PLANS	F
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GENERAL CONSTRUCTION NOTES . LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.

2. THE CONTRACTOR SHALL CHECK PLANS AND FIELD CONDITIONS FOR CONFLICTS AND DISCREPANCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICT BEFORE PERFORMING ANY WORK N THE AFFECTED AREA. . THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR. 4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS OF THE

VARIOUS GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSTRUCTION. 5. ALL SPECIFICATIONS AND DOCUMENTS REFERRED TO SHALL BE OF LATEST REVISIONS AND/OR LATEST EDITION. 6. ALL WORK PERFORMED SHALL COMPLY WITH THE REGULATIONS AND ORDINANCES OF THE VARIOUS GOVERNMENTAL

7. CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE OWNER'S ENGINEER SHOP DRAWINGS ON ALL PRECAST AND

AGENCIES HAVING JURISDICTION OVER THE WORK, INCLUDING LANDSCAPING. MANUFACTURED ITEMS TO BE USED ON THIS SITE. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN

REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE. ENGINEER'S APPROVAL OF A SHOP DRAWING DOES NOT RELIEVE

CONTRACTOR'S RESPONSIBILITY FOR PERFORMANCE OF THE ITEM. 8. WORK PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH OTHER WORK BEING PERFORMED ON SITE BY OTHER CONTRACTORS AND UTILITY COMPANIES. IT WILL BE NECESSARY FOR THE CONTRACTOR TO COORDINATE AND SCHEDULE

HIS ACTIVITIES, WHERE NECESSARY WITH OTHER CONTRACTOR'S AND UTILITY COMPANIES. 9. BACKFILL MATERIAL SHALL BE SOLIDLY TAMPED AND COMPACTED TO A FIRMNESS EQUAL TO THAT OF THE SOIL ADJACENT

TO THE TRENCH AROUND PIPES IN 6" LAYERS UP TO AN UNDISTURBED LEVEL OF AT LEAST 1' ABOVE THE TOP OF THE PIPE. IN AREAS TO BE PAVED, BACKFILL SHALL BE COMPACTED TO 100% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99. 10. REPAIR AND REPLACEMENT OF ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS BEFORE COMMENCING CONSTRUCTION WORK UNLESS SPECIFICALLY

EXEMPTED BY THE PLANS. ADDITIONAL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION WILL BE ALLOWED. 11. RECORD DRAWINGS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING INFORMATION ON A SET OF THE APPROVED PLANS CONCURRENTL' WITH CONSTRUCTION PROGRESS. WITHIN TWO WEEKS FOLLOWING FINAL INSPECTION THE CONTRACTOR SHALL SUBMIT ONE SET OF RECORD DRAWINGS TO THE ENGINEER OF RECORD. THE FINAL RECORD DRAWINGS SHALL COMPLY WITH THE FOLLOWING **REQUIREMENTS:**

1. DRAWINGS TO BE LEGIBLY MARKED TO RECORD ACTUAL CONSTRUCTION 2. DRAWINGS SHALL SHOW ACTUAL LOCATION OF ALL UTILITIES, AND RELATED APPURTENANCES, BOTH ABOVE AND BELOW GROUND. ALL CHANGES TO PIPING LOCATION INCLUDING HORIZONTAL & VERTICAL LOCATIONS OF UTILITIES & APPURTENANCES

SHALL BE CLEARLY SHOWN AND REFERENCED TO PERMANENT SURFACE IMPROVEMENTS. DRAWINGS SHALL ALSO SHOW ACTUAL INSTALLED PIPE MATERIAL, ETC

3. DRAWINGS SHALL CLEARLY SHOW ALL FIELD CHANGES OF DIMENSION AND DETAIL INCLUDING CHANGES MADE BY FIELD ORDER OR BY CHANGE ORDER. 4. DRAWINGS SHALL CLEARLY SHOW ALL DETAILS NOT ON ORIGINAL CONTRACT DRAWINGS BUT CONSTRUCTED IN THE FIELD. CLEARLY SHOWN

LOCATIONS OF ALL MANHOLES, HYDRANTS, VALVES, & VALVE BOXES SHALL BE SHOWN HE CONTRACTOR SHALL PROVIDE CERTIFIED RECORD DRAWINGS, SIGNED AND SEALED BY A PROFESSIONAL LAND

SURVEYOR. THE RECORD DRAWINGS SHALL SHOW FINAL GRADES AND LOCATIONS ON ALL UTILITIES INCLUDING THE SANITARY SEWER, WATER, PRODUCT PIPING, AND STORM WATER COLLECTION SYSTEM (I.E. PIPES, INLETS, AND PONDS. THE CONTRACTOR SHALL PROVIDE TEN COPIES OF THE CERTIFIED RECORD DRAWINGS TO THE ENGINEER. THE AS-BUILT CADD DRAWING IN

LECTRONIC FORM SHALL ALSO BE PROVIDED. 12. CONTRACTOR SHALL ADHERE TO THE FOLLOWING DETAILS, STANDARDS, REGULATIONS, AND ORDINANCES: COUNTY HEALTH DEPARTMENT, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FLORIDA DEPARTMENT OF TRANSPORTATION, SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT, CITY OF SEBRING.

13. ALL SITE WORK SHALL CONFORM TO THE LATEST S.W.F.W.M.D., F.D.O.T., CITY AND COUNTY REGULATIONS, SPECIFICATIONS, AND GUIDELINES

14. ALL EXISTING SURVEY MONUMENTS, GPS MONUMENTS OR PUBLIC LAND CORNERS SHALL BE PROTECTED. IF A CORNER OR MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED THE CONTRACTORS CONSTRUCTION MANAGER SHALL NOTIFY THE CITY PUBLIC WORKS DIRECTOR WITHOUT DELAY BY TELEPHONE.

SAFETY NOTES 1. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, THE CONTRACTOR SHALL COMPLY WITH REGULATIONS. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF ITS PERSONNEL. LABOR SAFETY REGULATIONS SHALL BE AS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF LABOR.

THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF THE STATE OF FLORIDA, MANUAL ON TRAFFIC

CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS SHALL BE FOLLOWED IN THE DESIGN APPLICATION, INSTALLATION, MAINTENANCE, AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES WARNING DEVICES, AND BARRIERS NECÉSSARY TO PRÓTECT THE PUBLIC AND WORKERS FROM HAZARDS WITHIN THE PRÓJECT

3. ALL TRAFFIC CONTROL MARKINGS, FLAGGERS, AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION. 4. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH AND ENFORCE ALL APPLICABLE SAFETY

REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.

STANDARD UTILITY NOTES AN ON-SITE INSPECTION BY THE RESPECTIVE GAS PERSONNEL. THEREFORE, EXCAVATORS ARE INSTRUCTED TO TELEPHONE

1. CHAPTER 77-153 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL GAS UTILITIES A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATING. THE ONLY SAFE AND PROPER WAY TO LOCATE EITHER MAINS OR SERVICE LINES IS BY THE RESPECTIVE GAS COMPANY TWO WORKING DAYS BEFORE ENTERING A CONSTRUCTION AREA. 2. ALL UNDERGROUND UTILITIES MUST BE IN PLACE, TESTED AND INSPECTED AS REQUIRED PRIOR TO BASE AND SURFACE

CONSTRUCTION.

. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES IN ORDER TO PERMIT MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION, BY CALLING FLORIDA SUNSHINE 811 AT 811 OR CONTACTING ONLINE AT SUNSHINE811.COM. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY "SUNSHINE" FORTY-EIGHT (48) HOURS PRIOR TO ANY CLEARING OF CONSTRUCTION TO IDENTIFY ALL UTILITY LOCATIONS. 4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES TO DISCONNECT OR REMOVE THEIR FACILITIES PRIOR TO REMOVING OR DEMOLISHING ANY EXISTING STRUCTURES FROM THE SITE. ALL UTILITIES INCLUDING, BUT NOT NECESSARILY LIMITED TO, THE FOLLOWING SHOULD BE CONTACTED BY THE CONTRACTOR:

B. TELEPHONE CABLE

. POWER

. CITY/COUNTY WATER AND SEWER

CITY/COUNTY/STATE TRAFFIC SIGNAL UTILITY (FIBER, HARDWIRE TRAFFIC SIGNAL INTERCONNECT THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ACCURACY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION'S OF THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING ANY UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES WHICH INTERFACE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANIES AND THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY COMPANIES ON DERGROUND UTILITY, ON THE UTILITY COMPANIES DURING RELOCATED BY THE RESPECTIVE UTILITY COMPANIES AND THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY COMPANIES ON THE PLANS OF THE SHOW ON THE PLANS OF THE SHOW ON THE PLANS OF THE SHOW ON THE PLANS OF THE RESPECTIVE UTILITY COMPANIES AND THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY COMPANIES DURING RELOCATION OPERATIONS. ANY DELAY OF WORD ON THE PLANS OF THE OFFICE OF CONTRACTOR BY THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.

		REVISIONS
DATE	BY	DESCRIPTION
10-0CT-19	MLW	CONSTRUCTION PLANS

FOR THE CONSTRUCTION OF THE CITY OF SEBRING FORCE MAIN FROM THE EXISTING FORCE MAIN AT THE INTERSECTION OF U.S. HWY. 27 AND THE SEBRING PARKWAY ERLY HIGHLANDS AVENUE) TO A TERMINATION POINT NORTH OF YOUTH CARE LANE.

PLANS FOR THE CONSTRUCTION OF THE CITY OF SEBRING 6", 8" AND 12" WATER LINES FROM THE EXISTING WATER LINE AT THE INTERSECTION OF YOUTH CARE LANE AND SEBRING PARKWAY (FORMERLY HIGHLANDS AVENUE) TO AN EXISTING 8" AND 12" WATER LINE AT THE INTERSECTION OF U.S. HWY. 27 AND THE SEBRING PARKWAY ALONG WITH THE CONNECTION TO EXISTING 8" AND 12" WATER LINES ALONG DESOTO ROAD, AND WITH CONNECTING EXISTING 2", 4", 6" AND 8" WATER LINES THAT WERE CONNECTED TO THE EXISTING WATER LINES ALONG THE WAY AND EXISTING WATER SERVICES.

HIGHLANDS COUNTY, SECTIONS 32 & 33, TOWNSHIP 34 S, RANGE 29 E AND SECTION 4 & 5, TOWNSHIP 35 S, RANGE 28 E



SCOPE OF WORK FOR CONSTRUCTING NEW FORCE MAIN

1) CONSTRUCT A 10" FORCE MAIN FROM THE EXISTING 10" FORCE MAIN AT THE INTERSECTION OF U.S. HWY. 27 AND THE SEBRING PARKWAY (FORMERLY HIGHLANDS AVENUE) TO A TERMINATION POINT

2) FLUSH FORCE MAIN

NORTH OF YOUTH CARE LANE.

) PRESSURE TEST FORCE MAIN

4) RESTORE AND SOD DISTURBED AREAS WITHIN RIGHT-OF-WAYS OR CONSTRUCT PROPOSED PARKWAY IMPROVEMENTS.

SCOPE OF WORK FOR CONSTRUCTING NEW WATER LINES

THE PORPOSED WATER LINES WILL BE CONNECTED INTO AN ACTIVE SYSTEM. DURING THE CONSTRUCTION OF THE NEW WATER LINES IT IS IMPERATIVE THAT NO INTERRUPTION WILL BE MADE TO THE CITY OF SEBRING CUSTOMERS. WET TAPPING OF ACTIVE LINES WILL BE REQUIRED. PORTIONS OF THE PROPOSED WATER LINES MAY BE TESTED AND CLEARED FOR USE WITH THE APPROVAL OF THE CITY OF SEBRING UTILITY DEPARTMENT, COUNTY ENGINEER AND ENGINEER OF

RECORD. 1) CONSTRUCT 6", 8" AND 12" WATER LINES FROM THE EXISTING WATER LINE AT THE INTERSECTIO OF YOUTH CARE LANE AND SEBRING PARKWAY (FORMERLY HIGHLANDS AVENUE) TO AN EXISTING 8 AND 12" WATER LINE AT THE INTERSECTION OF U.S. HWY. 27 AND THE SEBRING PARKWAY AND TC EXISTING 8" AND 12" WATER LINES ALONG DESOTO ROAD, ALONG WITH CONNECTING EXISTING 2" 6" AND 8" WATER LINES THAT WERE CONNECTED TO THE EXISTING WATER LINES ALONG THE WAY AND EXISTING WATER SERVICES.

2) DISINFECT WATERLINE

) TEST WATER LINES A) PRESSURE TEST

3) CHLORINE RESIDUAL AND BACTERIOLOGICAL

4) FILL THE EXISTING WATER LINES THAT BECOME REDUNDANT WITH GROUT AND PLACE THEM OUT OF SERVICE 5) RESTORE AND SOD DISTURBED AREAS WITHIN RIGHT-OF-WAYS OR CONSTRUCT PROPOSED

PARKWAY IMPROVEMENTS.

CONSTRUCTION NOTES:

-- ELEVATIONS SHOWN ARE A REPRESENTATION OF FIELD CONDITIONS AND IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY INFORMATION IN FIELD. THE INTENT FOR THE PROPOSED CONSTRUCTION IS TO CONSTRUCT THE FORCEMAIN WITH A MINIMUM OF 3' OF COVER AND A MINIMUM OF 6' CLEAR BETWEEN THE EXISTING WATER MAIN AND THE PROPOSED FORCEMAIN.

--THESE PLANS HAVE BEEN DRAWN TO DEPICT THE REQUIRED CONSTRUCTION WITHIN THE PROJECT AREA. IN CERTAIN CASES THE SIZE AND/OR LOCATION OF PROPOSED CONSTRUCTION HAS BEEN BLOWNUP TO SHOW ITEMS. THEREFORE, LOCATIONS ON THE DRAWINGS MAY NOT B EXACT AND SHOULD NOT BE SCALED FOR CONSTRUCTION. THE PROPOSED WATERLINE WILL NEED TO BE CONSTRUCTED USING EXISTING SITE CONDITIONS AND CURRENT F.D.O.T. CONSTRUCTION REQUIREMENTS AND REGULATIONS. -- THE UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS ARE REPRESENTATIONAL ONLY. FIELD INVESTIGATION FOR EXACT LOCATIONS IS REQUIRED AND WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

NOTES:

THIS PROJECT IS NOT SUBJECT TO FLOODING IN A 100-YEAR REOCCURRENCE INTERVAL

STORM. -ALL UNDERGROUND UTILITIES WITHIN THE ROADWAY ARE TO BE INSTALLED PRIOR TO

PLACEMENT OF BASE. -ALL CONSTRUCTION MATERIALS USED WITHIN THE COUNTY RIGHT-OF-WAY ARE TO BE TESTED AS PER COUNTY REQUIREMENTS AND ALL TEST RESULTS ARE TO BE SUBMITTED BY THE TESTING LAB DIRECTLY TO THE ENGINEER OF RECORD BEFORE ANY AS-BUILT INSPECTION AND SUBMITTALS WILL BE MADE.

-ALL DISTURBED AREAS IN THE HIGHLANDS COUNTY OR FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY WILL BE RESTORED AND SODDED.

-A MAINTENANCE OF TRAFFIC (MOT) SHALL COMPLY WITH FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD INDEX FOR CONSTRUCTION WITHIN THE HIGHLANDS COUNTY

RIGHT-OF-WAY. THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (DATED 2019) AND DESIGN STANDARDS BOOKLET (DATED 2019)

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. GOVERNING SPECIFICATIONS: STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD

SPECIFICATIONS, DATED 2019, SUPPLEMENTS AND SPECIAL PROVISIONS THERETO IF NOTED IN THE CONTRACT SPECIFICATIONS FOR THIS PROJECT.

AT LEAST 72 HOURS IN ADVANCE OF BEGINNING CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL CONTACT THE LOCAL MAINTENANCE FDOT ENGINEER'S OFFICE TO SECURE GENERAL USE PERMITS AND/OR OTHER PERMITS AS REQUIRED FOR WORKING WITHIN THE DEPARTMENT'S RIGHT-OF-WAY.

FOR DESIGN STANDARDS MODIFICATIONS, CLICK ON "DESIGN STANDARDS" AT THE FOLLOWING WEB SITE:

INDFX.

http://www.dot.state.fl.us/rddesign/

FDOT NOTE: ALL CONSTRUCTION WITHIN THE FDOT RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH THE CURRENT FDOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION AND THE ROADWAY AND TRAFFIC DESIGN STANDARD INDEX.

COUNTY NOTE: ALL CONSTRUCTION WITHIN THE COUNTY RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH THE CURRENT HIGHLANDS COUNTY STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION AND THE ROADWAY AND THE F.D.O.T. TRAFFIC DESIGN STANDARD

ALWAYS CALL 811 TWO FULL BUSINESS DAYS BEFORE YOU DIG



CITY OF SEBRING 321 NORTH MANGO STREET SEBRING, FL 33870 863-471-5100 ROGER DALE POLSTON, P.E POLSTON ENGINEERING, INC 2925 KENILWORTH BOULEVARD SEBRING, FL 33870 (863) 385-5564 (863) 385-2462 FAX

CITY OF SEBRING FROCE MAIN EXTENSION &

SEC. 28 & 33, TWP. 34E, RGE. 28E & SEC. 4 & 5, TWP. 35S, RGE. 28E

WATER LINE CONSTRUCTION AND REPLACEMENT

SEBRING PARKWAY PHASE II A&B CITY OF SEBRING UTILITY MODIFICATIONS WATER AND SEWER MODIFICATIONS PARKWAY-STA. 448+32 TO STA. 501+44, DESOTO-STA. 3+54 TO STA. 16+60, MEDICAL CENTER-STA. 2+00 TO STA. 4+50, US 27-STA. 2959+00 TO STA. 2964+60

SCALE: NTS	
DRAWING NO. 18001	REV. 0
SHEET 0 OF	25





				11	
			ONC. SIDEW	StDE WALK =	
0 20' 40' 1" = 20'		PR TE	POSED, TIE INTO EXISTING 6" WATER LINE USING 6" SS TAPPING SADDLE, 6" GATE VALVE, WITH TAP FOR PORARY SAMPLE POINT WITH CORPORATION STOP AND CURPLED DOWN (4") POINT WITH CORPORATION STOP AND	U. I Z INLET NO. STRUCTURE – EX C EXIST. TYPE 5 INLET J \$TA. 449+19.72 L PROPOSED 45LF 6" DR 18 PROPOSED 45LF 6" DR 18 I NUMV: 108.18 15" RCP BLUE WATER LINE (FROM	
			CURBISTOP ON 3/4" POLY PIPE AND 6" 45" ELL, ON ESTERN LEG OF WATER LINE CUT IN A 6" GATE VALVE AND INSTALL A 2" BLOW OFF ASSEMBLY IN A WATER METER VAULT	I IN INV: 108.18 15 RCP SW INV: 108.18 18" RCP LINE TIE IN) II II II II II II II II II I	
		INLE EXIST. TO GRATE E STA. ±449+22 L S INV: 109.6	NO. 76B CUT IN A 6" GATE VALVE AT () NO. 76B BOTH ENDS OF EXISTING 6" YE C BOX WATER LINE, EXISTING 6" WATER 112.36 LINE BETWEEN GATE VALVES TO 15" RCP BE PLACED OUT OF SERVICE	STA. 449+45 L PROPOSED EXTEND EXISTING BLUE WATER LINE ADD 12"x 2 - 12" GATE VALVES (NOI 6" GATE VALVE (EASTE	2 12" DR 18 C900 12"x6" TEE, WITH RTH AND SOUTH), ERLY) AND 6" 45"
INLET NO. 75		PROPOSED THE INTO EXISTING 12 DR TO COUD BLOE WATER LINE AND EXTEND TOWARD THE SOUTH ADD TAP FOR TEMPORARY SAMPLE POINT WITH CORPORATION STOP AND CURB STOP ON 3/4" POLY PIPE. CUT IN A 6" GATE VALVE EAST OF EXISTING 12"/6" CONNECTION. THE EXISTING 2" AND 6" WATER LINES WILL BE PLACED OUT OF SERVICE ONCE THE SERVICES ARE CONNECTED AND THE DOPORCED WATER LINES WILL BE PLACED FOR USE	15" HOPE 18" HOPE	COVER AND BOX, MINIMUM (MEG-A-LUG) (MEG-A-	JSTABLE VALVE 2' BELOW PROPOSED 6' MINIMUM INLETS OR SEPARATION BETWEEN HEVER IS GREATER PROPOSED FORCE MAIN AND PROPOSED FORCE MAIN AND PROPOSED WATER C900 BLUE WATER LINE, LINE PROPOSED WATER LINE,
GRATE EL.: 119.49 NE INV: 114.47 18" RCP E INV: 114.47 18" HDPE W INV: 114.47 18" RCP	-R/W	EVICTING 12" DD 18 COOD PTIE WETER TH	SABE CONTRACTOR	PROPOS ELL FOI PROP. TYPE 5 INLET STA.: 449+50:01 L	SED 2–12" 11.25' R ALIGNMENT A-LUG) INLET NO. STRUCTURE – 5 PROP. MODIFIED TYPE C INLET (SEE FDOT STANLARD INDEX 282) (SEE 14501-32.76
		EXISTING 12" DR 18 C900 BLUE WATER LINE PROPOSED USE 2 - 10" 45° EKLS FOR ALIGNMENT TO		EOP EL. 112.80 NE HV: 108.10 18" RCP S INV: 108.10 18" RCP NOP	P. 11 LF OF 15" HDPE © 0.94%
생8' CONC. SIDEWALK	8' CONC. SIDEWALK SEPARATION BET PROPOSED FORCE MAIN PROPOSED WATER	NIMUM WEEN I AND LINE Z====================================			VL /
Г ————————————————————————————————————	EXIST. TYPE 5 INLET GRATE EL.: 114.80 SE INV: 108.90 18" HDPE FM _	PROP. 8 LF OF BUT HDRE	◎ 0.11%	PROPOSED USE 2 - 10 11.25° ELLS FOR ALIGNMENT (MEG-A-LUG)	F 18" RCP @ 0.12% INLET NO. STRUCTURE - 4 PROPOSED 10" DR 18 PROP. TYPE 6 INLET IIII STA.: 450+32.64 L IIII EOP EL:: 112.87 IIII LINER LINER CURB CURB
	FUTURE EXTENSION OF 10" DR		EOP REMOVE & REPLACE INLET NO. STRUCTURE - (77A) PROP. TYPE' 9 INLET STA : 448/54 88 L	PROPOSED	N INV: 108.00 18 RCP E INV: 108.00 15" HDPE W INV: 108.00 18" RCP W INV: 108.00 18" RCP
	18 C900 GREEN FORCE MAIN	STA. 448+32L PROPOSED BEGINNING OF 10" DR 18 C900 GREEN FORCE MAIN, END TO BE CAPPED FOR FUTURE EXTENSION	EOP EL.: 113.22 E INV: 109.65 15" HDPE	EXISTING 2" WATER LINE WILL BE PLACED OUT OF SERVICE ONCE THE SERVICES ARE	EXIST. TYPE C INLET FILL GRATE EL.: 112.61 FILL NW INV: 108.47 18" RCP FILL S INV: 108.47 24" HDPE ILL OF LINE CROSS DRAINS, INLETS OR MINIMUM 3' OF COVER WHICHEVER IS GREATER
445+00 BEGIN CONSTRUCTION STA = 445+12 89				CONNECTED AND THE PROPOSED WATER LINES HAVE BEEN CERTIFIED CLEARED FOR USE	450+00
MEET AND MATCH EXISTING PAVEMENT		PROPOSED DIRECTIONAL BORE ±100LF SDR 11 GREEN STRIPE FORCE MAI MEG_A_UC CONNECTIONS TO 10"	F 12" INLET NO. STRUCTURE – 1 WITH PROP. TYPE 6 INLET STA.: 448+99.97 R		
		C900 GREEN FORCE MAIN, MINIMUR 2' EXISTING AND PROPOSED CROSS E INLETS OR MINIMUM 4' OF COVER FROM SURFACE WHICHEVER IS GF	ELOW EOP EL: 112.87 AINS, S INV: 108.60 24" HDPE ROAD N INV: 108.60 24" HDPE ATER		EXIST. 24" HDPE
EXIST. 18" HDPE					PROP. 153 LF OF 24" RCP @ 0.3
INLET NO. 74 EXIST. TYPE 5 INLET GRATE EL.: 119.65	INLET NO. 76 EXIST. TYPE 5 INLET GRATE EL.: 114.49 N INV: 109.03 18" HDPE E INV: 109.10 18" RCP C INV: 109.10 18" RCP			REMOVE INLET NO. 76D EXIST. TYPE 10 INLET	EXIST. 24" HDPE TO REMAIN REMOVE INLET NO. 78 EXIST. TYPE 5 INLET
N INV: 114.28 18" HDPE S INV: 114.38 18" HDPE				JOIN EXISTING HDPE PIPE	INLET NO. STRUCTURE – 3 PROP. TYPE 6 INLET STA.: 450+32.44 R EOP EL.: 113.09
					S INV: 106.50 24" RCP E INV: 106.50 18" RCP N INV: 106.10 24" HDPE
					ADJUSTABLE VALVE COVER AND BOX WITH TRAFFIC BEARING LID MARKED "WATER" OR "SEWER" (DEPENDENT ON USE) WITH A 24"X24"X6" THICK CONCRETE SHEAR
					PROPOSED FINISHED GRADE OF SURROUNDINGS
NOTE: PROPOSED WATER LINE AND FORCE MAIN ELEVATIONS DEPICTED ON PROFILES VIEW IS A REPRESENTATION, SPECIFIC ELEVATIONS ARE TO BE					132 130
DETERMINED BY HIGHLANDS COUNTY SEBRING PARKWAY PLANS128ND FIELD CONDITIONS.					128
126					126 124
122			PROPOSED EXTEND EXISTIN WATER LINE ADD 12"x12 GATE VALVES (NORTH & VALVE (EASTERLY) AND 6 W/ ADJUSTABLE	STA. 449+45 L 12" DR 18 C900 BLUE x6" TEE, WITH 2 - 12" : SOUTH), 1 - 6" GATE 	122
120			PROPOSED DIRECTIONAL BORE ±100LF OF 12" SDR 11 GREEN STRIPE FORCE MAIN, MINIMUM 2' BELOW PROPOSED CROSS DRAINS, INLET NO. STRUCTUF SIDE DRAINS, HEADWALLS OR EXIST. TYPE SIDE OR MINIMUM 4. COVER FOP FIL	E – EX 5 INLET 112 18	Inlet No. Structure - 3 PROPOSED 12" DR 18 C900 BLUE WATER LINE AND 10" DR 18 C900 GREEN FORCE MAIN, RUNNING PARALLEL TO RIGHT-OF-WAY WITH PROP. TYPE 6 INLET 118
116		EXISTING 15" H	PE	INLET NO. STRUCTURE – 2 PROP. TYPE 5 INLET STA.: 449+50.01 L EOP EL.: 112.80 NE INV: 108.10 18" RCP	STA:: 450+32.44 R Minimum 0 SEPARATION BETWEEN PIPE AND EOP EL:: 113.09 MINIMUM 2' BELOW PROPOSED CROSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR MINIMUM SIDE DRAINS, HEADWALLS OR INLETS, OR MINIMUM SINV: 106.50 24" RCP 3' OF COVER WHICHEVER IS GREATER N INV: 106.10 24" HDPE 116
		STA, 448+32 L		S INV: 108.10 18" RCP	Internet Internet
110		PROPOSED BECINNING OF 10" DR 18 C900 GREEN FORCE MAIN, END TO BE CAPPED FOR FUTURE EXTENSION	INLET NO. STRUCTURE - 1 PROP. TYPE 6 INLET STA.: 448+99.9 \ R	PROP. 83 LF	PROP. MES N INV: 108.00 18" RCP INV: 108.10 E INV: 108.00 15" HDPE OF 18" RCP W INV: 108.00 18" RCP
108			EOP EL.: 112.87		
104		BEGIN DIRECTIONAL BORE ±100LF OF 12" STR. STRIPE FORCE MAIN, CONNECT TO 10" DR GREEN FORCE MAIN, 12" TO 10" REDUCER, M MECREEN FORCE MAIN M M M M M M M M M M M M M M		STA. 449+52 L END DIRECTIONAL GREEN STRIPE FO	BORE ±100LF OF 12" SDR 11 RCE MAIN, CONNECT TO 10" DR 18 RCE MAIN, 12" TO 10" REDUCER.
	4	MECHANICAL JOINT BETWEEN DISSIMILAR PIPE S MATERIALS, MINIMUM 2' BELOW PROPOSI DRAINS, SIDE DRAINS, HEADWALLS OR IN MINIMUM 4' OF COVER WHICHEVER IS	CROSS ETS, OR PROP. 55 LF (CREATER	F 18" RCP @ 0.14% STATE STING 12" DR 18 C900 GREET FUN F 18" RCP @ 0.14% EXISTING 12" DR 18 C900 PROPOSED CROSS PVC BLUE WATER LINE OR INLETS, OR M GREATER	ANICAL JOINT BETWEEN DIŠŠIMILAR 102 MATERIALS, MINIMUM 2' BELOW 102 S DRAINS, SIDĘ DRAINS, HEADWALLS 102 IINIMUM 4' OF COVER WHICHEVER IS 100
444+68 442+00 119.2 119.2 117.25 118.2 119.2		66. 12. 148+00	449+00	μ 	Yé Yé<
DATE BY DESCRIPTION 10-0CT-19 MLW CONSTRUCTION DUALS	SEAL / SIGNATURE	DESIGNED BY: Polston Engin	eering, Inc	SEBRING P	ARKWAY PHASE II A
UTUTITI INLIN CUNSTRUCTION PLANS		MLW CIVIL ENGINEERING CO CHECKED BY: 2925 KENILWORTH BLVD., SEB MLW 863-385-5564 PHONE 86	DINSULIANTS RING, FLORIDA 33870 3-385-2462 FAX	WATER AND	SEWER MODIFICATIONS DRAWING NO. REV. 18001 0
		DATE:ROGER DALE POLSTON, P.E. # 33222CERTIFICATE10-0CT-19MARVIN LUTHER WOLFE, P.E. # 46030SEALED AND THE	OF AUTHORIZATION # 5684 OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND IGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES	SEBRING PARKWAY,	STA 448+30 TO STA 476+34.49 SHEET 3 OF 25



ASH400 ASH4000 ASH4000 ASH4	HIT NO. STRUCTURE - 8 HIT NO. STRUCTURE - 9 HIT NO. STRUCTURE - 10 HIT NO.	
PROP. 153 LF OF 24" RCP @ 0.39%	PROP. 5 LF OF 24" RCP @ -1.25% NIET NO. 53 NIET NO. 51 NIET NO. 51	PROP. 190 LF OF 18" HDPE @ 2.88%
INLET NO. STRUCTURE - 6 STA. 451+84.98 PROP. TYPE 9 INLET EOP EL.: ??? E INV: 107.10 24" RCP N INV: 107.10 24" RCP	EXIST. TYPE C INLET GRATE EL: 112.13 E INV: 107.06 24" RCP W INV: 107.06 21" CMP W INV: 107.06 21" CMP H W INV: 107.13 24" RCP E INV: 107.13 24" RCP	INLET NO. STRUCTURE - 15 PROP. TYPE 5 INLET STA:: 455+69.99 R EOP EL.: 116.99 S INV: 111.12 18" HDPE N INV: 111.12 18" HDPE
	INV: 106.78 INV: 106.78	ALL GATE VALVES WILL BE INSTALLED WITH AN ADJUSTABLE VALVE COVER AND BOX WITH TRAFFIC BEARING LID MARKED, "WATER" OR "SEWER" (DEPENDENT
NOTE: PROPOSED WATER LINE AND FORCE MAIN ELEVATIONS DEPICTED ON PROFILES VIEW IS A REPRESENTATION, SPECIFIC ELEVATIONS ARE TO BE		ON USE) WITH A 24"X24"X6" THICK CONCRETE_SHEAR PAD, 3000 PSI CONCRETE, FINISHED GRADE EQUAL PROPOSED FINISHED GRADE OF SURROUNDINGS 132 130
DETERMINED BY HIGHLANDS COUNTY SEBRING PARKWAY PLANS128 D FIELD CONDITIONS.	Image: Problem in the state of the stat	Image: state in the state
122 120 120 118 118 118 116 INLET NO. STRUCTURE - 6 117 STA: 452+011 118 STA: 452+011 119 STA: 452+011 110 GRATE EL: 113.31 111 E INV: 107.10 24* RCP 112 N INV: 107.10 24* RCP 112 N INV: 107.10 24* RCP 112 N INV: 107.10 24* RCP 110 PROP. 51 LF OF 24* RCP @ 0.34Z	INLET NO. STRUCTURE - 9 INLET NO. STRUCTURE - 11 PROP. TYPE 9 INLET STA: 454 STA: 452791.11 STA: 453 GRATE EL: 113.25 GRATE EL: 112.41 GRATE EL: 112.47 STA: 453 SINV: 107.71 15" HOPE S INV: 107.95 24" RCP S INV: 107.71 24" RCP N INV: 107.13 24" RCP N INV: 107.72 24" RCP S INV: 107.13 24" RCP S INV: 107.13 24" RCP S INV: 107.13 24" RCP PROP. 80 LF OF 24" RCP @ 0.30% PROP. 72 LF OF 24" RCP @ 2.00%	INLET NO. STRUCTURE - 16 122 INLET NO. STRUCTURE - 16 120 STA: 455/65/39/8 STA: 455/65/39/8 STA: 455/65/39/8 STA STA: 455/65/39/8 </th
100 106 106 104 104 104 102 102 102 PROPOSED 48" MINIMUM COVER OVER PROPOSED FORCE MAIN UNDER DRIVEWAY PROPOSED 12" DR 18 C900 BLUE WATER LINE AND 10" DR 18 C900 OVER PROPOSED FORCE MAIN OREEN FORCE MAIN, RUNNING PARALLEL TO RIGHT-OF-WAY WITH OND PROPOSED WATER LINE WNIMUM 6' SEPARATION BETWEEN PIPE AND MINIMUM 2' PROPOSED CROSS DRAINS, SUB DRAI	PROPOSED 12" DR 18 C900 BLUE WATER LINE AND 10" DR 18 C900 PROPOSED 12" DR 18 C900 BLUE WATER LINE AND 10" DR 18 C900 GREEN FORCE MAIN, RUMNING PARALLEL TO RIGHT-OWAY WITH MINIMUM 6' SEPARATION BETWEEN PIPE AND MINIMUM 2' BELOW COVER OVER PROPOSED FORCE MAIN AND PROPOSED FORCE MAIN AND PROPOSED WATER LINE UNDER DRIVEWAY	Image: Proposed 48" MINIMUM Cover OVER PROPOSED FORCE MAIN AND PROPOSED WATER LINE 106 PROPOSED 48" MINIMUM COVER UNDER DRIVEWAY 104 OVER PROPOSED FORCE MAIN AND PROPOSED WATER LINE 104 UNDER DRIVEWAY 102
Indicate and the state of t	Image: State of the order bindling Image: State of	Image: Segret and the segret and th



			SCFE MP VC 877.18 STA ±112+04	
PROPOSED 12" DR 18 C900 BLUE WATER LINE R/W R/W R/W R/W R/W R/W R/W R/W	PROPOSED JACK X-HEAVY (0.5" T C900 DR 18 BLUB RESTRAINTS AND TO RAILROAD RIG 24" X-HEAVY (0. TOP ELEVATION O OR MINIMUM 4' OI GRADE ALONG CA AND EXISTING 24" FORCE MAIN WITH 10" DR 18 C-900 FORCE AIN COLOR GREEN, UTILIZE BELL RESTRAINTS AND SPACERS	AND BORE, 200LF OF 24" HICK) STEEL CASING FOR 12" E WATER LINE WITH BELL SPACERS, THEN EXTEND CASING HT-OF-WAY, (TOTAL ±320' OF 5" THICK) STEEL CASING F COVER FROM LOWEST FINAL ASING WHICHEVER IS DEEPER " CASING TO BE UTILIZED FOR R/W	R/W PROPOSED 12" GATE VALVE ADJUSTABLE VALVE COVER TEMPORARY SAMPLE POILT 2 – 12" 43. E (MEG–A–LUG) RE–ALIGNM	PROPOSED WATER LINE/STORMWATER CROSSING WITH ILLS FOR ENT
WL WL WL IWL FM FM FM FM SIRUCTURE 19 SIRUCTURE 19 SIRUCTURE 19 SIRUCTURE 19 SIRUCTURE 19 PROP. TYPE 9 INLET SINV: 117.80.24" RCP FIN EXIST. PROP. TYPE 9 0.59% FOPOP. 47 LF OF 24" RCP EOP	P @ -0.50% PROP. 7 LF OF 24" RCP @ 0.47%	FM FM INLET NO. STRUCTURE - 21 PROP. TYPE 5 INLET STA.: 461+99.99 L EOP ELL: 126.73 S INV: 118.80 24" HDPE W INV: 118.80 24" RCP N INV: 118.80 24" RCP N INV: 118.80 24" RCP	PROP. 184 LE-OF 24" HDPE @ 0.80%	PROP. CL SWALE -
460+00 SCFE MP VC 877.13 STA ±114+99	VE.		463+00 	_ · · _ · · _ · · · · · · _ · · _ · · _ · · _ · · _ · · _ · · _ · · _ · · _ · · _ · · _ · · _ · · _ · · _ · · _ · · _ · · _ · · _ · · _ · · · _ · · · _ · · · _ · · · · _ ·
PROP. 175 LF OF 18" HDPE @ 1. INLET NO. STRUCTURE – 20 STA. 460+25.04 PROP. TYPE 9 INLET EOP EL:: ??? S INV: 121.50 18" HDPE		INLET NO. STRUCTURE – 22 PROP. TYPE 5 INLET STA: 461+99.99 R EOP EL: 126.73 N INV: 119.42 18" HDPE E INV: 119.42 18" RCP ====================================	EXISTING 12' AC WATER LINE TO REMAIN	
			ALL GATE VALVES WILL ADJUSTABLE VALVE CO BEARING LID MARKED " ON USE) WITH A 24"X2 PAD, 3000 PSI CONCRE PROPOSED FINISHED GR	BE INSTALLED WITH AN VER AND BOX WITH TRAFFIC WATER" OR "SEWER" (DEPENDENT 4"X6" THICK CONCRETE SHEAR TE, FINISHED GRADE EQUAL ADE OF SURROUNDINGS
PROPOSED 10" GATE PROPOSED 10" GATE VALVE ON FORCE MAIN W/ ADJUSTABLE VALVE COVER AND BOX PROPOSED 12" GATE VALVE AND STA. 460+09 L STA. 470+07 STA. 470+07 STA. 470+07 STA. 470+07 STA. 470+07 ST	INLET NO. STRUCTURE – 21 EXIST. TYPE 5 INLET EOP EL.: 126.73	INLET NO. STRUCTURE - 22 EXIST. TYPE 5 INLET EOP EL.: 126.73	STA. 463+30 L PROPOSED EXTENSION OF 24" STEEL ¢ASING OF 200LF JACK AND BORE, 24" STEEL CASING FOR 12" DR 18 C900 BLUE WATER LINE, THEN EXTEND ¢ASING TO RALROAD RIGHT-OF-WAY SCFE STA 112+05 L EXISTING 12" AC WATER LINE TO REMAIN, ±3' OF COVER ALONG THE WESTERN RICHT-OF WAY CONTRACTOR TO VERIFY LO¢ATION DURING CONSTRUCTION	140 138 136 134 132 130 128 128
INLET NO. STRUCTURE - 19 INLET NO. STRUCTURE - 19 STA: 460+00.00 GRAFE EL: 125.41 GRAFE EL: 125.41 PROF. 175 LF OF 18" HDPE @ 1 N INV: 117.80 24" RCP PROF. 175 LF OF 18" HDPE @ 1 N INV: 117.80 24" RCP INU STA: 460+13.1 INU STA: 460+13.1 INU STA: 460+13.1 INU STA: 460+13.1 INU	19%	ROP. 7 LF OF 24" RCP @ 0.47%	PROP. 184 LF OF 24" HDPE @ 0.80%	120 124 122 122 120 120 120 120 118 118 116 STA_463-34 L PROPOSED 12" GATE VALVES W/ ADJUSTABLE 114
AND BORE, 24" STELL CASING FOR 12" DR 18 C300 BLUE WATER LINE, THEN CASING EXTENDED TO RAILROAD RIGHT-OF-WAY SCRE STA. 115+00 R STA. 461+00 L PROPOSED JACK AND BORE 200LF OF 24" STELL CASING FOR 12" OF 24" STELL	EXISTING 24" STEL CASING UNDER SCEL RAILROAD, REI EXISTING 24" STEL CASING UNDER SCEL RAILROAD, REI EXISTING 27'LF OF 12" HD WHIN COLOR GREEN, UTILIZE RESTRAINTS AND SPACERS SG SG SG SG SG SG SG SG SG SG SG SG S	PLACE PE BELL +00 CEDDINIC D +00	STA. 463+00 L PROPOSED JACK AND OF 24" STEEL CASING WATERLINE 463+00 463+00 NRKWAY РЦАСЕ Ц А	WALVE COVER AND BOX AND TEMPORARY SAMPLE POINT 114 BORE 200LF FOR 12" 110 110 108 8000000000000000000000000000000000000
MLW DRAWN BY: MLW CHECKED BY: MLW DATE: DATE: 10-0CT-19 MLW DATE:	5684 SONSIDERED SIGNED AND C	SEBRING PA CITY OF SEBRING WATER AND S SEBRING PARKWAY,	G UTILITY MODIFICATIONS SEWER MODIFICATIONS STA 448+30 TO STA 476+34.49	1"=20' DRAWING NO. REV. 18001 0 SHEET 5 OF 25

PROPOSE LINE/STC	ED WATER RMWATER CROSSING	INLET NO. STRUCTURE – 23 PROP. TYPE C INLET STA.: 463+83.75 GRATE EL.: 124.27 W INV: 120.64 15" HDPE	PROPOSED 12" DR 18 C900 BLUE WATER LINE OR 10" DR 18 C900 GREEN FORCE MAIN, -MINIMUM 2' BELOW PROPOSED CROSS DRAINS, INLETS OR MINIMUM 3' OF COVER WHICHEVER IS GREATER	PROPOSED 12" DR 18 C900 BLUE WATER LINE, RUNNING PARALLEL WITH AND CENTERE 7' FROM RIGHT-OF-WAY	D	INLET NC	D. STRUCT PROP. TYP STA.: 4 GRATE E
	\		R/W		PROP. CL SW	aleWI	∀: 1 22 .16 ⁻
PROP. CL SWALE	0 1 1 1 0 1 1 0 1 1 0 1 1 0 1 1 1 1 0 1	WFM	— wL——FM-	FM		•FM	—FN
FM	7 LF OF 15" HD	INLET NO. STRUCTURE - 24 PROP. TYPE 5 INLET STA.: 463+83.82 L EOP EL.: 127.92 S INV: 120.27 24" HDPE W INV: 120.27 18" RCP	PROPOSED USE 2 - 45° ELLS FOR ALIGNMENT			INLET NO. ST PROP STA E S INV: 1 W INV: 1 E INV: 1	TRUCTURE ² . TYPE 5 COP EL.: 1 21.79 18" 121.79 18 121.79 15"
		E INV: 120.27 15" HDPE N INV: 120.27 24" HDPE		PROP. 190 LF_OF_24"_HDPE_@	0.80%	N INV: 1:	21.79 24"
		PROPOSED 10" GATE VAI MECHANICAL JOINT (MEG-A-LUG)	-VE,		EOP		
· • • · · ·		<pre> > > 464+00 > 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5</pre>		· · · · ·	465+00	· · · ·	
				EOP		REMOVE EXISTING	
		INLET NO. STRUCTURE – 25 PROP. TYPE 5 INLET	EXISTING 12' AC			PIPE & HEADWALLS	
/	=========	STA.: 463+83.82 R EOP EL.: 127.92 E INV: 120.90 18" RCP ====================================			=======================================		:====
 			∽к,	W			
144							
NOTE: PROP ELEVATIONS REPRESENTA	OSED WATE DEPICTED C TION. SPECI	R LINE AND FORCE IN PROFILES VIEW IS IFIC ELEVATIONS ARI	MAIN 5 A E TO BE				
DETERMINED PLANS ₄₀ AND	BY HIGHLA FIELD COND	NDS COUNTY SEBRIN	IG PARKWAY				
138							
136		INLET NO. STF	RUCTURE – 24				
134		PROP. TYPE 5 STA.: 463+83 EOP EL.: 127. S INV: 120.27	5 INLET 5.82 L 92 24" HDPE 7.18" PCP	EXISTING 12" AC WATER L REMAIN TO STA. 466+88 OF COVER ALONG THE WE RIGHT-OF-WAY, CONTRAC VERIFY LOCATION DURING	INE IO R, ±3' STERN TOR TO		
130		E INV: 120.27 N INV: 120.27	15" HDPE				
128							
126		INLET NO. STRUCTU PROP. TYPE 5 INLE STA.: 463+83.82 F EOP ELL: 127.92	JRE – 25 T			INLET NO. STRUCTUF STA. 46 PROP. TYPE EOP	
124		E INV: 120.90 18"	RCP			W INV: 122.16 1	5" HDPE
122				PROP. 190 LF OF 24" HDPL @ 0.8			
120							•••
116		SIA. 463183.75 				PROPOSED 12" DR 18 C900 BLUE W DR 18 C900 GREEN FORCE MAIN, RU RIGHT-OF-WAY WITH MINIMUM 6' SI PIPE AND MINIMUM 2' BELOW PROPC SIDE DRAINS, HEADWALLS OR INLETS	NATER LINE INNING PAR EPARATION DSED CROSS OR MINIM
114		D 10" GATE / ADJUSTABLE WER AND BOX				COVER FROM FINAL GRADE WH	ICHEVER IS
112			40		3.31	C C	8.30
463+64		464+00	128		465+00	(*	12
DATE	B	Y		REVISIONS DESCRIPTION			
10-0CT-1	9 ML	W		CONSTRUCTION PLANS			



PROPOSED 12" DR 18 C900 BLUE WATER LINE, RUNNING PARALLEL WITH AND CENTER 7' FROM RIGHT-OF-WAY	ED	PROPOSED 48" MINIMUM COVER OVER PROPOSED FORCE MAIN AND PROPOSED WATER LINE UNDER DRIVEWAY	PR LIN DR 3'	OPOSED 12" DR 18 C900 E IE OR 10" DR 18 C900 GR IN, MINIMUM 2' BELOW PRC AINS, SIDE DRAINS, INLETS OF COVER WHICHEVER IS (//W	BLUE WATER EEN FORCE OPOSED CROSS OR MINIMUM GREATER
PROP. TOE O	F SLOPE	PROP. MES INV: 124.78		юр. меs /: 125.46	FM
M	— FM —		₩ T8 [™] X12 [™] RCP @ 1.28%	INLET NO. PROP. TYL STA.: 469 EOP EL.: V INV: 12 V INV: 12 N INV: 12	STRUCTURE – 35 PE 5 INLET 129.34 15.04 18" HDPE 25.04 18" RCP 15.04 18" HDPE
		469+00	PROP. 102 LF OF 2" PVC IRRIGATION	SLEEVE SLEEVE 9	470+00
TAP FOR TEMPORARY SAMPLE POINT WITH - CORPORATION STOP AND CURB STOP ON 34" POLY PIPE	NDS AVE. EXISTING 12" AC WATER LINE TO BE FILLED WITH GROUT AND PLACED OUT OF SERVICE ONCE PROPOSED WATER LINES HAVE BEEN CONSTRUCTED WITH ALL LATERAL CONNECTIONS AND CERTIFIED FOR USE	PROPOSED 80LF OF 12" STEEL CASING PROPOSED 6" DR 18 C900 BLUE W LINE WITH RESTRAINTS AND SPACERS UN PARADISE PATH, REQUIRES ROAD CLOS CUTTING PAVEMENT, REBUILDING R	INLET NO. STRUCTUR WTH PROP. TYPE ATER STA:: 469+ NDER EOP EL.: URE, E INV: 125.66	RE - 36 I I I G I I I I I I I I	
STA 468+22 R EXISTING 4" WATE LINE. PROPOSED 6 NORTHERLY AND S VALVE ON THE WE VALVE WESTERLY FROM THE SOUTH 4" VALVE AT THE AND THE NEWLY 0 A 4" LINE FROM SIDE OF THE NEW THE SEGMENT WIL ONCE NEW WATER	EXISTING 4" WATER LINE TO BE FILLED WITH GROUT AND PLACED OUT OF SERVICE ONCE PROPOSED WATER LINES HAVE BEEN CONSTRUCTED AND CERTIFIED FOR USE "R LINE TO CONNECT INTO PROPOSED 6" 6"x6"x4" TEE WITH 6" GATE VALVES ON SOUTHERLY SIDES OF THE TEE AND 1 – ESTERLY SIDE OF THE TEE. CUT IN A 4 OF THE 4" WATER LINE 90° ELL BEING F THE SEGMENT OF 4" WATERLINE BETV SOUTHERN CONNECTION TO THE 4" WA CUT IN 4" VALVE WILL BE ABANDONED, THE 6"x6"x4" TEE WILL TIE INTO THE EA LY CUT IN 4" GATE VALVE. THE REMAIN L BE GROUTED AND TAKEN OUT OF SER LINES HAVE BEEN CERTIFIED FOR USE	R/W- R/W- WATER 4" GATE FED VEEN THE TER MAIN SO THAT SO THAT SO THAT SO THAT SO THAT	PARADISE PA		PROPOSED 6" DR 1 WATER LINE, ±7 OF CURB AND C FROM RI
		I ALL ADJU BEAR ON L PAD, EXIST. GONC	GATE VALVES WILL BE I ISTABLE VALVE COVER A RING LID MARKED "WATE JSE) WITH A 24"X24"X6' 3000 PSI CONCRETE, F POSED FINISHED GRADE	NSTALLED WITH AND BOX WITH T R"OR "SEWER" 'THICK CONCRE INISHED GRADE OF SURROUNDIN	AN TRAFFIC (DEPENDEN ⁻ ETE SHEAR EQUAL IGS
STA. 468+22 R EXISTING 4" WATEI TEE WITH 6" GATE 4" GATE VALVE OI WESTERLY OF THE FIEMPORARY SAMP THE SEGMENT OF TO THE 4" WATER A 4" LINE FROM J IN 4" GATE VALVE OF SERVICE ONCE	R LINE TO CONNECT INTO PROPOSED 6" W VALVES ON NORTHERLY AND SOUTHERLY N THE WESTERLY SIDE OF THE TEE. CUT 4" WATER LINE 90° ELL BEING FEED FROM LE POINT WITH CORPORATION STOP AND C 4" WATER LINE BETWEEN THE 4" VALVE AT MAIN AND THE NEWLY CUT IN 4" VALVE IN 6"X4" TEE WILL TIE INTO THE EASTI C. THE REMAINDER OF THE SEGMENT WILL E NEW WATER LINES HAVE BEEN CERTIFIED FROM STA. 466+88 R EXISTING 12' WATER LINE TO COOL BUE WATER LINES HAVE ALL LATERAL CONNECTIONS A ALL LATERAL CONNECTIONS A	ATER LINE. PROPOSED 6"x6"x4" ATER LINE. PROPOSED 6"x6"x4" SIDES OF THE TEE AND 1 - IN A 4" GATE VALVE ATHE SOUTH. TAP FOR URB SIDOP ON 3/4" POLY PIPE. THE SOUTHERN CONNECTION WILL BE ABANDONED, SO THAT TRLY SIDE OF THE NEWLY CUT SE GROUTED AND TAKEN OUT FOR USE BE FILLED WITH GROUT AND SE PROPOSED 12" DR 18 CE BEEN CONSTRUCTED WITH ND CERTIFIED FOR USE	GATE VALVES WILL BE I ISTABLE VALVE COVER A RING LID MARKED "WATE JSE) WITH A 24"X24"X6' 3000 PSI CONCRETE, F POSED FINISHED GRADE INLET NO. STRUCTURE STA:: 469 EOP EL S INV: 125.04 W INV: 125.04 W INV: 125.04 W INV: 125.04 W INV: 125.04 STA:: 469 EOP EL S INV: 125.04 W INV: 125.04	NSTALLED WITH AND BOX WITH T R" OR "SEWER" 'THICK CONCRE INISHED GRADE OF SURROUNDIN OF SURROUNDIN B" HOPE 18" HOPE 18" HOPE 18" HOPE	AN TRAFFIC (DEPENDEN ⁻ TE SHEAR EQUAL IGS 144 142 140 138 136 134 132 130 128





		Ζ					
<u>_</u>		0 20' 40' 1" = 20'	WATEI	LINE AIR RELEASE VALVE CLOSURE USE FOR RARY SAMPLE POINT		PROPOSED 12" DR 18 C900 BLUE WATER LINE, RUNNING PARALLEL WITH AND CENTERED 7' FROM RIGHT-OF-WAY W/ 3' COVER MINIMUM	
	WL WL FM FM FM PROP. 20 LF OF 8" PVC @ MANHOLE NO. PROP. MANHOLE NO. PROP. MANHOLE WITH LINI. STA: 479+66. OFFSET: -38.00 TOP OF RIM: 146. E INV: 141.50 8" PV S INV: 141.50 10" PV		-WL	WLWLWL	WLW FMFM ^{286.2′}	/LWL FM	
	EOP		SEBF SOUTH		PROP. 366 LF OF 10" PVC @ 2.35%		EOP
	MANHOLE NO. STRUCTURE - (175) EXIST. SEWER MANHOLE TOP OF RIM: 147.52 S INV: 141.50 10" PVC		· · · ·				Image: Second
	ET ELEMENT OF THE STALE STALE AT THE STALE A	EXISTING SEWER SERVICE CONNECTION TO BE EXTEND TO NEW GRAVITY SEWER SEE COUNTY PLAN	EXISTING 10" GRAVITY SEWER 4 TO BE REMOVED AFTER CONSTF CLEARANCE FOR USE OF N SEWER SYSTEM SEE C STUB W/PLUG STA: 480+17.57 40.000 R INV: 143.43	TO NEW GRAVITY SEVER SEE COUNTY PLAN STU	IB W/PLUG 481+23.55		CONNECT TO EXISTING STA: 482+52.99 OFFSET: 33.53 R EXISTING SEWER SERVICE CONNECTION TO BE EXTEND TO NEW GRAVITY SEWER SEE COUNTY PLAN
						ALL GATE VALVES WILL ADJUSTABLE VALVE CC BEARING LID MARKED ' ON USE) WITH A 24"X2 PAD, 3000 PSI CONCRI PROPOSED FINISHED GF	BE INSTALLED WITH AN OVER AND BOX WITH TRAFFIC "WATER" OR "SEWER" (DEPENDENT 24"X6" THICK CONCRETE SHEAR ETE, FINISHED GRADE EQUAL RADE OF SURROUNDINGS
	STA. 479+44 R EXISTING MANHOLE RIM ELEVATION 147.52 SOUTH (10") INVERT ELEVATION 141.50 TO BE REMOVED AFTER CONSTRUCTION AND CLEARANCE FOR USE OF NEW GRAVITY SEWER SYSTEM SEE COUNTY PLAN			FROM STA. 476+28 L EXISTING 12" AC WATER LINE TO BE FILLE WITH GROUT AND PLACED OUT OF SERVICE ONCE PROPOSED WATER LINES HAVE BEEN CONSTRUCTED WITH ALL LATERAL CONNECTIONS, TESTED AND CERTIFIED FOR	D T USE		158 156 154 152 152 150 150 148 148
ROPOSED 12" C900 DR 18 BLUE WATER LINE AND 10" BOOD DR 18 GREEN FORCE MAIN ALONG EASTERN GHT-OF-WAY, RUNNING PARALLEL TO GHT-OF-WAY WITH MINIMUM 2' CLEARANCE BELOW ROPOSED CROSSING WITH EXISTING WATER LINE OR KISTING GRAVITY SEWER LINES (THAT ARE IN DNFLICT WITH THE ELEVATION OF CONSTRUCTION FOR IE NEW MAINS), OR MINIMUM 2' DELOW PROPOSED ROSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, R MINIMUM 3' OF COVER WHICHEVER IS GREATER		EXISTING SEWER SERVICE CONNECTION TO BE EXTEND TO NEW GRAWITY SEWER SEE COUNTY PLAN PROPOSED WAT VALVE FOR TEMP WITH ABOVE GR PROPOSED FOR VALVE WITH ABOVE	STA. 480+40 L STA. 480+40 L ER LINE AR RELEASE ER LINE AR RELEASE E GRADE ENCLOSURE	EXISTING SEWER SERVICE CONNECTION TO BE EXISTING SEWER SERVICE EXISTING SEWER SERVICE EXISTING 10" GRAVITY SEWER SEE COUNTY PLAN FROM STA, 479+44 R EXISTING 10" GRAVITY SEWER 2.14% TO BE REMOVED AFTER CONSTRUCTION AND CLEARANCE FOR USE OF NEW GRAVITY SEWER SYSTEM SEE COUNTY PLAN		ND 10" C900 DR	144 142 142 140 140 138 138 138 136 Existing sewer service connection to be gravity sewer see county plan 132
	479+00	480+00		No.04 481+00	PARALLEL TO RIGHT-OF-WAY WITH MINIMU BELOW PROPOSED CROSSING WITH EXISTING EXISTING GRAVITY SEWER LINES (THAT ARE IN CO ELEVATION OF CONSTRUCTION FOR THE NEW MAI 2' BELOW PROPOSED CROSS DRAINS, SIDE DRA OR INLETS, OR MINIMUM 3' OF COVER WHICHE	M 2' CLEARANCE	130 128 128 126 126 482+60
SEAL / SIGNATURE	DESIGNED BY: MLW DRAWN BY: MLW CHECKED BY: MLW DATE: 10-0CT-19 POISt CI 2925 KE 86 MARVIN LUTHER WOL	ON Engineerir VIL ENGINEERING CONSULTAN NILWORTH BLVD., SEBRING, FLORI 3-385-5564 PHONE 863-385-2462 ION, P.E. # 33222 FE, P.E. # 46030 CERTIFICATE OF AUTHORIZATIO PRINTED COPIES OF THIS DOCUMENT ARE SEALED AND THE SIGNATURE MUST BE VER	IG, Inc ITS DA 33870 AX N # 5684 NOT CONSIDERED SIGNED AND TED ON ANY ELECTRONIC COPIES	CI	SEBRING PARKWAY TY OF SEBRING UTILI WATER AND SEWER N SEBRING PARKWAY, STA 476+3	 PHASE II B TY MODIFICATIONS MODIFICATIONS 34.49 TO STA 501+44 	SCALE: 1"=20' DRAWING NO. 18001 O SHEET 8 OF 25



PROPOSED 48" MINIMUM COVER OVER PROPOSED FORCE MAIN AND PROPOSED WATER LINE UNDER DRIVEWAY	PROPOSED 12" DR 18 C900 BLUE WATER LINE, RUNNING PARALLEL WITH AND CENTERED 7' FROM RIGHT-OF-WAY W/ 3' COVER MINIMUM SEPARATION BETWEEN PROPOSED 6' MINIMUM SEPARATION BETWEEN PROPOSED FORCE MAIN AND	PROPOSED 1 BLUE WATER R /WPARALLEL W
	PROPOSED WATER LINE	
	WLWLWL	WLW
	PROPOSED 10" DR 18 C900 GREEN FORCE MAIN ±43'_ FROM BACK OF CURB W/ 3' COVER MINIMUM	PROPOSED 10" DR 18 C900 PROPOSEN FORCE MAIN ±34 GREEN FORCE MAIN ±34 FROM BACK OF CURB W/ 3' COVER MINIMUM PROPOSED INV: 112.27 PROPC
18.6'		
		PROP. 310 LF OF 10" PVC @ 3.14%
EXISTING 12" AC WATER LINE EXISTING 12" AC WATER LINE FILLED WITH GROUT AND PLA OF SERVICE ONCE PROPOSE CI LINES HAVE BEEN CONSTRUC ALL LATERAL CONNECTI CERTIFIED	S TO BE	EOP
SOUTH HIGHLANDS AV		
MANHOLE 40. STRUCTURE EXIST. SEWER MANHOLE 4 TOP OF RUM 124-23 S INV: 115:85 10" PVC N INV: 115:93 10" PVC W INV: 116:05 8" PVC SEE COUNTY PLAN SEE COUNTY PLAN	EXISTING 10" GRAVI B C C C C C C C C C C C C C	G G G TY SEWER REMOVED OF NEW JTEM SEE JTY PLAN TEM SEE JTY PLAN
		EXIST. 10" PVC
CONNECT STA: 48 OFFSET: INV: 117 STA: 487+16.45 52.000 R STA. 487+03 dVV: 116.36 EXISTING MANHOLE CENTERED ±7.1' FROM PROPOSE RIM ELEVATION 141.32 NORTH (10") INVERT ELEVATION 115.93 SOUTH (10") INVERT ELEVATION 15.85 WEST (8") INVERT ELEVATION 15.85 WEST (8") INVERT ELEVATION 15.85 USE OF NEW GRAVITY SEWER SYSTEM SEE COUNTY	INV: 116.54 TO EXISTING 7+34.99 29.86 R 64 EXISTING 10" GRAVITY SEWER IE ±112.9, CROWN ELEV. ±113.8 AT CROSSING WTH INLET AND CULVERT IE ±115.7, BOTTOM OF CULVERT ±114.5 NCE FOR PLAN ALL GATE VALVES V ADJUSTABLE VALVE BEARING LID MARKE ON USE) WITH A 24 PAD, 3000 PSI CON PROPOSED FINISHED	VILL BE INSTALLED WITH AN COVER AND BOX WITH TRAFFIC D "WATER" OR "SEWER" (DEPENDENT "X24"X6" THICK CONCRETE SHEAR CRETE, FINISHED GRADE EQUAL GRADE OF SURROUNDINGS
	NOTE: PROPOSED W ELEVATIONS DEPICTE REPRESENTATION SI	ATER LINE AND FORCE MAIN D ON PROFILES VIEW IS A
	DETERMINED BY HIG PLANS AND FIFLD C	HLANDS COUNTY SEBRING PARKWAY
		138
		136
STA, 487+03 R EXISTING MANHOLE RIM ELEVATION 124.23 NORTL (10 ²) INVERT ELEVATION 115.93		132
SOUTH (10") INVERT ELEVATION 115.85 WEST (8") INVERT ELEVATION 116.05 TO BE REMOVED AFTER CONSTRUCTION AND CLEARANCE FOR USE OF NEW GRAVITY SEWER SYSTEM SEE COUNTY PLAN	PROPOSED 12" C900 DR 18 BLUE WATER LINE AND 10" C900 DR 18	130
	GREEN FORCE MAIN RUNNING PARALLEL TO AND ALONG THE EASTERN RIGHT-OF-WAY, MINIMUM 3' COVER	128
	FROM STA. 476+28 L EXISTING 12" WATER L GROUT AND PLACED C	I24 124 122 INE TO BE FILLED WITH UT OF, SERVICE ONCE
	/ PROPOSED WATER LINI CONSTRUCTED WITH AI CONNECTIONS, TESTED	L LATERAL 120 AND CERTIFIED FOR USE EXISTING SEWER SERVICE CONNECTION TO BE EXTEND TO NEW GRAVITY SEWER SEE COUNTY PLANE
EXISTING 10" GRAVITY SEWER 350' @ 3.06% TO BE REMOVED AFTER CONSTRUCTION AND CLEARANCE FOR USE OF NEW GRAVITY SEWER SYSTEM SEE COUNTY PLAN SEE COUNTY PLAN EXISTING 3 CON SEWER SEE N CON SEWER SEE CON SEWER SEE SEWER SEE S	EWER SERVICE NEW GRAVITY COUNTY PLAN 488+00	
CITY OF SE WATER A SEBRING PAR	IG PARKWAY PHASE II B BRING UTILITY MODIFICATION AND SEWER MODIFICATIONS RKWAY, STA 476+34.49 TO STA 501+44	IS SCALE: 1"=20' DRAWING NO. REV. 18001 0 SHEET 9 OF 25



EXISTING & PVC WATER LINES TO BE FILLEN WITH CROUX AND PLACED OUT, OF SERVICE ONCE PROPOSED WATER LINES BEEN-GENISTRUSCE ONCE BEEN-GENISTRUSCE ONCE	20' 40' 1" = 20'		5. 1900
EL CASING FOR UNE WATER PROPOSED 260LF OF 20" STEEL CASING FOR PROPOSED 10" DR 18 C900 GREEN SEWER 2" GATI EXI	2" SS WET TAP WITH E VALVE AND EXTEND STING 2" WATER LINE	INTO PROPOSED 12" WATER 12" GATE VALVES ON THE TEE AND 1 – 8" GATE WATER LINE CROSSING. THE THE 8" VALVE AT THE EXISTING IN 8" VALVE WILL BE W THE 12"X12"x8" TEE WILL TIE LY CUT IN 8" GATE VALVE. BE GROUTED AND TAKEN OUT TAVE BEEN CERTIFIED FOR USE W INV: 104.65 24" HDPE S INV: 104.65 24" HDPE	PROPOSED 12" DR 18 C900 BLUE WATER LINE, RUNNING PARALLEL WITH AND CENTERED 5' FROM RIGHT-OF-WAY, WITH 3' MINIMUM COVER OR 2' BELOW STORM WATER PIPES, INLETS, WATER LINE WHICH EVER 15 DEEPEST 99.75 15" RCP 99.75 15" RCP 99.75 15" RCP
Intervention in the second structure with respirations and spaces under the second structure with respirations in the states, may make the second closure, cuthing pavement, states, respirations, side drains, walks or with the second structure with the	PROPOSED 6' MINIMUM SEPARATION BETWEEN PROPOSED FORCE MAIN A PROPOSED FORCE MAIN A PROPOSED WATER LINE	PROPOSED 12" 22.5' ND ELL (MEG-A-LUG) PROPOSED FIRE R/W HYDRANT ASSEMBLY PROPOSED FIRE PROPOSED WATER LINE PROPOSED FIRE WI PROPOSED FIRE WI PROPOSED FIRE WI PROPOSED FIRE WI	DSED 2" SS WET TAP WITH GATE VALVE AND EXTEND EXIST. DRAINAGE MANHOLE EXISTING 2" WATER LINE MANHOLE NO. STRUCTURE - (16700 EXIST. DRAINAGE MANHOLE TOP OF RIM: 105.60 S INV: 102.99 8" PVC NE INV: 102.99 6" IRON NE INV: 102.92 6" IRON
EOP 272.3' PROPOSED I CROSSING / / CROSSING / / / / / / / / / / / / / / / / / / /	PROPOSED ±40LF OF 2" RING-TITE PVC CLASS 200 PROPOSED ±40LF EOP PROPOSED ±40LF PROPOSED TO EOP PROPOSED TO PROPOSED TO PROPOSE	PROF REMOVE EXISTING FIRE HYDRANT ASSEMBLY AFTER NEW AIN AND FIRE HYDRANT ASSEMBLY IS INSTALLED ON NEW 12" WATER LINE PROF PROF PROF	PROPOSED FM SEWER/WATER FM CROSSING INLET NO. STRUCTURE - (134) SEWER/WATER EXIST. TYPE C INLET GRATE EL.: 106.02 C900 GREEN FORCE MAIN S INV: 99.83 18" RCP ±4' FROM BACK OF CURB N INV- 105.19 18"W X10"V - NOTCH W/ 3' COVER MINIMUM
491+00 JUNCTION OF EXISTING 6" AND 12" JUNCTION OF EXISTING 6" AND 12" AC WATER LINES TO BE FULLED WITH	IC 2" WATER LINE TO BE JUNCTION OF EXISTING 12" AC AND 8" PYC WATER LINE AND TENDED AND CONNECTED ITO NEW 12" WATER LINE 2+00 IC 2" WATER LINE IC 2" W	493+00 TRANSITION FROM EXISTING 12" AC 493+00 WATERLINE INTO EXISTING 6" AC WATER LINE TO BE FILLED WITH GROUT AND PLACED OUT 494+00	PI.7' FXISBING 6" AC WATER LINE CLASS 200 91.7' AND PLACED OUT OF SERVICE ONCE PROPOSED WATER LINES HAVE BEEN CONSTRUCTED WITH ALL LATERAL CONNECTIONS AND CERTIFIED FOR USE SOUTH HIGHLANDS AVE.
GROUT AND PLACED OUT OF SERVICE ONCE PROPOSED WATER LINES HAVE BEEN CONSTRUCTED WITH ALL LATERAL CONNECTIONS AND CERTIFIED FOR USE C 10" GRAVITY SEWER 265 0 10" GRAV	EXIS CTURE - (34) INLET NO. STRUCTURE - (35) EXIST. TYPE D INLET GRATE ELI: 110.96 50"X19" RCP N INV: 108.21 30"X19" RCP =	TING 10" GRAVITY SEWER EXISTING SEWER SERVICE IE ±104.1, CROWN ELEV. EXISTING 10" GRAVITY SEWER IE EXISTING 10" GRAVITY SEWER IE UGE 0 AT CROSSING WITH ±103.7, CROWN ELEV. ±104.6 EXISTING 5EWER SEC COUNTY PLAN UFF IIE ±106.4, BOTTOM AT CROSSING WITH INLET AND SEWER SEC COUNTY PLAN CONNOF CULVERT ±106.1 CULVERT IE ±107.9, BOTTOM SEWER SEC COUNTY PLAN CROWN OF CULVERT ±106.6 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	WER 251' MANHOLE NO. 5 D AFTER PROP. SEWER MANHOLE EARANCE STA, 494+22.46 TOPI OF RIM: 110.38 WATER LINE AND EXTENDED AND TOPI OF RIM: 110.38 CONNECTED INTO NEW 12" WATER LINE ITY PLAN N INV: 103.34 10" PVC EXIST. 10" PVC S EXIST. 10" PVC S INV: 108.23 G INV: 108.24 G
EXIST. TYPE C INLET GRATE EL.: 112.86 E INV: 111.28 12" HDPE	INLET NO. STRUCTURE - [3] EXISTING 10" GRAVITY SEWER IE EXISTING 10" GRAVITY SEWER IE CONNECTION TO BE EXISTING 10" GRAVITY SEWER IE CONNECTION TO BE CONNECTION OF CHURCH INTO 6 CONNECTION OF CHURCH INTO 6 CONNECTION OF CHURCH INTO 6 CONNECTION FILLING 10 CONNECTION FILLING 10 CONNECTION OF CHURCH INTO 6 CONNECTION FILLING 10 CONNECTION FILLING 10	INV: 107.55 INV: 107.44 INV: 107.45 INV: 107.44 INV: 107.45 INV: 107.44 INV: 107.46 INV: 107.44 INV: 104.02 INV: 104.02 10 INV: 104.04 INV: 104.04 INV: 104.04 INV: 104.04 INV: 104.04 INV: 104.04 <td>EXIST. 12" HDPE CONNEC STA: 4 OFFSET INV: 10</td>	EXIST. 12" HDPE CONNEC STA: 4 OFFSET INV: 10
	EXISTING MANHOLE CENTERED ±8 B NORTH (10") INVE SOUTHEAST (10") INVE TO BE REMOVED AFTER CONSTRUC FOR USE OF NEW GRAVITY SEWER	6	
INLET NO. Structure – 124 PROP. TYPE 5 INLET EOP EL.: 112.47 E INV: 108.25 24" RCP			ALL GATE VALVES WILL BE INSTALLED WITH AN ADJUSTABLE VALVE COVER AND BOX WITH TRAFFIC BEARING LID MARKED "WATER" OR "SEWER" (DEPENDENT ON USE) WITH A! 24"X24"X6" THICK CONCRETE SHEAR PAD, 3000 PSI CONCRETE, FINISHED GRADE EQUAL PROPOSED FINISHED GRADE OF SURROUNDINGS
JUNCTION OF EXISTING 6" AND 12" AC WATER LINES TO BE FILLED WITH GROUT AND PLACED OUT OF SERVICE ONCE PROPOSED WATER LINES HAVE BEEN CONSTRUCTED	FROM STA. 476±28 L EXISTING 8" CAST IRON WATE BE FILLED WITH GROUT AND F OUT OF SERVICE ONCE PROPO WATER LINES HAVE BEEN CON WITH ALL LATERAL CONNECTION TESTED AND CERTIFIED FOR U	TRANSITION FROM EXISTING 12" AC WATERLINE INTO EXISTING 6" AC WATER LINE TO BE FILLED WITH GROUT AND PLACED OUT OF SERVICE ONCE SED SED STRUCTED NS, SE	Image: Provide the second s
	VALVE FOR FORCE MAIN		
EXISTING 10" GRAVITY SEWER 265' 0.306% TO BE REMOVED AFTER CONSTRUCTION AND CLEARANCE FOR USE OF NEW GRAVITY SEWER USE OF NEW GRAVITY SEWER USE OF NEW GRAVITY SEWER WITH RESTRAINTS AND SPACERS RUNNING PARALLEL TO AND WITH RESTRAINTS AND SPACERS RUNNING PARALLEL TO AND	Isting 2" WATER LINE TO BE STA. 49: Isting 2" WATER LINE TO BE STA. 49: Isting 2" WATER LINE TO BE Rim ELEVATION Ister the top to the top	Image: Sever service	Image: Construction and co
SYSTEM ALONG THE EASTERN RIGHT-OF-WAY WITH MINIMUM 2' CLEARANCE BELOW PROPOSED CROSSING WITH EXISTING WATER J LINE OR EXISTING GRAVITY SEWER LINES (THAT ARE IN CONFLICT J WITH THE ELEVATION OF CONSTRUCTION FOR THE NEW MAINS), OR MINIMUM 2' MINIMUM 2' CLEARANCE BELOW CROSS DRAINS, SIDE DRAINS, MINIMUM 2' CRADE WHICHEVER IS, OR MINIMUM 3' OF COVER FROM FINAL BE CRADE WHICHEVER IS, OR MINIMUM 3' OF COVER FROM FINAL BE CRADE WHICHEVER IS, REQUIRE CONSTRUCTION IN C STAGES, ROAD CLOSURE, CUTTING PAVEMENT, REBUILDING ROAD EXISTING 8' WATER LINE TO CONNECT INTO PROF TEE WITH 12'' GATE VALVES ON NORTHERLY AN GATE VALVE ON THE EASTERLY SIDE OF THE ' THE 12'' AND 8'' WATER LINE CROSSING. THE VALUE AT THE EXISTING IZ'' WATER MA ABANDONED SO THAT A 8'' TIME FROM THE	INCONCENTE INCONCENTE INCONCENTE INCONCENTE INCONCENTE INCONCENTE INCONCE INCONCENT INCO	N AND In the object 200 of 2+ 0 stell cosing for 10 to 200 of the stell cosing for 200 of the st	Stever System See PROPOSED 12" C900 DR 18 BLUE WATER LINE AND PROPOSED 10" C900 DR 18 GREEN FORCE MAIN ALONG PROPOSED CROSSING WITH EXISTING WATER PROPOSED CROSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR MINIMUM 3' OF COVER PROM FINAL GRADE WHICHEVER IS GREATER PROPOSED CROSS DRAINS CREATER PROPO
SIDE OF THE NEWLY OUT IN 8" GATE VALVES SIDE OF THE NEWLY OUT IN 8" GATE VALVES GROUTED AND TAKEN OUT OF SERVICE ONCE USE (ALL GATE VALVES SEAL / SIGNATURE DESIGNED BY: Part of the newly of the new of the	At THE REMAINDER OF THE SEGMENT WILL BE NEW WATER LINES HAVE BEEN CERTIFIED FOR TO HAVE ADJUSTABLE VALVE COVER AND BOX) 4 5 5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	493+00 494+00 SEBRING PARK	8 90 90 90 495+00 495+12 VAY PHASE II B SCALE: 1" 00"
Imiliv Imiliv DRAWN BY: Imiliv MLW Imiliv CHECKED BY: 1000000000000000000000000000000000000	IVIL ENGINEERING CONSULTANTS ENILWORTH BLVD., SEBRING, FLORIDA 33870 53-385-5564 PHONE 863-385-2462 FAX STON, P.E. # 33222 CERTIFICATE OF AUTHORIZATION # 5684 PRINTED COPIES OF THIS SOCIMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC CON	CITY OF SEBRING U WATER AND SEWI SEBRING PARKWAY, STA	TILITY MODIFICATIONST = 20CR MODIFICATIONSDRAWING NO.REV.476+34.49 TO STA 501+44SHEET 10 OF 25

					MANHOLE EX S	NO. STRUCTURE – (164) IST. DRAINAGE MANHOLE TOP OF RIM: 108.91 W INV: 104.72 10" IRON	
UE EL OM JM RM ER ST E – (166) INLET N E – (166) EXIST. GRATE N INV: S INV:	NO. STRUCTURE – (159) TYPE C INLET EL.: 105.80 103.27 18"X12" RCP 103.39 18"X12" RCP	INLET NO. STRUCTURE - (160) EXIST. TYPE C INLET GRATE EL.: 106.36 N INV: 103.36 18"X12" RCP S INV: 103.36 18"X12" RCP : 18"X12" RCP		ROPOSED 12" DR 18 C900 I LINE, RUNNING PARALLE NTERED 5' FROM RIGHT-OF ' MINIMUM COVER OR 2' BI ATER PIPES, INLETS, WATER EVER	BLUE WATER IL WITH AND =WAY, WITH_ ELOW STORM LINE WHICH IS DEEPEST I18"X12"_RCP	ET NO. STRUCTURE – (161) EXIST. TYPE C INLET GRATE EL.: 106.66 N INV: 103.78 18"X12" RCP E INV: 103.93 12" RCP S INV: 104.00 18"X12" RCP	E = = = = = = = = = = = = = = = = = = =
EXIST. 18"X12"_REF	C (APPROXIMATE LOCAT	======================================	======⊐ D 6' MINIMUM ON BETWEEN D FORCE MAIN			: : :	: R/W
	—WL——		POSED WATER LINE	EXIST. 18" R		WL	
	8	FM	PROPOSED 10" D	FM	FM—	F(M
EROPOSED TO DK T C900 GREEN FORCE MAIL ±4' FROM BACK OF CUR W/ 3' COVER MINIMUL EXISTING 6" AC WATER L	N_ B M INE I	, , , , , , , , , , , , , , , ,	GREEN FORCE FROM BACK OF C COVE	MAIN ±4'_/ URB W/ 3' R MINIMUM)P 		:
AND PLACED OUT AND PLACED OUT SERVICE ONCE PROPOS WATER LINES HAVE BI CONSTRUCTED WITH LATERAL CONNECTIONS / CERTIFIED FOR L	DUT OF SED EEN ALL AND JSE						
495+00 · ·	_ · ·		496±90 PROP	00 LF OF 10" PVC @ 0.74	% · - · ·	· ·	497+00 _
6° AC 22 AC 27 AC		Image: 1 Image: 1 Image: 1 I	+	68)	EXISTING 10" GF @ 1.311% TO B CONSTRUCTION FOR USE OF NE	AVITY SEWER 196' REMOVED AFTER I AND CLEARANCE W_GRAVITY SEWER	
57/LF OF 6"	===========	CULVERT IE ±104.6, BOTTOM CULVERT IE ±104.6, BOTTOM CROWN OF CULVERT ±104.3 ↓ ± ± ± ± ± ± ± ± ± ± ± ± ±	EXIST. DRAINAGE MANHOLE TOP OF RIM: 108.56 S INV: 102.26 10" PVC N INV: 102.33 10" PVC	-	SYSTEM	EE COUNTY PLAN	=====
di d		EXIST.	24"_RCP	- A			
	EXIST. ME			EXIST. MES ======= INV: 105.37			// ===/// ///? ///?
	CONNECT TO EXISTING STA: 495+14.25 OFFSET: 51.50 R INV: 103.56		EXIST. 1	2" HDPE			, INLET
NOTE: PROPOSE	ED WATER LINE	E AND FORCE MAIN					
REPRESENTATIONS DE DETERMINED-BY PLANS ₁ AND_EIE	HIGHLANDS C	LEVATIONS ARE TO B COUNTY SEBRING PAR S.					
116	CONFLICT WITH	COULD R TO BLUE WATER LINE AND FORCE MAIN ALONG EASTERN RIGHT ALLEL TO RIGHT-OF-WAY WITH MINIMU ELOW PROPOSED CROSSING WITH EXIST ING GRAVITY SEWER LINES (THAT ARE I THE ELEVATION OF CONSTRUCTION FO OR MINIMUM 2' CLEARANCE BELOW CR	ID C900 OF=WAY, M 2' ING WATER IN OR THE OSS		FXISTING 6" AC WAT	FR LINE TO BE FILLED	
114	DRAINS, SIDE I OF COVER FRC	DRAINS, HEADWALLS OR INLETS, OR M DM FINAL GRADE WHICHEVER IS GREAT	ER		WITH GROUT AND PL ONCE PROPOSED WA CONSTRUCTED WITH CONNECTIONS, TESTE	ACED OUT OF SERVICE TER LINES HAVE BEEN ALL LATERAL D AND CERTIFIED FOR USE	
110			г•-				
106							
104							
100 100	ING 10" GRAVITY SEWER 673% TO BE REMOVED A UCTION AND CLEARANCE USE OF NEW GRAVITY SE SYSTEM SEE COUNTY I	251' FTER FOR EWER PLAN STA. 495+79 R EXISTING MANHOLE				EXISTING 10" GRAVITY	SEWER 196
98	NORTH SOUTH TO BE AN GRAV	RIM ELEVATION 108.56 [(10") INVERT ELEVATION 102.33] (10") INVERT ELEVATION 102.26 REMOVED AFTER CONSTRUCTION ID CLEARANCE FOR USE OF NEW ITY SEWER SYSTEM SEE COUNTY PLAN	•			USE OF NEW GRAVITY S	EARANCE SEWER SYS COUNTY P
94			•				
92		9.02	·		3.37		.12
495+12		Ŭ T	• 8 496+00 RF\/ISIO	NS	<u>100</u>	4	97+00
DATE 10-0CT-19	BY MLW		DES CONSTRU	CRIPTION ICTION PLANS			



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SHEET 11 OF 25

SEBRING PARKWAY, STA 476+34.49 TO STA 501+44

EXIST. ASPHALT DRIVEWAY	20' EXIST. ASPHALT DRIVEWAY INLET NO. STRUCTURE – 52 PROP. MODIFIED TYPE "C" BOX SEE SHEET 9 FOR TOP DETAIL GRATE INV. EL. 125.70 S INV: 123.44 18"X12" RCP 3+00	PROPOSED 6" THICK CONCRETE DRIVEWAY DROP CURB (TYP.)	PROPOSED 6" THICK CONCRETE DRIVEWAY DRIVEWAY 4+00	PROPOSED 6" THICK CONCRETE DRIVEWAY	INLET NO. STRUCTURE - 56 PROP. MODIFIED TYPE "C" BOX SEE SHEET 9 FOR TOP DETAIL GRATE INV. EL: 127.62 S INV: 125.24 18"X12" RCP PROPOSED 6" THICK CONCRETE DRIVEWAY 5+00 DESOTO ROAD	PROPOSED 6" THICK CONCRETE DRIVEWAY 6+00	
=====12"WM====================================	INLET NO. STRUCTURE – 51 PROP. MODIFIED TYPE "C" BOX SEE SHEET 9 FOR TOP DETAIL GRATE INV. EL: 125.75 N INV: 123.32 18"X12" RCP E INV: 123.32 18"X12" RCP E INV: 123.32 18"X12" RCP ====12"WM====================================	PROP. 24 LF OF 18"X12" RCP @ 0.50% PROPOSED WATER LINE /STORMWATER CROSSING PROP 63 // COLE PROPOSED WITH GROUT AND ONCE PROPOSED WITH CONSTRUCTED WIT CONSTRUCTED WIT C	Soo	523.0 ••••••••••••••••••••••••••••••••••••	INLET NO. STRUCTURE - 55 PROP. MODIFIED TYPE "C" BOX SEE SHEET 9 FOR TOP DETAIL GRATE INV. EL.: 127.58 N INV: 125.07 18"X12" RCP S INV: 125.07 18"X12" RCP PROP. 14 LF OF 18"X12" RCP PROP. 14 LF OF 18"X12" RCP U Y <	PROPOSED WATER LINE/STORMWATER CROSSING ====12"WM====================================	INLET NO. STRUCTURE PROP. MODIFIED TYPE "C" SEE SHEET 9 FOR TOP D GRATE INV. EL.: 1 N INV: 126.06 18"X12" S INV: 126.06 18"X12" S INV: 126.06 18"X12" ROP. 13 LF OF 18"X12" RCP @ 0.50 WL
ALL GATE VALVES WILL BE INSTALLED ADJUSTABLE VALVE COVER AND BOX V BEARING LID MARKED "WATER" OR "SE ON USE) WITH A 24"X24"X6" THICK CO PAD, 3000 PSI CONCRETE, FINISHED G PROPOSED FINISHED GRADE OF SURRO	WITH AN WITH TRAFFIC EWER" (DEPENDENT ONCRETE SHEAR GRADE EQUAL DUNDINGS	PROPO (MEG-,	SED 12" 90" ELL A-LUG)				
NOTE: PROPOSED WATER LINE AND FOR ELEVATEONS DEPICTED ON PROFILES VI REPRESENTATION, SPECIFIC ELEVATION DETERMAND BY HIGHLANDS COUNTY S PLANS AND FIELD CONDITIONS. 146 144 142 140 138	ORCE MAIN HEW IS A IS ARE TO BE SEBRING PARKWAY						
136 134 132 130 130 128 128 126 124 122 120	PROPOSED 12" DR 18 C900 BLUE WATER LINE, MINIMUM 2' BELOW PROPOSED CROSS DRAINS, SIDE DRAINS, MITERED END SECTIONS, HEADWALLS OR INLETS, OR MINIMUM 3' OF COVER WHICHEVER IS GREATER INLET NO. STRUCTURE – 52 PROP. MODIFIED TYPE "C" BOX SEE SHEET 9 FOR TOP DETAIL GRATE INV. EL:: 125.70 S INV: 123.44 18"X12" RCP INLET NO. STRUCTURE – 51 PROP. MODIFIED TYPE "C" BOX SEE SHEET 9 FOR TOP DETAIL GRATE INV. EL:: 125.75 N INV: 123.32 18"X12" RCP E INV: 123.32 18"X12" RCP E INV: 123.32 18"X12" RCP	STA. 3+54 R PROPOSED WET WITH 12" SS TA GATE VALVE WI CLEG (MEG-A-LU THE CONNECTION PLACED OUT OF HAVE BEEN CON AND CERTIFIED T AND CERTIFIED T AND CURB STOP ON 3/4" POLY PIPE PROPORTION STOP AND CURB STOP ON 3/4" POLY PIPE PROPORTION PROPORT	TAP INTO EXISTING 12" AC WATER LINE PPING SADDLE, 12" GATE VALVE AND 12" H 2" BLOW OFF ASSEMBLY ON EASTERN G), EXISTING 12' AC WATER LINE EAST OF N IS TO BE FILLED WITH GROUT AND SERVICE ONCE PROPOSED WATER LINES STRUCTED WITH ALL LATERAL CONNECTIONS OR USE FROM STA. 3+54 R EASTERLY FROM THE PROPOSED BLOWOFF THE EXISTING 12' AC WATER LINE TO BE FILLED WITH GROUT AND PLACED OUT OF SERVICE ONCE PROPOSED WATER LINES HAVE BEEN CONSTRUCTED WITH ALL LATERAL CONNECTIONS AND CERTIFIED FOR USE DP. MES 123.00 0 0 0 0 0 0 0 0 0 0 0 0		INLET NO. STRUCTURE - 55 PROP. MODIFIED TYPE "C" BOX SEE SHEET 9 FOR TOP DETAIL GRATE INV. EL.: 127,58 N INV: 125.07 18"X12" RCP S INV: 125.07 18"X12" RCP	INLET NO. STRUCTURE - 54 PROP. MODIFIED TYPE "C" BOX SEE SHEET 9 FOR TOP DETAIL GRATE INV. EL: 126.25 N INV: 125.00 18"X12" RCP	INLET NO. STRUCTURE - 5E PROP. MODIFIED TYPE "C" BOX SEE SHEET 9 FOR TOP DETAIL GRATE INV. EL.: 128.9 N INV: 126.06 18"X12" RCF S INV: 126.06 18"X12" RCF INLET NO. STRUCTURE - PROP. MODIFIED TYPE "C" F SEE SHEET 9 FOR TOP DET GRATE INV. EL.: 128 S INV: 126.06 18"X12" RCF GRATE INV. EL.: 128 S INV: 126.26 18"X12" F = = = = = = = = = = = = = = = = = INV: 126.26 18"X12" F = = = = = = = = = = = = = = = = = = =
2+00 DATE BY 10-0CT-19 MLW	3+00 REVISIONS DESCRIPTION CONSTRUCTION PL	ANS	4+00 SEAL / SIGNATU	JRE DESIGNED BY: MLW DRAWN BY: MLW CHECKED BY: MLW DATE: 10-OCT-19	5+00 Poiston Engi CIVIL ENGINEERING 2925 KENILWORTH BLVD., S 863-385-5564 PHONE - ROGER DALE POLSTON, P.E. # 33222 ROGER DALE POLSTON, P.E. # 46030 CERTIFI PRINTER MARVIN LUTHER WOLFE, P.E. # 46030	6+00 neering, Ir S CONSULTANTS SEBRING, FLORIDA 33870 - 863-385-2462 FAX CATE OF AUTHORIZATION # 5684 COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNE ID THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRON	D AND C COPIES





FEW FORCE WAIN # 5600 FEW FORCE WAIN # 5600 CURB AROS 57 LA OF THE 6 WLET FOR UNCENTRE - 66 FOR UNCENTR	INLET NO. STRUCTURE - (538) PROP. TYPE C INLET STA:: 10+85.53 GRATE EL:: 136.00 SW INV: 133.90 18" HDPE PROPOSED 12" DR 18 C900 BLUE WATER LINE OR 10" DR 18 C900 GREEN FORCE MAIN, MINIMU 2 BLOW PROPOSED CROSS DRAINS, SIDE DRAINS, MITERED END SECTIONS, HEADWALLS OR INLETS, OR MINIMUM 3' OF COVER WHICHEVER IS GREATER PROPOSED WATER LINE CROSSING PROPOSED 12" GATE VALVE ROPOSED 12" GATE VALVE ROPOSED 12" CURB & GUTTER PROPOSED 12" CURB & GUTTER PROPOSED SIFE CONSTRUCTION IN STAGES, @AD CLOSURE, DESOTO ROAD, MAY REQUIRE CONSTRUCTION IN STAGES, @AD CLOSURE, CUTTING PAYMENT, REBUILDING ROAD, MINIMUM 2' BLOW PROPOSED CROSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR SIMMUM 4' OF COSS DRAINS, SIDE DRAINS, HEADWALLS OR SIDE AND FROME A' SEPARATIENT PROPOSED BOLE OF COM SIDE OF COMP	URE - 68 YPE " °G BOX TOP DETAIL 39 67 'RCP 8' HOPE TER TER 12+00	INLET NO. STRUCTURE - (540) PROP. MODIFIED TYPE "C" BOX SEE SHEET 9 FOR TOP DETAIL GRATE INV. EL: 139.64 S INV: 136.17 18"X12" RCP E INV: 139.01 15" HDPE PROP. 102 LF OF 15" HDPE PROP. 102 LF OF 15" HDPE TYPE "E" CURB & GUTTER 24+00	PROP. MES INLET NO. STRUCTURE – 70 PROP. MODIFIED TYPE C" BOX SEE SHEET 9 FOR TOP DETAIL GRATE INV. 135.15 18'X12' RCP W INV. 135.15 18'X12' RCP PROP. 16 LF OF 18'X 15 LF OF 18'X12'' RCP @ 1.00X 14.00 PROP. 31 LF OF 18'X12'' RCP @ 1.00X
PROPOSED WATER	SEWER LINE WITH RESTRAINTS AND SPACERS UNDER DESOTO ROAD, MAY REQUIRE CONSTRUCTION IN STAGES, ROAD CLOSURE, CUTTING PAVEMENT REBUILDING ROAD, MINIMUM 2' BELOW PROPOSED CROSS DRAINS, SIDE DRAINS, HE'ADWALLS OR INLETS, OR MINIMUM 4' OF COVER UNDER DESOTO ROAD WHICHEVER IS GREATER WATER LINE TO BE LAID ADJACENT TO INLETS PROVIDE ±4' SEFERATION	TO STA. 16+60 R EXISTING 8" WATER LINE TO BE FILLED WITH GROUT AND PLACED OUT OF SERVICE ONCE PROPOSED WATER LINES HAVE BEEN CONSTRUCTED WITH ALL LATERAL CONNECTIONS AND CERTIFIED FOR USE	BI DESOTO ROAD BI PROPOSED WATER LINE/STORMWATER CROSSING	TO STA. 16+60 R EXISTING 8" WATER LINE TO BE FILLED WITH GROUT AND PLACED OUT OF SERVICE ONCE PROPOSED WATER LINES HAVE BEEN CONSTRUCTED WITH ALL LATERAL CONNECTIONS AND CRATERIAL CONNECTIONS AND
WATER/SEWER CROSSING	PROPOSED WATER LINE/STORMWATER LINE/STORMWATER CROSSING PROP. 26 LF OF 18" HDPE @ 0.59% TAP FOR TEMPORARY SAMPLE POINT WITH CORPORATION STOP AND CURB STOP ON 34" POLY PIPE	CTURE - 67 TYPE "C" BOX DR TOP DETAIL 140.01 8" RCP O WIVIZ ===================================	=====8 [∞] WM=======8 [∞] WM===========8 [∞] INLET NO. STRUCTURE - (539) PROP. MODIFIED TYPE "C" BOX SEE SHEET 9 FOR TOP DETAIL GRATE INV. EL: 140.06 N INV: 136.52 18"X12" RCP	INLET NO. STRUCTURE - 69 PROP. MODIFIED TYPE "C" BOX SEE SHEET 9 FOR TOP DETAIL GRATE INV: 135.47 18"X12" RCP
EOP EL.: /138.45 SE INV: /135.45 18" HDPE N INV: /135.45 18" RCP TAP FOR TEMPORARY/SAMPLE POINT WITH CORPORATION STOP AND CURP/STOP OW 34" POLY PIPE 000% WATER/SEWER CROSSING INLET/NO. STRUCTURE – 46 PROP. TYPE 5 INLET STA:: 476+31.95 L EOP EL:: 140.47 S/INV: 136.84 18" RCP JUNCTION OF EXISTING 8" ANN 12" AC WATER LINES TO BE FILLED WITH CROUT AND PLACED OUT OF SERVICE ONC: PROPOSED WATER LINES HAVE BEEN CONSTRUCTED WITH ALL LATERAL CONNECTIONS AND CERTIFIED FOR USE	PROPOSED 12"x12"x8" TEE, 2 - 12" GATE VALVES NORTH AND SOUTH OF THE TEE AND 1 - 8" GATE VALVE EASTERLY OF THE TEE - R/W TAP FOR TEMPORARY SAMPLE POINT WITH CORPORATION STOP AND CURB STOP ON ¾" POLY PIPE PROPOSED 12"x12"x12" TEE, 3 - 12" GATE VALVES TAP FOR TEMPORARY SAMPLE POINT WITH CORPORARY SAMPLE POINT WITH CORPORATION STOP AND CURB STOP ON ¾" POLY PIPE		PROPOSED ±600 LF OF 8" DR 18 C900 BLUE WATER LINE, ±23 FROM BACK OF CURB AND RUNNING PARALLEL WITH AND CENTERED ±5' FROM DESOTO ROAD NEW RIGHT-OF-WAY WITH 3' MINIMUM COVER	$\frac{1}{1^{\circ}} = 20^{\circ} \qquad 40^{\circ}$
URE - 65				150
L O INLEL IF53.75 R .:: 138.45 18" HDPE 5 18" RCP JUNCTION OF EXISTING 8" AND 12" AC WATER LINES TO BE FILLED WITH GROUT AND PLACED OUT OF SERVICE ONCE PROPOSED WATER LINES HAVE BEEN CONSTRUCTED WITH ALL LATERAL CONNECTIONS AND CERTIFIED FOR USE INLET NO. STRUCTURE – 66 PROP. TYPE 6 INLET STA.: 10+54.74 L EOP EL: 137.28 S INV: 134.28 18" HDPE PROP. 26 LF F	TO STA. ±16+60 R EXISTING 8' WATER LINE TO B GROUT AND PLACED OUT OF S OROPOSED WATER LINES HAVE CONSTRUCTED WITH ALL LATER CONSTRUCTIONS AND CENTIFIED INLET NO. STRUCTURE – 43 PROP. TYPE C INLET ORATE EL: 139.02 INLET NO. STRUCTURE – 43 PROP. TYPE C INLET ORATE EL: 139.02 INLET NO. STRUCTURE – 43 PROP. TYPE C INLET ORATE EL: 137.24 INLET NO. STRUCTURE – 43 INLET NO. STRUCTURE – 43 ORATE EL: 137.04 INLET NO. STRUCTURE – 43 ORATE EL: 137.04 INLET NO. STRUCTURE – 43 INLET NO. STRUCTURE – 43 OROP. TYPE C OROP. TYPE C	E FILLED WITH EERVICE ONCE BEEN AL OR USE IURE - 68 LET 7 7 7 7 7 7 7 7 7 7 7 7 7	INLET NO. STRUCTURE - (540) PROP. MODIFIED TYPE "C" BOX SEE SHEET 9 FOR TOP DETAIL GRATE INV. EL.: 139.64 S INV: 136.17 18"X12" RCP E INV: 139.01 15" HDPE STRUCTURE - (539) IFIED TYPE "C" BOX 9 FOR TOP DETAIL TE INV. EL:: 140.06 136.52 18"X12" RCP PROF	Image: Top Stall state 148 Image: Top Stall state 146 Image: Top Stall state 147 Image: Top Stall state 148 Image: Top Stall state 148 Image: Top Stall state 144 Image: Top Stall state 148 Image: Top State 149 Image: Top State 144 Image: Top State 141 Image: Top State 140 Image: Top State 140 </td
- 42 INLET NO. STRUCTURE - 65 INLET PROP. TYPE 6 INLET 20 L STA.: 10+53.75 R 37.35 EOP EL: 138.45 'RCP SE INV: 135.45 18" HDPE HDPE N INV: 135.45 18" RCP	STA. 10+88 R PROPOSED 12"x12"x12" TEE, 3 – 12" GATE VALVES: AND PROPOSED 12"x12"x8" TEE, 2 – 12" GATE VALVES NORTH AND SOUTH OF THE TEE AND 1 – 8" GATE VALVE EASTERLY OF THE TEE	Image: second	PROPOSED ±600 LF OF 8" DR 18 C900 BLUE WATER LINE CENTERED ±5' FRØM DESOTO ROAD NEW RIGHT-OF-WAY WITH 3 MINIMUM COVER	Image: Second
100LF OF 24" STEEL CASING FOR MAIN, 12" DR 18 C900 BLUE WATER LINE, WATER LINE, ARALLEL PROPOSED 24" IRCP CULVERT, HEAD MINIMUM 4' FROM PROPOSED CULVERT, OF CI 'BELOW PROPOSED CROSS DRAINS, IS, HEADWALLS OR INLETS, OR MINIMUM ER WHICHEVER IS GREATER INLETS, OR MINIMUM	DSED 10" DR 18 C900 GREEN FORCE MINIMUM 2' BELOW PROPOSED R LINE, CROSS DRAINS, SIDE DRAINS, WALLS OR INLETS, OR MINIMUM 3' OVER WHICHEVER IS GREATER	Image: Part of the second se		ROAD NEw RIGHT=OF-WAT 126 WITH 3' MINIMUM COVER 124 124 122
-1 30 6 2 2	1 39.98 1 40.44 4 40.44	140.93 140.93	1 40.46 1 39.65	120
SEAL / SIGNATURE	DESIGNED BY: MLW DRAWN BY: MLW CHECKED BY: MLW DATE: 10-0CT-19 DESIGNED BY: MLW DATE: DATE: DATE: DOCT-19 DESIGNED BY: MLW DATE: DOCT-19 DESIGNED BY: MLW DATE: DOCT-19 DESIGNED BY: MLW DATE: DOCT-19 DESIGNED BY: MLW DESIGNED BY: DESIGNED BY: MLW DOCT-19 DESIGNED BY: DESIGNED BY: DOCT-19 DESIGNED BY: DESIGNED BY: DOCT-19 DESIGNED BY: DESIGNED BY: DESIGNED BY: DCIVIL ENGI 2925 KENILWORTH 863-385-5564 MARVIN LUTHER WOLFE, P.E. # 4603	Image: Transmission of the signature must be verified on any electronic copies Image: Transmission of the signature must be verified on any electronic copies Image: Transmission of the signature must be verified on any electronic copies	SEBRING PARI CITY OF SEBRING WATER AND SEV DESOTO ROAD, ST	Image: Number of the second stateImage: Number of the second stateImage: Number of the second stateVER MODIFICATIONSImage: Number of the second stateImage: Number of the second stateImage: Number of the second stateVER MODIFICATIONSImage: Number of the second stateImage: Number of the second stateImage: Number of the second stateVER MODIFICATIONSImage: Number of the second stateImage: Number of the second stateImage: Number of the second stateVER MODIFICATIONSImage: Number of the second stateImage: Numbe



STA. ±16-	+60 R			
INLET NO. STRUCTURE – 75 PROPOSED	TWET TAP INTO EXISTING 8" WATER LINE WITH 8" SS TAP D 8" GATE VALVE, CUT IN 2 - 8" VALVES ON EASTERN	PING		
STA.: 16+52.87 AND WESTE	ERN SIDE OF THE TEE, A 2" BLOW OFF ASSEMBLY WILL E THE WESTERN LEG (MEG-A-LUG) ONCE EXISTING 8" WAT	E IER		
N INV: 131.19 18"X12" RCP LINE WEST PLACED OL	OF THE CONNECTION IS TO BE FILLED WITH GROUT AND T OF SERVICE ONCE PROPOSED WATER LINES HAVE BEEN	N		
USE, A TEI	TED WITH ALL LATERAL CONNECTIONS AND CERTIFIED FOR MPORARY SAMPLE POINT WILL BE INSTALLED FOR TESTING			
 PROP. MES/ INV: 131,00				
FROM STA. 16+60 R EASTWARD				
EXISTING 8' WATER LINE TO REMAIN				
19		2.11	5	.82
1 <u>3</u>	133	13.	130	125
	+00	18-	+00	

SEAL / SIGNATURE	DESIGNED BY:	Polston Engineering Inc	
	MLW DRAWN BY: MLW Checked by: MLW	CIVIL ENGINEERING CONSULTANTS 2925 KENILWORTH BLVD., SEBRING, FLORIDA 33870 863-385-5564 PHONE 863-385-2462 FAX	PE
	DATE: 10-0CT-19	ROGER DALE POLSTON, P.E. # 33222 MARVIN LUTHER WOLFE, P.E. # 46030 Sealed and the signature must be verified on any electronic copies	



FROM STA. ±2959+14 TO STA. ±2964+55 R EXISTING 8" WATER LINE TO BE GROUTED AND LACED OUT OF SERVICE ONCE THE PROPOSED 12" WATER LINE AND ADDITIONAL WATER LINE CONNECTIONS HAVE BEEN CONSTRUCTED, TESTED AND CERTIFIED FOR USE		PF V/ SE	OPOSED 12"X12"X8" TEE WITH 8 A VE COVER AND BOXTIE INTO EXI HIGHLANDS REGIONAL CAMPUS GATE VALVE W/ ADJUSTABLE SOUTH OF THE CONNECTION RVICE ONCE THE NEW 12" WATER CONSTRUCTED AND CERTIFI
PROPOSED 12" C900 PVC DR 18 BLUE WATER LINE, RUNNING CENTERED ±2' PARALLEL WITH RIGHT-OF-WAY WITH MINIMUM 1' CLEARANCE BELOW PROPOSED CROSSING WITH EXISTING WATER LINE OR EXISTING GRAVITY SEWER LINES (THAT ARE IN CONFLICT WITH THE ELEVATION OF CONSTRUCTION FOR THE NEW MAINS), OR MINIMUM 1' CLEARANCE BELOW CROSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR MINIMUM 3' OF COVER FROM FINAL GRADE WHICHEVER IS GREATER	STA. ± BEGIN DIRECTIONAL B OF 14" SDR 11 B WATER LINE, USJ REDUCER, MEGA-LUG M JOINT BETWEEN DISSI	PROPOSED DIRECTIONAL BORE ±80LF OF 14" SOF BLUE STRIPE MATERIALS PROPOSED DIRECTIONAL BORE ±80LF OF 14" SOF BLUE STRIPE WATER LINE, MINIMUM 4' BELOW LOW ROAD GRADE AT CROSSING WITH MINIMUM CLEARANCE BELOW PROPOSED CROSSING V EXISTING WATER LINE OR EXISTING GRAVITY SE LINES (THAT ARE IN CONFLICT WITH THE FLEVAT OF CONSTRUCTION FOR THE NEW MAINS), OR MINIM 1' CLEARANCE BELOW CROSS DRAINS, SIDE DRA HEADWALLS OR INLETS, OR MINIMUM 3' OF CO FROM FINAL GRADE WHICHEVER IS GREA	Image: second
DESIGNED BY: POIS'	ton Engin	296 neering, In	1+00 C
	FROM STA, ±2959+14 TO STA, ±2964+55 R XISTING, B" WATER LINE TO BE GROUTED AND TACED OUT OF SERVICE ONCE THE PROPOSED 12" WATER LINE, AND ADDITIONAL WATER LINE CONNECTIONS HAVE BEEN CONSTRUCTED, TESTED AND CERTIFIED FOR USE PROPOSED 12" C900 PVC DR 18 BLUE WATER LINE, RUNNING CENTERED ±2" PARALLEL WITH RICHT-OF-WAY WITH MINIUM 1" CLEARANCE BELOW PROPOSED CROSSING WITH EXISTING WATER LINE OF EXISTING GRAVITY SEWER LINES (THAT ARE) IN CONFLICT WITH THE ELEVATION OF CONSTRUCTION FOR THE NEW MAINS), OR MINIUM 1" CLEARANCE BELOW CROSS DRAINS, SIDE DRAINS, HEADWALLS OR INLETS, OR MINMUM 3' OF COVER FROM FINAL GRADE WHICHEVER IS GREATER ROM FINAL GRADE WHICHEVER IS GREATER 2962- DESIGNED BY: MLW	PROPOSED 12" CONCERNENT OF THE PROPOSED TEXTURE LINE ADD ADDITIONAL WATER LINE CONNECTIONS HAVE BEEN CONSTRUCTED TESTED AND CERTIFIED FOR USE TESTED FOR USE TE	FROM STALL 2006-14 (JUNE TO DITAL 2006-145 (E INTERNATIONAL TO DITAL 2006-145 (E STATULO OF AND CONTROL TO DITAL 2006-145 (E INTERNATIONAL TO DITAL 2006-145 (E CONNECTIONS THAT EXCENTION AND CONTROL TO DITAL 2006-145 (E INTERNATIONAL CONTROL TO DITAL 2006-145 (E PROPOSED 172 COOD PVC DA 16 BULE WATER INTERNATIONAL CONTROL TO DITAL 2006-145 (E PROPOSED 172 COOD PVC DA 16 BULE WATER INTERNATIONAL CONTROL TO DITAL 2006-145 (E) PROPOSED 172 COOD PVC DA 16 BULE WATER INTERNATIONAL CONTROL TO DITAL 2006-145 (E) PROPOSED 172 COOD PVC DA 16 BULE WATER INTERNATIONAL CONTROL TO DITAL 2006-145 (E) PROPOSED 172 COOD PVC DA 16 BULE WATER INTERNATIONAL CONTROL TO DITAL 2006-145 (E) PROPOSED 172 COOD PVC DA 16 BULE WATER INTERNATIONAL CONTROL TO DITAL 2006-145 (E) INTERNATION CONTROL TO PVC DA 16 BULE WATER INTERNATION CONTROL TO DITAL 2006-145 (E) INTERNATION CONTROL TO PVC DA 16 BULE WATER INTERNATION CONTROL TO DITAL 2006-145 (E) INTERNATION CONTROL TO PVC DA 16 BULE WATER INTERNATION CONTROL TO DITAL 2006-145 (E) INTERNATION CONTROL TO PVC DA 16 BULE WATER INTERNATION CONTROL TO DITAL 2006-145 (E) INTERNATION CONTROL TO PVC DA 16 BULE WATER INTERNATION CONTROL TO DITAL 2006-145 (E) INTERNATION CONTROL TO PVC DA 16 BULE WATER 100 (CONTROL TO

Silver ALONG O ±462+15	24" STEEL CASING FOR 12" C900 DR 18 BLUE WATER LINE WITH BELL PROPOSED 12" DR18, C-900 WATER LINE ALL POLYVINYLCHLORIDE (PVC) PIPE WATER LINE SHALL BE LAD WITH METAL LOCATOR TAPE BURIED ONE FOOT ABOVE AN PARALLEL TO THE PIPE CENTERLINE. THE LOCATOR TAPE SHALL BE LAD WITH METAL LOCATOR TAPE BURIED ONE FOOT ABOVE AN SHALL BE LETTERED, "CAUTION: ALL POLYVINYLCHLORIDE (PVC) PIPE WATER LINE SHALL BE LAD WITH A12 GAUGE TRACING WITH ALUMINUM BACKING AND SHALL BE LETTERED, "CAUTION: WATER LINE BURIED DELOW". ALL POLYVINYLCHLORIDE (PVC) PIPE WATER LINE SHALL BE LAD WITH A 12 CAUGE TRACING WITH ALUMINUM BACKING AND SHALL BE LETTERED, "CAUTION: WATER LINE BURIED ELOW". ALL POLYVINYLCHLORIDE (PVC) PIPE SHALL BE LAD WITH A 12 CAUGE TRACING WITH HOPE COATING BURIED ON TOP THE PIPE. WIRE AND INSTALLATION SHALL MEET NATIONAL ELECTRICAL CODE FEDERAL SPECIFICATION J-C-308. TYPICAL DELOTER (PVC) PIPE SHALL BE LAD WITH A 12 CAUGE TRACING WIRE WITH HOPE COATING BURIED ON TOP
SEAL / SIGNATURE DESIGNED BY: MLW DRAWN BY: MLW CHECKED BY: MLW DATE: 10-OCT-19	Polston Engineering, Inc. CIVIL ENGINEERING CONSULTANTS 2925 KENILWORTH BLVD., SEBRING, FLORIDA 33870 863-385-5564 PHONE 863-385-2462 FAX ROGER DALE POLSTON, P.E. # 33222 MARVIN LUTHER WOLFE, P.E. # 46030

OPOSED 12" DR-18 C-900 AY PHASE II PLANS		CONSTRUCTION OF WATER LINE UNDER F
Y, STA. ±467+72	N.T.S.	
SEAL / SIGNATURE	DESIGNED BY:	Polston Engineering, Inc 🔺
	DRAWN BY: MLW	CIVIL ENGINEERING CONSULTANTS
	CHECKED BY: MLW	2925 KENILWORTH BLVD., SEBRING, FLORIDA 33870 863-385-5564 PHONE 863-385-2462 FAX
	DATE: 10-0CT-19	ROGER DALE POLSTON, P.E. # 33222 CERTIFICATE OF AUTHORIZATION # 5684 MARVIN LUTHER WOLFE, P.E. # 46030 PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES

	FINAL GRADE, ALL DISTURBED AREAS WITHIN R/W TO BE SODDED <u>CONC</u> E	RETE WALK	EXISTING 12" AC WATER LINES TO BI WITH GROUT AND PLACED OUT OF ONCE PROPOSED WATER LINES HA' CONSTRUCTED WITH ALL L CONNECTIONS AND CERTIFIED F
2" WIDE LOCATOR TAPE WIDE WITH ALUMINUM BACKING AND LETTERED, "CAUTION: WATER LINE BURIED BELOW"	2" WIDE LOCATOR TAPE WIDE WITH ALUMINUM BACKING AND LETTERED, "CAUTION: WATER LINE BURIED BELOW" ADD SEALED	PROPOSED CULVERT	PROPOSED 80' STEEL PROPOSED C CASING - 12" PIPE - 6" D
ED 6" DR18 WATER LINE 2 GAUGE G WIRE WITH OATING 2 - 6" 45" WITH M RESTI OATING	MJ FITTING RAINTS FOR		$\begin{array}{c} \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \end{array} \end{array} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$
AU JU WATER W	INE DEPTH INE DEPTH PROPOSED 6" DR18 C-900 ATER LINE WITH 12 GAUGE TRACING WIRE WITH HOPE COATING	SPACERS OR RESTRAINED F JOINT), SIGMA C900/905 PV CASING SPAC	PIPE STRAINING JOINTS WITH SPACERS PIPE BELL JOINT: S.S. BELL AND JOINT RESTRAINT (E PV-LOK MODEL PWP SERRATED BELL JOINT RESTRA C PIPE OR APPROVED EQUIVALENT ER OF SUPPORT OF PIPE BARREL: CASCADE (CCS) C
BLVD. NT.5.	PROPOSED & C-900 WATE	THE EXCAVATED PITS FOR TH REMOVED FOR THE PLACEM PROPOSED TEES, GATE BOLF OF STEEL CASING 12" STANDARD (0.375" THICK) C ER LINE WITH RESTRAINTS AND SPACERS UNDER DESOTO	HE CONSTRUCTION WILL BE REFILLED IN 12" COMPACTED MENT OF THE CASING AND UTILITY. AREA WILL BE SODDE VALVES, REDUCERS, ELL'S, ETC WILL HAVE MECHANICA CASING PIPE (TO BE LAID LEVEL) (THE JOINTS OF THE S D ROAD, REQUIRES ROAD CLOSURE, CUTTING PAVEMENT,
FINAL GRADE, ALL DISTURBED AREAS WITHIN	CONE	STRUCTION OF WA	TER LINE UNDER I
8' MIN	[FINAL GRADE, ALL DISTURBED AREAS WITHIN R/W TO BE SODDED	3' MIN
VEMENT	F	CONCRETE W/ PROPOSED 2" WIDE LOCATOR TAPE WIDE WTH ALUMINUM BACKING	ALK EDGE OF PAVEMENT
ALUMINUM BACKING AND LETTERED, "CAUTION: FORCE MAIN BURIED BELOW"		AND LETTERED, "CAUTION: WATER LINE BURIED BELOW" ADD SEALED END CAPS END OF STEEL	X- 100 MM
			!
(ADD SEALED C-900 FORCE MAIN END CAPS WITH 12 GAUGE END OF STEEL TRACING WIRE WITH HDPE COATING	PRC WAT TI	DPOSED 12" DR18 C-900 ER LINE WITH 12 GAUGE RACING WIRE WITH HDPE COATING	THE EXCAVATED PITS FOR THE CONST REMOVED FOR THE PLACEMENT OF
IOR THE PROPOSED 10" DR-18 C-900 PARKWAY PHASE II PLANS DAD, STA. ±10+80 N.T.S.		PROPOSED 80LF OF WATER LINE WITH RE	STEEL CASING 24" X-HEAVY (0.5" THICK) CASING PIPE STRAINTS AND SPACERS UNDER DESOTO ROAD, REQUIRE
		FINAL GRADE. ALL	
8' MIN FINAL GRADE, ALL DISTURBED AREAS WITHIN R/W TO BE SODDED	GA ADJU	DISTURBED AREAS WITHIN R/W TO BE SODDED PROPOSED 10" TE VALVE WITH STABLE VALVE	8' MIN
2" WIDE LOCATOR TAPE WIDE WITH CULVERT	-	PRC	CONCRETE WALK POSED 4 - 45° ELL'S REALIGNMENT FORCE MAIN
Image: Ward of the second s	-		ADD SEALED END CAPS END OF STEEL
ADD SEALED PROPOSED 12" DR18		PROPOSED 10" DR18 C-900	SPACERS OR PIPI RESTRAINED PIPE
END OF STEEL TRACING WITH 12 GAUGE END OF STEEL TRACING WITH HDPE COATING		TRACING WIRE WITH HDPE COATING AND 2" WIDE LOCATOR TAPE WIDE WITH ALUMINUM BACKING AND LETTERED, "CAUTION: FORCE MAIN BURIED BELOW"	JOINT), SIGMA PV C900/905 PVC P CASING SPACER THE EXCAVATED PITS FOR THE C REMOVED FOR THE PLACEMENT
R THE PROPOSED 12"DR-18 C-900 TY PARKWAY PHASE II PLANS		PROPOSED BOLF FORCE MAIN WI	TOF STEEL CASING 20" X-HEAVY (0.5" THICK) CASING TH RESTRAINTS AND SPACERS UNDER SEBRING PARKWAY
WAI, 51A. ±416+40 NTG.			INTERSECTIO
8' MIN FINAL GRADE, ALL DISTURBED AREAS WITHIN R/W TO BE SODDED		E 6' MIN E 6' MIN E 12"x12"x12"	8' MIN ±4' TEE, <u>FINAL GRADE, ALL</u>
CONCRETE WALK	3	3 – 12" GATE VALVES WITH ADJUSTABLE VALV COVER AND BOX	VE R/W TO BE SODDED
AND LETTERED, "CAUTION: WATER "CAUTION: WATER LINE BURIED BELOW	<i>(</i> "	ADD SEALED END CAPS END OF STE	EL EXISTING CUL
)R18		
RIAL D. CAPS WITH 12 GAUGE END OF STEEL HDPE COATING D. CAPS WITH 12 GAUGE END OF STEEL HDPE COATING	INE (ITH	PROPOSED 12" DR18 C-900 WATER LINE W/ 12 GAUGE TRACING WIRE WITH HDPE COATING AND 2" WIDE LOCATOR TAPE WIDE WITH ALUMINUM BACKING AND	PROPOSED 10 DR18 C-900 FORCE MAIN W/ 12 GAUGE TRACING WIRE WITH HDPE COATING AND 2" WIDE LOCATOR TAPE WIDE WITH ALUMINUM BACKING AND LETTERED, "CAUTION: FORCE MAIN BURIED BELOW"
JOINTS) FOR THE PROPOSED 12" DR-18 C-900 NDS COUNTY PARKWAY PHASE II PLANS	∕E	LINE BURIED BELOW" PROPOSED WATER LIN	REMOVED FOR THE PLACE REMOVED FOR THE PLACE PROPOSED TEES, GAT 9 90LF OF STEEL CASING 24" X-HEAVY (0.5" THICK) CA IE WITH RESTRAINTS AND SPACERS UNDER SEBRING PAR
SEAL (SIGNATURE DESIGNIE	-) RY: P - P - A		RUCTION OF WATER
DRAWN E	POISTON 3Y: CIVIL E BY: 2925 KENII WI	Engineerir NGINEERING CONSULTAN ORTH BLVD SEBRING FLOR	NTS DA 33870
MLW DATE: 10-OCT-	-19 863-385 ROGER DALE POLSTON, P.E. MARVIN LUTHER WOI FE, P.F.	-5564 PHONE 863-385-2462 # 33222 CERTIFICATE OF AUTHORIZATIO # 46030 PRINTED COPIES OF AUTHORIZATIO SEATER SUCHATING DOCUMENT ARE	FAX ON # 5684 NOT CONSIDERED SIGNED AND IFED ON ANY ELECTRONIC CODIES

8' MIN

 AND GRADE, ENTIRELY CLEAN AND READY TO E. ALL WASTEWATER COLLECTION SYSTE 1. INFILTRATION /EXFILTRATION TESTING; A. THE ALLOWABLE LIMITS OF INFILTRATA A RATE OF 0.1 GALLONS PER FOOT OF PIPE SHALL NOT EXCEED A RATE OF 2 GALLONS F B. INFILTRATION, IF TAKEN BETWEEN ADJACENT I ALLOWABLE LEAKAGE LIMIT OR AS DIRECTED C. ANY PART OR ALL OF THE SYSTEM SYSTEM SHALL BE PUMPED OUT SO THAT NO METHODS. D. THE EXFILTRATION TEST WILL BE CO SERVICE LATERAL CONNECTED TO THE TEST I BETWEEN THE CROWN OF THE HIGHEST PORTI E. TESTS SHALL BE CONDUCTED ON PORTIO PROJECT ENGINEER. TESTS SHALL BI DEFECTIVE PIPE, JOINTS, OR OTHER NECESSARY WILL BE REMOVED AND SHALL BE STARTED AFTER NO MORE F. THE CONTRACTOR SHALL PROVIDE ALL L 2. LOW PRESSURE AIR-TESTING: A AT THE PROJECT ENGINEER'S OPTION, TE B. THE SECTION OF PIPE TO BE TESTED MU INTERNAL PRESSURE IS APPLIED, IT SHO SHOULD BE MAINTAINED BETWEEN 4. BE CHECKED FOR TIGHTNESS. D. AFTER THE AIR TEMPERATURE HAS BEEN WATCH SHALL BE STARTED TO DATE PRESSURE OF 3.0 PSIG CAN BE USE OF ANY GROUND WATER IN ORDER F TEST PRESSURE IS TO BE INCREASE E. THE PIPELINE WILL PASS THE LOW PRESS PIPE SURFACE. THE LOSS OF AIR W SPECIFICATION TIME REQUIRED FOR A 1.0 PSI COLUMN 1—-PIPE DIAMETER (IN) COLUMN 1—-PIPE DIAMETER (IN) 	LUSE. IMS SHALL BE TESTED BY EITHER AIR TESTING OR INFILTRATION/EXFILTRATION AS DESCRIBED BELOW: INON. EXFILTRATION, OR LEAKAGE FOR THE ENTING OR INFILTRATION/EXFILTRATION AS DESCRIBED BELOW: INON. EXFILTRATION, OR ALL SYZES OF PIPE THROUGHOUT THE SYSTEM. THE ALLOWABLE LIMITS OF INFILTRATION OR EXFILTRATION OF MANHOLES PER 24 HOURS FOR ALL SYZES OF PIPE THROUGHOUT THE SYSTEM. THE ALLOWABLE LIMITS OF INFILTRATION OR EXFILTRATION OF MANHOLES PER MANHOLES FRE 24 HOURS. ANAHOLES THANNOLES, SHALL NOT EXCREED 0.1 GALLON PER 24 HOURS PER FOOT OF SEWER FOR ALL SYZES AND ALL LOCATIONS. MANHOLES THE DEVINEET. MAY BE TESTED FOR INFILTRATION OR EXFILTRATION, AS DIRECTED BY THE PROJECT ENGINEER. PRIOR TO TESTING FOR INFILTRATION. THE RMAL INFILTRATION OR EXFILTRATION OR EXFILTRATION, AS DIRECTED BY THE PROJECT ENGINEER. PRIOR TO TESTING FOR INFILTRATION. THE RMAL INFILTRATION OR EXFILTRATION OR EXFILTRATION AS DIRECTED BY THE PROJECT ENGINEER. PRIOR TO TESTING FOR INFILTRATION. THE RMAL INFILTRATION OR EXFILTRATION OR EXFILTRATION SHALL BE DETERMINED BY PUMPING INTO OR OUT OF CALIBRATED DRUMS, OR BY OTHER APPROVED NUDCTED BY FILLING THE PORTION OF THE SYSTEM BEING TESTED WITH WATER TO A LEVEL WHICH WILL PROVIDE: A MINIMUM HEAD ON A PORTION OF 2 FEET; OR IN THE EVENT THERE ARE NO SERVICE LATERALS IN THE TEST PORTION, A MINIMUM DIFFERENCE IN ELEVATION ON OF THE SYSTEM NOT EXCEEDING 3 MANHOLE RUNS OR MORE THAN 1000 FEET OF MAIN SEWER, OR AS OTHERWISE DIRECTED BY THE FOUN CONTINUOUSLY FOR 3 HOURS WHERE INFILTRATION OR EXCITED THE AUCOMABLE LIMITS ALSO SPECIFIED HERRIN. THE FAULTY CONSTRUCTION SHALL BE LOCATED AND REPARED LIFT THE DETECTIVE FORTIONS CANNOT BE LOCATED. AS MUCH OF THE WORK AS IS RECONSTRUCTION SHALL BE LOCATED AND REPARED LIFT THE DETECTIVE FORTIONS CANNOT BE THE JOB PROGRESSES AND THAN 2000 FEET OF PIPE IS LAND. CONDUCT ALL TESTING REQUIRED, UNDER THE DIRECTION OF THE PROJECT ENGINEER. STING REQUIREMENTS OF THE SAMTARY SEWER UNITS MAY BE FULFILLD DUE VOW PRESSURE ARE TESTING. STING ROURMENT AN	WORK FOR ANY REASON AT ANY PIPE LAST LAID TO PREVENT MUI C) GRADIENT: LINES SHALL BE UNIFORM WITH RESPECT TO FINIS AT TIME OF PIPE INSTALLATION. BOARDS WITH STRING LINE PARA SHALL BE USED BY THE CONTRA SHALL BE LAID WITHIN A PIPE DI D) PIPE JOINT DEFLECTION: WHEN DEFLECTION SHALL NOT EXCEED STANDARD C900; B) FOR PVC P LONGITUDINAL DEFLECTION IS LIM ADDITONALLY, JOINT DEFLECTION ALLOWED BY THE MANUFACTUREF E) PVC PIPE STORAGE: POLYVINY EXPOSURE TO DIRECT SUNLIGHT DURING STORAGE AND INSTALLAI COVER AND SUFFICIENT BACKFILL INSTALLED. F) JOINT COMPOUNDS: NO SULPI G) ANCHORS: CONCRETE THRUST OTHER FITTINGS TO PROVIDE LAI SHOWN ON THE ILLUSTRATIVE ST 2500 PSI AFTER 28 DAYS, AND CONCRETE SHALL BE LEFT EXPOY MORE THAN 48 HOURS. H) JOINTS: THE JOINTS OF ALL I JOINT SHALL BE APPROVED BY PLANS OR WHERE, IN THE OPINIC TO OCCUR, ALL PIPE JOINTS SH/ I) MECHANICAL JOINTS: ALL MEC BE LAID AND JOINTS: ALL MEC BE LAID AND JOINTS: ALL MEC IS ANUFACTURER'S RECOMMENT
COLUMN 3MINIMUM LENGTH (FT) COLUMN 4TIME FOR LONGER LENGTH	() LENGTH (FT) 20 20 250 300 350 400 450 20 3:46 3:46 3:46 3:46 3:46 3:46 3:46 3:46	APPROVED BY THE ENGINEER PRI L) SANITARY SEWERS AND FORCE CLEARANCE WITH PARALLEL POT/ CROSSING. CONCRETE ENCASEM ON THE DRAWINGS USING 2500 F SHALL BE CONSTRUCTED WHERE: 1) THE WATER LINE CROSSES UN CLEAR DISTANCE BETWEEN PIPES A MINIMUM OF TEN FEET ON EAC 2) THE ENGINEER SHALL ORDER THE POINTS OF BEGINNING AND F FROM A PIPE JOINT TO PROTECT FOUNDATION, OR THE EFFECTS O CLASS I CONCRETE (MINIMUM COI REQUIRED FOR BOTH GRAVITY SE SEPARATION OF WATER AND SEW M) FLUSHING: ALL SEWER MAINS MATTER. THE VELOCITY OF THE FLUSHING SHALL BE TERMINATED DISPOSE OF THE FLUSHING WATE
DATE BY	REVISIONS DESCRIPTION CONSTRUCTION PLANS	

C.05.203. ROADWAY CROSSINGS: CROSSING OF COUNTY ROADWAYS SHALL BE CONDUCTED IN ACCORDANCE WITH CHAPTER 12, ARTICLE 14, DIVISION 3 UTILITY PERMITS OF THE GHLANDS COUNTY LAND DEVELOPMENT CODE AND OTHER APPLICABLE PARTS OF THE CODE AND THIS HIGHLANDS COUNTY TECHNICAL STANDARDS MANUAL. SEC. 05.204. QUALITY TESTING/INSPECTIONS: A. IT IS IMPERATIVE THAT ALL SEWERS AND APPURTENANCES BE BUILT PRACTICALLY WATERTIGHT AND THAT THE CONTRACTOR ADHERE RIGIDLY TO THE SPECIFICATIONS FOR MATERIALS AND WORKMANSHIP. SEWAGE MAY NEED TO BE PUMPED FOR DISPOSAL AND SPECIAL CARE AND ATTENTION MUST BE PAID TO SECURING WATERTIGHT CONSTRUCTION. UP COMPLETION, THE SEWER, OR SECTION THEREOF, WILL BE TESTED AND GAUGED AND IF LEAKAGE IS ABOVE THE ALLOWABLE LIMITS SPECIFICA, THE SEWER WILL BE REJECTED. ON COMPLETION OF EACH BLOCK OR SECTION OF SEWER, OR SUCH OTHER TIMES AS THE PROJECT ENGINEER MAY DIRECT, THE BLOCK OR SECTION OF SEWER IS TO BE CLEANED, TESTED, AND INSPECTED. SEWERS WILL BE INSPECTED WITH A LIGHT AT EACH MAN HOLE WHEN THE LINE IS COMPLETED. EACH SECTION OF THE SEWER IS TO SHOW, AND ADD OF POLA OF ULL OFFICIE OF LICHT PETWEEN WATHOUT AT EACH MAN HOLE WHEN THE LINE IS COMPLETED. EACH SECTION OF THE SEWER IS TO SHOW, EXAMINATION FROM EITHER END, A FULL CIRCLE OF LIGHT BETWEEN MANHOLES. C. EACH MANHOLE, OR OTHER APPURTENANCES TO THE SYSTEM ALSO SHALL BE OF THE SPECIFIED SIZE AND FORM, BE WATERTIGHT, NEATLY AND SUBSTANTIALLY CONSTRUCTED, WITH THE TOP SET PERMANENTLY TO EXACT POSITION AND GRADE. D. ALL REPAIRS SHOWN NECESSARY BY THE INSPECTION ARE TO BE MADE; BROKEN OR CRACKED PIPE REPLACED, ALL DEPOSITS REMOVED AND THE SEWER LEFT TRUE TO LINE AND CRACKED FOR AN ADDITION AND THE SEWER TO LISE

ADDITIONAL WORK: ADDITIONAL WORK: ADDITIONAL ITEMS OF CONSTRUCTION, SUCH AS CLEANOUTS, TERMINAL LAMPHOLES, SPECIAL MANHOLES, AND OTHER ITEMS NECESSARY FOR THE COMPLETE INSTALLATION OF THE SYSTEM SHALL CONFORM TO SPECIFIC DETAILS ON THE DRAWINGS AND SHALL BE CONSTRUCTED OF FIRST-CLASS MATERIALS CONFORMING TO THE APPLICABLE PORTIONS OF THE SPECIFICATIONS. ADDITIONAL ITEMS OF CONSTRUCTIONS AND SHALL BE CONSTRUCTED OF FIRST-CLASS MATERIALS CONFORMING TO THE APPLICABLE PORTIONS OF THE SPECIFICATIONS. CONNECTIONS TO EXISTING MANHOLES AND PIPE STUBS SHALL BE MADE WITHOUT PERMANENT DAMAGE TO THE EXISTING STRUCTURE. THE INVERT CHANNELS SHALL BE RESHAPED OR REMOVED, IF NECESSARY, AND RECONSTRUCTED TO PROVIDE FOR SMOOTH FLOW. PIPE OPENING IN THE EXISTING MANHOLE WALLS SHALL BE MADE WATERTICHT WITH AN APPROVED GROUT.

STACKING OF THE POLYVINYLCHLORIDE PIPE SHALL BE LIMITED TO A HEIGHT THAT WILL NOT GROUP DEFORMATION OF THE POLYVINYLCHLORIDE VIEW AND CONDITION. WHEN NECESSARY, DUE TO GROUND CONDITIONS, THE PIPE SHALL BE STORED ON WOODEN SLEEPERS, SPACED SUITABLY AND OF SUCH WIDTH AS NOT TO ALLOW DEFORMATION (E AT THE POINT OF CONTACT WITH THE SLEEPER OR BETWEEN SUPPORTS. HANDLING PIPE LINE: THE HANDLING OF THE JOINTED PIPE LINE SHALL BE IN SUCH A MANNER THAT THE PIPE IS NOT DAMAGED BY DRAGGING IT OVER SHARP AND CUTTING OBJECTS. SECTIONS OF THE PIPES WITH DEEP CUTS AND GOUGES SHALL BE REMOVED. LOWERING PIPE INTO TRENCH: CARE SHALL BE EXERCISED WHEN LOWERING PIPE INTO THE TRENCH TO PREVENT DAMAGE TO OR TWISTING OF THE PIPE. SPECIAL PRECAUTIONS: POLYVINYLCHLORIDE PIPE CONNECTED TO HEAVY FITTINGS, MANHOLES, AND RIGID STRUCTURES SHALL BE SUPPORTED IN SUCH A MANNER THAT NO SUBSEQUENT RELATIVE MOVEMENT BETWEEN THE PIPE AND THE JOINT WITH THE RIGID STRUCTURES IS POSSIBLE. SERVICE LATERALS: WHERE CALLED FOR ON THE DRAWINGS, SERVICE PIPE OF THE SIZE AND TYPE NOTED SHALL BE EXTENDED TO THE STREET RIGHT-OF-WAY LINE AND PLUGGED WITH AN APPROVED REMOVABLE PLASTIC PLUG. ALL CONNECTIONS AND CHANGES OF DIRECTION SHALL BE MADE USING STANDARD FITTINGS DESIGNED FOR THE PURPOSE. THE CONTRACTOR SHALL ACCURATELY MEASURE AND RECORD THE LOCATION OF ALL WYES AND HOUSE SERVICE CONNECTIONS, RECORDING BOTH THE LOCATION (OR "PLUS") AND THE ELEVATION OF THE INVERT OF THE INVERT OF THE INVERT OF THE TERMINATION OF THE HOUSE SERVICE AT THE CURB LINE IF THE HOUSE SERVICE IS INSTALLED. THIS RECORD SHALL BE AVAILABLE FOR INSPECTION OF AND VERIFICATION BY THE PROJECT ENGINEER THROUGHOUT THE PROJECT AND SHALL BE GIVEN TO THE PROJECT ENGINEER, UPON PROJECT COMPLETION. CONCRETE INVERTS: ALL MANHOLE INTERIOR BOTTOMS SHALL BE SHAPED WITH TRUE INVERTS IN ACCORDANCE WITH CHAPTER 12, ARTICLE 14, DIVISION 3 UTILITY PERMITS OF HIGHLANDS COUNTY LAND DEVELOPMENT CODE. INVERTS SHALL BE OF CONCRETE MORTAR CONSTRUCTION, AS SPECIFIED HEREIN.

IN EACH MANHOLE SECTION. UNDER NO CIRCUMSTANCES SHALL PIPE BE LAID IN WATER, AND NO PIPE SHALL BE LAID WHEN TRENCH CONDITIONS OR THE WEATHER IS UNSUITABLE FOR SUCH WORK, EXCEPT BY PERMISSION OF THE PROJECT ENGINEER. AT ALL TIMES WHEN WORK IS NOT IN PROGRESS, THE EXPOSED ENDS OF ALL PIPES SHALL BE FULLY PROTECTED BY A BOARD OR OTHER APPROVED STOPPER TO PREVENT EARTH OR OTHER SUBSTANCES FROM ENTERING THE PIPE. ANY PIPE WHICH IS DISTURBED OR FOUND TO BE DEFECTIVE AFTER LAYING SHALL BE TAKEN UP AND RELAID OR REPLACED. MAINLINE CONSTRUCTION--POLYVIN/LCHLORDE PIPE: TRANSPORTATION: CARE SHALL BE TAKEN DURING TRANSPORTATION OF THE PIPE THAT IT IS NOT CUT, KINKED OR OTHERWISE DAMAGED. HANDLING PIPE LENGTHS: ROPES, FABRIC, OR RUBBER PROTECTED SLINGS AND STRAPS SHALL BE USED WHEN HANDLING PIPES. STURAGE: PIPES SHALL BE STORED ON LEVEL GROUND, PREFERABLY TURF OR SAND, FREE OF SHARP OBJECTS WHICH COULD DAMAGE THE PIPE. STACKING OF THE POLYVINYLCHLORIDE PIPE SHALL BE LIMITED TO A HEIGHT THAT WILL NOT CAUSE EXCESSIVE DEFORMATION OF THE BOTTOM LAYERS OF PIPES UNDER THE

S MANUFACTUR CEMENT MORTAR: CEMENT MORTAR FOR MANHOLE CONSTRUCTION SHALL BE 1 PART CEMENT AND 3 PARTS CLEAN SHARP SAND TO WHICH HYDRATED LIME MAY BE ADDED IN UNIT NOT TO EXCEED 10% OF THE AMOUNT OF CEMENT BY VOLUME. IT SHALL BE MIXED DRY AND THEN WETTED TO PROPER CONSISTENCY FOR USE. NO MORTARS THAT HAVE - AMOUNT NOT TO DEFORE THAN IN THE AMOUNT OF CEMENT BY VOLUME. IT SHALL BE MIRED DRY AND THEN WETTED TO PROPER CONSISTENCY FOR USE. NO MORTARS THAT HAVE STOOD FOR MORE THAN I HOUR SHALL BE USED. SERVICE LATERAL CONNECTIONS: A CLEAN-OUT PLUG LOCATED AT THE PROPERTY LINE SHALL BE PROVIDED. THE MINIMUM DIAMETER FOR A SERVICE CONNECTION SHALL BE 4 NCHES FOR SINGLE SERVICE. THE MINIMUM DIAMETER FOR DOUBLE SERVICES SHALL BE 6 INCHES. SERVICE CONNECTIONS AND WYE UNITS OF THE TYPE CALLED FOR ON THE DRAWINGS, SHALL BE PROVIDED IN ACCORDANCE WITH THE DETAILS AS SHOWN OR INDICATED ON THE DRAWINGS. SEC. <u>05.202. CONSTRUCTION:</u> A. MAINLINE CONSTRUCTION - ALL PIPE MATERIALS EXCAVATION, BEDDING, AND BACKFILL SHALL BE IN ACCORDANCE WITH CHAPTER 12, ARTICLE 14, DIVISION 3 UTILITY PERMITS OF THE HIGHLANDS COUNTY LAND DEVELOPMENT CODE. UPON SATISFACTORY EXCAVATION OF THE PIPE TRENCH, A CONTINUOUS TROUGH FOR THE PIPE BARREL AND RECESSES FOR THE PIPE BELLS SHALL BE EXCAVATED SO THAT, WHEN THE PIPE IS LAID IN THE TRENCH, TRUE TO LINE AND GRADE, THE PIPE BARREL WILL RECEIVE CONTINUOUS UNIFORM SUPPORT AND THE BELL WILL RECEIVE SO THAT, WHEN THE PIPE IS LAID IN THE TRENCH, TRUE TO LINE AND GRADE, THE PIPE BARREL WILL RECEIVE CONTINUOUS UNIFORM SUPPORT AND THE BELL WILL RECEIVE NO PRESSURE FROM THE TRENCH BOTTOM. THE INTERIOR OF ALL PIPE SHALL BE THOROUGHLY CLEANED OF ALL FOREIGN MATERIAL BEFORE BEING LOWERED IN THE TRENCH AND SHALL BE KEPT CLEAN DURING THE LAYING OPERATIONS BY MEANS OF PLUG OR OTHER APPROVED METHODS. PIPE LAYING SHALL PROCEED UP GRADE WITH SPIGOT ENDS POINTING IN THE DIRECTION OF FLOW. GRAVITY SEWERS SHALL BE LAID TO EXACT LINE AND GRADED BY THE USE OF A LASER BEAM. BEFORE PIPE IS JOINED, GASKETS SHALL BE CLEANED OF ALL DIRT AND STONES AND OTHER FOREIGN MATERIAL. THE SPIGOT ENDS OF THE PIPE SHALL BE LUBRICATED LIGHTLY WITH A LUBRICANT SPECIFIED BY THE PIPE MANUFACTURER AND APPROVED BY THE PROJECT ENGINEER. SUFFICIENT PRESSURE SHALL BE APPLIED TO THE PIPE SO AS TO PROPERLY SEAT THE SOCKET IN THE BELL OF THE PIPE. ALL PIPE SHALL BE LAID STRAIGHT, TRUE TO THE LINES AND GRADES SHOWN ON THE PLANS, IN EACH MANHOLE SECTION.

KEJECTED. THE DESIGN AND MANUFACTURE OF THE MANHOLES, AND SPECIAL PIPES CONSTRUCTION AT MANHOLES, SHALL CONFORM TO THESE SPECIFICATIONS. MANHOLE EXCAVATION, BEDDING, AND PIPE TRENCH EXCAVATION AND BEDDING AT MANHOLE JUNCTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER 12, ARTICLE 14, DIVISION 3 UTILITY PERMITS OF THE HIGHLANDS COUNTY LAND DEVELOPMENT CODE. IN ADDITION TO THE GENERAL REQUIREMENTS, PRECAST MANHOLES SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION C478–75, LATEST REVISION AND THE FOLLOWING MODIFICATIONS THERETO: THE MUMBUM CONFULCTIONS THERETO: THE MINIMUM SHELL THICKNESS SHALL BE 6 INCHES; CEMENT TO BE USED IN PRECAST MANHOLES SHALL BE TYPE II, 4000 PSI ACID RESISTANT CEMENT USED FOR SANITARY CONSTRUCTION; JOINTS WHOSE POSITIONS IN THE COMPLETE CONSTRUCTION ARE BELOW THE WATER TABLE SHALL BE COMPRESSION TYPE, NEOPRENE GASKET JOINT OF A DESIGN APPROVED BY THING HOLES THROUGH THE STRUCTURES ARE PERMITTED, HOWEVER, ALL HOLES SHALL BE COMPLETELY SEALED WITH HYDRAULIC CEMENT; THE DESIGN OF THE STRUCTURE SHALL INCLUDE A PRECAST BASE OF NOT LESS THAN 8 INCHES IN THICKNESS, AND POURED MONOLITHICALLY WITH THE BOTTOM SECTION OF MANHOLE WALLS ALL GROUT USED FOR SEALING AROUND THE PIPE OPENINGS SHALL BE OF TYPE ACCEPTABLE TO THE PROJECT ENGINEER DESIGNED FOR USE IN WATER; ALL OPENINGS AND ALL GROUT USED FOR SEALING AROUND THE FILE OF ENRIFS STREET BE OF THE FILE OF ENRIFS STREET BE OF THE FILE OF ENRIFS STALL BE SEALED WATERTIGHT; G. PRECAST MANHOLE TOPS, IF USED, SHALL TERMINATE AT SUCH ELEVATIONS AS WILL PERMIT LAYING UP TO A MINIMUM OF 12 INCHES OF CLAY BRICK UNDER THE MANHOLE FRAME TO MAKE ALLOWANCE FOR FUTURE STREET GRADE ADJUSTMENT; H. DROP CONNECTIONS, WHERE REQUIRED ON PRECAST MANHOLES, SHALL BE MANUFACTURED WITH THE MANHOLE ELEMENTS AT THE CASTING YARD; THE MANUFACTURER SHALL SUBMIT FOR APPROVAL THE METHOD OF DROP MANHOLE CONSTRUCTION; AND I. ALL INTERIOR SURFACES OF PRECAST MANHOLES SHALL BE COATED WITH TWO COATS OF KOPPERS 300M, OR EQUAL; THE EXTERIOR SURFACES SHALL RECEIVE TWO COATS OF KOPPERS PIT WASTED PLACK OP FOLIAL ALL IN LENDER SURFACES OF PRECAST MANHOLES SHALL BE COATED WITH TWO COATS OF NOT END SOOM, ON EVENE, THE EXTENDED STALL RESERVED THE SOLUTE THE SOLUTION. LOWED. LIFTING OR "PICK" HOLES SHALL BE PROVIDED, BUT SHALL NOT PENETRATE THE COVER. CASTING PATTERNS SHALL CONFORM TO THOSE SHOWN OR INDICATED ON THE RAWINGS. THE WORDS SANITARY SEWER SHALL BE CAST IN ALL MANHOLE COVERS. ALL MANHOLE FRAMES AND COVERS SHALL BE TRAFFIC BEARING. MANHOLE CASTINGS SHALL BE OF

DUCTILE IRON PIPE: DUCTILE IRON PIPE: DUCTILE IRON PIPE SHALL CONFORM TO THE REQUIREMENTS OF ANSI STANDARD A21.51, LATEST REVISION. THE PIPE WALL THICKNESS SHALL BE NOT LESS THAN THAT REQUIRED A WORKING PRESSURE OF 150 PSI WITH TYPE 2 LAYING CONDITION AND 5 FEET COVER IN CONFORMANCE WITH ASTM STANDARD A746-76, LATEST REVISION. JOINTS FOR CAST IRON PIPE SHALL BE MECHANICAL OR PUSH-ON JOINTS CONFORMING TO ANSI STANDARD A21.11, LATEST REVISION. PIPE INTERIOR SHALL HAVE A BITUMINOUS COAT OVER A CEMENT MORTAR LINING CONFORMING TO ANSI STANDARD A21.4, LATEST REVISION. EXTERIOR OF PIPE SHALL HAVE A BITUMINOUS COATING. OTHER PIPE MATERIALS AND MANUFACTURER INCLUDING VITRIFIED CLAY PIPE, EXTERIOR CORRUGATED, ASBESTOS CONCRETE, AND CONCRETE, WILL NOT GENERALLY BE EPTABLE FOR USE IN WASTEWATER COLLECTION SYSTEMS. THEY MAY BE APPROVED HOWEVER, ON A CASE-BY-CASE BASIS BY THE COUNTY ENGINEER. ALL ABOVE GROUND PIPE AND FITTINGS SHALL BE DUCTILE IRON. MANHOLES, PRECAST CONCRETE: PRECAST MANHOLES SHALL MEET THE GENERAL REQUIREMENTS AS SPECIFIED HEREIN. DETAILS AND SHOP DRAWINGS OF EACH MANHOLE, PROPOSED TO BE FURNISHED SHALL BE SUBMITTED TO AND APPROVED BY THE PROJECT ENGINEER PRIOR TO THE MANUFACTURE OF THE UNITS. MANHOLES WHICH ARE NOT MANUFACTURED IN COMPLIANCE WITH THE APPROVED SHOP DRAWINGS AND THESE SPECIFICATIONS MAY BE REJECTED.

FICATION MARKINGS AT 90 DEGREE INTERVALS AROUND THE PIPE CIRCUMFERENCE.

MINIMUM SLOPES OF SEWER PIPE SIZES NOT LISTED HERE SHALL BE AS FOUND IN THE 10 STATE STANDARDS. MINIMUM SLOPES SHALL NOT EXCEED 7.5% TO AVOID SOLID/LIQUID SEPARATION. MINIMUM SLOPES SHALL NOT EXCEED 7.5% TO AVOID SUDJUCID SEPARATION. MANHOLE/CLEANOUTS: THE MAXIMUM DISTANCE BETWEEN MANHOLES ON A GRAVITY SEWER PIPELINE SHALL BE 400 FEET. CLEANOUTS MAY BE USED ON THE UPSTREAM END OF SEWER MAIN AT A MAXIMUM DISTANCE OF 150 FEET FROM THE NEXT DOWNSTREAM MANHOLE. A DROP MANHOLE CONNECTION SHALL BE REQUIRED WHEN THE INVERT OF THE INFLUENT TE IS MORE THAN 24 INCHES ABOVE THE MANHOLE INVERT. MINIMUM DEPTH OF COVER: THE MINIMUM DEPTH OF COVER OVER SEWERS IS 36 INCHES. IF THE MINIMUM DEPTH CANNOT BE ATTAINED, THE PIPELINE SHALL BE ENCASED IN INCRETE AS DESCRIBED BELOW. ALTERNATIVELY, DUCTILE IRON PIPE OF A CLASS OF SUFFICIENT WALL THICKNESS TO WITHSTAND ANTICIPATED EARTH AND LIVE LOADS ABOVE IT, MAY SUBJECTIVED FOR CONCRETE ENCASEMENT. SUBJECTIVED FOR CONCRETE ENCASEMENT. STITUTED FOR CONCRETE ENCASEMENT. SANITARY SEWERS AND FORCE MAINS: SANITARY SEWERS AND FORCE MAINS SHALL HAVE A MINIMUM OF 10 FEET HORIZONTAL CLEARANCE WITH PARALLEL POTABLE WATER ND 18 INCHES VERTICAL CLEARANCE WHEN CROSSING. THE CASE WHERE A SEWER OR FORCE MAIN IS NEITHER PARALLEL TO NOR CROSSES OVER A POTABLE WATER MAIN THAT N 10 FEET OF HORIZONTAL SPACE BECAUSE OF THE GEOMETRY OF BENDS IN THE LINE, 18 INCHES VERTICAL SEPARATION SHALL BE MAINTAINED WITH THE POTABLE WATER MAIN, TO THE ADDROVAL OF THE COUNTY ENGINEER JBJECT TO THE APPROVAL OF THE COUNTY ENGINEER. SUBJECT TO THE APPROVAL OF THE COUNTY ENGINEER. G. CONCRETE ENCASEMENT: CLASS I CONCRETE (MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI) ENCASEMENT, AS SHOWN ON THE DRAWINGS, SHALL BE REQUIRED FOR BOTH GRAVITY SEWER MAINS AND FORCE MAINS WHEN THE ABOVE CRITERIA FOR SEPARATION OF WATER AND SEWER LINES CANNOT BE MAINTAINED. WHEN CROSSING WATER MAINS, CONCRETE ENCASEMENT SHALL EXTEND A MINIMUM OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. THE WATER MAIN MAY BE ENCASED IN CONCRETE IN THE SAME MANNER AS SPECIFIED FOR SEWER PIPE. ALTERNATIVELY ONE LENGTH OF DIP CAN BE USED WITH JOINT MINIMUM 10 FEET FROM WATER MAIN.

S OF GRAVITY MAINS: SEWERS SHALL BE LAID STRAIGHT AND UNIFORMLY BETWEEN MANHOLES AND CLEANOUTS THE FOLLOWING ARE THE MINIMUM ALLOWABLE SLOPES OF GRAVITY SEWER PIPES: <u>SIZE MINIMUM SLOPE (%)</u>

OLLECTION SYSTEMS WITH HIGHLANDS COUNTY RIGHT-OF-WAYS ITAINED DURING PEAK FLOW.

SEWER FORCE MAINS SPECIFICATIONS 1.0 POLYVINYLCHLORIDE PIPE 1.01 POLYVINYLCHLORIDE PIPE: AWWA C900; PRESSURE CLASS 100, DR 25 FOR OPERATING PRESSURE LESS THAN 50 PSI; CLASS 150, DR 18, FOR OPERATING PRESSURE GREATER THAN 50 PSI. FORCE MAIN UNDER PAVED AREAS SHALL BE AWWA C900, DR 14, PRESSURE CLASS 200. FC PIPE LESS THAN 4 INCHES IN DIAMETER, USE ASTM D2241, SDR 21, PRESSURE CLASS 200; FOR PRESSURE GREATER THAN 50 PSI, USE ASTM 1785 SCHEDULE 80. 1.02 ALL POLYVINYLCHLORIDE (PVC) PIPE SHALL BE LAID WITH METAL LOCATOR TAPE BURIED ONE FOOT ABOVE AND PARALLEL TO THE PIPE CENTERLINE. THE LOCATOR TAPE SHALL BE AT LEAST 2 INCHES WIDE WITH ALUMINUM BACKING AND SHALL BE LETTERED, "CAUTION FORCEMAIN

OLYVINYI CHLORIDE PIP

BELOW" IN LARGE LETTERS.

FRAA ONLY

ON THE DRAWINGS:

UCTILE IRON PIPE

4.0 AIR RELEASE VALVE UNIT: AS SHOWN ON THE PLANS

CONSTRUCTION

6.02 PIPE LAYING

EXCAVATING THE TRENCH:

ALL POLYVINYLCHLORIDE (PVC) PIPE SHALL BE LAID WITH A 12 GAUGE TRACING WIRE WITH HDPE COATING BURIED ON TOP OF THE PIPE. WIRE AND INSTALLATION SHALL MEET NATIONAL ELECTRICAL CODE FEDERAL SPECIFICATION J-C-308. ALL FITTINGS ON PVC PIPE SHALL BE MEGA-LUG TYPE OR APPROVED ALTERNATE. BY 2.0HIGH DENSITY POLYETHYLENE PIPE (HDPE) 2.01 POLYETHYLENE PIPING MATERIAL: THE PIPE AND FITTINGS SHALL BE MADE OF HIGH

DENSITY, EXTRA HIGH MOLECULAR WEIGHT (EHMW) POLYETHYLENE WITH A STANDARD THERMOPLASTIC MATERIAL DESIGNATION CODE OF PE3408 AND HAVING A CELL CLASSIFICATION OF 345464E PER ASTM D3350. THE MOLECULAR WEIGHT CATEGORY SHALL BE EXTRA HIGH (25,000 TO 1,500,000) AS PER THE GEL PERMEATION CHROMATOGRAPHY DETERMINATION PROCEDURE WITH A TYPICAL VALUE OF 300,000 TO 330,000. THE PIPE WILL BE THE COLOR GREEN AND SHALL MEET THE UTILITY LOCATION AND COORDINATION COUNCIL "UNIFORM COLOR CODE," FOR SEWER AND DRAIN LINES, PER APWA/LCC STANDARDS COMMITTEE. 2.02 THE POLYETHYLENE PIPE MANUFACTURER SHALL PROVIDE CERTIFICATION THAT THE STRESS REGRESSION TESTING HAS BEEN PERFORMED ON THE SPECIFIC PRODUCT. THE SAID CERTIFICATION SHALL INCLUDE A STRESS LIVE CURVE PER ASTM D2837. THE STRESS REGRESSION TESTING SHALL HAVE BEEN PERFORMED IN ACCORDANCE WITH ASTM D2837, AND THE MANUFACTURER SHALL PROVIDE A PRODUCT SUPPLYING A MINIMUM HYDROSTATIC DESIGN BASIS (HDB) OF 1,600 PSI AS 2.03 THE MATERIAL SHALL BE LISTED BY THE PLASTICS PIPE INSTITUTE (PPI), A DIVISION OF THE SOCIETY OF THE PLASTICS INDUSTRY IN PPI TR-4. THE PIPE MATERIAL SHALL HAVE A HYDROSTATIC DESIGN BASIS OF 1600 PSI AT 730F AND 800 PSI AT 1400F. THE PPI LISTING SHALL BE IN THE NAME OF THE PIPE MANUFACTURER AND TESTING AND VALIDATION OF SAMPLES OF THE

PIPE MANUFACTURER'S PRODUCTION PIPE SHALL BE BASED UPON ASTM D2837 AND PPI TR-3. 2.04 THE MANUFACTURER'S CERTIFICATION SHALL STATE THAT THE PIPE WAS MANUFACTURED FROM ONE SPECIFIC RESIN IN COMPLIANCE WITH THESE SPECIFICATIONS. THE CERTIFICATE SHALL STATE THE SPECIFIC RESIN USED AND ITS SOURCE. 2.05 HDPE PIPE MANUFACTURED FROM MATERIALS MEETING THE SPECIFICATIONS OF THIS SECTION SHALL HAVE AN ENVIRONMENTAL STRESS CRACK RESISTANCE OF NO FAILURES IN 10,000 LESCR: F0>10,000) WHEN TESTED IN ACCORDANCE WITH ASTM F1248.
 2.06 PIPE AND FITTINGS SHALL BE MANUFACTURED FROM MATERIAL MEETING THE REQUIREMENTS
 OF THIS SECTION. PIPE SUPPLIED UNDER THIS SPECIFICATION SHALL HAVE A NOMINAL IPS (IRON

PIPE SIZE) OUTSIDE DIAMETER UNLESS OTHERWISE SPECIFIED. THE DIMENSION RATIO (DR) AND PRESSURE RATING OF THE PIPE AT 73* SHALL MATCH THE FOLLOWING UNLESS NOTED OTHERWISE

PRESSURE RAIING OF THE PIPE AT 73* SHALL MATCH THE FOLLOWING UNLESS NOTED OTHERWISE ON THE DRAWINGS:
DR 7.3 - 250 PSI
DR 13.5 - 130 PSI
DR 26 - 65 PSI
DR 11 - 160 PSI
DR 7.7 - 100 PSI
DR 22.5 - 50 PSI
2.07 THE PIPE AND FITTINGS SHALL HAVE PRODUCT TRACEABILITY. THE MANUFACTURER SHALL
INCLUDE A PRINTLINE ON THE PIPE. THIS SHALL NOTATE THE MANUFACTURER'S NAME, ADDRESS,
DATE OF MANUFACTURE, THE LOT AND SUPPLIER OF RAW MATERIAL, PLANT LOCATION, AND
PRODUCTION SHIFT. THE ASTM STANDARD SHALL ALSO APPEAR AS ASTM F714 WITH THE MATERIAL
DESIGNATION AS PE3408. THE PRINTLINH SHALL BE BLACK ON THE GREEN PIPE.
2.08 BOTH PIPE AND FITTINGS SHALL CARRY THE SAME PRESSURE RATING. ALL FITTINGS SHALL
BE PRESSURE RATED TO MATCH THE SYSTEM PIPING TO WHICH THEY ARE JOINED. AT THE POINT
OF FUSION, THE OUTSIDE DIAMETER AND MINIMUM WALL THICKNESS OF THE FITTING SHALL MATCH
THE OUTSIDE DIAMETER AND MINIMUM WALL THICKNESS SPECIFICATIONS OF ASTM F714 FOR THE
SAME SIZE PIPE. FITTINGS SHALL BE MANUFACTURED BY THE MANUFACTURER OF THE PIPE. ELLS,
TEES, AND WYES SHALL BE MANUFACTURED BY MITERED FABRICATION. FOR FORCE MAINS OR
PRESSURE RATED FITTINGS, ANLL LECARLY LABELED ON THE FITTING SHALL BE MANUFACTURERS
WRITTEN SPECIFICATIONS, AND CLEARLY LABELED ON THE FITTING SS ULL BE ACTURER'S
WRITTEN SPECIFICATIONS, AND CLEARLY LABELED ON THE FITTING SHALL BE MANUFACTURERS
WRITTEN SEVER, EITHER DIRECT BURY OR INSERTION LINING FITTINGS WILL BE FULLY PRESSURE
RATED. ALL FITHER DIRECT BURY OR INSERTION LINING FITTINGS WILL BE FULLY PRESSURE
RATED. ALL FITTINGS WILL HAVE A QUALITY CONTROL LABEL AS APPROVED BY THE MANUFACTURER.
2.09 HEAT FUSION JOINING SYSTEMS: PIPE AND FITTINGS SHALL BE THERMAL BUT FUSION,
SADDLE FUSION, OR SOCKET FUSION ACCORDING TO MANUFACTURER RECOMMENDED PROCEDURES.
2.10 THE MANUFACTURER SHALL PRO 2.10 THE MANUFACTURER SHALL PROVIDE FUSION TRAINING. THE CONTRACTOR (ACTUAL INSTALLERS) AND THE ONSITE JOINT INSPECTOR SHALL BE TRAINED BY THE MANUFACTURER OR MANUFACTURER'S AUTHORIZED REPRESENTATIVE.

MANUFACTURER'S AUTHORIZED REPRESENTATIVE. 2.11 IT WILL NOT BE PERMITTED TO JOIN UNLIKE DR'S TO ONE ANOTHER. TRANSITION FROM UNLIKE SDR'S SHALL BE ACCOMPANIED BY MECHANICAL COUPLINGS CAPABLE OF IDENTICAL PRESSURE RATINGS OR MACHINED POLYETHYLENE NIPPLES WHERE A THICKER WALL POLYETHYLENE HAS BEEN MATCHED TO THE COMPANION PIPE WALL. 2.12 MECHANICAL JOINING SYSTEMS: POLYETHYLENE PIPE AND FITTINGS SHALL BE CONNECTED BY MEANS OF A POLYETHYLENE FLANGE ADAPTER AND BACKUP RING. THE POLYETHYLENE FLANGE ADAPTER WILL BE OF THE SAME SPECIFICATIONS AS THE LIGHTVIEW EXCEPT WILL BE MADE FROM BLACK PLATE STOCK. THIS METHOD IS ALSO APPROVED TO JOIN TO ANOTHER PIPING SYSTEM OR VALVES. MECHANICAL COMPRESSION COUPLINGS OR FULL CIRCLE ENCASEMENT CLAMPS MAY BE USED DEPENDING ON THE TEST SPECIFICATIONS. 2.13 MECHANICAL COUPLINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE MECHANICAL COUPLING MANUFACTURER'S RECOMMENDED PROCEDURES. COUPLING MANUFACTURER'S RECOMMENDED PROCEDURES. 2.14 EQUIPMENT: THE FUSION EQUIPMENT AND OPERATOR SHALL BE REQUIRED TO DEMONSTRATE SUCCESSFUL FIELD EXPERIENCE. REGARDING FUSION OVER 36" CAPABILITY, THE FUSION UNIT SHALL BE FIELD TESTED FOR A PERIOD OF FIVE YEARS AND THE FUSION OPERATOR SHALL HAVE PIPE SIZE EXPERIENCE OF THE SAME SIZE PIPE ON THIS PROJECT FOR FIVE YEARS OR LONGER.

3.ODUCTILE IRON PIPE DUCTILE IRON PIPE SHALL MEET THE REQUIREMENTS OF ANSI SPECIFICATIONS A21.51, AWWA C151. PIPE WALL THICKNESS SHALL CONFORM TO A MINIMUM OF CLASS 50 WITH 350 PSI WORKING PRESSURE. EXTERIOR OF PIPE SHALL HAVE BITUMINOUS COATING. INTERIOR OF PIPE SHALL BE POLYLINED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND BE RESISTANT TO THE CORROSIVE ELEMENTS NORMALLY FOUND IN MUNICIPAL WASTE WATER.

5.0TESTS, INSPECTION, AND REPAIRS: 5.0TESTS, INSPECTION, AND REPAIRS: 5.01 ALL MATERIALS SHALL BE TESTED IN ACCORDANCE WITH THE APPLICABLE FEDERAL, ASTM, OR AWWA SPECIFICATION AND THE BASIS FOR REJECTION SHALL BE AS SPECIFIED THEREIN. CERTIFIED COPIES OF THE TESTS SHALL BE SUBJITTED WITH EACH SHIPMENT OF MATERIAL. 5.02 ALL MATERIALS WILL BE SUBJECT TO INSPECTION AND APPROVED BY THE PROJECT ENGINEER AFTER DELIVERY AND NO BROKEN, CRACKED, MISSHAPEN, IMPERFECTLY COATED, OR OTHERWISE DAMAGED, OR UNSATISFACTORY MATERIAL SHALL BE USED. 5.03 ALL MATERIAL FOUND DURING THE PROGRESS OF THE WORK TO HAVE CRACKS, FLAWS, OR OTHER DEFECTS SHALL BE REJECTED AND PROMPTLY REMOVED FROM THE SITE. 5.04 IF DAMAGE OCCURS TO ANY PIPE, FITTINGS, VALVES HYDRANTS, OR WATER MAIN ACCESSORIES IN HANDLING, THE DAMAGE SHALL BE IMMEDIATELY BROUGHT TO THE PROJECT ENGINEERS ATTENTION. THE PROJECT ENGINEER SHALL PRESCRIBE CORRECTIVE REPAIRS, OR REJECTION OF THE DAMAGE ITEMS. 6.00 CONSTRUCTION: 5.0 TESTS, INSPECTION, AND REPAIRS

A) AS A GENERAL RULE, DO NOT OPEN THE TRENCH TO FAR AHEAD OF THE PIPE LAYING SO AS TO: AVOID POSSIBLY FLOODING THE TRENCH, REDUCE OR ELIMINATE PUMPING OR SHEETING, REDUCE CAVING CAUSED BY GROUND WATER, REDUCE POTENTIAL WORKMEN AND TRAFFIC HAZARD. B) THE TRENCH WIDTH AT THE GROUND SURFACE MAY VARY WITH AND DEPEND UPON THE DEPTH, TYPE OF SOILS AND POSITION OF SURFACE STRUCTURES. THE MINIMUM CLEAR WIDTH OF THE TYPE OF SOILS AND POSITION OF SURFACE STRUCTURES. THE MINIMUM CLEAR WIDTH OF THE TRENCH IN THE PIPE ZONE SHOULD BE ONE FOOT GREATER THAT THE OUTSIDE DIAMETER OF THE PIPE. THE MAXIMUM CLEAR WIDTH OF THE TRENCH AT THE TOP OF THE PIPE SHOULD NOT EXCEED A WIDTH EQUAL TO THE PIPE DIAMETER PLUS TWO FEET. IF THE ABOVE DEFINED TRENCH WIDTHS MUST BE EXCEEDED OR IF THE PIPE IS INSTALLED IN A COMPACTED EMBANKMENT, PIPE EMBEDMENT SHOULD BE COMPACTED OF A POINT OF AT LEAST 2.5 PIPE DIAMETERS ON BOTH SIDES OF THE PIPE OR TO THE TRENCH WALLS, WHICHEVER IS LESS.) MINIMUM COVER FOR THE TOP OF THE PIPE IS 36 INCHES BELOW THE FINISHED GRADE. C) MINIMUM COVER FOR THE TOP OF THE PIPE IS 36 INCHES BELOW THE FINISHED GRADE. D) THE TRENCH BOTTOM SHOULD BE SMOOTH AND FREE FROM LARGE STONES, ROCKS OR LARGE DIRT CLODS. EXCAVATION OF BELLS SHOULD BE PROVIDED SO THAT THE PIPE IS UNIFORMLY SUPPORTED ALONG ITS LENGTH. USUALLY, LOOSE MATERIAL LEFT BY THE EXCAVATOR ON THE TRENCH BOTTOM WILL BE ADEQUATE FOR BEDDING THE PIPE BARREL AND PROVIDING FULL SUPPORT. WHEN ROCK OR OTHER NON-CUSHIONING MATERIAL IS ENCOUNTERED, EXCAVATION SHALL BE EXTENDED TO 6 INCHES BELOW THE OUTSIDE BOTTOM OF THE PIPE AND A BEDDING CUSHION OF SAND OR OTHER SELECTED BACKFILL USED AS THE PIPE BED. 6 0.2 PIPE LAYING:

6.02 PIPE LAYING:
A) WATER SHALL NOT BE ALLOWED IN THE TRENCHES WHILE THE PIPES ARE BEING LAID AND/OR TESTED. THE CONTRACTOR SHALL NOT OPEN UP MORE TRENCH THAN THE AVAILABLE PUMPING FACILITIES ARE ABLE TO DEWATER TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR DISPOSING OF ALL WATER SO AS NOT TO INJURE OR INTERFERE WITH THE NORMAL DRAINAGE OF THE TERRITORY IN WHICH HE IS WORKING. IN NO CASE SHALL PIPELINES BE USED AS DRAINS FOR SUCH WATER, AND THE ENDS OF THE PIPE SHALL BE KEPT PROPERLY AND ADEQUATELY BLOCKED DURING CONSTRUCTION BY THE USE OF APPROVED STOPPERS AND NOT BY IMPROVISED EQUIPMENT. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT THE ENTRANCE OF MUD, SAND, OR OBSTRUCTING MATTER INTO THE PIPELINES. IF ON COMPLETION OF THE WORK, ANY SUCH MATERIAL HAS ENTERED THE PIPELINES. IF ON COMPLETION OF THE WORK, ANY SUCH MATERIAL HAS ENTERED THE PIPELINES. IF ON COMPLETION OF THE WORK, ANY SUCH MATERIAL HAS ENTERED THE PIPELINES. IF ON COMPLETION OF THE WORK, ANY SUCH MATERIAL HAS ENTERED THE PIPELINES. IF ON COMPLETION OF THE WORK, ANY SUCH MATERIAL HAS ENTERED THE PIPELINES. IF ON COMPLETION OF THE WORK, ANY SUCH MATERIAL HAS ENTERED THE PIPELINES. IF ON COMPLETION OF THE WORK, ANY SUCH MATERIAL HAS ENTERED THE PIPELINES. IF UND THE DISTRUCTED. B) CLEANLINESS: THE INTERIOR OF THE PIPE SHALL BE THOROUGHLY CLEANED OF ALL FOREIGN MATTER BEFORE BEING GENTLY LOWERD INTO THE TRENCH AND SHALL BE KEPT CLEAN DURING THE LAYING OPERATIONS BY MEANS OF PLUGS OR OTHER APPROVED METHODS. DURING SUSPENSION OF WORK FOR ANY REASON AT ANY TIME, A SUITABLE STOPPER SHALL BE PLACED IN THE END OF THE PIPE LAST LAID TO PREVENT MUD OR OTHER FOREIGN MATERIAL FROM ENTERING THE PIPE. EVENT MUD OR OTHER FOREIGN MATERIAL FROM ENTERING THE PIPE. HALL BE LAID STRAIGHT, AND DEPTH OF COVER SHALL BE MAINTAINED T OF FINISH GRADE, WHETHER GRADING IS EITHER COMPLETED OR PROPOSED ALLATION. WHEN A GRADE OF SLOPE IS SHOWN ON THE DRAWINGS, BATTER INE PARALLELING DESIGN GRADE, OR OTHER PREVIOUSLY APPROVED MEANS, E CONTRACTOR TO ASSURE CONFORMANCE TO REQUIRED GRADE. ALL PIPE A PIPE DIAMETER OF LINES AND GRADES INDICATED. ION: WHENEVER IT IS DESIRABLE TO DEFLECT PIPE, THE AMOUNT OF CEED THE FOLLOWING MAXIMUM LIMITS: A) FOR DUCTILE IRON PIPE, AWWA PVC PIPE, NO DEFLECTION IS ALLOWED AT THE JOINTS, AND IS LIMITED TO THE MAXIMUM SHOWN IN AWWA PUBLICATION M23. ECTION FOR DUCTILE IRON PIPE SHALL NOT EXCEED THE MAXIMUM NYVINYI CHI ORIDE PIPE EXTERIOR MAY BE DAMAGED BY PROLONGE UIGHT AND THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTION: STALLATION TO AVOID THIS DAMAGE. PIPE SHALL BE STORED UNDEF BACKFILL TO SHIELD FROM THE SUN SHALL BE PLACED AS THE PIPE IS) SULPHUR BASE JOINT COMPOUND SHALL BE USED THRUST BLOCKS SHALL BE PLACED AT ALL BENDS, TEES, PLUGS, AND TOE LATERAL SUPPORT. THRUST BLOCKS SHALL CONFORM TO THE DETAILS TIVE STANDARDS. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3, AND SHALL HAVE A MINIMUM CURING TIME OF 3 DAYS. THE POURED EXPOSED FOR A MINIMUM OF 24 HOURS BEFORE BACKFILLING AND NOT OF ALL PIPELINES SHALL BE MADE ABSOLUTELY TIGHT. THE PARTICULAR WED BY THE PROJECT ENGINEER PRIOR TO INSTALLATION. WHERE SHOWN ON IE OPINION OF THE PROJECT ENGINEER, SETTLEMENT OR VIBRATION IS LIKELY INTS SHALL BE BOLTED, OR RETAINED ACCORDINGLY. ALL MECHANICAL JOINTS SHALL BE MEGA-LUG TYPE BY EBAA, AND SHALL TULL CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS. -ON JOINTS SHALL BE MADE IN STRICT, COMPLETE COMPLIANCE WITH COMMENDATIONS. LUBRICANT, IF REQUIRED, SHALL BE AN INERT, E COMPOUND INCAPABLE OF HARBORING, SUPPORTING, OR CULTURING CTURER'S RECOMMENDATIONS SHALL BE SUBMITTED TO ENGINEER FOR EFORE WORK IS BEGUN. E JOINTS: THE JOINTS OF ALL PIPELINES SHALL BE MADE IN CONFORMITY IS OF THE PIPE MANUFACTURER. THE PARTICULAR JOINT USED SHALL BE ER PRIOR TO INSTALLATION. LEER PRIOR TO INSTALLATION. D FORCE MAINS SHALL HAVE A MINIMUM OF 10 FEET HORIZONTAL EL POTABLE WATER LINES, AND 18 INCHES VERTICAL CLEARANCE WHEN VCASEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHO 2500 PSI MINIMUM COMPRESSIVE STRENGTH CONCRETE. ENCASEMENT INFIGUE SES UNDER, OR AT A DEPTH WHICH PROVIDES LESS THAN 18 INCHES I PIPES WHEN CROSSING OVER SEWER LINES; ENCASEMENT SHALL EXTEND ON EACH SIDE OF THE POINT OF CROSSING; OR

ORDER THE LINE ENCASED. 3 AND ENDING OF PIPE ENCASEMENT SHALL BE NOT MORE THAN 6 INCHES ROTECT THE PIPE FROM CRACKING DUE TO UNEVEN SETTLEMENT OF ITS CTS OF SUPERIMPOSED LIVE LOAD WIM COMPRESSIVE STRENGTH OF 2500 PSI) ENCASEMENT, SHALL BE WITY SEWER MAINS AND FORCE MAINS WHEN THE ABOVE CRITERIA FOR IND SEWER LINES CANNOT BE MAINTAINED. MAINS SHALL BE FLUSHED TO REMOVE ALL SAND AND OTHER FOREIGN OF THE FLUSHING WATER SHALL BE AT LEAST 4 FEET PER SECOND. MINATED AT THE DIRECTION OF THE ENGINEER. THE CONTRACTOR SHALL G WATER WITHOUT CAUSING A NUISANCE OR PROPERTY DAMAGE.

PIPE SPECIFICATION: WATER MAIN

WATER MAIN -

FITTINGS

TAPPING SLEEVE –

4" AND UP TO 12" AWWA APPROVED AWWA C-900 PVC DR 18 ASTM D1784 (COLOR BLUE) SMALLER THAN 4" AWWA APPROVED RING-TITE PVC CLASS 200, ASTM D2241 (COLOR BLUE) DIRECTIONAL BORE PIPE - 6" AND UP TO 14" AWWA APPROVED SDR 11, AWWA C-906 ASTM D 3350 BLUE STRIPED FOR WATER 4" AND LARGER- CLASS 250 (MINIMUM) DUCTILE IRON MEG-A-LUG ACCESSORIES (EBAA MEG-A-LUG ONLY) STAINLESS STEEL, JCM 432

ALL PIPE MATERIAL WILL BE AWWA OR ASTM STANDARD. . ALL WATERLINE 4" - 12" WILL BE AWWA C-900 DR 18. 3. ALL PVC WATERLINE SMALLER THAN 4" WILL MEET THE REQUIREMENTS OF ASTM D-1785 4. ALL POLYETHYLENE PIPE FOR PIPE SIZES 1/2" TO 3" SHALL MEET THE REQUIREMENTS OF AWWA

, SOLYETHYLENE PIPE SIZES 4" TO 63" SHALL MEET THE REQUIREMENTS OF AWWA C-906. . ALL MEGA-LUG RESTRAINTS WILL BE DOMESTIC EBAA ONLY. . ALL MATERIALS WILL BE FROM THE CITY OF SEBRING APPROVED MATERIALS LIST. NOTE: EACH SUBCONTRACTOR WILL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL UTILITIES

FFFECTED BY HIS WORK INSTALLATION INSTRUCTIONS: --THE SUBCONTRACTOR WILL BE RESPONSIBLE FOR TAKING ALL STEPS NECESSARY INCLUDING SHORING TO INSURE THE INTEGRITY OF THE ALL EXISTING PAVEMENTS, UTILITIES AND STRUCTURES AND BE RESPONSIBLE FOR REPLACEMENT OR REPAIR OF ANY DAMAGE CAUSED BY OR RELATED TO CONSTRUCTION OF WATERLINE.

-THE PIPE SHALL BE BEDDED IN COMPACTED CLEAN SAND WITH ALL ORGANIC MATTER AND DEBRIS -BACK FILL SHALL BE OF SIMILAR MATERIAL AND PLACED BY HAND AND COMPACTED BY TAMPING

TO AT LEAST 12" OVER THE TOP OF THE PIPE. --ALL POLYVINYLCHLORIDE (PVC) PIPE SHALL BE LAID WITH METAL LOCATOR TAPE BURIED ONE FOOT ABOVE AND PARALLEL TO THE PIPE CENTERLINE. THE LOCATOR TAPE SHALL BE AT LEAST 2 INCHES WIDE WITH ALUMINUM BACKING AND SHALL BE LETTERED, "CAUTION: WATER LINE BURIED BELOW" WIDE WITH ALCOMING AND SHALL BE LETTERED, CAOTON. WATER LINE BOILED BELCH W. --ALL POLYVINYLCHLORIDE (PVC) PIPE SHALL BE LAID WITH A TRACER WIRE AND BE (#12 AWG) HIGH-STRENGTH COPPER-CLAD STEEL CONDUCTOR (HS-CCS), INSULATED WITH A 30 MIL, HIGH-DENSITY, HIGH MOLECULAR WEIGHT POLYETHYLENE (HDPE) INSULATION, AND RATED FOR DIRECT BURIAL USE AT 30 VOLTS. HS-CCS CONDUCTOR MUST BE A 21% CONDUCTIVITY FOR LOCATING PURPOSES, BREAK LOAD 250# MINIMUM, BURED ON TOP OF THE PIPE. WIRE AND INSTALLATION SHALL MEET NATIONAL ELECTRICAL CODE FEDERAL SPECIFICATION J-C-308. --ALL FILL TO BE CLEAN SAND AND TO BE PLACED IN APPROXIMATE 12" LAYERS AND IS TO BE COMPACTED BY ROLLING OR TAMPING. --PIPE IS TO BE INSTALLED PER MANUFACTURER SPECIFICATIONS, USING THE MANUFACTURER SPECIFIED JOINT LUBRICANTS AND CEMENTS IF REQUIRED. --ALL DISTURBED AREAS WITHIN THE CITY, COUNTY AND STATE R/W ARE TO BE RESTORED AND E CONNECTION TO THE CITY OF SEBRING UTILITIES WATER DISTRIBUTION SYSTEM WILL BE DONE ITY OF SEBRING UTILITIES SPECIFICATIONS UNDER THE UTILITY DEPARTMENT SUPERVISION --THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRING ALL UTILITIES, ROADS AND STRUCTURES DAMAGED DURING THE DIRECTIONAL BORE OR JACK AND BORE CONSTRUCTION PHASE.

--ALL TESTS WILL REQUIRE THE PRESENCE OF THE ENGINEER, CONTRACTOR OR HIS DESIGNATED INSPECTOR. -ALSO PRESENT WILL BE A DESIGNATED INSPECTOR FROM THE CITY OF SEBRING UTILITIES WATER DISTRIBUTION PLAN THE SUBCONTRACTOR SHALL TAKE ALL PRECAUTIONS TO SECURE A WATERTIGHT WATER LINE UNDER ALL CONDITIONS --ALL VISIBLE DAMAGE FLAWS SHALL BE REPAIRED OR REPLACED REGARDLESS OF THE OUT COME OF ANY TESTING PERFORMED. TEST SHALL BE PERFORMED PRIOR TO CONNECTION TO THE CITY OF SEBRING UTILITIES WATER DISTRIBUTION SYSTEM.

WATER LINES: --THE WATER LINES SHALL BE TESTED UNDER A HYDROSTATIC PRESSURE OF 150 PSI FOR AT LEAST — THE WATER LINE SHALL BE CHLORINATED AND SAMPLES TAKEN AT TEMPORARY SAMPLING POINTS ON 2 CONSECUTIVE DAYS, AND TESTED PER HIGHLANDS COUNTY HEALTH DEPARTMENT REQUIREMENTS. THE TESTS SHALL INCLUDE, BUT NOT LIMITED TO, BACTERIOLOGICAL, ph AND CHLORINE RESIDUAL. THE SUBCONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT TO PERFORM ALL HYDROSTATIC TESTS

HYDROSTATIC TESTS 1) ALL COMPONENTS OF THE WATER DISTRIBUTION SYSTEM, INCLUDING FITTINGS, HYDRANTS, SERVICES, CONNECTIONS, AND VALVES SHALL BE HYDROSTATIC TESTED. SPECIFIC DISTRIBUTION SYSTEM COMPONENTS INCLUDING FITTINGS, VALVES, AND HYDRANTS, SHALL REMAIN UNCOVERED UNTIL TESTED AND APPROVED, PROVIDED, HOWEVER, THAT PIPE TRENCHES UNDER TRAVELED STREETS OR ROADS MAY BE BACKFILLED WITH THE PERMISSION OF THE PROJECT ENGINEER. NO TESTING SHALL BE DONE UNTIL ALL CONCRETE THRUST BLOCKING IS IN PLACE AND SET. IF HIGH EARLY STRENGTH CONCRETE IS USED, TESTING MAY BE CONDUCTED 48 HOURS AFTER THE CONCRETE IS PLACED; OTHERWISE, THRUST BLOCK CONCRETE MUST CURE 5 DAYS BEFORE PRESSURE TESTING COMMENCES. IN TESTING, THE PART OF THE SYSTEM UNDER TEST SHALL BE FILLED WITH POTABLE WATER AND SUBJECTED TO A SUSTAINED PRESSURE OF 150 PSI. THE PIPING SHALL BE TESTED IN SECTIONS, THEREBY TESTING EACH VALVE FOR SECURE CLOSURE. WHILE THE SYSTEM IS BEING FILLED, AIR SHALL BE CAREFULLY AND COMPLETELY EXHAUSTED. IF PERMANENT AIR VENTS ARE NOT LOCATED AT ALL HIGH POINTS, THE CONTRACTOR SHALL INSTALL CORPORATION STOPS OR FITTINGS AND VALVES AT SUCH POINTS SO THE AIR CAN BE EXPELLED AS THE PIPE SYSTEM IS SLOWLY FILLED WITH WATER. 2) TEST PRESSURE SHALL BE MAINTAINED BY PILMPING FOR AT LEAST TWO HOURS. AND LINTIL ALL 2) TEST PRESSURE SHALL BE MAINTAINED BY PUMPING FOR AT LEAST TWO HOURS AND UNTIL ALL SECTIONS UNDER TEST HAVE BEEN CHECKED FOR EVIDENCE OF LEAKAGE. RATE OF LOSS SHALL NOT EXCEED THAT SPECIFIED BELOW, "ALLOWABLE LIMITS FOR LEAKAGE". VISIBLE LEAKS SHALL BE CORRECTED REGARDLESS OF TOTAL LEAKAGE SHOWN BY TEST.

3) THE SYSTEM AS A WHOLE, OR ANY PART, SHALL BE TESTED PRIOR TO CONSTRUCTION OF ANY SUBDIVISION ROADWAY OR PAVEMENT OVER THE WATER SYSTEM. 4) THE SYSTEM AS A WHOLE, OR ANY PART, SHALL BE RETESTED AFTER COMPLETION OF BACKFILLING WHEN IT IS BELIEVED NECESSARY, AS DIRECTED BY THE PROJECT ENGINEER. THE SYSTEM SHALL ALSO BE RETESTED UPON COMPLETION OF SUBDIVISION ROADWAY OR OTHER PAVEMENT CONSTRUCTION THAT IS CONSTRUCTED OVER THE WATER SYSTEM.

5) ALL PUMPS, GAUGES, AND MEASURING DEVICES SHALL BE FURNISHED, INSTALLED, AND OPERATED BY THE CONTRACTOR AND ALL SUCH EQUIPMENT AND DEVICES AND THEIR INSTALLATION SHALL BE APPROVED BY THE PROJECT ENGINEER. ALL PRESSURES AND LEAKAGE TESTING SHALL BE DONE IN THE PRESENCE OF A REPRESENTATIVE OF THE ENGINEER. 6) WATER FOR TESTING AND FLUSHING SHALL BE POTABLE WATER PROVIDED BY THE CONTRACTOR FROM A SOURCE APPROVED BY THE PROJECT ENGINEER. THE HYDROSTATIC PRESSURE TESTS SHALL BE PERFORMED AS SPECIFIED AND NO INSTALLATION, OR SECTION THEREOF, WILL BE ACCEPTABLE UNTIL THE LEAKAGE IS LESS THAN THE NUMBER OF GALLONS PER HOUR AS DETERMINED BY THE FORMULA: $L = \underline{N * D * \sqrt{P}}_{7400}$

IN WHICH, L = ALLOWABLE LEAKAGE, IN GALLONS PER HOUR N = APPROXIMATE NUMBER OF JOINTS IN THE SECTION OF MAIN BEING TESTED D = PIPE DIAMETER; IN INCHES P = THE AVERAGE TEST PRESSURE DURING THE TEST, IN GAUGE PSI PIPE SPECIFICATION:

SEWER FORCE MAIN 4" AND UP TO 12" AWWA APPROVED C-900 PVC DR 18 FORCE MAINS -ASTM D1784 (GREEN COLOR) 4" AND UP TO 12" AWWA POLY-PIPE SDR 11, AWWA C-906 ASTM D 3350 DIRECTIONAL BORE PIPE-

FITTINGS TAPPING SLEEVE

1. ALL PIPE MATERIAL WILL BE AWWA OR ASTM STANDARD. . ALL FORCE MAIN 4" - 12" WILL BE AWWA C-900 DR 18

. ALL POLYETHYLENE PIPE FOR PIPE SIZES 1/2" TO 3" SHALL MEET THE REQUIREMENTS OF AWWA

NOTE: EACH SUBCONTRACTOR WILL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL UTILITIES EFFECTED BY HIS WORK. INSTALLATION INSTRUCTION

INSTALLATION INSTRUCTIONS: - THE SUBCONTRACTOR WILL BE RESPONSIBLE FOR TAKING ALL STEPS NECESSARY INCLUDING SHORING TO INSURE THE INTEGRITY OF THE ALL EXISTING PAVEMENTS, UTILITIES AND STRUCTURES AND BE RESPONSIBLE FOR REPLACEMENT OR REPAIR OF ANY DAMAGE CAUSED BY OR RELATED TO CONSTRUCTION OF WATERLINE. THE PIPE SHALL BE BEDDED IN COMPACTED CLEAN SAND WITH ALL ORGANIC MATTER AND DEBRIS REMOVED REMOVED. -ALL POLYVINYLCHLORIDE (PVC) PIPE SHALL BE LAID WITH A TRACER WIRE AND BE (#12 AWG) HIGH-STRENGTH COPPER-CLAD STEEL CONDUCTOR (HS-CCS), INSULATED WITH A 30 MIL, HIGH-DENSITY, HIGH MOLECULAR WEIGHT POLYETHYLENE (HDPE) INSULATION, AND RATED FOR DIRECT BURIAL USE AT 30 VOLTS. HS-CCS CONDUCTOR MUST BE A 21% CONDUCTIVITY FOR LOCATING PURPOSES, BREAK LOAD 250# MINIMUM, BURIED ON TOP OF THE PIPE. WIRE AND INSTALLATION SHALL MEET NATIONAL ELECTRICAL CODE FEDERAL SPECIFICATION J-C-308. -ALL POLYVINYLCHLORIDE (PVC) PIPE SHALL BE LAID WITH METAL LOCATOR TAPE BURIED ONE FOOT ABOVE AND PARALLEL TO THE PIPE CENTERLINE. THE LOCATOR TAPE SHALL BE AT LEAST 2 INCHES WIDE WITH ALLIMINIM BACKING AND SHALL BE LETTEPED "CALITON' FORCE MAID BURDED BELOW" WIDE WITH ALUMINUM BACKING AND SHALL BE LETTERED. "CAUTION: FORCE MAIN BURIED BELOW". -BACK FILL SHALL BE OF SIMILAR MATERIAL AND PLACED BY HAND AND COMPACTED BY TAMPING TO AT LEAST 12" OVER THE TOP OF THE PIPE. -ALL FILL TO BE CLEAN SAND AND TO BE PLACED IN APPROXIMATE 12" LAYERS AND IS TO BE COMPACTED BY ROLLING OR TAMPING. TO BE INSTALLED PER MANUFACTURER SPECIFICATIONS, USING THE MANUFACTURER SPECIFIED JOINT LUBRICANTS AND CEMENTS IF REQUIRED L DISTURBED AREAS WITHIN THE CITY, COUNTY AND STATE R/W ARE TO BE RESTORED AND SODUED. --THE CONNECTION TO THE CITY OF SEBRING UTILITIES SEWER COLLECTION SYSTEM WILL BE DONE TO THE CITY OF SEBRING UTILITIES SPECIFICATIONS UNDER THE UTILITY DEPARTMENT SUPERVISION REQUIREMENTS. -THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRING ALL UTILITIES, ROADS AND STRUCTURES DAMAGED DURING THE DIRECTIONAL BORE OR JACK AND BORE CONSTRUCTION PHASE.

_ TESTS WILL REQUIRE THE PRESENCE OF THE ENGINEER, CONTRACTOR OR HIS DESIGNATED -ALSO PRESENT WILL BE A DESIGNATED INSPECTOR FROM THE CITY OF SEBRING UTILITIES. -THE SUBCONTRACTOR SHALL TAKE ALL PRECAUTIONS TO SECURE A WATERTIGHT SEWER LINE UNDER VISIBLE DAMAGE FLAWS SHALL BE REPAIRED OR REPLACED REGARDLESS OF THE OUT COME OF TEST WALL BE PERFORMED PRIOR TO CONNECTION TO THE CITY OF SEBRING UTILITIES SEWER COLLECTION SYSTEM.

FORCE MAIN LINES: -THE FORCE MAIN LINES SHALL BE TESTED UNDER A HYDROSTATIC PRESSURE OF 150 PSI FOR AT LEAST 2 HOURS. THE SUBCONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT TO PERFORM ALL

DIRECTIONAL BORE:

DIRECTIONAL BORE. PIPE SPECIFICATIONS: 6" AND LARGER SDR 11 HDPE ASTM D3350 AND ASTM F-714 GREEN STRIPE POLYETHYLENE PE3408 HDPE FORCE MAIN NOTE: SDR 11 HDPE WILL BE USED FOR ALL DIRECTIONAL BORES. -FOR MEGA-LUG CONNECTIONS A STAINLESS STEEL STIFFENER WILL BE UTILIZED IN THE SDR 11 HDPE PORTON OF THE JOINT. DIRECTIONAL BORE NOTES FOR FORCE MAIN: -BEFORE ANY CONSTRUCTION IS STARTED, THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITIES AND VERIFYING EXACT LOCATION AND ELEVATION OF UTILITIES NOT LIMITED TO TELEPHONE, WATER, SEWER, GAS AND CABLE WATER, SEWER, GAS AND CABLE. -DURING DIRECTIONAL BORE OPERATION, THE CONTRACTOR (AT HIS EXPENSE, IF REQUIRED) MUST HAVE A REPRESENTATIVE OF EACH UTILITIES ON SITE AS A PREVENTATIVE MEASURE IN THE EVENT OF RUPTURE OF ANY UTILITIES SERVICES. IN LIEU OF A REPRESENTATIVE FROM THE UTILITY A NOTARIZED DOCUMENT FROM THE UTILITY STATING A REPRESENTATIVE IS NOT NEEDED ON SITE WILL -ANY ITEMS GOVERNING THE CONSTRUCTION NOT COVERED IN THE PLANS AND SPECIFICATIONS WILL BE GOVERNED BY THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION, "UTILITY ACCOMMODATION MANUAL", DATED AUG 2019, DOCUMENT NUMBER 710–020, THE MAINTENANCE ENGINEER, OR HIS REPRESENTATIVE. -ALL PERMITS FOR CONSTRUCTION WILL BE POSTED ON SITE. ALL PERMITS (FUSING) OF THE HDPE PIPE MUST BE PERFORMED BY AN INDIVIDUAL CERTIFIED IN HDPE PIPE FUSING. DOCUMENTATION OF CERTIFICATION REQUIRED. - THE ACTUAL CROSSING OPERATION SHALL BE ACCOMPLISHED DURING DAYLIGHT HOURS. - ANY ALTERATION OR WAIVER MUST BE APPROVED BY THE HIGHLANDS COUNTY ENGINEER AND THE ENCINEER OF DECORD

ENGINEER OF RECORD. ENGINEER OF RECORD. -****TWO (2) TRACER WIRES SHALL BE #12 AWG (0.0808"DIAMETER) HARD DRAWN, HIGH CARBON 1055 GRADE STEEL, SOLID EXTRA-HIGH-STRENGTH COPPER-CLAD STEEL CONDUCTOR (EHS-CCS), INSULATED WITH A 45 MIL, HIGH-DENSITY, HIGH MOLECULAR WEIGHT POLYETHYLENE (HDPE) INSULATION, AND RATED FOR DIRECT BURIAL USE AT 30 VOLTS. EHS-CCS CONDUCTOR MUST BE AT 21% CONDUCTIVITY FOR LOCATE PURPOSES. BREAK LOAD OF 1150 LBS, AND WILL BE TAPED ON THE H.D.P.E. DIRECTIONAL BORE AS PER DESIGN STANDARD 555-4.2. -ERECTION OR INSTALLATION OF APPROPRIATE SAFETY AND WARNING DEVICES IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION MANUAL ON M.V.T.C.D. PRIOR TO BEGINNING WORK.

SDR-11 FORCE MAIN DIRECTIONAL PIPE: THE SDR-11 FORCE MAIN PIPE SHALL BE TESTED UNDER A HYDROSTATIC PRESSURE OF 150 PSI FOR AT LEAST 2 HOURS PRIOR TO CONNECTING TO THE SEWER SYSTEM. -THE FORCE MAIN SDR-11 PIPE SHALL BE FLUSHED WITH CLEAN WATER PRIOR TO CONNECTION TO THE SEWER SYSTEM.

THE SEWER SYSTEM. TESTING H.D.P.E. DIRECTIONAL BORE AND OPEN TRENCHING HDPE PIPE: -THE H.D.P.E. PIPING SHOULD BE PRESSURE TESTED BEFORE BEING PUT INTO SERVICE. AFTER ALL FREE AIR IS REMOVED FROM THE TEST SECTION, RAISE THE PRESSURE AT A STEADY RATE TO THE REQUIRED PRESSURE. THE PRESSURE IN THE SECTION SHALL BE MEASURED AS CLOSE AS POSSIBLE TO THE LOWEST POINT OF THE TEST SECTION. -TEST PRESSURE SHOULD NOT EXCEED 1.5 TIMES THE RATED OPERATING PRESSURE OF THE PIPE OR THE LOWEST RATED COMPONENT IN THE SYSTEM. INITIALLY, THE PIPE SHOULD BE RAISED TO TEST PRESSURE AND ALLOWED TO STAND WITHOUT MAKEUP PRESSURE FOR A SUFFICIENT TIME TO ALLOW FOR EXPANSION OF THE PIPE. THIS USUALLY OCCURS WITHIN 2–3 HOURS. AFTER EQUILIBRIUM IS ESTABLISHED, THE TEST SECTION IS PRESSURIZED TO 1.5 TIMES OPERATING PRESSURE, THE PUMP IS TURNED OFF, AND THE FINAL TEST PRESSURE IS HELD FOR 2 HOURS. -POLYETHYLENE PIPE HOLDS PRESSURE BY DEVELOPING STRESSS IN ITS WALLS. THIS PROCESS CONTINUES THROUGHOUT THE TEST PERIOD, AND THE PIPE INCREASES SLIGHTLY IN DIAMETER. PRESSURE DROP WILL OCCUR DUE TO CONTINUED EXPANSION OF THE PIPE DURING THE SECOND PHASE OF THE TEST. A DROP IN PRESSURE DURING THE TST PHASE IS COMMON AND DOES NOT PROVE WITH ABSOLUTE CERTAINTY THAT A LEAK OR FAILURE IS PRESENT IN THE SYSTEM. POLYETHYLENE PIPE IS TESTED BY MEASURING THE "MAKE UP" WATER REQUIRED TO RETURN THE PROVE WITH ABSOLUTE CERTAINTY THAT A LEAR OR PAILURE IS PRESENT IN THE STSTEM. POLYETHYLENE PIPE IS TESTED BY MEASURING THE "MAKE UP" WATER REQUIRED TO RETURN THE SECTION TO TEST PRESSURE. ALLOWABLE AMOUNTS OF MAKEUP WATER FOR EXPANSION DURING TH PRESSURE TEST ARE SHOWN IN THE TABLE BELOW. IF THE PRESSURE IS NOT RETURNED WITHIN TH ALLOWABLE VOLUME OF WATER, THE TEST FALLS. IF THERE ARE NO VISUAL LEAKS OR SIGNIFICANT PRESSURE DROPS DURING THE FINAL TEST PERIOD. THE PIPELINE PASSES THE TEST. NOTE: UNDER NO CIRCUMSTANCES SHALL THE TOTAL TIME UNDER THE TEST EXCEED EIGHT (8) HOURS AT 1.5 TIMES THE PRESSURE RATING OF THE LOWEST RATED COMPONENT IN THE SYSTEM. IF THE TEST IS NOT COMPLETED DUE TO LEAKAGE, EQUIPMENT FAILURE, ETC., THE TEST SECTION SHALL BE

ALLOWANCE FOR EXPANSION (U.S.

ALLOWED TO "RELAX" FOR EIGHT (8) HOURS PRIOR TO THE NEXT TEST

GALLONS/100 F	EET OF PIPE)
NOMINAL PIPE SIZE (INCHES)	2 HOUR TEST
2 and 3	0.15
4	0.25
6	0.60
8	1.0
10	1.30
11	2.0
12	2.3
14	2.8
16 3.3	

DEWATERING NOTES: 1: GENERAL

SCOPE OF WORK: THE WORK TO BE PERFORMED UNDER THIS SECTION SHALL INCLUDE FURNISHING AL EQUIPMENT AND LABOR NECESSARY TO REMOVE STORM OR SUBSURFACE WATERS FROM EXCAVATION AREAS IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH AND AS SHOWN ON THE DRAWINGS. A. THE DEWATERING OF ANY EXCAVATION AREAS AND THE DISPOSAL OF THE WATER SHALL BE IN STRICT CCORDANCE WITH THE LATEST REVISION OF ALL LOCAL AND STATE GOVERNMENT RULES AND REGULATIONS PART 2: PRODUCTS (NOT APPLICABLE) PART 3: EXECUTION

- 01 DEWATERING CONTRACTOR SHALL PROVIDE ADEQUATE EQUIPMENT FOR THE REMOVAL OF STORM OR SUBSURFACE WATERS WHICH MAY ACCUMULATE IN THE EXCAVATION IN LAWOVAL OF STORW OK SUBSIGNACE WATERS WHICH MAY ACCUMULATE IN THE EXCAVATION.
 B. IF SUBSUFFACE WATER IS ENCOUNTERED, CONTRACTOR SHALL UTILIZE SUITABLE EQUIPMENT TO ADEQUATELY DEWATER THE EXCAVATION SO THAT IT WILL BE DRY FOR WORK AND PIPE LAYING. A WELLPOINT SYSTEM OR OTHER ENGINEER APPROVED DEWATERING METHOD SHALL BE UTILIZED IF NEGESSARY TO MAINTAIN THE EXCAVATION IN A DRY CONDITION FOR PREPARATION OF THE TRENCH DEGREGATION FOR DRY FOR WORK IN THE EXCAVATION IN A DRY CONDITION FOR PREPARATION OF THE TRENCH DEGREGATION OF THE TRENCH DEGREGATION OF THE TRENCH DEGREGATION FOR DRY FOR WORK IN THE EXCAVATION IN A DRY CONDITION FOR PREPARATION OF THE TRENCH DEGREGATION OF THE TRENCH DEGREGATION FOR DRY FOR DRY
- BOTTOM AND FOR PIE LAYING. C. DEWATERING BY TRENCH PUMPING WILL NOT BE PERMITTED IF MIGRATION OF FINE GRAINED NATURAL MATERIAL FROM BOTTOM, SIDE WALLS OR BEDDING MATERIAL WILL OCCUR. D. IN THE EVENT THAT SATISFACTORY DEWATERING CANNOT BE ACCOMPLISHED DUE TO SUBSURFACE CONDITIONS OR WHERE DEWATERING COULD DAMAGE EXISTING STRUCTURES, CONTRACTOR SHALL OBTAIN HE ENGINEER'S APPROVAL OF WET TRENCH CONSTRUCTION OR PROCEDURE BEFORE COMMENCING
- A. WATER PUMPED FROM THE TRENCH OR OTHER EXCAVATION SHALL BE DISPOSED OF IN STORM SEWERS A. WATER POMPED FROM THE TRENCH OR OTHER EXCAVATION SHALL BE DISPOSED OF IN STORM SEWERS HAVING ADEQUATE CAPACITY, CANALS OR SUITABLE DISPOSAL PITS.
 B. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ALL PERMITS REQUIRED TO DISCHARGE THE WATER AND SHALL PROTECT WATERWAYS FROM TURBIDITY DURING THE OPERATION.
 C. IN AREAS WHERE ADEQUATE DISPOSAL SITES AREA NOT AVAILABLE, PARTIALLY BACKFILLED TRENCHES MAY BE USED FOR WATER DISPOSAL ONLY WHEN THE CONTRACTOR'S PLAN FOR TRENCH DISPOSAL IS
- APPROVED IN WRITER DISPOSAL ONET WHEN THE CONTRACTOR'S PLAN FOR TRENCH DISPOSAL IS APPROVED IN WRITING BY THE ENGINEER. THE CONTRACTOR'S PLAN SHALL INCLUDE TEMPORARY CULVERTS, BARRICADES AND OTHER PROTECTIVE MEASURES TO PREVENT DAMAGE TO PROPERTY OR INJURY TO ANY PERSON OR PERSONS. D. NO FLOODING OF STREETS, ROADWAYS, DRIVEWAYS OR PRIVATE PROPERTY WILL BE PERMITTED. ENGINES DRIVING DEWATERING PUMPS SHALL BE EQUIPPED WITH RESIDENTIAL TYPE MUFFLERS.

TRACER WIRE REQUIREMENTS: TRACER WIRE FOR BURIED PIPE: -SHALL BE (#12 AWG) HIGH-STRENGTH COPPER-CLAD STEEL CONDUCTOR (HS-CCS), INSULATED WITH A 30 MIL, HIĞH-DENSÍTY, HIGH MOLECULAR WEIGHT POLYETHYLENE (HDPE) INSULATIÓN, AND RATED FOR DIRECT BURIAL USE AT 30 VOLTS. HS-CCS CONDUCTOR MUST BE A 21% CONDUCTIVITY FOR LOCATING PURPOSES, BREAK LOAD 250# MINIMUM.

TRACER WIRE FOR DIRECTIONAL DRILLING/BORING: -SHALL BE #12 AWG (0.0808" DIAMETER) HARD DRAWN, HIGH CARBON 1055 GRADE STEEL, SOLID EXTRA-HIGH-STRENGTH COPPER-CLAD STEEL CONDUCTOR (EHS-CCS), INSULATED WITH A 45 MIL, HIGH-DENSITY, HIGH MOLECULAR WEIGHT POLYETHYLENE (HDPE) INSULATION, AND RATED FOR DIRECT BURIAL USE AT 30 VOLTS. EHS-CCS CONDUCTOR MUST BE AT 21% CONDUCTIVITY FOR LOCATE PURPOSES. BREAK LOAD OF 1150 LBS.

CONSTRUCTION NOTES:

-TOPO ELEVATIONS SHOWN ARE A REPRESENTATION OF FIELD CONDITIONS AND IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY INFORMATION IN FIELD. TH INTENT FOR DISTURBED AREAS WITHIN THE RIGHT-OF-WAYS IS TO RESHAPE THE AREAS BACK TO EXISTING SLOPES (UNLESS SHOWN OTHERWISE) --THESE PLANS HAVE BEEN DRAWN TO DEPICT THE RÉQUIRED CONSTRUCTION WITHIN THE PROJECT AREA. IN CERTAIN CASES THE SIZE AND/OR LOCATION OF PROPOSED CONSTRUCTION HAS BEEN BLOWN-UP TO SHOW ITEMS. 'THEREFORE, LOCATIONS ON THE DRAWINGS MAY NOT BE EXACT AND SHOULD NOT BE SCALED FOR CONSTRUCTION. AREAS WILL NEED TO BE CONSTRUCTED USING EXISTING SITE CONDITIONS AND CURRENT HIGHLANDS COUNTY, CITY OF SEBRING, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION OR FLORIDA DEPARTMENT OF TRANSPORTATION CONSTRUCTION REQUIREMENTS AND REGULATIONS, DEPENDENT ON JURISDICTION. --THE UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS ARE

REPRESENTATIONAL ONLY. FIELD INVESTIGATION FOR EXACT LOCATIONS IS REQUIRED AND WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. --THE DETAILS SHOWN ARE A REPRESENTATION OF FIELD CONDITIONS AND IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY INFORMATION IN FIELD. --DUE TO THE PROXIMITY OF THE PROPOSED WATERLINE OR FORCE MAIN TO TH EXISTING POWER POLES THE CONTRACTOR SHALL CONTACT THE POWER COMPANY TO HOLD THE POWER POLES AS NECESSARY DURING CONSTRUCTION --ALL DISTURBED PREVIOUSLY IMPROVED AREAS WILL BE COMPLETELY RESTORED TO ORIGINAL CONDITIONS, THIS INCLUDES SODDING, LANDSCAPING, IRRIGATION SYSTEMS, STRUCTURES, ETC

-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.

CONSTRUCTION WITHIN THE FDOT RIGHT-OF-WAY: -GOVERNING SPECIFICATIONS: STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION,

STANDARD SPECIFICATIONS, DATED 2013, SUPPLEMENTS AND SPECIAL PROVISIONS THERETO IF NOTED IN THE CONTRACT SPECIFICATIONS FOR THIS PROJECT --AT LEAST 72 HOURS IN ADVANCE OF BEGINNING CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL CONTACT THE LOCAL MAINTENANCE FDOT ENGINEER'S OFFICE TO SECURE GENERAL USE PERMITS AND/OR OTHER PERMITS AS REQUIRED FOR WORKING WITHIN THE DEPARTMENT'S RIGHT-OF-WAY. --FOR DESIGN STANDARDS MODIFICATIONS, CLICK ON "DESIGN STANDARDS" AT THE FOLLOWING WEB SITE: http://www.dot.state.fl.us/rddesign/

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	DATE: 10-0CT-19	ROGER DALE POLSTON, P.E. # 33222 CERTIFICATE OF AUTHORIZATION # 5684 MARVIN LUTHER WOLFE, P.E. # 46030 PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES	

GREEN STRIPED FOR SEWER 4" AND LARGER- CLASS 250 (MINIMUM) DUCTILE IRON MEG-A-LUG ACCESSORIES STAINLESS STEEL, JCM 432

4. POLYETHYLENE PIPE SIZES 4" TO 63" SHALL MEET THE REQUIREMENTS OF AWWA C-906.
5. ALL MEGA-LUG RESTRAINTS WILL BE DOMESTIC EBAA ONLY.
6. ALL MATERIALS WILL BE FROM THE CITY OF SEBRING APPROVED MATERIALS LIST.
7. ALL FITTINGS WILL BE MEGA-LUG.

JACK AND BORE NOTES ALWAYS CALL 811 TWO FULL BUSINESS DAYS BEFORE YOU D BEFORE ANY CONSTRUCTION IS STARTED, THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITIES AND VERIFYING EXACT LOCATION AND ELEVATION OF UTILITIES NOT LIMITED TO TELEPHONE, WATER, SEWER, GAS AND CABLE. Sunshine<mark>811.co</mark>m DURING JACK AND BORE OPERATION, THE CONTRACTOR (AT HIS EXPENSE IF REQUIRED) MUST HAVE A REPRESENTATIVE OF EACH OF THE UTILITIES ON SITE AS A PREVENTATIVE MEASURE IN THE EVENT OF RUPTURE OF ANY UTILITY'S SERVICES. IN LIEU OF A REPRESENTATIVE FROM THE UTILITY A NOTARIZED DOCUMENT FROM THE UTILITY STATING A REPRESENTATIVE IS NOT NEEDED ON SITE WILL BE ANY ITEMS GOVERNING THE CONSTRUCTION NOT COVERED IN THE PLANS AND SPECIFICATIONS WILL BE GOVERNED BY THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION, "UTILITY ACCOMMODATION MANUAL", DATED 2019, DOCUMENT NUMBER 710-020-001-G OR THE MAINTENANCE ENGINEER (OR COUNTY NOTE: HIS REPRESENTATIVE) LL CONSTRUCTION WITHIN THE COUNTY RIGHT-OF-WAY I ALL PERMITS FOR CONSTRUCTION WILL BE POSTED ON SITE. BE IN ACCORDANCE WITH THE CURRENT HIGHLANDS JACKING PITS: PIT EXCAVATION SHALL BE NO CLOSER THAN 8 FEET FROM THE EDGE OF PAVEMENT. THE PIT DIMENSIONS SHALL BE LARGE ENOUGH TO PROVIDE A SAFE, ADEQUATE WORKING AREA WITH SLOPES NO STEEPER THAN: OUNTY STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION AND THE ROADWAY AND THE F.D.O.T. SLOPES NO STEEPER THAN: 1/2 : 1 IN HARD PAN, CLAY OR HARD SAND-CLAYS 1 : 1 IN STABLE COHESIVE SOILS 2 : 1 IN LOOSE UNSTABLE SOILS SLOPES SHALL EXTEND FROM PROPOSED CASING INVERT ELEVATION TO EXISTING GROUND LEVEL. ****** IN LIEU OF CONSTRUCTION SLOPES AS ABOVE, THE PIT WALLS MAY BE SHORED, SHEETED, BRACED OR OTHERWISE SUPPORTED BY MEANS OF SUFFICIENT STRENGTH TO PROTECT THE EMPLOYEES AND INSPECTORS WORKING WITHIN THEM. ANY SUCH SHORING, SHEETING, OR BRACING SHALL CONFORM TO CONSTRUCTION REQUIREMENTS AS SET FORTH BY FEDERAL DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION. DIT FLOOD STADULYATION, CONTRACTOR WILL DECIDE WHEFE NECESSARY TO INSULE A SOLID. STADI TRAFFIC DESIGN STANDARD INDEX. PIT FLOOR STABILIZATION: CONTRACTOR WILL DECIDE WHERE NECESSARY TO INSURE A SOLID, STABLE BASE FOR BORING MACHINERY, SOME MEANS OF STABILIZING THE PIT FLOOR MUST BE PROVIDED. STABILIZING MAY VARY DEPENDING UPON JOB SITE CONDITIONS, FROM TIMBER SUPPORTS UNDER TRACTS, ADDITION OF CLEAN SAND OR GRAVEL TO PIT FLOOR, OR IN SOME CASES THE CONSTRUCTION OF CONCRETE SLABS ON THE PIT FLOOR. ALL STABILIZING MATERIALS OTHER THAN SAND, GRAVEL, AND LIKE MATERIALS MUST BE REMOVED UPON COMPLETION OF THE PROJECT. CASING SPACERS FOR SUPPORT OF 12" PIPE BARREL AND PIPE BELL JOINT RESTRAINT ALIGNING AND LEVELING OF AUGER TRACKS: TO PROPERLY CONTROL LINE AND GRADE DURING THE CROSSING OPERATION, IT IS IMPERATIVE THAT THE JACKING UNIT TRACTS BE RIGIDLY SET TO THE PREDETERMINED LEVEL AND ALIGNMENT REQUIREMENTS OF THE JOB. AUGER AND CASING SECTION LENGTHS SHOULD BE DETERMINED PRIOR TO BEGINNING THE CROSSING OPERATION TO INSURE THAT THE LEADING END OF THE FIRST CASING SECTION WILL NOT BE UNDER, OR WITHIN THREE FEET OF ANY ROADWAY PAVEMENT WHEN THE CROSSING OPERATION IS HALTED TO INNEW AUGER AND CACHER SECTIONS. JOIN NEW AUGER AND CASING SECTIONS. Restraining Ring USE OF BANDS, COUPLINGS, COLLARS, OR WELDS WILL BE ALLOWED PROVIDING THE CASING DIAMETER IS INCREASED BY NO MORE THAN 3/4 INCH AND THE SEAL BE WATER-TIGHT. THE USE OF GREASE ON THE OUTER SURFACE OF THE CASING TO DEDUCE SKIN FRICTION IS ALSO ACCEPTABLE. FLARING OF THE CASING END WILL BE ALLOWED PROVIDED THAT THE ORIGINAL CASING DIAMETER IS EXCEEDED Runners BY NO MORE THAN 3/4 INCH. THE ACTUAL CROSSING OPERATION SHALL BE ACCOMPLISHED DURING DAYLIGHT HOURS. Clamping Bolts ANY ALTERATION OR WAIVER MUST BE APPROVED BY THE HIGHLANDS COUNTY ENGINEER AND FLORIDA DEPARTMENT OF TRANSPORTATION MAINTENANCE ENGINEER. ERECTION OR INSTALLATION OF APPROPRIATE SAFETY AND WARNING DEVICES IN ACCORDANCE WITH NON. THE DEPARTMENT OF TRANSPORTATION'S MANUAL ON M.V.T.C.D. PRIOR TO BEGINNING WORK. Pm-THE DEFAMILIER OF THANS OF A TOTAL OF A MANAGE OF M.Y.T.S.D. FINDLE TO BE ON MILLE WORK. THE JACKING AND RECEIVING PITS MUST BE KEPT DRY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE IF DEWATERING IS NEEDED. DEWATERING SYSTEM SHALL BE IN CONFORMANCE WITH ALL APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL POLLUTION CONTROL AND ENVIRONMENTAL PROTECTION REGULATIONS. U) No Restraining Rods STEEL PIPE WILL BE INSTALLED BY JACKING ONLY. STEEL PIPE SHALL HAVE A SPECIFIED MINIMUM YIELD STRENGTH, SMYS, OF AT LEAST 35,000 I. THE ASTM OR API SPECIFICATION AND GRADE FOR THE PIPE ARE SHOWN ON THE APPLICATION and Nuts A STANDARD CONTRACT OF A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM FOR A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A STEEL CASING PIPE, WITH A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM WALL A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM COVER OF 4.0 FEET, SHALL HAVE A MINIMUM COVER OF 4.0 FEET, SHALL A M el Me THICKNESS AS SHOWN ON CHART, (SEE SCFE, DESIGN AND CONSTRUCTION STANDARD SPECIFICATIONS) UNLESS COMPUTATIONS INDICATE THAT A THICKER WALL IS REQUIRED. CASING FOR CARRIER PIPES OF NON-FLAMMABLE SUBSTANCES SHALL HAVE BOTH ENDS OF THE CASING BLOCKED UP IN SUCH A WAY AS TO PREVENT THE ENTRANCE OF FOREIGN MATERIALS, BUT ALLOWING LEAKAGE TO PASS IN THE EVENT OF A CARRIER BREAK. A Color CASING PIPE SHALL BE SO CONSTRUCTED AS TO PREVENT LEAKAGE OF ANY SUBSTANCE FROM THE CASING THROUGHOUT ITS LENGTH, EXCEPT AT THE ENDS OF THE CASING WHERE ENDS ARE LEFT RESTRAINED CASING SPACER FOR OPEN, OR THROUGH VENT PIPES WHEN THE ENDS OF CASING ARE SEALED. (NO VENT PIPES ARE PROPOSED) CASING SHALL BE INSTALLED SO AS TO PREVENT THE FORMATION OF A WATERWAY UNDER THE RAILROAD, AND WITH AN EVEN BEARING THROUGHOUT ITS LENGTH, AND SHALL SLOPE TO PIPE BELL JOINT Nom. PIPE PIPE O.D. ONE END. SIZE (INCHES) THE INSIDE DIAMETER OF THE CASING PIPE SHALL BE SUCH AS TO ALLOW THE CARRIER PIPE TO BE REMOVED SUBSEQUENTLY WITHOUT DISTURBING THE CASING OR THE ROADBED. FOR STELL PIPE CASINGS THE INSIDE DIAMETER OF THE CASING PIPE SHALL BE AT LEAST 2 INCHES GREATER THAN THE LARGEST OUTSIDE DIAMETER OF THE CARRIER PIPE JOINTS OR COUPLINGS, FOR CARRIER PIPE UFRCS1390-S-I style is available in sizes 10" and 12". THAN 6 INCHES IN DIAMETER; AND AT LEAST 4 INCHES GREATER FOR CARRIER PIPE 6 INCHES AND OVER IN DIAMETER. 12" BELL RESTRAINT: FORD UNI-FLANGE SERIES UFRCS 1390 IN NO EVENT SHALL THE CASING PIPE DIAMETER BE LARGER THAN NECESSARY TO PERMIT THE INSERTION OF THE CARRIER PIPE. NUMBER OF SPACERS. - UFRCS1390 -- UFRCS1300 -THE CASING PIPE WILL BE UNDER RAILROAD TRACKS AND ACROSS THE ENTIRE WIDTH OF SCFE'S RIGHT-OF-WAY. [MANDATORY] CONSTRUCTION REQUIREMENTS: CONSTRUCTION REQUIREMENTS: THE JACK AND BORE SHALL HAVE A BORE HOLE ESSENTIALLY THE SAME AS THE OUTSIDE DIAMETER OF THE PIPE PLUS THE THICKNESS OF THE PROTECTIVE COATING. THE USE OF WATER OR OTHER LIQUIDS TO FACILITATE CASING EMPLACEMENT AND SPOIL REMOVAL IS PROHIBITED. IF, DURING INSTALLATION, AN OBSTRUCTION IS ENCOUNTERED WHICH PREVENTS INSTALLATION OF THE PIPE IN ACCORDANCE WITH THIS SPECIFICATION, NOTIFY SCFE IMMODERATELY, ABANDON THE PIPE IN PLACE AND IMMEDIATELY FILL WITH GROUT. A NEW INSTALLATION PROCEDURE AND REVISED PLANS MUST BE SUBMITTED TO, AND APPROVED BY SCFE BEFORE WORK CAN RESUME. , it JACK AND BORE STEEL PIPE

THIS METHOD CONSIST OF PUSHING THE PIPE INTO THE EARTH WITH A BORING AUGER ROTATING WITHIN THE PIPE TO REMOVE THE SPOIL. THE BORING OPERATION SHALL BE PROGRESSED ON A 24-HOUR BASIS WITHOUT STOPPAGE EXCEPT FOR ADDING LENGTHS OF PIPE) UNTIL THE LEADING EDGE OF THE PIPE HAS REACHED THE THE FRONT OF THE PIPE SHALL BE PROVIDED WITH MECHANICAL ARRANGEMENTS OR DEVICES THAT WILL POSITIVELY PREVENT THE AUGER FROM LEADING THE PIPE SO THAT NO UNSUPPORTED EXCAVATION IS AHEAD OF THE PIPE. THE AUGER AND CUTTING HEAD ARRANGEMENT SHALL BE REMOVABLE FROM WITHIN THE PIPE IN THE EVENT AN OBSTRUCTION IS ENCOUNTERED. THE OVER-CUT BY THE CUTTING HEAD SHALL NOT EXCEED THE OUTSIDE DIAMETER OF THE PIPE BY MORE THAN 1/2 INCH. IF VOIDS SHOULD DEVELOP OR IF THE BORE HOLE DIAMETER IS GREATED THAN THE OUTSIDE DIAMETER OF THE PIPE (PLUS COATING) BY MORE THAN APPROXIMATELY 1 INCH IHAN THE OUTSIDE DIAMETER OF THE PIPE (PLUS COATING) BY MORE THAN APPROXIMATELY 1 INCH GROUTING (SEE THE CONSTRUCTION REQUIREMENTS-GROUTING SECTION) OR OTHER METHODS APPROVED BY SCFE, SHALL BE EMPLOYED TO FILL SUCH VOIDS. THE FACE OF THE CUTTING HEAD SHALL BE ARRANGED TO PROVIDE A REASONABLE OBSTRUCTION TO THE FREE FLOW OF SOFT OR POOR MATERIALS. PLANS AND DESCRIPTION OF THE ARRANGEMENT TO BE USED SHALL BE SUBMITTED TO SCFE FOR APPROVAL AND NO WORK SHALL PROCEED UNTIL SUCH APPROVAL IS OBTAINED. ANY METHOD THAT EMPLOYS SIMULTANEOUS BORING AND JACKING FOR PIPES OVER 8 INCHES IN DIAMETER THAT DOES NOT HAVE ABOVE APPROVED. ARRANGEMENT WILL NOT BE PERMITTED. FOR PIPE 8 INCHES AND LESS IN DIAMETER, AUGURING OR DORING WITHOUT THIS ARRANGEMENT MAY BE CONSIDERED FOR USE ONLY AS APPROVED BY

PARKWAY-STA, 448+32 TO STA, 501+44, DESOTO-STA, 3+54 TO STA, 16+60, MEDICAL CENTER-STA. 2+00 TO STA. 4+50, US 27-STA. 2959+00 TO STA. 2964+60 SHEET 23 OF 25

	Polston Engineering, Inc	DESIGNED BY: MLW	SEAL / SIGNATURE	
P	CIVIL ENGINEERING CONSULTANTS 2925 KENILWORTH BLVD., SEBRING, FLORIDA 33870	DRAWN BY: MLW Checked by:		
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96	EXISTING GRAVITY SEWER TO REMAIN	STA. 2964+58 R PROPOSED 12 [°] TIE INTO EXISTING 8 [°] AC	D-CERTIFIED FOR-USE		STA. ±2962+65 R
94		8 AC WATER LINE AND 12 GATE VALVE TO THE NORTH AND CUT IN AN 8 GATE VALVE TO THE EAST OF THE WET TAP		G	TIE PROPOSED 10" COOD DR 18 / EEN FORCE MAIN INTO EXISTING- 10" FORCE MAIN UTILIZE MEG-A-IUG FORCE MAIN UTILIZE
92		CRIFIED FOR USE, ATTACH A 2" BLOW OFF ASSEMBLY ON EASTERLY LEG (MEG-A-LUG) OF 8" GATE VALVE.			MEG-A-LOG FOR CONNECTION
90		GROUT THE EASTERN PORTION OF 8* AC WATER LINE AND PLACE OUT OF SERVICE TO OTHER 12" WATERLINE TIE IN			
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SYSTEM (I.E. PIPES, INLETS, AND PONDS. THE CONTRACTOR SHALL PROVIDE TEN COPIES OF THE CERTIFIED RECORD DRAWINGS TO THE ENGINEER. THE AS-BUILT CADD DRAWING IN ELECTRONIC FORM SHALL ALSO BE CONTRACTOR SHALL ADHERE TO THE FOLLOWING DETAILS, STANDARDS, REGULATIONS, AND ORDINANCES: ZOUNTY HEALTH DEPARTMENT, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, FLORIDA DEPARTMENT OF TRANSPORTATION, SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT, CITY OF SEBRING. SITE WORK SHALL CONFORM TO THE LATEST S.W.F.W.M.D., F.D.O.T., CITY AND COUNTY REGULATIONS, SPECIFICATIONS AND GUIDELINES 4. ALL EXISTING SURVEY MONUMENTS, GPS MONUMENTS OR PUBLIC LAND CORNERS SHALL BE PROTECTED. IF A CORNER OR MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED THE CONTRACTORS CONSTRUCTION MANAGER SHALL NOTIFY THE CITY PUBLIC WORKS DIRECTOR WITHOUT DELAY BY TELEPHONE. SAFETY NOTES

SAFETY NUTES 1. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, THE CONTRACTOR SHALL COMPLY WITH REGULATIONS. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF ITS PERSONNEL. LABOR SAFETY REGULATIONS SHALL BE AS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF LABOR. 2. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF THE STATE OF FLORIDA, MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTULY OPEDATIONS UTILITY OPERATIONS SHALL BE FOLLOWED IN THE DESIGN APPLICATION, INSTALLATION, MAINTENANCE, REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES, AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND WORKERS FROM HAZARDS WITHIN THE PROJECT LIMITS. 3. ALL TRAFFIC CONTROL MARKINGS, FLAGGERS, AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION. 4. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS

EE BRANCH L 90° BEND ALL OTHERS THRUST RESTRAINING TABLE

ALL VALVES AND FITTINGS SHALL BE RESTRAINED AGAINST THRUST FROM 150 PSI TEST PRESSURE BY USING FLANGED OR "MEGALUG" TYPE CONNECTORS. ALL PIPE JOINTS LYING WITHIN THE LISTED MINIMUM DISTANCE OF ANY FITTING OR VALVE SHALL ALSO BE RESTRAINED WHEN CASINGS FALL WITHIN THE MINIMUM DISTANCE FROM A FITTING, RESTRAIN ALL JOINTS INSIDE THE CASING IN ADDITION TO THE REQUIRED MINIMUM LENGTH OF BURIED PIPE

THE CHART ABOVE DESCRIBES THE MINIMUM LENGTH OF PIPE THAT SHALL BE CONTINUOUSLY RESTRAINED ON BOTH SIDES OF DIFFERENT TYPES AND SIZES OF FITTINGS. DEAD END VALVES FOR FUTURE EXPANSION WILL BE RESTRAINED BACK TO THE FITTING

1. CHAPTER 77-153 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL GAS UTILITIES A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATION. THE ONLY SAFE AND PROPER WAY TO LOCATE EITHER MAINS OR SERVICE LINES IS BY AN ON-SITE INSPECTION BY THE RESPECTIVE GAS PERSONNEL. THEREFORE, EXCAVATORS ARE INSTRUCTED TO TELEPHONE THE RESPECTIVE GAS COMPANY TWO WORKING DAYS BEFORE ENTERING A CONSTRUCTION AREA. 2. ALL UNDERGROUND UTILITIES MUST BE IN PLACE, TESTED AND INSPECTED AS REQUIRED PRIOR TO BASE AND SURFACE CONSTRUCTION. 3. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES IN ORDER TO PERMIT MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION, BY CALLING FLORIDA SUNSHINE 811 AT 811 OR CONTACTING ONLINE AT SUNSHINE811.COM. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY "SUNSHINE" FORTY-EIGHT (48) HOURS PRIOR TO ANY CLEARING OF CONSTRUCTION TO IDENTIFY ALL UTILITY LOCATIONS 4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES TO EXISTING STRUCTURES FROM THE STREE. ALL UTILITIES INCLUDING OR DEMOLISHING ANY EXISTING STRUCTURES FROM THE SITE. ALL UTILITIES INCLUDING, BUT NOT NECESSARILY LIMITED TO, THE FOLLOWING SHOULD BE CONTACTED BY THE CONTRACTOR: B. TELEPHONE

D. POWER E. CITY/COUNTY WATER AND SEWER

CITY/COUNTY/STATE TRAFFIC SIGNAL UTILITY (FIBER, HARDWIRE TRAFFIC SIGNAL INTERCONNEC1 E LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ACCURACY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION'S OF THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING ANY UNDERGROUND UTILITY, WHETHER SHOWN WITH THE PROPOSED CONSTRUCTION WHEN CROSSING ANT UNDERGOUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES WHICH INTERFACE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANIES AND THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY COMPANIES DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EVERA CONDENSATION WILL DE ALLOWED. NO EXTRA COMPENSATION WILL BE ALLOWED.

DEWATERING NOTES: PART 1: GENERAL

1.01 DESCRIPTION A. SCOPE OF WORK: THE WORK TO BE PERFORMED UNDER THIS SECTION SHALL INCLUDE FURNISHING ALL EQUIPMENT AND LABOR NECESSARY TO REMOVE STORM OR SUBSURFACE WATERS FROM EXCAVATION AREAS IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH AND AS SHOWN ON THE DRAWINGS. 1.02 QUALITY ASSURANCE

A. THE DEWATERING OF ANY EXCAVATION AREAS AND THE DISPOSAL OF THE WATER SHALL BE IN STRICT ACCORDANCE WITH THE LATEST REVISION OF ALL LOCAL AND STATE GOVERNMENT RULES AND REGULATIONS. PART 2: PRODUCTS (NOT APPLICABLE) PART 3: EXECUTION

3.01 DEWATERING 3.01 DEWATERING
 A. CONTRACTOR SHALL PROVIDE ADEQUATE EQUIPMENT FOR THE REMOVAL OF STORM OR SUBSURFACE WATERS WHICH MAY ACCUMULATE IN THE EXCAVATION.
 B. IF SUBSURFACE WATER IS ENCOUNTERED, CONTRACTOR SHALL UTILIZE SUITABLE EQUIPMENT TO ADEQUATELY DEWATER THE EXCAVATION SO THAT IT WILL BE DRY FOR WORK AND PIPE LAYING. A WELLPOINT SYSTEM OR OTHER ENGINEER APPROVED DEWATERING METHOD SHALL BE UTILIZED IF NECESSARY TO MAINTAIN THE EXCAVATION IN A DRY CONDITION END POTEMATION OF THE TENCH POTTOM AND EOR DIE LAYING.

FOR PREPARATION OF THE TRENCH BOTTOM AND FOR PIE LAYIN DEWATERING BY TRENCH PUMPING WILL NOT BE PERMITTED IF MIGRATION OF FINE GRAINED NATURAL MATERIAL FROM BOTTOM, SIDE WALLS OR BEDDING MATERIAL WILL OCCUR.
 IN THE EVENT THAT SATISFACTORY DEWATERING CANNOT BE ACCOMPLISHED DUE TO SUBSURFACE CONDITIONS OR WHERE DEWATERING COULD DAMAGE EXISTING STRUCTURES,

CONTRACTOR SHALL OBTAIN THE ENGINEER'S APPROVAL OF WET TRENCH CONSTRUCTION OR PROCEDURE BEFORE COMMENCING A. WATER PUMPED FROM THE TRENCH OR OTHER EXCAVATION SHALL BE DISPOSED OF IN STORM SEWERS HAVING ADEQUATE CAPACITY, CANALS OR SUITABLE DISPOSAL PITS. B. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ALL PERMITS REQUIRED TO DISCHARGE THE WATER AND SHALL PROTECT WATERWAYS FROM TURBIDITY DURING THE OPERATION.

C. IN AREAS WHERE ADEQUATE DISPOSAL SITES AREA NOT AVAILABLE, PARTIALLY BACKFILLED TRENCHES MAY BE USED FOR WATER DISPOSAL ONLY WHEN THE CONTRACTOR'S PLAN FOR TRENCH DISPOSAL IS APPROVED IN WRITING BY THE ENGINEER. THE CONTRACTOR'S

PLAN SHALL INCLUDE TEMPORARY CULVERTS, BARRICADES AND OTHER PROTECTIVE MEASURES TO PREVENT DAMAGE TO PROPERTY OR INJURY TO ANY PERSON OR PERSONS. D. NO FLOODING OF STREETS, ROADWAYS, DRIVEWAYS OR PRIVATE PROPERTY WILL BE PERMITTED. ENGINES DRIVING DEWATERING PUMPS SHALL BE EQUIPPED WITH RESIDENTIAL TYPE MUFFLERS.

		REVISIONS
DATE	BY	DESCRIPTION
10-0CT-19	MLW	CONSTRUCTION PLANS

-ALL POLYVINYLCHLORIDE (PVC) PIPE SHALL BE LAID WITH A TRACER WIRE AND BE (#12 AWG) HIGH-STRENGTH COPPER-CLAD STEEL CONDUCTOR (HS-CCS), INSULATED WITH A 30 MIL, HIGH-DENSITY, HIGH MOLECULAR WEIGHT POLYETHYLENE (HDPE) INSULATION, AND RATED FOR DIRECT BURIAL USE AT 30 VOLTS. HS-CCS CONDUCTOR MUST BE A 21% CONDUCTIVITY FOR LOCATING PURPOSES, BREAK LOAD 250# MINIMUM, BURIED ON TOP THE PIPE. WIRE AND INSTALLATION SHALL MEET NATIONAL ELECTRICAL CODE FEDERAL SPECIFICATION J-C-308. -ALL POLYVINYLCHLORIDE (PVC) PIPE SHALL BE LAID WITH METAL LOCATOR TAPE BURIED ONE FOOT ABOVE AND PARALLEL TO THE PIPE CENTERLINE. THE LOCATOR TAPE SHALL BE AT LEAST 2 INCHES WIDE WITH ALUMINUM BACKING AND SHALL BE LETTERED, "CAUTION: FORCE MAIN BURIED BELOW". -BACK FILL SHALL BE OF SIMILAR MATERIAL AND PLACED BY HAND AND COMPACTED BY

OF AWWA C-901 4. POLYETHYLENE PIPE SIZES 4" TO 63" SHALL MEET THE REQUIREMENTS OF AWWA 5. ALL MEGA-LUG RESTRAINTS WILL BE DOMESTIC EBAA ONLY. 6. ALL MATERIALS WILL BE FROM THE CITY OF SEBRING APPROVED MATERIALS LIST. 7. ALL FITTINGS WILL BE MEGA-LUG. NOTE: EACH SUBCONTRACTOR WILL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL UTILITIES EFFECTED BY HIS WORK. INSTALLATION INSTRUCTIONS: THE SUBCONTRACTOR WILL BE RESPONSIBLE FOR TAKING ALL STEPS NECESSARY INCLUDING SHORING TO INSURE THE INTEGRITY OF THE ALL EXISTING PAVEMENTS, UTILITIES AND STRUCTURES AND BE RESPONSIBLE FOR REPLACEMENT OR REPAIR OF ANY DAMAGE CAUSED BY OR RELATED TO CONSTRUCTION OF WATERLINE.

SFWER FORCE MAIN FORCE MAINS -DIRECTIONAL BORE PIPE-FITTINGS STAINLESS STEEL, JCM 432 TAPPING SLEEVE 1. ALL PIPE MATERIAL WILL BE AWWA OR ASTM STANDARD.

AND DEBRIS REMOVED.

4" AND UP TO 12" AWWA APPROVED C-900 PVC DR 18 ASTM D1784 (GREEN COLOR) 4" AND UP TO 12" AWWA POLY-PIPE 1, AWWA C-906 ASTM D 3350 GREEN STRIPED FOR SEWER 4" AND LARGER- CLASS 250 (MINIMUM) DUCTILE IRON MEG-A-LUG ACCESSORIES

3. ALL POLYETHYLENE PIPE FOR PIPE SIZES 1/2" TO 3" SHALL MEET THE REQUIREMENTS

THE PIPE SHALL BE BEDDED IN COMPACTED CLEAN SAND WITH ALL ORGANIC MATTER

-ALL FILL TO BE CLEAN SAND AND TO BE PLACED IN APPROXIMATE 12" LAYERS AND IS TO BE COMPACTED BY ROLLING OR TAMPING. --PIPE IS TO BE INSTALLED PER MANUFACTURER SPECIFICATIONS, USING THE

RESTORED AND SODDED. ---THE CONNECTION TO THE CITY OF SEBRING UTILITIES SEWER COLLECTION SYSTEM WILL BE DONE TO THE CITY OF SEBRING UTILITIES SPECIFICATIONS UNDER THE UTILITY

-THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRING ALL UTILITIES, ROADS AND

ALL TESTS WILL REQUIRE THE PRESENCE OF THE ENGINEER, CONTRACTOR OR HIS

TEST SHALL BE PERFORMED PRIOR TO CONNECTION TO THE CITY OF SEBRING UTILITIES

-ALSO PRESENT WILL BE A DESIGNATED INSPECTOR FROM THE CITY OF SEBRING

PIPE SPECIFICATION:

2. ALL FORCE MAIN 4" - 12" WILL BE AWWA C-900 DR 18.

TAMPING TO AT LEAST 12" OVER THE TOP OF THE PIPE.

EPARTMENT SUPERVISION REQUIREMENTS.

MANUFACTURER SPECIFIED JOINT LUBRICANTS AND CEMENTS IF REQUIRED

-ALL DISTURBED AREAS WITHIN THE CITY, COUNTY AND STATE R/W ARE TO BE

STRUCTURES DAMAGED DURING THE DIRECTIONAL BORE OR JACK AND BORE CONSTRUCTION PHASE.

 $\frac{1}{2}$ - $\frac{3}{4}$ PLÝWOOD 1. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH. 2. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS. 3. POUR THRUST BLOCKS AGAINST UNDISTURBED SOIL WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE SOIL AND EXTEND THRUST BLOCK TO UNDISTURBED SOIL. 4. IN BACK FILLING, ANY MUCK ENCOUNTERED SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIAL. 5. BACK FILL MATERIAL SHALL NOT INCLUDE ROCK OR BOULDERS. 6. THRUST BLOCK AREAS BASED ON SOIL BEARING LOAD OF 2000 P.S.F. AND LINE PRESSURE TYPICAL THRUST BLOCKS

BEARING AREA UNDISTURBED SOIL-TYPICAL SECTION BEARING AREA <u>BEND</u>

EDGE OF CROSS CUT.

REFERRED TO AS "VALVE" OR "V&B" ON PLAN VIEW) ALL ĜATE VALVES BY KENNEDY, MUELLER OR EQUIVÁLENT

FACING ROAD ── 5¼" MIN -FINISH GRADE - STONE FILL TO TOP OF FLANGE

- PUMPER CONNECTION OF SAME TYPE AS USED BY LOCAL MUNICIPALITY ALL JOINTS ARE MECHANICAL JOINTS W/ MEGA LUG - 2 ½" HOSE CONNECTIONS STANDARD THREADS "-THICK CONCRETE 2'X2' PAD AROUND FI VALVE (USE 3000 PSI FIBERMESH MD CONC. VALVE BOX WATER UNDER FH 6" GATE VALVE BY MUELLER, DRESSER FIRE HYDRANT DETAIL

--FIRE HYDRANTS SHALL BE CAST IRON BODIED, FULLY BRONZE MOUNTED, TRAFFIC-TYPED, SUITABLE FOR WORKING PRESSURE OF 150 PSI, AND SHALL MEET ALL OF THE REQUIREMENTS OF THE AWWA SPECIFICATIONS C502-73. FIRE HYDRANT SHALL BE MUELLER CENTURION OR APPROVED EQUIVALENT MUELLER. ---THE WATERWAYS OF HYDRANT SHALL BE AS FREE AS POSSIBLE OF OBSTRUCTIONS, SHARP TURNS, CORNERS, OR OTHER CAUSES OF RESISTANCE. ---HYDRANTS SHALL HAVE TWO, TWO AND ONE HALF INCH BRASS NOZZLES AND ONE, FIVE AND ONE QUARTER INCH PUMPED NOZZLE WITH NATIONAL STANDARD FIRE HOSE COUPLING AND SCREW THREADS TOGETHER WITH CAPS FASTENED SECURELY TO EACH HYDRANT AND THERAND TO FILE MANY WAY POPENING OF THE HYDRANT CHALL BE "DRY THREADED TO FIT NOZZLES. THE MAIN VALVE OPENING OF THE HYDRANT SHALL BE "DR HEAD TYPE. ALL HOSE THREADS SHALL CONFORM TO COUNTY FIRE PROTECTION STANDARDS.

---HYDRANTS SHALL HAVE A SAFETY "BREAKABLE FLANGE" SECTION LOCATED ABOVE T GROUND LINE. THE DISTANCE FROM THE FINISH GROUND LINE AROUND THE HYDRANT T 'BREAKABLE FLANGE" SHALL BE NOT LESS THAN TWO (2") INCHES OR MORE THAN SIX (6")

--AFTER INSTALLATION, EXPOSED SURFACES OF HYDRANT SHALL BE PAINTED WITH TWO (2) COATS OF FIRE HYDRANT PAINT. PAINT SELECTION SHALL BE APPROVED BY THE COUNTY. THE HYDRANT OPERATING AND OUTLET NOZZLE CAP NUTS, SHALL BE PENTAGONAL IN SHAPE. THE PENTAGON SHALL MEASURE ONE TO ONE AND ONE HALF INCHES FROM POINT TO FLAT AT THE DECEMPTER THE AND CAN BE AND ONE THAT FURTHER AND FAR THE PACE HE BASE OF THE NUT AND ONE AND SEVEN SIXTEENTH INCHES AT THE TOP. NUT FAC SHALL TAPER UNFORMLY AND THE HEIGHT OF THE NUT SHALL BE NO LESS THEN ONE (INCH. THE HYDRANT SHALL BE OPENED BY TURNING THE OPERATING NUT COUNTER CLOCKWISE. A CLEARLY VISIBLE ARROW AND THE WORD "OPEN" SHALL BE CAST IN RELIEF ON THE TOP OF THE HYDRANT SO AS TO DESIGNATE THE DIRECTION OF THE OPENING.

BLUE STRIPED FOR WATER 4" AND LARGER- CLASS 250 (MINIMUM) DUCTILE IRON MEG-A-LUG ACCESSORIES (EBAA MEG-A-LUG ONLY)

TAPPING SLEEVE – STAINLESS STEEL, JCM 432 . ALL PIPE MATERIAL WILL BE AWWA OR ASTM STANDARD.

FITTINGS

2. ALL WATERLINE 4" - 12" WILL BE AWWA C-900 DR 18. 3. ALL PVC WATERLINE SMALLER THAN 4" WILL MEET THE REQUIREMENTS OF ASTM D-1785 4. ALL POLYETHYLENE PIPE FOR PIPE SIZES 1/2" TO 3" SHALL MEET THE REQUIREMENTS OF AWWA C-901 5. POLYETHYLENE PIPE SIZES 4" TO 63" SHALL MEET THE REQUIREMENTS OF AWWA C-906. 6. ALL MEGA-LUG RESTRAINTS WILL BE DOMESTIC EBAA ONLY. 7. ALL MATERIALS WILL BE FROM THE CITY OF SEBRING APPROVED MATERIALS LIST.

NOTE: EACH SUBCONTRACTOR WILL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL UTILITIES FFECTED BY HIS WORK. INSTALLATION INSTRUCTIONS

--THE SUBCONTRACTOR WILL BE RESPONSIBLE FOR TAKING ALL STEPS NECESSARY INCLUDING SHORING TO INSURE THE INTEGRITY OF THE ALL EXISTING PAVEMENTS, UTILITIES AND STRUCTURES AND BE RESPONSIBLE FOR REPLACEMENT OR REPAIR OF ANY DAMAGE CAUSED BY OR RELATED TO CONSTRUCTION OF WATERLINE. -THE PIPE SHALL BE BEDDED IN COMPACTED CLEAN SAND WITH ALL ORGANIC MATTER AND DEBRIS REMOVED.

--BACK FILL SHALL BE OF SIMILAR MATERIAL AND PLACED BY HAND AND COMPACTED BY TAMPING TO AT LEAST 12" OVER THE TOP OF THE PIPE. --ALL POLYVINYLCHLORIDE (PVC) PIPE SHALL BE LAID WITH METAL LOCATOR TAPE BURIED ONE FOOT ABOVE AND PARALLEL TO THE PIPE CENTERLINE. THE LOCATOR TAPE SHALL BE AT LEAST 2 INCHES WIDE WITH ALUMINUM BACKING AND SHALL BE LETTERED, "CAUTION: WATER LINE BURIED BELOW"

--ALL POLYVINYLCHLORIDE (PVC) PIPE SHALL BE LAID WITH A TRACER WIRE AND BE (#12 AWG) HIGH-STRENGTH COPPER-CLAD STEEL CONDUCTOR (HS-CCS), INSULATED WITH A 30 MIL, HIGH-DENSITY, HIGH MOLECULAR WEIGHT POLYETHYLENE (HOPE) INSULATION, AND RATED FOR DIRECT BURIAL USE AT 30 VOLTS. HS-CCS CONDUCTOR MUST BE A 21% CONDUCTIVITY FOR LOCATING PURPOSES, BREAK LOAD 250# MINIMUM, BURIED ON TOP OF THE PIPE. WIRE AND INSTALLATION SHALL MEET NATIONAL ELECTRICAL CODE FEDERAL SPECIFICATION J-C-308. --ALL FILL TO BE CLEAN SAND AND TO BE PLACED IN APPROXIMATE 12" LAYERS AND IS TO BE COMPACTED BY ROLLING OR TAMPING. --PIPE IS TO BE INSTALLED PER MANUFACTURER SPECIFICATIONS, USING THE MANUFACTURER SPECIFIED JOINT LUBRICANTS AND CEMENTS IF REQUIRED. -ALL DISTURBED AREAS WITHIN THE CITY, COUNTY AND STATE R/W ARE TO BE RESTORED -THE CONNECTION TO THE CITY OF SEBRING UTILITIES WATER DISTRIBUTION SYSTEM WILL BE

CITY OF SEBRING UTILITIES SPECIFICATIONS UNDER THE UTILITY DEPARTMENT SUPERVISION REQUIREMENTS.

--ALL TESTS WILL REQUIRE THE PRESENCE OF THE ENGINEER, CONTRACTOR OR HIS DESIGNATED INSPECTOR --ALSO PRESENT WILL BE A DESIGNATED INSPECTOR FROM THE CITY OF SEBRING UTILITIES WATER DISTRIBUTION PLAN --THE SUBCONTRACTOR SHALL TAKE ALL PRECAUTIONS TO SECURE A WATERTIGHT WATER LINE UNDER ALL CONDITION ---ALL VISIBLE DAMAGE FLAWS SHALL BE REPAIRED OR REPLACED REGARDLESS OF THE OUT COME OF ANY TESTING PERFORMED. SHALL BE PERFORMED PRIOR TO CONNECTION TO THE CITY OF SEBRING UTILITIES WATER DISTRIBUTION SYSTEM.

WATER LINES -THE WATER LINES SHALL BE TESTED UNDER A HYDROSTATIC PRESSURE OF 150 PSI FOR AT LEAST 2 HOURS. -THE WATER LINE SHALL BE CHLORINATED AND SAMPLES TAKEN AT TEMPORARY SAMPLING POINTS ON 2 CONSECUTIVE DAYS, AND TESTED PER HIGHLANDS COUNTY HEALTH DEPARTMENT REQUIREMENTS. THE TESTS SHALL INCLUDE, BUT NOT LIMITED TO, BACTERIOLOGICAL, ph AND

CHLORINE RESIDUAL. THE SUBCONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT TO PERFORM ALL

TRACER WIRE REQUIREMENTS: TRACER WIRE FOR BURIED PIPE TRACER WIRE FOR DIRECTIONAL DRILLING/BORING:

 $L = \frac{N * D * \sqrt{P}}{7400}$

IN WHICH.

SEAL / SIGNATURE

DESIGNED DRAWN BY: ИLW CHECKED BY: MI W ŊΔTF -0CT-19

Polston Engineering, Inc CIVIL ENGINEERING CONSULTANTS 2925 KENILWORTH BLVD., SEBRING, FLORIDA 33870 863-385-5564 PHONE -- 863-385-2462 FAX

MARVIN LUTHER WOLFE, P.E. # 46030 PRINTED COPIED OF THIS DOGMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SCHARTER WEST BE WEREFED ON ANY FLECTRONIC COPI

-THE SUBCONTRACTOR SHALL TAKE ALL PRECAUTIONS TO SECURE A WATERTIGHT SEWER LINE UNDER ALL CONDITIONS ALL VISIBLE DAMAGE FLAWS SHALL BE REPAIRED OR REPLACED REGARDLESS OF THE OUT COME OF ANY TESTING PERFORMED. SEWER COLLECTION SYSTEM.

FORCE MAIN LINES: -THE FORCE MAIN LINES SHALL BE TESTED UNDER A HYDROSTATIC PRESSURE OF 150 PSI FOR AT LEAST 2 HOURS. THE SUBCONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT TO PERFORM ALL TESTS.

TESTING

DESIGNATED INSPECTOR.

HYDROSTATIC TESTS 1) ALL COMPONENTS OF THE WATER DISTRIBUTION SYSTEM, INCLUDING FITTINGS, HYDRANTS, SERVICES, CONNECTIONS, AND VALVES SHALL BE HYDROSTATIC TESTED. SPECIFIC DISTRIBUTION SYSTEM COMPONENTS INCLUDING FITTINGS, VALVES, AND HYDRANTS, SHALL REMAIN UNCOVERED TESTED AND APPROVED, PROVIDED, HOWEVER, THAT PIPE TRENCHES UNDER TRAVELED STREETS OR ROADS MAY BE BACKFILLED WITH THE PERMISSION OF THE PROJECT ENGINEER. NO TESTING SHALL BE DONE UNTIL ALL CONCRETE THRUST BLOCKING IS IN PLACE AND SET. IF HIGH EARLY STRENGTH CONCRETE IS USED, TESTING MAY BE CONDUCTED 48 HOURS AFTER THE EARLY SIRENGIH CONCREIE IS USED, IESTING MAY BE CONDUCTED 48 HOURS AFTER THE CONCRETE IS PLACED; OTHERWISE, THRUST BLOCK CONCRETE MUST CURE 5 DAYS BEFORE PRESSURE TESTING COMMENCES. IN TESTING, THE PART OF THE SYSTEM UNDER TEST SHALL BE FILLED WITH POTABLE WATER AND SUBJECTED TO A SUSTAINED PRESSURE OF 150 PSI. THE PIPING SHALL BE TESTED IN SECTIONS, THEREBY TESTING EACH VALVE FOR SECURE CLOSURE. WHILE THE SYSTEM IS BEING FILLED, AIR SHALL BE CAREFULLY AND COMPLETELY EXHAUSTED. IF PERMANENT AIR VENTS ARE NOT LOCATED AT ALL HIGH POINTS, THE CONTRACTOR SHALL INSTALL CORPORATION STOPS OR FITTINGS AND VALVES AT SUCH POINTS SO THE AIR CAN BE EXPELLED AS THE PIPE SYSTEM IS SLOW YELL OF WITH WATER AS THE PIPE SYSTEM IS SLOWLY FILLED WITH WATER. 2) TEST PRESSURE SHALL BE MAINTAINED BY PUMPING FOR AT LEAST TWO HOURS AND UNTIL ALL SECTIONS UNDER TEST HAVE BEEN CHECKED FOR EVIDENCE OF LEAKAGE. RATE OF LOSS SHALL

NOT EXCEED THAT SPECIFIED BELOW, "ALLOWABLE LIMITS FOR LEAKAGE". VISIBLE LEAKS SHALL BE CORRECTED REGARDLESS OF TOTAL LEAKAGE SHOWN BY TEST. 3) THE SYSTEM AS A WHOLE, OR ANY PART, SHALL BE TESTED PRIOR TO CONSTRUCTION OF ANY SUBDIVISION ROADWAY OR PAVEMENT OVER THE WATER SYSTEM.

4) THE SYSTEM AS A WHOLE, OR ANY PART, SHALL BE RETESTED AFTER COMPLETION OF BACKFILLING WHEN IT IS BELIEVED NECESSARY, AS DIRECTED BY THE PROJECT ENGINEER. THE SYSTEM SHALL ALSO BE RETESTED UPON COMPLETION OF SUBDIVISION ROADWAY OR OTHER PAVEMENT CONSTRUCTION THAT IS CONSTRUCTED OVER THE WATER SYSTEM.

5) ALL PUMPS, GAUGES, AND MEASURING DEVICES SHALL BE FURNISHED, INSTALLED, AND OPERATED BY THE CONTRACTOR AND ALL SUCH EQUIPMENT AND DEVICES AND THEIR INSTALLATION SHALL BE APPROVED BY THE PROJECT ENGINEER. ALL PRESSURES AND LEAKAGE TESTING SHALL BE DONE IN THE PRESENCE OF A REPRESENTATIVE OF THE ENGINEER. 6) WATER FOR TESTING AND FLUSHING SHALL BE POTABLE WATER PROVIDED BY THE CONTRACTOR FROM A SOURCE APPROVED BY THE PROJECT ENGINEER. THE HYDROSTATIC PRESSURE TESTS SHALL BE PERFORMED AS SPECIFIED AND NO INSTALLATION, OR SECTION THEREOF, WILL BE ACCEPTABLE UNTIL THE LEAKAGE IS LESS THAN THE NUMBER OF GALLONS PER HOUR AS DETERMINED BY THE FORMULA:

 $N = APPROXIMATE_NUMBER_OF_JOINTS IN THE SECTION OF MAIN BEING TESTED$ D = PIPE DIAMETER; IN INCHESP = THE AVERAGE TEST PRESSURE DURING THE TEST, IN GAUGE PSI

-SHALL BE (#12 AWG) HIGH-STRENGTH COPPER-CLAD STEEL CONDUCTOR (HS-CCS), INSULATED WITH A 30 MIL, HIGH-DENSITY, HIGH MOLECULAR WEIGHT POLYETHYLENE (HDPE) INSULATION, AND RATED FOR DIRECT BURIAL USE AT 30 VOLTS. HS-CCS CONDUCTOR MUST BE A 21% CONDUCTIVITY FOR LOCATING PURPOSES, BREAK LOAD 250# MINIMUM.

-SHALL BE #12 AWG (0.0808" DIAMETER) HARD DRAWN, HIGH CARBON 1055 GRADE STEEL, SOLID EXTRA-HIGH-STRENGTH COPPER-CLAD STEEL CONDUCTOR (EHS-CCS), INSULATED WITH A 45 MIL, HIGH-DENSITY, HIGH MOLECULAR WEIGHT POLYETHYLENE (HDPE) INSULATION, AND RATED FOR DIRECT BURIAL USE AT 30 VOLTS. EHS-CCS CONDUCTOR MUST BE AT 21% CONDUCTIVITY FOR LOCATE PURPOSES. BREAK LOAD OF 1150 LBS.

DIRECTIONAL BORE PIPE SPECIFICATIONS:

6" AND LARGER SDR 11 HDPE ASTM D3350 AND ASTM F-714 GREEN STRIPE POLYETHYLENE PE3408 HDPE FORCE MAIN

NOTE: SDR 11 HDPE WILL BE USED FOR ALL DIRECTIONAL BORES. -FOR MEGA-LUG CONNECTIONS A STAINLESS STEEL STIFFENER WILL BE UTILIZED IN THE SDR 11 HDPE PORTION OF THE JOINT.

-BEFORE ANY CONSTRUCTION IS STARTED, THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITIES AND VERIFYING EXACT LOCATION AND ELEVATION OF UTILITIES NOT LIMITED TO TELEPHONE, WATER, SEWER, GAS AND CABLE. -DURING DIRECTIONAL BORE OPERATION, THE CONTRACTOR (AT HIS EXPENSE, IF REQUIRED) MUST HAVE A REPRESENTATIVE OF EACH UTILITIES ON SITE AS A PREVENTATIVE MEASURE IN THE EVENT OF RUPTURE OF ANY UTILITIES SERVICES. IN LIEU OF A REPRESENTATIVE FROM THE UTILITY A NOTARIZED DOCUMENT FROM THE UTILITY STATING A REPRESENTATIVE IS NOT NEEDED ON SITE WILL BE ACCEPTABL -ANY ITEMS GOVERNING THE CONSTRUCTION NOT COVERED IN THE PLANS AND SPECIFICATIONS WILL BE GOVERNED BY THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION, "UTILITY

ACCOMMODATION MANUAL", DATED AUG 2019, DOCUMENT NUMBER 710-020, THE MAINTENANCE ENGINEER, OR HIS REPRESENTATIVE. -ALL PERMITS FOR CONSTRUCTION WILL BE POSTED ON SITE. ALL JOINTS (FUSING) OF THE HDPE PIPE MUST BE PERFORMED BY AN INDIVIDUAL CERTIFIED IN HDPE PIPE FUSING. DOCUMENTATION OF CERTIFICATION REQUIRED. - THE ACTUAL CROSSING OPERATION SHALL BE ACCOMPLISHED DURING DAYLIGHT HOURS. - ANY ALTERATION OR WAIVER MUST BE APPROVED BY THE HIGHLANDS COUNTY ENGINEER AND

THE ENGINEER OF RECORD. -****TWO (2) TRACER WIRES SHALL BE #12 AWG (0.0808" DIAMETER) HARD DRAWN, HIGH CARBON 1055 GRADE STEEL, SOLID EXTRA-HIGH-STRENGTH COPPER-CLAD STEEL CONDUCTOR (EHS-CCS), INSULATED WITH A 45 MIL, HIGH-DENSITY, HIGH MOLECULAR WEIGHT POLYETHYLENE (HDPE) INSULATION, AND RATED FOR DIRECT BURIAL USE AT 30 VOLTS. EHG-CCS CONDUCTOR MUST BE AT 21% CONDUCTIVITY FOR LOCATE PURPOSES. BREAK LOAD OF 1150 LBS, AND WILL BE TAPED ON THE H.D.P.E. DIRECTIONAL BORE AS PER DESIGN STANDARD 555–4.2. -ERECTION OR INSTALLATION OF APPROPRIATE SAFETY AND WARNING DEVICES IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORTATION MANUAL ON M.V.T.C.D. PRIOR TO BEGINNING WORK.

SDR-11 FORCE MAIN DIRECTIONAL PIPE -THE SDR-11 FORCE MAIN PIPE SHALL BE TESTED UNDER A HYDROSTATIC PRESSURE OF 150 PSI FOR AT LEAST 2 HOURS PRIOR TO CONNECTING TO THE SEWER SYSTEM. -THE FORCE MAIN SDR-11 PIPE SHALL BE FLUSHED WITH CLEAN WATER PRIOR TO CONNECTION TO THE SEWER SYSTEM THE SEWER SYSTEM.

TESTING H.D.P.E. DIRECTIONAL BORE AND OPEN TRENCHING HDPE PIPE: -THE H.D.P.E. PIPING SHOULD BE PRESSURE TESTED BEFORE BEING PUT INTO SERVICE. AFTER ALL FREE AIR IS REMOVED FROM THE TEST SECTION, RAISE THE PRESSURE AT A STEADY RATE TO THE REQUIRED PRESSURE. THE PRESSURE IN THE SECTION SHALL BE MEASURED AS CLOSE AS THE REQUIRED PRESSURE. THE PRESSURE IN THE SECTION SHALL BE MEASURED AS CLOSE AS POSSIBLE TO THE LOWEST POINT OF THE TEST SECTION. —TEST PRESSURE SHOULD NOT EXCEED 1.5 TIMES THE RATED OPERATING PRESSURE OF THE PIPE OR THE LOWEST RATED COMPONENT IN THE SYSTEM. INITIALLY, THE PIPE SHOULD BE RAISED TO TEST PRESSURE AND ALLOWED TO STAND WITHOUT MAKEUP PRESSURE FOR A SUFFICIENT TIME TO ALLOW FOR EXPANSION OF THE PIPE. THIS USUALLY OCCURS WITHIN 2–3 HOURS. AFTER EQUILIBRIUM IS ESTABLISHED, THE TEST SECTION IS PRESSURIZED TO 1.5 TIMES OPERATING PRESSURE, THE PUMP IS TURNED OFF, AND THE FINAL TEST PRESSURE IS HELD FOR 2 HOURS. —POLYETHYLENE PIPE HOLDS PRESSURE BY DEVELOPING STRESS IN ITS WALLS. THIS PROCESS CONTINUES THROUGHOUT THE TEST PERIOD, AND THE PIPE INCREASES SLIGHTLY IN DIAMETER. PRESSURE DROP WILL OCCUR DUE TO CONTINUED EXPANSION OF THE PIPE DURING THE SECOND PHASE OF THE TEST. A DROP IN PRESSURE DURING THE TEST PHASE IS COMMON AND DOES NOT PROVE WITH ARSOULTE CERTAINTY THAT A LEAK OR FAILURE IS PRESENT IN THE SYSTEM. PROVE WITH ABSOLUTE CERTAINTY THAT A LEAK OR FAILURE IS PRESENT IN THE SYSTEM. POLYETHYLENE PIPE IS TESTED BY MEASURING THE "MAKE UP" WATER REQUIRED TO RETURN THE SECTION TO TEST PRESSURE. ALLOWABLE AMOUNTS OF MAKEUP WATER FOR EXPANSION DURING THE PRESSURE TEST ARE SHOWN IN THE TABLE BELOW. IF THE PRESSURE IS NOT RETURNED WITHIN THE ALLOWABLE VOLUME OF WATER, THE TEST FAILS. IF THERE ARE NO VISUAL LEAKS OR SIGNIFICANT PRESSURE DROPS DURING THE FINAL TEST PERIOD, THE PIPELINE PASSES THE TEST. NOTE: UNDER NO CIRCUMSTANCES SHALL THE TOTAL TIME UNDER THE TEST EXCEED EIGHT (8) HOURS AT 1.5 TIMES THE PRESSURE RATING OF THE LOWEST RATED COMPONENT IN THE SYSTEM. IF THE TEST IS NOT COMPLETED DUE TO LEAKAGE, EQUIPMENT FAILURE, ETC., THE TEST SECTION

SHALL BE ALLOWED TO "R	ELAX" FOR EIGHT (8)	HOURS PRIOR TO THI	E NEXT TEST.
Д	LLOWANCE FOR I	EXPANSION (U.S. EET OF PIPE)	
	NOMINAL PIPE SIZE (INCHES)	2 HOUR TEST	
	2 and 3	0.15	
	4	0.25	
	6	0.60	
	8	1.0	
	10	1.30	
	12	2.3	
	14	2.8	

16 3.3

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SEBRING PARKWAY PHASE II B	SC
CITY OF SEBRING UTILITY MODIFICATIONS	DF
VATER AND SEWER CHANGES WITHIN U.S. HWY. 27 R/W \perp	
U.S. HWY 27 (S.R. #25), STA 2959+00 TO STA 2964+60	

SCALE: 1"=20'	
DRAWING NO. 18001	REV. O
SHEET 25 OF	- 25