

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
TECHNICAL REPORT COVERSHEET

FDOT-38
ENVIRONMENTAL
MANAGEMENT
03/22

LOCATION HYDRAULICS REPORT

Florida Department of Transportation

District 5

Project Development & Environment (PD&E) Study

Limits of Project I-75 Auxiliary Lanes from SR 200 to North of SR 326

Marion County, Florida

Financial Management Number: 452074-1-2 1-01

ETDM Number: 14542

Date: March 2024

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.



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LOCATION HYDRAULICS REPORT

I-75 Project Development and
Environment (PD&E) Study
From North of SR 200
to South of SR 326

FPID 452074-1-22-01 | Marion County, FL

March
2024

PREPARED FOR:



FLORIDA DEPARTMENT
OF TRANSPORTATION
District Seven
Tampa, Florida 33612

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EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) is conducting a Project Development and Environment (PD&E) Study for proposed operational improvements to the I-75 corridor in the City of Ocala and Marion County, Florida. These interim improvements were identified as part of Phase 1 of a master planning effort for the I-75 corridor between Florida's Turnpike and County Road 234. The operational improvements being evaluated by this PD&E Study include construction of auxiliary lanes between interchanges for an eight-mile segment of I-75 between S.R. 200 and S.R. 326. Within the study limits, I-75 is an urban principal arterial interstate that runs in a north and south direction with a posted speed of 70 miles per hour. I-75 is part of the Florida Intrastate Highway System, the Florida Strategic Intermodal System (SIS), and is designated by the Florida Department of Emergency Management as a critical link evacuation route. Within the study limits, I-75 is a six-lane limited access facility situated within approximately 300 feet of right-of-way. No transit facilities, frontage roads, or managed lanes are currently provided.

The project is located within Marion County and Sections 26, 23, 15, 14, 11, 3 and 2 of Township 15 South, and Sections 35, 34, 27, 22, 15 of Township 14 South, Range 21 East.

There are no FEMA floodways within the limits of the study.

The project includes both longitudinal and transverse floodplain impacts. The longitudinal impacts result from filling the floodplain areas consistent with the proposed typical sections.

The transverse impacts result from the extension of existing cross drains. The longitudinal impacts cannot be avoided since the existing ditches are included in the FEMA floodplain areas and the floodplains are directly adjacent to the existing roads. Floodplain impacts will be mitigated through the creation of equivalent excavation within the RW. Floodplain impact calculations can be found in Appendix G.

The proposed structures will perform hydraulically in a manner equal to or greater than the existing structures, and backwater surface elevations are not expected to increase. Thus, there will be no significant adverse impacts on the natural and beneficial floodplain values. There will be no significant change in flood risk, and there will not be a significant change in the potential for interruption or termination of emergency services or emergency evacuation routes. Therefore, it has been determined that this encroachment is not significant.

1. INTRODUCTION

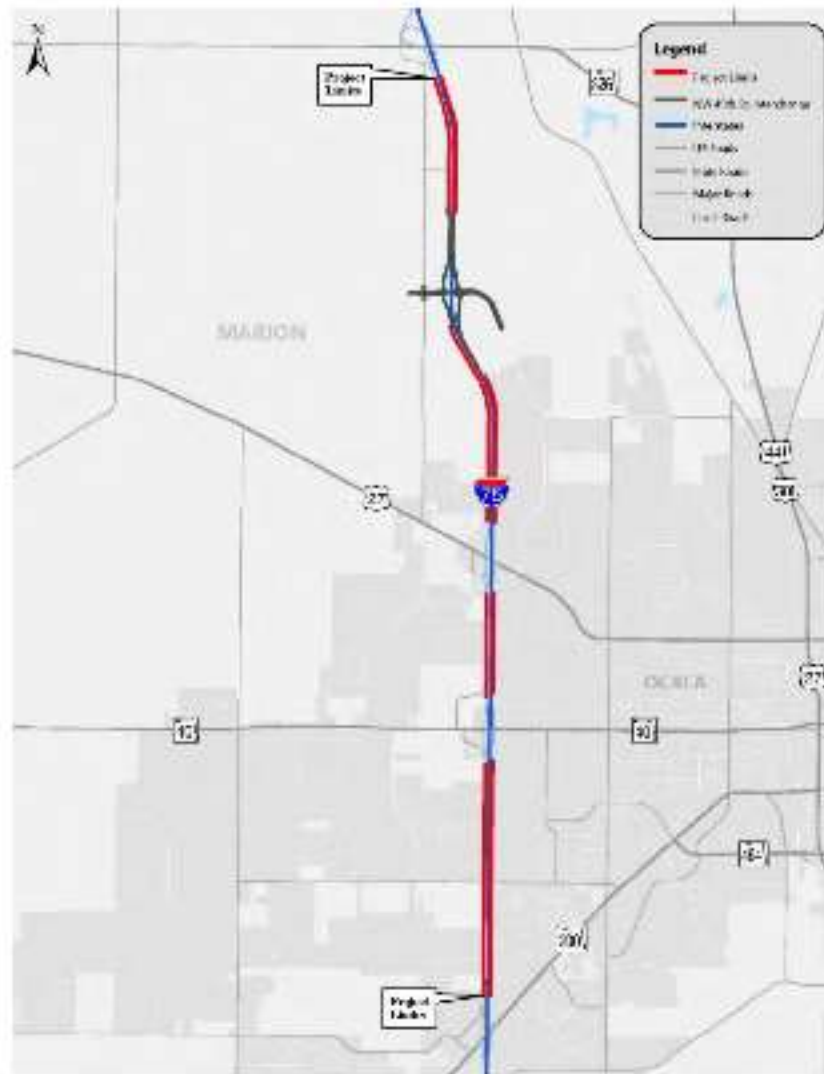
The Florida Department of Transportation (FDOT) is conducting a Project Development and Environment (PD&E) Study for proposed operational improvements to the I-75 corridor in the City of Ocala and Marion County, Florida. These interim improvements were identified as part of Phase 1 of a master planning effort for the I-75 corridor between Florida's Turnpike and County Road 234. The operational improvements being evaluated by this PD&E Study include construction of auxiliary lanes between interchanges for an eight-mile segment of I-75 between S.R. 200 and S.R. 326. Within the study limits, I-75 is an urban principal arterial interstate that runs in a north and south direction with a posted speed of 70 miles per hour. I-75 is part of the Florida Intrastate Highway System, the Florida Strategic Intermodal System (SIS), and is designated by the Florida Department of Emergency Management as a critical link evacuation route. Within the study limits, I-75 is a six-lane limited access facility situated within approximately 300 feet of right-of-way. No transit facilities, frontage roads, or managed lanes are currently provided.

Figure 1: Proposed Typical Section

PROPOSED I-75 TYPICAL SECTION



Figure 2: Project Limits



The project site lies within the Ocklawaha Watershed. In the existing condition, runoff from the inside lanes and shoulder flows to the median, where it is conveyed via median ditches and closed conveyance systems to a median drain which outfalls to the roadside swales. Runoff from the outside lanes and shoulders sheet flows into the adjacent roadside swales on the east and west sides of the roadway. Runoff conveys through the permitted roadside ditch block and swale systems to the existing cross drains within the project limits. Additionally, to safeguard the roadway base, underdrains are currently in place within portions of the median to effectively draw down the groundwater. Fifteen basins were identified within the limits of the project. These basins are all considered to be land locked.

2. PROJECT DESCRIPTION

The intent of this Location Hydraulics Report (LHR) is to identify the potential 100-year (base) floodplain encroachments resulting from the roadway improvements evaluated in this study. In accordance with 23 Code of Federal Regulation (CFR) 650 Subpart A, Section 650.111, floodplains are to be protected. The intent of these regulations is to avoid possible long and short-term adverse impacts associated with the modification of floodplains resulting from development. These regulations urge that where

impacts are anticipated, alternatives should be sought out where practical and that development incompatible with floodplain values should be avoided. Conclusions and recommendations were developed using the best available data and preliminary roadway alignment and typical sections. The cross-drain lengths and exact locations shall be verified during future design phases. Extensions lengths are anticipated to be negligible at most locations, and any required analysis will be performed during a future design phase to demonstrate no adverse impacts.

The project is located within Marion County and Sections 26, 23, 15, 14, 11, 3 and 2 of Township 15 South, and Sections 35, 34 27, 22, 15 of Township 14 South, Range 21 East.

The datum used for this study is the North American Vertical Datum of 1988 (NAVD 88) and all elevations referenced in this report are in feet.

3. EXISTING CONDITIONS

Within the study limits, I-75 is an urban principal arterial interstate that runs in a north and south direction with a posted speed of 70 miles per hour. I-75 is part of the Florida Intrastate Highway System, the Florida Strategic Intermodal System (SIS), and is designated by the Florida Department of Emergency Management as a critical link evacuation route. Within the study limits, I-75 is a six-lane limited access facility situated within approximately 300 feet of right-of-way. No transit facilities, frontage roads, or managed lanes are currently provided. Within the study limits, I-75 is an urban principal arterial interstate that runs in a north and south direction with a posted speed of 70 miles per hour. I-75 is part of the Florida Intrastate Highway System, the Florida Strategic Intermodal System (SIS), and is designated by the Florida Department of Emergency Management as a critical link evacuation route. Within the study limits, I-75 is a six-lane limited access facility situated within approximately 300 feet of right-of-way. No transit facilities, frontage roads, or managed lanes are currently provided.

3.1. EXISTING DRAINAGE CONDITIONS

The project site lies within the Ocklawaha Watershed. In the existing condition, runoff from the inside lanes and shoulder flows to the median, where it is conveyed via median ditches and closed conveyance systems to a median drain which outfalls to the roadside swales. Runoff from the outside lanes and shoulders sheet flows into the adjacent roadside swales on the east and west sides of the roadway. Runoff conveys through the permitted roadside ditch block and swale systems to the existing cross drains within the project limits. Additionally, to safeguard the roadway base, underdrains are currently in place within portions of the median to effectively draw down the groundwater.

3.2. EXISTING BASINS

This project involves the addition of auxiliary lanes to I-75/S.R. 93 from north of S.R. 200 to S.R. 326 for approximately eight miles and is divided into fifteen basins. All basins are closed. Basin divides have been developed from existing permit information and as-builts, supplemented with LiDAR data, survey, and field review. Cross drain information was obtained from the project survey, existing plans (Appendix E) and Straight Line Diagrams (SLD) (Appendix F). Basin divides are detailed on the basin maps included in Appendix A.

Basin 1 (beginning just north of SR 200) lies from Station 2158+17 to Station 2190+93+45 and includes a portion of the north half of the SR 200 Interchange. Runoff generally sheet flows from the roadway into median/roadside ditches as described in Section 3.1, where it is conveyed via side drains to the outfall, a 3' x 3' CBC cross drain (CD-1) located at Station 742+14.20.

Basin 2 extends from Station 2190+93+45 to Station 2224+45. Runoff generally sheet flows from the roadway into

median/roadside ditches as described in Section 3.1, where it is conveyed via side drains to the outfall, a 24-inch cross drain (CD-2) located at Station 790+14.20.

Basin 3 lies from Station 2224+45 to 2263+94. Runoff generally sheet flows from the roadway into median/roadside ditches as described in Section 3.1, where it is conveyed via side drains to the outfall, a 24-inch cross drain (CD-3) located at Station 831+14.20.

Basin 4 lies from Station 2263+94 to 2290+37 and includes the southern portion of the SR 40 Interchange. Runoff generally sheet flows from the roadway into median/roadside ditches as described in Section 3.1, where it is conveyed via side drains to the outfall, a 30-inch cross drain (CD-4) located at Station 850+14.20.

Basin 5 lies from Station 2290+37 to 2322+19 and includes the northern portion of the SR 40 Interchange. Runoff generally sheet flows from the roadway into median/roadside ditches as described in Section 3.1, where it is conveyed via side drains to the outfall, a 24-inch cross drain (CD-5) located at Station 876+95.00.

Basin 6 lies from Station 2322+19 to 2333+19. Runoff generally sheet flows from the roadway into median/roadside ditches as described in Section 3.1, where it is conveyed via side drains to the outfall, a 24-inch cross drain (CD-6) located at Station 899+14.20.

Basin 7 lies from Station 2333+19 to 2363+14 and includes the southern portion of the US 27 Interchange. Runoff generally sheet flows from the roadway into median/roadside ditches as described in Section 3.1, where it is conveyed via side drains to the outfall, a 24-inch cross drain (CD-7) located at Station 910+14.20.

Basin 8 lies from Station 2363+14 to 2375+18 and includes the northern portion of the US 27 Interchange. Runoff generally sheet flows from the roadway into median/roadside ditches as described in Section 3.1, where it is conveyed via side drains to the outfall, a 24-inch cross drain (CD-8) located at Station 949+14.20. No improvements associated with the auxiliary lanes are proposed within the limits of this sub-basin.

Basin 9 lies from Station 2375+18 to 2394+82. Runoff generally sheet flows from the roadway into median/roadside ditches as described in Section 3.1, where it is conveyed via side drains to the outfall, a 24-inch cross drain (CD-9) located at Station 960+14.20.

Basin 10 lies from Station 2394+82 to 2413+32. Runoff generally sheet flows from the roadway into median/roadside ditches as described in Section 3.1, where it is conveyed via side drains to the outfall, a 24-inch cross drain (CD-10) located at Station 980+16.80.

Basin 11 lies from Station 2413+32 to 2436+32. Runoff generally sheet flows from the roadway into median/roadside ditches as described in Section 3.1, where it is conveyed via side drains to the outfall, a 24-inch cross drain (CD-11) located at Station 1002+16.60.

Basin 12 lies from Station 2436+32 to 2455+32. Runoff generally sheet flows from the roadway into median/roadside ditches as described in Section 3.1, where it is conveyed via side drains to the outfall, a 24-inch cross drain (CD-12) located at Station 1023+17.00.

Basin 13 lies from Station 2455+32 to 2511+32. Runoff generally sheet flows from the roadway into median/roadside ditches as described in Section 3.1, where it is conveyed via side drains to the outfalls, a 24-inch cross drain (CD-13 A & CD-13 B) located at Station 1051+16.80 and Station 1076+16.90 respectively. This basin lies within the limits of the adjacent project for the construction of the proposed 49th Street Interchange, thus no improvements associated with the auxiliary lanes are proposed within the limits of this sub-basin.

Basin 14 lies from Station 2511+32 to 2553+32. Runoff generally sheet flows from the roadway into median/roadside ditches as described in Section 3.1, where it is conveyed via side drains to the outfall, a 24-inch cross drain (CD-14) located at Station 1118+18.10.

Basin 15 lies from Station 2553+32 to 2587+75 and includes a portion of the southern half of the SR 326 Interchange. Runoff generally sheet flows from the roadway into median/roadside ditches as described in Section 3.1, where it is conveyed via side drains to the outfall, a 36-inch cross drain (CD-15) located at Station 1153+53.10.

3.3. SOILS

The soils within the project limits as well as their hydrologic soils group classification are listed in Table 3-1. Based on a review of the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Soil Survey of Marion County, Florida, the project limits consist of soils ranging from well drained to somewhat poorly drained. The Soil Survey indicates that there are twenty-five (25) mapped soil units within the project limits. Refer to Appendix C for the NRCS Soils Report.

Table 3-1: USDA NRCS Soil Survey Information

Map unit symbol	Soil Name	Hydrologic Soil Group	Depth to Water Table (ft)
2	Adamsville sand, 0 to 5 % slopes	A	0.3 - 4.8
7	Udalfic Arents, 0 to 5 % slopes	A	0 - 3.0
9	Aredondo sand, 0 to 5 % slopes	A	0 - 1.9
11	Pedro-Aredondo complex, 0 to 5 % slopes	D	3.2 - 3.7
13	Astatula sand, 0 to 5 % slopes	A	0 - 4.8
17	Blichton sand, 2 to 5 % slopes	C/D	0.5 - 3.7
22	Candler sand, 0 to 5 % slopes	A	4.8 - 4.9
35	Gainesville loamy sand, 0 to 5 % slopes	A	> 6.6
37	Hague sand, 2 to 5 % slopes	A	> 6.6
43	Kanapaha-Kanapaha, wet, fine sand, 0 to 5 % slopes	A/D	0.5 - 1.9
44	Kendrick loamy sand, 0 to 5 % slopes	A	3.1 - 3.7
45	Kendrick loamy sand, 5 to 8 % slopes	B	0 - 3.7
46	Lochloosa fine sand, 0 to 5 % slopes	A	1.9 - 3.7
47	Lochloosa fine sand, 5 to 8 % slopes	B	1.0 - 3.7
50	Micanopy fine sand, 2 to 5 % slopes	C	0.5 - 3.7
57	Pits	NA	> 6.6
58	Placid sand, depressional	A/D	0.3 - 2.5
65	Sparr fine sand, 0 to 5 % slopes	A	1.0 - 3.5
69	Tavares sand, 0 to 5 % slopes	A	2.8 - 4.8
74	Wacahoota gravelly sand, gravelly subsoil variant, 2 to 5 % slopes	B/D	0.5 - 1.2
77	Zuber loamy sand, 2 to 5 % slopes	C	0.5 - 3.7
79	Udortherms, excavated	B	0 - 3.0
99	Water	NA	> 6.6

3.4. LAND USE

Land use within the corridor is highly variable, without a single consistent use within individual sections. Land uses include commercial, industrial, agricultural, residential (mobile home, low density, and medium density), cropland and grazing land, and vacant parcels.

The I-75 corridor and associated interchanges are classified as transportation land use.

Please refer to Appendix B for the existing and future Land Use Map.

3.5. CROSS DRAINS

There are fifteen existing cross drains within the project limits. They are listed below in Table 3-2.

Table 3-2: Existing Cross Drains

Structure Number	Baseline/Location	Station	Description	
			Size	Pipe Type
CD-1	I-75	742+14.20	3' x 3'	CBC RCP
CD-2	I-75	790+14.20	24"	RCP
CD-3	I-75	831+14.20	24"	RCP
CD-4	I-75	850+14.20	30"	RCP
CD-5	I-75	876+95.00	24"	RCP
CD-6	I-75	899+14.20	24"	RCP
CD-7	I-75	910+14.20	24"	RCP
CD-8	I-75	949+14.20	24"	RCP
CD-9	I-75	960+14.20	24"	RCP
CD-10	I-75	980+16.80	24"	RCP
CD-11	I-75	1002+16.60	24"	RCP
CD-12	I-75	1023+17.00	24"	RCP
CD-13 A	I-75	1051+16.80	24"	RCP
CD-13 B	I-75	1076+16.90	24"	RCP
CD-14	I-75	1118+18.10	24"	RCP
CD-15	I-75	1153+53.10	36"	RCP

3.6. BRIDGES

There are no existing bridge culverts within the project limits. Bridges associated with the SR 200, SR 40, US 27, and SR 326 Interchanges are not impacted by the proposed improvements. The 63rd Street bridge overpass will be reconstructed as part of this project.

3.7. FLOODPLAINS AND FLOODWAYS

The project limits are located within the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) panels listed in Table 3 below. The project traverses various sections of the 100-year base floodplain designated as Zone AE, which is the flood insurance rate zone that corresponds to areas of 1-percent-annual-chance shallow flooding (usually

areas of ponding) where average depths are between 1 and 3 feet. The proposed widening results in fill being placed within the FEMA floodplains. At locations where the roadway widening results in encroachment into the floodplain, the required compensation area is provided for each basin. Refer to Appendix D for the FEMA FIRM maps. Many of these locations correspond to existing linear treatment swales, and as noted in Section 2.3 of the PSR (submitted under separate cover), they are assumed to be fully impacted in the I-75 ultimate condition, with all required runoff volume and treatment volume accommodated within proposed stormwater management facilities. Preliminary review indicates that impacts associated with the auxiliary lanes can be remediated within the R/W through excavation of equivalent volume. The analysis will be refined during the design phase, and if required, excess volumetric impacts that cannot be recaptured within the R/W will be compensated through directly connected volumes within the proposed stormwater ponds. Floodplain impact calculations can be found in Appendix G.

Table 3-3: FEMA FIRM panels

FEMA Map Number	County	Map Revision Date
12083 C0314E	Marion	4/19/2017
12083 C0502E	Marion	4/19/2017
12083 C0506E	Marion	4/19/2017
12083 C0508E	Marion	4/19/2017
12083 C0516E	Marion	4/19/2017
12083 C0518E	Marion	4/19/2017

No flooding has been reported/observed within this portion of the I-75 corridor.

4. PROPOSED CONDITIONS

Construction of the existing project will require placing fill in existing FEMA floodplain areas. Mitigation of floodplain impacts within the R/W will be validated during the design phase. Basin 15 will likely require an FPC pond. Three alternatives are proposed on parcels adjacent to the western R/W. All three alternatives are positioned at lower topographical elevation relative to the existing floodplain and contiguous with the floodplain being impacted. Alternative 1 involves providing FPC on a 0.9 ac parcel with 1 foot cut adjacent to the SW R/W. Alternative 2 involves providing FPC on a 0.5 ac parcel with 2 foot cut adjacent to the western R/W. Alternative 3 involves providing FPC on a 0.9 ac parcel with 1 foot cut located on the western side of R/W. Alternative 1 is the preferred alternative. Exhibit 1 in Appendix A shows all the alternatives. Preliminary floodplain impacts and compensation requirements are sized on a cup-for-cup basis and are presented in Table 4-1 on the following page along with the conceptual approach.

Culverts are not anticipated to be significantly lengthened based on the preliminary analysis, and sizes are to remain unchanged. Further analysis will be performed during the design phase once survey of the R/W adjacent to the roadway has been performed.

Table 4-1: Floodplain Impacts & Compensation Approach

Basin	Floodplain Area ID	Side	Floodplain Elevation (FT)	Total floodplain within R/W (AQ)	Floodplain Impact (AC)	Impact Volume (AC-FT)	Approach to Compensation
1	<i>No floodplain present within area of proposed improvements.</i>						
2	2-1	East	77	0.33	0	0	N/A
3	3-1	East	76	0.28	0.02	0.02	Balance cut/fill
	3-2	East	70	1.49	0.24	0.29	
	3-3	West	68	0.91	0.03	0.03	
4	<i>No floodplain present within area of proposed improvements.</i>						
5	5-1	East	66	0.99	0	0	N/A
	5-2	West	65	1.12	0.01	0.01	Balance cut/fill
6	<i>Basin overlap - Floodplain accounted for in Basin 7.</i>						
7	7-1	East	70	0.88	0.13	0.13	Balance cut/fill
	7-2	West	70	1.05	0.03	0.03	
8/9	<i>No floodplain present within area of proposed improvements.</i>						
10	10-1	West	72	0.59	0	0	NA
	10-2	East	78	0.11	0	0	N/A
11/12	<i>No floodplain present within area of proposed improvements.</i>						
13	<i>Floodplain within R/W fully impacted by the 49th Street Interchange. No impacts from this project.</i>						
14	14-1	East	68	0.92	0.22	0.27	Balance cut/fill
	14-3		60	0.30	0.03	0.02	
	14-2	West	68	0.74	0.19	0.34	
	14-4		66	1.23	0	0	N/A
15	15-1	West	64	3.08	0.73	0.73	FPC Pond
	15-3		64	0.50	0.07	0.08	
	15-2	East	64	2.18	0.55	0.55	Balance cut/fill

5. CONCLUSIONS AND RECOMMENDATIONS

The project includes both longitudinal and transverse floodplain impacts. The longitudinal impacts result from filling the floodplain areas consistent with the proposed typical sections.

Transverse impacts may result from the replacement of existing cross drains. The longitudinal impacts cannot be avoided since the existing roads are included in the FEMA floodplain areas and the floodplains are directly adjacent to the existing roads. Floodplain impacts are anticipated to be remediated through balancing cut and fill activities within the R/W.

The final proposed conditions of drainage structures will perform hydraulically in a manner equal to or greater than the existing structures, and backwater surface elevations are not expected to increase. Thus, there will be no significant adverse impacts on the natural and beneficial floodplain values. There will be no significant change in flood risk, and there will not be a significant change in the potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has been determined that this encroachment is not significant.

6. REFERENCES

- FEMA FIRM Maps for Marion County (Panel numbers noted in Table 3-3 above)
- FDOT Project Development and Environment Manual, Effective: July 1, 2020
- FDOT Drainage Manual, Effective: January 2023
- FDOT Drainage Design Guide, Effective: January 2023
- NRCS – USDA Soils Survey for Marion County, FL



Appendix A
Basin Maps

Scale 1 in = 200 ft



LEGEND	
	FEMA FLOODPLAIN ZONE AE
	FEMA FLOODPLAIN ZONE A

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			DRAINAGE MAP	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		07
				SR 99	NATION ALACHUA	4438243-22-01		

Scale 1 in = 200 ft

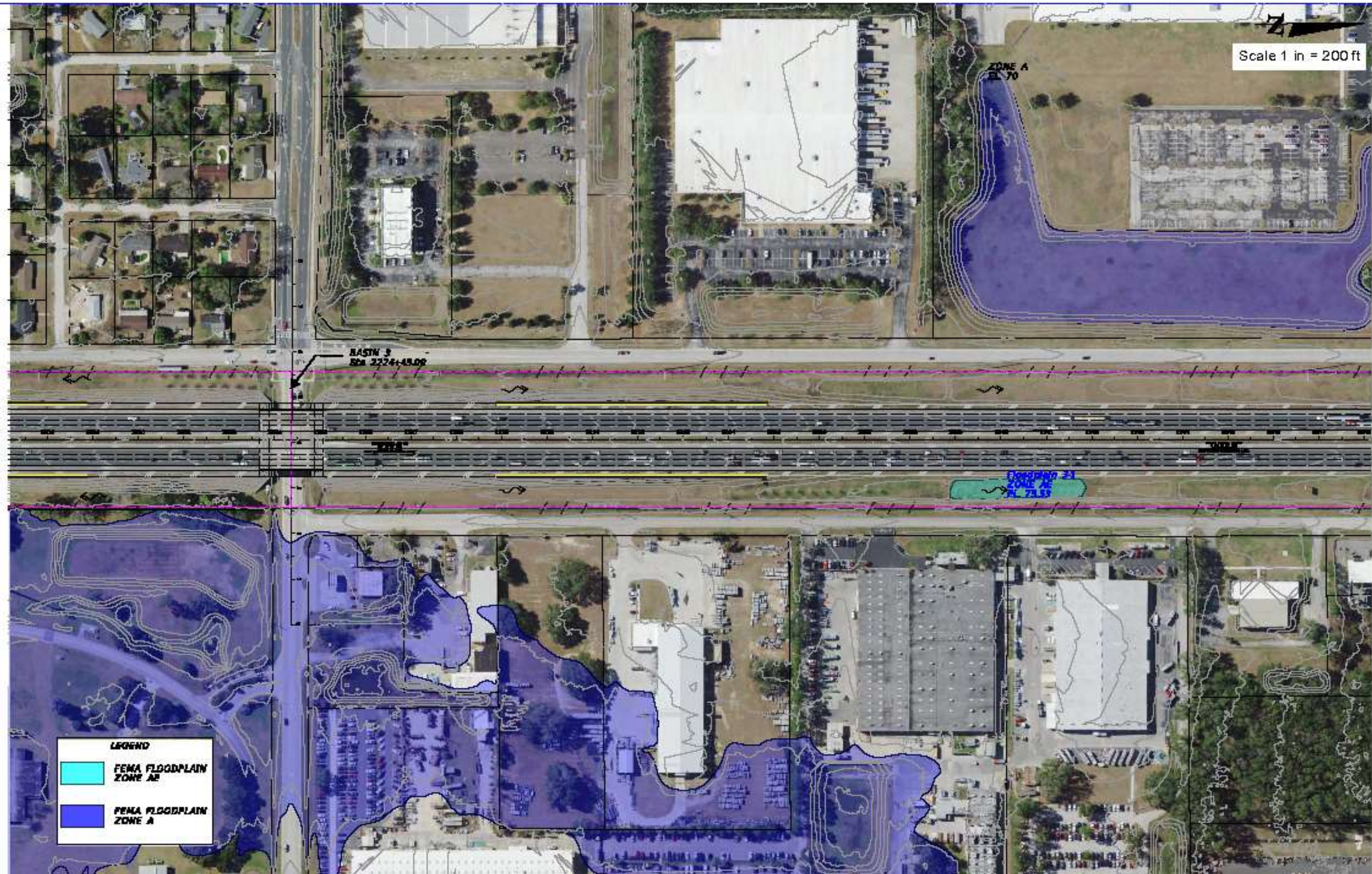


LEGEND	
	FEMA FLOODPLAIN ZONE AE
	FEMA FLOODPLAIN ZONE A

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR 99	NATION ALACHUA	4438243-22-01	02

DRAINAGE MAP

Scale 1 in = 200 ft

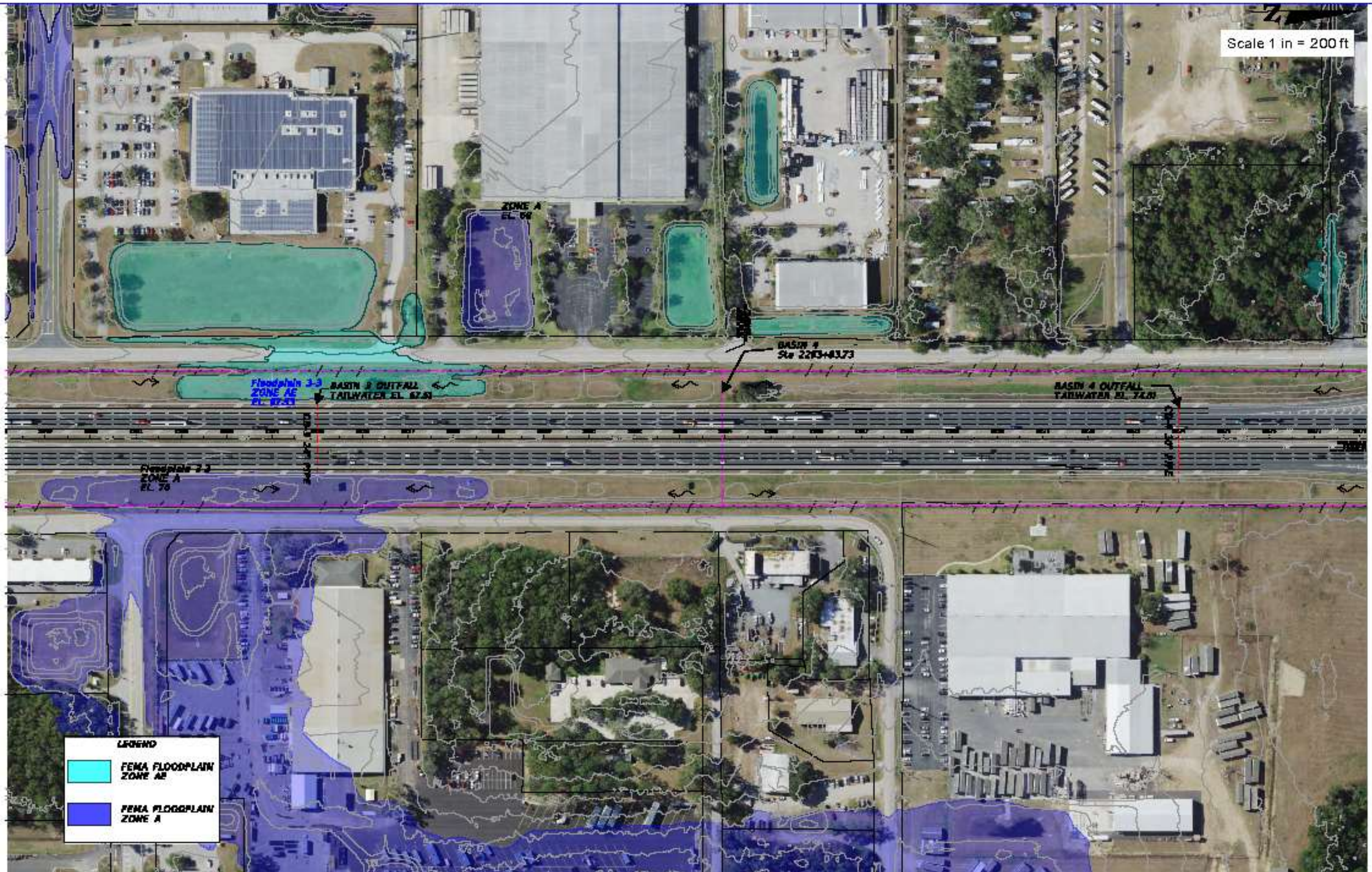


LEGEND	
	FEMA FLOODPLAIN ZONE AE
	FEMA FLOODPLAIN ZONE A

REVISIONS		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		SHEET NO.
DATE	DESCRIPTION	ROAD NO.	COUNTY	
		SR 99	NATION ALACHUA	
			FINANCIAL PROJECT ID 4436243-22-01	

DRAINAGE MAP

Scale 1 in = 200 ft



LEGEND

	FEMA FLOODPLAIN ZONE AE
	FEMA FLOODPLAIN ZONE A

REVISIONS	
DATE	DESCRIPTION

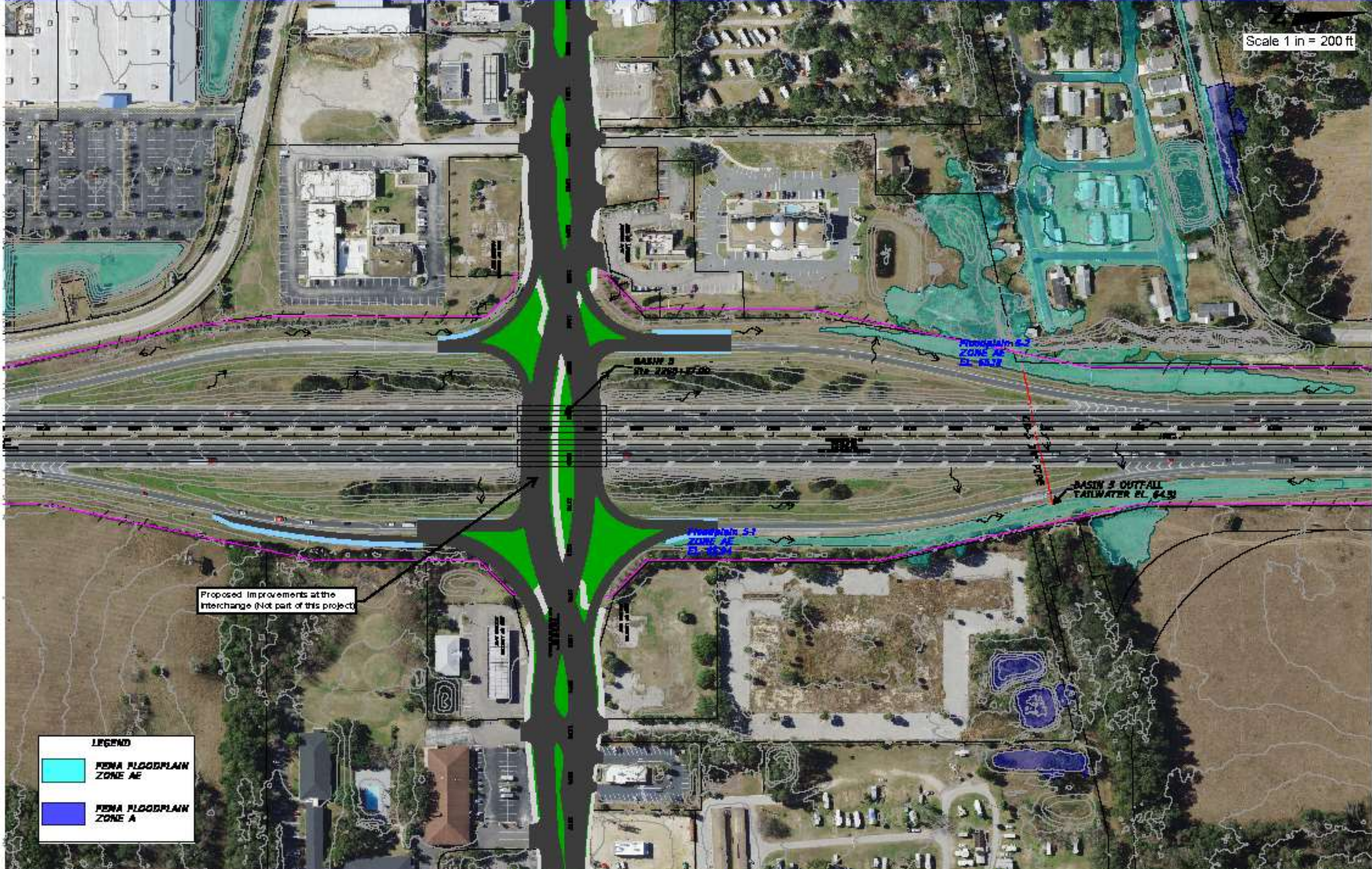
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 99	NATION ALACHUA	4438243-22-01

DRAINAGE MAP

SHEET NO.
04

Scale 1 in = 200 ft



LEGEND

	FEMA FLOODPLAIN ZONE AE
	FEMA FLOODPLAIN ZONE A

Proposed Improvements at the Interchange (Not part of this project)

DATE		DESCRIPTION		REVISIONS	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			DRAINAGE MAP	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	05		
					SR 98	MARION ALACHUA			463624-1-22-01

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Scale 1 in = 200 ft



LEGEND

	FEMA FLOODPLAIN ZONE AE
	FEMA FLOODPLAIN ZONE A

REVISIONS	
DATE	DESCRIPTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 98	MARION ALACHUA	463624-1-22-01

DRAINAGE MAP	SHEET NO. 06
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Scale 1 in = 200 ft

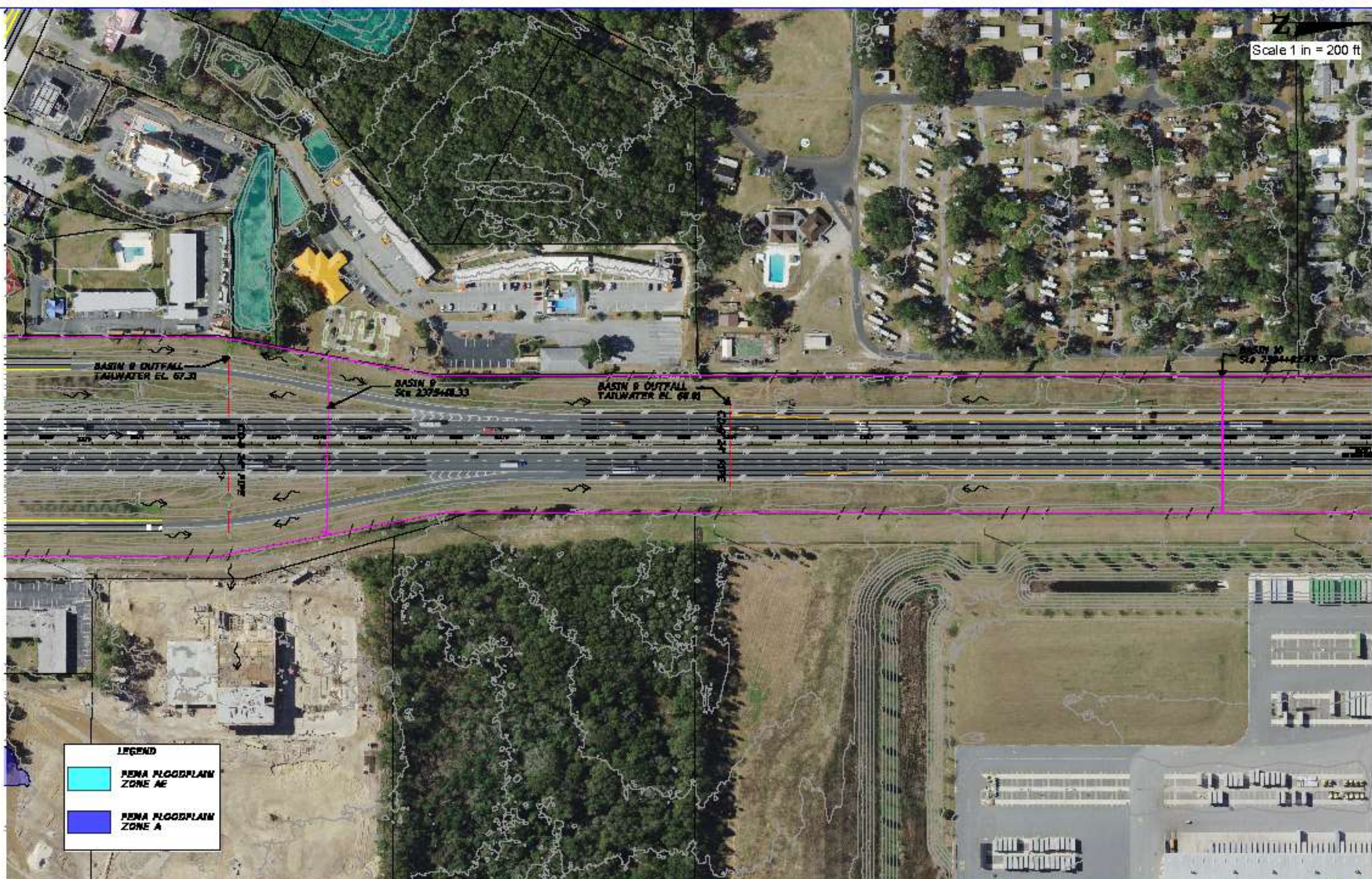


LEGEND

	FEMA FLOODPLAIN ZONE AE
	FEMA FLOODPLAIN ZONE A

REVISIONS		DATE		DESCRIPTION		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			DRAINAGE MAP	SHEET NO. 07
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID				
						SR 98	MARION ALACHUA	403624-1-22-01		

Scale 1 in = 200 ft



LEGEND	
	FEMA FLOODPLAIN ZONE AE
	FEMA FLOODPLAIN ZONE A

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT NO.	
				SR 98	MARION ALACHUA	463624-1-22-01	

DRAINAGE MAP

08

Scale 1 in = 200 ft



BASIN II
Sta 243+32.45

BASIN II OUTFALL
TW EL. 71.57

Floodplain 10-1
ZONE AE
EL. 72.97

BASIN II OUTFALL
TW EL. 82.61

Floodplain 10-2
ZONE A
EL. 77.97

LEGEND	
	FEMA FLOODPLAIN ZONE AE
	FEMA FLOODPLAIN ZONE A

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO. 09
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR 98	MARION ALACHUA	463624-1-22-01	

Scale 1 in = 200 ft



LEGEND	
	FEMA FLOODPLAIN ZONE AE
	FEMA FLOODPLAIN ZONE A

REVISIONS		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	
				SR 99	10
				COUNTY NATION ALACHUA	
				FINANCIAL PROJECT ID 4436243-22-01	

DRAINAGE MAP

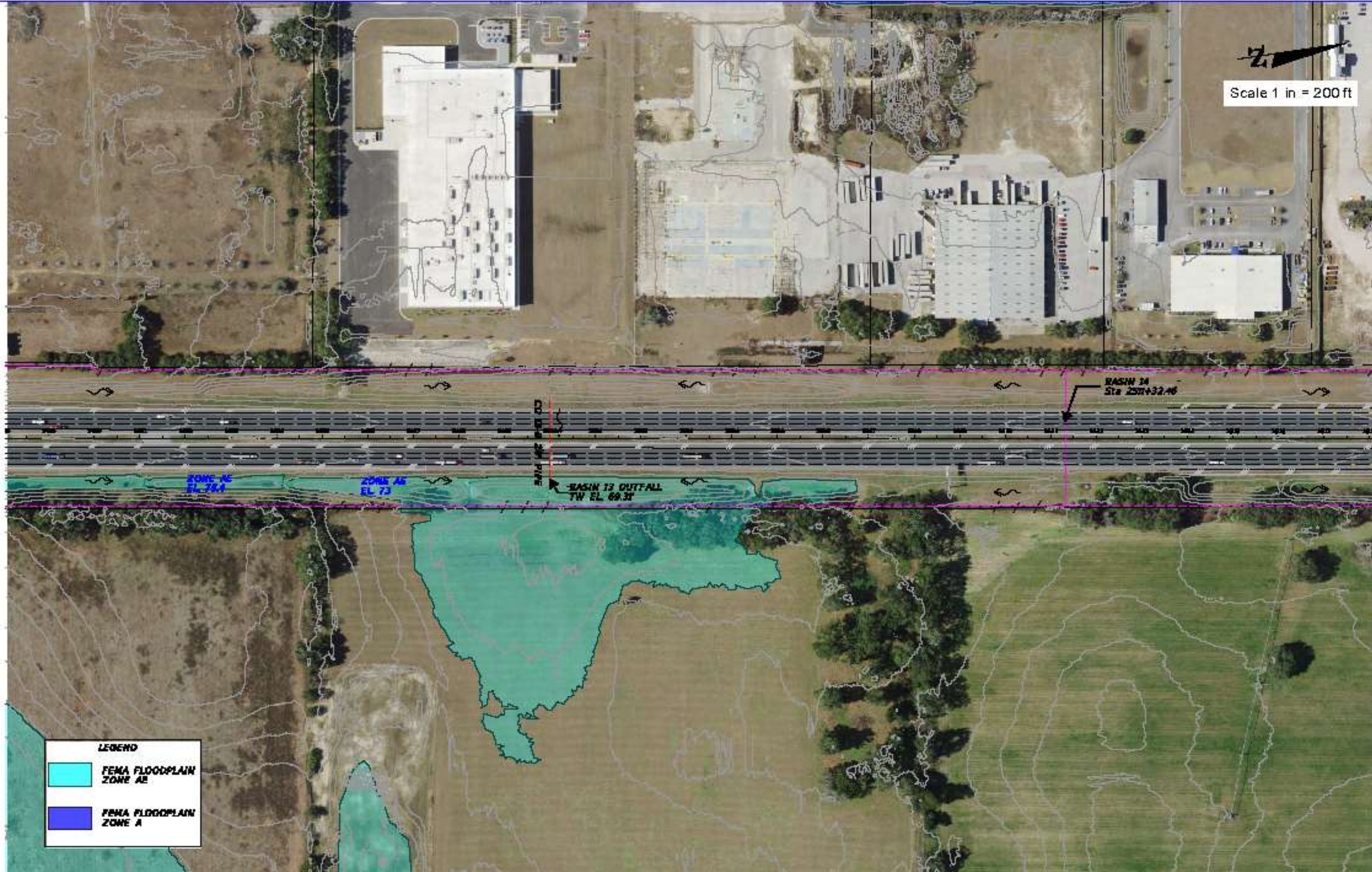
Scale 1 in = 200 ft



LEGEND	
	FEMA FLOODPLAIN ZONE AE
	FEMA FLOODPLAIN ZONE A

REVISIONS		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		DRAINAGE MAP	SHEET NO. II
DATE	DESCRIPTION	ROAD NO.	COUNTY		
		SR 99	NATION ALACHUA		

Scale 1 in = 200 ft





LEGEND	
	FEMA FLOODPLAIN ZONE AE
	FEMA FLOODPLAIN ZONE A

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR 99	NATION ALACHUA	4436243-22-01	12

Scale 1 in = 200 ft

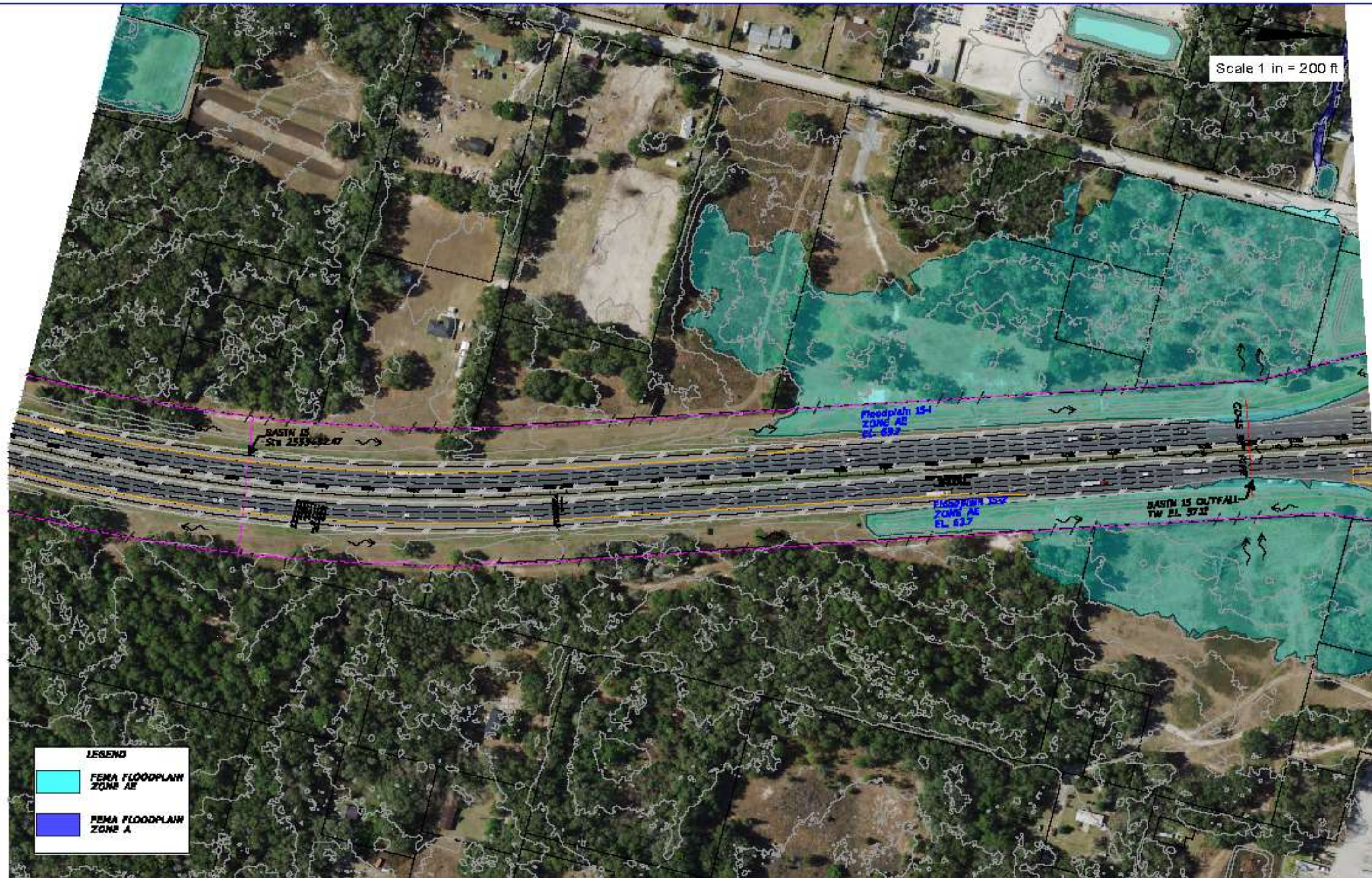


LEGEND	
	FEMA FLOODPLAIN ZONE AE
	FEMA FLOODPLAIN ZONE A

REVISIONS		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	
				SR 99	13
				COUNTY NATION ALACHUA	
				FINANCIAL PROJECT ID 4438243-22-01	

DRAINAGE MAP

Scale 1 in = 200 ft

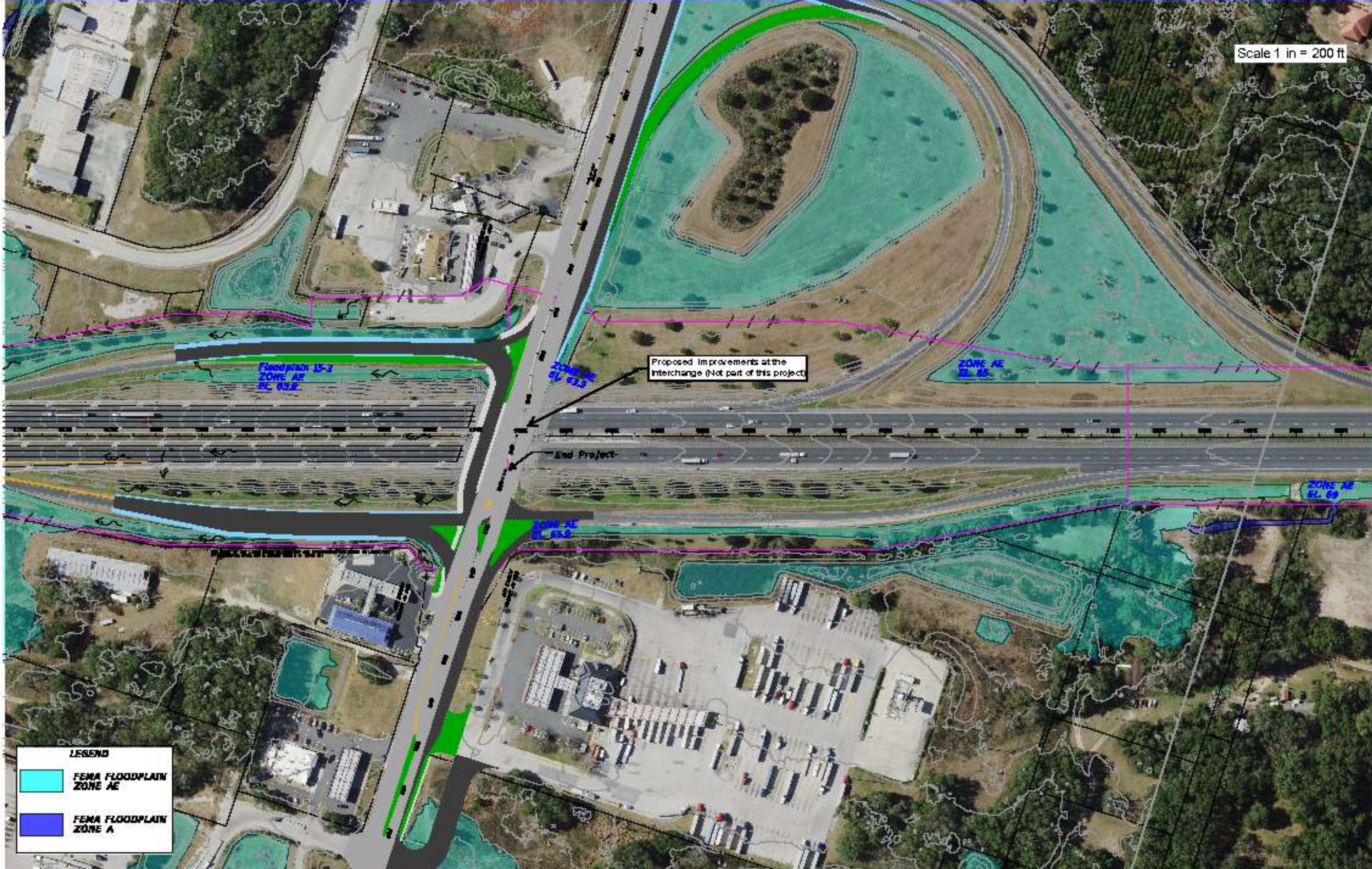


LEGEND	
	FEMA FLOODPLAIN ZONE AE
	FEMA FLOODPLAIN ZONE A

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO. 14
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR 99	NATION ALACHUA	4436243-22-01	

DRAINAGE MAP

Scale 1 in = 200 ft

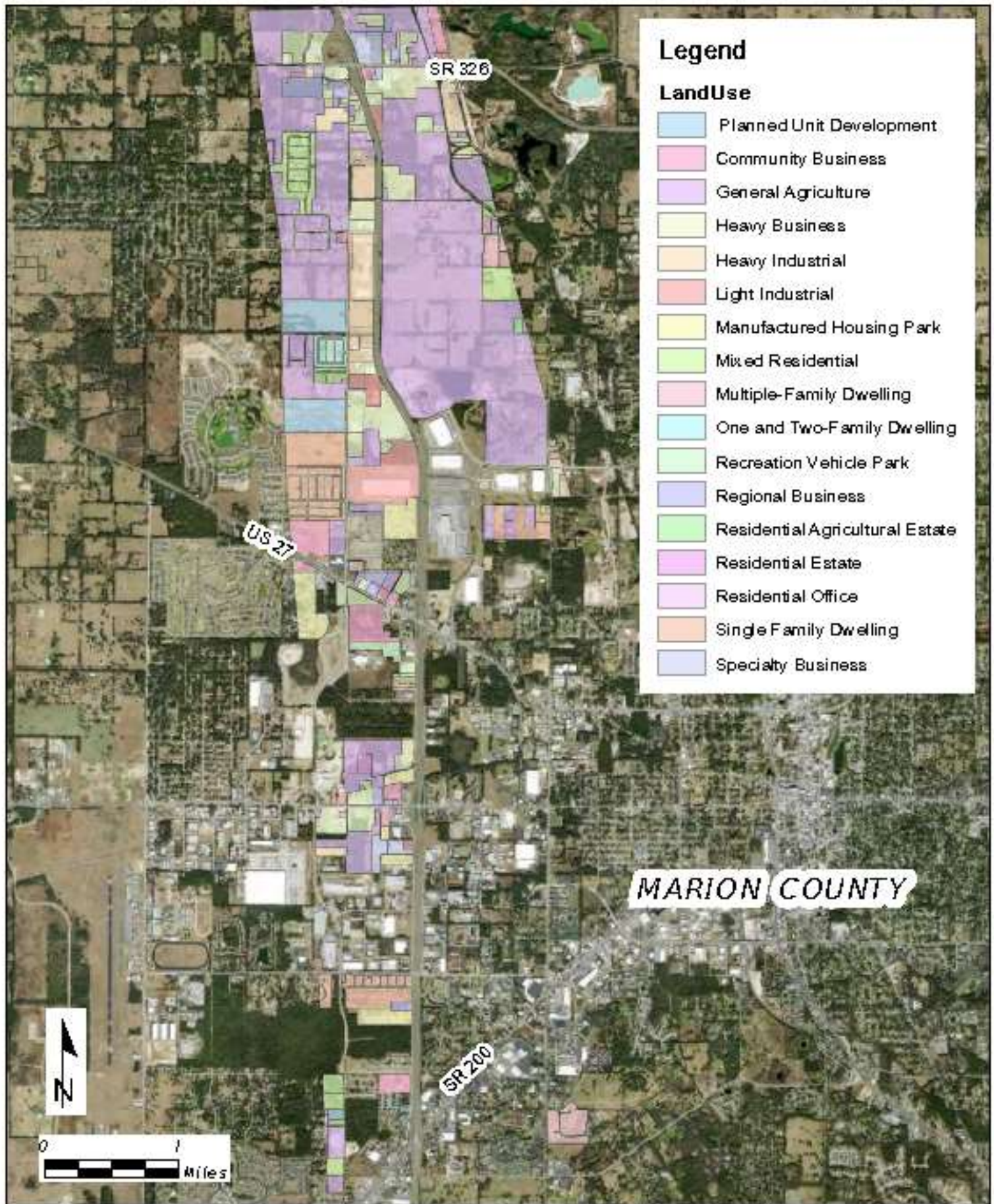


LEGEND	
	FEMA FLOODPLAIN ZONE AE
	FEMA FLOODPLAIN ZONE A

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR 98	MARION ALACHUA	463624-1-22-01	15



Appendix B
Landuse Maps



Legend

LandUse

- Planned Unit Development
- Community Business
- General Agriculture
- Heavy Business
- Heavy Industrial
- Light Industrial
- Manufactured Housing Park
- Mixed Residential
- Multiple-Family Dwelling
- One and Two-Family Dwelling
- Recreation Vehicle Park
- Regional Business
- Residential Agricultural Estate
- Residential Estate
- Residential Office
- Single Family Dwelling
- Specialty Business

MARION COUNTY



Patel, Greene & Associates, LLC
 12570 Telecom Drive
 Temple Terrace, FL 33637
 Michael A. Holt, PE # 76111

Land Use Map

I-75 (SR 93) Auxiliary Lanes From US 27 to SR 326

FPID: 452074-1-22-01

Date: 2/22/2024

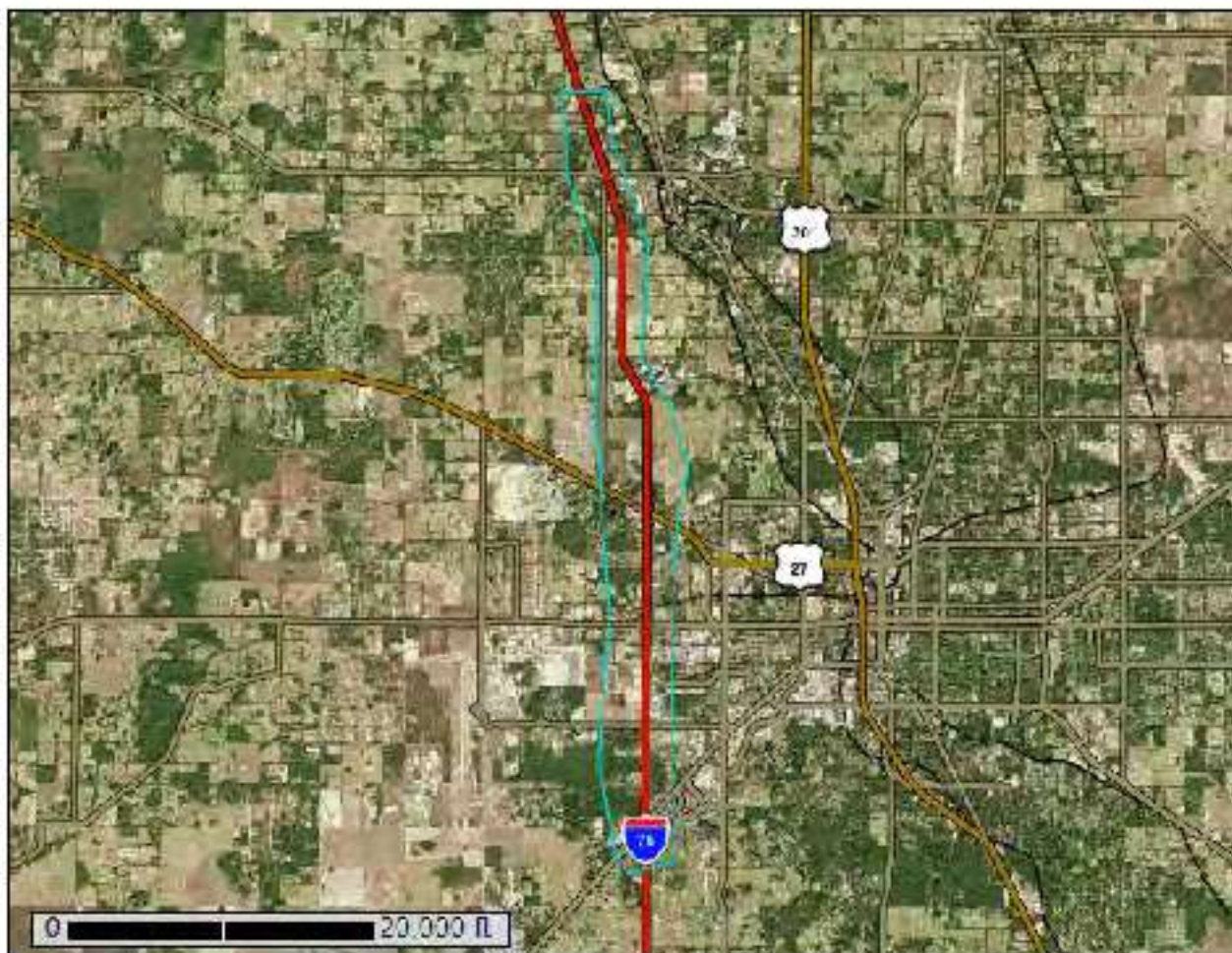


Appendix C
NRCS Soils Report



A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Marion County Area, Florida



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, on-site investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs_142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

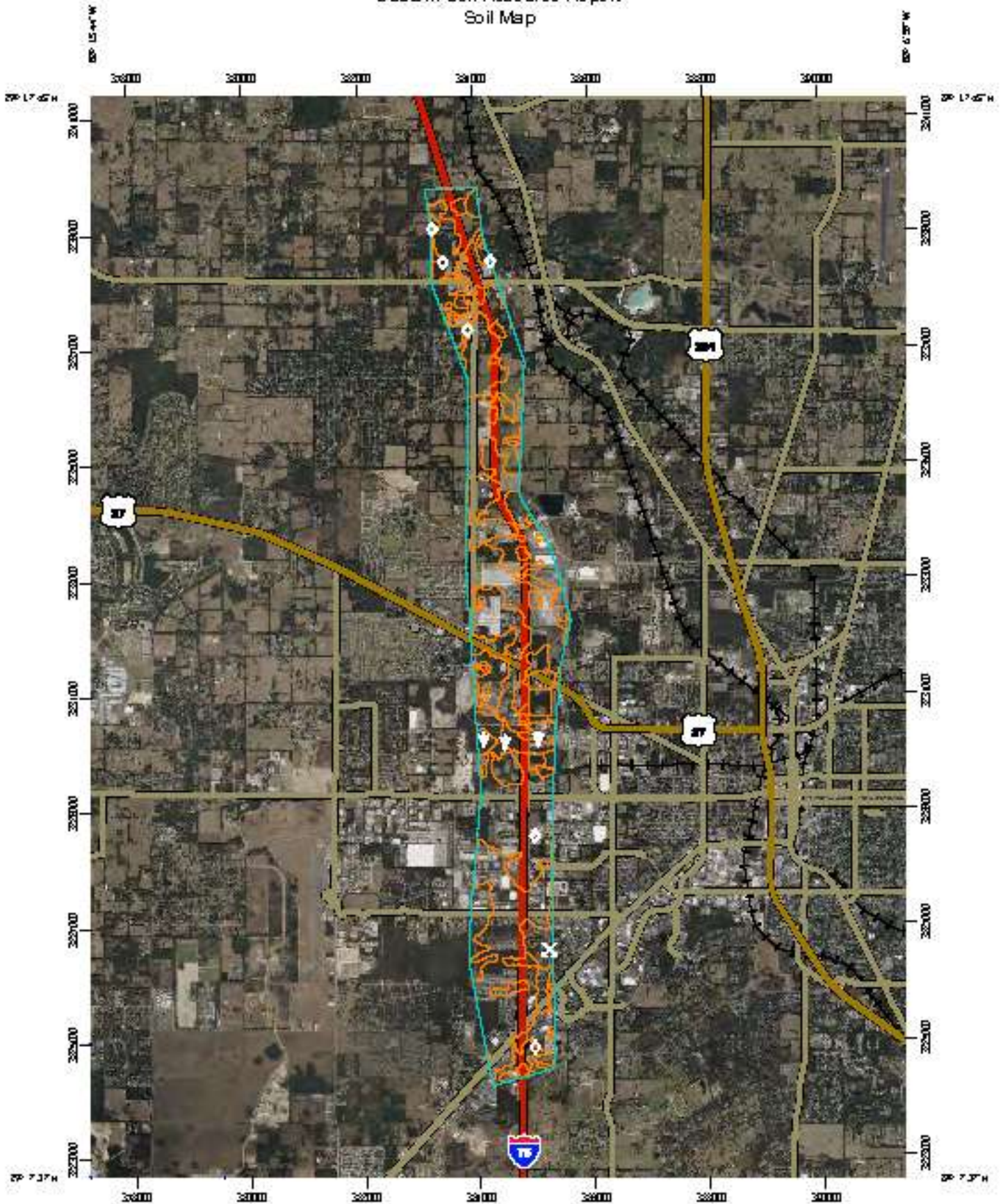
Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

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Soil Map



Map Scale: 1:91,400 if printed on a portrait (8.5 x 11") sheet.

0 1000 2000 4000 6000 Meters

0 4000 8000 16000 24000 Feet

Map projection: Web Mercator. Center coordinates: WGS84. Edge bas: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)			Sodic Spot
	Area of Interest (AOI)		Spot Area
Soils			Stony Spdt
	Soil Survey Areas		Very Stony Spdt
	Soil Map Unit Polygons		Wet Spot
	Soil Map Unit Lines		Other
	Soil Map Unit Points		Special Line Features
Special Point Features		Water Features	
	Blowout		Streams and Canals
	Borrow Pit	Transportation	
	Clay Spot		Rail
	Closed Depression		Interstate Highways
	Gravel Pit		US Routes
	Gravelly Spot		Major Roads
	Landfill		Local Roads
	Lava Flow	Background	
	Marsh or swamp		Aerial Photography
	Mine or Quarry		
	Miscellaneous Water		
	Perennial Water		
	Rock Outcrop		
	Saline Spot		
	Sandy Spot		
	Severely Eroded Spot		
	Sinkhole		
	Slide or Slip		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Marion County Area, Florida
 Survey Area Date: Version 20, Sep 1, 2022

Soil map Units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 9, 2022—Feb 10, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2	Adamsville sand, 0 to 5 percent slopes	23.7	0.5%
7	Udalflo Arenic, 0 to 5 percent slopes	1.4	0.0%
9	Arredondo sand, 0 to 5 percent slopes	1,770.1	36.8%
11	Pedro-Arredondo complex, 0 to 5 percent slopes	77.7	1.6%
13	Astallia sand, 0 to 5 percent slopes	110.2	2.3%
17	Blichton sand, 2 to 5 percent slopes	18.5	0.4%
22	Candler sand, 0 to 5 percent slopes	1,003.5	20.9%
35	Gainesville loamy sand, 0 to 5 percent slopes	229.2	4.8%
37	Hagle sand, 2 to 5 percent slopes	309.3	6.4%
38	Hagle sand, 5 to 8 percent slopes	20.4	0.4%
40	Holopaw sand, frequently ponded, 0 to 1 percent slopes	0.5	0.0%
43	Kanapaha-Kanapaha, wet, fine sand, 0 to 5 percent slopes	112.1	2.3%
44	Kendrick loamy sand, 0 to 5 percent slopes	285.1	5.9%
45	Kendrick loamy sand, 5 to 8 percent slopes	6.5	0.1%
46	Lochloosa fine sand, 0 to 5 percent slopes	64.2	1.3%
47	Lochloosa fine sand, 5 to 8 percent slopes	9.7	0.2%
50	Micanopy fine sand, 2 to 5 percent slopes	52.3	1.1%
57	Rh	58.3	1.2%
58	Racid sand, depressional	11.8	0.2%
65	Spart fine sand, 0 to 5 percent slopes	495.1	10.3%
69	Tavares sand, 0 to 5 percent slopes	54.9	1.1%
74	Wacahoota gravelly sand, gravelly subsoil variant, 2 to 5 percent slopes	2.5	0.1%

Custom Soil Resource Report

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
77	Zuber loamy sand, 2 to 5 percent slopes	32.5	0.7%
79	Udorthents, excavated	55.7	1.2%
99	Water	5.9	0.1%
Totals for Area of Interest		4,811.1	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, on-site investigation is needed to define and locate the soils and miscellaneous areas.

Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Marion County Area, Florida

2—Adamsville sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1vhdd
Elevation: 20 to 150 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 68 to 75 degrees F
Frost-free period: 276 to 306 days
Farmland classification: Not prime farmland

Map Unit Composition

Adamsville and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Adamsville

Setting

Landform: Knolls on marine terraces, rises on marine terraces
Landform position (three-dimensional): Interfluvial, tall
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 6 inches: sand
C - 6 to 80 inches: sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 18 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A
Forage suitability group: Sandy soils on rises and knolls of mesic uplands (G154XB131FL)
Other vegetative classification: Sandy soils on rises and knolls of mesic uplands (G154XB131FL)
Hydric soil rating: No

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Minor Components

Pomona, non-hydric

Percent of map unit: 4 percent

Landform: Flatwoods on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL)

Hydric soil rating: No

Pompano

Percent of map unit: 4 percent

Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL)

Hydric soil rating: Yes

Candler

Percent of map unit: 4 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluv

Down-slope shape: Convex

Across-slope shape: Convex

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G154XB111FL)

Hydric soil rating: No

Tavares

Percent of map unit: 3 percent

Landform: Flats on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluv

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Sandy soils on rises, knolls, and ridges of mesic uplands (G154XB121FL)

Hydric soil rating: No

7—Udalfic Arents, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1vhd1

Elevation: 30 to 200 feet

Mean annual precipitation: 46 to 54 inches

Mean annual air temperature: 68 to 75 degrees F

Frost-free period: 276 to 306 days

Custom Soil Resource Report

Farmland classification: Not prime farmland

Map Unit Composition

Udalfic arents and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the map unit.

Description of Udalfic Arents

Setting

Landform: Marine terraces

Landform position (three-dimensional): Interfluvial

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Altered marine deposits

Typical profile

C - 0 to 33 inches: sandy clay loam

AEB - 33 to 65 inches: fine sand

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (0.57 to 19.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: A

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned (G154XB999FL)

Hydric soil rating: No

Minor Components

Udorthents

Percent of map unit: 15 percent

Landform: Marine terraces

Landform position (three-dimensional): Interfluvial

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Forage suitability group not assigned (G154XB999FL)

Hydric soil rating: No

9—Arredondo sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2ttt
Elevation: 40 to 150 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 68 to 75 degrees F
Frost-free period: 276 to 306 days
Farmland classification: Not prime farmland

Map Unit Composition

Arredondo and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Arredondo

Setting

Landform: Hills on marine terraces, ridges on marine terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluvial, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 7 inches: sand
E - 7 to 65 inches: sand
Bt1 - 65 to 70 inches: loamy sand
Bt2 - 70 to 80 inches: fine sandy loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A

Custom Soil Resource Report

Forage suitability group: Sandy soils on ridges and dunes of xeric uplands
(G154XB111FL)

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands
(G154XB111FL)

Hydric soil rating: No

Minor Components

Candler

Percent of map unit: 7 percent

Landform: Ridges on marine terraces, knolls on marine terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Interfluvium, side slope, tread

Down-slope shape: Convex

Across-slope shape: Convex

Other vegetative classification: Longleaf Pine-Turkey Oak Hills (R154XY002FL),
Longleaf Pine-Turkey Oak Hills (R155XY002FL), Sandy soils on ridges and
dunes of xeric uplands (G154XB111FL)

Hydric soil rating: No

Gainesville

Percent of map unit: 7 percent

Landform: Ridges on marine terraces

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluvium

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands
(G154XB111FL)

Hydric soil rating: No

Sparr

Percent of map unit: 4 percent

Landform: Knolls on marine terraces, rises on marine terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Interfluvium, tread, rise

Down-slope shape: Linear, convex

Across-slope shape: Convex, linear

Other vegetative classification: Upland Hardwood Hammock (R154XY008FL),
Sandy soils on rises and knolls of mesic uplands (G154XB131FL)

Hydric soil rating: No

Sinkhole

Percent of map unit: 1 percent

Landform: Depressions on marine terraces

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Other vegetative classification: Forage suitability group not assigned
(G154XB999FL)

Hydric soil rating: Unranked

Rock outcrop

Percent of map unit: 1 percent

Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Convex

Custom Soil Resource Report

Across-slope shape: Linear
Other vegetative classification: Forage suitability group not assigned
(G154XB999FL)
Hydric soil rating: Unranked

11—Pedro-Arredondo complex, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1vhdp
Elevation: 20 to 160 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 68 to 75 degrees F
Frost-free period: 276 to 306 days
Farmland classification: Not prime farmland

Map Unit Composition

Pedro and similar soils: 50 percent
Arredondo and similar soils: 39 percent
Minor components: 11 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Pedro

Setting

Landform: Knolls on marine terraces, rises on marine terraces
Landform position (three-dimensional): Interfluvial
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits over limestone

Typical profile

A - 0 to 5 inches: fine sand
E - 5 to 13 inches: fine sand
Bt - 13 to 16 inches: sandy clay loam
2Cr - 16 to 25 inches: weathered bedrock
2R - 25 to 29 inches: unweathered bedrock

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: 6 to 20 inches to paralithic bedrock; 10 to 30 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksa_f): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0

Custom Soil Resource Report

Available water supply, 0 to 60 inches: Very low (about 1.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4s

Hydrologic Soil Group: D

Forage suitability group: Shallow or moderately deep, sandy or loamy soils on rises and ridges of mesic uplands (G154XB521FL)

Other vegetative classification: Shallow or moderately deep, sandy or loamy soils on rises and ridges of mesic uplands (G154XB521FL)

Hydric soil rating: No

Description of Arredondo

Setting

Landform: Ridges on marine terraces, hills on marine terraces

Landform position (three-dimensional): Interfluvial, side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 7 inches: sand

E - 7 to 65 inches: sand

Bt1 - 65 to 70 inches: loamy sand

Bt2 - 70 to 80 inches: fine sandy loam

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3s

Hydrologic Soil Group: A

Forage suitability group: Sandy soils on ridges and dunes of xeric uplands (G154XB111FL)

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G154XB111FL)

Hydric soil rating: No

Minor Components

Lochloosa

Percent of map unit: 4 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluvial

Custom Soil Resource Report

Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy over loamy soils on rises and knolls of mesic Uplands (G154XB231FL)
Hydric soil rating: No

Candler

Percent of map unit: 4 percent
Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluvial
Down-slope shape: Convex
Across-slope shape: Convex
Other vegetative classification: Sandy soils on ridges and dunes of xeric Uplands (G154XB111FL)
Hydric soil rating: No

Sparr

Percent of map unit: 3 percent
Landform: Flats on marine terraces, rises on marine terraces
Landform position (three-dimensional): Interfluvial, rise
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on rises and knolls of mesic Uplands (G154XB131FL)
Hydric soil rating: No

13—Astatula sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2r8gx
Elevation: 20 to 190 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 68 to 75 degrees F
Frost-free period: 276 to 320 days
Farm land classification: Not prime farmland

Map Unit Composition

Astatula and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Astatula

Setting

Landform: Hills on marine terraces, ridges on marine terraces
Landform position (two-dimensional): Summit, shoulder, back slope
Landform position (three-dimensional): Interfluvial, side slope
Down-slope shape: Convex
Across-slope shape: Convex

Custom Soil Resource Report

Parent material: Eolian or sandy marine deposits

Typical profile

A - 0 to 3 inches: sand
C - 3 to 80 inches: sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very high (19.98 to 50.02 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 80 inches: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: A
Forage suitability group: Sandy soils on ridges and dunes of xeric uplands (G154XB111FL)
Other vegetative classification: Sand Pine Scrub (R154XY001FL), Sandy soils on ridges and dunes of xeric uplands (G154XB111FL)
Hydric soil rating: No

Minor Components

Tavares

Percent of map unit: 5 percent
Landform: Flats on marine terraces, ridges on marine terraces
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Interfluvium
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on rises, knolls, and ridges of mesic uplands (G155XB121FL), Longleaf Pine-Turkey Oak Hills (R154XY002FL)
Hydric soil rating: No

Candler, very deep loamy substratum

Percent of map unit: 5 percent
Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Interfluvium
Down-slope shape: Convex
Across-slope shape: Convex
Other vegetative classification: Longleaf Pine-Turkey Oak Hills (R154XY002FL), Sandy soils on ridges and dunes of xeric uplands (G154XB111FL)
Hydric soil rating: No

17—Blichton sand, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1vhdv
Elevation: 30 to 160 feet
Mean annual precipitation: 46 to 70 inches
Mean annual air temperature: 68 to 81 degrees F
Frost-free period: 276 to 365 days
Farmland classification: Farmland of local importance

Map Unit Composition

Blichton, non-hydric, and similar soils: 75 percent
Blichton, hydric, and similar soils: 10 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Blichton, Non-hydric

Setting

Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluvial, side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 5 inches: sand
E - 5 to 26 inches: sand
B_{tg} - 26 to 30 inches: sandy loam
B_{tg} - 30 to 77 inches: sandy clay loam
C_g - 77 to 80 inches: stratified sandy loam to sandy clay loam

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (K_{sat}): Moderately low to high
(0.06 to 1.98 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D

Custom Soil Resource Report

Forage suitability group: Sandy over bamy, loamy, or clayey soils on flats and rises of hydric uplands (G154XB44 1FL)

Other vegetative classification: Sandy over bamy, bamy, or clayey soils on flats and rises of hydric uplands (G154XB44 1FL)

Hydric soil rating: No

Description of Blichton, Hydric

Setting

Landform: Ridges on marine terraces

Landform position (three-dimensional): Interfluvial, base slope

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Sandy and bamy marine deposits

Typical profile

A - 0 to 5 inches: sand

E - 5 to 26 inches: sand

B₁ - 26 to 30 inches: sandy loam

B₂ - 30 to 77 inches: sandy clay loam

C_g - 77 to 80 inches: stratified sandy loam to sandy clay loam

Properties and qualities

Slope: 2 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (K_{sat}): Moderately low to high (0.06 to 1.98 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: C/D

Forage suitability group: Sandy over bamy, loamy, or clayey soils on flats and rises of hydric uplands (G154XB44 1FL)

Other vegetative classification: Sandy over bamy, bamy, or clayey soils on flats and rises of hydric uplands (G154XB44 1FL)

Hydric soil rating: Yes

Minor Components

Flemington

Percent of map unit: 4 percent

Landform: Seeps on hillslopes on marine terraces

Landform position (three-dimensional): Side slope, base slope

Down-slope shape: Convex, concave

Across-slope shape: Concave, linear

Other vegetative classification: Sandy over bamy, loamy, or clayey soils on flats and rises of hydric uplands (G154XB44 1FL)

Hydric soil rating: Yes

Custom Soil Resource Report

Kanapaha, non-hydric

Percent of map unit: 3 percent
Landform: Rises on marine terraces
Landform position (three-dimensional): Interfluvial, tall
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands
(G154XB141FL)
Hydric soil rating: No

Sparr

Percent of map unit: 3 percent
Landform: Flats on marine terraces, rises on marine terraces
Landform position (three-dimensional): Interfluvial, rise
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on rises and knolls of mesic uplands
(G154XB131FL)
Hydric soil rating: No

Lochloosa

Percent of map unit: 3 percent
Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluvial
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy over loamy soils on rises and knolls of mesic uplands (G154XB231FL)
Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Tall
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Forage suitability group not assigned
(G154XB999FL)
Hydric soil rating: Unranked

Sinkhole

Percent of map unit: 1 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Forage suitability group not assigned
(G154XB999FL)
Hydric soil rating: Unranked

22—Candler sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2t3z1
Elevation: 10 to 260 feet
Mean annual precipitation: 47 to 56 inches
Mean annual air temperature: 68 to 77 degrees F
Frost-free period: 280 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Candler and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Candler

Setting

Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, interfluvial, tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Eolian deposits and/or sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: sand
E - 6 to 63 inches: sand
E and Bt - 63 to 80 inches: sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A

Custom Soil Resource Report

Forage suitability group: Sandy soils on ridges and dunes of xeric uplands (G155XB111FL), Sandy soils on ridges and dunes of xeric uplands (G154XB111FL)

Other vegetative classification: Longleaf Pine-Turkey Oak Hills (R154XY002FL), Sandy soils on ridges and dunes of xeric uplands (G155XB111FL), Longleaf Pine-Turkey Oak Hills (R155XY002FL), Sandy soils on ridges and dunes of xeric uplands (G154XB111FL)

Hydric soil rating: No

Minor Components

Millhopper

Percent of map unit: 5 percent

Landform: Ridges on marine terraces

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Interfluvium

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Longleaf Pine-Turkey Oak Hills (R154XY002FL), Sandy soils on rises, knolls, and ridges of mesic uplands (G154XB121FL)

Hydric soil rating: No

Tavares

Percent of map unit: 5 percent

Landform: Ridges on marine terraces

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Interfluvium

Down-slope shape: Concave, convex

Across-slope shape: Linear

Other vegetative classification: Longleaf Pine-Turkey Oak Hills (R154XY002FL), Sandy soils on rises, knolls, and ridges of mesic uplands (G154XB121FL)

Hydric soil rating: No

35—Gainesville loamy sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1vhff

Elevation: 40 to 150 feet

Mean annual precipitation: 46 to 54 inches

Mean annual air temperature: 68 to 75 degrees F

Frost-free period: 276 to 306 days

Farm land classification: Farmland of local importance

Map Unit Composition

Gainesville and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the map unit.

Custom Soil Resource Report

Description of Gainesville

Setting

Landform: Ridges on marine terraces
Landform position (three-dimensional): Interfluvial
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 5 inches: loamy sand
C - 5 to 80 inches: loamy sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Forage suitability group: Sandy soils on ridges and dunes of xeric uplands (G154XB111FL)
Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G154XB111FL)
Hydric soil rating: No

Minor Components

Hague

Percent of map unit: 4 percent
Landform: Hills on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluvial
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy over loamy soils on knolls and ridges of mesic uplands (G154XB211FL)
Hydric soil rating: No

Arredondo

Percent of map unit: 4 percent
Landform: Ridges on marine terraces, hills on marine terraces
Landform position (three-dimensional): Interfluvial, side slope
Down-slope shape: Convex
Across-slope shape: Convex

Custom Soil Resource Report

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G154XB111FL)

Hydric soil rating: No

Kendrick

Percent of map unit: 4 percent

Landform: Ridges on marine terraces

Landform position (three-dimensional): Interfluvial

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Sandy over loamy soils on knolls and ridges of mesic uplands (G154XB211FL)

Hydric soil rating: No

Zuber

Percent of map unit: 3 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluvial

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Loamy and clayey soils on knolls and ridges of mesic uplands (G154XB311FL)

Hydric soil rating: No

37—Hague sand, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1v1h1

Elevation: 40 to 150 feet

Mean annual precipitation: 46 to 70 inches

Mean annual air temperature: 68 to 81 degrees F

Frost-free period: 276 to 365 days

Farm land classification: Farmland of local importance

Map Unit Composition

Hague and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the map unit.

Description of Hague

Setting

Landform: Hills on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluvial

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 8 inches: sand

E - 8 to 24 inches: sand

Custom Soil Resource Report

Bt - 24 to 49 inches: sandy clay loam

BC - 49 to 74 inches: loamy sand

C - 74 to 80 inches: loamy sand

Properties and qualities

Slope: 2 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Moderate (about 6.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: A

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned
(G154XB999FL)

Hydric soil rating: No

Minor Components

Gainesville

Percent of map unit: 4 percent

Landform: Ridges on marine terraces

Landform position (three-dimensional): Interfluvial

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands
(G154XB111FL)

Hydric soil rating: No

Arredondo

Percent of map unit: 4 percent

Landform: Ridges on marine terraces, hills on marine terraces

Landform position (three-dimensional): Interfluvial, side slope

Down-slope shape: Convex

Across-slope shape: Convex

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands
(G154XB111FL)

Hydric soil rating: No

Kendrick

Percent of map unit: 3 percent

Landform: Ridges on marine terraces

Landform position (three-dimensional): Interfluvial

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Sandy over loamy soils on knolls and ridges of
mesic uplands (G154XB211FL)

Custom Soil Resource Report

Hydric soil rating: No

Zuber

Percent of map unit: 3 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluvial

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Loamy and clayey soils on knolls and ridges of mesic uplands (G154XB311FL)

Hydric soil rating: No

Sinkhole

Percent of map unit: 1 percent

Landform: Depressions on marine terraces

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Other vegetative classification: Forage suitability group not assigned (G154XB999FL)

Hydric soil rating: Unranked

38—Hague sand, 5 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1vhtj

Elevation: 40 to 150 feet

Mean annual precipitation: 46 to 70 inches

Mean annual air temperature: 68 to 81 degrees F

Frost-free period: 276 to 365 days

Farmland classification: Not prime farmland

Map Unit Composition

Hague and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the map unit.

Description of Hague

Setting

Landform: Ridges on marine terraces, hills on marine terraces

Landform position (three-dimensional): Interfluvial, side slope

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 8 inches: sand

E - 8 to 24 inches: sand

Bt - 24 to 49 inches: sandy clay loam

BC - 49 to 74 inches: loamy sand

Custom Soil Resource Report

C - 74 to 80 inches: loamy sand

Properties and qualities

Slope: 5 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Moderate (about 6.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: A

Forage suitability group: Sandy over bamy soils on knolls and ridges of mesic uplands (G154XB211FL)

Other vegetative classification: Sandy over bamy soils on knolls and ridges of mesic uplands (G154XB211FL)

Hydric soil rating: No

Minor Components

Gainesville

Percent of map unit: 5 percent

Landform: Hills on marine terraces

Landform position (three-dimensional): Interfluvial, side slope

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G154XB111FL)

Hydric soil rating: No

Zuber

Percent of map unit: 4 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluvial, side slope

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Loamy and clayey soils on ridges and side slopes of mesic uplands (G154XB312FL)

Hydric soil rating: No

Kendrick

Percent of map unit: 4 percent

Landform: Ridges on marine terraces

Landform position (three-dimensional): Interfluvial, side slope

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Sandy over loamy soils on knolls and ridges of mesic uplands (G154XB211FL)

Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Forage suitability group not assigned (G154XB999FL)
Hydric soil rating: Unranked

Sinkhole

Percent of map unit: 1 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Forage suitability group not assigned (G154XB999FL)
Hydric soil rating: Unranked

40—Holopaw sand, frequently ponded, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2x9gc
Elevation: 0 to 190 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 68 to 75 degrees F
Frost-free period: 300 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Holopaw and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Holopaw

Setting

Landform: Depressions on marine terraces, flats on marine terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Concave
Across-slope shape: Concave, linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 5 inches: sand
Eg - 5 to 59 inches: sand
Btg - 59 to 80 inches: sandy clay loam

Custom Soil Resource Report

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Forage suitability group: Sandy soils on stream terraces, flood plains, or in depressions (G154XB145FL)
Other vegetative classification: Freshwater Marshes and Ponds (R154XY010FL),
Sandy soils on stream terraces, flood plains, or in depressions
(G154XB145FL)
Hydric soil rating: Yes

Minor Components

Pomona

Percent of map unit: 7 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, tail
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy
soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: No

Anclote

Percent of map unit: 5 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Linear, concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL),
Sandy soils on stream terraces, flood plains, or in depressions
(G155XB145FL)
Hydric soil rating: Yes

Paisley

Percent of map unit: 3 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Tread, tail
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave

Custom Soil Resource Report

Other vegetative classification: Loamy and clayey soils on flats of hydric or mesic lowlands (G154XB34 1FL)
Hydric soil rating: Yes

43—Kanapaha-Kanapaha, wet, fine sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2w4h0
Elevation: 30 to 150 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 68 to 75 degrees F
Frost-free period: 276 to 306 days
Farmland classification: Farmland of local importance

Map Unit Composition

Kanapaha and similar soils: 75 percent
Kanapaha, wet, and similar soils: 10 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Kanapaha

Setting

Landform: Rises on marine terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Interfluvial, tall
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 7 inches: fine sand
E - 7 to 48 inches: fine sand
Btg1 - 48 to 55 inches: fine sandy loam
Btg2 - 55 to 70 inches: sandy clay
BCg - 70 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksa_f): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Custom Soil Resource Report

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A/D
Forage suitability group: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL)
Hydric soil rating: No

Description of Kanapaha, Wet

Setting

Landform: Sloughs on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 7 inches: fine sand
E - 7 to 48 inches: fine sand
B_{g1} - 48 to 55 inches: fine sandy loam
B_{g2} - 55 to 70 inches: sandy clay
BC_g - 70 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (K_{sat}): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A/D
Forage suitability group: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL)
Hydric soil rating: Yes

Minor Components

Arredondo

Percent of map unit: 5 percent
Landform: Ridges on marine terraces, hills on marine terraces
Landform position (two-dimensional): Backslope

Custom Soil Resource Report

Landform position (three-dimensional): Interfluvial, side slope, riser
Down-slope shape: Convex, linear
Across-slope shape: Convex
Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G154XB111FL), Longleaf Pine-Turkey Oak Hills (R154XY002FL)
Hydric soil rating: No

Blichton

Percent of map unit: 5 percent
Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Interfluvial, side slope
Down-slope shape: Linear, convex
Across-slope shape: Convex, linear
Other vegetative classification: Sandy over loamy, loamy, or clayey soils on flats and rises of hydric uplands (G154XB441FL)
Hydric soil rating: No

Sparr

Percent of map unit: 5 percent
Landform: Seeps on marine terraces, knolls on marine terraces, ridges on marine terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Interfluvial
Down-slope shape: Linear
Across-slope shape: Concave, convex
Other vegetative classification: Upland Hardwood Hammock (R154XY008FL), Sandy soils on rises and knolls of mesic uplands (G154XB131FL)
Hydric soil rating: No

44—Kendrick loamy sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2y7n2
Elevation: 30 to 300 feet
Mean annual precipitation: 44 to 56 inches
Mean annual air temperature: 68 to 75 degrees F
Frost-free period: 300 to 365 days
Farm land classification: Farmland of local importance

Map Unit Composition

Kendrick and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Kendrick

Setting

Landform: Ridges, knolls, fluvio-marine terraces

Custom Soil Resource Report

Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Interfluvium
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy marine deposits over loamy marine deposits

Typical profile

A - 0 to 7 inches: loamy sand
E - 7 to 28 inches: fine sand
Bt - 28 to 73 inches: sandy clay loam
BC - 73 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: A
Forage suitability group: Sandy over loamy soils on knolls and ridges of mesic uplands (G154XB211FL)
Other vegetative classification: Sandy over loamy soils on knolls and ridges of mesic uplands (G154XB211FL), Upland Hardwood Hammock (R154XY008FL)
Hydric soil rating: No

Minor Components

Arredondo

Percent of map unit: 5 percent
Landform: Ridges on fluvio-marine terraces, hills on fluvio-marine terraces
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluvium, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G154XB111FL)
Hydric soil rating: No

Gainesville

Percent of map unit: 5 percent
Landform: Ridges on fluvio-marine terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluvium
Down-slope shape: Convex
Across-slope shape: Linear

Custom Soil Resource Report

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G154XB111FL)

Hydric soil rating: No

Lochloosa

Percent of map unit: 5 percent

Landform: Knolls on fluvio-marine terraces, ridges on fluvio-marine terraces

Landform position (two-dimensional): Backslope, shoulder

Landform position (three-dimensional): Interfluvium

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Upland Hardwood Hammock (R154XY008FL),

Sandy over loamy soils on rises and knolls of mesic uplands (G154XB231FL)

Hydric soil rating: No

45—Kendrick loamy sand, 5 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1vhr

Elevation: 40 to 160 feet

Mean annual precipitation: 46 to 70 inches

Mean annual air temperature: 68 to 81 degrees F

Frost-free period: 276 to 365 days

Farm land classification: Not prime farmland

Map Unit Composition

Kendrick and similar soils: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the map unit.

Description of Kendrick

Setting

Landform: Ridges on marine terraces

Landform position (three-dimensional): Side slope, interfluvium

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Loamy marine deposits

Typical profile

A - 0 to 7 inches: loamy sand

E - 7 to 26 inches: loamy sand

Bt1 - 26 to 45 inches: sandy clay loam

Bt2 - 45 to 79 inches: sandy clay loam

C - 79 to 80 inches: sandy clay loam

Properties and qualities

Slope: 5 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Medium

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (Ksa_f): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Moderate (about 7.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Forage suitability group: Sandy over loamy soils on knolls and ridges of mesic uplands (G154XB211FL)

Other vegetative classification: Sandy over loamy soils on knolls and ridges of mesic uplands (G154XB211FL)

Hydric soil rating: No

Minor Components

Hague

Percent of map unit: 5 percent

Landform: Ridges on marine terraces, hills on marine terraces

Landform position (three-dimensional): Side slope, interfluvial

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Sandy over loamy soils on knolls and ridges of mesic uplands (G154XB211FL)

Hydric soil rating: No

Arredondo

Percent of map unit: 5 percent

Landform: Ridges on marine terraces, hills on marine terraces

Landform position (three-dimensional): Side slope, interfluvial

Down-slope shape: Convex

Across-slope shape: Convex

Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G154XB111FL)

Hydric soil rating: No

Lochloosa

Percent of map unit: 4 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Side slope, interfluvial

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Sandy over loamy soils on rises and knolls of mesic uplands (G154XB231FL)

Hydric soil rating: No

Zuber

Percent of map unit: 4 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Side slope, interfluvial

Down-slope shape: Convex

Across-slope shape: Linear

Custom Soil Resource Report

Other vegetative classification: Loamy and clayey soils on ridges and side slopes of mesic uplands (G154XB312FL)

Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent

Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Forage suitability group not assigned (G154XB999FL)

Hydric soil rating: Unranked

Sinkhole

Percent of map unit: 1 percent

Landform: Depressions on marine terraces

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Other vegetative classification: Forage suitability group not assigned (G154XB999FL)

Hydric soil rating: Unranked

46—Lochloosa fine sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2r17k

Elevation: 10 to 210 feet

Mean annual precipitation: 44 to 56 inches

Mean annual air temperature: 68 to 75 degrees F

Frost-free period: 300 to 365 days

Farmland classification: Farmland of local importance

Map Unit Composition

Lochloosa and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the map unit.

Description of Lochloosa

Setting

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (two-dimensional): Backslope, shoulder

Landform position (three-dimensional): Interfluvium

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 5 inches: fine sand

Custom Soil Resource Report

E - 5 to 25 inches: fine sand
Bt - 25 to 30 inches: sandy clay loam
Btg - 30 to 52 inches: sandy clay
Cg - 52 to 74 inches: sandy clay loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 15 to 60 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: A
Forage suitability group: Sandy over bamy soils on rises and knolls of mesic uplands (G154XB231FL)
Other vegetative classification: Upland Hardwood Hammock (R154XY008FL), Sandy over loamy soils on rises and knolls of mesic uplands (G154XB231FL)
Hydric soil rating: No

Minor Components

Kendrick

Percent of map unit: 7 percent
Landform: Ridges on marine terraces
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Interfluvium
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy over loamy soils on knolls and ridges of mesic uplands (G154XB211FL)
Hydric soil rating: No

Broward

Percent of map unit: 2 percent
Landform: Rises on marine terraces, flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Shallow or moderately deep, sandy or bamy soils on rises and ridges of mesic uplands (G154XB521FL), Cabbage Palm Flatwoods (R154XY005FL)
Hydric soil rating: No

Micanopy

Percent of map unit: 1 percent
Landform: Rises on marine terraces
Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Interfluvial, tall
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Loamy and clayey soils on flats and rise of mesic lowlands (G154XB331FL)
Hydric soil rating: No

47—Lochloosa fine sand, 5 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1vhtf
Elevation: 30 to 160 feet
Mean annual precipitation: 46 to 70 inches
Mean annual air temperature: 68 to 81 degrees F
Frost-free period: 276 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Lochloosa and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Lochloosa

Setting

Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluvial, side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 5 inches: fine sand
E - 5 to 28 inches: fine sand
Bt - 28 to 32 inches: fine sandy loam
Btg - 32 to 57 inches: sandy clay loam
BCg - 57 to 69 inches: sandy clay
Cg - 69 to 75 inches: sandy clay loam

Properties and qualities

Slope: 5 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (K_{sat}): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 30 to 60 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Custom Soil Resource Report

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Moderate (about 7.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Forage suitability group: Sandy over loamy soils on rises and knolls of mesic uplands (G154XB231FL)

Other vegetative classification: Sandy over loamy soils on rises and knolls of mesic uplands (G154XB231FL)

Hydric soil rating: No

Minor Components

Blichton, non-hydric

Percent of map unit: 5 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Interfluvial, side slope

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Sandy over loamy, loamy, or clayey soils on flats and rises of hydric uplands (G154XB441FL)

Hydric soil rating: No

Kendrick

Percent of map unit: 5 percent

Landform: Ridges on marine terraces

Landform position (three-dimensional): Interfluvial, side slope

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Sandy over loamy soils on knolls and ridges of mesic uplands (G154XB211FL)

Hydric soil rating: No

Micanopy

Percent of map unit: 4 percent

Landform: Ridges on marine terraces

Landform position (three-dimensional): Interfluvial

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Loamy and clayey soils on rises, knolls, and ridges of mesic uplands (G154XB322FL)

Hydric soil rating: No

Sparr

Percent of map unit: 4 percent

Landform: Hillslopes on marine terraces, seeps on marine terraces

Landform position (three-dimensional): Side slope, base slope

Down-slope shape: Concave

Across-slope shape: Linear

Other vegetative classification: Sandy soils on rises and knolls of mesic uplands (G154XB131FL)

Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent

Custom Soil Resource Report

Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Forage suitability group not assigned (G154XB999FL)
Hydric soil rating: Unranked

Sinkhole

Percent of map unit: 1 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Forage suitability group not assigned (G154XB999FL)
Hydric soil rating: Unranked

50—Micanopy fine sand, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1vhtx
Elevation: 30 to 160 feet
Mean annual precipitation: 46 to 70 inches
Mean annual air temperature: 68 to 81 degrees F
Frost-free period: 276 to 365 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Micanopy and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Micanopy

Setting

Landform: Rises on marine terraces
Landform position (three-dimensional): Interfluvial
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy and clayey marine deposits; sandy and clayey marine deposits

Typical profile

A - 0 to 5 inches: fine sand
E - 5 to 15 inches: fine sand
Bt1 - 15 to 20 inches: sandy clay loam
Bt2 - 20 to 26 inches: sandy clay
Btg - 26 to 57 inches: sandy clay
BCg - 57 to 68 inches: sandy clay

Custom Soil Resource Report

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Forage suitability group: Loamy and clayey soils on flats and rises of mesic lowlands (G154XB331FL)
Other vegetative classification: Loamy and clayey soils on flats and rises of mesic lowlands (G154XB331FL)
Hydric soil rating: No

Minor Components

Zuber

Percent of map unit: 6 percent
Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluvial
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Loamy and clayey soils on knolls and ridges of mesic uplands (G154XB311FL)
Hydric soil rating: No

Lochloosa

Percent of map unit: 6 percent
Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluvial
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy over loamy soils on rises and knolls of mesic uplands (G154XB231FL)
Hydric soil rating: No

Flemington

Percent of map unit: 6 percent
Landform: Seeps on hillslopes on marine terraces
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Convex, concave
Across-slope shape: Concave, linear
Other vegetative classification: Sandy over loamy, loamy, or clayey soils on flats and rises of hydric uplands (G154XB441FL)
Hydric soil rating: Yes

Sinkhole

Percent of map unit: 1 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Forage suitability group not assigned (G154XB999FL)
Hydric soil rating: Unranked

Rock outcrop

Percent of map unit: 1 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Forage suitability group not assigned (G154XB999FL)
Hydric soil rating: Unranked

57—Pits

Map Unit Composition

Borrow pits: 40 percent
Mine pits: 35 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Borrow Pits

Setting

Landform: Marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Altered marine deposits

Interpretive groups

Land capability classification (irrigated): None specified
Forage suitability group: Forage suitability group not assigned (G154XB999FL)
Other vegetative classification: Forage suitability group not assigned (G154XB999FL)
Hydric soil rating: Unranked

Description of Mine Pits

Setting

Landform: Marine terraces
Landform position (three-dimensional): Interfluvial, dip
Down-slope shape: Linear

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Across-slope shape: Linear
Parent material: Altered marine deposits

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Forage suitability group: Forage suitability group not assigned (G154XB999FL)
Other vegetative classification: Forage suitability group not assigned (G154XB999FL)
Hydric soil rating: Unranked

Minor Components

Aquents

Percent of map unit: 25 percent
Landform: Depressions on marine terraces
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Forage suitability group not assigned (G154XB999FL)
Hydric soil rating: Yes

58—Placid sand, depressional

Map Unit Setting

National map unit symbol: 1vhg3
Elevation: 10 to 120 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 68 to 75 degrees F
Frost-free period: 276 to 306 days
Farmland classification: Not prime farmland

Map Unit Composition

Placid, depressional, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Placid, Depressional

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Sandy marine deposits

Typical profile

A - 0 to 19 inches: fine sand
Cg - 19 to 80 inches: sand

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Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Moderate (about 6.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A/D
Forage suitability group: Sandy soils on stream terraces, flood plains, or in depressions (G154XB145FL)
Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G154XB145FL)
Hydric soil rating: Yes

Minor Components

Pomona, hydric

Percent of map unit: 7 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Tall
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL)
Hydric soil rating: Yes

Adamsville

Percent of map unit: 7 percent
Landform: Knolls on marine terraces, rises on marine terraces
Landform position (three-dimensional): Interfluvic, tall
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on rises and knolls of mesic uplands (G154XB131FL)
Hydric soil rating: No

Pompano, depressional

Percent of map unit: 6 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G154XB145FL)
Hydric soil rating: Yes

65—Sparr fine sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1vhqq
Elevation: 30 to 150 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 68 to 75 degrees F
Frost-free period: 276 to 306 days
Farmland classification: Not prime farmland

Map Unit Composition

Sparr and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Sparr

Setting

Landform: Flats on marine terraces, rises on marine terraces
Landform position (three-dimensional): Interfluvial, rise
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 8 inches: fine sand
E - 8 to 48 inches: fine sand
Bt - 48 to 56 inches: sandy loam
Btg - 56 to 72 inches: sandy clay
BCg - 72 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (K_{sat}): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 18 to 60 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A

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Forage suitability group: Sandy soils on rises and knolls of mesic Uplands
(G154XB131FL)

Other vegetative classification: Sandy soils on rises and knolls of mesic Uplands
(G154XB131FL)

Hydric soil rating: No

Minor Components

Blichton, non-hydric

Percent of map unit: 4 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Side slope, interfluvial

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Sandy over loamy, loamy, or clayey soils on flats and rises of hydric uplands (G154XB441FL)

Hydric soil rating: No

Arredondo

Percent of map unit: 4 percent

Landform: Ridges on marine terraces, hills on marine terraces

Landform position (three-dimensional): Side slope, interfluvial

Down-slope shape: Convex

Across-slope shape: Convex

Other vegetative classification: Sandy soils on ridges and dunes of xeric Uplands
(G154XB111FL)

Hydric soil rating: No

Apopka

Percent of map unit: 4 percent

Landform: Knolls on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Side slope, interfluvial

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Sandy soils on ridges and dunes of xeric Uplands
(G154XB111FL)

Hydric soil rating: No

Jumper

Percent of map unit: 3 percent

Landform: Flats on marine terraces

Landform position (three-dimensional): Interfluvial, tall

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Sandy over loamy soils on rises and knolls of mesic Uplands (G154XB231FL)

Hydric soil rating: No

69—Tavares sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2r173
Elevation: 0 to 180 feet
Mean annual precipitation: 44 to 56 inches
Mean annual air temperature: 68 to 75 degrees F
Frost-free period: 300 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Tavares and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Tavares

Setting

Landform: Knolls on marine terraces, ridges on marine terraces, flats on marine terraces
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Interfluvial, base slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Eolian or sandy marine deposits

Typical profile

A - 0 to 7 inches: sand
C - 7 to 80 inches: sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (K_sa_f): High to very high (6.00 to 50.02 in/hr)
Depth to water table: About 42 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Very low (about 1.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Forage suitability group: Sandy soils on rises, knolls, and ridges of mesic uplands (G154XB121FL)

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Other vegetative classification: Longleaf Pine-Turkey Oak Hills (R154XY002FL),
Sandy soils on rises, knolls, and ridges of mesic uplands (G154XB121FL)
Hydric soil rating: No

Minor Components

Apopka

Percent of map unit: 6 percent
Landform: Ridges on marine terraces, knolls on marine terraces
Landform position (two-dimensional): Summit, shoulder, footslope
Landform position (three-dimensional): Crest, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Longleaf Pine-Turkey Oak Hills (R154XY002FL),
Sandy soils on ridges and dunes of xeric uplands (G154XB111FL)
Hydric soil rating: No

Candler

Percent of map unit: 4 percent
Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, interfluvial, tread
Down-slope shape: Convex
Across-slope shape: Convex
Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands
(G155XB111FL), Longleaf Pine-Turkey Oak Hills (R154XY002FL), Longleaf
Pine-Turkey Oak Hills (R155XY002FL), Sandy soils on ridges and dunes of
xeric uplands (G154XB111FL)
Hydric soil rating: No

Adamsville

Percent of map unit: 3 percent
Landform: Knolls on flatwoods, rises on flatwoods
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluvial, tall, rise
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on rises and knolls of mesic uplands
(G155XB131FL), Upland Hardwood Hammock (R154XY008FL), Upland
Hardwood Hammock (R155XY008FL)
Hydric soil rating: No

Zolfo

Percent of map unit: 2 percent
Landform: Flats on marine terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tall
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy soils on rises and knolls of mesic uplands
(G154XB131FL)
Hydric soil rating: No

74—Wacahoota gravelly sand, gravelly subsoil variant, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1vhr2
Elevation: 30 to 130 feet
Mean annual precipitation: 46 to 70 inches
Mean annual air temperature: 68 to 81 degrees F
Frost-free period: 276 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Wacahoota variant, non-hydric, and similar soils: 60 percent
Wacahoota variant, hydric, and similar soils: 20 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Wacahoota Variant, Non-hydric

Setting

Landform: Ridges on marine terraces
Landform position (three-dimensional): Interfluvial
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 5 inches: gravelly sand
E - 5 to 31 inches: gravelly sand
Bg1 - 31 to 36 inches: gravelly sandy loam
Bg2 - 36 to 72 inches: gravelly sandy clay loam
Cg - 72 to 78 inches: sandy clay loam

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 12 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w

Custom Soil Resource Report

Hydrologic Soil Group: B/D

Forage suitability group: Sandy over bamy, loamy, or clayey soils on flats and rises of hydric uplands (G154XB44 1FL)

Other vegetative classification: Sandy over bamy, bamy, or clayey soils on flats and rises of hydric uplands (G154XB44 1FL)

Hydric soil rating: No

Description of Wacahoota Variant, Hydric

Setting

Landform: Seeps on marine terraces, ridges on marine terraces

Landform position (three-dimensional): Side slope, interfluvial

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Sandy and bamy marine deposits

Typical profile

A - 0 to 5 inches: gravelly sand

E - 5 to 31 inches: gravelly sand

B_{g1} - 31 to 36 inches: gravelly sandy loam

B_{g2} - 36 to 72 inches: gravelly sandy clay loam

C_g - 72 to 78 inches: sandy clay loam

Properties and qualities

Slope: 2 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: B/D

Forage suitability group: Sandy over bamy, loamy, or clayey soils on flats and rises of hydric uplands (G154XB44 1FL)

Other vegetative classification: Sandy over bamy, bamy, or clayey soils on flats and rises of hydric uplands (G154XB44 1FL)

Hydric soil rating: Yes

Minor Components

Kanapaha, non-hydric

Percent of map unit: 9 percent

Landform: Rises on marine terraces

Landform position (three-dimensional): Interfluvial, tall

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G154XB141FL)

Custom Soil Resource Report

Hydric soil rating: No

Fellowship, non-hydric

Percent of map unit: 9 percent

Landform: Hills on marine terraces

Landform position (three-dimensional): Interfluvial

Down-slope shape: Convex

Across-slope shape: Concave

Other vegetative classification: Sandy over loamy, loamy, or clayey soils on flats and rises of hydric uplands (G154XB441FL)

Hydric soil rating: No

Sinkhole

Percent of map unit: 1 percent

Landform: Depressions on marine terraces

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Other vegetative classification: Forage suitability group not assigned (G154XB999FL)

Hydric soil rating: Unranked

Rock outcrop

Percent of map unit: 1 percent

Landform: Flats on marine terraces

Landform position (three-dimensional): Talf

Down-slope shape: Convex

Across-slope shape: Linear

Other vegetative classification: Forage suitability group not assigned (G154XB999FL)

Hydric soil rating: Unranked

77—Zuber loamy sand, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1vr15

Elevation: 30 to 160 feet

Mean annual precipitation: 46 to 70 inches

Mean annual air temperature: 68 to 81 degrees F

Frost-free period: 276 to 365 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Zuber and similar soils: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the map unit.

Custom Soil Resource Report

Description of Zuber

Setting

Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluvial
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy and clayey marine deposits

Typical profile

A - 0 to 7 inches: loamy sand
E - 7 to 15 inches: loamy sand
Bt1 - 15 to 20 inches: sandy clay loam
Bt2 - 20 to 70 inches: sandy clay
BC - 70 to 80 inches: clay

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Forage suitability group: Loamy and clayey soils on knolls and ridges of mesic uplands (G154XB311FL)
Other vegetative classification: Loamy and clayey soils on knolls and ridges of mesic uplands (G154XB311FL)
Hydric soil rating: No

Minor Components

Kendrick

Percent of map unit: 4 percent
Landform: Ridges on marine terraces
Landform position (three-dimensional): Interfluvial
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy over loamy soils on knolls and ridges of mesic uplands (G154XB211FL)
Hydric soil rating: No

Flemington

Percent of map unit: 4 percent
Landform: Seeps on hillslopes on marine terraces
Landform position (three-dimensional): Side slope, base slope

Custom Soil Resource Report

Down-slope shape: Convex, concave
Across-slope shape: Concave, linear
Other vegetative classification: Sandy over loamy, loamy, or clayey soils on flats and rises of hydric uplands (G154XB44 1FL)
Hydric soil rating: Yes

Hague

Percent of map unit: 4 percent
Landform: Ridges on marine terraces, hills on marine terraces
Landform position (three-dimensional): Interfluvial
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy over loamy soils on knolls and ridges of mesic uplands (G154XB211FL)
Hydric soil rating: No

Lochloosa

Percent of map unit: 3 percent
Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluvial
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Sandy over loamy soils on rises and knolls of mesic uplands (G154XB23 1FL)
Hydric soil rating: No

Micanopy

Percent of map unit: 3 percent
Landform: Rises on marine terraces
Landform position (three-dimensional): Interfluvial
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Loamy and clayey soils on flats and rises of mesic lowlands (G154XB33 1FL)
Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Forage suitability group not assigned (G154XB999FL)
Hydric soil rating: Unranked

Sinkhole

Percent of map unit: 1 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Forage suitability group not assigned (G154XB999FL)
Hydric soil rating: Unranked

79—Udorthents, excavated

Map Unit Setting

National map unit symbol: 1vknb
Elevation: 40 to 200 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 68 to 75 degrees F
Frost-free period: 276 to 306 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Udorthents

Setting

Landform: Marine terraces
Landform position (three-dimensional): Interfluvial
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Altered marine deposits

Typical profile

C1 - 0 to 48 inches: variable
C2 - 48 to 50 inches: fine sand
R - 50 to 54 inches: weathered bedrock

Properties and qualities

Slope: 1 to 5 percent
Depth to restrictive feature: 40 to 72 inches to paralithic bedrock
Drainage class: Somewhat poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (K_{sat}): Moderately low to high (0.06 to 5.95 in/hr)
Depth to water table: About 24 to 48 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Forage suitability group: Forage suitability group not assigned (G154XB999FL)
Other vegetative classification: Forage suitability group not assigned (G154XB999FL)
Hydric soil rating: No

99—Water

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the map unit.

Description of Water

Interpretive groups

Land capability classification (irrigated): None specified

Forage suitability group: Forage suitability group not assigned (G154XB999FL)

Other vegetative classification: Forage suitability group not assigned
(G154XB999FL)

Hydric soil rating: Unranked

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Water Features

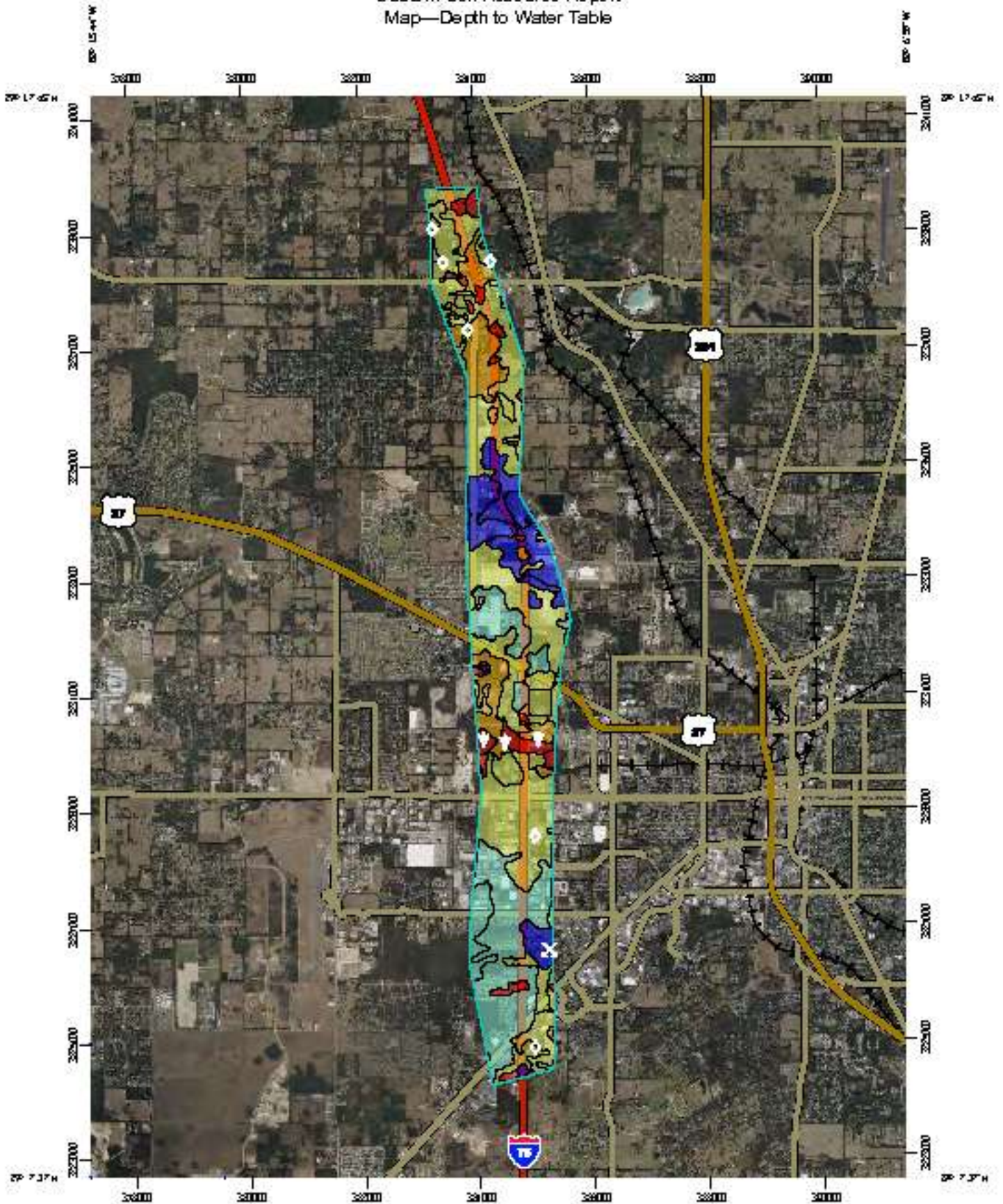
Water Features include ponding frequency, flooding frequency, and depth to water table.

Depth to Water Table

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Custom Soil Resource Report
Map—Depth to Water Table



Map Scale: 1:91,400 if printed on a portrait (8.5 x 11") sheet.
0 1000 2000 4000 6000 Meters
0 4000 8000 16000 24000 Feet
Map projection: Web Mercator. Center coordinates: WGS84. Edge bas: UTM Zone 17N WGS84

MAP LEGEND		MAP INFORMATION	
<p>Area of Interest (AOI)</p> <p> Area of Interest (AOI)</p>		<p>The soil surveys that comprise your AOI were mapped at 1:15,800.</p>	
<p>Soils</p> <p> Soil Survey Areas</p> <p> Soil Map Unit Polygons</p> <p> Soil Map Unit Lines</p> <p> Soil Map Unit Points</p>		<p>Please rely on the bar scale on each map sheet for map measurements.</p>	
<p>Soil Rating Polygons</p> <p> 0 - 25</p> <p> 25 - 50</p> <p> 50 - 100</p> <p> 100 - 150</p> <p> 150 - 200</p> <p> > 200</p> <p> Not rated or not available</p>		<p>Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)</p>	
<p>Soil Rating Lines</p> <p> 0 - 25</p> <p> 25 - 50</p> <p> 50 - 100</p> <p> 100 - 150</p> <p> 150 - 200</p> <p> > 200</p> <p> Not rated or not available</p>		<p>Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.</p>	
<p>Soil Rating Points</p> <p> 0 - 25</p> <p> 25 - 50</p>		<p>This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.</p>	
<p>Special Point Features</p> <p> Blowout</p> <p> Borrow Pit</p> <p> Clay Spot</p> <p> Closed Depression</p> <p> Gravel Pit</p> <p> Gravelly Spot</p> <p> Landfill</p> <p> Lava Flow</p> <p> Marsh or swamp</p> <p> Minor Quarry</p> <p> Miscellaneous Water</p> <p> Perennial Water</p> <p> Rock Outcrop</p> <p> Saline Spot</p> <p> Sandy Spot</p> <p> Severely Eroded Spot</p> <p> Sinkhole</p> <p> Slide or Slip</p> <p> Sodic Spot</p> <p> Spot Area</p>		<p>Water Features</p> <p> Streams and Canals</p>	
<p>Transportation</p> <p> Rails</p> <p> Interstate Highways</p> <p> US Routes</p> <p> Major Roads</p> <p> Local Roads</p>		<p>Background</p> <p> Aerial Photography</p>	
<p>Other</p> <p> Story Spot</p> <p> Very Story Spot</p> <p> Wet Spot</p> <p> Other</p> <p> Special Line Features</p>		<p>Soil Survey Area: Marion County Area, Florida Survey Area Date: Version 20, Sep 1, 2022</p>	
<p>Soil Rating > 200</p> <p> > 200</p> <p> Not rated or not available</p>		<p>Soil map Units are labeled (as space allows) for map scales 1:50,000 or larger.</p>	
<p>Soil Rating 100 - 150</p> <p> 100 - 150</p>		<p>Date(s) aerial images were photographed: Jan 9, 2022—Feb 10, 2022</p>	
<p>Soil Rating 50 - 100</p> <p> 50 - 100</p>		<p>The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.</p>	

Custom Soil Resource Report

Table—Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
2	Adamsville sand, 0 to 5 percent slopes	8	23.7	0.5%
7	Udalfo Arenic, 0 to 5 percent slopes	92	1.4	0.0%
9	Arredondo sand, 0 to 5 percent slopes	59	1,770.1	36.8%
11	Pedro-Arredondo complex, 0 to 5 percent slopes	99	77.7	1.6%
13	Astilla sand, 0 to 5 percent slopes	145	110.2	2.3%
17	Blichton sand, 2 to 5 percent slopes	15	18.5	0.4%
22	Candler sand, 0 to 5 percent slopes	145	1,003.5	20.9%
35	Gainesville loamy sand, 0 to 5 percent slopes	>200	229.2	4.8%
37	Hagle sand, 2 to 5 percent slopes	>200	309.3	6.4%
38	Hagle sand, 5 to 8 percent slopes	>200	20.4	0.4%
40	Holopaw sand, frequently ponded, 0 to 1 percent slopes	0	0.5	0.0%
43	Kanapaha-Kanapaha, wet, fine sand, 0 to 5 percent slopes	15	112.1	2.3%
44	Kendrick loamy sand, 0 to 5 percent slopes	95	285.1	5.9%
45	Kendrick loamy sand, 5 to 8 percent slopes	114	6.5	0.1%
46	Lochloosa fine sand, 0 to 5 percent slopes	59	64.2	1.3%
47	Lochloosa fine sand, 5 to 8 percent slopes	31	9.7	0.2%
50	Micanopy fine sand, 2 to 5 percent slopes	15	52.3	1.1%
57	Rte	>200	58.3	1.2%
58	Racid sand, depressional	8	11.8	0.2%
65	Sparr fine sand, 0 to 5 percent slopes	31	495.1	10.3%
69	Tavares sand, 0 to 5 percent slopes	84	54.9	1.1%

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
74	Wacahoota gravelly sand, gravelly subsoil variant, 2 to 5 percent slopes	15	2.5	0.1%
77	Zuber loamy sand, 2 to 5 percent slopes	15	32.5	0.7%
79	Udontheris, excavated	82	55.7	1.2%
99	Water	>200	5.9	0.1%
Totals for Area of Interest			4,811.1	100.0%

Rating Options—Depth to Water Table

Units of Measure: centimeters

Aggregation Method: Minimum or Maximum

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

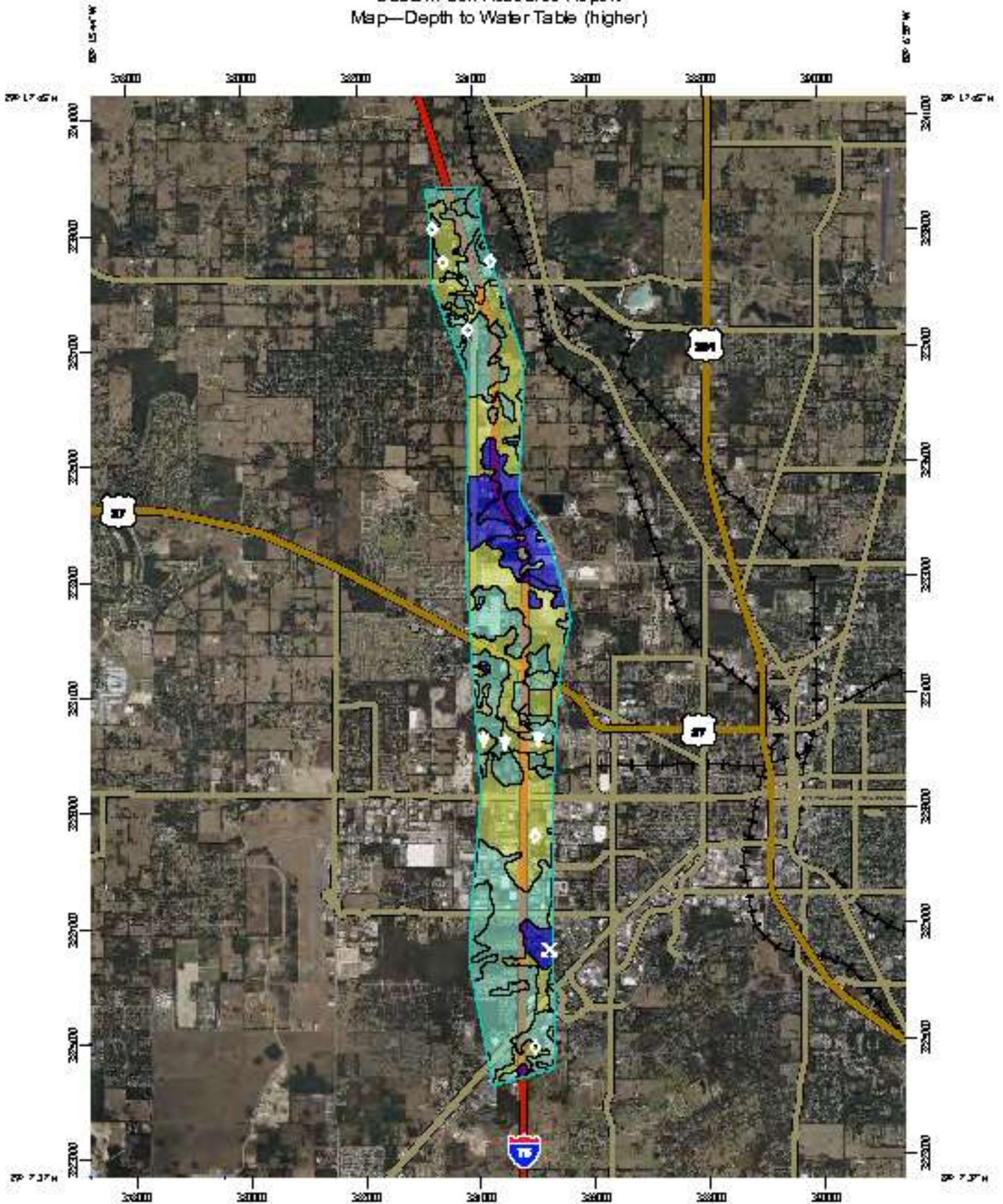
Ending Month: December

Depth to Water Table (higher)

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Custom Soil Resource Report
Map—Depth to Water Table (higher)



Map Scale: 1:91,400 if printed on a portrait (8.5 x 11") sheet.



Map projection: Web Mercator. Center coordinates: WGS84. Edge bas: UTM Zone 17N WGS84





Table—Depth to Water Table (higher)

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
2	Adamsville sand, 0 to 5 percent slopes	145	23.7	0.5%
7	Udalfo Arenic, 0 to 5 percent slopes	92	1.4	0.0%
9	Arredondo sand, 0 to 5 percent slopes	59	1,770.1	36.8%
11	Pedro-Arredondo complex, 0 to 5 percent slopes	114	77.7	1.6%
13	Astilla sand, 0 to 5 percent slopes	145	110.2	2.3%
17	Blichton sand, 2 to 5 percent slopes	114	18.5	0.4%
22	Candler sand, 0 to 5 percent slopes	150	1,003.5	20.9%
35	Gainesville loamy sand, 0 to 5 percent slopes	>200	229.2	4.8%
37	Hagle sand, 2 to 5 percent slopes	>200	309.3	6.4%
38	Hagle sand, 5 to 8 percent slopes	>200	20.4	0.4%
40	Holopaw sand, frequently ponded, 0 to 1 percent slopes	122	0.5	0.0%
43	Kanapaha-Kanapaha, wet, fine sand, 0 to 5 percent slopes	59	112.1	2.3%
44	Kendrick loamy sand, 0 to 5 percent slopes	114	285.1	5.9%
45	Kendrick loamy sand, 5 to 8 percent slopes	114	6.5	0.1%
46	Lochloosa fine sand, 0 to 5 percent slopes	114	64.2	1.3%
47	Lochloosa fine sand, 5 to 8 percent slopes	114	9.7	0.2%
50	Micanopy fine sand, 2 to 5 percent slopes	114	52.3	1.1%
57	Rte	>200	58.3	1.2%
58	Racid sand, depressional	78	11.8	0.2%
65	Sparr fine sand, 0 to 5 percent slopes	107	495.1	10.3%
69	Tavares sand, 0 to 5 percent slopes	145	54.9	1.1%

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
74	Wacahoota gravelly sand, gravelly subsoil variant, 2 to 5 percent slopes	38	2.5	0.1%
77	Zuber loamy sand, 2 to 5 percent slopes	114	32.5	0.7%
79	Udontheris, excavated	82	55.7	1.2%
99	Water	>200	5.9	0.1%
Totals for Area of Interest			4,811.1	100.0%

Rating Options—Depth to Water Table (higher)

Units of Measure: centimeters

Aggregation Method: Minimum or Maximum

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

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Custom Soil Resource Report

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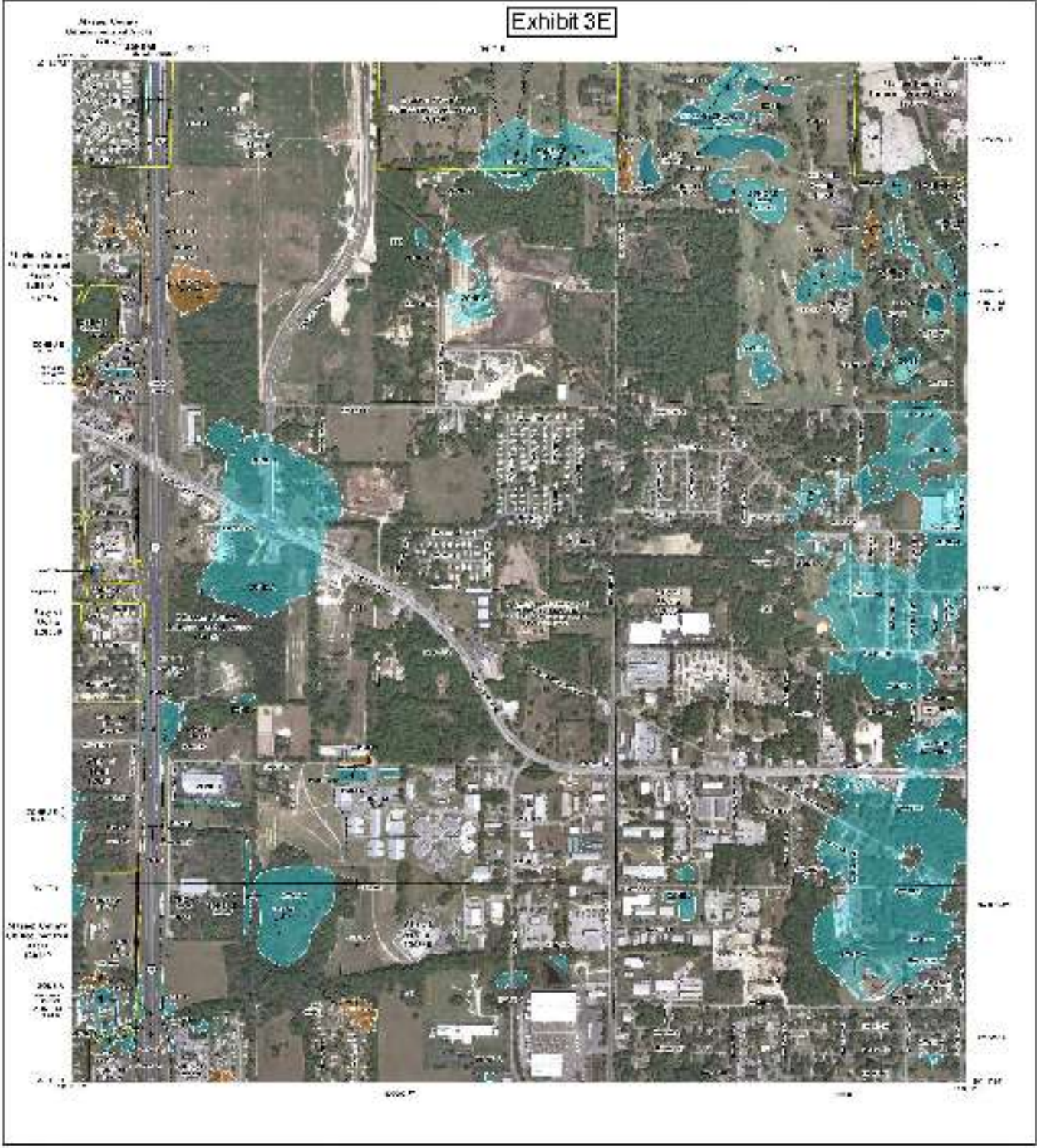
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Appendix D
FEMA FIRM Maps

Exhibit 3E



FLOOD HAZARD INFORMATION

FOR INFORMATION ONLY. THIS MAP IS NOT TO BE USED FOR INSURANCE RATES OR FOR OTHER PURPOSES. FOR MORE INFORMATION, VISIT [WWW.FEMA.GOV](http://www.fema.gov).

- 100 Year Flood Zone (Special Flood Hazard Area):** Areas with a 1% annual chance flood.
- 500 Year Flood Zone (Special Flood Hazard Area):** Areas with a 0.2% annual chance flood.
- 1000 Year Flood Zone (Special Flood Hazard Area):** Areas with a 0.1% annual chance flood.
- Other Flood Hazard Information:** Includes areas with a 0.01% annual chance flood, areas with a 0.02% annual chance flood, and areas with a 0.05% annual chance flood.
- Other Features:** Includes roads, railroads, and other infrastructure.

NOTES TO USERS

This map was prepared using the best available data. The user should verify the accuracy of the data for their specific needs. The map is not a warranty, and the user should consult with a professional for more information.

Legend:

Symbol	Description
[Symbol]	100 Year Flood Zone
[Symbol]	500 Year Flood Zone
[Symbol]	1000 Year Flood Zone
[Symbol]	Other Flood Hazard Information
[Symbol]	Roads
[Symbol]	Railroads
[Symbol]	Other Infrastructure

Scale: 1 inch = 100 feet

North Arrow: Points North

SCALE

1 inch = 100 feet

GRID LOCATOR

10	11	12	13	14
15	16	17	18	19
20	21	22	23	24
25	26	27	28	29

FEMA

National Flood Insurance Program

FEDERAL EMERGENCY MANAGEMENT AGENCY

U.S. DEPARTMENT OF HOMELAND SECURITY

U.S. GOVERNMENT PRINTING OFFICE: 2010 O 500-002

DATE: 06/15/2010

TIME: 10:00 AM

FILE: 10000000

APP: 10000000



Appendix E
Cross-drain Excerpts

State Project No.

36210-3442

THIS DRAWING IS A SET DRAWING

DATE: 1984
 BY: M. J. FARRIS
 CHECKED BY: J. L. BROWN
 SCALE: AS SHOWN

**STATE OF FLORIDA
 DEPARTMENT OF TRANSPORTATION**

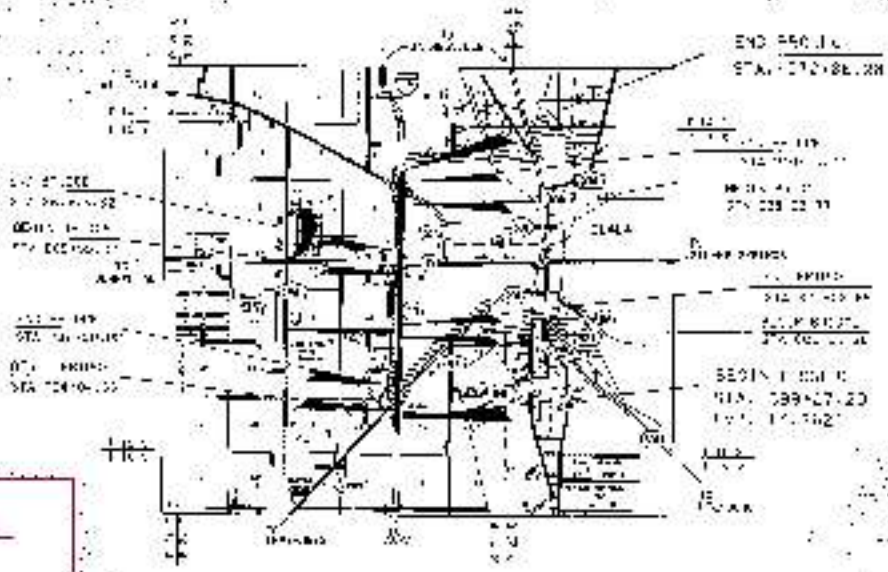
**PLANS OF PROPOSED
 STATE HIGHWAY**

STATE ROAD NO. 367 FROM SR 200 TO SR 500
 MARION COUNTY
 STATE ROAD NO. 13-262



INDEX OF ROADWAY PLANS

PLAN NO.	DESCRIPTION
13-262-1	GENERAL NOTES
13-262-2	PLAN OF PROPOSED STATE HIGHWAY
13-262-3	PLAN OF PROPOSED STATE HIGHWAY
13-262-4	PLAN OF PROPOSED STATE HIGHWAY
13-262-5	PLAN OF PROPOSED STATE HIGHWAY
13-262-6	PLAN OF PROPOSED STATE HIGHWAY
13-262-7	PLAN OF PROPOSED STATE HIGHWAY
13-262-8	PLAN OF PROPOSED STATE HIGHWAY
13-262-9	PLAN OF PROPOSED STATE HIGHWAY
13-262-10	PLAN OF PROPOSED STATE HIGHWAY
13-262-11	PLAN OF PROPOSED STATE HIGHWAY
13-262-12	PLAN OF PROPOSED STATE HIGHWAY
13-262-13	PLAN OF PROPOSED STATE HIGHWAY
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13-262-98	PLAN OF PROPOSED STATE HIGHWAY
13-262-99	PLAN OF PROPOSED STATE HIGHWAY
13-262-100	PLAN OF PROPOSED STATE HIGHWAY



END 18+43
 STA. 13+262.00

SECTION 13-262
 STA. 13+262.00
 STA. 18+43.00

THIS DRAWING IS A SET DRAWING
 DATE: 1984

THIS DRAWING IS A SET DRAWING
 DATE: 1984

Marion_MP 13.262 TO MP 18.443
 FPID-242379-1
 FPN-36210-3442
 SR 93(I-75) from 0.6 MI S SR 200 TO 0.6
 MI N SR 500 US27

LENGTH OF PROJECT

SECTION	LENGTH (STATIONING)	LENGTH (MILES)
SECTION 13-262	13+262.00 - 18+43.00	5.168
TOTAL		5.168

DESIGNED BY: J. L. BROWN
 CHECKED BY: M. J. FARRIS

SUMMARY OF DRAINAGE STRUCTURES

DATE: 10/15/54
 SHEET NO. 23

23h50

23h50

23h50

ST. NO.	INVERT	GRADE	DESCRIPTION	LENGTH		MATERIAL	DRAINAGE AREA	DRAINAGE COEFFICIENT	DRAINAGE RATE	DRAINAGE VOLUME	DRAINAGE TIME	DRAINAGE LOSS	DRAINAGE STORAGE	DRAINAGE RETENTION	DRAINAGE INFLUENCE
				FEET	INCHES										
1	1.00	1.00	
2	1.00	1.00	
3	1.00	1.00	
4	1.00	1.00	
5	1.00	1.00	
6	1.00	1.00	
7	1.00	1.00	
8	1.00	1.00	
9	1.00	1.00	
10	1.00	1.00	
11	1.00	1.00	
12	1.00	1.00	
13	1.00	1.00	
14	1.00	1.00	
15	1.00	1.00	
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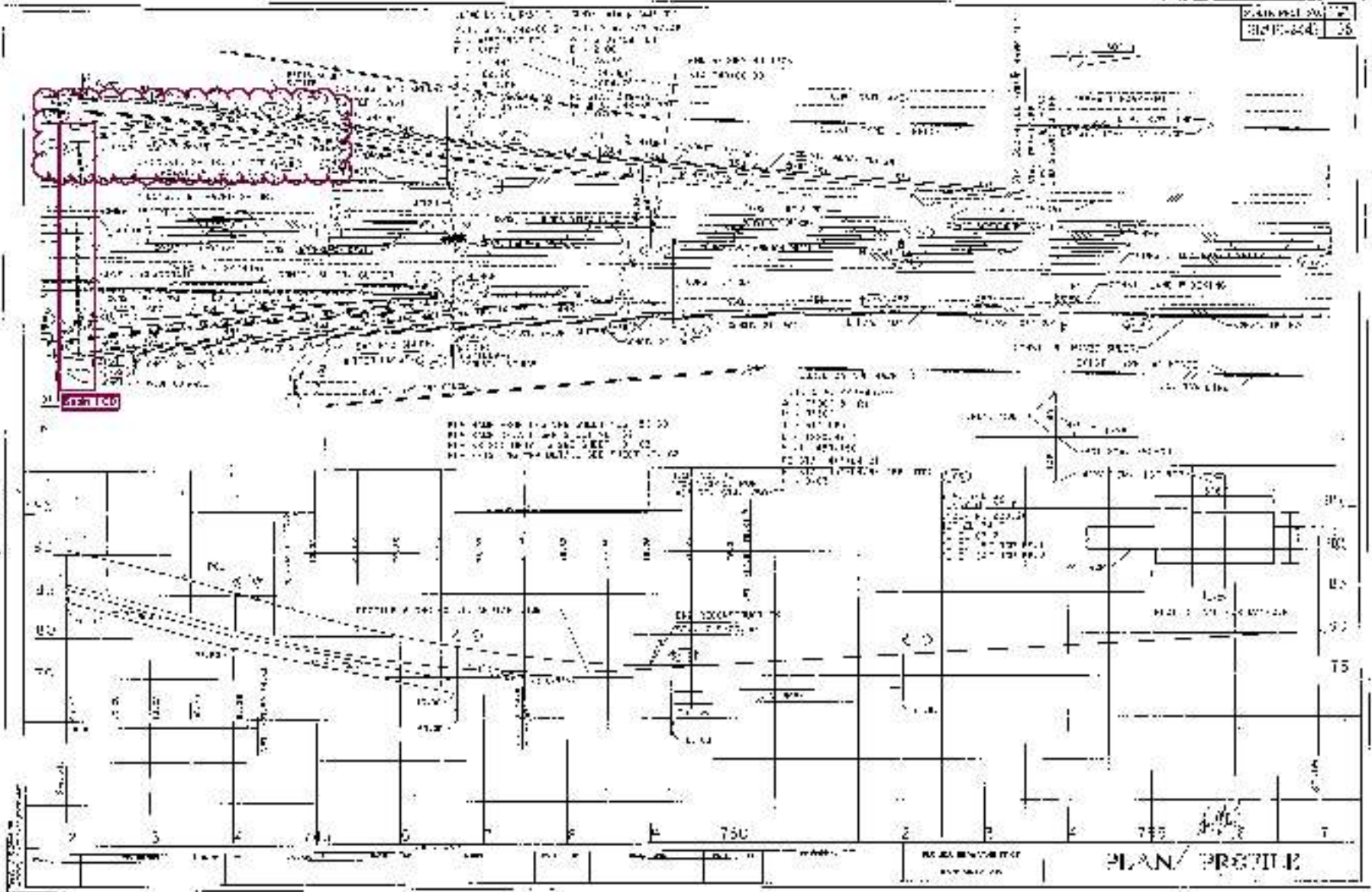
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SUMMARY OF DRAINAGE STRUCTURES

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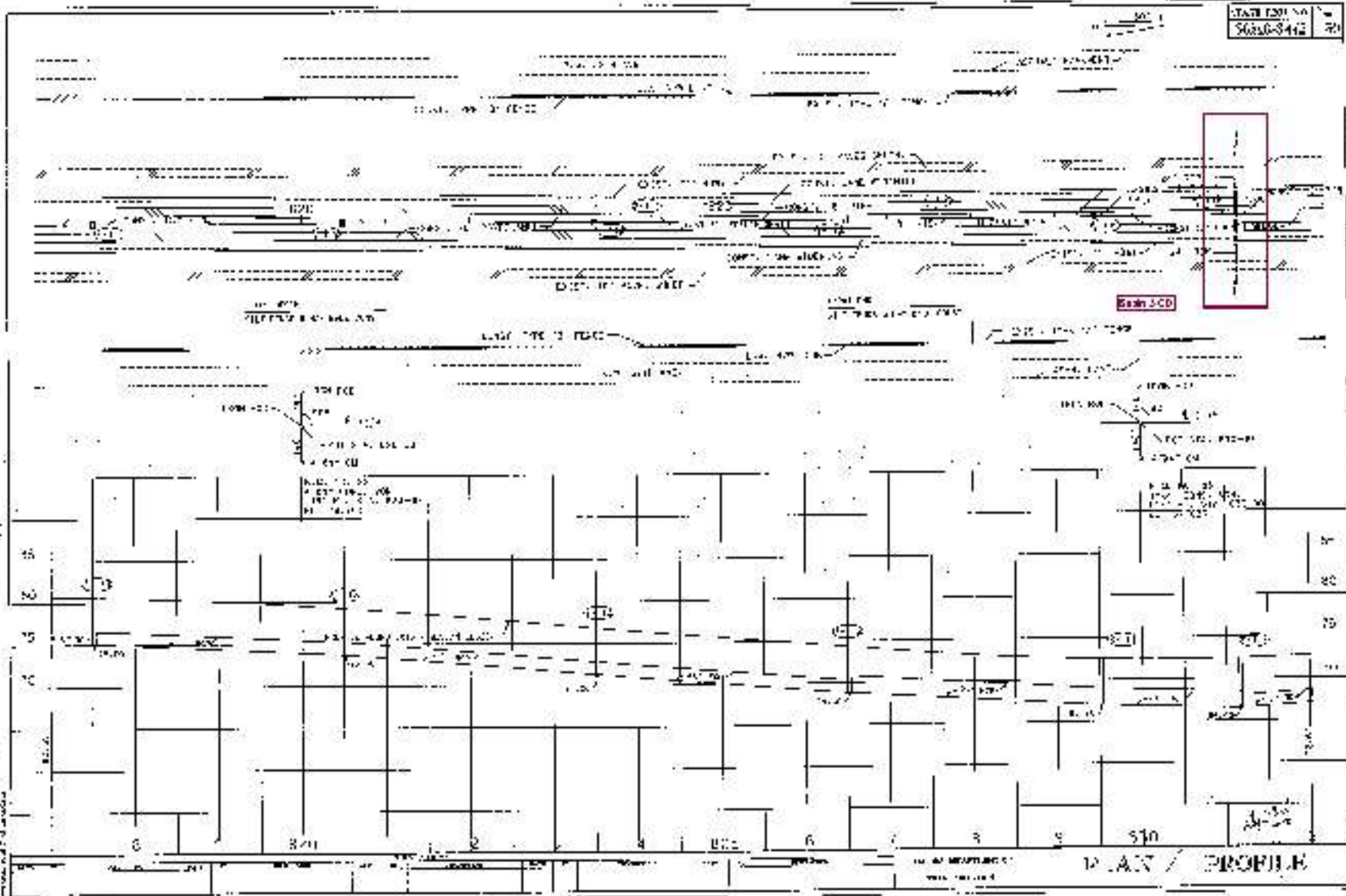
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TOTAL					

SUMMARY OF DRAINAGE STRUCTURES



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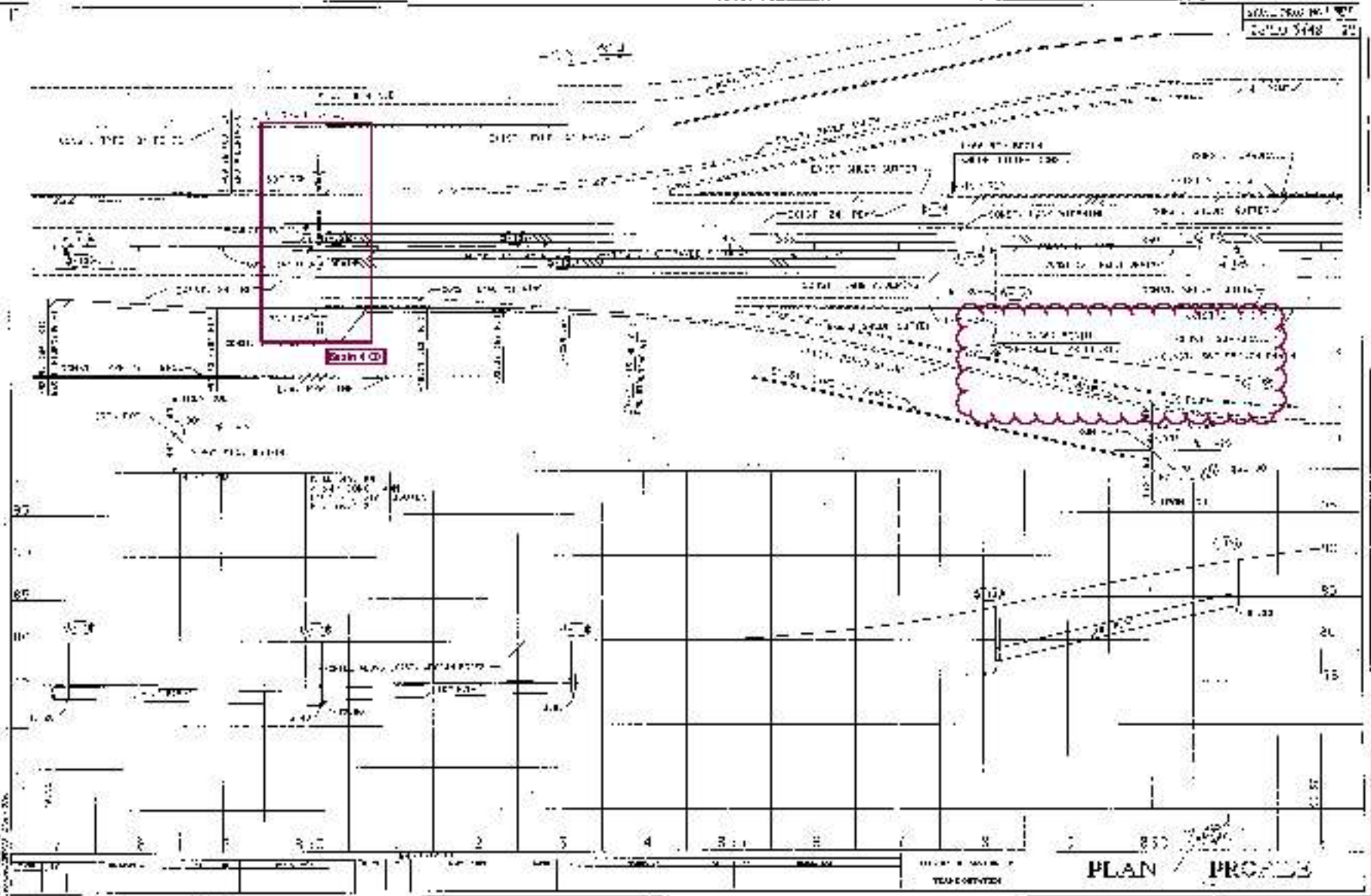
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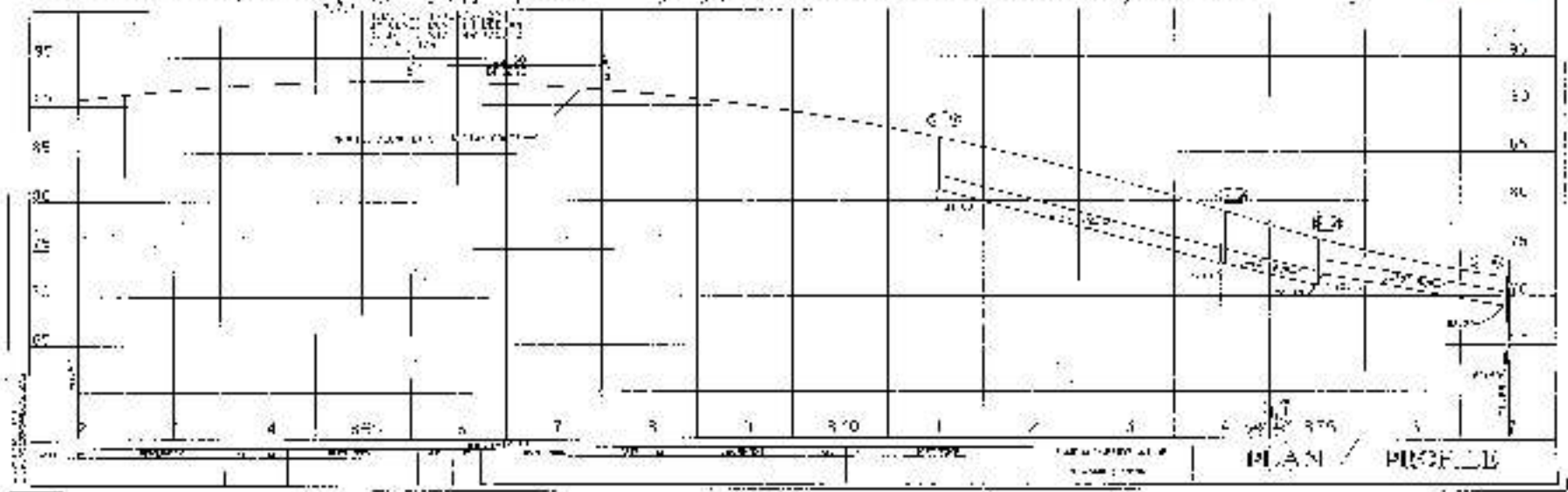
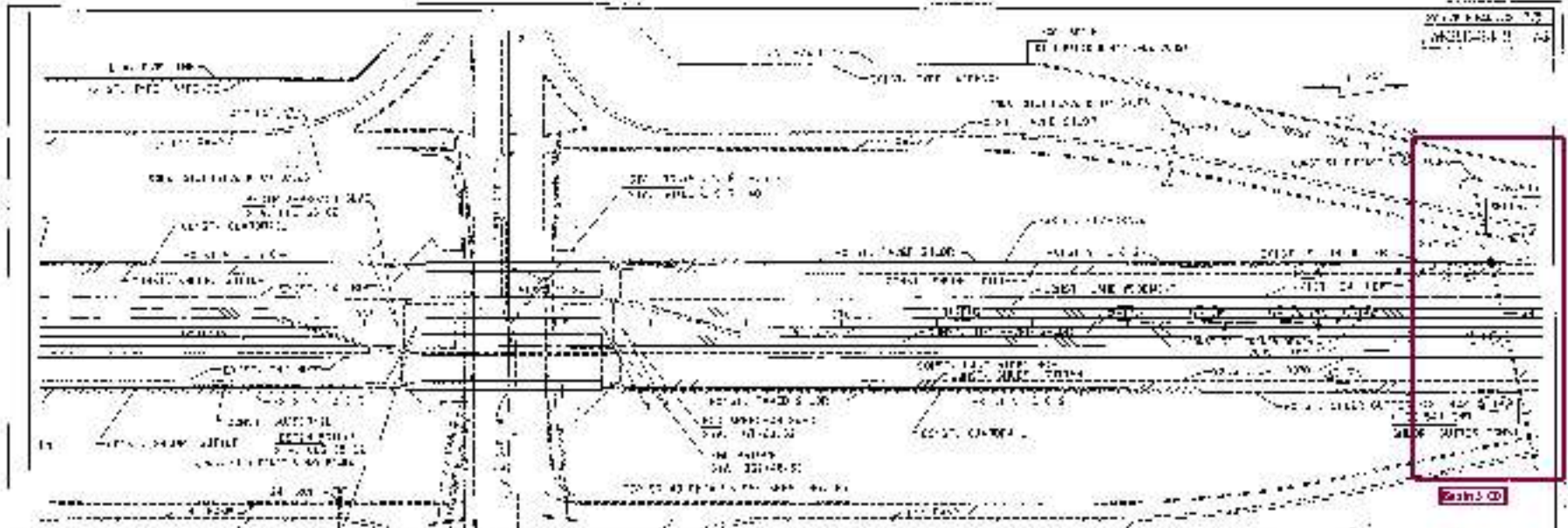
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Date 5/4/58



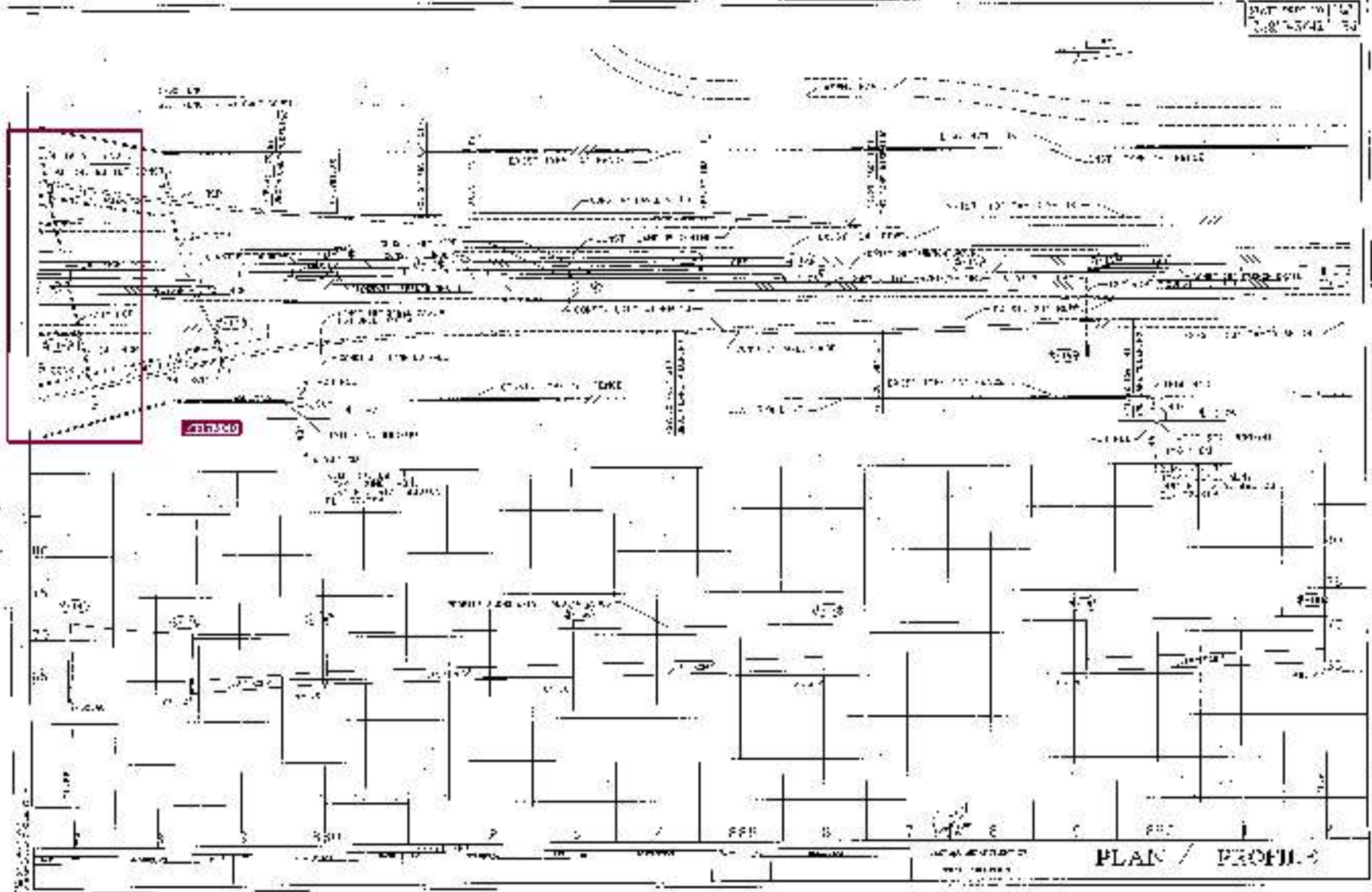
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SECTION 10

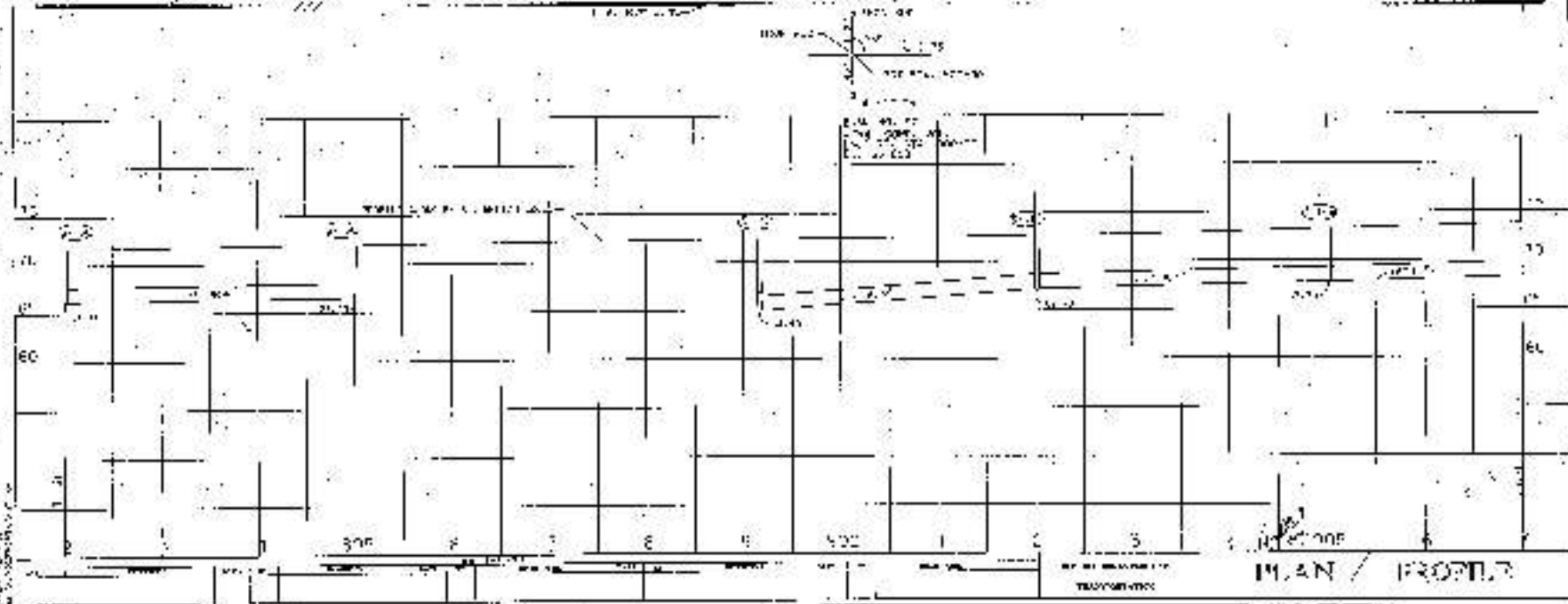
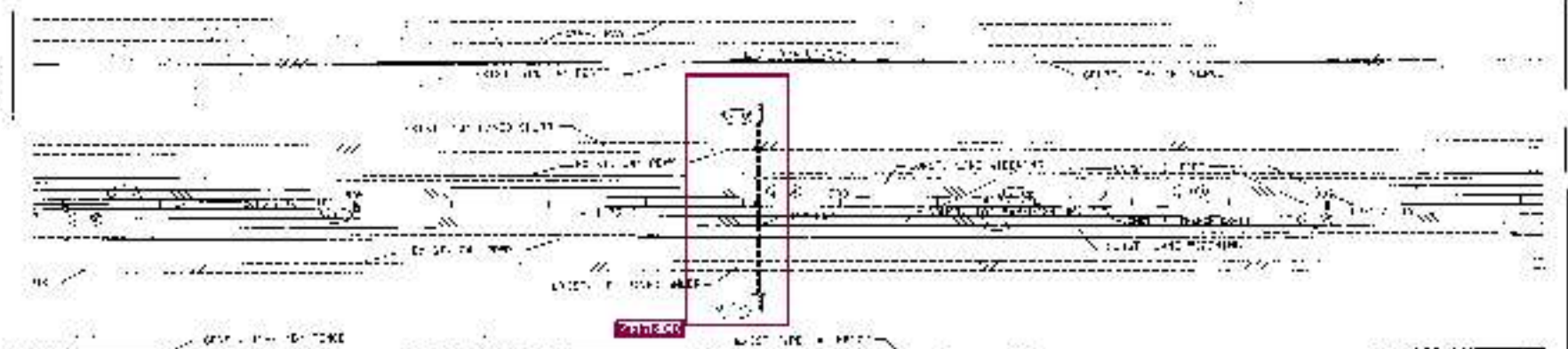


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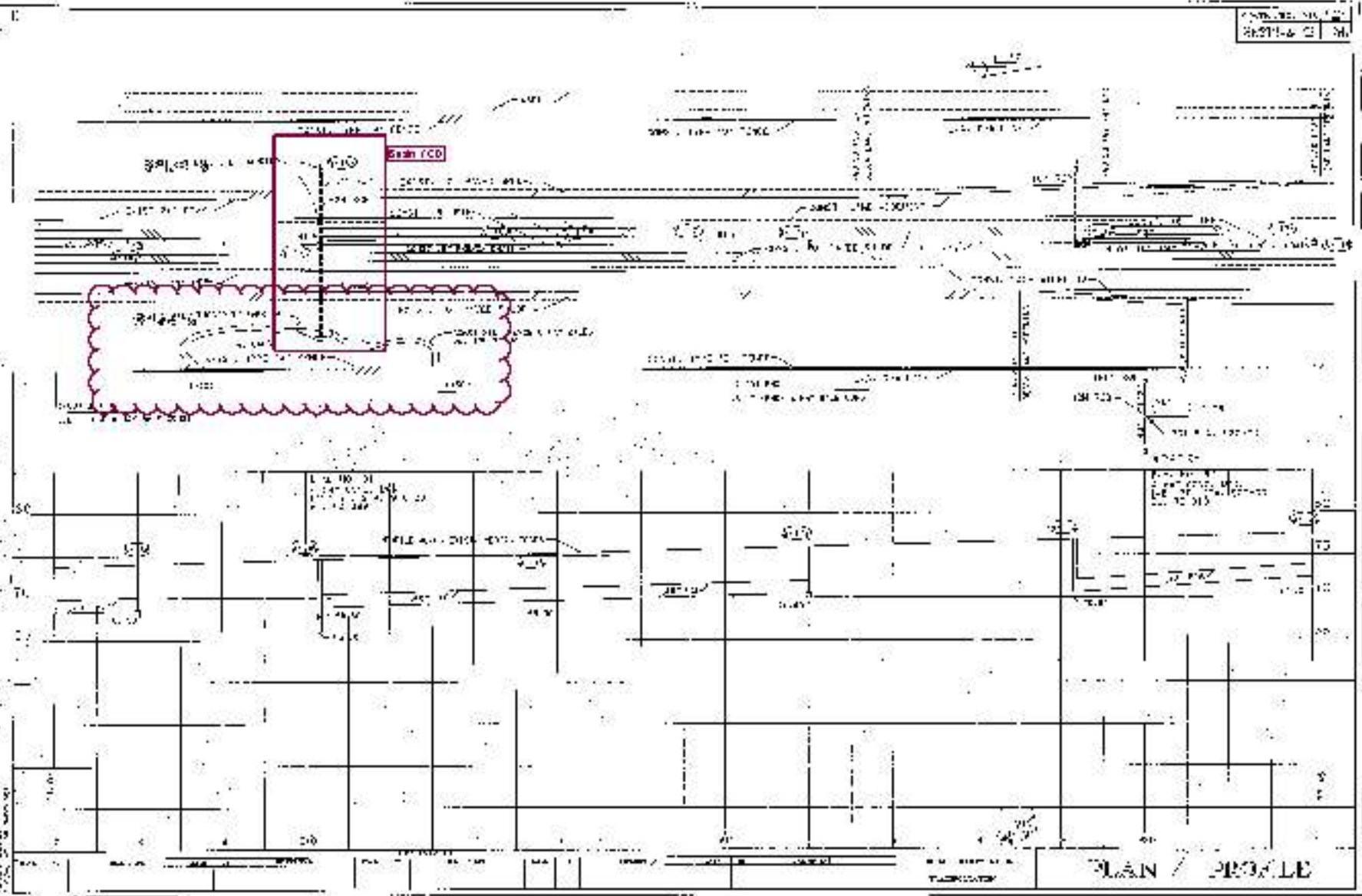
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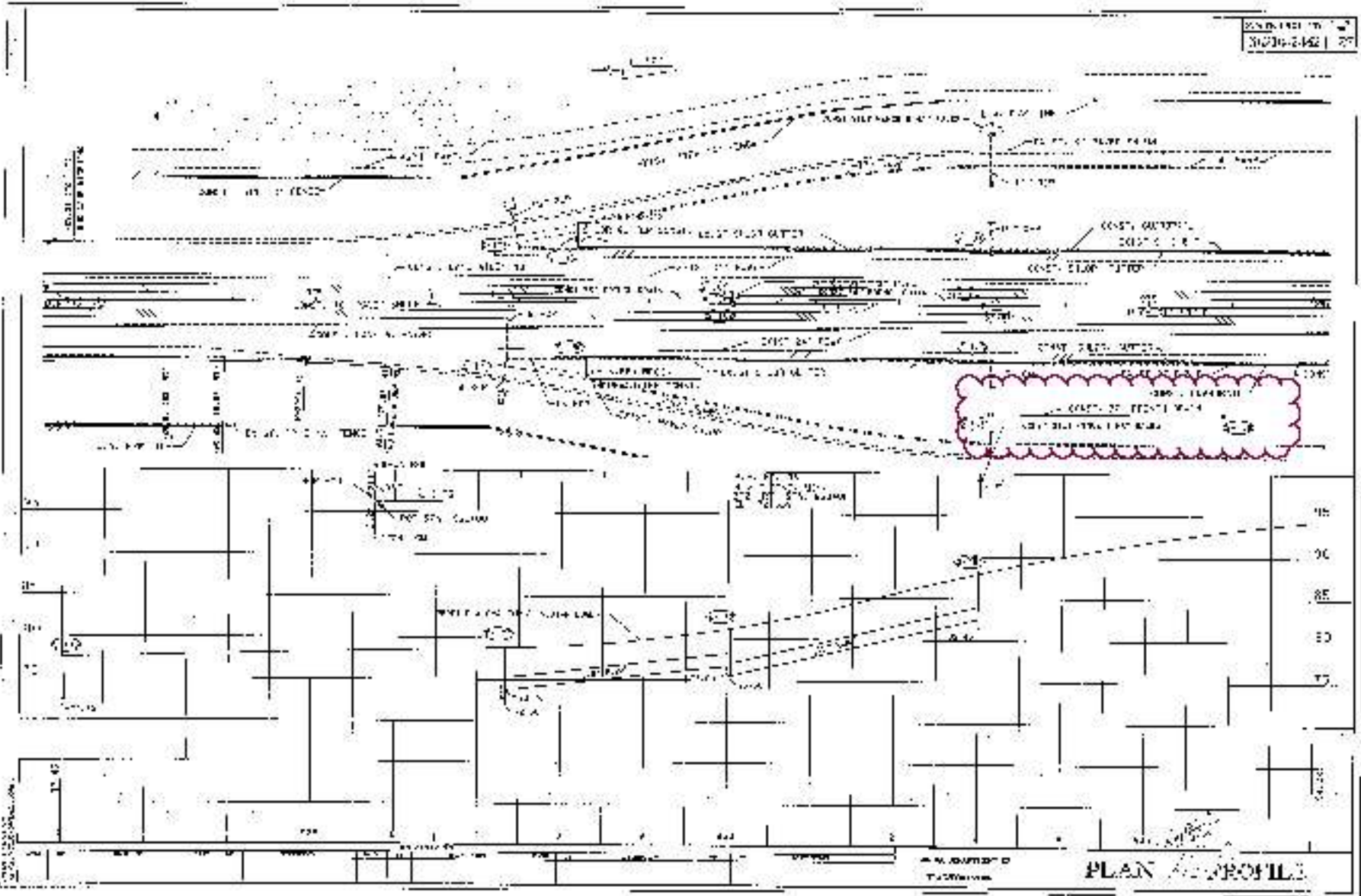
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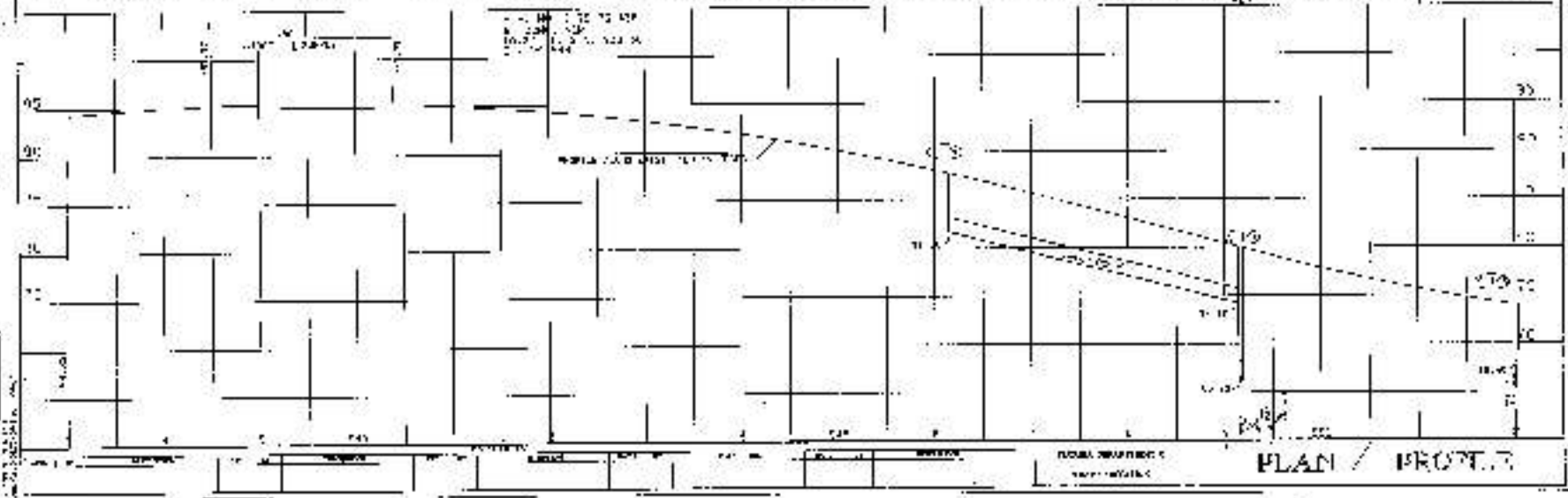
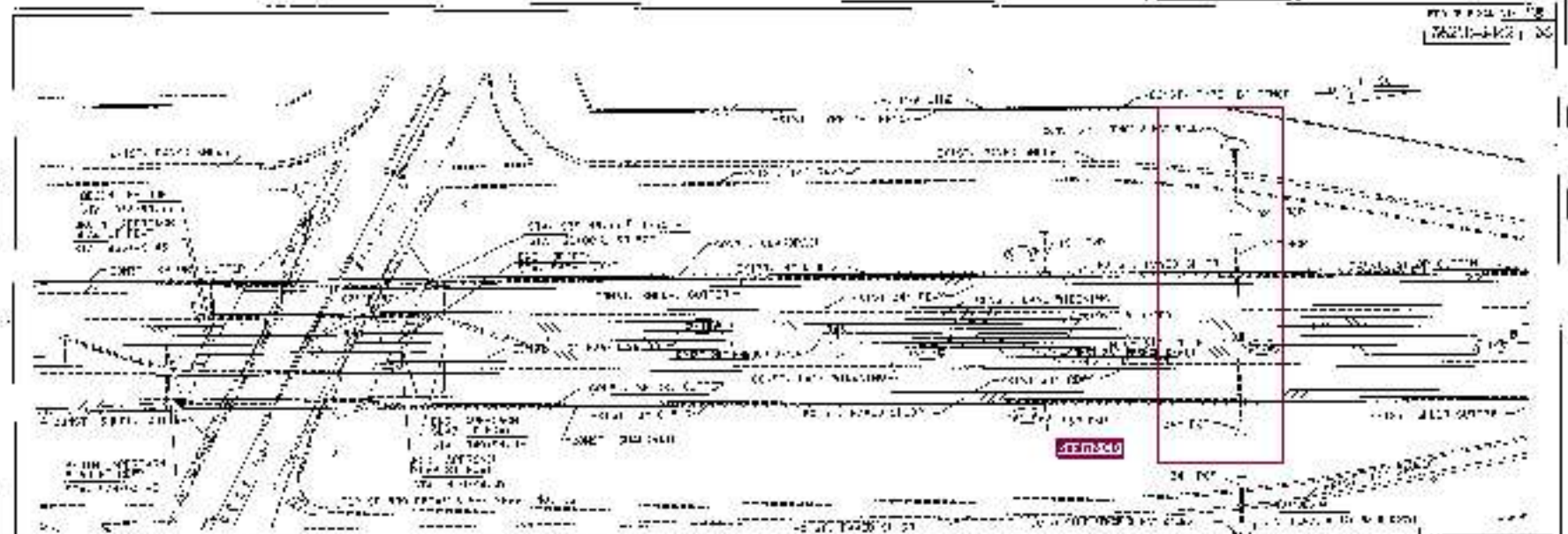
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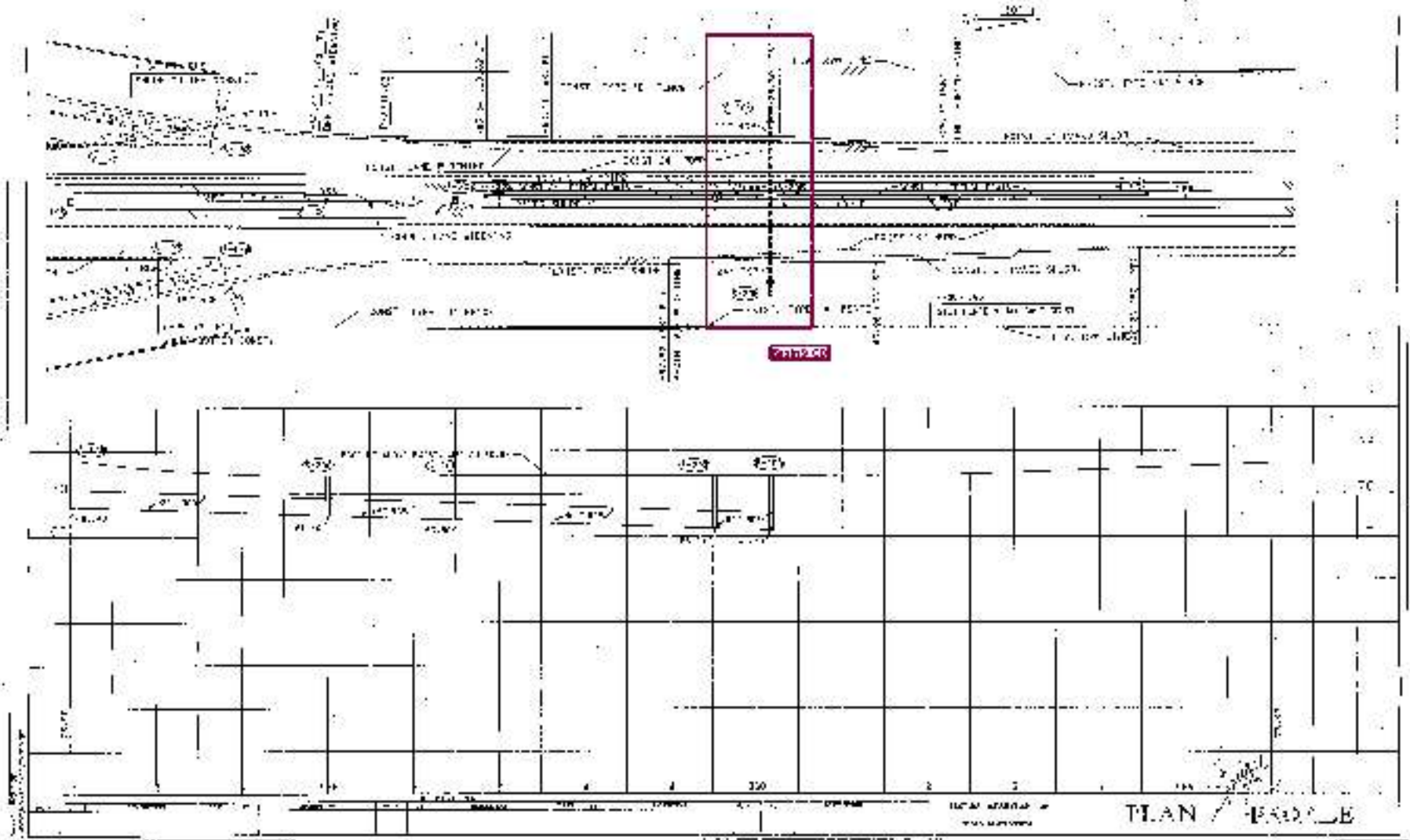
PLAN / PROFILE



PLAN AND PROFILE



PLAN / PROFILE



State Project No.

36210-3439

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

PLANS OF PROJECT
STATE HIGHWAY

STATE PROJECT NO 36210-3439 (FEDERAL FUNDS)
MARION COUNTY
175 FROM SR 500 TO CR 326

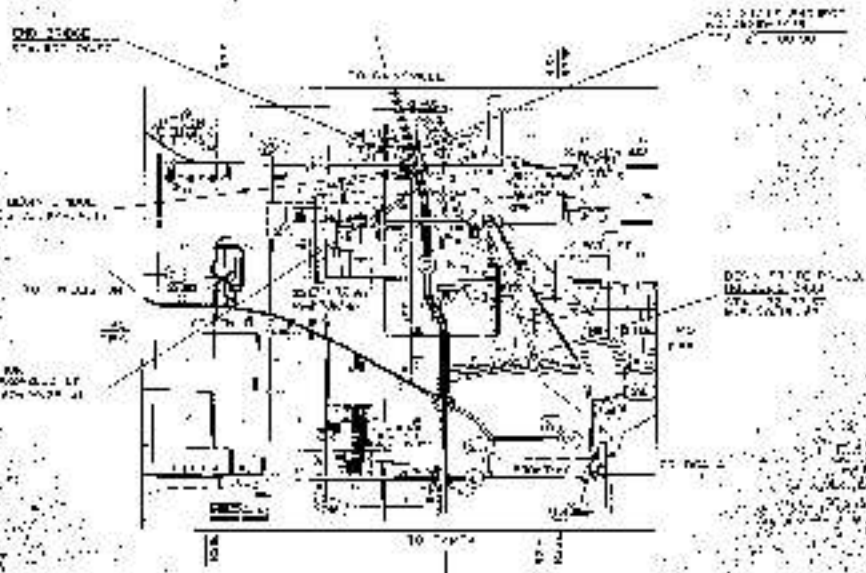
DATE: FEB. 1977

THIS CONTRACT PLAN SET INCLUDES:

PLANS FOR
CONSTRUCTION OF
STATE HIGHWAY
SECTION 175 FROM SR 500 TO CR 326

INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	GENERAL NOTES
2	GENERAL NOTES
3	GENERAL NOTES
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5	GENERAL NOTES
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9	GENERAL NOTES
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98	GENERAL NOTES
99	GENERAL NOTES
100	GENERAL NOTES



THIS PLAN SET IS THE PROPERTY OF THE STATE OF FLORIDA. IT IS TO BE USED ONLY FOR THE PROJECT AND NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. ANY UNAUTHORIZED USE OF THIS PLAN SET IS PROHIBITED AND WILL BE SUBJECT TO PROSECUTION.

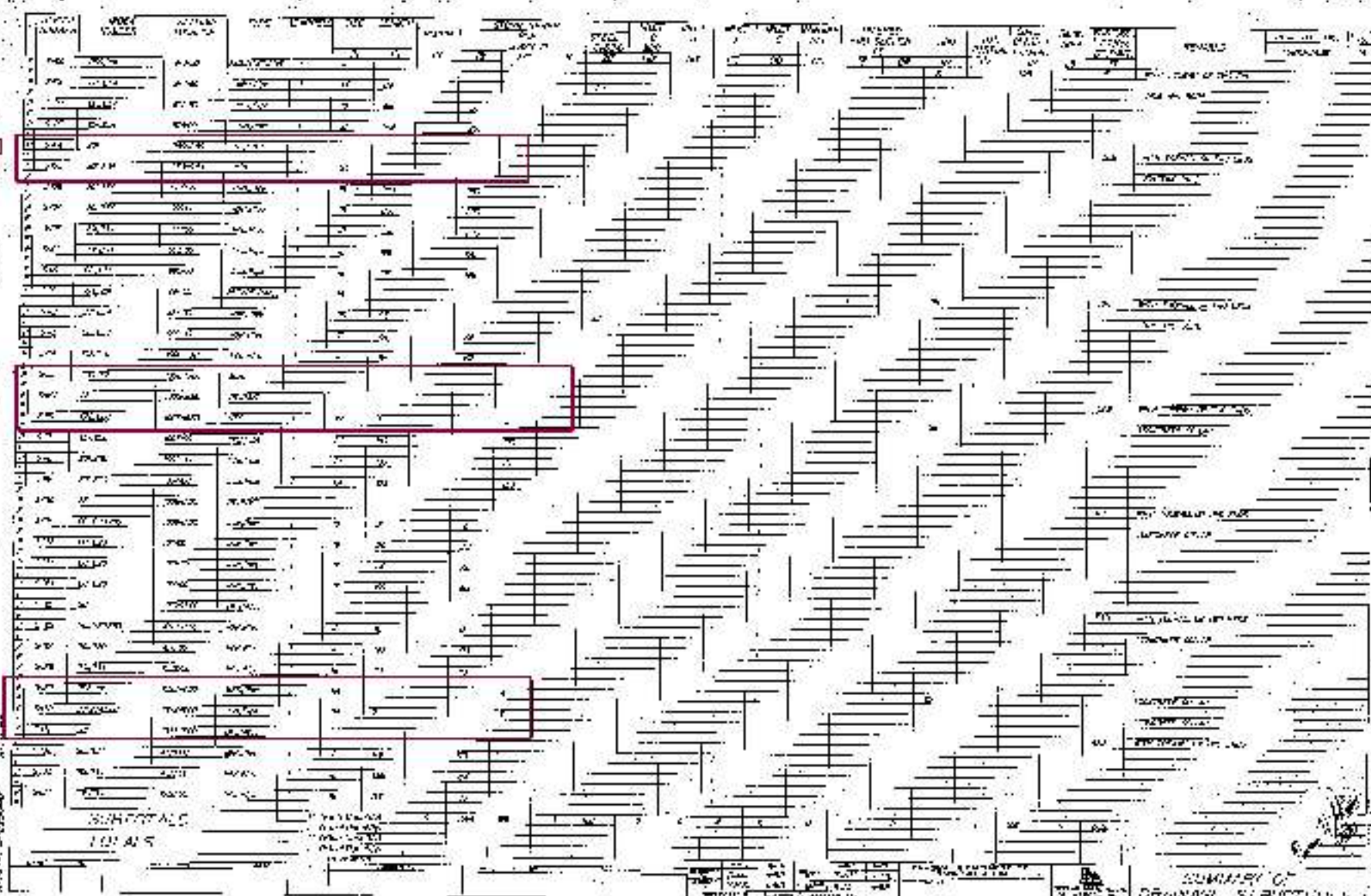
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[Signature]
[Title]
[Firm Name]

FOR THE CONTRACTOR:
[Signature]
[Title]
[Firm Name]

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FPN-36210-3439_
SR 93(1-75) from 0.6 MI N SR 500 US27
TO 0.6 MI NORTH CR 326

DATE: FEB. 1977



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TOTALS

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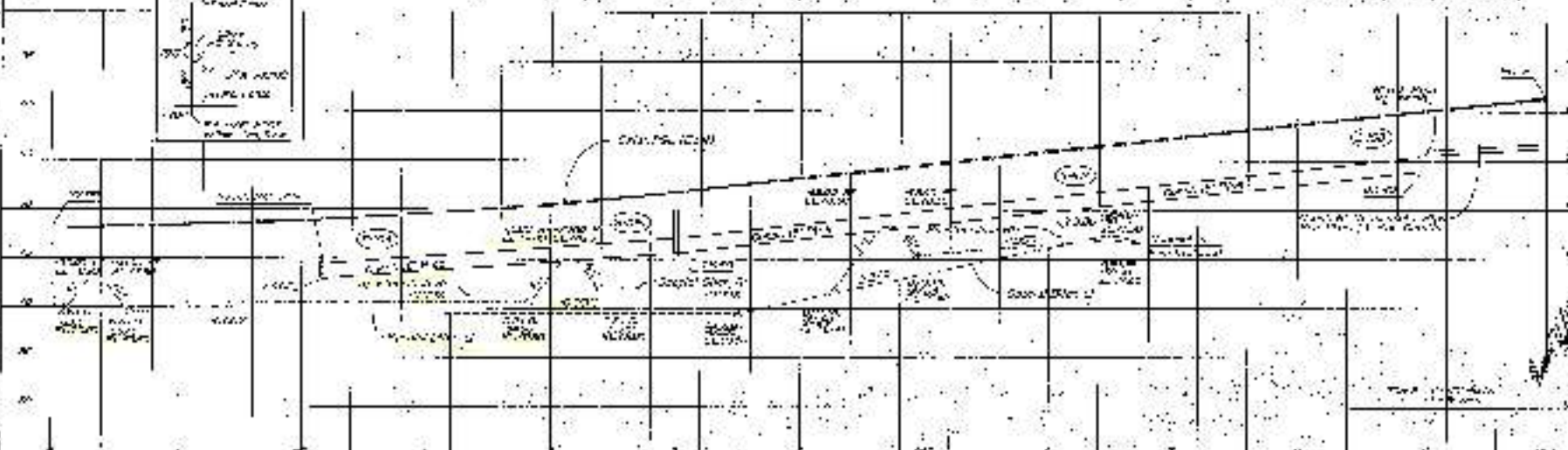
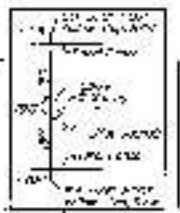
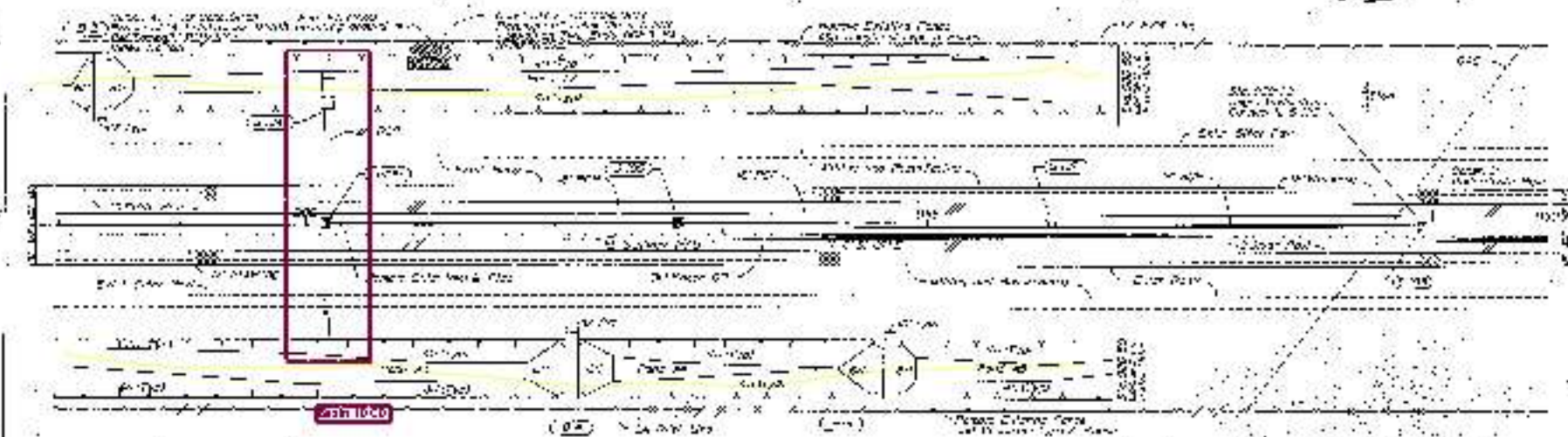
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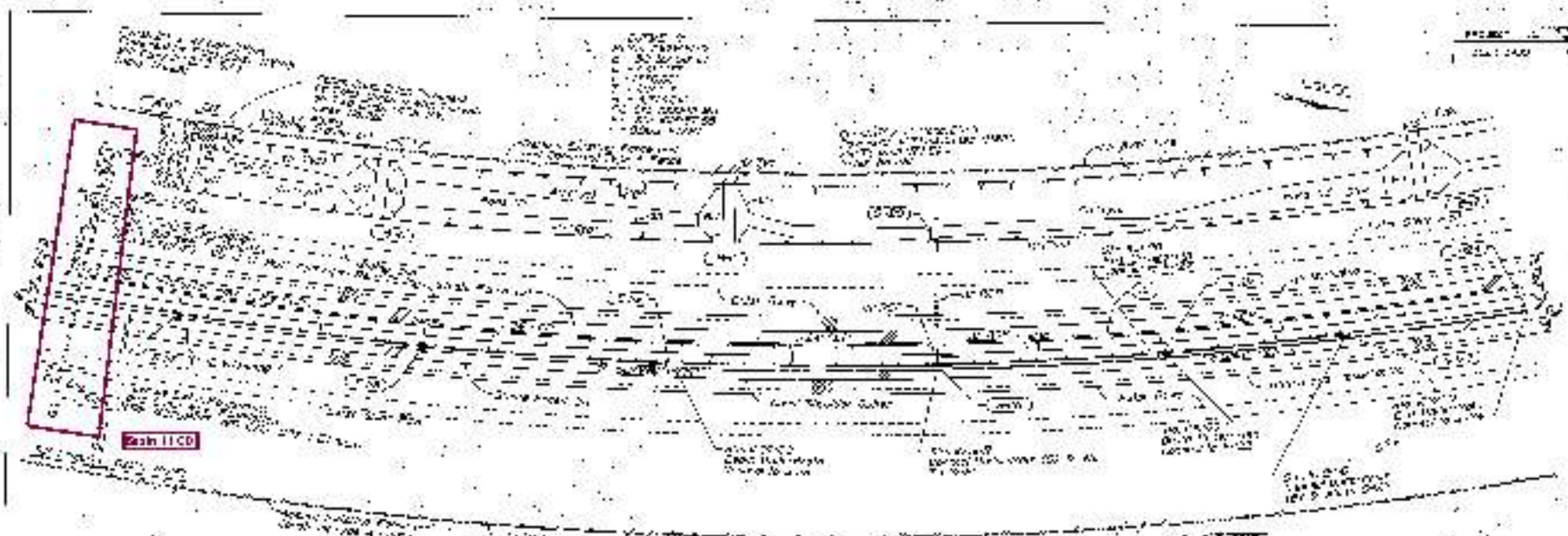
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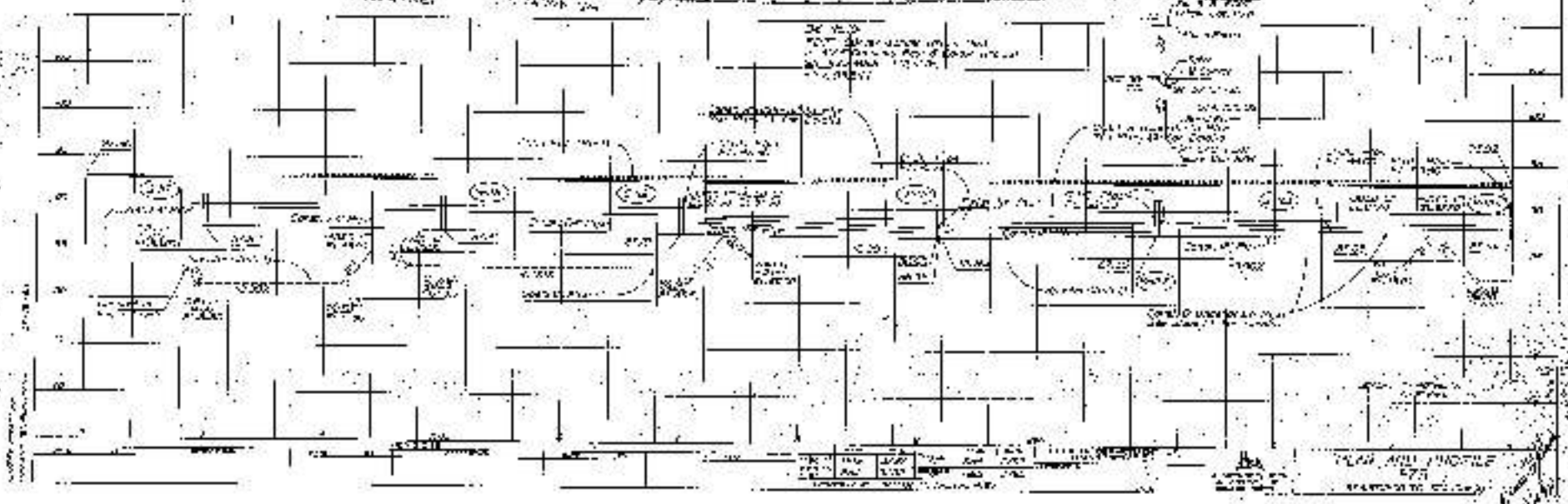
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12/1/55

SUMMARY OF
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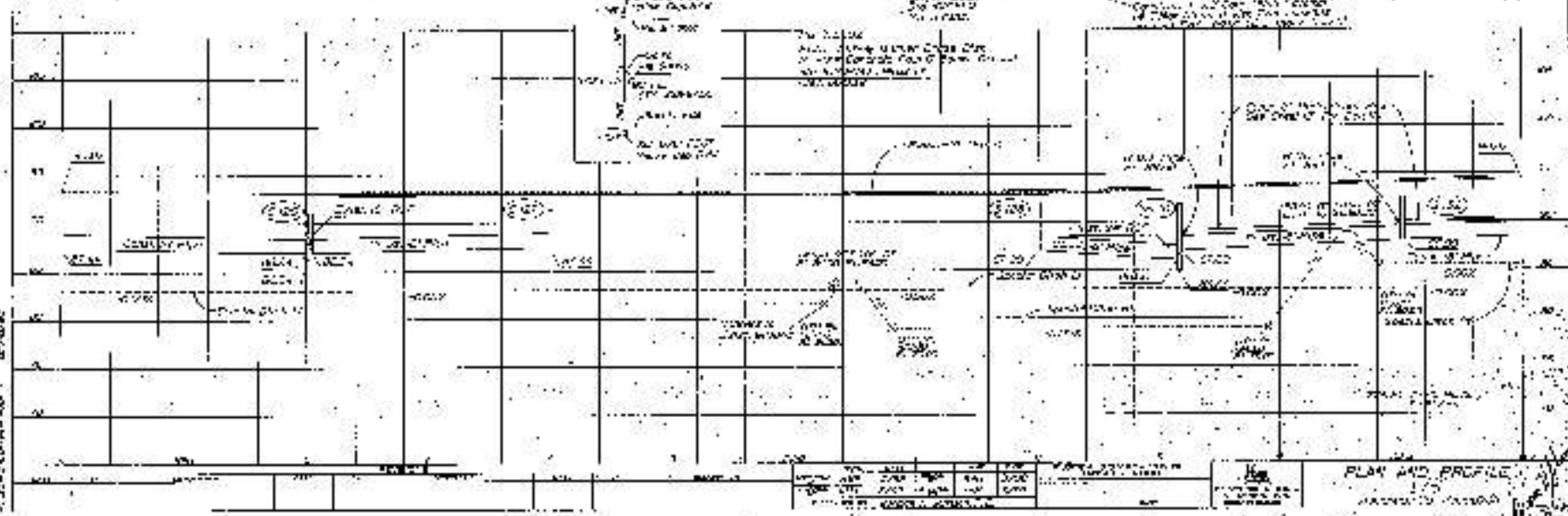
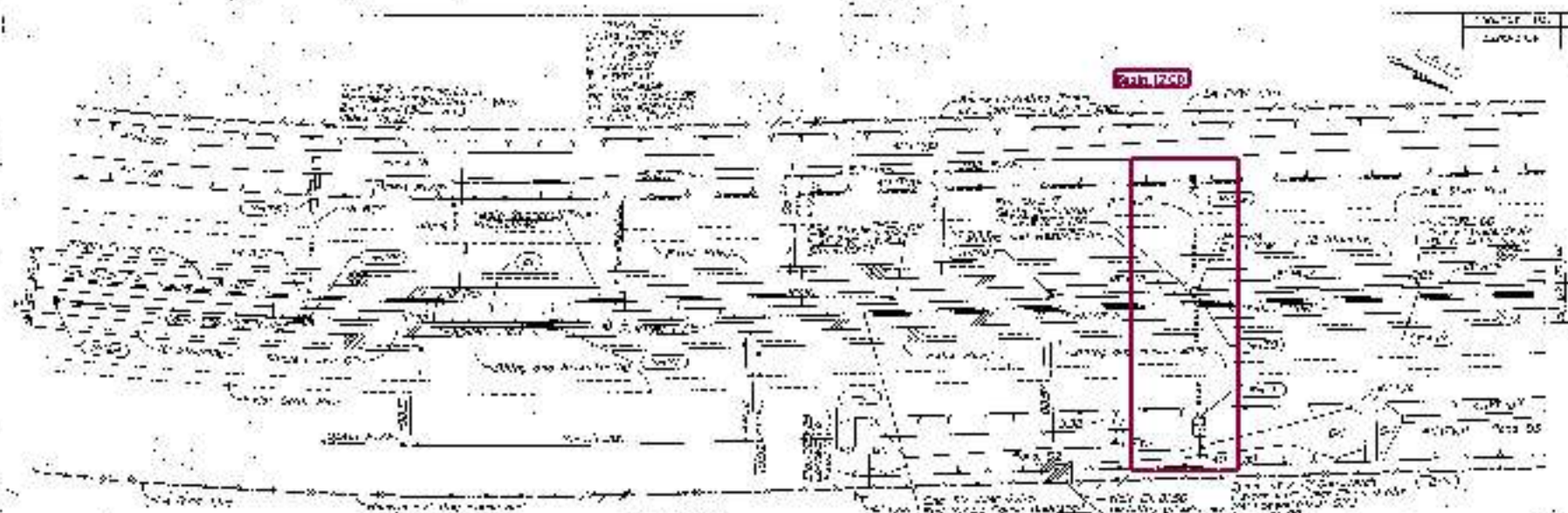


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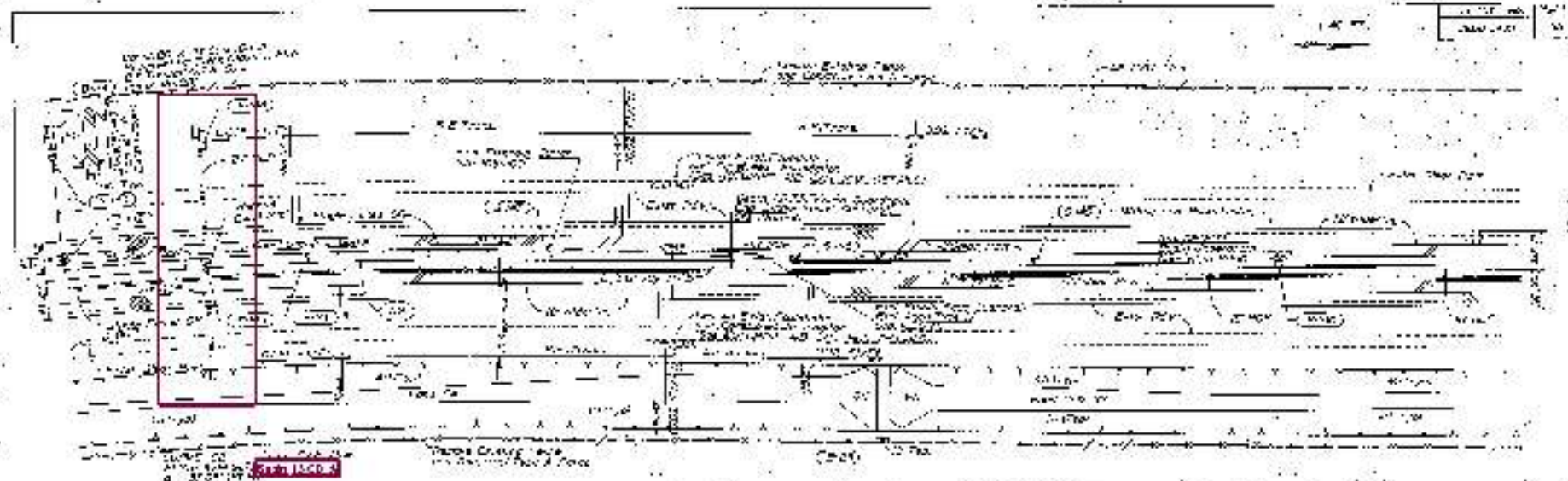


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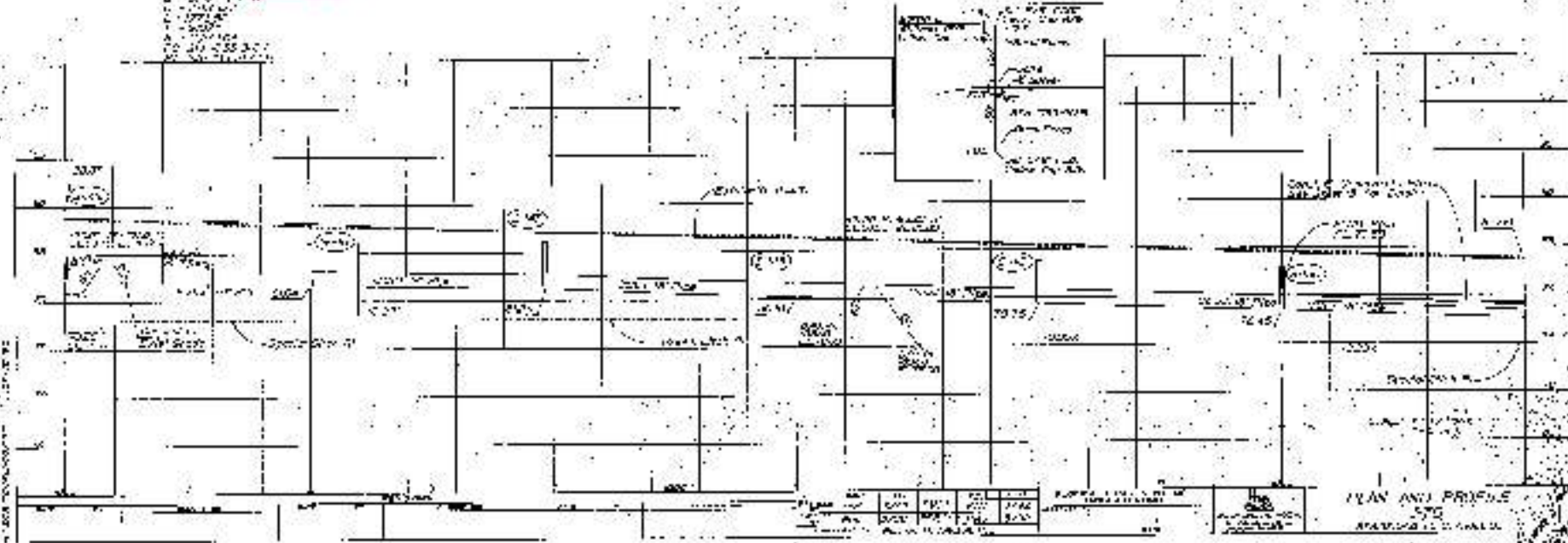
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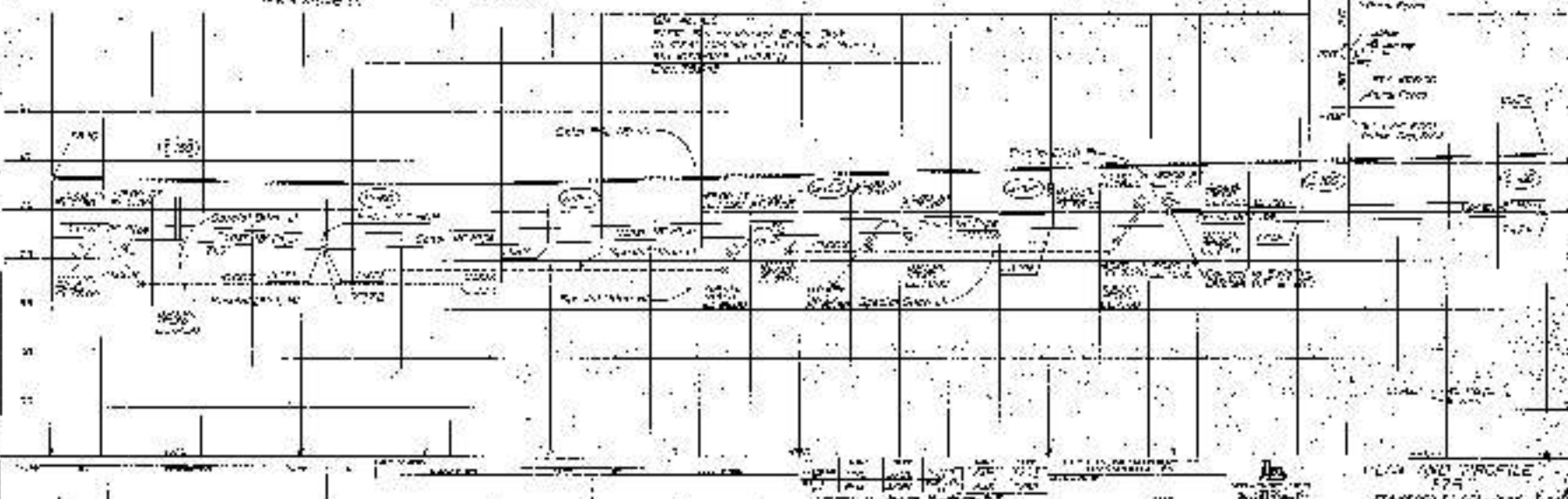
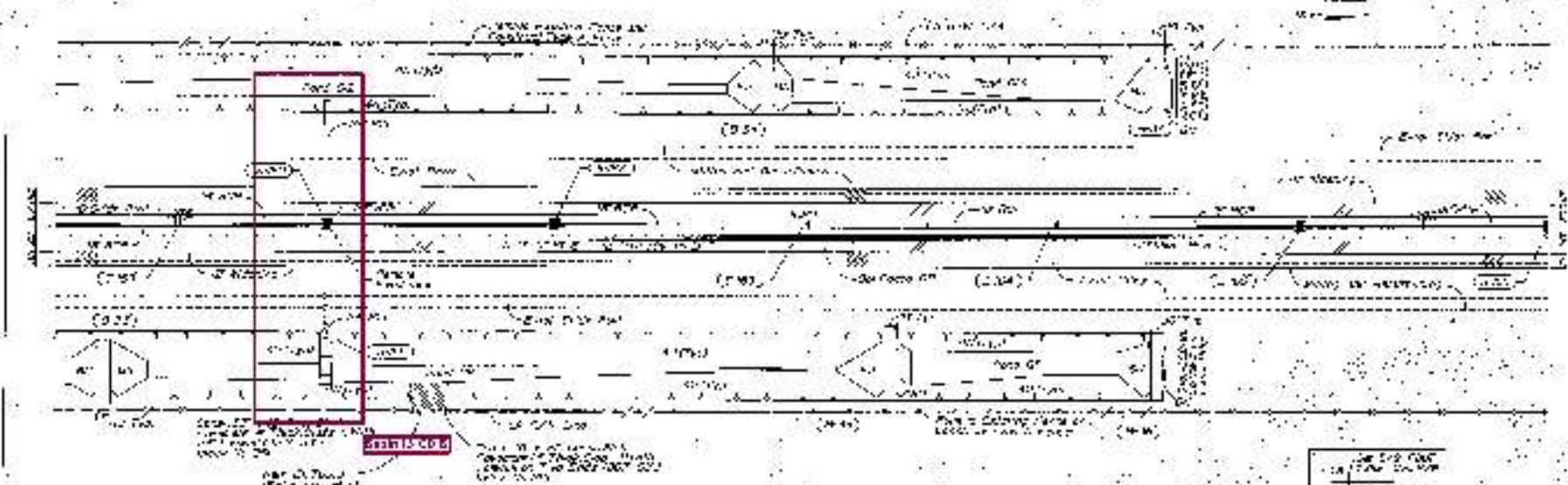
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Sheet 1000-1



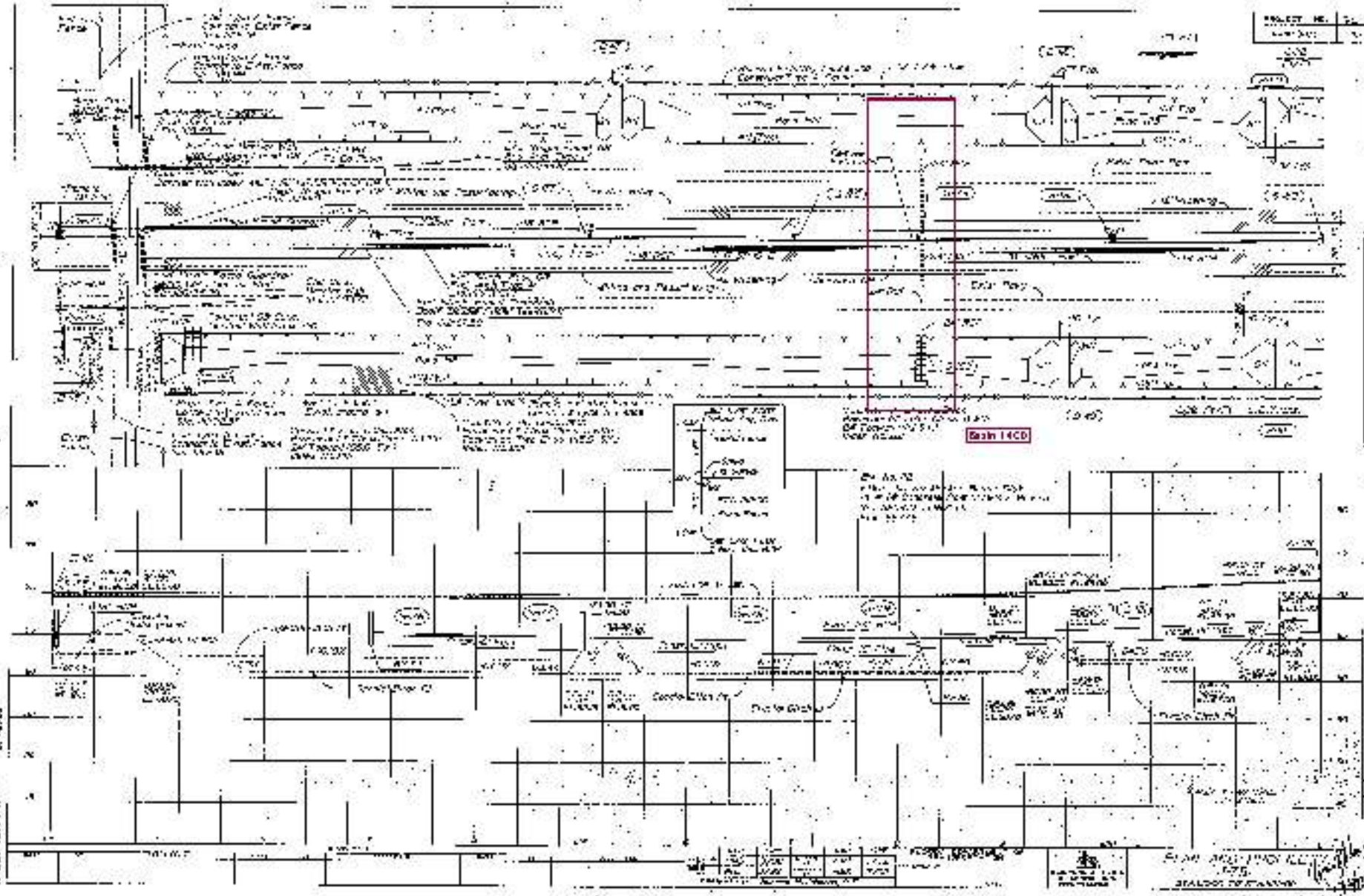
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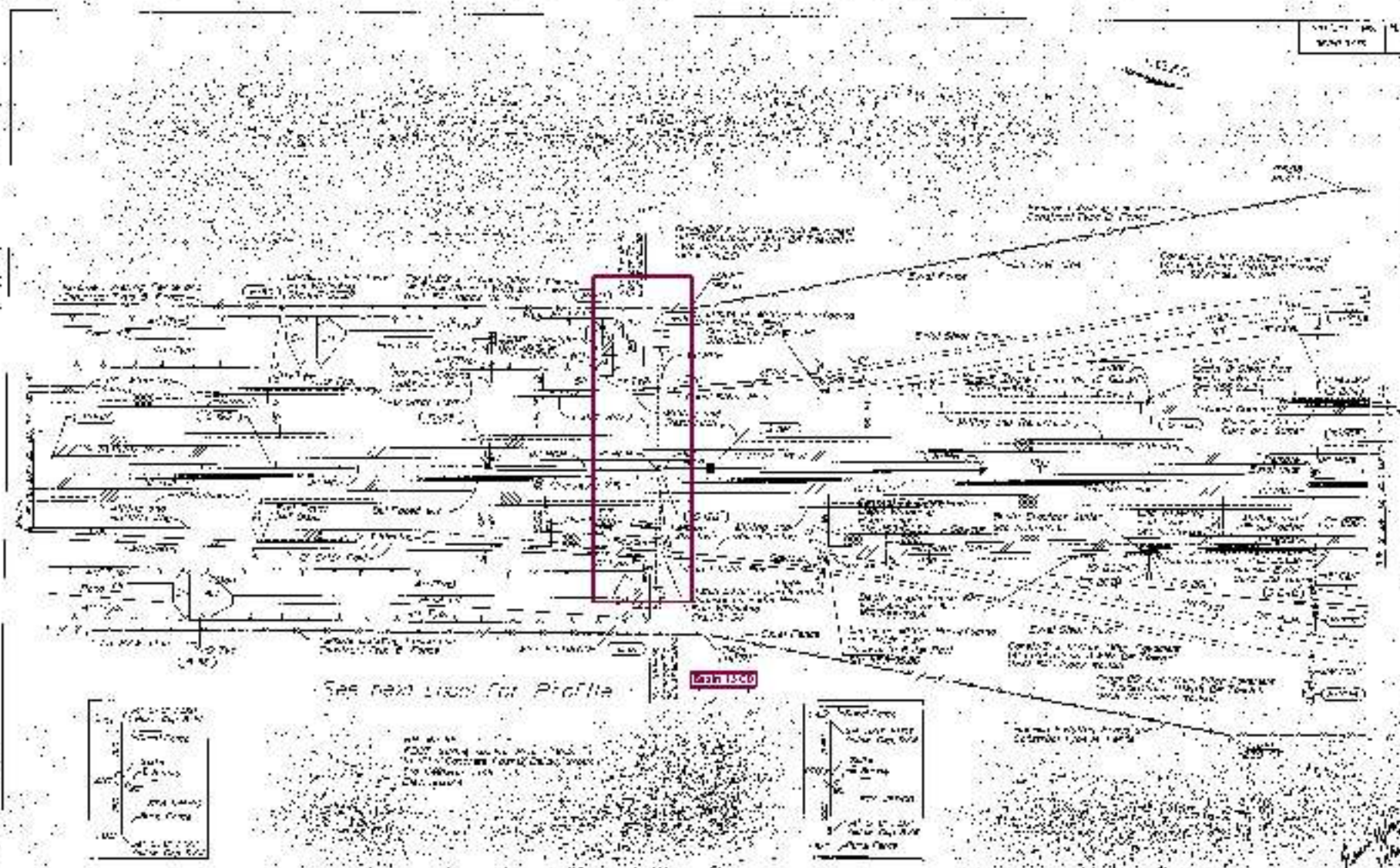


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16	16.00	ROAD 46
17	17.00	ROAD 45
18	18.00	ROAD 44
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20	20.00	ROAD 42
21	21.00	ROAD 41
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25	25.00	ROAD 37

PLAN AND PROFILE
 ROAD 52 TO ROAD 1

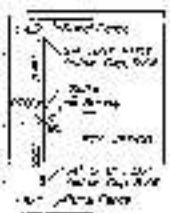
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SHEET NO. 100-1000





See next sheet for Profile

Sheet 1500



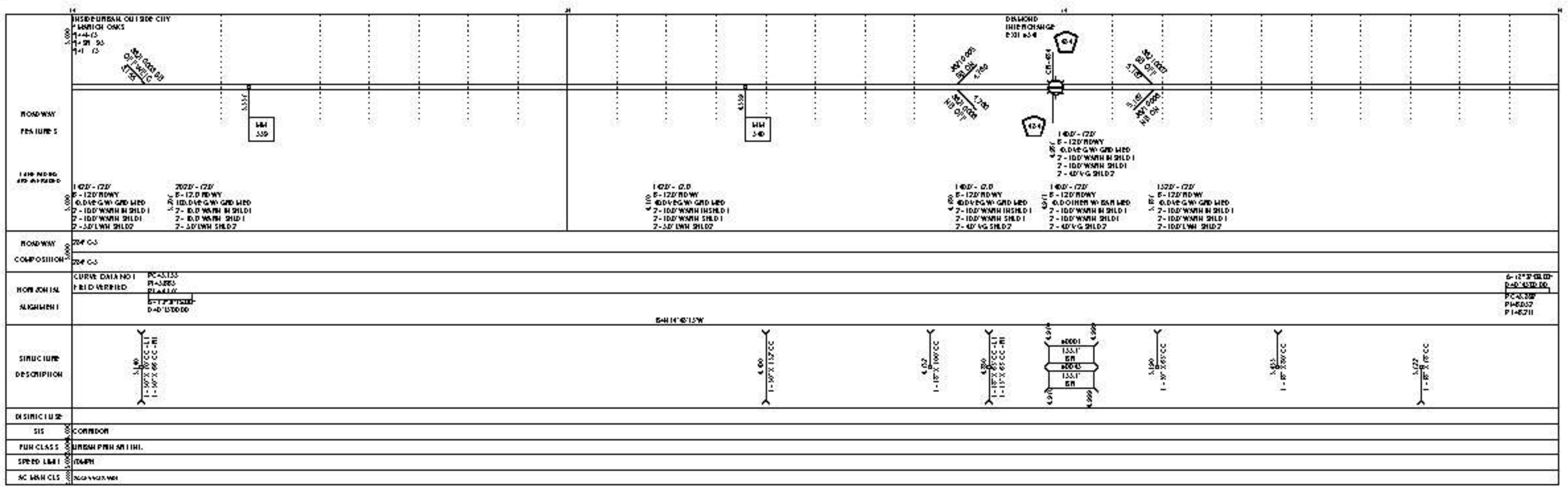
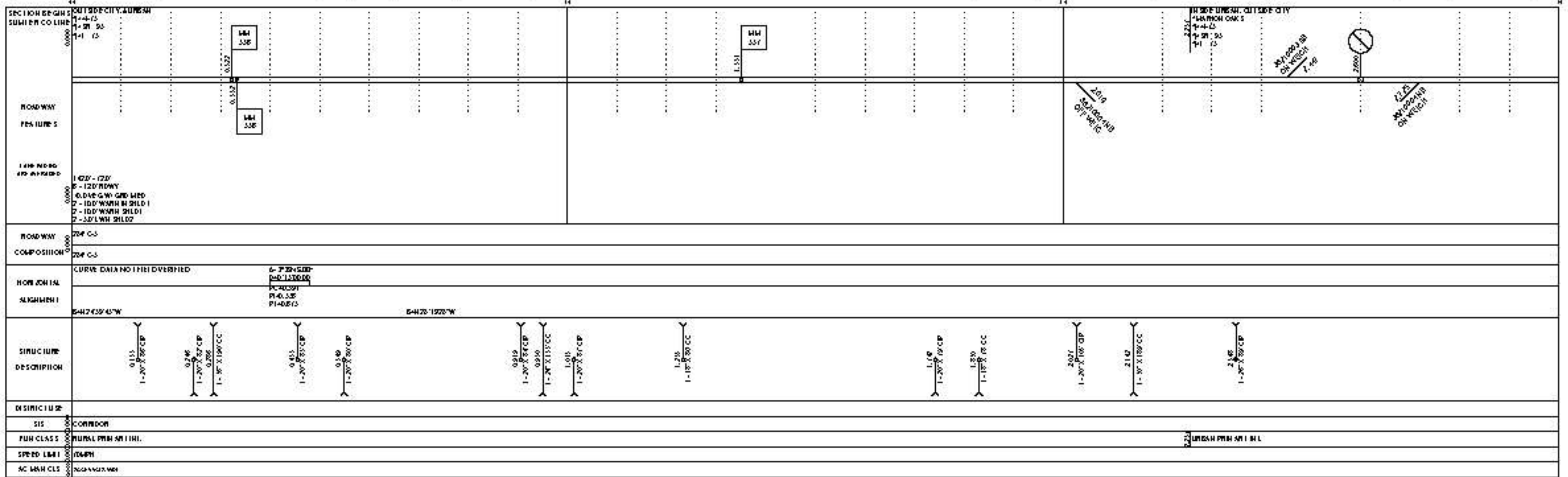
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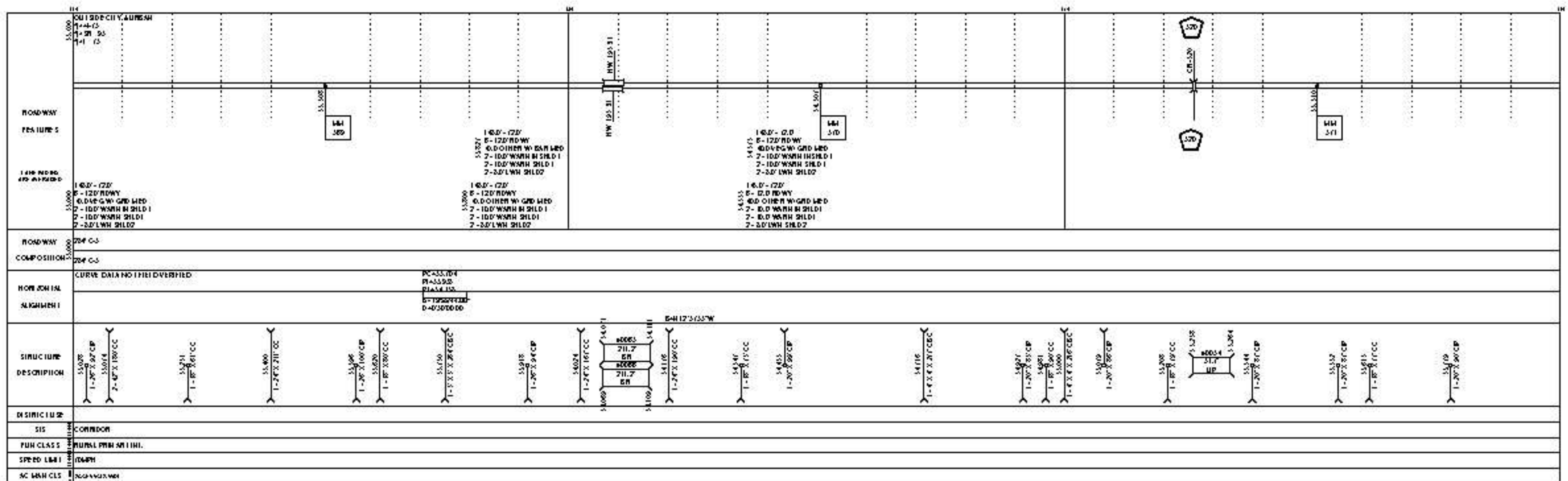
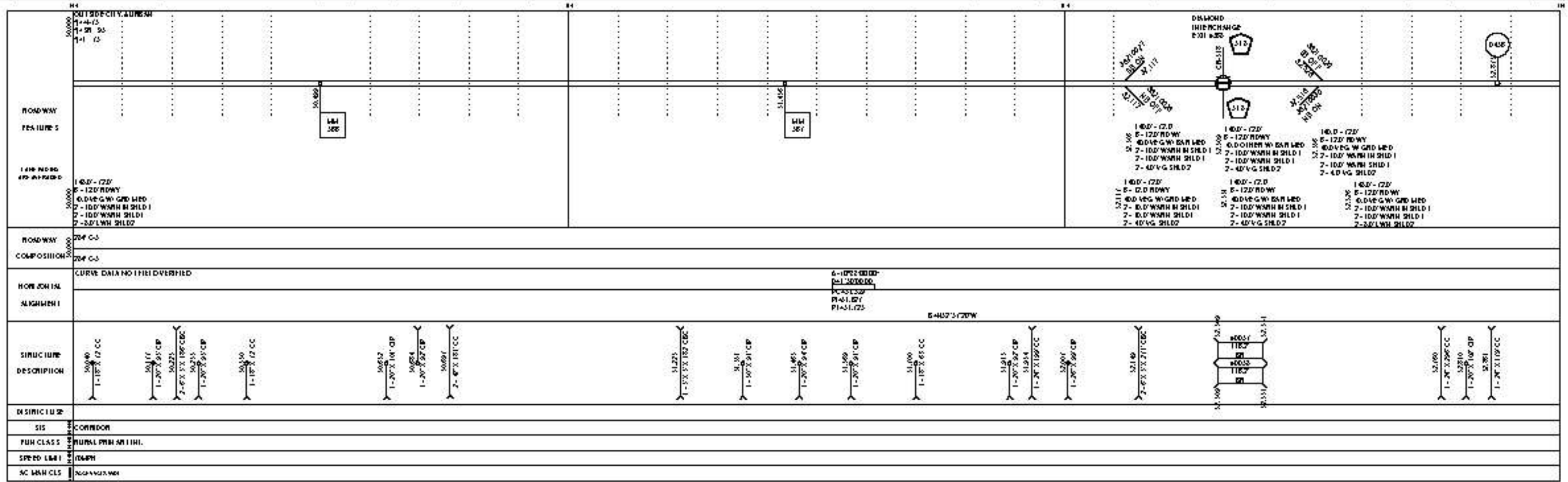


Appendix F
FDOT Straight Line Diagrams

FLORIDA DEPARTMENT OF TRANSPORTATION
STRAIGHT LINE DIAGRAM OF ROAD INVENTORY



FLORIDA DEPARTMENT OF TRANSPORTATION
STRAIGHT LINE DIAGRAM OF ROAD INVENTORY





Appendix G
Floodplain Alternatives and Calculations

Patel, Greene & Associates, LLC

Designed By:

ENS

Date:

3/22/2024

Checked By:

MH

Date:

3/22/2024

FPID 452074-1, I-75 Aux Lanes from SR 200 to SR 326

Floodplain Impact Analysis Worksheet

Floodplain Area ID: 3-1

Sta. 2239+00 to Sta. 2242+00

RT

SHWT/ Ground Elevation:

74.3

Floodplain Elevation:

75.5

Floodplain Type:

Zone AE

Elevation	Impact Area (ac.)	Impact Volume (ac-ft)	Cumulative Impact Volume (ac-ft)	Notes
74.3	0.00	0.00	0	Ground
75.0	0.02	0.01	0.01	
75.5	0.02	0.01	0.02	Floodplain EL

Patel, Greene & Associates, LLC

Designed By:

ENS

Date:

3/22/2024

Checked By:

MH

Date:

3/22/2024

FPID 452074-1, I-75 Aux Lanes from SR 200 to SR 326

Floodplain Impact Analysis Worksheet

Floodplain Area ID: 3-2

Sta. 2249+00 to Sta. 2259+50

RT

SHWT/ Ground Elevation:

65.9

Floodplain Elevation:

70.0

Floodplain Type:

Zone A

Elevation	Impact Area (ac.)	Impact Volume (ac-ft)	Cumulative Impact Volume (ac-ft)	Notes
65.9	0.00	0.00	0	Ground
66.0	0.00	0.00	0.00	
67.0	0.00	0.00	0.00	
68.0	0.05	0.03	0.03	
69.0	0.12	0.09	0.11	
70.0	0.24	0.18	0.29	Floodplain EL

Patel, Greene & Associates, LLC

Designed By:

ENS

Date:

3/22/2024

Checked By:

MH

Date:

3/22/2024

FPID 452074-1, I-75 Aux Lanes from SR 200 to SR 326

Floodplain Impact Analysis Worksheet

Floodplain Area ID: 3-3

Sta. 2252+00 to Sta. 2257+50

LT

SHWT/ Ground Elevation:

65.5

Floodplain Elevation:

67.5

Floodplain Type:

Zone AE

Elevation	Impact Area (ac.)	Impact Volume (ac-ft)	Cumulative Impact Volume (ac-ft)	Notes
65.5	0.00	0.00	0	Ground
66.0	0.00	0.00	0.00	
67.0	0.03	0.02	0.02	
67.5	0.03	0.02	0.03	Floodplain EL

Patel, Greene & Associates, LLC

Designed By:

ENS

Date:

3/22/2024

Checked By:

MH

Date:

3/22/2024

FPID 452074-1, I-75 Aux Lanes from SR 200 to SR 326

Floodplain Impact Analysis Worksheet

Floodplain Area ID: 5-2

Sta. 2292+00 to Sta. 2317+00

RT

SHWT/ Ground Elevation:

63.8

Floodplain Elevation:

66.0

Floodplain Type:

Zone AE

Elevation	Impact Area (ac.)	Impact Volume (ac-ft)	Cumulative Impact Volume (ac-ft)	Notes
63.8	0.00	0.00	0	Ground
64.0	0.00	0.00	0.00	
65.0	0.01	0.01	0.01	
66.0	0.01	0.01	0.01	Floodplain EL

Patel, Greene & Associates, LLC

Designed By:

ENS

Date:

3/22/2024

Checked By:

MH

Date:

3/22/2024

FPID 452074-1, I-75 Aux Lanes from SR 200 to SR 326

Floodplain Impact Analysis Worksheet

Floodplain Area ID: 7-1

Sta. 2329+00 to Sta. 2337+00

RT

SHWT/ Ground Elevation:

63.4

Floodplain Elevation:

69.5

Floodplain Type:

Zone AE

Elevation	Impact Area (ac.)	Impact Volume (ac-ft)	Cumulative Impact Volume (ac-ft)	Notes
63.4	0.00	0.00	0	Ground
64.0	0.00	0.00	0.00	
65.0	0.00	0.00	0.00	
66.0	0.00	0.00	0.00	
67.0	0.00	0.00	0.00	
68.0	0.00	0.00	0.00	
69.0	0.13	0.07	0.07	
69.5	0.13	0.07	0.13	Floodplain EL

Patel, Greene & Associates, LLC

Designed By:

ENS

Date:

3/22/2024

Checked By:

MH

Date:

3/22/2024

FPID 452074-1, I-75 Aux Lanes from SR 200 to SR 326

Floodplain Impact Analysis Worksheet

Floodplain Area ID: 7-2

Sta. 2332+00 to Sta.2343+00

LT

SHWT/ Ground Elevation:

67.2

Floodplain Elevation:

70.0

Floodplain Type:

Zone AE

Elevation	Impact Area (ac.)	Impact Volume (ac-ft)	Cumulative Impact Volume (ac-ft)	Notes
67.2	0.00	0.00	0	Ground
68.0	0.00	0.00	0.00	
69.0	0.02	0.01	0.01	
70.0	0.03	0.02	0.03	Floodplain EL

Patel, Greene & Associates, LLC

Designed By:

ENS

Date:

3/22/2024

Checked By:

MH

Date:

3/22/2024

FPID 452074-1, I-75 Aux Lanes from SR 200 to SR 326

Floodplain Impact Analysis Worksheet

Floodplain Area ID: 14-1

Sta. 2526+25 to Sta.2534+00

RT

SHWT/ Ground Elevation:

63.3

Floodplain Elevation:

67.7

Floodplain Type:

Zone AE

Elevation	Impact Area (ac.)	Impact Volume (ac-ft)	Cumulative Impact Volume (ac-ft)	Notes
63.3	0.00	0.00	0	Ground
64.0	0.00	0.00	0.00	
65.0	0.03	0.01	0.01	
66.0	0.05	0.04	0.05	
67.0	0.14	0.10	0.15	
67.7	0.22	0.13	0.27	Floodplain EL

Patel, Greene & Associates, LLC

Designed By:

ENS

Date:

3/22/2024

Checked By:

MH

Date:

3/22/2024

FPID 452074-1, I-75 Aux Lanes from SR 200 to SR 326

Floodplain Impact Analysis Worksheet

Floodplain Area ID: 14-2

Sta. 2528+25 to Sta.2534+50

LT

SHWT/ Ground Elevation:

63.3

Floodplain Elevation:

68.3

Floodplain Type:

Zone AE

Elevation	Impact Area (ac.)	Impact Volume (ac-ft)	Cumulative Impact Volume (ac-ft)	Notes
63.3	0.00	0.00	0	Ground
64.0	0.00	0.00	0.00	
65.0	0.03	0.01	0.01	
66.0	0.06	0.04	0.06	
67.0	0.11	0.09	0.14	
68.0	0.18	0.15	0.29	
68.3	0.19	0.06	0.34	Floodplain EL

Patel, Greene & Associates, LLC

Designed By:

ENS

Date:

3/22/2024

Checked By:

MH

Date:

3/22/2024

FPID 452074-1, I-75 Aux Lanes from SR 200 to SR 326

Floodplain Impact Analysis Worksheet

Floodplain Area ID: 14-3

Sta. 2534+00 to Sta. 2535+50

RT

SHWT/ Ground Elevation:

63.3

Floodplain Elevation:

67.7

Floodplain Type:

Zone AE

Elevation	Impact Area (ac.)	Impact Volume (ac-ft)	Cumulative Impact Volume (ac-ft)	Notes
63.3	0.00	0.00	0	Ground
64.0	0.00	0.00	0.00	
65.0	0.00	0.00	0.00	
66.0	0.00	0.00	0.00	
67.0	0.01	0.01	0.01	
67.7	0.03	0.01	0.02	Floodplain EL

Patel, Greene & Associates, LLC

Designed By:

ENS

Date:

3/22/2024

Checked By:

MH

Date:

3/22/2024

FPID 452074-1, I-75 Aux Lanes from SR 200 to SR 326

Floodplain Impact Analysis Worksheet

Floodplain Area ID: 15-1

Sta. 2563+00 to Sta. 2589+00

LT

SHWT/ Ground Elevation:

55.1

Floodplain Elevation:

63.7

Floodplain Type:

Zone AE

Elevation	Impact Area (ac.)	Impact Volume (ac-ft)	Cumulative Impact Volume (ac-ft)	Notes
55.1	0.00	0.00	0	Ground
56.0	0.00	0.00	0.00	
57.0	0.00	0.00	0.00	
58.0	0.00	0.00	0.00	
59.0	0.00	0.00	0.00	
60.0	0.00	0.00	0.00	
61.0	0.00	0.00	0.00	
62.0	0.00	0.00	0.00	
63.0	0.56	0.28	0.28	
63.7	0.73	0.45	0.73	Floodplain EL

Patel, Greene & Associates, LLC

Designed By:

ENS

Date:

3/22/2024

Checked By:

MH

Date:

3/22/2024

FPID 452074-1, I-75 Aux Lanes from SR 200 to SR 326

Floodplain Impact Analysis Worksheet

Floodplain Area ID: 15-2

Sta. 2565+50 to Sta. 2587+70

RT

SHWT/ Ground Elevation:

55.2

Floodplain Elevation:

63.7

Floodplain Type:

Zone AE

Elevation	Impact Area (ac.)	Impact Volume (ac-ft)	Cumulative Impact Volume (ac-ft)	Notes
55.2	0.00	0.00	0	Ground
56.0	0.00	0.00	0.00	
57.0	0.00	0.00	0.00	
58.0	0.00	0.00	0.00	
59.0	0.00	0.00	0.00	
60.0	0.00	0.00	0.00	
61.0	0.00	0.00	0.00	
62.0	0.00	0.00	0.00	
63.0	0.42	0.21	0.21	
63.7	0.55	0.34	0.55	Floodplain EL

Patel, Greene & Associates, LLC

Designed By:

ENS

Date:

3/22/2024

Checked By:

MH

Date:

3/22/2024

FPID 452074-1, I-75 Aux Lanes from SR 200 to SR 326

Floodplain Impact Analysis Worksheet

Floodplain Area ID: 15-3

Sta. 2579+00 to Sta. 2587+80

LT

SHWT/ Ground Elevation:

59.9

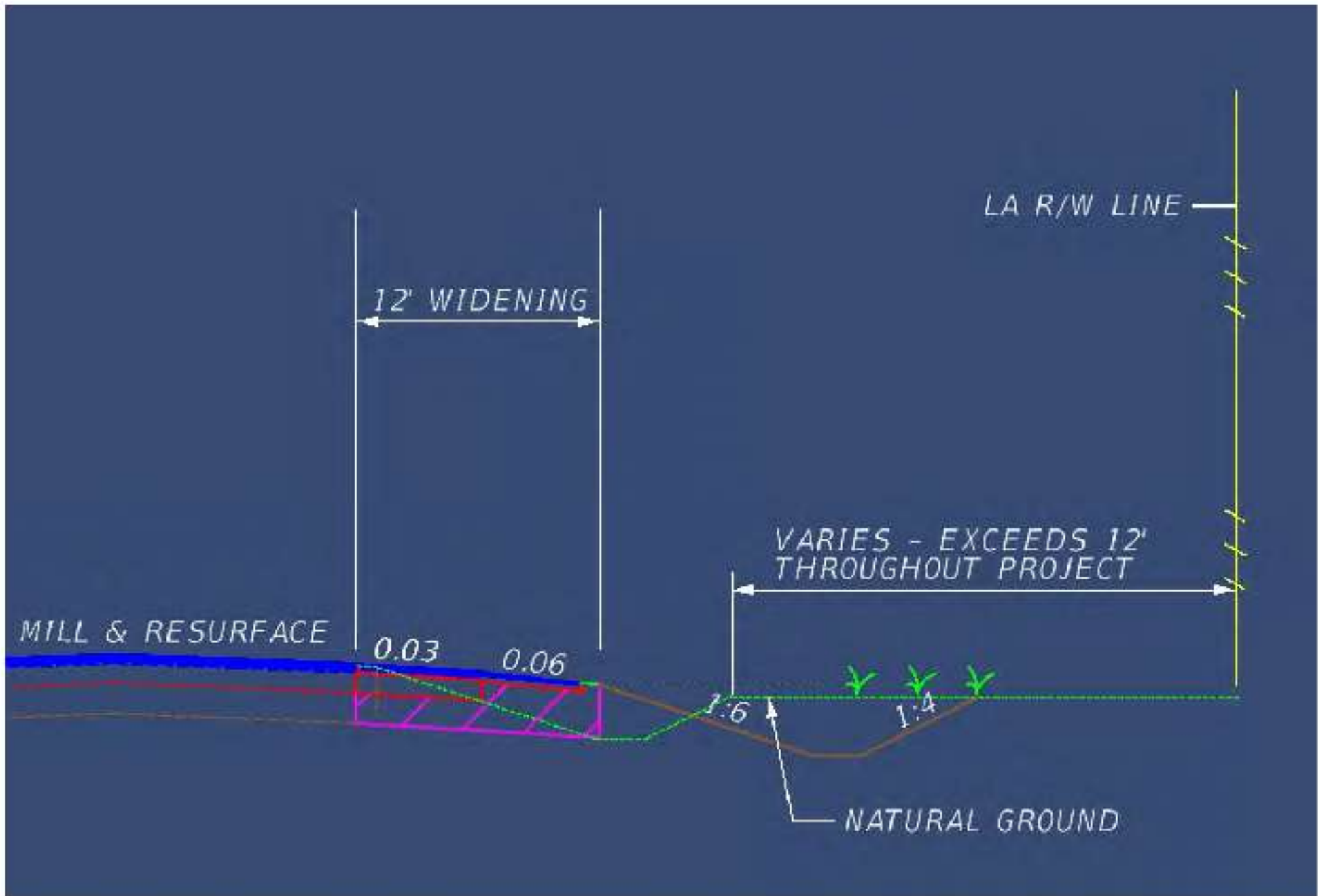
Floodplain Elevation:

63.9

Floodplain Type:






Zone AE

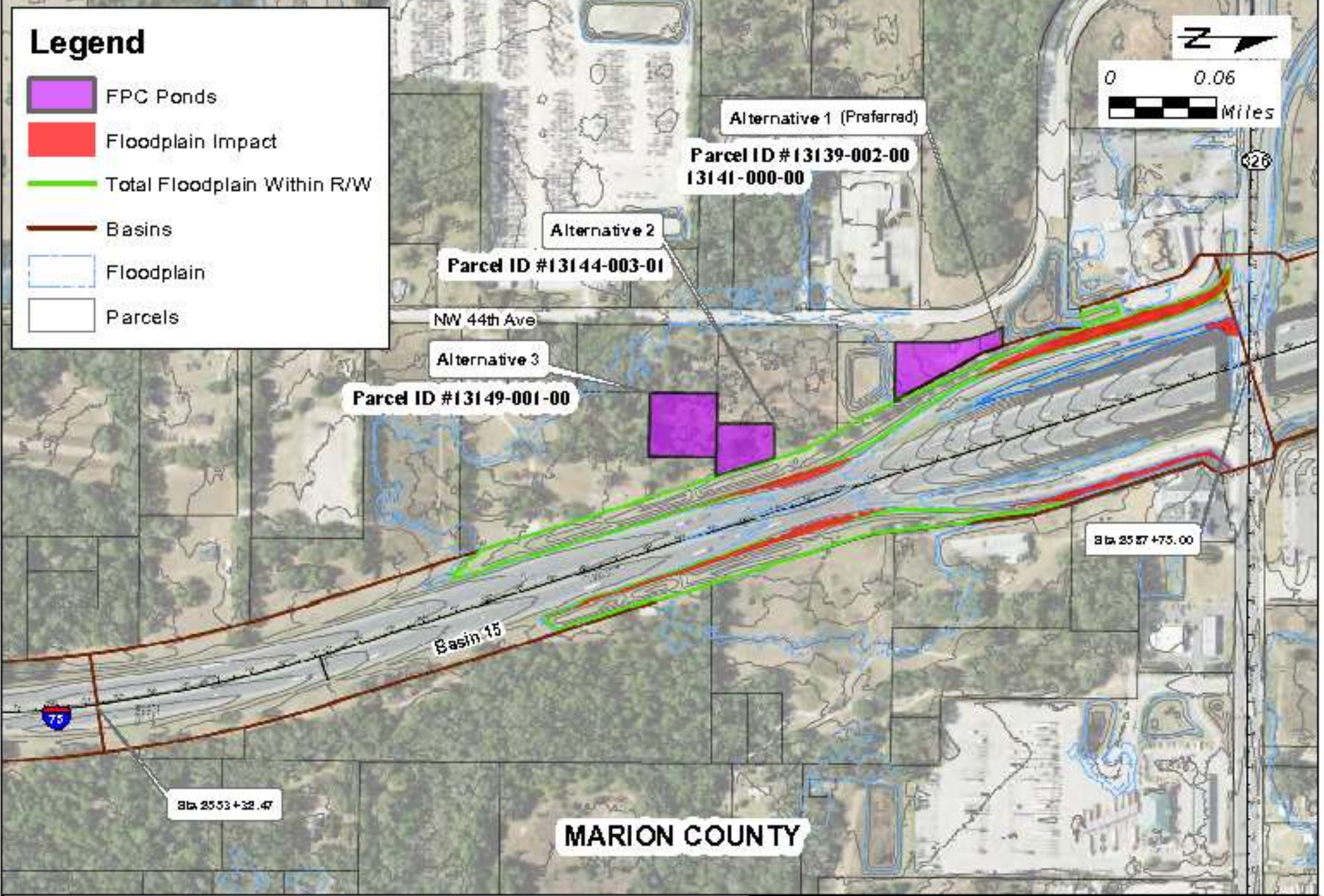
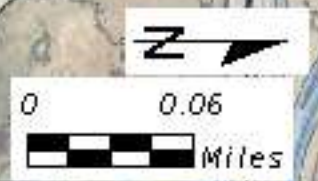
Elevation	Impact Area (ac.)	Impact Volume (ac-ft)	Cumulative Impact Volume (ac-ft)	Notes
59.9	0.00	0.00	0	Ground
60.0	0.00	0.00	0.00	
61.0	0.01	0.00	0.00	
62.0	0.01	0.01	0.01	
63.0	0.04	0.03	0.04	
63.9	0.07	0.05	0.08	Floodplain EL



TYPICAL DITCH RECONSTRUCTION FOR FLOODPLAIN IMPACT COMPENSATION

Legend

-  FPC Ponds
-  Floodplain Impact
-  Total Floodplain Within R/W
-  Basins
-  Floodplain
-  Parcels



Patel, Greene & Associates, LLC
12570 Telecom Drive
Temple Terrace, FL 33637
Michael A. Holt, PE # 76111

Basin 15 FPC Alternatives Auxiliary Lanes at I-75

FPID: 452074-1-22-01

Exhibit 1

Date: 2/23/2024

