SHEET DESCRIPTION 1 COVER SHEET 2-5 GENERAL NOTES & SPECIFICATIONS

- 6-7 TYPICAL SECTIONS
- OVERALL SITE PLAN 8
- 9-17 EXISTING CONDITIONS
- 18-35 PLAN & PROFILE
- SIGNING & PAVEMENT MARKING PLAN 36-44
- 45-71 CROSS SECTIONS



PROJECT LOCATION MAP SCALE: 1" = 1,500'

DATE

BY

GOVERNING STANDARDS AND SPECIFICATIONS: 1. FLORIDA DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS DATED 2013, AS AMENDED BY CONTRACT DOCUMENTS

2. FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS DATED 2016, AS AMENDED BY CONTRACT DOCUMENTS.

3. FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2016, AS AMENDED BY CONTRACT DOCUMENTS.

PLANS PREPARED BY HIGHLANDS COUNTY ENGINEERING DEPARTMENT

DESCRIPTION

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN ALTERED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

\PR0JECTS\2013\13008 Lake Jasephine Drive Resurfacing\Drawings\Full Depth Reconstruction Option\Cover General Notes Details Josephine.dwg, 1 COV, Acad 1-7 Black.ctb

HIGHLANDS COUNTY BOARD OF COUNTY COMMISSIONERS CONSTRUCTION PLANS FOR LAKE JOSEPHINE DRIVE IMPROVEMENTS

HIGHLANDS COUNTY PROJECT NO. 13008 FDOT FPID: 430107 1 58 01



RAMON D. GAVARRETE, P.E. COUNTY ENGINEER

ENGINEER OF RECORD **ELIUS F. NORTELUS, P.E.**

RIGHT-OF-WAY WIDTH = 66' WIDE APPROXIMATE PROJECT LENGTH = 9,318 LF (1.765 MILE)

UTILITY COMPANIES

JUDY HENRY

720-888-2061

EDDIE CARDONA

(863) 402-6877

505 S. COMMERCE AVE.

APPROVED BY: ELIUS F. NORTELUS, P.E.

FLORIDA REGISTRATION NO.: 70092

COMCAST CABLE 3010 HERRING AVE. SEBRING, FL 33870 YONHUI MIRANDA 863-381-1409

LEVEL 3 COMMUNICATIONS GLADES ELEC. CO-OP INC. 1025 ELDORADO BLVD. PO BOX 519 MOORE HAVEN, FL 33471 BROOMFIELD, CO 80021 GLEN STIMSON 863-465-0231

CENTURY LINK 924 MEMORIAL DR. AVON PARK, FL 33825 KEN LUTZ 863-452-3185

CHECKED BY: ELIUS F. NORTELUS, P.

IN CHARGE: ELIUS F. NORTELUS, P.

DATE: 5/9/2016

US WATER SERVICES CORP. HIGHLANDS COUNTY TRAFFIC 4939 CROSS BAYOU BLVD. NEW PORT RICHEY, FL 34652 SEBRING, FLORIDA 33870 RON DEROSSETT 866-753-8292

904-540-9765

505 S. COMMERCE AVENUE

SEBRING, FLORIDA 33870



DATE:

REVISIONS STATUS DESIGNED BY: KEITH BAKER, E.I. HIGHLANDS COUNTY DRAWN BY: KEITH BAKER, E.I. ENGINEERING DEPARTMENT

FOR BID



REMO 11

MAILE 13 REGUL MIXA

THICK 15 OPTIO OPTIO

18" x 1 18" RE 23

RETRC 38 TEMPO 39 TEMPO

43 THERN

46 THERM 47 THERM

48 RUMB

10

14

16 17

18

19

20

21

24

25

33 SINGL 34

40

41 TEMP

42 TEMP

44 THER

45

sunshine state ONE CALL DIAL 81 Local No. 1-800-432-4770 Notification # <u>239501141-000</u> Call 48 hours before you dig.

STATE LAW REQUIRES EXCAVATORS TO CALL 811 BEFORE DIGGING PER THE "UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT" CHAPTER 556, FLORIDA STATUTES. FAILURE TO CALL CAN RESULT IN FINES FROM \$250 TO \$5,000.

	LAKE JOSEPHINE DRIVE IMPROVEMENTS						
	HIGHLANDS COUNTY PROJECT NO. 13008						
	BASEBID						
0	TEMDESCEPTION	OUANTITY	UNIT				
<u>U</u> .	MODILIZATION	QUAITIT	10				
	DONDE & DISUDANCE	1	10				
	DOND5 & INSURANCE	1	10				
	CONSTRUCTION SURVETSTANINGINCLUDINGAS-BUILT	1	10				
	TESTING (DENSITY, ROADWAY THICKNESS)	1	LS				
	MAINTENANCE OF TRAFFIC	1	LS				
	BUSINESS SIGN	4	EA				
	PORTABLE CHANGEABLE MESSAGE SIGNS, TEMPORARY (TWO)	190	ED				
	SEDIMENT BARRIER TEMPORARY	18,000	LF				
	CLEARING AND GRUBBING INCLUDING TREE REMOVAL	1	LS				
	REMOVAL OF EXISTING CONCRETE PA VEMENT DRIVEWA Y	1,800	SY				
	REMOVAL OF EXISTING ASPHALT PAVEMENT DRIVEWAY	1,050	SY				
	MAILBOX REMOVE AND RELOCATE	70	EA				
	REGULAR EXCAVATION	1	LS				
	MIX AND COMPACT EXISTING ASPHALT, BASE AND SUB-BASE TO SERVE AS 12"	25.000	ev				
	THICK STABILIZATION	35,000	51				
	OPTIONAL BASE, BASE GROUP 6, 8" COMPACTED THICKNESS	31,000	SY				
	OPTIONAL BASE, BASE GROUP 4, 6" COMPACTED THICKNESS, DRIVEWAY	1.200	SY				
	MILLING EXISTING ASPH PA VT. 1 1/2" A VG DEPTH	400	SY				
	SUDERDANE A SHILA LTIC CONCRETE 1 1/2" THICK, DAD 200/ MANIMUM, DIA CED						
	SUPERPAVE ASPHALITE CONCRETE, 11/2 THECK, RAP 50% MAAIMUM, PLACED	30	TN				
	IN TWO EQUAL LA YERS, 11/2" THICK EACH (STA 118+06.05 TO STA 119+04.28)						
	SUPERPAVE ASPHALTIC CONCRETE, 5" THICK, RAP 30% MAXIMUM, PLACED IN	4,425	TN				
	TWO EQUAL LA YERS, 1½" THICK EACH						
	SUPERPAVE ASPHALTIC CONCRETE, $1\!$	150	TN				
	INLET, DITCH BOTTOM, TYPE C	2	EA				
	18" x 12" REINFORCED CONCRETE PIPE (RCP)	64	LF				
	18" REINFORCED CONCRETE PIPE (RCP)	10	LF				
	MITERED END SECTION	1	FΔ				
	CONCRETE DRIVEWAVS 6"THICK 6"x6"W14W14WEIDED WIREMESH 3000						
	PSI MINIMIM	1,800	SY				
	DEDECDM A NOT TIDE (SOD)	30,000	SV				
	$\frac{1}{2} \frac{1}{2} \frac{1}$	39,000	10				
	SINGLE POST SIGN, F & I, STOP (RI-1), 50 X 50 & T WO (2), D3-1	1/	AS				
	SINGLE POST SIGN, F & I, SPEED LIMIT, 55 MPH (R2-1), 24" X30"	5	AS				
	SINGLE POST SIGN, F & I, W 5-2, 36" X 36" & W 13-1, 24" X 24"	4	AS				
	SINGLE POST SIGN, F & I, 0M3R, 12" X36"	8	AS				
	SINGLE POST SIGN, F & I, 0M 3L, 12" X36"	14	AS				
	SINGLE POST SIGN, F & I, OM2-1V	2	AS				
	SINGLE POST SIGN, F & I, OM2-2V	6	AS				
	SINGLE POST SIGN, F & I, W 3-1	1	AS				
	SINGLE POST SIGN, REMOVE & RELOCATE	20	AS				
	SINGLE POST SIGN, REMOVE & DISCARD	30	AS				
	RETRO-REFLECTIVE PAVEMENT MARKERS, BIDIRECTIONAL YELLOW	230	EA				
	TEMPORARY PAINTED PAVEMENT MARKINGS, STD, WHITE, SOLID, 6"	19,400	LF				
	TEMPORARY PAINTED PAVEMENT MARKINGS, STD, WHITE, SOLID, 24"	315	LF				
	TEMPORARY PAINTED PAVEMENT MARKINGS, STD, YELLOW, SOLID, 6"	16,000	LF				
	TEMPORARY PAINTED PAVEMENT MARKINGS, STD, YELLOW, SKIP, 6"	760	LF				
	TEMPORARY PAINTED PAVEMENT MARKINGS, STD, WHITE, SOLID, 18"	700	LF				
	THERMOPLASTIC, STANDARD, WHITE SOLID, 6"	19,400	LF				
	THERMOPLASTIC STANDARD WHITE SOLID 24"	315	LF				
	THERMOPLASTIC, STANDARD, YELLOW, SOLD, 6"	16,000	LF				
	THERMORIA STIC STANDARD VELIOW SKIP 6'	760	LE				
	THEOMODIA STIC STANDARD, IELOW, SKIL, 9	700	LE				
	DIMDLESTIC, STANDAR, WITTE, SOLD, 10	6 200	LF				

LAKE JOSEPHINE DRIVE **IMPROVEMENTS**

SCALE:	
HORIZ. N/A	
VERT. N/A	
PROJECT NO. 13008	REV. 0
SHEET 1 OF	71

COVER SHEET

GENERAL NOTES AND SPECIFICATIONS

GENERAL CONSTRUCTION NOTES

- The Contractor shall be responsible for furnishing all material and labor to construct the facility as shown and described in the construction documents
- The Contractor shall be responsible for obtaining all required construction bonds prior to construction.
- The Contractor shall have available at the job site at all times one copy of the construction documents including plans, specifications, and .3 special conditions and copies of any required construction permits.
- 4. Any discrepancies on the drawings shall be immediately brought to the attention of the Highlands County Project Manager before commencing work. No field changes or deviations from design are to be made without prior approval of the Highlands County Project Manaaer.
- Contractor shall submit a construction schedule to the Highlands County Project Manager prior to commencement of construction.
- Contractor shall coordinate proposed driveway construction with affected property owners. 6.

7. Contractor shall repair and/or replace all disturbed irrigation. Contractor shall coordinate this activity with affected property owners. EROSION CONTROL

- 1. The Contractor shall arade the site to the elevations indicated and shall regrade washouts where they occur after every rainfall event until sod is well established or adequate stabilization occurs.
- 2. Contractor shall denote on plan the temporary parking and storage area which shall also be used as the equipment maintenance and cleaning area, employee parking area, and area for locating toilet facilities
- All wash water (concrete trucks, vehicle cleaning, equipment cleaning, etc.) shall be detained and properly treated and disposed.
- The Contractor shall be responsible for the control of dust and dirt rising and scattering in the air during construction and shall provide water sprinkling or other suitable methods of control. The Contractor shall comply with all governing regulations pertaining to environmental protection
- The use of motor oils and other petroleum based or toxic liquids for dust suppression operations is prohibited.
- Sod must be installed and maintained on exposed slopes within 48 hours of completing final grading, and at any other time as necessary, 6. to prevent erosion, sedimentation or turbid discharges.
- 7. Stabilization practices should be initiated as soon as practical, but in no case more than 7 days where construction has temporarily ceased.
- 8. All materials spilled, dropped, washed or tracked from vehicles onto roadways or into storm drains must be removed as soon as possible. 9. On-site & off-site soil stockpile and borrow areas shall be protected from erosion and sedimentation through implementation of best management practices.
- 10. Slopes shall be left in a roughened condition during the grading phase to reduce runoff velocities and erosion.
- 11. Due to grade changes during the development of the project, the Contractor shall be responsible for adjusting the erosion control measures (silt fence, etc.) to prevent erosion.
- 12. All construction shall be stabilized at the end of each working day, this includes back filling of trenches for utility construction and placement of gravel or bituminous paving for road construction.
- 13. The contractor shall install sediment barrier as shown on plans within the perimeter of the project site.
- SURVEY AND STAKEOUT
- 1. Existing section corners and 1/2 Section corners, and other land markers or monuments located within proposed construction are to be referenced prior to construction and reset after construction. The Contractor shall have this work done by a registered Professional Land Surveyor at the Contractor's expense (Florida Registration). Any public land corner within the limits of construction is to be protected. If a corner monument is in danger of being destroyed and has not been properly referenced, the Contractor should notify the County Surveyor, without delay, by telephone (863-402-6877).
- Benchmark data is North American Vertical Datum of 1988 (NAVD 88).
- Any NGVD-29 monument within the limits of construction is to be protected. If in danger of damage, the Contractor should notify: Geodetic Information Center, Attn: Mark Maintenance Section N/CG-162, 6001 Executive Boulevard, Rockville, Maryland 20852. Telephone (301) 43-8319.
- Grades shown are the finished grades, unless otherwise indicated.
- 5. The Contractor shall remove survey stakes and erosion control items prior to the completion of the contract.
- 6. The Contractor shall be responsible for submitting to the Highlands County Project Manager a certified record survey signed and sealed by a Professional Land Surveyor registered in the state of Florida depicting the actual field location of all constructed improvements that are required by the jurisdictional agencies for the certification process. All survey costs will be the Contractor's responsibility.

UTILITIES

- 1. It is the Contractor's responsibility to contact the various utility companies which may have buried or aerial utilities within or near the construction area before commencing work. The Contractor shall provide 48 hours minimum notice to all utility companies in advance of any excavation involving their utilities so that a company representative can be present. A list of the utility companies which the Contractor MUST call before commencing work is provided in these construction plans. This list serves as a guide only and is not intended to limit the utility companies which the contractor may wish to notify.
- 2. Existing utilities shown are located according to the information available to the Engineer at the time of the topographic survey and have not been independently verified by the Owner or the Engineer. Guarantee is not made that all existing underground utilities are shown or that the location of those shown are entirely accurate. Finding the actual location of any existing utilities is the Contractor's responsibility and shall be done before he/she commences any work in the vicinity. Furthermore, the Contractor shall be fully responsible for any and all damages due to the Contractor's failure to exactly locate and preserve any and all underground utilities. The Owner or Engineer will assume no liability for any damages sustained or cost incurred because of the operations in the vicinity of existing utilities or structures, nor for temporary bracing and shoring of same. If it is necessary to shore, brace, swing or relocate a utility, the utility company or department affected shall be contacted and their permission obtained regarding the method to use for such work. In addition, the Contractor shall be responsible to verify if "other" utilities (Not shown in the plans) exist within the area of construction. Should there be utility conflicts, The Contractor shall inform the Engineer and notify the respective utility owners to resolve utility conflicts and utility adjustments as required. The Contractor is to use caution when working in or around areas of overhead transmission lines or underground utilities.
- The Contractor is responsible for the protection of all utilities to remain in place.
- The Contractor shall call 811 for field locations no less than 48 hours in advance of digging near underground utilities.
- Prior to commencement of any excavation, the contractor shall comply with Florida Statute 553.851 for the protection of underground gas 5. ninelines
- 6. All valves within area of construction or disturbed by construction to be adjusted to finished grade. Replace valve collars and boxes as necessary.

CLEARING AND GRUBBING

- 1. Contractor shall clear and grub all areas unless otherwise indicated, removing trees, stumps, roots, muck, existing pavement, existing concrete and all other deleterious material.
- PAVING, GRADING AND DRAINAGE

1.	Whe	re new	pavemen	ts meets	the	existing	pavement,	, the (Contractor	• shall	saw	cut	the exist	ting p	avement	a minimum	2″	deep	for	a smo	>01
	and	straigh	nt joint ai	nd match	the	existing	pavement	elevat	ion with	the pr	opose	d pa	vement	unless	otherwis	se indicated.					
-			·								·										

- All cut or fill slopes shall be 4 (horizontal): 1 (vertical) or flatter unless otherwise shown.
- Existing drainage structures within construction limits shall remain unless noted otherwise. 3.

PAVEMENT MARKING AND SIGNAGE

- Stop bars shall be 24" white stripes.
- 2. Temporary payement markings shall be provided by the end of each day's operation. 3. Edition
- Temporary pavement markings and thermoplastic pavement markings shall be installed via truck mounted spray truck.
- Retro-reflective material shall be 3M brand Diamond Grade material. 5.
- 6. Sian substrate shall be aluminum.
- Traffic signs shall be mounted on 3" diameter post with "Z" bar brackets. 7.
- Sign post underground support shall be 6" aluminum "Z" bar brackets (no concrete). <u>SOD</u>
- 1. thoroughly wetted prior to and after placement is complete. No addition of top soil material is required prior to placement.
- 2. and grasses including tropical soda apple, shall be rejected for use on the spot.
- All areas within the project site shall be sodded unless indicated in these construction plans TESTING
- of the test results shall be provided to the Highlands County Project Manager.
- of work or materials to conform with the plans and specifications. 3.
- the testing agency.
- the 15-Foot Rolling and Manual Straightedges (Designation: FM 5-509, May 16, 2002, Revised: March 17, 2008).

Straightedge Testing: The Contractor shall test the final (top) layer of all pavement where the width is constant using a rolling straightedge either behind the final roller of the paving train or as a separate operation. The Contractor shall correct all deficiencies in excess of 3/16 inch by removing and replacing the full depth of the layer, extending a minimum of 50 feet on both sides of the defective area for the full width of the paving lane, at no additional cost, unless waived by the County Engineer. The Contractor shall retest all corrected areas. The Contractor shall test all pavement lanes and document all deficiencies on a form approved by the Highlands County Project Manager. The Contractor shall notify the Highlands County Project Manager of the location and time of all straightedge testing a minimum of 48 hours before beginning testing.

Straightedge Exceptions: Straightedge testing will not be required in the following areas: shoulders, intersections, tapers, crossovers, sidewalks, bicycle/shared use paths, parking lots and similar areas, or in the following areas when they are less than 250 feet in length: turn lanes, acceleration/deceleration lanes and side streets. In the event the Highlands County Project Manager identifies a surface irregularity in the above areas that is determined to be objectionable, the Contractor shall straightedge and address all deficiencies in excess of 3/8 inch in accordance by removing and replacing the full depth of the layer, extending a minimum of 50 feet on both sides of the defective area for the full width of the paving lane, at no additional cost.

LAKE JOSEPHINE DRIVE IMPROVEMENTS PROJECT NO. 13008								
CONTRACTOR REQUIRED QUALITY CONTROL MATERIALS TESTING								
Roadway Full Depth Construction: TYPE B STABILIZATION (LBR 40) TESTING REQUIREMENTS (12" COMPACTED THICKNESS) INCLUDING SHOULDERS								
TEST NAME	QUALITY CONTROL	ACCEPTANCE						
DENSITY		Minimum density of 98% of the Modified Proctor maximum density						
DENSIT		as determined by FM 1-T 180, Method D						
THICKNESS	TWENTY (20) PER LIFT, TWENTY (20) TOTAL	Compacted lift thickness = 12", tolerance = 0.5"						
LBR	ONE (1) PER LIFT, ONE (1) TOTAL	Undertolerence = 5.0						
Stabilization Construction Method: Construct the stabilization in one (1) lift with a compacted lift thickness of twelve (12) inches.								
Roadway Full Depth Construction: OPTIONAL BASE GROUP 6 TESTING REQUIREMENTS (8" COMPACTED THICKNESS)								
TEST NAME	QUALITY CONTROL	ACCEPTANCE						
DENSITY		Minimum density of 98% of the Modified Proctor maximum density						
DENSIT	TWENT (20) PER EIT, TWENT (20) TOTAL	as determined by FM 1-T 180, Method D						
THICKNESS	TWENTY (20) PER LIFT, TWENTY (20) TOTAL	Compacted lift thickness = 8", tolerance = 0.5"						
LBR	ONE (1) PER MATERIAL TYPE	No undertolerance allowed.						
Optional Base Group 6 Construction Method: Con	nstruct the base in one (1) lift with a compacted lift thickness of eight (8) i	nches.						
Roadway Full Depth Construction: ASPHALT TESTING REQUIREMENTS (3.0" COMPACTED THICKNESS)								
TEST NAME	QUALITY CONTROL	ACCEPTANCE						
THICKNESS	TWENTY (20) PER LIFT, FOURTY (40) TOTAL	Compacted lift thickness = 1.5", Tolerance = 0.25"						
Asphalt Construction Method: Asphalt shall be pl	aced in two (2) lifts with a compacted lift thickness of 1.5".							

			REVISIONS			STATUS	DESIGNED BY:	HIGHLANDS COUNTY	NE UIO
DATE	BY	DESCRIPTION	DATE	BY		-	DRAWN BY:	ENGINEERING DEPARTMEN	Т
						FOR BID	CHECKED BY: ELIUS F. NORTELUS, P.E	505 S. COMMERCE AVENUE	
						-	IN CHARGE: ELIUS F. NORTELUS, P.E	SEBRING, FLORIDA 33870	
PROJECTS\	,2013\13008 Lak	e Josephine Drive Resurfacing\Drawings\Full Depth Reconstruc	tion Option\Cover General	Notes Detail:	Josephine.dwg, 1 NOTES	& SPECIFICATIONS, Acad 1-7 Black.ctb	DATE: 5/9/2016	APPROVED BY: ELIUS F. NORTELUS, P.E. DATE: FLORIDA REGISTRATION NO.: 70092	OF FU

All pavement markings and signage shall be installed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), 2009

All disturbed areas within the project limits shall be sodded with "like kind" sod. The areas on which sod is to be placed shall be All sod materials shall be subject to inspection by the Highlands County Project Manager prior to placement. Any sod with noxious weeds

1. Contractor shall perform, at his own expense, any and all tests required by the specifications and/or any agency having jurisdiction. A copy The Highlands County Project Manager shall inspect all construction and is authorized to call to the attention of the Contractor any failure

All copies of compaction, concrete and other required test results are to be sent to the Highlands County Project Manager directly from

Contractor shall perform Pavement Smoothness Testing: The Contractor shall furnish a 15 foot manual and a 15 foot rolling straightedge and construct a smooth pavement meeting the requirements of the Florida Method of Test for Measurement of Pavement Smoothness with

E JOSEPHINE DRIVE IMPROVEMENTS	SCALE: HORIZ. N/A VERT. N/A	
	PROJECT NO. 13008	REV. 0
NOTES & SPECIFICATIONS	SHEET 2 OF	71

GENERAL NOTES &

LAKE JOSEPH

ALTERNATE NO. 1 FULL DEPTH RECLAMATION OF LAKE JOSEPHINE DRIVE

	LAKE JOSEPHINE DRIVE IMPROVEMENTS							
	HIGHLANDS COUNTY PROJECT NO. 13008							
	ALTERNATE 1: FULL DEPTH RECLAMATION OF LAKE JOSEPHINEDRIV	VE						
TASK NO.	ITEMDESCRIPTION	QUANTITY	UNIT					
1	MOBILIZATION	1	LS					
2	BONDS & INSURANCE	1	LS					
3	CONSTRUCTION SURVEY STAKING INCLUDING AS-BUILT	1						
4	TESTING (DENSITY, ROADWAY THICKNESS)	1	LS					
5	MAINTENANCE OF TRAFFIC	1	LS					
6	BUSINESS SIGN	2	EA					
7	PORTABLE CHANGEABLE MESSAGE SIGNS, TEMPORARY (TWO)	190	ED					
8	SEDIMENT BARRIER TEMPOKARY	18,000	F					
9	CLEARING AND GRUBBING INCLUDING TREE REMOVAL	1						
10	REMOVAL OF EXISTING CONCRETE PAVEMENT DRIVEWAY	1,800	SY					
11	REMOVAL OF EXISTING ASPHALT PAVEMENT DRIVEWAY	1,050	<u>SY</u>					
12	MAILBOX REMOVE AND RELOCATE	70	EA					
13	FULL DEPTH RECLAMATION (12")	35,000	SY					
14	OPTIONAL BASE, BASE GROUP 6	31,000	SY					
15	CEMENT FOR RECLAMATION	230	TN					
16	EMULSION FOR RECLAMATION	63,000	GAL					
17	MILLING EXISTING ASPH PAVT, 1 1/2" AVG DEPTH	400	SY					
18	SUPERPAVE ASPHALTIC CONCRETE, 1 1/2" THICK, RAP 30% MAXIMUM, PLACED IN TWO EQUAL LAYERS, 1½" THICK EACH (STA 118+06.05 TO STA 119+04.28)	30	TN					
19	SUPERPAVE ASPHALTIC CONCRETE, 3" THICK, RAP 30% MAXIMUM, PLACED IN TWO EQUAL LAYERS, 1½" THICK EACH	4,425	TN					
20	SUPERPAVE ASPHALTIC CONCRETE, 1½" THICK, RAP 30% MAXIMUM, DRIVEWAY	150	TN					
21	INLET, DITCH BOTTOM, TYPE C	2	EA					
22	18" x 12" REINFORCED CONCRETE PIPE (RCP)	64	LF					
23	18" REINFORCED CONCRETE PIPE (RCP)	10	LF					
24	MITERED END SECTION	1	EA					
25	CONCRETE DRIVEWAYS, 6" THICK, 6" x 6" W 1.4 W 1.4 W ELDED WIRE MESH, 3,000 PSI MINIMUM	1,800	SY					
26	PERFORMANCE TURF (SOD)	39,000	SY					
27	SINGLE POST SIGN, F & I, STOP (R1-1), 30" x 30" & TWO (2), D3-1	17	AS					
28	SINGLE POST SIGN, F & I, SPEED LIMIT, 35 MPH (R2-1), 24" x 30"	5	AS					
29	SINGLE POST SIGN, F & I, W5-2, 36" x 36" & W13-1, 24" x 24"	4	AS					
30	SINGLE POST SIGN, F & I, 0M3R, 12" X36"	8	AS					
31	SINGLE POST SIGN, F & I, 0M3L, 12" X36"	12	AS					
32	SINGLE POST SIGN, F & I, OM2-1V	2	AS					
33	SINGLE POST SIGN, F & I, OM2-2V	6	AS					
34	SINGLE POST SIGN, F & I, W3-1	1	AS					
35	SINGLE POST SIGN, REMOVE & RELOCATE	20	AS					
36	SINGLE POST SIGN, REMOVE & DISCARD	30	AS					
37	RETRO-REFLECTIVE PAVEMENT MARKERS, BIDIRECTIONAL YELLOW	230	EA					
38	TEMPORARY PAINTED PAVEMENT MARKINGS, STD, WHITE, SOLID, 6"	19,400	LF					
39	TEMPORARY PAINTED PAVEMENT MARKINGS, STD, WHITE, SOLID, 24"	315	LF					
40	TEMPORARY PAINTED PAVEMENT MARKINGS, STD, YELLOW, SOLID, 6"	16,000	LF					
41	TEMPORARY PAINTED PAVEMENT MARKINGS, STD, YELLOW, SOLID. 6"	16,000	LF					
42	TEMPORARY PAINTED PAVEMENT MARKINGS, STD, WHITE, SOLID, 18"	700	LF					
43	THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"	19.400	LF					
44	THERMOPLASTIC, STANDARD, WHITE, SOLID. 24"	315	LF					
45	THERMOPLASTIC, STANDARD, YELLOW. SOLID. 6"	16.000	LF					
46	THERMOPLASTIC, STANDARD, YELLOW. SKIP. 6"	760	 LF					
47	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18"	700	LF					
48	RUMBLE STRIPING	6,280	LF					

1. DESCRIPTION.

FULL-DEPTH RECLAMATION (FDR), SHALL CONSIST THE PREPARATION OF A BASE COURSE CONSTRUCTED BY IN-PLACE PULVERIZING AND MIXING THE EXISTING ASPHALT PAVEMENT AND BASE MATERIALS, AND THE INTRODUCTION OF ASPHALT EMULSION OR FOAMED ASPHALT AND OTHER ADDITIVES, IF CALLED FOR IN THE MIX DESIGN. IT SHALL BE PROPORTIONED, MIXED, PLACED, COMPACTED, AND CURED IN ACCORDANCE WITH THIS SPECIFICATION, AND SHALL CONFORM TO THE LINES, GRADES, THICKNESSES, TYPICAL SECTION AND CROSS SECTIONS SHOWN IN THE PLAN.

2. MATERIALS.

2.1 ASPHALT EMULSION: IF THE MIX DESIGN CALLS FOR STABILIZATION WITH ASPHALT EMULSION, UTILIZE CSS-LH OR CMS-2H, MEETING THE REQUIREMENTS OF AASHTO M 208-01 (2009) AND APPROVED BY THE ENGINEER PRIOR TO USE.

2.2 FOAMED ASPHALT: IF THE MIX DESIGN CALLS FOR STABILIZATION WITH FOAMED ASPHALT UTILIZE AN ASPHALT BINDER MEETING THE REQUIREMENTS OF THE BITUMINOUS MATERIALS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED JANUARY 2016, SECTION 916, <u>HTTP://WWW.DOT.STATE.FL.US/PROGRAMMANAGEMENT/IMPLEMENTED/SPECBOOKS/</u>JANUARY 2016/FILES/116EBOOK.PDF, AND LISTED ON THE FDOT'S APPROVED PRODUCTS LIST.
 2.3 SAMPLING, CERTIFICATION, AND VERIFICATION: AT ANY TIME DURING THE PROJECT, THE ENGINEER MAY SAMPLE AND TEST THE ASPHALT EMULSION OR ASPHALT BINDER DELIVERED TO THE PROJECT TO VERIFY AND DETERMINE COMPLIANCE WITH SPECIFICATION REQUIREMENTS. WHERE THESE TESTS IDENTIFY MATERIAL OUTSIDE SPECIFICATION REQUIREMENTS, THE ENGINEER MAY REQUIRE THE SUPPLIER TO CEASE SHIPMENT OF THE PRODUCT. FURTHER SHIPMENT OF THE PRODUCT WILL REMAIN SUSPENDED UNTIL THE CAUSE OF THE PROBLEM IS EVALUATED AND CORRECTED BY THE SUPPLIER TO THE SATISFACTION OF THE ENGINEER.

2.4 WATER: THE WATER FOR THE BASE COURSE COMPACTION AND FOAMING ADDITIVE (IF USED) SHALL MEET THE REQUIREMENTS OF THE WATER FOR CONCRETE OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED JANUARY 2016, SECTION 923.
2.5 PORTLAND CEMENT: PORTLAND CEMENT IN EITHER A DRY OR SLURRY FORM MAY BE ADDED TO THE RECLAIMED MIXTURE IF REQUIRED BY THE MIX DESIGN, SLURRY MADE FROM PORTLAND CEMENT SHALL CONTAIN A MINIMUM OF 30% DRY SOLIDS CONTENT. CEMENT USED FOR FULL DEPTH RECLAMATION SHALL BE TYPE I OR II AND COMPLY WITH THE PORTLAND CEMENT AND BLENDED CEMENT OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED JANUARY 2016, SECTION 921. CEMENT SHALL BE LIMITED TO NO MORE THAN 1. 5 PERCENT BY DRY WEIGHT OF RECLAIMED MATERIAL. CEMENT AMOUNTS GREATER THAN 1. 5 PERCENT WILL ONLY BE ALLOWED IF APPROVED BY THE ENGINEER.
2.6 DOCUMENTS: PROVIDE COPIES OF ALL MATERIALS DELIVERY TICKETS TO THE ENGINEER UPON MATERIALS DELIVERY TO THE PROJECT SITE.

3. MIX DESIGN.

PRIOR TO CONSTRUCTION, CONTRACTOR SHALL OBTAIN AN ADEQUATE NUMBER OF CORE SAMPLES TO DEVELOP THE MIX DESIGN(S). REPRESENTATIVE SAMPLES OF THE ASPHALT PAVEMENT MATERIAL, UNDERLYING BASE MATERIAL, AND VIRGIN MATERIALS, WHERE APPLICABLE, SHALL BE SUPPLIED TO AN ACCREDITED LABORATORY FOR TESTING TO DETERMINE THE PROPORTIONS OF ASPHALT EMULSION OR FOAMED ASPHALT, AND OTHER ADDITIVES, IF NECESSARY, NEEDED TO PRODUCE A MIX DESIGN MEETING THE REQUIREMENTS OF TABLE 3-1. THE OPTIMUM BINDER CONTENT SHALL BE THE BINDER CONTENT THAT RESULTS IN THE HIGHEST WET TENSILE STRENGTH WHILE ALSO HAVING 70% RETAINED TENSILE STRENGTH COMPARED TO THE DRY STRENGTH AND ADDITIONALLY HAS A MINIMUM L 800 POUNDS MARSHALL STABILITY. THE MIX DESIGN SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER AND SUBMITTED TO THE ENGINEER PRIOR TO USE FOR APPROVAL.

TABLE 332-1						
MIX DESIGN CR	ITERIA					
TEST	TEST METHOD NUMBER	CRITERIA				
GRADATION OF RECLAIMED MATERIAL	AASHTO T 27-11	REPORT				
DETERMINATION OF OPTIMUE	A BINDER CONTENT					
COMPACTION EFFORT AT OPTIMUM FLUIDS CONTENT.	ASPHALT INSTITUTE					
MARSHALL COMPACTOR; 50 BLOWS/SIDE OR	MS 14, APPENDIX F.					
SUPERPAVE GYRATORY COMPACTOR, 100 MM DIAMETER	ASTM D6926-10	REPORT				
SPECIMENS, 30 GYRATIONS.	AASHTO T 312-12					
DENSITY DETERMINATION.	FM 1-T 166					
MARSHALL STABILITY						
CURE AT 60°C TO CONSTANT WEIGHT.	ASTM D6927-06	1800 LBS.				
TEST AT 40°C.		MINIMUM STABILITY				
RESISTANCE OF COMPACTED BITUMINOUS MIXTURE TO						
MOISTURE INDUCED DAMAGE. 55 TO 75% VACUUM	AASHTO T 283-07	70% MINIMUM				
SATURATION, WATER BATH AT 25°C FOR 23 HOURS, LAST	(2011)	RETAINED TENSILE				
HOUR IN WATER BATH AT 40°C.		STRENGTH				

4. EQUIPMENT.

4.1 ROAD RECLAIMER: CONTRACTOR SHALL UTILIZE A ROAD RECLAIMER SPECIFICALLY DESIGNED FOR PAVEMENT RECLAIMING AND CAPABLE OF PULVERIZING AND MIXING PAVEMENT, BASE MATERIALS, AND SUBGRADE SOIL TO A DEPTH OF 16 INCHES. IT SHALL HAVE THE CAPABILITY OF INTRODUCING AND METERING ADDITIVES UNIFORMLY AND ACCURATELY AND HAVE POSITIVE DISPLACEMENT PUMPS WHICH CAN ACCURATELY METER THE PLANNED AMOUNT OF ASPHALT EMULSION OR FOAMED ASPHALT INTO THE MIXTURE. THE RECLAIMING MACHINE SHALL MIX THE EMULSIFIED OR FOAMED ASPHALT ADDITIVE THOROUGHLY WITH THE RAP AND SOIL MATERIALS. THE PUMP SHALL BE INTERLOCKED WITH THE GROUND SPEED OF THE MACHINE. THE ASPHALT METERING SYSTEM AND WATER METERING SYSTEM SHALL BE CAPABLE OF CONTINUOUSLY MONITORING FLOW AND TOTALING THE QUANTITY OF WATER AND ASPHALT APPLIED INTO THE MIXING CHAMBER. ADDITIVES, IF SPECIFIED, SHALL BE UNIFORMLY DISTRIBUTED AND MIXED WITH THE PULVERIZED MATERIAL AND ANY EXISTING UNDERLYING MATERIAL.

4.2 MOTOR GRADER: CONTRACTOR SHALL UTILIZE A MOTOR GRADER OF SUFFICIENT SIZE AND HORSEPOWER TO ADEQUATELY ROUGH GRADE THE PULVERIZED BASE AND ROUGH AND FINISH GRADE THE MIXED AND COMPACTED BASE. THE EQUIPMENT SHALL BE IN GOOD WORKING ORDER FREE FROM LEAKS AND CAPABLE OF MAINTAINING AN ACCURATE GRADE AND CROSS-SLOPE.

4.3 ROLLERS: CONTRACTOR SHALL UTILIZE ROLLERS IN GOOD WORKING ORDER FREE FROM LEAKS AND CAPABLE OF COMPACTING THE MIX TO THE REQUIREMENTS OF THIS SPECIFICATION.

4.4 ADDITIONAL EQUIPMENT: CONTRACTOR SHALL UTILIZE ADDITIONAL EQUIPMENT AS NEEDED TO COMPLETE THE WORK IN THE CONTRACT.

5. CONSTRUCTION

5.1 LAYOUT: THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRING LINING AND LAYOUT OF THE ROADWAY PRIOR TO PAVING. ELEVATIONS OF THE EXISTING ROADWAY MUST BE REFERENCED AT SUFFICIENT INTERVALS TO ENSURE THE ROADWAY ELEVATION IS NOT CHANGED IN ANY LOCATION AFTER THE FINAL SURFACE IS PLACED. MAINTAIN ROADWAY ELEVATIONS EXCEPT FOR CROSS SLOPE CORRECTION OR AS APPROVED BY THE ENGINEER.

		REVISIONS	STATUS	DESIGNED BY:		
DATE	BY	DESCRIPTION		KEITH BAKER, E.I.	HIGHLANDS COUN	
				KEITH BAKER, E.I.	ENGINEERING DEPARIMI	
			FOR BID	CHECKED BY: ELIUS F. NORTELUS, P.E.	505 S. COMMERCE AVENUE	
				IN CHARGE:	SEBRING, FLORIDA 33870	
© \PROJECT5\2013\13008 Lake Josephine Drive Resurfacing\Drawings\Full Depth Reconstruction Option\Cover General Notes Details Josephine.dwg, 2 NDTES & SPECIFICATIONS, Baker, Keith J. Acad 1-			1–7 Black.ctb	DATE: 5/9/2016	APPROVED BY: ELIUS F. NORTELUS, P.E. D	DATE:

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5.2 WEATHER AND SEASONAL LIMITATIONS: CONTRACTOR SHALL NOT MIX OR PLACE THE BASE WHILE THE AIR TEMPERATURE IS BELOW 40°F OR WHEN CONDITIONS INDICATE THAT THE TEMPERATURE MAY FALL BELOW 40°F WITHIN 24 HOURS. CONTRACTOR SHALL NOT MIX OR PLACE THE BASE WHEN THE WEATHER IS FOGGY OR RAINY

5.3 WIDENING: WHEN THE EXISTING BASE IS TO BE WIDENED. EXCAVATE THE SHOLIL DER FROM THE EDGE OF THE EXISTING PAVEMENT TO AT LEAST SIX INCHES BEYOND THE PLANNED NEW WIDTH OF THE BASE PRIOR TO PULVERIZATION. CONTRACTOR SHALL MAINTAIN THE BOTTOM OF THE TRENCH FREE OF LOOSE SOIL AND VEGETATION

CONTRACTOR SHALL PLACE APPROVED BASE MATERIAL (MATERIALS LISTED IN THE CURRENT FDOT DESIGN STANDARD INDEX NO. 514 AS GENERAL USE OPTIONAL BASE MATERIALS) ONTO THE EXISTING PAVEMENT SO IT CAN BE MIXED IN WITH THE EXISTING PAVEMENT AND BASE MATERIAL DURING THE PULVERIZATION OPERATION TO MAKE A HOMOGENEOUS BASE COURSE ACROSS THE ENTIRE WIDTH OF THE ROAD, INCLUDING THE WIDENING AREA. CONTRACTOR SHALL CORRECT ALL AREAS OF IRREGULAR GRADE OR DEFICIENT THICKNESS AND REMOVE AND REPLACE MATERIAL CONTAMINATED WITH SOIL, ORGANIC MATERIAL OR DEBRIS

5.4 ADDITIONAL MATERIAL: WHEN ADDITIONAL MATERIAL IS TO BE ADDED TO CORRECT CROSS SLOPE DEFICIENCIES OR CHANGE ELEVATION AS DIRECTED BY THE ENGINEER, CONTRACTOR SHALL USE APPROVED BASE MATERIAL (BASES LISTED IN FDOT DESIGN STANDARD INDEX 514 AS GENERAL USE OPTIONAL BASE MATERIALS) PLACED ON THE ROADWAY PRIOR TO THE FINAL PASS FOR PULVERIZATION AND MIX UNIFORMLY WITH THE EXISTING MATERIAL

5.5 PULVERIZATION: CONTRACTOR SHALL PULVERIZE AND BLEND THE EXISTING PAVEMENT AND BASE MATERIAL TO THE DEPTH REQUIRED SO THAT ALL OF THE MATERIAL SHALL BE UNIFORMLY GRADED IN ACCORDANCE WITH AASHTO T 27-11 TO MEET THE REQUIREMENTS OF TABLE 5-1

TABLE 5-1				
GRADATION REQUIREMENTS FOR PULVERIZED MATERIAL				
SIEVE SIZE	MINIMUM PERCENT PASSING			
3 INCHES	100			
2 INCHES	95			
NO. 4	55			
NO. 200*	5			
FOR ASPHALT EMULSION. THE MAXIMUM ALLO	WABLE PERCENT PASSING THE NO. 200 SIEVE IS 209			

MATERIAL GRADATION MAY VARY DUE TO LOCAL AGGREGATES AND CONDITIONS. A MINIMUM OF TWO PASSES OF THE RECLAIMER IS REQUIRED. ADDITIONAL PASSES MAY BE NECESSARY TO ACHIEVE THE REQUIRED GRADATION.

CONTRACTOR SHALL REMOVE PULVERIZED MATERIAL TO THE DEPTH SHOWN ON THE PLANS.

CONTRACTOR SHALL INTRODUCE THE ASPHALT EMULSION OR FOAMED ASPHALT INTO THE MIX THROUGH THE RECLAIMER UNIFORMLY AND ACCURATELY METERED SUCH THAT AREAS ARE OF EQUAL CONSISTENCY AND MOISTURE CONTENT. CONTRACTOR SHALL COMBINE THE RECLAIMED MATERIAL AND ADDITIVES IN PLACE TO MEET THE REQUIREMENTS SPECIFIED IN SUCH PROPORTIONS THAT THE RECLAIMED MIXTURE IS OF ACCEPTABLE COMPOSITION AND STABILITY. BEFORE THE START AND AT THE END OF EACH DAY'S WORK AND AT ANY TIME REQUESTED, CONTRACTOR SHALL PERMIT THE ENGINEER ACCESS TO THE MIXING EQUIPMENT IN ORDER TO READ THE METER TO VERIFY THE QUANTITY OF ASPHALT EMULSION APPLIED DURING THE DAY'S WORK. CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS. AS NECESSARY. TO THE MIX DESIGN UNDER THE GUIDANCE OF A KNOWLEDGEABLE AND COMPETENT TECHNICIAN OR SUPERINTENDENT TO OBTAIN A SATISFACTORY RECLAIMED MIXTURE OF CONSISTENT COMPOSITION AND STABILITY THROUGHOUT THE PROJECT

5.6 COMPACTION: AFTER THE MATERIAL HAS BEEN PROCESSED, CONTRACTOR SHALL COMPACT THE BASE COURSE TO THE LINES, GRADES, AND DEPTH REQUIRED, CONTRACTOR SHALL APPLY WATER AS NECESSARY TO ENSURE OPTIMUM MOISTURE CONTENT AT THE TIME OF MIXING AND COMPACTION.

CONTRACTOR SHALL OBTAIN DENSITY READINGS USING A NUCLEAR GAUGE IN ACCORDANCE WITH FM 1-T 23 8, WHILE WITNESSED BY THE ENGINEER. WHENEVER THERE IS A CHANGE IN THE RECLAIMED MATERIAL, COMPACTION METHOD, EOUIPMENT, OR UNACCEPTABLE RESULTS OCCUR, CONTRACTOR SHALL CONSTRUCT A NEW CONTROL STRIP, CONTRACTOR SHALL BEGIN ROLLING AT THE LOW SIDE OF THE COURSE, EXCEPT LEAVE THREE TO SIX INCHES FROM ANY UNSUPPORTED EDGE OR EDGES UNROLLED INITIALLY TO PREVENT DISTORTION.

CONTRACTOR SHALL FURNISH THE PROPER NUMBER, WEIGHT AND TYPE OF ROLLERS TO OBTAIN THE REQUIRED COMPACTION OF THE RECLAIMED MATERIAL CONTRACTOR SHALL COMPACT THE BASE COURSE TO A FIELD DRY DENSITY (I.E. CORRECTED GAUGE WET DENSITY) OF AT LEAST 96.0 PERCENT OF THE MAXIMUM LABORATORY DRY DENSITY.

CONTRACTOR SHALL CORRECT ANY PAVEMENT SHOVING OR OTHER UNACCEPTABLE DISPLACEMENT. CONTRACTOR SHALL TAKE CARE IN ROLLING THE EDGES OF THE RECLAIMED MIXTURE SO THE LINE AND GRADE OF THE EDGES ARE MAINTAINED.

AT THE END OF EACH DAY'S PRODUCTION. CONTRACTOR SHALL CONSTRUCT A TRANSVERSE JOINT FORMED BY A HEADER OR BY CUTTING BACK INTO THE COMPACTED MATERIAL TO FORM A TRUE VERTICAL FACE FREE OF LOOSE MATERIAL CONTRACTOR SHALL PROTECT CONSTRUCTION JOINTS SO THAT THE PLACING SPREADING AND COMPACTING OF BASE MATERIAL WILL NOT DAMAGE PREVIOUS WORK. WHERE IT IS NECESSARY TO OPERATE OR TURN ANY FOURPMENT ON THE COMPLETED BASE COURSE. CONTRACTOR SHALL PROTECT AND COVER THE FINISHED SURFACE USING MATS OR WOOD PLANKS TO PREVENT DAMAGE.

5. 7 THICKNESS: CONTRACTOR SHALL CONSTRUCT THE BASE TO A DAILY AVERAGE THICKNESS WITHIN 1/2 INCH OF THE PLAN THICKNESS. INDIVIDUAL MEASUREMENTS MAY DEVIATE FROM THE PLAN THICKNESS BY 3/4 INCH. CONTRACTOR SHALL MEASURE THE THICKNESS WHILE BEING WITNESSED BY THE ENGINEER. WHEN THE THICKNESS IS NOT WITHIN THE TOLERANCES GIVEN, THE ENGINEER WILL EVALUATE THE AREA AND DETERMINE IF IT SHALL BE RECONSTRUCTED AT THE CONTRACTOR'S EXPENSE OR THE DEFICIENCY DEDUCTED FROM THE TOTAL MATERIAL IN PLACE.

5.8 FINISHING: AFTER COMPLETING ALL BASE COURSE OPERATIONS, CONTRACTOR SHALL ASSURE THE BASE COURSE CONFORMS TO THE REOURED LINES. GRADES, AND CROSS SECTION, IF NECESSARY, CONTRACTOR SHALL LIGHTLY SCARIFY THE SURFACE TO ELIMINATE ANY IMPRINTS MADE BY FOUIPMENT AND THEN RECOMPACT THE SURFACE TO THE REQUIRED DENSITY, CONTRACTOR SHALL CORRECT ALL STRAIGHTEDGE OR SURFACE IRREGULARITIES GREATER THAN 1/2 INCH OVER 10 FEET TO THE SATISFACTION OF THE ENGINEER

5.9 PROTECTION AND CURING: CONTRACTOR SHALL PROTECT AND CURE THE COMPLETED BASE COURSE BY APPLYING A PRIME COAT MEETING THE REQUIREMENTS OF PRIME AND TACK COATS OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED JANUARY 2016, SECTION 300 AT A RATE OF 0.15 TO 0.25 GALLONS PER SOUARE YARD. CONTRACTOR SHALL APPLY THE PRIME COAT NO LATER THAN 24 HOURS AFTER THE COMPLETION OF FINISHING OPERATIONS. CONTRACTOR SHALL KEEP THE FINISHED BASE COURSE CONTINUOUSLY MOIST UNTIL THE PRIME COAT IS PLACED. AT THE TIME THE PRIME COAT IS APPLIED, ENSURE THE SURFACE IS DENSE, FREE OF ALL LOOSE AND EXTRANEOUS MATERIAL, AND CONTAINS SUFFICIENT MOISTURE TO PROMOTE PROPER PENETRATION OF THE BITUMINOUS MATERIAL. CONTRACTOR SHALL APPLY WATER IN SUFFICIENT OUANTITY TO FILL THE SURFACE VOIDS IMMEDIATELY BEFORE THE BITUMINOUS CURING MATERIAL IS APPLIED. CONTRACTOR SHALL CURE THE RECLAIMED BASE UNTIL THE MOISTURE CONTENT REDUCES TO 2.0 PERCENT OR LESS

TO PREVENT EQUIPMENT FROM MARRING OR DAMAGING THE COMPLETED WORK, CONTRACTOR SHALL PROTECT FINISHED PORTIONS OF BASE USED BY EQUIPMENT. CONTRACTOR SHALL NOT ALLOW TRAFFIC ON THE RECLAIMED BASE UNTIL IT IS ASSURED THE RECLAIMED BASE SURFACE WILL NOT DISTORT, SHOVE, OR RAVEL UNDER THE ANTICIPATED VEHICULAR LOADING.

REVISIONS STATUS DESIGNED BY: KEITH BAKER, E.I. HIGHLANDS COUNTY DATE BY DESCRIPTION DRAWN BY: Keith Baker, E.I. ENGINEERING DEPARTMENT 505 S. COMMERCE AVENUE CHECKED BY: ELIUS F. NORTELUS, P. FOR BID SEBRING, FLORIDA 33870 in Charge: Elius F. Nortelus, P.E. APPROVED BY: ELIUS F. NORTELUS, P.E. DATE: 8: \PROJECTS\2013\13008 Lake Josephine Drive Resurfacing\Drawings\Full Depth Reconstruction Option\Cover General Notes Details Josephine.dwg, 2A NOTES & SPECFICATIONS, Baker, Keith J. Colors As Block Except Gray Colors.ctb DATE: 5/9/2010 FLORIDA REGISTRATION NO.: 70092

6 QUALITY CONTROL TESTING.

APPROVED BY THE ENGINEER

6.2 RECLAIMED MATERIAL GRADATION: CONTRACTOR SHALL DETERMINE THE PERCENT PASSING THE FOLLOWING SIEVE SIZES: 3 INCHES, 2 INCHES, NO. 4, AND NO. 200. CONTRACTOR SHALL OBTAIN A SAMPLE AT A FREQUENCY OF ONE SAMPLE PER 3,000 SOUARE YARDS MEETING THE REQUIREMENTS OF TABLE 5-1. IF THE REQUIREMENTS OF TABLE 5-1 ARE NOT MET. CONTRACTOR SHALL ADJUST THE PULVERIZATION OPERATION SO THAT THE RESULTANT MATERIAL WILL MEET SPECIFICATION REQUIREMENTS OR TO THE SATISFACTION OF THE ENGINEER

6.3 MOISTURE/DENSITY RELATIONSHIP OF RECLAIMED BASE: CONTRACTOR SHALL ESTABLISH A WET/DRY DENSITY RELATIONSHIP FOR DENSITY SPECIFICATION COMPLIANCE BY OBTAINING A SAMPLE AT THE LOCATION OF EACH NUCLEAR DENSITY MEASUREMENT, AT A FREQUENCY OF ONCE PER 1000 SOUARE YARDS, CONTRACTOR SHALL DETERMINE THE MOISTURE CONTENT IN ACCORDANCE WITH AASHTO T 110-03 (2011), AASHTO T 265-12, OR ASTM D 4643-08.

6.4 IN-PLACE FIELD DENSITY: CONTRACTOR SHALL PERFORM ONE NUCLEAR DENSITY TEST PER 1000 SQUARE YARDS. THE DRY FIELD DENSITY (I.E. CORRECTED GAUGE WET DENSITY) OF THE COMPACTED MIXTURE SHALL BE AT LEAST 96.0 PERCENT OF THE MAXIMUM LABORATORY DRY DENSITY. NO INDIVIDUAL DENSITY TEST SHALL BE LOWER THAN 92.0 PERCENT OF THE MAXIMUM LABORATORY DRY DENSITY. IF ONE DENSITY TEST IS BELOW 92.0 PERCENT OR TWO CONSECUTIVE DENSITY TESTS ARE BELOW 96.0 PERCENT OF THE MAXIMUM LABORATORY DRY DENSITY, CONTRACTOR SHALL CEASE PRODUCTION AND RESOLVE THE ISSUE TO THE SATISFACTION OF THE ENGINEER BEFORE RESUMING PRODUCTION

6.5 MARSHALL STABILITY: CONTRACTOR SHALL PERFORM MARSHALL STABILITY TESTING TWICE PER DAY OR ONCE PER DAY IF LESS THAN 1500 SOUARE YARDS IS RECLAIMED MEETING THE REQUIREMENTS OF TABLE 3-1. IF THE MARSHALL STABILITY DOES NOT MEET THE REQUIREMENTS OF TABLE 3-1, CONTRACTOR SHALL CEASE PRODUCTION AND RESOLVE THE ISSUE TO THE SATISFACTION OF THE ENGINEER BEFORE RESUMING PRODUCTION.

6.6 RETAINED TENSILE STRENGTH: CONTRACTOR SHALL PERFORM RETAINED TENSILE STRENGTH TESTING TWICE PER DAY OR ONCE PER DAY IF LESS THAN 1500 SOUARE YARDS IS RECLAIMED MEETING THE REQUIREMENTS OF TABLE 3-1. IF THE RETAINED TENSILE STRENGTH DOES NOT MEET THE REQUIREMENTS OF TABLE 3-1, CONTRACTOR SHALL CEASE PRODUCTION AND RESOLVE THE ISSUE TO THE SATISFACTION OF THE ENGINEER BEFORE RESUMING PRODUCTION. 6.7 DEPTH OF MIXING: CONTRACTOR SHALL DETERMINE THE DEPTH OF MIXING AT LEAST ONCE PER 250 SQUARE YARDS MEETING THE REQUIREMENTS OF 5.7. 6.8 CROSS SLOPE MEASUREMENT: CONTRACTOR SHALL MEET THE REOUIREMENTS OF THE FOLLOWING TABLE 6-1. ADDITIONAL SAMPLING AND TESTING MAY BE REQUIRED IF SIGNIFICANT CHANGES IN THE CHARACTERISTICS OF THE RECLAIMED MATERIAL ARE OBSERVED, SUCH AS A MUCH COARSER OR FINER GRADATION OR A NOTICEABLE DIFFERENCE IN ASPHALT CONTENT, OR WHEN THERE IS CONSIDERABLE VARIABILITY IN THE FIELD TEST RESULTS.

Table 6-1								
	Cross Slope Acceptance Tolerance							
Roadway Feature Individual Absolute Deviation Average Absolute Deviation								
Tangent Section (including turn lane)	0.4%	0.2%						
Superelevated Curve	0.4%	0.2%						
Shoulder	0.5%	0.5%						

7. ACCEPTANCE

ACCEPTANCE OF THE MATERIAL WILL BE BASED ON PROVIDING DOCUMENTATION THAT COMPONENT MATERIALS MEET THE REQUIREMENTS OF THE ABOVE SECTION 2 AND BY QUALITY CONTROL TEST RESULTS MEETING THE REQUIREMENTS OF THE ABOVE SECTION 6

ALTERNATE NO. 2 (ADDITIVE) **CONCRETE SIDEWALK CONSTRUCTION** FROM STA 86+85 TO STA 118+20

LAKE JOSEPHINE DRIVE IMPROVEMENTS								
	HIGHLANDS COUNTY PROJECT NO. 13008							
	ALTERNATE NO. 2: SIDEWALK CONSTRUCTION (STA 86+85 TO STA 118+20)							
TASK NO.	ITEM DESCRIPTION	QUANTITY	UNIT					
1	MOBILIZATION	1	LS					
2	CONSTRUCTION SURVEY STAKING	1	LS					
3	TESTING	1	LS					
4	OPTIONAL BASE, BASE GROUP 1, 4" THICK	2,300	SY					
5	SIDEWALK CONCRETE, 4" THICK, 2,500 PSI MINIMUM	1,600	SY					
6	DETECTABLE WARNINGS (COLOR YELLOW) (EMBEDDED)	11	EA					
7	TEMPORARY PAINTED PAVEMENT MARKINGS, STD, WHITE, SOLID, 12"	650	LF					
8	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12"	650	LF					

6.1 FREQUENCY: CONTRACTOR SHALL PERFORM THE FOLLOWING OUALITY CONTROL TESTS AT THE PRESCRIBED FREQUENCY, CONTRACTOR SHALL RANDOMLY DETERMINE SAMPLE LOCATIONS IN ACCORDANCE WITH ASTM D 3665-12 OR EQUIVALENT. CONTRACTOR SHALL CORRECT ALL DEFICIENCIES UNLESS OTHERWISE

LAKE JOSEPHINE DRIVE IMPROVEMENTS	
GENERAL NOTES & SPECIFICATIC	NS

SCALE: HORIZ. N/A VERT. N/A	
PROJECT NO. 13008	REV 0
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ALTERNATE NO. 3 (DEDUCTIVE) ASPHALT (SUPERPAVE ASPHALT CONCRTE, TYPE SP-9.5)

1.1 CONTRACTOR shall be responsible for retrieving the asphalt from the Highlands County's (OWNER'S) asphalt plant and for placing the asphalt at CONTRACTOR's cost. CONTRACTOR shall not be charged for the asphalt. OWNER's asphalt plant is located at 12700 Arbuckle Creek Road, Sebring FL 33870.

1.2 The amount of reclaimed asphalt pavement (RAP) material shall not exceed 30% by weight of total aggregate for the asphalt.

- 1.3 The thickness of the compacted asphalt for all roadway and parking lot shall be 1 ½" thick and the asphalt shall be placed by the CONTRACTOR in one equal layer.
- 1.4 The OWNER shall maintain the following quality control system by performing the following activities:
- 1. Stockpiles: a. Assure materials are placed in the correct stockpile.
 - b. Inspect stockpiles for separation, contamination, searegation, and other similar items.
 - c. Properly identify and label each stockpile.
- 2. Incoming Aggregate from Outside Supplier:
- a. Obtain gradations and bulk specific gravity values from aggregate supplier. 3. Cold Bins:
- - a. Calibrate the cold gate/feeder belt for each material.
 - b. Observe operation of cold feeder for uniformity.
- c. Verify that the correct components are being used, and that all modifiers or additives or both are being incorporated in the mix. 4. Batch Plants:
 - a. Determine the percent used and weight to be pulled from each bin to assure compliance with the mix design.
 - b. Check mixing time. c. Check operations of weigh bucket and scales.
- 5 Drum Mixer Plants:
- a. Determine aggregate moisture content. Control Charts: Maintain data and make available upon demand.
- a. Gradation of incoming aggregate from outside supplier.
 7. A copy of the certified mix design should be provided by the OWNER upon demand.
- 1.5 OWNER shall perform the following testing to be conducted by an FDOT Construction Training Qualification Program Certified Asphalt Plant Technician

County Owned Asphalt Plant – Materials Testing Frequencies				
PROPERTY	MINIMUM TESTING FREQUENCY			
Asphalt Binder Content	If daily production > 100 tons, once per day, If daily production > 1,000 tons, twice per day. *			
Gradation	If daily production > 100 tons, once per day, If daily production > 1,000 tons, twice per day. *			
Temperature	Each of first 5 loads, then once every 5 loads thereafter, per day per mix design.			
* If less than 100 tons of mix is produced on each of successive days of production, resulting in a cumulative quantity of greater than 100 tons,				
	d Asphalt Plant – Materials Testing PROPERTY Asphalt Binder Content Gradation Temperature 00 tons of mix is produced on each o,			

- 1.6 CONTRACTOR shall notify the PROJECT MANAGER (kjbaker@hcbcc.org) and OWNER's Road and Bridge Superintendent (kgreen@hcbcc.org) in writing via email at least 2 business days in advance prior to retrieval of the asphalt. If CONTRACTOR requests the asphalt and does not retrieve the asphalt after OWNER has produced the asphalt, CONTRACTOR shall reimburse OWNER for the asphalt mix at a unit price of \$70.00/ton or the current unit price at that time, not to exceed \$70.00/ton. CONTRACTOR shall provide an estimated quantity of asphalt to OWNER when requesting asphalt.
- 1.7 If OWNER's asphalt plant breaks down during construction of the project, there will be no change in the Contract price.
- 1.8 Once the asphalt is loaded into the truck and the asphalt plant delivery paperwork is signed or recorded. CONTRACTOR shall be responsible for the quality control of the asphalt.

A visible truck identification number shall be posted on the passenger side door of each vehicle used to retrieve asphalt by or for CONTRACTOR for weight and project tracking information purposes. CONTRACTOR shall coordinate with OWNER's Road and Bridge Superintendent the weighing of the truck and affixing the vehicle identification number prior to any vehicle retrieving the asphalt.

1.9 Any load or portion of load of asphalt mix at the plant or at the roadway with a temperature reading outside the relevant master range shown in the table below shall be rejected. CONTRACTOR shall immediately notify the PROJECT MANAGER if all or any portion of a load of asphalt is rejected. If the asphalt mix is rejected at the plant, OWNER shall be responsible for the cost. If the asphalt mix is rejected at the roadway or anywhere else outside the plant, CONTRACTOR shall reimburse OWNER for the asphalt mix at a unit price of \$70.00/ton or the current unit price at that time, not to exceed \$70.00/ton.

Asphalt Mix Temperature Master Range Tolerance	
LOCATION	ACCEPTABLE TEMPERATURE TOLERANCE
Plant	Mixing Temperature: 305° F +/- 30° F
Roadway/Site	Compaction Temperature: 305° F +/- 30° F

1.10 the asphalt mix shall be transported by CONTRACTOR in truck b
prevents the loss of material and the excessive loss of heat. A
bodies with soapy water or an asphalt release agent as needed
not allow excess liquid to pond in the truck body. CONTRACTOR
characteristics of the asphalt mix or is hazardous or detrimental
any product that dissolves asphalt are prohibited. CONTRACTOR sh
such a manner that it can cover the entire load when required. V
that it can be tied down. CONTRACTOR shall cover each load with
time it appears rain is likely during transit.

1.11 ASPHALT WARRANTY

CONTRACTOR shall be responsible for performance of the asphalt pavement for a period of two (2) years after the date the final payment is made including continued responsibility for performing all remedial work associated with pavement distresses exceeding threshold values as specified in the table below.

OWNER shall monitor the pavement for distresses and may require remedial action at any time within the two years period as specified above. OWNER shall conduct a Pavement Condition Survey (survey) of the asphalt following the final acceptance of the Work and at intermediate times throughout the warranty period with findings provided when considered by OWNER to be the obligation of CONTRACTOR.

The final survey, if determined by the PROJECT MANAGER to be necessary, shall be conducted before the end of the warranty period with results provided to CONTRACTOR for those conditions exceeding contract threshold values requiring remedial action that OWNER believes to be an obligation of CONTRACTOR. OWNER shall be responsible for all costs associated with the surveys.

All remedial action shall be completed by CONTRACTOR within (30) thirty calendar days after OWNER notifies CONTRACTOR of the condition requiring remedial work, provided that DWNER notified CONTRACTOR of the condition and need for remedial action prior to the end of the warranty period.

If the survey findings, intermediate or final, are to be disputed by CONTRACTOR, written notification shall be provided to the PROJECT MANAGER within 30 calendar days of the date of receipt of the information from OWNER.

During the warranty period, CONTRACTOR may monitor the project using nondestructive methods and may participate with OWNER in the Pavement Condition Surveys upon request. CONTRACTOR shall not conduct any coring, milling or other destructive methods without prior approval by the PROJECT MANAGER.

		Pavement F	Roadway and Site			
	TYPE OF DISTRESS	YPE OF DISTRESS MEASUREMENT 1		REMEDIAL WORK		
	Rutting	Depth of rutting to be determined by a 6 foot manual straightedge.	Depth > 0.4 inch	Remove and replace 1.5 inch the full lane width for the area plus 50 feet on each end.		
	Settlement / Depression	Depth of settlement / depression to be determined by a 6 foot manual straightedge.	$Depth \ge 1/2$ inch	Propose the method of correction to the PROJECT MANAGER for approval prior to beginning remedial work.		
	Creating	Beginning and ending of 1/8 inch cracking will be determined as the	Cumulative length of cracking > 30	Remove and replace the distressed length to the full depth of all layer, and		
Davis	Clacking	average of three measurements taken at one foot intervals.	feet for Cracks > 1/8 inch	to the full lane width.		
	Pauraling / Surface Deterioration	Visual Inspection	Observation by PROJECT	Remove and replace the distressed area(s) to the full distressed depth and		
	Ravening/ surface Deterioration	v isuai mispection	MANAGER	the full lane width for the full distressed length plus 50' on each end.		

		REVIS	SIONS			STATUS	DESIGNED BY:	HIGHLANDS COUN	ITY	NE UIA
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							KEITH BAKER, E.I.	ENGINEERING DEPARTA	1EN I	
						FOR BID	CHECKED BY:	505 S. COMMERCE AVENUE		
							IN CHARGE:	SEBRING, FLORIDA 33870		
							ELIUS F. NORTELUS, P.E.	APPROVED BY: ELIUS F. NORTELUS, P.E.	DATE:	
G: \PROJECTS\	2013\13008	Lake Josephine Drive Resurfacing\Drawings\Full Depth Reconstruction Option	n∖Cover General	Notes Details	Josephine.dwg, 3 NOTES	& SPECS, Acad 1–7 Black.ctb	DATE:	FLORIDA REGISTRATION NO.: 70092		OFT

1.10 The asphalt mix shall be transported by CONTRACTOR in truck bodies previously cleaned of all foreign material and of tight construction that fter cleaning, CONTRACTOR shall thinly coat the inside surface of the truck to prevent the asphalt mixture from adhering to the beds. CONTRACTOR shall shall not use a release agent that will contaminate, degrade or alter the to the environment. Petroleum derivatives (such as diesel fuel), solvents, and hall provide each truck with a tarpaulin or other waterproof cover mounted in When in place, CONTRACTOR shall overlap the waterproof cover on all sides so h a tarpaulin or waterproof cover during cool and cloudy weather and at any

LAKE	JOSEPHINE	DRIVE
IN	MPROVEMEN1	ſS

HORIZ. VERT.	N/A N/A	
PROJECT 1300	NO. 8	REV. 0
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LAKE JOSEPHIN IMPROVEME PLAN & PRO	SCALE: HORIZ. 1"=40' VERT. 1"=8' 1"=8' TTS PROJECT NO. 13008 REV. 0 TILE SHEET 23 OF 71







1210 LAKE JOSEPHINE DR SEBRING, FL 33875 $\times^{80.00}$	******	~~@ F	PROP. LAKE JOSEPHINE DR. $\times^{18^{59}}$	1210 LAKE JOSEPHINE DR SEBRING, FL 33875	+71.85 +77.55 +76 Pro. 014 +76	6.92
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ی ه. ⁵⁹ EXIST. R/W LINE ب ^{18.56}	+18. ⁴⁴ +18. ⁴⁴ Ro ⁰ **	B.51 +11.00 F.12.22 18.12 +11.00 F.12.22 18.12 +11.00 F.12.22 18.12 +11.00 F.12.22 18.12 +11.00 F.12.22 18.12 +11.00 F.12.22 +11.00 F.1	x ^{18.0⁴} x ^{18.0⁴} x ^{18.0⁴} 4' PAVED SHLDR (TYP.) 4' PAVED SHLDR (TYP.)	+18.13 +19.22 [EXIST. SIGN		× * * *
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	PLAN	& PROFILE			SHEET	 28 OF	71





-35-29-020-0010- TOMLINSON RILEY E B LAKE JOSEPHINE D SEBRING, FL 33875 	0040 R	C-33-35- DIBELLA JO 924 LA SEB 924 LO 924 LO		020-0010-0050 + STEPHANIE S DSEPHINE DR FL 33875	See Sheet 31
PVI STA: PVI ELEV K: 6 LVC: HIGH PT. ST/ HIGH PT EI	92+00.00 /: 82.35 6.47 60.00 A: 92+09.38 EV: 81.87 	81.75 EVCS: 92+80.00	98 94 92 90 88 84 82 80 76 72 70 68 85	3 5 6 2 0 3 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
LA	KE JOSEPHINE D IMPROVEMENTS PLAN & PROFILE	PRIVE		SCALE: HORIZ. 1"=40' VERT. 1"=8' PROJECT NO. 13008 SHEET 30 OF 71	EV. O











V LINE	xist. R/W LINE CONSTRUCTION RESURFACING ALT PAVEMENT FOR DEPTH (1.1 SP-9.5 (1.5" COMPACTED THIC	5") (19,16)	00N 28 +80. ³⁶ +80. ³⁶	100 m 100 m 10	See Sheet 36
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	PLAN & PR	OFILE		13008 SHEET 35 OF 71	0



6" SOLID WHITE 29+00 B I B B 6" SOLID WHITE	30+00
NOTE: SIGN HEIGHTS SHALL BE MINIMUM OF 7' TO A MAXIMU MEASURED FROM THE BOTTOM OF THE SIGN TO THE TOP OF IN THE ABSENSE OF CURB, MEASURED VERTICALLY FROM THE THE SIGN TO THE ELEVATION OF THE NEAR EDGE OF THE TR	M OF 8' AS THE CURB, OR E BOTTOM OF AVELED WAY.
LAKE JOSEPHINE DRIVE IMPROVEMENTS SIGN & PAVEMENT MARKING PLAN	SCALE: HORIZ. 1"=40' VERT. N/A PROJECT NO. REV. 13008 0 SHEET 36 OF 71



		S THE ELEVATION OF THE NEAR EDGE OF THE INAVELED WAT.					
		REVISIONS	STATUS	DESIGNED BY:	HIGHLANDS COLL		
DATE	BY	DESCRIPTION		DRAWN BY:	FNONEEDING DEDADT		
				KEITH BAKER, E.I.	ENGINEERING DEPART	MENI	
			FOR BID	CHECKED BY:	505 S. COMMERCE AVENUE		
				IN CHARGE:	SEBRING, FLORIDA 33870		
				ELIUS F. NORTELUS, P.E.	APPROVED BY: ELIUS F. NORTELUS, P.E.	DATE:	
G: \PROJECTS\	2013\13008 Lake .	osephine Drive Resurfacing Drawings Full Depth Reconstruction Option Signage & Pavement Marking Plan Sheet -109+14.00.dwg, Plan Sheet - 36+00.00, Baker, Ke	ith J. Acad 1—7 Black.ctb	1 DA IE: 5/9/2016	FLORIDA REGISTRATION NO.: 70092		OF TH































VERT. 1"=10' PROJECT NO. REV. 0







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				DOUG NIETUBICZ	ENGINEERING DEPARIMENI	
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				IN CHARGE:	SEBRING, FLORIDA 33870	
				ELIUS F. NORTELUS, P.E.	APPROVED BY: FUUS F. NORTELUS, P.F. DATE:	
G: \PROJECTS\20	13\13008 Lake J	sephine Drive Resurfacing \Drawings \Full Depth Reconstruction Option \Cross Section Sheets Lake Josephine.dwg, Cross Section Sheets Lake Josephine - Section Sh	eet - (10), Baker, Keith J. Colors As Black Except Gray (1 DATE: 15/76/2016	FLORIDA REGISTRATION NO.: 70092	







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					IN CHARGE:	SEBRING, FLORIDA 33870		
				ELIUS F. NORTELUS, P.E.	APPROVED BY: ELIUS F. NORTELUS, P.E.	DATE:		
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			FOR BID	CHECKED BY:	505 S. COMMERCE AVENUE	
				IN CHARGE:	SEBRING, FLORIDA 33870	
				ELIUS F. NORTELUS, P.E	APPROVED BY: ELIUS F. NORTELUS, P.E. DATE:	
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SCALE: HORIZ. 1"=10' VERT. 1"=10' PROJECT NO. 13008 0 SHEET 66 OF 71

		REVISIONS	STATUS	DESIGNED BY:	HIGHLANDS COUNTY
DATE	BY	DESCRIPTION		DRAWN BY:	
				DOUG NIETUBICZ	ENGINEERING DEFARIMENT
			FOR BID	CHECKED BY: KEITH BAKER, E.I.	505 S. COMMERCE AVENUE
				IN CHARGE:	SEBRING, FLORIDA 33870
				ELIUS F. NORTELUS, P.E	APPROVED BY: ELIUS F. NORTELUS, P.E. DATE:
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HORIZ. 1"=10' VERT. 1"=10'	
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