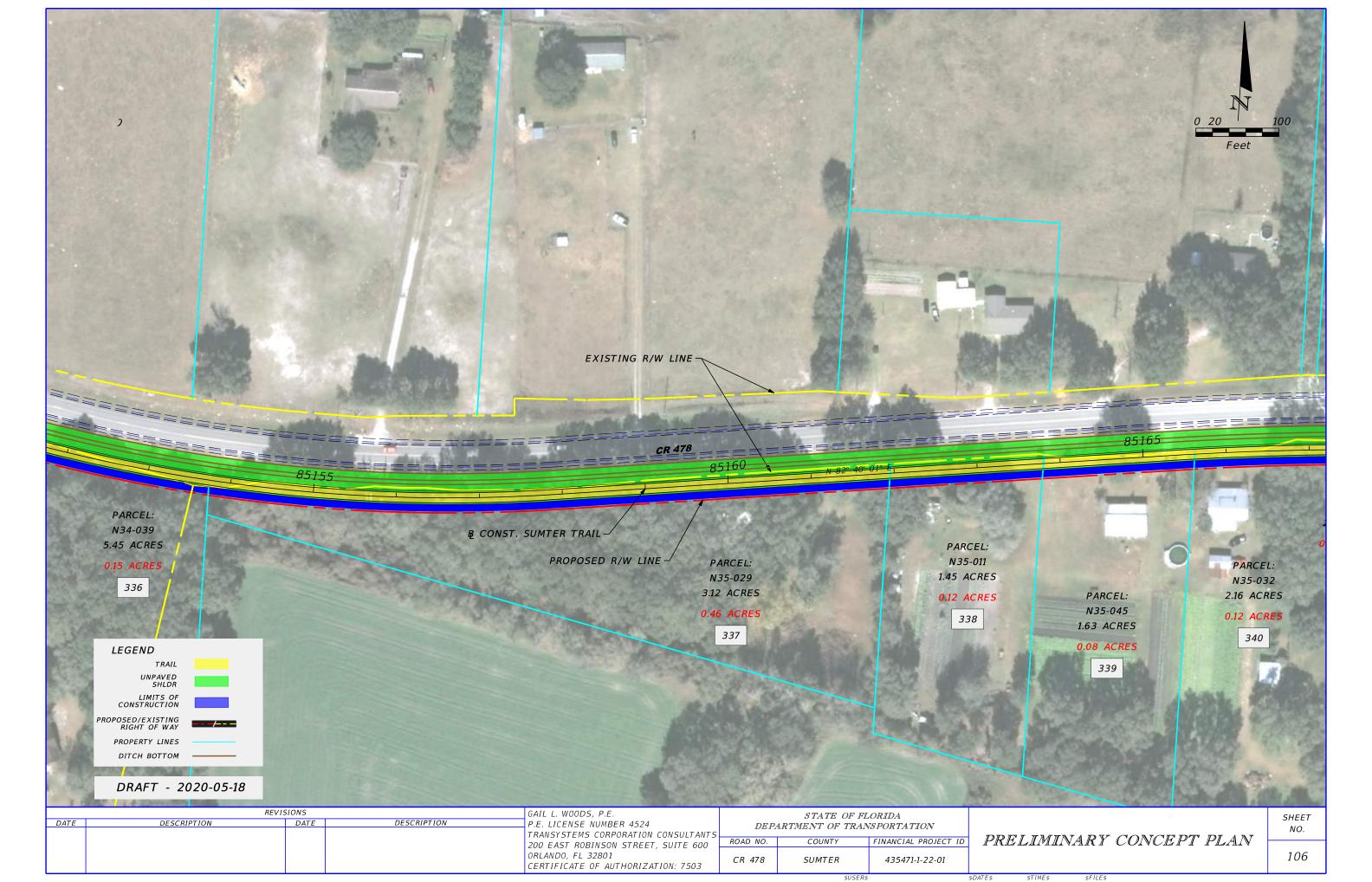


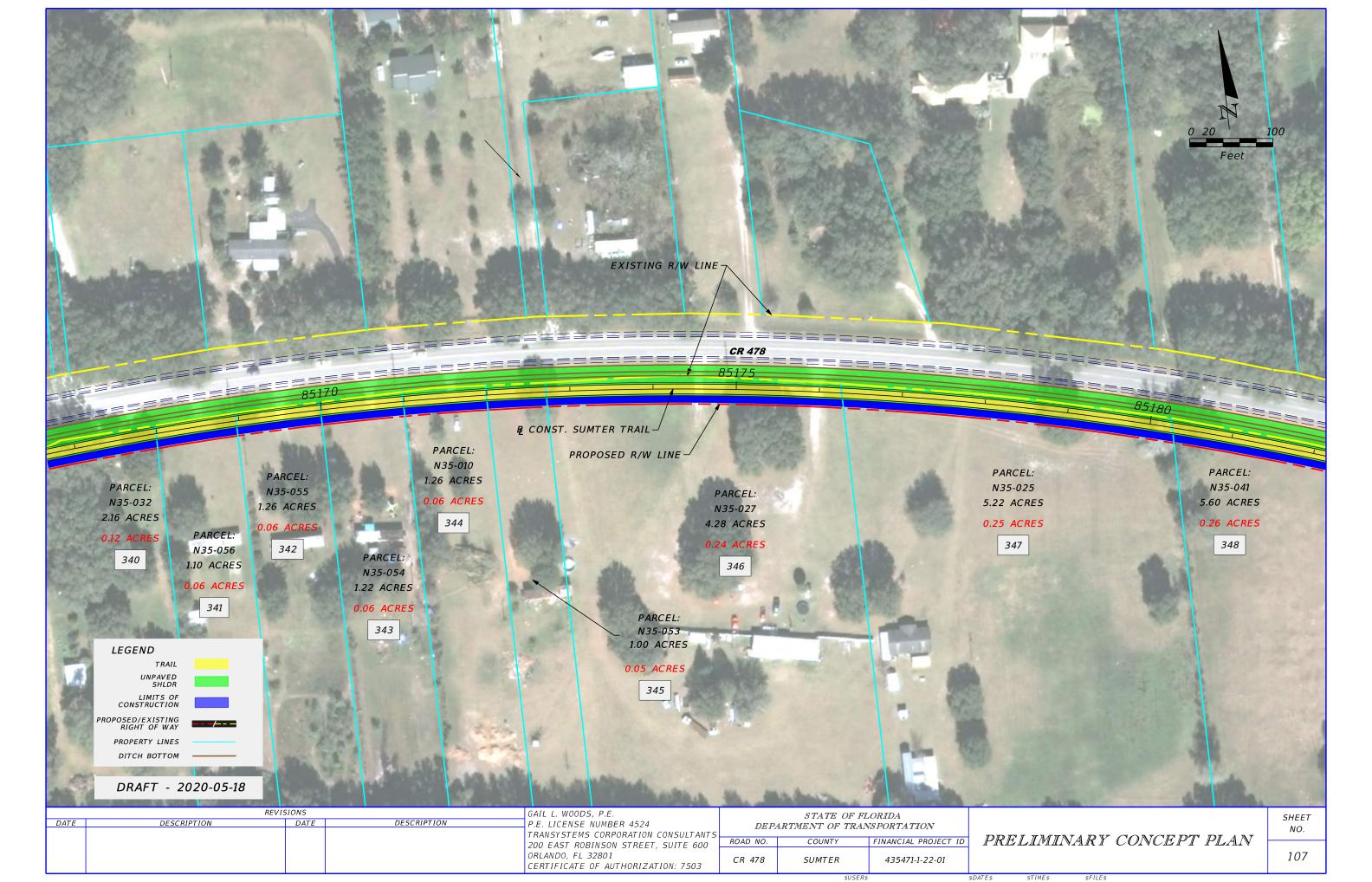


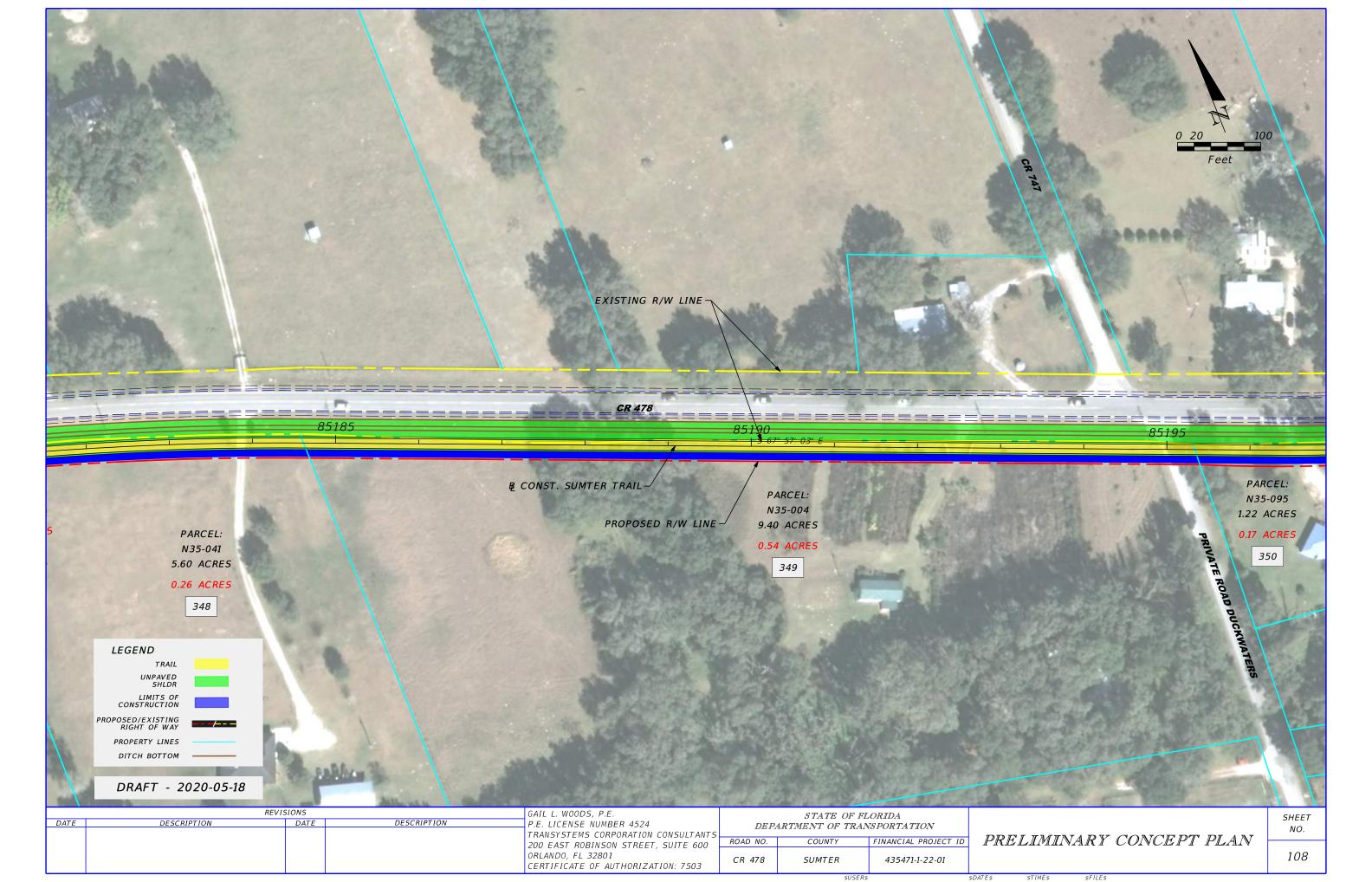


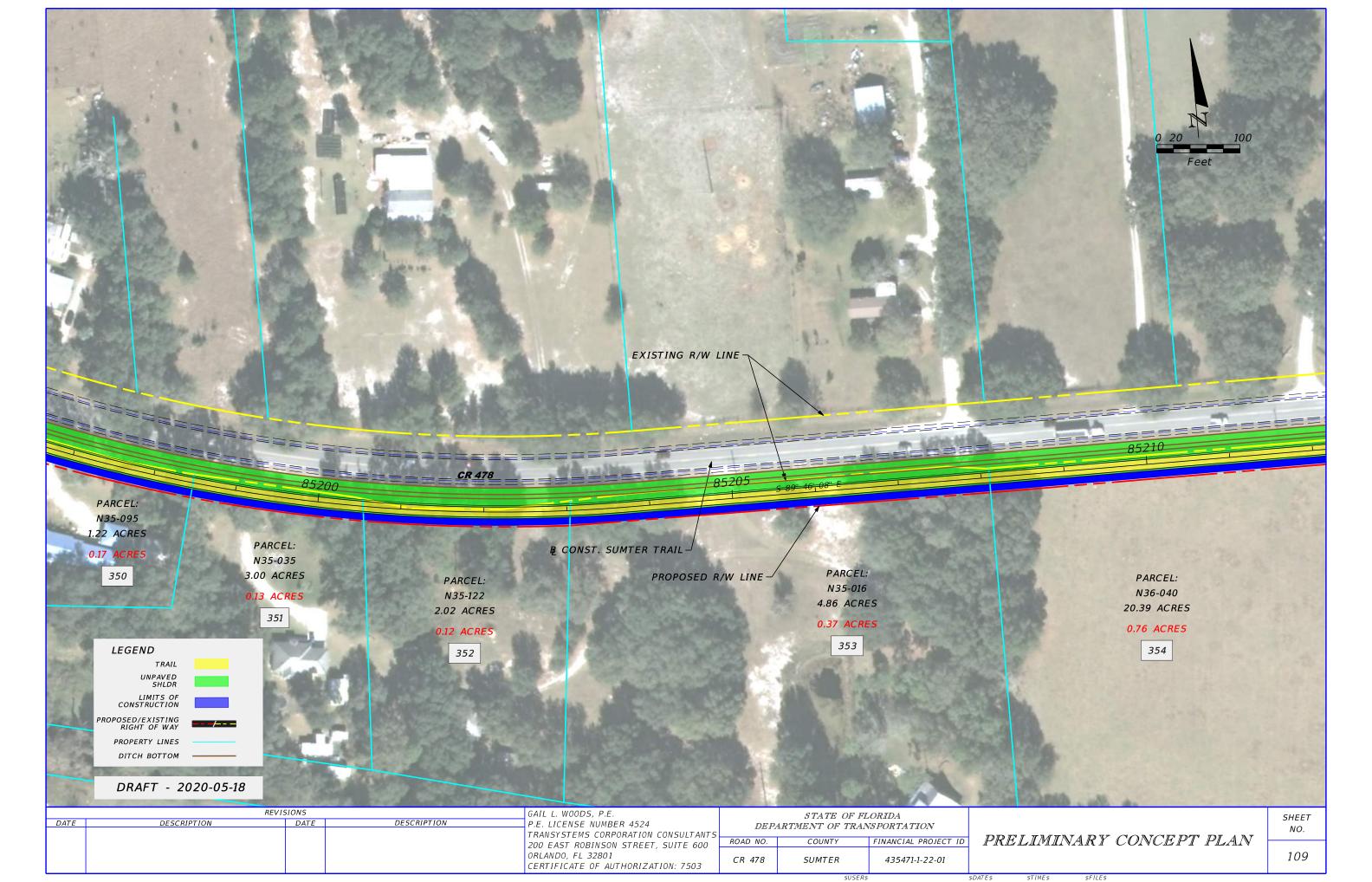


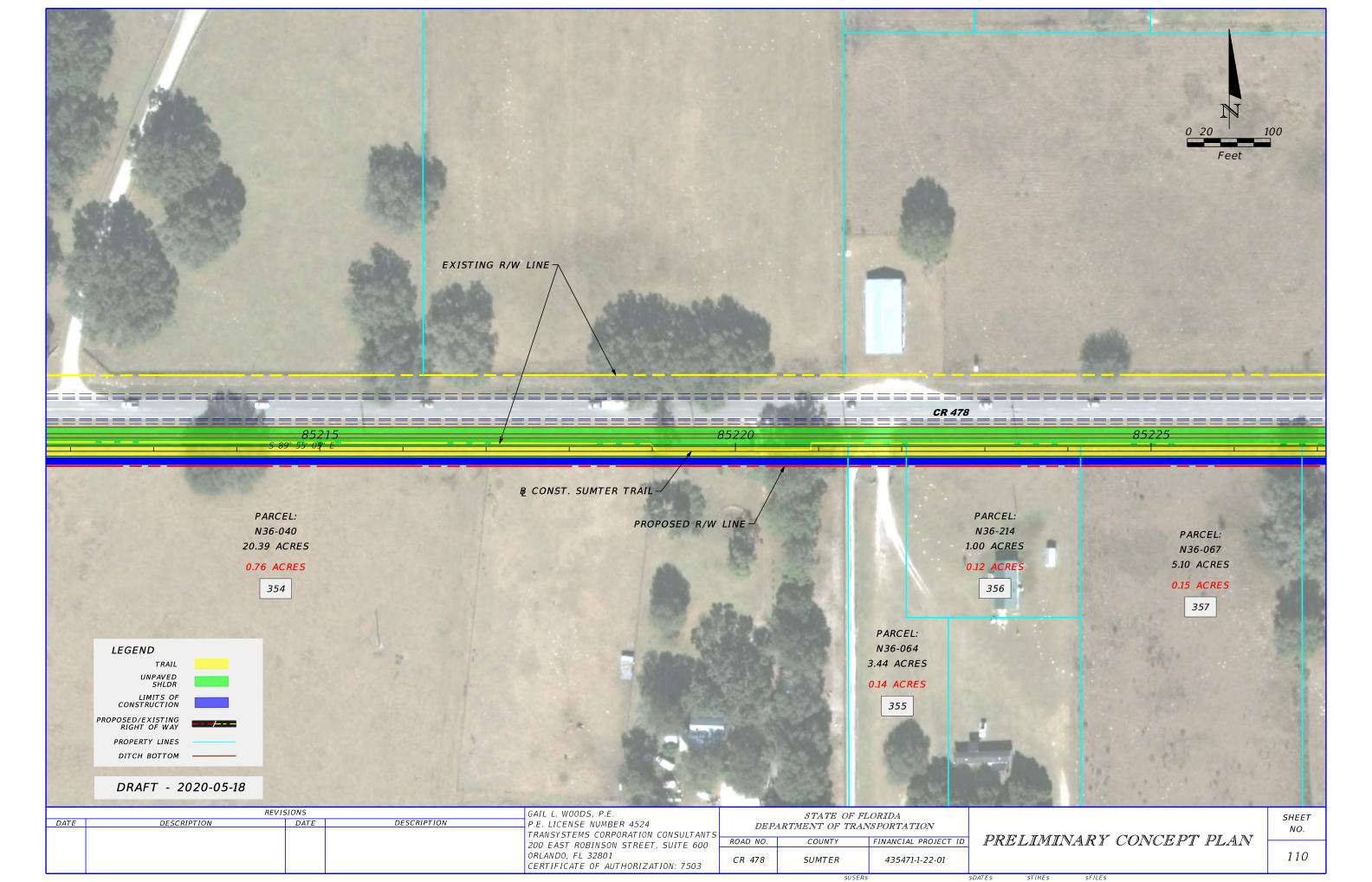


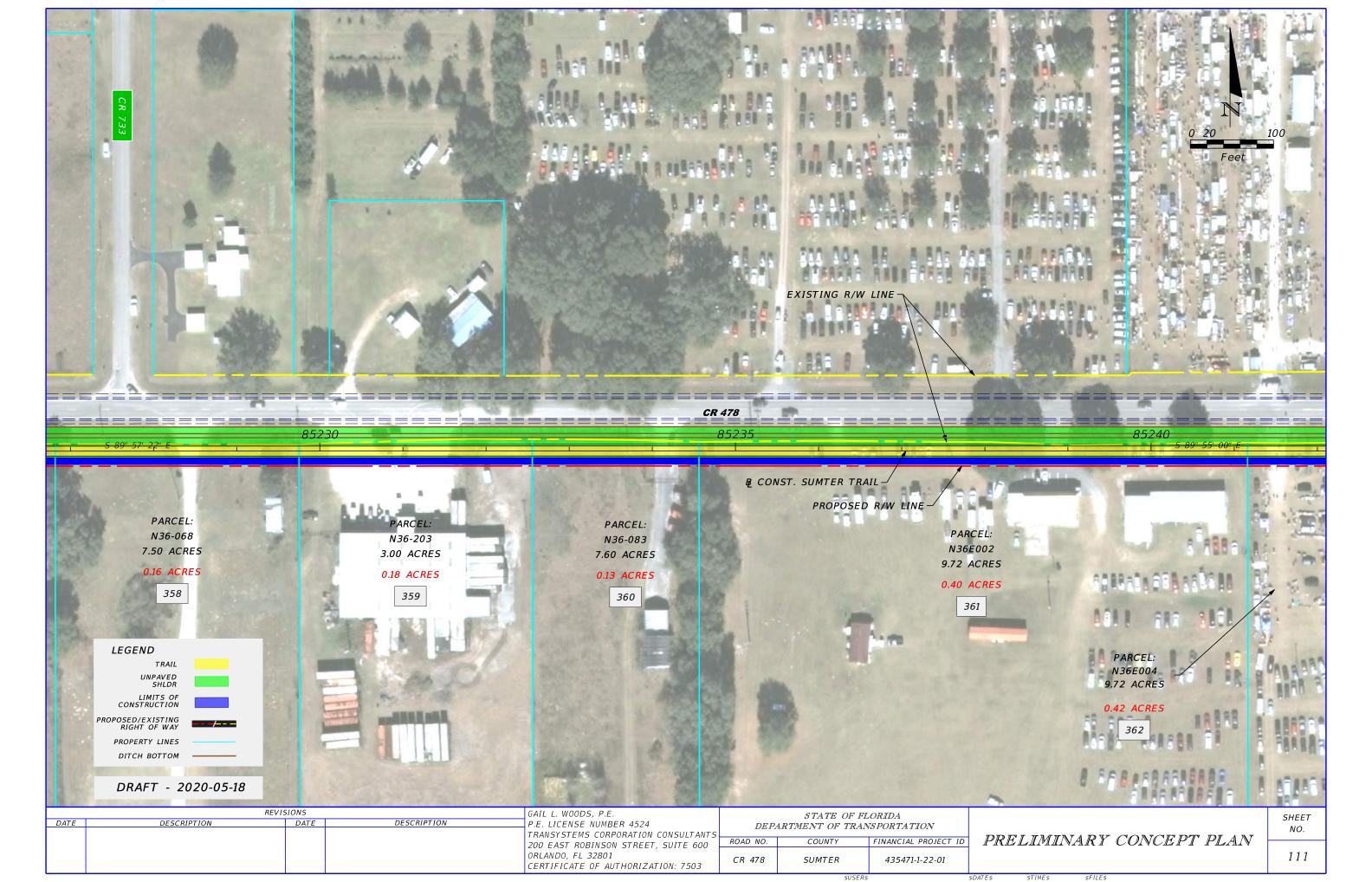


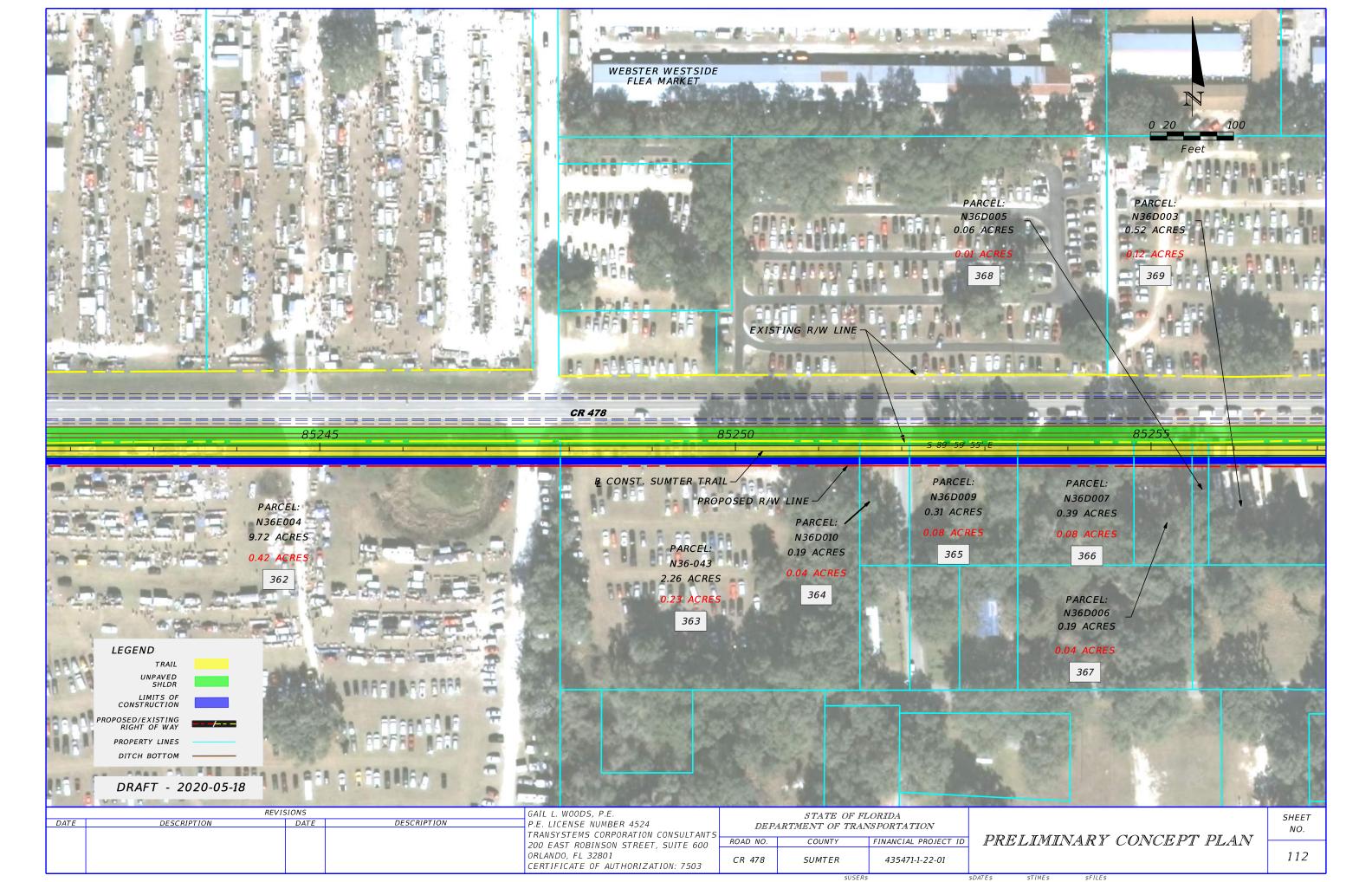


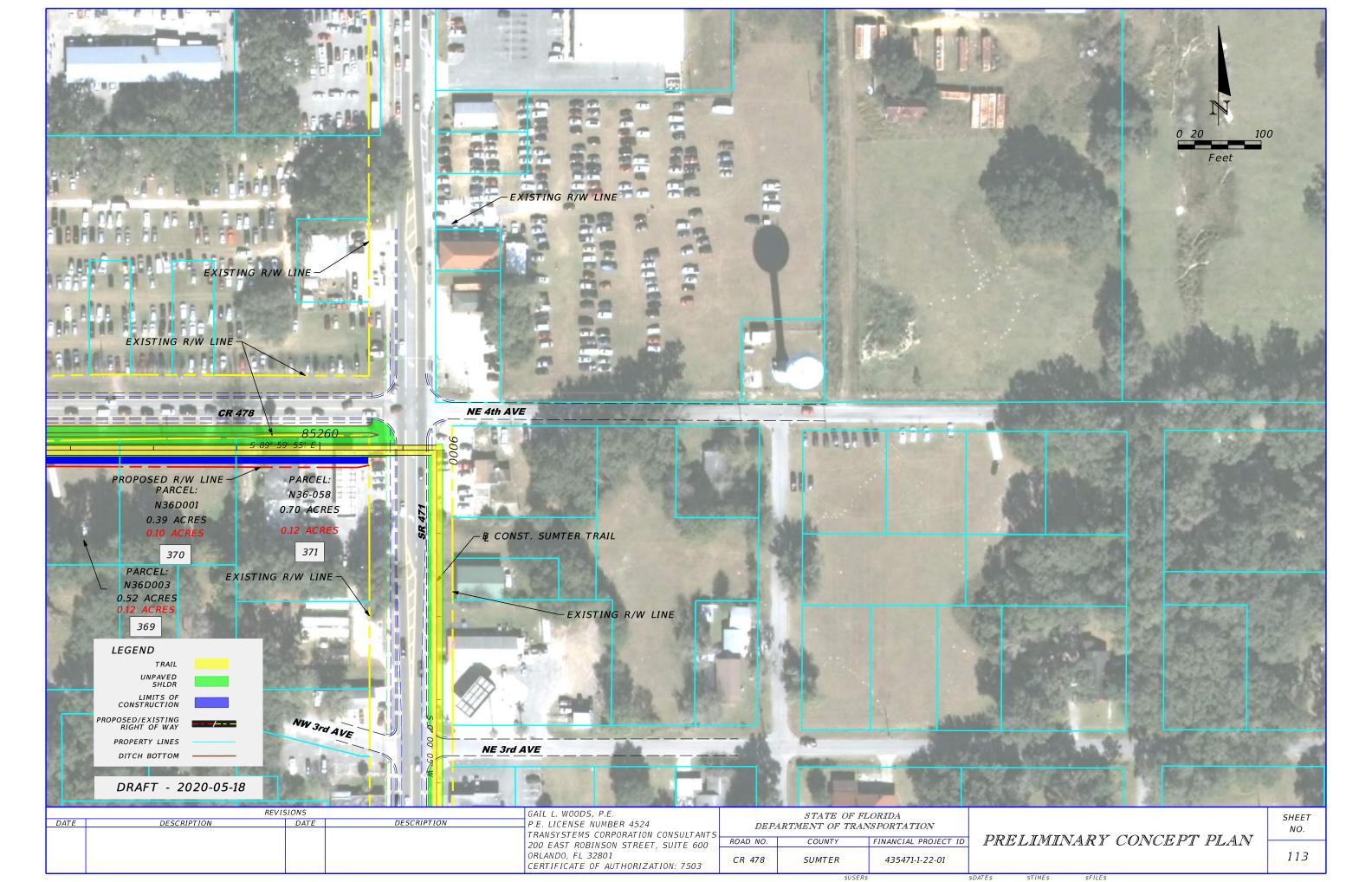


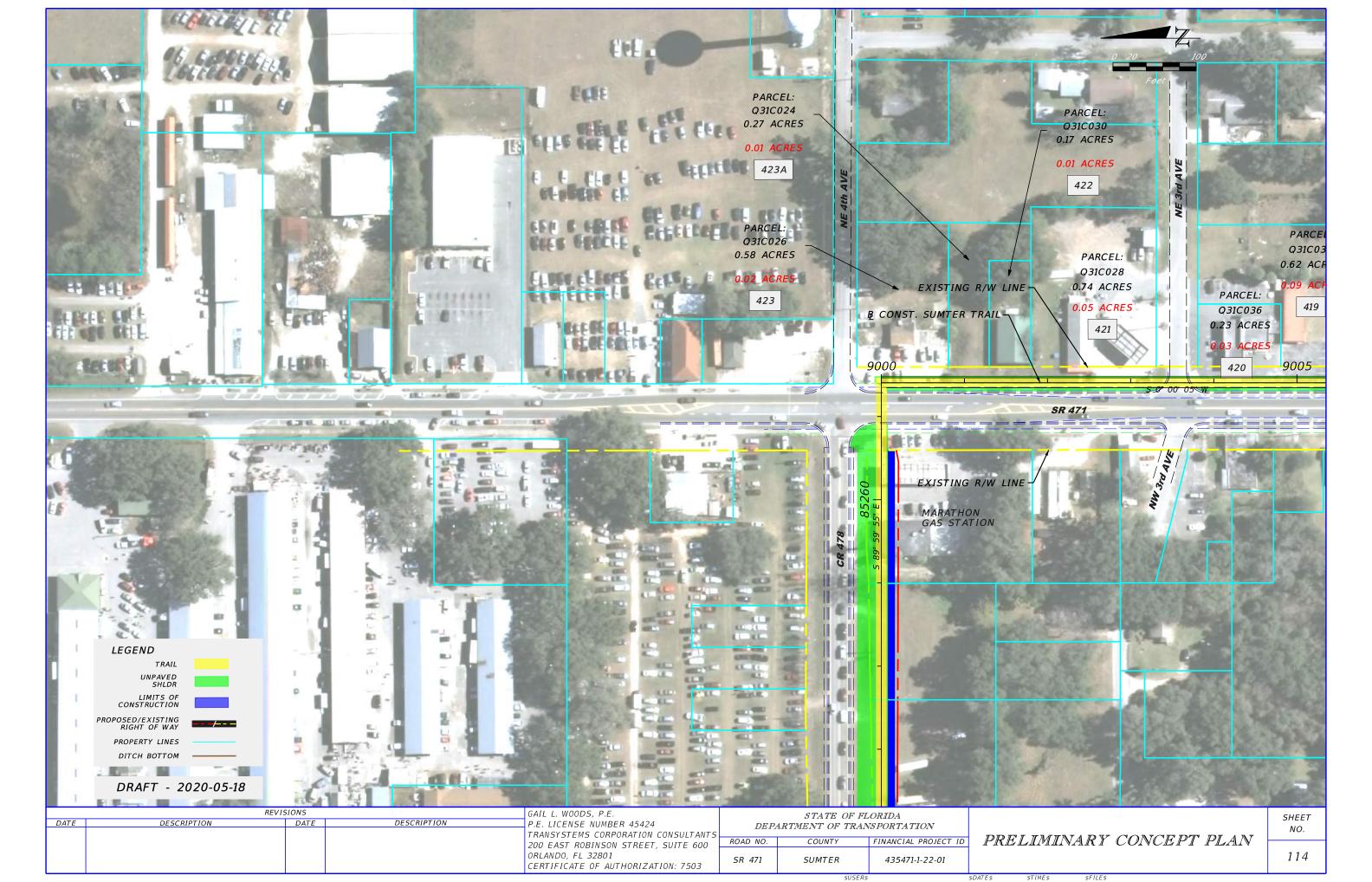


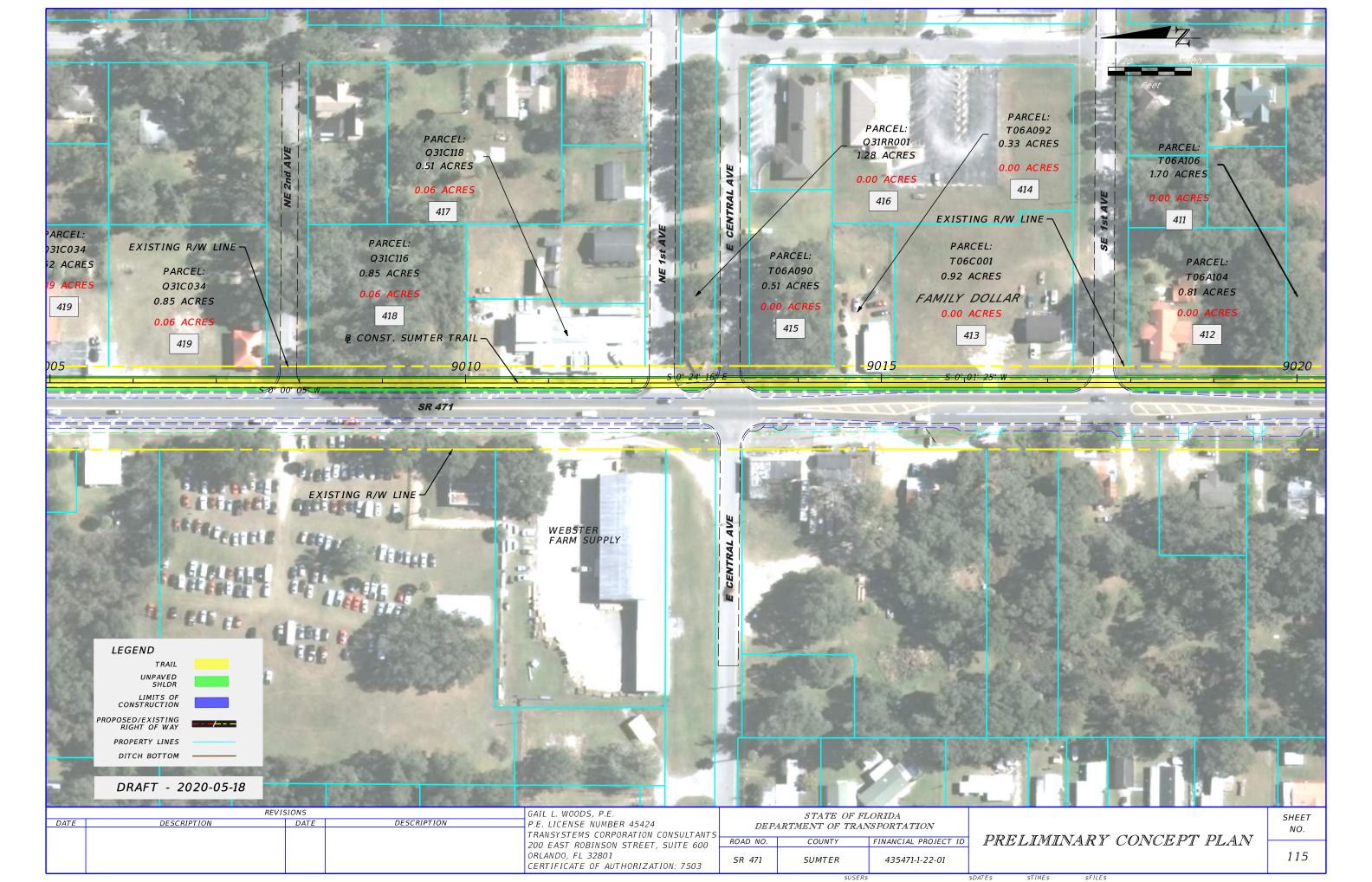


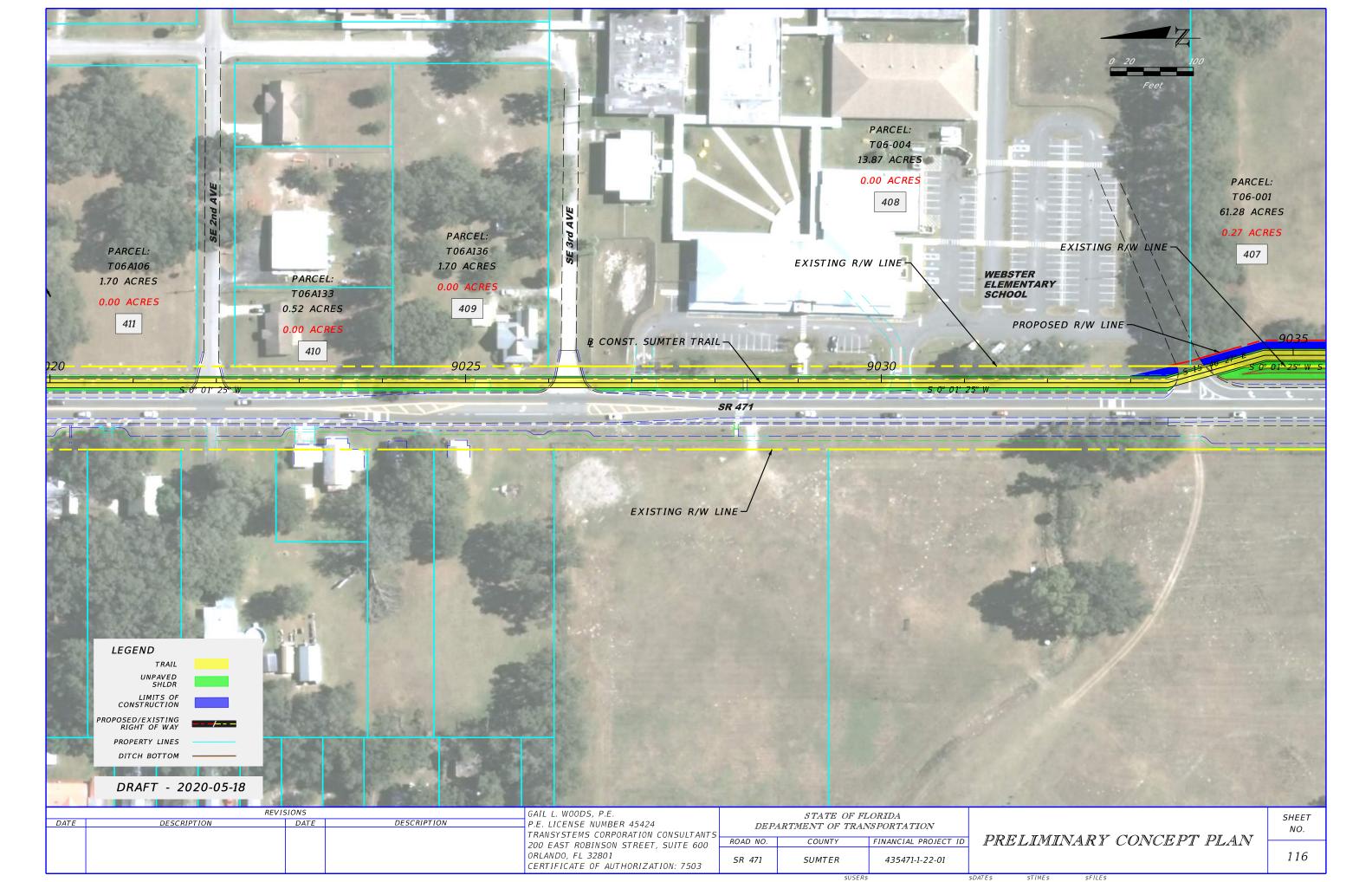


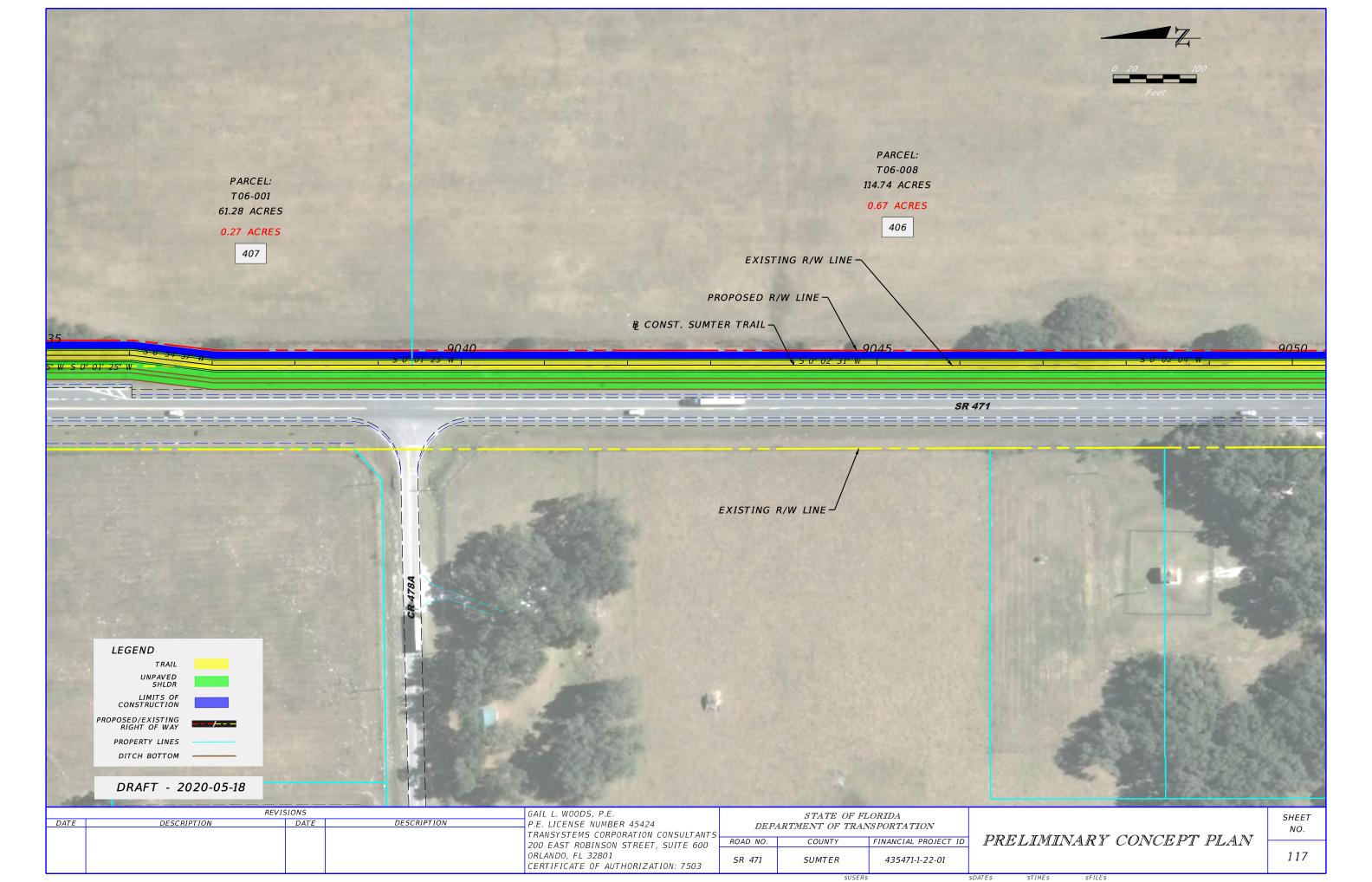


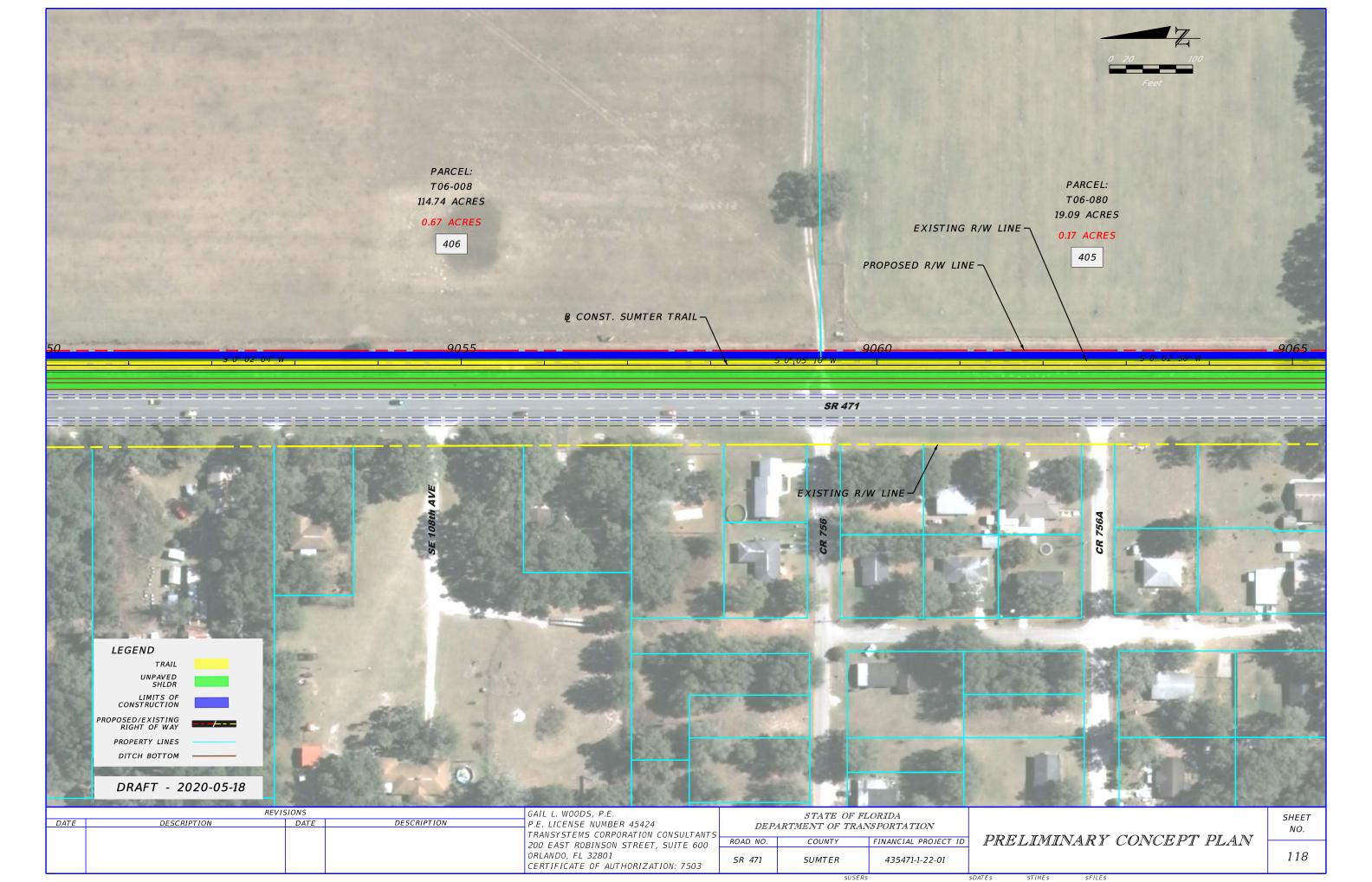


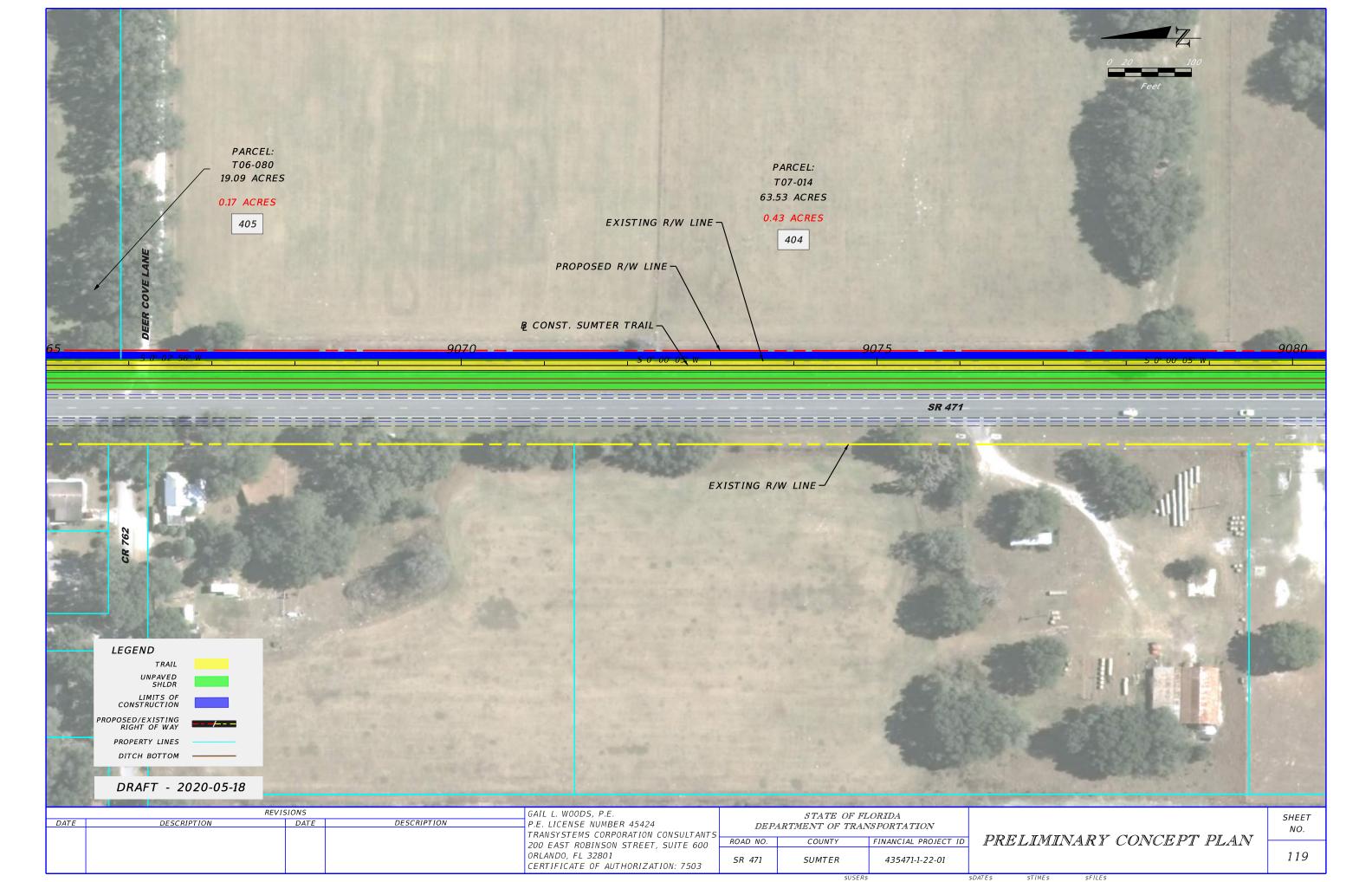


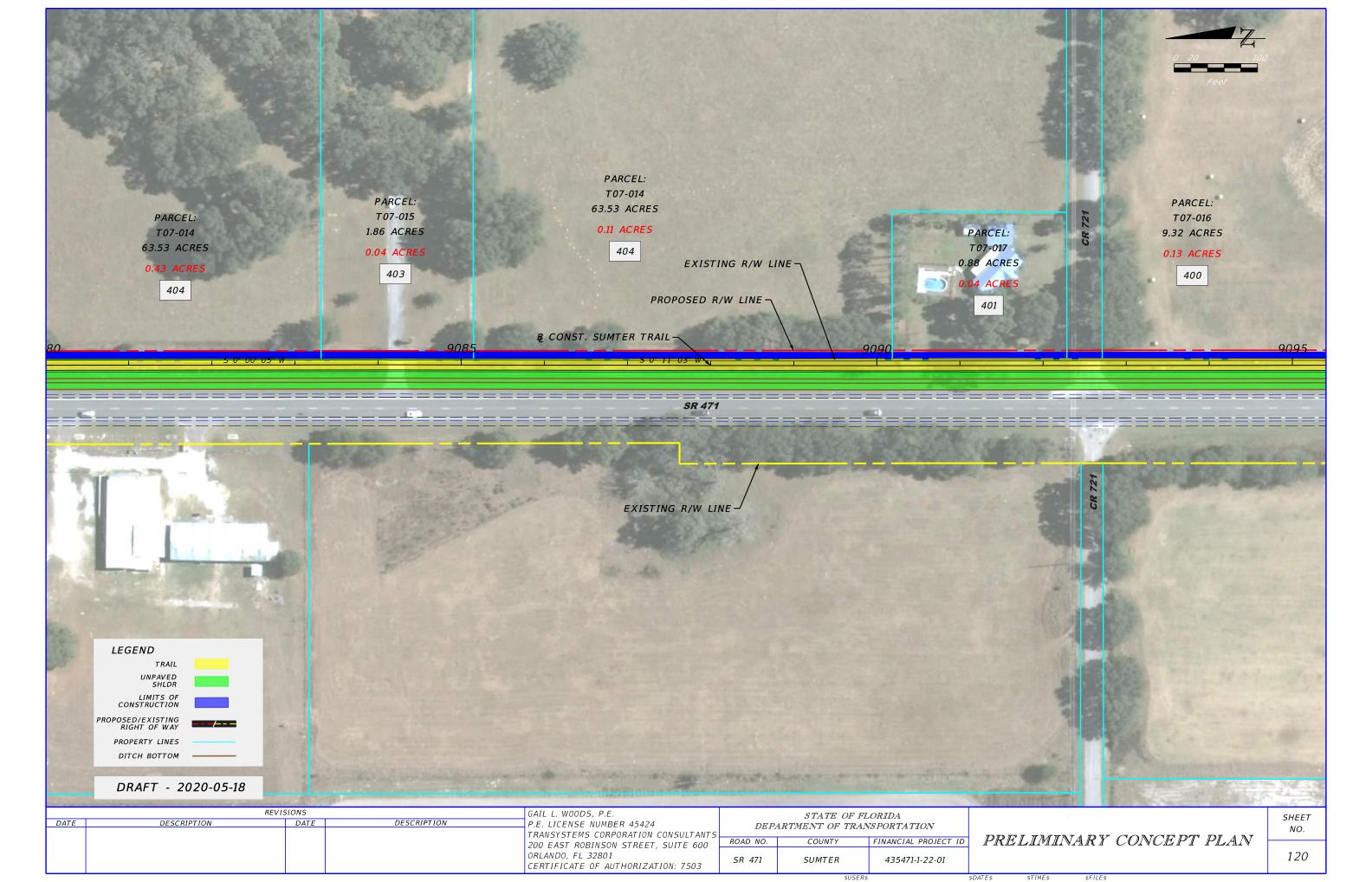


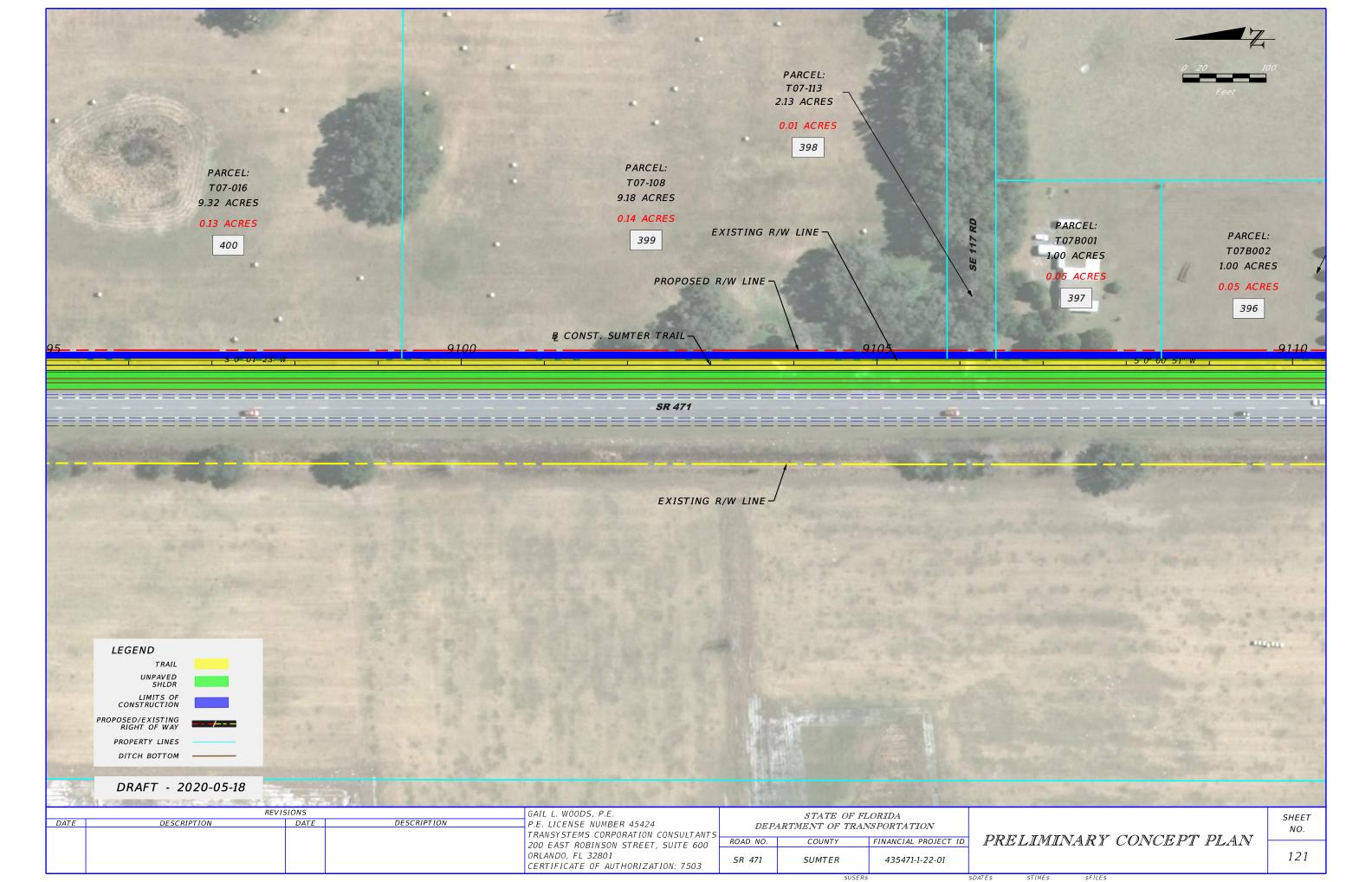


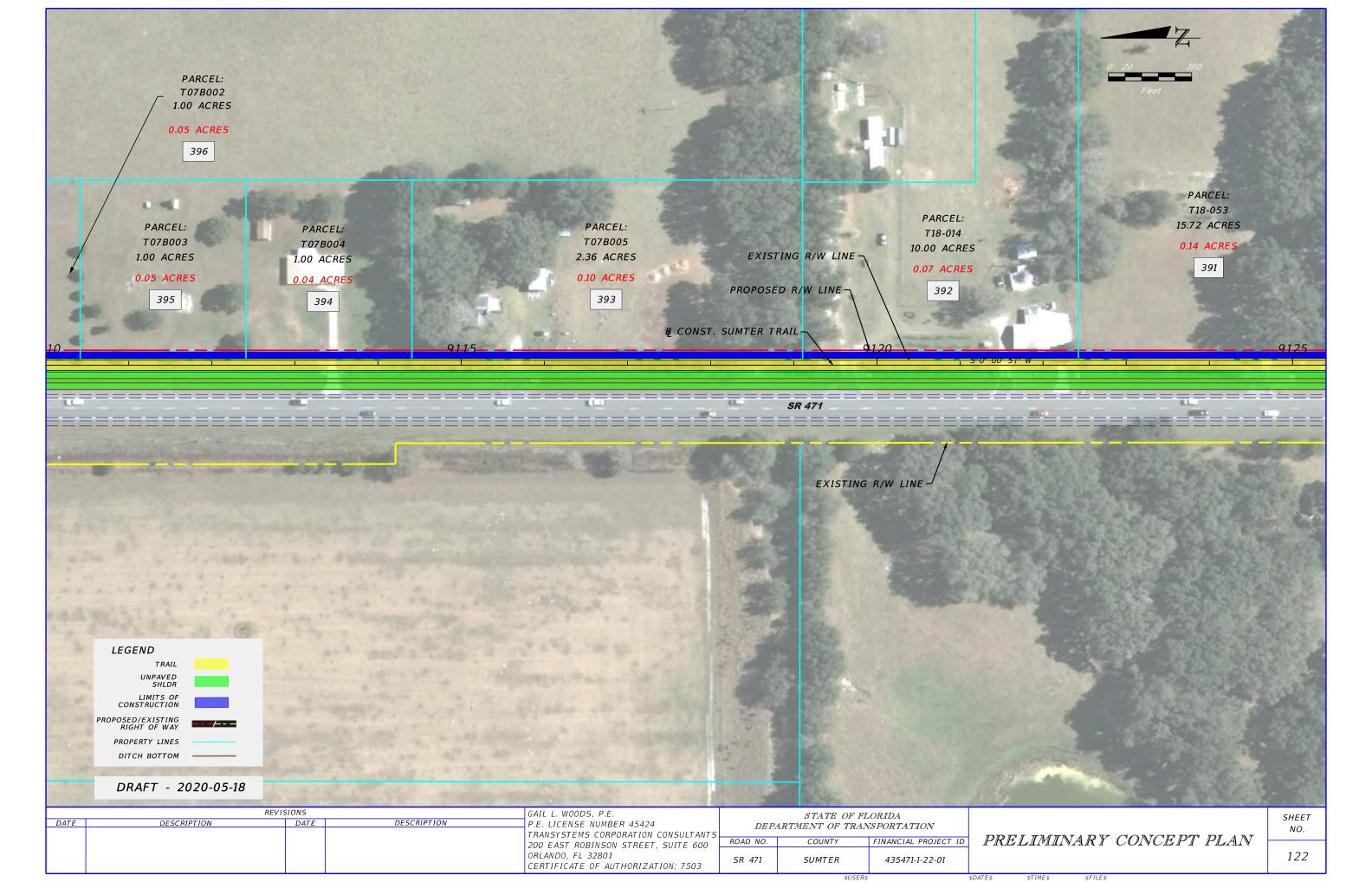


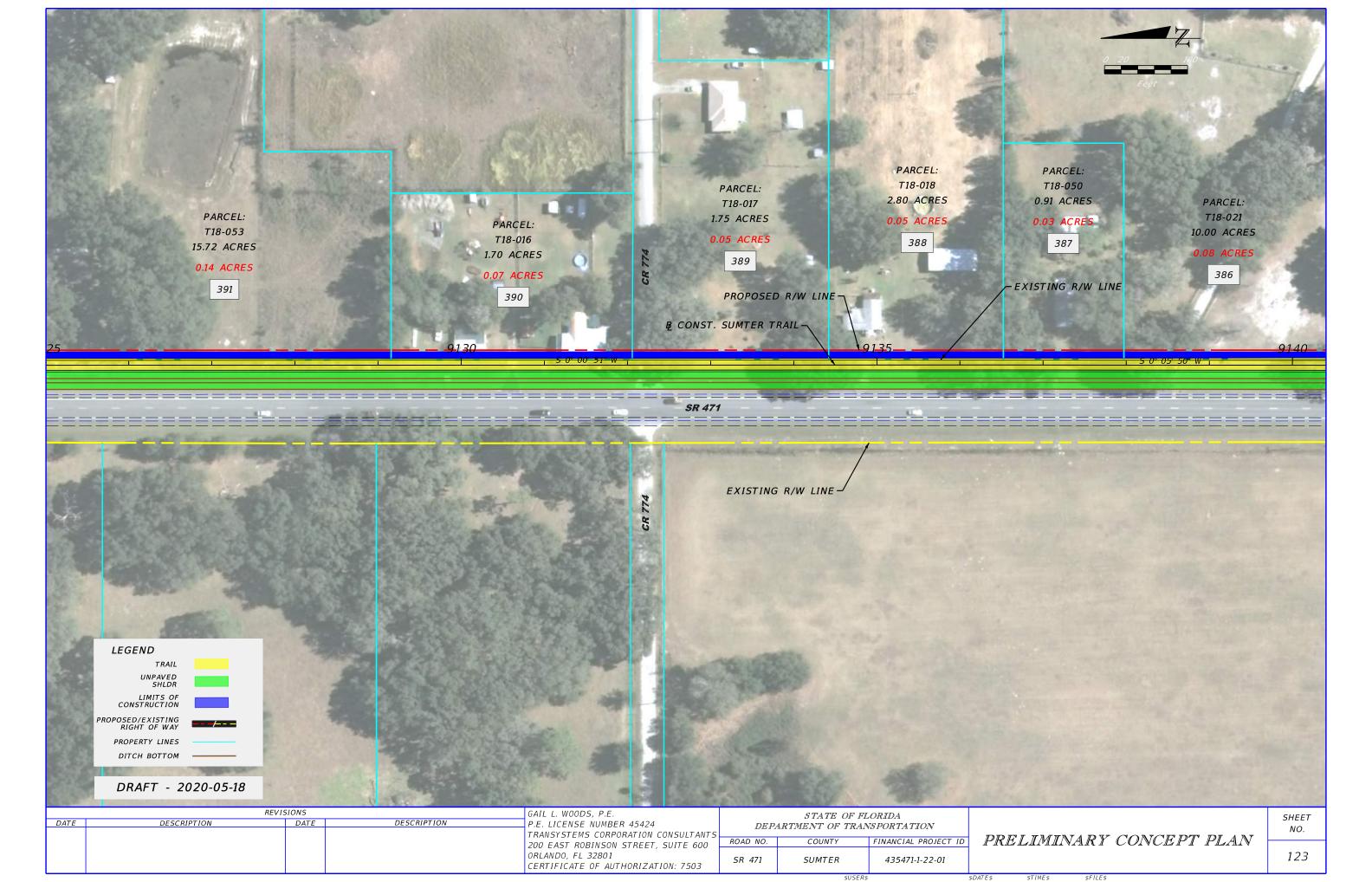


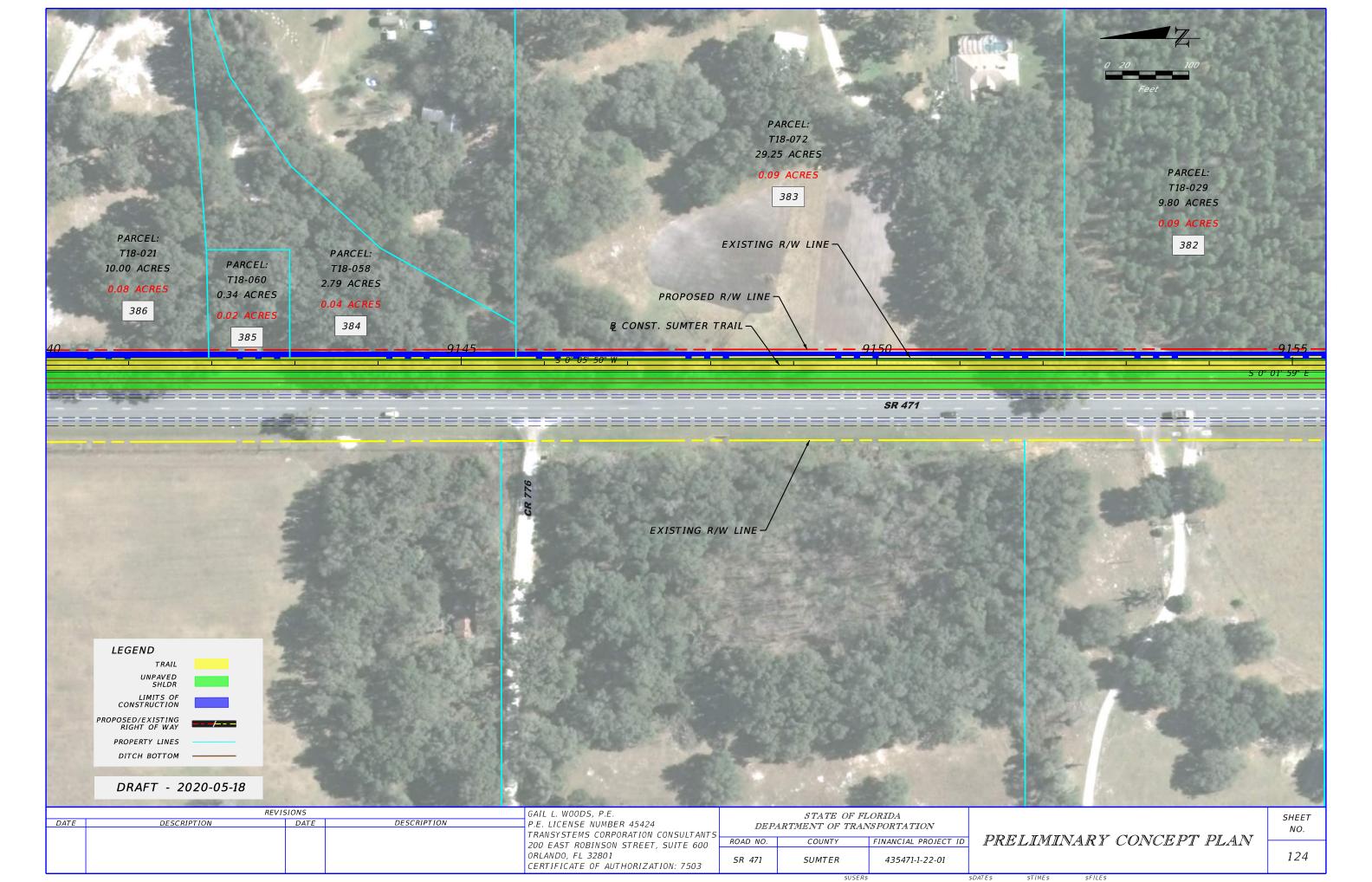


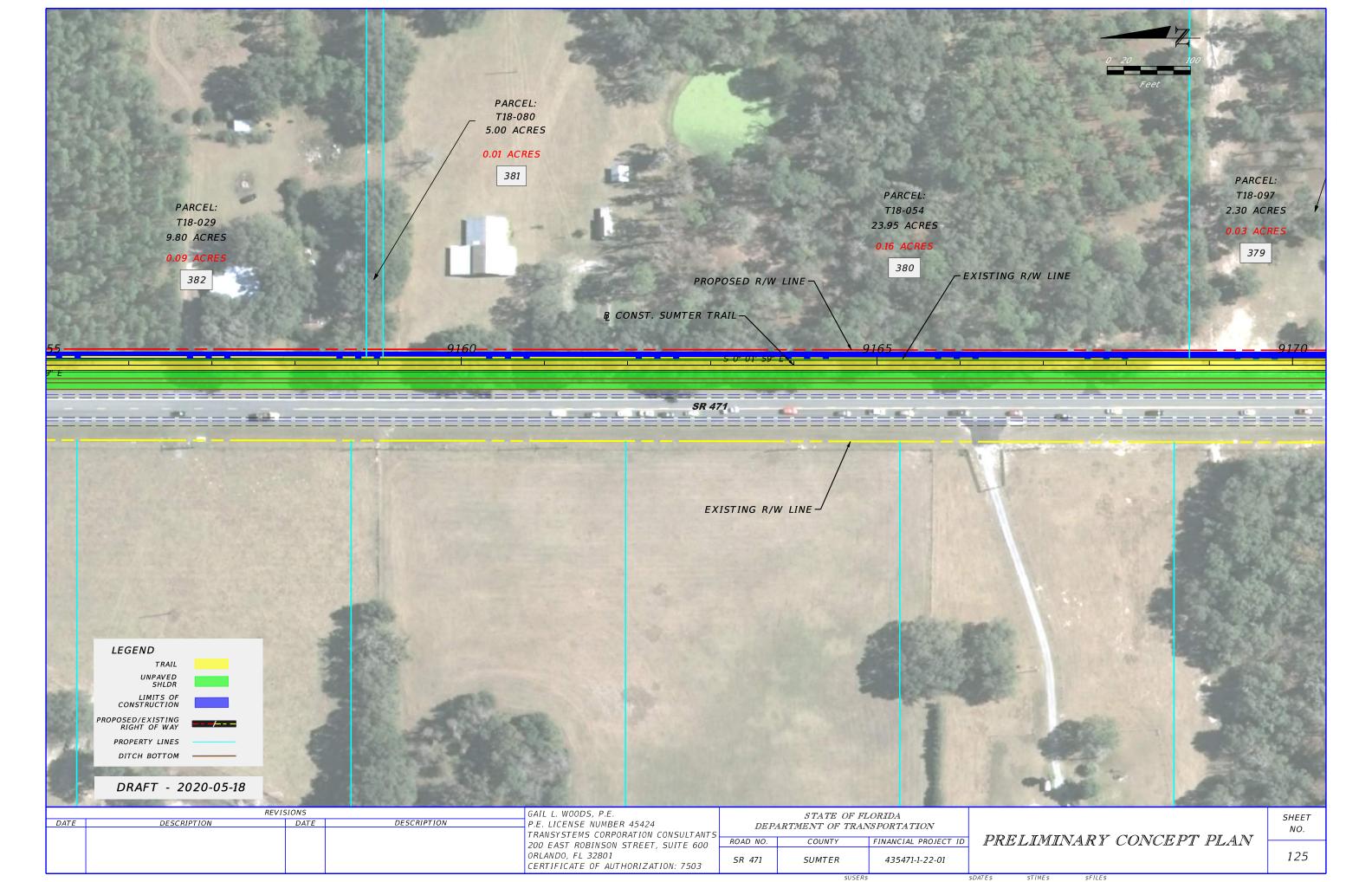




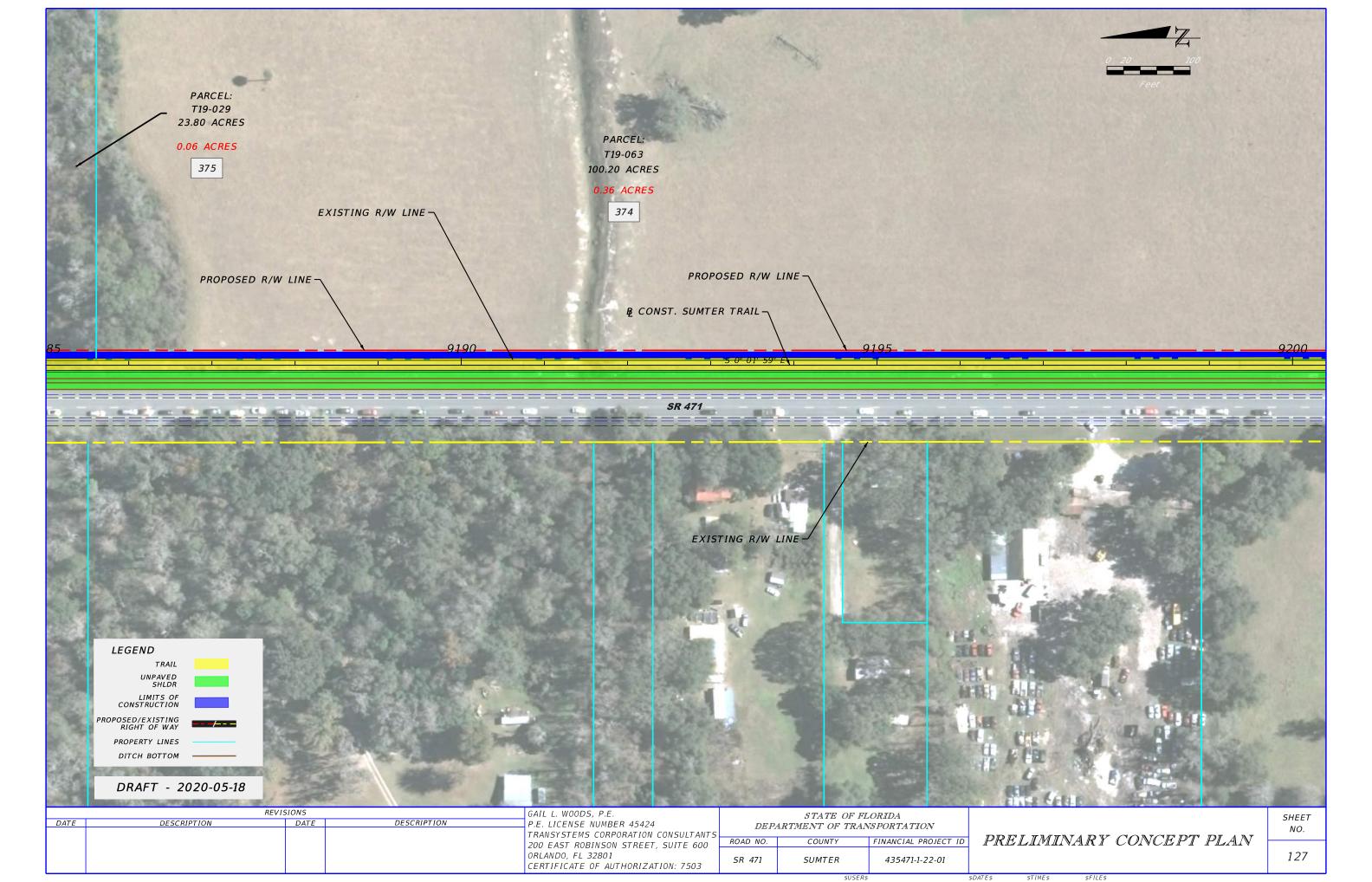


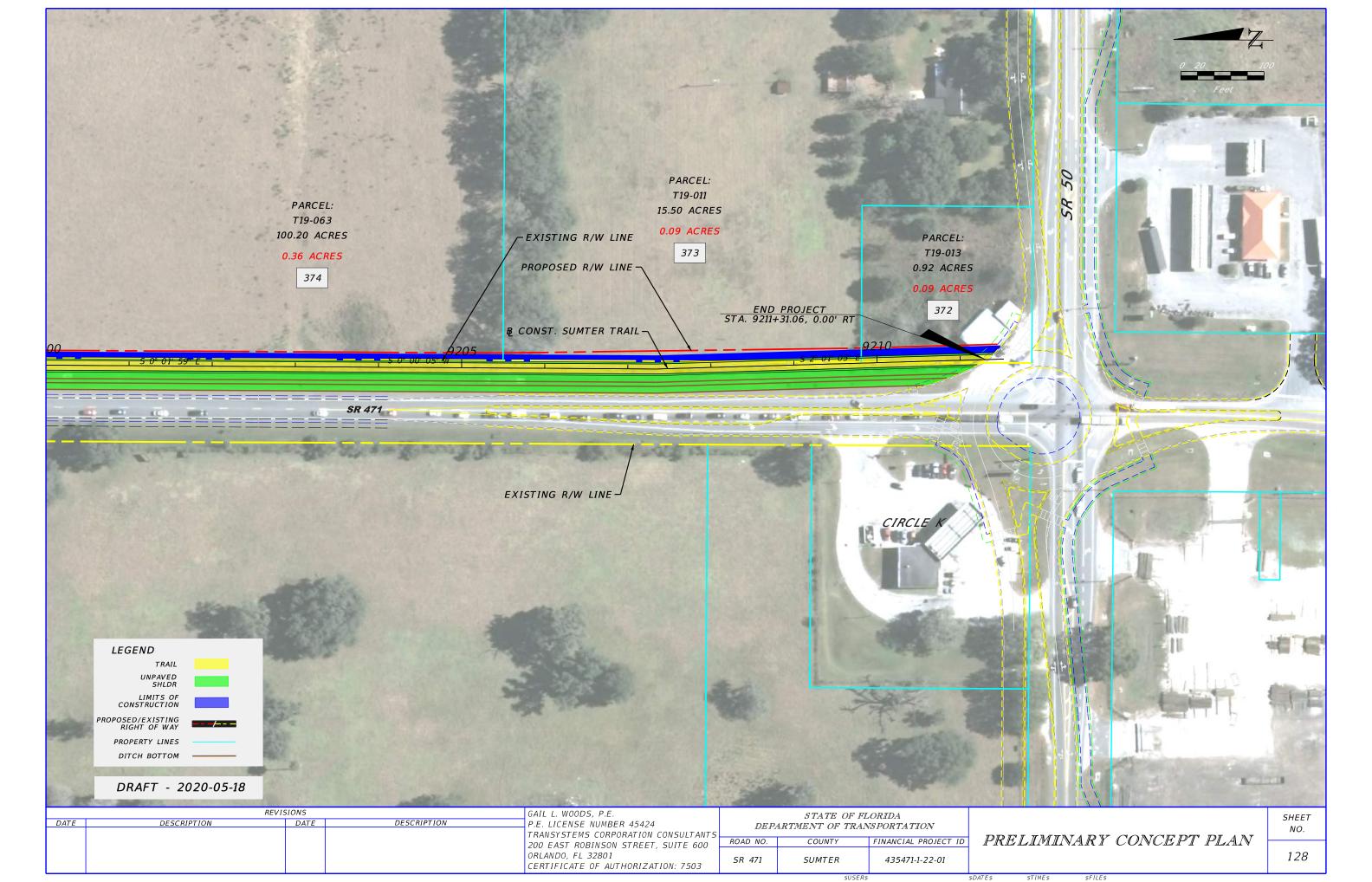












APPENDIX B

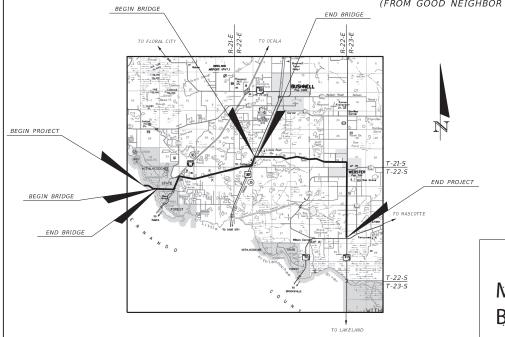
Recommended Alternative Typical Sections

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION PACKAGE

FINANCIAL PROJECT ID 435471-1-22-01 SUMTER COUNTY HERNANDO COUNTY

SOUTH SUMTER TRAIL (FROM GOOD NEIGHBOR TRAIL TO SR 50)



APPROVED BY:



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Gail Woods 2020.04.17 11:29:21 -04'00'

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.

TRANSYSTEMS CORPORATION CONSULTANTS 200 EAST ROBINSON STREET, SUITE 600 ORLANDO, FL 32801 GAIL L. WOODS, P.E. NO. 45424

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

TYPICAL SECTION PACKAGE

SHEET NO SHEET DESCRIPTION

TYPICAL SECTION CONCURRENCE

Bizzio

Mario J Digitally signed by Mario J Bizzio Date: 2020.04.27 10:34:18 -04'00'

FDOT DISTRICT DESIGN ENGINEER MARIO BIZZIO, P.E.

Gary Skofro	nicl	Gery Stathensk 6000 10x 1 - 1 - And SHIROCOGOTHAL OF PREZIMBOOKICZE, 50 - CANAL COMERA CEPTARESISTER OF STANSARPORTATION, 50 1 56 0 00°	

FDOT DISTRICT STRUCTURES DESIGN ENGINEER GARY SKOFRONICK, P.E.

Ν	/A
	•

FHWA TRANSPORTATION ENGINEER

DESIGN SPEED AND POSTED SPEED CONCURRENCE:

FDOT DISTRICT TRAFFIC OPERATIONS

FDOT DISTRICT DESIGN ENGINEER

CONTEXT CLASSIFICATION CONCURRENCE:

FDOT DISTRICT INTERMODAL SYSTEMS DEVELOPMENT MANAGER

SHEET NO.

8:49:09 AM

/17/2020 8:54:20 AM

FINANCIAL PROJECT ID SHEET NO. 435471-1-22-01 2

PROJECT CONTROLS CONTEXT CLASSIFICATION

() C1: NATURAL () C3C: SUBURBAN COMM.
(X) C2: RURAL () C4: URBAN GENERAL
() C2T: RURAL TOWN () C5: URBAN CENTER
() C3R: SUBURBAN RES. () C6: URBAN CORE

() N/A: L.A. FACILITY () N/A

FUNCTIONAL CLASSIFICATION

() INTERSTATE () MAJOR COLLECTOR
() FREEWAY/EXPWY. () MINOR COLLECTOR
() PRINCIPAL ARTERIAL () LOCAL

HIGHWAY SYSTEM

(X) N/A

() NATIONAL HIGHWAY SYSTEM

() STRATEGIC INTERMODAL SYSTEM

() STATE HIGHWAY SYSTEM

() MINOR ARTERIAL

() OFF-STATE HIGHWAY SYSTEM

(X) N/A

ACCESS CLASSIFICATION

() 1 - FREEWAY

() 2 - RESTRICTIVE w/Service Roads

() 3 - RESTRICTIVE w/660 ft. Connection Spacing

() 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing

() 5 - RESTRICTIVE w/440 ft. Connection Spacing

() 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing

() 7 - BOTH MEDIAN TYPES

(X) - N/A

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION

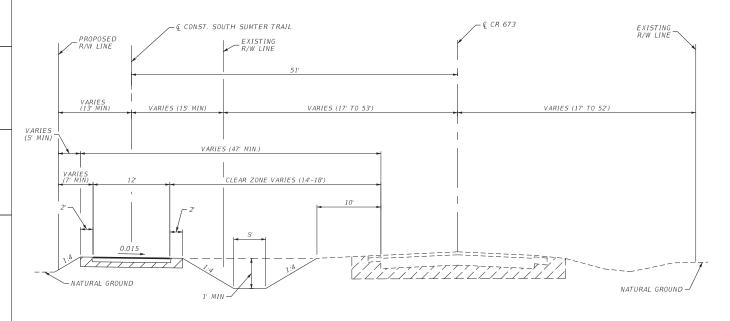
() RESURFACING (LA FACILITIES)

() RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

N/A

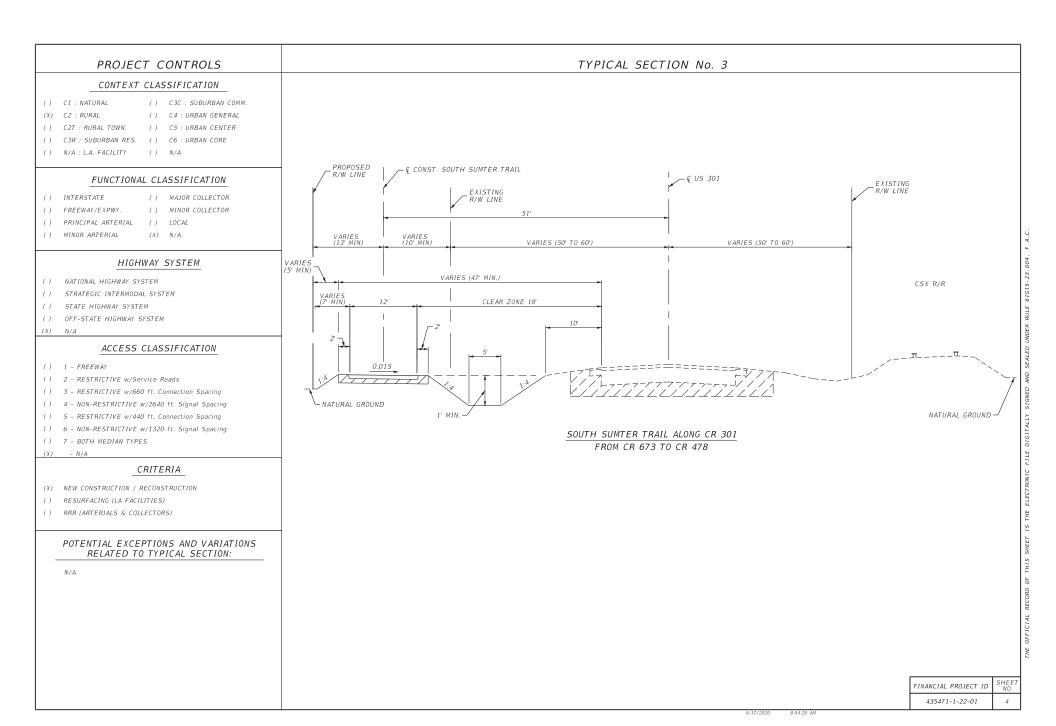
TYPICAL SECTION No. 2

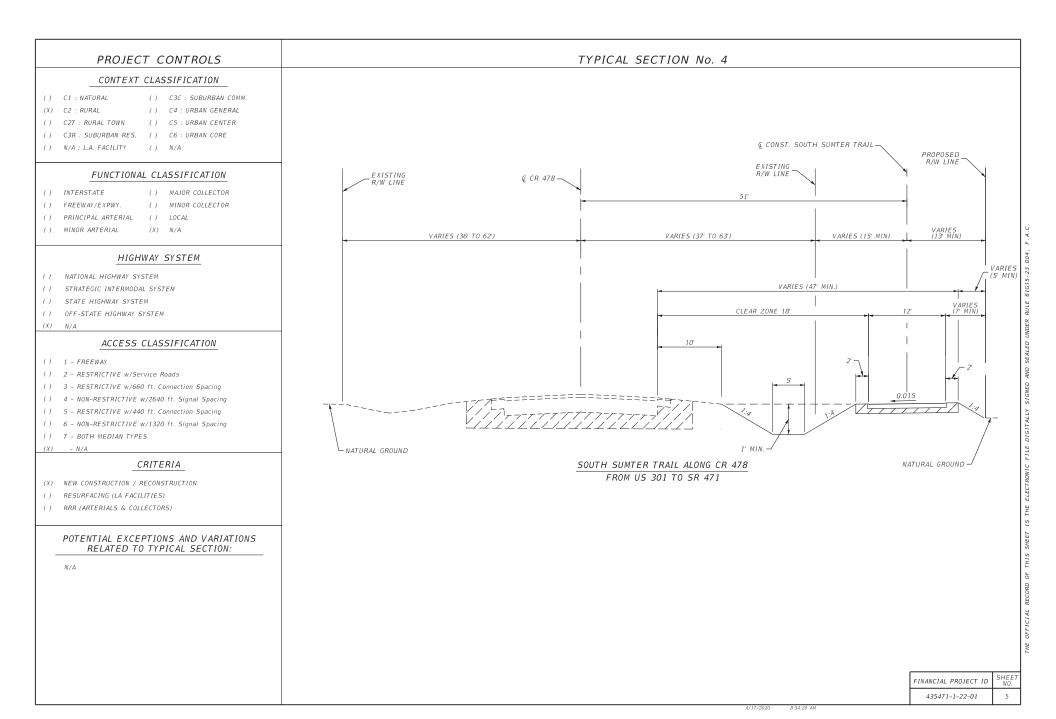


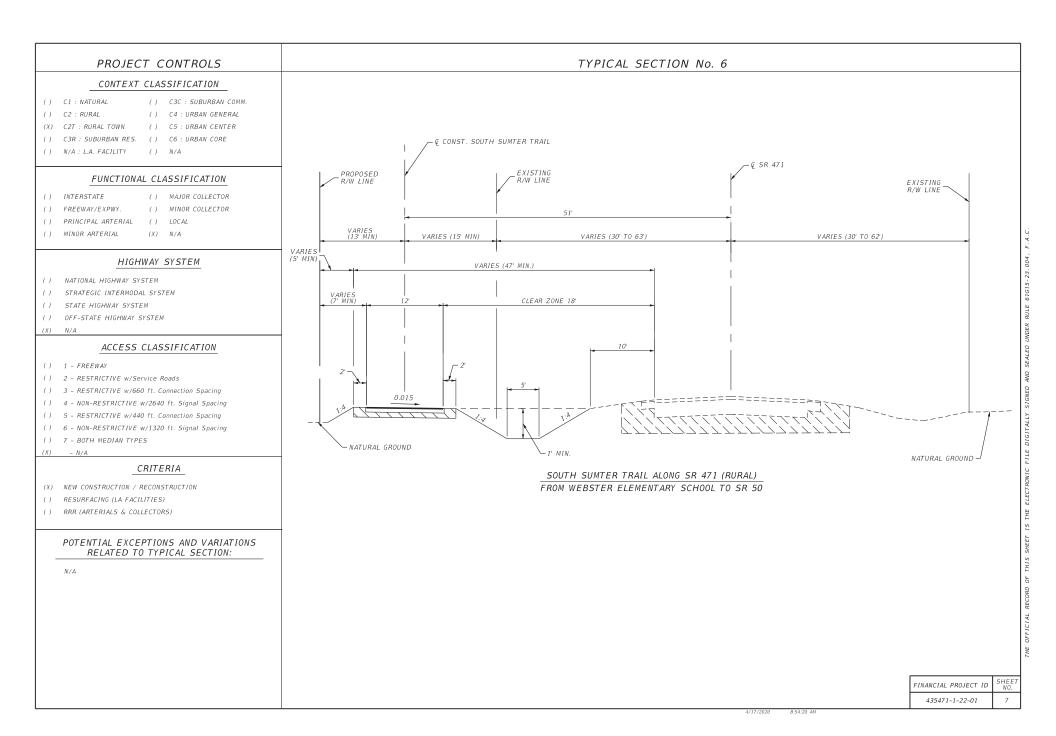
SOUTH SUMTER TRAIL ALONG CR 673 FROM EAST OF I-75 TO US 301

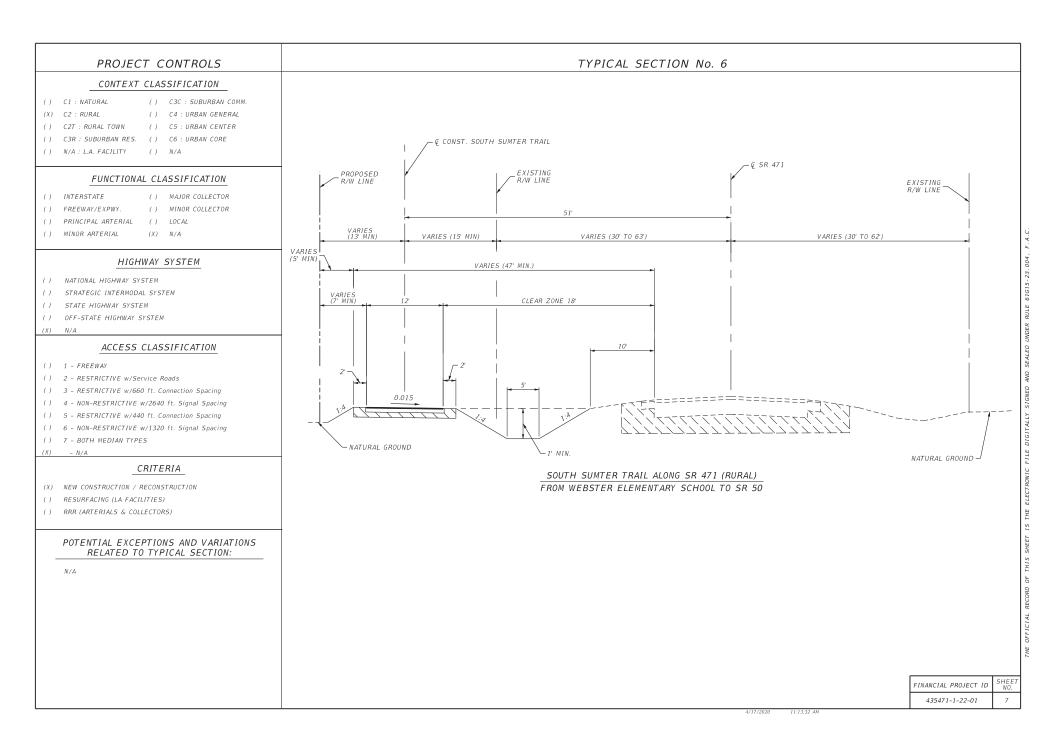
FINANCIAL PROJECT ID	SHEET NO.	
435471-1-22-01	3	

1/17/2020 8:54:20 AM









PROJECT CONTROLS CONTEXT CLASSIFICATION (X) C1: NATURAL () C3C : SUBURBAN COMM. () C2: RURAL () C4 : URBAN GENERAL () C2T : RURAL TOWN () C5 : URBAN CENTER () C3R : SUBURBAN RES. () C6 : URBAN CORE () N/A : L.A. FACILITY () N/A FUNCTIONAL CLASSIFICATION () INTERSTATE () MAJOR COLLECTOR () FREEWAY/EXPWY. () MINOR COLLECTOR () PRINCIPAL ARTERIAL () LOCAL () MINOR ARTERIAL (X) N/A HIGHWAY SYSTEM () NATIONAL HIGHWAY SYSTEM () STRATEGIC INTERMODAL SYSTEM () STATE HIGHWAY SYSTEM () OFF-STATE HIGHWAY SYSTEM (X) N/A ACCESS CLASSIFICATION () 1 - FREEWAY () 2 - RESTRICTIVE w/Service Roads () 3 - RESTRICTIVE w/660 ft. Connection Spacing () 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing () 5 - RESTRICTIVE w/440 ft. Connection Spacing () 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing () 7 - BOTH MEDIAN TYPES - N/A

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION

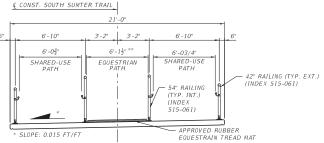
() RESURFACING (LA FACILITIES)

() RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

N/A

TYPICAL SECTION No. 7



** WIDTH OF THE EQUESTRIAN FACILITY MAY INCREASE TO 12-1½ FEET DURING THE DESIGN PHASE. FINAL DETERMINATION OF EQUESTRIAN FACILITY WIDTH WILL BE BASED ON DESIGN, SURVEY AND COORDINATION WITH THE WITHLACOCCHEE STATE FOREST.

TYPICAL SECTION APPROACH RAMPS TO WITHLACOOCHEE RIVER CROSSING

FINANCIAL PROJECT ID	SHEET NO.
435471-1-22-01	8

PROJECT CONTROLS CONTEXT CLASSIFICATION (X) C1: NATURAL () C3C : SUBURBAN COMM. () C2: RURAL () C4 : URBAN GENERAL () C2T : RURAL TOWN () C5 : URBAN CENTER () C3R : SUBURBAN RES. () C6 : URBAN CORE () N/A : L.A. FACILITY () N/A FUNCTIONAL CLASSIFICATION () INTERSTATE () MAJOR COLLECTOR () FREEWAY/EXPWY. () MINOR COLLECTOR () PRINCIPAL ARTERIAL () LOCAL () MINOR ARTERIAL (X) N/A HIGHWAY SYSTEM () NATIONAL HIGHWAY SYSTEM () STRATEGIC INTERMODAL SYSTEM () STATE HIGHWAY SYSTEM () OFF-STATE HIGHWAY SYSTEM (X) N/A ACCESS CLASSIFICATION () 1 - FREEWAY () 2 - RESTRICTIVE w/Service Roads () 3 - RESTRICTIVE w/660 ft. Connection Spacing () 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing () 5 - RESTRICTIVE w/440 ft. Connection Spacing () 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing () 7 - BOTH MEDIAN TYPES - N/A CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION () RESURFACING (LA FACILITIES) () RRR (ARTERIALS & COLLECTORS)

N/A

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

& CONST. SOUTH SUMTER TRAIL PREFABRICATED STEEL PEDESTRIAN BOX TRUSS BRIDGE -6'-10" 6'-12" ** SHARED-USE PATH EQUESTRIAN PATH* SHARED-USE PATH 42" RAILING 54" RAILING (TYP. EXT.) (TYP. INT.) (INDEX (INDEX 515-061) 515-061) APPROVED RUBBER * SLOPE: 0.015 FT/FT

** WIDTH OF THE EQUESTRIAN FACILITY MAY INCREASE TO 12'-14" FEET DURING THE DESIGN PHASE. FINAL DETERMINATION OF EQUESTRIAN FACILITY WIDTH WILL BE BASED ON DESIGN, SURVEY AND COORDINATION WITH THE WITHLACOOCHEE STATE FOREST.

TYPICAL SECTION No. 8

TYPICAL SECTION

SPAN OVER WITHLACOOCHEE RIVER CROSSING

FINANCIAL PROJECT ID	SHEET NO.
435471-1-22-01	9

8:54:21 AM

PROJECT CONTROLS CONTEXT CLASSIFICATION () C1: NATURAL () C3C : SUBURBAN COMM. (X) C2: RURAL () C4 : URBAN GENERAL () C2T : RURAL TOWN () C5 : URBAN CENTER () C3R: SUBURBAN RES. () C6: URBAN CORE () N/A : L.A. FACILITY () N/A FUNCTIONAL CLASSIFICATION () INTERSTATE () MAJOR COLLECTOR () MINOR COLLECTOR () FREEWAY/EXPWY. () PRINCIPAL ARTERIAL () LOCAL () MINOR ARTERIAL (X) N/A HIGHWAY SYSTEM () NATIONAL HIGHWAY SYSTEM () STRATEGIC INTERMODAL SYSTEM () STATE HIGHWAY SYSTEM () OFF-STATE HIGHWAY SYSTEM (X) N/A ACCESS CLASSIFICATION () 1 - FREEWAY

() 5 - RESTRICTIVE w/440 ft. Connection Spacing () 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing

() 2 - RESTRICTIVE w/Service Roads

() 3 - RESTRICTIVE w/660 ft. Connection Spacing
 () 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing

() 7 - BOTH MEDIAN TYPES

(X) - N/A

CRITERIA

(X) NEW CONSTRUCTION / RECONSTRUCTION

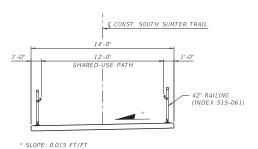
() RESURFACING (LA FACILITIES)

() RRR (ARTERIALS & COLLECTORS)

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

N/A

TYPICAL SECTION No. 9



TYPICAL SECTION

APPROACH RAMPS TO US 301/CSX RR CROSSING

FINANCIAL PROJECT ID	SHEET NO.
435471-1-22-01	10

4/17/2020 8:54:21 AM

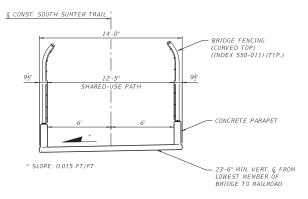
PROJECT CONTROLS CONTEXT CLASSIFICATION () C1: NATURAL () C3C : SUBURBAN COMM. (X) C2: RURAL () C4 : URBAN GENERAL () C2T : RURAL TOWN () C5: URBAN CENTER () C3R: SUBURBAN RES. () C6: URBAN CORE () N/A : L.A. FACILITY () N/A FUNCTIONAL CLASSIFICATION () INTERSTATE () MAJOR COLLECTOR () MINOR COLLECTOR () FREEWAY/EXPWY. () PRINCIPAL ARTERIAL () LOCAL () MINOR ARTERIAL (X) N/A HIGHWAY SYSTEM () NATIONAL HIGHWAY SYSTEM () STRATEGIC INTERMODAL SYSTEM () STATE HIGHWAY SYSTEM () OFF-STATE HIGHWAY SYSTEM (X) N/A ACCESS CLASSIFICATION () 1 - FREEWAY () 2 - RESTRICTIVE w/Service Roads () 3 - RESTRICTIVE w/660 ft. Connection Spacing () 4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing () 5 - RESTRICTIVE w/440 ft. Connection Spacing () 6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing () 7 - BOTH MEDIAN TYPES - N/A CRITERIA (X) NEW CONSTRUCTION / RECONSTRUCTION () RESURFACING (LA FACILITIES)

() RRR (ARTERIALS & COLLECTORS)

N/A

POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:

TYPICAL SECTION No. 10



SPANS OVER US 301/CSX RR

TYPICAL SECTION	
CDANC OVER US 201/CSV DD	

FINANCIAL PROJECT ID	SHEET NO.
435471-1-22-01	11

APPENDIX C

Section 4(f) Official with Jurisdiction Concurrence

FLORIDA DEPARTMENT OF TRANSPORTATION SECTION 4(F) EXCEPTIONS/EXEMPTIONS DETERMINATION

Environmental Management 01/19

	Project Name: South Sumter Connector Trail from Good Neighbor Trail to James A Van Fleet Trail
	FM#: 4354/1-1-22-01 ETDM#: N/A FAP#: N/A
	Project Review 11/14/2019
	Date:
	FDOT District: 5
	County(ies): Hernando and Sumter
	Project Description including Section 4(f) Specific Information:
T	ne South Sumter Connector Trail is part of the 250-mile Florida Coast to Coast Trail, which will connect St.
	elerspurg on the west coast of the state with Titusville on the east coast. The segment heing evaluated as and as this
	oject Development and Environment (PD&F) Study extends approximately 16 miles from the approxi
	out Neighbur I fall in Herriando County and located within the Croom Tract of the Withlacoochoo State Earnet Mich
10	The vali Fieet Trail in Western Sumter County providing recreational connectivity across the Florida peninsula. The
l u	all would consist of a twelve foot (12') wide payed multi-use path for use by non-motorized transportation modes
1 (1)	edesirian, bicycle, equestrian). The Preferred Alternative for the WSF Croom Tract section extends from the Cood
fre	eighbor Trail across the Withlacoochee River via a new pedestrian/equestrian bridge, then along an existing hiking
C	ail, under Interstate 75, continuing a short distance along an abandoned railroad before turning north to connect with county Road 673.
	Trial of 5.
Тур	e of Property: Public Parks and Recreation Areas
Des	State of Florida and maintained by the Florida Property: The Withlacoochee State Forest, Croom Tract is approximately 20,000 acres owned by
HILE	State of Florida and maintained by the Florida Forest Service. The primary function of the Croom Troot
inc	udes picnic areas, fishing, canoe launch, nature, hiking, equestrian and off-road bicycle trails.
Est	ablishing Section 4(f) Exception Eligibility (from 23 CFR 774.13):
The	facts of the case must match the circumstances as described below:
	Restoration, rehabilitation or maintenance of transportation facilities that are on or eligible for the National Register
	when:
	(1) The Administration [FDOT] concludes, as a result of the consultation under 36 CFR 800.5, that such work will
	not adversely affect the historic qualities of the facility that caused it to be on or eligible for the National
	Register, and
	(2) The OWJ over the Section 4(f) resource have not objected to the FDOT conclusion.
	Archaeological sites that are an archivible for the New York and
U	Archaeological sites that are on or eligible for the National Register when:
	(1) The Administration [FDOT] concludes that the archaeological resource is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place. This exception applies both
	to situations where data recovery is undertaken and where the Administration [FDOT] decides, with
	agreement of the OWJ, not to recover the resource; and
	(2) The OWJ over the Section 4(f) resource have been consulted and have not objected to the Administration
	[FDOT] finding.
	Partie de la companya
	Designations of park and recreation lands, wildlife and waterfowl refuges, and historic sites that are made, or
	determinations of significance that are changed, late in the development of a proposed action. With the exception of
	the treatment of archaeological resources in §774.9(e) discovered during construction, the Administration [FDOT]
	may permit a project to proceed without consideration under Section 4(f) if the property interest in the Section 4(f) land was acquired for transportation purposes prior to the designation or change in the determination of
	significance, and if an adequate effort was made to identify properties protected by Section 4(f) prior to acquisition.
	However, if it is reasonably foreseeable that a property would qualify as eligible for the National Register prior to the
	start of construction, then the property should be treated as a historic site and does not qualify for the Section 4(f)

In applying this exception, the analyst must consider whether:

- (1) The property acquisition was completed prior to the designation or the change in the determination of
- (2) The Cultural Resources Assessment Survey (CRAS) report was considered complete and sufficient at the time of its submittal.

SECTION 4(F) EXCEPTIONS/EXEMPTIONS DETERMINATION

650-050-48 Environmental Management 01/19

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SECTION 4(F) EXCEPTIONS/EXEMPTIONS DETERMINATION

650-050-48 Environmental Management 01/19

 Railroad and transit lines that have been otherwise reserved for the future transportation of goods or passengers.
23 CFR 774.11(e)(2). The interstate highway system is exempt from being treated as a historic resource under Section 4(f), unless the U.S. Secretary of Transportation determines individual elements possess national or exceptional historic significance and should receive protection. Interstate highway-related facilities in Florida determined historically significant by the Secretary of Transportation and therefore not exempt under Section 4(f) are: I-275 Bob Graham/Sunshine Skyway Bridge I-75 Alligator Alley- Milepost range 19.6-49.3 I-75 Snake Wall I-95 Myrtle Avenue Overpass
(23 CFR 774.11(h)) When a property formally reserved for a future transportation facility temporarily functions for park, recreation, or wildlife and waterfowl refuge purposes in the interim, the interim activity, regardless of duration, will not subject the property to Section 4(f).
 23 CFR 774.11 (i) When a property is formally reserved for a future transportation facility before or at the same time a park, recreation area, or wildlife and waterfowl refuge is established and concurrent or joint planning or development of the transportation facility and the Section 4(f) resource occurs, then any resulting impacts of the transportation facility will not be considered a use as defined in §774.17. Examples of such concurrent or joint planning or development include, but are not limited to: Designation or donation of property for the specific purpose of such concurrent development by the entity with jurisdiction or ownership of the property for both the potential transportation facility and the Section 4(f) property; or
 Designation, donation, planning, or development of property by two or more governmental agencies with jurisdiction for the potential transportation facility and the Section 4(f) property, in consultation with each

Explanation supporting the Section 4(f) property meets all of the criteria of the Exception or Exemption

other.

Title 23 CFR Section 774.13 criteria is met, specifically: per 774.13 (g)(1) and (g)(2)Transportation enhancement activities, transportation alternatives projects, and mitigation activities, where: (1) The use of the Section 4(f) property is solely for the purpose of preserving or enhancing an activity, feature, or attribute that qualifies the property for Section 4(f) protection; and (2) The OWJ over the Section 4(f) resource agrees in writing to paragraph (g)(1) of this section. Trail construction within the WSF Croom Tract does not create a change in land ownership; the nature and magnitude of the changes to the property do not create permanent adverse physical impacts, nor interference with protected activities, features or attributes of the property. The land will be enhanced to a condition which is at least as good as what is existing prior to the project; and there is agreement from the OWJ regarding the above conditions. The proposed Preferred Alternative fills in a gap of the Coast to Coast Trail connecting the Good Neighbor Trail on the west to the Van Fleet Trail on the east. A pedestrian/equestrian bridge crosses the Withlacoochee River providing enhanced access to recreation facilities on the east and west of the river. When complete, this project will be considered an enhancement providing a pedestrian/equestrian bridge and twelve-foot wide paved, multi-use path for use by non-motorized transportation modes including pedestrian, bicycle, and equestrian users. The improvement will provide recreational connectivity enhancement to the existing hiking trail by expanding use of and access to recreational resources throughout the WSF Croom Tract. There is no acquisition of State-owned land, no proposed easements, and construction within the WSF Croom Tract will be a small component of the overall project construction, and will not impede public access to, or use of, the WSF. The OWJ has been involved in the project since inception and has provided support for the project in a letter dated September 12, 2019 that is included as Attachement 1.

SECTION 4(F) EXCEPTIONS/EXEMPTIONS DETERMINATION

650-050-48 Environmental Management 01/19

Documentation

The following items **must** be attached to this form to ensure proper documentation of the Section 4(f) Exception/Exemption:

- 1. DOA package (if used)
- 2. Required communications with the OWJ (i.e. concurrence letters) for the Exception/Exemption as applicable

Signatures

broject are being	tal review, consultation, and other actions required by applicable federal en- y, or have been, carried out by FDOT pursuant to 23 U.S.C. 327 and a Mem r 14, 2016, and executed by FHWA and FDOT	vironmental laws for this orandum of Understanding
\subset	Preparer and a second a second and a second	Date
OEM	Environmental Manager, or designee	Date 11/21/19
Concurrence:	OEM Subject Matter Expert	11/27/2019 Date
OEM Approval:	Director of OEM, or designee	12/2/19 Date
j		

ATTACHMENT 1

OWJ Correspondence



THE CONNER BUILDING 3125 CONNER BOULEVARD TALLAHASSEE, FLORIDA 32399-1650

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES COMMISSIONER NICOLE "NIKKI" FRIED

September 12, 2019

Mr. William Walsh Environmental Manager, District 5 Florida Department of Transportation 719 South Woodland Boulevard Deland, Florida 32720

Dear Mr. Walsh:

I am writing regarding the South Sumter Trail (Financial Project Number 435471-1) that will be located within the Withlacoochee State Forest. The forest includes significant recreational facilities and activities in Sumter and Hernando Counties, Florida. This trail will preserve and enhance the recreational values of these facilities as well as promote Florida's natural areas.

We support this project and look forward to working with you on developing the South Sumter Trail on Withlacoochee State Forest.

Sincerely,

James R. Karels State Forester

cc: James Roberts, Forest Management Bureau Chief Brian Camposano, Forest Management Assistant Bureau Chief Todd Knapp, State Lands Supervisor Lorna Radcliff, Recreation Coordinator



From:

Mousel, Keith

To: Cc: Graeber, David
OR-Beth Beam, Morris, Vincent, Cucek, Lorena, Werner, Colleen

Subject:

RE: FPID 435471-1 - S Sumter Trail PD&E Study - Good Neighbor Trail to Van Fleet Trail

Date:

Wednesday, March 27, 2019 3:44:34 PM

Looks good to me.

Keith

From: Graeber, David < David.Graeber@dot.state.fl.us>

Sent: Wednesday, March 27, 2019 8:32 AM

To: Mousel, Keith <Keith.Mousel@freshfromflorida.com>

Cc: ejbeam@transystems.com; Morris, Vincent <Vincent.Morris@freshfromflorida.com>; Cucek, Lorena <Lorena.Cucek@dot.state.fl.us>; Werner, Colleen <Colleen.Werner@freshfromflorida.com>; Graeber, David <David.Graeber@dot.state.fl.us>

Subject: FPID 435471-1 - S Sumter Trail PD&E Study – Good Neighbor Trail to Van Fleet Trail

Mr. Mousel,

Thank you for the opportunity to meet with WSF staff on Wednesday, March 6, 2019. As discussed at the meeting, we have revised the figures and summarized the analysis of alternative alignments for the section of the South Sumter Trail that traverses the Withlacoochee State Forest and are requesting your review and concurrence with the preferred alternative alignment.

Attached, please find a revised figure depicting the South Sumter Connector Trail alternative alignments that were evaluated as part of the study process through the Withlacoochee State Forest.

As discussed at the meeting the project team has evaluated five alternatives for this section of the trail. A summary of the evaluated alternative alignments are listed below:

Alternative Alignments Considered but Eliminated

- Alternative 1 (Dark Blue) Bridge 1 Duke Power Line Over I-75 Interchange CR
 673
 - o Due to high voltage transmission line restrictions relative to improvements within the utility right-of-way (ROW) or easement for the power line
 - Connection to CR 673 across the I-75/CR 470 interchange includes constructability issues over an interchange and within Federal Highway Administration (FHWA) limited access ROW. A pedestrian bridge over the interchange is also cost prohibitive
- Alternative 2 (Red) Bridge 2 (Iron Bridge) FR 13 I-75 Interchange CR 673
 - o Partially located along Forest Road 13 (SW 113th Pl) which creates pedestrian and bicyclist safety concerns
- Alternative 3 (Green) Bridge 3 (Private Property/SARR) FR 13 SARR CR 673
- o Partially located within private property that has future land development plans and partially along Forest Road 13 (SW 113th PI) which creates pedestrian and

bicyclist safety concerns

- Alternative 4 (Magenta) Bridge 2 (Iron Bridge) FR 13 FR 17 Over I-75 Interchange - CR 673
 - o Dismissed for similar reasons as the Duke power line alignment and connection to CR 673 across the I-75/CR 673 interchange.

Preferred Alternative Alignment

- Alternative 5 (Cyan) Bridge 2 Existing Hiking Trails Along I-75 CR 673.
 - o Crosses Withlacoochee River at Iron Bridge Day Use Area location (Bridge 2)
 - o Follows an existing hiking trail and removes pedestrians and bicyclists from Forest Road 13 which is traveled by various types of motorized vehicles
 - o Crosses under I-75 supporting pedestrian and bicycle safety
 - o Follows WSF/private property common boundary east of I-75

Based on our discussions at the meeting held with you and your staff on March 6, 2019, Alternative 5 (Cyan) - Bridge 2 – Existing Hiking Trails – Along I-75 – CR 673 was selected as the Preferred Alignment. Please provide your review of this analysis and concurrence with the recommendation.

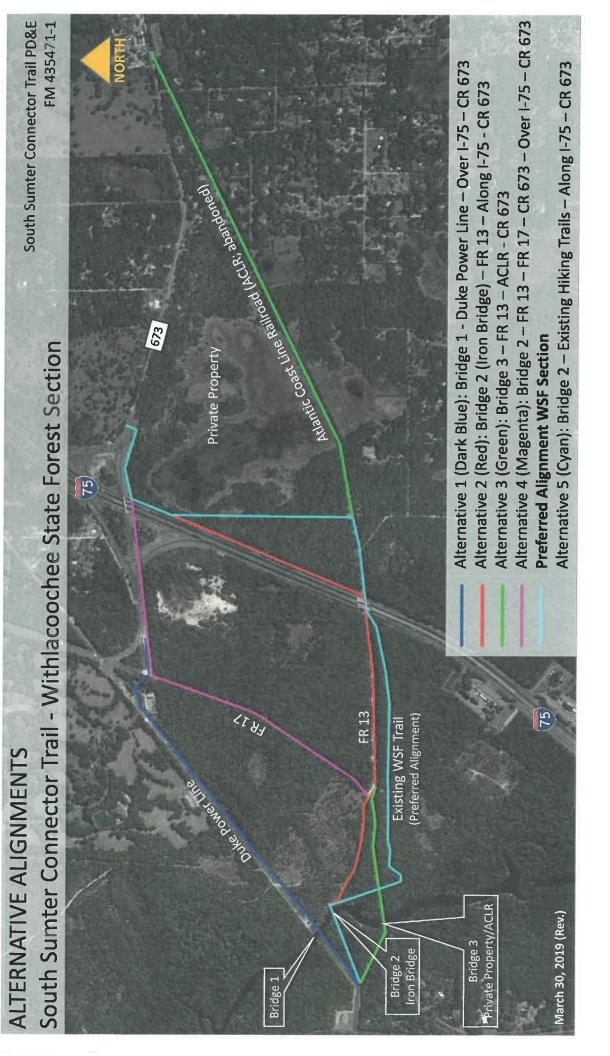
Again, thanks for meeting with us and for your ongoing assistance with the development and evaluation of the preferred alignment for this important regional trail segment. We are looking forward to working with you on this segment as the project moves forward into the design phase.

Kindest Regards,

David A. Graeber, PE

Project Manager
Aspireon Consulting Group, FDOT In-House Consultant
719 South Woodland Boulevard
DeLand, Florida 32720
386-943-5182 – Office
407-506-4134 - Cell
david.graeber@dot.state.fl.us





APPENDIX D

State Historic Preservation Office Concurrence



RON DESANTIS GOVERNOR 719 S. Woodland Blvd. DeLand, FL 32720

KEVIN J. THIBAULT, P.E. SECRETARY

January 14, 2020

Timothy A. Parsons, Ph.D.,
Director and State Historic Preservation Officer
Florida Division of Historical Resources
Florida Department of State
R.A. Gray Building
500 South Bronough Street
Tallahassee, Florida 32399-0250

Attn: Dr. Adrianne Daggett, Transportation Compliance Review Program

RE: Cultural Resource Assessment Survey

Project Development and Environment (PD&E) Study

South Sumter Connector Trail from the Withlacoochee State Trail to the Van Fleet Trail

Hernando and Sumter Counties, Florida Financial Management No. 435471-1

Dear Dr. Parsons,

Enclosed please find one copy of the report titled Cultural Resource Assessment Survey of the South Sumter Connector Trail from the Withlacoochee State Trail to The Van Fleet Trail, Hernando and Sumter Counties, Florida. Included as an appendix is a document titled Technical Memorandum: Cultural Resource Assessment Survey of The Withlacoochee State Forest Preferred Alignment of the South Sumter Connector Trail, Hernando and Sumter Counties, Florida regarding a later addition to the project. These reports present the findings of a Phase I cultural resource assessment survey (CRAS) conducted in support of the South Sumter Connector Trail (South Sumter Trail) PD&E Study in Hernando and Sumter Counties, Florida. The FDOT District 5 is proposing the construction of a multiuse trail that extends from the Withlacoochee State Forest Trail in Hernando County to the Van Fleet Trail near the community of Mabel in Sumter County. The project limits extend generally east and west passing through the Withlacoochee State Forest and the communities of Webster and Tarrytown. The trail will consist of a 12-foot-wide paved multi-use path that would provide recreational connectivity across the Florida peninsula.

Over the course of the project, multiple alignments were developed for the proposed trail. The enclosed reports provide documentation for the preferred alignment as well as segments of trail that were ultimately not selected for inclusion in the preferred alignment. For clarity, the non-selected segments of trail are referred to as preliminary right-of-way.

435471-1

Dr. Parsons, SHPO January 14, 2020 Page 2

The Area of Potential Effects (APE) for the preferred alignment was defined to include the existing and proposed right-of-way and was extended to the back or side property lines of parcels adjacent to the right-of-way, or a distance of no more than 100 meters (328 feet) from the maximum right-of-way line. Archaeological survey was conducted within the existing and proposed right-of-way for the preferred alignment, as well as segments of preliminary right-of-way. The total length of the project's preferred alignment is approximately 16.4 miles (26.3 kilometers).

This CRAS was conducted in accordance with the requirements set forth in Section 106 of the National Historic Preservation Act of 1966, as amended, found in 36 CFR Part 800 (Protection of Historic Properties). The studies also comply with Chapter 267 of the Florida Statutes and Rule Chapter 1A-46, Florida Administrative Code and Section 267.12, Florida Statutes, Chapter 1A-32. All work was performed in accordance with Part 2, Chapter 8 of FDOT's PD&E Manual (revised January 2019), FDOT's Cultural Resources Management Handbook, and the standards stipulated in the Florida Division of Historical Resources' (FDHR) Cultural Resource Management Standards & Operations Manual, Module Three: Guidelines for Use by Historic Preservation Professionals. The Principal Investigator for this project meets the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR 44716-42). This study also complies with Public Law 113-287 (Title 54 U.S.C.), which incorporates the provisions of the National Historic Preservation Act of 1966, as amended, and the Archeological and Historic Preservation Act of 1979, as amended.

The archaeological field survey included visual reconnaissance and intensive systematic subsurface examination of the project right-of-way (preferred and preliminary). In total, 264 shovel tests were excavated including 30 positive shovel tests, resulting in the documentation of one previously recorded archaeological site (8SM00422, Wild Cow Prairie), six newly identified archaeological sites (8HE00863, 8HE00864, 8SM01137, 8SM01138, 8SM01139, 8SM01216), and two isolated prehistoric lithic artifacts (Archaeological Occurrences [AOs] 1 and 2). Four of the newly recorded resources (8HE00863, 8HE00864, 8SM01138, 8SM01139) and both AOs were recorded within the preliminary right-of-way alternatives west of I-75 in the vicinity of the Withlacoochee River. Newly recorded sites 8SM01137 and 8SM01216 and previously recorded site 8SM00422 were identified within the preferred alignment right-of-way east of I-75. None of the sites documented during the CRAS meet the criteria for inclusion in the National Register of Historic Places (NRHP). No further archaeological investigation is necessary for the project.

The architectural survey resulted in the identification of 71 historic resources within the Preferred Alignment APE, including five previously recorded resources and 66 newly recorded resources. The previously recorded resources include two historic structures, two historic linear resources, and one historic cemetery. The newly recorded resources include two historic cemeteries, four historic canals, and 60 historic structures. The segment of the SAL Railway (8SM00463) within the current project APE is a newly recorded segment of a previously recorded linear resource. The overall 8SM00463 linear resource was determined NRHP-eligible by the State Historic Preservation Officer (SHPO) in 2017. Based on the results of the current survey, it is the opinion of the District that the segment of the Seaboard Air Line (SAL) Railway located within the current project APE is a contributing segment to the overall NRHP-eligible

435471-1

Dr. Parsons, SHPO January 14, 2020 Page 3

linear resource. The remaining 70 resources within the Preferred Alignment APE lack integrity or the architectural distinction and significant historical associations necessary to be considered for listing in the NRHP and are recommended ineligible. Bridge Nos. 180027, 180028, and 180029 are concrete stringer/girder bridges constructed in 1965. The bridges are post-1945 concrete bridges excluded from Section 106 consideration (Federal Register 2012:68796) and, as such, the bridges were not recorded or evaluated by the present study.

Based on the results of the current survey, 8SM00463 is recommended eligible as a contributing segment to the overall NRHP-eligible SAL Railway (8SM00463). The proposed improvements will require no right-of-way from 8SM00463 and will not impede or require the rerouting of rail traffic. No historic fabric associated with 8SM00463 will be removed or altered by the project. Therefore, it is the opinion of the District that the proposed project will have no adverse effect on 8SM00463. Given the results of the CRAS, it is the opinion of the District that no further cultural resource survey is necessary for the proposed South Sumter Trail Preferred Alignment APE.

Based on the results of this study, it is the opinion of the District that the proposed undertaking will have no adverse effect on NRHP-listed or -eligible historic properties. No further work is recommended.

I respectfully request your concurrence with the findings of the enclosed report.

If you have any questions or need further assistance, please contact Catherine Owen, District Cultural Resource Coordinator, at (386) 943-5383 or me at (386) 943-5411.

Sincerely,

William G. Walsh

Environmental Manager

FDOT, District Five

435471-1

Dr. Parsons, SHPO January 14, 2020 Page 4

The Florida State Historic Preservation Officer finds the attached Cultural Resource	
Assessment Survey Report complete and sufficient and ☑ concurs / ☐ does not concur	
with the recommendations and findings provided in this cover letter for SHPO/FDHR	
Project File Number Or, the SHPO finds the attached document contains insufficient information. \(\tau \) with the attendam below	
In accordance with the Programmatic Agreement among the ACHP, SHPO and FDOT	
Regarding Implementation of the Federal-Aid Highway Program in Florida, if providing	
concurrence with a finding of No Historic Properties Affected for a project as a whole, or	
to No Adverse Effect on a specific historic property, SHPO shall presume that FDOT may	
approve the project as de minimis use under Section 4(f) under 23 CFR 774.	
SHPO Comments: Per the mems dated 2/13/20, we concur that	
a GPR survey should be conducted in the vicinity of 85M34	
and 8 SM 1206. We look forward to reviewing the result	
	2
of the survey. We also note that all of the archaeological sols dis	wich
Timothy A. Parsons, PhD. Director Date 1 The survey. We also note that all of the archaeological sides diverged by the archaeological sides archaeolo	insel market market
Timothy A. Parsons, PhD, Director Florida Division of Historical Resources The survey. We also note that all of the authaeological sides division of the auth	maked the