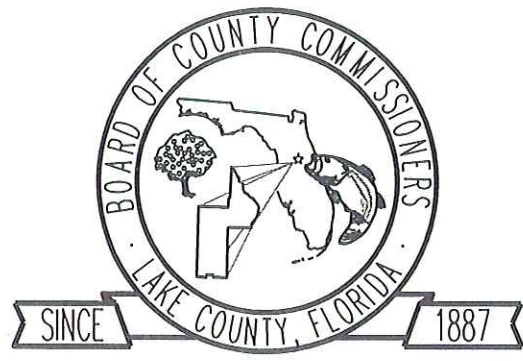


# LAKE COUNTY DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION

123 N. SINCLAIR AVE.  
TAVARES, FL. 32778  
PHONE: (352) 253-4844



## COUNTY COMMISSIONERS

- DISTRICT 1 - JENNIFER HILL
- DISTRICT 2 - ROBERT A. POOL - CHAIRMAN
- DISTRICT 3 - DEBBIE STIVENDER
- DISTRICT 4 - CATHERINE C. HANSON
- DISTRICT 5 - WELTON G. CADWELL - VICE CHAIRMAN
- BILL NERON - COUNTY MANAGER

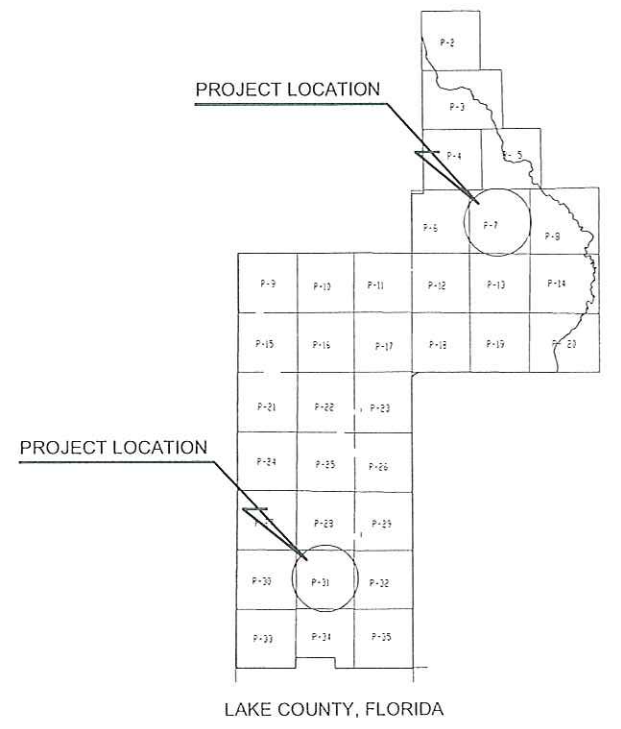
## INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	COVER SHEET
2	AERIAL
3	GENERAL NOTES
4-5	MISCELLANEOUS DETAILS
6	TYPICAL SECTIONS
7-10	BOX CULVERT AND WINGWALL DESIGN (8+9 NC)
11	MAGGIE JONES ROAD PLAN SHEET
12	TRACY CANAL PROFILE @ MAGGIE JONES ROAD
13	MAGGIE JONES ROAD PLAN / PROFILE
14	LAKE NELLIE ROAD PLAN SHEET NC
15	LITTLE CREEK PROFILE @ LAKE NELLIE ROAD NC
16	LAKE NELLIE ROAD PLAN / PROFILE NC
17	DWIGHTS ROAD PLAN SHEET NC
18	LITTLE CREEK PROFILE @ DWIGHTS ROAD NC
19	DWIGHTS ROAD PLAN / PROFILE NC
20	GREEN SWAMP ROAD PLAN SHEET
21	LITTLE CREEK PROFILE @ GREEN SWAMP ROAD
22	GREEN SWAMP ROAD PLAN / PROFILE
23-26	MAINTENANCE OF TRAFFIC (24+25 NC)

NC = NOT INCLUDED

# FOUR CULVERT REPLACEMENTS AT LITTLE CREEK & TRACY CANAL

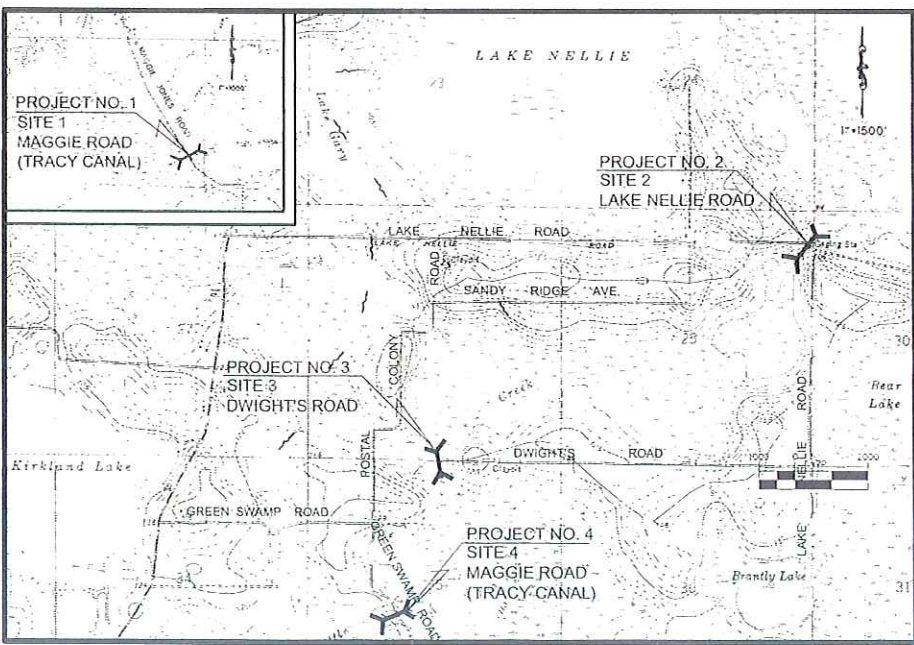
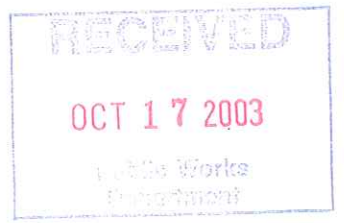
## LAKE COUNTY, FLORIDA PROJECT 2002-16



GOVERNING SPECIFICATIONS: STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, DATED 2000, SUPPLEMENTS AND SPECIAL PROVISIONS THERETO IF NOTED IN THE CONTRACT SPECIFICATIONS FOR THIS PROJECT.

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, ROADWAY AND TRAFFIC DESIGN STANDARDS (BOOKLET DATED JANUARY, 2000)

REVISIONS		
DATE	BY	DESCRIPTION



LOCATION MAP  
COUNTY PROJECT MANAGER:  
FREDERICK J. SCHNEIDER, P.E.

PREPARED FOR:  
**LAKE COUNTY  
DEPARTMENT OF  
PUBLIC WORKS  
ENGINEERING DIVISION**



123 N. SINCLAIR AVE.  
TAVARES, FLORIDA 32778  
(352) 34-9655

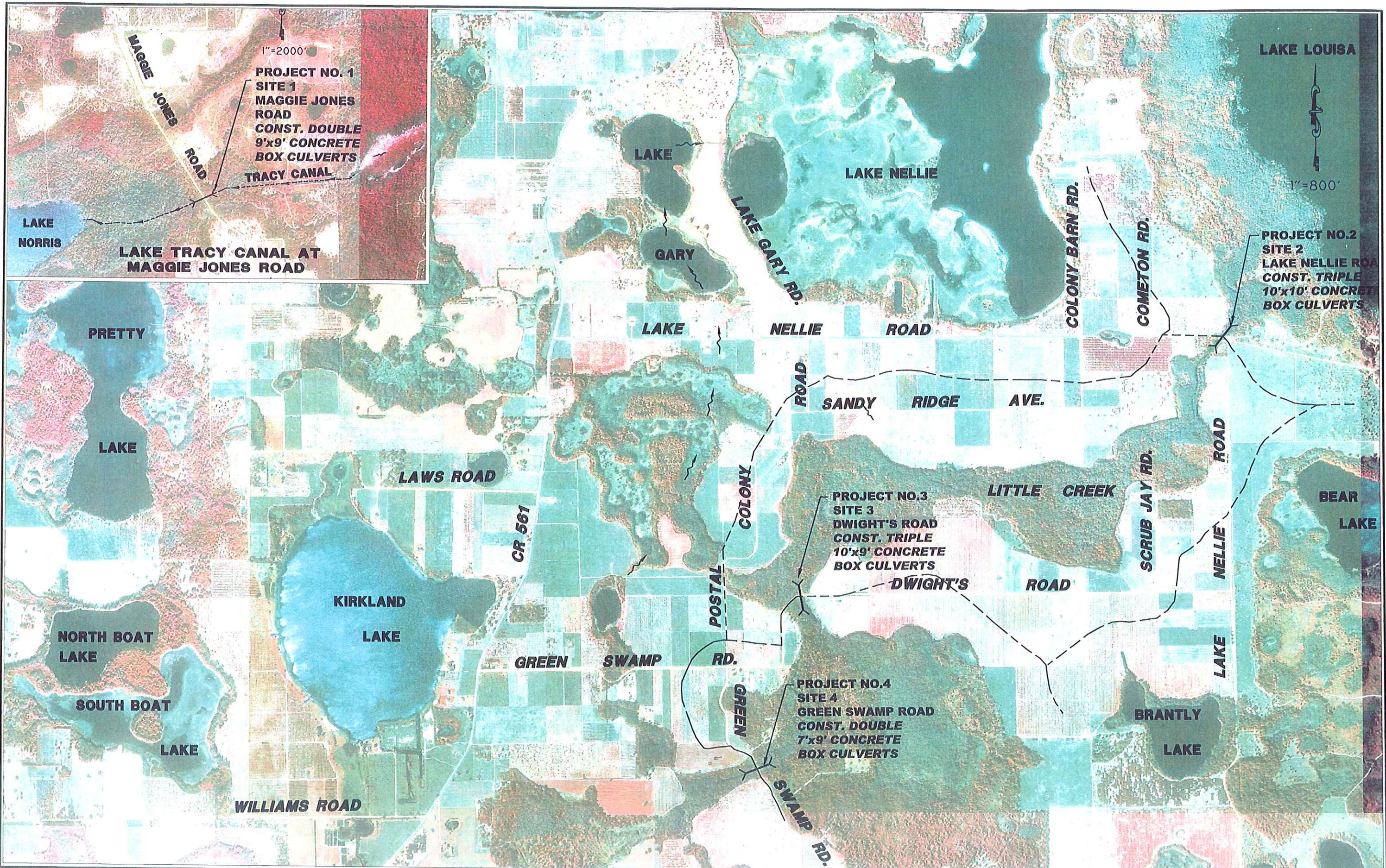
PLANS PREPARED BY:



1221 West Colonial Drive, Suite 300  
Orlando, Florida 32804-7156  
(407) 426-8994 Fax (407) 426-8977

MAY 2002  
100% SUBMITTAL

PROJECT NUMBER: X-XX	7-30-02	
	SIGNATURE	DATE
	JEFFREY J. EARHART, P.E.	FL. REG NO. 49935



R:\91125 - Lake Co Culvert Replacements GPP 01-09111002 Submittal\dwg\SH1-02-AERIAL.dwg 06/19/2002 01:47:34 PM EDT

NO.	DATE	REVISION	APPD. BY

**Berryman  
 Henigar**

1221 West Colonial Drive, Suite 300  
 Orlando, Florida 32804-7156  
 (407) 426-8994 Fax (407) 426-8977

LAKE COUNTY  
 PUBLIC WORKS DEPARTMENT

AERIAL  
 FOUR CULVERT REPLACEMENT  
 LAKE COUNTY, FLORIDA

PROFESSIONAL ENGINEER  
 STATE OF FLORIDA

JOB NO. 91135.02  
 DRAWN JET  
 CHECKED CEP  
 DWG FILE SH1-02-AERIAL.DWG  
 DATE MAY, 2002  
 SHT 2 OF 26

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ALL UTILITIES PRIOR TO CONSTRUCTION.
2. THE LOCATION OF UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION.
3. SWALES TO BE SODDED FROM SHOULDER TO FAR TOP OF SLOPE.
4. RESET EXISTING FENCE TO THE R/W LIMITS. COST OF THIS WORK SHALL BE INCLUDED IN PAY ITEM 550-74.
5. TRIM TREES OVER PAVEMENT AND SHOULDER TO PROVIDE 18' VERTICAL & 8' HORIZONTAL CLEARANCE. COST OF THIS WORK SHALL BE INCLUDED IN PAY ITEM 110-1-1.
6. EXISTING STREETS AND DRIVES SHALL BE MAINTAINED TO LOCAL TRAFFIC AND PROPERTY OWNERS.
7. IF APPLICABLE, CONTRACTOR RESPONSIBLE FOR OBTAINING NPDES PERMIT PRIOR TO BEGINNING CONSTRUCTION.
8. ALL SIDE SLOPES AROUND NEW MITERED END SECTIONS SHALL NOT EXCEED 3:1 SLOPES.
9. ALL REINFORCED CONCRETE PIPE (RCP) SHALL BE MINIMUM CLASS III.
10. UTILITIES ARE TO BE ADJUSTED BY CONTRACTOR UNLESS OTHERWISE DIRECTED BY LAKE COUNTY.
11. DAILY ACCESS TO MAIL BOXES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
12. RELOCATE ALL POWER POLES AND REMOVE ALL TREES AND SHRUBS AS NEEDED TO CONSTRUCT PROJECT.
13. THE CONTRACTOR SHALL CONSTRUCT A CONCRETE RIBBON (HEADER) CURB BETWEEN ROADWAY PAVEMENT SECTIONS AND DIRT ROADS.
14. CONTRACTOR IS TO CONTACT USGS 2 WEEKS BEFORE CONSTRUCTION STARTS TO REMOVE GAUGE EQUIPMENT AND STAFF GAGE. USGS IS TO BE CONTACTED ONCE CONSTRUCTION IS COMPLETE TO REINSTALL THE EQUIPMENT. USGS CONTACT INFORMATION: ORLANDO OFFICE HOWARD GEORGE (407) 865-7575

STRIPING

- a. ALL STRIPING TO BE THERMOPLASTIC. ALL PAVED ROAD SECTIONS TO HAVE ONE-WHITE STRIPE AT EOP AND A DOUBLE YELLOW LINE AT THE CENTER OF THE ROADWAY.
- b. STRIPING TO CONFORM TO M.U.T.C.D. , LATEST EDITION.
- c. ALL CENTER LINE STRIPING SHALL HAVE REFLECTIVE RAISED PAVEMENT MARKING (RPM'S) UNLESS OTHERWISE NOTED.

EROSION AND SEDIMENT CONTROL

- a. PROTECT ALL MITERED END SECTIONS AS PER F.D.O.T. STANDARD INDEX NO. 102.
- b. SOD IMMEDIATELY AROUND NEW MITERED END SECTIONS ALL DISTURBED AREAS AND ALL SLOPES 3% OR GREATER TO BE SODDED FROM THE EDGE OF PAVEMENT TO THE RIGHT-OF-WAY LINE.
- c. LOCATION OF HAYBALES, SILT FENCE AND FLOATING TURBIDITY BARRIER ARE SUMMARIZED ON PLAN/PROFILE SHEETS.

TRAFFIC CONTROL NOTES

- a. THE CONTRACTOR SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, PART VI LATEST EDITION, AND ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX NO. S 600 - 660 AS APPLICABLE LATEST EDITION.
- b. THE CONTRACTOR HAS THE OPTION TO SUBMIT ALTERNATE MAINTENANCE OF TRAFFIC PLANS FOR REVIEW AND APPROVAL BY LAKE COUNTY. COST OF THIS WORK SHALL BE INCLUDED IN PAY ITEM 102-1.
- c. THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN ALL BARRICADES, WARNING SIGNS, AND MARKINGS FOR HAZARDS NECESSARY TO PROTECT THE PUBLIC AND THE WORK.

R:\01135 - Lake Co Culvert Replacements (RFP 01-091)\100% Submittal\dwg\SHI-03-GEN-NOTES.dwg 04/09/2002 01:58:45 PM EDT

NO.	DATE	REVISION	APP'D. BY



1221 West Colonial Drive, Suite 300  
Orlando, Florida 32804-7156  
(407) 426-8994 Fax (407) 426-8977

LAKE COUNTY  
PUBLIC WORKS DEPARTMENT

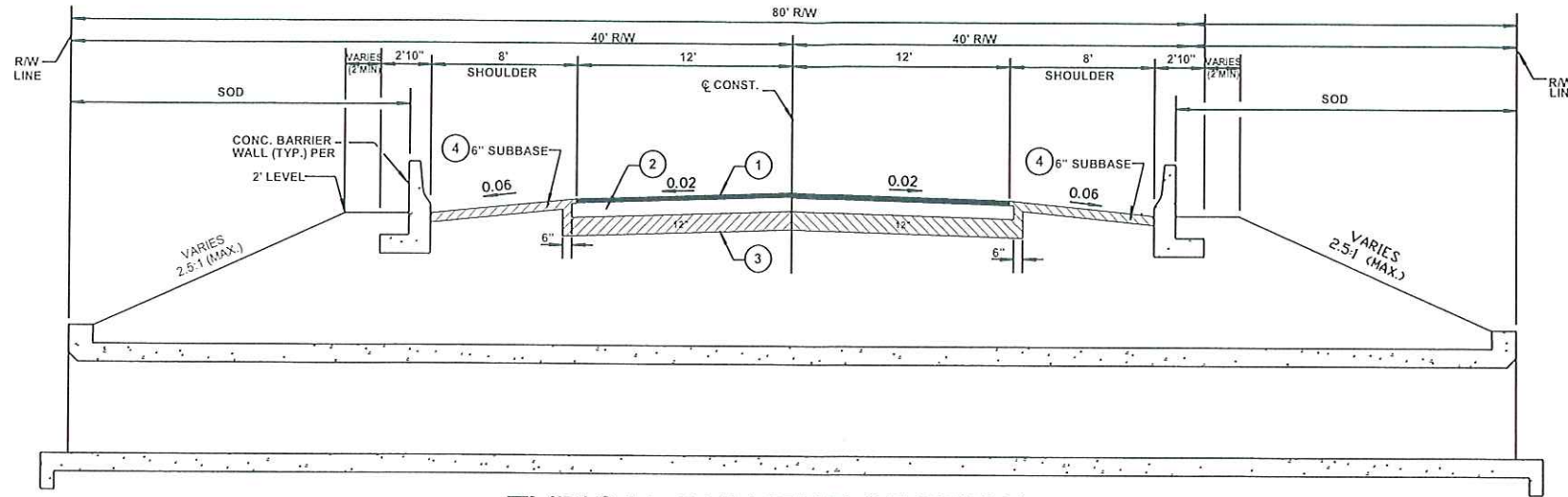
GENERAL NOTES  
FOUR CULVERT REPLACEMENTS  
LAKE COUNTY, FLORIDA

PROFESSIONAL ENGINEER  
STATE OF FLORIDA  
DATE 2011 3 0 2002

JOB NO. 91135.02  
DRAWN JET  
CHECKED CEP  
DWG FILE SHI-03-GEN.DWG  
DATE MAY, 2002  
SHT 03 OF 26







**TYPICAL CULVERT SECTION**

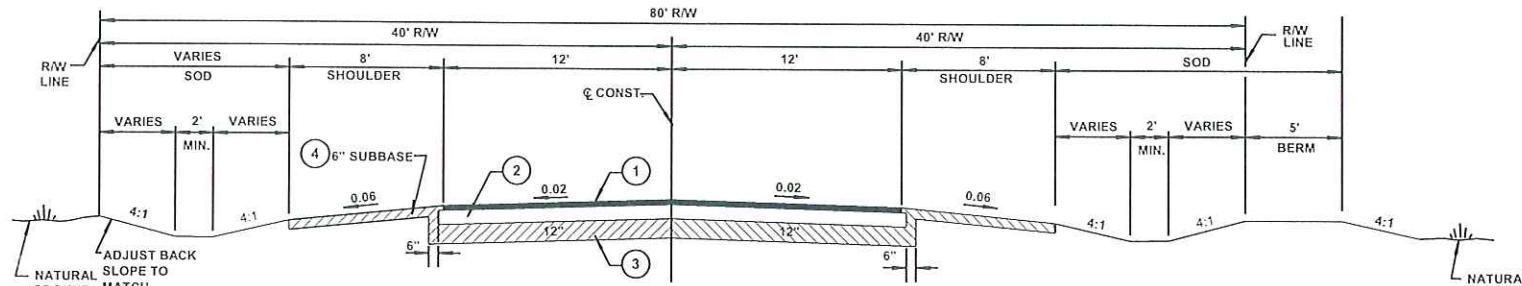
MAGGIE ROAD.....STA 11+00.00 TO STA 15+50.00  
 LAKE NELLIE ROAD.....STA 10+67.00 TO STA 15+22.51  
 DWIGHTS ROAD.....STA 10+90.37 TO STA 16+00.00  
 GREEN SWAMP ROAD.....STA 8+49.46 TO STA 15+22.51

**NOTE:**

SOD IMMEDIATELY AROUND NEW MITERED END SECTIONS AND ALL SLOPES 3% OR GREATER TO BE SODDED FROM THE EDGE OF PAVEMENT TO THE RIGHT-OF-WAY LINE. FINISHED GRADE OF SHOULDER SHOULD BE 3" BELOW EOP TO ALLOW FOR SOD. MIN. TWO STRIPS OF SOD @ EOP. DESIGN SPEED = 35 M.P.H.

**NEW CONSTRUCTION**

- ① TYPE S-III STRUCTURAL COURSE (1") MIN.
- ② BASE COURSE (6" LIMEROCK LBR 1-00) PRIME AND SAND
- ③ TYPE B STABILIZATION (12" @ 50 PSI FBV) COMPACTED MIN. 98% AASHTOP T-180



**TYPICAL SECTION**

KEY	THICKNESS	SPECIFICATIONS
1	1"	1" FC-3
2	2 1/2"	TYPE S-I ASPHALT LEVEL W/ EXISTING ASPHALT
3	12"	LIME ROCK - 98% COMPACTION, A.A.S.H.T.O. T-180 (TWO 6" LIFTS 98% EACH LIFT)
4	6"	CLAY/SAND MIXTURE. DENSITY, LBR = 40

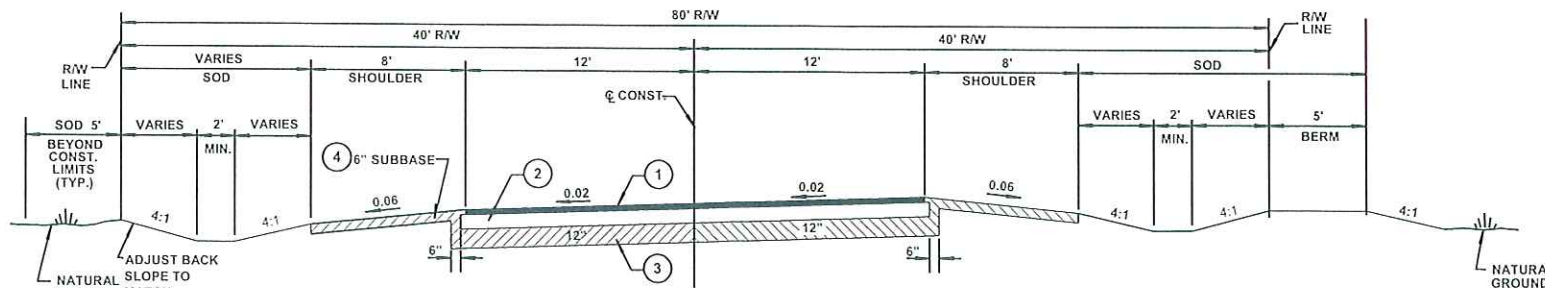
MINIMUM LANE WIDTHS SHALL BE 12 FT.

**NOTE:**

SOD IMMEDIATELY AROUND NEW MITERED END SECTIONS AND ALL SLOPES 3% OR GREATER TO BE SODDED FROM THE EDGE OF PAVEMENT TO THE RIGHT-OF-WAY LINE. FINISHED GRADE OF SHOULDER SHOULD BE 3" BELOW EOP TO ALLOW FOR SOD. MIN. TWO STRIPS OF SOD @ EOP. DESIGN SPEED = 25 M.P.H.

**NEW CONSTRUCTION**

- ① TYPE S-III STRUCTURAL COURSE (1") MIN.
- ② BASE COURSE (6" LIMEROCK LBR 1-00) PRIME AND SAND
- ③ TYPE B STABILIZATION (12" @ 50 PSI FBV) COMPACTED MIN. 98% AASHTOP T-180



**TYPICAL SUPER ELEVATION SECTION**

KEY	THICKNESS	SPECIFICATIONS
1	1"	1" FC-3
2	2 1/2"	TYPE S-I ASPHALT LEVEL W/ EXISTING ASPHALT
3	12"	LIME ROCK - 98% COMPACTION, A.A.S.H.T.O. T-180 (TWO 6" LIFTS 98% EACH LIFT)
4	6"	CLAY/SAND MIXTURE. DENSITY, LBR = 40

MINIMUM LANE WIDTHS SHALL BE 12 FT.

P:\011735 - Lake Co Culvert Replacements.dwg (R/W) - 05/07/2002 - 02:38:30 PM .DWT  
 P:\011735 - Lake Co Culvert Replacements.dwg (R/W) - 05/07/2002 - 02:38:30 PM .DWT  
 P:\011735 - Lake Co Culvert Replacements.dwg (R/W) - 05/07/2002 - 02:38:30 PM .DWT

NO.	DATE	REVISION	APP'D. BY

**Berryman Henigar**  
 1221 West Colonial Drive, Suite 300  
 Orlando, Florida 32804-7156  
 (407) 426-8994 Fax (407) 426-8977

**LAKE COUNTY  
 PUBLIC WORKS DEPARTMENT**

**TYPICAL SECTION  
 FOUR CULVERT REPLACEMENTS  
 LAKE COUNTY, FLORIDA**

PROFESSIONAL ENGINEER  
 STATE OF FLORIDA  
 DATE 1.30.2002  
 JOB NO. 91135.02  
 DRAWN ET  
 CHECKED CEP  
 DWG FILE 91-06-118.DWG  
 DATE MAY, 2002  
 SHIT 06 OF 26

# PROPOSED BOX CULVERT DATA

## FDOT INDEX NO. 290

12/13/01

FLORIDA DEPARTMENT OF TRANSPORTATION

15:14:52

### STEEL QUANTITIES AND BAR SCHEDULE

BOX CULVERT AND WINGWALL DESIGN  
E\_N\_G\_L\_I\_S\_H\_O\_U\_T\_P\_U\_T

VERSION NO. 2.43

PROJECT NUMBER :

LOCATION DESCRIPTION : MAGGIE JONES ROAD  
ENVIRONMENT : SLIGHTLY AGGRESSIVE, USE CLASS II CONCRETE

**MATERIAL PROPERTIES**

**CONCRETE COVER FOR REINFORCING BARS**

STEEL YIELD STRENGTH = 60. KSI      BARREL EXT. COVER: TOP SL.= 2 IN; BOT. SL.= 2 IN; WALL= 2 IN  
CONCRETE 28 DAY STRENGTH = 3400. PSI      BARREL INT. COVER: ALL LOC.= 2 IN  
DESIGN F'C = 3400. PSI      WINGWALL : ALL LOC.= 2 IN

**PROPERTIES OF ELEMENTS**

BARREL : NO. OF BARREL(S) = 2; SPAN= 9 FT 0 IN; HEIGHT = 9 FT 0 IN; DEPTH OF FILL = 4 FT 2 1/2 IN  
LENGTH AT BOX CENTER LINE = 60 FT 0 IN; LEFT SIDE SKEW ANGLE = 171 DEGREE; WIDTH = 20 FT 6 IN  
RIGHT SIDE SKEW ANGLE = 171 DEGREE; WIDTH = 20 FT 6 IN  
THKNS.: TOP SL. = 9 IN; BOTTOM SL. = 9 IN; EXT. WALL = 9 IN; INT. WALL = 9 IN

WINGWALL: NO. OF WINGWALL(S) BOTH LEFT AND RIGHT SIDES      NO. OF HEADWALL(S) BOTH LEFT AND RIGHT SIDES

TOP BEVEL = 6 IN; SIDE BEVEL = 6 IN;  
WALL HEIGHT = 10 FT 9 IN; FOOTING WIDTH = 6 FT 10 1/2 IN; HEEL DIMENSION = 4 FT 2 IN;  
TOE DIMENSION = 1 FT 10 IN; WALL THICKNESS = 10 1/2 IN; FOOTING THICKNESS = 11 IN;  
TOE PRESSURE = 1481. psf

LEFT FR. SKEW ANGLE = 306 DEGREE.; LENGTH = 31 FT 7 3/4 IN\* ( 7 1/4 IN\*\*); FRONT TIP HT. = 8 FT 10 3/4 IN;  
WALL = 10.094 C.Y.; FOOTING = 8.672 C.Y.; TOTAL = 18.767 C.Y.

LEFT BK. SKEW ANGLE = 216 DEGREE.; LENGTH = 27 FT 11 1/2 IN\* ( 3 3/4 IN\*\*); FRONT TIP HT. = 10 FT 9 IN;  
WALL = 9.698 C.Y.; FOOTING = 7.603 C.Y.; TOTAL = 17.301 C.Y.

RIGHT FR. SKEW ANGLE = 36 DEGREE.; LENGTH = 27 FT 11 1/2 IN\* ( 3 3/4 IN\*\*); FRONT TIP HT. = 10 FT 9 IN;  
WALL = 9.698 C.Y.; FOOTING = 7.603 C.Y.; TOTAL = 17.301 C.Y.

RIGHT BK. SKEW ANGLE = 126 DEGREE.; LENGTH = 31 FT 7 3/4 IN\* ( 7 1/4 IN\*\*); FRONT TIP HT. = 8 FT 10 3/4 IN;  
WALL = 10.094 C.Y.; FOOTING = 8.672 C.Y.; TOTAL = 18.767 C.Y.

TOTAL WINGWALL LENGTH WITH BARREL WIDTH : LEFT = 81 FT 1/4 IN; RIGHT = 81 FT 1/4 IN

**CONCRETE QUANTITIES**

BARREL : POUR 1 (BOTTOM SLAB) = .576 C.Y./FT.; POUR 2 (WALLS) = .722 C.Y./FT.; POUR 3 (TOP SLAB) = .578 C.Y./FT.  
POUR 4 (HEADWALL(S)) = 1.898 C.Y. TOTAL (EXCLUDE HEADWALL) = 1.877 C.Y./FT.

WINGWALL: POUR 1 (FOOTING)\*\* = 36.338 C.Y.; POUR 2 (WALLS) = 39.584 C.Y.; TOTAL = 75.922 C.Y.

**TOTAL CONCRETE QUANTITIES**

BARREL = 114.522 C.Y.; WINGWALL = 75.922 C.Y.; TOTAL = 190.444 C.Y.

\* SKEWED WINGWALL LENGTH MEASURED ON CENTER LINE FROM CONSTRUCTION JOINT  
\*\* DISTANCE FROM OUTSIDE EDGE OF BARREL EXTERIOR WALL TO CONSTRUCTION JOINT ON CENTER LINE OF WINGWALL  
\*\*\* INCLUDE TOE AND KEY AT BARREL ENDS

ENVIRONMENT : SLIGHTLY AGGRESSIVE, USE CLASS II CONCRETE

**BARREL QUANTITIES :**

LOCATION	BAR	NUMBER	SETS	SIZE	SPACING (FT-IN)	TYPE	LENGTH (FT-IN)	QUANTITY (LB)	B LENGTH (FT-IN)	C LENGTH (FT-IN)	D LENGTH (FT-IN)
TOP SLAB	A100	91		5	0- 7 1/2	1	19-11	1890			
TOP SLAB BOTH SIDES	A101	4		5	0- 7 1/2	1	11- 1	46			
	A102	4		5	0- 7 1/2	1	3- 2	13			
BOT SLAB	A200	86		5	0- 8	1	19-11	1786			
BOT SLAB BOTH SIDES	A201	2		5	0- 8	1	14- 9	31			
	A202	2		5	0- 8	1	10- 7	22			
	A203	2		5	0- 8	1	6- 4	13			
	A204	2		5	0- 8	1	2- 2	5			
TOP SLAB	A300	62		5	0-11	1	19-11	1288			
TOP SLAB	B300	62		5	0-11	1	5- 0	323			
TOP SLAB BOTH SIDES	A301	4		5	0- 5 1/2	1	13- 2	55			
	A302	4		5	0- 5 1/2	1	7- 5	31			
BOT SLAB	A400	62		5	0-11	1	19-11	1288			
BOT SLAB	B400	62		5	0-11	1	5- 0	323			
BOT SLAB BOTH SIDES	A401	4		5	0- 5 1/2	1	13- 2	55			
	A402	4		5	0- 5 1/2	1	7- 5	31			
CORNER (TOP)	A1	262		4	0- 5 1/2	10	5- 4	933	2- 8	2- 8	
CORNER (BOTTOM)	A2	262		4	0- 5 1/2	10	5- 1	890	2- 5	2- 8	
EXTERIOR WALL (INSIDE)	B1	144		4	0-10	1	10- 2	978			
EXTERIOR WALL (OUTSIDE)	B2	262		4	0- 5 1/2	1	8- 2	1429			
INTERIOR WALL	B3	144		4	0-10	1	10- 2	978			
LONGITUDINAL	C1	152 ( 2)		4	1- 6	1	30- 7	3105			
HEADWALL BOTH SIDES	G1	8 ( 1)		5	SEE INDEX	1	20- 1	168			
HEADWALL BOTH SIDES	F	42		4	1- 0	11	3- 5	96	0-11	1- 5	1- 1

PER FOOT BARREL STEEL QUANTITY      258. LBS./FOOT  
TOTAL BARREL STEEL QUANTITY      15777 LBS.

**WINGWALL QUANTITIES :** E\_N\_G\_L\_I\_S\_H\_O\_U\_T\_P\_U\_T

LOCATION	BAR	NUMBER	SETS	SIZE	SPACING (FT-IN)	TYPE	LENGTH (FT-IN)	WEIGHT (LB)	B LENGTH (FT-IN)	C LENGTH (FT-IN)
STEM-LEFT FRONT	F1	20 *		6	0- 9 1/2	10	25- 5 *	764	2- 4 *	11- 4 *
STEM-LEFT BACK	F2	36		6	0- 9 1/2	10	13- 8	739	2- 4	11- 4
STEM-RIGHT FRONT	F3	36		6	0- 9 1/2	10	13- 8	739	2- 4	11- 4
STEM-RIGHT BACK	F4	20 *		6	0- 9 1/2	10	25- 5 *	764	2- 4 *	11- 4 *
STEM-LEFT FRONT	J1	20 *		4	0- 9 1/2	1	20- 9 *	277		
STEM-LEFT BACK	J2	36		4	0- 9 1/2	1	11- 4	273		
STEM-RIGHT FRONT	J3	36		4	0- 9 1/2	1	11- 4	273		
STEM-RIGHT BACK	J4	20 *		4	0- 9 1/2	1	20- 9 *	277		
STEM - LEFT FRONT	K1	6 *		4	1- 6	1	31- 3 *	125		
STEM - LEFT BACK	K2	14		4	1- 6	1	27- 7	258		
STEM - RIGHT FRONT	K3	14		4	1- 6	1	27- 7	258		
STEM - RIGHT BACK	K4	6 *		4	1- 6	1	31- 3 *	125		
FOOTING - LEFT FRONT	FK1	4		4	SEE INDEX	1	31- 3	84		
FOOTING - LEFT BACK	FK2	4		4	SEE INDEX	1	27- 7	74		
FOOTING - RIGHT FRONT	FK3	4		4	SEE INDEX	1	27- 7	74		
FOOTING - RIGHT BACK	FK4	4		4	SEE INDEX	1	31- 3	84		
FOOTING-LEFT FRONT	L1	40		4	0- 9 1/2	1	6- 6	174		
FOOTING-LEFT BACK	L2	36		4	0- 9 1/2	1	6- 6	156		
FOOTING-RIGHT FRONT	L3	36		4	0- 9 1/2	1	6- 6	156		
FOOTING-RIGHT BACK	L4	40		4	0- 9 1/2	1	6- 6	174		
FOOTING LEFT SIDE	M1	4 ( 2)		4	SEE INDEX	1	41- 2	110		
FOOTING RIGHT SIDE	M2	4 ( 2)		4	SEE INDEX	1	41- 2	110		
STEM TO BARREL DOWELS	N **	44		6	1- 0	10	6- 0	397	3- 0	3- 0
FOOTING SPILLWAY	R	42		4	1- 0	1	3- 1	87		

PER FOOT WINGWALL STEEL QUANTITY      79. LBS./FOOT  
TOTAL WINGWALL STEEL QUANTITY      6552 LBS.

**TOTAL STEEL QUANTITIES**

BARREL	15777 LBS.
WINGWALL	6552 LBS.
<b>TOTAL</b>	<b>22329 LBS.</b>

\* LENGTH IS THE SUM OF BAR LENGTH AT BEGINNING/TOP AND ENDING/BOTTOM OF WINGWALL, NUMBER OF BAR IS THE AMOUNT REQUIRED FOR THIS SUMMATION OF LENGTH. B AND C LENGTH IS FOR THE FIRST BAR OF WINGWALL CLOSE TO THE JOINT OF WINGWALL AND BARREL.  
\*\* FOR SKEWED WINGS BEND BARS N TO ACCOMMODATE SKEW, PROVIDE FOR 3 FT. OF BAR IN THE WINGWALL AND HEADWALL.

R:\0103 - Lake Co Culvert Replacements (BPP) - 0953\1182 - Submit\Drawings\1182-02-01-BOX-CULV-416-DES.dwg 04/07/2002 02:00:10 PM EDT

NO.	DATE	REVISION	APPD. BY



1221 West Colonial Drive, Suite 300  
Orlando, Florida 32804-7156  
(407) 426-8994 Fax (407) 426-8977

LAKE COUNTY  
PUBLIC WORKS DEPARTMENT

BOX CULVERTS  
MAGGIE JONES ROAD  
FOUR CULVERT REPLACEMENTS  
LAKE COUNTY, FLORIDA

PROFESSIONAL ENGINEER      **JUL 30 2002**  
STATE OF FLORIDA      DATE      SHT 07 OF 26

JOB NO. 91135.02  
DRAWN JET  
CHECKED CEP  
DWG FILE SH-07-BOXDWS  
DATE MAY, 2002  
SHT 07 OF 26

# PROPOSED BOX CULVERT DATA

## FDOT INDEX NO. 290

12/13/01

FLORIDA DEPARTMENT OF TRANSPORTATION

15:14:37

BOX CULVERT AND WINGWALL DESIGN  
E\_N\_G\_L\_I\_S\_H\_O\_U\_T\_P\_U\_T

VERSION NO. 2.43

PROJECT NUMBER :

LOCATION DESCRIPTION : GREEN SWAMP ROAD  
ENVIRONMENT : SLIGHTLY AGGRESSIVE, USE CLASS II CONCRETE

MATERIAL PROPERTIES

CONCRETE COVER FOR REINFORCING BARS

STEEL YIELD STRENGTH = 60. KSI  
CONCRETE 28 DAY STREN. = 3400. PSI  
DESIGN F'C = 3400. PSI

BARREL EXT. COVER: TOP SL. = 2 IN;  
BARREL INT. COVER: ALL LOC. = 2 IN;  
WINGWALL : ALL LOC. = 2 IN

PROPERTIES OF ELEMENTS

BARREL : NO. OF BARREL(S) = 2; SPAN = 9 FT 0 IN;  
LENGTH AT BOX CENTER LINE = 60 FT 0 IN;  
THKNS.: TOP SL. = 9 IN; BOTTOM SL. = 9 IN

HEIGHT = 7 FT 0 IN; DEPTH OF FILL = 3 FT 4 3/4 IN  
LEFT SIDE SKEW ANGLE = 0 DEGREE; WIDTH = 20 FT 3 IN  
RIGHT SIDE SKEW ANGLE = 0 DEGREE; WIDTH = 20 FT 3 IN  
9 IN; EXT. WALL = 9 IN; INT. WALL = 9 IN

WINGWALL: NO. OF WINGWALL(S) BOTH LEFT AND RIGHT SIDES NO. OF HEADWALL(S) BOTH LEFT AND RIGHT SIDES

TOP BEVEL = 6 IN; SIDE BEVEL = 6 IN;  
WALL HEIGHT = 8 FT 9 IN; FOOTING WIDTH = 5 FT 9 IN; HEEL DIMENSION = 3 FT 5 IN;  
TOE DIMENSION = 1 FT 6 IN; WALL THICKNESS = 10 IN; FOOTING THICKNESS = 9 IN;  
TOE PRESSURE = 1178. psf

SKEW ANGLE : LEFT FRONT = 315 DEGREE; LEFT BACK = 225 DEGREE;  
RIGHT FRONT = 45 DEGREE; RIGHT BACK = 135 DEGREE.  
LENGTH = 25 FT 10 IN\* ( 5 IN\*\*); FRONT TIP HEIGHT = 8 FT 9 IN  
WALL = 6.954 C.Y.; FOOTING = 5.239 C.Y.;  
TOTAL = 12.193 C.Y.

TOTAL WINGWALL LENGTH WITH BARREL WIDTH : LEFT = 72 FT 9 IN; RIGHT = 72 FT 9 IN

CONCRETE QUANTITIES

BARREL : POUR 1 (BOTTOM SLAB) = .576 C.Y./FT.; POUR 2 (WALLS) = .556 C.Y./FT.; POUR 3 (TOP SLAB) = .578 C.Y./FT.  
POUR 4 (HEADWALL(S)) = 1.875 C.Y. TOTAL (EXCLUDE HEADWALL) = 1.710 C.Y./FT.

WINGWALL: POUR 1 (FOOTING\*\*\*) = 24.051 C.Y.; POUR 2 (WALLS) = 27.815 C.Y.; TOTAL = 51.866 C.Y.

TOTAL CONCRETE QUANTITIES

BARREL = 104.498 C.Y.; WINGWALL = 51.866 C.Y.; TOTAL = 156.364 C.Y.

\* SKEWED WINGWALL LENGTH MEASURED ON CENTER LINE FROM CONSTRUCTION JOINT  
\*\* DISTANCE FROM OUTSIDE EDGE OF BARREL EXTERIOR WALL TO CONSTRUCTION JOINT ON CENTER LINE OF WINGWALL  
\*\*\* INCLUDE TOE AND KEY AT BARREL ENDS

ENVIRONMENT : SLIGHTLY AGGRESSIVE, USE CLASS II CONCRETE

### STEEL QUANTITIES AND BAR SCHEDULE

BARREL QUANTITIES :

LOCATION	BAR	NUMBER	SETS	SIZE	SPACING (FT-IN)	TYPE	LENGTH (FT-IN)	QUANTITY (LB)	B LENGTH (FT-IN)	C LENGTH (FT-IN)	D LENGTH (FT-IN)
TOP SLAB	A100	103		5	0- 7	1	19-11	2140			
BOT SLAB	A200	120		4	0- 6	1	19-11	1597			
TOP SLAB	A300	60		6	1- 0	1	19-11	1795			
TOP SLAB	B300	60		6	1- 0	1	5- 2	466			
BOT SLAB	A400	60		6	1- 0	1	19-11	1795			
BOT SLAB	B400	60		6	1- 0	1	5- 2	466			
CORNER (TOP)	A1	240		5	0- 6	10	6- 3	1565	3- 1		3- 2
CORNER (BOTTOM)	A2	240		5	0- 6	10	5-11	1481	2- 9		3- 2
EXTERIOR WALL (INSIDE)	B1	180		4	0- 8	1	8- 2	982			
EXTERIOR WALL (OUTSIDE)	B2	240		4	0- 6	1	6- 2	989			
INTERIOR WALL	B3	160		4	0- 9	1	8- 2	873			
LONGITUDINAL	C1	144	( 2)	4	1- 6	1	30- 8	2950			
HEADWALL BOTH SIDES	G1	8	( 1)	5	SEE INDEX	1	19-11	166			
HEADWALL BOTH SIDES	P	42		4	1- 0	11	3- 5	96	0-11	1- 5	1- 1

PER FOOT BARREL STEEL QUANTITY 284. LBS./FOOT  
TOTAL BARREL STEEL QUANTITY 17361 LBS.

WINGWALL QUANTITIES : E\_N\_G\_L\_I\_S\_H\_O\_U\_T\_P\_U\_T

LOCATION	BAR	NUMBER	SETS	SIZE	SPACING (FT-IN)	TYPE	LENGTH (FT-IN)	WEIGHT (LB)	B LENGTH (FT-IN)	C LENGTH (FT-IN)
STEM	F	88		5	1- 2 1/2	10	11- 1	1016	1-11	9- 2
STEM	J	88		4	1- 2 1/2	1	9- 2	540		
STEM	K	48		4	1- 6	1	25- 6	816		
FOOTING	KF	16		4	SEE INDEX	1	25- 6	272		
FOOTING	L	88		4	1- 2 1/2	1	5- 5	320		
FOOTING LEFT SIDE	M1	4	( 2)	4	SEE INDEX	1	37- 0	99		
FOOTING RIGHT SIDE	M2	4	( 2)	4	SEE INDEX	1	37- 0	99		
STEM TO BARREL DOWELS	N **	36		6	1- 0	10	6- 0	324	3- 0	3- 0
FOOTING SPILLWAY	R	40		4	1- 0	1	2-10	76		

PER FOOT WINGWALL STEEL QUANTITY 48. LBS./FOOT  
TOTAL WINGWALL STEEL QUANTITY 3562 LBS.

\* LENGTH IS THE SUM OF BAR LENGTH AT BEGINNING/TOP AND ENDING/BOTTOM OF WINGWALL, NUMBER OF BAR IS THE AMOUNT REQUIRED FOR THIS SUMMATION OF LENGTH. B AND C LENGTH IS FOR THE FIRST BAR OF WINGWALL CLOSE TO THE JOINT OF WINGWALL AND BARREL.  
\*\* FOR SKEWED WINGS BEND BARS N TO ACCOMMODATE SKEW, PROVIDE FOR 3 FT. OF BAR IN THE WINGWALL AND HEADWALL.

TOTAL STEEL QUANTITIES

BARREL 17361 LBS.  
WINGWALL 3562 LBS.  
TOTAL 20923 LBS.

R:\V1073 - Lake Co. Culvert Replacements (RFP 01-003)\AD02 - Submittal\New\ASHT-07-10-1025-CULV-W-C-DCS.dwg 01/09/2002 02:00:10 PM ECF

NO.	DATE	REVISION	APP'D. BY



1221 West Colonial Drive, Suite 300  
Orlando, Florida 32804-7156  
(407) 426-8994 Fax (407) 426-8977

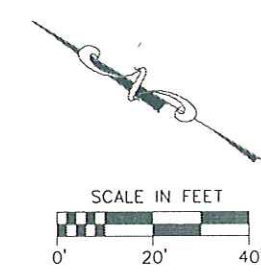
LAKE COUNTY  
PUBLIC WORKS DEPARTMENT

BOX CULVERTS AND WINGWALL DESIGN  
GREEN SWAMP ROAD  
FOUR CULVERT REPLACEMENTS  
LAKE COUNTY, FLORIDA

PROFESSIONAL ENGINEER  
STATE OF FLORIDA  
DATE 5/7/02  
SHT 10 OF 26

JOB NO. 91135.02  
DRAWN JET  
CHECKED CEP  
DWG FILE SH-10-BOX04  
DATE MAY, 2002  
SHT 10 OF 26

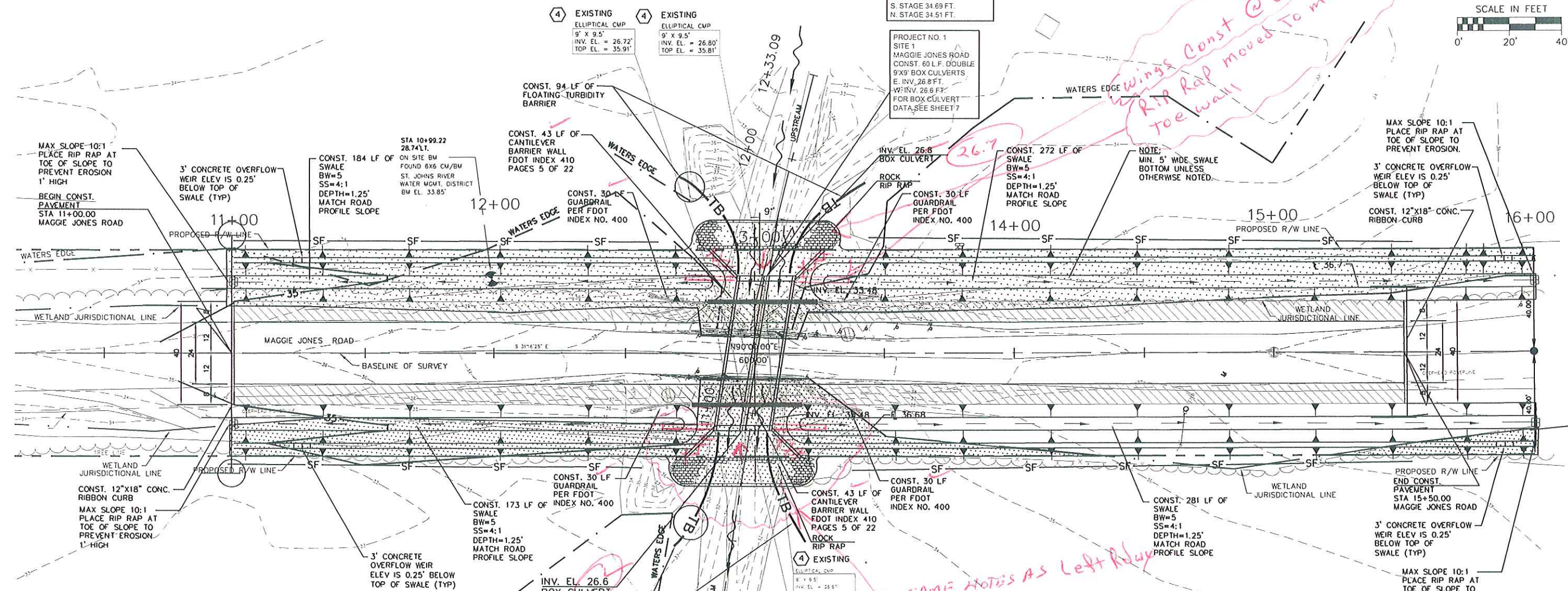




PREDICTED 100-YEAR, 24-HOUR PEAK STORAGE  
S. STAGE 34.69 FT.  
N. STAGE 34.51 FT.

PROJECT NO. 1  
SITE 1  
MAGGIE JONES ROAD  
CONST. 60 LF. DOUBLE  
9'X9' BOX CULVERTS  
E. INV. 26.8 FT.  
W. INV. 26.6 FT.  
FOR BOX CULVERT  
DATA, SEE SHEET 7

*Wings Const @ 0° skew  
Rip Rap moved to metal  
Toe wall*



- LEGEND**
- ① TO BE REMOVED, SALVAGED AND STORED.
  - ② TO BE REMOVED, RENOVATED AND REUSED IN PROJECT
  - ③ TO BE ABANDONED
  - ④ TO BE REMOVED AND DISPOSED OF OFFSITE.
  - ⑤ TO REMAIN IN SERVICE
  - ⑥ TO BE REHABILITATED/RETROFITTED
  - ⑦ TO BE REMOVED AND REPLACED WITH NEW EQUIPMENT, PIPING, ETC.
  - ⑧ TO BE RELOCATED
  - ⑨ TO BE REMOVED, PACKAGED IN ACCORDANCE WITH THE SPECIFICATIONS AND STORED AT SITE.

NOTE: DESIGN SPEED= 45 MPH  
POSTED SPEED= 35 MPH

- LEGEND**
- PROPOSED PAVEMENT
  - ▨ PROPOSED STABILIZED SHOULDER
  - SF- SILT FENCE
  - TB- FLOATING TURBIDITY BARRIER
  - ▤ WETLAND IMPACTS
- N. SIDE = .27 AC  
S. SIDE = .12 AC

- NOTE:**
1. FOR GRATE AND ACCESSORY INSTALLATION, REFER TO THE FDOT ROADWAY & TRAFFIC DESIGN STANDARDS (1998) INDEX NO. 201 & 218.
  2. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF GRATING AND ACCESSORIES TO THE ENGINEER FOR REVIEW.
  3. FIELD CUT TOP SLAB REINFORCING TO MAINTAIN A MINIMUM CLEARANCE OF 2" FROM INLET OPENING.
  4. TIE PROPOSED GRADE INTO WINGWALLS.
  5. FLOW IN CREEK TO BE MAINTAINED AT ALL TIMES EITHER THROUGH MECHANICAL MEANS OR GRAVITY FLOW. EROSION CONTROL MEASURES INCLUDING SHORE & BANK STABILIZATION AND TURBIDITY BARRERS SHALL BE EMPLOYED. IF TURBIDITY PERSISTS THE CONTRACTOR SHALL TAKE NECESSARY ACTION TO REMEDY THE PROBLEM.

*SAME NOTES AS Left Right*

R:\V1035 - Lake EG Culvert Replacements (RTP) 01-2013\1035 Submittals\1035-S11-11-13-MAGGIE-JONES-RD.dwg 07/05/2002 10:16:02 AM EDT

NO.	DATE	REVISED BY	APPROVED BY

**Berryman Henigar**  
1221 West Colonial Drive, Suite 300  
Orlando, Florida 32804-7156  
(407) 426-8994 Fax (407) 426-8977

LAKE COUNTY  
PUBLIC WORKS DEPARTMENT

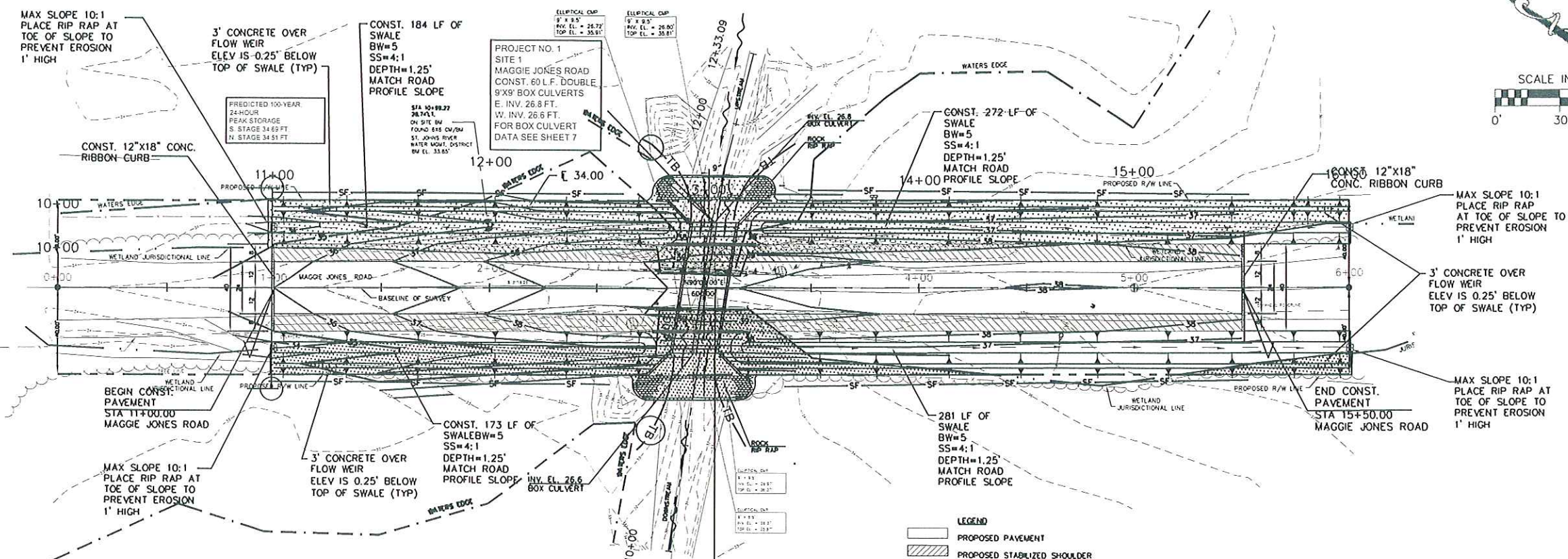
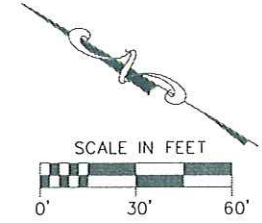
MAGGIE JONES ROAD  
FOUR CULVERT REPLACEMENTS  
LAKE COUNTY, FLORIDA

PROJECT NO 1  
(SITE 1)  
MAGGIE JONES  
ROAD (TRACY CANAL)

JUL 3 0 2002

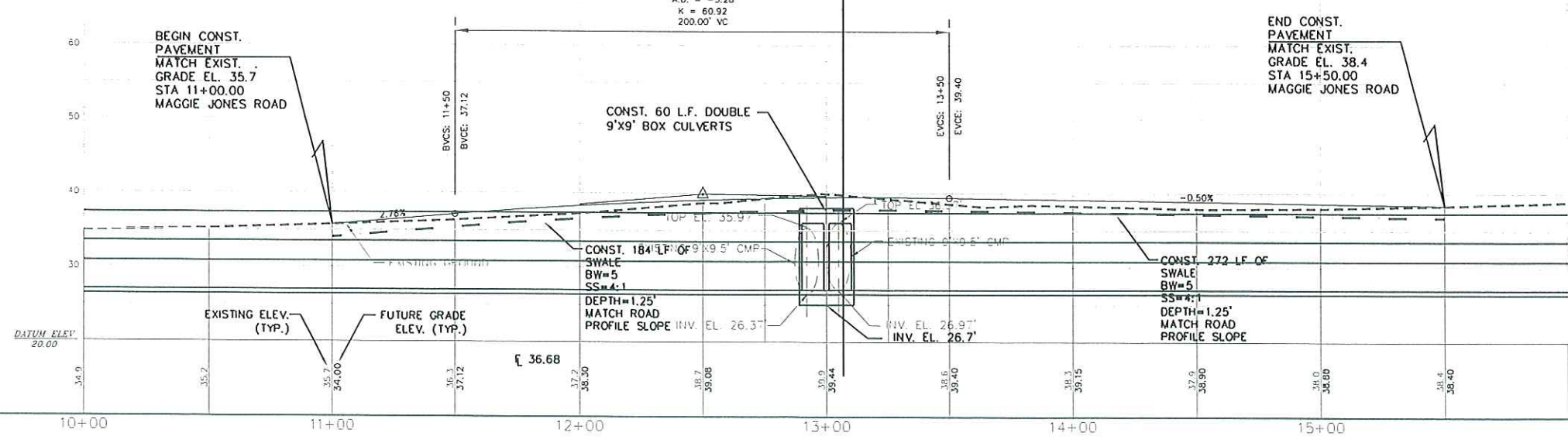
PROFESSIONAL ENGINEER  
STATE OF FLORIDA

JOB NO. 91135.02  
DRAWN JET  
CHECKED CEP  
DWG FILE S11-11-MAG.DWG  
DATE MAY, 2002  
SHT 11 OF 26



**MAGGIE JONES ROAD**

HIGH POINT ELEV = 39.48  
 HIGH POINT STA = 13+19.54  
 PM STA = 12+50  
 PM ELEV = 39.90  
 A.D. = -3.28  
 K = 60.92  
 200.00' VC



**SITE 1  
 MAGGIE JONES ROAD  
 (TRACY CANAL)**

PROJECT NO 1  
 (SITE 1)  
 MAGGIE JONES  
 ROAD (TRACY CANAL)

03/10/2002 - Lake Co. Culvert Replacements, (RFP # 03-003)UBZ, Submit to User's Site 1-13-MAGGIE-BNCS-R002, 02/05/2002, 08:40:02 AM, EBT

NO.	DATE	REVISION	APPROVED BY

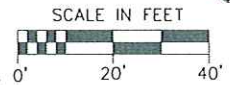
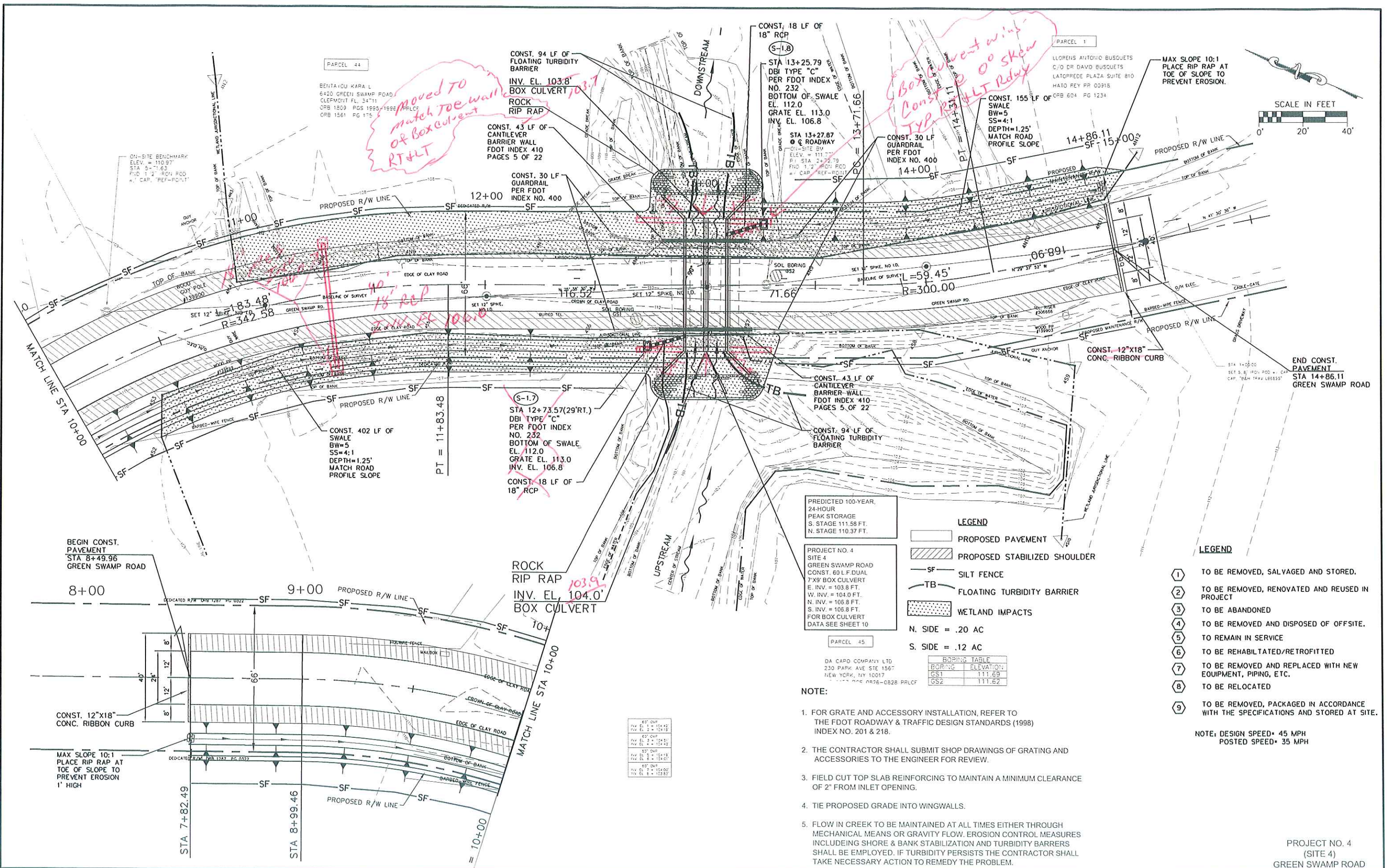
**Berryman Henigar**  
 1221 West Colonial Drive, Suite 300  
 Orlando, Florida 32804-7156  
 (407) 426-8994 Fax (407) 426-8977

LAKE COUNTY  
 PUBLIC WORKS DEPARTMENT

MAGGIE JONES ROAD PLAN / PROFILE  
 FOUR CULVERT REPLACEMENTS  
 LAKE COUNTY, FLORIDA

PROFESSIONAL ENGINEER  
 STATE OF FLORIDA  
 DATE: JUL 30 2002  
 SHT 13 OF 26

RA\91125 - Lake Co Culvert Replacements (RFP 01-0910)002, Submit\1\dwg\SH1-20-GR-SWAMP-RD.dwg 04/09/2002 02:23:08 PM EDT



PREDICTED 100-YEAR, 24-HOUR PEAK STORAGE  
 S. STAGE 111.58 FT.  
 N. STAGE 110.37 FT.

- LEGEND**
- PROPOSED PAVEMENT
  - PROPOSED STABILIZED SHOULDER
  - SILT FENCE
  - FLOATING TURBIDITY BARRIER
  - WETLAND IMPACTS
- N. SIDE = .20 AC  
 S. SIDE = .12 AC

PROJECT NO. 4  
 SITE 4  
 GREEN SWAMP ROAD  
 CONST. 60 LF DUAL 7'X9' BOX CULVERT  
 E. INV. = 103.8 FT.  
 W. INV. = 104.0 FT.  
 N. INV. = 106.8 FT.  
 S. INV. = 106.8 FT.  
 FOR BOX CULVERT DATA SEE SHEET 10

**NOTE:**

1. FOR GRATE AND ACCESSORY INSTALLATION, REFER TO THE FDOT ROADWAY & TRAFFIC DESIGN STANDARDS (1998) INDEX NO. 201 & 218.
2. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF GRATING AND ACCESSORIES TO THE ENGINEER FOR REVIEW.
3. FIELD CUT TOP SLAB REINFORCING TO MAINTAIN A MINIMUM CLEARANCE OF 2" FROM INLET OPENING.
4. TIE PROPOSED GRADE INTO WINGWALLS.
5. FLOW IN CREEK TO BE MAINTAINED AT ALL TIMES EITHER THROUGH MECHANICAL MEANS OR GRAVITY FLOW. EROSION CONTROL MEASURES INCLUDING SHORE & BANK STABILIZATION AND TURBIDITY BARRIERS SHALL BE EMPLOYED. IF TURBIDITY PERSISTS THE CONTRACTOR SHALL TAKE NECESSARY ACTION TO REMEDY THE PROBLEM.

- LEGEND**
- ① TO BE REMOVED, SALVAGED AND STORED.
  - ② TO BE REMOVED, RENOVATED AND REUSED IN PROJECT
  - ③ TO BE ABANDONED
  - ④ TO BE REMOVED AND DISPOSED OF OFFSITE.
  - ⑤ TO REMAIN IN SERVICE
  - ⑥ TO BE REHABILITATED/RETROFITTED
  - ⑦ TO BE REMOVED AND REPLACED WITH NEW EQUIPMENT, PIPING, ETC.
  - ⑧ TO BE RELOCATED
  - ⑨ TO BE REMOVED, PACKAGED IN ACCORDANCE WITH THE SPECIFICATIONS AND STORED AT SITE.

NOTE: DESIGN SPEED = 45 MPH  
 POSTED SPEED = 35 MPH

PROJECT NO. 4  
 (SITE 4)  
 GREEN SWAMP ROAD

PARCEL 44  
 BENHAIYOU KARA L  
 6420 GREEN SWAMP ROAD  
 CLEFMONT FL 34711  
 ORB 1809 PGS 1095-1199E PLCE  
 CRB 1561 PG 175

PARCEL 1  
 LLORENIS ANTONIO BUSQUETS  
 C/O DR DAVID BUSQUETS  
 LATOPREDE PLAZA SUITE 810  
 HATO REY PR 00915  
 CRB 604 PG 1234

PARCEL 45  
 DA CAPO COMPANY LTD  
 230 PARK AVE STE 1567  
 NEW YORK, NY 10017  
 ORB 1809 PGS 0876-0828 PRLCF

NO.	DATE	REVISION
1	04/09/02	REV EL 2 = 104.42 REV EL 3 = 104.19
2	04/09/02	REV EL 2 = 104.41 REV EL 3 = 104.18
3	04/09/02	REV EL 2 = 104.41 REV EL 3 = 104.18
4	04/09/02	REV EL 2 = 104.42 REV EL 3 = 104.19

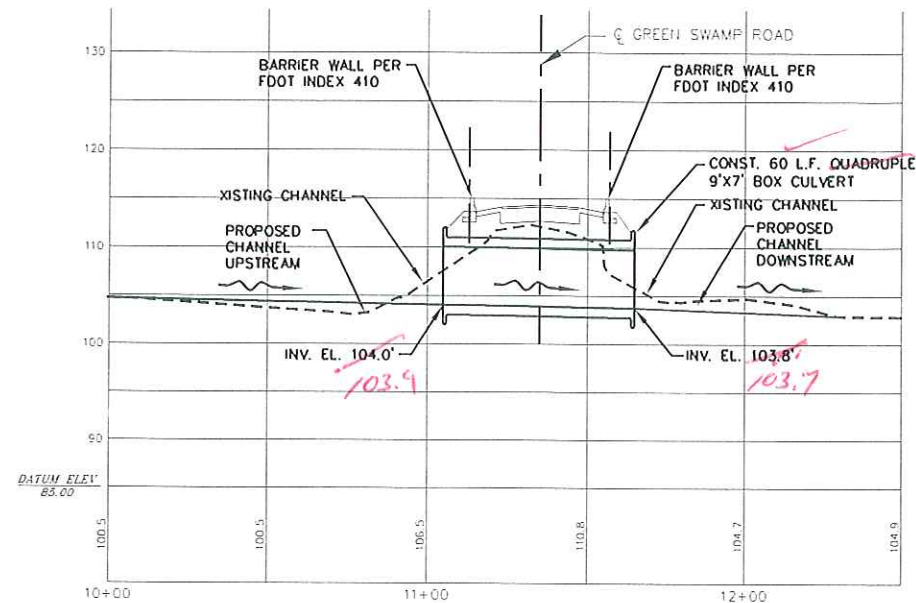
**Berryman Henigar**  
 1221 West Colonial Drive, Suite 300  
 Orlando, Florida 32804-7156  
 (407) 426-8994 Fax (407) 426-8977

LAKE COUNTY  
 PUBLIC WORKS DEPARTMENT

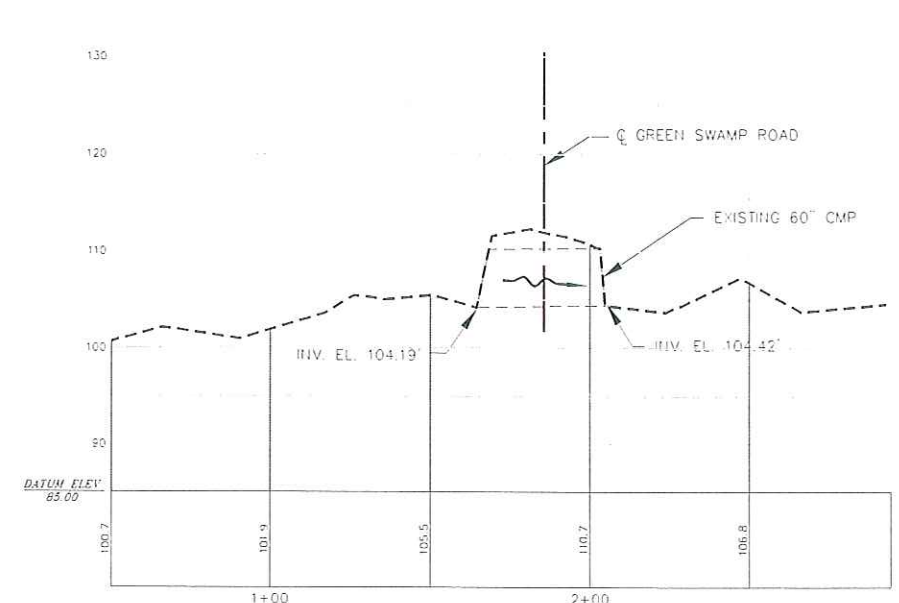
GREEN SWAMP ROAD  
 FOUR CULVERT REPLACEMENTS  
 LAKE COUNTY, FLORIDA

PROFESSIONAL ENGINEER  
 STATE OF FLORIDA  
 DATE: 04/09/02  
 SHT 20 OF 26

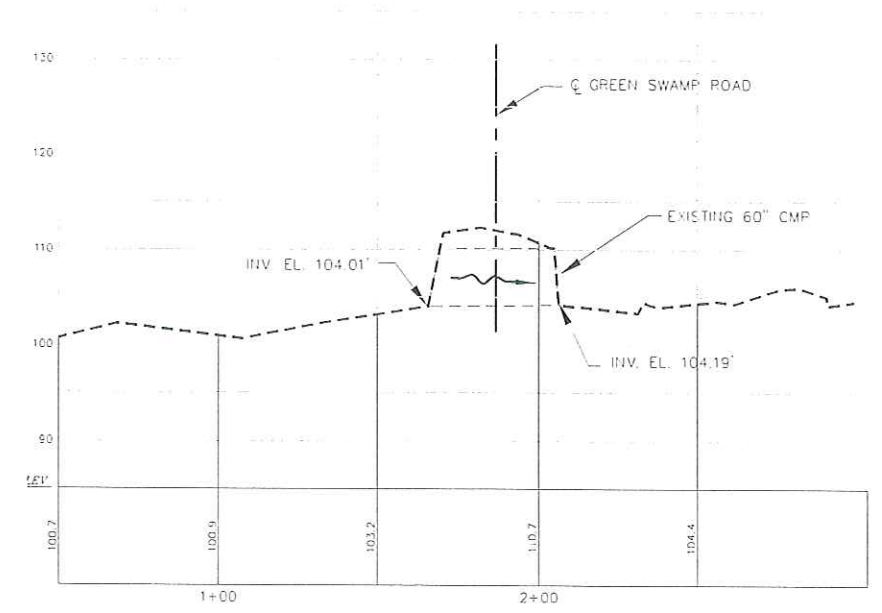
R:\91135 - Lake Co. Culvert Replacements (RFP 01-0911X)1002.Submittal\dwg\SHIT-20-22-CR-SWAMP-RD.dwg 04/09/2002 02:23:08 PM EDT



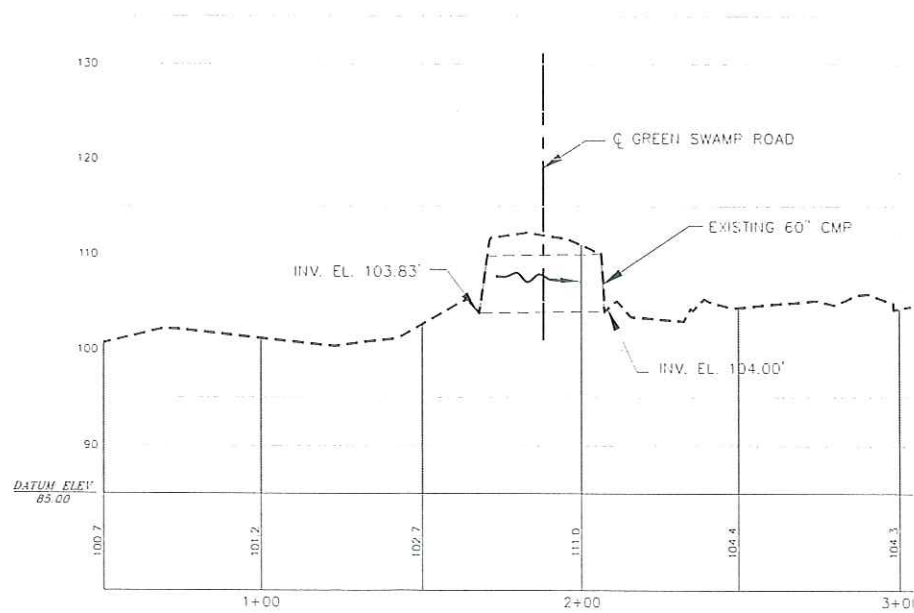
LITTLE CREEK @ GREEN SWAMP ROAD  
PROPOSED



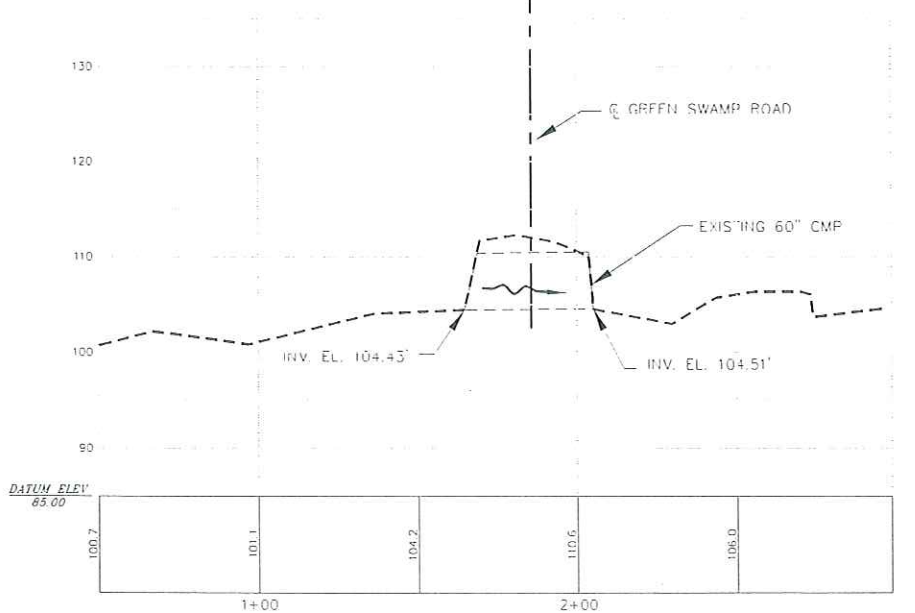
SITE 4 NORTH PIPE 1  
CENTERLINE LITTLE CREEK  
(GREEN SWAMP RD)  
EXISTING



SITE 4 SOUTH PIPE 3  
CENTERLINE LITTLE CREEK  
(GREEN SWAMP RD)  
EXISTING



SITE 4 SOUTH PIPE 4  
CENTERLINE LITTLE CREEK  
(GREEN SWAMP RD)  
EXISTING



SITE 4 NORTH PIPE 2  
CENTERLINE LITTLE CREEK  
(GREEN SWAMP RD)  
EXISTING

SCALE:  
HORIZ 1"=60'  
VERT 1"=20'

NO.	DATE	REVISION	APP'D. BY

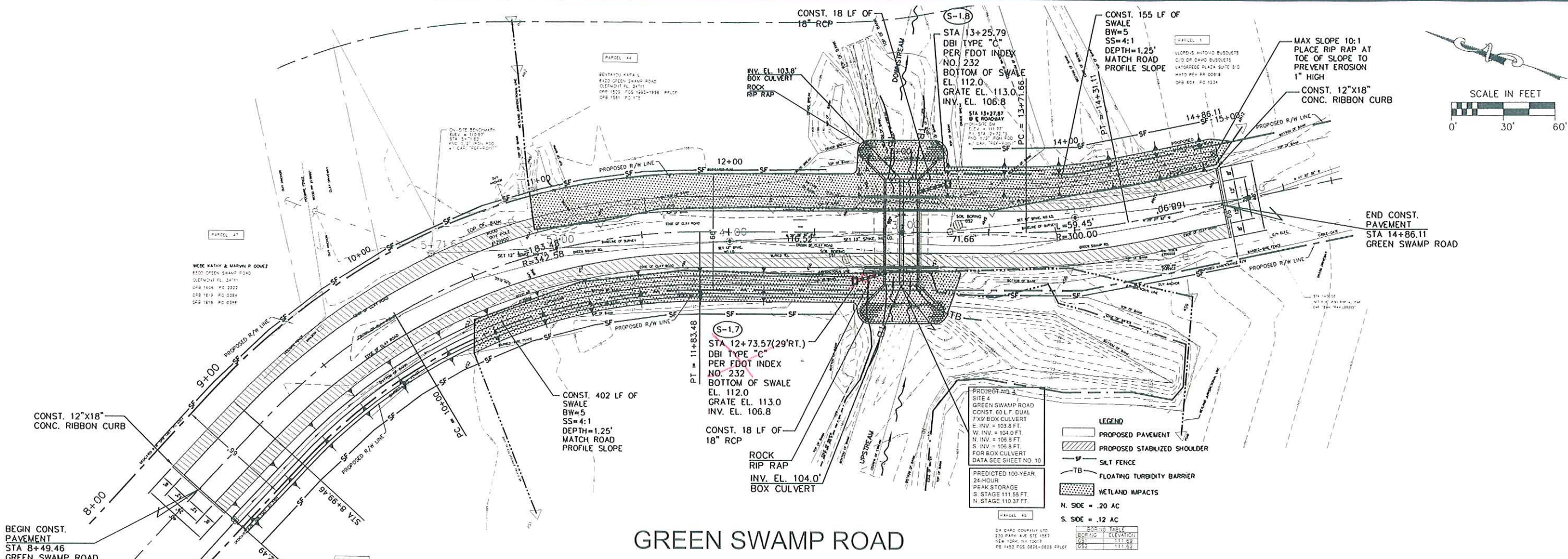
**Berryman Henigar**  
 1221 West Colonial Drive, Suite 300  
 Orlando, Florida 32804-7156  
 (407) 426-8994 Fax (407) 426-8977

LAKE COUNTY  
PUBLIC WORKS DEPARTMENT

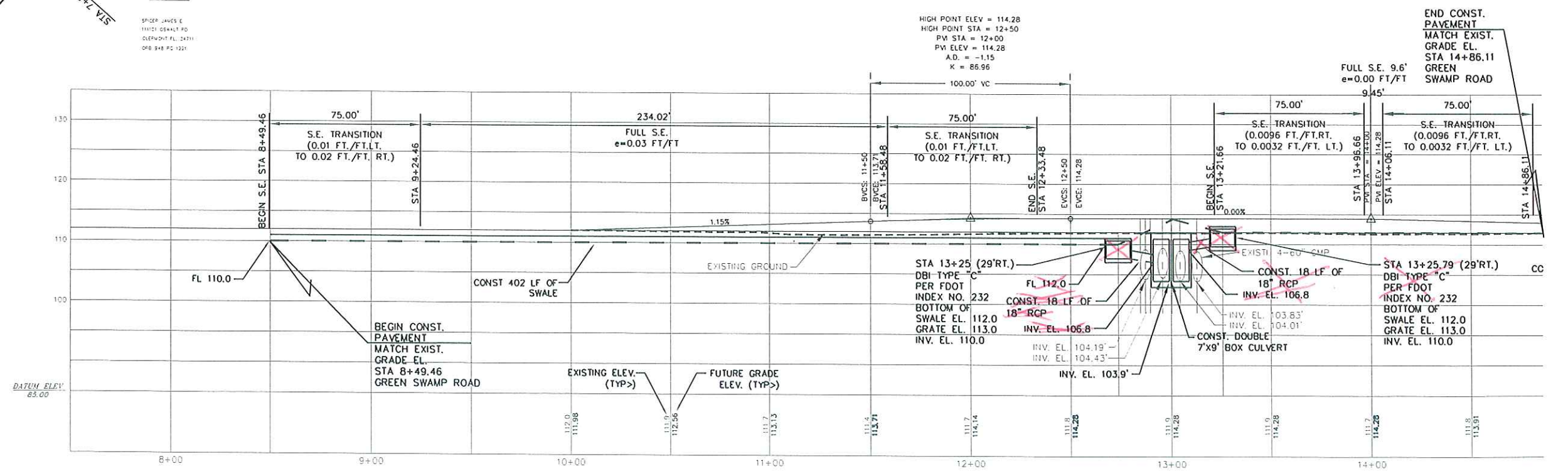
LITTLE CREEK PROFILE / GREEN SWAMP ROAD  
FOUR CULVERT REPLACEMENTS  
LAKE COUNTY, FLORIDA

PROFESSIONAL ENGINEER  
STATE OF FLORIDA  
 JUL 30 2002  
 DATE  
 JOB NO. 91135.02  
 DRAWN JET  
 CHECKED CEP  
 DWG FILE SH-21-LI-0200  
 DATE MAY, 2002  
 SHT 21 OF 26

R:\91125 - Lake Co Culvert Replacements (RFP 01-0913)\1002\_Submittal\dwg\SH-20-22-GR-SWMP-RD.dwg 04/09/2002 02:23:08 PM EDT



## GREEN SWAMP ROAD



NO	DATE	REVISED	APP'D BY

**Berryman Henigar**  
 1221 West Colonial Drive, Suite 300  
 Orlando, Florida 32804-7156  
 (407) 426-8994 Fax (407) 426-8977

**LAKE COUNTY**  
 PUBLIC WORKS DEPARTMENT

**GREEN SWAMP ROAD**  
 FOUR CULVERT REPLACEMENTS  
 LAKE COUNTY, FLORIDA

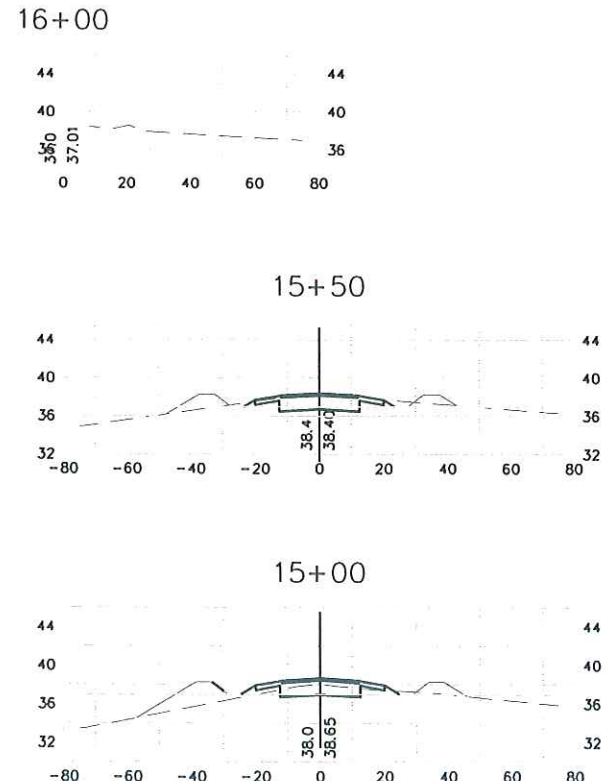
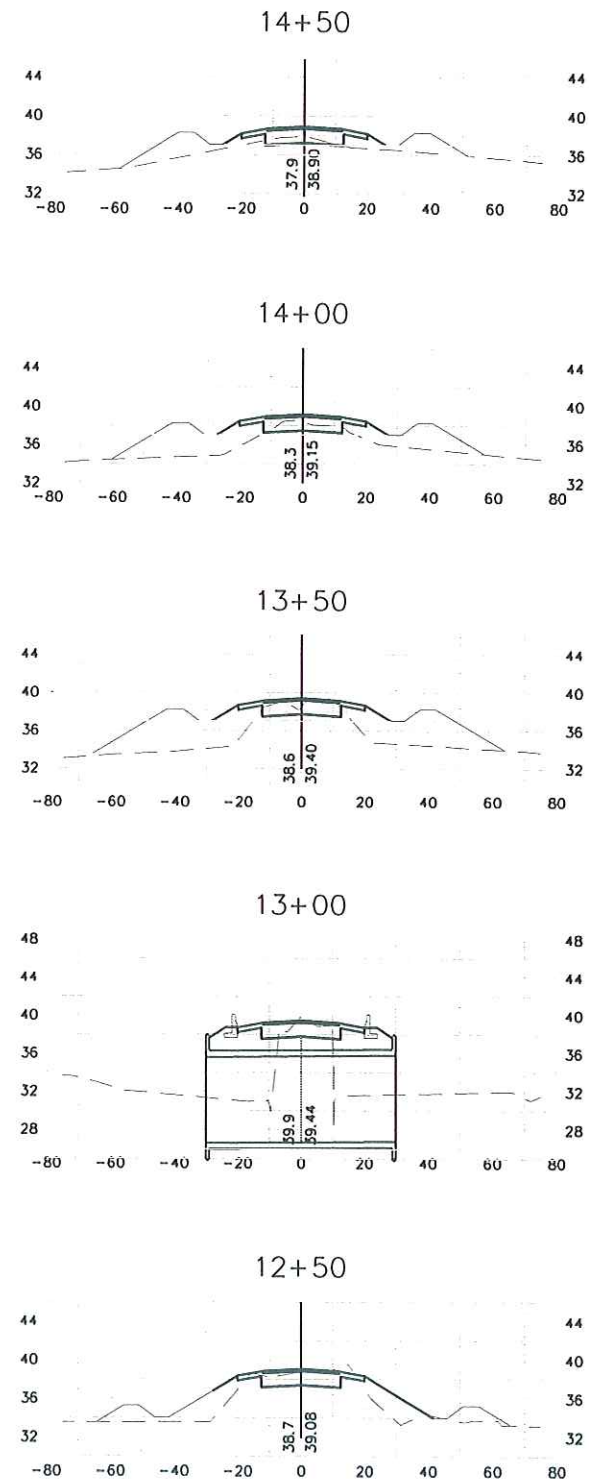
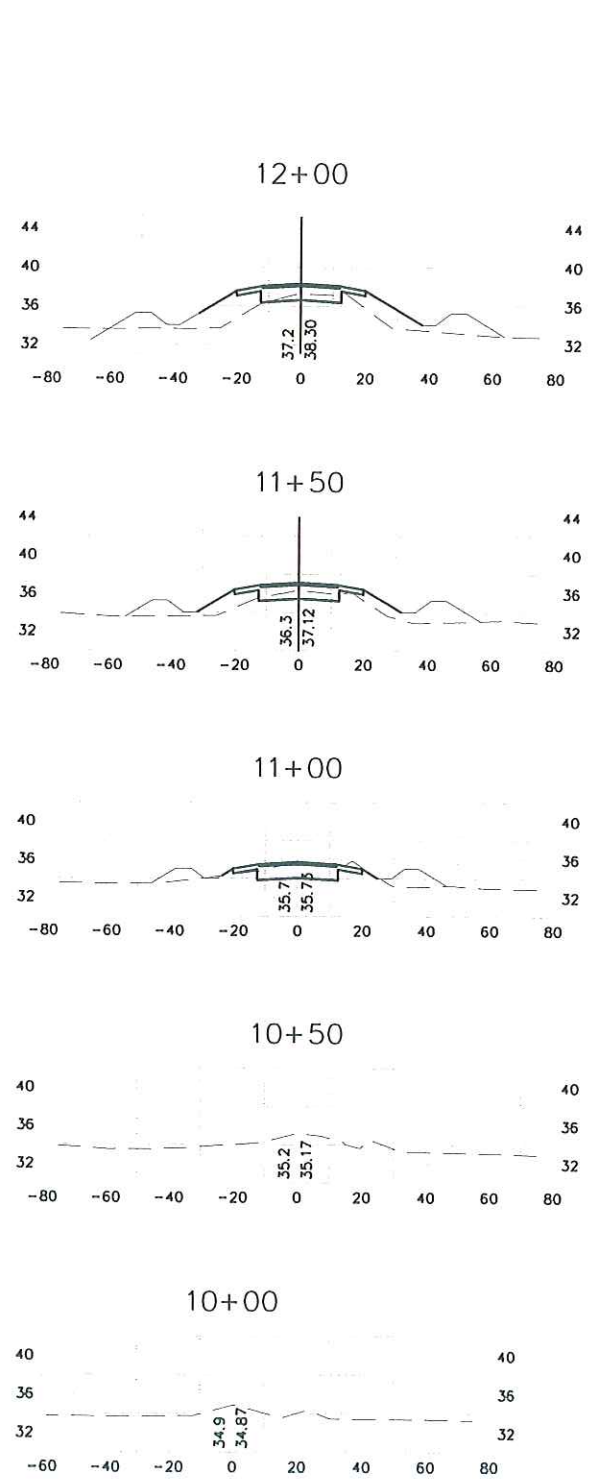
SCALE:  
 HORIZ 1"=60'  
 VERT 1"=20'

PROJECT NO. 4  
 (SITE 4)  
 GREEN SWAMP ROAD

JOB NO.	91135.02
DRAWN	ET
CHECKED	CEP
DWG FILE	SH-22-GR-RD.DWG
DATE	MAY, 2002
DATE	7-7-
SHT	22 OF 26

PROFESSIONAL ENGINEER  
 STATE OF FLORIDA  
 JUL 30 2002  
 DATE

R:\01025 - Lake Co Culvert Replacements\01025-001\01025-001.dwg 11/22/2001 10:02:00 AM



SCALE:  
 HORIZ 1"=60'  
 VERT 1"=20'

NO.	DATE	REVISION	APP'D. BY

**Berryman Henigar**  
 1221 West Colonial Drive, Suite 300  
 Orlando, Florida 32804-7156  
 (407) 426-8994 Fax (407) 426-8977

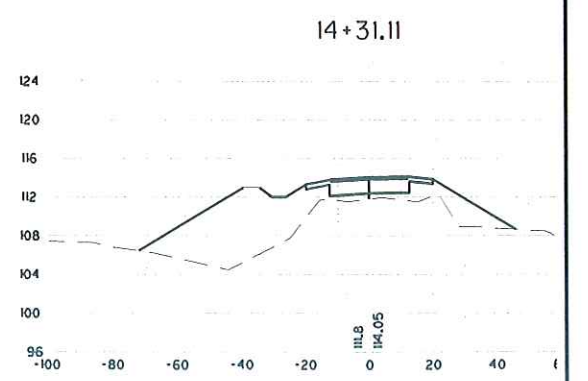
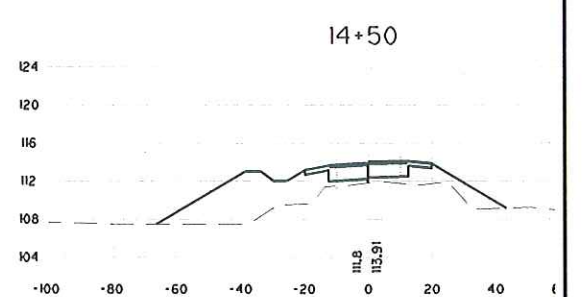
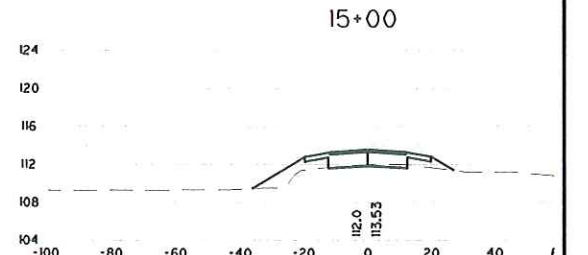
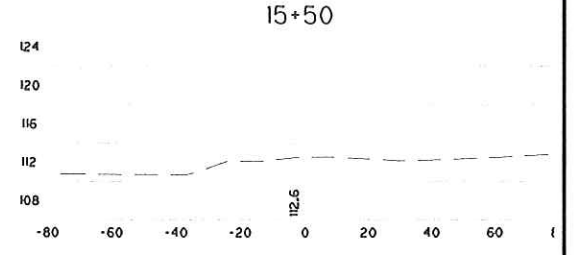
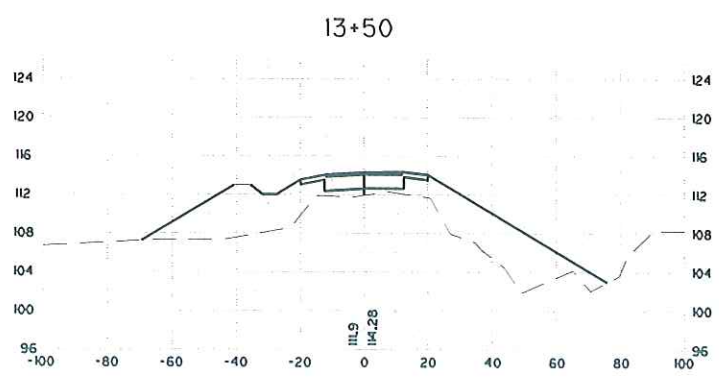
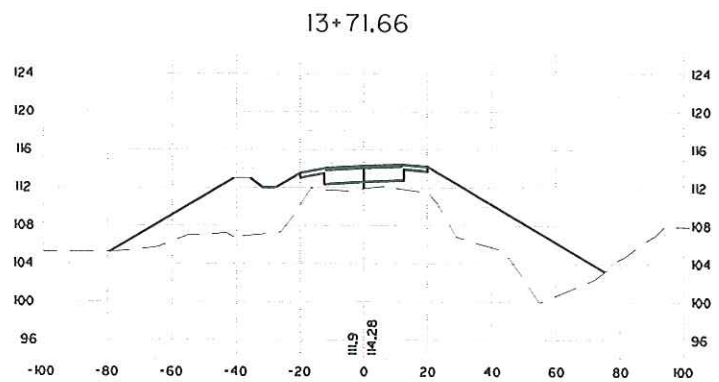
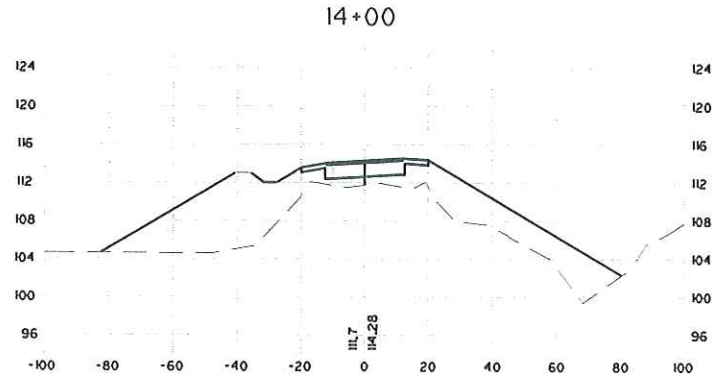
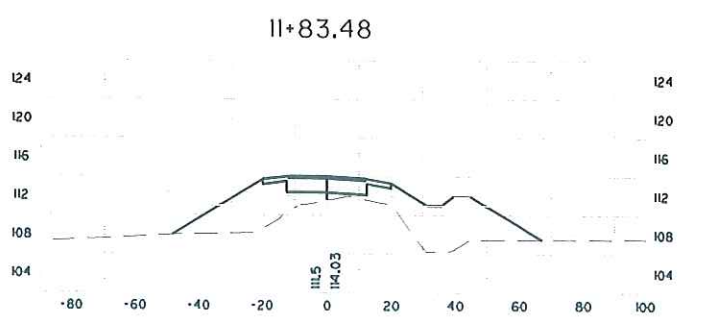
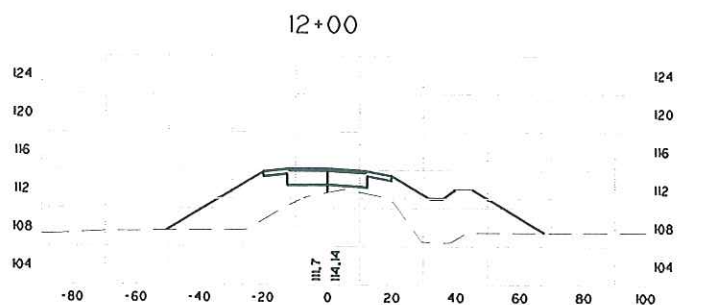
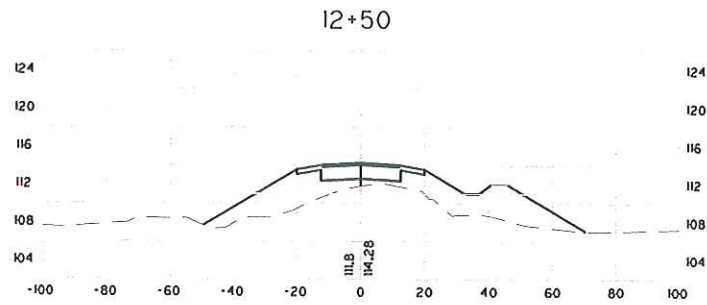
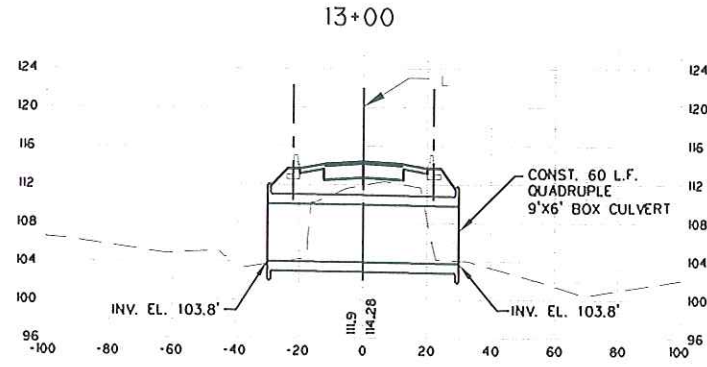
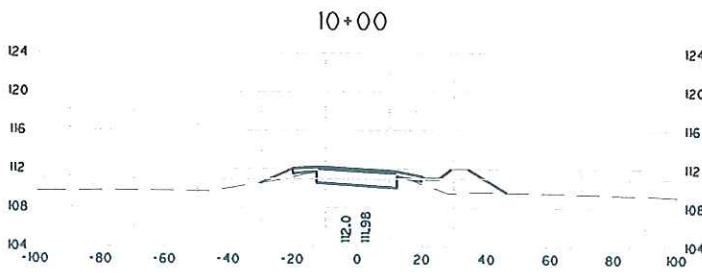
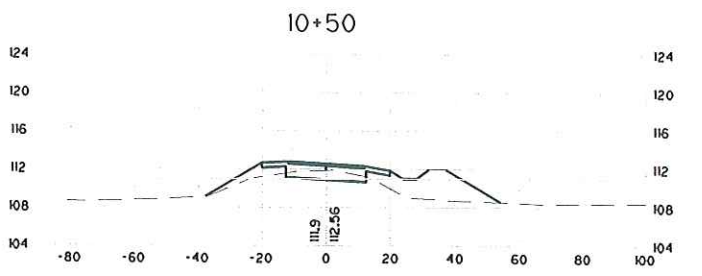
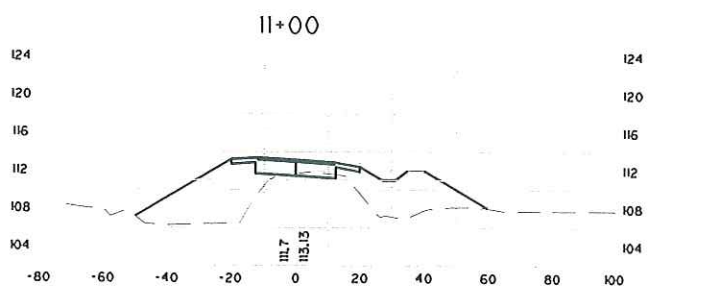
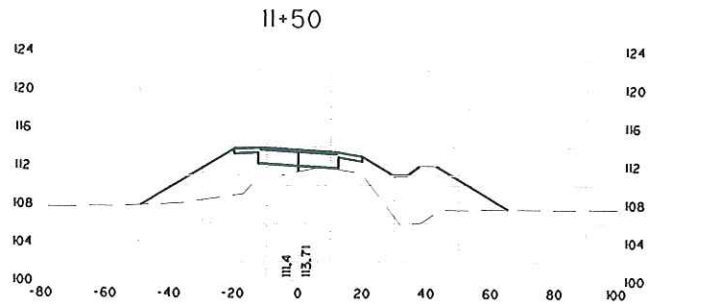
LAKE COUNTY  
 PUBLIC WORKS DEPARTMENT

CROSS SECTIONS  
 MAGGIE JONES ROAD  
 FOUR CULVERT REPLACEMENTS  
 LAKE COUNTY, FLORIDA

PROFESSIONAL ENGINEER  
 STATE OF FLORIDA  
 DATE 3-8-2002  
 SHT 23 OF 26

JOB NO. 91135.02  
 DRAWN JET  
 CHECKED CEP  
 DWG FILE 91135-003-SECTION  
 DATE MAY, 2002  
 SHT 23 OF 26

8/1/2002 - Lake Co. Culvert Replacements (RFP) 91-25-005-SEC.dwg 11/10/2001 10:00:02 AM 151



SCALE:  
 HORIZ 1"=60'  
 VERT 1"=20'

NO.	DATE	REVISION	APP'D. BY



1221 West Colonial Drive, Suite 300  
 Orlando, Florida 32804-7156  
 (407) 426-8994 Fax (407) 426-8977

LAKE COUNTY  
 PUBLIC WORKS DEPARTMENT

CROSS SECTIONS  
 GREEN SWAMP ROAD  
 FOUR CULVERT REPLACEMENTS  
 LAKE COUNTY, FLORIDA

PROFESSIONAL ENGINEER  
 STATE OF FLORIDA

JOB NO. 91135.02  
 DRAWN JET  
 CHECKED CEP  
 DWG FILE 91-25-005-SEC.dwg  
 DATE MAY, 2002  
 SHT 26 OF 26

JUL 9 2002