

FINAL POND SITING REPORT

S.R. 39 FROM I-4 TO U.S. 301 HILLSBOROUGH AND PASCO COUNTIES, FLORIDA

**Work Program Item Segment Nos: 255099 1 & 256289 1
Federal Aid Project No: F-321-1(4)**

This proposed project involves multi-lane improvements to S.R. 39 and the proposed extension at the Alexander Street Bypass from I-4 in Hillsborough County to U.S. 301 in Pasco County, a distance of approximately 21.2 kilometers (13.2 miles).

December 2000

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WPL#: 7113826	District: Seven	Date: 27-Oct-99
County: Hills.Pasco	FAP No.: N/A	C.E. Sequence #:	N/A
State Rd.: 39	Alternate: POND PSC		

Project Des. SR 39 from I-4 to US 301		Estimated Relocates:	
Parcels:	Gross Net	Business	1
Business	1 1	Residential	1
Residential	0 0	Signs	0
Unimproved	0 0	Special	1
Total Parcels	1 1	Total Relocates	3

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid
1. Direct Labor Cost	(Parcels)	1	x	6,500	Participating
2. Indirect Overhead	(Parcels)	1	x	N/A	Participating
3. (Participating	6,500	) +	(Non-Participating	=	0
				TOTAL PHASE 41	\$6,500

R/W OPS (PHASE 4B)				Amount	Federal Aid
4. Appraisal Fees Through Trial		1	Parcels x	12,000	12,000 Participating
5. Business Damage CPA Fees Through Trial		0	Claims x	19,000	0 Non-Partic
6. Court Reporter & Process Servers		1	Parcels x	500	500 Participati
7. Expert Witness	75%	x	1	=	1 Parcels x
8. Mediators	75%	x	1	=	1 Parcels x
9. Demolition, Asb. Abate., Survey, etc.	50%	x	1	=	1 Parcels x
10. Miscellaneous Contracts			1	Imprvmt x	15,000 Participating
11. Appraisal Fee Review			N/A	Per Project	15,000 Participati
12. (Participating	74,900	) +	(Non-Participating	=	0
				TOTAL PHASE 4B	\$74,900

R/W LAND COSTS (PHASE 43)				Amount	Subtotal	Federal Aid
13. Land, Improvements & Severance Damages/Cost to Cure				1		Participat
Amount	0	x	130% * Design plan stage			Participat
14. Water Retention & Mit.	179,826	x	130% (0 parcels w/o R/W Acq	233,774		
					233,774	
15. SUBTOTAL (Lines 13 and 14)						
16. Admin. Settlements	(Factor 45%)	x	30% of Line 15)	31,600		Participating
17. Litigation Awards	(Factor 60%)	x	70% of Line 15)	98,200		Participat
18. Business Damages	(Claims 0)	x	\$0	0		Non-Parti
19. Bus. Damages Incrs.	(Factor 25%)	x	\$0	0		Non-Parti
20. Owner Appr. Fees	(Parcels 1)	x	\$10,000	10,000		Non-Partic.
21. Owner CPA Fees	(Claims 0)	x	\$10,000	0		Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)		x	40%	51,900		Non-Partic.
23. Owner Expert Witness	(Businesses 1)	+	Unimproved	0		Non-Partic
24. Other Condemn. Costs	(Parcels 1)	x	\$500	500		Participat
25. SUBTOTAL (lines 16 thru 24)					210,200	
26. (Participating	364,100	) +	(Non-Participating	79,900		
				TOTAL PHASE 43		\$444,000

* Design contingency for design plan stage:
 (1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)				Amount	Federal Aid
27. (100% Participating)					\$0
				TOTAL PHASE 42	

RELOCATION COSTS (PHASE 45)				Amount	Federal Aid
Replacement Housing					
28. Owner	\$20,000 Per Unit	x	1	20,000	
29. Tenant	\$10,000 Per Unit	x	0	0	
Move Costs					
30. Residential	\$1,500 Per Unit	x	1	1,500	
31. Business/Farm	\$20,000 Per Unit	x	1	20,000	
32. Personal Property	\$2,000 Per Unit	x	1	2,000	
33. (Lines 28 thru 32)					(100% Participating)
34. Relocation Services Cost				\$4,350	(Not in Phase Total)
					TOTAL PHASE 45
					\$43,500

35.	79,900	Non-Participating
36.	489,000	Participating
37. (All Phases)	TOTAL ESTIMATE	\$568,900

Appraisal:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-27-99
Bus. Dam.:	N/A	Signed:	<i>[Signature]</i>	Date:	10-27-99
Relocation:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	11/22/99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	

Cost Estimate Sequence #: Dated: In the amount of \$ Data Input Completion Date:

REMARKS:
 Pond parcel P5C.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	18.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
 Work Program Update: X Special Purpose: _____ Comments: _____

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**Work Program Item Segment Nos: 255099 1 & 256289 1
Federal Aid Project No: F-321-1(4)**

Prepared for:

**Florida Department of Transportation
District Seven
11201 North McKinley Drive
Tampa, Florida 33612-6456**

Prepared by:

URS Corporation Southern

December 2000

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EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) conducted a Project Development and Environment (PD&E) Study to evaluate the expansion of S.R. 39 to a four-lane facility from the vicinity of Joe McIntosh Road in Hillsborough County to the vicinity of U.S. 301 in Pasco County, Florida. In addition, the FDOT is evaluating the extension of Alexander Street Bypass as a four-lane facility from I-4 northward to S.R. 39 in the vicinity of Joe McIntosh Road.

This report addresses the stormwater management facilities required for the segment of roadway on the new and existing alignment from I-4 to Knights-Griffin Road and includes a pond site alternative analysis. This study provides pond locations that are both hydraulically feasible and environmentally permissible based on the best available information. The pond site locations were evaluated for cultural resources, environmental impacts, right-of-way costs, and drainage considerations.

This report also addresses floodplain encroachment compensation areas for the Alexander Street Bypass segment of roadway from I-4 to Knights-Griffin Road.

SECTION 1.0 INTRODUCTION

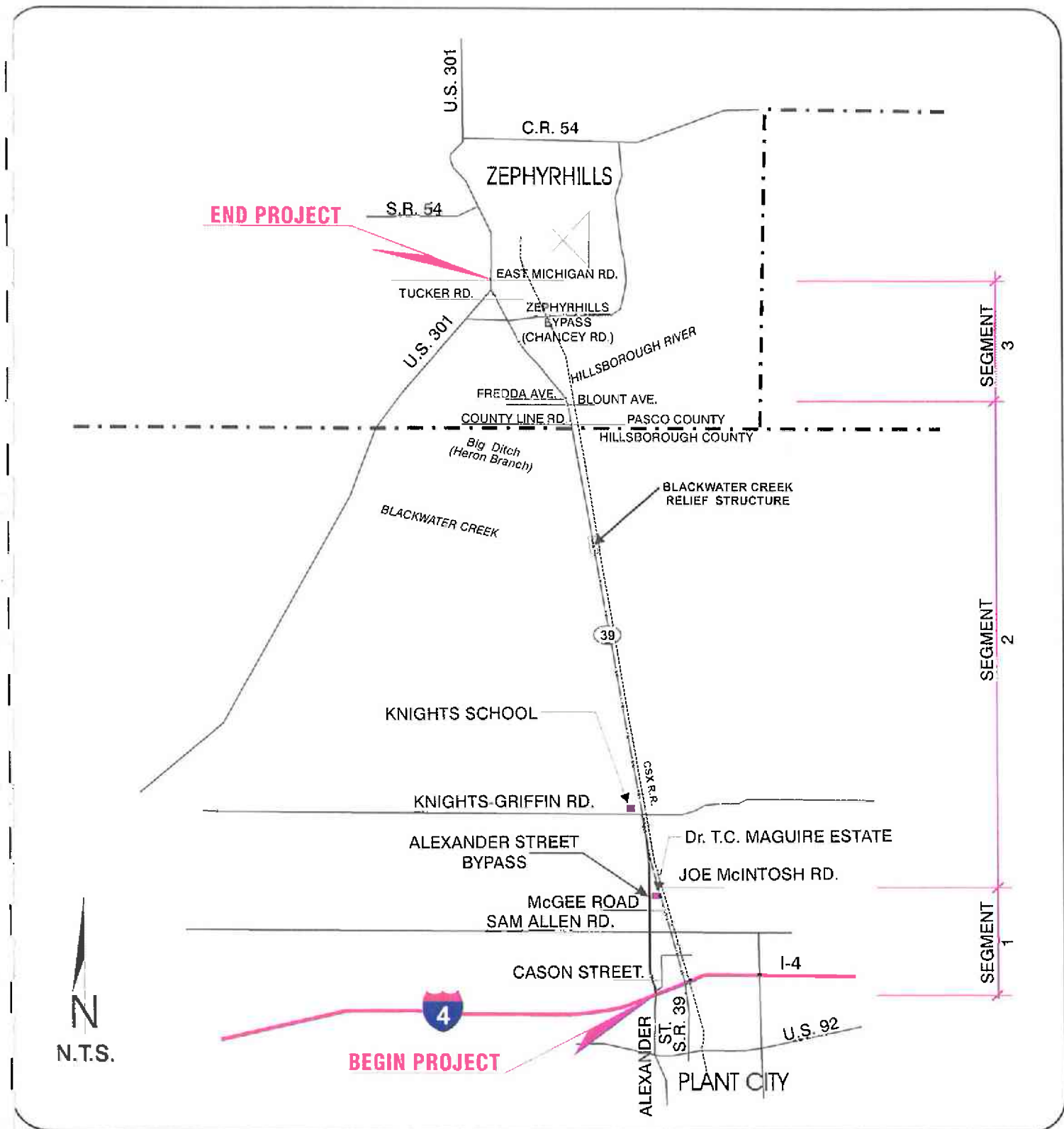
1.1 PROJECT DESCRIPTION

Through the PD&E Study process, the FDOT is evaluating the expansion of S.R. 39 to a four-lane facility from the vicinity of Joe McIntosh Road in Hillsborough County to the vicinity of U.S. 301 in Pasco County. In addition, the FDOT is evaluating the extension of Alexander Street Bypass as a four-lane facility from Interstate 4 (I-4) northward to S.R. 39 in the vicinity of Joe McIntosh Road.

The S.R. 39 corridor is functionally classified as a north/south minor arterial facility between I-4 and U.S. 301. S.R. 39 is part of the Federal-Aid Primary and State Highway System and is classified as an emergency evacuation route. The project limits extend from I-4 in Plant City and Hillsborough County to U.S. 301 in Pasco County, a distance of 21.2 kilometers (km) [13.2 miles (mi)]. Figure 1 illustrates the limits of the study area in relation to the highway system.

S.R. 39 is currently a two-lane undivided roadway with drainage ditches adjacent to the existing roadway. A CSX Transportation railroad line parallels the existing roadway on the east side of S.R. 39 for approximately 17.7 km (11.0 mi) from the existing S.R. 39 and I-4 intersection to a point just north of Crystal Springs in Pasco County.

In 1988, FDOT began the PD&E Study for the widening of S.R. 39 from I-4 to U.S. 301. Early in the study process, it was determined that it would not be feasible to widen S.R. 39 from I-4 to the vicinity of Knights-Griffin Road. The existing facility could not be expanded to the west due to the presence of Plant City Memorial Park cemetery near the I-4 interchange and two structures located farther north that were found to be potentially eligible for listing on the *National Register of Historic Places (NRHP)*¹². Expansion to the east was constrained by the presence of the CSX railroad which parallels S.R. 39.



DR13
CITY
S.R. 39
EL. 12

FLORIDA DEPARTMENT OF TRANSPORTATION

S.R. 39
 From I-4 to U.S. 301
 Pasco County, Florida

PROJECT LOCATION MAP

Work Program Item Segment #: 255099 1 & 256289 1
 FAP #: F-321-1(4)

FIGURE 1

SECTION 2.0

EXISTING CONDITIONS

2.1 LOCATION

The project is located within Sections 5, 6, 8, 17, and 20 of Township 28 South, Range 22 East; Sections 6, 7, 18, 19, 30, and 31 of Township 27 South, Range 22 East; and Section 1 of Township 27 South, Range 21 East in Hillsborough County and Sections 14, 23, 24, 25, and 36 of Township 26 South, Range 21 East in Pasco County. The location and limits of the project are shown in Figure 1.

2.2 EXISTING CONDITIONS

S.R. 39 is currently a two-lane undivided roadway with drainage ditches adjacent to the existing roadway. A CSX Transportation railroad line parallels the existing roadway on the east side of SR 39 for approximately 17.7 km (11.0 mi) from the existing S.R. 39 and I-4 intersection to a point just north of Crystal Springs.

The existing land use patterns along the S.R. 39 corridor are both urban and rural in character. At the southern terminus, the Plant City urban district extends northward from I-4 to the vicinity of Sam Allen Road. This area is primarily residential in nature with minor commercial development. The Memorial Park Cemetery is located in the northwest quadrant of I-4 and S.R. 39. Land uses in the central portion of the study area from Sam Allen Road north to the vicinity of Zephyrhills consist of agricultural uses, rural residential development, vacant parcels, and a few commercial/industrial uses. Based on the Hillsborough and Pasco County Comprehensive Plans, development activity adjacent to, and in the vicinity of, the S.R. 39 corridor is converting from agricultural land use to residential, commercial, and industrial land use. In addition, an ultra-light aircraft airport is located to the east of S.R. 39. At the northern portion of the project in Zephyrhills, the land uses are primarily residential development.

SECTION 3.0
DESIGN INFORMATION

3.1 DESIGN INFORMATION SOURCES

This Pond Siting Report (PSR) is prepared according to the requirements set forth in the FDOT Drainage Manual (Topic No. 625-040-001-b). Engineering specifics will be further addressed during the project design phase.

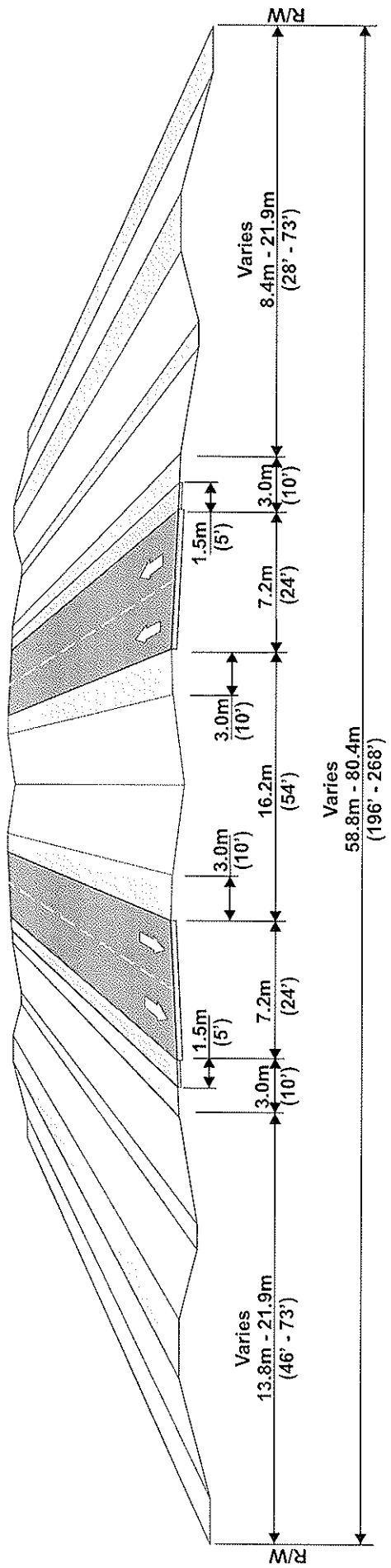
Sources of information for the investigation and development of this report include:

- USGS Quadrangle Maps;
- Southwest Florida Water Management District (SWFWMD) Contour Maps;
- FEMA Flood Insurance Rate Maps for Hillsborough and Pasco Counties;
- FEMA Flood Insurance Studies for Hillsborough and Pasco Counties;
- Soil Surveys of Hillsborough and Pasco Counties;
- Florida Department of Transportation S.R. 39 Widening Plans;
- Recent I-4 Plans and Drainage Calculations;
- City of Plant City, Westside Canal Stormwater Management Master Plan; and
- Floodplain Information on the Blackwater Creek and Hillsborough River Watershed by SWFWMD.

A detailed list of references is provided in Section 9.0 of this document.

3.2 DESIGN ASSUMPTIONS

The scope of this report covers general planning information. Much of the existing data was taken from FDOT construction plans and previous design information. Detailed calculations will be



FROM I-4 TO KNIGHTS-GRIFFIN ROAD

TYPICAL SECTION

S.R. 39 FROM I-4 TO U.S. 301
 WPI SEGMENT No. 255099 1 & 256289 1 FAP No. F-321-1(4)
 HILLSBOROUGH AND PASCO COUNTIES, FLORIDA



3.5 STORMWATER QUANTITY

The design of detention ponds will be in accordance with the Environmental Resource Permitting (ERP) Manual, which requires that the discharge rate for post-development not exceed that of pre-development. FDOT critical duration requirements will also be followed. Design storm frequency for stormwater ponds of 25 years for an open basin, 100 years for a closed basin, with a duration of 24 hours for both based on the SWFWMD Type II Florida Modified rainfall distribution. The durations required to satisfy the FDOT critical duration criteria will also be utilized.

3.6 POND SITE CONFIGURATION

The proposed wet detention ponds are typically based on a 6.1 m (20 ft) perimeter strip for maintenance activities. The proposed ponds will have a minimum of 1:4 vertical to horizontal side slopes and a minimum of 0.30 m (1 ft) of freeboard between the maximum design stage and the top of bank of the pond.

3.7 POND VOLUME

Pond volumes were estimated by calculating the required treatment volume and attenuation volume within each basin area. Detailed calculations are contained in Appendix A. The sum of these estimated volumes and maintaining a 0.30 m (1 ft) of free board was used to determine wet detention pond sizes.

SECTION 4.0
PROPOSED CONDITIONS

4.1 PROPOSED DRAINAGE SYSTEM

The proposed drainage system for the Alexander Street Bypass will consist of a combination of rural and suburban sections. From I-4 to Cason Street, runoff from the roadway will drain to roadside conveyance ditches and then to detention ponds for stormwater treatment and attenuation. A separate collector ditch is proposed outside of the conveyance ditch which will collect offsite runoff and direct this flow to cross-drains under the roadway. From Cason Street to the tie-in to S.R. 39, runoff from the roadway will drain to roadside conveyance ditches and then to stormwater treatment and attenuation ponds. There is no separate offsite runoff collector ditch for this area. The preliminary roadway profile grade line from I-4 to Knights-Griffin Road is shown in Appendix A.

There are five drainage basins within the project limits of the Alexander Street Bypass. Generally, all roadway runoff and any adjacent off-site drainage area that has to be taken into the conveyance system will be collected and discharged to stormwater management ponds. The following section of this report includes a brief discussion of the major basin boundaries, the general flow paths, and how project and offsite drainage is proposed to be handled for the proposed improvements.

4.1.1 Basin 1

The drainage area for Basin 1 is approximately 5.5 hectares (13.6 acres) in size from Station 22+50 to Station 29+25. The basin begins at I-4 and ends approximately at Cason Street. The proposed vertical alignment will sag near Station 26+20 and then rise to a high point at Station 29+80, beyond the end Station of the drainage area. Roadway drainage north of Cason Street will be passed to the next northerly drainage basin. A cross drain will be provided at the sag so off-site flows can pass through.

SECTION 5.0
STORMWATER POND ALTERNATIVES

5.1 METHODOLOGY

This section contains a review and recommendation of the stormwater management facilities proposed for this project. Each of the potential stormwater ponds were reviewed for wetland impacts, threatened and endangered species, contamination and historic/archaeological impacts.

In many cases, the outlines of the stormwater pond locations are shown as rectangular on the Alternate Pond Site Location Maps (Appendix C); however, during detailed design, these ponds could be shaped to follow existing features such as adjacent wetlands to provide a more aesthetic and efficient appearance.

Additional factors considered in selecting the pond sites were that fewer, larger ponds will achieve better water quality treatment and will be less maintenance-intensive than numerous, smaller ponds. Maps from the Hillsborough County Property Appraiser's office were used as a guide in locating ponds to minimize land acquisition from multiple property owners. Remainder parcels or parcels which will be required for the roadway right-of-way were reviewed for potential pond site locations. The Alternate Pond Site Location Maps in Appendix C show the stormwater pond locations and the basin limits. Three alternative pond sites were evaluated for each drainage basin. The pond size is dependent on the SHWT elevation and if the pond will be receiving off-site drainage. Therefore, each pond alternate area will vary because the SHWT depth and off-site drainage areas vary. Table 1 summarizes the pond site alternatives.

See Table 2 for a matrix showing the factors involved in selecting the preferred or recommended pond sites. The locations of the alternate pond sites were furnished to FDOT and right-of-way cost estimates were developed. The right-of-way cost information is included in Appendix F.

TABLE 2

**POND SITING MATRIX
S.R. 39 Pond Siting Report**

FACTORS	Alternate Pond Sites											
	Basin 1			Basin 2			Basin 3			Basin 4		
	P1A	P1B	P1C	P2A	P2B	P2C	P3A	P3B	P3C	P4A	P4B	P4C
Business Impact	0	0	1	0	0	0	0	0	0	0	0	0
Residential Impact	1	0	0	0	0	5	0	0	0	0	0	0
Sign Impact	0	0	0	0	0	0	0	0	0	0	0	0
Special Impact	0	0	1	0	0	0	0	0	0	0	0	0
Impact Total	1	0	2	0	0	5	0	0	0	0	0	0
Contamination Impacts	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I
Wetland Impacts	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I
Threatened & Endangered Species	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I
Archaeological Impacts	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I
Right-of-Way Cost	\$441,600	\$112,000	\$440,200	\$337,400	\$287,800	\$1,157,600	\$338,300	\$304,800	\$229,900	\$338,300	\$304,800	\$229,900
Recommended Pond Site		X		X								X

FACTORS	Alternate Pond Sites											
	Basin 4			Basin 5			Basin 6			Basin 7		
	P4A	P4B	P4C	P5A	P5B	P5C	P6A	P6B	P6C	P7A	P7B	P7C
Business Impact	0	0	0	0	1	1	0	0	0	0	0	0
Residential Impact	2	2	0	1	0	1	0	0	0	0	0	0
Sign Impact	0	0	0	0	0	0	0	0	0	0	0	0
Special Impact	0	0	0	0	1	1	0	0	0	0	0	0
Impact Total	2	2	0	1	2	3	0	0	0	0	0	0
Contamination Impacts	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I
Wetland Impacts	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I
Threatened & Endangered Species	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I
Archaeological Impacts	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I	N/I
Right-of-Way Cost	\$594,000	\$747,200	\$182,500	\$277,400	\$1,604,200	\$568,900	\$277,400	\$182,500	\$277,400	\$1,604,200	\$568,900	\$568,900
Recommended Pond Site			X		X							X

LEGEND:

N/I = No Involvement according to FDOT.
 Business, Residential, Sign, Special Impact = Type of impacts according to FDOT R/W Cost Estimate.

5.2.4 Quantifiable Factors for Basin 1 Pond Site Alternatives

- Alternative P1A would have one residential impact.
- Alternative P1C would have one business impact and one special impact.
- Alternative P1B would have no estimated relocatees and be the least costly.

5.2.5 Recommendation

Alternative Bond P1B is the recommended site for Basin 1.

5.3 **BASIN 2**

The possible stormwater alternatives for Basin 2 will be located between Terrace Drive and Sam Allen Road or Station 29+25 to Station 43+60 and are provided below:

5.3.1 Pond P2A

Pond P2A will be located between Station 35+30 and 37+30 (approximately) on the west side of the Alexander Street Bypass alignment. The required pond storage volume was calculated to be 10,361 m³ (8.40 acre-feet). This 3.02 hectare (9.39 acre) alternate pond site consists of a portion of a large row crop farm. The farm property will be impacted by the proposed Alexander Street Bypass right-of-way. The outfall for this pond would be to the south at a proposed cross drain at Station 34+20.

5.3.2 Pond P2B

The alternate site for Pond P2B is almost a mirror image of the site presented for Pond 2A. The site will be on the east side of the Alexander Street Bypass right-of-way and approximately between the stations mentioned for Pond Site P2A. The required pond storage volume was calculated to be 9,560 m³ (7.75 acre-feet). This 3.37 hectare (8.33 acre) site also consists of a portion of the same large row crop farm that would be impacted for alternate Pond Site P2A. The outfall for this site will be the

5.4.1 Pond P3A

The P3A pond site alternate will be located on the west side of the proposed Alexander Street Bypass alignment from Station 50+25 to Station 52+00. The total required pond storage volume was calculated to be 10,127 m³ (8.21 acre-feet). The area of the taking of this pond site will be 2.74 hectares (6.76 acres). The west side of this site is shown to be adjacent to a local road right-of-way, Jerry Red Road. This site is also a portion of another row crop farm and will be a single taking. The outfall for this pond would be to a wetland north of this proposed pond site.

5.4.2 Pond P3B

Alternate pond site P3B would be located north of the intersection of the proposed Alexander Street Bypass alignment and Joe McIntosh Road extension. This site would be a single taking between Stations 56+80 and 58+20. The required pond storage volume was calculated to be 9,510 m³ (7.71 acre-feet). This 2.39 hectare (5.9 acre) site is presently a pasture and a portion of a wetland is encroached upon at the northwest corner of the site. The outfall for this pond alternate will be a wetland located north of this alternate site.

5.4.3 Pond P3C

Pond site P3C alternative would be located on the east side of the Alexander Street Bypass alternative between Stations 52+00 and 54+50. The required pond storage volume was calculated to be 9,621 m³ (7.80 acre-feet). This 2.75 hectare (6.80 acre) site is part of the same row crop farm that contains site P1A and will be a single taking. The P3C outfall will be a wetland located north of this alternate site.

5.4.4 Quantifiable Factors for Basin 3 Pond Site Alternatives

- None of the Basin 2 alternatives would incur relocating impacts.
- Alternative P3C would be the least costly.

5.5.4 Quantifiable Factors for Basin 4 Pond Site Alternatives

- Alternative P4A and P4B would have two residential impacts each.
- Alternative P4C is the least costly and hydraulically adequate.

5.5.5 Recommendation

Alternative Pond P4C is the recommended site for Basin 4.

5.6 BASIN 5

The pond site alternatives for Basin 5 Station 68+00 to Station 73+40 are as follows:

5.6.1 Pond P5A

Pond P5A will be located on the west side of the proposed roadway between McLin Drive and Station 70+50. The required pond storage volume was calculated to be 2,109 m³ (1.71 acre-feet). This 0.50 hectare (1.25 acre) site consists of rural developed areas on four parcels. These parcels will all be remainder parcels from the Alexander Street Bypass roadway right-of-way acquisition. The pond would outfall to a wetland area to the west of this alternate pond site.

5.6.2 Pond P5B

Pond P5B will be located on the south side of Knights-Griffin Road and west of Knights Baptist Church. The required pond storage volume was calculated to be 1,998 m³ (1.62 acre-feet). This site is currently undeveloped and consists of 0.63 hectares (1.56 acres). An existing drainage ditch located on the west side of the site will be the outfall for this alternate pond site.

SECTION 6.0
ENVIRONMENTAL EVALUATION

6.1 JURISDICTIONAL WETLAND INVOLVEMENT

Field Surveys were conducted and according to a memorandum from FDOT, no jurisdictional wetland areas will be impacted by the limits of the proposed pond alternatives. See the FDOT memorandum dated November 22, 1999, in Appendix E.

6.2 THREATENED AND ENDANGERED SPECIES

Field surveys were conducted and according to a memorandum from FDOT, no species listed as threatened or endangered were observed during the field reconnaissances within the potential pond locations. See the memorandum from FDOT, dated November 22, 1999 in Appendix E.

6.3 CONTAMINATION

Field surveys were conducted and according to a memorandum from FDOT, Pond Site 5A is adjacent to Contamination Site Number 7. The site ranking was "medium" and additional contamination assessment activities are warranted. Further investigation will be completed on Contamination Site Number 7 prior to final design and construction. All other sites are considered to be ranked as "no" and should have no potential for contamination impacts. See the FDOT memorandum dated February 10, 2000 in Appendix E.

6.4 HISTORICAL/ARCHAEOLOGICAL RESOURCES

A Cultural Resources Assessment Survey (CRAS) Report for the S.R. 39 (I-4 to U.S. 301) PD&E Study was originally prepared by Archaeological Consultants, Inc. (ACI) and completed in April 1992. An updated cultural resource assessment survey of the above referenced project was performed by ACI in January and October 1999. Work included background research, ground surface reconnaissance, systematic archaeological survey, and historic structures survey.

SECTION 7.0

FLOODPLAIN COMPENSATION SITE ALTERNATIVES

7.1 METHODOLOGY

The Federal Emergency Management Agency (FEMA) has developed Flood Insurance Rate Maps (FIRMs) for the unincorporated areas of Hillsborough, Pasco counties and Plant City in the vicinity of the project. Information from the FEMA FIRMs was transferred to aerial maps to show the floodplain limits on the maps provided in Appendix D. FEMA FIRMs relevant for this project are listed in Section 9.0.

7.2 FLOODPLAIN ENCROACHMENT

The proposed construction of the S.R. 39 Alexander Street Bypass will impact the 100-year floodplain at three locations. The majority of the encroachment is within the Pemberton Creek floodplain. Floodplain calculations are contained in Appendix B.

The first floodplain encroachment area is located in the Pemberton Creek floodplain from Station 23+50 to Station 28+25. The proposed roadway will transversely cross the floodplain. The total encroachment volume for this area is estimated at 16,035 m³ (13.0 acre-feet).

The second floodplain encroachment area is located in a tributary to Pemberton Creek from Station 31+25 to Station 33+50. The proposed roadway will transversely cross the floodplain. The total encroachment volume for this area is 1357 m³ (1.1 acre-feet).

The last area of floodplain encroachment is the Alexander Street Bypass from Station 54+80 to Station 55+60. The total encroachment volume for this area was estimated to be 826 m³ (0.67 acre-feet).

The total floodplain encroachment volume and required floodplain compensation volume for the Alexander Street Bypass is estimated to be 18,256 m³ (14.8 acre-feet).

SECTION 8.0
CONCLUSION

Alternative stormwater detention and mitigation ponds were reviewed along the project corridor from I-4 to Knights-Griffin Road. Many parameters were evaluated for each site including right-of-way costs, construction costs, and permitting difficulty. Each prospective site was also reviewed for wetland, contamination, threatened and endangered species, and historical/archaeological impacts. In summary, the 15 proposed pond site alternates did not have any involvement with wetlands, contamination, threatened and endangered species, or historical/archaeological impacts.

Table 3 provides the recommended pond sites and their corresponding basins.

TABLE 3
RECOMMENDED POND SITES

Basin	Alternative Pond Site
1	P1B
2	P2A
3	P3C
4	P4C
5	P5A

It should be noted that the stormwater pond and mitigation area sizes, locations, and stormwater conveyance systems are conceptual and are based on preliminary data and assumptions. At the time of final design, pond sizes and locations could be modified pursuant to design and permitting requirements and additional geotechnical investigations.

SECTION 9.0
REFERENCES

1. USGS Quad Maps, Plant City West, Fla, 1975 Zephyrhills, Fla. 1975.

2. The following SWFWMD Aerials

Sections 5, 6, 8, 17, 20; Township 28 E; Range 22S

Sections 6, 7, 18, 19, 30, 31; Township 27E; Range 22S

Section 1 Township 27E; Range 21S

Sections 14, 23, 24, 25, 36; Township 26E; Range 21S

3. FEMA Flood Insurance Rate Maps

Panel No.	Community	Effective Date
120113 0005B	Plant City	April 29, 1983
120112 0270D	Hillsborough County	August 3, 1992
120112 0260C	Hillsborough County	April 17, 1984
120112 0120C	Hillsborough County	April 17, 1984
120230 0470B	Pasco County	November 11, 1981
120230 0460D	Pasco County	September 30, 1992

4. FIS Hillsborough County, August 3, 1992.
FIS Pasco County, May 18, 1981.

5. NRCS Soils Surveys for Hillsborough County (1989) and Pasco County (June 1982).

6. Design Documentation for I-4 Drainage, (Volumes 1 through 4). Improvements (Segment 4) State Project Number :10190-431, Work Program Number: 7143200, Federal Aid and Project Number: DPI-0043-(1). Proposed for FDOT by Parsons Brinkerhoff, Revised March 1996.

7. City of Plant City, Florida, Westside Canal Stormwater Management Plan, May 1997, by Camp Dresser and McKee.

APPENDIX A
Pond Siting Calculations



**SR39 / ALEXANDER ST. BYPASS
POND SITING CALCULATIONS
TABLE OF CONTENTS**

- I. Basin 1 Description
 - A. Treatment Area
 - B. Pond Site P-1A

*NOTE: All elevations in the computations are in feet, NGVD, unless noted otherwise.
For each pond site the analyses are typically as follows:*

- 1. Pond Site Conditions
- 2. Treatment Volume
- 3. Attenuation Volume
- 4. Total Pond Volume Required
- 5. Pond Configuration

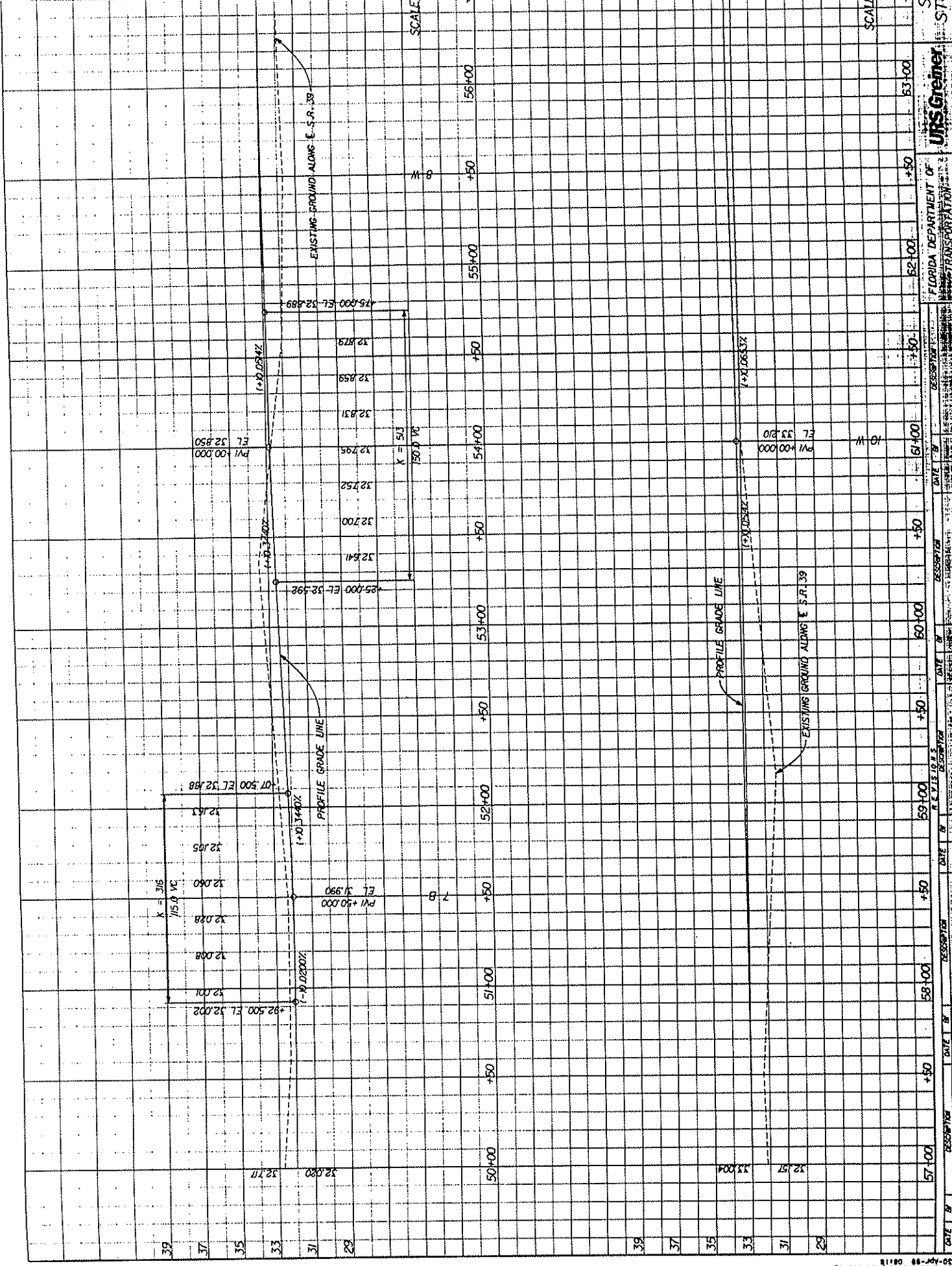
- C. Pond Site P-1B
- D. Pond Site P-1C

- II. Basin 2 Description
 - A. Treatment Area
 - B. Pond Site P-2A
 - C. Pond Site P-2B
 - D. Pond Site P-2C

- III. Basin 3 Description
 - A. Treatment Area
 - B. Pond Site P-3A
 - C. Pond Site P-3B
 - D. Pond Site P-3C

DATE	DESCRIPTION	DATE	DESCRIPTION	DATE	DESCRIPTION
10/27/07	10.13.08.5	10/27/07	10.13.08.5	10/27/07	10.13.08.5





DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



JOB: SR39 / ALEXANDER ST. BYPASS
DESCRIPTION: I. Basin 1 Description

SHEET ___ OF ___ PROJ. NO. C100003240.19
COMPUTED BY: Zinner DATE: 03-06-2000
CHECKED BY: KAG DATE: 03-15-00

From station 22+50 to 29+25

Length = 675 m = 2215 ft

R/W width from I-4 to Cason Street = 268 ft

R/W area = 2215 x 268 = 593,620 ft² = 13.63 ac = 5.52 ha

A. Treatment Area

See attached CN calculations for the total drainage area.

JOB: SR39 / ALEXANDER ST. BYPASS
DESCRIPTION: B. Alternate Pond Site P-1A

SHEET OF PROJ. NO. C100003240.19
COMPUTED BY: Zinner DATE: 03-06-2000
CHECKED BY: KAG DATE: 03-15-00

1. Pond Site Conditions

Location: Station 28+00 right

Existing grade elevation of site: the average grade is approximately 113.0.

Existing Soils Types: predominantly Lake and Seffner soils.

Existing Seasonal High Water Table (SHWT) of pond site:

The following data is available:

Source	Estimated SHWT Elevation (ft, NGVD)
NRCS (SCS) Soils Survey states the depth to SHWT for Lake is > 6.0' and Seffner soils is 1.5' to 3.5'	107.0 to 111.5
SHWT determination by Mark Brown of FDOT at approximately stations 25+70 to 27+23 of proposed Alexander Street Bypass alignment (see attached correspondence)	105.5 to 106.0

The SHWT is estimated to be 107.0

Maximum Design High Water (DHW): The calculated shoulder elevation at the sump will be at 112.2.

Minimum Ditch Flow Line elevation: The attached profile shows that the proposed ditch will positively convey onsite runoff from one side of the proposed cross drain, and usually the outfall, to the pond inlet.

2. Treatment Volume

This is not an existing roadway therefore the treatment volume is the entire contributing drainage area per Southwest Florida Water Management District (SWFWMD) criteria.

Type of Treatment: with high ground water in the pond area percolation will not be a mode of discharge. Therefore we will assume the type of stormwater treatment will be *wet detention*. Per SWFWMD criteria the required treatment volume for wet detention will be 1" of runoff from the total contributing drainage area. See attached CN calculations for the total drainage area:

Total Drainage Area = 13.64 ac (ASB R/W) + 7.39 (offsite and pond) = 21.03 acres

Treatment Volume: D.A. (ac) * (1" / 12") = 21.03 * (1 / 12) = 1.75 ac-ft

interoffice
MEMORANDUM

For remainder of this
memo see Communications
Appendix of this
report.

to: Gabor Parkasfalvy, Dennis Jent, Carlos Lopez, John Kubler
from: Mark Brown
subject: SR 39 From I-4 to US 301, PD&E Study, Wetland & Soil Water Levels
date: March 14, 1999

At the request of PD&E and Greiner, I conducted water level determinations at various station locations associated with the proposed Alexander Street Extension and potential SR 39 improvements. The attached aerials provided by Greiner designate the locations (blue dots) where surface and ground water elevations were evaluated while using biological and/or soil indicators. For the wetland crossings, various water level indicators were used to determine normal pool (NP), seasonal high water table (SHWT) and flood elevations. In some wetland cases only one or two indicators are present, but at least the SHWT elevation was determined using the best available indicator. For the soil borings, only the SHWT distance below grade was determined and compared with the NRCS Hillsborough County Soil Survey information.

In order to potentially minimize the effort needed by the DOT survey crew to spend on the sites, I have referenced the natural grade elevations listed in the table provided by Greiner. Depending on the degree of accuracy associated with those elevations and the necessity to compile exact elevations for the PD&E level study, the elevations I provide for each of the requested stations may be all that is needed. This is particular true for the soil borings that have a deep SHWT elevation compared to the proposed road grade. I refer to Gabor and Carlos for that decision. In any case, I will provide directions and survey locations on the aerials to assist the survey crew locate the sites for the Alexander Street Extension. The remaining SR 39 locations are adjacent to the existing R/W

Sites 1W and 2W (Sheet 1) - This is a severely dewatered swamp, which has resulted in a couple feet of muck oxidation within some portions. Since organic muck oxidizes down to an elevation where the soil stays somewhat saturated, an estimated SHWT equates to the interior grade elevations. I flagged six locations spaced 30-40 ft. apart within the proposed roadway alignment through the lower grade elevations. Based on plant cover, it appears these six flags cover an area where the SHWT still reaches existing grade. According to the table, the grade elevation from that area (Stations 25+70 and 27+23) are 105.5 ft. and 106.0 ft. **Location:** Either Alexander Street from the south or Franklin Street from the north, take the North Frontage Lane (dirt) down the proposed extension route. There are pink locator flags leading down to the lower elevations from a tree along the north side of the adjacent horse stables.

Site 3W (Sheet 2) - The wetland boundary is further north than depicted on the aerial so the site was moved north. I nailed a SHWT and NP elevation in a maple adjacent to a small pond. I can't get a good handle on the grade elevation at that location. Station 33+63 is listed as 110.0 ft., Stations 34+24 and 34+85 are listed as 105.0 ft. and 104.0 ft. Even though the nailed tree is closest to Station 33, I can't help but believe the grade is closer to 105 ft. **Location:** Take Terrace Drive west from

SHWT estimate near alt. Pond
site PIA.

URS Greiner

JOB: SR 39, ALEXANDER ROAD BYPASS	SHEET of	PROJ. NO. C100003240.19
DESCRIPTION: Runoff Volume Calculations	COMPUTED BY Jim Zinner	DATE 03-03-2000
for FDOT critical duration analysis	CHECKED BY <i>KAG</i>	DATE <i>03-15-00</i>

NRCS Runoff Curve Number Method Equation

$$Q_r = (P - I_a)^2 / (P + 0.8S)$$

where: Q_r = runoff in inches

P = rainfall in inches

I_a = 0.2S (initial abstraction)

$S = (1000 / CN) - 10$

substituting I_a and then S into the runoff equation yields:

$$Q_r = (P - 0.2 (1000 / CN - 10))^2 / (P + 0.8 (1000 / CN - 10))$$

URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET of	PROJ. NO. C100003240.19
DESCRIPTION: Runoff volume calc.s	COMPUTED BY Jim Zinner	DATE 03-06-2000
for alt. pond P1A volume analysis	CHECKED BY KAG	DATE 03-15-00

FDOT 100 Year Storm

Duration (hr)	Rainfall Depth (in)
1	4.25

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P1A EXIST 1	77	2.01	7.38	1.24	P1A PROP 1	83	2.50	13.64	2.85	
P1A EXIST 2	55	0.63	6.26	0.33	P1A PROP 2	89	3.06	3.73	0.95	
P1A EXIST 3	72	1.64	3.73	0.51	P1A OFFSITE	76	1.93	3.66	0.59	
P1A OFFSITE	76	1.93	3.66	0.59						
Total			21.03	2.66	Total			21.03	4.39	1.72

Duration (hr)	Rainfall Depth (in)
2	6

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P1A EXIST 1	77	3.48	7.38	2.14	P1A PROP 1	83	4.09	13.64	4.65	
P1A EXIST 2	55	1.52	6.26	0.79	P1A PROP 2	89	4.74	3.73	1.47	
P1A EXIST 3	72	2.99	3.73	0.93	P1A OFFSITE	76	3.38	3.66	1.03	
P1A OFFSITE	76	3.38	3.66	1.03						
Total			21.03	3.86	Total			21.03	7.15	3.29

Duration (hr)	Rainfall Depth (in)
4	7.36

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P1A EXIST 1	77	4.69	7.38	2.88	P1A PROP 1	83	5.37	13.64	6.10	
P1A EXIST 2	55	2.36	6.26	1.23	P1A PROP 2	89	6.06	3.73	1.88	
P1A EXIST 3	72	4.14	3.73	1.29	P1A OFFSITE	76	4.58	3.66	1.40	
P1A OFFSITE	76	4.58	3.66	1.40						
Total			21.03	5.40	Total			21.03	9.38	3.98

URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET	of	PROJ. NO. C100003240.19
DESCRIPTION: Pond Stage Storage Calculations for alternate pond P1A volume analysis	COMPUTED BY	Jim Zinner	DATE 03-06-2000
	CHECKED BY	KAG	DATE 03-15-00

STAGE - STORAGE CALCULATIONS (English Units)

INPUT:

2.8	ac
1360	ft
4	ft h / 1 ft v
0.25	ft
113	ft, elevation
107	ft, elevation

VARIABLES: A = Area at Top of Basin
P = Perimeter at Top of Basin
S = Avg. Side Slope of Basin
H = Incremental Stage of Basin
E1 = Elevation at the Top of Basin
E2 = Elevation at Lower Depth of Basin

FORMULAE:

$$n = (E1 - E2) / H$$

$$A_n = (A_{n-1}) - (P_{n-1}SH)$$

$$V_n = (A_n - (A_{n-1})) / 2H$$

VARIABLES: n = Number of Incremental Stages
A_n = Incremental Area
V_n = Incremental Volume

OUTPUT:

Stage El. (ft, elev.)	Inc. Area (ac)	Inc. Storage (ac-ft)	Volume (ac-ft)
107.00	2.05	0.00	0.00
107.25	2.08	0.52	0.52
107.50	2.11	0.52	1.04
107.75	2.14	0.53	1.57
108.00	2.18	0.54	2.11
108.25	2.21	0.55	2.66
108.50	2.24	0.56	3.22
108.75	2.27	0.56	3.78
109.00	2.30	0.57	4.35
109.25	2.33	0.58	4.93
109.50	2.36	0.59	5.52
109.75	2.39	0.59	6.11
110.00	2.43	0.60	6.71
110.25	2.46	0.61	7.32
110.50	2.49	0.62	7.94
110.75	2.52	0.63	8.57
111.00	2.55	0.63	9.20
111.25	2.58	0.64	9.84
111.50	2.61	0.65	10.49
111.75	2.64	0.66	11.15
112.00	2.68	0.66	11.81
112.25	2.71	0.67	12.49
112.50	2.74	0.68	13.17
112.75	2.77	0.69	13.86
113.00	2.80	0.70	14.55

SHWT ELEV.

TREATMENT VOL.

DHW ELEV.

SHOULDER ELEV. @ SUMP

TOB ELEV.

JOB: SR39 / ALEXANDER ST. BYPASS SHEET OF PROJ. NO. C100003240.19
DESCRIPTION: C. Alternate Pond Site P-1B COMPUTED BY: Zinner DATE: 03-06-2000
(continued) CHECKED BY: KAG DATE: 03-15-00

3. Attenuation Volume

Existing (Pre-development) and Proposed (Post-development) Conditions volume of stormwater discharge: The methodology used for estimating the pre- and post-development volume of runoff was the NRCS (SCS) Runoff Curve Number Method.

See attached calculations for composite CN numbers, runoff volumes and the table below for a summary of results:

Rainfall Distribution, Event - Duration	Pre-development Runoff Volume (ac-ft)	Post-development Runoff Volume (ac-ft)	Volume Difference (ac-ft)
FDOT 100 year - 1 hour	2.17	3.84	1.67
FDOT 100 year - 2 hour	4.16	6.37	2.21
FDOT 100 year - 4 hour	5.86	8.43	2.57
FDOT 100yr - 8hr	8.32	11.28	2.96
Florida Modified Type II 25 year - 24 hour	6.70	9.41	2.41

Required Attenuation Volume = 2.96 ac-ft

4. Total Pond Volume Required

The total stormwater treatment and attenuation volume: $1.64 + 2.96 = 4.60$ ac-ft.

Total Pond Volume Required = 4.60 ac-ft

5. Pond Configuration

See attached stage storage output for the pond configuration shown on maps in the Appendix.

Pond P-1B will accommodate the Total Pond Volume Required.

URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET of	PROJ. NO. C100003240.19
DESCRIPTION: Runoff volume calc.s	COMPUTED BY Jim Zinner	DATE 03-06-2000
for alt. pond P1B volume analysis	CHECKED BY KAG	DATE 03-15-00

FDOT 100 Year Storm

Duration (hr)	Rainfall Depth (in)
1	4.25

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P1B EXIST 1	77	2.01	7.38	1.24	P1B PROP 1	81	2.33	13.53	2.63	
P1B EXIST 2	55	0.63	6.26	0.33	P1B PROP 2	88	2.96	2.97	0.73	
P1B EXIST 3	53	0.54	2.86	0.13	P1B OFFSITE	74	1.78	3.20	0.48	
P1B OFFSITE	74	1.78	3.20	0.48						
Total			19.70	2.17	Total			19.70	3.84	1.67

Duration (hr)	Rainfall Depth (in)
2	6

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P1B EXIST 1	77	3.48	7.38	2.14	P1B PROP 1	81	3.88	13.53	4.38	
P1B EXIST 2	55	1.52	6.26	0.79	P1B PROP 2	88	4.63	2.97	1.14	
P1B EXIST 3	56	1.60	2.86	0.38	P1B OFFSITE	74	3.18	3.20	0.85	
P1B OFFSITE	74	3.18	3.20	0.85						
Total			19.70	4.16	Total			19.70	6.37	2.21

Duration (hr)	Rainfall Depth (in)
4	7.36

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P1B EXIST 1	77	4.69	7.38	2.88	P1B PROP 1	81	5.14	13.53	5.80	
P1B EXIST 2	55	2.36	6.26	1.23	P1B PROP 2	88	5.94	2.97	1.47	
P1B EXIST 3	56	2.46	2.86	0.59	P1B OFFSITE	74	4.36	3.20	1.16	
P1B OFFSITE	74	4.36	3.20	1.16						
Total			19.70	5.86	Total			19.70	8.43	2.57

URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET	of	PROJ. NO. C100003240.19
DESCRIPTION: Pond Stage Storage Calculation for alternate pond P1B volume analysis	COMPUTED BY	Jim Zinner	DATE 03-06-2000
	CHECKED BY	KAG	DATE 3/15/00

STAGE - STORAGE CALCULATIONS (English Units)

INPUT:

2.14	ac
1670	ft
4	ft h / 1 ft v
0.25	ft
113.5	ft, elevation
108	ft, elevation

VARIABLES:

A = Area at Top of Basin
P = Perimeter at Top of Basin
S = Avg. Side Slope of Basin
H = Incremental Stage of Basin
E1 = Elevation at the Top of Basin
E2 = Elevation at Lower Depth of Basin

FORMULAE:

$$n = (E1 - E2) / H$$

$$A_n = (A_n - 1) - (P_n - 1)SH$$

$$V_n = (A_n - (A_n - 1)) / 2H$$

VARIABLES:

n = Number of Incremental Stages
A_n = Incremental Area
V_n = Incremental Volume

OUTPUT:

Stage El. (ft, elev.)	Inc. Area (ac)	Inc. Storage (ac-ft)	Volume (ac-ft)	
108.00	1.30	0.00	0.00	SHWT ELEV.
108.25	1.33	0.33	0.33	
108.50	1.37	0.34	0.67	
108.75	1.41	0.35	1.02	
109.00	1.45	0.36	1.37	
109.25	1.49	0.37	1.74	TREATMENT VOL.
109.50	1.53	0.38	2.12	
109.75	1.56	0.39	2.50	
110.00	1.60	0.40	2.90	
110.25	1.64	0.41	3.31	
110.50	1.68	0.42	3.72	
110.75	1.72	0.42	4.15	
111.00	1.76	0.43	4.58	
111.25	1.79	0.44	5.02	DHW ELEV.
111.50	1.83	0.45	5.48	
111.75	1.87	0.46	5.94	
112.00	1.91	0.47	6.41	SHOULDER ELEV. @ SUMP
112.25	1.95	0.48	6.90	
112.50	1.99	0.49	7.39	
112.75	2.02	0.50	7.89	
113.00	2.06	0.51	8.40	
113.25	2.10	0.52	8.92	
113.50	2.14	0.53	9.45	TOB ELEV.

JOB: SR39 / ALEXANDER ST. BYPASS
DESCRIPTION: D. Alternate Pond Site P-1C
(continued)

SHEET OF PROJ. NO. C100003240.19
COMPUTED BY: Zinner DATE: 03-06-2000
CHECKED BY: KAG DATE: 03-15-00

3. Attenuation Volume

See alternate pond P1A calculations for the methodology used for estimating the pre- and post-development volume of runoff. See attached calculations for composite CN numbers, runoff volumes and the table below for a summary of results:

Rainfall Distribution, Event - Duration	Pre-development Runoff Volume (ac-ft)	Post-development Runoff Volume (ac-ft)	Volume Difference (ac-ft)
FDOT 100 year - 1 hour	1.84	3.84	2.00
FDOT 100 year - 2 hour	3.54	6.21	2.67
FDOT 100 year - 4 hour	5.03	8.11	3.08
FDOT 100 year - 8 hour	7.21	10.73	3.52
Florida Modified Type II 25 year - 24 hour	5.77	9.01	3.24

Required Attenuation Volume = 3.52 ac-ft

4. Total Pond Volume Required

The total stormwater treatment and attenuation volume: $1.48 + 3.52 = 5.00$ ac-ft.

Total Pond Volume Required = 5.00 ac-ft

5. Pond Configuration

See attached stage storage output for the pond configuration shown on maps in the Appendix.

Pond P-1C will accommodate the Total Pond Volume Required.

Project: S.R. 39, Alexander Street Bypass Pond Siting Report

Subject: Existing Conditions Curve Number Calculations for Pond Alternate P1C

Project No.: C100003240.19

Sheet ___ of ___

Computed By: Zimmer Date: 03-06-2000

Checked By: KAG Date: 03-15-00

Basin Name	Total Area		Pervious Area												Composite CN			
	Ha	Ac	Impervious Area						Soils									
			Land Use						Hydrologic									
			Pavement		Roofs		Symbol / Name		Group		Open Space		Woods			Pasture		
Ha	CN	Ha	CN	Ha	CN	Symbol / Name	Group	Ha	CN	Ha	CN	Ha	CN	Ha	CN	Ha	CN	
P1C EXIST1 (exist. RW south of crossing)	2.988	7.38	98	98	0.010	98	Basinger, # 5, Myakka, #29	D	0.401	84	2.263	77						
P1C EXIST2 (exist. RW north of crossing)	2.534	6.26	98	98			Basinger, # 5 Lake, #25	A			1.365	77	1.169	30				
P1C EXIST3 (exist. pond area)	1.680	4.15	98	98			Seffner, # 47	C	0.087	49			0.528	74	0.780	39		
Total	7.202	17.79									0.372	77						

Subject: Proposed Conditions Curve Number Calculations for Alternate Pond Site P1C

Basin Name	Total Area		Pervious Area												Composite CN			
	Ha	Ac	Impervious Area						Soils									
			Land Use						Hydrologic									
			Pavement		Water		Symbol / Name		Group		Open Space		Woods			Proposed pond area		
Ha	CN	Ha	CN	Ha	CN	Symbol / Name	Group	Ha	CN	Ha	CN	Ha	CN	Ha	CN	Ha	CN	
P1C PROP1 (prop. RW north and south of crossing)	5.522	13.64	1.697	98			Basinger #5, Myakka #29	D	2.794	84								
P1C PROP2 (prop. pond)	1.680	4.15	98	98	1.113	98	Tavares #53 Seffner #47	A	0.873	49								
Total	7.202	17.79					used average CN for open space for exist pond berms	C	0.158	74						0.567	74	

- NOTES: (1) Soil Names, Symbols and Hydrologic Soil Group were obtained from USDA Soil Conservation Service Soil Survey of Hillsborough County, Florida.
 (2) Runoff curve numbers for land use type were obtained from Table 2-2a Runoff curve numbers for Urban Areas & Table 2-2c Runoff Curve Numbers for Agricultural Lands in USDA Soil Conservation Service Urban Hydrology for Small Watersheds, (TR55 Manual).
 (3) Open Spaces assumed to be in Fair condition (grass cover 50% to 75%).
 (4) Woods assumed to be in Good condition (woods are protected from grazing, and litter and brush adequately cover the soil).
 (5) Row crops assumed to be in Good condition
 (6) Open spaces assumed to be in Good condition (grass cover 50 to 75%)
 (7) Woods-Grass assumed to be in Good condition.
 (8) Areas obtained from PD&E photobase plans produced by URS Greiner.

URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET	of	PROJ. NO. C100003240.19
DESCRIPTION: Runoff volume calc.s	COMPUTED BY	Jim Zinner	DATE 03-06-2000
for alt. pond P1C volume analysis	CHECKED BY	KDG	DATE 03-15-00

FDOT 100 Year Storm

Duration (hr)	Rainfall Depth (in)
8	9.2

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P1C EXIST 1	77	6.39	7.38	3.93	P1C PROP 1	82	7.01	13.64	7.96	
P1C EXIST 2	55	3.63	6.26	1.90	P1C PROP 2	90	7.99	4.15	2.76	
P1C EXIST 3	58	4.01	4.15	1.39						
Total			17.79	7.21	Total			17.79	10.73	3.52

SWFWMD 25 Year Storm

25 year		
Curve Type	Duration	Rainfall Amount (in)
NRCS (SCS) Type II Florida Modified	24 hr	8

The rainfall amount for the Type II Florida Modified Rainfall was taken from the SWFWMD ERP Manual (1999).

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P1C EXIST 1	77	5.27	7.38	3.24	P1C PROP 1	82	5.86	13.64	6.66	
P1C EXIST 2	55	2.78	6.26	1.45	P1C PROP 2	90	6.81	4.15	2.35	
P1C EXIST 3	58	3.11	4.15	1.08						
Total			17.79	5.77	Total			17.79	9.01	3.24

URS Greiner

JOB: SR39 / ALEXANDER ST. BYPASS

DESCRIPTION: II. Basin 2 Description

SHEET ___ OF ___ PROJ. NO. C100003240.19

COMPUTED BY: Zinner DATE: 03-06-2000

CHECKED BY: KAG DATE: 03-15-00

From station 29+25 to 43+60, along the Alexander Street Bypass (ASB)

Length = 1435 m = 4708 ft

R/W width from Cason Street to S.R. 39 = 222 ft

R/W area = 4708' x 222' = 23.99 ac

Sam Allen Road Intersection

Proposed widening of Sam Allen Road for turn lanes will occur on the east and west sides of the ASB R/W. See Treatment Area calculations for the total treatment area contributing from Sam Allen Road.

JOB: SR39 / ALEXANDER ST. BYPASS
DESCRIPTION: II. Basin 2 (continued)

SHEET OF PROJ. NO. C100003240.19
COMPUTED BY: Zinner DATE: 03-06-2000
CHECKED BY: KAG DATE: 03-15-00

A. Treatment Area

According to SWFWMD criteria for alterations to existing public roadway projects the required treatment will be for runoff from the directly connected impervious areas (DCIA). For an in-line stormwater management system treatment of the total contributing DCIA is required. This would be applicable for the Sam Allen Road intersection and are computed as follows:

Proposed pavement reconstruction for Sam Allen on the east side of the ASB alignment:

Travel lanes with

Length = 80 m (262 ft), Width = 10.8 m tapering to 7.2 m [average = 9 m (30 ft)]

and

Turn lanes with

Length = 48 m (157 ft), Width = 7.2 m (24 ft)

Sub-area = $(262 \times 30) + (157 \times 24) = 11628 \text{ sf} = 0.27 \text{ ac}$

Proposed pavement for Sam Allen on the west side of the ASB alignment:

Travel lanes with

Length = 129 m (423 ft), Width = 10.8 m tapering to 7.2 m [average = 9 m (30 ft)]

and

Turn lanes

Length = 92 m (302 ft), Width = 7.2 m (24 ft)

Sub-area = $(423 \times 30) + (92 \times 24) = 14898 \text{ sf} = 0.34 \text{ ac}$

Total DCIA for Sam Allen Road = $0.27 + 0.34 = 0.61 \text{ ac}$

The ASB treatment area is the entire R/W = 23.99 ac (see Basin 2 Description area calculations).

JOB: SR39 / ALEXANDER ST. BYPASS
DESCRIPTION: B. Alternate Pond Site P-2A
(continued)

SHEET OF PROJ. NO. C100003240.19
COMPUTED BY: Zinner DATE: 03-06-2000
CHECKED BY: KAG DATE: 03-15-00

3. Attenuation Volume

See alternate pond P1A calculations for the methodology used for estimating the pre- and post-development volume of runoff. The attenuation volume calculations for the alternates pond sites in Basin 1 show that the FDOT 100 year - 8 hour storm was the critical duration event. **Therefore only calculations for the FDOT 100 year - 8 hour and the SWFWMD Florida Modified Type II 25 year - 24 hour storm events will be performed for the remainder of this report.**

See attached calculations for composite CN numbers, runoff volumes and below for results:

Rainfall Distribution, Event - Duration	Pre-development Runoff Volume (ac-ft)	Post-development Runoff Volume (ac-ft)	Volume Difference (ac-ft)
FDOT 100 year - 8 hour	11.27	17.16	5.89
Florida Modified Type II 25 year - 24 hour	8.89	14.25	5.36

Required Attenuation Volume = 5.89 ac-ft

4. Total Pond Volume Required

The total stormwater treatment and attenuation volume: $2.51 + 5.89 = 8.40$ ac-ft.

Total Pond Volume Required = 8.40 ac-ft

5. Pond Configuration

See attached stage storage output for the pond configuration shown on maps in the Appendix.

Pond P-2A will accommodate the Total Pond Volume Required.

Project: S.R. 39, Alexander Street Bypass Pond Siting Report
 Subject: Existing Conditions Curve Number Calculations for Pond Alternate P2A
 Project No.: C:100003240.19

Sheet _____ of _____
 Computed By: Zinner Date: 03-06-2000
 Checked By: **KAG** Date: **03-15-00**

$$CN = ((Ha)i(CN)i + (Ha)j+1(CN)j+1 + (Ha)j+2(CN)j+2 + \dots + (Ha)n-1(CN)n-1 + (Ha)n(CN)n)) / Total Area$$

Basin Name	Total Area		Impervious Area			Soils		Previous Area						Land Use						Composite CN
	Ha	Ac	Land Use		Symbol / Name	Hydrologic Group	Open Space		Woods		Row Crops		Woods-Grass		CN					
			Pavement	Roofs			Ha	CN	Ha	CN	Ha	CN	Ha	CN		Ha	CN			
P2A EXIST1 (exist. RW south of crossing)	3,338	8.24	98	98	Lake, #25	A	0.478	49	1.057	30					46					
P2A EXIST2 (exist. RW north of crossing & Sam Allen Rd.)	7,139	17.63	98	98	Basinger, # 5 Ft. Meade, #18 Lake, #25 Malabar, #27 Myakka, #29 Zolfo, #61	D A A D D C			0.337 0.142	77 30	0.403 2.473	67 67	1.933	32	62					
P2A EXIST3 (exist. pond area)	2,216	5.47	98	98	Myakka, #29 Seffner, # 47, Zolfo, #61 Lake, #25	D C A				0.036 1.188 0.992	89 85 67				77					
Total	12,693	31.35																		

Subject: Proposed Conditions Curve Number Calculations for Pond Alternate P2A

$$CN = ((Ha)i(CN)i + (Ha)j+1(CN)j+1 + (Ha)j+2(CN)j+2 + \dots + (Ha)n-1(CN)n-1 + (Ha)n(CN)n)) / Total Area$$

Basin Name	Total Area		Impervious Area		Soils		Previous Area						Land Use						Composite CN
	Ha	Ac	Pavement	Water	Symbol / Name	Hydrologic Group	Open Space		Woods		prop. pond area		CN						
							Ha	CN	Ha	CN	Ha	CN							
P2A PROP1 (prop. RW north and south of xing & Sam Allen Rd.)	10,477	25.88	4,197	98	Basinger #5, Myakka #29 Tavares #53, Lake #25 Seffner #47	D A C	1.643	84											
P2A PROP2 (prop. pond)	2,217	5.48	0	98	used average CN for open space for pond berms		0.242	74					0.314	74	95				
Total	12,694	31.35																	

NOTES: (1) Soil Names, Symbols and Hydrologic Soil Group were obtained from USDA Soil Conservation Service Soil Survey of Hillsborough County, Florida.
 (2) Runoff curve numbers for land use type were obtained from Table 2-2a Runoff curve numbers for Urban Areas & Table 2-2c Runoff Curve Numbers for Agricultural Lands in USDA Soil Conservation Service Urban Hydrology for Small Watersheds, (TR55 Manual).
 (3) Open Spaces assumed to be in Fair condition (grass cover 50% to 75%).
 (4) Woods assumed to be in Good condition (woods are protected from grazing, and litter and brush adequately cover the soil).
 (5) Row crops assumed to be in Good condition.
 (6) Open spaces assumed to be in Good condition (grass cover 50 to 75%).
 (7) Woods-Grass assumed to be in Good condition.
 (8) Areas obtained from PD&E photobase plans produced by URS Greiner.

URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET	of	PROJ. NO. C100003240.19
DESCRIPTION: Pond Stage Storage Calculations	COMPUTED BY	Jim Zinner	DATE 03-06-2000
for alternate pond P2A volume analysis	CHECKED BY	<i>YOB</i>	DATE 03-15-00

STAGE - STORAGE CALCULATIONS (English Units)

INPUT:

4.92	ac
2360	ft
4	ft h / 1 ft v
0.25	ft
109	ft, elevation
105.5	ft, elevation

VARIABLES:

A = Area at Top of Basin
P = Perimeter at Top of Basin
S = Avg. Side Slope of Basin
H = Incremental Stage of Basin
E1 = Elevation at the Top of Basin
E2 = Elevation at Lower Depth of Basin

FORMULAE:

$$n = (E1 - E2) / H$$

$$A_n = (A_n - 1) - (P_n - 1SH)$$

$$V_n = (A_n - (A_n - 1)) / 2H$$

VARIABLES:

n = Number of Incremental Stages
A_n = Incremental Area
V_n = Incremental Volume

OUTPUT:

Stage El. (ft, elev.)	Inc. Area (ac)	Inc. Storage (ac-ft)	Volume (ac-ft)	
105.50	4.16	0.00	0.00	SHWT ELEV.
105.75	4.22	1.05	1.05	
106.00	4.27	1.06	2.11	
106.25	4.32	1.07	3.18	TREATMENT VOL.
106.50	4.38	1.09	4.27	
106.75	4.43	1.10	5.37	
107.00	4.49	1.11	6.49	
107.25	4.54	1.13	7.61	
107.50	4.59	1.14	8.76	DHW
107.75	4.65	1.16	9.91	
108.00	4.70	1.17	11.08	SHLDR ELEV @ SUMP
108.25	4.76	1.18	12.26	
108.50	4.81	1.20	13.46	
108.75	4.87	1.21	14.67	
109.00	4.92	1.22	15.89	TOB ELEV.

JOB: SR39 / ALEXANDER ST. BYPASS
DESCRIPTION: C. Alternate Pond Site P-2B
(continued)

SHEET OF PROJ. NO. C100003240.19
COMPUTED BY: Zinner DATE: 03-06-2000
CHECKED BY: YAG DATE: 03-15-00

3. Attenuation Volume

See alternate pond P1A calculations for the methodology used for estimating the pre- and post-development volume of runoff.

See attached calculations for composite CN numbers, runoff volumes and below for results:

Rainfall Distribution, Event - Duration	Pre-development Runoff Volume (ac-ft)	Post-development Runoff Volume (ac-ft)	Volume Difference (ac-ft)
FDOT 100 year - 8 hour	12.32	17.51	5.19
Florida Modified Type II 25 year - 24 hour	10.18	15.45	4.36

Required Attenuation Volume = 5.19 ac-ft

4. Total Pond Volume Required

The total stormwater treatment and attenuation volume: $2.56 + 5.19 = 7.75$ ac-ft.

Total Pond Volume Required = 7.75 ac-ft

5. Pond Configuration

See attached stage storage output for the pond configuration shown on maps in the Appendix.

Pond P-2B will accommodate the Total Pond Volume Required.

The TOB of the proposed pond will have to be raised above the existing average grade approximately 1.75 foot.

URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET	of	PROJ. NO. C100003240.19
DESCRIPTION: Runoff volume calc.s	COMPUTED BY	Jim Zinner	DATE 03-06-2000
for alt. pond P2B volume analysis	CHECKED BY	KAG	DATE 03-15-00

FDOT 100 Year Storm

Duration (hr)	Rainfall Depth (in)
8	9.2

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P2B EXIST 1	46	2.53	8.24	1.73	P2B PROP 1	75	6.14	25.89	13.24	
P2B EXIST 2	62	4.51	17.64	6.63	P2B PROP 2	93	8.35	6.13	4.27	
P2B EXIST 3	88	7.74	6.13	3.96						
Total			32.01	12.32	Total			32.02	17.51	5.19

SWFWMD 25 Year Storm

Curve Type	Duration (hr)	Rainfall Depth (in)
NRCS (SCS) Type II Florida Modified	24	8

The rainfall amount for the Type II Florida Modified Rainfall was taken from the SWFWMD ERP Manual (1999).

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P2B EXIST 1	46	1.84	8.24	1.26	P2B PROP 1	75	5.04	25.89	10.88	
P2B EXIST 2	64	3.78	17.64	5.56	P2B PROP 2	93	7.16	6.13	3.66	
P2B EXIST 3	88	6.57	6.13	3.36						
Total			32.01	10.18	Total			32.02	14.54	4.36



JOB: SR39 / ALEXANDER ST. BYPASS
DESCRIPTION: D. Alternate Pond Site P-2C

SHEET OF PROJ. NO. C100003240.19
COMPUTED BY: Zinner DATE: 03-06-2000
CHECKED BY: KDG DATE: 03-15-00

1. Pond Site Conditions

Location: Station 32+00 right

Existing grade elevation of site: grades range from 109.5 to 111.5, therefore the average grade is approximately 110.5

Existing Soils Types: entirely Orlando soils.

Existing Seasonal High Water Table (SHWT) of pond site:

The following data is available:

Source	Estimated SHWT Elevation (ft, NGVD)
Soils Survey states the depth to SHWT for Orlando soils is > 6'	104.5
SHWT determination by Mark Brown of FDOT at approximately station 32+00	104.08

The SHWT is estimated to be 104.5

Maximum Design High Water (DHW) at pond site: The calculated shoulder elevation at the sump will be at elevation 107.9.

Minimum Flow Line elevation: See attached profile. It shows that the proposed ditch will positively convey onsite runoff from one side of the proposed cross drain, which is usually the outfall, to the pond inlet.

2. Treatment Volume

See Treatment Area calculations for the ASB and Sam Allen Road treatment area. See the CN calculations for the pond area.

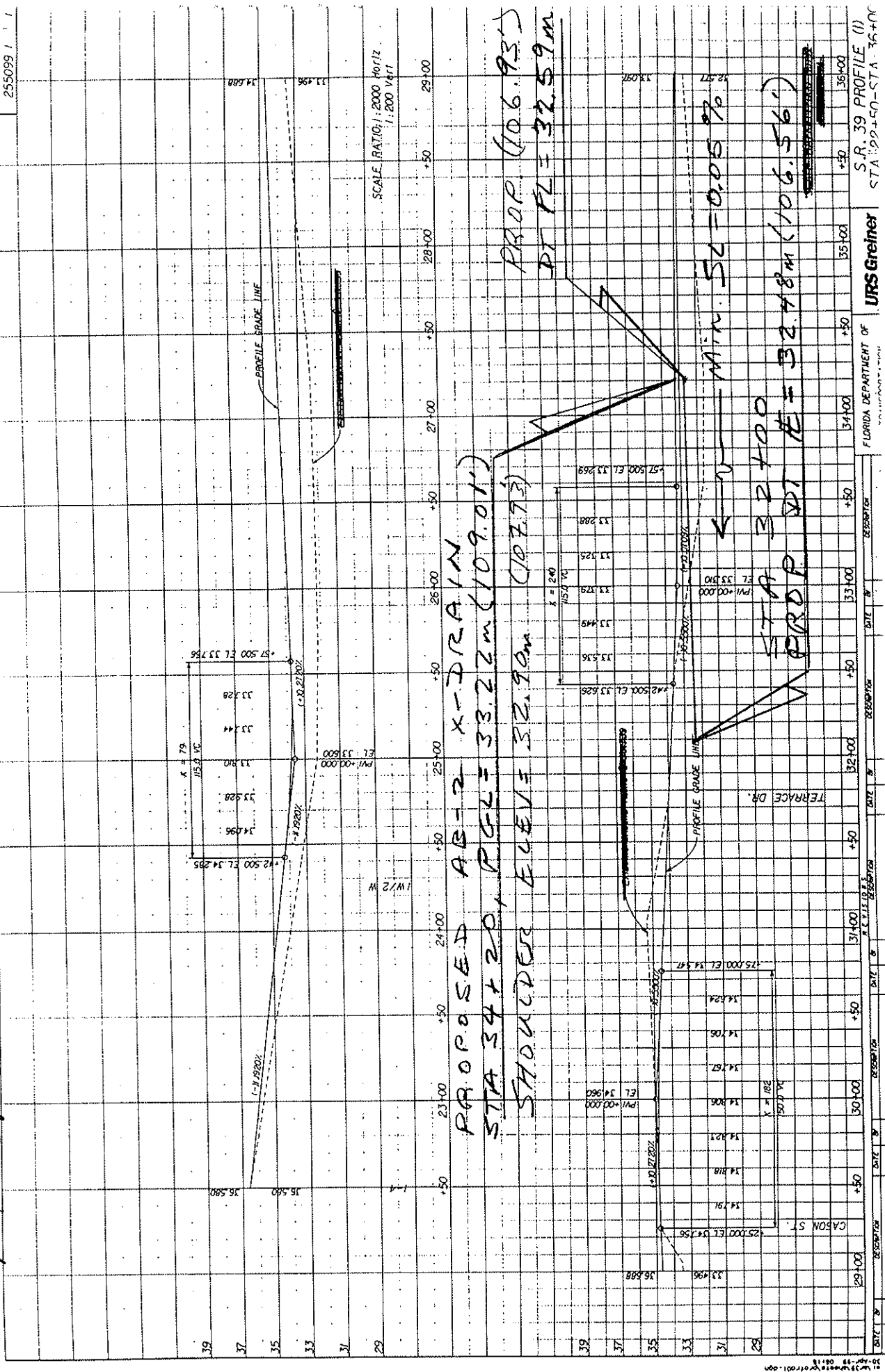
Total Treatment Area = 23.99 (ASB) + 0.61 (Sam Allen Rd.) + 3.79 (pond) = 28.38 ac

Treatment Volume = D.A. (ac) * (1" / 12") = 28.39 * (1 / 12) = 2.37 ac-ft

Required Treatment Volume = 2.37 ac-ft

Alternate Pond Site P2C

WORK PROGRAM FILE NO. 1547
 SCHEMATIC NUMBER 10
 255099 / 1



PROPOSED AB = 2 X-DRAIN
 STA 34+20, PVI = 33.22m (109.01\')
 SHOULDER ELEV = 32.90m (107.73\')

PROP (106.93\')
 PT. E = 32.59m

MIN. SL = 0.05 %

STA 32+00
 PROP. PT. E = 32.78m (106.56\')

URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET of	PROJ. NO. C100003240.19
DESCRIPTION: Runoff volume calc.s	COMPUTED BY Jim Zinner	DATE 03-06-2000
for alt. pond P2C volume analysis	CHECKED BY <i>KRG</i>	DATE <i>03-15-00</i>

FDOT 100 Year Storm

Duration (hr)	Rainfall Depth (in)
8	9.2

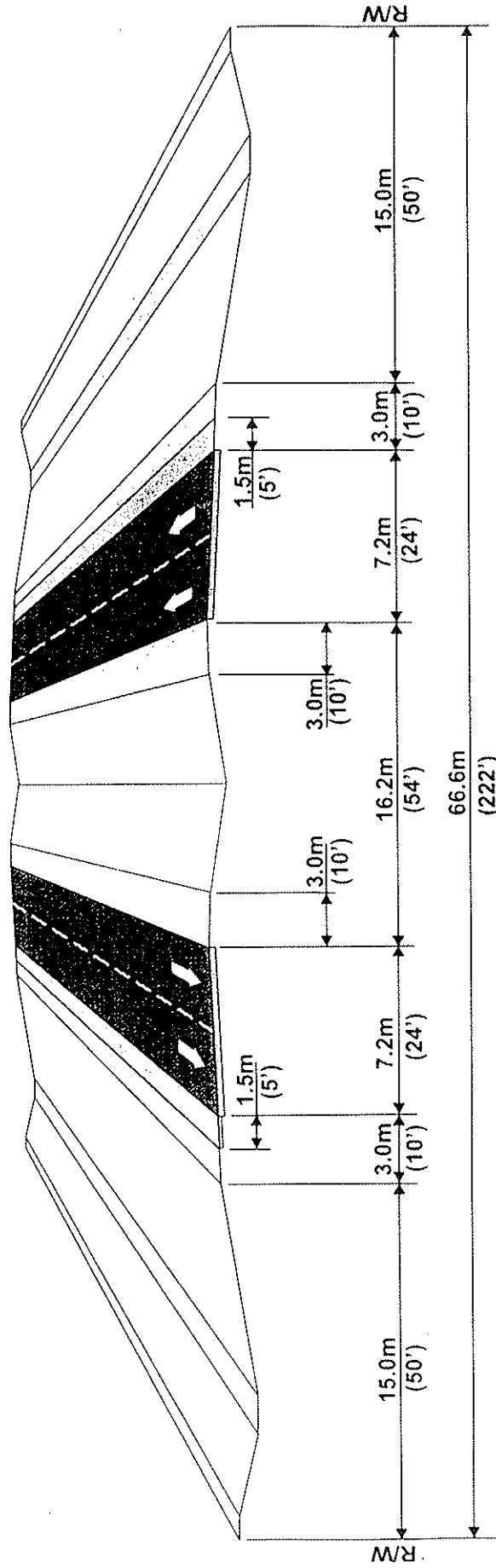
Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P2C EXIST 1	46	2.53	8.24	1.73	P2C PROP 1	75	6.14	25.89	13.24	
P2C EXIST 2	62	4.51	17.64	6.63	P2C PROP 2	94	8.48	3.79	2.68	
P2C EXIST 3	54	3.51	3.79	1.11						
Total			29.67	9.47	Total			29.68	15.92	6.45

SWFWMD 25 Year Storm

Curve Type	Duration (hr)	Rainfall Amount (in)
NRCS (SCS) Type II Florida Modified	24	8

The rainfall amount for the Type II Florida Modified Rainfall was taken from the SWFWMD ERP Manual (1999).

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P2C EXIST 1	46	1.84	8.24	1.26	P2C PROP 1	74	4.93	25.89	10.63	
P2C EXIST 2	64	3.78	17.64	5.56	P2C PROP 2	94	7.28	3.79	2.30	
P2C EXIST 3	54	2.68	3.79	0.85						
Total			29.67	7.66	Total			29.68	12.93	5.26



FROM CASON STREET TO S.R. 39

Based on 3' of Fill to Proposed PGL



TYPICAL SECTION 7

S.R. 39 FROM I-4 TO U.S. 301
 WPI SEGMENT No. 255099 1 FAP No. F-321-1(4)
 HILLSBOROUGH AND PASCO COUNTIES, FLORIDA

URS Greiner



JOB: SR39 / ALEXANDER ST. BYPASS
DESCRIPTION: B. Alternate Pond Site P-3A
(continued)

SHEET OF PROJ. NO. C100003240.19
COMPUTED BY: Zinner DATE: 03-06-2000
CHECKED BY: KAG DATE: 03-15-00

3. Attenuation Volume

See alternate pond P2C calculations for the methodology used for estimating the pre- and post-development volume of runoff.

See attached calculations for composite CN numbers, runoff volumes and below for results:

Rainfall Distribution, Event - Duration	Pre-development Runoff Volume (ac-ft)	Post-development Runoff Volume (ac-ft)	Volume Difference (ac-ft)
FDOT 100 year - 8 hour	11.50	17.29	5.78
Florida Modified Type II 25 year - 24 hour	9.15	14.50	5.35

Required Attenuation Volume = 5.78 ac-ft

4. Total Pond Volume Required

The total stormwater treatment and attenuation volume: $2.43 + 5.78 = 8.21$ ac-ft.

Total Pond Volume Required = 8.21 ac-ft

5. Pond Configuration

See attached stage storage output for the pond configuration shown on maps in the Appendix.

Pond P-3A will accommodate the Total Pond Volume Required.

The TOB of the proposed pond will have to be raised above the existing average grade approximately 1 foot.

Project: S.R. 39, Alexander Street Bypass Pond Siting Report
 Subject: Existing Conditions Curve Number Calculations for Pond Alternate P3A
 Project No.: C100003240.19

Sheet ___ of ___
 Computed By: Zinner Date: 03-06-2000
 Checked By: Date:

Basin Name	Total Area		Pervious Area												Composite CN							
	Ha	Ac	Impervious Area			Soils			Hydrologic			Land Use										
			Land Use			Symbol / Name			Group		Open Space		Woods			Row Crops		Residential 1/2 ac				
	Ha	CN	Ha	CN	Ha	CN	Ha	CN	Group	Ha	CN	Ha	CN	Ha		CN	Ha	CN	Ha	CN	Ha	CN
P3A EXIST1 (exist. RW south of crossing)	8.253	20.38	98	98	Basinger, # 5	D			D		0.638	77	0.297	89								60
					Ft. Meade, #18	A			A		2.030	30	1.989	67								
					Lake, #25	A			A		0.458	30	1.130	67								
					Myakka, #29	D			D		0.439	77										
					St. Johns, #46	D			D		0.807	77	0.465	89								
P3A EXIST2 (exist. RW north of crossing)	1.152	2.85	98	98	Myakka, #29	D			D		1.152	84										84
P3A EXIST3 (exist. pond area)	2.408	5.95	98	98	Ft. Meade, #18, Lake, #25	A			A				2.372	67								67
									D				0.036	89								
Total	11.813	29.18																				

Subject: Proposed Conditions Curve Number Calculations for Alternate Pond Site P3A

Basin Name	Total Area		Pervious Area												Composite CN							
	Ha	Ac	Impervious Area			Soils			Hydrologic			Land Use										
			Land Use			Symbol / Name			Group		Open Space		Woods			prop. pond area						
	Ha	CN	Ha	CN	Ha	CN	Ha	CN	Group	Ha	CN	Ha	CN	Ha		CN	Ha	CN				
P3A PROP1 (prop. RW north and south of crossing)	9.405	23.23	3.474	98	0	98	98	98	A	3.536	84											80
									D	2.395	49											
P3A PROP2 (prop. pond)	2.408	5.95	98	98	used average CN for open space for pond berms								0.448	74								94
Total	11.813	29.18																				

- NOTES: (1) Soil Names, Symbols and Hydrologic Soil Group were obtained from USDA Soil Conservation Service Soil Survey of Hillsborough County, Florida.
 (2) Runoff curve numbers for land use type were obtained from Table 2-2a Runoff curve numbers for Urban Areas & Table 2-2c Runoff Curve Numbers for Agricultural Lands in USDA Soil Conservation Service Urban Hydrology for Small Watersheds, (TR55 Manual).
 (3) Open Spaces assumed to be in Fair condition (grass cover 50% to 75%).
 (4) Woods assumed to be in Good condition (woods are protected from grazing, and litter and brush adequately cover the soil).
 (5) Row crops assumed to be in Good condition.
 (6) Open spaces assumed to be in Good condition (grass cover 50 to 75%).
 (7) Woods-Gross assumed to be in Good condition.
 (8) Areas obtained from PD&E photobase plans produced by URS Greiner.

URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET	of	PROJ. NO. C100003240.19
DESCRIPTION: Pond Stage Storage Calculation	COMPUTED BY Jim Zinner		DATE 03-06-2000
for alternate pond P3A volume analysis	CHECKED BY	KDG	DATE 03-15-00

STAGE - STORAGE CALCULATIONS (English Units)

INPUT:

5.05	ac
2295	ft
4	ft h / 1 ft v
0.25	ft
107	ft, elevation
104	ft, elevation

VARIABLES: A = Area at Top of Basin

P = Perimeter at Top of Basin

S = Avg. Side Slope of Basin

H = Incremental Stage of Basin

E1 = Elevation at the Top of Basin

E2 = Elevation at Lower Depth of Basin

FORMULAE:

$$n = (E1 - E2) / H$$

$$A_n = (A_n - 1) - (P_n - 1SH)$$

$$V_n = (A_n - (A_n - 1)) / 2H$$

VARIABLES: n = Number of Incremental Stages

A_n = Incremental Area

V_n = Incremental Volume

OUTPUT:

Stage El. (ft, elev.)	Inc. Area (ac)	Inc. Storage (ac-ft)	Volume (ac-ft)	
104.00	4.42	0.00	0.00	SHWT ELEV.
104.25	4.47	1.11	1.11	
104.50	4.52	1.12	2.24	
104.75	4.58	1.14	3.37	TREATMENT VOLUME
105.00	4.63	1.15	4.52	
105.25	4.68	1.16	5.69	
105.50	4.73	1.18	6.86	
105.75	4.79	1.19	8.05	
106.00	4.84	1.20	9.26	DHW ELEV.
106.25	4.89	1.22	10.47	
106.50	4.94	1.23	11.70	
106.75	5.00	1.24	12.95	
107.00	5.05	1.26	14.20	SHOULDER ELEV. @ SUMP
107.25	5.10	1.27	15.47	
107.50	5.16	1.28	16.75	
107.75	5.21	1.30	18.05	
108.00	5.26	1.31	19.36	TOB

URS Greiner

JOB: SR39 / ALEXANDER ST. BYPASS
DESCRIPTION: C. Alternate Pond Site P-3B
(continued)

SHEET OF PROJ. NO. C100003240.19
COMPUTED BY: Zinner DATE: 03-06-2000
CHECKED BY: KAG DATE: 03-15-00

3. Attenuation Volume

See alternate pond P1A calculations for the methodology used for estimating the pre- and post-development volume of runoff.

See attached calculations for composite CN numbers, runoff volumes and the table below for a summary of results:

Rainfall Distribution, Event - Duration	Pre-development Runoff Volume (ac-ft)	Post-development Runoff Volume (ac-ft)	Volume Difference (ac-ft)
FDOT 100 year - 8 hour	11.91	17.19	5.28
Florida Modified Type II 25 year - 24 hour	9.53	14.41	4.88

Required Attenuation Volume = 5.28 ac-ft

4. Total Pond Volume Required

The total stormwater treatment and attenuation volume: $2.43 + 5.28 = 7.71$ ac-ft.

Total Pond Volume Required = 7.71 ac-ft

5. Pond Configuration

See attached stage storage output for the pond configuration shown on maps in the Appendix.

Pond P-3B will accommodate the Total Pond Volume Required.

The TOB of the proposed pond will have to be raised above the existing average grade approximately 1.75 feet.

Basin Name	Total Area Ha	Total Area Ac	CN = ((Ha)j(CN)j + (Ha)j+1(CN)j+1 + (Ha)j+2(CN)j+2 +)(Ha)n-1(CN)n-1 + (Ha)n(CN)n) / Total Area												Composite CN		
			Impervious Area				Soils				Pervious Area						
			Pavement		Roofs		Symbol / Name		Hydrologic Group		Open Space		Woods			Row Crops		Pasture
Ha	CN	Ha	CN	Ha	CN	Group	Ha	CN	Ha	CN	Ha	CN	Ha	CN	Ha	CN	
P3B EXIST1 (exist. RW south of crossing)	8.253	20.38	98	98	Basinger, #5 Fl. Meade, #18 Lake, #25 Myakka, #29 St. Johns, #46	D	0.638	77	0.297	89							60
P3B EXIST2 (exist. RW north of crossing)	1.152	2.85	98	98	Myakka, #29	D	1.152	84									84
P3B EXIST3 (exist. pond area)	2.388	5.90	98	98	Myakka, #29	D							2.388	74			74
Total	11.793	29.13															

Basin Name	Total Area Ha	Total Area Ac	CN = ((Ha)j(CN)j + (Ha)j+1(CN)j+1 + (Ha)j+2(CN)j+2 +)(Ha)n-1(CN)n-1 + (Ha)n(CN)n) / Total Area												Composite CN		
			Impervious Area				Soils				Pervious Area						
			Pavement		Water		Symbol / Name		Hydrologic Group		Open Space		Woods			Row Crops		Pasture
Ha	CN	Ha	CN	Ha	CN	Group	Ha	CN	Ha	CN	Ha	CN	Ha	CN	Ha	CN	
P3B PROP1 (prop. RW north and south of crossing)	9.405	23.23	3.474	98	0	98	A	3.536	84								80
P3B PROP2 (prop. pond)	2.388	5.90	0	98	1.895	98	D	2.395	49							0.493	74
Total	11.793	29.13															93

NOTES: (1) Soil Names, Symbols and Hydrologic Soil Group were obtained from USDA Soil Conservation Service Soil Survey of Hillsborough County, Florida.
 (2) Runoff curve numbers for land use type were obtained from Table 2-2a Runoff curve numbers for Urban Areas & Table 2-2c Runoff Curve Numbers for Agricultural Lands in USDA Soil Conservation Service Urban Hydrology for Small Watersheds, (TR55 Manual).
 (3) Open Spaces assumed to be in Fair condition (grass cover 50% to 75%).
 (4) Woods assumed to be in Good condition (woods are protected from grazing, and litter and brush adequately cover the soil).
 (5) Row crops assumed to be in Good condition.
 (6) Open spaces assumed to be in Good condition (grass cover 50 to 75%).
 (7) Woods-Grass assumed to be in Good condition.
 (8) Areas obtained from PD&E photobase plans produced by URS Greiner.

URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET	of	PROJ. NO. C100003240.19
DESCRIPTION: Pond Stage Storage Calculations for alternate pond P3B volume analysis	COMPUTED BY	Jim Zinner	DATE 03-06-2000
	CHECKED BY	KAG	DATE 03-15-00

STAGE - STORAGE CALCULATIONS (English Units)

INPUT:

4.77	ac
1968	ft
4	ft h / 1 ft v
0.25	ft
105.75	ft, elevation
103	ft, elevation

VARIABLES: A = Area at Top of Basin
P = Perimeter at Top of Basin
S = Avg. Side Slope of Basin
H = Incremental Stage of Basin
E1 = Elevation at the Top of Basin
E2 = Elevation at Lower Depth of Basin

FORMULAE:

$$n = (E1 - E2) / H$$

$$An = (An - 1) - (Pn - 1SH)$$

$$Vn = (An - (An - 1)) / 2H$$

VARIABLES: n = Number of Incremental Stages
An = Incremental Area
Vn = Incremental Volume

OUTPUT:

Stage El. (ft, elev.)	Inc. Area (ac)	Inc. Storage (ac-ft)	Volume (ac-ft)	
103.00	4.27	0.00	0.00	SHWT ELEV.
103.25	4.32	1.07	1.07	
103.50	4.36	1.09	2.16	
103.75	4.41	1.10	3.26	TREATMENT VOLUME
104.00	4.45	1.11	4.36	
104.25	4.50	1.12	5.48	
104.50	4.54	1.13	6.61	
104.75	4.59	1.14	7.75	DHW & SHOULDER ELEV. @ SUMP
105.00	4.63	1.15	8.91	
105.25	4.68	1.16	10.07	
105.50	4.72	1.18	11.25	
105.75	4.77	1.19	12.43	TOB ELEV.

OB: SR39 / ALEXANDER ST. BYPASS
DESCRIPTION: D. Alternate Pond Site P-3C
(continued)

SHEET ___ OF ___ PROJ. NO. C100003240.19
COMPUTED BY: Zinner DATE: 03-06-2000
CHECKED BY: KAG DATE: 03-15-00

3. Attenuation Volume

See alternate pond P1A calculations for the methodology used for estimating the pre- and post-development volume of runoff.

See attached calculations for composite CN numbers, runoff volumes and the table below for a summary of results:

Rainfall Distribution, Event - Duration	Pre-development Runoff Volume (ac-ft)	Post-development Runoff Volume (ac-ft)	Volume Difference (ac-ft)
FDOT 100 year - 8 hour	11.71	17.09	5.38
Florida Modified Type II 25 year - 24 hour	9.35	14.32	4.97

Required Attenuation Volume = 5.38 ac-ft

4. Total Pond Volume Required

The total stormwater treatment and attenuation volume: $2.42 + 5.38 = 7.80$ ac-ft.

Total Pond Volume Required = 7.80 ac-ft

5. Pond Configuration

See attached stage storage output for the pond configuration shown on maps in the Appendix.

Pond P-3C will accommodate the Total Pond Volume Required.

The TOB of the proposed pond will have to be raised above the existing average grade approximately 1 foot.

URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET _____ of _____	PROJ. NO. C100003240.19
DESCRIPTION: Runoff volume calc.s for alt. pond P3C volume analysis	COMPUTED BY Jim Zinner	DATE 03-06-2000
	CHECKED BY <i>KDG</i>	DATE 03-15-00

FDOT 100 Year Storm

Duration (hr)	Rainfall Depth (in)
8	9.2

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P3C EXIST 1	60	4.26	20.38	7.23	P3C PROP 1	80	6.76	23.23	13.08	
P3C EXIST 2	84	7.25	2.85	1.72	P3C PROP 2	93	8.35	5.75	4.00	
P3C EXIST 3	72	5.76	5.74	2.76						
Total			28.97	11.71	Total			28.98	17.09	5.38

SWFWMD 25 Year Storm

25 year		
Curve Type	Duration	Rainfall Amount (in)
NRCS (SCS) Type II Florida Modified	24 hr	8

The rainfall amount for the Type II Florida Modified Rainfall was taken from the SWFWMD ERP Manual (1999).

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P3C EXIST 1	60	3.33	20.38	5.66	P3C PROP 1	80	5.63	23.23	10.89	
P3C EXIST 2	84	6.10	2.85	1.45	P3C PROP 2	93	7.16	5.75	3.43	
P3C EXIST 3	72	4.69	5.74	2.25						
Total			28.97	9.35	Total			28.98	14.32	4.97

JOB: SR39 / ALEXANDER ST. BYPASS
DESCRIPTION: IV. Basin 4 Description

SHEET OF PROJ. NO. C100003240.19
COMPUTED BY: Zinner DATE: 03-06-2000
CHECKED BY: KAG DATE: 03-15-00

From station 57+50 to 68+00, Length = 1050 m = 3444 ft

R/W width from Cason Street to S.R. 39 (Station 61+00) = 222 ft

R/W width from Station 61+00 to 64+50 = 209 ft

R/W width from 64+50 to 68+00 m = 196 ft

R/W area = 1148 x 222 = 5.85 ac = 2.37 ha

R/W area = 1149 x 209 = 5.51 ac = 2.23 ha

R/W area = 1149 x 196 = 5.61 ac = 2.27 ha

Total area = 16.52 ac = 6.69 ha

A. Treatment Area

There is not an existing roadway from station 57+50 to 64+50, therefore the treatment volume is the entire contributing drainage area per SWFWMD criteria. There is existing roadway from 64+50 to 68+00, therefore the treatment volume is the DCIA for that segment of the roadway.

Type of Treatment: with high ground water in the pond area percolation will not be a mode of discharge. Therefore we will assume the type of stormwater treatment will be *wet detention*. According to SWFWMD criteria the required treatment volume for wet detention will be 1" of runoff from the applicable treatment areas.

Proposed new roadway from 57+50 to 64+50
Length = 700 m = 2,297'
Right-of-way = 222'
Area: 2,297 x 222 = 11.71 ac

Proposed roadway widening from 64+50 to 68+00
Length = 350 m = 1,149'
Total pavement & Shoulder width: 6 x 12' + 2 x 5' = 82'
Area: 1,149 x 82 = 2.16 ac

Total Treatment Area = 11.71 + 2.16 = 13.87 ac



JOB: SR39 / ALEXANDER ST. BYPASS
DESCRIPTION: B. Alternate Pond Site P-4A

SHEET ___ OF ___ PROJ. NO. C100003240.19
COMPUTED BY: Zinner DATE: 03-06-2000
CHECKED BY: KAG DATE: 03-15-00

1. Pond Site Conditions

Location: Station 64 + 50 left

Existing grade elevation of site: the average grade is approximately 104.5.

Existing Soils Types: predominantly Myakka and Malabar soils

Existing Seasonal High Water Table (SHWT) of pond site:

The following data is available:

Source	Estimated SHWT Elevation (ft, NGVD)
Soils Survey states the depth to SHWT for Myakka and Malabar soils is 0.0' to 1.0'	103.5 to 104.5
SHWT determination by Mark Brown of FDOT at approximately station 61+00	104.0

The SHWT is estimated to be 104.0

Maximum Design High Water (DHW) at pond site: The calculated shoulder elevation at the sump will be at elevation 107.6.

Minimum Flow Line elevation: See the attached ditch profile for alternate pond site P-3A analysis. It shows that the proposed ditch will positively convey onsite runoff from one side of the proposed cross drain, which is usually the outfall, to the pond inlet.

2. Treatment Volume:

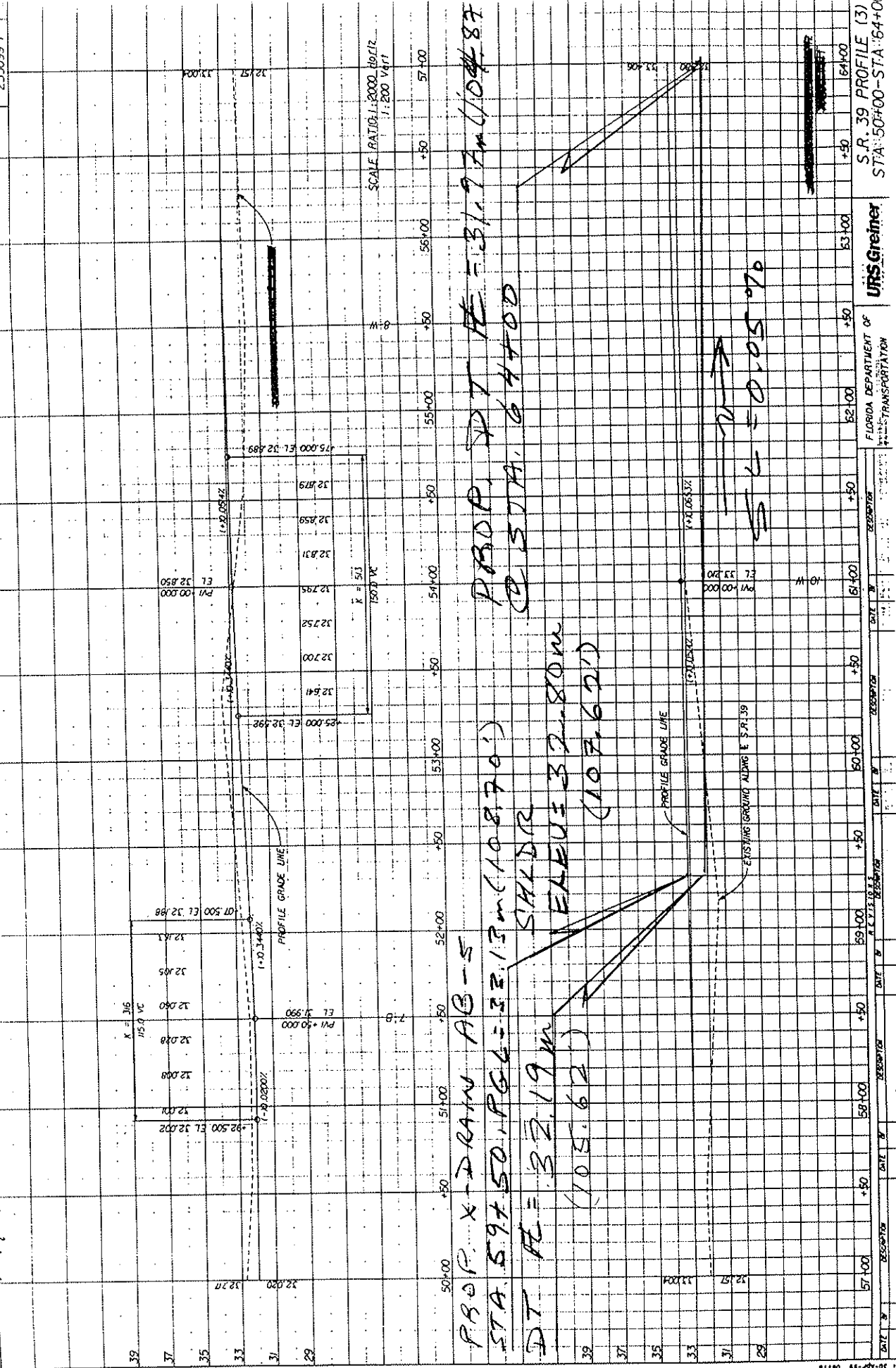
Total Treatment Area = 13.87 ac (see Treatment Area calculations).

Treatment Volume = Total Treatment Area (ac) * (1" / 12") = 13.87 * (1 / 12) = 1.16 ac-ft

Required Treatment Volume = 1.16 ac-ft

Alternate Pond Site P-4A

WORK PROGRAM ITEM
SCALAR NUMBER
255099 1



URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET of	PROJ. NO. C100003240.19
DESCRIPTION: Runoff volume calc.s	COMPUTED BY Jim Zinner	DATE 03-06-2000
for alt. pond P4A volume analysis	CHECKED BY <i>KAG</i>	DATE 03-15-00

FDOT 100 Year Storm

Duration (hr)	Rainfall Depth (in)
8	9.2

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P4A EXIST 1	82	7.01	16.52	9.64	P4A PROP 1	89	7.87	16.52	10.83	
P4A EXIST 2	80	6.76	3.30	1.86	P4A PROP 2	89	7.87	3.30	2.16	
Total			19.82	11.50	Total			19.82	12.99	1.49

SWFWMD 25 Year Storm

25 year		
Curve Type	Duration	Rainfall Amount (in)
NRCS (SCS) Type II Florida Modified	24 hr	8

The rainfall amount for the Type II Florida Modified Rainfall was taken from the SWFWMD ERP Manual (1999).

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P4A EXIST 1	82	5.86	16.52	8.07	P4A PROP 1	89	6.69	16.52	9.21	
P4A EXIST 2	80	5.63	3.30	1.55	P4A PROP 2	89	6.69	3.30	1.84	
Total			19.82	9.61	Total			19.82	11.04	1.43

JOB: SR39 / ALEXANDER ST. BYPASS
DESCRIPTION: C. Alternate Pond Site P-4B

SHEET OF PROJ. NO. C100003240.19
COMPUTED BY: Zinner DATE: 03-06-2000
CHECKED BY: KDG DATE: 03-15-00

1. Pond Site Conditions

Location: Station 63 + 50 left

Existing grade elevation of site: the average grade is approximately 105.0.

Existing Soils Types: predominantly Myakka and Malabar soils

Existing Seasonal High Water Table (SHWT) of pond site:

The following data is available:

Source	Estimated SHWT Elevation (ft, NGVD)
Soils Survey states the depth to SHWT for Myakka and Malabar soils is 0.0' to 1.0'	104.0 to 105.0
SHWT determination by Mark Brown of FDOT at approximately station 61+00	104.0

The SHWT is estimated to be 104.0

Maximum Design High Water (DHW) at pond site: The calculated shoulder elevation at the sump will be at elevation 107.6.

Minimum Flow Line elevation: See the profile for alternate pond site P-4A analysis. It shows that the proposed ditch will positively convey onsite runoff from one side of the proposed cross drain, which is usually the outfall, to the pond inlet.

2. Treatment Volume

Total Treatment Area = 13.87 ac (see Treatment Area calculations).

Treatment Volume = Total Treatment Area (ac) * (1" / 12") = 13.87 * (1 / 12) = 1.16 ac-ft

Required Treatment Volume = 1.16 ac-ft

Project: S.R. 39, Alexander Street Bypass Pond Siting Report

Subject: Existing Conditions Curve Number Calculations for Pond Alternate P4B

Project No.: C100003240.19

Sheet of
 Computed By: Zimmer Date: 03-06-2000
 Checked By: **KAG** Date: **03-15-00**

Basin Name	Total Area Ha	Total Area Ac	Pervious Area												Composite CN				
			Impervious Area				Soils				Land Use								
			Pavement		Roofs		Symbol / Name		Hydrologic Group		Open Space		Woods			Row Crops		Pasture	
			Ha	CN	Ha	CN			Group	Ha	CN	Ha	CN	Ha		CN	Ha	CN	
P4B EXIST1 (exist. rw)	6.687	16.52	0.683	98	98	Myakka, #29 Candler, #7	D	3.900	84	1.800	77						82		
P4B EXIST2 (exist. pond site)	1.072	2.65		98	98	Myakka, #29, Malbar, #27	D			1.072	80						80		
Total	7.759	19.16																	

Basin Name	Total Area Ha	Total Area Ac	Pervious Area												Composite CN				
			Impervious Area				Soils				Land Use								
			Pavement		Water		Symbol / Name		Hydrologic Group		Open Space		Woods			Row Crops		Pasture	
			Ha	CN	Ha	CN			Group	Ha	CN	Ha	CN	Ha		CN	Ha	CN	
P4B PROP1 (prop. RW)	6.688	16.52	2.81	98	0	98	Myakka, #29 Candler, #7	D	3.68	84							89		
P4B PROP2 (prop. pond)	1.068	2.64		98	0.619	98	used average CN for open space for pond berms		0.449	74							88		
Total	7.756	19.16																	

NOTES: (1) Soil Names, Symbols and Hydrologic Soil Group were obtained from USDA Soil Conservation Service Soil Survey of Hillsborough County, Florida.
 (2) Runoff curve numbers for land use type were obtained from Table 2-2a Runoff curve numbers for Urban Areas & Table 2-2c Runoff Curve Numbers for Agricultural Lands in USDA Soil Conservation Service Urban Hydrology for Small Watersheds, (TR55 Manual).
 (3) Open Spaces assumed to be in Fair condition (grass cover 50% to 75%).
 (4) Woods assumed to be in Good condition (woods are protected from grazing, and litter and brush adequately cover the soil).
 (5) Row crops assumed to be in Good condition.
 (6) Open spaces assumed to be in Good condition (grass cover 50 to 75%).
 (7) Woods-Graass assumed to be in Good condition.
 (8) Areas obtained from PD&E photobase plans produced by URS Greiner.

URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET	of	PROJ. NO. C100003240.19
DESCRIPTION: Pond Stage Storage Calculation	COMPUTED BY	Jim Zinner	DATE 03-06-2000
for alternate pond P4B volume analysis	CHECKED BY	<i>KDE</i>	DATE <i>03-15-00</i>

STAGE - STORAGE CALCULATIONS (English Units)

INPUT:

1.67	ac
1476	ft
4	ft h / 1 ft v
0.25	ft
107	ft, elevation
104	ft, elevation

VARIABLES:

A = Area at Top of Basin
P = Perimeter at Top of Basin
S = Avg. Side Slope of Basin
H = Incremental Stage of Basin
E1 = Elevation at the Top of Basin
E2 = Elevation at Lower Depth of Basin

FORMULAE:

$$n = (E1 - E2) / H$$

$$A_n = (A_n - 1) - (P_n - 1SH)$$

$$V_n = (A_n - (A_n - 1)) / 2H$$

VARIABLES:

n = Number of Incremental Stages
A_n = Incremental Area
V_n = Incremental Volume

OUTPUT:

Stage El. (ft, elev.)	Inc. Area (ac)	Inc. Storage (ac-ft)	Volume (ac-ft)
104.00	1.26	0.00	0.00
104.25	1.30	0.32	0.32
104.50	1.33	0.33	0.65
104.75	1.37	0.34	0.99
105.00	1.40	0.35	1.33
105.25	1.43	0.35	1.69
105.50	1.47	0.36	2.05
105.75	1.50	0.37	2.42
106.00	1.53	0.38	2.80
106.25	1.57	0.39	3.19
106.50	1.60	0.40	3.58
106.75	1.64	0.40	3.99
107.00	1.67	0.41	4.40
107.25	1.70	0.42	4.82
107.50	1.74	0.43	5.25

SHWT ELEV.

TREATMENT VOLUME

DHW ELEV.

TOB ELEV.

SHOULDER ELEV. @ SUMP

JOB: SR39 / ALEXANDER ST. BYPASS
DESCRIPTION: D. Alternate Pond Site P-4C
(continued)

SHEET OF PROJ. NO. C100003240.19
COMPUTED BY: Zinner DATE: 03-06-2000
CHECKED BY: KAG DATE: 03-15-00

3. Attenuation Volume

Rainfall Distribution, Event - Duration	Pre-development Runoff Volume (ac-ft)	Post-development Runoff Volume (ac-ft)	Volume Difference (ac-ft)
FDOT 100 year - 8 hour	11.42	12.90	1.48
Florida Modified Type II 25 year - 24 hour	9.55	10.97	1.42

Required Attenuation Volume = 1.48 ac-ft

4. Total Pond Volume Required

The total stormwater treatment and attenuation volume: $1.16 + 1.48 = 2.64$ ac-ft.

Total Pond Volume Required = 2.64 ac-ft

5. Pond Configuration

See attached stage storage output for the pond configuration shown on maps in the Appendix.

Pond P-4C will accommodate the Total Pond Volume Required.

The TOB of the proposed pond will have to be raised above the existing average grade approximately 2.5 feet.

URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET of	PROJ. NO. C100003240.19
DESCRIPTION: Runoff volume calc.s	COMPUTED BY Jim Zinner	DATE 03-06-2000
for alt. pond P4C volume analysis	CHECKED BY <i>KAG</i>	DATE 03-15-00

FDOT 100 Year Storm

Duration (hr)	Rainfall Depth (in)
8	9.2

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P4C EXIST 1	82	7.01	16.52	9.64	P4C PROP 1	89	7.87	16.52	10.83	
P4C EXIST 2	80	6.76	3.16	1.78	P4C PROP 2	89	7.87	3.16	2.07	
Total			19.68	11.42	Total			19.68	12.90	1.48

SWFWMD 25 Year Storm

25 year		
Curve Type	Duration	Rainfall Amount (in)
NRCS (SCS) Type II Florida Modified	24 hr	8

The rainfall amount for the Type II Florida Modified Rainfall was taken from the SWFWMD ERP Manual (1999).

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P4C EXIST 1	82	5.86	16.52	8.07	P4C PROP 1	89	6.69	16.52	9.21	
P4C EXIST 2	80	5.63	3.16	1.48	P4C PROP 2	89	6.69	3.16	1.76	
Total			19.68	9.55	Total			19.68	10.97	1.42

URS Greiner

JOB: SR39 / ALEXANDER ST. BYPASS

DESCRIPTION: V. Basin 5 Description

SHEET OF PROJ. NO. C100003240.19

COMPUTED BY: Zinner DATE: 03-06-2000

CHECKED BY: KAG DATE: 03-15-00

From station 68+00 to 73+40

Length = 540 m = 1772 ft

Proposed R/W width = 196 ft

R/W area = 1772 x 196 = 7.97 ac

A. Treatment Area

There is existing roadway from 68+00 to 73+40, therefore the treatment volume is the existing and proposed pavement (DCIA) for that segment of the roadway.

Proposed roadway widening from 68+00 to 73+40

Length = 540 m = 1,772'

Total pavement & shoulder width: $6 \times 12' + 2 \times 5' = 82'$

Area: $1,772' \times 82' = 3.34$ ac



JOB: SR39 / ALEXANDER ST. BYPASS
DESCRIPTION: B. Alternate Pond Site P- 5A

SHEET OF PROJ. NO. C100003240.19
COMPUTED BY: Zinner DATE: 03-06-2000
CHECKED BY: KAG DATE: 03-15-00

1. Pond Site Conditions

Location: Station 53 + 50 right

Existing grade elevation of site: the average grade is approximately 107.0.

Existing Soils Types: predominantly Candler soils

Existing Seasonal High Water Table (SHWT) of pond site:

The following data is available:

Source	Estimated SHWT Elevation (ft, NGVD)
Soils Survey states the depth to Candler soils is > 6.0'	101.0
SHWT determination by Mark Brown of FDOT at approximately station 67+00	105.4
SHWT determination by Mark Brown of FDOT at approximately station 71+50	101.49

The SHWT is estimated to be 103.5

2. Treatment Volume

Type of Treatment: *assume wet detention*, therefore 1" of runoff from the DCIA.

Treatment Volume = Total Treatment Area (ac) * (1" / 12") = 3.34 * (1 / 12) = 0.28 ac-ft

Required Treatment Volume = 0.28 ac-ft

URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET _____ of _____	PROJ. NO. C100003240.19
DESCRIPTION: Pond Stage Storage Calculations	COMPUTED BY Jim Zinner	DATE 03-06-2000
for alternate pond P5A volume analysis	CHECKED BY <i>KDG</i>	DATE <i>03-15-00</i>

STAGE - STORAGE CALCULATIONS (English Units)

INPUT:

0.9	ac
650	ft
4	ft h / 1 ft v
0.25	ft
106.5	ft, elevation
103.5	ft, elevation

VARIABLES:

A = Area at Top of Basin
P = Perimeter at Top of Basin
S = Avg. Side Slope of Basin
H = Incremental Stage of Basin
E1 = Elevation at the Top of Basin
E2 = Elevation at Lower Depth of Basin

FORMULAE: $n = (E1 - E2) / H$
 $A_n = (A_n - 1) - (P_n - 1SH)$
 $V_n = (A_n - (A_n - 1)) / 2H$

VARIABLES:

n = Number of Incremental Stages
A_n = Incremental Area
V_n = Incremental Volume

OUTPUT:

Stage El. (ft, elev.)	Inc. Area (ac)	Inc. Storage (ac-ft)	Volume (ac-ft)	
103.50	0.72	0.00	0.00	SHWT ELEV.
103.75	0.74	0.18	0.18	
104.00	0.75	0.19	0.37	TREATMENT VOLUME
104.25	0.77	0.19	0.56	
104.50	0.78	0.19	0.75	
104.75	0.80	0.20	0.95	
105.00	0.81	0.20	1.15	
105.25	0.83	0.20	1.35	
105.50	0.84	0.21	1.56	
105.75	0.86	0.21	1.77	DHW ELEV.
106.00	0.87	0.22	1.99	
106.25	0.89	0.22	2.21	
106.50	0.90	0.22	2.43	
106.75	0.91	0.23	2.66	
107.00	0.93	0.23	2.89	TOB & SHLDR ELEV. @ SUMP

JOB: SR39 / ALEXANDER ST. BYPASS
DESCRIPTION: C. Alternate Pond Site P-5B
(continued)

SHEET OF PROJ. NO. C100003240.19
COMPUTED BY: Zinner DATE: 03-06-2000
CHECKED BY: KDG DATE: 03-15-00

3. Attenuation Volume

See attached calculations for composite CN numbers, runoff volumes and the table below for a summary of results:

Rainfall Distribution, Event - Duration	Pre-development Runoff Volume (ac-ft)	Post-development Runoff Volume (ac-ft)	Volume Difference (ac-ft)
FDOT 100 year - 8 hour	5.31	6.65	1.34
Florida Modified Type II 25 year - 24 hour	4.33	5.60	1.27

Required Attenuation Volume = 1.34 ac-ft

4. Total Pond Volume Required

The total stormwater treatment and attenuation volume: $0.28 + 1.34 = 1.62$ ac-ft.

Total Pond Volume Required = 1.62 ac-ft

5. Pond Configuration

See attached stage storage output for the pond configuration shown on maps in the Appendix.

Pond P-5B will accommodate the Total Pond Volume Required.

The TOB of the proposed pond will have to be raised above the existing average grade approximately 3.25 feet.

URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET	of	PROJ. NO. C100003240.19
DESCRIPTION: Runoff volume calc.s	COMPUTED BY	Jim Zinner	DATE 03-06-2000
for alt. pond P5B volume analysis	CHECKED BY	KDG	DATE 03-15-00

FDOT 100 Year Storm

Duration (hr)	Rainfall Depth (in)
8	9.2

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P5B EXIST 1	72	5.76	7.97	3.83	P5B PROP 1	82	7.01	7.97	4.65	
P5B EXIST 2	74	6.01	2.96	1.48	P5B PROP 2	91	8.11	2.96	2.00	
Total			10.93	5.31	Total			10.93	6.65	1.34

SWFWMD 25 Year Storm

25 year		
Curve Type	Duration	Rainfall Amount (in)
NRCS (SCS) Type II Florida Modified	24 hr	8

The rainfall amount for the Type II Florida Modified Rainfall was taken from the SWFWMD ERP Manual (1999).

Basin Name	Pre CN	Pre Qr (in)	Area (ac)	Pre Qr Volume (ac-ft)	Basin Name	Post CN	Post Qr (in)	Area (ac)	Post Qr Volume (ac-ft)	Post-Pre Volume (ac-ft)
P5B EXIST 1	72	4.69	7.97	3.12	P5B PROP 1	82	5.86	7.97	3.89	
P5B EXIST 2	74	4.93	2.96	1.22	P5B PROP 2	91	6.92	2.96	1.71	
Total			10.93	4.33	Total			10.93	5.60	1.27



JOB: SR39 / ALEXANDER ST. BYPASS
 DESCRIPTION: D. Alternate Pond Site P-5C

SHEET OF PROJ. NO. C100003240.19
 COMPUTED BY: Zinner DATE: 03-06-2000
 CHECKED BY: KAC DATE: 03-15-00

1. Pond Site Conditions

Location: Station 53 + 50 right

Existing grade elevation of site: the average grade is approximately 102.5

Existing Soils Types: predominantly St. Johns soils

Existing Seasonal High Water Table (SHWT) of pond site:

Source	Estimated SHWT Elevation (ft, NGVD)
Soils Survey states the depth to St. Johns soils is 0.0' to 1.0'	101.5 to 102.50
SHWT determination by Mark Brown of FDOT at approximately station 71+50	101.49

The SHWT is estimated to be 102.0

2. Treatment Volume

Treatment Volume = Total Treatment Area (ac) * (1" / 12") = 3.34 * (1 / 12) = 0.28 ac-ft

Required Treatment Volume = 0.28 ac-ft

3. Attenuation Volume

See the table below for a summary of results:

Rainfall Distribution, Event - Duration	Pre-development Runoff Volume (ac-ft)	Post-development Runoff Volume (ac-ft)	Volume Difference (ac-ft)
FDOT 100 year - 8 hour	5.15	6.19	1.04
Florida Modified Type II 25 year - 24 hour	4.22	5.20	0.98

Required Attenuation Volume = 1.04 ac-ft

Project: S.R. 39, Alexander Street Bypass Pond Siting Report
 Subject: Existing Conditions Curve Number Calculations for Pond Alternate P5C

Project No.: C100003240.19

$CN = ((Ha)(CN) + (Ha)j+1(CN)j+1 + (Ha)j+2(CN)j+2 + \dots + (Ha)n-1(CN)n-1 + (Ha)n(CN)n)) / Total Area$

Basin Name	Total Area	Impervious Area				Soils				Land Use								Composite		
		Total Area		Roofs		Symbol / Name	Hydrologic Group	Open Space		Woods		Row Crops		Pasture		CN				
		Ha	Ac	Ha	CN			Ha	CN	Ha	CN	Ha	CN	Ha	CN		Ha		CN	
		3.227	7.97	0.752	98			1.927	68	0.250	30	0.298	70							
P5C EXIST1 (exist. RW)																				
P5C EXIST2 (exist. pond area and offsite church)	0.951	2.35	98	98	St. Johns, #46	D	0.951	80											80	
Total	4.178	10.32																		

Subject: Proposed Conditions Curve Number Calculations for Alternate Pond Site P5C

$CN = ((Ha)j(CN)j + (Ha)j+1(CN)j+1 + (Ha)j+2(CN)j+2 + \dots + (Ha)n-1(CN)n-1 + (Ha)n(CN)n)) / Total Area$

Basin Name	Total Area	Impervious Area				Soils				Land Use								Composite			
		Total Area		Water		Symbol / Name	Hydrologic Group	Open Space		Woods		Row Crops		Pasture		CN					
		Ha	Ac	Ha	CN			Ha	CN	Ha	CN	Ha	CN	Ha	CN		Ha		CN		
		3.227	7.97	1.845	98			0	98	0.834	68	0.250	30	0.298	70						
P5C PROP1 (prop. RW)																					
P5C PROP2 (prop. pond)	0.951	2.35	98	98	St. Johns, #46	D	0.451	80												89	
Total	4.178	10.32																			

- NOTES:
- (1) Soil Names, Symbols and Hydrologic Soil Group were obtained from USDA Soil Conservation Service Soil Survey of Hillsborough County, Florida.
 - (2) Runoff curve numbers for land use type were obtained from Table 2-2a Runoff curve numbers for Urban Areas & Table 2-2c Runoff Curve Numbers for Agricultural Lands in USDA Soil Conservation Service Urban Hydrology for Small Watersheds, (TR55 Manual).
 - (3) Open Spaces assumed to be in Fair condition (grass cover 50% to 75%).
 - (4) Woods assumed to be in Good condition (woods are protected from grazing, and litter and brush adequately cover the soil).
 - (5) Row crops assumed to be in Good condition.
 - (6) Open spaces assumed to be in Good condition (grass cover 50 to 75%).
 - (7) Woods-Grass assumed to be in Good condition.
 - (8) Areas obtained from PD&E photobase plans produced by URS Greiner.

URS Greiner

JOB: SR 39, ALEXANDER ST. BYPASS	SHEET	of	PROJ. NO. C100003240.19
DESCRIPTION: Pond Stage Storage Calculations	COMPUTED BY	Jim Zinner	DATE 03-06-2000
for alternate pond P5C volume analysis	CHECKED BY	KAG	DATE 03-15-00

STAGE - STORAGE CALCULATIONS (English Units)

INPUT:

1.2	ac
932	ft
4	ft h / 1 ft v
0.25	ft
104.5	ft, elevation
102	ft, elevation

VARIABLES: A = Area at Top of Basin
P = Perimeter at Top of Basin
S = Avg. Side Slope of Basin
H = Incremental Stage of Basin
E1 = Elevation at the Top of Basin
E2 = Elevation at Lower Depth of Basin

FORMULAE:

$$n = (E1 - E2) / H$$

$$A_n = (A_n - 1) - (P_n - 1SH)$$

$$V_n = (A_n - (A_n - 1)) / 2H$$

VARIABLES: n = Number of Incremental Stages
A_n = Incremental Area
V_n = Incremental Volume

OUTPUT:

Stage El. (ft, elev.)	Inc. Area (ac)	Inc. Storage (ac-ft)	Volume (ac-ft)	
102.00	0.99	0.00	0.00	SHWT ELEV.
102.25	1.01	0.25	0.25	
102.50	1.03	0.25	0.50	TREATMENT VOLUME
102.75	1.05	0.26	0.76	
103.00	1.07	0.27	1.03	
103.25	1.09	0.27	1.30	
103.50	1.11	0.28	1.58	DHW ELEV.
103.75	1.14	0.28	1.86	
104.00	1.16	0.29	2.14	
104.25	1.18	0.29	2.44	
104.50	1.20	0.30	2.73	TOB & SHLDR ELEV. @ SUMP

APPENDIX B
Floodplain Calculations

JOB SR 39 Alexander St. Bypass SHEET 1 OF PROJ. NO.
DESCRIPTION Floodplain Encroachment COMPUTED BY MES DATE 6/23/99
CHECKED BY DATE

SR 39 - Alexander St. Bypass (ALB)

- Estimate areas of floodplain encroachment for New ALB
- Utilize alignment on aerials and FEMA Firm Maps
- FEMA maps show Zone A - No elevations
- Use CDM Westside canal study.

Floodplain Encroachment Area 1

- Sta 23+50 to Sta 28+25 = 475 m = 1558 ft
- SHW elev. estimated at 106.0 ft.
- 100 yr flood elevation estimated at 107.4 feet (from CDM study)
- R.O.W. width = 268' - (8' for collector ditch) = 260 ft
- Encroachment Volume = $(1558 \text{ ft} \times 260 \text{ ft}) \times (107.4 \text{ ft} - 106.0 \text{ ft})$
 $= (405,080 \text{ ft}^2) \times 1.4 \text{ ft} = 567,112 \text{ ft}^3 (13.0 \text{ Ac-ft})$

Floodplain Encroachment Area 2

- Sta 31+25 to 33+50 = 225 m = 738 ft
- SHW elev. estimated at 104.0
- 100 yr flood elevation estimated at 104.3 ft (from CDM study)
- ROW width = 222'
- Encroachment Volume = $(738 \text{ ft} \times 222 \text{ ft}) \times (104.3 \text{ ft} - 104.0 \text{ ft})$
 $= (163,836 \text{ ft}^2) \times (0.3 \text{ ft}) = 49,151 \text{ ft}^3 (1.1 \text{ Ac-ft})$

JOB <u>51139</u>	<u>ALB</u>	SHEET <u>3</u> OF <u> </u>	PROJ. NO. <u> </u>
DESCRIPTION <u>Floodplain Compensation</u>		COMPUTED BY <u>UES</u>	DATE <u>6/23/99</u>
		CHECKED BY <u> </u>	DATE <u> </u>

- Floodplain Compensation Volume Required 14.8 Ac-ft

Floodplain Compensation Site

- Existing FOOT Parcel adjacent to Westside Canal (x 8.0 Ac)
- SHW = 104. ft
- 100YR El in Canal = 107.4
- Existing grade varies from 107 ft to 109 ft
- Avg = 108 ft
- Depth avail = 107.4 to 104.4 ft = 3.0 ft
- $14.8 \text{ Ac ft} = 644,688 \text{ ft}^3 \div 3.0 \text{ ft} = 214,896 \text{ ft}^2 = \underline{4.9 \text{ Ac}}$
- Existing FOOT site could be used to accommodate Floodplain Compensation volume.

CONDEMNED

(Ind. SW)

See Final Judgment,
SRD No. 206

P.J. OR 127/41 - 6/10/56

SRD NO. 293-Revised
SECTION 1017-201
STATE ROAD 600
Hillsborough COUNTY

SPECIAL WARRANTY DEED

THIS INDENTURE made this _____ day of _____, A. D. 195____
between Sam Rosenberg

as part _____ of the first part and the STATE OF FLORIDA, for the use and benefit of the State Road Department of Florida, as party of the second part.

WITNESSETH, That the said part _____ of the first part, for and in consideration of the sum of One Dollar and other valuable considerations, paid, receipt of which is hereby acknowledged, do _____ hereby grant, bargain, sell, and convey unto the party of the second part, its successors and assigns, the following described land, situate, lying and being in the County of Hillsborough State of Florida, to-wit:

X
BORROW PIT NO. 9

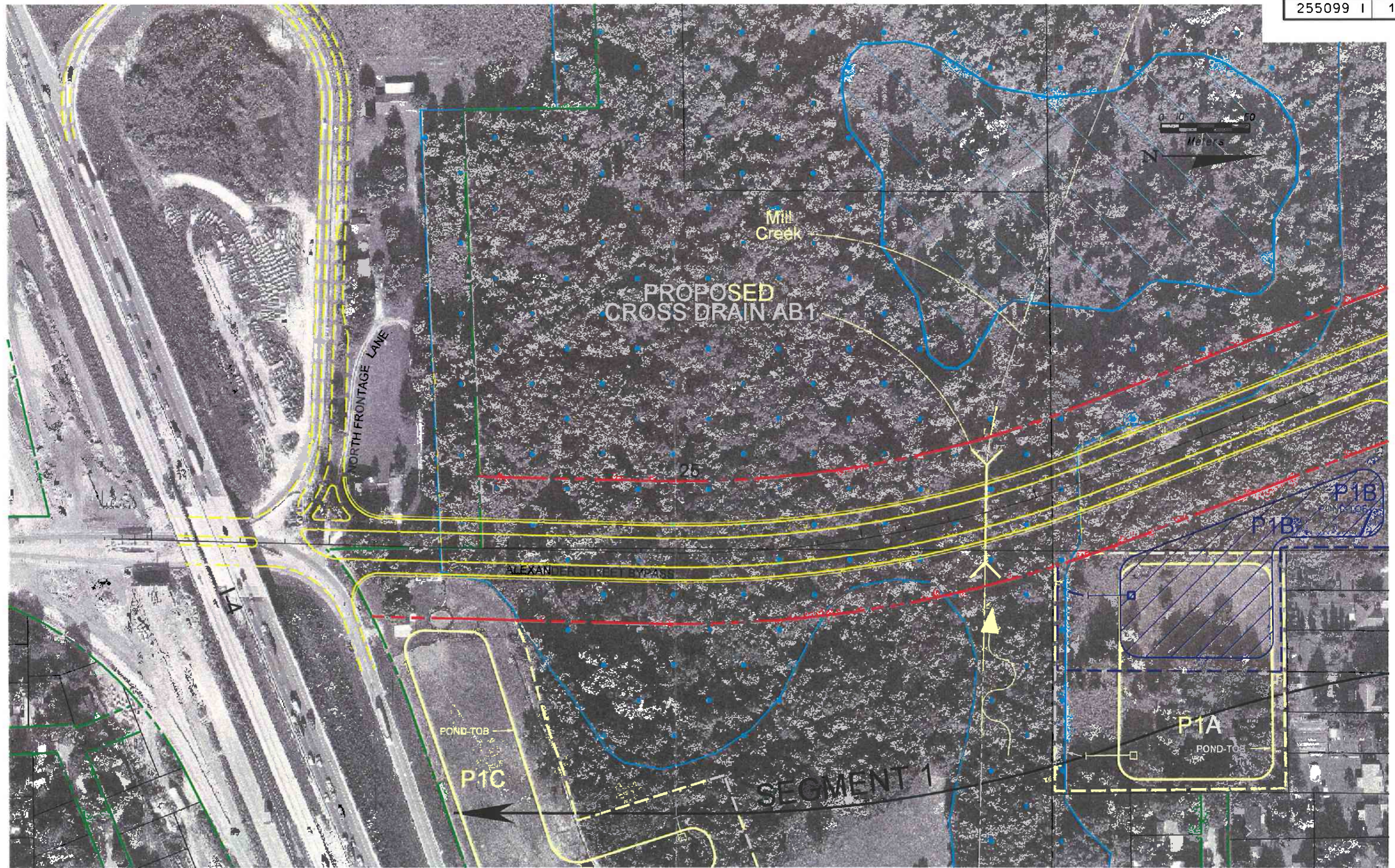
A parcel of land in the S $\frac{1}{2}$ of NE $\frac{1}{4}$ of NE $\frac{1}{4}$ of Section 19, Township 28 South, Range 22 East, described as follows: Commence on the East boundary of Section 19, Township 28 South, Range 22 East, at a point 662.52 feet South from the Northeast corner thereof; run thence South 88°40'30" West 654.82 feet to the POINT OF BEGINNING; thence continue South 88°40'30" West 654.82 feet; thence South 00°10'30" West 660.77 feet; thence North 88°46' East 430.01 feet; thence North 25°59'57" East 518.93 feet; thence North 00°07'30" West 200 feet to the POINT OF BEGINNING; containing 8.756 acres, more or less.

X
STATE ROAD DEPARTMENT OF FLORIDA
DIVISION OF RIGHTS OF WAY
DESCRIPTION APPROVED
JUN 20 1956 BY D. N. B.


FEB 28 1984

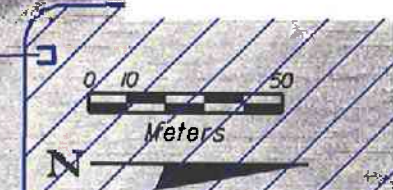
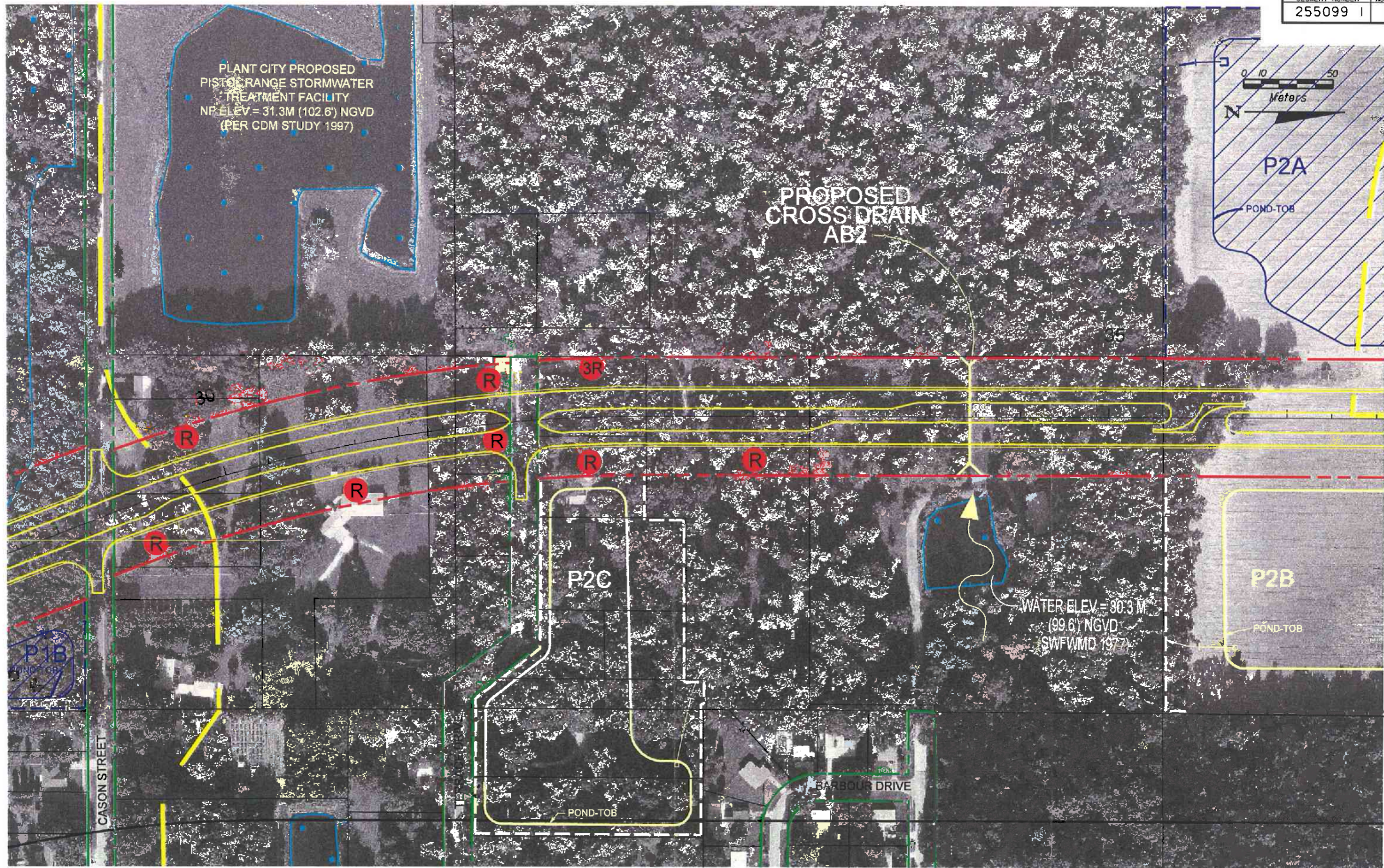
APPENDIX C

Alternate Pond Site Location Maps



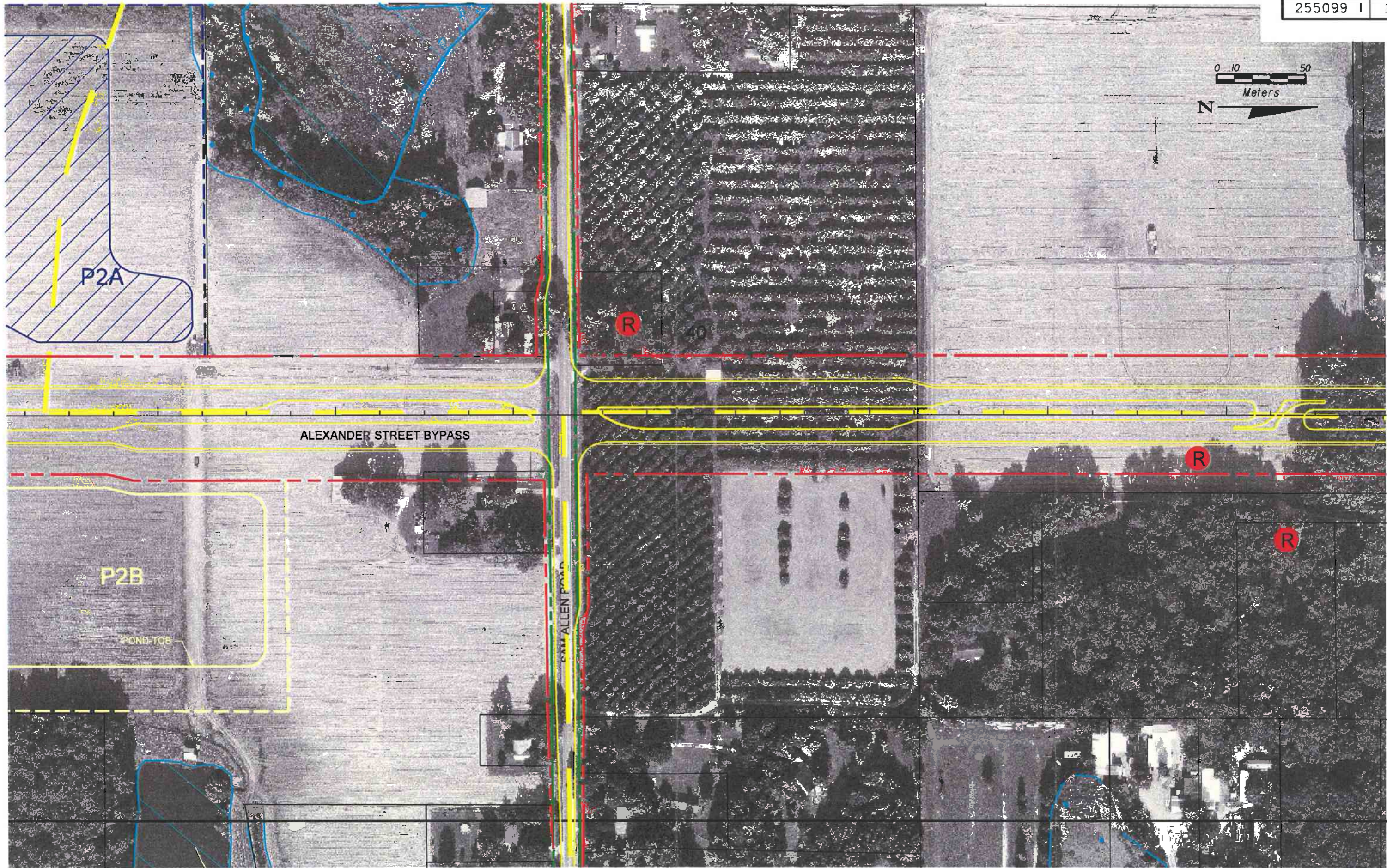
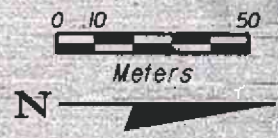
DATE OF FLIGHT: AUGUST 13, 1998

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| EDGE OF PAVEMENT | PROPERTY LINES | WETLAND BOUNDARY | ALTERNATIVE POND R/W | RECOMMENDED POND R/W |
| EXISTING RIGHT OF WAY | POTENTIAL CONTAMINATION SITE | BUSINESS RELOCATION | ALTERNATIVE POND SITE | RECOMMENDED POND SITE |
| PROPOSED RIGHT OF WAY | HISTORIC STRUCTURE | RESIDENTIAL RELOCATION | ALTERNATIVE POND OUTFALL | RECOMMENDED POND OUTFALL |
| PROPOSED BRIDGE STRUCTURE | | | | |





ALEXANDER STREET BYPASS

P2B

POND TOB

CHAS ALLEN ROAD

R

R

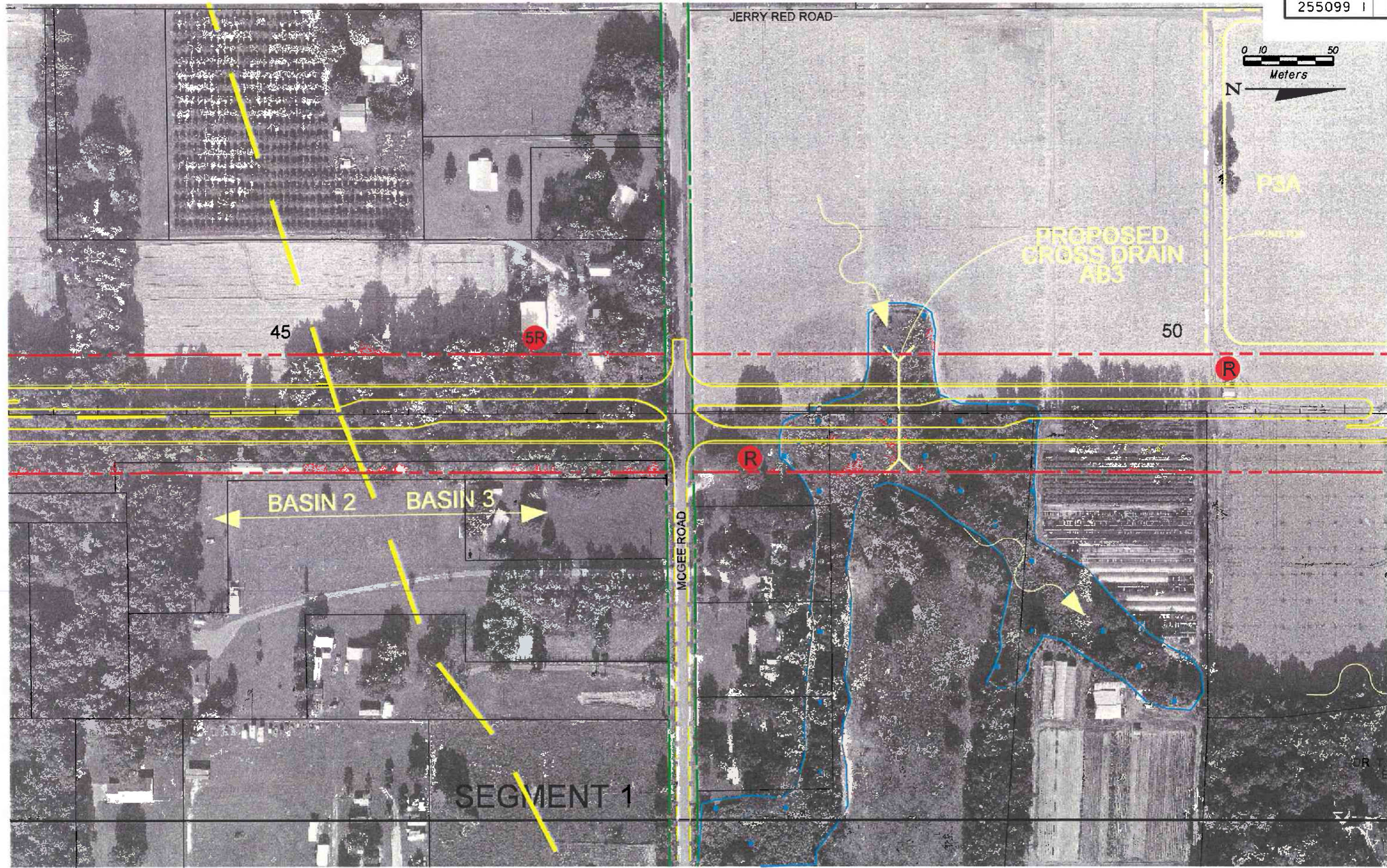
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DATE OF FLIGHT: AUGUST 13, 1998

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PROPOSED RIGHT OF WAY	HISTORIC STRUCTURE	RESIDENTIAL RELOCATION	ALTERNATIVE POND OUTFALL	RECOMMENDED POND OUTFALL
PROPOSED BRIDGE STRUCTURE				



S.R. 39 FROM I-4 TO U.S. 301
 PROJECT DEVELOPMENT AND ENVIRONMENT STUDY
 HILLSBOROUGH AND PASCO COUNTIES, FLORIDA
 PREFERRED ALTERNATIVE - ALIGNMENT R-H

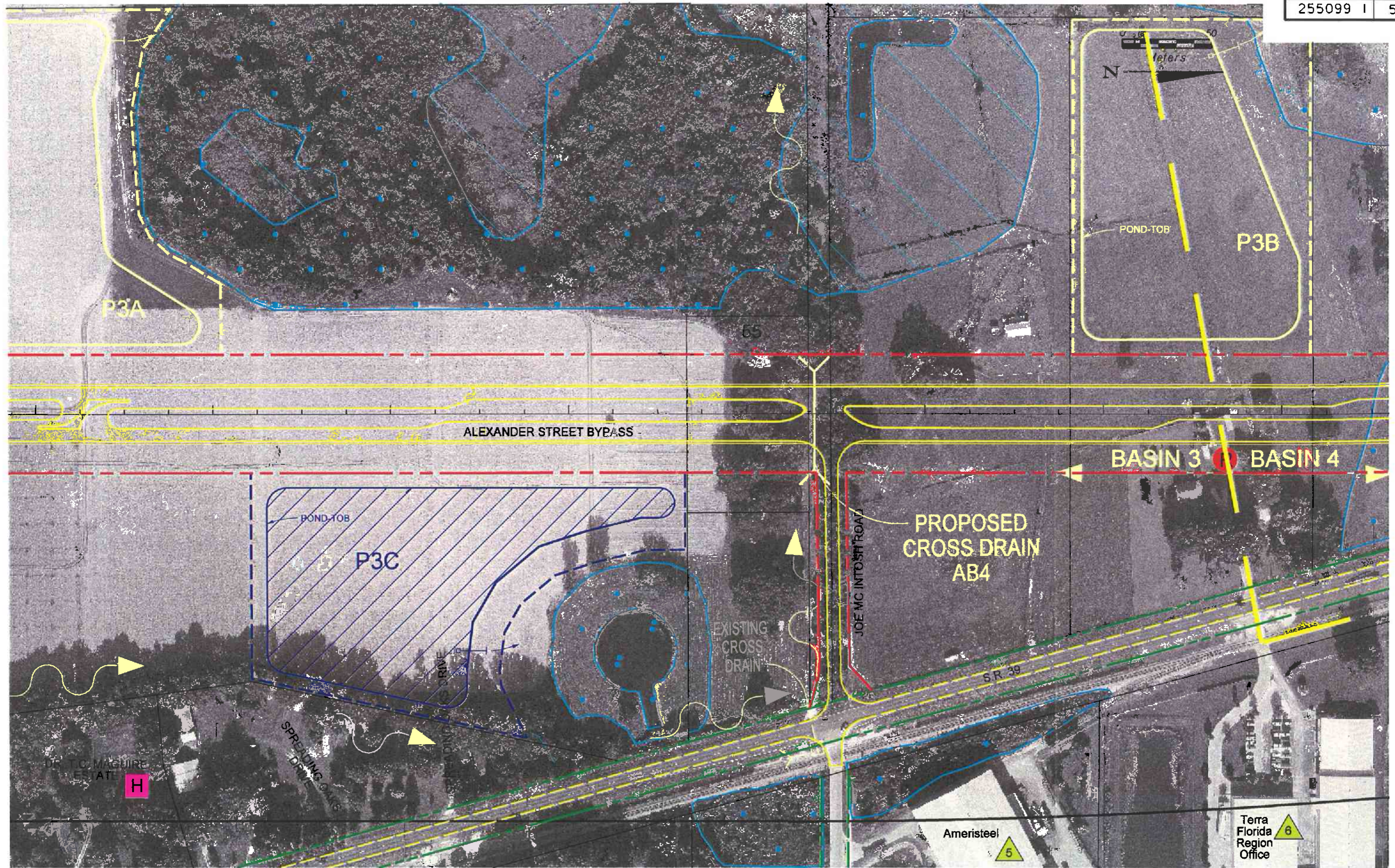


DATE OF FLIGHT: AUGUST 13, 1998

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| EXISTING RIGHT OF WAY | POTENTIAL CONTAMINATION SITE | BUSINESS RELOCATION | ALTERNATIVE POND SITE | RECOMMENDED POND SITE |
| PROPOSED RIGHT OF WAY | HISTORIC STRUCTURE | RESIDENTIAL RELOCATION | ALTERNATIVE POND OUTFALL | RECOMMENDED POND OUTFALL |
| PROPOSED BRIDGE STRUCTURE | | | | |



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 PROJECT DEVELOPMENT AND ENVIRONMENT STUDY
 HILLSBOROUGH AND PASCO COUNTIES, FLORIDA
 PREFERRED ALTERNATIVE - ALIGNMENT R-H



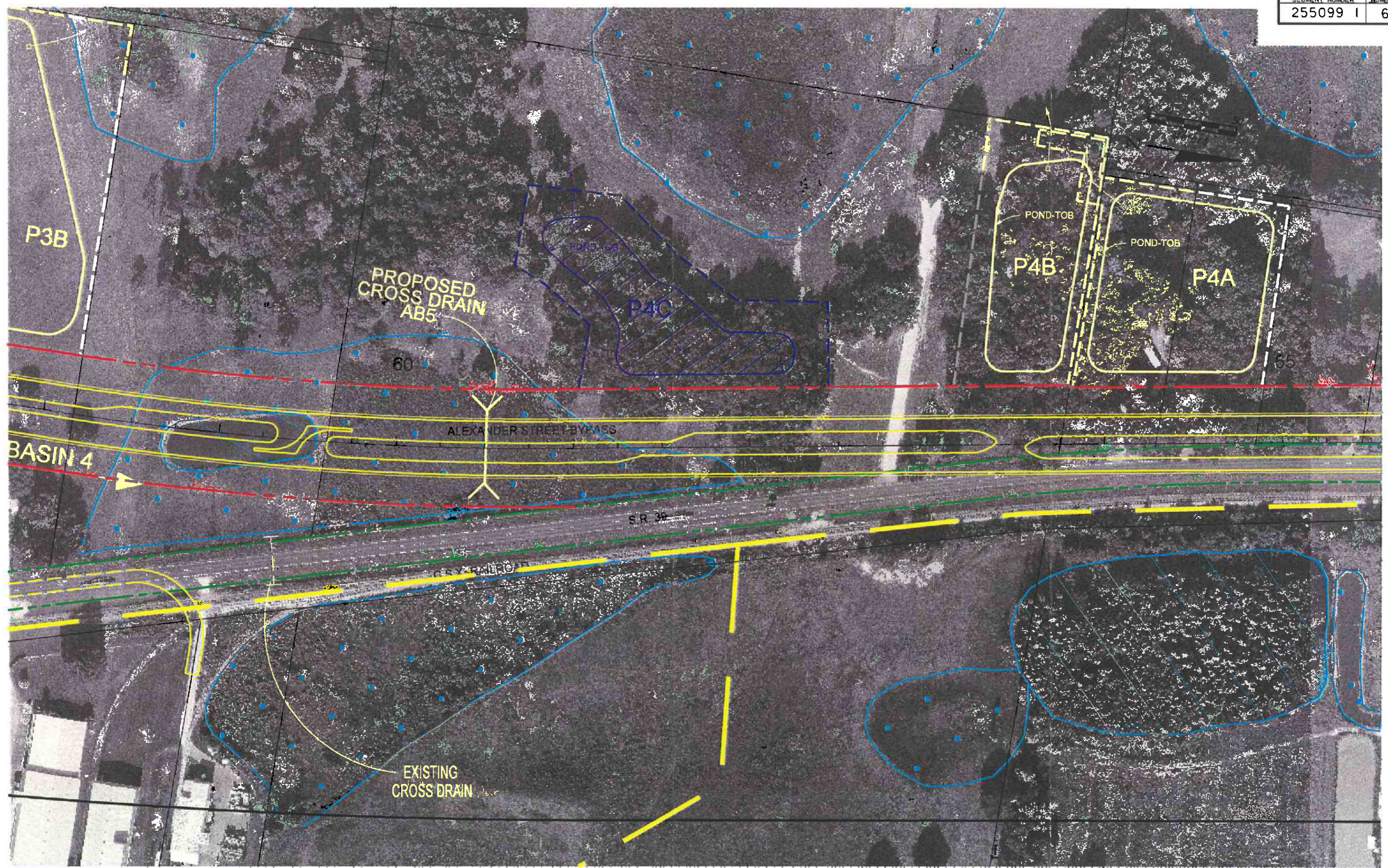
EDGE OF PAVEMENT	PROPERTY LINES	WETLAND BOUNDARY	ALTERNATIVE POND R/W	RECOMMENDED POND R/W
EXISTING RIGHT OF WAY	POTENTIAL CONTAMINATION SITE	BUSINESS RELOCATION	ALTERNATIVE POND SITE	RECOMMENDED POND SITE
PROPOSED RIGHT OF WAY	HISTORIC STRUCTURE	RESIDENTIAL RELOCATION	ALTERNATIVE POND OUTFALL	RECOMMENDED POND OUTFALL
PROPOSED BRIDGE STRUCTURE				



DATE OF FLIGHT: AUGUST 13, 1998

S.R. 39 FROM I-4 TO U.S. 301
 PROJECT DEVELOPMENT AND ENVIRONMENT STUDY
 HILLSBOROUGH AND PASCO COUNTIES, FLORIDA

PREFERRED ALTERNATIVE - ALIGNMENT R-1



DATE OF FLIGHT: AUGUST 13, 1998

EDGE OF PAVEMENT	PROPERTY LINES	WETLAND BOUNDARY	ALTERNATIVE POND R/W	RECOMMENDED POND R/W
EXISTING RIGHT OF WAY	POTENTIAL CONTAMINATION SITE	BUSINESS RELOCATION	ALTERNATIVE POND SITE	RECOMMENDED POND SITE
PROPOSED RIGHT OF WAY	HISTORIC STRUCTURE	RESIDENTIAL RELOCATION	ALTERNATIVE POND OUTFALL	RECOMMENDED POND OUTFALL
PROPOSED BRIDGE STRUCTURE				



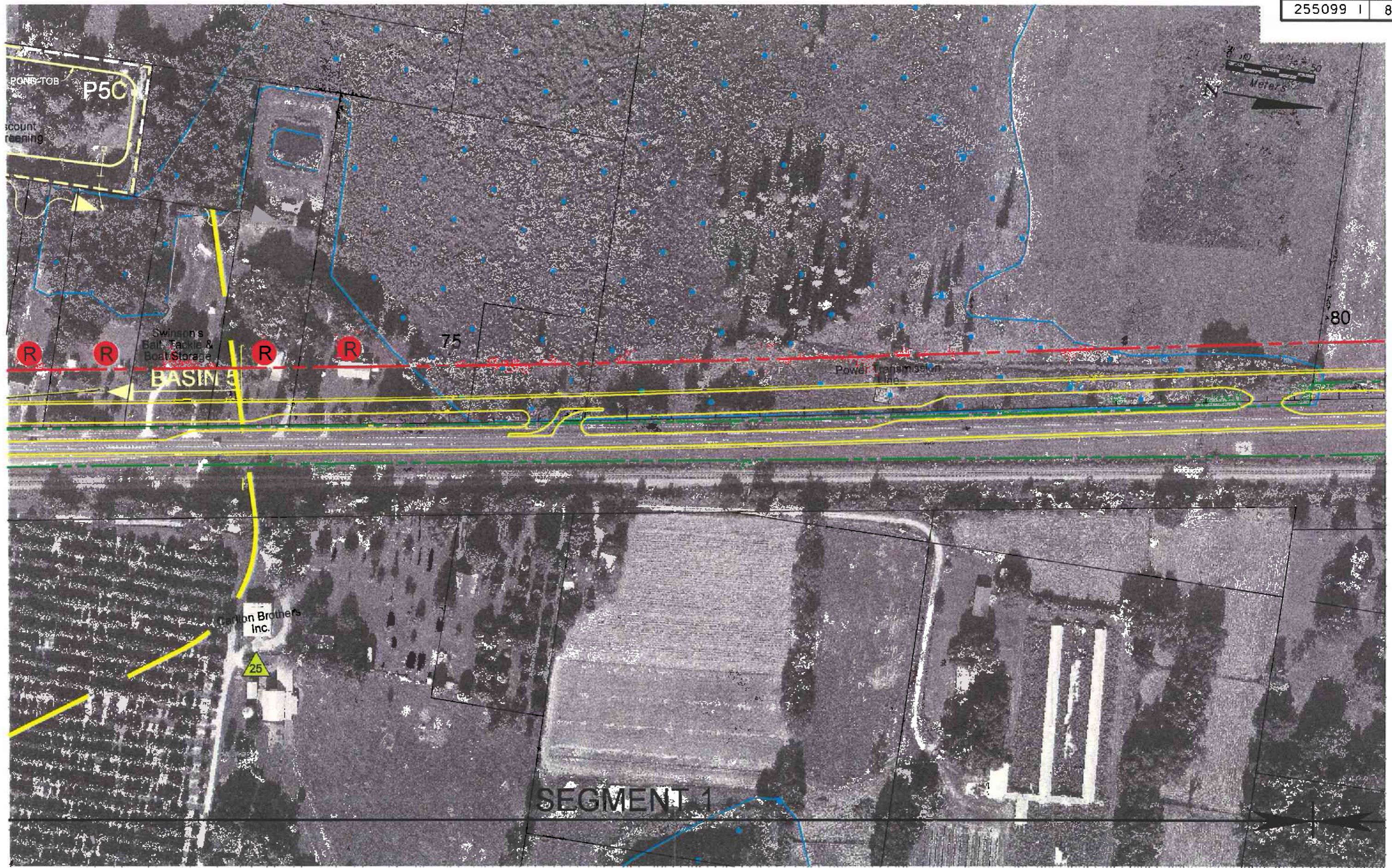
S.R. 39 FROM I-4 TO U.S. 301
 PROJECT DEVELOPMENT AND ENVIRONMENT STUDY
 HILLSBOROUGH AND PASCO COUNTIES, FLORIDA
 PREFERRED ALTERNATIVE - ALIGNMENT B-H



SEGMENT 1

DATE OF FLIGHT: AUGUST 13, 1996

EDGE OF PAVEMENT	PROPERTY LINES	WETLAND BOUNDARY	ALTERNATIVE POND R/W	RECOMMENDED POND R/W	FLORIDA DEPARTMENT OF TRANSPORTATION
EXISTING RIGHT OF WAY	POTENTIAL CONTAMINATION SITE	BUSINESS RELOCATION	ALTERNATIVE POND SITE	RECOMMENDED POND SITE	
PROPOSED RIGHT OF WAY	HISTORIC STRUCTURE	RESIDENTIAL RELOCATION	ALTERNATIVE POND OUTFALL	RECOMMENDED POND OUTFALL	S.R. 39 FROM I-4 TO U.S. 301 PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDY HILLSBOROUGH AND PASCO COUNTIES, FLORIDA
PROPOSED BRIDGE STRUCTURE					



EDGE OF PAVEMENT	PROPERTY LINES	WETLAND BOUNDARY	ALTERNATIVE POND R/W	RECOMMENDED POND R/W
EXISTING RIGHT OF WAY	POTENTIAL CONTAMINATION SITE	BUSINESS RELOCATION	ALTERNATIVE POND SITE	RECOMMENDED POND SITE
PROPOSED RIGHT OF WAY	HISTORIC STRUCTURE	RESIDENTIAL RELOCATION	ALTERNATIVE POND OUTFALL	RECOMMENDED POND OUTFALL
PROPOSED BRIDGE STRUCTURE				



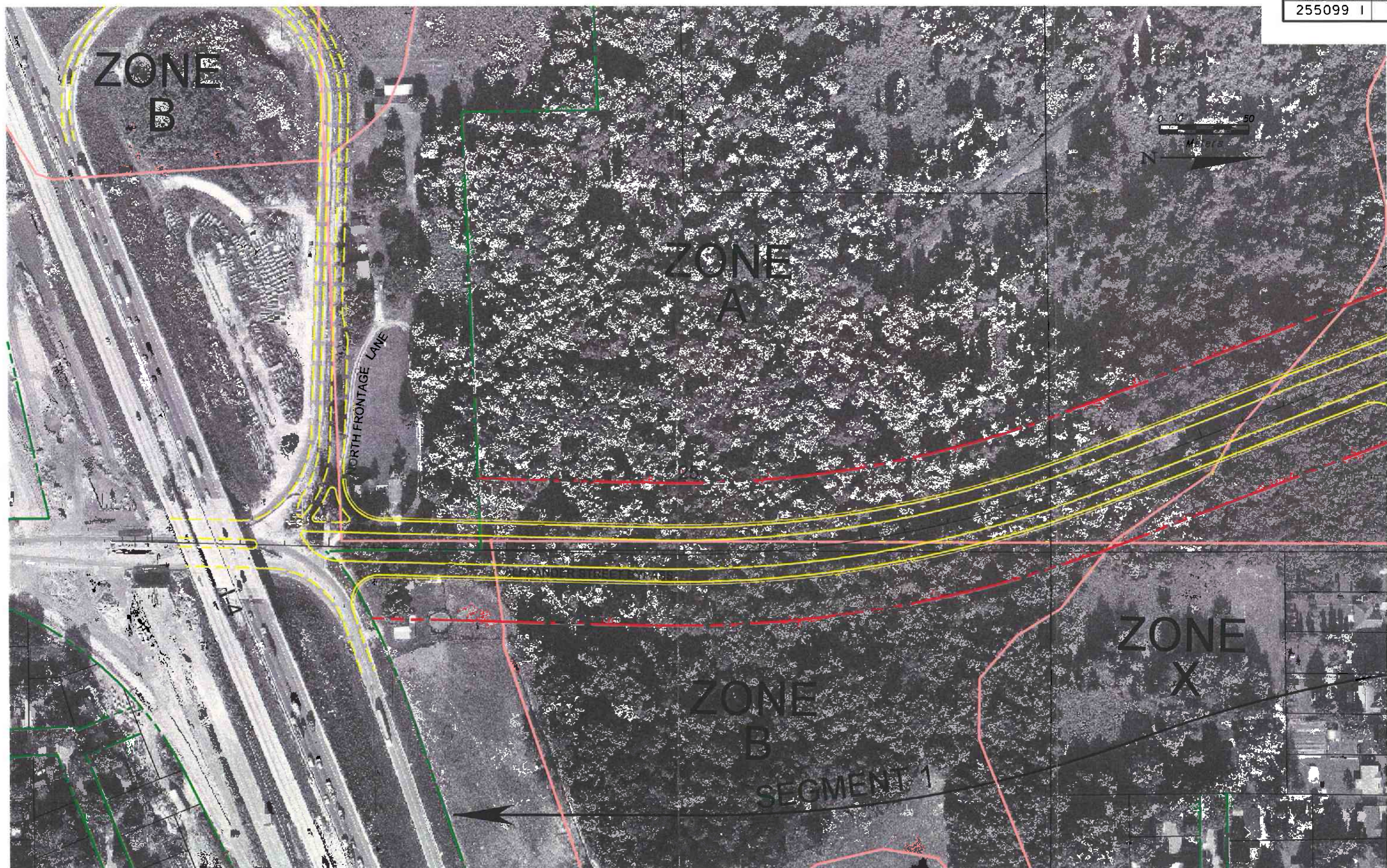
DATE OF FLIGHT: AUGUST 13, 1998

S.R. 39 FROM I-4 TO U.S. 301
 PROJECT DEVELOPMENT AND ENVIRONMENT STUDY
 HILLSBOROUGH AND PASCO COUNTIES, FLORIDA

PREFERRED ALTERNATIVE - ALIGNMENT R-H

APPENDIX D

Floodplain Information Maps



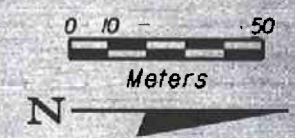
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| EDGE OF PAVEMENT | PROPERTY LINES | FLOOD ZONE |
| EXISTING RIGHT OF WAY | POTENTIAL CONTAMINATION SITE | |
| PROPOSED RIGHT OF WAY | HISTORIC STRUCTURE | |
| PROPOSED BRIDGE STRUCTURE | | |



DATE OF FLIGHT: AUGUST 13, 1998

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 PROJECT DEVELOPMENT AND ENVIRONMENT STUDY
 HILLSBOROUGH AND PASCO COUNTIES, FLORIDA

PREFERRED ALTERNATIVE - ALIGNMENT B-H

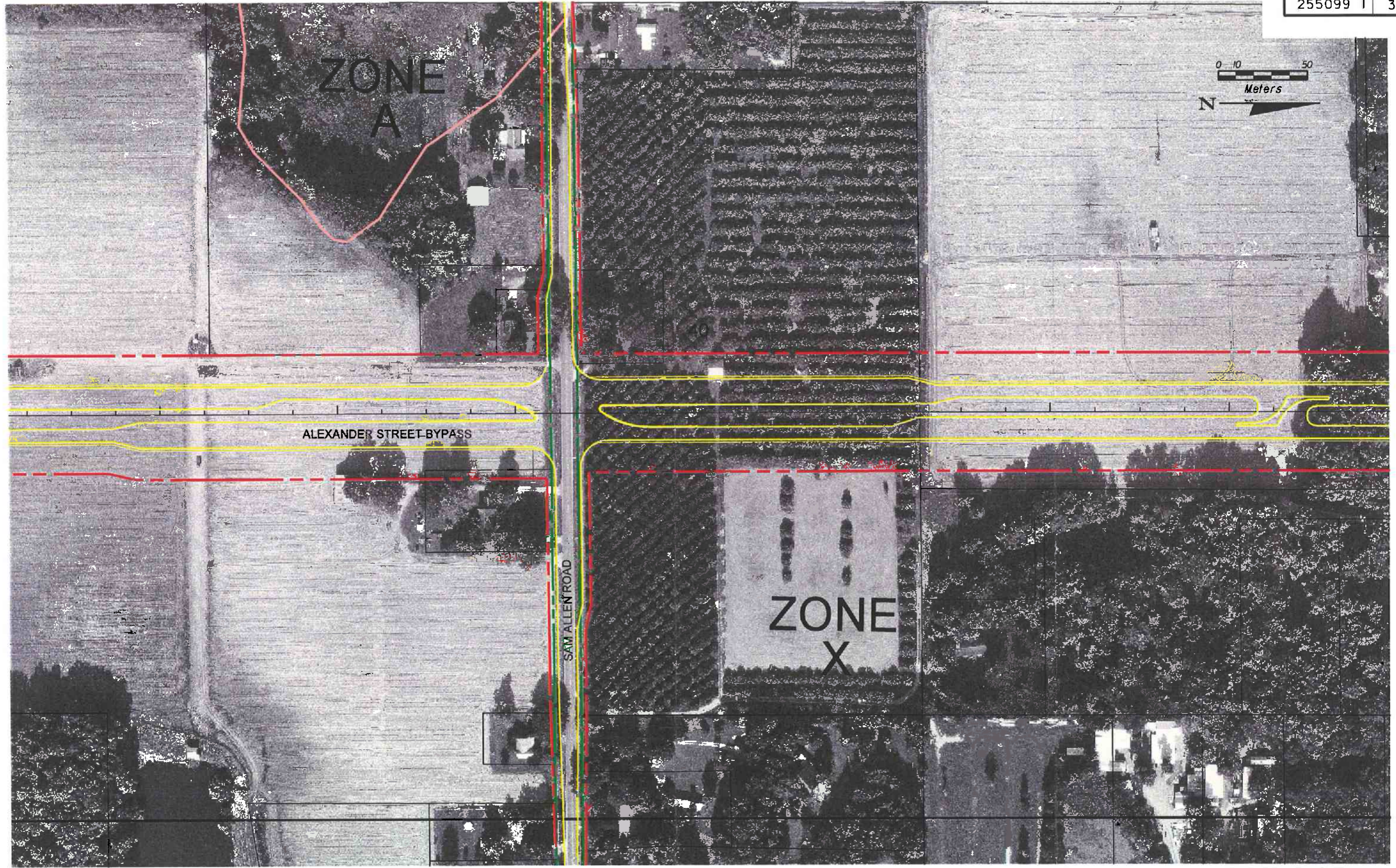


- EDGE OF PAVEMENT
- EXISTING RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- PROPOSED BRIDGE STRUCTURE
- 6 PROPERTY LINES
- H POTENTIAL CONTAMINATION SITE
- H HISTORIC STRUCTURE
- FLOOD ZONE

DATE OF FLIGHT: AUGUST 13, 1998



S.R. 39 FROM I-4 TO U.S. 301
 PROJECT DEVELOPMENT AND ENVIRONMENT STUDY
 HILLSBOROUGH AND PASCO COUNTIES, FLORIDA
 PREFERRED ALTERNATIVE - ALIGNMENT R-H



ALEXANDER STREET-BYPASS

SAM ALLEN ROAD

ZONE
A

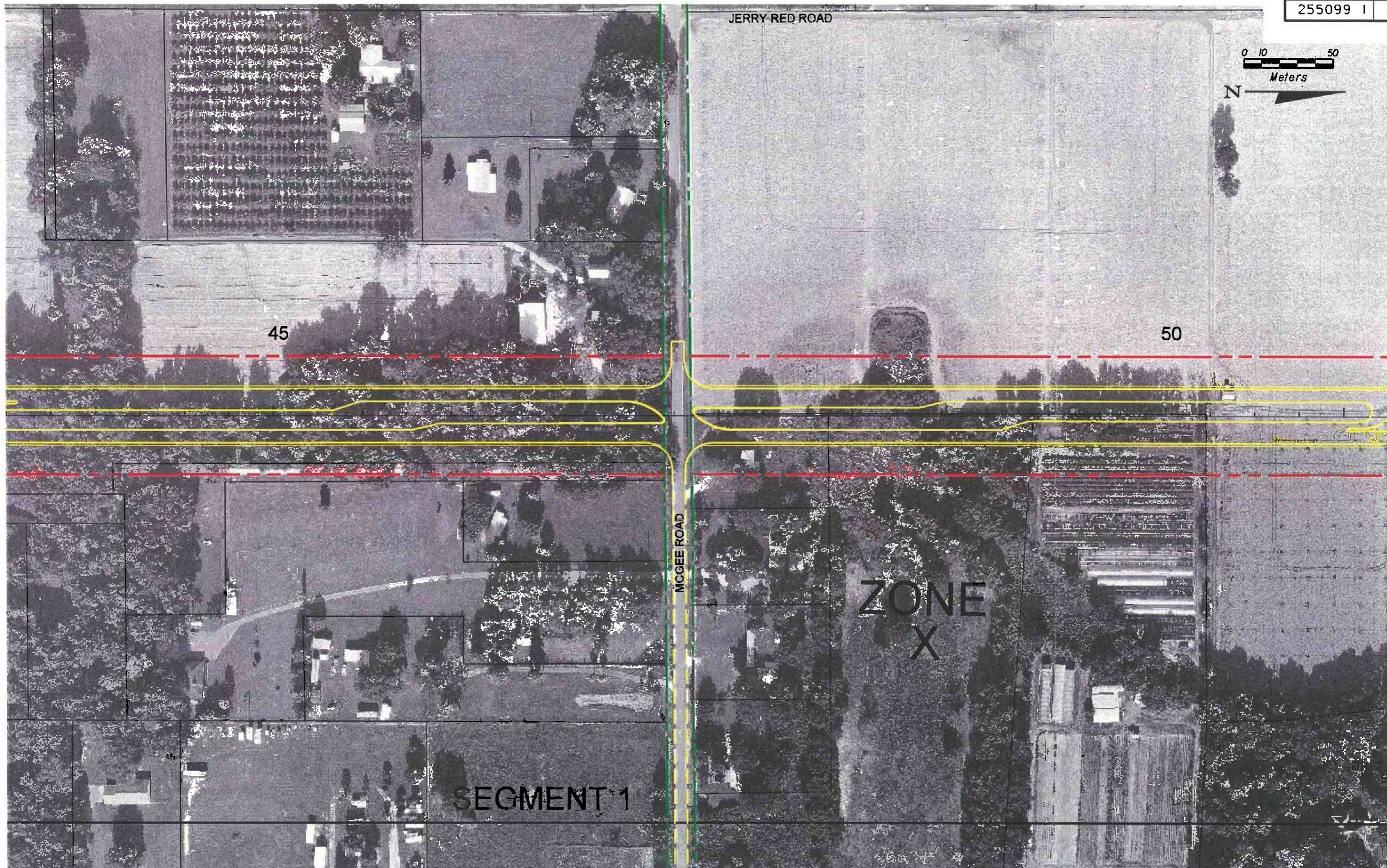
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DATE OF FLIGHT: AUGUST 13, 1998

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|---------------------------|------------------------------|------------|
| EDGE OF PAVEMENT | PROPERTY LINES | FLOOD ZONE |
| EXISTING RIGHT OF WAY | POTENTIAL CONTAMINATION SITE | |
| PROPOSED RIGHT OF WAY | HISTORIC STRUCTURE | |
| PROPOSED BRIDGE STRUCTURE | | |

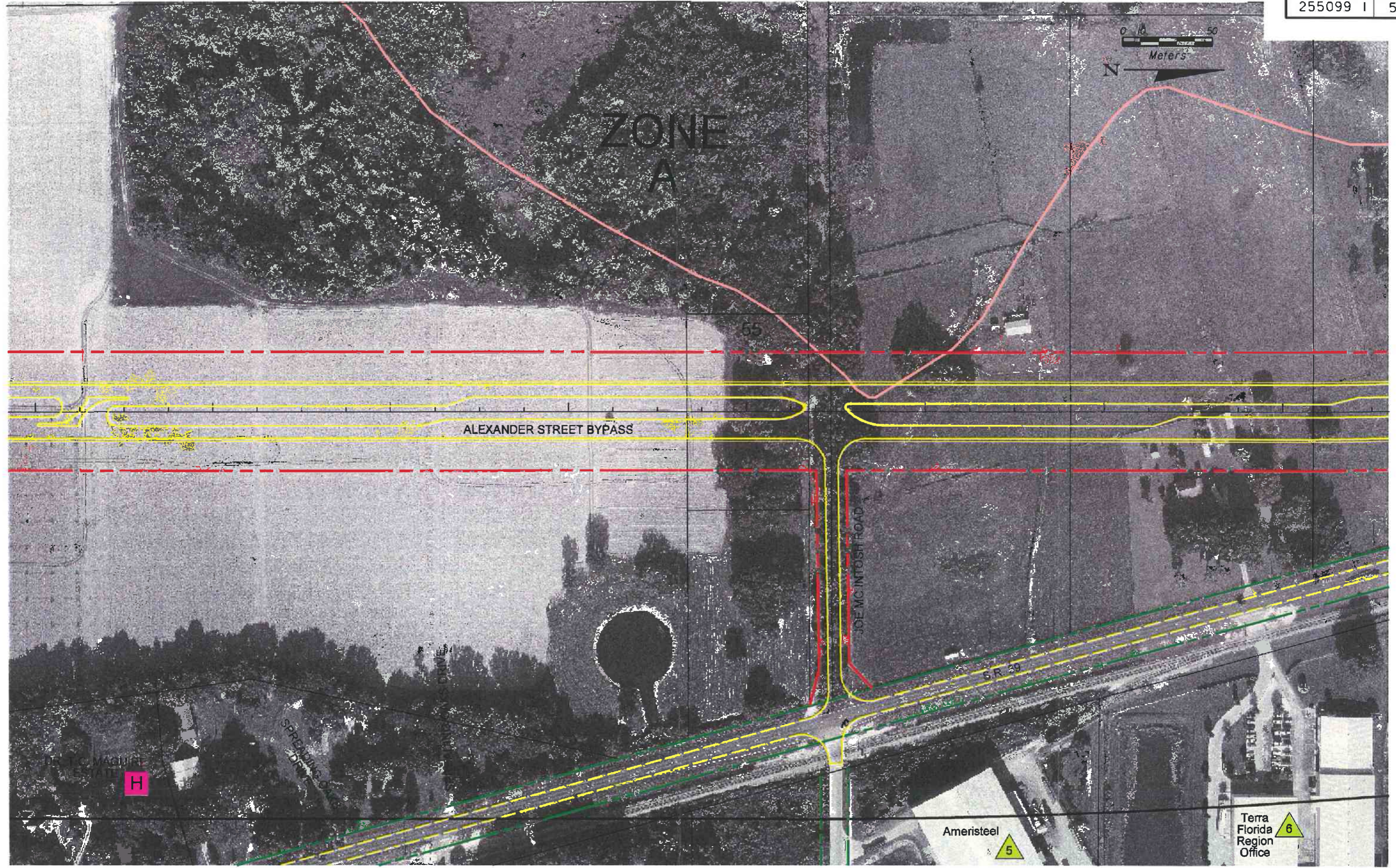


S.R. 39 FROM I-4 TO U.S. 301
 PROJECT DEVELOPMENT AND ENVIRONMENT STUDY
 HILLSBOROUGH AND PASCO COUNTIES, FLORIDA
 PREFERRED ALTERNATIVE - ALIGNMENT R-1



- EDGE OF PAVEMENT
- - - EXISTING RIGHT OF WAY
- - - PROPOSED RIGHT OF WAY
- PROPOSED BRIDGE STRUCTURE
- PROPERTY LINES
- POTENTIAL CONTAMINATION SITE
- HISTORIC STRUCTURE
- FLOOD ZONE



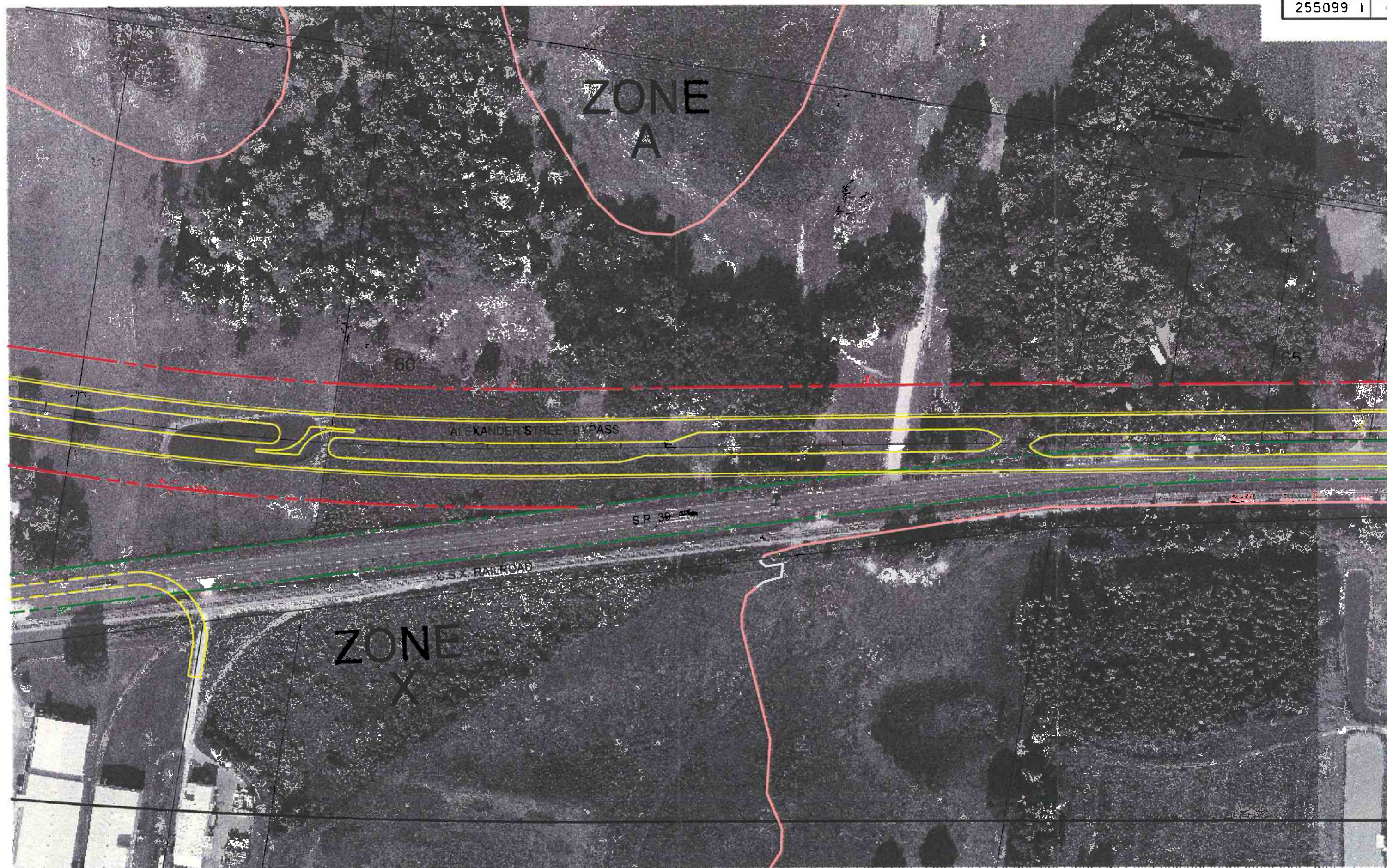


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|---------------------------|------------------------------|------------|
| EDGE OF PAVEMENT | PROPERTY LINES | FLOOD ZONE |
| EXISTING RIGHT OF WAY | POTENTIAL CONTAMINATION SITE | |
| PROPOSED RIGHT OF WAY | HISTORIC STRUCTURE | |
| PROPOSED BRIDGE STRUCTURE | | |



DATE OF FLIGHT: AUGUST 13, 1998

S.R. 39 FROM I-4 TO U.S. 301
 PROJECT DEVELOPMENT AND ENVIRONMENT STUDY
 HILLSBOROUGH AND PASCO COUNTIES, FLORIDA

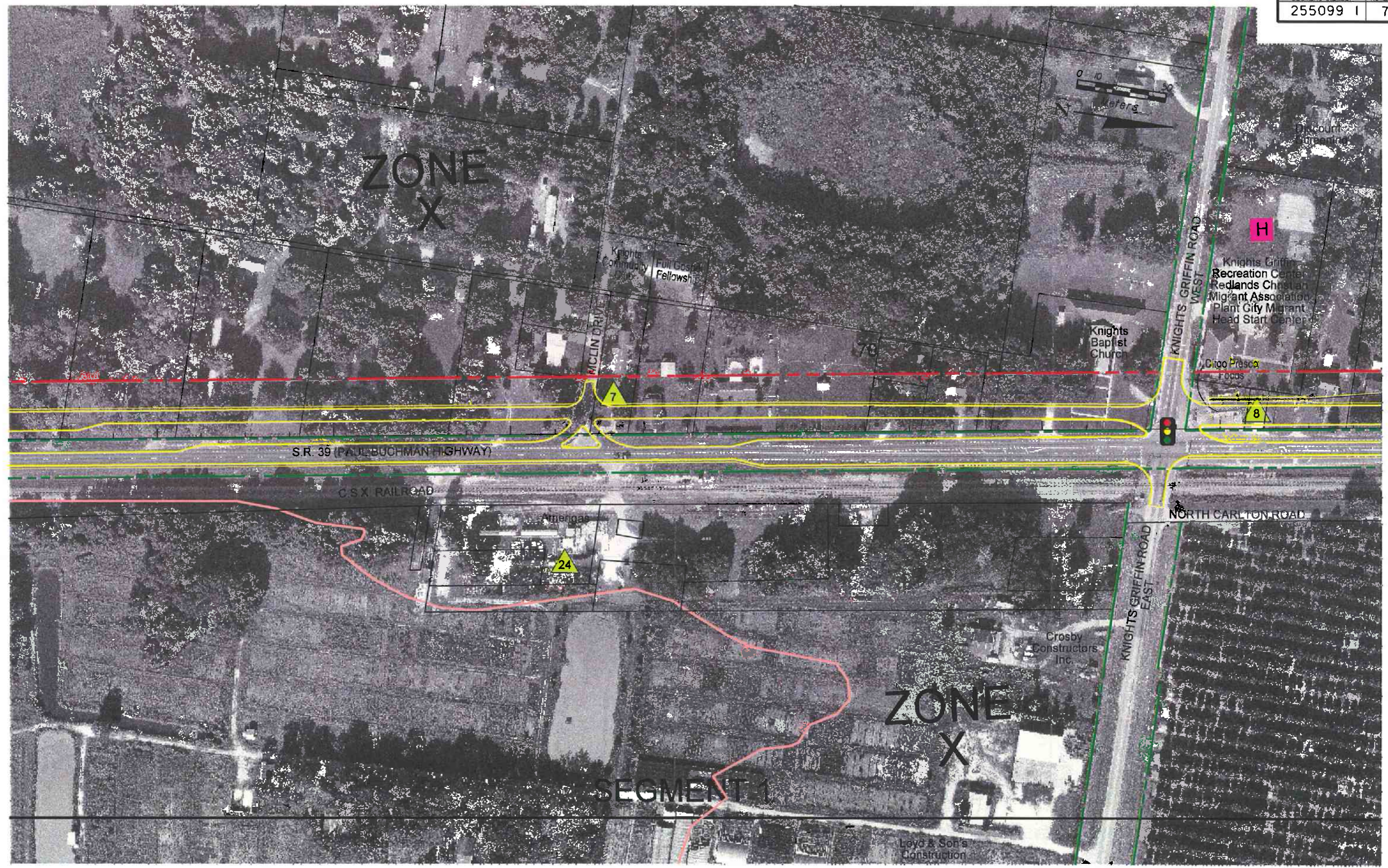


- | | | |
|---------------------------|------------------------------|------------|
| EDGE OF PAVEMENT | PROPERTY LINES | FLOOD ZONE |
| EXISTING RIGHT OF WAY | POTENTIAL CONTAMINATION SITE | |
| PROPOSED RIGHT OF WAY | HISTORIC STRUCTURE | |
| PROPOSED BRIDGE STRUCTURE | | |



DATE OF FLIGHT: AUGUST 13, 1998

S.R. 39 FROM I-4 TO U.S. 301
 PROJECT DEVELOPMENT AND ENVIRONMENT STUDY
 HILLSBOROUGH AND PASCO COUNTIES, FLORIDA

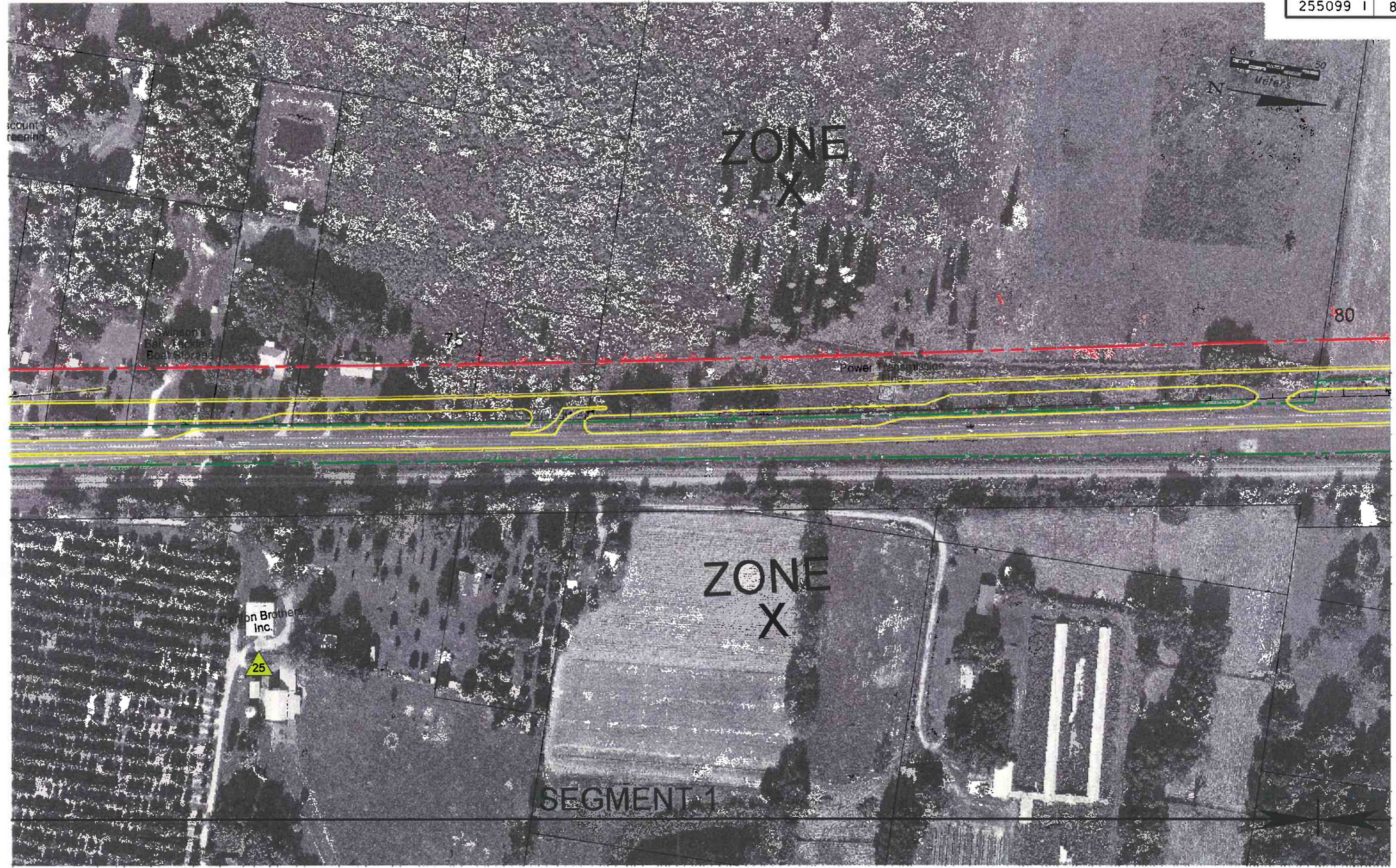


- EDGE OF PAVEMENT
- EXISTING RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- PROPOSED BRIDGE STRUCTURE
- 6 PROPERTY LINES
- H POTENTIAL CONTAMINATION SITE
- H HISTORIC STRUCTURE
- FLOOD ZONE



DATE OF FLIGHT: AUGUST 13, 1998

S.R. 39 FROM I-4 TO U.S. 301
 PROJECT DEVELOPMENT AND ENVIRONMENT STUDY
 HILLSBOROUGH AND PASCO COUNTIES, FLORIDA



- | | | | | | |
|--|---------------------------|--|------------------------------|--|------------|
| | EDGE OF PAVEMENT | | PROPERTY LINES | | FLOOD ZONE |
| | EXISTING RIGHT OF WAY | | POTENTIAL CONTAMINATION SITE | | |
| | PROPOSED RIGHT OF WAY | | HISTORIC STRUCTURE | | |
| | PROPOSED BRIDGE STRUCTURE | | | | |



APPENDIX E
Communications

July 28, 1998

Ms. Pauline Baker
United States Army Corps of Engineers
P.O. Box 19247
Tampa, Florida 33686-9247

Subject: Pistol Range Regional Stormwater Treatment Facility
Section 19 and 20, Township 28 South, Range 22 East
Plant City, Florida, Hillsborough County
COE #199704025

Dear Ms. Baker:

Attached for your review are the proposed construction plans (**Figures 1 through 11**) for the Pistol Range Regional Stormwater Treatment Facility located in the City of Plant City. The attached drawings show delineated wetland areas reviewed in the field by Peter Bottone (Peninsula Design & Engineering, Inc.) and Edward Craig (SWFWMD) on August 12, 1997 and Eric Summa (USACOE) on October 9, 1997 as well as proposed impacts. A summary of surface water and wetland impacts is shown in the attached **Table 1**. Also attached is a Wetland/Biological Assessment of the Pistol Range site by Peninsula Design & Engineering, Inc. (**Attachment A**) which includes copies of correspondence with the U.S. Army Corps of Engineers, the Southwest Florida Water Management District (SWFWMD), U.S. Fish and Wildlife Service and the State of Florida Division of Historic Resources in the appendix. A summary of the Pistol Range project is given below.

Stormwater management to help restore and protect Lake Thonotosassa is a major challenge confronting Plant City, Hillsborough County and SWFWMD. Lake Thonotosassa is a priority surface water body of regional or statewide significance, which requires restoration or protection under the Surface Water Improvement and Management (SWIM) Act.

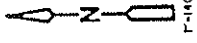
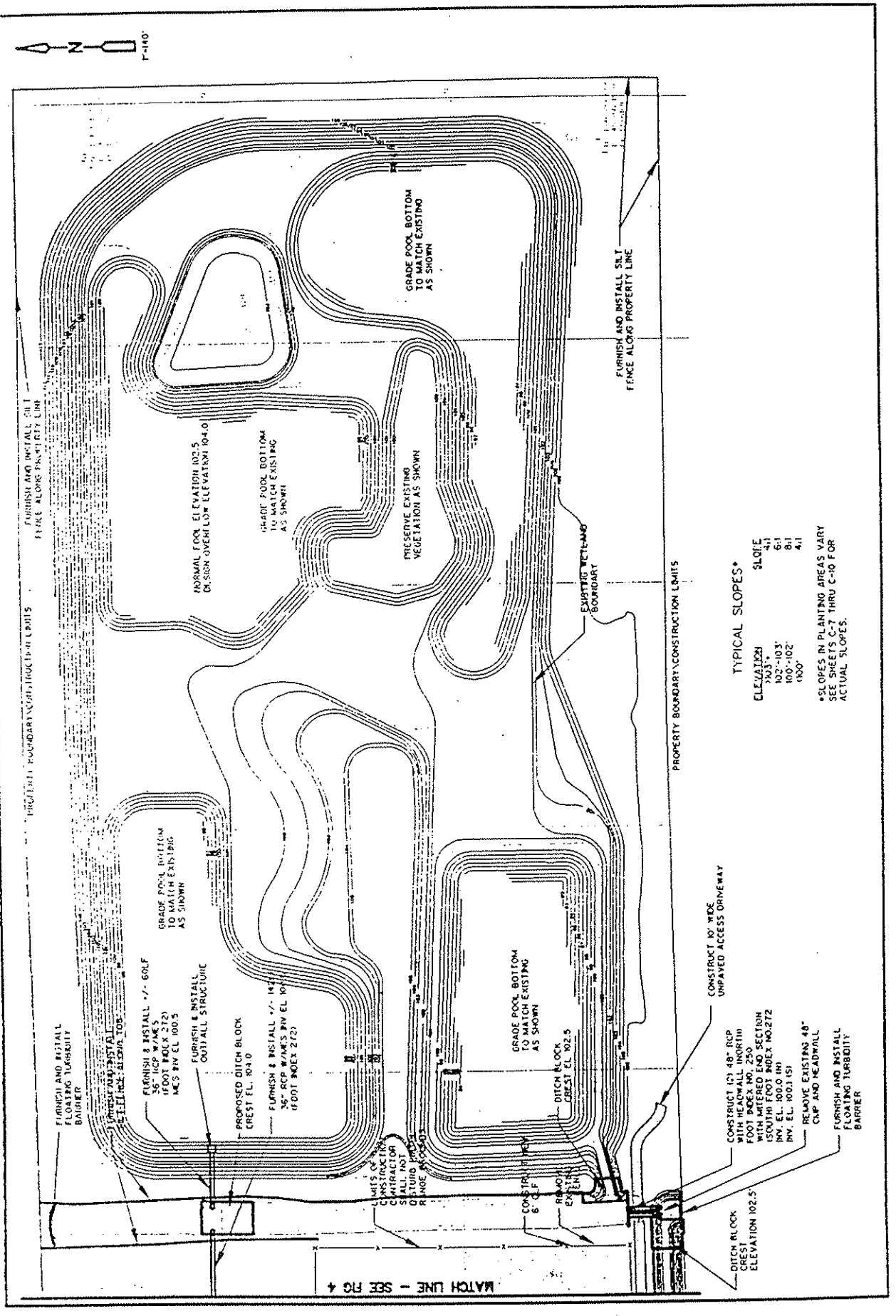
The only inlet to stream to Lake Thonotosassa is Baker Creek. Pemberton Creek is a tributary to Baker Creek, draining the western portion of Plant City through the Westside Canal, Mill Creek and Spartman Branch. The Westside Canal flows south to north, west of the Central Business District of Plant City. The Westside Canal, approximately 0.7 miles north of Interstate 4, changes names to Mill Creek and then to Pemberton Creek at Wallace Branch Road.

SWFWMD has defined critical areas where the greatest improvement in water resources can be obtained for the least investment in best management practices (BMPs). The highest priority has been placed on the urban areas in and around Plant City. The Pistol Range Regional Stormwater Treatment Facility is a proposed SWFWMD Cooperative project with the City of Plant City. The goal is to facilitate improvements to water quality in Lake Thonotosassa that may be attributable to stormwater contributions and associated nutrient loads flowing to the lake via the Westside Canal.

PROJECT LOCATION



Figure No. 1
PISTOL RANGE REGIONAL
STORMWATER TREATMENT FACILITY
PROJECT LOCATION MAP



TYPICAL SLOPES*

ELEVATION	SLOPE
102.5 - 103'	6:1
100' - 102'	8:1
100' - 100'	4:1

*SLOPES IN PLANTING AREAS VARY
SEE SHEETS C-7 THRU C-10 FOR
ACTUAL SLOPES.

Figure No. 3
PISTOL RANGE REGIONAL
STORMWATER TREATMENT FACILITY
GRADING PLAN - EAST

Mr. Carlos Lopez, P.E.
 April 14, 1999
 Page 2

Table 1 summarizes the vertical control elevations (Natural Grade, SHWT, DHW) that were discussed and established in our meeting along with their locations. The minimum proposed PGL elevation for these locations was computed and included in this table.

Table 1
SR39 and Alexander Street Bypass PD&E Study
From Interstate 4 to Knights-Griffin Road

Station (meters)	Natural Grade m (ft) NGVD	SHWT Elevation m (ft) NGVD	DHW Elevation m (ft) NGVD	Minimum Proposed PGL Elevation m (ft) NGVD
25+00	32.31 (106.00)	32.31 (106.00)	32.54 (106.75)	33.72 (110.62)
34+00	31.58 (103.62)	31.72 (104.08)	31.95 (104.83)	33.13 (108.70)
44+00	33.53 (110.00)	31.62 (103.75)	31.85 (104.50)	33.53 (110.00)
48+00	31.39 (103.00)	30.63 (100.5)	30.86 (101.25)	32.04 (105.12)
55+00	31.70 (104.00)	31.39 (103.00)	31.62 (103.75)	32.80 (107.62)
61+00	31.39 (103.00)	31.70 (104.00)	31.93 (104.75)	33.11 (108.62)
67+00	33.60 (110.24)	32.13 (105.40)	32.35 (106.25)	33.53 (110.02)
71+50	32.13 (105.41)	30.94 (101.49)	31.16 (102.24)	32.34 (106.11)

The remainder of this letter explains how the information in Table 1 was determined and includes other information such as discussions on wetland flood indicators, base flood elevations and suggested PGL elevations (McGee Road), etc. The new roadway alignment of the project, which runs from I-4 to SR 39, is known as the Alexander Street Bypass and is hereafter referred to as the ASB.

Mr. Carlos Lopez, P.E.
April 14, 1999
Page 4

At station 61+00, a wetland area will be crossed by the ASB (location 10W). The SHWT was estimated at 31.70 m (104.0 ft) NGVD.

The drainage basin south of Knights-Griffin Road will outfall to a wetland area southwest of the intersection of SR39 and Knights-Griffin Road. The SHWT at approximately station 67+00 was estimated at 32.13 m (105.40 ft) NGVD using a soil boring (location 11B).

A soil boring was taken at the southwest quadrant of the Knight-Griffin/SR39 intersection (location 13B), and the SHWT was estimated at 30.93 m (101.49 ft) NGVD. This is below the existing grade of 32.13 m (105.41 ft) NGVD.

In the area of station 61+00, stormwater would be diverted from one basin to another in the proposed pond siting scheme. Carlos Lopez suggested that another pond and alternates be sited for this basin so the stormwater diversion would not occur.

This is our understanding of what was discussed in our meeting and the resulting minimum PGL elevations. If there are any corrections required to the above information, please advise.

Sincerely,

URS GREINER, INC.



James Y. Zinner, P.E.

JYZ/mhc

attachments

cc: Gabor Farkasfalvy
Kevin Doyle (URSGWC)
Lisa Heimburg, P.E. (URSGWC)
Robert Johnson, P.E. (URSGWC)

interoffice

MEMORANDUM

to: Gabor Harkasfalvy, Dennis Jent, Carlos Lopez, John Kubler
from: Mark Brown
subject: SR 39 From I-4 to US 301, PD&E Study, Wetland & Soil Water Levels
date: March 14, 1999

At the request of PD&E and Greiner, I conducted water level determinations at various station locations associated with the proposed Alexander Street Extension and potential SR 39 improvements. The attached aerials provided by Greiner designate the locations (blue dots) where surface and ground water elevations were evaluated while using biological and/or soil indicators. For the wetland crossings, various water level indicators were used to determine normal pool (NP), seasonal high water table (SHWT) and flood elevations. In some wetland cases only one or two indicators are present, but at least the SHWT elevation was determined using the best available indicator. For the soil borings, only the SHWT distance below grade was determined and compared with the NRCS Hillsborough County Soil Survey information.

In order to potentially minimize the effort needed by the DOT survey crew to spend on the sites, I have referenced the natural grade elevations listed in the table provided by Greiner. Depending on the degree of accuracy associated with those elevations and the necessity to compile exact elevations for the PD&E level study, the elevations I provide for each of the requested stations may be all that is needed. This is particular true for the soil borings that have a deep SHWT elevation compared to the proposed road grade. I refer to Gabor and Carlos for that decision. In any case, I will provide directions and survey locations on the aerials to assist the survey crew locate the sites for the Alexander Street Extension. The remaining SR 39 locations are adjacent to the existing R/W

Sites 1W and 2W (Sheet 1) - This is a severely dewatered swamp, which has resulted in a couple feet of muck oxidation within some portions. Since organic muck oxidizes down to an elevation where the soil stays somewhat saturated, an estimated SHWT equates to the interior grade elevations. I flagged six locations spaced 30-40 ft. apart within the proposed roadway alignment through the lower grade elevations. Based on plant cover, it appears these six flags cover an area where the SHWT still reaches existing grade. According to the table, the grade elevation from that area (Stations 25+70 and 27+23) are 105.5 ft. and 106.0 ft. **Location:** Either Alexander Street from the south or Franklin Street from the north, take the North Frontage Lane (dirt) down the proposed extension route. There are pink locator flags leading down to the lower elevations from a tree along the north side of the adjacent horse stables.

Site 3W (Sheet 2) - The wetland boundary is further north than depicted on the aerial so the site was moved north. I nailed a SHWT and NP elevation in a maple adjacent to a small pond. I can't get a good handle on the grade elevation at that location. Station 33+63 is listed as 110.0 ft., Stations 34+24 and 34+85 are listed as 105.0 ft. and 104.0 ft. Even though the nailed tree is closest to Station 33, I can't help but believe the grade is closer to 105 ft. **Location:** Take Terrace Drive west from

Gabor Farkasfalvy, Dennis Jont, Carlos Lopez

Page 3

March 15, 1999

grade and the site is located between Station 54+94 (110.0 ft.) and Station 56+19 (105.0 ft.). A boring was not conducted at Site 9B however it appears from vegetative cover and grade elevation that approximately the same water level conditions can be expected. Location: Either take the crop roads from Site 7B or the private driveway off SR 39.

Site 10W (Sheet 6) - This is a wetland marsh and the estimated SHWT matches the perimeter grade elevation (one stake with pink flagging). The closest station (Station 60+91) is listed at elevation 103.0 ft. If that is accurate, I would estimate the SHWT of the marsh to be approximately 104.0 ft. Location: Did not locate a gate, just crossed the fence along SR 39.

Sites 11B and 13B (Sheet 7) - These sites have similar soils and both mapped within the NRCS soil survey as having Candler soils which has a SHWT greater than 80 inches below grade. However, both sites are not quite as well drained but made up of known inclusions of the Candler series. Site 11B is considered a Millhopper soil which was determined to have a SHWT at 58 inches below grade. The boring was conducted within a few feet north of SR 39 and the closest station (Station 67+16) has a road elevation of 108.2 ft. which would approximate a SHWT elevation of 103.3 ft. Site 13B was found to have a Tavares soil with a SHWT at 47 inches below grade at Station 71+31 (Fl. 106.0 ft.) which would approximate a SHWT elevation of 102.1 ft.

Site 12W (Sheet 7) - This maple swamp surrounding a marsh exhibits substantial water level elevations. Three nails were set in a maple found southwest of Knights Baptist Church. These nails represent a Flood, SHWT, and NP elevation. Since this swamp outfalls through a ditch located under Knights Griffin Road (West), it may be prudent to get a cross-sectional survey of that culvert crossing. Since the roadway does not encroach upon this wetland, I did not have any grade elevations to estimate the nail elevations.

Site 14W (Sheet 8) - This is a large marsh adjacent to SR 39. A few cypress are located within the proposed R/W. SHWT and NP elevations are nailed in the tree 1-1.5 ft. above grade. Station 78+63 grade elevation is listed at 101 ft., Station 78+80 is listed as 100 ft. The cypress tree is located at Station 79+00 so depending on the grade elevation, the SHWT could be as high as 102.5 ft.

Site 15W (Sheet 11) - There is a forested wetland west of the R/W where I hammered a nail in a cypress tree for the Flood/SHWT elevation and the grade elevation is NP. Since the wetland is away from the R/W, I cannot estimate the grade elevation compared to the roadway elevation.

Site 16W (Sheet 12) - There is an dredged, impounded pond adjacent to the roadway but the site conditions do not exhibit good natural water level conditions. A soil boring within proximity of the roadway also did not have a natural soil profile. Based on vegetative indicators, I placed a stake along the roadway sideslope where the water level appears to reach during SHWT conditions. This elevation is probably 1-1.5 ft. below the road grade elevation.

MEMORANDUM

Florida Department of Transportation
Environmental Management Office - MS 7-500

DATE: November 22, 1999
TO: Gabor Farkasfalvy, Project Engineer
FROM: Todd Mecklenborg, Biologist *TM*
COPIES: File
SUBJECT: WPI Seg. No. 255099 1, SR 39 Pond Siting

Per your request, field surveys were conducted during the month of November along the SR 39 corridor. As part of the pond siting request the alternative pond locations were investigated for threatened or endangered species occurrences and wetland concerns.

No species listed as threatened or endangered were observed during the field reconnaissances within the potential pond locations. The limits of the ponds will not impact jurisdictional wetland areas with their current configuration.

Date: 03/20/00
From: Rebecca Schwarz
To: Gabor I. Farkasfalvy
Subject: SR 39 PD&E, CRAS for Proposed Pond Sites (255099 1 & 256289 1)

KN704SR - DOT1
PD701GF - DOT1

Gabor,

In answer to your request last week, I am sending you an e-mail which summarizes the findings in the Cultural Resource Assessment Survey (CRAS) Report (November 1999) that pertain to the proposed pond sites. The CRAS, prepared by Archaeological Consultants, Inc. (ACI), included an update of the mainline roadway, as well as 15 proposed pond sites located in the vicinity of the Alexander Street Bypass between I-4 and Knights Griffin Road. As a result, four previously recorded archaeological sites (8HI5360, 8HI5363, 8HI5361, and 8HI5070) were identified within proposed ponds P1B, P2B, P2C, and P1C, respectively. None of these lithic and artifact scatter type sites was evaluated as being potentially eligible for listing in the National Register of Historic Places (NRHP). In addition, one "archaeological occurrence," evidenced by a single ceramic sherd, was discovered in proposed Pond P1A. This single artifact find may be associated with 8HI5360. No historic structures were found within any of the proposed ponds. Five proposed ponds (P2A, P2B, P3A, P3B, and P3C) were not archaeologically field tested due to either denial of landowner permission for access (P3B & P3C), the presence of newly cultivated agricultural fields (P2A, P2B, P3A), or the adequacy of previous archaeological survey (P2B).

The CRAS Report was submitted to the FHWA and the SHPO for review in December 1999. The SHPO responded with a concurrence letter dated February 24, 2000. They indicated that if any of the proposed ponds that were not archaeologically field tested are selected for construction they will need to be tested.

In summary, none of the 15 proposed pond sites, evaluated in the November 1999 CRAS, involve significant archaeological or historical resources.

-- Becky Spain Schwarz, D-7 Cultural Resource Program Manager

APPENDIX F

Right-of-way Cost Information



Florida Department of Transportation

JEB BUSH
GOVERNOR

11201 N. MCKINLEY DRIVE * TAMPA, FL 33612-6456 * 975-6119 * 1-800-226-7220
FD&E DEPARTMENT * M.S. 7-500

THOMAS F. BARRY, JR.
SECRETARY

Date: December 1, 1999
Phone: (813) 975-6455
Fax: (813) 975-6451

LETTER OF TRANSMITTAL

TO: Kevin Doyle

RE: WPI Seg. No. 255099 1

Greiner

WE ARE FORWARDING TO YOU:

- Copy of Letter(s)
- Preliminary Concept Plans
- Draft Engineering Report
- Public Information/Letter
- The Following Described Item(s)

- Final Environmental Reports
- Request(s) for Traffic Study
- Permit(s)/Agreements(s)
- Draft Environmental Report

S.R. 39 right-of-way cost estimate.

THESE ARE TRANSMITTED/RETURNED:

- | | | | |
|--|---|---|---------------------------------|
| <input type="checkbox"/> For Approval | <input type="checkbox"/> For Revision | <input type="checkbox"/> For Circulation | <input type="checkbox"/> Review |
| <input checked="" type="checkbox"/> For Your Use | <input type="checkbox"/> For Signature | <input type="checkbox"/> For Your Handling | & Comments |
| <input type="checkbox"/> As Requested | <input type="checkbox"/> For Your Files | <input type="checkbox"/> For Your Information | <input type="checkbox"/> Other |

cc: _____

BY: Gabor Farkasfalvy

TITLE: Project Manager




An employee-owned company

MEMORANDUM

Date: October 27, 1999

To: Aurelie J. Anthony, Dep. District R/W Manager, Operations (MS 7-900)
FDOT - District Seven

From: Mitch Hammer, PBS&J 

Subject: Cost Estimate

FP# : 2550991 & 2562891
WPI# : 7113826
FAP : N/A
PBS&J# : 700140.06
County : Hillsborough & Pasco
Description : SR 39/Alexander St. extension From I-4 to US 301
Type of Est. : Work Program

In accordance with your request, a R/W cost estimate has been prepared for the above project. Attached is the estimate based on PD&E aerial maps. This estimate includes an update of the prior estimate submitted 2/18/88 in addition to three new segments (2, 3A and 3B) and 15 pond alternates. Business damage estimates were provided by Gerson, Preston & Co.

Please call if you have questions or concerns (877-7275 x499). At your direction additional copies will be forwarded for distribution.

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700140.06

FP#: 2550991 & 2562891	Former WPI#: 7113826	District: Seven
County: Hills/Pasco	FAP No.: N/A	Date: 27-Oct-99
State Rd.: 39	Alternate: Segment 2	C.E. Sequence #: N/A
Project Des.: SR 39 from 1-4 to US 301		

Parcels:	Gross	Net	Estimated Relocates:	
Business	9	9	Business	5
Residential	76	76	Residential	23
Unimproved	20	20	Signs	0
			Special	13
Total Parcels	105	105	Total Relocates	41

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid
1. Direct Labor Cost	(Parcels 105 x 6,500	Rate)	682,500	Participating	
2. Indirect Overhead	(Parcels 105 x N/A	Rate)	0	Participating	
3. (Participating	682,500) + (Non-Participating = 0)		TOTAL PHASE 41	\$682,500	

R/W OPS (PHASE 4B)				Amount	
4. Appraisal Fees Through Trial	105 Parcels x	12,000	1,260,000	Participating	
5. Business Damage CPA Fees Through Trial	7 Claims x	19,000	133,000	Non-Partic.	
6. Court Reporter & Process Servers	79 Parcels x	500	39,500	Participating	
7. Expert Witness	79 Parcels x	30,000	2,370,000	Participating	
8. Mediators	53 Parcels x	2,400	127,200	Participating	
9. Demolition, Asb. Abate., Survey, etc.	28 Imprvmt x	15,000	420,000	Participating	
10. Miscellaneous Contracts	Per Project	15,000	15,000	Participating	
11. Appraisal Fee Review	N/A Parcels x	5,000	0	Participating	
12. (Participating	4,231,700) + (Non-Participating = 133,000)		TOTAL PHASE 4B	\$4,364,700	

R/W LAND COSTS (PHASE 43)				Amount	Subtotal
13. Land, Improvements & Severance Damages/Cost to Cure	Amount 2,752,457 x 130% * Design plan stage		3,578,200	Participating	
14. Water Retention & Mit.	0 x 130% (0 parcels w/o R/W Acq		0	Participating	
15.	SUBTOTAL (Lines 13 and 14)			3,578,200	
16. Admin. Settlements	(Factor 45% x 30% of Line 15)		483,100	Participating	
17. Litigation Awards	(Factor 60% x 70% of Line 15)		1,502,800	Participating	
18. Business Damages	(Claims 7 x \$0)		469,000	Non-Partic.	
19. Bus. Damages Incrs.	(Factor 25% x \$469,000)		117,300	Non-Partic.	
20. Owner Appr. Fees	(Parcels 79 x \$10,000)		790,000	Non-Partic.	
21. Owner CPA Fees	(Claims 7 x \$10,000)		70,000	Non-Partic.	
22. Defend. Atty Fees (Lines 16+17+18+19)	x 40%		1,028,900	Non-Partic.	
23. Owner Expert Witness	(Businesses 9 + Unimproved 20) x 18,000		522,000	Non-Partic.	
24. Other Condemn. Costs	(Parcels 105 x \$500)		52,500	Participating	
25.	SUBTOTAL (lines 16 thru 24)			5,035,600	
26. (Participating	5,616,600) + (Non-Participating 2,997,200)		TOTAL PHASE 43	\$8,613,800	

* Design contingency for design plan stage:
(1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Data - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)				Federal Aid
27.	(100% Participating)		TOTAL PHASE 42	\$0

RELOCATION COSTS (PHASE 45)				
Replacement Housing		Number	Amount	
28. Owner	\$20,000 Per Unit	16	320,000	
29. Tenant	\$10,000 Per Unit	7	70,000	
Move Costs				
30. Residential	\$1,500 Per Unit	23	34,500	
31. Business/Farm	\$20,000 Per Unit	5	100,000	
32. Personal Property	\$2,000 Per Unit	13	\$26,000	
33. (Lines 28 thru 32)				(100% Participating)
34. Relocation Services Cost	\$55,050			(Not in Phase Total)
				TOTAL PHASE 45
				\$550,500

35.	3,130,200	Non-Participating
36.	11,081,300	Participating
37.	(All Phases)	TOTAL ESTIMATE
		\$14,211,500

Appraisal:	Mitch Hammer	Signed:	<i>[Signature]</i>	Date:	10-27-99
Bus. Dam.:	Gerson, Preston, & Co.	Signed:	By Attachment	Date:	25-Oct-99
Relocation:	Mitch Hammer	Signed:	<i>[Signature]</i>	Date:	10-27-99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	10/27/99

Cost Estimate Sequence #: Dated: In the amount of \$ Data Input Completion Date:

REMARKS:

Segment 2 - north of Knights-Griffen Rd. (sta. 80+00) to Blount Ave. in Pasco Co. (sta. 192+50).

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700140.06

FP#: 2550991	Former WPL#: 7113826	District: Seven																											
County: Hills/Pasco	FAP No.: N/A	Date: 26-Oct-99																											
State Rd.: 39	Alternate: Segment 3-B	C.E. Sequence #: N/A																											
Project Des. SR 39 from I-4 to US 301																													
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Parcels:</td> <td>Gross</td> <td>Net</td> </tr> <tr> <td>Business</td> <td align="center">4</td> <td align="center">4</td> </tr> <tr> <td>Residential</td> <td align="center">13</td> <td align="center">13</td> </tr> <tr> <td>Unimproved</td> <td align="center">15</td> <td align="center">15</td> </tr> <tr> <td>Total Parcels</td> <td align="center">32</td> <td align="center">32</td> </tr> </table>		Parcels:	Gross	Net	Business	4	4	Residential	13	13	Unimproved	15	15	Total Parcels	32	32	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Estimated Relocates:</td> <td></td> </tr> <tr> <td>Business</td> <td align="center">0</td> </tr> <tr> <td>Residential</td> <td align="center">6</td> </tr> <tr> <td>Signs</td> <td align="center">0</td> </tr> <tr> <td>Special</td> <td align="center">2</td> </tr> <tr> <td>Total Relocates</td> <td align="center">8</td> </tr> </table>	Estimated Relocates:		Business	0	Residential	6	Signs	0	Special	2	Total Relocates	8
Parcels:	Gross	Net																											
Business	4	4																											
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R/W SUPPORT COSTS (PHASE 41)																													
1. Direct Labor Cost	(Parcels) 32 x 6,500	Rate) 208,000																											
2. Indirect Overhead	(Parcels) 32 x N/A	Rate) 0																											
3. (Participating 208,000) + (Non-Participating 0)		TOTAL PHASE 41 208,000																											
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4. Appraisal Fees Through Trial	32 Parcels x 12,000	384,000 Participating																											
5. Business Damage CPA Fees Through Trial	1 Claims x 19,000	19,000 Non-Partic.																											
6. Court Reporter & Process Servers	24 Parcels x 500	12,000 Participating																											
7. Expert Witness	24 Parcels x 30,000	720,000 Participating																											
8. Mediators	16 Parcels x 2,400	38,400 Participating																											
9. Demolition, Asb. Abata., Survey, etc.	9 Imprvmt x 15,000	135,000 Participating																											
10. Miscellaneous Contracts	Per Project	15,000 Participating																											
11. Appraisal Fee Review	N/A Parcels x 5,000	0 Participating																											
12. (Participating 1,304,400) + (Non-Participating 19,000)		TOTAL PHASE 4B 1,323,400																											
R/W LAND COSTS (PHASE 43)																													
13. Land, Improvements & Severance Damages/Cost to Cure	Amount 1,325,582 x 130% * Design plan stage	1,723,257 Participating																											
14. Water Retention & Mit.	0 x 130% (0 parcels w/o R/W Acq	0 Participating																											
15.	SUBTOTAL (Lines 13 and 14)	1,723,257																											
16. Admin. Settlements	(Factor 45% x 30% of Line 15)	232,600 Participating																											
17. Litigation Awards	(Factor 60% x 70% of Line 15)	723,800 Participating																											
18. Business Damages	(Claims 1 x \$0)	43,000 Non-Partic.																											
19. Bus. Damages Incrs.	(Factor 25% x \$43,000)	10,800 Non-Partic.																											
20. Owner Appr. Fees	(Parcels 24 x \$10,000)	240,000 Non-Partic.																											
21. Owner CPA Fees	(Claims 1 x \$10,000)	10,000 Non-Partic.																											
22. Defend. Atty Fees (Lines 16+17+18+19)	x 40%	404,100 Non-Partic.																											
23. Owner Expert Witness	(Businesses 4 + Unimproved 15) x 18,000	342,000 Non-Partic.																											
24. Other Condemn. Costs	(Parcels 32 x \$500)	16,000 Participating																											
25.	SUBTOTAL (lines 16 thru 24)	2,022,300																											
26. (Participating 2,695,700) + (Non-Participating 1,049,900)		TOTAL PHASE 43 3,745,600																											
* Design contingency for design plan stage: (1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%																													
R/W ACQUISITION CONSULTANT (PHASE 42)																													
27.	(100% Participating)	TOTAL PHASE 42 \$0																											
RELOCATION COSTS (PHASE 45)																													
Replacement Housing																													
28. Owner	\$20,000 Per Unit x 3	60,000																											
29. Tenant	\$10,000 Per Unit x 3	30,000																											
Move Costs																													
30. Residential	\$1,500 Per Unit x 6	9,000																											
31. Business/farm	\$20,000 Per Unit x 0	0																											
32. Personal Property	\$2,000 Per Unit x 2	4,000																											
33. (Lines 28 thru 32)		(100% Participating)																											
34. Relocation Services Cost	\$10,300 (Not in Phase Total)	TOTAL PHASE 45 103,000																											
35.	1,068,900	Non-Participating																											
36.	4,311,100	Participating																											
37.	(All Phases)	TOTAL ESTIMATE 5,380,000																											
Appraisal: Mitch Hammer	Signed: <i>[Signature]</i>	Date: 10-26-99																											
Bus. Dam.: Gerson, Preston & Co.	Signed: <i>[Signature]</i>	Date: 25-Oct-99																											
Relocation: Mitch Hammer	Signed: <i>[Signature]</i>	Date: 10-26-99																											
Overall Review: Terry L. Dunn	Signed: <i>[Signature]</i>	Date: 10/27/99																											
Cost Estimate Sequence #: _____	Dated: _____	In the amount of \$ _____																											
Data Input Completion Date: _____																													
REMARKS:																													
Segment 3B from Blount Ave. to US 301(east and west side alignments).																													
The following indicates the estimator's confidence in the above estimate:																													
Type A - indicates the most confidence	Future Value Factors @	10.0%																											
Type B - indicates above average confidence	One Year:	1.1000																											
X Type C - indicates below average confidence	Two Years:	1.2100																											
Type D - indicates the least or no confidence	Three Years:	1.3310																											
	Four Years:	1.4641																											
	Five Years:	1.6105																											
The following indicates the Department's purpose for this estimate:																													
Work Program Update: X	Special Purpose: _____	Comments: _____																											

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former W/P#: 7113826	District: Seven
County: Hills/Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: POND P1B	C.E. Sequence #: N/A
Project Des.: SR 39 from I-4 to US 301		

Parcels:		Estimated Relocates:	
Business	Gross 0 Net 0	Business	0
Residential	0	Residential	0
Unimproved	0	Signs	0
		Special	0
Total Parcels	0	Total Relocates	0

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid	
1. Direct Labor Cost	(Parcels)	0	x	6,500	Rate) 0	
2. Indirect Overhead	(Parcels)	0	x	N/A	Rate) 0	
3. (Participating	0)	+	(Non-Participating	=	0)	
					TOTAL PHASE 41	0

R/W OPS (PHASE 4B)				Amount	Federal Aid	
4. Appraisal Fees Through Trial		0	Parcels x	12,000	0 Participating	
5. Business Damage CPA Fees Through Trial		0	Claims x	19,000	0 Non-Partic.	
6. Court Reporter & Process Servers	75%	x	0	=	0 Participating	
7. Expert Witness	75%	x	0	=	0 Participating	
8. Mediators	50%	x	0	=	0 Participating	
9. Demolition, Asb. Abate., Survey, etc.			0	Imprvmt x	15,000 Participating	
10. Miscellaneous Contracts				Per Project	15,000 Participating	
11. Appraisal Fee Review			N/A	Parcels x	5,000 Participating	
12. (Participating	15,000)	+	(Non-Participating	=	0)	
					TOTAL PHASE 4B	15,000

R/W LAND COSTS (PHASE 43)				Amount	Subtotal	
13. Land, Improvements & Severance Damages/Cost to Cure		0	x	130% * Design plan stage	0 Participating	
14. Water Retention & Mit.	42,020	x	130% (0 parcels w/o R/W Acq		54,626 Participating	
					SUBTOTAL (Lines 13 and 14)	54,626
15.						
16. Admin. Settlements	(Factor 45%)	x	30%	of Line 15)	7,400 Participating	
17. Litigation Awards	(Factor 60%)	x	70%	of Line 15)	22,900 Participating	
18. Business Damages	(Claims 0)	x	\$0	)	0 Non-Partic.
19. Bus. Damages Incrs.	(Factor 25%)	x	\$0	)	0 Non-Partic.
20. Owner Appr. Fees	(Parcels 0)	x	\$10,000	)	0 Non-Partic.
21. Owner CPA Fees	(Claims 0)	x	\$10,000	)	0 Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)		x	40%	)	12,100 Non-Partic.
23. Owner Expert Witness	(Businesses 0)	+	Unimproved	0	0 Non-Partic.	
24. Other Condemn. Costs	(Parcels 0)	x		\$500	0 Participating	
					SUBTOTAL (lines 16 thru 24)	42,400
25.						
26. (Participating	84,900)	+	(Non-Participating	=	12,100)	
					TOTAL PHASE 43	197,000

* Design contingency for design plan stage:
 (1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)				Federal Aid	
27.			(100% Participating)	0	
				TOTAL PHASE 42	0

RELOCATION COSTS (PHASE 45)				Amount	Federal Aid	
Replacement Housing						
28. Owner	\$20,000 Per Unit	x	0		0	
29. Tenant	\$10,000 Per Unit	x	0		0	
Move Costs						
30. Residential	\$1,500 Per Unit	x	0		0	
31. Business/Farm	\$20,000 Per Unit	x	0		0	
32. Personal Property	\$2,000 Per Unit	x	0		0	
33. (Lines 28 thru 32)				(100% Participating)	0	
34. Relocation Services Cost			\$0	(Not in Phase Total)	0	
					TOTAL PHASE 45	0

35.	12,100	Non-Participating
36.	99,900	Participating
37.	(All Phases)	TOTAL ESTIMATE
		112,000

Appraisal:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Bus. Dam.:	N/A	Signed:		Date:	
Relocation:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	10/27/99

Cost Estimate Sequence #: _____ Dated: _____ In the amount of \$ _____ Data Input Completion Date: _____

REMARKS: Pond parcel P1B.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
 Work Program Update: Special Purpose: _____ Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WPI#: 7113826	District: Seven
County: Hills./Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: POND P2A	C.E. Sequence #: N/A

Project Des. SR 39 from I-4 to US 301		Estimated Relocates:
Parcels:	Gross Net	Business _____ 0
Business	0 0	Residential _____ 0
Residential	0 0	Signs _____ 0
Unimproved	0 0	Special _____ 0
Total Parcels	0 0	Total Relocates _____ 0

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid
1. Direct Labor Cost	(Parcels)	0	x	6,500	Rate) 0 Participating
2. Indirect Overhead	(Parcels)	0	x	N/A	Rate) 0 Participating
3. Participating	0	+	(Non-Participating	0)	TOTAL PHASE 41 #0

R/W OPS (PHASE 48)				Amount	Federal Aid
4. Appraisal Fees Through Trial	0 Parcels x	12,000		0	Participating
5. Business Damage CPA Fees Through Trial	0 Claims x	19,000		0	Non-Partic.
6. Court Reporter & Process Servers	0 Parcels x	500		0	Participating
7. Expert Witness	75% x	0	=	0	Participating
8. Mediators	75% x	0	=	0	Participating
9. Demolition, Asb. Abate., Survey, etc.	50% x	0	=	0	Participating
10. Miscellaneous Contracts	0 Imprvmt x	15,000		0	Participating
11. Appraisal Fee Review	N/A Parcels x	5,000		0	Participating
12. Participating	15,000	+	(Non-Participating	0)	TOTAL PHASE 48 \$15,000

R/W LAND COSTS (PHASE 43)				Amount	Subtotal
13. Land, Improvements & Severance Damages/Cost to Cure	Amount	0	x	130%	* Design plan stage
14. Water Retention & Mit.	139,520	x	130%	(0 parcels w/o R/W Acq	181,376
15.	SUBTOTAL (Lines 13 and 14)				181,376
16. Admin. Settlements	(Factor	45%	x	30% of Line 15)	24,500
17. Litigation Awards	(Factor	60%	x	70% of Line 15)	76,200
18. Business Damages	(Claims	0	x	\$0	0
19. Bus. Damages Incrs.	(Factor	25%	x	\$0	0
20. Owner Appr. Fees	(Parcels	0	x	\$10,000	0
21. Owner CPA Fees	(Claims	0	x	\$10,000	0
22. Defend. Atty Fees (Lines 16+17+18+19)			x	40%	40,300
23. Owner Expert Witness	(Businesses	0	+	Unimproved	0
24. Other Condemn. Costs	(Parcels	0	x	\$500	0
25.	SUBTOTAL (lines 16 thru 24)				141,000
26. Participating	282,100	+	(Non-Participating	40,300)	TOTAL PHASE 43 \$322,400

* Design contingency for design plan stage:
(1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)	[100% Participating]	TOTAL PHASE 42	#0
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RELOCATION COSTS (PHASE 45)				Amount	Federal Aid
28. Owner	Replacement Housing	\$20,000 Per Unit	x	0	0
29. Tenant		\$10,000 Per Unit	x	0	0
30. Residential	Move Costs	\$1,500 Per Unit	x	0	0
31. Business/Farm		\$20,000 Per Unit	x	0	0
32. Personal Property		\$2,000 Per Unit	x	0	0
33. (Lines 28 thru 32)				0	0
34. Relocation Services Cost				0	0
35.				40,300	Non-Participating
36.				297,100	Participating
37.				(All Phases)	TOTAL ESTIMATE \$337,400

Appraisal: Mitchell Hammer	Signed: <u>[Signature]</u>	Date: 10-26-99
Bus. Dam.: N/A	Signed: _____	Date: _____
Relocation: Mitchell Hammer	Signed: <u>[Signature]</u>	Date: 10-26-99
Overall Review: Terry L. Dunn	Signed: <u>[Signature]</u>	Date: 10/27/99
Cost Estimate Sequence #: _____	Dated: _____	In the amount of \$ _____
		Date Input Completion Date: _____

REMARKS:
Pond parcel P2A.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
_____ Type A - indicates the most confidence	One Year:	1.1000
_____ Type B - indicates above average confidence	Two Years:	1.2100
X _____ Type C - indicates below average confidence	Three Years:	1.3310
_____ Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
Work Program Update: X Special Purpose: _____ Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WPI#: 7113826	District: Seven
County: Hills./Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: POND P2C	C.E. Sequence #: N/A
Project Des.: SR 39 from I-4 to US 301		

Parcels:	Gross	Net	Estimated Relocates:
Business	0	0	Business
Residential	4	4	Residential
Unimproved	0	0	Signs
			Special
Total Parcels	4	4	Total Relocates

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid	
1. Direct Labor Cost	(Parcels)	4	x	6,500	Rate) 26,000	Participating
2. Indirect Overhead	(Parcels)	4	x	N/A	Rate) 0	Participating
3. (Participating	26,000	) +	(Non-Participating	=	0	
					TOTAL PHASE 41	\$26,000

R/W OPS (PHASE 4B)				Amount	Federal Aid	
4. Appraisal Fees Through Trial				4 Parcels x 12,000	48,000 Participating	
5. Business Damage CPA Fees Through Trial				0 Claims x 19,000	0 Non-Partic.	
6. Court Reporter & Process Servers	75%	x	4	=	3 Parcels x 500	1,500 Participating
7. Expert Witness	75%	x	4	=	3 Parcels x 30,000	90,000 Participating
8. Mediators	50%	x	4	=	2 Parcels x 2,400	4,800 Participating
9. Demolition, Asb. Abata., Survey, etc.				4 Imprvmt x 15,000	60,000 Participating	
10. Miscellaneous Contracts				Per Project	15,000 Participating	
11. Appraisal Fee Review				N/A Parcels x 5,000	0 Participating	
12. (Participating	219,300) +	(Non-Participating	=	0	
					TOTAL PHASE 4B	\$219,300

R/W LAND COSTS (PHASE 43)				Amount	Subtotal	Federal Aid
13. Land, Improvements & Severance Damages/Cost to Cure	Amount (0)	x	130% * Design plan stage	(0)		Participating
14. Water Retention & Mit.	338,878	x	130% (0 parcels w/o R/W Acq	440,541		Participating
					SUBTOTAL (Lines 13 and 14)	440,541
15.						
16. Admin. Settlements	(Factor 45%)	x	30% of Line 15)	59,500		Participating
17. Litigation Awards	(Factor 60%)	x	70% of Line 15)	185,000		Participating
18. Business Damages	(Claims 0)	x	\$0	0		Non-Partic.
19. Bus. Damages Incrs.	(Factor 25%)	x	\$0	0		Non-Partic.
20. Owner Appr. Fees	(Parcels 3)	x	\$10,000	30,000		Non-Partic.
21. Owner CPA Fees	(Claims 0)	x	\$10,000	0		Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)		x	40%	97,800		Non-Partic.
23. Owner Expert Witness	(Businesses 0)	+	Unimproved 0	0		Non-Partic.
24. Other Condemn. Costs	(Parcels 4)	x	\$500	2,000		Participating
					SUBTOTAL (lines 16 thru 24)	374,300
25.						
26. (Participating	687,000	) +	(Non-Participating	127,800)	
					TOTAL PHASE 43	\$814,800

* Design contingency for design plan stage:
 (1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)				Federal Aid
27.		(100% Participating)	TOTAL PHASE 42	\$0

RELOCATION COSTS (PHASE 45)				Amount	Federal Aid
Replacement Housing					
28. Owner	\$20,000 Per Unit	x	4	80,000	
29. Tenant	\$10,000 Per Unit	x	1	10,000	
Move Costs					
30. Residential	\$1,500 Per Unit	x	5	7,500	
31. Business/Farm	\$20,000 Per Unit	x	0	0	
32. Personal Property	\$2,000 Per Unit	x	0	0	
33. (Lines 28 thru 32)				0	
				(100% Participating)	TOTAL PHASE 45
34. Relocation Services Cost			\$9,750	(Not in Phase Total)	\$97,500

35.	127,800	Non-Participating
36.	1,029,800	Participating
37.	(All Phases)	TOTAL ESTIMATE
		\$1,157,600

Appraisal:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Bus. Dam.:	N/A	Signed:		Date:	
Relocation:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	10/27/99

Cost Estimate Sequence #: _____ Dated: _____ In the amount of \$ _____ Date Input Completion Date: _____

REMARKS:
 Pond parcel P2C.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
 Work Program Update: Special Purpose: _____ Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WPM: 7113826	District: Seven
County: Hills./Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: POND P3B	C.E. Sequence #: N/A
Project Des.: SR 39 from I-4 to US 301		

Parcels:	Gross	Net	Count incl. in mainline parcel	Estimated Relocates:
Business	0	0		Business 0
Residential	0	0		Residential 0
Unimproved	0	0		Signs 0
Total Parcels	0	0		Special 0
				Total Relocates 0

R/W SUPPORT COSTS (PHASE 41)	Amount	Federal Aid
1. Direct Labor Cost (Parcels 0 x 6,500 Rate)	0	Participating
2. Indirect Overhead (Parcels 0 x N/A Rate)	0	Participating
3. (Participating 0) + (Non-Participating 0)		
TOTAL PHASE 41		\$0

R/W OPS (PHASE 4B)	Amount	Federal Aid
4. Appraisal Fees Through Trial (0 Parcels x 12,000)	0	Participating
5. Business Damage CPA Fees Through Trial (0 Claims x 19,000)	0	Non-Partic.
6. Court Reporter & Process Servers (0 Parcels x 500)	0	Participating
7. Expert Witness (0 Parcels x 30,000)	0	Participating
8. Mediators (0 Parcels x 2,400)	0	Participating
9. Demolition, Asb. Abate., Survey, etc. (0 Imprvmt x 15,000)	0	Participating
10. Miscellaneous Contracts (Per Project 15,000)	15,000	Participating
11. Appraisal Fee Review (N/A Parcels x 5,000)	0	Participating
12. (Participating 15,000) + (Non-Participating 0)		
TOTAL PHASE 4B		\$15,000

R/W LAND COSTS (PHASE 43)	Amount	Subtotal
13. Land, Improvements & Severance Damages/Cost to Cure		
Amount 0 x 130% * Design plan stage	0	Participating
14. Water Retention & Mit. (125,460 x 130% (0 parcels w/o R/W Acq))	163,098	Participating
15. SUBTOTAL (Lines 13 and 14)		163,098
16. Admin. Settlements (Factor 45% x 30% of Line 15)	22,000	Participating
17. Litigation Awards (Factor 60% x 70% of Line 15)	68,500	Participating
18. Business Damages (Claims 0 x \$0)	0	Non-Partic.
19. Bus. Damages Incrs. (Factor 25% x \$0)	0	Non-Partic.
20. Owner Appr. Fees (Parcels 0 x \$10,000)	0	Non-Partic.
21. Owner CPA Fees (Claims 0 x \$10,000)	0	Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19) (x 40%)	36,200	Non-Partic.
23. Owner Expert Witness (Businesses 0 + Unimproved 0) x 18,000	0	Non-Partic.
24. Other Condemn. Costs (Parcels 0 x \$500)	0	Participating
25. SUBTOTAL (lines 16 thru 24)		126,700
26. (Participating 253,600) + (Non-Participating 36,200)		
TOTAL PHASE 43		\$289,800

* Design contingency for design plan stage:
 (1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)	(100% Participating)	Federal Aid
27.		
TOTAL PHASE 42		\$0

RELOCATION COSTS (PHASE 45)	Number	Amount
28. Owner Replacement Housing (\$20,000 Per Unit)	0	0
29. Tenant Replacement Housing (\$10,000 Per Unit)	0	0
30. Residential Move Costs (\$1,500 Per Unit)	0	0
31. Business/Farm Move Costs (\$20,000 Per Unit)	0	0
32. Personal Property Move Costs (\$2,000 Per Unit)	0	0
33. (Lines 28 thru 32)		
34. Relocation Services Cost	0	0
TOTAL PHASE 45		\$0

35.	36,200	Non-Participating
36.	268,600	Participating
37. (All Phases)		
TOTAL ESTIMATE		\$304,800

Appraisal:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Bus. Dam.:	N/A	Signed:	<i>[Signature]</i>	Date:	10-26-99
Relocation:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10/27/99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	

Cost Estimate Sequence #: Dated: In the amount of \$ Date Input Completion Date:

REMARKS:
 Pond parcel P3B.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
 Work Program Update: Special Purpose: Comments:

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WP#: 7113826	District: Seven
County: Hills/Pasco	FAP No.: N/A	Date: 29-Nov-99
State Rd.: 39	Alternate: POND P4A	C.E. Sequence #: N/A

Project Des. SR 39 from I-4 to US 301		
Parcels:	Gross	Net
Business	0	0
Residential	1	1
Unimproved	0	0
Total Parcels	1	1

Estimated Relocates:	
Business	0
Residential	2
Signs	0
Special	0
Total Relocates	2

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid		
1. Direct Labor Cost	(Parcels	1	x	6,500	Rate) 6,500	Participating	
2. Indirect Overhead	(Parcels	1	x	N/A	Rate) 0	Participating	
3. (Participating	6,500) +	(Non-Participating	=	0)	TOTAL PHASE 41	\$6,500

R/W OPS (PHASE 48)				Amount	Federal Aid		
4. Appraisal Fees Through Trial				12,000	12,000	Participating	
5. Business Damage CPA Fees Through Trial				19,000	0	Non-Partic.	
6. Court Reporter & Process Servers	75%	x	1	=	500	Participating	
7. Expert Witness	75%	x	1	=	30,000	Participating	
8. Mediators	50%	x	1	=	2,400	Participating	
9. Demolition, Asb. Abate., Survey, etc.				15,000	30,000	Participating	
10. Miscellaneous Contracts				Per Project	15,000	Participating	
11. Appraisal Fee Review				N/A	5,000	0 Participating	
12. (Participating	89,900) +	(Non-Participating	=	0)	TOTAL PHASE 48	\$89,900

R/W LAND COSTS (PHASE 43)				Amount	Subtotal		
13. Land, Improvements & Severance Damages/Cost to Cure				0	Participating		
14. Water Retention & Mit.	196,589	x	130% (0 parcels w/o R/W Acq	255,566	Participating		
15.			130% * Design plan stage		255,566		
SUBTOTAL (Lines 13 and 14)							
16. Admin. Settlements	(Factor	45%	x	30% of Line 15)	34,500	Participating	
17. Litigation Awards	(Factor	60%	x	70% of Line 15)	107,300	Participating	
18. Business Damages	(Claims	0	x	\$0)	0	Non-Partic.	
19. Bus. Damages Incrs.	(Factor	25%	x	\$0)	0	Non-Partic.	
20. Owner Appr. Fees	(Parcels	1	x	\$10,000)	10,000	Non-Partic.	
21. Owner CPA Fees	(Claims	0	x	\$10,000)	0	Non-Partic.	
22. Defend. Atty Fees (Lines 16+17+18+19)				40%)	56,700	Non-Partic.	
23. Owner Expert Witness	(Businesses	0	+	Unimproved	0	Non-Partic.	
24. Other Condemn. Costs	(Parcels	1	x	\$500)	500	Participating	
25.							
SUBTOTAL (lines 16 thru 24)							
26. (Participating	397,900) +	(Non-Participating	66,700)	TOTAL PHASE 43	\$464,600

* Design contingency for design plan stage:
 (1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)				Amount	Federal Aid
27.			(100% Participating)	TOTAL PHASE 42	\$0

RELOCATION COSTS (PHASE 45)				Amount	Federal Aid	
Replacement Housing						
28. Owner	\$20,000 Per Unit	x	1	20,000		
29. Tenant	\$10,000 Per Unit	x	1	10,000		
Move Costs						
30. Residential	\$1,500 Per Unit	x	2	3,000		
31. Business/Farm	\$20,000 Per Unit	x	0	0		
32. Personal Property	\$2,000 Per Unit	x	0	0		
33. (Lines 28 thru 32)				\$0		
34. Relocation Services Cost				\$3,300		
(100% Participating)						
					TOTAL PHASE 45	\$33,000
(Not in Phase Total)						
35.				66,700	Non-Participating	
36.				527,300	Participating	
37.				(All Phases)	TOTAL ESTIMATE	\$594,000

Appraisal: Mitchell Hammer	Signed: <i>[Signature]</i>	Date: 11-29-99
Bus. Dam.: N/A	Signed: <i>[Signature]</i>	Date: 11-29-99
Relocation: Mitchell Hammer	Signed: <i>[Signature]</i>	Date: 11-29-99
Overall Review: Terry L. Dunn	Signed: <i>[Signature]</i>	Date: 11-29-99

Cost Estimate Sequence #: Dated: In the amount of \$ Data Input Completion Date:

REMARKS:
 Pond parcel P4A.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
 Work Program Update: X Special Purpose: Comments:

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WPI#: 7113826	District: Seven
County: Hills./Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: POND P4C	C.E. Sequence #: N/A

Project Des. SR 39 from I-4 to US 301

Parcels:	Gross	Net	Estimated Relocates:	
Business	0	0	Business	0
Residential	0	0	Residential	0
Unimproved	0	0	Signs	0
			Special	0
Total Parcels	0	0	Total Relocates	0

RIW SUPPRT COSTS (PHASE 41)				Amount	Federal Aid	
1. Direct Labor Cost	(Parcels	0	x	6,500	Rate) 0	Participating
2. Indirect Overhead	(Parcels	0	x	N/A	Rate) 0	Participating
3. (Participating	0	+	(Non-Participating	=	0	
					TOTAL PHASE 41	\$0

RIW OPS (PHASE 4B)				Amount	Federal Aid		
4. Appraisal Fees Through Trial		0	Parcels x	12,000	0	Participating	
5. Business Damage CPA Fees Through Trial		0	Claims x	19,000	0	Non-Partic.	
6. Court Reporter & Process Servers		0	Parcels x	500	0	Participating	
7. Expert Witness	75%	x	0	=	0	Participating	
8. Mediators	75%	x	0	=	0	Participating	
9. Demolition, Asb. Abate., Survey, etc.	50%	x	0	=	0	Participating	
10. Miscellaneous Contracts			0	Imprvmt x	15,000	Participating	
11. Appraisal Fee Review			N/A	Parcels x	5,000	0	Participating
12. (Participating	15,000	+	(Non-Participating	=	0		
					TOTAL PHASE 4B	\$15,000	

RIW LAND COSTS (PHASE 43)				Amount	Subtotal		
13. Land, Improvements & Severance Damages(Cost to Cure				0	Participating		
Amount	0	x	130%	* Design plan stage			
14. Water Retention & Mit.	72,525	x	130%	(0 parcels w/o RIW Acq	94,283		
					94,283		
15.	SUBTOTAL (Lines 13 and 14)						
16. Admin. Settlements	(Factor	45%	x	30%	of Line 15)	12,700	Participating
17. Litigation Awards	(Factor	60%	x	70%	of Line 15)	39,600	Participating
18. Business Damages	(Claims	0	x	\$0	)	0	Non-Partic.
19. Bus. Damages Incrs.	(Factor	25%	x	\$0	)	0	Non-Partic.
20. Owner Appr. Fees	(Parcels	0	x	\$10,000	)	0	Non-Partic.
21. Owner CPA Fees	(Claims	0	x	\$10,000	)	0	Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)			x	40%	)	20,900	Non-Partic.
23. Owner Expert Witness	(Businesses	0	+	Unimproved	0	x 18,000	Non-Partic.
24. Other Condemn. Costs	(Parcels	0	x	\$580	)	0	Participating
25.	SUBTOTAL (lines 16 thru 24)						
26. (Participating	146,600	+	(Non-Participating	20,900			
					TOTAL PHASE 43	\$167,500	

* Design contingency for design plan stage:
 (1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

RIW ACQUISITION CONSULTANT (PHASE 42)				Federal Aid	
27.			(100% Participating)	TOTAL PHASE 42	\$0

RELOCATION COSTS (PHASE 45)							
28. Owner	Replacement Housing	\$20,000 Per Unit	x	Number	0	Amount	0
29. Tenant		\$10,000 Per Unit	x	0		0	
30. Residential	Move Costs	\$1,500 Per Unit	x	0		0	
31. Business/Farm		\$20,000 Per Unit	x	0		0	
32. Personal Property		\$2,000 Per Unit	x	0		0	
33. (Lines 28 thru 32)					(100% Participating)	TOTAL PHASE 45	\$0
34. Relocation Services Cost					(Not in Phase Total)		

35.	20,900	Non-Participating	
36.	161,600	Participating	
37.	(All Phases)	TOTAL ESTIMATE	\$182,500

Appraisal:	Mitchell Hammer	Signed:		Date:	10-26-99
Bus. Dam.:	N/A	Signed:		Date:	
Relocation:	Mitchell Hammer	Signed:		Date:	10-26-99
Overall Review:	Terry L. Dunn	Signed:		Date:	10/27/99

Cost Estimate Sequence #: Dated: In the amount of \$ Data Input Completion Date:

REMARKS:
 Pond parcel P4C.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
 Work Program Update: X Special Purpose: Comments:

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WPI#: 7113826	District: Seven
County: Hills/Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: POND P5B	C.E. Sequence #: N/A
Project Des.: SR 39 from I-4 to US 301		

Parcels:	<u>Gross</u>	<u>Net</u>				Estimated Relocates:
Business	0	0				Business _____ 1
Residential	0	0				Residential _____ 0
Unimproved	0	0				Signs _____ 0
						Special _____ 1
Total Parcels	0	0				Total Relocates _____ 2

R/W SUPPORT COSTS (PHASE 41)						Amount	Federal Aid
1. Direct Labor Cost	(Parcels)	0	x	6,500	Rate)	0	Participating
2. Indirect Overhead	(Parcels)	0	x	N/A	Rate)	0	Participating
3. (Participating	0)	+	(Non-Participating	=	0)	TOTAL PHASE 41	\$0

R/W OPS (PHASE 4B)						Amount	
4. Appraisal Fees Through Trial					0 Parcels x	12,000	0 Participating
5. Business Damage CPA Fees Through Trial					0 Claims x	19,000	0 Non-Partic.
6. Court Reporter & Process Servers					0 Parcels x	500	0 Participating
7. Expert Witness	75%	x		0	=	0 Parcels x	30,000
8. Mediators	75%	x		0	=	0 Parcels x	2,400
9. Demolition, Asb. Abate., Survey, etc.	50%	x		0	=	0 Imprvmt x	15,000
10. Miscellaneous Contracts					Per Project	15,000	0 Participating
11. Appraisal Fee Review					N/A Parcels x	5,000	0 Participating
12. (Participating	15,000)	+	(Non-Participating	=	0)	TOTAL PHASE 4B	\$15,000

R/W LAND COSTS (PHASE 43)						Amount	Subtotal
13. Land, Improvements & Severance Damages/Cost to Cure						0	Participating
14. Water Retention & Mit.	Amount	0	x	130%	* Design plan stage	881,920	Participating
15.					130% (0 parcels w/o R/W Acq		881,920
SUBTOTAL (Lines 13 and 14)							
16. Admin. Settlements	(Factor	45%	x	30%	of Line 15)	119,100	Participating
17. Litigation Awards	(Factor	60%	x	70%	of Line 15)	370,400	Participating
18. Business Damages	(Claims	0	x	\$0	)	0	Non-Partic.
19. Bus. Damages Incrs.	(Factor	25%	x	\$0	)	0	Non-Partic.
20. Owner Appr. Fees	(Parcels	0	x	\$10,000	)	0	Non-Partic.
21. Owner CPA Fees	(Claims	0	x	\$10,000	)	0	Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)					40%)	195,800	Non-Partic.
23. Owner Expert Witness	(Businesses	0	+	Unimproved	0) x 18,000	0	Non-Partic.
24. Other Condemn. Costs	(Parcels	0	x	\$500	)	0	Participating
25.							
SUBTOTAL (lines 16 thru 24)							685,300
26. (Participating	1,371,400)	+	(Non-Participating	=	195,800)	TOTAL PHASE 43	\$1,567,200

* Design contingency for design plan stage:
 (1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)						Amount	Federal Aid
27.					(100% Participating)	TOTAL PHASE 42	\$0

RELOCATION COSTS (PHASE 45)						Amount	
Replacement Housing							
28. Owner	\$20,000 Per Unit	x		0		0	
29. Tenant	\$10,000 Per Unit	x		0		0	
Move Costs							
30. Residential	\$1,500 Per Unit	x		0		0	
31. Business/Farm	\$20,000 Per Unit	x		1		20,000	
32. Personal Property	\$2,000 Per Unit	x		1		\$2,000	
33. (Lines 28 thru 32)					(100% Participating)	TOTAL PHASE 45	\$22,000
34. Relocation Services Cost				\$2,200	(Not in Phase Total)		
35.						195,800	Non-Participating
36.						1,408,400	Participating
37.					(All Phases)	TOTAL ESTIMATE	\$1,604,200

Appraisal:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Bus. Dam.:	N/A	Signed:		Date:	
Relocation:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	10/27/99

Cost Estimate Sequence #: _____ Dated: _____ In the amount of \$ _____ Data Input Completion Date: _____

REMARKS:
 Pond parcel P5B.

The following indicates the estimator's confidence in the above estimate:		Future Value Factors @	10.0%
_____	Type A - indicates the most confidence	One Year:	1.1800
_____	Type B - indicates above average confidence	Two Years:	1.2100
X _____	Type C - indicates below average confidence	Three Years:	1.3310
_____	Type D - indicates the least or no confidence	Four Years:	1.4641
		Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
 Work Program Update: _____ X _____ Special Purpose: _____ Comments: _____

APPENDIX E
Communications

July 28, 1998

Ms. Pauline Baker
United States Army Corps of Engineers
P.O. Box 19247
Tampa, Florida 33686-9247

Subject: Pistol Range Regional Stormwater Treatment Facility
Section 19 and 20, Township 28 South, Range 22 East
Plant City, Florida, Hillsborough County
COE #199704025

Dear Ms. Baker:

Attached for your review are the proposed construction plans (**Figures 1 through 11**) for the Pistol Range Regional Stormwater Treatment Facility located in the City of Plant City. The attached drawings show delineated wetland areas reviewed in the field by Peter Bottone (Peninsula Design & Engineering, Inc.) and Edward Craig (SWFWMD) on August 12, 1997 and Eric Summa (USACOE) on October 9, 1997 as well as proposed impacts. A summary of surface water and wetland impacts is shown in the attached **Table 1**. Also attached is a Wetland/Biological Assessment of the Pistol Range site by Peninsula Design & Engineering, Inc. (**Attachment A**) which includes copies of correspondence with the U.S. Army Corps of Engineers, the Southwest Florida Water Management District (SWFWMD), U.S. Fish and Wildlife Service and the State of Florida Division of Historic Resources in the appendix. A summary of the Pistol Range project is given below.

Stormwater management to help restore and protect Lake Thonotosassa is a major challenge confronting Plant City, Hillsborough County and SWFWMD. Lake Thonotosassa is a priority surface water body of regional or statewide significance, which requires restoration or protection under the Surface Water Improvement and Management (SWIM) Act.

The only inlet to stream to Lake Thonotosassa is Baker Creek. Pemberton Creek is a tributary to Baker Creek, draining the western portion of Plant City through the Westside Canal, Mill Creek and Spartman Branch. The Westside Canal flows south to north, west of the Central Business District of Plant City. The Westside Canal, approximately 0.7 miles north of Interstate 4, changes names to Mill Creek and then to Pemberton Creek at Wallace Branch Road.

SWFWMD has defined critical areas where the greatest improvement in water resources can be obtained for the least investment in best management practices (BMPs). The highest priority has been placed on the urban areas in and around Plant City. The Pistol Range Regional Stormwater Treatment Facility is a proposed SWFWMD Cooperative project with the City of Plant City. The goal is to facilitate improvements to water quality in Lake Thonotosassa that may be attributable to stormwater contributions and associated nutrient loads flowing to the lake via the Westside Canal.

Ms. Pauline Baker
July 28, 1998
Page 2

The Pistol Range property is a 29.7 acre site owned by the City of Plant City. The property is located at the west end of Cason Street approximately 0.6 miles north of Interstate 4 and 0.6 miles west of State Road 39. The project site abuts Cork Prairie to the west, wetlands associated with Mill Creek to the north, a residential neighborhood to the east, and forested uplands and wetlands to the south. The Westside Canal bisects the project site in a north-south direction, flowing north until its confluence with Mill Creek. Located within the interior portions of the site are three excavated water bodies that are former borrow pits. The ponds are immediately adjacent to the Westside Canal and have a total area of 14.7 acres.

The Westside Canal is the primary drainage channel for approximately 3 square miles upstream of the Pistol Range property. The purpose of the Pistol Range project is to treat stormwater runoff contributed by the Westside Canal for water quality improvement and enhancement of natural habitat.

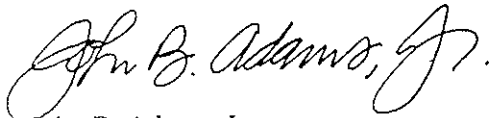
The project uses the existing property boundary. Pond area will be increased to 18.2 acres to maximize the possible treatment area and create littoral zones. A ditch-block weir will be placed approximately 500 feet north of Cason Street in the Westside Canal. The water from the Westside Canal will enter the treatment ponds on the east and west side of canal through excavated channels. The water will then be routed by surface flow across large expanses of emergent wetlands (littoral shelf). Water fluctuation in the system will vary between the NWL (NIP) of 102.5 ft-NGVD and the DTW (SHW) of 104.0 ft-NGVD. Outfall structures discharge just downstream of the ditch-block weir. The 48-inch CMP under Cason Street will be replaced with two 48-inch RCPs.

In addition to the emergent wetlands, both palustrine mixed hardwood and cypress wetland habitats will also be created in the system to diversify the ecological function of the system. A total of 8.00 acres of planted wetland habitats are proposed and will consist of 6.62 acres of palustrine emergent (PEM1/2) wetlands, 1.01 acres of palustrine hardwood wetlands (PFO1/3, 7-gallon potted red maple, black gum and American elm trees with a soft-rush understory) and 0.37 acres of palustrine deciduous (cypress - PFO2) wetlands. Detailed plans, typical cross-sections and planting specifications are contained in the attached figures.

We appreciate your attention to this project. If you have any questions regarding the information submitted or need additional information please do not hesitate to contact me.

Sincerely,

CAMP DRESSER & MCKEE INC.



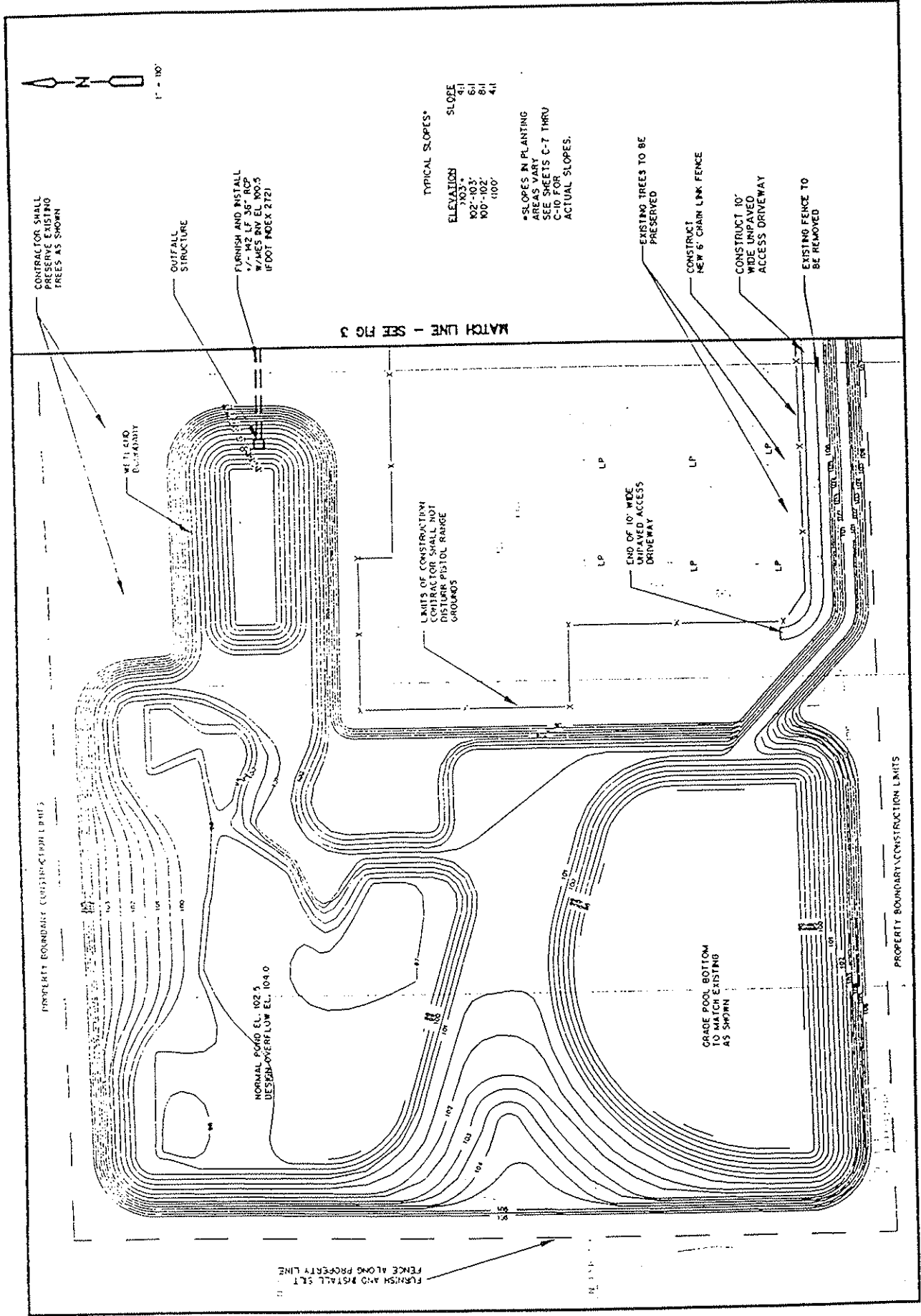
John B. Adams, Jr.

cc: Kathy Burke, City of Plant City
JoAnn Macrina, SWFWMD
Blake Guillory, CDM
Peter Bottone, Peninsula Design & Engineering, Inc.

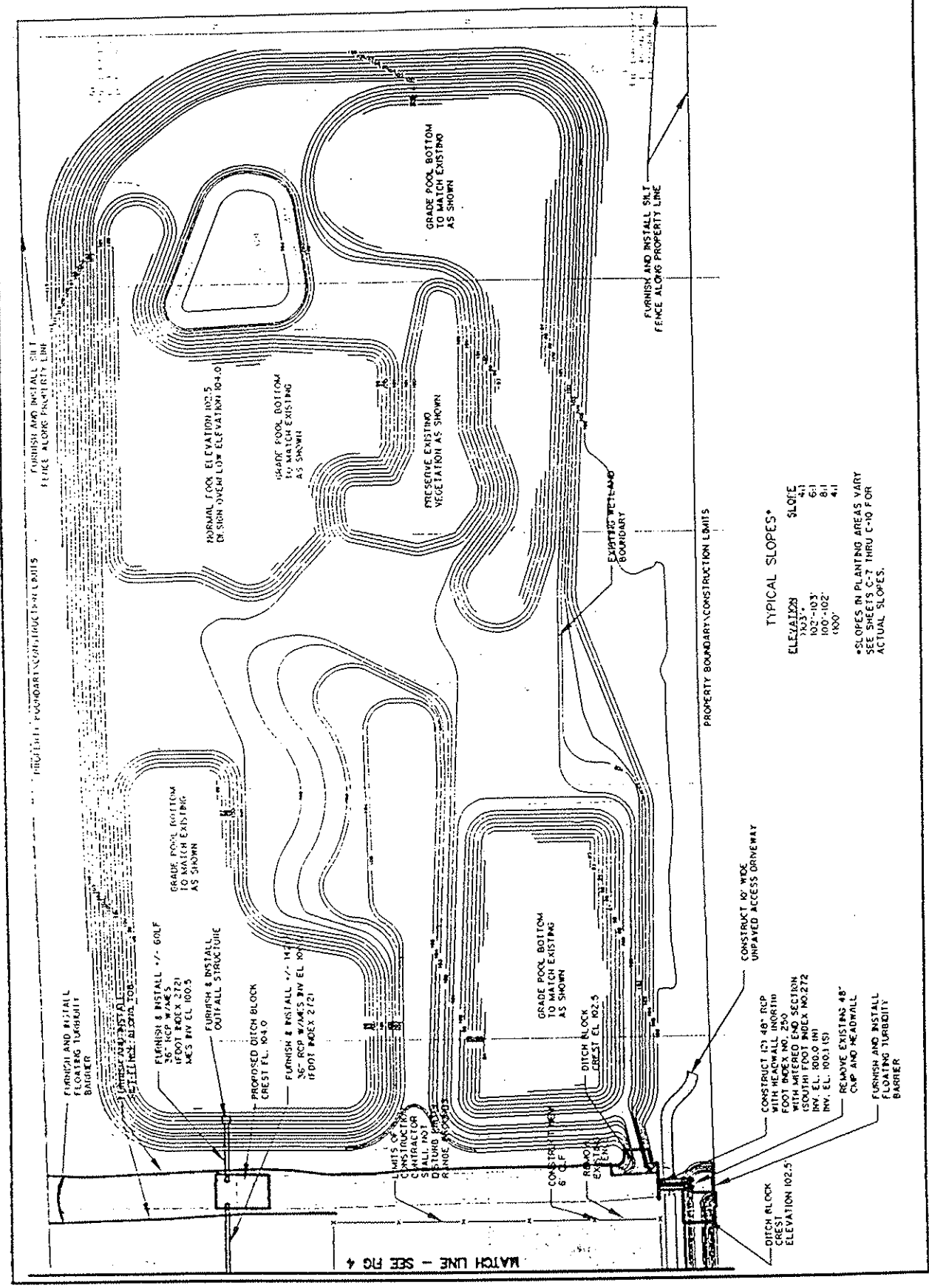
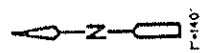
PROJECT LOCATION



Figure No. 1
PISTOL RANGE REGIONAL
STORMWATER TREATMENT FACILITY
PROJECT LOCATION MAP



**Figure No. 2
PISTOL RANGE REGIONAL
STORMWATER TREATMENT FACILITY
GRADING DI AN - WEST**



TYPICAL SLOPES*

ELEVATION	SLOPE
103'-103"	4:1
100'-102'	6:1
100'-102'	8:1
100'	4:1

*SLOPES IN PLANTING AREAS VARY
SEE SHEETS C-7 THRU C-10 FOR
ACTUAL SLOPES.

Figure No. 3
PISTOL RANGE REGIONAL
STORMWATER TREATMENT FACILITY
GRADING PLAN - EAST

URS Greiner

URS Greiner, Inc.
P.O. Box 31646 (33631-3416)
7650 W. Courtney Campbell Causeway
Tampa, Florida 33607-1462
Telephone: (813) 286-1711
Facsimile (813) 287-8591
Offices in Principal Cities Nationwide

April 14, 1999

FLORIDA #AA C000901
FLORIDA #LC C000234

Mr. Carlos Lopez, P.E.
District Drainage Engineer
FDOT District Seven
1120 N. McKinley Drive
Tampa, FL 33612

Re: **SR39 and Alexander Street Bypass PD&E Study**
WPI Segment No. 254552, FAP No. F-321-1 (4)
Hillsborough and Pasco Counties, Florida

Dear Mr. Lopez:

This letter presents the conclusions of our meeting held on April 9, 1999 concerning the roadway grade control elevations discussed for the referenced project along with some background information for clarification. We discussed the seasonal high water table (SHWT) and design high water (DHW) elevations for the portion of the referenced project from I-4 to Knights-Griffin Road and an additional pond site.

The SHWT, used for vertical control elevations, was estimated by Mark Brown of FDOT at predetermined locations using wetland and soil boring indicators. The normal pool (NP) and flood elevations were also estimated at most of the wetland locations. Some the control elevations, as well as the NP and flood estimates, were field surveyed at locations where it appeared the grade elevation may not be reflected accurately on the Southwest Florida Water Management (SWFWMD) contoured aerials due to development, vegetative cover, etc. Mark Brown presented his findings in the attached memorandums. An error in the field reduction for the SHWT at site 13B was discovered and confirmed with Mark (see correction in 3-26-99 memorandum).

The nominal DHW elevation was typically assumed to be one-half of the 0.46 m (1.5 ft) maximum treatment depth (SWFWMD criteria) or 0.23 m (0.75 ft) above the SHWT. Although it was not specifically discussed, the profile grade line (PGL) can be generated from the DHW for use by Roadway Design. If the DHW was above natural grade, the minimum PGL was determined at the control elevation locations by adding 1.18m (3.87 ft) to the DHW. This 1.18 m (3.87 ft) distance is the sum of 0.61m (2 ft) base clearance, 0.42 m (1.39 ft) of pavement thickness, and 0.15 m (0.48 ft) for the cross slope. If the calculated minimum PGL elevation occurred below natural grade, the minimum PGL was assumed to be set at natural grade at that station.

Mr. Carlos Lopez, P.E.
 April 14, 1999
 Page 2

Table 1 summarizes the vertical control elevations (Natural Grade, SHWT, DHW) that were discussed and established in our meeting along with their locations. The minimum proposed PGL elevation for these locations was computed and included in this table.

Table 1
SR39 and Alexander Street Bypass PD&E Study
From Interstate 4 to Knights-Griffin Road

Station (meters)	Natural Grade m (ft) NGVD	SHWT Elevation m (ft) NGVD	DHW Elevation m (ft) NGVD	Minimum Proposed PGL Elevation m (ft) NGVD
25+00	32.31 (106.00)	32.31 (106.00)	32.54 (106.75)	33.72 (110.62)
34+00	31.58 (103.62)	31.72 (104.08)	31.95 (104.83)	33.13 (108.70)
44+00	33.53 (110.00)	31.62 (103.75)	31.85 (104.50)	33.53 (110.00)
48+00	31.39 (103.00)	30.63 (100.5)	30.86 (101.25)	32.04 (105.12)
55+00	31.70 (104.00)	31.39 (103.00)	31.62 (103.75)	32.80 (107.62)
61+00	31.39 (103.00)	31.70 (104.00)	31.93 (104.75)	33.11 (108.62)
67+00	33.60 (110.24)	32.13 (105.40)	32.35 (106.25)	33.53 (110.02)
71+50	32.13 (105.41)	30.94 (101.49)	31.16 (102.24)	32.34 (106.11)

The remainder of this letter explains how the information in Table 1 was determined and includes other information such as discussions on wetland flood indicators, base flood elevations and suggested PGL elevations (McGee Road), etc. The new roadway alignment of the project, which runs from I-4 to SR 39, is known as the Alexander Street Bypass and is hereafter referred to as the ASB.

Mr. Carlos Lopez, P.E.

April 14, 1999

Page 3

The first basin that the ASB traverses is an upper reach of Pemberton Creek just north of I-4. The SHWT in the area of station 25+00 (meters) was estimated at grade, approximately 32.31 m (106.0 ft) NGVD at location 1W. This portion of Pemberton Creek is a FEMA designated floodplain but has no designated 100-year base flood elevation. This reach was recently modeled by CDM for the Westside Canal Study (for the City of Plant City) and according to their study the 100-year flood stage is 32.74 m (107.4 ft) NGVD. Mr. Lopez suggested we obtain the Pemberton Creek Study recently performed by Hillsborough County to confirm the elevations computed by CDM.

The second basin traversed by the ASB is part of another reach of Pemberton Creek farther north of the aforementioned reach. The SHWT and flood elevations were estimated and surveyed at 31.72 m (104.08 ft) NGVD and 31.98 m (104.92 ft) NGVD, respectively, near station 34+00 (location 3W). The base flood elevation in the area of this control elevation was calculated to be 32.25 m (105.8 ft) NGVD according to the CDM study, approximately 0.3 m (1 ft) above the wetland flood elevation delineated by Mark Brown.

A control elevation south of McGee Road was estimated using a soil boring at an existing high point in the proposed alignment near station 44+00 (location 5B). This control elevation was not field surveyed and therefore SWFWMD topographic information was used for estimating the SHWT at 31.62 m (103.75 ft) NGVD. In this case, the control elevation was estimated lower than the existing grade (approximately 33.53m [110.0 ft]).

McGee Road will be crossed by the ASB at approximately station 47+50. McGee Road does not appear to have flooding problems and its existing grade at 32.16 m (105.5 ft) should be maintained with the proposed vertical profile as much as possible.

The ASB crosses an agriculture irrigation and drainage (man-made) ditch system, associated with adjacent farming activities north of McGee Road, near station 48+00 (location 6W). The break-over elevation downstream of this drainage system is approximately 29.72 m (97.5 ft). It was estimated that the SHWT in this system is 2 to 3 feet above this break-over elevation, thus setting the SHWT at 30.63 m (100.5 ft) NGVD.

A control elevation was estimated using a soil boring between McGee and Joe McIntosh Roads at an existing high point near station 51+50 (location 7B). This control elevation was field surveyed and the SHWT is at 31.63m (103.76 ft) NGVD, which is lower than the existing grade (32.31m [106.01 ft]).

Part of the aforementioned man-made irrigation and drainage system drains to an existing ditch which travels west from the existing SR39 alignment, near Joe McIntosh Road. The ASB crosses this ditch at approximately 55+00 (location 8W). The SHWT at this location is estimated at 31.39 m (103.0 ft) NGVD using an adjacent wetland boundary elevation noted on the SWFWMD aerial.

Mr. Carlos Lopez, P.E.

April 14, 1999

Page 4

At station 61+00, a wetland area will be crossed by the ASB (location 10W). The SHWT was estimated at 31.70 m (104.0 ft) NGVD.

The drainage basin south of Knights-Griffin Road will outfall to a wetland area southwest of the intersection of SR39 and Knights-Griffin Road. The SHWT at approximately station 67+00 was estimated at 32.13 m (105.40 ft) NGVD using a soil boring (location 11B).

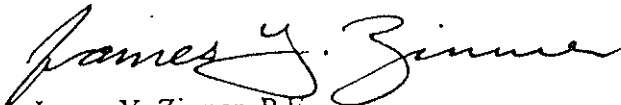
A soil boring was taken at the southwest quadrant of the Knight-Griffin/SR39 intersection (location 13B), and the SHWT was estimated at 30.93 m (101.49 ft) NGVD. This is below the existing grade of 32.13 m (105.41 ft) NGVD.

In the area of station 61+00, stormwater would be diverted from one basin to another in the proposed pond siting scheme. Carlos Lopez suggested that another pond and alternates be sited for this basin so the stormwater diversion would not occur.

This is our understanding of what was discussed in our meeting and the resulting minimum PGL elevations. If there are any corrections required to the above information, please advise.

Sincerely,

URS GREINER, INC.


James Y. Zinner, P.E.

JYZ/mhc

attachments

cc: Gabor Farkasfalvy
Kevin Doyle (URSGWC)
Lisa Heimborg, P.E. (URSGWC)
Robert Johnson, P.E. (URSGWC)

FDOT Technical Memorandum

RECEIVED PD & E

MAR 30 AM 10:13

To: Gabor Farkasfalvy, Carlos Lopez
cc: Dennis Jent, John Kubler

From: Mark Brown

Subject: SR 39/Alexander Street Extension
PD&E Study (FIN 255099-1, SPN 10200-1508)

Date: March 26, 1999

The following table lists the water elevations associated with the sites requested for evaluation. I have attached a copy of my original memorandum with approximate elevations that are within close range of the surveyed elevations. If I receive additional data from the survey crew, I will pass that information along. If you have any questions, please call (ext. 27989) or e-mail (RD744MB). Thanks again for all your help. Mark

State Road 39 - Wetland/Upland Surface & Ground Water Elevations

SITE	Grade Elev.	Normal Pool	Seasonal High	Flood Elev.
3W	103.62 ft.	103.62 ft.	104.08 ft.	104.92 ft.
7B	106.01 ft.	-----	103.76 ft.	-----
11B	110.24 ft.	-----	105.4 ft.	-----
12W	100.2 ft.	100.71 ft.	101.37 ft.	102.19 ft.
13B	105.41 ft.	-----	106.8 101.49 ft.	-----
14W	100.7 ft.	101.19 ft.	101.99 ft.	-----
15W	97.42 ft.	97.42 ft.	98.41 ft.	-----
16W	95.65 ft.	-----	95.65 ft.	-----
19W	72.23 ft.	72.8 ft.	73.54 ft.	-----
20W	70.34 ft.	70.74 ft.	71.59 ft.	-----

Note. The sites are designated "W" for wetland elevations using above-grade biological indicators for hydrological estimations. Sites designated as "B" are wetlands and uplands using soil borings for hydrological evaluations. Site 4W/B was not surveyed since it is part of the same wetland associated with Site 3W. A few wetlands have grade elevations that match either normal pool or seasonal high water elevations

Post-It Fax Note	7671	Date	3/30/99	# of Pages	5
To	Kevin Doyle	From	Gabor Farkasfalvy		
Co/Dept	URS Greiner	Co	FDOT		
Phone #		Phone #	975-6455		
Fax #	286-6587	Fax #			

interoffice

MEMORANDUM

to: Gabor Farkasfalvy, Dennis Jent, Carlos Lopez, John Kubler
from: Mark Brown
subject: SR 39 From I-4 to US 301, PD&E Study, Wetland & Soil Water Levels
date: March 14, 1999

At the request of PD&E and Greiner, I conducted water level determinations at various station locations associated with the proposed Alexander Street Extension and potential SR 39 improvements. The attached aerials provided by Greiner designate the locations (blue dots) where surface and ground water elevations were evaluated while using biological and/or soil indicators. For the wetland crossings, various water level indicators were used to determine normal pool (NP), seasonal high water table (SHWT) and flood elevations. In some wetland cases only one or two indicators are present, but at least the SHWT elevation was determined using the best available indicator. For the soil borings, only the SHWT distance below grade was determined and compared with the NRCS Hillsborough County Soil Survey information.

In order to potentially minimize the effort needed by the DOT survey crew to spend on the sites, I have referenced the natural grade elevations listed in the table provided by Greiner. Depending on the degree of accuracy associated with those elevations and the necessity to compile exact elevations for the PD&E level study, the elevations I provide for each of the requested stations may be all that is needed. This is particular true for the soil borings that have a deep SHWT elevation compared to the proposed road grade. I refer to Gabor and Carlos for that decision. In any case, I will provide directions and survey locations on the aerials to assist the survey crew locate the sites for the Alexander Street Extension. The remaining SR 39 locations are adjacent to the existing R/W

Sites 1W and 2W (Sheet 1) - This is a severely dewatered swamp, which has resulted in a couple feet of muck oxidation within some portions. Since organic muck oxidizes down to an elevation where the soil stays somewhat saturated, an estimated SHWT equates to the interior grade elevations. I flagged six locations spaced 30-40 ft. apart within the proposed roadway alignment through the lower grade elevations. Based on plant cover, it appears these six flags cover an area where the SHWT still reaches existing grade. According to the table, the grade elevation from that area (Stations 25+70 and 27+23) are 105.5 ft. and 106.0 ft. **Location:** Either Alexander Street from the south or Franklin Street from the north, take the North Frontage Lane (dirt) down the proposed extension route. There are pink locator flags leading down to the lower elevations from a tree along the north side of the adjacent horse stables.

Site 3W (Sheet 2) - The wetland boundary is further north than depicted on the aerial so the site was moved north. I nailed a SHWT and NP elevation in a maple adjacent to a small pond. I can't get a good handle on the grade elevation at that location. Station 33+63 is listed as 110.0 ft., Stations 34+24 and 34+85 are listed as 105.0 ft. and 104.0 ft. Even though the nailed tree is closest to Station 33, I can't help but believe the grade is closer to 105 ft. **Location:** Take Terrace Drive west from

Gabor Farkasfalvy, Dennis Jent, Carlos Lopez

Page 2

March 14, 1999

Franklin Street until the road ends. Turn right on a private drive, when the driveway turns back to the east, you will see a series of locator flags leading north to the maple tree on the north side of a fenceline.

Site 4B/W (Sheet 2) - This site is actually a tailwater recovery pond used for the adjacent strawberry fields. It would be good to know how deep the pond is since it will have to be filled for the roadway. The table lists the elevation for 35+46 as 104.0 ft. and 37+13 as 109.0 ft. Since the latter elevation is representative of the surrounding strawberry fields, I can't tell if the 104.0 elevation is at the pond toe-of-slope or somewhere else. In any case, I put a stake with pink ribbon at the northeast pond boundary to mark the grade elevation (SHWT) of the pond and surrounding fields. The water levels are controlled for berry production but on the average, the SHWT appears to be at least two feet below grade through the fields. **Location:** Take SR 39 north then west on Sam Allen Road until you see strawberry fields (south) across from the citrus groves (north) (Refer to Sheet 3). There is a dirt road approximately located down the proposed road right-of-way

Site 5B (Sheet 4) - In the soil survey, this area is mapped as Fort Meade which matches the soil characteristics I found in the soil boring. The SHWT is greater than 75 inches below grade. The grade elevation at Station 44+45 is listed as 109.0 ft. **Location:** Take SR 39 north then west on McGee Road until you reach the proposed roadway centerline. Take private dirt road south until almost the end of the driveway. There is pink flag on a tree where the boring was conducted

Site 6W (Sheet 4) - This area is a series of canals and ponds dredged within historic wetlands. Water levels within this ponded area substantially vary due to the influence of the surrounding strawberry fields. The closest station (Station 48+72) is listed as 105.0 ft. which may be close to the SHWT/Flood Elev. nailed in a willow tree, followed with a nail at the NP elev. The next station (Station 49+94) is listed as 92.4 ft. which appears to be a real questionable elevation. **Location:** There is a gate along McGee Road north of the proposed R/W. If it is closed, there is another entrance north along Jerry Red Road. There are dirt roads through the strawberry fields that run along the proposed roadway centerline.

Site 7B (Sheet 5) - There is a discrepancy between the soil conditions and what is depicted in the NRCS soil survey. Additional borings within the area found the same soil characteristics as a soil mapped just south of the proposed R/W. The soil is Seffner which has a SHWT 20-40 inches below grade. The borings conducted found a SHWT approximately 27 inches below grade. The grade elevation is difficult to determine at Station 51+50 (Station 50+70 is 105.0 ft. and Station 54+97 is 110.0 ft.). **Location:** You can either take the crop roads from Site 6W or take the private driveway from SR 39 across from Joe McIntosh Road.

Sites 8W and 9B (Sheet 5) - These sites were included as one since the soil conditions are anticipated to be the same. Both sites are mapped on the NRCS soil survey as Myakka which has a SHWT approximately 12 inches below grade. A soil boring at 8W found a SHWT at 14 inches below

Gabor Farkasfalvy, Dennis Jont, Carlos Lopez

Page 3

March 15, 1999

grade and the site is located between Station 54+94 (110.0 ft.) and Station 56+19 (105.0 ft.). A boring was not conducted at Site 9B however it appears from vegetative cover and grade elevation that approximately the same water level conditions can be expected. Location: Either take the crop roads from Site 7B or the private driveway off SR 39.

Site 10W (Sheet 6) - This is a wetland marsh and the estimated SHWT matches the perimeter grade elevation (one stake with pink flagging). The closest station (Station 60+91) is listed at elevation 103.0 ft. If that is accurate, I would estimate the SHWT of the marsh to be approximately 104.0 ft. Location: Did not locate a gate, just crossed the fence along SR 39.

Sites 11B and 13B (Sheet 7) - These sites have similar soils and both mapped within the NRCS soil survey as having Candler soils which has a SHWT greater than 80 inches below grade. However, both sites are not quite as well drained but made up of known inclusions of the Candler series. Site 11B is considered a Millhopper soil which was determined to have a SHWT at 58 inches below grade. The boring was conducted within a few feet north of SR 39 and the closest station (Station 67+16) has a road elevation of 108.2 ft. which would approximate a SHWT elevation of 103.3 ft. Site 13B was found to have a Tavares soil with a SHWT at 47 inches below grade at Station 71+31 (Elev. 106.0 ft.) which would approximate a SHWT elevation of 102.1 ft.

Site 12W (Sheet 7) - This maple swamp surrounding a marsh exhibits substantial water level elevations. Three nails were set in a maple found southwest of Knights Baptist Church. These nails represent a Flood, SHWT, and NP elevation. Since this swamp outfalls through a ditch located under Knights Griffin Road (West), it may be prudent to get a cross-sectional survey of that culvert crossing. Since the roadway does not encroach upon this wetland, I did not have any grade elevations to estimate the nail elevations.

Site 14W (Sheet 8) - This is a large marsh adjacent to SR 39. A few cypress are located within the proposed R/W. SHWT and NP elevations are nailed in the tree 1-1.5 ft. above grade. Station 78+63 grade elevation is listed at 101 ft., Station 78+80 is listed as 100 ft. The cypress tree is located at Station 79+00 so depending on the grade elevation, the SHWT could be as high as 102.5 ft.

Site 15W (Sheet 11) - There is a forested wetland west of the R/W where I hammered a nail in a cypress tree for the Flood/SHWT elevation and the grade elevation is NP. Since the wetland is away from the R/W, I cannot estimate the grade elevation compared to the roadway elevation.

Site 16W (Sheet 12) - There is an dredged, impounded pond adjacent to the roadway but the site conditions do not exhibit good natural water level conditions. A soil boring within proximity of the roadway also did not have a natural soil profile. Based on vegetative indicators, I placed a stake along the roadway sideslope where the water level appears to reach during SHWT conditions. This elevation is probably 1-1.5 ft. below the road grade elevation.

Gabor Farkasfalvy, Dennis Jent, Carlos Lopez

Page 4

March 15, 1999

Site 17B (Sheet 16) - I conducted a soil boring adjacent to the roadway that indicated the SHWT is approximately 20 inches below. The roadway and adjacent natural grade elevation at that location (Station 135+18) is listed as 85 ft. which would estimate the SHWT at approximately 83.5 ft. There is a large, deep drainage swale along the R/W that probably maintains that lower water level. In addition, approximately 6 inches of fill is located adjacent to the roadway.

Site 18W (Sheet 17) - This is the Blackwater Creek crossing area. I did not set any water level indicators but refer to the specific hydrologic modeling conducted by Megan Arasteh in preparation of the Blackwater Creek Bridge replacement.

Site 19W (Sheet 21) - I set two nails (SHWT, NP) within a cypress tree along the proposed R/W limits. The nearest grade elevation (Station 168+87) is listed as 73.0 with the road grade elevation at 77.7. The SHWT elevation is 1-1.5 ft. above natural grade.

Site 20W (Sheet 23) - I set two nails (SHWT, NP) within a cypress tree. There is an old road grade berm located along the edge of the proposed R/W through this swamp. That berm acts to impound surface water between the existing SR 39 embankment and the old berm, resulting in some rather high water level indicators. The closest station (Station 185+03) has a road grade elevation of 74.5 ft. and natural grade elevation of 70.0 ft. The wetland SHWT is probably around 72.0 ft

Site 21W (Sheet 29) - This area is listed as both a wetland and within the 100-Year Flood Zone. It is not a wetland area and have real doubts about the accuracy of the FEMA map if it is in a flood zone. The NRCS soil survey depicts the area as a Tavares soil which has a SHWT between 40 to 60 inches below grade. A soil boring within the proposed alignment verified that the soil is Tavares and a SHWT is estimated at 52 inches below grade.

If you should have any questions, please my e-mail is RD744MB and extension is 27989. Thanks-MB

MEMORANDUM
Florida Department of Transportation
Environmental Management Office - MS 7-500

DATE: November 22, 1999

TO: Gabor Farkasfalvy, Project Engineer

FROM: Todd Mecklenborg, Biologist *TM*

COPIES: File

SUBJECT: WPI Seg. No. 255099 1, SR 39 Pond Siting

Per your request, field surveys were conducted during the month of November along the SR 39 corridor. As part of the pond siting request the alternative pond locations were investigated for threatened or endangered species occurrences and wetland concerns.

No species listed as threatened or endangered were observed during the field reconnaissances within the potential pond locations. The limits of the ponds will not impact jurisdictional wetland areas with their current configuration.

M E M O R A N D U M
FLORIDA DEPARTMENT OF TRANSPORTATION
FDOT, District 7 11201 McKinley Drive

DATE: February 10, 2000

TO: Gabor Farkasfalvy, Project Manager

FROM: Michael A. Gonsalves, Hazardous Materials Engineer

COPIES: File

SUBJECT: WPI Segment No. 255099-1, S.R. 39 Pond Siting

Per your request, a field survey was conducted for pond sites during the month of November for the above project. As part of the pond siting request, the alternative pond sites were investigated for hazardous materials and potential nearby impacts.

Pond Site 5A is directly adjacent to the east of Contamination Site # 7 (Vacant / Old Gasoline Station), located at S.R. 39 and McLin Road. Site ranking for this site was "Medium" meaning that additional contamination assessment activities are warranted. Contamination Site # 7 is within current proposed right-of-way for this project, so further investigation will be completed prior to final design and construction.

All other pond site locations are situated in areas of little or no current development, and so all other sites are considered to be ranked as "No", and should have no potential for contamination impacts. Unregistered dumping of household or other debris in these areas was not noted, but the potential exists for this type of activity.

Date: 03/20/00
From: Rebecca Schwarz
To: Gabor I. Farkasfalvy
Subject: SR 39 PD&E, CRAS for Proposed Pond Sites (255099 1 & 256289 1)

KN704SR - DOT1
PD701GF - DOT1

Gabor,

In answer to your request last week, I am sending you an e-mail which summarizes the findings in the Cultural Resource Assessment Survey (CRAS) Report (November 1999) that pertain to the proposed pond sites. The CRAS, prepared by Archaeological Consultants, Inc. (ACI), included an update of the mainline roadway, as well as 15 proposed pond sites located in the vicinity of the Alexander Street Bypass between I-4 and Knights Griffin Road. As a result, four previously recorded archaeological sites (8HI5360, 8HI5363, 8HI5361, and 8HI5070) were identified within proposed ponds P1B, P2B, P2C, and P1C, respectively. None of these lithic and artifact scatter type sites was evaluated as being potentially eligible for listing in the National Register of Historic Places (NRHP). In addition, one "archaeological occurrence," evidenced by a single ceramic sherd, was discovered in proposed Pond P1A. This single artifact find may be associated with 8HI5360. No historic structures were found within any of the proposed ponds. Five proposed ponds (P2A, P2B, P3A, P3B, and P3C) were not archaeologically field tested due to either denial of landowner permission for access (P3B & P3C), the presence of newly cultivated agricultural fields (P2A, P2B, P3A), or the adequacy of previous archaeological survey (P2B).

The CRAS Report was submitted to the FHWA and the SHPO for review in December 1999. The SHPO responded with a concurrence letter dated February 24, 2000. They indicated that if any of the proposed ponds that were not archaeologically field tested are selected for construction they will need to be tested.

In summary, none of the 15 proposed pond sites, evaluated in the November 1999 CRAS, involve significant archaeological or historical resources.

-- Becky Spain Schwarz, D-7 Cultural Resource Program Manager

APPENDIX F
Right-of-way Cost Information



Florida Department of Transportation

JEB BUSH
GOVERNOR

11201 N. MCKINLEY DRIVE * TAMPA, FL 33612-6456 * 975-6119 * 1-800-226-7220
PD&E DEPARTMENT * M.S. 7-500

THOMAS F. BARRY, JR.
SECRETARY

Date: December 1, 1999
Phone: (813) 975-6455
Fax: (813) 975-6451

LETTER OF TRANSMITTAL

TO: Kevin Doyle _____

RE: WPI Seg. No. 255099 1 _____

Greiner _____

WE ARE FORWARDING TO YOU:

- ___ Copy of Letter(s)
- ___ Preliminary Concept Plans
- ___ Draft Engineering Report
- ___ Public Information/Letter
- The Following Described Item(s)

- ___ Final Environmental Reports
- ___ Request(s) for Traffic Study
- ___ Permit(s)/Agreements(s)
- ___ Draft Environmental Report

S.R. 39 right-of-way cost estimate. _____

THESE ARE TRANSMITTED/RETURNED:

- | | | | |
|--|--------------------|--------------------------|------------|
| ___ For Approval | ___ For Revision | ___ For Circulation | ___ Review |
| <input checked="" type="checkbox"/> For Your Use | ___ For Signature | ___ For Your Handling | & Comments |
| ___ As Requested | ___ For Your Files | ___ For Your Information | ___ Other |

cc: _____

BY: Gabor Farkasfalvy _____

_____ TITLE: Project Manager



An employee-owned company

Memo

Date: November 29, 1999

To: Bill McTeer, Cost Estimate Coordinator
FDOT - District Seven (MS 7-900)

From: Terry L. Dunn, Division Manager
Right of Way Services *City map*

Re: **Cost Estimate**

FP # : **25⁵0991 & 2562891**

WPI# : **7113826**

FAP# : **N/A**

PBS&J# : **700140.06**

County : **Hillsborough & Pasco**

Description : **SR 39/Alexander Street
Extension from I-4 to US 301**

Type of Estimate : **Work Program Update**

cc: **Aurelie J. Anthony** (MS 7-900)
Gabor Falkasfalvy, Proj. Mgr. (MS 7-600)
Rick Creamer (MS 7-350)
Terri Rayo (MS 7-350)
Toni Loyd (MS 7-600)
GEC Project File (PBS&J - Kathy Wilkins)
PBS&J C.E. File (700140.06)

As requested, enclosed are copies of the above cost estimate for your distribution together with a diskette containing the cost estimate in lotus format for your use. Please inform us of any changes you might make to the estimate so that our numbers concur.

(a:final.mem)




An employee-owned company

MEMORANDUM

Date: October 27, 1999

To: Aurelie J. Anthony, Dep. District R/W Manager, Operations (MS 7-900)
FDOT - District Seven

From: Mitch Hammer, PBS&J 

Subject: Cost Estimate

FP# : 2550991 & 2562891
WPI# : 7113826
FAP : N/A
PBS&J# : 700140.06
County : Hillsborough & Pasco
Description : SR 39/Alexander St. extension From I-4 to US 301
Type of Est. : Work Program

In accordance with your request, a R/W cost estimate has been prepared for the above project. Attached is the estimate based on PD&E aerial maps. This estimate includes an update of the prior estimate submitted 2/18/88 in addition to three new segments (2, 3A and 3B) and 15 pond alternates. Business damage estimates were provided by Gerson, Preston & Co.

Please call if you have questions or concerns (877-7275 x499). At your direction additional copies will be forwarded for distribution.

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J: 700140.06

FP#: 2550991&2562891	Former WPI#: 7113826	District: Seven
County: Hills./Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: Segment 1	C.E. Sequence #: N/A
Project Des.: SR 39 from I-4 to US 301		

Parcels:	Gross	Net	Estimated Relocates:	
Business	5	5	Business	2
Residential	44	44	Residential	30
Unimproved	11	11	Signs	0
			Special	13
Total Parcels	60	60	Total Relocates	45

R/W SUPPORT COSTS (PHASE 41)	Amount	Federal Aid
1. Direct Labor Cost (Parcels 60 x 6,500 Rate)	390,000	Participating
2. Indirect Overhead (Parcels 60 x N/A Rate)	0	Participating
3. (Participating 390,000) + (Non-Participating = 0)		
TOTAL PHASE 41		\$390,000

R/W OPS (PHASE 4B)	Amount	Federal Aid
4. Appraisal Fees Through Trial	60 Parcels x 12,000	720,000 Participating
5. Business Damage CPA Fees Through Trial	1 Claims x 19,000	19,000 Non-Partic.
6. Court Reporter & Process Servers	45 Parcels x 500	22,500 Participating
7. Expert Witness	45 Parcels x 30,000	1,350,000 Participating
8. Mediators	30 Parcels x 2,400	72,000 Participating
9. Demolition, Asb. Abate., Survey, etc.	27 Imprvmt x 15,000	405,000 Participating
10. Miscellaneous Contracts	Per Project	15,000 Participating
11. Appraisal Fee Review	N/A Parcels x 5,000	0 Participating
12. (Participating 2,584,500) + (Non-Participating = 19,000)		
TOTAL PHASE 4B		\$2,603,500

R/W LAND COSTS (PHASE 43)	Amount	Subtotal	Federal Aid
13. Land, Improvements & Severance Damages/Cost to Cure	5,805,200		Participating
14. Water Retention & Mit. (0 parcels w/o R/W Acq)	0		Participating
15. SUBTOTAL (Lines 13 and 14)		5,805,200	
16. Admin. Settlements (Factor 45% x 30% of Line 15)	783,700		Participating
17. Litigation Awards (Factor 60% x 70% of Line 15)	2,438,200		Participating
18. Business Damages (Claims 1 x \$0)	28,700		Non-Partic.
19. Bus. Damages Incrs. (Factor 25% x \$28,700)	7,200		Non-Partic.
20. Owner Appr. Fees (Parcels 45 x \$10,000)	450,000		Non-Partic.
21. Owner CPA Fees (Claims 1 x \$10,000)	10,000		Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)	1,303,100		Non-Partic.
23. Owner Expert Witness (Businesses 5 + Unimproved 11) x 18,000	288,000		Non-Partic.
24. Other Condemn. Costs (Parcels 60 x \$500)	30,000		Participating
25. SUBTOTAL (lines 16 thru 24)		5,338,900	
26. (Participating 9,057,100) + (Non-Participating 2,087,000)			
TOTAL PHASE 43			\$11,144,100

* Design contingency for design plan stage:
(1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)	Federal Aid
27. (100% Participating)	\$0
TOTAL PHASE 42	\$0

RELOCATION COSTS (PHASE 45)	Number	Amount	Federal Aid
28. Owner Replacement Housing (\$20,000 Per Unit)	21	420,000	
29. Tenant (\$10,000 Per Unit)	9	90,000	
30. Residential Move Costs (\$1,500 Per Unit)	30	45,000	
31. Business/Farm (\$20,000 Per Unit)	2	40,000	
32. Personal Property (\$2,000 Per Unit)	13	26,000	
33. (Lines 28 thru 32)			(100% Participating)
34. Relocation Services Cost	662,100		(Not in Phase Total)
TOTAL PHASE 45			\$621,000

35.	2,106,000	Non-Participating
36.	12,652,600	Participating
37. (All Phases)	TOTAL ESTIMATE	\$14,758,600

Appraisal: Mitch Hammer	Signed: <i>[Signature]</i>	Date: 10-26-99
Bus. Dam.: Gerson, Preston, & Co.	Signed: By Attachment	Date: 25-Oct-99
Relocation: Mitch Hammer	Signed: <i>[Signature]</i>	Date: 10-26-99
Overall Review: Terry L. Dunn	Signed: <i>[Signature]</i>	Date: 10/27/99
Cost Estimate Sequence #: _____	Dated: _____	Data Input Completion Date: _____

REMARKS: Segment 1 from N. of I-4 (sta. 23+00) to N. of Knights-Griffin Rd. (sta. 80+00).

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
Work Program Update: Special Purpose: _____ Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700140.06

FP#: 2550991 & 2562891	Former WPI#: 7113826	District: Seven
County: Hills/Pasco	FAP No.: N/A	Date: 27-Oct-99
State Rd.: 39	Alternate: Segment 2	C.E. Sequence #: N/A

Project Des. SR 39 from I-4 to US 301		Estimated Relocates:	
Parcels:	Gross	Net	
Business	9	9	Business 5
Residential	76	76	Residential 23
Unimproved	20	20	Signs 0
			Special 13
Total Parcels	105	105	Total Relocates 41

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid
1. Direct Labor Cost	(Parcels 105	x	6,500	Rate) 682,500	Participating
2. Indirect Overhead	(Parcels 105	x	N/A	Rate) 0	Participating
3. (Participating	682,500	+ (Non-Participating	= 0)	TOTAL PHASE 41	\$682,500

R/W OPS (PHASE 4B)				Amount	Federal Aid	
4. Appraisal Fees Through Trial	105 Parcels x		12,000	1,260,000	Participating	
5. Business Damage CPA Fees Through Trial	7 Claims x		19,000	133,000	Non-Partic.	
6. Court Reporter & Process Servers	79 Parcels x		500	39,500	Participating	
7. Expert Witness	75% x 105 =		79 Parcels x	30,000	2,370,000	Participating
8. Mediators	75% x 105 =		53 Parcels x	2,400	127,200	Participating
9. Demolition, Asb. Abate., Survey, etc.	50% x 105 =		28 Imprvmt x	15,000	420,000	Participating
10. Miscellaneous Contracts			Per Project	15,000	15,000	Participating
11. Appraisal Fee Review	N/A Parcels x		5,000	0	Participating	
12. (Participating	4,231,700	+ (Non-Participating	= 133,000)	TOTAL PHASE 4B	\$4,364,700	

R/W LAND COSTS (PHASE 43)				Amount	Subtotal
13. Land, Improvements & Severance Damages/Cost to Cure	Amount 2,752,457	x	130% * Design plan stage	3,578,200	Participating
14. Water Retention & Mit.	0	x	130% (0 parcels w/o R/W Acq	0	Participating
15.	SUBTOTAL (Lines 13 and 14)				3,578,200
16. Admin. Settlements	(Factor 45%	x	30% of Line 15)	483,100	Participating
17. Litigation Awards	(Factor 60%	x	70% of Line 15)	1,502,800	Participating
18. Business Damages	(Claims 7	x	\$0)	469,000	Non-Partic.
19. Bus. Damages Incrs.	(Factor 25%	x	\$469,000)	117,300	Non-Partic.
20. Owner Appr. Fees	(Parcels 79	x	\$10,000)	790,000	Non-Partic.
21. Owner CPA Fees	(Claims 7	x	\$10,000)	70,000	Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)		x	40%)	1,028,900	Non-Partic.
23. Owner Expert Witness	(Businesses 9	+ Unimproved	20) x 18,000	522,000	Non-Partic.
24. Other Condemn. Costs	(Parcels 105	x	\$500)	52,500	Participating
25.	SUBTOTAL (lines 16 thru 24)				5,035,600
26. (Participating	5,616,600	+ (Non-Participating	2,997,200)	TOTAL PHASE 43	\$8,613,800

* Design contingency for design plan stage:
 (1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)	(100% Participating)	TOTAL PHASE 42	\$0
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RELOCATION COSTS (PHASE 45)			
28. Owner	Replacement Housing	Number	Amount
	\$20,000 Per Unit	x 16	320,000
29. Tenant	\$10,000 Per Unit	x 7	70,000
Move Costs			
30. Residential	\$1,500 Per Unit	x 23	34,500
31. Business/Farm	\$20,000 Per Unit	x 5	100,000
32. Personal Property	\$2,000 Per Unit	x 13	\$26,000
33. (Lines 28 thru 32)			
34. Relocation Services Cost		\$55,050	(100% Participating) (Not in Phase Total)
			TOTAL PHASE 45
			\$550,500

35.	3,130,200	Non-Participating
36.	11,081,300	Participating
37.	(All Phases)	TOTAL ESTIMATE
		\$14,211,500

Appraisal:	Mitch Hammer	Signed:	<i>[Signature]</i>	Date:	10-27-99
Bus. Dam.:	Gerson, Preston, & Co.	Signed:	By Attachment	Date:	25-Oct-99
Relocation:	Mitch Hammer	Signed:	<i>[Signature]</i>	Date:	10-27-99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	10/27/99

Cost Estimate Sequence #: Dated: In the amount of \$ Data Input Completion Date:

REMARKS:

Segment 2 - north of Knights-Griffen Rd. (sta. 80+00) to Blount Ave. in Pasco Co. (sta. 192+50).

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700140.06

0991 Former WPL#: 7113826
 Pasco FAP No.: N/A
 Alternate: Segment 3-A

District: Seven
 Date: 27-Oct-99
 C.E. Sequence #: N/A

1.39 from I-4 to US 301		Estimated Relocates:	
Parcels:	Gross Net	Business	1
Business	8 8	Residential	29
Residential	7 7	Signs	0
Unimproved	15 15	Special	30
Total Parcels	30 30	Total Relocates	60

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid
1. Direct Labor Cost	(Parcels 30)	x	6,500	Rate) 195,000	Participating
2. Indirect Overhead	(Parcels 30)	x	N/A	Rate) 0	Participating
3. (Participating 195,000)	+ (Non-Participating)	=	0	TOTAL PHASE 41	\$195,000

R/W OPS (PHASE 4B)				Amount	Subtotal
4. Appraisal Fees Through Trial			30 Parcels x	12,000	360,000 Participating
5. Business Damage CPA Fees Through Trial			3 Claims x	19,000	57,000 Non-Partic.
6. Court Reporter & Process Servers	75%	x	23 Parcels x	500	11,500 Participat
7. Expert Witness	75%	x	23 Parcels x	30,000	690,000 Participat
8. Mediators	50%	x	15 Parcels x	2,400	36,000 Participating
9. Demolition, Ass. Abate., Survey, etc.			12 Imprvmt x	15,000	180,000 Participating
10. Miscellaneous Contracts			Per Project	15,000	15,000 Participating
11. Appraisal Fee Review			N/A Parcels x	5,000	0 Participat
12. (Participating 1,292,500)	+ (Non-Participating)	=	57,000	TOTAL PHASE 4B	\$1,349,500

R/W LAND COSTS (PHASE 43)				Amount	Subtotal
13. Land, Improvements & Severance Damages/Cost to Cure				2,634,374	Participating
Amount 2,026,441	x	130%	* Design plan stage		
14. Water Retention & Mit.	0	x	130% (0 parcels w/o R/W Acq	0	Participating
SUBTOTAL (Lines 13 and 14)				2,634,374	
15.					
16. Admin. Settlements	(Factor 45%)	x	30% of Line 15)	355,600	Participating
17. Litigation Awards	(Factor 60%)	x	70% of Line 15)	1,106,400	Participating
18. Business Damages	(Claims 3)	x	\$0	108,400	Non-Part
19. Bus. Damages Incrs.	(Factor 25%)	x	\$108,400	27,100	Non-Part
20. Owner Appr. Fees	(Parcels 23)	x	\$10,000	230,000	Non-Partic.
21. Owner CPA Fees	(Claims 3)	x	\$10,000	30,000	Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)		x	40%	639,000	Non-Partic.
23. Owner Expert Witness	(Businesses 8)	+ Unimproved	15	414,000	Non-Partic
24. Other Condemn. Costs	(Parcels 30)	x	\$500	15,000	Participa
SUBTOTAL (lines 16 thru 24)				2,925,500	
26. (Participating 4,111,400)	+ (Non-Participating)		1,448,500	TOTAL PHASE 43	\$5,559,900

* Design contingency for design plan stage:
 (1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)				Amount	Federal #
27.			(100% Participating)	TOTAL PHASE 42	\$0

RELOCATION COSTS (PHASE 45)				Amount	Federal #
Replacement Housing					
28. Owner	\$20,000 Per Unit	x	4	80,000	
29. Tenant	\$10,000 Per Unit	x	25	250,000	
Move Costs					
30. Residential	\$1,500 Per Unit	x	29	43,500	
31. Business/Farm	\$20,000 Per Unit	x	1	20,000	
32. Personal Property	\$2,000 Per Unit	x	30	\$60,000	
33. (Lines 28 thru 32)					
34. Relocation Services Cost				\$45,350	
				1,505,500	Non-Participating
				6,052,400	Participating
				(All Phases) TOTAL ESTIMATE	\$7,557,900

Appraisal: Mitch Hammer Signed: [Signature] Date: 10-27-99
 Bus. Dam.: Gerson, Preston & Co. Signed: By attachment Date: 25-Oct-99
 Relocation: Mitch Hammer Signed: [Signature] Date: 10-27-99
 Overall Review: Terry L. Dunn Signed: [Signature] Date: 10/27/99
 Cost Estimate Sequence #: Dated: In the amount of \$ Date Input Completion Date:

REMARKS:
 Segment 3A from Blount Ave. to US 301(all west side alignment).

The following indicates the estimator's confidence in the above estimate:	Futura Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1,1000
Type B - indicates above average confidence	Two Years:	1,2100
X Type C - indicates below average confidence	Three Years:	1,3310
Type D - indicates the least or no confidence	Four Years:	1,4641
	Five Years:	1,6105

The following indicates the Department's purpose for this estimate:
 Work Program Update: X Special Purpose: Comments:

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700140.06

FP#: 2550991	Former WPL#: 7113826	District: Seven
County: Hills./Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: Segment 3-B	C.E. Sequence #: N/A
Project Des.: SR 39 from I-4 to US 301		
Parcels:		Estimated Relocates:
Business: Gross 4, Net 4		Business: 0
Residential: 13, 13		Residential: 6
Unimproved: 15, 15		Signs: 0
		Special: 2
Total Parcels: 32, 32		Total Relocates: 8

RIW SUPPORT COSTS (PHASE 41)		Amount	Federal Aid
1. Direct Labor Cost (Parcels)	32 x 6,500	208,000	Participating
2. Indirect Overhead (Parcels)	32 x N/A	0	Participating
3. (Participating)	208,000 + (Non-Participating = 0)	TOTAL PHASE 41	\$208,000

RIW OPS (PHASE 4B)		Amount	Federal Aid
4. Appraisal Fees Through Trial	32 Parcels x 12,000	384,000	Participating
5. Business Damage CPA Fees Through Trial	1 Claims x 19,000	19,000	Non-Partic.
6. Court Reporter & Process Servers	24 Parcels x 500	12,000	Participating
7. Expert Witness	24 Parcels x 30,000	720,000	Participating
8. Mediators	16 Parcels x 2,400	38,400	Participating
9. Demolition, Asb. Abate., Survey, etc.	9 Imprvmt x 15,000	135,000	Participating
10. Miscellaneous Contracts	Per Project	15,000	Participating
11. Appraisal Fee Review	N/A Parcels x 5,000	0	Participating
12. (Participating)	1,304,400 + (Non-Participating = 19,000)	TOTAL PHASE 4B	\$1,323,400

RIW LAND COSTS (PHASE 43)		Amount	Subtotal
13. Land, Improvements & Severance Damages/Cost to Cure		1,723,257	Participating
14. Water Retention & Mit.	0 x 130% * Design plan stage	0	Participating
15.			1,723,257
16. Admin. Settlements (Factor)	45% x 30% of Line 15	232,600	Participating
17. Litigation Awards (Factor)	60% x 70% of Line 15	723,800	Participating
18. Business Damages (Claims)	1 x \$0	43,000	Non-Partic.
19. Bus. Damages Incrs. (Factor)	25% x \$43,000	10,800	Non-Partic.
20. Owner Appr. Fees (Parcels)	24 x \$10,000	240,000	Non-Partic.
21. Owner CPA Fees (Claims)	1 x \$10,000	10,000	Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)	x 40%	404,100	Non-Partic.
23. Owner Expert Witness (Businesses)	4 + Unimproved 15 x \$500	342,000	Non-Partic.
24. Other Condemn. Costs (Parcels)	32 x 16,000	16,000	Participating
25.			2,022,300
26. (Participating)	2,695,700 + (Non-Participating = 1,049,900)	TOTAL PHASE 43	\$3,745,600

* Design contingency for design plan stage:
(1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

RIW ACQUISITION CONSULTANT (PHASE 42)	(100% Participating)	TOTAL PHASE 42	\$0
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RELOCATION COSTS (PHASE 45)		Amount	Federal Aid
28. Owner Replacement Housing	\$20,000 Per Unit x 3	60,000	
29. Tenant Replacement Housing	\$10,000 Per Unit x 3	30,000	
30. Residential Move Costs	\$1,500 Per Unit x 6	9,000	
31. Business/Farm Move Costs	\$20,000 Per Unit x 0	0	
32. Personal Property	\$2,000 Per Unit x 2	\$4,000	
33. (Lines 28 thru 32)			(100% Participating)
34. Relocation Services Cost	\$10,300 (Not in Phase Total)		
35.		1,068,900	Non-Participating
36.		4,311,100	Participating
37.		(All Phases) TOTAL ESTIMATE	\$5,380,000

Appraisal:	Mitch Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Bus. Dam.:	Gerson, Preston & Co.	Signed:	By attachment	Date:	25-Oct-99
Relocation:	Mitch Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	10/27/99
Cost Estimate Sequence #:	Dated:	In the amount of \$		Data Input Completion Date:	

REMARKS:
Segment 3B from Blount Ave. to US 301 (east and west side alignments).

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
Work Program Update: Special Purpose: _____ Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WPI#: 7113826	District: Seven
County: Hills/Pasco	FAP No.: N/A	Date: 29-Nov-99
State Rd.: 39	Alternate: POND P1A	C.E. Sequence #: N/A
Project Des.: SR 39 from I-4 to US 301		

Parcels:	Gross	Net	Count incl. in mainline parcel	Estimated Relocates:	
Business	0	0		Business	0
Residential	0	0		Residential	1
Unimproved	0	0		Signs	0
				Special	0
Total Parcels	0	0		Total Relocates	1

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid
1. Direct Labor Cost	(Parcels)	0	x 6,500	0	Participating
2. Indirect Overhead	(Parcels)	0	x N/A	0	Participating
3. (Participating)	0	+	(Non-Participating)	0	
				TOTAL PHASE 41	0

R/W DPS (PHASE 4B)				Amount	Federal Aid
4. Appraisal Fees Through Trial				0 Parcels x 12,000	0 Participating
5. Business Damage CPA Fees Through Trial				0 Claims x 19,000	0 Non-Participating
6. Court Reporter & Process Servers	75%	x	0	0 Parcels x 500	0 Participating
7. Expert Witness	75%	x	0	0 Parcels x 30,000	0 Participating
8. Mediators	50%	x	0	0 Parcels x 2,400	0 Participating
9. Demolition, Asb. Abate., Survey, etc.				1 Imprvmt x 15,000	15,000 Participating
10. Miscellaneous Contracts				Per Project	15,000 Participating
11. Appraisal Fee Review				N/A Parcels x 5,000	0 Participating
12. (Participating)	30,000	+	(Non-Participating)	0	
				TOTAL PHASE 4B	30,000

R/W LAND COSTS (PHASE 43)				Amount	Subtotal
13. Land, Improvements & Severance Damages/Cost to Cure				(1)	Participating
Amount	(0)	x 130%	* Design plan stage		
14. Water Retention & Mit.	168,936	x	130% (0 parcels w/o R/W Acq)	219,617	Participating
15.	SUBTOTAL (Lines 13 and 14)				219,616
16. Admin. Settlements	(Factor)	45%	x 30% of Line 15	29,600	Participating
17. Litigation Awards	(Factor)	60%	x 70% of Line 15	92,200	Participating
18. Business Damages	(Claims)	0	x \$0	0	Non-Participating
19. Bus. Damages Incrs.	(Factor)	25%	x \$0	0	Non-Participating
20. Owner Appr. Fees	(Parcels)	0	x \$10,000	0	Non-Participating
21. Owner CPA Fees	(Claims)	0	x \$10,000	0	Non-Participating
22. Defend. Atty Fees (Lines 16+17+18+19)			x 40%	48,700	Non-Participating
23. Owner Expert Witness	(Businesses)	0	+ Unimproved 0 x 18,000	0	Non-Participating
24. Other Condemn. Costs	(Parcels)	0	x \$500	0	Participating
25.	SUBTOTAL (lines 16 thru 24)				170,500
26. (Participating)	341,400	+	(Non-Participating)	48,700	
				TOTAL PHASE 43	\$390,100

* Design contingency for design plan stage:
(1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)				Federal Aid
27.	(100% Participating)		TOTAL PHASE 42	0

RELOCATION COSTS (PHASE 45)					
28. Owner	Replacement Housing	\$20,000 Per Unit	x 1	20,000	
29. Tenant		\$10,000 Per Unit	x 0	0	
Move Costs					
30. Residential		\$1,500 Per Unit	x 1	1,500	
31. Business/Farm		\$20,000 Per Unit	x 0	0	
32. Personal Property		\$2,000 Per Unit	x 0	0	
33. (Lines 28 thru 32)				0	
34. Relocation Services Cost		\$2,150	(Not in Phase Total)		
				TOTAL PHASE 45	\$21,500
35.				48,700	Non-Participating
36.				392,900	Participating
37.	(All Phases)		TOTAL ESTIMATE		\$441,600

Appraisal:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	11-29-99
Bus. Dam.:	N/A	Signed:		Date:	
Relocation:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	11-29-99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	11/29/99
Cost Estimate Sequence #:		Dated:		In the amount of \$	
				Date Input Completion Date:	

REMARKS:
Pond parcel P1A.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
Work Program Update: Special Purpose: _____ Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WP#: 7113826	District: Seven
County: Hills/Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: POND P1B	C.E. Sequence #: N/A

Project Des. SR 39 from I-4 to US 301

Parcels:	Gross	Net	Count incl. in mainline parcel	Estimated Relocates:	
Business	0	0		Business	0
Residential	0	0		Residential	0
Unimproved	0	0		Signs	0
				Special	0
Total Parcels	0	0		Total Relocates	0

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid
1. Direct Labor Cost	(Parcels)	0	x 6,500	Rate) 0	Participating
2. Indirect Overhead	(Parcels)	0	x N/A	Rate) 0	Participating
3. Participating	0	+	(Non-Participating	= 0	
				TOTAL PHASE 41	\$0

R/W OPS (PHASE 48)				Amount	
4. Appraisal Fees Through Trial				0 Parcels x 12,000	0 Participating
5. Business Damage CPA Fees Through Trial				0 Claims x 19,000	0 Non-Partic.
6. Court Reporter & Process Servers	75%	x	0 =	0 Parcels x 500	0 Participating
7. Expert Witness	75%	x	0 =	0 Parcels x 30,000	0 Participating
8. Mediators	50%	x	0 =	0 Parcels x 2,400	0 Participating
9. Demolition, Asb. Abate., Survey, etc.				0 Imprvmt x 15,000	0 Participating
10. Miscellaneous Contracts				Per Project	15,000 Participating
11. Appraisal Fee Review				N/A Parcels x 5,000	0 Participating
12. Participating	15,000	+	(Non-Participating	= 0	
				TOTAL PHASE 48	\$15,000

R/W LAND COSTS (PHASE 43)				Amount	Subtotal
13. Land, Improvements & Severance Damages/Cost to Cure				0	Participating
14. Water Retention & Mit.	42,020	x	130% * Design plan stage	54,626	Participating
				SUBTOTAL (Lines 13 and 14)	54,626
16. Admin. Settlements	(Factor 45%)	x	30% of Line 15)	7,400	Participating
17. Litigation Awards	(Factor 60%)	x	70% of Line 15)	22,900	Participating
18. Business Damages	(Claims 0)	x	\$0	0	Non-Partic.
19. Bus. Damages Incrs.	(Factor 25%)	x	\$0	0	Non-Partic.
20. Owner Appr. Fees	(Parcels 0)	x	\$10,000	0	Non-Partic.
21. Owner CPA Fees	(Claims 0)	x	\$10,000	0	Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)		x	40%	12,100	Non-Partic.
23. Owner Expert Witness	(Businesses 0)	+	Unimproved 0	0	Non-Partic.
24. Other Condemn. Costs	(Parcels 0)	x	\$500	0	Participating
				SUBTOTAL (lines 16 thru 24)	42,400
26. Participating	84,900	+	(Non-Participating	12,100	
				TOTAL PHASE 43	\$97,000

* Design contingency for design plan stage:
(1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)				Federal Aid	
27.			(100% Participating)	TOTAL PHASE 42	\$0

RELOCATION COSTS (PHASE 45)					
Replacement Housing				Number	Amount
28. Owner	\$20,000 Per Unit	x	0	0	
29. Tenant	\$10,000 Per Unit	x	0	0	
Move Costs					
30. Residential	\$1,500 Per Unit	x	0	0	
31. Business/Farm	\$20,000 Per Unit	x	0	0	
32. Personal Property	\$2,000 Per Unit	x	0	0	
33. (Lines 28 thru 32)				0	
34. Relocation Services Cost			\$0	0	
				(100% Participating)	TOTAL PHASE 45
				(Not in Phase Total)	\$0

35.	12,100	Non-Participating
36.	99,900	Participating
37.	(All Phases)	TOTAL ESTIMATE
		\$112,000

Appraisal:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Bus. Dam.:	N/A	Signed:		Date:	
Relocation:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	10/27/99

Cost Estimate Sequence #: Dated: In the amount of \$ Date Input Completion Date:

REMARKS:
Pond parcel P1B.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
Work Program Update: Special Purpose: _____ Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.0

FP#: 2550991	Former W/P#: 7113826	District: Seven
County: Hills/Pasco	FAP No.: N/A	Date: 27-Oct-99
State Rd.: 39	Alternate: POND P1C	C.E. Sequence #: N/A

Project Des. SR 39 from I-4 to US 301	Estimated Relocates:
Parcels: Gross Not	Business 1
Business 0 0 Count incl. in mainline parcel	Residential 0
Residential 0 0	Signs 0
Unimproved 0 0	Special 1
Total Parcels 0 0	Total Relocates 2

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid
1. Direct Labor Cost (Parcels)	0	x	6,500	0	Participating
2. Indirect Overhead (Parcels)	0	x	N/A	0	Participating
3. Participating (0) + (Non-Participating = 0)				TOTAL PHASE 41	0

R/W DPS (PHASE 48)				Amount	Participating
4. Appraisal Fees Through Trial	0	Parcels x	12,000	0	Participating
5. Business Damage CPA Fees Through Trial	1	Claims x	19,000	19,000	Non-Participating
6. Court Reporter & Process Servers	0	Parcels x	500	0	Participating
7. Expert Witness	0	Parcels x	30,000	0	Participating
8. Mediators	0	Parcels x	2,400	0	Participating
9. Demolition, Ass. Abate., Survey, etc.	0	Imprvmt x	15,000	0	Participating
10. Miscellaneous Contracts	N/A	Per Project	5,000	15,000	Participating
11. Appraisal Fee Review				0	Participating
12. Participating (15,000) + (Non-Participating = 19,000)				TOTAL PHASE 48	0

R/W LAND COSTS (PHASE 43)				Amount	Subtotal
13. Land Improvements & Severance Damages/Cost to Cure	0	x	130%	0	Participating
14. Water Retention & Mit.	157,500	x	130% (0 parcels w/o R/W Acq)	204,750	Participating
15. SUBTOTAL (Lines 13 and 14)					204,750
16. Admin. Settlements (Factor 45% x 30% of Line 15)				27,600	Participating
17. Litigation Awards (Factor 60% x 70% of Line 15)				86,000	Participating
18. Business Damages (Claims 1 x \$0)				5,900	Non-Participating
19. Bus. Damages Incrs. (Factor 25% x \$5,900)				1,500	Non-Participating
20. Owner Appr. Fees (Parcels 0 x \$10,000)				0	Non-Participating
21. Owner CPA Fees (Claims 1 x \$10,000)				10,000	Non-Participating
22. Defend. Atty Fees (Lines 16 + 17 + 18 + 19)				48,400	Non-Participating
23. Owner Expert Witness (Businesses 0 + Unimproved 0) x 18,000				0	Non-Participating
24. Other Condemn. Costs (Parcels 0 x \$500)				0	Participating
25. SUBTOTAL (lines 16 thru 24)					179,400
26. Participating (318,400) + (Non-Participating 65,800)				TOTAL PHASE 43	\$384,200

* Design contingency for design plan stage:
(1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)	(100% Participating)	TOTAL PHASE 42	0
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RELOCATION COSTS (PHASE 45)				Number	Amount
28. Owner Replacement Housing	\$20,000 Per Unit	x	0	0	
29. Tenant Replacement Housing	\$10,000 Per Unit	x	0	0	
Move Costs					
30. Residential	\$1,500 Per Unit	x	0	0	
31. Business/Farm	\$20,000 Per Unit	x	1	20,000	
32. Personal Property	\$2,000 Per Unit	x	1	2,000	
33. (Lines 28 thru 32)				(100% Participating)	TOTAL PHASE 45
34. Relocation Services Cost				\$2,200	(Not in Phase Total)

35.	84,800	Non-Participating
36.	355,400	Participating
37.	(All Phases)	TOTAL ESTIMATE

Appraisal:	Mitchell Hammer	Signed:	<i>Mitchell Hammer</i>	Date:	10-27-99
Bus. Dam.:	Gerson, Preston, & Co.	Signed:	By Attachment	Date:	25-Oct-99
Relocation:	Mitchell Hammer	Signed:	<i>Mitchell Hammer</i>	Date:	10-27-99
Overall Review:	Terry L. Dunn	Signed:	<i>Terry L. Dunn</i>	Date:	10/27/99

Cost Estimate Sequence #: Dated: In the amount of \$ Data Input Completion Date:

REMARKS:
Pond parcel P1C.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
Work Program Update: X Special Purpose: Comments:

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WPI#: 7113826	District: Seven
County: Hills./Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: POND P2A	C.E. Sequence #: N/A
Project Des.: SR 39 from I-4 to US 301		

Parcels:	Gross	Net	Count incl. in mainline parcel	Estimated Relocates:
Business	0	0		Business 0
Residential	0	0		Residential 0
Unimproved	0	0		Signs 0
				Special 0
Total Parcels	0	0		Total Relocates 0

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid
1. Direct Labor Cost	(Parcels)	0	x 6,500	0	Participating
2. Indirect Overhead	(Parcels)	0	x N/A	0	Participating
3. (Participating	0	+	(Non-Participating	0)
				TOTAL PHASE 41	\$0

R/W OPS (PHASE 4B)				Amount	Federal Aid
4. Appraisal Fees Through Trial				0 Parcels x 12,000	0 Participating
5. Business Damage CPA Fees Through Trial				0 Claims x 19,000	0 Non-Partic.
6. Court Reporter & Process Servers	75%	x	0	0 Parcels x 500	0 Participating
7. Expert Witness	75%	x	0	0 Parcels x 30,000	0 Participating
8. Mediators	50%	x	0	0 Parcels x 2,400	0 Participating
9. Demolition, Asb. Abate., Survey, etc.				0 Imprvmt x 15,000	0 Participating
10. Miscellaneous Contracts				Per Project 15,000	15,000 Participating
11. Appraisal Fee Review				N/A Parcels x 5,000	0 Participating
12. (Participating	15,000	+	(Non-Participating	0)
				TOTAL PHASE 4B	\$15,000

R/W LAND COSTS (PHASE 43)				Amount	Subtotal
13. Land, Improvements & Severance Damages/Cost to Cure	Amount	x	130% * Design plan stage	0	Participating
14. Water Retention & Mit.	139,520	x	130% (0 parcels w/o R/W Acq	181,376	Participating
15.			SUBTOTAL (Lines 13 and 14)		181,376
16. Admin. Settlements	(Factor	45%	x 30% of Line 15)	24,500	Participating
17. Litigation Awards	(Factor	60%	x 70% of Line 15)	76,200	Participating
18. Business Damages	(Claims	0	x \$0	0	Non-Partic.
19. Bus. Damages Incrs.	(Factor	25%	x \$0	0	Non-Partic.
20. Owner Appr. Fees	(Parcels	0	x \$10,000	0	Non-Partic.
21. Owner CPA Fees	(Claims	0	x \$10,000	0	Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)			x 40%	40,300	Non-Partic.
23. Owner Expert Witness	(Businesses	0	+ Unimproved 0	0	Non-Partic.
24. Other Condemn. Costs	(Parcels	0	x \$500	0	Participating
25.			SUBTOTAL (lines 16 thru 24)		141,000
26. (Participating	282,100	+	(Non-Participating	40,300)
				TOTAL PHASE 43	\$322,400

* Design contingency for design plan stage:
 (1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)	(100% Participating)	TOTAL PHASE 42	Federal Aid
27.			\$0

RELOCATION COSTS (PHASE 45)				Amount	Federal Aid
Replacement Housing					
28. Owner	\$20,000 Per Unit	x	0	0	
29. Tenant	\$10,000 Per Unit	x	0	0	
Move Costs					
30. Residential	\$1,500 Per Unit	x	0	0	
31. Business/Farm	\$20,000 Per Unit	x	0	0	
32. Personal Property	\$2,000 Per Unit	x	0	0	
33. (Lines 28 thru 32)				0	
34. Relocation Services Cost	\$0			0	
				(100% Participating)	TOTAL PHASE 45
				(Not in Phase Total)	\$0

35.	40,300	Non-Participating
36.	297,100	Participating
37.	(All Phases)	TOTAL ESTIMATE
		\$337,400

Appraisal:	Mitchell Hammer	Signed:		Date:	10-26-99
Bus. Dam.:	N/A	Signed:		Date:	
Relocation:	Mitchell Hammer	Signed:		Date:	10-26-99
Overall Review:	Terry L. Dunn	Signed:		Date:	10/27/99
Cost Estimate Sequence #:	Dated:	In the amount of \$		Date Input Completion Date:	

REMARKS:
 Pond parcel P2A.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
 Work Program Update: Special Purpose: _____ Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J# 700149.06

FP#: 2550991	Former WPW: 7113826	District: Seven
County: Hills.Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: POND P2B	C.E. Sequence #: N/A

Project Des. SR 39 from I-4 to US 301

Parcels:	Gross	Net	Count incl. in mainline parcel	Estimated Relocates:	
Business	0	0		Business	0
Residential	0	0		Residential	0
Unimproved	0	0		Signs	0
				Special	0
Total Parcels	0	0		Total Relocates	0

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid
1. Direct Labor Cost	(Parcels)	0	x 6,500	0	Participating
2. Indirect Overhead	(Parcels)	0	x N/A	0	Participating
3. (Participating	0	) + (Non-Participating	=	0	
				TOTAL PHASE 41	

R/W OPS (PHASE 4B)				Amount	
4. Appraisal Fees Through Trial		0	Parcels x	12,000	0 Participating
5. Business Damage CPA Fees Through Trial		0	Claims x	19,000	0 Non-Partic.
6. Court Reporter & Process Servers	75%	x	0	500	0 Participating
7. Expert Witness	75%	x	0	30,000	0 Participating
8. Mediators	50%	x	0	2,400	0 Participating
9. Demolition, Asb. Abata., Survey, etc.			0 Imprvmt x	15,000	0 Participating
10. Miscellaneous Contracts			Per Project	15,000	15,000 Participating
11. Appraisal Fee Review			N/A Parcels x	5,000	0 Participating
12. (Participating	15,000	) + (Non-Participating	=	0	
				TOTAL PHASE 4B	\$1,000

R/W LAND COSTS (PHASE 43)				Amount	Subtotal
13. Land, Improvements & Severance Damages/Cost to Cure	Amount	0	x 130% * Design plan stage	0	Participating
14. Water Retention & Mit.	118,096	x	130% (0 parcels w/o R/W Acq	153,525	Participating
15.			SUBTOTAL (Lines 13 and 14)		153,525
16. Admin. Settlements	(Factor	45%	x 30% of Line 15)	20,700	Participating
17. Litigation Awards	(Factor	60%	x 70% of Line 15)	64,500	Participating
18. Business Damages	(Claims	0	x \$0)	0	Non-Part
19. Bus. Damages Incrs.	(Factor	25%	x \$0)	0	Non-Part
20. Owner Appr. Fees	(Parcels	0	x \$10,000)	0	Non-Partic.
21. Owner CPA Fees	(Claims	0	x \$10,000)	0	Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)			x 40%	34,100	Non-Partic.
23. Owner Expert Witness	(Businesses	0	+ Unimproved 0	0	Non-Part
24. Other Condemn. Costs	(Parcels	0	x \$500)	0	Participating
25.			SUBTOTAL (lines 16 thru 24)		119,300
26. (Participating	238,700	) + (Non-Participating	34,100		\$272,800

* Design contingency for design plan stage:
(1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Data - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)	(100% Participating)	TOTAL PHASE 42	Federal #
27.			\$0

RELOCATION COSTS (PHASE 45)				Amount	
Replacement Housing					
28. Owner	\$20,000 Per Unit	x	0	0	
29. Tenant	\$10,000 Per Unit	x	0	0	
Move Costs					
30. Residential	\$1,500 Per Unit	x	0	0	
31. Business/Farm	\$20,000 Per Unit	x	0	0	
32. Personal Property	\$2,000 Per Unit	x	0	\$0	
33. (Lines 28 thru 32)					(100% Participating)
34. Relocation Services Cost			\$0		(Not in Phase Total)
35.				34,100	Non-Participating
36.				253,700	Participating
37.					(All Phases) TOTAL ESTIMATE

Appraisal:	Mitchell Hammer	Signed:	<i>Mitchell Hammer</i>	Date:	10-26-99
Bus. Dam.:	N/A	Signed:		Date:	
Relocation:	Mitchell Hammer	Signed:	<i>Mitchell Hammer</i>	Date:	10-26-99
Overall Review:	Terry L. Dunn	Signed:	<i>Terry L. Dunn</i>	Date:	10/27/99

Cost Estimate Sequence #: _____ Dated: _____ In the amount of \$ _____ Data Input Completion Date: _____

REMARKS:
Pond parcel P2B.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
_____ Type A - indicates the most confidence	One Year:	1.1000
_____ Type B - indicates above average confidence	Two Years:	1.2100
X _____ Type C - indicates below average confidence	Three Years:	1.3310
_____ Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
Work Program Update: X Special Purpose: _____ Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WPI#: 7113826	District: Seven
County: Hills./Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: POND P2C	C.E. Sequence #: N/A
Project Des.: SR 39 from I-4 to US 301		
Parcels: <u>Gross</u> <u>Net</u>		Estimated Relocates:
Business: 0	0	Business: 0
Residential: 4	4	Residential: 5
Unimproved: 0	0	Signs: 0
		Special: 0
Total Parcels: 4	4	Total Relocates: 5

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid
1. Direct Labor Cost	{Parcels} 4	x	6,500	26,000	Participating
2. Indirect Overhead	{Parcels} 4	x	N/A	0	Participating
3. (Participating	26,000	) + (Non-Participating	= 0	TOTAL PHASE 41	\$26,000

R/W OPS (PHASE 4B)				Amount	Federal Aid
4. Appraisal Fees Through Trial			4 Parcels x	12,000	48,000 Participating
5. Business Damage CPA Fees Through Trial			0 Claims x	19,000	0 Non-Partic.
6. Court Reporter & Process Servers	75%	x	3 Parcels x	500	1,500 Participating
7. Expert Witness	75%	x	3 Parcels x	30,000	90,000 Participating
8. Mediators	50%	x	2 Parcels x	2,400	4,800 Participating
9. Demolition, Asb. Abate., Survey, etc.			4 Imprvmt x	15,000	60,000 Participating
10. Miscellaneous Contracts			Per Project	15,000	15,000 Participating
11. Appraisal Fee Review			N/A Parcels x	5,000	0 Participating
12. (Participating	219,300	) + (Non-Participating	= 0	TOTAL PHASE 4B	\$219,300

R/W LAND COSTS (PHASE 43)				Amount	Subtotal	Federal Aid
13. Land, Improvements & Severance Damages/Cost to Cure				(0)		Participating
14. Water Retention & Mit.	(0) x 338,878	130%	* Design plan stage 130% (0 parcels w/o R/W Acq	440,541		Participating
15.			SUBTOTAL (Lines 13 and 14)		440,541	
16. Admin. Settlements	{Factor} 45%	x	30% of Line 15)	59,500		Participating
17. Litigation Awards	{Factor} 60%	x	70% of Line 15)	185,000		Participating
18. Business Damages	{Claims} 0	x	\$0	0		Non-Partic.
19. Bus. Damages Incrs.	{Factor} 25%	x	\$0	0		Non-Partic.
20. Owner Appr. Fees	{Parcels} 3	x	\$10,000	30,000		Non-Partic.
21. Owner CPA Fees	{Claims} 0	x	\$10,000	0		Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)			40%	97,800		Non-Partic.
23. Owner Expert Witness	{Businesses} 0	+	Unimproved 0	0		Non-Partic.
24. Other Condemn. Costs	{Parcels} 4	x	\$500	2,000		Participating
25.			SUBTOTAL (lines 16 thru 24)		374,300	
26. (Participating	687,000	) + (Non-Participating	127,800	TOTAL PHASE 43		\$814,800

* Design contingency for design plan stage:
(1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 80% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)			Federal Aid
27.	(100% Participating)	TOTAL PHASE 42	\$0

RELOCATION COSTS (PHASE 45)				Amount	Federal Aid
28. Owner	Replacement Housing	\$20,000 Per Unit	x 4	80,000	
29. Tenant		\$10,000 Per Unit	x 1	10,000	
30. Residential	Move Costs	\$1,500 Per Unit	x 5	7,500	
31. Business/Farm		\$20,000 Per Unit	x 0	0	
32. Personal Property		\$2,000 Per Unit	x 0	0	
33. (Lines 28 thru 32)					(100% Participating)
34. Relocation Services Cost			\$9,750		(Not in Phase Total)
35.			127,800		Non-Participating
36.			1,029,800		Participating
37.			(All Phases)	TOTAL ESTIMATE	\$1,157,600

Appraisal:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Bus. Dam.:	N/A	Signed:		Date:	
Relocation:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	10/27/99
Cost Estimate Sequence #:	Dated:	In the amount of \$		Date Input Completion Date:	

REMARKS:
Pond parcel P2C.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
Work Program Update: Special Purpose: _____ Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WP#: 7113826	District: Seven
County: Hills/Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: POND P3A	C.E. Sequence #: N/A
Project Des.: SR 39 from I-4 to US 301		

Parcels:	Gross	Net	Count incl. in mainline parcel	Estimated Relocatees:	
Business	0	0		Business	0
Residential	0	0		Residential	0
Unimproved	0	0		Signs	0
				Special	0
Total Parcels	0	0		Total Relocatees	0

RIW SUPPORT COSTS (PHASE 41)				Amount	Federal Aid
1. Direct Labor Cost	(Parcels)	0	x 6,500	0	Participating
2. Indirect Overhead	(Parcels)	0	x N/A	0	Participating
3. Participating	0	+	(Non-Participating)	0	
				TOTAL PHASE 41	\$0

RIW OPS (PHASE 4B)				Amount	Federal Aid
4. Appraisal Fees Through Trial				0	Participating
5. Business Damage CPA Fees Through Trial				0	Non-Participating
6. Court Reporter & Process Servers	75%	x	0	0	Participating
7. Expert Witness	75%	x	0	0	Participating
8. Mediators	50%	x	0	0	Participating
9. Demolition, Asb. Abate., Survey, etc.				1 Imprvmt x 15,000	15,000 Participating
10. Miscellaneous Contracts				Per Project	15,000 Participating
11. Appraisal Fee Review				N/A Parcels x 5,000	0 Participating
12. Participating	30,000	+	(Non-Participating)	0	
				TOTAL PHASE 4B	\$0

RIW LAND COSTS (PHASE 43)				Amount	Subtotal
13. Land, Improvements & Severance Damages/Cost to Cure				0	Participating
14. Water Retention & Mit.	133,448	x	130% * Design plan stage	173,482	Participating
				SUBTOTAL (Lines 13 and 14)	173,482
16. Admin. Settlements	(Factor)	45%	x 30% of Line 15)	23,400	Participating
17. Litigation Awards	(Factor)	60%	x 70% of Line 15)	72,900	Participating
18. Business Damages	(Claims)	0	x \$0	0	Non-Participating
19. Bus. Damages Incrs.	(Factor)	25%	x \$0	0	Non-Participating
20. Owner Appr. Fees	(Parcels)	0	x \$10,000	0	Non-Participating
21. Owner CPA Fees	(Claims)	0	x \$10,000	0	Non-Participating
22. Defend. Atty Fees (Lines 16+17+18+19)			x 40%	38,500	Non-Participating
23. Owner Expert Witness	(Businesses)	0	+ Unimproved 0 x 18,000	0	Non-Participating
24. Other Condemn. Costs	(Parcels)	0	x \$500	0	Participating
				SUBTOTAL (lines 16 thru 24)	134,800
26. Participating	269,800	+	(Non-Participating)	38,500	
				TOTAL PHASE 43	\$308,300

* Design contingency for design plan stage:
 (1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

RIW ACQUISITION CONSULTANT (PHASE 42)
 27. (100% Participating) **TOTAL PHASE 42** **\$0**

RELOCATION COSTS (PHASE 45)				Number	Amount
28. Owner	Replacement Housing	\$20,000 Per Unit	x	0	0
29. Tenant		\$10,000 Per Unit	x	0	0
Move Costs					
30. Residential		\$1,500 Per Unit	x	0	0
31. Business/Farm		\$20,000 Per Unit	x	0	0
32. Personal Property		\$2,000 Per Unit	x	0	0
					\$0
				(100% Participating)	TOTAL PHASE 45
					\$0

35.	38,500	Non-Participating
36.	299,800	Participating
37. (All Phases)	TOTAL ESTIMATE	\$308,300

Appraisal:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Bus. Dam.:	N/A	Signed:	<i>[Signature]</i>	Date:	10-26-99
Relocation:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10/27/99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	10/27/99

Cost Estimate Sequence #: Dated: In the amount of \$ Data Input Completion Date:

REMARKS:
 Pond parcel P3A.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
 Work Program Update: X Special Purpose: Comments:

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WPL#: 7113826	District: Seven
County: Hills/Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: POND P3B	C.E. Sequence #: N/A
Project Des.: SR 39 from I-4 to US 301		
Parcels: Gross Net	Count incl. in mainline parcel	Estimated Relocates:
Business 0 0		Business 0
Residential 0 0		Residential 0
Unimproved 0 0		Signs 0
		Special 0
Total Parcels 0 0		Total Relocates 0

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid
1. Direct Labor Cost (Parcels)	0	x	6,500	Rate) 0	Participating
2. Indirect Overhead (Parcels)	0	x	N/A	Rate) 0	Participating
3. (Participating 0) + (Non-Participating				0)	
				TOTAL PHASE 41	\$0

R/W OPS (PHASE 4B)				Amount	Federal Aid
4. Appraisal Fees Through Trial				0 Parcels x 12,000	0 Participating
5. Business Damage CPA Fees Through Trial				0 Claims x 19,000	0 Non-Partic.
6. Court Reporter & Process Servers	75%	x	0	0 Parcels x 500	0 Participating
7. Expert Witness	75%	x	0	0 Parcels x 30,000	0 Participating
8. Mediators	50%	x	0	0 Parcels x 2,400	0 Participating
9. Demolition, Asb. Abate., Survey, etc.				0 Imprvmt x 15,000	0 Participating
10. Miscellaneous Contracts				Per Project 15,000	15,000 Participating
11. Appraisal Fee Review				N/A Parcels x 5,000	0 Participating
12. (Participating 15,000) + (Non-Participating				0)	
				TOTAL PHASE 4B	\$15,000

R/W LAND COSTS (PHASE 43)				Amount	Subtotal
13. Land, Improvements & Severance Damages/Cost to Cure				0	Participating
Amount 0 x 130% * Design plan stage					
14. Water Retention & Mit.	125,460	x	130% (0 parcels w/o R/W Acq	163,098	Participating
15.					
				SUBTOTAL (Lines 13 and 14)	163,098
16. Admin. Settlements (Factor)	45%	x	30% of Line 15)	22,000	Participating
17. Litigation Awards (Factor)	60%	x	70% of Line 15)	68,500	Participating
18. Business Damages (Claims)	0	x	\$0	0	Non-Partic.
19. Bus. Damages Incrs. (Factor)	25%	x	\$0	0	Non-Partic.
20. Owner Appr. Fees (Parcels)	0	x	\$10,000	0	Non-Partic.
21. Owner CPA Fees (Claims)	0	x	\$10,000	0	Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)			40%	36,200	Non-Partic.
23. Owner Expert Witness (Businesses)	0	+	Unimproved 0) x 18,000	0	Non-Partic.
24. Other Condemn. Costs (Parcels)	0	x	\$500	0	Participating
25.					
				SUBTOTAL (lines 16 thru 24)	126,700
26. (Participating 253,600) + (Non-Participating				36,200)	
				TOTAL PHASE 43	\$289,800

* Design contingency for design plan stage:
(1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 266 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)	(100% Participating)	TOTAL PHASE 42	\$0
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RELOCATION COSTS (PHASE 45)				Amount	Federal Aid
Replacement Housing					
28. Owner	\$20,000 Per Unit	x	0	0	
29. Tenant	\$10,000 Per Unit	x	0	0	
Move Costs					
30. Residential	\$1,500 Per Unit	x	0	0	
31. Business/Farm	\$20,000 Per Unit	x	0	0	
32. Personal Property	\$2,000 Per Unit	x	0	0	
33. (Lines 28 thru 32)					
				TOTAL PHASE 45	\$0

34. Relocation Services Cost	\$0	(Not in Phase Total)		
35.	36,200	Non-Participating		
36.	268,600	Participating		
37.	(All Phases)	TOTAL ESTIMATE		\$304,800

Appraisal: Mitchell Hammer	Signed: <i>Mitchell Hammer</i>	Date: 10-26-99
Bus. Dam.: N/A	Signed: <i>Mitchell Hammer</i>	Date: 10-26-99
Relocation: Mitchell Hammer	Signed: <i>Mitchell Hammer</i>	Date: 10-26-99
Overall Review: Terry L. Dunn	Signed: <i>Terry L. Dunn</i>	Date: 10/27/99
Cost Estimate Sequence #: Dated:	In the amount of \$	Data Input Completion Date:

REMARKS:
Pond parcel P3B.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
Work Program Update: Special Purpose: Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WPW: 7113826	District: Seven
County: Hills/Pasco	FAP No.: N/A	Date: 26-Oct-99
State Ad.: 39	Alternate: POND P3C	C.E. Sequence #: N/A

Project Des. SR 39 from I-4 to US 301

Parcels:	Gross	Net	Count incl. in mainline parcel	Estimated Relocates:	
Business	0	0		Business	0
Residential	0	0		Residential	0
Unimproved	0	0		Signs	0
				Special	0
Total Parcels	0	0		Total Relocates	0

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid
1. Direct Labor Cost	(Parcels)	0	x 6,500	0	Participating
2. Indirect Overhead	(Parcels)	0	x N/A	0	Participating
3. (Participating	0	+	(Non-Participating	0	
				TOTAL PHASE 41	0

R/W OPS (PHASE 4B)				Amount	
4. Appraisal Fees Through Trial				0	Participating
5. Business Damage CPA Fees Through Trial				0	Non-Partic
6. Court Reporter & Process Servers	75%	x	0	0	Participat
7. Expert Witness	75%	x	0	0	Participat
8. Mediators	50%	x	0	0	Participating
9. Demolition, Asb. Abate., Survey, etc.				0	Participating
10. Miscellaneous Contracts				0	Participat'
11. Appraisal Fee Review				15,000	Participat'
12. (Participating	15,000	+	(Non-Participating	0	Participat
				TOTAL PHASE 4B	15,000

R/W LAND COSTS (PHASE 43)				Amount	Subtotal
13. Land, Improvements & Severance Damages/Cost to Cure				0	Participat
14. Water Retention & Mit.	93,104	x	130% * Design plan stage	121,035	Participat
					121,035
15. SUBTOTAL (Lines 13 and 14)					
16. Admin. Settlements	(Factor 45%)	x	30% of Line 15)	16,300	Participating
17. Litigation Awards	(Factor 60%)	x	70% of Line 15)	50,890	Participat
18. Business Damages	(Claims 0)	x	\$0	0	Non-Parti
19. Bus. Damages Incrs.	(Factor 25%)	x	\$0	0	Non-Parti
20. Owner Appr. Fees	(Parcels 0)	x	\$10,000	0	Non-Partic.
21. Owner CPA Fees	(Claims 0)	x	\$10,000	0	Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)		x	40%	26,800	Non-Partic
23. Owner Expert Witness	(Businesses 0)	+	Unimproved	0	Non-Partic
24. Other Condemn. Costs	(Parcels 0)	x	\$500	0	Participat
25. SUBTOTAL (lines 16 thru 24)				93,900	
26. (Participating	188,100	+	(Non-Participating	26,800	
				TOTAL PHASE 43	\$214,900

* Design contingency for design plan stage:
(1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42) (100% Participating) **TOTAL PHASE 42** **\$0**

RELOCATION COSTS (PHASE 45)					
Replacement Housing			Number	Amount	
28. Owner	\$20,000 Per Unit	x	0	0	
29. Tenant	\$10,000 Per Unit	x	0	0	
Move Costs					
30. Residential	\$1,500 Per Unit	x	0	0	
31. Business/Farm	\$20,000 Per Unit	x	0	0	
32. Personal Property	\$2,000 Per Unit	x	0	0	
33. (Lines 28 thru 32)					(100% Participating)
34. Relocation Services Cost			\$0		(Not in Phase Total)
				TOTAL PHASE 45	\$0

35. 26,800 Non-Participating
36. 203,100 Participating
37. (All Phases) **TOTAL ESTIMATE** **\$229,900**

Appraisal:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Bus. Dam.:	N/A	Signed:		Date:	
Relocation:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	10/27/99

REMARKS:
Pond parcel P3C.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
Work Program Update: Special Purpose: _____ Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WPI#: 7113826	District: Seven
County: Hills/Pasco	FAP No.: N/A	Date: 29-Nov-99
State Rd.: 39	Alternate: POND P4A	C.E. Sequence #: N/A

Project Des. SR 39 from I-4 to US 301	Estimated Relocates:
Parcels: Gross Net	Business 0
Business 0 0	Residential 2
Residential 1 1	Signs 0
Unimproved 0 0	Special 0
Total Parcels 1 1	Total Relocates 2

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid
1. Direct Labor Cost (Parcels)	1	x	6,500	8,500	Participating
2. Indirect Overhead (Parcels)	1	x	N/A	0	Participating
3. (Participating 6,500) + (Non-Participating)			= 0	TOTAL PHASE 41	\$6,500


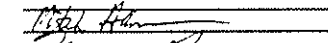
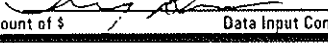
R/W OPS (PHASE 4B)				Amount	Federal Aid
4. Appraisal Fees Through Trial				12,000	Participating
5. Business Damage CPA Fees Through Trial				0	Non-Partic.
6. Court Reporter & Process Servers	75%	x	1	500	Participating
7. Expert Witness	75%	x	1	30,000	Participating
8. Mediators	50%	x	1	2,400	Participating
9. Demolition, Asb. Abate., Survey, etc.				15,000	Participating
10. Miscellaneous Contracts				15,000	Participating
11. Appraisal Fee Review				5,000	Participating
12. (Participating 89,900) + (Non-Participating)			= 0	TOTAL PHASE 4B	\$89,900

R/W LAND COSTS (PHASE 43)				Amount	Subtotal
13. Land, Improvements & Severance Damages	Cost to Cure			0	Participating
14. Water Retention & Mit.	196,589	x	130% * Design plan stage	255,566	Participating
15. SUBTOTAL (Lines 13 and 14)					255,566
16. Admin. Settlements (Factor)	45%	x	30% of Line 15	34,500	Participating
17. Litigation Awards (Factor)	60%	x	70% of Line 15	107,300	Participating
18. Business Damages (Claims)	0	x	\$0	0	Non-Partic.
19. Bus. Damages Incrs. (Factor)	25%	x	\$0	0	Non-Partic.
20. Owner Appr. Fees (Parcels)	1	x	\$10,000	10,000	Non-Partic.
21. Owner CPA Fees (Claims)	0	x	\$10,000	0	Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)			40%	56,700	Non-Partic.
23. Owner Expert Witness (Businesses)	0	+	Unimproved	0	Non-Partic.
24. Other Condemn. Costs (Parcels)	1	x	\$500	500	Participating
25. SUBTOTAL (lines 16 thru 24)					209,000
26. (Participating 397,900) + (Non-Participating)			66,700	TOTAL PHASE 43	\$464,600

* Design contingency for design plan stage:
(1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 266 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42) (100% Participating) TOTAL PHASE 42 \$0

RELOCATION COSTS (PHASE 45)				Amount	Federal Aid
Replacement Housing					
28. Owner	\$20,000 Per Unit	x	1	20,000	
29. Tenant	\$10,000 Per Unit	x	1	10,000	
Move Costs					
30. Residential	\$1,500 Per Unit	x	2	3,000	
31. Business/Farm	\$20,000 Per Unit	x	0	0	
32. Personal Property	\$2,000 Per Unit	x	0	0	
33. (Lines 28 thru 32)					(100% Participating)
34. Relocation Services Cost				\$3,300	(Not in Phase Total)
35.				66,700	Non-Participating
36.				527,300	Participating
37. (All Phases)				TOTAL ESTIMATE	\$594,000

Appraisal: Mitchell Hammer	Signed: 	Date: 11-29-99
Bus. Dam.: N/A	Signed:	Date:
Relocation: Mitchell Hammer	Signed: 	Date: 11-29-99
Overall Review: Terry L. Dunn	Signed: 	Date: 11/29/99
Cost Estimate Sequence #: _____	Dated: _____	In the amount of \$ _____
		Data Input Completion Date: _____

REMARKS:
Pond parcel P4A.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
Work Program Update: Special Purpose: _____ Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J# 700149.06

FP#: 2550991	Former WPI#: 7113826	District: Seven
County: Hills/Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: POND P4B	C.E. Sequence #: N/A
Project Des.: SR 39 from I-4 to US 301		

Parcels:	Gross	Net	Estimated Relocates:	
Business	0	0	Business	0
Residential	0	2	Residential	2
Unimproved	0	1	Signs	0
			Special	0
Total Parcels	0	3	Total Relocates	2

R/W SUPPDRT COSTS (PHASE 41)		Amount	Federal Aid
1. Direct Labor Cost (Parcels 3 x 6,500)	Rate)	19,500	Participating
2. Indirect Overhead (Parcels 3 x N/A)	Rate)	0	Participat
3. (Participating 19,500) + (Non-Participating = 0)		TOTAL PHASE 41	\$1.00

R/W OPS (PHASE 4B)		Amount	Federal Aid
4. Appraisal Fees Through Trial	3 Parcels x	12,000	36,000 Participating
5. Business Damage CPA Fees Through Trial	0 Claims x	19,000	0 Non-Partic
6. Court Reporter & Process Servers	2 Parcels x	500	1,000 Participat
7. Expert Witness	2 Parcels x	30,000	60,000 Participat
8. Mediators	2 Parcels x	2,400	4,800 Participating
9. Demolition, Asb. Abata., Survey, etc.	2 Imprvmt x	15,000	30,000 Participating
10. Miscellaneous Contracts	Per Project		15,000 Participat
11. Appraisal Fee Review	N/A Parcels x	5,000	0 Participat
12. (Participating 146,800) + (Non-Participating = 0)		TOTAL PHASE 4B	\$14.00

R/W LAND COSTS (PHASE 43)		Amount	Subtotal
13. Land, Improvements & Severance Damages (Cost to Cure)		0	Participa
14. Water Retention & Mit. (215,699 x 130% * Design plan stage)	130% (0 parcels w/o R/W Acq)	280,409	Participa
15. SUBTOTAL (Lines 13 and 14)			280,409
16. Admin. Settlements (Factor 45% x 30% of Line 15)		37,900	Participating
17. Litigation Awards (Factor 60% x 70% of Line 15)		117,800	Participa
18. Business Damages (Claims 0 x \$0)		0	Non-Part
19. Bus. Damages Incrs. (Factor 25% x \$0)		0	Non-Part
20. Owner Appr. Fees (Parcels 2 x \$10,000)		20,000	Non-Partic.
21. Owner CPA Fees (Claims 0 x \$10,000)		0	Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)		62,300	Non-Parti
23. Owner Expert Witness (Businesses 0 + Unimproved 1) x 18,000		18,000	Non-Part
24. Other Condemn. Costs (Parcels 3 x \$500)		1,500	Participa
25. SUBTOTAL (lines 16 thru 24)			257,500
26. (Participating 437,600) + (Non-Participating 100,300)		TOTAL PHASE 43	\$537.900

* Design contingency for design plan stage:
(1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)		Amount	Federal Aid
27. (100% Participating)		TOTAL PHASE 42	\$0

RELOCATION COSTS (PHASE 45)		Amount	Federal Aid
28. Owner Replacement Housing (\$20,000 Per Unit x 2)		40,000	
29. Tenant Move Costs (\$10,000 Per Unit x 0)		0	
30. Residential (\$1,500 Per Unit x 2)		3,000	
31. Business/Farm (\$20,000 Per Unit x 0)		0	
32. Personal Property (\$2,000 Per Unit x 0)		0	
33. (Lines 28 thru 32)			
34. Relocation Services Cost (\$4,300)			
35. (100% Participating)		TOTAL PHASE 45	\$43,000
36. (Not in Phase Total)			
37. (All Phases)		TOTAL ESTIMATE	\$741,200

Appraisal: Mitchell Hammer	Signed: <u>[Signature]</u>	Date: 10-26-99
Bus. Dam.: N/A	Signed: <u>[Signature]</u>	Date: 10-26-99
Relocation: Mitchell Hammer	Signed: <u>[Signature]</u>	Date: 10/27/99
Overall Review: Terry L. Dunn	Signed: <u>[Signature]</u>	Date: 10/27/99

REMARKS:
Pond parcel P4B.

The following indicates the estimator's confidence in the above estimate:

Type A - indicates the most confidence	Future Value Factors @	10.0%
Type B - indicates above average confidence	One Year:	1.1000
X Type C - indicates below average confidence	Two Years:	1.2100
Type D - indicates the least or no confidence	Three Years:	1.3310
	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
Work Program Update: X Special Purpose: _____ Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WPW#: 7113826	District: Seven
County: Hills./Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: POND P4C	C.E. Sequence #: N/A
Project Des.: SR 39 from I-4 to US 301		

Parcels:	Gross	Net	Estimated Relocates:	
Business	0	0	Business	0
Residential	0	0	Residential	0
Unimproved	0	0	Signs	0
			Special	0
Total Parcels	0	0	Total Relocates	0

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid		
1. Direct Labor Cost	(Parcels)	0	x	6,500	Rate)	0	Participating
2. Indirect Overhead	(Parcels)	0	x	N/A	Rate)	0	Participating
3. (Participating	0	+	(Non-Participating	=	0	TOTAL PHASE 41	\$0

R/W OPS (PHASE 4B)				Amount	Federal Aid		
4. Appraisal Fees Through Trial				0 Parcels x	12,000	0	Participating
5. Business Damage CPA Fees Through Trial				0 Claims x	19,000	0	Non-Partic.
6. Court Reporter & Process Servers	75%	x	0	=	0 Parcels x	500	0 Participating
7. Expert Witness	75%	x	0	=	0 Parcels x	30,000	0 Participating
8. Mediators	50%	x	0	=	0 Parcels x	2,400	0 Participating
9. Demolition, Asb. Abate., Survey, etc.				0 Imprvmt x	15,000	0	Participating
10. Miscellaneous Contracts				Per Project		15,000	Participating
11. Appraisal Fee Review				N/A Parcels x	5,000	0	Participating
12. (Participating	15,000	+	(Non-Participating	=	0	TOTAL PHASE 4B	\$15,000

R/W LAND COSTS (PHASE 43)				Amount	Subtotal	Federal Aid	
13. Land, Improvements & Severance Damages/Cost to Cure	Amount	0	x	130%	* Design plan stage	0	Participating
14. Water Retention & Mit.	72,525	x	130%	(0 parcels w/o R/W Acq	94,283	94,283	Participating
15.				SUBTOTAL (Lines 13 and 14)			
16. Admin. Settlements	(Factor	45%	x	30%	of Line 15)	12,700	Participating
17. Litigation Awards	(Factor	60%	x	70%	of Line 15)	39,600	Participating
18. Business Damages	(Claims	0	x	\$0	)	0	Non-Partic.
19. Bus. Damages Incrs.	(Factor	25%	x	\$0	)	0	Non-Partic.
20. Owner Appr. Fees	(Parcels	0	x	\$10,000	)	0	Non-Partic.
21. Owner CPA Fees	(Claims	0	x	\$10,000	)	0	Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)				40%	)	20,900	Non-Partic.
23. Owner Expert Witness	(Businesses	0	+	Unimproved	0	0	Non-Partic.
24. Other Condemn. Costs	(Parcels	0	x	\$500	)	0	Participating
25.				SUBTOTAL (lines 16 thru 24)		73,200	
26. (Participating	146,600	+	(Non-Participating	20,900	)	TOTAL PHASE 43	\$167,500

* Design contingency for design plan stage:
(1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)				Amount	Federal Aid	
27.				(100% Participating)	TOTAL PHASE 42	\$0

RELOCATION COSTS (PHASE 45)				Number	Amount	Federal Aid
Replacement Housing						
28. Owner	\$20,000 Per Unit	x	0	0	0	
29. Tenant	\$10,000 Per Unit	x	0	0	0	
Move Costs						
30. Residential	\$1,500 Per Unit	x	0	0	0	
31. Business/Farm	\$20,000 Per Unit	x	0	0	0	
32. Personal Property	\$2,000 Per Unit	x	0	0	\$0	
33. (Lines 28 thru 32)				(100% Participating)	TOTAL PHASE 45	\$0
34. Relocation Services Cost				(Not in Phase Total)		

35.	20,900	Non-Participating	
36.	161,600	Participating	
37.	(All Phases)	TOTAL ESTIMATE	\$182,500

Appraisal:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Bus. Dam.:	N/A	Signed:		Date:	
Relocation:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	10/27/99
Cost Estimate Sequence #:	Dated:	In the amount of \$		Date Input Completion Date:	

REMARKS:
Pond parcel P4C.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
Work Program Update: Special Purpose: Comments: _____

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WPM: 7113826	District: Seven
County: Hills/Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: POND P5A	C.E. Sequence #: N/A

Project Des. SR 39 from I-4 to US 301	Estimated Relocates:
Parcels: Gross Net	Business 0
Business 0 0	Residential 1
Residential 0 0	Signs 0
Unimproved 0 1	Special 0
Total Parcels 0 1	Total Relocates 1

R/W SUPPORT COSTS (PHASE 41)		Amount	Federal Aid
1. Direct Labor Cost (Parcels)	1 x 6,500	6,500	Participating
2. Indirect Overhead (Parcels)	1 x N/A	0	Participating
3. (Participating)	6,500 + (Non-Participating) = 0	TOTAL PHASE 41	\$6,500

R/W DPS (PHASE 4B)		Amount	Federal Aid
4. Appraisal Fees Through Trial	1 Parcels x 12,000	12,000	Participating
5. Business Damage CPA Fees Through Trial	0 Claims x 19,000	0	Non-Participating
6. Court Reporter & Process Servers	1 Parcels x 500	500	Participating
7. Expert Witness	1 Parcels x 30,000	30,000	Participating
8. Mediators	1 Parcels x 2,400	2,400	Participating
9. Demolition, Asb. Abate., Survey, etc.	1 Imprvmt x 15,000	15,000	Participating
10. Miscellaneous Contracts	Per Project	15,000	Participating
11. Appraisal Fee Review	N/A Parcels x 5,000	0	Participating
12. (Participating)	74,900 + (Non-Participating) = 0	TOTAL PHASE 4B	\$74,900

R/W LAND COSTS (PHASE 43)		Amount	Subtotal	Federal Aid
13. Land Improvements & Severance Damages/Cost to Cure	Amount (0) x 130% * Design plan stage	(0)		Participating
14. Water Retention & Mit.	63,243 x 130% (0 parcels w/o R/W Acq)	82,216	82,216	Participating
15.	SUBTOTAL (Lines 13 and 14)			
16. Admin. Settlements (Factor)	45% x 30% of Line 15	11,100		Participating
17. Litigation Awards (Factor)	60% x 70% of Line 15	34,500		Participating
18. Business Damages (Claims)	0 x \$0	0		Non-Participating
19. Bus. Damages Incrs. (Factor)	25% x \$0	0		Non-Participating
20. Owner Appr. Fees (Parcels)	1 x \$10,000	10,000		Non-Participating
21. Owner CPA Fees (Claims)	0 x \$10,000	0		Non-Participating
22. Defend. Atty Fees (Lines 16+17+18+19)	x 40%	18,200		Non-Participating
23. Owner Expert Witness (Businesses)	0 + Unimproved 1 x 18,000	18,000		Non-Participating
24. Other Condemn. Costs (Parcels)	1 x \$500	500		Participating
25.	SUBTOTAL (lines 16 thru 24)			92,300
26. (Participating)	128,300 + (Non-Participating) 46,200	TOTAL PHASE 43		\$174,500

* Design contingency for design plan stage:
 (1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42) (100% Participating) **TOTAL PHASE 42** **\$0**

RELOCATION COSTS (PHASE 45)		Amount	Federal Aid
28. Owner Replacement Housing	\$20,000 Per Unit x 1	20,000	
29. Tenant Replacement Housing	\$10,000 Per Unit x 0	0	
30. Residential Move Costs	\$1,500 Per Unit x 1	1,500	
31. Business/Farm Move Costs	\$20,000 Per Unit x 0	0	
32. Personal Property Move Costs	\$2,000 Per Unit x 0	0	
33. (Lines 28 thru 32)			
34. Relocation Services Cost	\$2,150 (Not in Phase Total)		
35.	46,200	Non-Participating	
36.	231,200	Participating	
37.	(All Phases) TOTAL ESTIMATE		\$277,400

Appraisal:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Bus. Dam.:	N/A	Signed:		Date:	
Relocation:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	10/27/99

Cost Estimate Sequence #: Dated: In the amount of \$ Date Input Completion Date:

REMARKS:
 Pond parcel P5A.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
 Work Program Update: X Special Purpose: Comments:

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WPI#: 7113826	District: Seven
County: Hills/Pasco	FAP No.: N/A	Date: 26-Oct-99
State Rd.: 39	Alternate: POND P5B	C.E. Sequence #: N/A
Project Des.: SR 39 from I-4 to US 301		
Parcels:		Estimated Relocates:
Business: Gross 0 Net 0		Business: 1
Residential: 0 0		Residential: 0
Unimproved: 0 0		Signs: 0
		Special: 1
Total Parcels: 0 0		Total Relocates: 2

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid	
1. Direct Labor Cost	(Parcels)	0	x	6,500	Rate) 0	Participating
2. Indirect Overhead	(Parcels)	0	x	N/A	Rate) 0	Participating
3. (Participating	0) + (Non-Participating	=	0)			
				TOTAL PHASE 41		\$0

R/W OPS (PHASE 4B)				Amount	Federal Aid	
4. Appraisal Fees Through Trial		0	Parcels x	12,000	0	Participating
5. Business Damage CPA Fees Through Trial		0	Claims x	19,000	0	Non-Partic.
6. Court Reporter & Process Servers	75%	x	0	500	0	Participating
7. Expert Witness	75%	x	0	30,000	0	Participating
8. Mediators	50%	x	0	2,400	0	Participating
9. Demolition, Asb. Abate., Survey, etc.			0	15,000	0	Participating
10. Miscellaneous Contracts			0	Imprvmt x	15,000	Participating
11. Appraisal Fee Review			N/A	Per Project	15,000	Participating
12. (Participating	15,000) + (Non-Participating	=	0)	5,000	0	Participating
				TOTAL PHASE 4B		\$15,000

R/W LAND COSTS (PHASE 43)				Amount	Subtotal		
13. Land, Improvements & Severance Damages/Cost to Cure		0	x	130%	* Design plan stage	0	Participating
14. Water Retention & Mit.	678,400	x	130%	(0 parcels w/o R/W Acq		881,920	Participating
15.				SubTOTAL (Lines 13 and 14)		881,920	
16. Admin. Settlements	(Factor	45%	x	30%	of Line 15)	119,100	Participating
17. Litigation Awards	(Factor	60%	x	70%	of Line 15)	370,400	Participating
18. Business Damages	(Claims	0	x	\$0	)	0	Non-Partic.
19. Bus. Damages Incrs.	(Factor	25%	x	\$0	)	0	Non-Partic.
20. Owner Appr. Fees	(Parcels	0	x	\$10,000	)	0	Non-Partic.
21. Owner CPA Fees	(Claims	0	x	\$10,000	)	0	Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)		0	x	40%	)	195,800	Non-Partic.
23. Owner Expert Witness (Businesses)		0	+	Unimproved	0) x 18,000	0	Non-Partic.
24. Other Condemn. Costs (Parcels)		0	x	\$500	)	0	Participating
25.				SubTOTAL (lines 16 thru 24)		685,300	
26. (Participating	1,371,400)	+	(Non-Participating	195,800)		TOTAL PHASE 43	\$1,567,200

R/W ACQUISITION CONSULTANT (PHASE 42)				Amount	Federal Aid
27.			(100% Participating)	TOTAL PHASE 42	\$0

RELOCATION COSTS (PHASE 45)				Number	Amount	
28. Owner	Replacement Housing	\$20,000 Per Unit	x	0	0	
29. Tenant		\$10,000 Per Unit	x	0	0	
30. Residential	Move Costs	\$1,500 Per Unit	x	0	0	
31. Business/Farm		\$20,000 Per Unit	x	1	20,000	
32. Personal Property		\$2,000 Per Unit	x	1	\$2,000	
33. (Lines 28 thru 32)						
34. Relocation Services Cost				\$2,200		
				(100% Participating)	TOTAL PHASE 45	\$22,000

35.	195,800	Non-Participating	
36.	1,408,400	Participating	
37.	(All Phases)	TOTAL ESTIMATE	\$1,604,200

Appraisal:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Bus. Dam.:	N/A	Signed:		Date:	
Relocation:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-26-99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	10/27/99
Cost Estimate Sequence #:	Dated:	In the amount of \$	Data Input Completion Date:		

REMARKS:
Pond parcel P5B.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	10.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105
The following indicates the Department's purpose for this estimate:		
Work Program Update: X	Special Purpose:	Comments:

**FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT SEVEN RIGHT OF WAY COST ESTIMATE**

PBS&J#: 700149.06

FP#: 2550991	Former WPL#: 7113826	District: Seven	Date: 27-Oct-99
County: Hills.Pasco	FAP No.: N/A	C.E. Sequence #:	N/A
State Rd.: 39	Alternate: POND PSC		

Project Des. SR 39 from I-4 to US 301		Estimated Relocates:	
Parcels:	Gross Net	Business	1
Business	1 1	Residential	1
Residential	0 0	Signs	0
Unimproved	0 0	Special	1
Total Parcels	1 1	Total Relocates	3

R/W SUPPORT COSTS (PHASE 41)				Amount	Federal Aid
1. Direct Labor Cost	(Parcels)	1	x	6,500	Participating
2. Indirect Overhead	(Parcels)	1	x	N/A	Participating
3. (Participating	6,500	+ (Non-Participating	0)	=	TOTAL PHASE 41
					\$6,500

R/W OPS (PHASE 4B)				Amount	Federal Aid
4. Appraisal Fees Through Trial		1	Parcels x	12,000	12,000 Participating
5. Business Damage CPA Fees Through Trial		0	Claims x	19,000	0 Non-Partic
6. Court Reporter & Process Servers		1	Parcels x	500	500 Participati
7. Expert Witness	75%	x	1	=	1 Parcels x
8. Mediators	75%	x	1	=	1 Parcels x
9. Demolition, Asb. Abate., Survey, etc.	50%	x	1	=	1 Parcels x
10. Miscellaneous Contracts			1 Imprvmt x	15,000	15,000 Participating
11. Appraisal Fee Review			N/A Parcels x	5,000	0 Participati
12. (Participating	74,900	+ (Non-Participating	0)	=	TOTAL PHASE 4B
					\$74,900

R/W LAND COSTS (PHASE 43)				Amount	Subtotal
13. Land, Improvements & Severance Damages/Cost to Cure		1		1	Participat
14. Water Retention & Mit.	179,826	x	130% * Design plan stage	233,774	Participat
15.			130% (0 parcels w/o R/W Acq		233,774
			SUBTOTAL (Lines 13 and 14)		
16. Admin. Settlements	(Factor)	45%	x	30%	of Line 15)
17. Litigation Awards	(Factor)	60%	x	70%	of Line 15)
18. Business Damages	(Claims)	0	x	\$0	) Participating
19. Bus. Damages Incrs.	(Factor)	25%	x	\$0	) Participat
20. Owner Appr. Fees	(Parcels)	1	x	\$10,000	) Non-Partic.
21. Owner CPA Fees	(Claims)	0	x	\$10,000	) Non-Partic.
22. Defend. Atty Fees (Lines 16+17+18+19)			x	40%	) Non-Partic.
23. Owner Expert Witness	(Businesses)	1	+	Unimproved	0
24. Other Condemn. Costs	(Parcels)	1	x	\$500	) x 18,000
25.				500	) Participat
			SUBTOTAL (lines 16 thru 24)		210,200
26. (Participating	364,100	+ (Non-Participating	79,900	=	TOTAL PHASE 43
					\$444,000

* Design contingency for design plan stage:
 (1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)				Federal Aid
27.		(100% Participating)	TOTAL PHASE 42	\$0

RELOCATION COSTS (PHASE 45)				Amount	Federal Aid
Replacement Housing					
28. Owner	\$20,000 Per Unit	x	1	20,000	
29. Tenant	\$10,000 Per Unit	x	0	0	
Move Costs					
30. Residential	\$1,500 Per Unit	x	1	1,500	
31. Business/Farm	\$20,000 Per Unit	x	1	20,000	
32. Personal Property	\$2,000 Per Unit	x	1	2,000	
33. (Lines 28 thru 32)					(100% Participating)
34. Relocation Services Cost			\$4,350		(Not in Phase Total)
					TOTAL PHASE 45
					\$43,500

35.	79,900	Non-Participating
36.	489,000	Participating
37.	(All Phases)	TOTAL ESTIMATE
		\$568,900

Appraisal:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	10-27-99
Bus. Dam.:	N/A	Signed:	<i>[Signature]</i>	Date:	10-27-99
Relocation:	Mitchell Hammer	Signed:	<i>[Signature]</i>	Date:	11/22/99
Overall Review:	Terry L. Dunn	Signed:	<i>[Signature]</i>	Date:	

Cost Estimate Sequence #: Dated: In the amount of \$ Data Input Completion Date:

REMARKS: Pond parcel P5C.

The following indicates the estimator's confidence in the above estimate:	Future Value Factors @	18.0%
Type A - indicates the most confidence	One Year:	1.1000
Type B - indicates above average confidence	Two Years:	1.2100
X Type C - indicates below average confidence	Three Years:	1.3310
Type D - indicates the least or no confidence	Four Years:	1.4641
	Five Years:	1.6105

The following indicates the Department's purpose for this estimate:
 Work Program Update: X Special Purpose: Comments: